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KILCARBERY SUBSTATION AND TRANSMISSION LINES

VOLUME 2: LANDSCAPE, VISUAL AND HERITAGE IMPACT ASSESSMENT



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1 LANDSCAPE AND VISUAL

Introduction

- 1.1 This chapter of the Environmental Impact Assessment Report (EIAR) reports on the likely significant Landscape and Visual effects to arise from the construction stage and the operation stage of the proposed development.
- 1.2 The chapter describes the Landscape policy context; the methods used to assess the potential impacts and likely effects; the baseline conditions at and surrounding the site; the likely landscape and visual effects taking into consideration embedded mitigation; the need for additional mitigation and enhancement; the significance of residual effects; and inter-project cumulative effects.
- 1.3 The chapter is supported by the following technical appendices in EIAR Volume 2:
 - Appendix 1.1: Figures;
 - Appendix 1.2: Viewpoint Photographs; and
 - Appendix 1.3: Viewpoint Photomontages.

Methodology

Approach

- 1.4 This LVIA forms part of an EIAR that has been prepared to accompany the planning application for the Proposed Development by the Applicant. The LVIA is delivered in accordance with the principles outlined within the GLVIA¹.
- 1.5 The GLVIA states the need for an approach that is proportionate to the scale of the project being assessed and the nature of its likely effects. In accordance with the GLVIA and within this LVIA, 'impact' is defined as the action being taken, and the 'effect' is defined as the change resulting from that action. In accordance with the GLVIA guidance for non-EIA projects, this LVIA specifies the nature of the Proposed Development, describes the existing landscape and visual amenity in the area that may be affected, predicts the effects, and considers how those effects might be mitigated.
- 1.6 This LVIA has been prepared by a Chartered Member of the Landscape Institute. In carrying out this LVIA, an independent stance has been taken. As appropriate, the LVIA addresses both the positive and negative impacts of the Proposed Development in a way that can be relied upon by all parties concerned. The assessment has been informed by a combination of desk-top research, digital analysis and photography.

Viewpoints and Photography

- 1.7 Representative viewpoint locations have been determined through desktop research and calculation of a Zone of Theoretical Visibility for the area surrounding the Site of up to 1.5km using a Digital Terrain Model of up to 1.5m accuracy (see Figure 1, Appendix 1.1). The analysis determined 9 representative Viewpoint locations for agreement by the Planning Authority.
- 1.8 Photography for all viewpoints was taken using a Full Frame Sensor camera with 50mm Fixed Focal Length Lens, to provide consistency between all viewpoints. An image captured in this way is representative to that seen by the human eye when viewed at a width of 39cm from a distance of 55 cm. Single frame

- photographs were taken with the levelled camera on a fixed from each viewpoint (see Appendix 1.2). The tripod height above ground, angle and coordinates were recorded for each image.
- 1.9 For selected viewpoints where the Proposed Development is visible, a photomontage is produced using 3DS Max modelling software and placing the building accurately using the coordinates of the camera location (Appendix 1.3). The 3D building model is geo-located within the viewpoint image using digital terrain models with an elevation accuracy of within 1.5 m.

Assessment criteria

- 1.10 For each landscape character area (LCA) identified and representative viewpoint, the following has been determined:
 - Nature of the receptor (sensitivity): The value, importance, and susceptibility of the receptor in relation to Proposed Development; and
 - Nature of impact (magnitude): The impact on the receptor arising as a result of the Proposed Development regarding probability, reversibility, spatial extent, and temporal aspects.
- 1.11 The criteria used for determining the sensitivity of landscape and visual receptors is described in Table 1.1. The descriptions are not intended to be exhaustive but provide a definition of the nature of the receptor for each level of sensitivity. Professional judgment is applied when determining the appropriate level of sensitivity for each receptor.

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 $^{^{1}}$ Landscape Institute, 2013. Guidelines for Landscape and Visual Impact Assessment (GLVIA3). Third Edition.

Table 1-1: Sensitivity of Receptor Sensitivity Receptor Landscape **Visual** Low High capacity to accommodate develop-A view that is characterised by features of the ment of the same type, scale and appearsame type, scale and appearance as the Proance as the Proposed Development. posed Development. An area of poor quality or condition. A view that has little visual amenity or interest, or of a townscape with poor condition. Is locally abundant and has few or no distinguishing or designated features. A view that is incidental or experienced at Medium Locally valued for its character, features A positive view experienced by people during leiand sense of place. sure activities such as sports, walking, cycling. Good to medium quality or condition, po-A view that has specific local value but is not tentially including some designated fearecognised by designation in local planning or tures such as Tree Preservation Orders or guidance. Listed Buildings. A positive view experienced in passing by large numbers of people in passing from transport corridors High Value or character is recognised through A view recognised by designation in local plannational or local designation (within, or ning policy or guidance. predominantly within a Conservation Area or Registered Park and Garden, or a high A positive/valued view experienced by residents, or large number of visitors/recreational users. proportion of Listed Buildings, Ancient Woodland). Static views towards important local features, Consistently of high quality and condition, landmarks, or buildings. offers strong scenic value. Views that are susceptible to changes of the Little capacity to accommodate developtype, scale and appearance as the proposed dement of the same type, scale and appearvelopment. ance as the Proposed Development. A view recognised by designation in national or Landscapes of very high international/na-**Very High** tional importance and rarity or value with international policy or guidance. no or very limited ability to accommodate change without substantial loss/gain (e.g. A positive/valued view that is the primary reanational parks, internationally acclaimed son for visiting the area by local, national and landscapes - UNESCO World Heritage international users. Sites) Views that are very susceptible to changes of the type, scale and appearance as the proposed development.

1.12 Table 1.2 provides a definition of the magnitude of impacts on landscape and visual receptors resulting from the Proposed Development. The definitions are not intended to be exhaustive and professional judgment is needed when determining the appropriate magnitude of impact, which may be neutral (a change may be apparent but has no overall positive or negative impact), positive or negative.

Table 1-2: Magnitude of	f Impact Criteria					
Magnitude	Receptor					
	Landscape	Visual				
No Change/Negligible	No perceptible change to the land- scape character.	No perceptible change to the overall view.				
Low	A small change resulting from the Proposed Development that may be incongruous in itself, whilst retaining the overall character and	A change that is visible but would not be immediately apparent to the visual receptor or in key views.				
	quality of the wider townscape area. A notable change to the landscape	A change that is visible but is consistent with the nature and amenity of the existing view.				
	area resulting from the Proposed Development that is in-keeping with the surrounding character.	A notable change within a small proportion of overall view, or for limited durations.				
Moderate	A notable change resulting from the Proposed Development. that is incongruous with the sur- rounding character.	A notable change within a view. The addition or removal of a key component of the view.				
	The Proposed Development. would result in the loss/addition of a valuable component of the land- scape.					
High	The Proposed Development. would result in a large-scale change to the character of the	A complete change to the nature of the view.				
	area. The Proposed Development would conflict with the character of the wider area and exert a large influence upon it.	Addition of a feature within part of the view that influences the perception and amenity of the wider view.				

1.13 The level of effect of the Proposed Development on each receptor, resulting from a combination of the sensitivity of the receptor and the magnitude of impact, is determined using the matrix in Table 1.3. Effects, other than Neutral, can be Negative or Positive.

Table	2 1-3: Scale of Ef	fect								
			Sensitivity							
		Very High								
3	No change / Negligible	Imperceptible	Imperceptible	Not significant/ Slight	Moderate					
Magnitude	Low	Imperceptible	Not significant/ Slight	Moderate	Significant					
ude	Moderate	Not significant/ Slight	Moderate	Significant	Very Significant					
	High	Moderate	Significant	Very Significant	Profound					

1.14 Effects that are imperceptible to not significant/slight in scale are considered 'not significant'. Effects that are moderate and above are judged to be 'significant'.

Assumptions and limitations

1.15 Photographs were undertaken in June and August 2021 with the majority of deciduous vegetation in leaf. The worst-case scenario for visual impacts is during the winter months, when the absence of leaves can open more distant views. The LVIA has taken this into account using a Zone of Theoretical Visibility Analysis (Appendix 1, Figure 1), professional judgement and experience from other projects to determine the extent of visibility and the impact on views during winter months.

Assessment Scope

- 1.16 This LVIA is intended to identify and assess the significance of effects for the impacts resulting from the Proposed Development on both the landscape, as an environmental resource in its own right, and on people's views and visual amenity. The semi-urban nature of the surrounding land requires both landscape and townscape elements to be included in the assessment.
- 1.17 As advised in EPA guidance², the LVIA has been prepared taking into account relevant local and national guidance, policy and legislation, and the Landscape Institute's 2013 Guidelines for Landscape and Visual Impact Assessment³ (GLVIA) that provides the definitions that have been used as described below.
- 1.18 Landscape is an area, as perceived by people, the character of which is the result of the action and interaction of natural and/or human factors. Townscape refers to areas where the built environment is dominant. Villages, towns and cities often make important contributions as elements in wider open landscapes but townscape means the landscape within the built-up area, the character and composition of the built environment including the buildings, the relationships between them, the different types of urban open spaces, including green spaces, and the relationship between buildings and open spaces⁴. The way that villages, towns and cities change and develop over time contributes to their current form and character.
- 1.19 Visual amenity is the overall pleasantness of the views people enjoy of their surroundings, which provides an attractive visual backdrop for the enjoyment of activities of the people living, working, recreating, visiting, or travelling through an area.

Spatial Scope

- 1.20 The Site is an irregular parcel of land located within Profile Park, which is a private business park referred to as on their website as 'rapidly becoming Ireland's Data Center Cluster's. The site is centred around Irish grid reference O 0364730493.
- 1.21 The Site's immediate boundaries are defined by:
 - Profile Park Road (also referred to as Falcon Avenue) along the northern boundary, beyond which is undeveloped land, proposed to be developed into a Data Center by Vantage;
 - Agricultural fields to the east, beyond which is Grange Castle Golf Club;
 - Barnakyle Substation to the southwest and Digital Reality Profile Park to the southeast, beyond which lies Casement Aerodrome; and
 - A data centre development on agricultural fields to the northwest and Castlebaggot Substation.
- 1.22 The wider context of the site is characterised by a mix of industrial and agricultural development with a fragmented mixture of commercial, industrial and residential uses.
- 1.23 Informed by baseline analysis and the nature of the Proposed Development and landscape context, the study area for this LVIA extended approximately 1.5 km from the Site to take account of the relatively flat topography of the surrounding area that creates an open landscape. Where appropriate, the site area has been extended to incorporate designated areas that have been identified in the Landscape Character Assessment as features of national importance. Descriptions of the landscape and visual baseline within the study area are provided below.

Temporal Scope

1,24 The assessment has considered impacts arising during the construction stage that would be of expected to be temporary to short-term (8 to 10 months years) in nature and from the operation stage, which would be expected to be permanent and long-term in nature (i.e. more than 15 years).

Landscape

- 1.25 A description of the relevant landscape character areas and features of the Site are summarised below. Where the Proposed Development may be visible within specific views from the identified landscape character area, the visual baseline and description of impact is provided in the visual section of this LVIA.
- 1.26 An existing landscape character assessment carried out by South Dublin County Council is in place for the study area⁶. The Site is within identified LCA2: Newcastle Lowlands. The study forms the basis of the landscape baseline and has been supplemented by desktop research to understand the features related
- 1.27 The landscape baseline is supplemented by the following figures presented in Appendix 1.1:
 - Figure 1 Zone of Theoretical Visibility;
 - Figure 2 Landscape Character Area and Viewpoint Locations; and
 - Figure 3 National Inventory of Architectural Heritage buildings within Study Area.

Regional Character Area

- 1.28 There is currently no national Landscape Character Assessment in Ireland, with County's responsible for identifying character types and areas within their administrative boundaries.
- 1.29 A Landscape Character Assessment was carried out on behalf of South Dublin County Council by Minogue and Associates with Aegis Archaeology, Michael Cregan and Geoscience Ltd in February 2015.

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² Environmental Protection Agency, 2017, Draft Guidelines on the information to be contained in the Environmental Impact Assessment Reports

³ Landscape Institute, 2013, Guidelines for Landscape and Visual Impact Assessment (GLVIA3), Third Edition,

⁴Landscape Institute Technical Information Note (TIN) "Townscape Character Assessment" specifically for undertaking a character assessment for

[&]quot;townscape" LI TN 05/2017 [Ref 3.I].

⁵The Park (2021) *About us* www.profilepark.com/index.php/the-park/?doing wp cron=1626954910.5751659870147705078125 (Accessed 22 July 2021) ⁶Minogoue and Associates with Aegis Archaeology, Michael Cregan and Geoscience Ltd (2015) *Landscape Character Assessment of South Dublin County*. Available at: Landscape CHARACTER ASSESSMENT of South Dublin County (southdublindevplan.ie). Accessed 22 July 2021.

Chapter 1: Landscape and Visual

Regional Landscape Character Types

- 1.30 Within the SDCC character assessment, 10 Character Types are identified with the County boundary. The Site is located within vicinity of four types, the descriptions are extracted below:
 - **Urban:** includes built land around historic settlements within the larger urban areas. Primarily composed of established nucleated villages and towns that have developed historically many of which saw significant improvements in the 19th century in terms of streetscapes. These are surrounded by residential development of various origins but primarily 20th century, with significant recent development in the past two decades.
 - **Limestone farmland:** gently undulating low-lying (generally below 100m) with limestone bedrock. Land use includes tillage and pasture. Generally dispersed settlement pattern.
 - **Canal:** manmade watercourses of historic importance. Embankments are a feature and frequently alignment is closely associated with the railway lines. Woodland and habitats associated with the canal are important ecological features. Offers and accessible recreational are for urban dwellers.
 - **Green spaces:** large parklands that contain a variety of habitats and recreational uses; some such as the Dodder Valley park are diverse and very important ecological corridors; other parks include more amenity and sports space. Others again are the former demesnes associated with estates.
- 1.31 The location of the site within a range of land types contributes to its fragmented character. Its proximity to the urban area of Dublin gives the area an 'urban fringe' or 'transitional' character as you move between the urban to limestone farmland character type.

Landscape Character Areas

- 1.32 Excluding the urban area of South Dublin, four Landscape Character Areas (LCAs) have been identified through the SDCC Landscape Character Assessment. The Site is located within LCA 2: Newcastle Lowlands, close to the urban area boundary (see Figure 2, Appendix 1.1).
- 1.33 The Newlands LCA is described as:

'an important agricultural resource but vulnerable to urbanising pressures. In addition, its character as a rural landscape provides a distinct and important identity to this area of western Dublin. To conserve its sense of place requires measures protecting the integrity of the agricultural landscape by controls on urban expansion, ribbon development and other sources of erosion and fragmentation, and requires site planning guidance on the use of appropriate vernacular styles and treatments in new developments. 7

- 1.34 In general, the SDCC landscape assessment identified the following key characteristics for the Newcastle Lowlands LCA:
 - Low-lying and gently undulating agricultural lands over limestone;
 - Established communication corridors that include the grand canal and railway corridor that traverse east to west and two aerodromes at Weston and Baldonnel;
 - Agricultural land use primarily pasture and tillage;
 - Increasing influence of urban activities closer to the motorways, national roads and regional roads;
 - Long history of historic settlement and human activity with medieval landscape complex associated with Newcastle village and surrounds; and
 - Number of demesnes associated with former country houses and institutions including reuse of older country houses at sites such as Peamount and Baldonnel Extent western boundary from N4 encompassing Grand Canal, south of Newcastle and extending eastwards to the R136.
- 1.35 The assessment identifies the following potential Landscape and Visual sensitivities relevant to this Site's context:

• Hard engineering and new infrastructure have not benefitted from planting schemes that would assimilate them more sympathetically into the surrounding landscape;

- Within the generally flat landscape, vertical structures such as existing pylons can be seen across quite long distances; and
- The remaining rural character of this LCA fulfils both landscape ecological and economic functions and merits a considered approach.
- 1.36 The SDCC assessment reviewed Newlands LCA sensitivity to change (Visual and Character), its value (in terms of experiential qualities) and its capacity to accommodate development as extracted below:
 - Landscape value: Medium to High
 - Landscape capacity: Low: Key characteristics of the landscape are vulnerable to change. There may
 be limited opportunity to accommodate development without changing landscape character. Great
 care would be needed in locating development.
 - Overall landscape sensitivity: **Medium**
- 1.37 The SDCC assessment identifies mitigation measures for development in the area, the points of relevance to the Proposed Development are extracted from the SDCC landscape assessment and provided below:
 - Guidelines including those contained in the Urban Design Manual, Local Area Plan and, the County
 Development Plan provide relevant site planning advice and should be complied with for new
 development and enhancing existing development where possible. Boundary treatments including
 screening through appropriate tree planting (of native provenance) would sympathetically absorb
 development into the ambient landscape;
 - Explore the potential to establish a linear park to enhance green infrastructure and appropriate recreational space from the Grand Canal to the foothills and uplands;
 - When the opportunity arises, planting and other landscape design measures, including planting with native hedgerows, and/or installing limestone walls, should be used in laybys, and at new developments such as the railway station; and
 - This LCA functions as the rural landscape that frames western Dublin and retaining both separate distances and its agricultural character is very important.
- 1.38 The landscape condition is described as variable across the LCA with landscape closer to the urban fringe and major transport corridors tending to be more fragmented in character.
- 1.39 The Dublin foothills and mountains form a backdrop to the Site and are located within the Athgoe and Saggard Hills and the Dodder and Glenasmole Character Areas⁸. Due to the distance from the Site and the Proposed Development's similarity in scale and form to surrounding structures in the immediate vicinity, it was judged that these character areas would experience Negligible/No change magnitude of impact due to distance and similarity in size and form to surrounding development and are therefore judged to not be appropriate for inclusion in this LVIA.

Relevance to Site Context

- 1.40 The Site is located within the Newcastle Lowlands LCA, close to the Urban LCA boundary. The Proposed Development is located in an area of fragmented character due to its proximity to urban areas and major transport corridors.
- 1.41 The Site is generally flat in accordance with Limestone Farmland landscape character type and its surrounding environs at an elevation of approximately +75AOD. The Site has the character of a traditional field with remnants of hedgerow boundary typology. The surrounding environment is a mix of uses and land use types including established industrial/commercial buildings, newly built commercial buildings,

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Minogoue and Associates with Aegis Archaeology, Michael Cregan and Geoscience Ltd (2015) Landscape Character Assessment of South Dublin County. Available at: Landscape CHARACTER ASSESSMENT of South Dublin County (southdublindevplan.ie). Accessed 22 July 2021.

⁸ Minogoue and Associates with Aegis Archaeology, Michael Cregan and Geoscience Ltd (2015) Landscape Character Assessment of South Dublin County. Available at: <u>Landscape CHARACTER ASSESSMENT of South Dublin County (southdublindevplan.ie)</u>. Accessed 22 July 2021.

residential, recreational and agricultural. The range of uses and building typology combines to create fragmented or 'transitional' landscape character.

- 1,42 The transitional and fragmented character of the Site is reflective of the urban fringe location and the SDCC Development Plan land allocations in the area9. The Site is located within land allocated to enterprise and employment uses, with surrounding areas allocated to a mix of uses including open space and recreation; rural amenity and the development of agriculture; new and established.
- 1.43 Analysis of historical OS Maps show the expansion of the urban environment into the former agricultural field network. The Site is on the transitional edge of the LCA, within an area that is already currently influenced by surrounding activities. The combined developments contribute to an increasingly industrial and commercial area within the urban character type rather than a rural landscape.
- 1.44 There are no designations directly associated with the Site. The Grand Canal was proposed as a Natural Heritage Area (pNHA) in 1995 but this has not been confirmed as a NHA designation. The Grand Canal is located approximately 2km north of the Site. The canal is a man-made waterway linking the River Liffey at Dublin with the Shannon at Shannon Harbour and the Barrow at Athy¹⁰. The proposed designation comprises the canal channel and the banks on either side. A range of different habitats are found within the canal boundaries: hedgerow; tall herbs; calcareous grassland; reed fringe; open water; scrub and woodland¹¹.
- 1.45 The stretch of canal in proximity to the Site is noted to be of particularly high diversity in flora and reported evidence of Otter spraints found along the towpath, particularly where the canal passes over a river or stream¹². The ecological value of the canal is understood to be due to its diversity and provision of refuge for species threatened by modern farming¹³.
- 1.46 Within the context of the Site, the canal is judged to be a High sensitivity receptor due to its pNHA designation, its Green Infrastructure function and its prominent role in defining the character of the Newcastle Lowlands LCA. These features are judged to contributes to its High landscape value. Its susceptibility to change would vary depending on the development and location.

Architectural

- 1.47 There are no built heritage assets on the site, or in the immediate vicinity. Built heritage assets within the 1.5km study area include 27 buildings listed in the National Inventory of Architectural Heritage. Their distribution can be seen in Figure 3, Appendix 1. The impact on listed buildings is not within the scope of this assessment and is reviewed within Chapter 2: Cultural Heritage. The buildings are grouped based on their orientation around the site for information and context. These groups are described below:
 - To the north are a cluster of buildings associated with the Grand Canal including the 12th Lock Bridge and Mill Buildings. Listed sites include 1120454; 11204053; 1120458; 11204055; 1120453; 11204057. In closer proximity to the site is the ruins of the Grange Castle (11208012) that is a prominent landmark in the area;
 - To the east are a cluster of buildings associated with the Nangor Road, including the group of four early-twentieth century semi-detached houses (11209004; 11209005; 11209002; 11209003) and Kilcarberry House (11209001), a Georgian house, described in the listing as 'set in the rural' setting;
 - To the south are a cluster of buildings associated with the Baldonnel Aerodrome (11208028; 11208025; 11208024; 11208027; 11208026; 11209093; 11209094) and Baldonnel House, a Victorian country house that is a demesne characteristic of the LCA. To the south west, is Castle Bagot House (11208010) that is described as 'dominating the low-lying agricultural land14';
 - To the west of the Site are a cluster of four listed sites that include rural buildings and features. The area is a mix of rural and commercial in character with car yards and gym in the vicinity. From the

¹⁰ National Parks & Wildlife Service (1995) Site Synopsis; The Grand Canal; 002104. Available at: https://www.dublincity.ie/sites/default/files/media/file-

uploads/2018-10/O Devaney Gardens EIS - Appendix 8.1 - Site Synopses.pdf Accessed 22 July 2021

11 National Parks & Wildlife Service (1995) Site Synopsis; The Grand Canal; 002104. Available at: https://www.dublincity.ie/sites/default/files/media/fileuploads/2018-10/O Devaney Gardens EIS - Appendix 8.1 - Site Synopses.pdf Accessed 22 July 2021

road adjacent to the sites, the commercial buildings surrounding the site are visible. Listed features include: 1120815 (Milltown); 11208016 (Polly Hops), 11208006 (Milltown); 11208005 (Milltown gateway).

The Site

- 1.48 The site is currently grassed fields with roads forming the north, east and westerly boundaries of the site. To the south the Site adjoins further agricultural fields that gently rise to the south where woodland forms the backdrop to the southerly views from the site. There are no onsite landscape features that add to the broader lowlands character area. Within close vicinity to the site to the east and west are large commercial buildings of similar form to the Proposed Development.
- 1.49 The Baldonnel stream runs east to west approximately 150m north of the site. The stream continues to the Grand Canal, pNHA, approximately 2km north. The LCA assessment describes 'woodlands and habitats associated with the canal are important ecological features' and (as mentioned above) mitigation measures for development in the LCA look to explore potential to enhance green infrastructure linked to the Grand Canal. Within this context the Baldonnel Stream is classified as a Medium sensitivity receptor and the Grand Canal a High sensitivity receptor.
- 1.50 The Site's proximity to the urban area and major transport corridors, accompanied by the prominent size and scale of development within this area, contribute to a commercial and industrial landscape character type within the LCA. The character of the Site is highly influenced by surrounding existing development including an assortment of infrastructure, commercial, industrial and recreational land uses.
- 1.51 Based on the above description and the understanding that the Site is allocated to uses such as the Proposed Development in accordance with National, Regional and Local policy, its flat topography with no landscape features, give it a low landscape value with a low susceptibility to change. Therefore, the site it is judged as a Low sensitivity receptor.
- 1.52 Due to the location within this transition area between urban and the Newcastle Lowlands Character area and the fragmented nature of the character, the overall character area is judged as a Medium sensitivity receptor. The surrounding developments of similar nature and the location with and enterprise and employment area, within a business park, contributes to the judgement of a low susceptibility to change. The area is judged to be of Medium value due to its location within a broader area identified as Medium to High value. It is judged that the Character Area is a Medium sensitivity receptor within this location due to the fragmented character and urban/commercial influences and lack of landscape features.
- 1.53 Table 1.4 sets out the receptors that are located within the landscape and their judged sensitivity to development on the Site that would be used to assess the impact of the Proposed Development.

Table 1.4 Landscape Receptor Sensitivity						
Receptor	Sensitivity					
The Grand Canal	A pNHA providing important biodiversity, green infrastructure and recreational functions within the landscape. High value with medium susceptibility due to distance from the site.	High				
Baldonnel Stream	Watercourse connected to a pNHA area (the Grand Canal) with its surrounding riparian vegetation providing refuge for flora and fauna from	Medium				

¹² Office of Public Works (1992) Ecological Survey of the Grand Canal. Available at: Dromey et al 1992 Grand Canal P1.pdf (npws.ie) Accessed 22 July

¹⁴ National Inventory of Architectural Heritage (2021) Website Available at: https://www.buildingsofireland.ie/ Accessed 22 July 2021

Table 1.4 Landscape Receptor Sensitivity						
	surrounding agricultural, commercial and urban land uses. The stream is an off-site feature with a section of its alignment running in close proximity to the site. The stream has been highly influenced by human activity within this are demonstrate by its culverting under Falcon Road lowering its susceptibility to change.					
Newcastle Lowlands Character Area	From analysis of historical records, hedgerows are likely to have been in their current position on the Site for over 100 years. The hedgerows provide a valuable landscape feature for visual amenity and for flora and fauna, and a valuable green infrastructure feature.	Medium				
The Site	The character of the Site is highly influenced by surrounding existing development including an assortment of infrastructure, commercial, industrial and recreational land uses.	Low				

Visual Amenity

- 1.54 The relatively flat topography of the study area and surrounds, with intermittent mature vegetation as field boundaries, leave the potential for views of the Proposed Development from surrounding areas. To determine the locations for visual amenity assessment, A Zone of Theoretical Visibility (ZTV) was developed using a Digital Terrain Model for up to 1.5km from the Site. The results of the ZTV are shown in Figure 1. Photographs from each of the 9 VP locations are provided in Appendix 1.2.
- 1.55 Due to the range of surrounding land uses, the study area contains four main types of receptors as set out below:
 - **Residential receptors** located in the surrounding settlements of Oldcastle Park and the scattered dwellings along Baldonnel Road;
 - Recreational receptors using the Grand Canal and adjacent Grange Castle Golf Club;
 - **Employment receptors** including the adjacent Bolands Garage, Digital Realty Profile Park, Google PPL Data Center Campus, and businesses within the Grange Castle Business Park South and Kilcarbery Park; and
 - **Travel receptors** associated with all the existing roads including the New Nangor Road R134, Baldonnel Road, Profile Park Road and potentially views from the N7 Naas Road.

VP-01: The Grand Canal looking south east

- 1.56 The viewpoint location is representative of the view experienced by people using the Grand Canal and surrounding green infrastructure.
- 1.57 The foreground comprises mixed vegetation, including grasses, hedgerows with some small deciduous trees. Through gaps in the vegetation, a white rail can be seen, possibly part of a fence structure providing a boundary to the field beyond. The mid-ground is dominated by a large agricultural field with a single crop planted in faintly visible rows that horizontally cross the view. The far side of the field is bounded by a complete hedgerow that ranges in height from relatively low to the field line to rising several metres above forming clumps at irregular intervals. Along the hedgerow, trees emerge or are located to the rear. In the centre of the hedgerow, a grey water tower protrudes with established deciduous trees adjacent to the tower's right-hand side slightly obscuring the view of the structure. To the right of the view, a black metal fence structure is visible with excavation equipment and exposed ground visible behind.

- 1.58 In the far distance, beyond the hedgerow, trees and water tower, large industrial buildings with white, dark and light grey cladding are visible. The nearest building on the left-hand side, has a continuous stretch of glass windows partly obscured by the trees in the mid-ground. Cumulatively, the buildings are prominent in the centre of view, punctuating a tree line that runs along the centre to right of the view. The buildings have a mix of protruding roof structures, including large dark grey rectangular structures. Two crane structures are close to the commercial buildings indicating construction activities currently underway.
- 1.59 In the far-ground, the foothills of the Dublin Mountains are visible, gently undulating in the distance. A faint network of fields and hedgerow boundaries can be seen on the hills.
- 1.60 The Site and the elements within it are not visible from this view.
- 1.61 The receptors associated with this location and their sensitivity are summarised below:
 - Recreational receptors: judged to be of Medium sensitivity due to:
 - the likelihood of being involved in recreational activities at a pNHA designated landscape feature;
 - limited susceptibility by the:
 - presence of already visible commercial buildings from the viewpoint; and
 - ability to accommodate development of the type proposed without wholesale changes to the visual amenity.

VP-02: New Nangor Road at the roundabout junction with Baldonnel Road looking south east.

- 1.62 The viewpoint location is representative of the view experienced by people travelling east along New Nangor Road as they approach the Site by both car and foot on the pavement that runs adjacent to the road. The view is generally open with low-lying land and commercial buildings.
- 1.63 In the immediate foreground is a mix of tarmac and brick paving with some textured surfacing indicating a pedestrian crossing. The paved area is bordered by grasses with a visible far bank sloping down, indicating the course of the Baldonnel stream. A small area is bounded by wooden fencing. A low wall with regularly spaced pillars joined by metal railings runs along the New Nangor Road into the distance. Street lighting and road signage are visible adjacent to the road.
- 1.64 A relatively flat grassed area is adjacent to the far side of the wall with a small clump of scrub vegetation in the centre and right of the view, partially obscuring a large mound of exposed earth. A few scattered trees and large shrubs are visible in the left of view, with several grass mounds visible behind. Beyond these grassed mounds, glimpses of the Dublin Hills can be seen in the distance.
- 1.65 In the mid-ground view, behind the mound of exposed earth to the right, is a large commercial building currently under construction with two cranes visible. Five thin structures run vertically up the side of the building, protruding above the building roof line. To the left, part of a large dark grey, rectangular building can be seen adjacent to the new Nangor Road.
- 1.66 The Site and the elements within it are not visible from this view.
- 1.67 The receptors associated with this location and their sensitivity are summarised below:
 - **Transport** receptors: judged to be of **Low** sensitivity due to:
 - their experience of the view as a secondary activity as they travel or participate in employment;
 - limited susceptibility by the:
 - presence of industrial buildings and construction activities already present; and
 - ability to accommodate development of the type proposed without wholesale changes to the visual amenity.

VP-03: Baldonnel Road junction with Profile Park Road looking east

- 1.68 The viewpoint location is representative of the view experienced by people travelling by car or foot along Baldonnel Road. The view looks towards the direction of the Site, although the site is not directly visible from this location. The view is enclosed with a tree planted berm and buildings following the Profile Park Road is it disappears to the right behind raised land.
- 1.69 A large pillar and gate structure is visible at the side of the road to the left of the view. Cycle lanes run either side of the road for the near part, merging with the pedestrian path along Profile Park Road. Road signage and roadside lighting punctuate the view along the road. On the left side of the road a large white commercial building with a row of windows on the second storey is visible and a prominent rectangular, dark grey roof structure. In the centre distance is a grey industrial building with no visible windows or features. To the right of the view to the rear of the tree planted berm a large security fence is visible in parts. To the rear of the fence, in the right area of the view, are filtered views of a large grey building with two tall flue structure protruding into the skyline.
- 1.70 The receptors associated with this location and their sensitivity are summarised below:
 - **Transport** receptors: judged to be of **Low** sensitivity due to:
 - their experience of the view as a secondary activity as they travel or participate in employment;
 - limited susceptibility by the:
 - presence of industrial buildings and construction activities already present; and
 - ability to accommodate development of the type proposed without wholesale changes to the visual amenity.

