12. CULTURAL HERITAGE

12.1 Introduction

This EIAR chapter was prepared by Frank Coyne of Aegis Archaeology Ltd. This chapter presents the results of an impact assessment of the Proposed Development, as described in Chapter 4 of this EIAR, upon local archaeology, built heritage and cultural heritage.

The purpose of this chapter is to assess the potential effects of the Proposed Development on the surrounding archaeological, architectural and cultural heritage landscape. This chapter of the EIAR has been completed in accordance with the guidance set out in Chapter 1. The assessment is based on both a desktop review of the available cultural heritage and archaeological data and a comprehensive site visit and walkover survey that was carried out on 4th November 2022

The report amalgamates desk-based research and the results of site visit to identify areas of archaeological/architectural/cultural significance or potential, likely to be impacted by the Proposed Development. A description of the potential impacts is presented, and mitigation measures are recommended where appropriate. The potential visual impact of the proposed development on recorded monuments is also assessed.

12.1.1 Statement of Authority

Frank Coyne MA graduated from University College Galway in 1989 with a BA (honours) degree in archaeology and history. He graduated from the City of Birmingham University with an MA (Distinction) in Conservation of the Historic Environment in 2021. He is licensed to carry out archaeological excavations in Ireland since 1997 and has 26 years of experience in the provision of archaeology and cultural heritage services to public and private sector clients. He is a director of Aegis Archaeology Ltd which was established in 1997 and has undertaken major archaeological projects from pre-planning assessment stage to archaeological excavation (preservation by record) of sites. Frank Coyne won the 2020 Donald Insall award in the UK, and also the HSBC award for 'Best Conservation Management Plan' for Mutton Lighthouse in Galway.

12.2 Receiving Environment

12.2.1 Proposed Development

Sky Castle Ltd. intends to submit to a total of six planning applications as part of the Moygaddy Mixed Use Development. A total of three planning applications will be submitted to Meath County Council as the competent authority. One planning application seeks to provide a Strategic Employment Zone (Biotechnology & Life Sciences Campus), one planning application for Healthcare Facilities which includes a Nursing Home and Primary Care Centre, and one planning application for the delivery of the proposed Maynooth Outer Orbital Road (MOOR).

A planning application for a Strategic Housing Development (SHD) will be submitted to An Bord Pleanála under the Strategic Housing Provisions of the Planning and Development (Housing) and Residential Tenancies Act, 2016.

There will also be two separate planning applications submitted to Kildare County Council for shared infrastructure and proposed services and utilities connection to Maynooth town in County Kildare. One planning application to Kildare includes a proposed pedestrian / cycle bridge adjacent to the existing Kildare Bridge, as well as a proposed wastewater connection to the Maynooth Municipal Wastewater Pumping Station to the southeast of the Proposed Development. The other planning application to be

submitted to Kildare County Council is located to the southwest of the Proposed Development for the provision of an integral single span bridge over the Rye Water River with associated flood plain works and embankments, as well as services and utilities connections.

As outlined in Chapter 1: Introduction, this EIAR assess the impact of all six planning applications under the one 'Proposed Development' due to the proximity, timeline and links between the applications.

While these developments will be subject to separate planning applications, it was considered prudent to consider all six applications together under one EIAR, due to the proximity, construction timelines and shared infrastructure between the developments. **Site A, Site B, Site C, MOOR, Kildare Bridge and Moyglare Bridge** will be collectively referred to as the 'Proposed Development' henceforth.

A full description of the Proposed Development is provided in Chapter 4 of this EIAR. All elements of the overall project have been assessed as part of this EIAR.

12.2.2 Site Location and Topography

Sites A, B and C of the Proposed Development are located in County Meath on the northern environs of Maynooth town, Co. Kildare. The proposed strategic employment zone (Site A) is located approximately 1km north of Maynooth at its closest point. The proposed healthcare facilities (Site B) are located approximately 500m north of Maynooth town at its closest point. The SHD housing development (Site C) is located approximately 750m N of Maynooth, while the MOOR site boundary is approximately 500m N of Maynooth. The Moyglare Bridge site is in Co. Kildare approximately 700m N of Maynooth, while the Kildare Bridge, also located in Co. Kildare, is approximately 400m N of Maynooth. Please refer to Figure 1-1 of Chapter: Introduction, for the site location. Both the healthcare site and the strategic employment zone within the Proposed Development are accessed by the existing R157 Regional Road. The SHD site (Site C) is accessed by the L6219 & L22143 Local Roads which runs westwards from the R157 Regional Road.

Site A: Strategic Employment Zone Application

The site boundary for the proposed Site A is approximately 6.8 hectares (ha). The site is bounded by the R157 Regional Road to the east, the L22143 Local Road to the west, and farmland to the north, south and west. Site A is currently a green-field site which supports small-scale agriculture. The site is relatively flat with a topography ranging from approximately 56m OD (Ordnance Datum) in the south of the site to 60m OD in the centre and north of the site.

Site B: Healthcare Application

The site boundary for the proposed Site B is approximately 6.6 hectares (ha). The site is bounded by the Rye Water River to the south and the R157 regional road to the east. The site is currently a green-field site which supports small-scale agricultural practices. The areas to the north and west of the site are also used for small scale agriculture. The site is relatively flat where infrastructure is proposed although the topography slopes gradually down towards the Rye Water River to the south. The topography ranges from approximately 56m OD (Ordnance Datum) in the north of the site to 46m OD at the southern boundary of the site at the Rye Water River.

Site C: Strategic Housing Development

The site boundary for Site C is approximately 19.5 hectares (ha). The site is bounded by a regional road to the north, and by the Rye Water River to the south. A bridge is proposed over this river. The Blackhall Little Stream runs in a northeast-southwest direction at the eastern side of Site C. a pedestrian band cycle bridge is proposed. The site is currently two green field and a portion of a third, which

support small scale agricultural practices. The site boundary also includes a Recorded Monument, (Moygaddy castle), which is currently enclosed by mature trees on its west, south and east sides. The castle will be included as part of communal open space.

MOOR: Maynooth Outer Orbital Road

The site boundary for the proposed Maynooth Outer Orbital Road (MOOR) is approximately 6.6 hectares (ha). The site is bounded by the R157 Regional Road to the east, the site is bounded by the Moyglare Hall road to the southwest, the L22143 and L6129 Local Roads to the west, the L2214 Local Road to the north and the R157 Regional Road to the east and southeast. The MOOR, once constructed will provide connectivity from the R157 to the southeast of the site to the L2214 to the north and finally to the Moyglare Hall road to the west. The site is relatively flat, with a topography ranging from approximately 48m OD (Ordnance Datum) in the south of the site to 62m OD to the north of the site. There are existing drainage ditches adjacent to the existing roads in which upgrade works will be carried out as part of the MOOR.

Kildare Bridge Application

The site boundary for the proposed Kildare Bridge application is approximately 1.2 hectares (ha). The site includes upgrade works to the R157 Regional Road to the north of the site along with a standalone pedestrian and cycle bridge across the Rye Water River adjacent to the existing Kildare Bridge. The site boundary is bounded by the L1013 Local Road to the south of the site. The wastewater pumping station (WWPS) which is part of the Proposed Development and the associated rising main will cross the Rye Water River along the public road and footpath to the Maynooth Municipal WWTP.

Moyglare Bridge Application

The site boundary for the proposed Moyglare Bridge application is approximately 0.5 hectares (ha). The site includes a single span bridge over the River Rye Water as well as services and utilities connection from the proposed onsite pumping station at Site C (SHD) to Moyglare Close Wastewater Pumping Station in Co. Kildare. The Moyglare Close housing estate is located approximately 5m from the site boundary at its closest point. There are no existing buildings or structures within the site boundary The site is relatively flat ranging from 48m OD at the north of the site to 55m OD to the west.

12.3 Statutory Context

12.3.1 Current Legislation

Archaeological monuments are safeguarded through national and international policy, which is designed to secure the protection of the cultural heritage resource. This is undertaken in accordance with the provisions of the European Convention on the Protection of the Archaeological Heritage (Valletta Convention). This was ratified by Ireland in 1997.

Both the National Monuments Acts 1930-2004 and the relevant provisions of the Cultural Institution Act 1997 are the primary means of ensuring protection of archaeological monuments, the latter of which includes all man-made structures of whatever form or date. There are a number of provisions under the National Monuments Acts which ensure protection of the archaeological resource. These include the Register of Historic Monuments (1997 Act), which means that any interference to a monument is illegal under that act. All registered monuments are included on the Record of Monuments and Places (RMP).

Section 12(1) of the National Monuments (Amendments) Act 1994 provided for the establishment of a Record of Monuments and Places (RMP) to list (with accompanying mapping) where, in the opinion of the Minister, monuments are believed to exist. Two months' notice must be given to the Minister in

advance of any works being undertaken at or in the vicinity of a monument so recorded, save in the case of urgent necessity and with the consent of the Minister. Section 12 (3) of the 1994 Amendment Act states that any person proposing to carry out work at or in relation to a recorded monument must give notice in writing to the Minister (Culture, Heritage and the Gaeltacht) and shall not commence the works for a period of two months after having given the notice. All proposed works, therefore, within or around any archaeological monuments are subject to statutory protection and legislation (National Monuments Acts 1930-2004).

Under the Heritage Act 1995 (as amended) architectural heritage is defined to include *'all structures, buildings, traditional and designed, and groups of buildings including streetscapes and urban vistas, which are of historical, artistic, engineering, scientific, social or technical interest, together with their setting, attendant grounds, fixtures, fittings and contents...'*. A heritage building is also defined to include *'any building, or part thereof, which is of significance because of its intrinsic architectural or artistic quality or its setting or because of its association with the commercial, cultural, economic, industrial, military, political or religious history of the place where it is situated or of the country or generally'.*

12.3.2 Granada Convention

The Council of Europe, in Article 2 of the 1985 Convention for the protection of the architectural heritage of Europe (Granada Convention), states that *'for the purpose of precise identification of the monuments, groups of structures and sites to be protected, each member state will undertake to maintain inventories of that architectural heritage'*. The Granada Convention emphasises the importance of intervention in underpinning conservation policies.

The NIAH was established in 1990 to fulfil Ireland's obligations under the Granada Convention, through the establishment and maintenance of a central record, documenting and evaluating the architectural heritage of Ireland. Article 1 of the Granada Convention establishes the parameters of this work by defining 'architectural heritage' under three broad categories of Monuments, Groups of Buildings, and Sites:

- Monument: all buildings and structures of conspicuous historical, archaeological, artistic, scientific, social or technical interest, including their fixtures and fittings;
- Groups of Buildings: homogenous groups of urban or rural buildings conspicuous historical, archaeological, artistic, scientific, social or technical interest, which are sufficiently coherent to form topographically definable units;
- Sites: the combined works of man and nature, being areas which are partially built upon and sufficiently distinctive and homogenous to be topographically definable, and are of conspicuous historical, archaeological, artistic, scientific, social or technical interest.

The Council of Europe's definition of architectural heritage allows for the inclusion of structures, groups of structures and sites which are considered to be of significance in their own right, or which are of significance in their local context and environment. The NIAH believes it is important to consider the architectural heritage as encompassing a wide variety of structures and sites as diverse as post boxes, grand country houses, mill complexes and vernacular farmhouses.