VP-04: Baldonnel Road near the entrance to the Casement Aerodrome looking north west

- 1.71 The viewpoint location is representative of the view experienced by people travelling by car or foot along Baldonnel Road and those working or residing within this location. The view looks towards the direction of the Site, although the site is not directly visible from this location. The view foreground consists of medium to large boulders and small elements of waste including some building debris. To the rear of the boulders, a low brick wall is glimpsed through hedgerow vegetation with a closed gate providing access to the field beyond.
- 1.72 In the mid ground, agricultural buildings of varying age form the field boundary, older buildings are overgrown with vegetation and scattered trees emerge from behind the buildings. The field forms the mid ground view to the right of the view and consists of long grass around the boundary and short grass areas away from the boundary. To the right of the view, at the rear of the field, a white commercial building is visible with two small protruding roof structures. In the centre of the mid view, a tree line is visible interspersed with lighting structures. To the left of the view, large commercial buildings are visible a mix of dark grey and grey with some coloured shapes visible on one facade.
- 1.73 In the far ground view, large commercial buildings with protruding structures punctuating the skyline are visible. A crane structure is visible, protruding the skyline. The Site is not directly visible from this view.
- 1.74 The receptors associated with this location and their sensitivity are summarised below:
 - **Residential** receptors: judged to be **Medium** due to:
 - Further commercial development fragmenting the rural character of views from their properties;
 - Transport and Employment receptors: judged to be Low sensitivity due to:
 - their experience of the view as a secondary activity as they travel or participate in employment.
 - limited susceptibility by the:
 - presence of industrial buildings and construction activities already present; and

 ability to accommodate development of the type proposed without wholesale changes to the visual amenity.

VP-05: New Nangor Road to the north west of the Site looking south east

- 1.75 The location is representative of the view experienced by people travelling by car or foot along New Nangor Road and those working within this location.
- 1.76 Prominent in the foreground is the commercial garage entrance and forecourt with parked vehicles and surrounding fencing approximately 2m high. To the rear of forecourt, deciduous trees and shrub vegetation run adjacent to the fence. A telegraph pole is visible in the centre, with wires crossing the view.
- 1.77 Elements of the Site are visible to the left of the view, with scattered mature trees on the land north and south of the Site visible. A white commercial building that is east of the site is visible. Elevated ground of the Dublin Hills can be seen in the far distance beyond the Site.
- 1.78 The receptors associated with this location and their sensitivity are summarised below:
 - Transport and Employment receptors: judged to be Low sensitivity due to:
 - their experience of the view as a secondary activity as they travel or participate in employment;
 - limited susceptibility by the:
 - presence of industrial buildings and construction activities already present; and
 - ability to accommodate development of the type proposed without wholesale changes to the visual amenity.

VP-06: New Nangor Road looking south towards the Site

- 1.79 The location is representative of the view experienced by people travelling along New Nangor Road and those working within this location. The view is characteristic of a road running through an urban fringe/commercial area land type with dense vegetation foliage obscuring any views beyond.
- 1.80 In the foreground, the road and layby area edged by the road verge area that forms a linear feature across the view. In the centre of the verge are concrete barriers that interrupt a hedgerow that runs from the edge of the barriers to the left and right extents of the view.
- 1.81 In the mid ground view, an agricultural field area with scattered mature trees is visible. A row of trees runs across the view in the mid to far ground. The Dublin Hills rise and fall in an undulating pattern in the far distance with some hedgerow patterns visible on the slopes. Regular street lighting columns in white form regular vertical features across the view, indicating the presence of a road, with a small area of tarmac visible in the centre of the view. Filtered views of parts of buildings are visible in the right and left extents of the view, although the size and form is difficult to determine due to screening by vegetation.
- 1.82 From this location, the Site is visible behind established deciduous trees.
- 1.83 The receptors associated with this location and their sensitivity are summarised below:
 - **Transport** and **Employment** receptors: judged to be **Low** sensitivity due to:
 - their experience of the view as a secondary activity as they travel or participate in employment;
 - limited susceptibility by the:
 - presence of industrial buildings and construction activities already present; and
 - ability to accommodate development of the type proposed without wholesale changes to the visual amenity.

VP-07: New Nangor Road and Profile Park Road roundabout junctions looking south west

1.84 The location is representative of the view experienced by people travelling by car or foot along New Nangor Road and those working within this location. The view is of a formal entrance to a business park with

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clipped hedging, maintained lawn, a mix of hard surfacing treatments and security fence and gate structures.

- 1.85 In the foreground is a pathway with light stone paving with adjacent lawn border. A pedestrian crossing in light grey paving traverses the darker grey fan-patterned cobbled paving that marks the entrance to Profile Park Road. Past the entrance paving is a large gate structure that is open allowing access to the road. On the opposite side of the road, approximately 2m high black metal fencing runs along the road with shrub planting running along the fence border. Established deciduous trees are visible beyond the fence. A lighting column and road signage are seen to visibly protrude from the central road island that has hedge and standard trees. Elements of two further lighting columns are part visible to the rear of foliage in the left of the view.
- 1.86 From this location, the Site is potentially visible behind established deciduous trees during winter when foliage is reduced.
- 1.87 The sensitivity of receptors associated with this representative viewpoint is judged to be **Low** due to their experience of the view as a secondary activity to travel and/or employment.
- 1.88 The receptors associated with this location and their sensitivity are summarised below:
 - Transport and Employment receptors: judged to be Low sensitivity due to:
 - their experience of the view as a secondary activity as they travel or participate in employment;
 - limited susceptibility by the:
 - presence of industrial buildings and construction activities already present; and
 - ability to accommodate development of the type proposed without wholesale changes to the visual amenity.

VP-08: Profile Park Road roundabout on the north east corner of the Site looking south west

- 1.89 The location is representative of the view experienced by people travelling by car or foot along Profile Park Road and those working within this location. The view is generally open with a gently undulating topography. In the foreground, the Site is clearly visible with areas of bare earth to the fore and grassland to the rear stretching out into the mid distance view.
- 1.90 In the mid-ground, undulating elevated ground forms the left area of the view with tree and shrub vegetation along the high point forming a gappy treeline. The treeline extends along the mid ground view separating the land from the skyline. To the fore of the treeline, runs a timber fence that is followed by rows of lighting columns at regular intervals indicating the presence of a road traversing the view. To the right of the view, at the end of the tree line, a large grey commercial building with protruding roof structures extending into the skyline is visible. Elements of blue security is visible to the fore of the left extent of the building. The building is screened, to some extent, by a large established tree. The building has a dark and light grey panelling with large, coloured circles visible on the east facing façade
- 1.91 The receptors associated with this location and their sensitivity are summarised below:
 - **Transport** and **Employment** receptors: judged to be **Low** sensitivity due to:
 - their experience of the view as a secondary activity as they travel or participate in employment;
 - limited susceptibility by the:
 - presence of industrial buildings and construction activities already present; and
 - ability to accommodate development of the type proposed without wholesale changes to the visual amenity.
 - Recreational receptors: judged to be of Low sensitivity due to:
 - the likelihood of being involved in recreational activities at the Castle Grange Golf Club; and
 - limited susceptibility by the presence of industrial buildings and construction activities already present.

VP-9: Profile Park Road looking south east across the Site

- 1.92 The location is representative of the view experienced by people travelling along Profile Park Road and those working within this location. The view is generally open with road infrastructure in a greenfield setting.
- In the foreground, a tarmac path runs adjacent to the road and runs away from the view disappearing to the left of the view in the mid ground. Lighting columns line the road at regular intervals with the columns punctuating the skyline. To the right of the foreground is bare ground or gravel surface bounded to the right by longer grasses with a grassed field behind. As footpath and cycle way follows the road, it is interrupted by a road access point to the Site that terminates at the gravel area, not currently linking to any road network or development. The path continues to a second road crossing where a road junction is visible. To the right of this point, three regularly spaced lighting columns cross the view to the right, following a line of timber fencing that runs from the centre of the view to the right extent, indicating the presence of a road in in the midground. Beyond the Site is clearly visible from this location.
- 1.93 In the midground, an established tree line runs across the view and is following by regular lighting structures to the fore, indicating a road running along the midground view. To the right of the view, the treeline disappears to the rear, of a large commercial building that is adjacent to the Site. The building is white clad with no window features visible. On the roof are two small, black protruding funnel structures. To the fore of the building is black security fencing that has shrub or hedge planting around its base and some emerging standard trees
- 1.94 The receptors associated with this location and their sensitivity are summarised below:
 - Transport and Employment receptors: judged to be Low sensitivity due to:
 - their experience of the view as a secondary activity as they travel or participate in employment.
 - limited susceptibility by the:
 - presence of industrial buildings and construction activities already present; and
 - ability to accommodate development of the type proposed without wholesale changes to the visual amenity.

Assessment of Effects

Nature of the change

- 1.95 This LVIA assesses the impacts arising as a result of the Proposed Development on the landscape and visual resource.
- 1.96 The detailed design rationale, evolution, and details of the layout, access, scale, appearance, and landscaping of the Proposed Development (upon which this LVIA is based) is provided within the Planning Application Design Statement and therefore are not repeated here. Elements of the Proposed Development, where relevant to a specific LCA or viewpoint, are described within the LVIA.
- 1.97 Relevant aspects of the proposed development design for the LVIA include, but are not limited to:
 - Maximum development heights;
 - Location of the built mass within the Site;
 - · Removal of grassland vegetation;
 - · Any landscaping surrounding the building;
 - Security fences (2.6m high) forming a perimeter around the building with an additional lower fence surrounding;
 - Materiality of the building and associated structures.
- 1.98 The LVIA will consider the potential impacts of the Proposed Development on landscape character and visual receptors, particularly:
 - Landscape character areas, identified through a local landscape characterisation study within the study area of approximately 1 km from the site boundary;
 - Sensitive viewpoint locations within the study area of up to 1.5km from the Proposed Development, to include residents, pedestrians and vehicular users in the surrounding area (including those travelling along the Grand Canal Way or in the pursuit of outdoor recreation such as at Grange Castle Golf Course); and
 - Cumulative effects in conjunction with other consented schemes in the vicinity of the site.
- 1.99 As set out in Chapter 2 of the EIAR, the LVIA will focus on the following periods:
 - **Construction effects** of the Proposed Development as a whole in the temporary to short term (lasting 8 to 10 months). This is because no significant delay (of more than 12 months) is anticipated between the development phases and therefore a phase-by-phase assessment is not appropriate and has not been undertaken.
 - **Operation effects** have been assessed as Long term to Permanent (fifteen years to over sixty years) focusing on year one and year five of Operation.
 - **Operation cumulative effects** using the agreed cumulative schemes list provided in Volume 1, Chapter 2: EIA Process and Methodology.

Review of Proposed Development on landscape character

- 1.100 As described in Chapter 4, the Proposed Development consists of the Kilcarbery 110kV GIS Substation, three transformer bays, and associated compound and site infrastructure.
- 1.101 In summary, the proposed development would comprise the following:
 - 1 no Indoor Gas Insulated Switchgear (GIS) two storey building equipped with four 110kV bays and rated for the system voltage of 110 kV;
 - Two 110 kV underground cables which would connect the proposed substation development to the existing transmission system;
 - Three no oil-filled step-down 110/20 kV power transformers positioned within bunded enclosures (height approximately 6 m);

- Lightning protection masts (height approximately 8m);
- Single storey buildings used for control and ancillary (height approximately 4.2m);
- Internal access roads;
- A 2.6-metre-high palisade fence;
- Drainage infrastructure; and
- All associated and ancillary site development works including localised alterations to the landscape berms.
- 1.102 The proposed development described above would support the power demand for the data center proposed under SD21/0241 which is located to the north of the site (site boundary shown in Appendix 1, Figure 2).

Construction Effects

- 1.103 The indicative construction programme is set out in Chapter 5 of this EIAR, with peak construction during 2022.
- 1.104 During this period, a 2.4m perimeter site hoarding and access/egress gates would be place and maintained throughout the duration of the works screening activities within the site to the surrounding areas.
- 1.105 A range of plant equipment would be used during this stage including a crane and Heavy Good Vehicle deliveries that is likely to be visible from areas surrounding the Site. For the purpose of this EIAR, it is assumed that all construction traffic enters and exits the site via Profile Park Road.
- 1.106 Appropriate material excavated during ground works would be re-used as part of earthworks and as temporary back-fill where necessary (where suitable).
- 1.107 Landscaping associated with the facilities would be constructed upon substantial completion of construction works to minimise potential plant material loss. Topsoil would either be reused or imported to fill and shape landscaped areas.
- 1.108 The site is located within an area that has had successive recent developments of a larger or similar scale to the Proposed Development. The Site to the northwest is currently under development at the time of this LVIA. It is judged that the Proposed Development would be experienced within the landscape as a continuation of current activity, limiting the magnitude of impacts and susceptibility of off-site landscape receptors to this stage.
- 1.109 Further mitigation measures are outlined in Chapter 5 of this EIAR to minimise the visual impacts during this stage.
- 1.110 Based on the landscape features identified in the Baseline Assessment, magnitude of impact and scale of effect is judged for:
 - High Sensitivity receptor: the Grand Canal is judged to experience a no change/negligible magnitude
 of impact due to its distance from the Proposed Development and the current existence of similar
 activity. The scale of the effect on is judged to be not significant/ slight, negative in nature and
 not significant in terms of EIA.
 - Medium sensitivity receptors: The Newcastle Lowlands LCA and Baldonnel Stream are judged to
 experience a Low (Negative) magnitude of impact. The scale of effect on these receptors is judged
 as not significant/slight, negative in nature and not significant in terms of EIA.
- 1.111 The Site is judged as **Low** sensitivity with **Moderate** magnitude of impact during this stage due to the activities described in Chapter 5 of this EIAR. The scale of effect is judged to be short term and not **significant/slight negative** and therefore not significant in EIA terms.
- 1.112 A summary of the assessment on Landscape character and receptors during the Construction stage is provided in Table 1.5

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Table 1.5 Cons	Table 1.5 Construction landscape impacts									
Receptor	Sensitivity	Description of impact	Magnitude	Scale	Significance					
Newcastle Low- lands LCA	Medium	Increased development within urban fringe transition area	Low	Not Significant/ Slight	Not significant (Negative)					
The Grand Canal	High	Disturbance of linked green infrastructure	No change/ Negligible	Not Significant/ Slight	Not significant (Negative)					
Baldonnel Stream	Medium	Disturbance and change	Low	Not Significant/ Slight	Not significant (Negative)					
The Site	Low	Disturbance and change	Moderate	Not Significant/ Slight	Not significant (Negative)					

Operation Effects

- 1.113 During Operation, the building would be a new feature within the landscape, similar in visual appearance and form to surrounding developments and therefore it is anticipated that the Proposed Development would not be out of context. The Proposed Development has a smaller footprint than surrounding commercial buildings but is similar in height. The noise and emissions from the building are covered in Chapters 8 and 9 of this EIAR. Due to the location of the Proposed Development within a commercial and industrial area, this LVIA focuses on the effects on the surrounding landscape features that contribute to the overall character within this part of the Newcastle Lowlands Character Area for the duration of effects that are Long term to Permanent (fifteen to over sixty years).
- 1.114 In the short term (0-7 years), it is anticipated that surrounding landscape features would experience negligible magnitude of impact due to the Proposed Development's relatively small footprint in comparison to surrounding buildings and its being of similar materiality. It is judged that the Proposed Development would not be out of context of the immediate surrounding area that has a transitional and commercial character.
- 1.115 It is judged that the landscape receptors would experience a negligible magnitude of impact from the Proposed Development during operation at Day 1:
 - The high sensitivity receptor is judged to experience a **not significant/ slight negative** scale of effect and **not significant** in terms of EIA.
 - Medium sensitivity receptors are judged to experience an imperceptible negative scale of effect not significant in terms of EIA.
- 1.116 The landscape scheme includes limited tree planting and amenity grass around the perimeter of the site, by 5 years they would be established with increased amenity but is not judged sufficient to change the magnitude of any landscape impacts between day one and year 5 and therefore the magnitude of impact and significance of effect is not judged to change during this period.
- 1.117 A summary of the operation effects on landscape receptors on day one and year five is provided in Table 1.6.

Table 1.6 Operation landscape impacts								
Landscape Receptor	Sensitivity	Description of Magnitude impact		Scale	Significance			
	Medium	Day one	Negligible	Impercepti- ble	Not significant (Negative)			

Table 1.6 Ope	ration lands	cape impacts			
Newcastle Low- lands Character Area		Year five	Negligible	Impercepti- ble	Not significant (Negative)
The Grand Ca- nal	High	Day one	Negligible	Not Signifi- cant/ Slight	Not significant (Negative)
		Year five	Negligible	Not Significant/ Slight	Not significant (Negative)
The Site	Low	Day one	Negligible	Impercepti- ble	Not significant (Negative)
		Year five	Negligible	Impercepti- ble	Not significant (Negative)
Baldonnel Stream	Medium	Day one	Negligible	Impercepti- ble	Not significant (Negative)
		Year five	Negligible	Impercepti- ble	Not significant (Negative)

Visual

- 1.118 As discussed in the methodology above, The Visual impacts and effects have been assessed against the baseline using photomontages of the operational building (Appendix 1.3). Construction impacts and effects are not reviewed separately due to the ongoing construction and development within the Proposed Development study area. It is anticipated that the continuation of activity would result in a negligible/no change magnitude of impact across viewpoints and receptors resulting in an **imperceptible** impact that is not significant in terms of EIA.
- 1.119 The landscape scheme includes limited tree planting and amenity grass around the perimeter of the site, by 5 years they would be established with increased amenity but is not judged sufficient to change the magnitude of any visual impacts between day one and year 5 and therefore the magnitude of impact and significance of effect is not judged to change during this period.

VP-01: The Grand Canal looking south east

- 1.120 The viewpoint location is representative of people using the footpath along the Grand Canal pNHA looking south east across arable filed towards the Grange and Profile Park enterprise development areas.
- 1.121 The proposed structures are of similar height to the surrounding buildings and would not be visible from this location.
- 1.122 The magnitude of impact at both day one and year 5 is judged to be no change/ negligible with an **imperceptible, neutral** in nature effect that is not significant in terms of EIA on VP-01 during operation.

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VP-02: New Nangor Road at the roundabout junction with Baldonnel Road looking south east

- 1.123 The viewpoint location is representative of people travelling east along the New Nangor Road, or south along Baldonnel Road.
- 1.124 The Proposed Development is not expected to be visible from this location following the construction of approved development on the land adjacent to the viewpoint. Within this location, the travel receptors in this location experience the view as a secondary activity and are judged to be low sensitivity.
- 1.125 The magnitude of impact at both day one and year 5 is judged to be no change/ negligible with an **imperceptible neutral** in nature effect that is not significant in terms of EIA on VP-02 during operation.

VP-03: Baldonnel Road junction with Profile Park Road looking east

- 1.126 The viewpoint location is representative of people travelling along Baldonnel Road or east along Profile Park Road.
- 1.127 The Proposed Development is not expected to be visible from this location following the construction of approved development and the associated Proposed Data Center Development. The travel receptors in this location are anticipated to experience the view as a secondary activity and therefore judged as Low sensitivity.
- 1.128 The magnitude of impact at both day one and year 5 is judged to be no change/ negligible with an **imperceptible neutral** in nature effect that is not significant in terms of EIA on VP-03 during operation.

VP-04: Baldonnel Road near the entrance to the Casement Aerodrome looking north

- 1.129 The viewpoint location is representative of people working or living in the vicinity or travelling along Baldonnel Road.
- 1.130 The proposed structures are visible from this location in the midground of the view. The building is a proportionate to other buildings of similar scale and materiality within the view and of those of the associated Proposed Data Centre Development that is also show within the photomontage in Appendix 1.3.
- 1.131 The distance from the Site, and the similar surrounding developments in close vicinity to the building are judged result in a Low negative magnitude of impact from the Proposed Development. The employment and travel receptors associated with this location are judged to be Low sensitivity due to their distance from the Site and involvement in primary activities not dependent on the view. Residents are judged of Medium sensitivity in this location.
- 1.132 The magnitude of impact at both day one and year 5 is judged to be no change/ negligible, leading to an **imperceptible** scale of effect for both Low and Medium on VP-04 during operation at day one or year five. This effect is not significant in EIA terms.

VP-05: New Nangor Road to the north west corner of the Site looking south east

- 1.133 The viewpoint location is representative of the view of people working within the area or travelling east along New Nangor Road. The Proposed Development would be partially visible through the gap in vegetation in the mid ground view, although screened to some extent by trees. If the associated Proposed Data Centre Development is approved, the Proposed Development would not be visible from this viewpoint.
- 1.134 Employment and travel receptors in this location are judged as Low sensitivity due to the location within a business park and proximity of buildings of a similar scale and appearance.

1.135 Change to this viewpoint is judged to result in a Low magnitude of impact due to distance from the Proposed Development and similarity of surrounding buildings. It is judged that the scale of effect at both day one and year 5 is **imperceptible negative** in nature, which is not significant effect in terms of EIA on VP-05.

VP-06: New Nangor Road looking south towards the Site

- 1.136 The viewpoint location is representative of the view experienced by people travelling along New Nangor Road in a west direction and people involved in employment activities. A photomontage providing the view from this location is provided Appendix 1.3.
- 1.137 From this location, the building would be visible by receptors although filtered to some extent by existing vegetation. In winter months, loss of foliage may be result in less effective screening of the Proposed Development. If the associated Proposed Data Centre development is approved, the Proposed Development would not be visible from this location.
- 1.138 Within this viewpoint, the Proposed Development is the only commercial building directly visible, the adjacent large commercial building to the right of the view is screened by mature trees, although in winter this is likely to be visible. The magnitude of impact is judged to be Moderate within this location due to lack of surrounding commercial buildings within the view and the predominantly rural character. The travel and employment receptors associated with this location are judged to Low sensitivity due to the experience of the view as a secondary activity within the context of surrounding commercial developments.
- 1.139 Therefore the scale of the Proposed Development's effect on this viewpoint is judged to be **not significant/ slight negative** at day one and year five and is therefore not significant in terms of EIA on VP-06.

VP-07: New Nangor Road and Profile Park Road roundabout junctions looking south west

- 1.140 The viewpoint location is representative of the view experienced by people involved in travelling or employment activities along New Nangor and Profile Park Road. The proposed structures are not visible from this location as shown in Appendix 1.3 where a red line indicates the extent of the building. Therefore the magnitude of impact is judged to be negligible negative on this viewpoint location due to the potential to see elements of the building during winter months when foliage is not so dense. The travel and employment receptors are judged to be of Low sensitivity due to their experience of the view as a secondary activity.
- 1.141 Therefore, the Proposed Development is judged to have an **imperceptible negative** in nature effect at this location for day one and year five and is not significant in terms of EIA on VP-07.

VP-08: Profile Park Road roundabout at the Site entrance looking north west

- 1.142 The viewpoint location is representative of the view experienced by people involved in travelling or employment activities along Profile Park Road and within the Business Park.
- 1.143 As shown by the photomontage in Appendix 1.3, from this location the building is visible. The buildings grey façade, walls, fencing and elements of the transformer structures are visible. Within the context of the surrounding activity and the Profile Park enterprise setting, the visual magnitude of impact is judged to be Moderate due to the scale of the building and lack of landscape amenity features associated with the boundary of the Proposed Development. Due to the receptors experience of the view as a secondary activity while located within the vicinity of a business park, sensitivity is judged to be Low.
- 1.144 Therefore, during operation at day one and year five, the Proposed Development is judged to have a **not significant/ slight negative** in nature effect, that is not significant effect in terms of EIA on VP-08.

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VP-09: Profile Park Road looking south east across the Site

- 1.145 The viewpoint location is representative of the view experienced by people involved in travelling or employment activities along Profile Park Road and within the Business Park. In the photomontage image (Appendix 1.3), the buildings, transformers, walls and fencings are visible within the foreground. Some trees are planted along the boundary of the site are visible at this location.
- 1.146 The building is a prominent feature within the view from this location and is a notable change within the view and of Moderate negative magnitude impact. The travel and employment receptors associated with this site are judged to be of Low sensitivity.
- 1.147 Therefore, the scale of effect is judged to be **not significant/ slight negative** in nature, and not significant in terms of EIA on VP-09 at day one and year 5.

Assessment of Residual Effects

Additional Mitigation

1.148 No additional mitigation measures are proposed.

Enhancement Measures

1.149 No additional enhancement measures are proposed

Construction Residual Effects

- 1.150 With additional mitigation in place, the residual construction effects would be as follows:
- 1.151 The residual construction effects remain as reported in the assessment of effects section:
 - Short-term **not significant/ slight negative** effects that are **not significant** in EIA terms from impacts on landscape character through disturbance.
 - Short-term **imperceptible neutral** effects on visual amenity at VP01-09 surrounding the Site that are **not significant** in EIA terms.

Operation Residual Effects

- 1.152 The residual operation stage effects at year 5 remain as reported in the assessment of effects section:
 - Long-term **imperceptible to not significant/ slight negative** effects that are **not significant** in EIA terms from impacts on landscape character through disturbance.
 - Long-term **imperceptible neutral** effects on visual amenity at VP01, 02, 03 surrounding the Site that are **not significant** in EIA terms.
 - Long-term **imperceptible negative** effects on visual amenity at VP04, 05, 07 surrounding the Site that are **not significant** in EIA terms.
 - Long-term **not significant/ slight** effects on visual amenity at VP06, 08, 09 surrounding the Site that are **not significant** in EIA terms.

Summary of Residual Effects

1.153 Table 1.7 provides a tabulated summary of the outcomes of the landscape and visual assessment of the proposed development. Where **significant positive** effects are likely these are highlighted in bold green and where **significant negative** effects are predicted these are highlighted in bold red.

Table 1.8: Su	ımmary of Residu	al Effects						
				N	ature E	of R		ual
Receptor	Description of Residual Effect	Additional Mitigation	Scale and Significance of Residual Effect **	+	D I	P T	R IR	M B T St Mt Lt p**
Construction						1		
Landscape								
Newcastle Lowlands Character Area	Increased development within urban fringe transition area	None required	Not Significant/ Slight	-	D	Т	R	St
The Grand Canal	Disturbance of linked green infrastructure	None required	Not Significant/ Slight	-	I	Т	R	St
Baldonnel Stream	Disturbance and change	None required	Not Significant/ Slight	-	I	Т	R	St
The Site	Disturbance and change	None required	Not Significant/ Slight	-	D	Т	R	St
Visual								
VP1-9	Contribution to ongoing construction within area	None required	Imperceptible	+/-	I	Т	R	St
Operation								
Landscape (y	ear 5 of operatio	n)						
Newcastle Lowlands Character Area	Increased development within urban fringe transition area	None required	Imperceptible	-	D	P	R	Lt
The Grand Canal	Additional commercial development within proximity	None required	Not Significant/ Slight	-	I	Р	R	Lt
The Site	Change from agricultural field to industrial site	None required	Imperceptible	-	D	Р	R	Lt
Baldonnel Stream	Additional commercial development within proximity	None required	Imperceptible	-	I	Р	R	Lt
Visual								

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Table 1.8: Su	Table 1.8: Summary of Residual Effects									
VP 1, 2, 3	Not visible	None required	Imperceptible	+/-	D	Р	R	Lt		
VP 4, 5, 7	Slight increase in data centre development	None required	Imperceptible	-	D	Р	R	Lt		
VP 6, 8, 9,	within business park area	None required	Not Significant/ Slight	-	D	Р	R	Lt		

Notes:

- * = Negative/ + = Positive / +/- = Neutral; R = Reversible, IR = Irreversible; D = Direct, ID = Indirect;
- L= Likely, U = Unlikely; M = Momentary, B = Brief, T= Temporary, St = Short-term, Mt = Medium-term, Lt = Long-term, P = Permanent
- ** Imperceptible, Not Significant, Slight, Moderate, Significant, Very Significant, Profound

Cumulative Effects

Intra-Project Effects

1.154 As explained in Volume 1 Chapter 2: EIA Process and Methodology, intra-project cumulative effects are discussed in Volume 1 Chapter 16: Cumulative Effects.

Inter-Project Effects

1.155 Within the context of this LVIA, the likely landscape and visual effects arising from the cumulative developments summarised in Chapter 2: Table 2.3 are assessed. The location of cumulative developments is shown in Volume 2, Figure 2.1. Within the vicinity of the Proposed Development eight further developments are to be considered, six with planning permission granted and in various stages of development.

Construction Effects

Landscape

- 1.156 The Proposed Development is within an area that has undergone a period of change as it has transitioned from an agricultural to an industrial and commercial area on the fringe of urban development. During this LVIA assessment period, the AWS development to the west of the site (Application SD20A/0121) has been underway with two cranes visible within the Newcastle Lowlands character area.
- 1.157 The Proposed Development would reach peak construction in 2022, which would coincide with construction activities planned at:
 - UBC Properties (SD20A/0121 and SD20A/0121) to the east;
 - Centrica Business Solutions (SD21A/0167) to the south east;
 - Cyrus One (SD18A/0134 and SD20A/0295) to the west.
- 1.158 It is unclear from the information available if the Data Realty Trust (SD17A/0377) to the south would be undertaking any construction activities during 2023.
- 1.159 A recent planning application has been submitted for Plot 100 on the Profile Park area, 200m east of the development by Equinox (Ireland) Ltd. The application includes the construction of a 3-storey data centre.
- 1.160 A planning application in association with the Proposed Development is submitted for north of the Site for a Vantage Data Centre.
- 1.161 As assessed above, the Proposed Development combined construction activities are judged to have a low impact on the Newcastle Lowlands LCA, with a imperceptible negative effect. Combined with other

construction activities in the area, it is not anticipated that the magnitude of impact would increase to slight due to the previous period of construction and industrial character of this area within the LCA. The high sensitivity receptor (the Grand Canal) are sufficient distance from the construction area that the increased construction activities are unlikely to impact their amenity, levels of tranquillity and value. In addition, the temporary to short-term effects from cumulative construction activities is also considered insufficient to increase the magnitude of impact to Moderate. Within this rapidly developing urban fringe character type, it is judged that the cumulative impact of the Proposed Development remains imperceptible negative and is not significant in EIA terms.

Visual

- 1.162 Due to the ongoing nature of construction within the vicinity of the Proposed Development, it is judged that the magnitude of impact on visual amenity due to cumulative construction activities is unlikely to increase.
- 1.163 Medium sensitivity receptors (residential and recreational) are located at sufficient distance (VPs 01 and 04) from the Proposed Development that cumulative impacts are judged unlikely to result in an increase in magnitude impact or scale of effects experienced.
- 1.164 From VP locations 01, 02, 03, 05 and 06 it is anticipated that the Proposed Development construction activities would be screened by other developments underway or the associated Proposed Data Centre Development and therefore would not have a cumulative impact on visual receptors.
- 1.165 At the closest VP locations, (06, 07, 08, 09) construction impacts would be mitigated by site hoarding features and retained vegetation. At this proximity, cumulative impacts are unlikely to be experienced by the low sensitivity receptors associated with these VP locations (transport and employment).
- 1.166 It is judged that cumulative construction activities are unlikely to increase the magnitude of impact on visual amenity and no significant effects are identified.

Operation Cumulative Effects

Landscape

- 1.167 The Proposed Development is judged to have a negligible negative magnitude of impact on the landscape character with an Imperceptible negative scale of effect in the short term to long term.
- 1.168 On completion, it is considered unlikely that the Proposed Development would contribute to cumulative effects due to its relatively small footprint and position within the business park that consists of buildings that are of larger scale and of similar form. Within the Newcastle Lowlands LCA, the Proposed Development would be screened by other buildings to the north and west and would not contribute to a 'massing' or clumping in the landscape as would be positioned to the rear of other large building structures. To the south, the Proposed Development would be to the fore of other large structures and would merge/screen these from view, again not contributing to an increase in scale of industrial development within this area of the Newcastle Lowlands LCA. The high sensitivity landscape receptor (Grand Canal) is sufficient distance that the Proposed Development and within the visual envelope of the established business park, that it is unlikely to contribute to cumulative development effects.

Visual

- 1.169 On completion, glimpses of the Proposed Development would be visible from a number of the VPs selected to represent surrounding visual receptors. The Proposed Development would not be visible to the north due to the extensive existing industrial/commercial development in the Grange Castle Business Park. From the east, the Proposed development is well screened by the existing vegetation (see VP-07 images) although this may be less effective during winter when foliage is less.
- 1.170 To the south, the Proposed Development would be to the fore of other large structures and would merge with, and screen these from view, rather than increasing the scale of development within the Newcastle

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- Lowlands LCA. The cumulative developments to the west would screen the Proposed Development from VP-02, VP-03 and would not contribute to a 'massing' or clumping in the landscape.
- 1.171 Medium sensitivity receptors (residential and recreational) are located at sufficient distance (VP-01 and VP-04) from the Proposed Development that cumulative impacts are judged unlikely to result in an increase in magnitude of impact or scale of effects experienced.
- 1.172 From VP locations 01, 02, 03, 05, 06 it is anticipated that the Proposed Development operational activities would be screened by other developments established or underway, or are not visible, and therefore would not have a cumulative impact on visual receptors.
- 1.173 At the closest VP locations (VP-08 and VP- 09) operational impacts would be visible and have an impact. At this proximity, cumulative impacts are unlikely to be experienced by the low sensitivity receptors associated with these VP locations (transport and employment) due to the surrounding industrial and commercial character of the immediate area.
- 1.174 It is judged that operational cumulative effects are unlikely to increase the magnitude of impact on visual amenity at the VP locations and therefore no significant effects are identified.
- 1.175 Table 1.9 provides a summary of the likely cumulative effects resulting from the proposed development and the cumulative developments.