12.3.3 Valetta Convention

The 1992 European Convention on the Protection of the Archaeological Heritage (the 'Valletta Convention'), which aims to 'protect the archaeological heritage as a source of the European collective memory and as an instrument for historical and scientific study' (Article 1). It is an internationally binding treaty within Europe, and deals with the protection, preservation and scientific research of archaeological heritage in Europe. In particular it focuses on the conservation of archaeological heritage in the face of development projects.

Objectives of the convention include;

- To integrate the conservation and archaeological investigation of archaeological heritage in urban and regional planning policies;
- To establish a co-operation and consultation processes between archaeologists, and project developers.

12.3.4 Non-Statutory Consultation

The Department of Culture, Heritage and the Gaeltacht (Development Applications Unit (DAU)) were issued with a non-statutory EIAR scoping document on the 9th of August 2021. In addition, the scoping document was also issued to the Heritage Council and the heritage officers of Meath and Kildare County Councils. No scoping responses were received from the DAU, the Heritage Council and County Councils.

12.3.5 Meath County Development Plan 2021-2027

The Meath County Development Plan 2021-2027 outlines a number of objectives relating to archaeological, architectural and cultural heritage.

Archaeological Heritage

The plan has adopted policies HERPOL 1-5-ARC6 and objectives HER OBJ 1-6 for the protection of archaeological heritage. The policies are as follows:

HER POLICY 1: To protect sites, monuments, places, areas or objects of the following categories:

Sites and monuments included in the Sites and Monuments Record as maintained by the National Monuments Service of the Department of Culture, Heritage and the Gaeltacht;

Monuments and places included in the Record of Monuments and Places as established under the National Monuments Acts;

Historic monuments and archaeological areas included in the Register of Historic Monuments as established under the National Monuments Acts;

National monuments subject to Preservation Orders under the National Monuments Acts and national monuments which are in the ownership or guardianship of the Minister for Culture, Heritage and the Gaeltacht or a local authority;

Archaeological objects within the meaning of the National Monuments Acts; and Wrecks protected under the National Monuments Acts or otherwise included in the Shipwreck Inventory maintained by the National Monuments Service of the Department of Culture, Heritage and the Gaeltacht.

ARC 2: Seek to promote awareness and access to archaeological sites in the county where appropriate

ARC 3: Consult with the National Monuments Service of the Department of Culture, Heritage and the Gaeltacht in relation to proposed developments adjoining archaeological sites

ARC 4: Support the preservation, conservation and management of archaeological sites and monuments, together with the settings of these monuments

ARC 5: Ensure the protection and sympathetic enhancement of archaeological sites

ARC 6: Facilitate where possible the identification of important archaeological landscapes in the county

HER POLICY 2-To protect all sites and features of archaeological interest discovered subsequent to the publication of the Record of Monument and Places, in situ (or at a minimum preservation by record) having regard to the advice and recommendations of the National Monuments Service of the Department of Culture, Heritage and the Gaeltacht and The Framework and Principles for the Protection of the Archaeological Heritage (1999).

HER POLICY 3. To require, as part of the development management process, archaeological impact assessments, geophysical survey, test excavations or monitoring as appropriate, for development in the vicinity of monuments or in areas of archaeological potential. Where there are upstanding remains, a visual impact assessment may be required.

HER POLICY 4. To require, as part of the development management process, archaeological impact assessments, geophysical survey, test excavations or monitoring as appropriate, where development proposals involve ground clearance of more than half a hectare or for linear developments over one kilometre in length; or developments in proximity to areas with a density of known archaeological monuments and history of discovery as identified by a suitably qualified archaeologist.

HER POLICY 5. To seek guidance from the National Museum of Ireland where an unrecorded archaeological object is discovered, or the National Monuments Service in the case of an unrecorded archaeological site.

HER OBJ 1: To implement in partnership with the County Meath Heritage Forum, relevant stakeholders and the community the County Meath Heritage Plan and any revisions thereof.

HER OBJ 2: To ensure that development in the vicinity of a Recorded Monument or Zone of Archaeological Potential is sited and designed in a sensitive manner with a view to minimal detraction from the monument or its setting.

HER OBJ 3: To protect important archaeological landscapes from inappropriate development.

HEROBJ 4: To encourage the management and maintenance of the County's archaeological heritage, including historic burial grounds, in accordance with best conservation practice that considers the impact of climate change.

HER OBJ 5: To promote awareness of, and encourage the provision of access to, the archaeological resources of the county.

HER OBJ 6: To work in partnership with key stakeholders to promote County Meath as a centre for cultural heritage education and learning through activities such as community excavation and field/summer schools.

Architectural Heritage

The Meath County Development Plan contains a number of policies relating to architectural heritage. These include:

Her Pol 14: To protect and conserve the architectural heritage of the County and seek to prevent the demolition or inappropriate alteration of Protected Structures.

Her Pol 15: To encourage the conservation of Protected Structures, and where appropriate, the adaptive re-use of existing buildings and sites in a manner compatible with their character and significance. In certain cases, land use zoning restrictions may be relaxed in order to secure the conservation of the protected structure.

Her Pol 16: To protect the setting of Protected Structures and to refuse permission for development within the curtilage or adjacent to a protected structure which would adversely impact on the character and special interest of the structure, where appropriate.

Her Pol 17: To require that all planning applications relating to Protected Structures contain the appropriate accompanying documentation in accordance with the Architectural Heritage Protection Guidelines for Planning Authorities (2011) or any variation thereof, to enable the proper assessment of the proposed works.

Her Pol 18: To require that in the event of permission being granted for development within the curtilage of a protected structure, any works necessary for the survival of the structure and its re-use should be prioritised in the first phase of development.

Vernacular Architecture

The Meath County Development Plan objectives relating to vernacular architecture. These include:

HER POL 21: To encourage the retention, sympathetic maintenance and sustainable re-use of historic buildings, including vernacular dwellings or farm buildings and the retention of historic streetscape character, fabric, detail and features.

Record of Protected Structures

A record of Protected Structures (RPS) is included as an appendix in Meath County Development Plan. Objectives include:

HER OBJ 15: To review and update the Record of Protected Structures on an on-going basis and to make additions and deletions as appropriate.

Landscape

The Meath County Development Plan objectives relating to landscape include:

HER OBJ 48: To support the aims and objectives of the European Landscape Convention by implementing the relevant objectives and actions of the National Landscape Strategy 2015-2025 and any revisions thereof.

HER OBJ 50: To require landscape and visual impact assessments prepared by suitably qualified professionals be submitted with planning applications for development which may have significant impact on landscape character areas of medium or high sensitivity.

12.3.6 Maynooth Local Area Plan 2013-2019

The Maynooth Local Area Plan 2013-2019 outlines a number of policies in relation to built heritage and archaeology. These include:

BH 1 To resist the demolition of vernacular architecture of historical, cultural and aesthetic merit, which make a positive contribution to the character, appearance and quality of the local streetscape and the sustainable development of Maynooth

AH 1: To require an appropriate archaeological assessment to be carried out by a licensed archaeologist in respect of any proposed development likely to have an impact on a Recorded Monument or its setting.

12.3.7 Maynooth Environs Local Area Plan 2009-2015

The Maynooth Environs Local Area Plan 2009-2015 outlines a number of policies and objectives, specifically relating to Moygaddy. These include:

LAP 9: Protect the existing built heritage of Moygaddy Castle, Moygaddy House and stud.

LAP 10: Protect the existing built heritage of Carton Demesne and its curtilage

LAP 11: Support the provision of mixed-use neighbourhood retail/commercial facilities, on lands within Carton Demesne and Moygaddy.

12.3.8 Kildare County Development Plan 2017-2023

The Kildare County Development Plan (Chapter 12 of the CDP) has a number of strategies and policies for the architectural and archaeological heritage of the county. These include;

-- Protect and conserve buildings, structures and sites of special architectural, historic, archaeological, artistic, cultural, scientific, social or technical interest.

-- Protect and conserve the archaeological heritage of the county. The Council will favour the preservation in situ of all sites, monuments and features of significant historical or archaeological interest in accordance with the recommendation of the Framework and Principles for the Protection of Archaeological Heritage (1999) or any superseding national policy.

-- Protect and conserve areas that have particular environmental qualities that derive from their overall layout, design and character.

-- Protect and conserve historic milestones, street furniture, and other significant features of interest wherever feasible.

-- Encourage the rehabilitation, renovation and reus of existing older buildings where appropriate.

-- Maintain the views to and from Carton House and within Carton Demesne.

Record of Protected Structures

A record of Protected Structures (RPS) is included as an appendix in Kildare County Development Plan 2017-2023.

12.3.9 County Kildare Heritage Plan 2019-2025

The County Kildare Heritage Plan contains a number of objectives in relation to heritage.

Strategic Objective 2: Promote best practice in the conservation and management of County Kildare's heritage resource.

Strategic Objective 4: Promote heritage as a resource that contributes to quality of life and to cultural and economic development in County Kildare.

12.4 Methodology

The assessment of the archaeology, architecture and cultural heritage of the area of the Proposed Development included desk-based research and field inspection. A desk-based study of the Proposed Development site was undertaken in order to assess the archaeological, architectural and cultural heritage potential of the area and to identify constraints or features of archaeological/cultural heritage significance within or near to the site of the Proposed Development. A site visit and walkover survey of the study area was undertaken on the 4th of November 2021 to determine if previously unrecorded archaeological, architectural or cultural heritage features were located in the area of the Proposed Development and to assess any potential impacts on known or previously unrecorded sites or monuments within the EIAR study area.

12.4.1 Desktop Assessment

A primary cartographic source and base-line data for the archaeological assessment was the consultation of the Sites and Monuments Record (SMR) and Record of Monuments and Places (RMP) for County Meath. All known recorded archaeological monuments are indicated on six-inch Ordnance Survey (OS) maps and are listed in this record. The first edition OS six-inch (1838-9) and twenty-five inch (1890-1898) maps for the area were consulted. The site of the Proposed Development was inspected by Frank Coyne on the 4th of November 2021. A photographic record was made of the Proposed Development area.

The following sources were consulted for this assessment report:

- The Sites and Monuments Record (SMR);
- The Record of Monuments and Places (RMP);
- First edition Ordnance Survey maps (www.osi.ie);
- 25-inch Ordnance Survey maps (RMP maps for Co. Meath and Kildare);
- Down Survey maps for County Meath (www.downsurvey.tcd.ie);
- Aerial images (www.osi.ie);
- The Topographical Files of the National Museum of Ireland;
- Excavations Bulletins (www.excavations.ie);
- Meath County Development Plan 2021-2027, Meath County Council;
- Maynooth Local Area Plan 2013-2019;
- Maynooth Environs Local Area Plan 2009-2015, and
- National Inventory of Architectural Heritage (NIAH).

12.4.2 Record of Monuments and Places

A primary cartographic source and base-line data for the archaeological assessment was the consultation of the RMP (paper map and list) and SMR (online)for County Meath. All known recorded archaeological monuments are indicated on six-inch OS maps and are listed in this record. The SMR is not a complete record of all monuments as newly discovered sites may not appear in the list or accompanying maps. In conjunction with the consultation of the RMP and SMR the electronic database of recorded monuments which may be accessed at www.archaeology.ie was also consulted. There is one Recorded Monument within the Proposed Development Area. This is Moygaddy Castle (ME053-001—; referred in this chapter as CH1). There are three recorded monuments located within 1km of the study area (see Section 12.5.1.5).