Table 1.9 Inte	Table 1.9 Inter-Project Cumulative Effects								
		Construction		Operation					
Cumulative Development	Cumulative Effects Likely?	Reason	Cumulative Effects Likely?	Reason					
Landscape	No	Impacts and effects experienced would not be out of context with previous activity and distance of high sensitivity landscape receptors mean that impacts to character, amenity or value are unlikely.	No	The scale and type of building is appropriate within the context of the business park area of the LCA. High sensitivity receptors are sufficient distance from the area that the cumulative developments are unlikely to increase landscape impacts or scale of effects.					
Visual	No	Impacts and effects experienced would not be out of context with previous activity those associated with an industrial/ commercial urban fringe. Distance of Medium sensitivity visual receptors mean that an increase in magnitude of impacts is unlikely.	No	The scale and type of building is appropriate within the context of the business park area of the LCA and receptors would have the ability to accommodate the development of the type proposed without changes to visual amenity.					

Summary of Assessment

Background

- 1.176 This chapter has detailed the potential Landscape and Visual impacts due to the construction and operation stages of the Proposed Development. The assessment of construction and operation stages has taken into account the relevant national and local guidance and regulations.
- 1.177 Baseline assessment has been made using publicly available information and site investigation assessing visual amenity. The baseline assessment indicates that:
 - the site is located within an area allocated for strategic employment development by the Regional and Local Authority;
 - the proposed development is located within a Data Center Park on the urban fringe of Ireland's capital city, confirming that the location is consistent with the approach set out in the National Framework for this type and scale of development;
 - the site is within an area of the Landscape Character Assessment (LCA) that is on the transition between land character types: urban and limestone farmland. It is an area allocated to enterprise and employment development with developments of similar scale and type surrounding it. Within the context of the LCA, this is an area that has already undergone transitional change from agriculture to industrial and commercial land use.
- 1.178 Considering national and local policy, it is judged that the Proposed Development does meet the criteria for the 'limited opportunity' to accommodate development within the LCA.

Construction Effects

- 1.179 Within the LCA context, the assessment judged the Proposed Development to have an imperceptible negative effect on the Newcastle Lowlands LCA during the construction stage and in the short term.
- 1.180 The activities that could affect the landscape and visual amenity are:
 - disturbance on the setting and amenity of NIAH listed features within the area of the Site;
 - noise and traffic impacts on visual amenity;
 - visibility of construction activities and plant machinery within the Newcastle Lowlands LCA.
- 1.181 The embedded mitigation measures within the CEMP and set out in Chapter 5, including erection of hoarding around the site and early establishment of boundary landscape features, result in the effects being temporary to short term and imperceptible to slight negative.
- 1.182 The ongoing construction within the business park area on structures of similar scale and nature, also reduces the susceptibility of landscape and visual receptors to construction activities within the business park location.
- 1.183 Overall, it is considered construction of the Proposed Development would result in temporary to short-term imperceptible to not significant/slight negative effect on the landscape and visual amenity of the area and identified receptors, which would be **not significant** in EIA terms.

Operation Effects

- 1.184 Over the long term to permanent duration of operation, the Proposed Development is judged to have an imperceptible to not significant/ slight effect that is not significant at year 5 on the Newcastle Lowlands LCA due to the relatively small scale of the structures and in the context of similar buildings of larger scale and materiality.
- 1.185 A combination of photography and visualisations from a range of locations and contexts, alongside desktop analysis and professional judgement has enabled a comprehensive understanding of how the Proposed Development would affect the landscape character and impact on local views.

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- 1.186 During Operation, the Proposed Development is judged to have the following effects on Visual amenity at selected viewpoint locations:
 - Imperceptible neutral effects at 3 locations (VP 01, 02 and 03);
 - Imperceptible negative effects at 3 locations (VP 04, 05 and 07); and
 - **Not significant/ slight negative** effects at 3 locations (VP 06, 08 and 09).
- 1.187 Due to the context of the site and the similar scale and type of buildings in close vicinity, it is judged that the Visual effects of the Proposed Development are **not significant** in terms of EIA.
- 1.188 Overall, it is judged that the proposed developed is similar in context to the current and anticipated future commercial/industrial landscape character type of this transitional area, and as such which would be **not significant** in EIA terms for landscape or visual identified receptors.

2 CULTURAL HERITAGE

Introduction

- 2.1 This chapter of the EIAR reports on the likely significant cultural heritage effects that are predicted to result from the construction stage and the operation stage of the proposed development.
- 2.2 The chapter describes the cultural heritage policy context; the methods used to assess the potential impacts and likely effects; the baseline conditions at and surrounding the site; the likely cultural heritage effects taking into consideration embedded mitigation; the need for additional mitigation and enhancement; the significance of residual effects; and inter-project cumulative effects.
- 2.3 The chapter is supported by the following technical appendices in EIAR Volume 2:
 - Appendix 2.1: Legislation and planning policy;
 - Appendix 2.2: Gazetteers of archaeology and architectural heritage in the 1km study area;
 - Appendix 2.3: Archaeological Consultancy Services Unit, 2020, Geophysical Survey of a Site at Profile Park, Ballybane and Kilbride, Co Dublin; and
 - Appendix 2.4: Report on the test trenching of an enclosure (and associated features) identified via geophysical survey 20R0080 at Profile Park, Kilbride, Dublin (Excavation Licence No 21E0061), Archaeological Consultancy Services Unit, July 2021.

Methodology

- 2.4 The assessment has been informed by the following legislation, policies, and published guidance:
 - National Legislation and Policy:
 - National Monuments Acts 1930-2014;
 - Heritage Act 1995;
 - Architectural Heritage (National Inventory) and Historic Monuments Act 2000;
 - The Planning and Development Act 2000 as amended;
 - Planning and Development Regulations 2001-2019 (as amended);
 - National Planning Framework 2018;
 - Regional Policy:
 - Eastern and Midland Regional Assembly, 2019 Regional Spatial and Economic Strategy 2019-2031;
 - Local Policy:
 - South Dublin County Council Development Plan 2016-2022;
 - National guidance and industry standards:
 - Department of Arts, Heritage, Gaeltacht and the Islands, 1999, Frameworks and Principles for the Protection of the Archaeological Heritage;
 - EPA:, 2017 Guidelines on The Information to be Contained in Environmental Impact Statements, (Draft);
 - Office of the Planning Regulator, January 2021, Archaeology in the planning process, Planning Leaflet 13; and

 Office of the Planning Regulator, January 2021, A guide to Architectural Heritage, Planning Leaflet 12.

Assessment Scope

2.5 Chapter 2: EIA Process and Methodology explains the assessment methodology used throughout this EIAR. The assessment in this chapter is a qualitative one, and the evaluation of significance and effects is ultimately a matter of professional judgement.

Technical Scope

- 2.6 The technical scope of the assessment has considered the following:
 - Disturbance or removal of on-site terrestrial-based archaeological deposits during construction;
 - Effects on historic landscape character as a result of the development land take and removal of existing site features;
 - Effects on cultural heritage assets as a result of the construction processes, e.g. visual presence, noise, vibration, potential damage to trees or structures; and
 - Effects on cultural heritage assets as a result of the presence of the new built form, its siting, scale, extent, appearance and character, and the new road layout, access, and patterns of circulation

Spatial Scope

2.7 The study area for this assessment covers an area of 1km radius from the site boundary (see Figure 2.1). The study area is sufficiently large to allow a judgement to be made of the likely archaeological potential of the site, based on the evidence in the surrounding area, and to allow assessment of effects on structures and monuments because of changes to historic or landscape character or visual changes.

Temporal Scope

2.8 The assessment has considered impacts arising during the construction stage, which would be expected to be temporary and short-term (eight to 10 months) in nature, and from the operation stage which would be expected to be permanent and long-term in nature (i.e. more than 20 years).

Baseline Characterisation Method

Desk Study

- 2.9 This chapter assesses the cultural heritage resources of the site and its environs as they are identified through statutory designation and inventory, the national or local archaeological record, documentary sources or other studies. In order to establish baseline cultural heritage conditions in the study area, the relevant data was reviewed and assessed. Data was obtained from the following sources:
 - Sites and Monuments Record (SMR), including the Register of Historic Monuments (RM) and the Record of Monuments and Places (RMP);
 - National Inventory of Architectural Heritage (NIAH);
 - Record of Protected Structures (RPS, South Dublin County Council); and
 - Cartographic and published sources¹.

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¹ Irish National Soils Map viewed at https://www.gsi.ie/en-ie/Pages/default.aspx

Field Study

2.10 Field study/data collection was not required at the site as the data provided by other sources was deemed to be adequate and representative of the site conditions. The present appearance of the site and the surrounding area can be seen in EIAR Volume 1, Chapter 1: Introduction; and Volume 2, Chapter 1: Landscape and Visual Impact Assessment (LVIA).

Assessment Method

Methodology

Construction Stage

- 2.11 This chapter first assesses the components, qualities and level of importance or value of all monuments and sites identified within the chosen study area, and the contribution to their significance made by the surrounding land. The contribution of the surroundings in which an asset is experienced and the range of historic, functional, or visual relationships, as evident in both physical attributes and perceptual values, to the significance of any single asset or group of assets will depend on the nature of the asset and its past and present setting. The importance of the setting of an asset, or of particular views or vistas (both deliberately designed, and the result of incidental or fortuitous changes over time), to its significance, and to how it is understood and appreciated, can therefore vary greatly.
- 2.12 The assessment of value, coupled with reference to national and local legislation, relevant policy statements and best professional practice, allows a judgement to be made of the significance of the asset and its sensitivity as a receptor. The focus is the inherent value and importance of the historic site itself, which is clearly separated in the assessment from any public amenity value particular sites may have, or potential contribution to tourism or other interests.
- 2.13 The judgement of the magnitude of change likely to occur in the construction stage is based on available information on the attributes of the proposed development: for example, immediate changes such as ground disturbance for site preparation and construction, the land take for development and removal of existing structures, routes, or trees; and changes to drainage and landform.

Operation Stage

- 2.14 The baseline study and assessment of significance are as above for the construction stage.
- 2.15 The judgement of the magnitude of change likely to occur in the operation stage is based on available information on the attributes of the proposed development: for example, the addition of new structures and transport networks; and changes to the character of views of, from or across heritage features, or to perceptions of their priority in the landscape. The assessment refers where necessary to the zone of theoretical visibility (ZTV), viewpoint photographs and wireframe visualisations in Volume 2, Chapter 1: Landscape and Visual Impact Assessment (LVIA).

Cumulative Stage

2.16 For the purposes of assessing the cumulative effects, consideration has been given to all cumulative schemes that have the potential to result in a significant cumulative effect alongside the proposed development. Full details of all the cumulative schemes are given in Chapter 2: EIA Process and Methodology. The baseline and assessment of significance, and the judgement of the magnitude of change stages are as above for the construction and operation stages. Only receptors for which the proposed development is predicted to result in a significant residual effect alone are included in this part of the assessment.

Assessment Criteria

- 2.17 The criteria used to assess whether an effect is significant or not, are given in the EPA Guidelines 2017, and are set out in Table 2.1 in Chapter 2: EIA Process and Methodology. The significance of effects is determined by consideration of the sensitivity of the receptor, the magnitude of impact and scale of the effect. In assessing the significance of an effect, consideration has been given to the quality, duration, probability and type of the effect, and its geographical extent, and the application of professional judgement. There is some flexibility based on professional judgement to take account of any particular value a heritage asset or receptor may have because of its use or presentation for public amenity and tourism or education.
- 2.18 Based on professional judgement, effects of moderate significance and above are considered significant in EIA terms.

Assumptions and Limitations

2.19 Professional judgement is an important consideration in the determination of the overall cultural heritage effects and, even with qualified and experienced professionals, there can be differences in the judgements made. No site walkover has been undertaken to inform this assessment.

Baseline Conditions

Existing Baseline

Geology

2.20 The site geology consists of fine loamy drift of the Straffan and Elton associations overlying dark limestone and shale of the Lucan Formation².

The Archaeological Resource

2.21 The evidence is presented in chronological order in broadly accepted chronological periods such as Palaeolithic–Neolithic. All assets included in the SMR data are shown on Figure 2.1, and on an aerial photograph illustrating the current and emerging character of the study area in Figure 2.2, each with a reference number, and the relevant entries in the SMR and NIAH are included in the gazetteers in Appendix 2.2. A total of 22 monuments and sites are listed in the SMR data for the site and 1km radius study area, none of which fall within the site boundary. There are no structures included in the Register of Protected Structures within the site and no assets on the statutory Record of Monuments and Places or the Register of Historic Monuments within the study area.

Prehistoric

2.22 There are no records for the prehistoric period in the study area.

Early Medieval Period (AD400-1100)

2.23 There are three concentric enclosure sites of probable early medieval origin, recorded as cropmark features on aerial photographs to the west of the site. The outline of one at Ballybane townland (TOR10, DU021-108) is discernible on Figure 2.2, while another recorded enclosure (TOR11, DU021-109) is no longer present due to the recent construction of the industrial units. The third, at the western edge of the study area, comprises two concentric enclosures are visible as a cropmark on an aerial photograph and is sited to afford an expansive landscape setting (TOR12 DU021-112). None of these sites are indicated on any edition of the Ordnance Survey maps (see Figures 2.3a and 2.3b).

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 $^{^2}$ Irish National Soils Map viewed at https://www.gsi.ie/en-ie/Pages/default.aspx

Medieval Period (1100-1600)

- 2.24 The majority of the sites recorded in the study area relate to the medieval period. The placename Kilbride is first recorded in 1295, and there are records of the linked estate of Kilbride and Nangor into the early 17th century (see Appendix 2.3). The townland names Ballybane and Kilbride are first recorded in the early 14th century.
- 2.25 In the southwest of the study area are the ruins of the medieval church, the ecclesiastical enclosure, and related features at Kilmactalway (TOR1-4, DU021-003001-003004, RPS 182, RM). The walls of the church survive to eaves level within the walled enclosure in woodland and there are a number of gravestones extant³. The ruined church and churchyard at Kilbride (TOR6-8, DU021-005001-005003, RPS 184, RM) survives within an enclosure bounded by low stone walls raised above the fields of the modern farm and is overlooked by the buildings at Casement Aerodrome across the road. There are numerous grave-markers, the most recent dating to the 1930s. Both ecclesiastical enclosure and church sites are recommended for inclusion in the revised RMP.
- 2.26 There are several examples in the wider area of late medieval fortified tower houses, constructed in the 15th and 16th centuries on the edge of the Pale and close to one of the main routes that led from Dublin to the south west. To the north, beyond the study area are Grange Castle (DU017-034, RPS132, RM) the ruins of a three-storey tower house that was constructed around 1580 and then remodelled in approximately 1750, and Nangor Castle (DU017-037), which was in existence by the 1530s and may have been incorporated into a later 19th century house. Within the study area, the castle site to the west of the church at Kilbride (TOR5, DU021-004 is recommended for inclusion in the revised RMP.

Post-medieval Period (1600-1900)

- 2.27 The pastoral farming landscape of the study area is shown on the map of Dublin County published by John Rocque in 1760⁴. The largest holding shown is to the north at Nangor, where the house and group of ancillary buildings are shown alongside an area of woodland and enclosed gardens, approached by an avenue from the south. The dispersed farms and other holdings include to the west a small holding named Ballybawn and further unnamed dwellings on the road. The churches at Kilbride and Kilmactalway are both noted as in ruins, the latter set within a larger building group. At Kilbride the main holding appears to have shifted to the east of the old castle location.
- 2.28 New gentry scale houses in a classical idiom were constructed at the beginning of the 19th century. Kilcarberry House (TOR14, RPS) is a small country house of approximately 1810, with a formal front facing south. It has a distinctive porch, and some ancillary buildings survive. It has a NIAH rating of regional value for its architectural, artistic, and technical special interest. The inventory entry notes the rural landscape setting, however, since 1998 the house and ancillary structures has been within the Grange Castle Golf Club, forming part of the car park and maintenance area. On the west edge of the study area at Milltown, the NIAH includes a record for a public house Polly Hop's (TOR13), that began life as a house of approximately 1790, and was then much extended. This building has since been demolished and the site is occupied by a car showroom.
- 2.29 To the west, north of the old church enclosure at Kilmactalway, Castle Bagot House (TOR15, RPS) is a tall three-storey country house constructed in 1800, with a full height canted bay to the front elevation facing southeast. The former designed landscape setting has largely reverted to agriculture, though some woodland boundaries remain and there is a larger area of woodland either side of the approach drive leading from the entrance from the north, which is marked by the gate piers with curved flanking walls. The house has a NIAH rating of regional value for its architectural, artistic, and historical special interest. It is in use as a children's nursery and is part of an expanded building group.
- 2.30 The Ordnance Survey first edition 6inch map (Figure 2.3a) surveyed in 1836, shows the site area as part of the fields within Kilbride parish and townland. None of the site boundaries relate to historic alignments. Much of the western part of the study area is part of the large area of designed landscape at Castle Bagot

House, which incorporates the old church and surrounding buildings, with an area of parkland to the north of the house and woodland plantations around the boundaries. The road layout around the park appears to have been amended from that shown on the mid-18th century map, and a further addition is the new straight road at Kilcarberry House. There is a small cluster of buildings at the road junction at Milltown, one identifiable as the house that later became the PH. The detailed 25inch map published in 1908 shows no change to the arrangement of the site and little new development across the study area.

- 2.31 Baldonnell Aerodrome, at the south edge of the study area, was established in 1917, and opened in May 1918 as a base for the Royal Flying Corps. Several of the four aircraft hangars of the original aerodrome remain in use, including a flight shed (TOR19) and two general service hangars (TOR21 and TOR22). The aerodrome reopened in 1922 as Air Service HQ for the Air Corps of the Irish Defence Forces. In 1928 it was the start base for the first successful east to west flight across the Atlantic, which is commemorated in a plague on the flight shed. The layout of the base is depicted on the OS map published in 1937 (Figure 2.3b). Additional buildings were added to the Air Corps base from the 1930s. At the north edge of the building group is the officers' mess of 1932 (TOR16, RPS188), with pavilions either side of the central entrance. The 1937 sports hall (TOR20) is of pre-cast concrete and shows the influence of European Modernism on aviation buildings. The art deco administration building (TOR18, RPS189) was constructed in 1938, its long façade facing north overlooking the parade ground and entrance to the base. A new allconcrete church was constructed in 1946 (TOR17, RPS190). All these buildings have a NIAH rating of regional value across the range of architectural, artistic, and technical special interest, with recognition of the additional social interest of the church and the cultural interest of the connection of the 1917 flight shed with the 1928 transatlantic flight. The base was provided with new concrete runways in the mid-1950s and was renamed Casement Aerodrome in 1965. It remains an operational military airfield.
- 2.32 The map regression (Figures 2.3a and 2.3b) illustrates that the site boundaries relate to modern road alignments, and structure of the wider area is dominated the new road layout and buildings of the business park. Very little historic influence remains legible in the present landscape of the site and study area.

Previous Archaeological Investigations

- 2.33 A geophysical survey was conducted by Archaeological Consultancy Services Unit Ltd (ACSU) in 2020 under licence 20R0080 and the results are presented in support of this assessment at Appendix 2.3. Fields numbered 1 to 6 on Figures 6 and 8 respectively in the report at Appendix 2.3 are focused on land north of Falcon Avenue to the north of the site boundary.
- 2.34 The geophysical survey revealed a previously unidentified archaeological site in Field 7, the site of this application whereby a large sub-circular enclosure (approximately 30m in diameter), with an area of probable contemporary medieval field systems along with a second possible curvilinear feature were revealed along the eastern portion of the field. These features are likely to be further evidence of the early medieval activity seen to the west of the site (TOR10-12). Field 8 was the final field surveyed and was sited within the zone of archaeological potential associated with the former castle at Kilbride to the south of the site (TOR5, DU021-004).
- 2.35 A scheme of archaeological test trenching was carried out in March 2021 by ACSU under licence 21E0061 on land north of Falcon Avenue to inform a proposed development. A total of 30 trenches were excavated across the site area totalling 1928m of linear trenches and primarily targeted anomalies revealed in the geophysical survey (see above). In general, the average thickness of topsoil measured 0.3m to 0.45m and consisted of dark brown sandy clay exposing a greyish-yellow boulder clay natural. The excavations failed to reveal any features or deposits of archaeological significance and no artefacts were recovered.
- 2.36 A total of 10 test trenches (232 linear metres) were excavated in June 2021 by ACSU under the aforementioned licence number targeting specific anomalies identified in the geophysical survey (Anomalies D to G shown on Figure 7 Appendix 2.4). The trenching confirmed the presence of the anomalies shown on the geophysical survey and revealed the remains of an oval/circular enclosure approximately 40m in diameter. The ditch measures 2.4m in width and 0.33m in depth with the upper

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³ See https://historicgraves.com

⁴ See http://www.dublinhistoricmaps.ie

part of the ditch truncated during site clearance works in 2009. Two linear ditch features and east-west orientated measuring between 1.45m to 1.7m in width and 0.3m in depth. A modern bank visible on Google aerial imagery in 2017 and a number of geological features were also noted during the investigation.

Future Baseline

2.37 The future baseline of the site and study area would be the continued construction of phases of the business parks across the area defined by the South Dublin County Council Development Plan 2016 to 2022 under use zoning Objective EE.

Assessment of Significance

Archaeology

2.38 There are no recorded archaeological sites listed on the SMR or RMP anywhere within the site boundary. The geophysical survey undertaken across the site by ACSU in 2020 revealed four anomalies of probable archaeological origin pertaining to previous activity. A scheme of test trenching in June 2021 revealed the remains of an oval/circular enclosure approximately 40m in diameter, as well as two linear ditch features likely to be former field boundaries. Other similar circular enclosures of probable medieval date are recorded or have been fully excavated in the study area (TOR 11 and 12) and are generally considered as being included on the RMP. The on-site archaeological resource is therefore considered to be of local value and low significance.

Built Heritage

- 2.39 The site is not part of an area of intact historic landscape and there are no on-site landscape features or standing buildings of heritage interest.
- 2.40 The church ruins and related features at Kilmactalway (TOR1-4) are included in the RPS and RM and are recommended for inclusion in the revised RMP for the range of interest of the standing structures and the archaeological potential of the enclosure. The site is within a wooded setting in an area of intact small scale field patterns that was formerly part of the 19th century parkland setting of Castle Bagot House immediately to the north.
- 2.41 The church ruins and related features at Kilbride (TOR6-8) are included in the RPS and RM and are recommended for inclusion in the revised RMP for the range of interest of the standing structures and the archaeological potential of the enclosure. The site is also in close proximity to the former castle site. The church and enclosure are in an open setting of fields immediately to the south of Grange Castle Golf Course, visible from the Baldonnel Road to the south, and is overlooked by the buildings of the aerodrome. The buildings at Grange Castle Business Park South are visible across the fields to the north.
- 2.42 The closest built heritage asset to the site is Kilcarberry House approximately 640m to the east (TOR14). The formal early 19th century house is included in the RPS because of its special architectural and historic interest. It retains its visual qualities and character although the setting is now dominated by the surrounding golf course. Polly Hop's (TOR13) is no longer extant.
- 2.43 Castle Bagot House (TOR15), approximately 750m to the southwest of the site, is included in the RPS for its special architectural and historic interest. Some elements of the associated designed landscape survive, in the fragmentary woodland boundary plantations and the larger area of woodland on the drive and the gate piers and entrance feature on Baldonnel Road. The character of the setting close to the house is affected by the additional buildings for its use as a children's nursery and crèche.
- 2.44 The identified structures of heritage interest at Casement Aerodrome (TOR16-22) are part of the large group of buildings at the base on the north edge of the runways. They include the hangars that survive from the original establishment of the aerodrome during WWI and a range of Air Corps buildings dating from the early 1930s to the mid-1940s. All have been altered for their continued use as part of the

operational military airbase. The officers' mess, administration building, and the church are included in the RPS for their special architectural and historic interest.

2.45 All of these structures are of regional value.

Sensitive Receptors

2.46 The receptors identified as sensitive to the proposed development, and which have been 'scoped-in' to the assessment are summarised in Table 2.2.

Table 2.2: Summary of Sensitive Receptors	
Receptor	
Archaeology – on site	
Archaeology – study area	
Kilmactalway church and related features (TOR1-4)	
Kilbride church and related features (TOR6-8)	
Kilcarberry House (TOR14)	
Castle Bagot House (TOR15)	
Buildings at Casement Aerodrome (TOR16-22)	

Assessment of Effects

Construction Effects

Archaeology

2.47 The proposed development would involve groundworks which would inevitably have an impact on below ground archaeological remains where they are yet known and recorded. The risk of impacts would come from the damage to the below ground site/features/localised findspots that were revealed by the trenching. There would be a direct construction effect on the oval/circular enclosure and associated linear ditches as documented in the site investigations (Appendix 2.4). The construction stage would result in a negative effect of moderate significance. This would be **permanent and irreversible** and would be **significant in terms of EIA.**

Built Heritage

2.48 There would be no direct construction effects on any of the identified built heritage features in the study area during the construction stage. The site is a distance away from the protected structures in the study area and the visual presence of construction activity, including cranes, and the related noise and vibration would not be perceptible from any of the assets or their setting. The ongoing construction of the business parks is also an established aspect of the character of the study area. The construction stage would not result in any change to the buildings of heritage interest in the study area or the character of their setting and **no effects** are predicted.

Operation Effects

2.49 This section of the assessment refers where relevant to the ZTV and viewpoint photographs and wireframe visualisations shown in Volume 2, Chapter 1: Landscape and Visual Impact Assessment (LVIA). The methodology for the production of these images, and any limitations, are explained in that chapter.

Archaeology

2.50 No significant effects are predicted on the archaeological resource on site during the operation stage.

Built Heritage

- 2.51 Kilmactalway church and related features (TOR1-4) are at approximately 800m distance from the site and within a wooded setting. There is no historic connection to the site and the monument is physically and visually separated from it by the intervening woodland associated with Castle Bagot House and the large-scale structures at Grange Castle Business Park South. There would be no change to the monument or its setting as a result of the proposed development. The operation stage would not result in any impact and the effects would be **neutral** in nature **and not significant in terms of EIA.**
- 2.52 Kilbride church and related features (TOR6-8) are within the open agricultural setting of the adjacent farm and Kilbride House. The existing and emerging character of the wider setting is mixed, with the influence of the aerodrome to the south of Baldonnel Road, the adjacent golf course, and the visible new buildings of the business parks to the north. There is no historic connection to the site and the monument is physically and visually separated from it by the intervening development. The ZTV in Volume 2, Chapter 1: Landscape and Visual Impact Assessment (LVIA) predicts some visibility of elements of the proposed development across some of the open land around the monument, and within the graveyard enclosure. The change to the character of the setting of the monument through the addition to the existing visibility of the business park development to the north would result in in a **negative effect** of **slight significance**. This would be **permanent** and **irreversible** and would **not be significant in EIA terms.**
- 2.53 Kilcarberry House (TOR14) is part of Grange Castle Golf Course. The principal visual relationship is to the former landscape setting to the south, and the house is physically and visually separate from the site. The ZTV in Volume 2, Chapter 1: (LVIA predicts localised areas of visibility of the proposed development across the surrounding golf course. These views are likely to be very localised because of the tree cover, are not on the principal south-facing orientation of the house and would not affect appreciation of its visual qualities or relationship to the wider landscape. There would be no change to the appreciation of the architectural qualities of the building or to the character of its setting as a result of the proposed development. The operation stage would not result in any impact and the effect would be **neutral** in nature and **not significant in EIA terms**.
- 2.54 Castle Bagot House (TOR15) is within an enclosed setting that preserves some elements of the former designed landscape, which include the woodland at the entrance drive to the north and along the east boundary. The developing business park to the north side of Baldonnel Road is an established feature of the character of the surrounding area and there is no physical or visual connection to the site to the north east. The ZTV in Volume 2, Chapter 1: LVIA predicts no visibility of the proposed development across this area. There would be no change to the building or its setting as a result of the proposed development. The operation stage would not result in any impact and the effect would be neutral in nature and **not significant in EIA terms**.
- 2.55 The buildings of heritage interest at Casement Aerodrome (TOR16-22) are all part of the operational military aerodrome. The functional relationship is to the runways to the south and between and within the group of buildings, which is locally visually prominent on Baldonnel Road. There is no physical or visual relationship to the site area. The ZTV in Volume 2, Chapter 1: L LVIA predicts no visibility of the proposed development in the spaces around the aerodrome buildings, and any additional areas of visibility across the open areas would be experienced in the context of the operation airfield, and the existing glimpses of the edge of the business parks to the north. There would be no change to the buildings or their setting as a result of the proposed development. The operation stage would not result in any impact and the effect would be **neutral** in nature and **not significant in terms of EIA**.

Assessment of Residual Effects

Additional Mitigation

Construction Stage

Archaeology

- 2.56 A moderate significant effect is predicted on the archaeological resource during the construction stage. Consequently, it is recommended and necessary to undertake an archaeological excavation of an area measuring 50m by 50m in order to preserve by record the identified oval/circular enclosure in advance of construction works commencing. Such work would need to be undertaken by a licence eligible archaeologist working under licence from the Department of Housing, Local Government and Heritage in consultation with the National Museum of Ireland.
- 2.57 The predicted moderate significant effect on the archaeology resource can be wholly mitigated through the aforementioned scheme of excavation and preservation by record.

Built Heritage

2.58 No significant effects are predicted on built heritage during the construction stage. Consequently, no additional mitigation is required.

Operation Stage

Archaeology

2.59 No significant effects are predicted on the archaeological resource during the operation and no additional mitigation is required.

Built Heritage

2.60 No significant effects are predicted on built heritage during the operation stage. Consequently, no additional mitigation is required.

"Do nothing" Scenario

2.61 In the absence of the proposed development the site would remain in its current transitional condition. As the area has a specific zoning for enterprise and employment related development it is probable that any future development would be of a similar type and scale.

Enhancement Measures

2.62 No enhancement measures are proposed in respect of cultural heritage.

Construction Residual Effects

Archaeology

2.63 The Applicants commitment to undertake this work prior to construction would result in a **moderate significant positive effect** which would be **significant in EIA terms** through the knowledge gained and understanding in relation to the other recorded contemporary enclosure sites in the wider landscape.

Built Heritage

2.64 As no additional mitigation would be required, the residual construction effects remain as reported in the assessment of effects section.

Operation Residual Effects

2.65 As no additional mitigation would be required for either archaeology or built heritage, the residual operation effects remain as reported in the assessment of effects section.

Summary of Residual Effects

2.66 Table 2.3 provides a tabulated summary of the outcomes of the cultural heritage assessment of the proposed development. Where **significant positive** effects are likely these are highlighted in bold green and where **significant negative** effects are predicted these are highlighted in bold red.

Table 2.3: Summary of Residual Cultural Heritage Effects										
			Scale and	Nature of Residual Effect*						
Receptor	Description of Residual Effect	Additional Mitigation	Significance of Residual Effect**	+	L	D I	P T	R IR	M B T St Mt Lt P**	
Construction							•			
On site archaeology	Knowledge gained from excavation of oval/circular enclosure	Preservation by record	Moderate	+	L	D	P	IR	Lt	
Built heritage	None identified	None required	Imperceptible	+/-	U	D	Т	IR	T to St	
Operation										
Archaeology	None identified	None required	Imperceptible	+/-	U	D	Р	IR	Lt	
Built heritage (TOR6-8)	Change to visual qualities of setting	None required	Slight	-	L	D	Р	IR	Lt	
Built heritage (TOR1-4, 14, 15, 16-22)	None identified	None required	Imperceptible	+/-	U	D	Р	IR	Lt	

Notes

* - = Negative/ + = Positive / +/- = Neutral; R = Reversible, IR = Irreversible; D = Direct, ID = Indirect;

L= Likely, U = Unlikely; M = Momentary, B = Brief, T= Temporary, St = Short-term, Mt = Medium-term, Lt = Long-term, P = Permanent.

** Imperceptible, Not Significant, Slight, Moderate, Significant, Very Significant, Profound.

Cumulative Effects

Intra-Project Effects

2.67 As explained in Volume 1, Chapter 2: EIA Process and Methodology, intra-project cumulative effects are discussed in Volume 1, Chapter 16: Intra Cumulative Effects.

Inter-Project Effects

2.68 There is a moderate significant positive effect predicted on the archaeological resource as a result of the proposed development in the construction stage.

2.69 No significant effects are predicted on built heritage as a result of the proposed development alone in either the construction or the operation stage. There is therefore no potential for inter-project effects with the cumulative schemes to occur. Built heritage is not considered further in this section of the assessment.