12.4.3 Cartographic Sources and Aerial Photography

Down Survey map 1656-8

The Down Survey undertaken by William Petty between 1656 and 1658 was a systematic mapping of Ireland for the purpose of administering the Cromwellian Confiscations. It was based on the earlier Civil Survey and recorded land ownership and features by townland. No useful information was derived. Moygaddy Castle is not marked on the Down Survey map displayed as Figure12-1 below.

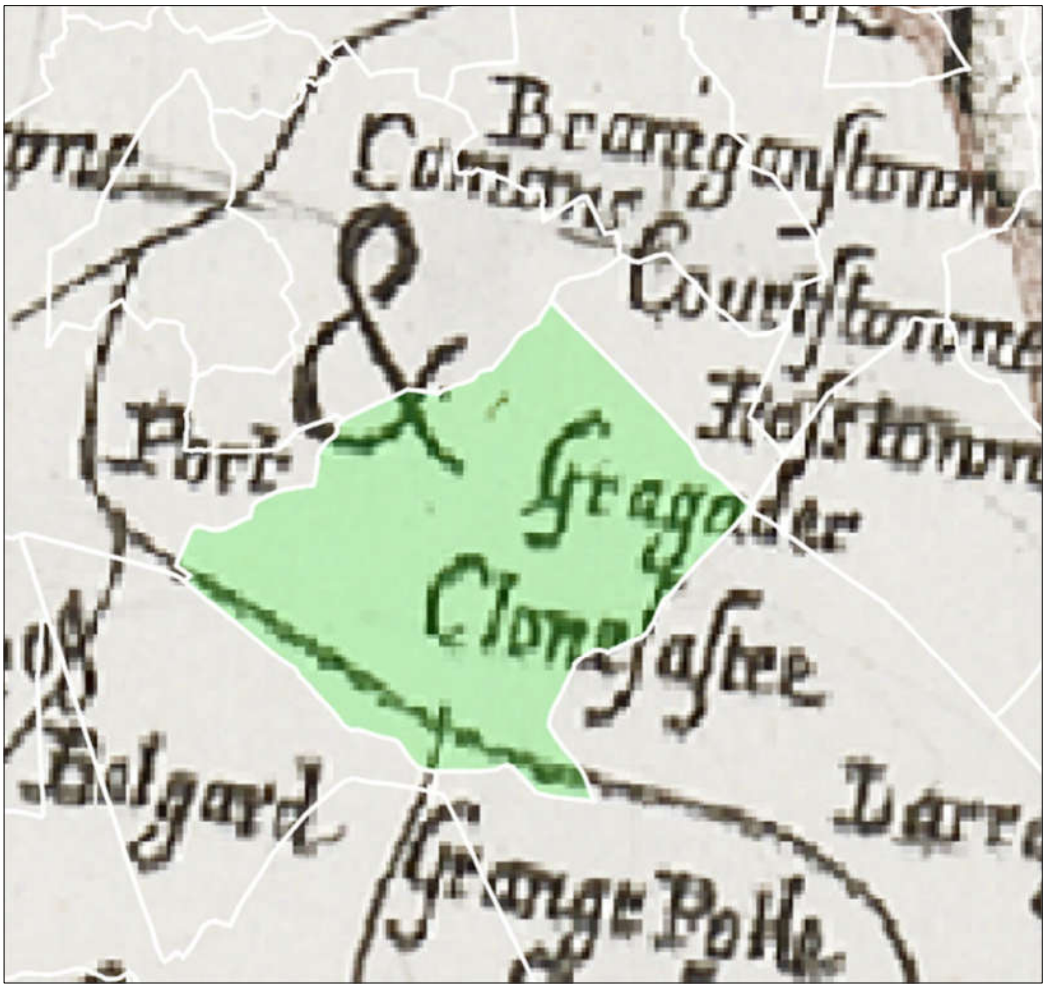

Figure 12-1 Down Survey map extract showing the townland of Moygaddy (http://downsurvey.tcd.ie/landowners.php#mc=53.397589,-6.560752&z=14).

Ordnance Survey first edition six-inch map c. 1840

The first edition OS six-inch map 1838-9 (displayed below as Figure 12-2) shows the site of the Proposed Development as a series of fields. Carton Demesne is depicted, as is Pebble Mill. A farmyard is marked on the south side of the road where Moygaddy Castle is located. Moygaddy Castle is not annotated. It appears to be incorporated into the farmyard complex at this time. Kildare Bridge is depicted.

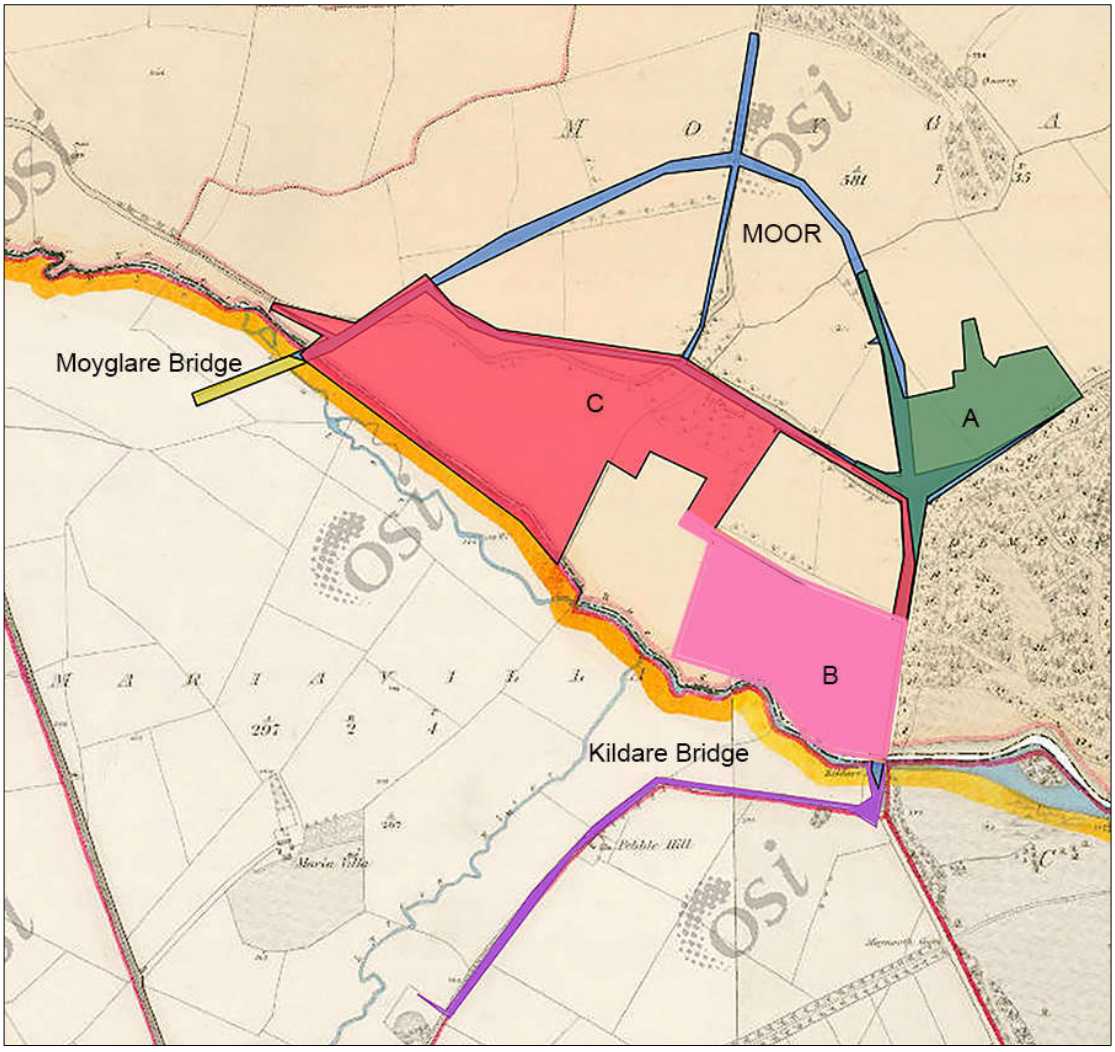

Figure 12-2 Proposed development on First Edition OS (c.1839) six-inch map, sheet 53, Co. Meat, Sheet 5 Kildare. Site A in green, Site B in pink , Site C in red, Moyglare Bridge in yellow, MOOR in blue, Kildare Bridge in purple.. (after www.heritagemaps.ie). North to top.

The twenty-five inch OS map (displayed below as Figure 12-3) shows that the fields in the Proposed Development site have been enlarged, with some of the field boundaries depicted on the 1st Edition map removed. Carton House Demesne is depicted, as is Pebble Mill House. Moygaddy House and outbuildings have since been built, located on the northern side of the roadway, and Moygaddy Castle is depicted, and annotated as 'Moygaddy Castle'. The Maynooth Environs Local Area Plan 2009-2015 states that 'Moygaddy House is a two storey over basement Georgian house. The complex appears to have been purpose built for breeding racehorses in the mid to late 19th Century, where the extensive stables and paddock formed part of the original development'. Kildare Bridge is also depicted.