Table 2.4: Inter-Project Cumulative Effects						
	Construction and Operation					
Cumulative Schemes	Cumulative Effects Likely?	Reason				
Vantage - townlands of Ballybane & Kilbride within Profile Park, Clondalkin, Dublin 22 [SD21A/0241]	No	No significant effects are predicted on the archaeological resource as a result of the proposed development				
Centrica Business Solutions – Profile Park, Baldonnel, Dublin 22 [SD21A/0167]	No	No significant effects are predicted on the archaeological resource as a result of the proposed development				
Digital Reality Trust - Profile Park, Baldonnel, Dublin 22, D22 TY06 [SD17A/0377]	No	No significant effects are predicted on the archaeological resource as a result of the proposed development				
Equinix (Ireland) Ltd - Plot 100, Profile Park, Nangor Road, Clondalkin, Dublin 22 [SD21A/0186]	No	No significant effects are predicted on the archaeological resource as a result of the proposed development				
UBC Properties -Grange Castle South Business Park, Dublin 22 [An Bord Pleanála Ref 308585]	No	No significant effects are predicted on the archaeological resource as a result of the proposed development				
UBC Properties - Townlands within Grange Castle South Business Park, Baldonnel, Dublin 22 [SD20A/0121]	No	No significant effects are predicted on the archaeological resource as a result of the proposed development				
Cyrus One - Grange Castle Business Park, Clondalkin, Dublin 22 [SD18A/0134]	No	No significant effects are predicted on the archaeological resource as a result of the proposed development				
Cyrus One Townlands within Grange Castle South Business Park, Baldonnel, Dublin 22 [SD20A/0295]	No	No significant effects are predicted on the archaeological resource as a result of the proposed development				
Cyrus One - Grange Castle South Business Park, Baldonnel, Dublin 22 [An Bord Pleanála Ref 309146]	No					

Construction Cumulative Effects

2.70 The effects of the developments on the archaeological resource can be fully mitigated through the appropriate and agreed levels of excavation and recording, as set out above. There is the potential for further negative cumulative effects on the archaeological resource of the area as a result of the other developments proposed. A similar approach in terms of archaeological evaluation and preservation by record can be expected to be applied to these sites in order to inform and mitigate potential effects. These

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works would add to the meagre knowledge of the archaeological resource in the immediate vicinity of the site and may add a further early medieval habitation site to the ones recorded in the study area. No significant cumulative effects are predicted.

Operation Cumulative Effects

2.71 Once the required site investigations of the enclosure are complete, the resource would have been appropriately dealt with in line with local/national policy and best practice guidance. The overall knowledge gained for the site would result in a positive effect of moderate significance, however no significant cumulative effects are predicted.

Summary of Assessment

Background

- 2.72 This chapter has detailed the potential cultural heritage effects of the construction and operation stages of the proposed development. The assessment has been undertaken considering the relevant national and local guidance and regulations.
- 2.73 A 1km study area from the site boundary has been used for this assessment. All recorded archaeological and architectural built heritage features of interest, identified in the national and local record, have been assessed in the chapter. These included all features in the Sites and Monuments Record (SMR), including the Register of Historic Monuments (RM) and the Record of Monuments and Places (RMP), the National Inventory of Architectural Heritage (NIAH) and the Record of Protected Structures (RPS) maintained by South Dublin County Council. A total of 22 sites are identified within the study area. These are shown on Figures 2.1 and 2.2.
- 2.74 The site contains no archaeological sites, finds or monuments recorded in the SMR, RMP or RPS. The study area gives a general background to potential as well as useful information on archaeological sites uncovered as a consequence of pre-development site investigations.
- 2.75 There are three concentric enclosure sites of probable early medieval origin, recorded as cropmark features on aerial photographs to the west of the site. The outline of one at Ballybane townland (TOR10, DU021-108) is discernible on Figure 2.2, while another recorded enclosure (TOR11, DU021-109) is no longer present due to the recent construction of the industrial units. The third, at the western edge of the study area, comprises two concentric enclosures are visible as a cropmark on an aerial photograph and is sited to afford an expansive landscape setting (TOR12 DU021-112).
- 2.76 A geophysical survey was conducted by Archaeological Consultancy Services Unit Ltd (ACSU) in 2020 under licence 20R0080 and the results are presented in support of this assessment at Appendix 2.3. The survey revealed a large sub-circular enclosure (approximately 30m in diameter), with an area of probable contemporary medieval field systems along with a second possible curvilinear feature in the field south of the road forming the site boundary. A scheme of test trenching was undertaken in June 2021 by ACSU and revealed the identified enclosure approximately 40m in diameter as well as linear boundary ditches.
- 2.77 Other similar circular enclosures of probable medieval date are recorded or have been fully excavated in the study area (TOR 11 and 12) and are considered as being significant to be included on the RMP. The on-site archaeological resource is therefore considered to be of local value and low significance.
- 2.78 The built heritage in the study area includes the sites of two medieval churches: at Kilmactalway and at Kilbride (TOR1-4 and TOR6-8). Both sites preserve the ruins of the medieval church, the related ecclesiastical enclosure, and a range of other features. There are two examples of early 19th century country houses in the study area. The small formal house at Kilcarberry House (TOR14) is now within the Grange Castle Golf Course. Castle Bagot House to the southwest of the site (TOR15) retains some elements of the early 19th century designed landscape setting. At the south edge of the study area, the group of older buildings at Casement Aerodrome includes the early hangars constructed when the base was established in 1917 and a range of additional buildings built through the 1930s to 1946 (TOR16-22).

Construction Effects

- 2.79 The proposed development would involve groundworks which would inevitably have an impact on below ground archaeological remains where they are yet known and recorded. The risk of impacts would come from the damage to the below ground site/features/localised findspots that were revealed by the trenching. There would be a direct construction effect on the oval/circular enclosure and associated linear ditches as documented in the site investigations (Appendix 2.4). The construction stage would result in a negative effect of moderate significance. This would be permanent and irreversible and would be significant in terms of EIA.
- 2.80 Consequently, it is recommended and necessary to undertake an archaeological excavation of an area measuring 50m by 50m in order to preserve by record the identified oval/circular enclosure in advance of construction works commencing. The predicted moderate significant effect on the archaeology resource can be wholly mitigated through the aforementioned scheme of excavation and preservation by record. The Applicants commitment to undertake this work prior to construction would result in a moderate positive effect which would be significant in EIA terms.
- 2.81 Neutral effects are predicted on built heritage during the construction stage.
- 2.82 Overall, it is considered that the construction of the proposed development would result in a positive effect on cultural heritage and identified receptors, which would be **significant** in EIA terms.

Operation Effects

- 2.83 No significant effects are predicted on the archaeological resource on site during the operation stage.
- 2.84 Neutral effects are predicted on built heritage during the operation stage, with the exception of the Kilbride church and related features which would have slight negative impacts. However, the effects on Kilbride Church and related features would not be significant.
- 2.85 Overall, it is considered that the operation stage of development would result in neutral to negative effects on cultural heritage and identified receptors, however they would **not give rise to significant effects** in EIA terms.

Cumulative Effects

- 2.86 Prior to mitigation there is a moderate significant negative effect predicted on the archaeological resource as a result of the proposed development in the construction stage. The effects of the developments on the archaeological resource can be fully mitigated through the appropriate and agreed levels of excavation and recording, as set out above which would result in a moderate significant positive effect. There is the potential for further negative cumulative effects on the archaeological resource of the area as a result of the other developments proposed. A similar approach in terms of archaeological evaluation and preservation by record can be expected to be applied to these sites in order to inform and mitigate potential effects. These works would add to the meagre knowledge of the archaeological resource in the immediate vicinity of the site and may add a further early medieval habitation site to the ones recorded in the study area. No significant cumulative effects are predicted.
- 2.87 No significant effects are predicted on built heritage as a result of the proposed development alone in either the construction or the operation stage. There is therefore no potential for inter-project effects with the cumulative schemes to occur.

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Mitigation Measure

Measure aiming at reducing an adverse environmental effect.

GLOSSARY OF TERMS

An Bord Dissails	Iroland's national independent hody	National Plansing	Came into force on 27 March 2012 and was revised in July 2019 with referen
An Bord Pleanála	Ireland's national independent body.	National Planning Policy Framework	Came into force on 27 March 2012 and was revised in July 2018, with minor revisions made in February and June 2019. It sets out the Government's economic, environmental and social planning policies for England and summarises, in a single document, all previous national planning policy advice (Planning Policy Statements and Planning Policy Guidance notes).
Applicant	Vantage Data Centers DUB11 Limited.	,	
Application	Means the full planning application, for the proposed development on the site.		
Baseline Studies	Studies of existing environmental conditions which are designed to establish the baseline conditions against which any future changes can be measured or predicted.	Negative Effect	A change which reduces the quality of the environment (for example, lessening species diversity; or diminishing the reproductive capacity of an ecosystem, supported by more effective and integrated planning).
Operational Phase	A development scheme which has been build out and is operational.	Neutral Effects	No effect or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error.
Cumulative Effects	Effects that result from incremental changes caused by other past, present	Non-Technical Summary	A summary of the Environmental Statement in 'non-technical language'.
0 1 11 0 1	or reasonably foreseeable actions.		
Cumulative Schemes	Cumulative Schemes Developments that have received a resolution to grant planning permission or have a signed legal agreement in place. They are likely to be delivered concurrently with the Proposed Development assessed in the EIA.		An effect which causes noticeable changes in the character of the environment but without significant consequences.
Desk Study	A non-intrusive study and review of all available information pertaining to a site, including historical records, collated and monitored data, and	Ordnance Datum	Land levels are measured relative to the average sea level at Newlyn, Cornwall. This average level is referred to as 'Ordnance Datum'.
consultation with relevant sta	consultation with relevant stakeholders.	Overshadowing	Overshadowing occurs when a structure blocks out sunlight from
EIA Scoping	coping An initial stage in determining the nature and potential scale of the environmental impacts arising from a proposed development, and assessing what further studies are required to establish their significance.		neighbouring properties on the northern side of that structure. It can affect the amount of daylight let into neighbouring properties when the shadow cast falls across windows or glazed doors.
EIA Scoping Opinion	A written statement of the opinion of the relevant planning authority as to the information to be provided in the Environmental Statement.	Positive Effect	A change which improves the quality of the environment (for example, by increasing species diversity; or the improving reproductive capacity of an execution or by removing puisances or improving amonities)
EIA Screening	an initial stage in which the need for EIA is considered in respect of a	Dagantau (Canaitica)	ecosystem, or by removing nuisances or improving amenities).
	development. Some developments are automatically subject to EIA by means of their inevitable size, nature and effects (Schedule 1	Receptor (Sensitive)	A component of the natural, created, or built environment such as human being, water, air, a building, or a plant that is affected by an impact.
	developments). Other projects are made subject to EIA because it is anticipated that they are likely to have significant environmental effects (Schedule 2 developments).	Residual Effects	Those effects of a development that cannot be mitigated following implementation of mitigation proposals.
	A process by which information about the environmental effects of a development is collected and taken into account by the relevant decision-	Significant Effects	An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the environment.
	making body before a decision is given on whether the development should go ahead.	South Dublin County Council	South Dublin County Council (SDCC) is the local planning authority for South Dublin County.
Environmental Statement	A statement that includes such information that is reasonably required to assess the environmental effects of a development.	Study Area	Defined impact assessment area surrounding the site relative to the technical topic in question and determined based professional judgement.
Mitigation	Any process, activity of thing designed to avoid, reduce or remedy adverse environmental effects likely to be caused by a development project.	Sustainable Development	Development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs.
Façade	The front or face of a building.		

ABBREVIATIONS

ABP Ireland's national independent body. EIA Environmental Impact Assessment

LVIA Landscape and Visual Impact Assessment

EPA Environmental Protection Agency

GLVIA Guidelines for Landscape and Visual Assessment

EIAR Environmental Impact Assessment Report

MW Megawatt

NLS National Landscape Strategy NPF National Planning Framework NDP National Development Plan NDO National Policy Objectives

SUDS Sustainable Drainage Systems

LACCA Landscape Classification Character Assessment **HLCA** Historic Landscape Character Assessment

GI Green Infrastructure

Heritage Conservation and Landscape Objective HCL

BMP Biodiversity Management Plan LCA Landscape Character Area **SDCC** South Dublin County Council NHA National Heritage Area

NIAH National inventory of Architectural Heritage

ZTV Zone of Theoretical Visibility VΡ

Viewpoint

SDCC South Dublin County Council **SMR** Sites and Monuments Record RMRegister of Historic Monuments **RMP** Record of Monuments and Places **RPS**

ACSU Archaeological Consultancy Services Unit Ltd

Record of Protected Structures

NMS National Monuments Service

Volume 2: Technical Appendices Table of Contents

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Technical Appendix 2.1: Legislation and planning policy

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Technical Appendix 2.3: Archaeological Consultancy Services Unit, 2020, Geophysical Survey of a Site at Profile

Park, Ballybane and Kilbride, Co. Dublin

Technical Appendix 2.4 Report on the test trenching of an enclosure (and associated features) identified via

geophysical survey 20R0080 at Profile Park, Kilbride, Dublin (Excavation Licence No

21E0061), Archaeological Consultancy Services Unit, July 2021.

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Technical Appendix 1.1: Landscape and Visual Assessment Figures

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Zone of Theoretical Visibility

Red Line Boundary

Building Elevation Points

Existing Buildings

Proposed Development Visibility

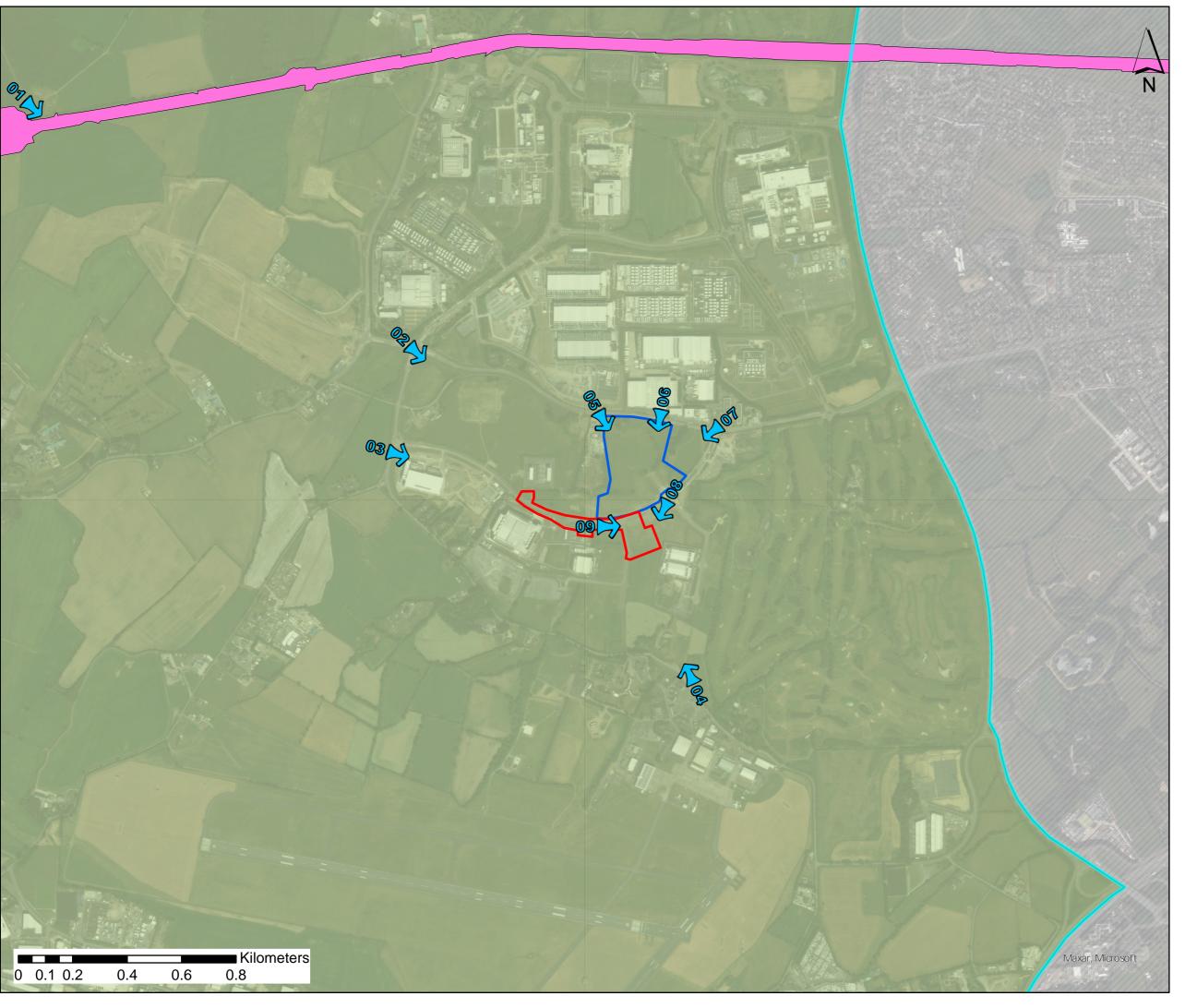
Notes: Visibility is calculated at heights above a Digital Surface Model that places observers on buildings and vegetation. Building areas have been overlaid to account for this effect.

Development Proposal Landscape and Visual Impact Assessment Client: Vantage

Figure 1

Scale at A3: 1:12,500 For planning Issue 01 | 10/02/2022 | EH





Viewpoint Location and Landscape Character Area

Red Line Boundary
Viewpoint Location
Grand Canal pNHA
Proposed Data Center Site
Newcastle Lowlands

Urban South Dublin

Development Proposal Landscape and Visual Impact Assessment Client: Vantage

Figure 2

Scale at A3: 1:12,500 For planning Issue 01 | 10/02/2022 | EH





Viewpoint	Camera details	Date / Time	Direction	Coordinates
				(camera height included: 1.7M AOD)
1	Sony-ILCE-1-Lens_Sigma-Art-	28 June 2021	134°	53°19'43.0428 N
	018_Focal-Length50 mm_1-100 sec at	09:01		6°28'37.1496 W
	f - 11			Elevation 72.7m
2	Sony-ILCE-1-Lens_Sigma-Art-	28 June 2021	134°	53°19'14.755- N
	018_Focal-Length50 mm_1-200 sec at	10:18		6°27'22.298- W
	f - 11			Elevation 70.7m
3	Sony-ILCE-1-Lens_Sigma-Art-	28 June 2021	78°	53°19'3.695- N
	018_Focal-Length50 mm_1-160 sec at	10:49		6°27'27.07- W
	f - 11			Elevation 72.7m
4	Sony-ILCE-1-Lens_Sigma-Art-	18 August 2021	335°	53°18_36.526- N
	018_Focal-Length50 mm_1-40 sec at f	15:02		6°26_32.207- W
	- 11			Elevation 72.7m
5	Sony-ILCE-1-Lens_Sigma-Art-	28 June 2021	150°	53 °19′6.757 - N
	018_Focal-Length50 mm / 1-230 sec at	12:11		6°26'46.591- W
	f-11			Elevation 74.7m
6	Sony-ILCE-1-Lens_Sigma-Art-	18 August 2021	190°	53°19′6.722- N
	018_Focal-Length50 mm_1-50 sec at f	14:50		6°26′37.303- W
	- 11			Elevation 77.7m
7	Sony-ILCE-1-Lens_Sigma-Art-	28 June 2021	229°	53°19'4.096- N
	018_Focal-Length50 mm_1-100 sec at	12:58		6°26'23.184- W
	f - 11			Elevation 77.7m
8	Sony-ILCE-1-Lens_Sigma-Art-	28 June 2021	207°	53°18_54.5029- N
	018_Focal-Length50 mm_1-250 sec at	14:03		6°26_30.4993- W
	f - 11			Elevation 76.7m
9	Sony-ILCE-1-Lens_Sigma-Art-	28 June 2021	45°	53°18'53.7378" N
	018_Focal-Length50 mm_1-160 sec at	14:25		6°26'48.4855" W
	f – 11			Elevation 77.7m

11204058 11204052 11204054 11204053 11208013 11208015 11209003 11209002 11208006 11209004 11209005 11208005 11209001 11208010 11209091 Kilometers 0.8 0.6

Viewpoint Location and Landscape Character Area

Red Line Boundary

NIAH sites with reference number

LVIA Study Area 1500m

Development Proposal Landscape and Visual Impact Assessment Client: Vantage

Figure 3

Scale at A3: 1:12,500 For planning Issue 01 | 10/02/2022 | EH



Technical Appendix 1.2: Viewpoint Photographs

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VIEWPOINT 1 | Viewing distance at A3: 542mm | Horizontal field of view: 39.6° | Direction of view: 134° Camera: Sony-ICLE-1 | Lens: Sigma-ARt-018_Focal-length_ 50mm F1.4 DG HSM | Art 018 | Camera height: 1.7m AGL | Date taken: 20210628_09.01 | Aperture: f/11 | ISO speed: ISO-100 | Shutter: 1/100sec



VIEWPOINT 2 | Viewing distance at A3: 542mm | Horizontal field of view: 39.6° | Direction of view: 134° Camera: Sony-ICLE-1 | Lens: Sigma-ARt-018_Focal-length_ 50mm F1.4 DG HSM | Art 018 | Camera height: 1.7m AGL | Date taken: 20210628_10:18 | Aperture: f/11 | ISO speed: ISO-100 | Shutter: 1/200sec



VIEWPOINT 3 | Viewing distance at A3: 542mm | Horizontal field of view: 39.6° | Direction of view: 106° Camera: Sony-ICLE-1 | Lens: Sigma-ARt-018_Focal-length_ 50mm F1.4 DG HSM | Art 018 | Camera height: 1.7m AGL | Date taken: 20210628_10:49 | Aperture: f/11 | ISO speed: ISO-100 | Shutter: 1/160sec



VIEWPOINT 4 | Viewing distance at A3: 542mm | Horizontal field of view: 39.6° | Direction of view: 335° Camera: Sony-ICLE-1 | Lens: Sigma-ARt-018_Focal-length_ 50mm F1.4 DG HSM | Art 018 | Camera height: 1.7m AGL | Date taken: 20210818_15:02 | Aperture: f/11 | ISO speed: ISO-100 | Shutter: 1/40sec



VIEWPOINT 5 | Viewing distance at A3: 542mm | Horizontal field of view: 39.6° | Direction of view: 150° Camera: Sony-ICLE-1 | Lens: Sigma-ARt-018_Focal-length_ 50mm F1.4 DG HSM | Art 018 | Camera height: 1.7m AGL | Date taken: 20210628_10:18 | Aperture: f/11 | ISO speed: ISO-100 | Shutter: 1/250sec



VIEWPOINT 6 | Viewing distance at A3: 542mm | Horizontal field of view: 39.6° | Direction of view: 190° Camera: Sony-ICLE-1 | Lens: Sigma-ARt-018_Focal-length_ 50mm F1.4 DG HSM | Art 018 | Camera height: 1.7m AGL | Date taken: 20210818_14:50 | Aperture: f/11 | ISO speed: ISO-100 | Shutter: 1/50 sec



VIEWPOINT 7 | Viewing distance at A3: 542mm | Horizontal field of view: 39.6° | Direction of view: 229°
Camera: Sony-ICLE-1 | Lens: Sigma-ARt-018_Focal-length_ 50mm F1.4 DG HSM | Art 018 | Camera height: 1.7m AGL | Date taken: 20210628_12:56 | Aperture: f/11 | ISO speed: ISO-100 | Shutter: 1/80sec



VIEWPOINT 8 | Viewing distance at A3: 542mm | Horizontal field of view: 39.6° | Direction of view: 207° Camera: Sony-ICLE-1 | Lens: Sigma-ARt-018_Focal-length_ 50mm F1.4 DG HSM | Art 018 | Camera height: 1.7m AGL | Date taken: 20210628_14:03 | Aperture: f/11 | ISO speed: ISO-100 | Shutter: 1/200sec



VIEWPOINT 9 | Viewing distance at A3: 542mm | Horizontal field of view: 39.6° | Direction of view: 45° Camera: Sony-ICLE-1 | Lens: Sigma-ARt-018_Focal-length_ 50mm F1.4 DG HSM | Art 018 | Camera height: 1.7m AGL | Date taken: 20210628_14:25 | Aperture: f/11 | ISO speed: ISO-100 | Shutter: 1/160sec

Technical Appendix 1.3: Viewpoint Photomontages

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VIEWPOINT 4 PHOTOMONTAGE OF SID BUILDING WITH PROPOSED PHASE 2 DATA CENTRE DEVELOPMENT | Viewing distance at A3: 542mm | Horizontal field of view: 39.6° | Direction of view: 355° Camera: Sony-ICLE-1 | Lens: Sigma-ARt-018_Focal-length_ 50mm F1.4 DG HSM | Art 018 | Camera height: 1.7m AGL | Date taken: 20210818_15:02 | Aperture: f/11 | ISO speed: ISO-100 | Shutter: 1/40sec



VIEWPOINT 6 PHOTOMONTAGE | Viewing distance at A3: 542mm | Horizontal field of view: 39.6° | Direction of view: 45° Camera: Sony-ICLE-1 | Lens: Sigma-Art-018_Focal-length_ 50mm F1.4 DG HSM | Art 018 | Camera height: 1.7m AGL | Date taken: 20210818_14:50 | Aperture: f/11 | ISO speed: ISO-100 | Shutter: 1/50 sec



VIEWPOINT 7 PHOTOMONTAGE | Viewing distance at A3: 542mm | Horizontal field of view: 39.6° | Direction of view: 229°
Camera: Sony-ICLE-1 | Lens: Sigma-ARt-018_Focal-length_ 50mm F1.4 DG HSM | Art 018 | Camera height: 1.7m AGL | Date taken: 20210628_12:56 | Aperture: f/11 | ISO speed: ISO-100 | Shutter: 1/80sec



VIEWPOINT 8 PHOTOMONTAGE | Viewing distance at A3: 542mm | Horizontal field of view: 39.6° | Direction of view: 227°

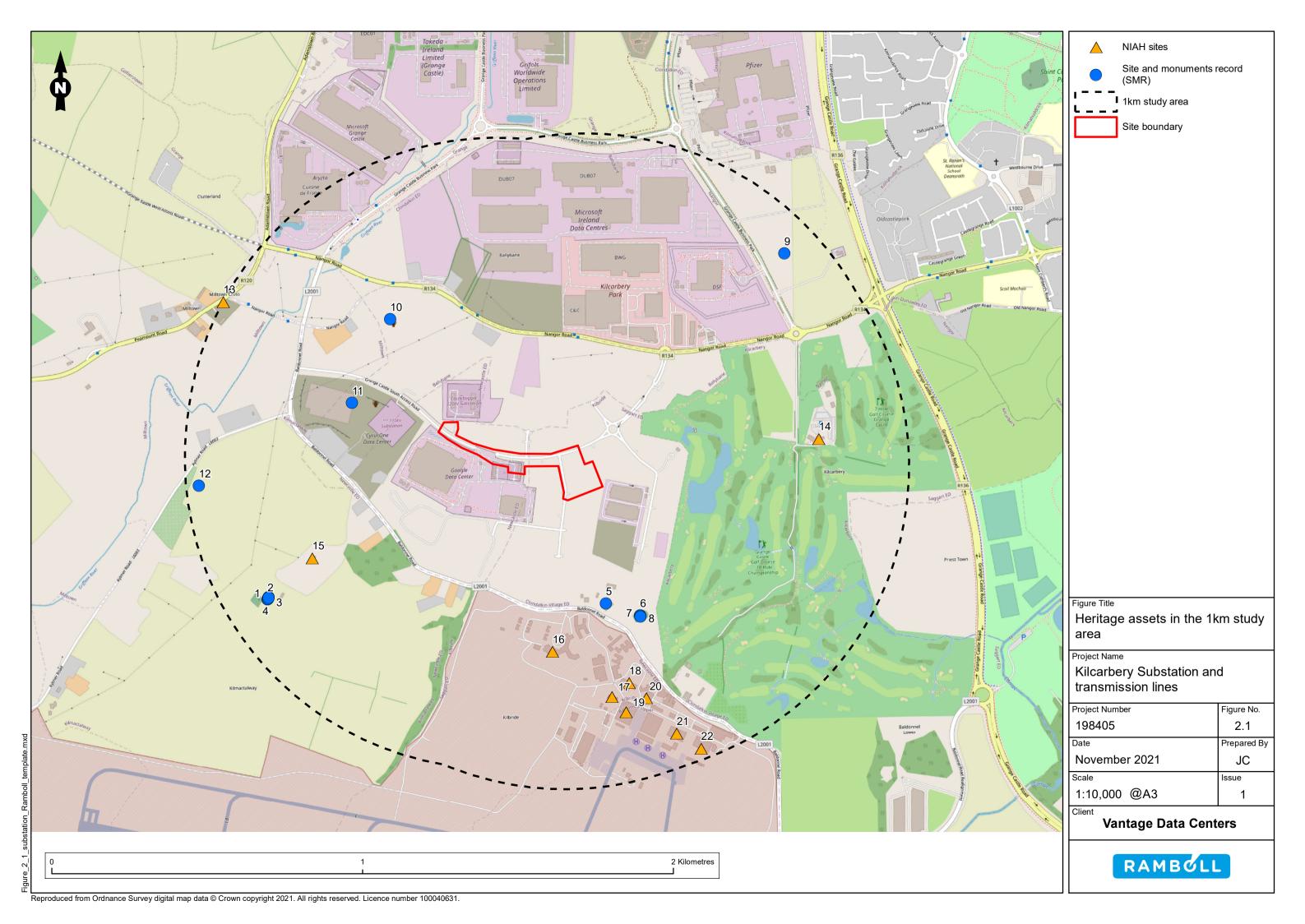
Camera: Sony-ICLE-1 | Lens: Sigma-ARt-018_Focal-length_ 50mm F1.4 DG HSM | Art 018 | Camera height: 1.7m AGL | Date taken: 20210628_14:03 | Aperture: f/11 | ISO speed: ISO-100 | Shutter: 1/200sec



VIEWPOINT 9 PHOTOMONTAGE | Viewing distance at A3: 542mm | Horizontal field of view: 39.6° | Direction of view: 45° Camera: Sony-ICLE-1 | Lens: Sigma-ARt-018_Focal-length_ 50mm F1.4 DG HSM | Art 018 | Camera height: 1.7m AGL | Date taken: 20210628_14:25 | Aperture: f/11 | ISO speed: ISO-100 | Shutter: 1/160sec

Cultural Heritage Figures

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2.2

JC

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Figure 2.3a: Ordnance Survey First Edition 6 inch Map

1st Edition 6 Inch Historic Map

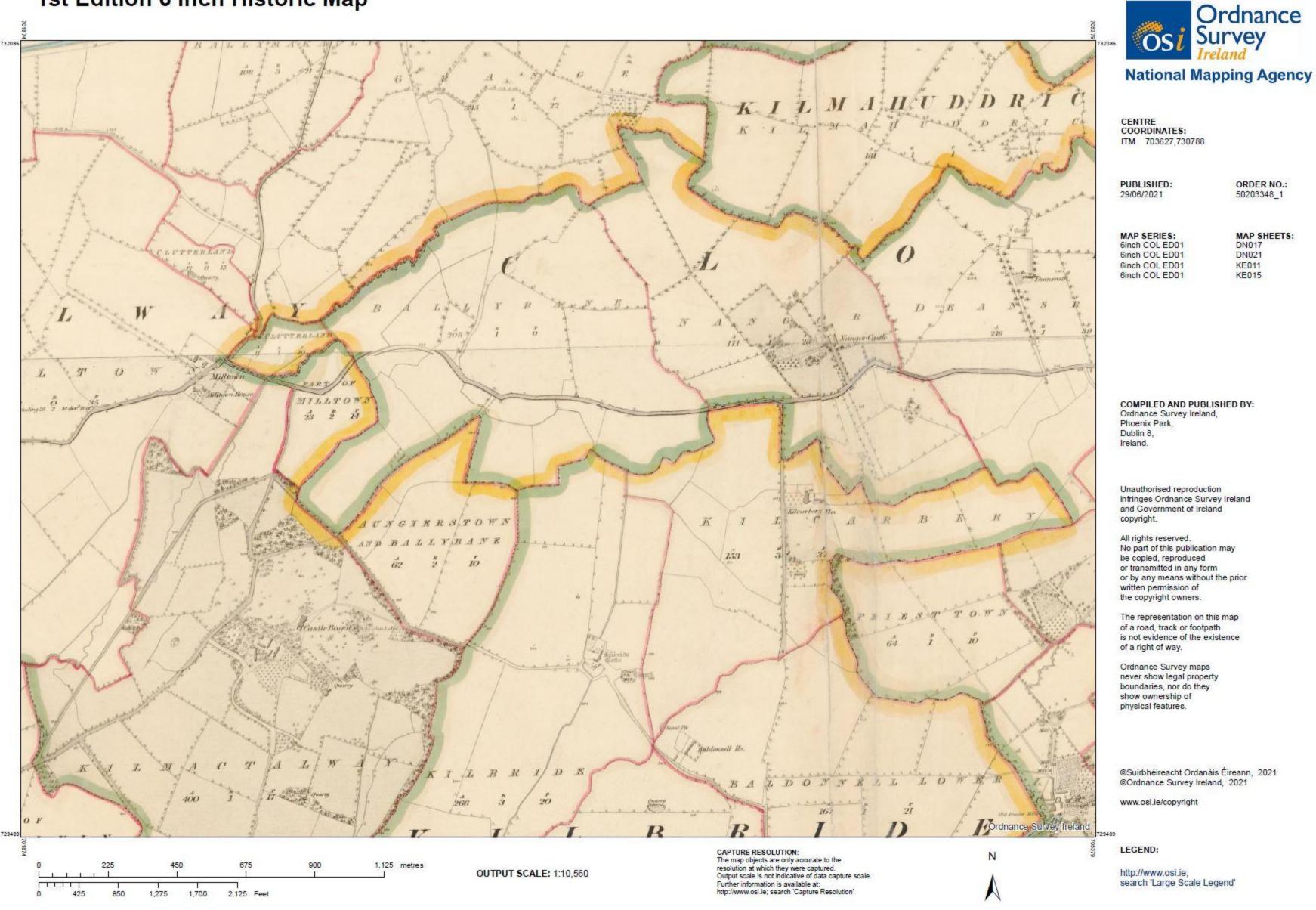
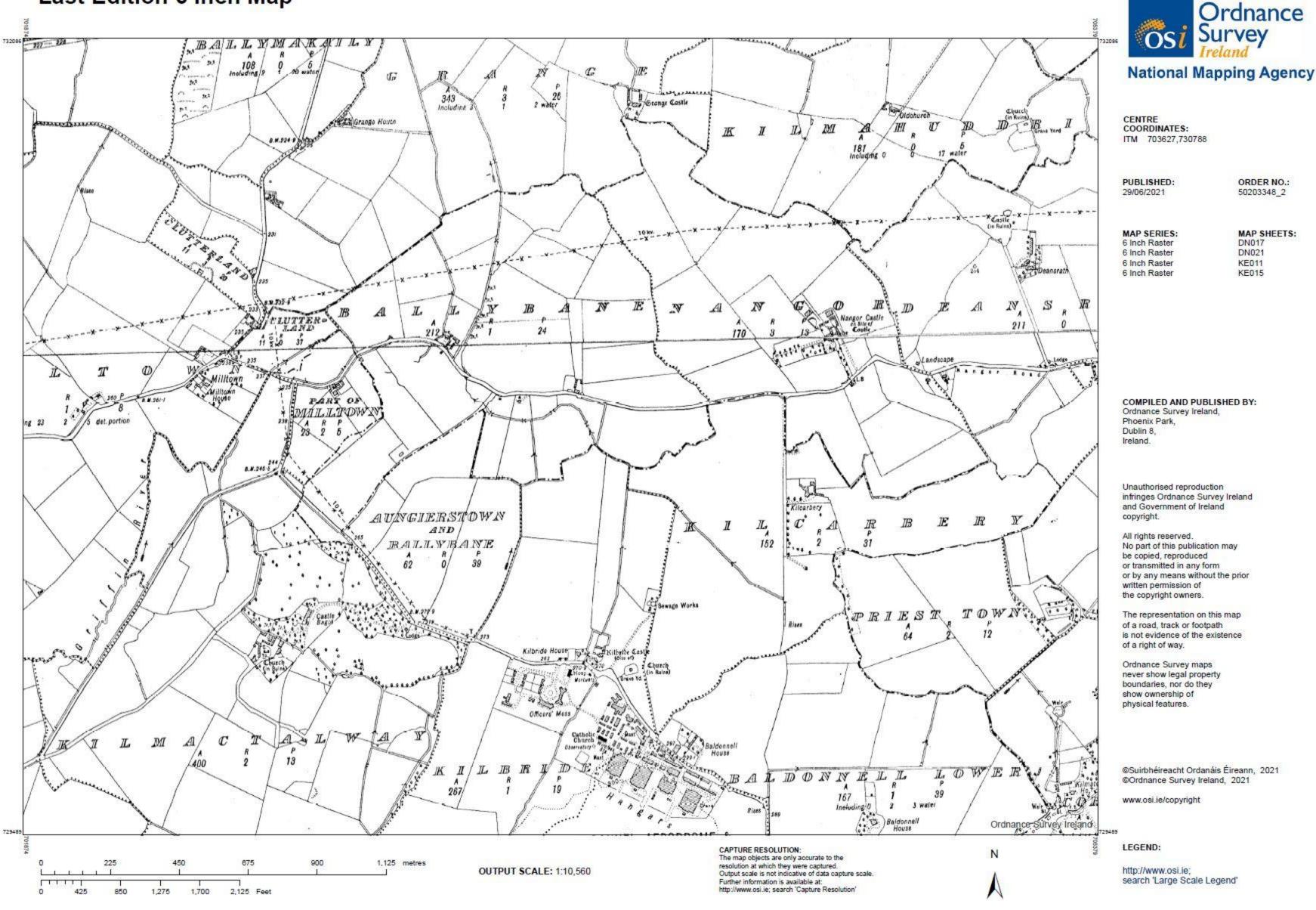


Figure 2.3b: Ordnance Survey Last Edition 6 Inch Map

Last Edition 6 Inch Map



Technical Appendix 2.1: Cultural Heritage Legislation and Policy

1. LEGISLATION AND POLICY

1.1.1 Cultural heritage is protected in accordance with the provisions of the European Convention on the Protection of the Archaeological Heritage (the Valletta Convention), which was ratified by Ireland in 1997.

1.2 Legislation

National

1.2.1 National legislation and policy recognises the value and significance of cultural heritage, and the public interest in the preservation of particular monuments, and sets out mechanisms to ensure that it is taken into account in planning decision-making. The National Monuments Act 1930 to 2014 and the National Cultural Institutions Act 1997 are the main means of ensuring the protection of archaeological remains. These establish the Register of Historic Monuments and the Record of Monuments and Places, which identify sites and features of particular interest, which are afforded statutory protection. Under the Planning and development Act 2000, structures of special architectural, cultural, social, historical, technical or archaeological interest can be identified in the Record of Protected Structures included as part of the development plan produced by local planning authorities. Additionally, the non-statutory National Inventory of Architectural Heritage (NIAH provides a database of post-1700 buildings.

Framework and Principles for the Protection of the Archaeological Heritage (Government of Ireland 1999)

- 1.2.2 National policy emphasises the non-renewable nature of the archaeological heritage and that there needs to be a presumption in favour of its preservation in-situ, or where that is not here preservation in-situ is not the option chosen, there must be preservation by record (i.e. archaeological excavation and recording must take place).
- 1.2.3 The importance of appropriate forms of archaeological assessment being carried out is also emphasised.
- 1.2.4 The National Planning Framework 2018, sets out the government's planning policies for Ireland. It includes the following reference to cultural heritage at National Policy Objective 17:
- 1.2.5 Enhance, integrate and protect the special physical, social, economic and cultural value of built heritage assets through appropriate and sensitive use now and for future generations.
- 1.2.6 The framework recognises that "The qualities and character of our national built heritage in rural areas, including towns and villages, can add distinctiveness to place-making and over time can acquire special interest through its intrinsic quality. [and that] Ireland's built heritage assets are a non-renewable resource that merit being nurtured in a manner appropriate to their significance as an aid to understanding the past, contributing to community well-being and quality of life as well as regional economic development."
- 1.2.7 National Policy Objective 60 is to "Conserve and enhance the rich qualities of natural and cultural heritage of Ireland in a manner appropriate to their significance."

1.3 Regional and local policy

The Eastern and Midland Regional Assembly, 2019 Regional Spatial and Economic Strategy 2019-2031

"Cultural heritage is the fabric of our lives and societies. It surrounds us in the buildings of our towns and cities, our landscapes, natural sites, monuments and archaeological sites. Cultural heritage brings communities together and builds shared understandings of the places we live. Intangible cultural heritage refers to the practices and traditions that are central to the lives and identities of our communities, groups and individuals."

1.3.1 And promotes heritage-led regeneration "Good heritage management should be incorporated into spatial planning to promote the benefits of heritage led urban regeneration"

South Dublin County Council Development Plan 2016-2022

1.3.2 The 2016-2022 Development Plan adopted May 2016 provides an overarching strategy for the spatial development of the county. The site is classified under Objective EE to provide for enterprise and employment uses.

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Technical Appendix 2.2: Gazetteers of Archaeology and Architectural Heritage in the 1km study area

1.1 Sources of Information

- Sites and Monuments Record (SMR), including the Register of Historic Monuments (RM) and the Record of Monuments and Places (RMP).
- National Inventory of Architectural Heritage (NIAH).
- Record of Protected Structures (RPS, South Dublin County Council).

1.2 Archaeological records in the study area

Table 1.1	Table 1.1: Archaeological records in the study area						
TOR ref	SMR ref	Description					
1	DU021- 003001 RPS 182 Kilmactalway Ecclesiastical Remains, Church, Font, Graveyard & Enclosure (RM)	Class: Church Townland: KILMACTALWAY Scheduled for inclusion in the next revision of the RMP: Yes Description: This medieval parish church is situated at the highest point of a circular walled graveyard surrounded by farmland. There is a bank against the inside of the wall. This is probably an ecclesiastical enclosure (DU021-003003-). The church of Kilmactalway was dedicated to St. Magnenn (Mason 1820, 51, Ronan 1941, 28). In 1366 it was annexed to St. Patrick's Cathedral. In 1615 and 1630 the nave and chancel were returned as in good repair. It was rebuilt (Ball 1906, 66-67). Today the church survives to the eaves, except for the N wall and is built of roughly coursed limestone with hammer dressing on the NE and SE quoins. There is a pronounced base batter on the E wall. The church (int. dims L 16.3m, Wth 5.10m) is entered through a narrow pointed doorway in the E end of the S wall. There is a step down to the interior. It is lit by an ogee headed window in the W gable which has a double bellcote and by a two-centred arched window with granite jambs containing bar holes in the S wall. At loft level is a large splayed embrasure for a rectangular window. The most easterly window on the S wall is a rectangular double-light window formed of limestone, probably inserted. The E window is a small round-headed lancet in a deep embrasure with an internal ledge formed of granite and limestone. S of this is a simple square-headed ope. According to D'Alton (1838, 684) there was a baptismal font (DU021-003004) in the graveyard (DU021-003002), which is no longer in existence (Ní Mharcaigh 1997, 269-270).					
2	DU021- 003002 RPS 182 Kilmactalway Ecclesiastical Remains, Church, Font, Graveyard & Enclosure (RM)	Class: Graveyard Townland: KILMACTALWAY Scheduled for inclusion in the next revision of the RMP: Yes Description: A circular walled graveyard surrounded by farmland. The church of Kilmactalway is located within it (DU021-003001; see Mason 1820, 51, Ronan 1941, 28). According to D'Alton (1838, 684) there was a baptismal font (DU021-003004) in the graveyard, which is no longer in existence					
3	DU021- 003003 RPS 182 Kilmactalway Ecclesiastical Remains,	Class: Ecclesiastical enclosure Townland: KILMACTALWAY Scheduled for inclusion in the next revision of the RMP: Yes Description: The medieval parish church of Kilmactalway (DU021-003001) is situated at the highest point of a circular walled graveyard (DU021-003002) surrounded by farmland. There is a bank revetted					

	Church, Font, Graveyard & Enclosure (RM)	against the inside of the wall. This is probably an ecclesiastical enclosure.				
4	DU021- 003004 RPS 182 Kilmactalway Ecclesiastical Remains, Church, Font, Graveyard & Enclosure (RM)	Class: Font Townland: KILMACTALWAY Scheduled for inclusion in the next revision of the RMP: Yes Description: According to D'Alton (1838, 684) there was a baptisma font in the graveyard, which is no longer in existence. Ni Mharcaigl 1997, 269-270).				
5	DU021-004	Class: Castle - unclassified Townland: KILBRIDE Scheduled for inclusion in the next revision of the RMP: Yes Description: Situated in a narrow valley. There are farm buildings on the site. There is no visible trace above ground (Ball 1906, 66).				
6	DU021- 005001 RPS 184 Kilbride Stone Church (Ruin) & Graveyard, Ringfort (Rath / Cashel), Earthwork(s) (RM)	Class: Church Townland: KILBRIDE Scheduled for inclusion in the next revision of the RMP: Yes Description: Located in a circular raised graveyard (L 42m, Wth 30) on the edge of a valley (DU021-005002). This may be the remains of an early ecclesiastical enclosure (DU021-005003). In 1228 the archbishop of Dublin granted the church of Kilbride to Andrew de Monevea as a prebend and later conferred it on the Canons of St Patrick's Cathedral (Mc Neill 1950, 75). In 1630 it was described as ruinous (Ronan 1941, 80). This church was attached to St. Patrick's Cathedral and was described at the dissolution in 1547 as an old chapel (Ball 1906, 68-70). Consists of a small rectangular building (int. dims L5.8m, Wth 3.63m, T 0.85m) with a NW turret in ruinous condition. Formerly entered through an opening in the W end (now damaged). Built of randomly coursed masonry. There is an aumbry in the E end of the N wall of the church. The E window has a S jamb of tufa. There are remnants of another window in the W end of the S wall. The NW turret (L1.35m, Wth 0.77m, H1.78m) is entered through a lintelled doorway off the church. It has a corbelled roof. There are traces of a stairwell on the S side of the turret (Ni Mharcaigh, 1997, 268-269).				
7	DU021- 005002 RPS 184 Kilbride Stone Church (Ruin) & Graveyard, Ringfort (Rath/ Cashel), Earthwork(s) (RM)	Class: Graveyard Townland: KILBRIDE Scheduled for inclusion in the next revision of the RMP: Yes Description: Located in a circular raised graveyard (L 42m, Wth 30) on the edge of a valley. Encloses the remains of a medieval church (DU021-005001).				

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Table 1	L.1: Archaeological	records in the study area
8	DU021- 005003 RPS 184 Kilbride Stone Church (Ruin) & Graveyard, Ringfort (Rath / Cashel), Earthwork(s) (RM)	Class: Ecclesiastical enclosure Townland: KILBRIDE Scheduled for inclusion in the next revision of the RMP: Yes Description: The church of Kilbride is located in a circular raised graveyard (L 42m, Wth 30) on the edge of a valley. This may be the remains of an early ecclesiastical enclosure.
9	DU017-082	Class: Field system Townland: NANGOR Scheduled for inclusion in the next revision of the RMP: Yes Description: Excavations in 2001 revealed a medieval ditch complex. This appeared to represent the remains of medieval field boundaries with associated water management gullies. Some 1600 sherds of local medieval pottery were recovered and two sherds of imported ware (Doyle 2003, 135-136).
10	DU021-108	Class: Concentric enclosure Townland: BALLYBANE Scheduled for inclusion in the next revision of the RMP: Yes Description: Not indicated on any OS map a large concentric enclosure is visible as a crop-mark on an aerial photo. A second enclosure (DU021-109) is visible to the SW.
11	DU021-109	Class: Enclosure Townland: BALLYBANE Scheduled for inclusion in the next revision of the RMP: Yes Description: Not indicated on any OS map this enclosure is as a crop-mark on an aerial photo. A second larger enclosure (DU021- 108) is visible to the NE.
12	DU021-112	Class: Enclosure Townland: KILMACTALWAY Scheduled for inclusion in the next revision of the RMP: Yes Description: Two concentric enclosures (ext. diam. 60.65m N-S) are visible as a crop mark on an aerial photograph (SMR file; pers. comm. Tom Condit, 11 March 2015). The landscape setting is a tillage field in flat terrain with extensive views in all directions.

1.3 Architectural heritage records in the study area

TOR Ref	Description
13: Polly H	op's, Milltown
NIAH no. 11208016	Formerly detached four-bay two-storey former house, c.1790, in use as public house. Roughcast rendered walls with parallel render quoins. Timber casement windows. Timber door with iron fittings. Pitched slate roof with single rendered chimney stack. Series of nineteenth- and twentieth-century extensions to south and west.
	Appraisal This site has long been in use as a public house as shown by the extensions surrounding the original modest rural house. Its presence gives a focus to this important and formerly more developed junction.

Table 1.2: Architectural heritage records in the study area

14: Kilcarberry House, off Nangor Road

NIAH no. 11209001 RPS 173

Detached three-bay two-storey house, c.1810, with projecting diagonally set single-storey porch. Roughcast rendered walls. Single-pane timber sash windows. Timber panelled door with Ionic doorcase having radial elliptical fanlight. Hipped slate roof with brick chimney stacks. Lower two-storey rear section with lean-to slate roof forming catslide. Stone rubble outbuildings to rear in various states of dilapidation with pitched timber-framed slate roofs.

Appraisal

This attractive Georgian house is beautifully set in the rural landscape. It has been well-maintained, and its unusual porch design makes it a unique and interesting building retaining its original proportions and styles of fenestration.

15: Castle Bagot House

NIAH no. 11208010 RPS 180

Detached five-bay three-storey former country house, c.1800, with full-height canted entrance bay. Now in use as offices. Coursed rubble stone walls, originally rendered, with ashlar quoins. Timber casement windows with flat brick or stone arches and stone sills. Panelled timber doors with cut stone doric pilasters, fanlight and pediment. Hipped artificial slate roofs with two stone chimney stacks. Cast-iron gates with late twentieth-century cut stone piers having reused original frieze blocks with swags.

Appraisal

A fine former country house which dominates the low-lying agricultural land surrounding. Though altered, it retains its original imposing form, and a good doorway and estate entrance ensemble.

16: Officers' mess, Baldonnell Aerodrome (Casement Aerodrome)

NIAH no. 11208028 RPS 188

Detached multiple-bay single-storey officers' mess, c.1932. Roughcast rendered walls with yellow brick base. Central entrance section with timber door having brick and tile dressings to surround, and three French windows to each side with tile lintels and concrete surrounds. uPVC casement windows to flanking sections. Hipped slate roof with sprocketed eaves, rendered chimney stacks, and cupola and parapet to entrance section. Canted side pavilions. X-plan north dormitory wing with decorated doorway. Conservatories to south, modern extension to east. Barrel-vaulted ballroom with original fixtures and fittings.

Appraisal

A low, attractive officers' mess with rich decorative detailing, designed by W H Cooke of the Office of Public Works in 1927, intended to resemble part of an English village.

17: Church/chapel, Baldonnell Aerodrome (Casement Aerodrome)

NIAH no. 11208024 RPS 190

Detached concrete-framed basilica-plan Roman Catholic church, built 1946. Sevenbay nave with two-bay chancel. Timber door in west porch, with barley sugar mullions to porch and to five-light window over. Paired round-arched windows to aisles, triple-arched to clerestorey. Self-supporting poured concrete roof with concrete beams and semi-circular ribs, linked to stepped buttresses. Red tile, concrete and cut stone dressings. Pitched slate roof. Aviation themed fittings, including glass and spitfire-propeller cross. Associated memorial to deceased air men, comprising granite slab with cross-shaped void and four flanking pillars.

Appraisal

This singular church was built during the post-World War II timber shortage, resulting in its innovative all-concrete construction and unusual buttresses. The interior is particularly striking due to the bold geometry, contrasting colours and period details.

Table 1.2: Architectural heritage records in the study area 18: Office, Baldonnell Aerodrome (Casement Aerodrome) NIAH no. Detached twenty-three-bay two-storey T-plan airbase administration block, c.1938, 11208025 with central breakfront bay of yellow brick with glazed timber doors having granite RPS189 surround, and first floor window with metal grille over. Roughcast rendered walls with yellow brick base course. uPVC casement windows with red brick panels between storeys. Other faces similarly articulated. Hipped slate roof with sprocketed eaves, central bronze cupola having clock and helicopter weathervane. Faces onto parade ground and entrance. **Appraisal** A commanding office block containing a fine art deco entrance breakfront with many intact decorative features, flanked by restrained, well-proportioned elevations. 19: Hangar, Baldonnell Aerodrome (Casement Aerodrome) NIAH no. Detached former flight shed, c.1917, now in use as an aircraft hangar. Yellow brick 11208027 buttressed corner piers, the eastern incorporating an open platform. Seven bay leanto brick office ranges to north and south, with uPVC casement windows. Walls and roof re-clad, c.1990, with corrugated metal. Sliding hangar doors to north and south on original cast-iron frames. Internal wall forms brick arcade. Associated memorial to first east-west Atlantic flight and inscribed stone panel inset in ground marking takeoff point in 1928. **Appraisal** This, the oldest hangar on the base, retaining significant original fabric, was built as part of the standard pattern of four, as at Belgard Aerodrome. Sited due to the prevailing wind, this hangar was filmed for the movie "Blue Max". It flanks the starting point of the first east-west Transatlantic flight by the then base commander, J Fitzmaurice and Baron E G Hunefeld in a Junkers plane in 1928. It is, therefore, of historical importance for aviation. 20: Sports hall/centre/gymnasium, Baldonnell Aerodrome (Casement Aerodrome) NIAH no. Detached multiple-bay double-height gymnasium, c.1937, with single-storey lean-to 11208026 extension to east. Roughcast rendered concrete walls. uPVC casement windows, fixed lights to east clerestorey and western concrete grid wall. uPVC glazed door. Transverse full span reinforced concrete roof in nine barrel vaulted sections, approached by external open spiral staircase. The dramatic profile of this gymnasium roof shows early use of pre-cast concrete trusses. The spiral staircase is reminiscent of German modern movement design and is a particularly striking abstract form. 21: Hangar, Baldonnell Aerodrome (Casement Aerodrome) NIAH no. Detached square-plan hangar, c.1917. Brick corner piers with corrugated metal 11209093 cladding to north and south elevations. Corrugated metal sliding doors to west and east elevations. Pitched corrugated metal roof. Eleven-bay single-storey brick office range to north elevation with lean-to corrugated metal roof. Single storey roughcast rendered range to south elevation with lean-to corrugated metal roof. One of a group of four hangars present at Baldonnell Aerodrome. The scale of such a structure is awe inspiring, dwarfing all other structures in the vicinity. Although

modified over time to be maintained as an efficient part of a working airbase, it still retains its original size and character. A valuable, and rare, example of Irish military

and aviation history. Probably retains much original fabric below cladding.

Table 1.2:	Architectural neritage records in the study area
22:	Hangar, Baldonnell Aerodrome (Casement Aerodrome)
NIAH no. 11209094	Detached square-plan hangar, c.1917. Brick corner piers with corrugated metal cladding to south elevation. Red brick walls with buttresses and metal casement windows to north elevation. Corrugated metal sliding doors to west and east elevations. Pitched corrugated metal roof. Seven-bay single-storey roughcast rendered block to north and south elevations with metal casement windows and lean-to corrugated metal roof.
	Appraisal One of a group of four hangars present at Baldonnell Aerodrome. The scale of such a structure is awe inspiring, dwarfing all other structures in the vicinity. Although modified over time to be maintained as an efficient part of a working airbase, it still retains its original size and character, and the original materials to the north and part of the west elevations. A valuable, and rare, example of Irish military and aviation history.

Table 1.2: Architectural beritage records in the study area

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Technical Appendix 2.3: Geophysical Survey







Geophysical Survey of a Site at Profile Park, Ballybane and Kilbride, Co. Dublin

Profile Properties,
The Marketing Suite,
Profile park, Grange Castle,
Dublin 22

Client

ITM: 703681, 730561

Licence No.: 20R0080

Ian Russell & Robert Breen

05 July 2020

ACSU Ref.: 2020

ARCHAEOLOGICAL
CONSULTANCY
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....

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PROJECT DETAILS

Project Geophysical Survey of a Proposed Development at Profile Park, Ballybane and

Kilbride, Dublin, Co. Dublin

Report Type Geophysical Survey

Report Status Final

Archaeologist lan Russell & Robert Breen

Client Profile Properties

Site Profile Park, Ballybane and Kilbride, Dublin, Co. Dublin

Townland Ballybane and Kilbride

ITM Ref. 703681, 730561

RMP No. DU021-004----

Detection Device Licence No. 20R0080

Report Date 05th July 2020

ACSU Ref. 2020



NON-TECHNICAL SUMMARY

This report details the results of a Geophysical Survey carried on a site at Profile Park, Ballybane and Kilbride, Dublin, Co. Dublin (ITM 703681, 730561). The survey was carried out at the request of the client to assess the archaeological potential of the site. The site is located within an area where significant and previously unknown sites, with no surface expression, have been identified through aerial and geophysical survey in the past.

The geophysical survey was conducted by Ian Russell & Robert Breen of Archaeological Consultancy Services Unit Ltd. (ACSU) between the 27th May and 3rd June 2020 under licence 20R0080 issued by the Department of Culture, Heritage and the Gaeltacht in consultation with the National Museum of Ireland. A full detailed gradiometer survey was undertaken throughout the application area using a Bartington GRAD 601-2 dual sensor fluxgate gradiometer system. Detailed survey was conducted with a sample interval of 0.25m and a traverse interval of 1m for all the survey areas within the site with variations in the magnetic field (between -100nT to +107.834nT). The site consists of 8 open fields of varying proportions, which are currently under agricultural pasture.

This geophysical survey has successfully identified the location of a number of buried archaeological remains located within the site. These include a sub-circular enclosure in field 7, part of an early historic field system in fields 7 and 8, a pre-existing historic field boundary as well as a number of weak magnetic anomalies. In field 2, agricultural plough marks aligned north-south were identified. Faint linear anomalies aligned north-south were identified in field 3 that may represent internal divisions, agricultural marks, or drainage features. A large sub-circular enclosure was identified in the northwest corner of field 7. This enclosure is approximately 30m in diameter. A number of historic field divisions were identified throughout field 7 and 8 which may relate to the enclosure identified. The southeastern corner of the site is also located within the zone of archaeological potential associated with Castle-unidentified (DU021-004----) a recorded monument listed within the Record of Monuments and Places and Sites and Monuments Record. It is also the nearest monument to the site, located c. 70m to the southeast. A geophysical survey under Licence 20R0006 was carried out in February 2020 by TARGET and ACSU Ltd. A number of areas were subjected to survey, including an area adjacent to the south-eastern corner of the current study area, near the previously mentioned recorded monument DU021-004----. This survey revealed the presence of a number of ferrous responses, some magnetic disturbances running northeast – southwest and two linear features, possibly of an archaeological nature, running in a northeast-southwest direction.

The site contains no Protected Structures; while there are two such structures in the immediate environs of the site. Detached Multiple Bay Single Storey Officers Mess (RPS ID. 188) located c.160m to the north and listed within the *South Dublin County Development Plan 2016-2022*, is also an architectural heritage structure (NIAH Reg No 11208028). Stone Church (Ruin) & Graveyard, Ringfort (Rath / Cashel), Earthwork(s) (RM) (RPS ID 184), is also a recorded monument DU021-005001-003, and is located c. 180m to the east of the site.

It is recommended that targeted archaeological assessment in the form of test trenching be carried out in order to fully assess the nature, extent and significance of the anomalies identified on the site, particularly the enclosure and its associated field boundaries.



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1. INTRODUCTION
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1. INTRODUCTION

This report details the results of a Geophysical Survey carried out on a site within the Profile Park, in Ballybane and Kilbride townlands, Grange Castle, Co. Dublin (ITM 703681, 730561). The survey was carried out at the request of the client to assess the archaeological potential of the site. The site does not contain any recorded monuments, but is in close proximity to DU021-004 a castle.

The geophysical survey was conducted by Ian Russell & Robert Breen of Archaeological Consultancy Services Unit Ltd. (ACSU) between the 27th May and 3rd June 2020 under licence 20R0080 issued by the Department of Culture, Heritage and the Gaeltacht in consultation with the National Museum of Ireland. A full detailed gradiometer survey was undertaken throughout the application area using a Bartington GRAD 601-2 dual sensor fluxgate gradiometer system. The site is a greenfield site consisting of eight flat fields of varying proportions, which are currently under agricultural pasture.

2. METHODOLOGY

A full detailed gradiometer survey was undertaken throughout the application area using a Bartington GRAD 601-2 dual sensor fluxgate gradiometer system. Detailed survey was conducted with a sample interval of 0.25m and a traverse interval of 1m for all the survey areas within the site of the proposed development with variations in the magnetic field between (-100nT to +107.834nT). The survey area was an open, greenfield site, consisting of eight fields that are currently under agricultural pasture.

3. SURVEY OBJECTIVES

The aim of the survey is to establish the presence of any archaeological features within this site, due to the fact that the site is located within an area where significant and previously unknown sites, with no surface expression, have been identified through aerial and geophysical survey in the past.

4. SOILS, GEOLOGY & TOPOGRAPHY

The site consists of mostly flat agricultural land, occupied by fine loamy drift of the Straffan (700d) and Elton (1000x) associations overlying dark limestone and shale of the Lucan Formation (Irish National Soils Map, 1:250,000k, V1b, 2014;Geological Survey Ireland Spatial Resources, Public Data Viewer Series).

5. ARCHAEOLOGICAL ASSESSMENT

5.1 Archaeological & Historical Background

The study area is located within Profile Park, on lands to the north of Baldonnell Casement Aerodrome, c. 12km to the west-southwest of Dublin City Centre. The site is located within the townlands of Ballybane and Kilbride. Ballybane townland is located within the Parish of Clondalkin and the Barony of Uppercross, while Kilbride is located within the Parish of Kilbride and the Barony of Newcastle.

An examination of the Placenames Database of Ireland (www.logainm.ie) can reveal important information about the natural and cultural heritage of an area. Ballybane townland (*An Baile Bán*) was first mentioned in 1326 as *Balibayne* (Calendar of Archbishop Alen's Register (ed. McNeill, 1950)) and can be translated as 'white town'. It was depicted as 'Ballybawn' on the 1760 Rocque Actual Survey of County Dublin. Kilbride (*Cill Bhride*) was first mentioned in 1307 in a reference to the tenements of 'Kilbride and the Naungre' (Mills,



1914). The name is depicted on the 1760 Rocque map as *Killbride*; within the townland, a 'Church in Ruins' is also depicted, likely representing recorded monument DU021-005001-. The Irish name for Kilbride, *Cill Bhride* means Bridget's Church.

Sites dating to the medieval period are common in this area. However, some prehistoric activity in the form of burnt mounds was identified in the neighbouring townland of Grange. Furthermore, to the northeast of the site in Kishoge and Kilmahuddrick, a Neolithic period house (01E0061) and a ring-barrow (00E0448) were excavated. The house excavated at Kishoge is the earliest dated dwelling found in the Dublin region (O'Donovan et all, 2003).

In Clondalkin, located c. 3km to the east-northeast of the study area, during the 7th century a monastery was established dedicated to St Mochua. It was plundered by the Vikings in the 9th century and became a Viking base. There is little information in relation to the early history of the study area, however the name Kilbride is mentioned in 1295; 5 shillings were paid to William Comyn for the rent of 'Kilbride and Nanger' (Sweetman 1881). The study area was under the control of Leinster rulers until the 12th century, when the Anglo-Normans arrived. Kilbride is often mentioned in various sources as 'lands of Kilbride and Nanger'. In the 16th century the Bathe family held the lands of Kilbride and Nanger. Nangor Castle was in the possession of John Bath in the early 17th century (Byrne, Graham 1991). The study area is depicted on Rocque's Map of 1760 to the south side of the 'New Canal', between the settlements of 'MillTow'n and 'Nanger'. The area is depicted as predominantly pastureland. A road leads from 'MillTown' through 'Ballybawn', through the study area, passing 'Church in Ruins' (probably RMP DU021-005001-). To the south of the church an area is labelled as 'Killbride'. Two buildings are noted to the west of the church, these are likely farmyards and are located within the castle-unclassified (DU021-004----) area. The castle is not depicted, suggesting perhaps it was no longer standing. On the 1st edition Ordnance Survey 6-inch map of 1836 (published in 1843) (Figure 3) the study area is depicted as within six fields. The townland boundary between Ballybane and Kilbride runs in a stepped profile roughly east west through the proposed development. Within the study area the townland of Ballybane consists of parts of three fields and is flanked to the north by a road, following the same footprint here as the New Nangor Rd (R134). The irregular and curving nature of the boundary is due to the fact that it follows a wet ditch/stream that turns northward and joins the canal. In the townland of Kilbride, the northern part of the site consists of parts of two large fields bounded by mature trees, with a boundary running in an eastwest direction, and a small northern portion of a long rectangular field; this part is adjacent to the previously mentioned townland boundary. The site is flanked to the south by a road following the same footprint here as Baldonnel Rd (L2001). No buildings are depicted within the study area, however, in the field adjacent to the south-eastern corner of the site, 'Kilbride Castle' is shown with long rectangular buildings within. To the east within an oval area a 'Church', and 'Grave Yd.' are labelled. No changes within the study area in relation to field layout took place by the time of the 3rd edition Ordnance Survey 25-inch map of 1908 (Published 1910) (Figure 4). However, the 1908 map offers more detail, particularly in relation to the site of 'Kilbride Castle'. Here 'Kilbride House' is now depicted, and to the east and adjacent to it, a farmyard with a number of rectangular buildings is shown. The site is surrounded by a waterway/stream and the area is noted as 'Kilbride Castle (Site of)'. To the southeast, 'Church (In Ruins) and 'Grave Yard' are noted within an oval enclosure. No changes to the study area are apparent from Cassini map of 1935-38 (Figure 5).