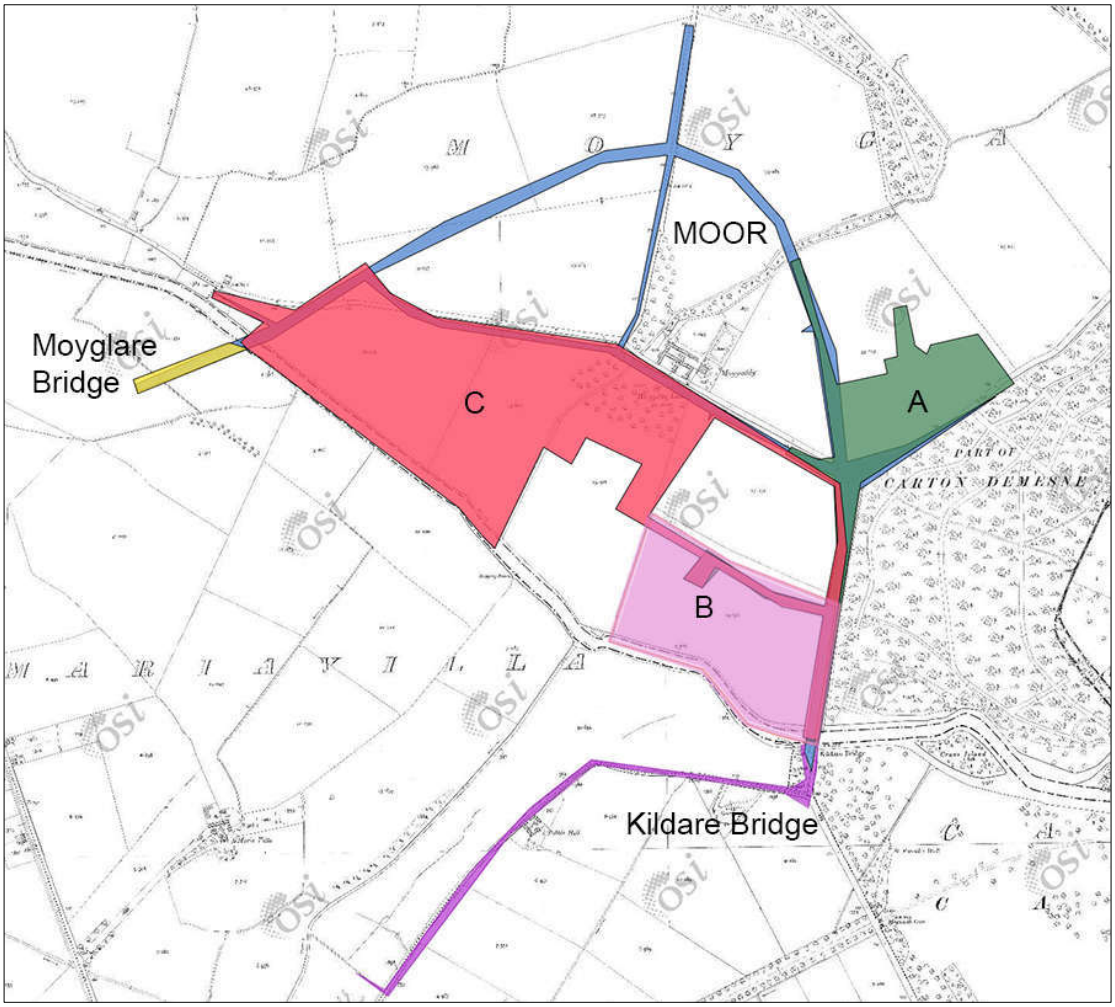

Figure 12-3 Proposed development on 25-inch OS map (after www.archaeology.ie),, sheet 53, Co. Meat, Sheet 5 Kildare. Site A in green, Site B in pink , Site C in red, Moyglare Bridge in yellow, MOOR in blue, Kildare Bridge in purple.. (after www.heritagemaps.ie). North to top. North to top.

Aerial Images

A series of aerial images of the site from 1995-2013 were examined (available at www.osi.ie) and are displayed below as Figure 12-4 and 12-5 respectively.. Google Earth images dating from 1985 -2021 were also examined. No potential archaeological sites were identified from examination of the series of aerial images. Lidar imagery was also assessed. A possible roadway was noted in Site C, and also crosses the proposed route of the Maynooth Outer Orbital Road (MOOR). This is also visible on aerial images, and also was identified in the geophysical survey. Possible field boundaries of uncertain date were notes in Site A. These were also identified on the geophysical survey.

Figure 12-4 Proposed Development site on Lidar Imagery (Open Togographic data Viewer). Site A in Blue, Site B in purple, Site C in pink, Moyglare Bridge in green, MOOR in yellow, Kildare Bridge in dark blue..

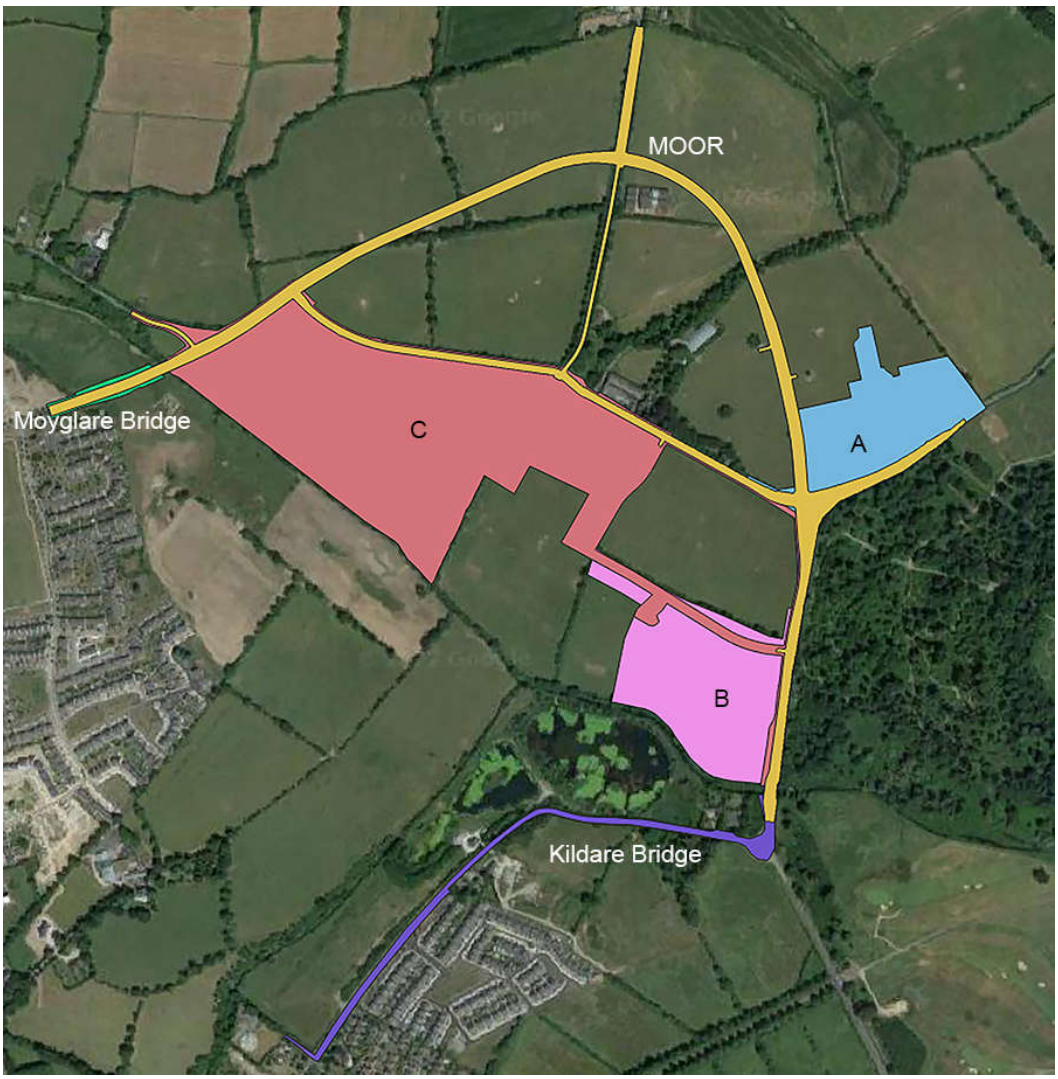

Figure 12-5 Proposed Development site on Digital Globe Aerial Photograph. Site A in Red, Site B in Blue, Site C in pink, Moyglare Bridge in green, MOOR in yellow, Kildare Bridge in purple.

12.4.4 Topographical Files – National Museum of Ireland

Details relating to finds of archaeological finds from various townlands in the county are contained in the topographical files held in the National Museum of Ireland. The townlands Moygaddy, Mariaville and Maynooth were consulted. There are no recorded finds from the townland of Moygaddy in which the Proposed Development is located. There are several finds from the townland of Maynooth Co. Kildare, located south of the Proposed Development, which are detailed in Table 12-1 below.

Table 12-1 List of stray finds from the Topographical Files

NMI Register No	Simple Name	Component	Townland	ID	Find Place
1945:259	Axehead	Stone	Maynooth	68197	N/A
1967:101	Axehead	Stone	Maynooth	13424	Walls of an old house
1984:140	Ingot	Copper alloy	Maynooth	5030	Field, 6ft deep

NMI Register No	Simple Name	Component	Townland	ID	Find Place
1995:2001	Button - Decorative copper alloy button	Copper alloy	Maynooth	7452	N/A
1995:2002	Mount	Copper alloy	Maynooth	7453	Dredged canal bed
1995:2003	Object - Decorated lead object	Lead	Maynooth	7454	N/A
1995:2004	Ring	Copper alloy	Maynooth	7455	N/A
1995:2005	Ring	Copper alloy	Maynooth	7456	N/A
1995:2006	Ring	Copper alloy	Maynooth	7457	N/A
1995:2007	Ring	Copper alloy	Maynooth	7458	N/A
SA1925:8	Brooch – Annular	Bronze	Maynooth	94672	

12.4.5 Record of Protected Structures (RPS) Meath County Development Plan 2021-2027 and Kildare County Development Plan 2017-2023

The County Development Plans were consulted for the schedule of buildings (Record of Protected Structures) and items of cultural, historical or archaeological interest which may be affected by the Proposed Development. The townlands within and surrounding the study area were searched in the list of protected structures in the development plan to assess the proximity and potential impact of the Proposed Development on such structures. The development plans also outline policies and objectives relating to the protection of the archaeological, historical and architectural heritage landscape of County Meath and County Kildare (see Section 12.3.5 and Section 12.3.8 above). Protected structures/buildings within 1km of the Proposed Development are included in Table 12-4 below for the purposes of assessing impact on immediate setting. Buildings/structures on the Record of Protected Structures located within the Proposed Development site are Moygaddy House (RPS No. MH053-102, referred to as CH2 in this chapter) and Carton Demesne Wall (RPS No. MH053-100, referred to as CH3 in this chapter), which is along the public road and is immediately adjacent to the Proposed Development (less than 10m east of the Proposed Development site boundary).

A second table (Table 12-5) is provided to show monuments within 2km of the Proposed Development. There are 99 in total, of which almost all are within Maynooth town to the south of the Proposed Development.

12.4.6 National Inventory of Architectural Heritage (NIAH)

This source lists some of the architecturally significant buildings and items of cultural heritage and is compiled on a county-by-county basis. The National Inventory of Architectural Heritage is a state initiative under the administration of the Department of Housing, Local Government and Heritage and established on a statutory basis under the provisions of the Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999. This Act requires the Minister to establish a survey to identify, record, and assess the architectural heritage of the country. The National Inventory of Architectural Heritage (NIAH) was duly established in 1990. While the inclusion of a site in the inventory does not in itself provide statutory protection, the survey information is used in conjunction with the Architectural Heritage Protection: guidelines for planning authorities (published by the Department of Environment, Heritage and Local Government) to advise local authorities on the compilation of a Record of Protected Structures as required by the Part IV of the Planning and Development Act, 2000.

The purpose of the NIAH is to identify, record and evaluate the post-1700 architectural heritage of Ireland, uniformly and consistently as an aid in the protection and conservation of the built heritage. NIAH surveys provide the basis for the recommendations of the Minister for the Department of Housing, Local Government and Heritage to the planning authorities for the inclusion of particular structures in their Record of Protected Structures (RPS). The published surveys are a source of information on the selected structures for relevant planning authorities. They are also a research and educational resource. It is hoped that the work of the NIAH will increase public awareness and appreciation of Ireland's architectural heritage. Sites within 1km and 2km of the Proposed Development site were assessed.

Building Surveys

There are 98 structures within 2km of the Proposed Development included on the National Inventory of Architectural Heritage. The majority of these are in Maynooth town. The closest is recorded below.

Name	Mariaville
Reg. No.	11803095
Date	1720 - 1760
Townland	Mariavilla
Co-ordinates	293735/238390
Distance	160m to SW

Garden Surveys

The NIAH has begun a process of recording Irelands designed landscapes, specifically demesnes which appeared on the first edition ordnance survey six-inch maps. This inventory includes over 6000 records of historic gardens and designed landscapes. The initial survey was carried out in two phases. Phase 1 commenced in 2003 with a search to identify sites. Phase 2, which commenced in 2005, was a desk-based initial assessment of condition and survival. The results of the garden surveys are added to the NIAH website as this work progresses. There are no recorded designed landscapes on the site of the Proposed Development site, according to a search of www.buildingsofireland.com/Surveys/Gardens/.

12.4.7 Excavations Bulletins

The Excavations Bulletins is an annual account of all archaeological investigations carried out under licence on the island of Ireland. The database is available online at www.excavations.ie and includes entries from 1985 to the present. This database was consulted as part of the desktop research for this assessment to establish if any archaeological investigations had been carried out within or near to the

area of the Proposed Development. There are no entries relation relating to investigations in Moygaddy townland. There is one entry for Mariavilla townland in Co. Kildare.

Licence No. 17E0208

Excavations Ref.	2017:504
Townland	Mariavilla, Maynooth
ITM	693717/738242m
Site Type	Ring-ditches and cremation pits?
Author	Tim Coughlan
Description:	A programme of archaeological testing was undertaken at Mariavilla, Co. Kildare in order to inform the Cultural Heritage chapter of an Environmental Impact Assessment.

A geophysical survey was carried out on this site in advance of test trenching by J.M. Leigh Surveys Ltd (Licence 17R0066). This involved a detailed gradiometer survey over an area measuring c.19ha. The survey identified 2 no. clear archaeological features: a circular ditched enclosure, measuring c.30m in diameter with an entrance-way in the east in the northern area of the proposed development and a smaller 7m diameter circular response was noted 13m east of the entrance to the larger enclosure, suggesting a second ditched enclosure. A further spread of increased response was noted 13m to the east of this again, possibly representing a cluster of large pits, or possibly a small pond feature. These features and any features of archaeological potential were subsequently investigated during testing. Sixty-three test trenches were excavated within the area of proposed development totalling 3,516 linear metres and covering 6,328 metres squared of the proposed development area. The proposed development area comprised a total of 211,427m squared; however, not all of this was tested owing to local topography and ground conditions. The area south of the Lyreen River was not examined owing to the steep slope as well as previous construction and associated disturbance. An area c. 98,000m squared was deemed suitable for testing. The investigated area c. 6328m squared accounts for c. 6.4% of the total suitable development area. A total of three areas of potential archaeological significance were identified during the testing programme. These are labelled Archaeological Areas (AA) 1-3. The activity revealed included two linear features and two circular features interpreted as potential ring-ditches as well as over ten separate areas of localised burning some of which may be cremation pits. These features were apparent as positive responses or magnetic anomalies in the geophysical survey. Ground works associated with construction of the proposed residential units and access roads will have a significant direct negative impact on the potential archaeological features identified in AA1-3.

12.4.8 Fieldwork

The Proposed Development site was inspected by Frank Coyne on the 4th of November 2021. The inspection consisted of a comprehensive extensive walkover examination of the site and an assessment of any recorded monuments, architectural, built or cultural heritage items. The location was first assessed through a desk-based analysis of aerial photography and mapping. Nothing of potential as an unrecorded (or 'new') feature was identified on available maps. The available aerial imagery and available LiDAR imager was also inspected. A possible roadway was noted in Site C. This is also visible on aerial imagery, and was also identified in the geophysical survey. The site was inspected in good weather conditions. The Proposed Development site comprises several agricultural fields used for livestock grazing. Moygaddy Castle, Moygaddy House, a stretch of Carton House boundary wall, field boundaries, and a field gate were identified as cultural heritage features of interest during the walkover inspection (CH1-CH5). Finally, a geophysical survey has established that there are potential sub-surface archaeological features present at the site (CH6). There are no visible above ground indications of these sub-surface features. Public road widening, and road realignment works will take place along the existing R157 Regional Road and L22143 Local Road. The locations of the two proposed bridges at Kildare Bridge and Moyglare Bridge locations were visually assessed. No in-water or underwater assessment was carried out as part of this fieldwork. A photographic record of the inspection was made

(Plates 12-1 to 12-12). For the purposes of clarity all cultural heritage features identified within the Proposed Development are listed as follows.

Table 12-2 – Cultural Heritage Features within the Proposed Development

Cultural Heritage Number (CH)	Name/Description	Status	Code	Proposed Development location
CH1	Moygaddy Castle	Recorded Monument (RMP)	ME053-001—	Site C
CH2	Moygaddy House	Record of Protected Structures (RPS Meath)	MH053-102	Site C
CH3	Stretch of Carton House Demesne Boundary Wall	Record of Protected Structures (RPS Meath)	MH053-100	Site A and Site B
CH4	County, Townland and field boundaries	unrecorded	none	Site B and Site C; Kildare Bridge Moyglare Hall
CH5	Gate	unrecorded	none	Site C
CH6	Geophysical Survey Anomolies	Unrecorded: Not proven archaeological until ground truthed through targeted testing	none	Site A, Site B, Site C, MOOR

Plate 12-1 View across Site A, from S

Plate 12-2 View across Site B , from NW

Plate 12-3 View of public road and Carton Demesne wall, from S

Plate 12-4 View across Site A, towards Moygaddy House (in trees), from E. Moygaddy Castle is located behind the trees on the left.

Plate 12-5 -View across Site C, Rye water on the left., Moyglare Bridge site to rear behind trees, from W.

Plate 12-6 Remnant of old gateway (granite pier0, road portion of Site C.

Plate 12-7 Route of MOOR – Maynooth Outer Orbital Road to right of sheds, from SE.

Plate 12-8 Route of MOOR – Maynooth Outer Orbital Road to right of sheds, from SW.

Plate 12-9 Kildare bridge, from SE.

Plate 12-10 River Rye Water (county boundary), from E.

Plate 12-11 Moygaddy House, from S.

Plate 12-12 Moygaddy Castle, from NE..

12.4.8.1 Limitations Associated with Fieldwork

No limitations were encountered during the field survey.

12.4.9 Assessment of Likely Significant Effects

The likely effects on the existing archaeological and cultural heritage environment are assessed using the criteria as set out in the guidance referred to in Chapter 1 of this EIAR, in particular the Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA, 2022). The following terminology is used when describing the likely effects of the Proposed Development from a Cultural Heritage Perspective.

12.4.9.1 Types of Impact

Direct impacts arise where an archaeological heritage feature or site is physically located within the footprint of the Proposed Development whereby the removal of part or all of the feature or site is thus required.

Indirect impacts may arise as a result of subsurface works undertaken outside the footprint of the development, secondary environmental change such as a reduction in water levels and visual impacts.

Cumulative impacts arise when the addition of many impacts create a large more significant impact.

Residual impacts are the degree of environmental changes that will occur after the proposed mitigation measures have been implemented.

12.4.9.2 Magnitude of Effects (Significance)

This section of the EIAR has been completed in accordance with the guidance set out in Chapter 1 of this EIAR. The assessment uses standard terminology to describe the likely significant effects associated with the proposed development. Further information on the classification of effects used in this assessment is presented in Section 1.9.2 of this EIAR.

Profound: Applies where mitigation would be unlikely to remove adverse effects. Reserved for adverse, negative effects only. These effects arise where an archaeological site is completely and irreversibly destroyed.

Very Significant: An effect which by its character, magnitude, duration or intensity significantly alters most of the sensitive aspect of the environment.

Significant: An effect which by its character, magnitude, duration or intensity alters most of the sensitive aspect of the environment. An effect like this would be where part of a site would be permanently impacted upon, leading to a loss of character, integrity and data about an archaeological site.

Moderate: A moderate effect arises where a change to an archaeological site is proposed which though noticeable, is not such that the integrity of the site is compromised, and which is reversible. This arises where an archaeological site can be incorporated into a modern-day development without damage and that all procedures used to facilitate this are reversible.

Slight: An effect which causes changes in the character of the environment which are not high or very high and do not directly impact or affect an archaeological site.

Imperceptible: An effect on an archaeological site capable of measurement but without noticeable consequences.

12.5 Description of Existing Environment

For the purpose of this section of Chapter 12: Cultural Heritage, the existing environment of the Proposed Development has been considered in whole, due to the proximity and shared infrastructure of the 6 applications proposed.

12.5.1 Proposed Development

12.5.1.1 Archaeological Heritage

For the purposes of this report archaeological heritage includes

- UNESCO World Heritage Sites;
- Archaeological Landscapes or Areas of High Amenity (County Development Plan);
- National Monuments (Ownership, Guardianship and Preservation Orders);
- Recorded Archaeological Monuments listed in the RMP/SMR;
- Newly discovered archaeological sites, and,
- Sites recorded in the Excavations Database.

12.5.1.1.1 *UNESCO World Heritage Sites*

A World Heritage Site (WHS) is a property inscribed on the UNESCO World Heritage List because of its outstanding universal value. The closest World Heritage site to the proposed development is *Brú na Bóinne*, which is approximately 33km to the north (www.worldheritageireland.ie).

12.5.1.1.2 *National Monuments*

The term '*national monument'* as defined in Section 2 of the National Monuments Act (1930 means a monument '*the preservation of which is a matter of national importance by reason of the historical, architectural, traditional, artistic or archaeological interest attaching thereto'*. National Monuments in state care include those which are in the ownership or guardianship of the Minister for Housing, Local Government and Heritage. Section 5 of the National Monuments Act (1930) allows owners of national monuments to appoint the Minister for Housing, Local Government and Heritage or the relevant local authority as guardian of such monuments, subject to their consent. National monuments in the ownership or guardianship of the State or of the Local Authority cannot be interfered with without the written consent of the Minister Housing, Local Government and Heritage. Monuments are also protected by Preservation Orders. Under the original National Monuments Act 1930 any monument in danger of injury or destruction can be allocated Preservation Orders, making any work on or in the vicinity the monument illegal. Such works can only take place with the written consent, and at the discretion, of the Minister. These powers were extended under the National Monuments (Amendments) Act 1954, such that Temporary Preservation Orders, with a time limit of six months, can be allocated to monuments deemed to be in danger of injury or destruction. National Monuments within 15km of the Proposed Development site were assessed.

The closest National Monument to the Proposed Development site is Maynooth Castle (KD005-015---), a National Monument in the Ownership of the Minister (NM number 485), located approximately 650m to the southwest of the Proposed Development.

Dunshaughlin Church (Carved door lintel), ME044-03002– is a National Monument in the Guardianship of the Minister (NM number 400) in Co. Meath, located approximately 13km to the north of the Proposed Development.

Rathcoffey Castle (Castle gatehouse), KD010-018001– is a National Monument in the Ownership of the Minister in Co. Kildare (NM number 404), located approximately 8km southwest of the Proposed Development.

Taghadoe (Round Tower & Church) KD010-014002- & KD010-014004-, is a National Monument in the Ownership of the Minister in Co. Kildare (NMN 70 and 578), located approximately 3.8km southwest of the Proposed Development.

12.5.1.1.3 *Recorded Archaeological Monuments located within the Proposed Development Site Boundary*

There is one Recorded Monument located within the Proposed Development. (Site C) This is Moygaddy Castle (CH1).