5.2 Recorded Monuments

The site contains no Recorded Monuments listed within the Record of Monuments and Places (RMP), however the south-eastern corner of the site is located within the zone of archaeological potential associated with Castle-unidentified (DU021-004----) a recorded monument. It is also the nearest monument to the site, located c. 70m to the southeast.



The following is a list of the nearest Recorded Monuments located within the surrounding area (Figure 2). These descriptions are derived from the National Monuments Service Archaeological Survey Database (http://webgis.archaeology.ie/historicenvironment/).

Table 1: Recorded Monuments in the environs of the proposed development site

RMP No	Class/Site Type	Townland	Description		
DU021-004	Castle - unclassified	KILBRIDE	Situated in a narrow valley. There are farm buildings on the site. There is no visible trace above ground		
DU021-005001-	Church		Located in a circular raised graveyard (L 42m, Wth 30) on the edge of a valley (DU021-005002-). This may be the remains of an early ecclesiastical enclosure (DU021-005003-). In 1228 the archbishop of Dublin granted the church of Kilbride to Andrew de Monevea as a prebend and later conferred it on the Canons of St Patrick's Cathedral (Mc Neill 1950, 75). In 1630 it was described as ruinous (Ronan 1941, 80). This church was attached to St. Patrick's Cathedral and was described at the dissolution in 1547 as an old chapel (Ball 1906, 68-70). Consists of a small rectangular building (int. dims L5.8m, Wth 3.63m, T 0.85m) with a NW turret in ruinous condition. Formerly entered through an opening in the W end (now damaged). Built of randomly coursed masonry. There is an aumbry in the E end of the N wall of the church. The E window has a S jamb of tufa. There are remnants of another window in the W end of the S wall. The NW turret (L1.35m, Wth 0.77m, H1.78m) is entered through a lintelled doorway off the church. It has a corbelled roof. There are traces of a stairwell on the S side of the turret		
DU021-005002-	Graveyard		Located in a circular raised graveyard (L 42m, Wth 30) on the edge of a valley. Encloses the remains of a medieval church(DU021-005001-).		
DU021-005003-	Ecclesiastical enclosure		The church of Kilbride is located in a circular raised graveyard (L 42m, Wth 30) on the edge of a valley. This may be the remains of an early ecclesiastical enclosure.		
DU021-108	Concentric enclosure	BALLYBANE	Not indicated on any OS map a large concentric enclosure is visible as a crop-mark on an aerial photo. A second enclosure (DU021-109) is visible to the SW. DU021-10801.jpg Aerial image (derived from Bing Maps) showing the enclosures.		
DU021-109	Enclosure	BALLYBANE	Not indicated on any OS map this enclosure is as a crop-mark on an aerial photo. A second larger enclosure (DU021-108) is visible to the NE. DU021-10901.jpg Aerial image (derived from Bing Maps) showing the enclosures. Compiled by: Paul Walsh Date		
DU017-082	Field system	NANGOR	Excavations in 2001 revealed a medieval ditch complex. This appeared to represent the remains of medieval field boundaries with associated water management gullies. Some 1600 sherds of local medieval pottery were recovered and two sherds of imported ware		

5.3 Protected Structures and National Inventory of Architectural Heritage (NIAH)

The site contains no Protected Structures; while there are two such structures in the immediate environs of the site. Detached Multiple Bay Single Storey Officers Mess (RPS ID. 188) located c.160m to the north and listed within the South Dublin County Development Plan 2016-2022, is also an architectural heritage structure (NIAH Reg No 11208028). Stone Church (Ruin) & Graveyard, Ringfort (Rath /



Cashel), Earthwork(s) (RM) (RPS ID 184), is also a recorded monument DU021-005001-003 (for description see Table 2), and is located c. 180m to the east of the site. These structures will not be directly affected by the proposed development (Figure 2).

The following is a description of Reg. No. 11208028, listed within the National Inventory of Architectural Heritage (NIAH).

Table 2: Protected Structures and National Inventory of Architectural Heritage (NIAH) structures in the environs of the proposed development site

RPS ID	NIAH Reg. No	Townland	Descripiton
188	11208028	Newcastle	Detached multiple-bay single-storey officers' mess, c.1932. Roughcast rendered walls with yellow brick base. Central entrance section with timber door having brick and tile dressings to surround, and three French windows to each side with tile lintels and concrete surrounds. uPVC casement windows to flanking sections. Hipped slate roof with sprocketed eaves, rendered chimney stacks, and cupola and parapet to entrance section. Canted side pavilions. X-plan north dormitory wing with decorated doorway. Conservatories to south, modern extension to east. Barrel-vaulted ballroom with original fixtures and fittings. A low, attractive officers' mess with rich decorative detailing, designed by W H Cooke of the Office of Public Works in 1927, intended to resemble part of an English village.

5.4 Previous Archaeological Investigations

The nearest excavation to the study area was located adjacent to the eastern part of the site, however no archaeology was identified (12E0067). More recent excavations to the west in Grange Castle South have identified significant archaeological features including at least two large enclosures and associated features. There has been no other excavations within the townland of Ballybane or Kilbride, however a geophysical survey, within the environs of the site was undertaken in February 2020 (20R0006) by Target and ACSU Ltd.

Listed below are excavations located in the environs of the site that further demonstrate the overall archaeological potential of the site under study and its surrounding townlands. The following information was taken from www.excavations.ie

Table 3: Previous excavations in the environs of the proposed development site

Site	Licence No.	RMP No.	Director(s)	Site Type	Investigation type
Castlebaggot Park, Kilbride & Kilmactalway Townlands, South County Dublin	20R0006	N/A	Donald Murphy/ John Nicholls	Various	Geophysical Survey



Profile Park, Nangor Road, Clondalkin	12E0067	N/A	Neil O'Flanagan	No archaeological significance	Archaeological monitoring
Kishoge	01E0061	N/A	O'Donovan	Prehistoric house	Archaeological excavation
KILMAHUDDRICK (GRANGE CASTLE INTERNATIONAL BUSINESS PARK), CLONDALKIN	00E0448	N/A	lan W. Doyle	Ring barrow	Archaeological excavation
GRANGE/KILMAHUDDRICK/NANGOR (GRANGE CASTLE INTERNATIONAL BUSINESS PARK), CLONDALKIN	00E0718	N/A	lan W. Doyle	Fulacht fiadh	Archaeological monitoring

The nearest excavation to the study area was located adjacent to the eastern part of the site, however no archaeology was identified (12E0067). A geophysical survey under Licence 20R0006 was carried out in February 2020 within Castlebaggot Park, within townlands of Kilbride & Kilmactalway by TARGET and ACSU Ltd. A number of areas were subjected to survey, including an area adjacent to the south-eastern corner of the current study area, near the previously mentioned recorded monument DU021-004----. This survey revealed the presence of a number of ferrous responses, some magnetic disturbances running northeast – southwest and two linear features, possibly of an archaeological nature, running in a northeast-southwest direction and likely extending into the current study area. During this survey, a number of archaeological sites were identified in the environs of the study area. This includes: three ring ditches, part of sub circular enclosure, rectilinear ditch, potential structure remains, ditch, part of sub-circular enclosure ditch associated with DU021-003001-004, curvilinear dich, linears, enclosure features and field systems related to DU021-005001-003. This suggests that the study area has high potential to contain previously unknown, archaeological sites with no surface remains.

To the northeast of the study area a number of archaeological investigations were carried out in relation to development of Grange Castle International Business Park. In the townland of Kishoge a Neolithic period house was excavated (01E0061). A rectangular house with slightly curved corners was excavated, cut features included postholes, pits and foundation trenches. In Kilmahuddrick townland, a ring-barrow was excavated (00E0448). It was initially detected via geophysical survey. It was discovered that the ring barrow was located within a rectangular enclosure measuring c. 50m by 100m minimum. The ditch of the ring-barrow was excavated and measured 2.5m in width and was 1.6m deep. Within, several deposits of cremated bone were recorded. A small Fulatch fiadh was excavation under licence 00E0718. It consisted of a small pit or trough and a spread of heat-cracked stone. In addition, a linear feature was located to the south-west of the trough. More recently excavations by IAC Ltd. in Grange Castle South have exposed significant archaeological features including two large enclosure sites.

5.5 Cartographic Evidence

An examination of pre-Ordnance Survey mapping – Rocque's Map of 1760 depicts the study area to the south side of the 'New Canal', between the settlements of 'Milltown and 'Nanger'. The area is shown as predominantly pastureland. A road leads from 'MillTown'



through 'Ballybawn', through the study area, passing 'Church in Ruins' (probably RMP DU021-005001-). To the south of the church an area is labelled as 'Killbride'. Two buildings are noted to the west of the church, these are likely farmyards and are located within the castle-unclassified (DU021-004----) area. The castle is not depicted, suggesting perhaps it was no longer standing.

Ordnance Survey maps of the area were examined in order to identify any possible archaeological features and to trace the development of the site during the nineteenth and early twentieth centuries. No buildings are depicted within the area of the development site on either the first edition Ordnance Survey (OS) 6-inch map of 1836 (Figure 3) or on the OS 25-inch map of 1908 (Figure 4). There are also no changes within the study area in relation to field layout. The townland boundary between Ballybane and Kilbride runs in a stepped profile roughly east west through the proposed development. Within the study area the townland of Ballybane consists of parts of three fields and is flanked to the north by a road, following the same footprint here as the New Nangor Rd (R134). The irregular and curving nature of the boundary is due to the fact that it follows a wet ditch/stream that turns northward and joins the canal. In the townland of Kilbride, the northern part of the site consists of parts of two large fields bounded by mature trees, with a boundary running in an east-west direction, and a small northern portion of a long rectangular field; this part is adjacent to the previously mentioned townland boundary. The site is flanked to the south by a road following the same footprint here as Baldonnel Rd (L2001). In the field adjacent to the south-eastern corner of the site, 'Kilbride Castle' is shown with long rectangular buildings within. To the east within an oval area a 'Church', and 'Grave Yd.' are labelled. The map of 1908 offers more detail, particularly in relation to the site of 'Kilbride Castle'. Here 'Kilbride House' is now depicted, and to the east and adjacent to it, a farmyard with a number of rectangular buildings is shown. The site is surrounded by a waterway/stream and the area is noted as 'Kilbride Castle (Site of)'. To the southeast, 'Church (In Ruins) and 'Grave Yard' are noted within an oval enclosure. No changes to the study area are apparent from Cassini map of 1935-38 (Figure 5).

6. METHOD OF DATA INTERPRETATION

The gradiometer survey was conducted with a Bartington GRAD 601-2 dual sensor fluxgate gradiometer system. Detailed survey was conducted with a sample interval of 0.25m and a traverse interval of 1m for all the survey areas. This allows detection of potential archaeological responses. Data is collected in grids 40m x 40m and data is displayed accordingly.

The Bartington GRAD 601-2 instrument is a specifically designed gradiometer for use in archaeological prospection. Extremely sensitive, these instruments can detect variations in soil magnetism to 0.01nT, affording diverse application throughout a variety of archaeological, soil morphological and geological conditions. The survey is geo-referenced with a Trimble Geo 7X unit accurate to within 1cm. Interpretation of the results was made by examination of the raw data as greyscale images, XY trace, relief and data plots. Archived raw data is presented in Figures 6 and 7 and an interpretation is presented in Figures 8 and 9.

7. SURVEY RESULTS

The geophysical survey was conducted by Ian Russell & Robert Breen of Archaeological Consultancy Services Unit Ltd (ACSU) between the 27th – May and 3rd June 2020 under licence 20R0080 (Figures 6 and 7). A full detailed gradiometer survey was undertaken throughout the application area using a Bartington GRAD 601-2 dual sensor fluxgate gradiometer system. Detailed survey was conducted with a sample interval of 0.25m and a traverse interval of 1m for all the survey areas within the site of the proposed development with variations in the magnetic field between (-100nT to +107.834nT). The survey areas consist of large open fields serving as pasture lands.



Field 1

Field 1 consisted of a small rectangular field in the northwest corner of the development. Fields 1 and 2 are divided by an upstanding dwelling. A large area of magnetic disturbance was identified in the southeast corner of field 1 which likely represents ground disturbance associated with the dwelling. Magnetic interference was identified along the northern perimeter as a result of the fence line separating the field from the New Nangor Rd and the adjoining business immediately west of the survey area.

A number of potential cut features were identified which may prove to be of archaeological significance upon further investigation or they may represent modern disturbances, three throws or natural depressions in the underlying subsoil.

No clear indications of archaeological activity were identified within Field 1.

Field 2

Field 2 consisted of an open field aligned east-west. A series of faint parallel linears (A) aligned North-South represent the remains of agricultural plough marks in the eastern portion of the field. A large area of magnetic disturbance was identified along the northern boundary of the field (B). Satellite images of this field c.2011-2013 indicate the presence of a small compound along this northern boundary associated with above ground fencing which divided the field into three portions.

A number of potential cut features were also identified as positive anomalies towards the eastern portion of the survey area. Although no clear signs of archaeology are present, these features may prove to be of archaeological significance upon further investigation and may be the result of isolated pits, or kilns or they may represent modern disturbances, three throws or natural depressions in the underlying subsoil.

Field 3

Field 3 was situated south of fields 1 and 2. Two faint parallel linear anomalies (C) were identified in the southwest portion of field 3 aligned north-northeast – south- southwest. These may be the result of internal field divisions or drainage. An additional faint linear anomaly was identified towards the centre of the field aligned northwest-southeast and may also be the remnants of internal divisions or the result of agricultural activity.

Field 3 also produced clusters of apparent ground disturbance towards the upstanding dwelling as well as a number of potential cut features throughout the centre of the field.

Field 4

Field 4 was located south of field 3. Areas of magnetic debris were identified associated with ground disturbance along the southern perimeter, and northeastern corner of field 4. These disturbances are likely the result of recent works associated with the Profile Park e.g removal of field boundaries and road construction.

A number of small isolated positive cut features were identified that may be of archaeological significance.



Fields 5 and 6

Fields 5 and 6 were located east of field 4 and consisted of two small plots divided by an upstanding hedgerow and field boundary. Large portions of these fields were affected by magnetic debris associated with recent groundworks. A small number of positive anomalies were identified in both fields. These may be the result of isolated features such as pits, post-holes or they could be natural in origin e.g. three throws, stone sockets. No clear signs of archaeology were identified in fields 5 and 6.

Field 7

Field 7 consisted of a large flat rectangular field aligned north-south. The survey identified a large sub-circular enclosure in the northwest corner of field 7, a series of previously unrecorded field systems, faint linear scars of possible agricultural origin and a second possible curving anomaly along the eastern border of the field.

The sub-circular enclosure c.30m in diameter (D) identified in the northwest corner features a well defined southeast entrance. The enclosure is associated with potential linear and pit features (E) as well as two east-west aligned linear anomalies (F & G) that may truncate the enclosure.

A historic east-west aligned field boundary was also identified and was likely removed sometime in the recent past.

Historic field systems (H) previously unrecorded were identified throughout the southern portion of the field and may represent part of the medieval landscape associated with the enclosure settlement.

A second possible curving anomaly was identified along the eastern border of the field (I). However, strong magnetic interference from the modern fence along this border makes it difficult to fully interpret this anomaly.

A series of faint parallel linears (J) may represent former agricultural activities or soil/morphological changes in the subsoil.

A number of positive magnetic anomalies were identified throughout the field that may represent cut features such as refuse or storage pits associated with the medieval landscape.

Field 8

Field 8 was located at the southern end of the survey area within the zone of archaeological potential associated with castle-unidentified (DU021-004----) a recorded monument listed within the Record of Monuments and Places and Sites and Monuments Record. It is also the nearest monument to the site, located c. 70m to the southeast. The geophysical survey under Licence 20R0006 which was carried out in February 2020 by TARGET and ACSU Ltd revealed the presence of a number of ferrous responses, some magnetic disturbances running northeast – southwest and two linear features, possibly of an archaeological nature, running in a northeast-southwest direction.

The northern linear feature identified during this previous survey was re-identified and continued westwards. A second perpendicular field boundary originating from here was identified running in a northerly direction and was identified in field 7.

Faint linear anomalies aligned northeast-southwest were identified throughout the remainder of the survey area and may represent agricultural activity, or maybe the result of soil/morphological conditions.

A small number of magnetically positive anomalies were identified throughout the field which may represent isolated cut features of archaeological significance.



8. CONCLUSIONS & RECOMMENDATIONS

The geophysical survey identified the archaeological remains of a sub-circular enclosure in the northwest corner of field 7. Also identified were segments of early field systems and smaller features of potential significance. Weak linear trends identified throughout the survey area may also be associated with the enclosure. Such faint linear anomalies may represent former field boundaries, drainage features or traces of agricultural activity.

A number of weak magnetic anomalies were seen throughout the surveyed area, but these are likely to represent modern agricultural features and natural geology and are unlikely to be of archaeological significance.

A number of the magnetic anomalies scattered throughout the rest of the site may be the result of smaller features such as kilns, refuse pits or areas of burning. Isolated ferrous anomalies identified throughout the survey area may represent smaller features of archaeological significance or more modern agricultural debris such as iron objects dispersed throughout and within the subsoil.

It is recommended that archaeological assessment in the form of test trenching be carried out in order to fully assess the nature, extent and significance of the anomalies identified.



9. REFERENCES

Doyle I (2005). Excavation of a prehistoric ring barrow at Kilmahuddrick, Clondalkin, Dublin 22. The Journal of Irish Archaeology, Vol xiv, pp43-75.

McNeill, C. 1950, Calendar of Archbishop Alen's register, c. 1172-1534 prepared and edited from the original in the Registry of the United Dioceses of Dublin and Glendalough and Kildare by Charles McNeill; with an index compiled by Liam Price. Royal Society of Antiquaries of Ireland.

Mills, J. 1914 Calendar of Justiciary Rolls or Proceedings in the Court of the Justiciar of Ireland preserved in the Public Record Office of Ireland.

O'Donovan, E (2003). A Neolithic House at Kishoge, Co Dublin. The Journal of Irish Archaeology, Vol xii & xiii, pp1-27.

Other Sources

National Inventory of Architectural Heritage (http://www.buildingsofireland.ie/).

Record of Monuments and Places (RMP), the Heritage Service, 7 Ely Place, Dublin 2.

Summary Accounts of Archaeological Excavations in Ireland (www.excavations.ie).

Topographical Files of the National Museum of Ireland, Kildare Street, Dublin 2.

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Signed:	Dorda Mugly



Appendix 1 - Summary Technical Information & Glossary of Terms

Fluxgate Gradiometer Survey: Surveys are undertaken using the Bartington Grad 601-2 survey instrument which was specifically designed for archaeological prospection. It includes sensors that are highly stable, minimizing requirements for excess data processing. The instrument has a vertical 1 m sensor separation permitting finite resolution of buried archaeological features. Surveys can be undertaken in scan or detailed (zig-zag traverse) modes for reconnaissance or high-density mapping. The fluxgate enables reliable flexibility during fieldwork. Frequent realignment of the instruments and zero drift correction ensure a constant high quality of data. Extremely sensitive, these instruments can detect variations in soil magnetism to 0.1nT, affording diverse application throughout a variety of archaeological, soil morphological and geological conditions. The instrument can be employed in both commercial and research-based investigations allowing for completion of projects within short timescales. Regular grid sample densities from standard 1600 readings to 12800 readings per 20m by 20m grid are permitted. A constant high quality of data is assured by experienced field staff operating in accordance with English Heritage Research & Professional Guidelines No. 1, *Geophysical Survey In Archaeological Field Evaluation* (David 1995).

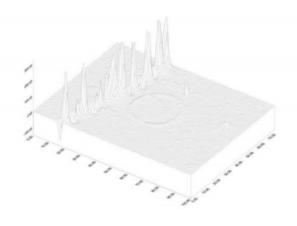




Bartington Grad 601-single axis dual sensor gradiometer.

Data Display Formats

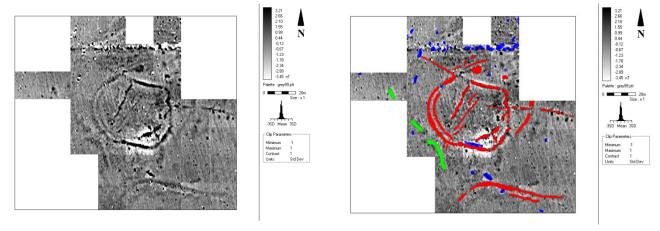
XY Trace: The data are presented as a series of linear traces, enabling a semi-profile display of the respective anomalies along the X and Y axes. This display option is essential for distinguishing between modern ferrous materials (buried metal debris) and potential archaeological responses. The XY trace plot provides a linear display of the magnitude of the response within a given data set.



XY Trace of enclosure site

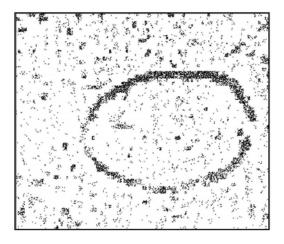


Greyscale: As with dot density plots, the greyscale format assigns a cell to each datum according to its location on the grid. The display of each data point is conducted at very fine increments, allowing the full range of values to be displayed within the given data set. This display method also enables the identification of discrete responses that may be at the limits of instrument detection.



Early medieval enclosure greyscale

Dot Density Plot: Each datum is assigned a cell in which the intensity or number of dots displayed is proportional to the magnitude of the individual response. The visibility or presentation of responses within a given survey area is governed by numeric parameters specific to both soil morphological and archaeological conditions observed on site. Typically, the range of weak to strong responses is manifested by a low to high level of dot density. The format is useful for displaying gradiometer and resistance data particularly for identifying low-level responses.



Dot Density plot of oval shaped enclosure

Glossary of Interpretation Terms

Archaeology: This category refers to responses usually supported by comparative archaeological evidence (i.e., photographic transcriptions, excavation, etc.). The term is generally associated with significant concentrations of former settlement, such as ditched enclosures, storage pits and associated features.

Archaeology ?: This term corresponds to anomalies that display typical archaeological patterns where no record of comparative archaeological evidence is available. In some cases, it may prove difficult to distinguish between these and evidence of more recent activity also visible in the data.

Industrial: Such anomalies generally possess a strong magnetic response and may equate with archaeological features such as kilns, furnaces, concentrations of fired debris and associated industrial debris.



Area of Increased Magnetic Response: These responses often lack any distinctive archaeological form, and it is therefore difficult to assign any specific interpretation. The resulting responses are site specific, possibly associated with concentrations of archaeological debris or more recent disturbance to underlying archaeological features.

Trend: This category refers to low-level magnetic responses barely visible above the magnetic background of the soil. Interpretation is tentative, as these anomalies are often at the limits of instrument detection.

Ploughing/Ridge & Furrow: Visible as a series of linear responses, these anomalies equate with recent cultivation trends.

Natural?: Resulting from localised natural variations in the magnetic background of the subsoil, these responses are often recorded in areas of low-lying land prone to flooding.

Ferrous: These anomalies exhibit a typically strong magnetic response, often referred to as 'iron spikes,' and are the result of modern metal debris located within the topsoil.

Area of Strong Magnetic Disturbance: This term refers to large-scale magnetic interference from existing services or structures. The extent of this interference may in some cases obscure anomalies of potential archaeological interest.

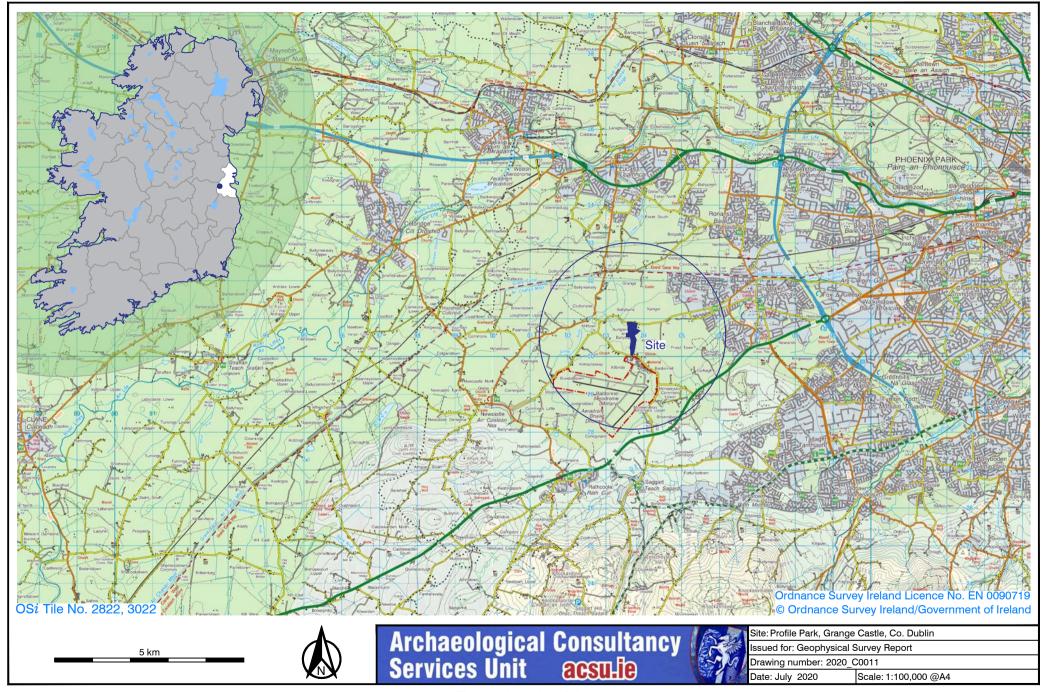


Figure 1: Location of site

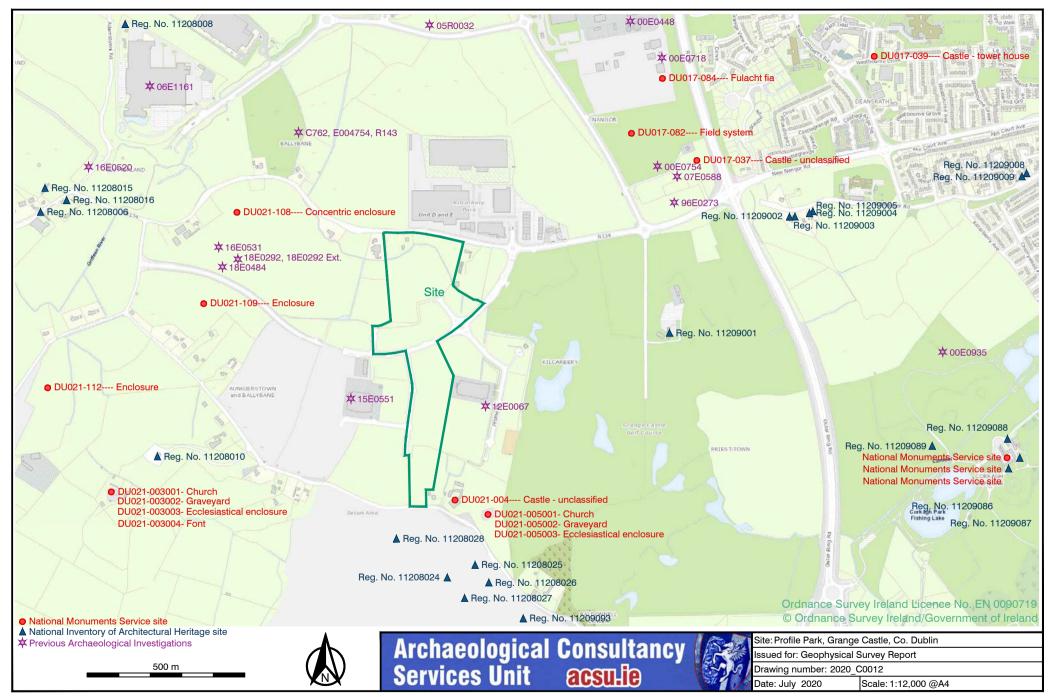


Figure 2: Location of site, previous archaeological investigations and nearby Sites and Monuments Record sites

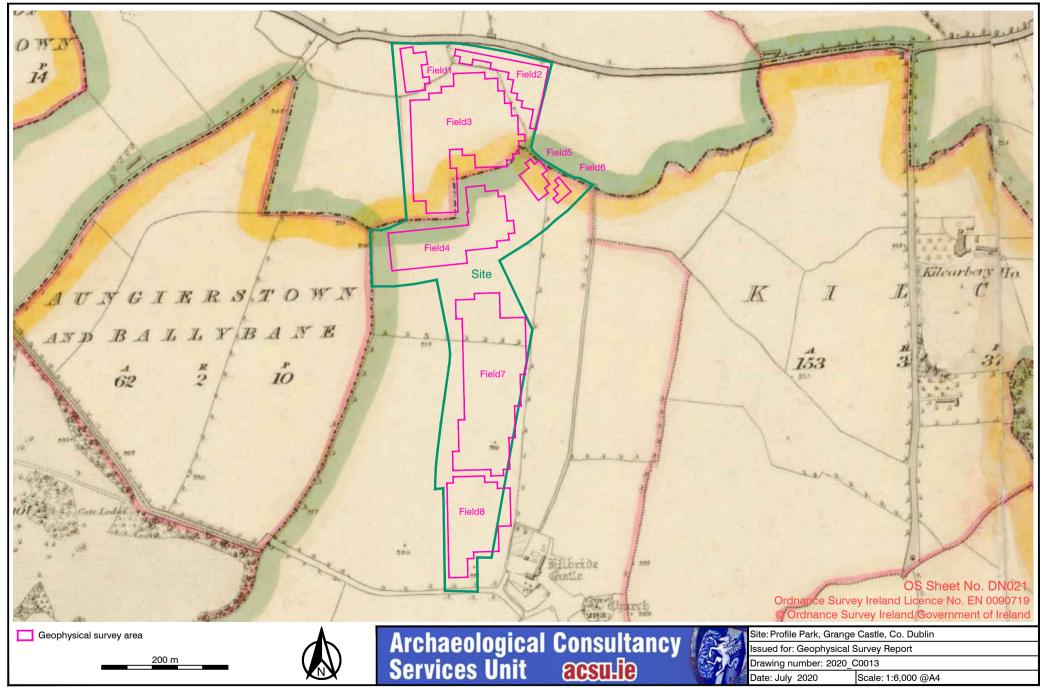


Figure 3: Extract from 1st edition Ordnance Survey (OS) 6-inch map (surveyed 1836 - published 1843), showing location of site and geophysical survey areas

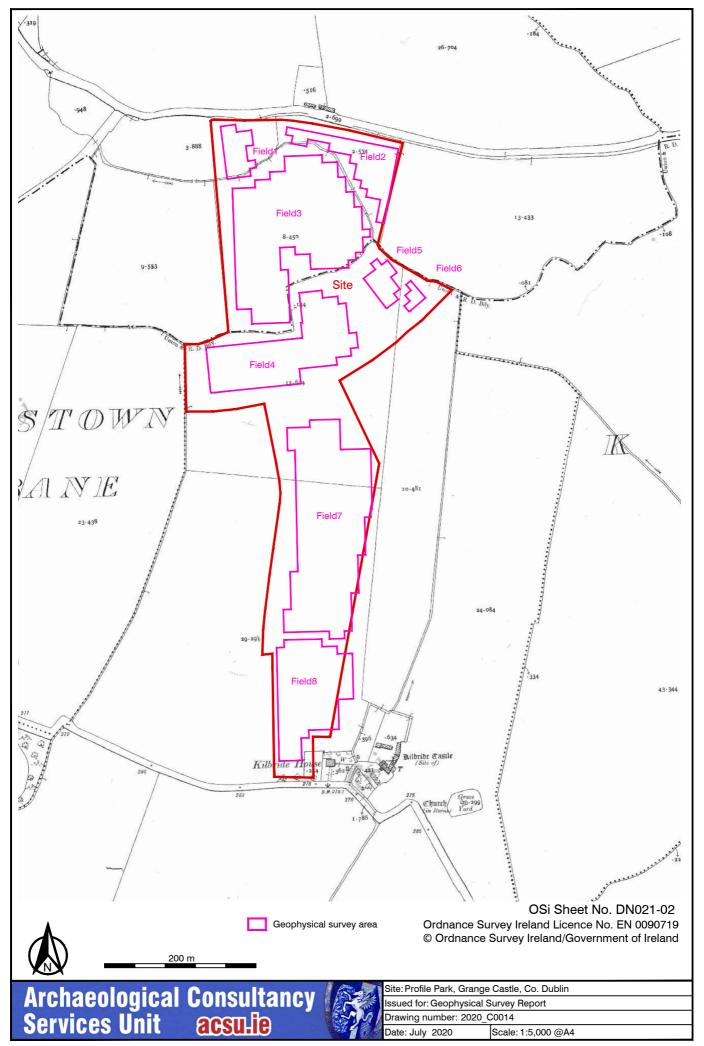


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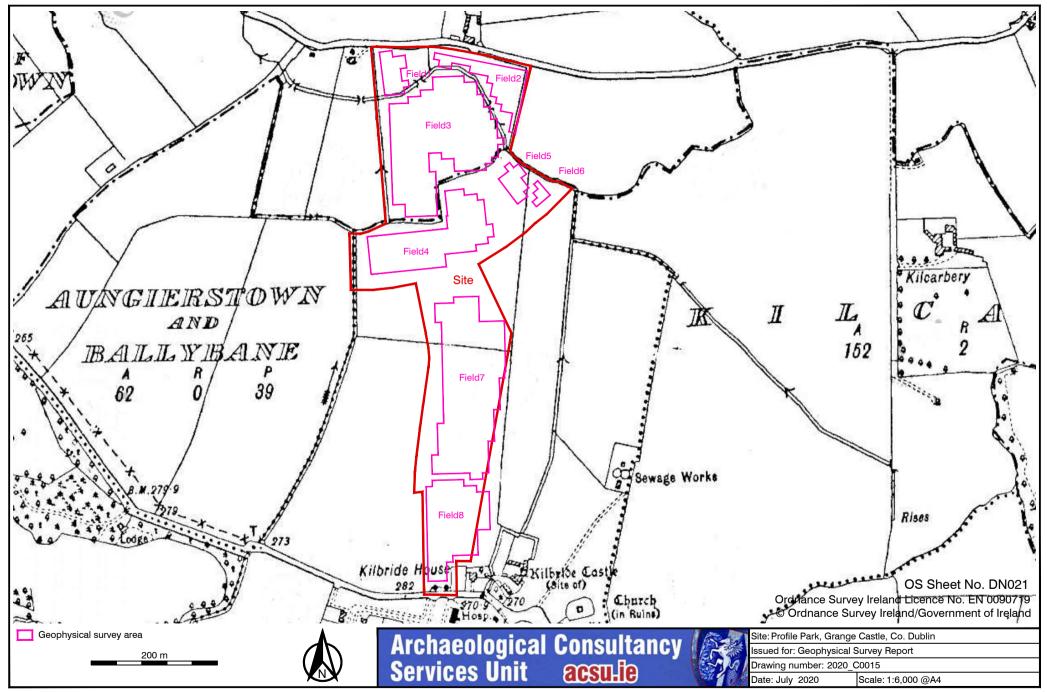