ME053-001—

Class: Castle - tower house

Townland: MOYGADDY

Scheduled for inclusion in the next revision of the RMP: Yes.

Description: Situated on a slight rise with a small NE-SW stream in its valley c. 60m to the NW and the NW-SE Rye Water River is c. 500m to the SW. According to the Civil Survey (1654-6) Sir George Wentworth owned 487 acres at Moygaddy in 1640, and on the property were 'a large stone house, a Mill, a pigeon house and two farme houses' (Simington 1940, 153). He also owned 1400 acres elsewhere in Moyglare parish, amounting to almost all of it (ibid. 153-6). The castle was conserved by the fifth Duke of Leinster in 1892 as it was in danger of collapsing and so close to his principal residence at Carton, Co. Kildare (FitzGerald 1903-05, 2-30).

As it survives this is a three-storey tower house (ext. dims c. 5.5m NW-SE; 4.65m NE-SW) with a modernised parapet and a buttress supporting the E angle. There is a secondary entrance (Wth 1.1m) towards the S end of the SE wall that leads directly into a small chamber (int. dims 3.75m NW-SE; 3.3m NE-SW). The original entrance, now blocked, is in the NW wall and there is a newel stairs at the N angle. The main chamber has a cupboard and a single light in the SW wall, but two corbels (H 1.5m from the floor) in both the NE and SW walls provide support for the first floor under the NW-SE barrel-vault that has evidence of wicker-centring. A small chamber (int. dims 1.2m NW-SE; 0.67m NE-SW) in the NE wall off the stairs from the ground floor was probably a garderobe and has two lights. The first floor has a single light in the NW wall and a small chamber at the N end of the NE wall entered by a lintelled doorway from the main chamber. The stairs in the N angle continue to the second floor, which is over the vault and has a window with a light in each wall, that on the NW being blocked. From this chamber a newel stairs in the E angle rises to the modern parapet, but it is likely that there was at least one other upper floor originally.

The above description is derived from the published 'Archaeological Inventory of County Meath' (Dublin: Stationery Office, 1987). In certain instances, the entries have been revised and updated in the light of recent research.

Compiled by: Michael Moore. Date of revision: 13 July 2016

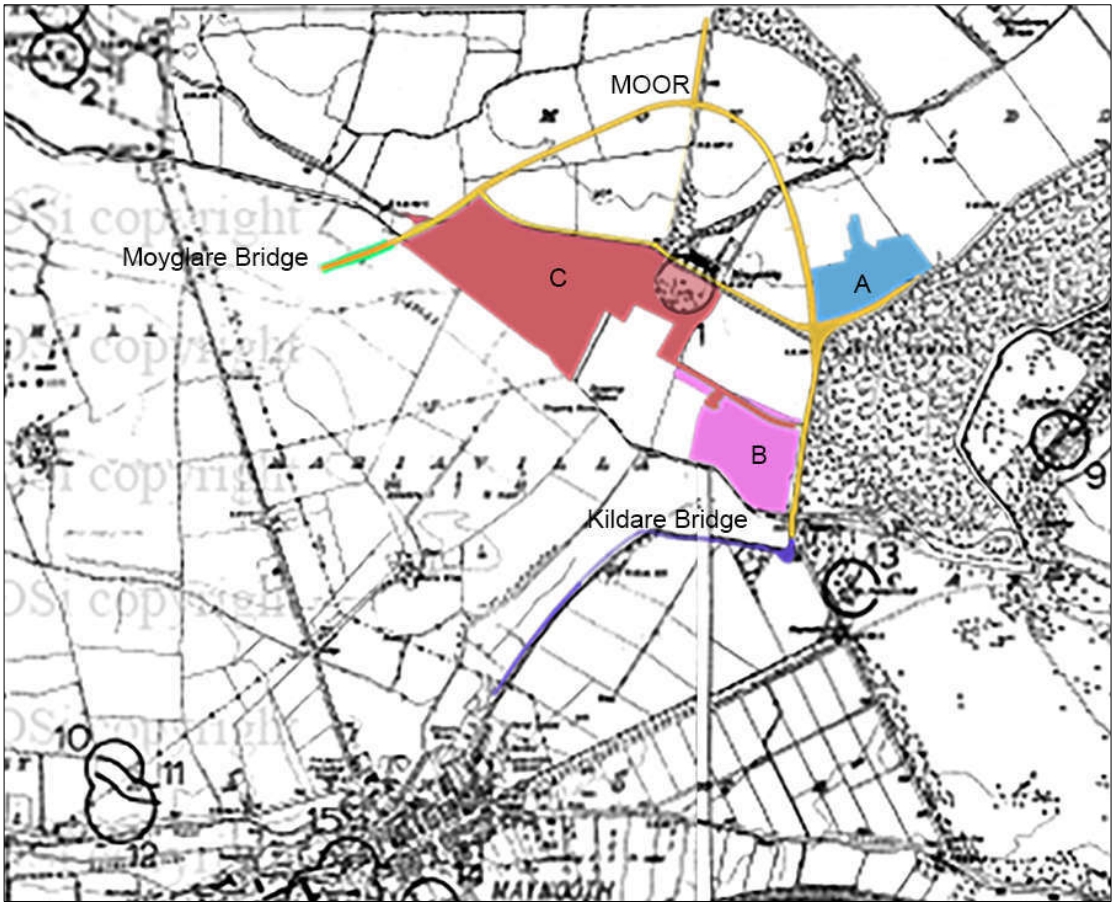

Figure 12-6 Proposed Development site on RMP map, sheet 53, Co. Meat, Sheet 5 Kildare(SMR detail on 1906 edition). Proposed Development Site A in Red, Site B in Blue, Site C in pink, Moyglare Bridge in green, MOOR in yellow, Kildare Bridge in purple..

12.5.1.1.4 New Potential Archaeology Recorded within Proposed Development Site Boundary

All areas proposed for development were examined by a walkover survey. No intrusive investigation was undertaken, and the survey was limited to visual inspection only. No in-water or underwater assessment was undertaken. No significant new potential archaeological features were noted within the study area boundary. A number of boundaries (county, townland and field) and a gate (granite pier) were noted (CH4 and CH5). The County and townland boundary is formed to the south of the proposed development site by the Rye Water River. The geophysical survey undertaken by Joanna Leigh Surveys has shown that there is a significant potential for archaeological features sub-surface on the Proposed Development site, at Sites A, B and C and MOOR (CH6). The potential effect is mitigated against (see section 12.6.2.2).

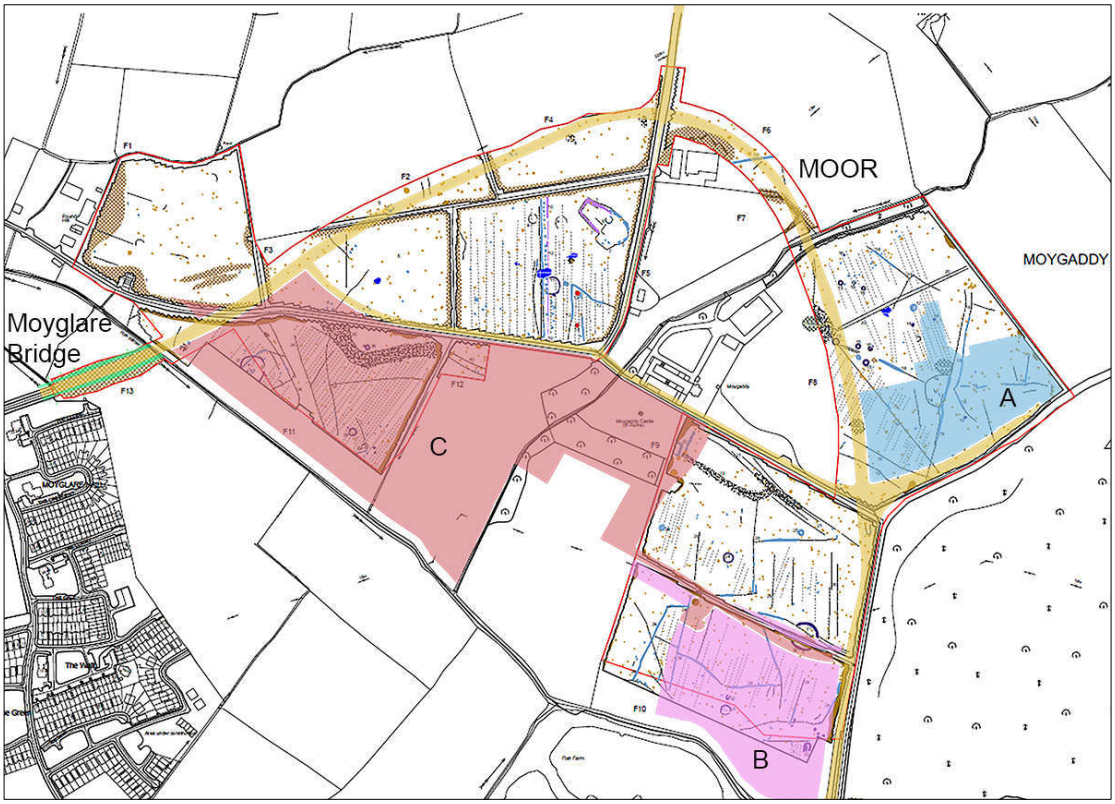

Figure 12-7 Extract from geophysical survey (after Joanna Leigh Surveys). Proposed Development Site A in blue, Site B in pink, Site c in red, MOOR in yellow, Moyglare Bridge in green.

12.5.1.1.5 Recorded Archaeological Monuments within 2km of Proposed Development

For the purpose of assessing effects on the setting of recorded monuments in the vicinity and wider vicinity of the Proposed Development, all RMP sites within 2km of the study area are included here (34 monuments) A 1km buffer zone is an appropriate study area in terms of identifying impacts on recorded monuments in the immediate landscape (see table 12-2), and a 2km buffer was considered for monuments in the wider landscape. The density of monuments in the area is high when the town of Maynooth is included. There are 15 recorded monuments within 1km of the Proposed Development site (excluding the rising main portion). Three of these are approximately 500m or less from the proposed development area. Of the three recorded monuments, one is a holy well (KD006-013—), of probable Early Medieval date. The others are a church and graveyard in Moyglare (ME049A002—- & ME049A002001)-, and Carton House (KD006-009—.), a house 17th century date, only a small portion of which survives and is incorporated into the later house. The 3 monuments are included here for the purpose of establishing the archaeological context of the surrounding environs of the Proposed Development site. The monuments are listed in Table 12-2 with the distance of each monument to the Proposed Development also provided. The monument locations are indicated on Figure 12-7. Monuments within 2km of the Proposed Development site are listed in Table 12-3.