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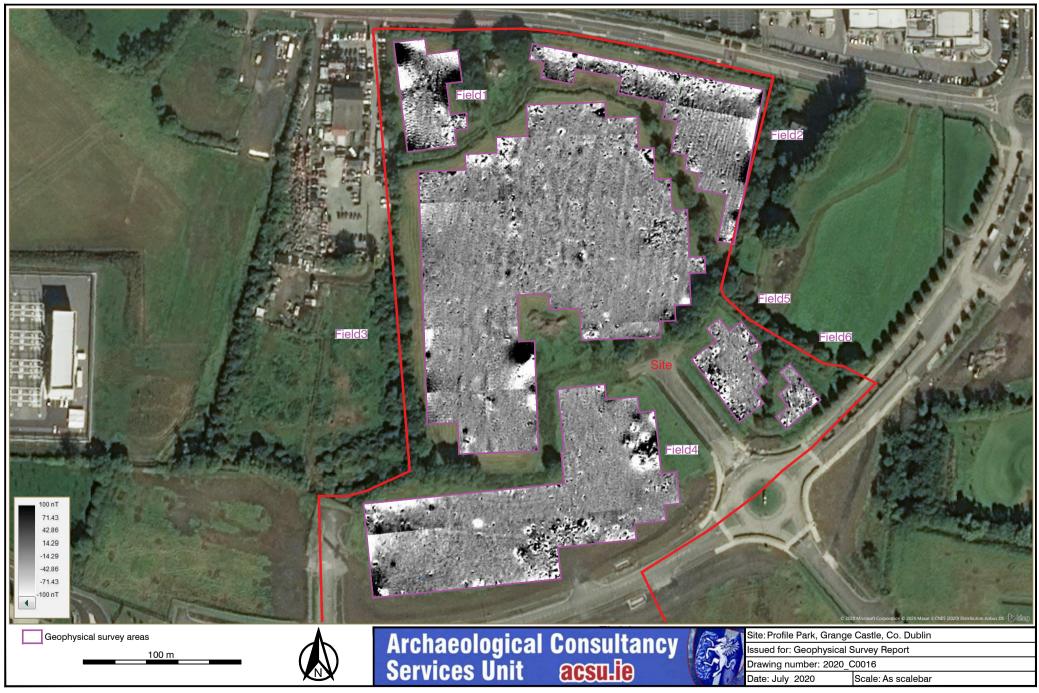


Figure 6: Aerial view of site, showing geophysical survey results (greyscale image) of fields 1 to 6



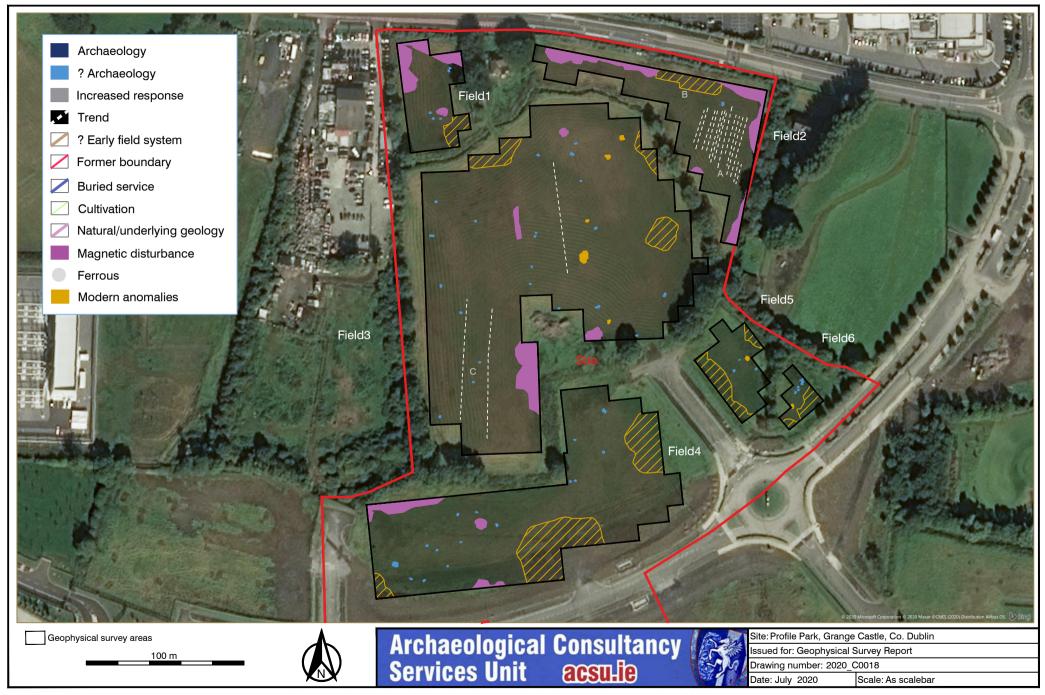
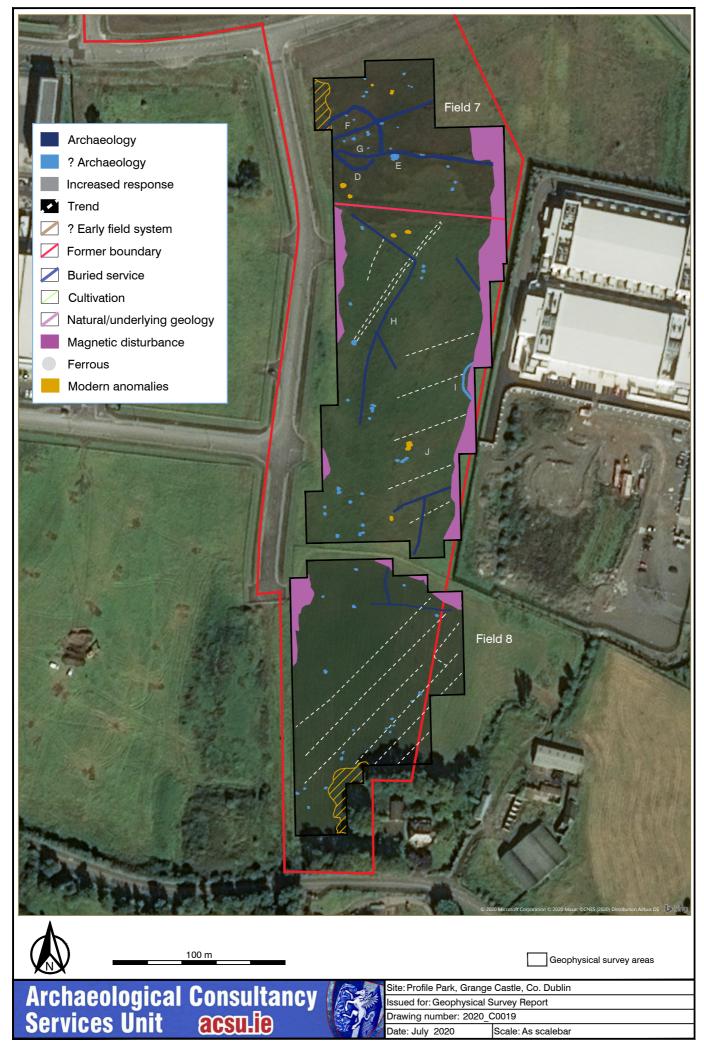


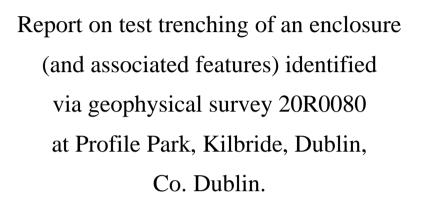
Figure 8: Aerial view of site, showing geophysical survey interpretation of fields 1 to 6



Technical Appendix 2.4: Test Trenching Report

1620012232-003 Issue: Final





ARCHAEOLOGICAL
CONSULTANCY
SERVICES UNIT

Excavation Licence No.: 21E0061

ITM: 703650, 730500

RMP No.: N/A.

Donald Murphy

5 July 2021

Report Status: Final

ACSU Ref.: 2020

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PROJECT DETAILS

Project Test Trenching of an enclosure (and associated features)

identified via geophysical survey 20R0080 at Profile Park, Kilbride, Dublin, Co. Dublin

Report Type Targeted Archaeological Test Trenching

Licence No. 21E0061

Site Profile Park, Kilbride, Dublin, Co. Dublin

Townland Kilbride

RMP N/A

ITM 703650, 730500

Consultant Archaeological Consultancy Services Unit,

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Excavation Director Donald Murphy

Report Authors Donald Murphy

Report status Final

Report Date 5 July 2021

ACSU Ref. 2020



Revision	Date	Description	Status	Author	Reviewed	Approved
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		Report				
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		Report				



EXECUTIVE SUMMARY

This final report details the results of an archaeological assessment in the form of targeted test trenching carried out of an enclosure and associated features at Profile Park, Kilbride, Dublin (ITM 703650, 730500). The site is located within Profile Park, north of Baldonnell Casement Aerodrome, on lands adjacent to and south of an internal Profile Park Road.

The site contains no Recorded Monuments listed in the Record of Monuments and Places. The nearest such monument is Castle DU021-004, located 0.43m south of the site. In addition, there are no Protected Structures listed within the South Dublin County Council Development Plan 2016-2022 located within the site. The nearest such structure is Stone Church (Ruin) & Graveyard, Ringfort (Rath / Cashel), Earthwork(s) (RM) (RPS ID 184), which is also a recorded monument DU021-005001-003, located c. 0.5m to the southeast of the site.

An area that this site is a part of was subject to a geophysical survey by ACSU Ltd in May and June 2020 under licence 20R0080. The geophysical survey confirmed the presence of archaeological remains within the site. These consisted of a sub-circular enclosure and part of an early historic field system Russell (2020) located within the current site. Subsequently, on the 19 of January 2021, a Monument Report Form was submitted. The geophysical survey report recommended test trenching to determine the nature and significance of the identified anomalies. Subsequently, in March 2021, Donald Murphy of Archaeological Consultancy Services Unit Ltd (ACSU) carried out test trenching under licence 21E0061 of the site located to the north of the current site. No features or deposits of archaeological significance were exposed or identified, and no finds were recovered.

This targeted archaeological test trenching was carried out on the 28 of June 2021 by Donald Murphy of Archaeological Consultancy Services Unit Ltd (ACSU) under licence 21E0061 issued by the Department of Housing, Gaeltacht and Heritage in consultation with the National Museum of Ireland. A total of 10 test trenches were excavated, targeting anomalies identified during the geophysical survey 20R0080 (Anomalies D, E, F, G) were targeted. The work was carried out using a 14-tonne track excavator fitted with a 1.8m wide toothless bucket. In total, 232 m of linear trenches were excavated. In general, the average thickness of topsoil measured c. 0.14-0.3m and consisted of dark brown sandy clay exposing a stony grey boulder clay natural in places represented by yellow/grey stoney marl.

Archaeological test trenching confirmed the results of the geophysical survey. It succeeded in identifying the remains of an oval/circular enclosure (Anomaly D) measuring c. 40m in diameter. The ditch measures 2.4m in width and 0.33m in depth. It appears that the upper part of the ditch was likely truncated during groundworks in 2009. The enclosure ditch was exposed in Test Trenches 1, 2, 6, 8. Furthermore, two linears (corresponding with Anomalies F and G) were recorded in Trenches 1 and 3. These were represented by two roughly east-west aligned linear ditches measuring 1.7m and 1.45m in width and 0.32m and 0.3m in depth, respectively. In addition, a feature visible as a positive anomaly on greyscale geophysical survey results was noted; it represented a modern bank (visible on 2017 aerial) that appears to be in alignment with anomaly G. Anomalies E were of geological nature.



Therefore, should any development of the site impact on the location of the enclosure, it is recommended that archaeological excavation of an area measuring 50m by 50m should be conditioned within any grant of permission for the site and excavation carried out in advance of construction. Any features exposed will require archaeological mitigation (preservation by record, if preservation in situ is not possible). This should be carried out by a licence eligible archaeologist working under licence from the Department of Housing, Local Government and Heritage in consultation with the National Museum of Ireland.



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1. INTRODUCTION

This final report details the results of an archaeological assessment in the form of targeted test trenching carried out of an enclosure and associated features located at Profile Park, Kilbride, Dublin, Co. Dublin (ITM 703650, 730500, Figures 1-2).

The site contains no Recorded Monuments listed in the Record of Monuments and Places, nor protected structures listed in the South Dublin County Council Development Plan 2016-2022

This targeted archaeological test trenching was carried out in June 2021 by Donald Murphy of Archaeological Consultancy Services Unit Ltd (ACSU) under licence 21E0061 issued by the Department of Housing, Gaeltacht and Heritage in consultation with the National Museum of Ireland.

1.1 Project background

The site is located within Profile Park, north of Baldonnell Casement Aerodrome, on lands adjacent to and south Profile Park Road. An area that this site is a part of was subject to a geophysical survey by ACSU Ltd in May and June 2020 under licence 20R0080 (Figure 6, 7). The geophysical survey confirmed the presence of archaeological remains within the current site, including a sub-circular enclosure and part of an early historic field system. Subsequently, on the 19 of January 2021, a Monument Report Form was submitted. Subsequently, in March 2021, the site to the south of New Nangor Rd (R134) and north of Profile Park Road was tested, exposing nothing of archaeological significance. In April 2021 addendum to Method Statement was submitted to carry out targeted test trenching of the enclosure (and associated features) under an existing licence 21E0061 and approved.

2. NATURAL & CULTURAL LANDSCAPE

2.1 Topography

The site is located within Profile Park; it consists of a north part of a field bounded from north by Profile Park Road and an access road from the west. It appears that the site was partially stripped of topsoil in 2009, and some groundworks/levelling took place within the north part of the site (along Profile Park Road) in 2019. The site has an elevation of c. 76 m OD. The underlying geology of dark limestone & shale (`calp) is a part of Lucan Formation. It comprises of dark-grey to black, fine-grained, occasionally cherty, micritic limestones that weather paler, usually to pale grey. There are rare dark coarser-grained calcarenitic limestones, sometimes graded, and interbedded dark-grey calcar (Geological Survey of Ireland). The underlying dark limestone & shale (`calp) is covered by deep, well-drained mineral, mainly basic soils within the east part of the site.



2.2 Historical background

The study area is located within Profile Park, on lands to the north of Baldonnell Casement Aerodrome, c. 12km to the west-southwest of Dublin City Centre. The site is located within the townlands of Kilbride. Kilbride is located within the Parish of Kilbride and the Barony of Newcastle.

An examination of the Placenames Database of Ireland (www.logainm.ie) can reveal important information about an area's natural and cultural heritage. Kilbride (Cill Bhríde) was first mentioned in 1307 in reference to the tenements of *Kilbride and the Naungre* (Mills, 1914). The name is depicted on the 1760 Rocque map as Killbride; within the townland, a *Church in Ruins* is also depicted, likely representing recorded monument DU021-005001-. The Irish name for Kilbride, Cill Bhríde means Bridget's Church.

Sites dating to the medieval period are common in this area. However, some prehistoric activity in the form of burnt mounds was identified in the neighbouring townland of Grange. Furthermore, to the northeast of the site in Kishoge and Kilmahuddrick, a Neolithic period house (01E0061) and a ring-barrow (00E0448) were excavated. The house excavated at Kishoge is the earliest dated dwelling found in the Dublin region (O'Donovan et all, 2003).

In Clondalkin, located c. 3km to the east-northeast of the study area, during the 7th century, a monastery was established dedicated to St Mochua. It was plundered by the Vikings in the 9th century and became a Viking base. There is little information in relation to the early history of the study area; however, the name Kilbride was mentioned in 1295; 5 shillings were paid to William Comyn for the rent of Kilbride and Nanger (Sweetman 1881). The study area was under the control of Leinster rulers until the 12th century when the Anglo-Normans arrived. Kilbride is often mentioned in various sources as 'lands of Kilbride and Nanger'. In the 16th century, the Bathe family held the lands of Kilbride and Nanger. Nangor Castle was in the possession of John Bath in the early 17th century (Byrne, Graham 1991). The study area is depicted on Rocque's Map of 1760 to the south side of the 'New Canal', between the settlements of 'MillTow'n and 'Nanger'. The area is depicted as predominantly pastureland. A road leads from 'MillTown' through 'Ballybawn', through the study area, passing 'Church in Ruins' (probably RMP DU021-005001-). To the south of the church, an area is labelled as 'Killbride'. Two buildings are noted to the west of the church; these are likely farmyards and are located within the castle-unclassified (DU021-004----) area. The castle is not depicted, suggesting perhaps it was no longer standing. On the 1st edition Ordnance Survey 6-inch map of 1836 (published in 1843) (Figure 3), the townland boundary between Ballybane and Kilbride is depicted and runs in a stepped profile roughly east-west to the north of the site. The irregular and curving nature of the boundary is due to the fact that it follows a wet ditch/stream that turns northward and joins the canal. The current site is located in the townland of Kilbride. No buildings are depicted within the site; however, in the field to the south-eastern of the site, Kilbride Castle is shown with long rectangular buildings within. To the east of the castle site, within an oval area a 'Church', and 'Grave Yd.' are labelled. No changes within the study area in relation to field layout took place by the time of the 3rd edition Ordnance Survey 25-inch map of 1908 (Published 1910) (Figure 4). However, the 1908 map



offers more detail, particularly in relation to the site of 'Kilbride Castle'. Here 'Kilbride House' is now depicted, and to the east and adjacent to it, a farmyard with a number of rectangular buildings is shown. The site is surrounded by a waterway/stream and the area is noted as 'Kilbride Castle (Site of)'. To the southeast, 'Church (In Ruins) and 'Grave Yard' are noted within an oval enclosure. No changes to the study area are apparent from Cassini map of 1935-38 (Figure 5).

2.3 Previous archaeological investigations

The nearest excavation to the study area was located to the west of the site and within Profile Park; however, no archaeology was identified (15E0551). Two geophysical surveys were carried out in 2020. These included one carried out within the site (20R0080) by ACSU, the other within the environs of the site (20R0006) by Target and ACSU Ltd.

Listed below are excavations located in the environs of the site. These further demonstrate the overall archaeological potential of the site under study and its surrounding townlands. The following information was taken from www.excavations.ie

Table 1: Previous excavations in the environs of the proposed development site

Site	Licence	RMP/SMR	Site Type	Investigation
	No.	No.		type
2016:094 - Ballybane and Aungierstown, Dublin (South County), Dublin	15E0551	DU021- 108 & DU021- 109	No archaeology found	Archaeological test trenching
Castlebaggot Park, Kilbride & Kilmactalway Townlands, South County Dublin	20R0006	N/A	Various	Geophysical Survey
Profile Park, Nangor Road, Clondalkin	12E0067	N/A	No archaeological significance	Archaeological monitoring
Kishoge	01E0061	N/A	Prehistoric house	Archaeological excavation
KILMAHUDDRICK (GRANGE CASTLE INTERNATIONAL BUSINESS PARK), CLONDALKIN	00E0448	N/A	Ring barrow	Archaeological excavation
GRANGE/KILMAHUDDRICK/NANGOR (GRANGE CASTLE INTERNATIONAL BUSINESS PARK), CLONDALKIN	00E0718	N/A	Fulacht fiadh	Archaeological monitoring

This site is a part of an area that was subject to a geophysical survey by ACSU Ltd in May and June 2020 under licence (20R0080). The geophysical survey confirmed the presence of archaeological remains, including subcircular enclosure and part of an early historic field system. The current site consists of the south part of Field



7, as described by Russell (2020). Here a sub-circular enclosure, a series of previously unrecorded field systems, faint linear scars of possible agricultural origin and a second curving anomaly along the eastern border of the field were identified (Figure 6). The sub-circular enclosure c. 30m in diameter with a well-defined southeast entrance was identified. The enclosure is associated with potential linear and pit features as well as two east-west aligned linear anomalies. The geophysical survey report recommended test trenching in order to determine the nature and significance of the anomalies identified.

The nearest excavation to the study area was located immediately to the north of the site. In March 2021, archaeological test trenching was carried out under licence 21E0061 exposing nothing of archaeological significance (Murphy, 2021).

To the southeast of the site and within Profile Park, also no archaeology was identified (15E0551). A geophysical survey under Licence 20R0006 was carried out in February 2020 within Castlebaggot Park, within the townlands of Kilbride & Kilmactalway by TARGET and ACSU Ltd. A number of areas were subjected to survey, including an area to the southeast, near the previously mentioned recorded monument DU021-004----. This survey revealed the presence of a number of ferrous responses, some magnetic disturbances running northeast-southwest and two linear features, possibly of an archaeological nature, running in a northeast-southwest direction and likely extending into the current study area. During this survey, a number of archaeological sites were identified in the environs of the study area. This includes: three-ring ditches, part of the sub-circular enclosure, rectilinear ditch, the potential structure remains, ditch, part of sub-circular enclosure ditch associated with DU021-003001-004, curvilinear ditch, linears, enclosure features and field systems related to DU021-005001-003. This suggests that the study area has a high potential to contain previously unknown archaeological sites with no surface remains.

To the northeast of the study area, a number of archaeological investigations were carried out in relation to the development of Grange Castle International Business Park. In the townland of Kishoge a Neolithic period house was excavated (01E0061). A rectangular house with slightly curved corners was excavated, cut features included postholes, pits and foundation trenches. In Kilmahuddrick townland, a ring-barrow was excavated (00E0448). It was initially detected via geophysical survey. It was discovered that the ring barrow was located within a rectangular enclosure measuring c. 50m by 100m minimum. The ditch of the ring-barrow was excavated and measured 2.5m in width and was 1.6m deep. Within, several deposits of cremated bone were recorded. A small Fulatch fiadh was excavated under licence 00E0718. It consisted of a small pit or trough and a spread of heat-cracked stone. In addition, a linear feature was located southwest of the trough. More recently, excavations by IAC Ltd. in Grange Castle South have exposed significant archaeological features, including two large enclosure sites.

2.4 Protected Structures and National Inventory of Architectural Heritage (NIAH)

The site contains no Protected Structures listed in the South Dublin County Council Development Plan 2016-2022 located within the site. The nearest such structure is Stone Church (Ruin) & Graveyard, Ringfort (Rath /



Cashel), Earthwork(s) (RM) (RPS ID 184), which is also a recorded monument DU021-005001-003, located c. 0.5m to the southeast of the site.

2.5 Record of Monuments and Places (RMP)

The site contains no monuments listed within the Record of Monuments and Places or Sites and Monuments Record. The nearest such monument is castle DU021-004, located 0.43m south of the site.

The following is a list of the nearest Recorded Monuments located within the surrounding area (Figure 2) and derives from the National Monuments Service Archaeological Survey Database (http://webgis.archaeology.ie/historicenvironment/).

Table 2: Recorded Monuments in the environs of the proposed development site

RMP/SMR No	Class/ Site Type	Townland	Description
DU021-004	Castle - unclassified	KILBRIDE	Situated in a narrow valley. There are farm buildings on the site. There is no visible trace above ground
DU021- 005001-	Church	KILBRIDE	Located in a circular raised graveyard (L 42m, Wth 30) on the edge of a valley (DU021-005002-). This may be the remains of an early ecclesiastical enclosure (DU021-005003-). In 1228 the archbishop of Dublin granted the church of Kilbride to Andrew de Monevea as a prebend and later conferred it on the Canons of St Patrick's Cathedral (Mc Neill 1950, 75). In 1630 it was described as ruinous (Ronan 1941, 80). This church was attached to St. Patrick's Cathedral and was described at the dissolution in 1547 as an old chapel (Ball 1906, 68-70). Consists of a small rectangular building (int. dims L5.8m, Wth 3.63m, T 0.85m) with a NW turret in ruinous condition. Formerly entered through an opening in the W end (now damaged). Built of randomly coursed masonry. There is an aumbry in the E end of the N wall of the church. The E window has a S jamb of tufa. There are remnants of another window in the W end of the S wall. The NW turret (L1.35m, Wth 0.77m, H1.78m) is entered through a lintelled doorway off the church. It has a corbelled roof. There are traces of a stairwell on the S side of the turret
DU021- 005002-	Graveyard	KILBRIDE	Located in a circular raised graveyard (L 42m, Wth 30) on the edge of a valley. Encloses the remains of a medieval church(DU021-005001-).
DU021-108	Concentric enclosure	BALLYBANE	Not indicated on any OS map a large concentric enclosure is visible as a crop-mark on an aerial photo. A second enclosure (DU021-109) is visible to the SW. DU021-10801.jpg Aerial image (derived from Bing Maps) showing the enclosures.



RMP/SMR	Class/ Site	Townland	Description
No	Туре		
DU021-109	Enclosure	BALLYBANE	Not indicated on any OS map this enclosure is as a cropmark on an aerial photo. A second larger enclosure (DU021-108) is visible to the NE. DU021-10901.jpg Aerial image (derived from Bing Maps) showing the enclosures. Compiled by: Paul Walsh Date
DU017-082	Field system	NANGOR	Excavations in 2001 revealed a medieval ditch complex. This appeared to represent the remains of medieval field boundaries with associated water management gullies. Some 1600 sherds of local medieval pottery were recovered and two sherds of imported ware

2.6 Finds listed in the Topographical files of the National Museum of Ireland

Four archaeological finds are listed within the Topographical Files of the National Museum of Ireland for the townland of Kilbride. These include Pottery (NMI ID 1873:29.1), human remains (NMI ID 1873:29.2 and NMI ID 4530:Wk176.2), urn (NMI ID 2676:Wk176.1), all noted as found at Valley of the River Liffey near Kilbride.

3. ARCHAEOLOGICAL ASSESSMENT

3.1 Site description

The site is located within Profile Park; it consists of a north part of a field bounded from north by Profile Park Road and an access road from the west. It appears that the site was partially stripped of topsoil in 2009, and some groundworks/levelling took place within the north part of the site, along Profile Park Road, in 2019.

3.2 Methodology

The test excavation was carried out in accordance with the IAI Code of Conduct for Archaeological Excavation (IAI 2006). The excavation included the creation of a written and photographic record of the archaeology on a feature-by-feature basis using pro-forma record sheets, maintaining daily logs of excavations, and recording stratigraphic relationships and the position and depth of archaeology.

The test trenches were 1.8m wide and excavated to the surface of archaeological deposits or the underlying natural subsoil, whichever was encountered first. Natural sub-soil was exposed in all test trenches.

A mechanical excavator with a 1.8m wide ditching bucket was used to assist in the removal of topsoil and any made ground in horizontal levels of not more than 0.10m in thickness. This work was undertaken under the direct supervision of the excavation director (Donald Murphy), in accordance with all current Health and Safety and regulatory legislation guidelines, including COVID19 procedures. The reinstatement of the trenches took place in tandem with the archaeological works.



Archaeological features were uncovered during testing; a section was excavated by hand to establish their depth and extent. The features were cleaned, recorded (by plan, photographs, levels, feature sheets, etc.). No finds were identified.

All excavated trenches were recorded using digital photography. Digital photography images were taken using a high-resolution digital camera with a minimum resolution of 10 Megapixels.

3.2.1 Finds retrieval and sample strategy

No finds were recovered, and no samples were taken.

3.3 Results

Targeted archaeological test trenching of enclosure and associated features was carried out on the site in June 2021 using a 14-tonne track excavator. A total of ten test trenches (Plates 5-21) were excavated, targeting anomalies identified during the geophysical survey 20R0080 (Anomalies D, E, F, G) as outlined in Figures 7,8. Each test trench measured 1.8m in width. In total, 232 linear meters were excavated. In general, the average thickness of topsoil measured c. 0.14-0.3m and consisted of dark brown sandy clay exposing a stony grey boulder clay natural that was in places represented by yellow/grey stoney marl.

Archaeological test trenching confirmed the results of the geophysical survey. It succeeded in identifying the remains of an oval/circular enclosure (Anomaly D) measuring c. 40m in diameter. Enclosure ditch C3 measures 2.4m in width and 0.33m in depth. It appears that the upper part of the ditch was likely truncated during groundworks in 2009. The enclosure ditch was exposed in Test Trenches 1, 2, 6, 8. Furthermore, two linears (corresponding with Anomalies F and G) were recorded in Trenches 1 and 3. These were represented by two roughly east-west aligned linear ditches (C5 and C7) measuring 1.7m and 1.45m in width and 0.32m and 0.3m in depth, respectively. In addition, a feature visible as a positive anomaly, representing a modern bank C9 (visible on 2017 aerial, see Plate 3) that appears to be in alignment with anomaly G was noted. Anomalies E were of geological nature.

Table 3: Description of Test Trenches

Test Trench Number	Length (m)	Trench depth (m)	Description
1	-	0.25	Test Trench 1 was north-south aligned. It targeted anomalies D, G and F. Three ditches were identified (C3, C5 and C7) within the trench. These included enclosure ditch and two east-west aligned ditches (Figures 7, 8, 9, Plates 5-9).
2	-	0.18	Test Trench 2 was east-west aligned. It targeted anomaly D and anomalies E.



Test Trench Number	Length (m)	Trench depth (m)	Description	
			Enclosure ditch C3 was exposed. Anomalies E appear to be of geological nature (Figures 7, 8, Plates 10, 11).	
3	-	0.15	Test Trench 3 was north-south aligned. It targeted anomaly G and Anomalies E. A shallow east-west aligned ditch C8 was exposed corresponding with Anomaly G. Anomalies E appear to be of geological nature (Figures 7, 8, Plate 12).	
4	-	0.14	Test Trench 4 was north-south aligned. It targeted Anomalies E, that appear to be of geological nature. No features or deposits of archaeological nature were identified within the trench (Figures 7, 8, Plate 13).	
5	-	0.25	Test Trench 5 was northwest-southeast aligned. It targeted Anomalies E, that appear to be of geological nature.	
			No features or deposits of archaeological nature were identified within the trench (Figures 7, 8, Plate 14).	
6	-	0.25	Test Trench 6 was northwest-southeast aligned. It targeted anomaly D and Anomalies E. Enclosure ditch C3 was exposed. Anomalies E appear to be of geological nature (Figures 7, 8, Plates 15, 16).	
7	-	0.2	Test Trench 7 was north-south aligned. It targeted anomaly F. No features or deposits of archaeological nature were identified within the trench (Figures 7, 8, Plate 17).	
8	-	0.25	Test Trench 8 was northeast-southwest aligned. It targeted Anomaly D and G. Enclosure ditch C3 and ditch C8 were exposed (Figures 7, 8, Plates 18, 19).	
9	-	0.3	Test Trench 9 was north-south aligned. It targeted Anomaly G. It appears that a positive anomaly, while in alignment with Anomaly G, represented a modern bank C9 visible on aerial imagery from 2017. No features or deposits of archaeological nature were identified within the trench (Figures 7, 8, Plate 20).	
10	-	0.3	Test Trench 10 was north-south aligned. It targeted Anomaly G. It appears that a positive anomaly, while in alignment with Anomaly G, represented a modern bank C9 visible on aerial imagery from 2017. No features or deposits of archaeological nature were identified within the trench (Figures 7, 8, Plate 21).	

Table 4: List of Contexts

Context	L(m)	W(m)	D(m)	Basic Description
C1	-	-	0.14-0.3	Topsoil, dark brown sandy clay



Context	L(m)	W(m)	D(m)	Basic Description
C2	-	-	-	Natural subsoil, stony grey boulder clay natural that was in places represented by yellow/grey stoney marl.
C3	-	2.4	0.33	Cut of enclosure ditch. Filled by C4. It measured 2.4m in width and was 0.33m deep. It appears that the upper extent of the feature was truncated during groundworks in 2009. Cut C3 has relatively gradual sides and a flat base. The ditch was exposed in Test Trenches 1, 2, 6 and 8 (Figures 7-9; Plates 6, 11, 16, 19)
C4	-	2.4	0.33	Fill of enclosure ditch C3 (Figures 7-9, Plates 6, 11, 16, 19).
C5	-	1.7	0.32	Cut of east-west aligned ditch accounting for Anomaly F. Filled by C6. Cut C5 has stepped sides there is a change in the slope; the slope is gradual at first and becomes more steep closer to the base; break of the slope base is gradual, and the base is flat. It appears that the upper extent of the feature was truncated during groundworks in 2009. The ditch was exposed in Test Trench 1 (Figures 7-9; Plates 7, 8).
C6	-	1.7	0.32	Fill of ditch C5. It consisted of light brown-grey silty sand with frequent shell and stone inclusions (Figures 7-9; Plates 7, 8).
C7	-	1.45	0.3	Cut of east-west aligned ditch accounting for Anomaly G. Filled by C8. Cut C7 had gradual sides and a concave base. It appears that the upper extent of the feature was truncated during groundworks in 2009. It was exposed in Test Trench 1 and 3 (Figures 7-9; Plate 9)
C8	-	1.45	0.3	Fill of ditch C7. It consisted of sterile light brown-orange silty clay (Figures 7-9; Plate 9).
С9				Modern bank. Accounting for the east extent of Anomaly G, where it is visible as a positive anomaly. The bank is visible on 2017 aerial (Figures 7, 8, Plate 3).

4. MATERIAL CULTURE

No artefacts were retrieved. No samples were taken, and no animal or human bones were encountered.

5. DATING

No samples were taken for analysis or dating during the programme of test trenching on site.



6. DISCUSSION

Archaeological test trenching of an enclosure and associated features was carried out at Profile Park, Kilbride, Dublin, Co. Dublin succeeded in identifying the remains of an oval/circular enclosure (Anomaly D) measuring c. 40m in diameter. Enclosure ditch C3 measures 2.4m in width and 0.33m in depth. It appears that the upper part of the ditch was likely truncated during groundworks in 2009. The enclosure ditch was exposed in Test Trenches 1, 2, 6, 8. Furthermore, two linears (corresponding with Anomalies F and G) were recorded in Trenches 1 and 3. These were represented by two roughly east-west aligned linear ditches (C5 and C7) measuring 1.7m and 1.45m in width and 0.32m and 0.3m in depth, respectively. In addition, a feature visible as a positive anomaly, representing a modern bank C9 (visible on 2017 aerial) that appears to be in alignment with Anomaly G, was noted. Anomalies E were found to be of geological nature.

7. CONCLUSIONS AND RECOMMENDATIONS

The archaeological assessment (targeted test trenching informed by geophysical survey) of an enclosure and associated features was carried out at Profile Park, Kilbride, Dublin, Co. Dublin. It identified the presents of archaeological remains on the site. The features of archaeological significance include enclosure and two linear ditches. All features are located within the western extent of the site.

Therefore, should any development of the site impact on the location of the enclosure, it is recommended that archaeological excavation of an area measuring 50m by 50m should be conditioned within any grant of permission for the site and excavation carried out in advance of construction. Any features exposed will require archaeological mitigation (preservation by record/excavation, if preservation in situ is not possible). This should be carried out by a licence eligible archaeologist working under licence from the Department of Housing, Local Government and Heritage in consultation with the National Museum of Ireland.

8. POST-EXCAVATION PROGRAMME

No further post-excavation analysis is proposed.



9. EXCAVATION BULLETIN

Dublin
Profile Park Kilbride
21E0061
ITM. 703650, 730500
Test Trenching

28 of June 2021

Archaeological assessment, in the form of targeted archaeological test trenching of an enclosure and associated features was carried out at the site at Profile Park, Kilbride, Dublin. The site is located within Profile Park, adjacent to and south of Profile Park Road.

The site contains no Recorded Monuments listed in the Record of Monuments and Places, nor Protected Structures listed within the South Dublin County Council Development Plan 2016-2022.

Archaeological test trenching was carried out on the site in June 2021 using a 14-tonne track excavator. A total of ten test trenches were excavated, targeting anomalies identified during the geophysical survey 20R0080 (Anomalies D, E, F, G). Each test trench measured 1.8m in width. In total, 232 linear meters were excavated. In general, the average thickness of topsoil measured between c. 0.14-0.3m and consisted of dark brown sandy clay exposing a stony grey boulder clay natural that was in places represented by yellow/grey stoney marl.

Archaeological test trenching confirmed the results of the geophysical survey. It succeeded in identifying the remains of an oval/circular enclosure (Anomaly D) measuring c. 40m in diameter. Enclosure ditch C3 measures 2.4m in width and 0.33m in depth. It appears that the upper part of the ditch was likely truncated during groundworks in 2009. Furthermore, two linears (corresponding with Anomalies F and G) were recorded. These were represented by two roughly east-west aligned linear ditches (C5 and C7) measuring 1.7m and 1.45m in width and 0.32m and 0.3m in depth, respectively. In addition, a feature visible as a positive anomaly, representing a modern bank C9 (visible on 2017 aerial) that appears to be in alignment with anomaly G, was noted. Anomalies E were of geological nature.

Donald Murphy, Archaeological Consultancy Services Unit Ltd, Unit 21, Boyne Business Park, Greenhills, Drogheda, Co Louth.

10. PUBLICATION PLAN

An account of this licenced test trenching assessment and its results will be published online as an excavation bulletin at www.excavations.ie (see Section 8).



11. REFERENCES

Doyle I (2005). Excavation of a prehistoric ring barrow at Kilmahuddrick, Clondalkin, Dublin 22. The Journal of Irish Archaeology, Vol xiv, pp43-75.

Institute of Archaeologists of Ireland (IAI) 2004 The Treatment of Human Remains: Technical paper for Archaeologists. IAI, Dublin.

Institute of Archaeologists of Ireland (IAI) 2006a IAI Code of Conduct for the Treatment of Archaeological Objects in the context of an archaeological excavation. IAI, Dublin.

Institute of Archaeologists of Ireland (IAI) 2006b IAI Code of Conduct for the Archaeological Treatment of Human Remains in the context of an archaeological excavation. IAI, Dublin.

Institute of Archaeologists of Ireland (IAI) 2007 Environmental Sampling: Guidelines for Archaeologists. IAI, Dublin.

McNeill, C. 1950, Calendar of Archbishop Alen's register, c. 1172-1534 prepared and edited from the original in the Registry of the United Dioceses of Dublin and Glendalough and Kildare by Charles McNeill; with an index compiled by Liam Price. Royal Society of Antiquaries of Ireland.

Mills, J. 1914 Calendar of Justiciary Rolls or Proceedings in the Court of the Justiciar of Ireland preserved in the Public Record Office of Ireland.

Murphy, D., 2021, Report on Archaeological Assessment (test trenching) at Profile Park, Ballybane and Kilbride, Co. Dublin (21E0061), unpublished report.

National Monuments Service 2006 Guidelines for Authors of Reports on Archaeological Excavations https://www.archaeology.ie/sites/default/files/media/publications/excavation-reports-guidelines-for-authors.pdf.

National Museum of Ireland 2010 Advice Notes for Excavators. National Museum of Ireland, Dublin.

O'Donovan, E (2003). A Neolithic House at Kishoge, Co Dublin. The Journal of Irish Archaeology, Vol xii & xiii, pp1-27.

Russell, I., Breen, R. 2020, Geophysical Survey of a Proposed Development at Profile Park, Kilbride, Dublin, Co. Dublin (20R0080), unpublished report

Other Sources

GeoHive by Ordnance Survey Ireland (https://geohive.ie/)

National Inventory of Architectural Heritage (http://www.buildingsofireland.ie/).

National Library of Ireland, 7–8 Kildare Street, Dublin 2.



Placenames Database of Ireland, developed by Fiontar & Scoil na Gaeilge (DCU) and The Placenames Branch (Department of Housing, Local Government and Heritage). (www.logainm.ie)

Record of Monuments and Places (RMP), the Heritage Service, 7 Ely Place, Dublin 2.) (www.webgis.archaeology.ie/historicenvironment/

South Dublin County Council Development Plan 2016-2022 (https://www.sdcc.ie/en/services/planning/heritage-and-conservation/protected-structures/record-of-protected-structures-schedule-2.pdf)

Summary Accounts of Archaeological Excavations in Ireland (www.excavations.ie).

The Schools Collection, national Folklore Collection, UCD (https://www.duchas.ie/en/cbes).

National Museum of Ireland: Finds Database (2010) (https://heritagemaps.ie/WebApps/HeritageMaps/index.html)

Topographical files of the National Museum of Ireland

Cartographic and Photographic Sources

1st edition Ordnance Survey (OS) 6-inch map (surveyed 1836 - published 1843),

3rd edition Ordnance Survey (OS) 25-inch map (surveyed 1908 - published 1910)

Cassini edition Ordnance Survey (OS) 6-inch map (1935-38)

Rocque's Map of 1760

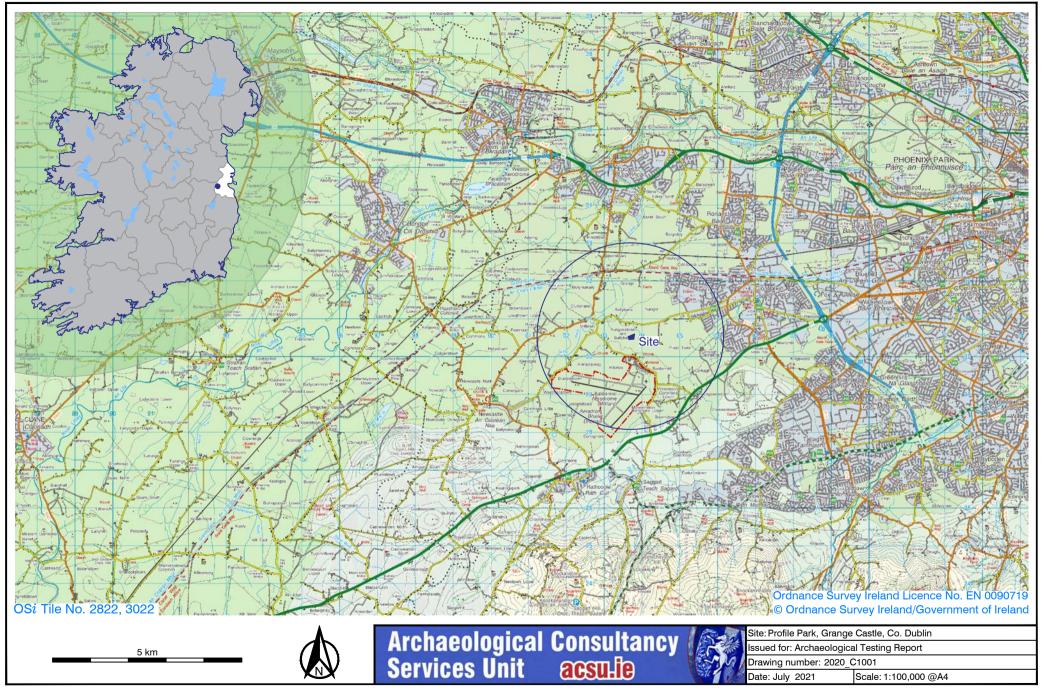


Figure 1: Location of site

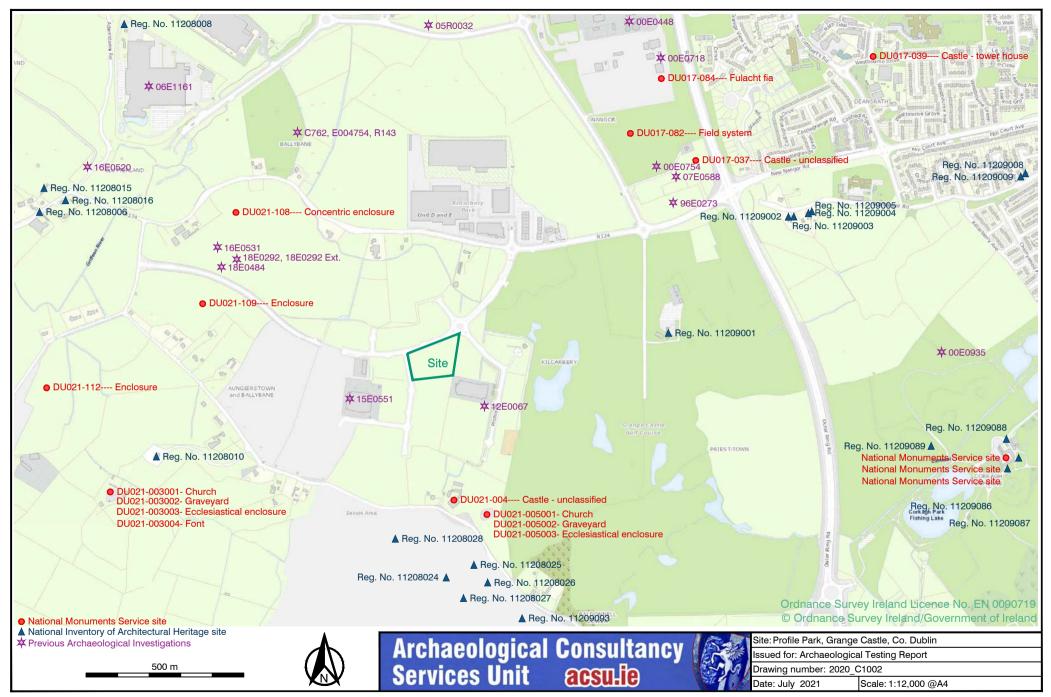


Figure 2: Location of site, previous archaeological investigations and nearby Sites and Monuments Record sites

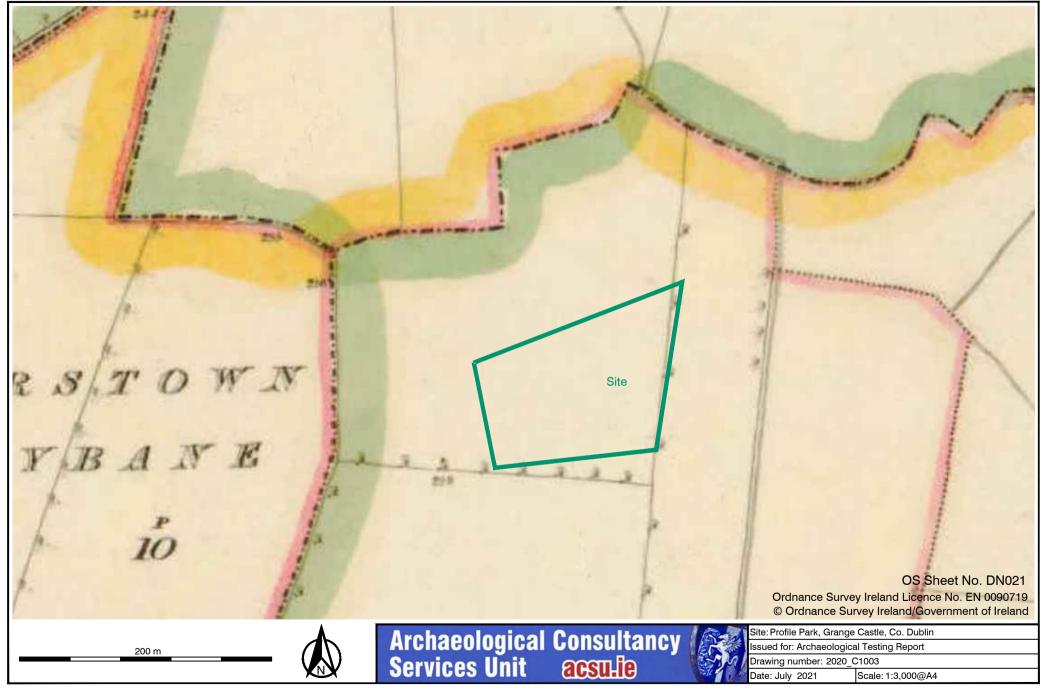


Figure 3: Extract from 1st edition Ordnance Survey (OS) 6-inch map (surveyed 1836 - published 1843), showing location of site

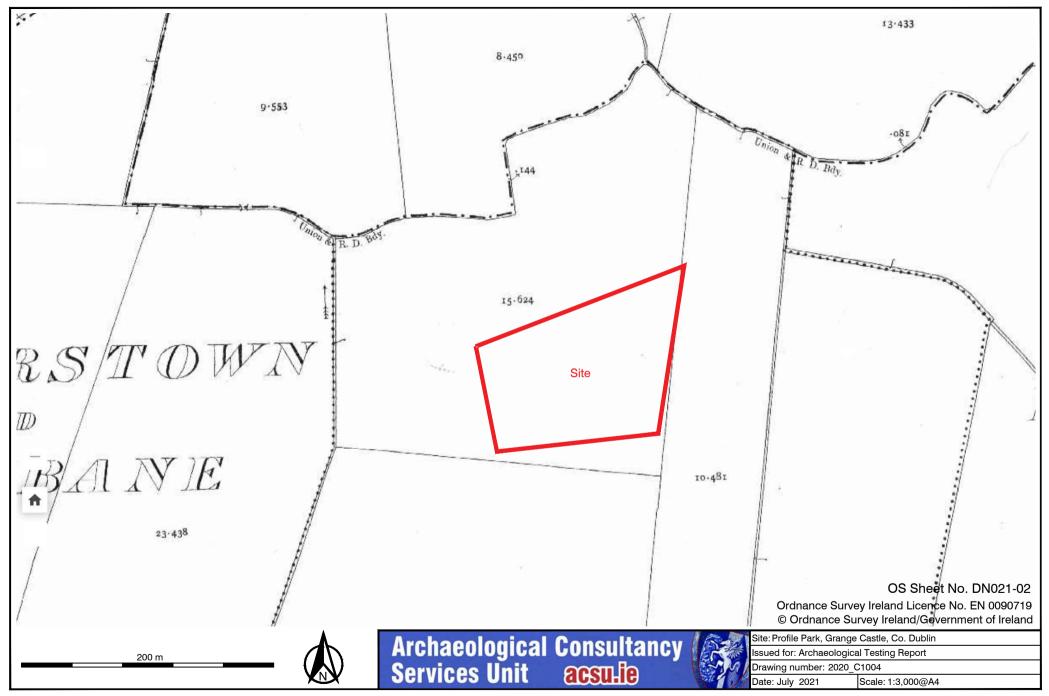


Figure 4: Extract from 3rd edition Ordnance Survey (OS) 25-inch map (surveyed 1908 - published 1910), showing location of site

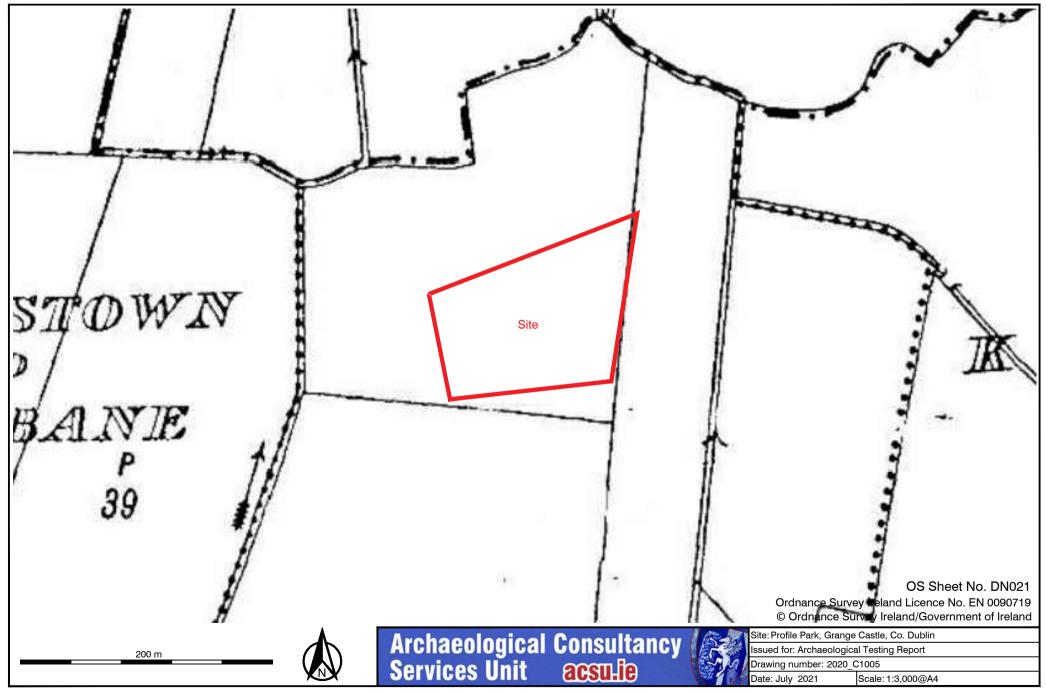
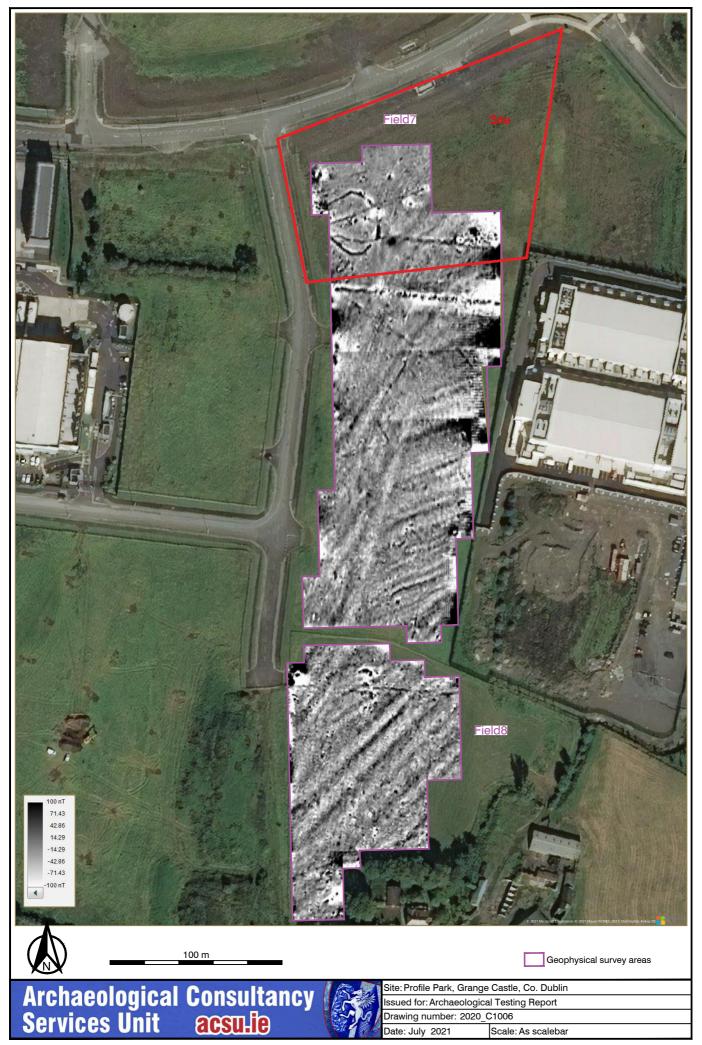


Figure 5: Extract from Cassini edition Ordnance Survey (OS) 6-inch map (1935-38), showing location of site



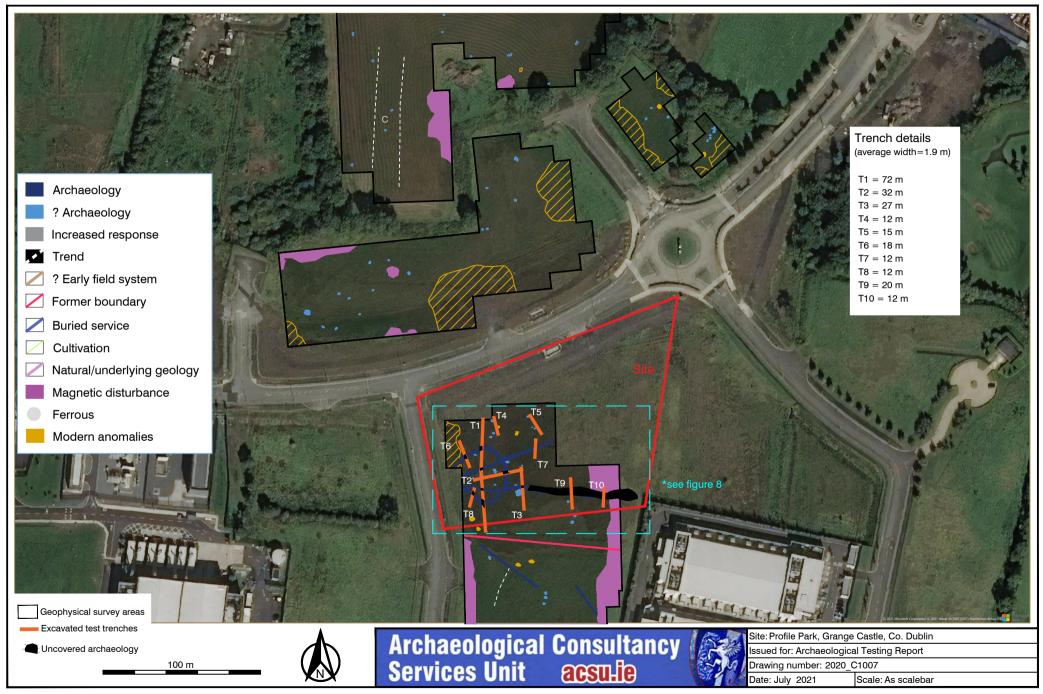


Figure 7: Aerial view of site, showing geophysical survey interpretation and excavated test trenches

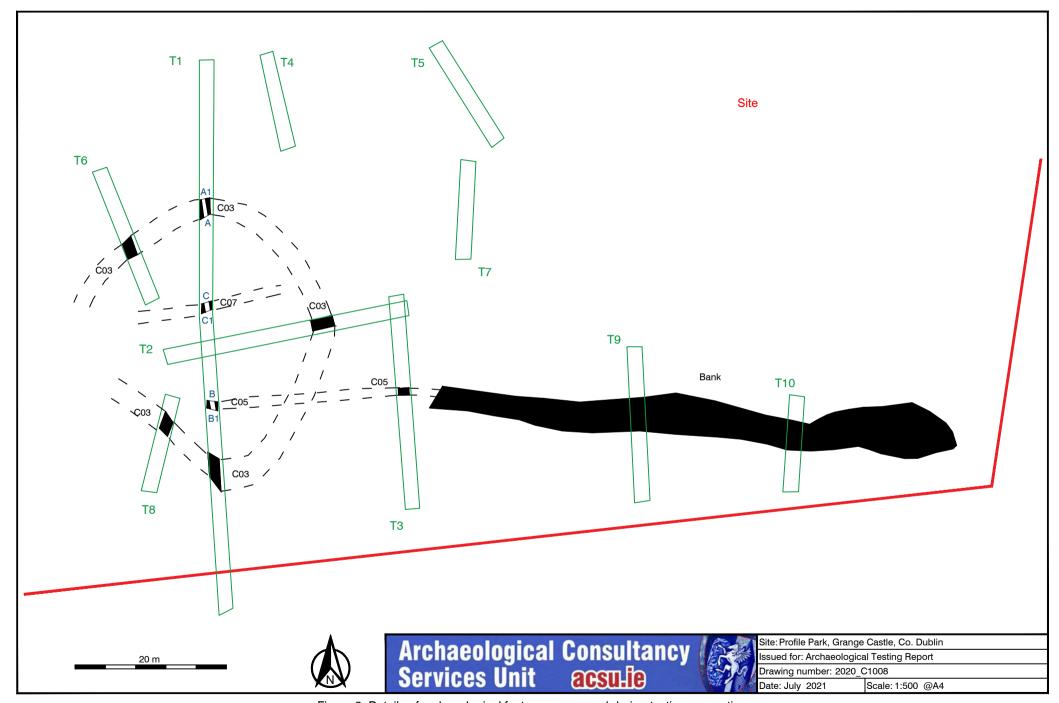


Figure 8: Details of archaeological features uncovered during testing excavation

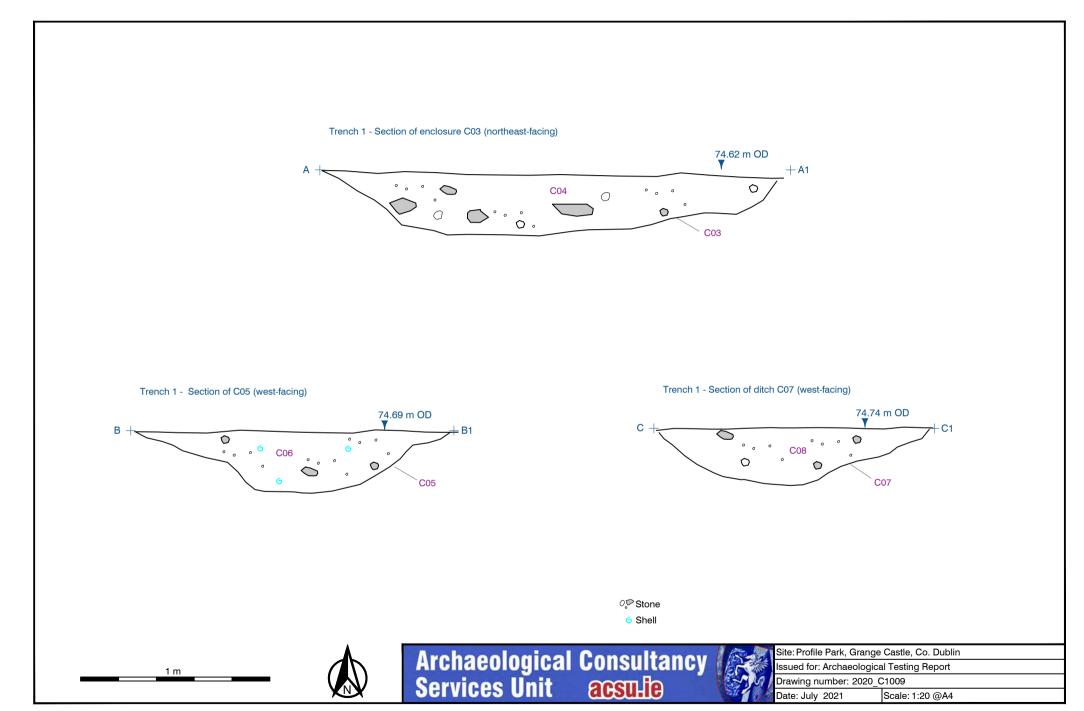


Figure 9: Details of excavated sections in Trench 1



Plate 1: Aerial view of the site, Google Earth imagery 2021.

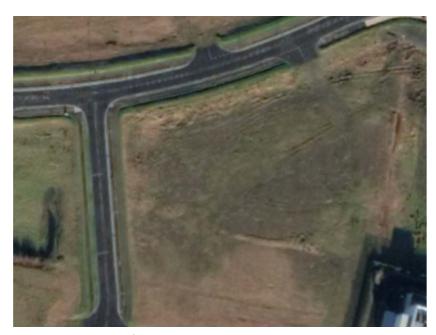


Plate 3: Aerial view of the site, Google Earth imagery 2017.



Plate 2: Aerial view of the site, Google Earth imagery 2019.



Plate 4: Aerial view of the site, Google Earth imagery 2009.



Plate 5: Test Trench 1, facing south.



Plate 7: Test Trench 1, ditch C5, facing north.



Plate 6: Test Trench 1, enclosure ditch C3, facing north-west.



Plate 8: Test Trench 1, section through ditch C5, facing west.



Plate 9: Test Trench 1, ditch C7, facing southeast



Plate 11: Test Trench 2, enclosure ditch C3, facing east.



Plate 10: Test Trench 2, facing west.



Plate 12: Test Trench 3, facing north.



Plate 13: Test Trench 4, facing north.



Plate 15: Test Trench 6, facing north.



Plate 14: Test Trench 5, facing south.



Plate 16: Test Trench 6, enclosure ditch C3, facing north.



Plate 17: Test Trench 7, facing north.



Plate 19: Test Trench 8, enclosure ditch C3, facing southwest.



Plate 18: Test Trench 8, facing southwest.



Plate 20: Test Trench 9, facing south.



Plate 21: Test Trench 10, facing north.