Carton House

KD006-009—
Scope note
Class: House - 17th century
Townland: CARTON DEMESNE
Scheduled for inclusion in the next revision of the RMP: Yes

Description: The lands at Carton were owned by the Earls of Kildare and in the late-17th century were leased to the Talbot family who erected the first building, a Dutch-style house with a pedimented breakfront which is recorded in a painting by Van der Hagen (SMR file). Carton was subsequently forfeited to the Crown and sold in 1703 to Maj. Gen. Richard Ingolsby, Lord Justice of Ireland who added a two storey, nine bay pedimented front with wings joined to the main block by curved sweeps, in the Palladian manner. In 1739 the estate was sold back to the 19th Earl of Kildare who made Carton his principal seat, employing Richard Castle to enlarge the house, which led to works obliterating all trace of the older house except for a cornice on the entrance front and unusually thick internal walls. The house was again remodelled and enlarged c. 1815 by Sir Richard Morrison for the Kildares who had by the become the Dukes of Leinster. The great demesne, covering c.1000 acres, was formally landscaped in the 18th Century, with further improvements in the 19th century (Bence Jones 1978, 60; Horner 1975 - reference in 1976 Foras Forbartha report in SMR file).

Compiled by: Gearóid Conroy
Date of upload: 10 June 2011

Carton Demesne Holy Well

KD006-013—
Scope note
Class: Ritual site - holy well
Townland: CARTON DEMESNE
Scheduled for inclusion in the next revision of the RMP: Yes

Description: In a slight hollow on a gentle west–facing pasture slope at the western edge of Carton Demesne, a spring well is enclosed by a small square. The structure is a small, tent-like feature (dims. L 1.75m N-S; Width 1.7m; H 1.5m) of well-built mortared-stone, with a pointed-arched opening (Width 0.7m) facing north. Three stone steps lead down to the water surface.

Compiled by: Gearóid Conroy
Date of upload: 10 June 2011

Church and Graveyard

ME049A002—
Class: Church

Townland: MOYGLARE

Scheduled for inclusion in the next revision of the RMP: Yes

Description: Located on a level landscape with the W-E Rye Water River, which forms the boundary with Co. Kildare, c. 200m to the S. A church at Mynclare (Moyglare) is listed in the ecclesiastical taxation (1302-06) of Pope Nicholas IV (Cal. doc. Ire., 5, 255). Ussher (1622) describes the church as in good repair but the chancel as ruined (Erlington 1847-64, 1, lxxvi). According to the Dopping (1682-5) and Royal (1693) visitations the parish church of Moyglare had been repaired, but the chancel was in ruins since 1641. The church was roofed with slates, the floor was clay and there was glass in the windows. In addition the graveyard was described as 'well fenced' (Ellison 1972, 4). This church continued in use until c. 1870 when St. Paul's church, a four bay Church of Ireland church with an attached spire, was built. This is now a private dwelling within a sub-rectangular graveyard (dims c. 65m E-W; c. 40-60m N-S) defined by masonry walls. There is no evidence of the medieval structure.

Class: Graveyard

Townland: MOYGLARE

Scheduled for inclusion in the next revision of the RMP: Yes

Description: Located on a level landscape with the W-E Rye Water River, which forms the boundary with Co. Kildare, c. 200m to the S. The site of the parish church of Moyglare (ME049A-002—) is within a sub rectangular graveyard (dims c. 65m E-W; c. 40-60m N-S) defined by masonry walls. According to the Dopping (1682-5) and Royal (1693) visitations the graveyard was 'well fenced' at that time (Ellison 1972, 4).

The above description is derived from the published 'Archaeological Inventory of County Meath' (Dublin: Stationery Office, 1987). In certain instances, the entries have been revised and updated in the light of recent research.

Compiled by: Michael Moore

Date of revision: 10 April, 2015

Table 12-3 RMP's within 2km of the Proposed Development

RMP No.	ITM E	ITM N	Townland	Classification	Distance (m)
KD006-013—-	694785	738416	Carton Demesne	Ritual site - holy well	138
KD005-023—-	693847	737747	Maynooth	Field boundary	425
KD006-009—-	695331	738796	Carton Demesne	House - 17th century	515
KD005-014—-	693737	737556	Maynooth	Architectural feature	637
KD005-015—-	693512	737661	Maynooth	Castle - Anglo-Norman masonry castle	652
KD005-015005-	693515	737658	Maynooth	Well	652
KD005-015006-	693515	737658	Maynooth	Well	652
KD005-015001-	693514	737658	Maynooth	House - prehistoric	652
KD005-015002-	693515	737657	Maynooth	House - early medieval	653
KD005-015003-	693515	737657	Maynooth	House - early medieval	653
KD005-015004-	693515	737657	Maynooth	Building	653
KD005-016—	693531	737589	Maynooth	Church	698

RMP No.	ITM E	ITM N	Townland	Classification	Distance (m)
KD005-013---	693441	737573	Collegeland	Building	765
ME049A002---	692690	739742	Moyglare	Church	981
ME049A002001-	692690	739763	Moyglare	Graveyard	993
KD005-010---	692911	737906	Maynooth	Ring-ditch	1011
KD005-011001-	KD005-011001-	KD005-011001-	Maynooth	Enclosure	1015
KD005-011002-	692921	737856	Maynooth	Road - road/trackway	1017
KD005-012---	692936	737791	Maynooth	Field system	1028
ME049A001---	692703	739889	Moyglare	House - 16th/17th century	1059
ME050-022---	695530	740325	Owenstown	Field system	1185
KD006-011---	696455	739172	Carton Demesne	Ritual site - holy well	1444
KD005-021---	692383	737855	Laraghbryan	Ecclesiastical enclosure	1534
KD006-007001-	696569	739369	Oldcarton	Church	1567
KD006-007003-	696569	739369	Oldcarton	Religious house - unclassified	1567
KD006-007002-	696571	739359	Oldcarton	Graveyard	1568
KD005-009003-	692240	737748	Laraghbryan East	Graveyard	1699
KD005-009002-	692229	737743	Laraghbryan East	Church	1711
KD005-008---	692204	737812	Laraghbryan East	Castle - unclassified	1718
KD005-009001-	692219	737732	Laraghbryan East	Ecclesiastical site	1723

RMP No.	ITM E	ITM N	Townland	Classification	Distance (m)
ME050-023---	696029	740789	Kilgraigue	Enclosure	1847
KD006-015---	696380	737766	Carton demesne	Ritual site - holy well	1859
ME050-018---	694820	741635	Harristown (Moyfenrath Upper By.)	Field system	1860
KD010-040---	694439	736275	Moneycooley	Burial ground	1957

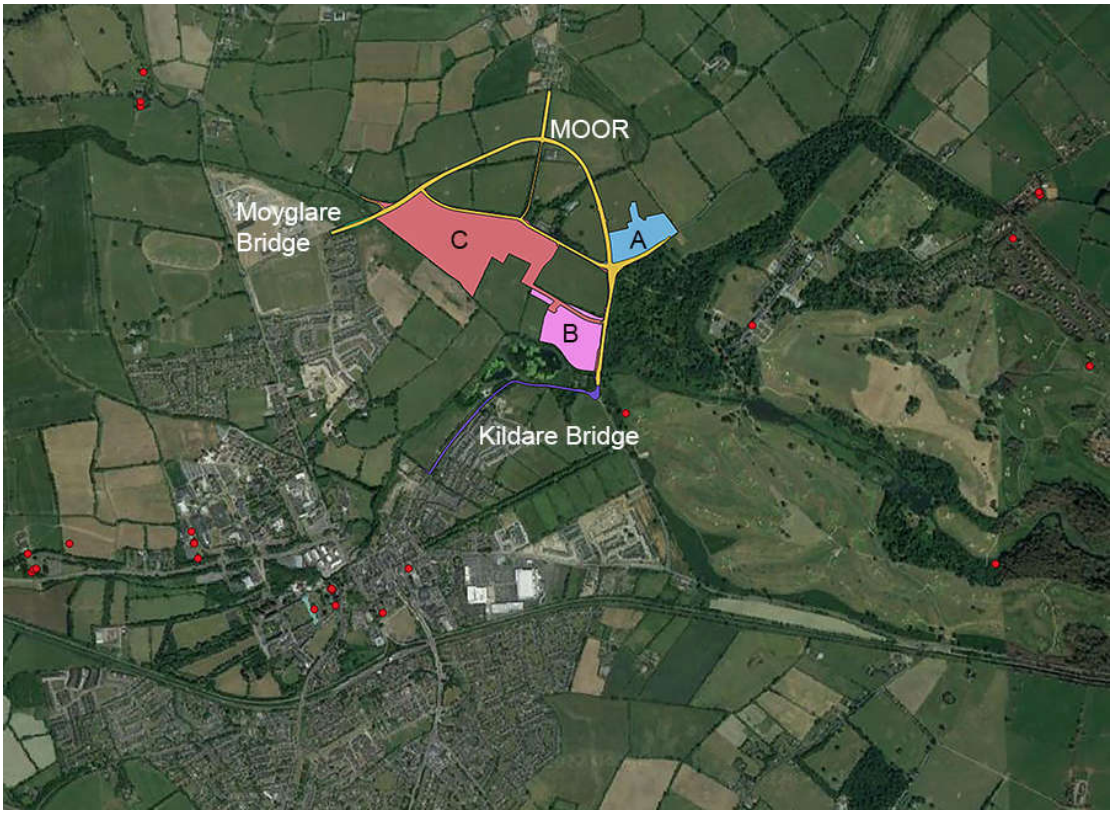

Figure 12-8 Recorded Monuments (red dots) within 2km of Proposed Development. Site A in Red, Site B in Blue, Site C in pink, Moyglare Bridge in green, MOOR in yellow, Kildare Bridge in purple.

12.5.1.1.6 Archaeological and Historical Background

The Prehistoric Period

There are no known monuments from the prehistoric period on or immediately adjacent to the Proposed Development (within 1km).

Early Medieval Period

Holy Wells

Religious cults associated with water have a long history in Ireland, dating back to the prehistoric period. Though holy wells may at first appear to be Christian monuments, much of the ritual, folklore may pre-date the Christian element of the site. A holy well may be defined as a well or spring, though in some unusual cases a natural rock basin, which usually bears a saint's name and is often reputed to possess miraculous healing properties. These may have their origins in prehistory but are associated with devotions from the medieval period (5th-16th centuries AD) onwards.

A holy well is recorded at Carton Demesne (KD006-013—) to the southeast of the Proposed Development *'In a slight hollow on a gentle west–facing pasture slope at the western edge of Demesne, a spring well is enclosed by a small square. The structure is a small, tent-like feature (dims. L 1.75m N-S; Width 1.7m; H 1.5m) of well-built mortared-stone, with a pointed-arched opening (Width 0.7m) facing north. Three stone steps lead down to the water surface'* (www.archaeology.ie). Later Medieval Period.

Castles

Castles are typically a fortified residence in the form of a tower, usually four or five storeys high, and for the most part slightly more rectangular than square in plan. Castles from the later medieval period were typically constructed by a lord or landholder and were often partially or completely enclosed by a bawn. The majority of castles date to the 15th and 16th centuries AD. Moygaddy Castle (ME053-001—) is located approximately 250m to the west of the Proposed Development, surviving as a three-storey tower house.

Church and Graveyard

A church may be defined as a building used for public Christian worship. These can be of any date from c. 500 AD onwards. A graveyard may be defined as the burial area around a church. These date from the medieval period (5th-16th centuries) onwards. The church at Moyglare is first mentioned in the ecclesiastical taxation records of 1302-6 (www.archaeology.ie).

Post-Medieval and Early Modern period

House - 17th century

Houses may be defined as a building for human habitation which dates to the 17th century AD, and which is not a tower house or a fortified house. One site from the post-medieval period, Carton House, is located approximately 600m to the east of the Proposed Development. The remaining structure is a portion of a seventeenth-century house, which has been incorporated into the present Carton House. The lands at Carton were owned by the Earls of Kildare and in the late-17th century were leased to the Talbot family who erected the first building, a Dutch-style house with a pedimented breakfront which is recorded in a painting by Van der Hagen (SMR file). Carton was subsequently forfeited to the Crown

and sold in 1703 to Maj. Gen. Richard Ingolsby, Lord Justice of Ireland who added a two storey, nine bay pedimented front with wings joined to the main block by curved sweeps, in the Palladian manner. In 1739 the estate was sold back to the 19th Earl of Kildare who made Carton his principal seat, employing Richard Castle to enlarge the house, which led to works obliterating all trace of the older house except for a cornice on the entrance front and unusually thick internal walls. The house was again remodelled and enlarged c. 1815 by Sir Richard Morrison for the Kildares who had by the become the Dukes of Leinster. The great demesne, covering c.1000 acres, was formally landscaped in the 18th Century, with further improvements in the 19th century (www.archaeology.ie). Moygaddy House is a structure dating to the latter half of the nineteenth century. It appears to have been built as part of a stud farm and stables. This is defined on www.archaeology.ie as a 'building for human habitation which dates to the 19th century and which is not classifiable as either a country house or a vernacular house'.

12.5.1.2 Architectural and Cultural Heritage

For the purpose of this report, architectural heritage includes known (documented) and newly recorded features, if present.

- Record of Protected Structures;
- NIAH structures;
- NIAH Garden Surveys;
- Any other structures / features noted during field assessment;
- Cultural heritage items likely to be affected by the Proposed Development.

12.5.1.2.1 *Protected Structures*

The Record of Protected Structures as listed in the Meath County Development Plan 2021-2027 and the Kildare County Development Plan 2017-2023 was consulted for protected structures which may be present within the site of the Proposed Development. There are two Protected Structure located within the Proposed Development area. Moygaddy House (MH053-102, referred to as CH2), which is located immediately adjacent to Site C. Site C abuts the curtilage of Moygaddy House so is included here. Moygaddy House is a three-bay two-storey over basement house, built c. 1850, hipped roof with and pilastered porch, ranges of outbuildings forming narrow rectangular courtyard (CH2). Included are its gates, piers and boundary walls (MH053-10).

One structure, Carton Demesne Wall (MH053-100) is located immediately adjacent to the Proposed Development (referred to as CH3 less than 10m from Site B and MOOR). Carton Demesne Wall (CH3, RPS MH053-100) is a length of rubble stone demesne wall, built c. 1760 including piers and gates.

The Record of Protected Structures as listed in the Kildare County Development Plan 2017-2023 was consulted, Maria Villa (B05-09), is approximately 800m to the southwest, and a house B05-77 is situated approximately 375m to the southwest of the Proposed Development. Carton House (B06-09) and interiors (B06-09i) are located approximately 600m to the east of the Proposed Development.

Overall, there are 47 no. protected structures located within 1km of the Proposed Development. There are 55 Protected Structures located within 2km of the Proposed Development; (see Table 12-4 below). Most of these are located within the town of Maynooth.

Table 12-4 Protected structures within 2km of the Proposed Development

RPS	NIAH Ref.	Townland	Description	Distance (m)
B05-77	N/a	Maynooth	Pebble Mill House.	33
B05-30	11803095	Moyglare	House. 44 Mariaville, Dunboyne road.	162
B05-10	11803067	Maynooth	House. Butler's House, Convent Lane, Dillon's Row	243
B05-09	11900506	Mariavilla	House	305.
B05-44	11803022	Maynooth	House. Main Street, Convent Lane.	334
B05-51	11803078	Maynooth	House. 28 Leinster Cottages, Double Lane/Back Lane.	339
B05-43	11803020	Maynooth	House (Rye House, Main Street).	343
B05-55	11803096	Maynooth	Gate lodge (Carton (House), Main Street, Dublin Road.	346
B05-27	11803090	Maynooth	House (Finnerty House, Dublin Road).	377
B05-29	11803092	Maynooth	House (Dublin Road).	384
B05-28	11803091	Maynooth	House (D.R. Glas, Ryebank House, Dublin Road).	389
B05-52	11803079	Maynooth	Church/Parish Hall (Pound Lane).	420
B05-76	11803138	Maynooth	House (Pound Lane).	430
B05-63	11803108	Maynooth	Maynooth Parochial House, Mill Street.	437
B05-58	11803101	Maynooth	Saint Mary's Catholic Church, Mill Street.	438
B05-45	11803035	Maynooth	Public House (Brady's, Main Street, Courthouse Square).	440
B05-46	11803041	Maynooth	House (Court House Square, Main Street,	482
B05-14	11803039	Maynooth	Lyreen House, Court House Square	495
B05-47	11803042	Maynooth	Public House (The Leinster Arms, Main Street).	507

RPS	NIAH Ref.	Townland	Description	Distance (m)
B06-09	N/a	Carton Demesne	Carton House and associated outhouses, stables and yards	510
B06-09i	N/a	Carton Demesne	Interiors of Carton Demesne (House and Gardens)	510
B05-53	11803087	Maynooth	Bridge (William Bridge, Maynooth).	518
B05-13	11803043	Maynooth	House with shop, Nuzstop, Main Street	524
B05-48	11803044	Maynooth	Shop (Dawson's, Main Street).	535
B05-50	11803055	Maynooth	House (Mill Street).	548
B05-49	11803049	Maynooth	Maynooth Garda Siochana Station,	583
B06-12	11803102	Maynooth	House (Castle View House, Parson Street).	584
B05-11	11803050	Maynooth	Buckley House, Main Street .	596
B05-54	11803093	Maynooth	School-former() (Geraldine Hall, Leinster Street).	644
B06-12	11803102	Maynooth	Castle View House, Parson Street	677
B05-57	11803100	Maynooth	Church (Saint Mary's Church, Parson Street).	696
B05-60	11803103	Railpark	Bridge (Mullen Bridge).	734
B05-62	11803107	Greenfield	Signal Box (Maynooth Railway Station, Straffan Road (off)).	833
B05-70	11803125	Collegeland	Building misc. (St. Patrick's College (Riverstown Lodge), Parson Street).	837
B05-33	11803106	Greenfield	Maynooth Railway Station (former), Straffan Road (off)	849
B05-56	11803099	Maynooth	House (Maynooth Rectory (former), Parson Street).	861
B05-34	11803109	Railpark	House (202 Railpark).	862
B05-75	11803134	Collegeland	Building misc. (St. Patrick's College (Senior Infirmary), Parson St.).	904
B05-69	11803123	Collegeland	Building misc. (St. Patrick's College (Rhetoric House), Parson Street).	904

RPS	NIAH Ref.	Townland	Description	Distance (m)
B05-72	11803127	Collegeland	Church (St. Patrick's College (Collegiate Chapel), Parson Street).	904
B05-68	11803118	Collegeland	Building misc. (St. Patrick's College, Parson Street).	905
B05-65	11803113	Collegeland	University (St. Patrick's College (Entrance Block), Parson Street).	907
B05-32	11803104	Maynooth	House (141 Greenfield Cottages).	923
B05-66	11803114	Collegeland	Engine House (St. Patrick's College (Loftus Hall), Parson Street).	943
B05-71	11803126	Collegeland	Building misc. (St. Patrick's College (Junior House/Logic Ho, Parson St.).	961
B05-73	11803128	Collegeland	Building misc. (St. Patrick's College (The Quadrangle), Parson St.).	967
91518	14404901	Moyglare	House - Former Church (C of I). Co. Meath.	977
B05-67	11803117	Collegeland	Exam Hall (St. Patrick's College (Loftus Hall), Parson Street).	1026
B05-64	11803112	Collegeland	Hospital-former (St. Patrick's College (Junior Hospital), Parson Street).	1068
B05-74	11803133	Greenfield	Bridge (Bond Bridge, Maynooth).	1126
B06-06	N/a	Railpark	Lime kiln	1323
B05-01	N/a	Laraghbryan East	Laraghbryan Church (in ruins), RMP KD005-009002, KD005-009003"	1710
91517	N/a	Moyglare	Moyglare House (Co. Meath)	1971
B06-13	11900601	Railpark	Field system	1989

12.5.1.2.2 National Inventory of Architectural Heritage - Building Survey

No structures listed in the National Inventory of Architectural Heritage (NIAH) are located within the Proposed Development. There are 91 no. NIAH sites located within 1km of the Proposed Development, 98 no. NIAH sites located within 2km of the Proposed Development. Almost all of these are situated in Maynooth Town listed in Table 12-5 in Figure 12-8 below.

Table 12-5 NIAH Sites located within 2km of the Proposed Development

NIAH Ref.	Townland	Classification	Distance (m)
11803095	Maynooth	House	163
11803067	Maynooth	Butler's House	243
11900506	Mariavilla	House, Maria Villa	296
11803022	Maynooth	House, Main St, Convent Lane	335
11803021	Maynooth	House, Main St.	338
11803078	Maynooth	House. 28 Leinster Cottages, Double Lane/Back Lane	340
11803020	Maynooth	Rye House, Main Street	344
11803096	Maynooth	Carton House Gate Lodge, Main Street	348
11803019	Maynooth	Main Street	352
11803018	Maynooth	House, c.1770, Main Street	357
11803023	Maynooth	House, c. 1770, Main Street, Doctor's Lane.	362
11803017	Maynooth	House, c. 1790, Main Street	364
11803024	Maynooth	House c. 1770, Main Street (Maynooth Jewellers).	367
11803016	Maynooth	House c. 1800, Main Street.	368
11803015	Maynooth	House c. 1800, Main Street (Maynooth Dry Cleaners).	373
11803090	Maynooth	House c. 1825, Dublin Road	378
11803014	Maynooth	House c. 1800, Main Street, Double Lane	382
11803026	Maynooth	House c. 1770 (Maynooth Credit Union) Main Street.	382
11803092	Maynooth	House, Dublin Road	385
11803027	Maynooth	House c. 1770 (Maynooth Library), Main Street	386
11803013	Maynooth	House c. 1775. Main Street/Double Lane (Ua Buacalla)	389
11803091	Maynooth	House c. 1825, Dublin Road	390
11803028	Maynooth	House c. 1770, Main St (Matt Bruton/Declan Bolger).	393
11803012	Maynooth	House c. 1900, Main St (McCormack's Pharmacy.	394
11803029	Maynooth	House c. 1750, Main St.	398

NIAH Ref.	Townland	Classification	Distance (m)
11803011	Maynooth	House c. 1775, Main St. (Coonan).	403
11803030	Maynooth	House c. 1750, Main St.	405
11803030	Maynooth	House, c. 1750, Main Street.	405
11803056	Maynooth	House, c. 1800, Main Street.	409
11803079	Maynooth	Former church, Pound Lane	422
11803033	Maynooth	House c. 1880 (Elite Confectionery) Main Street.	426
11803138	Maynooth	Former school, Pound Lane.	430
11803034	Maynooth	House c. 1880 (Caulfields), Main Street.	438
11803101	Maynooth	Saint Mary's Catholic Church, Mill Street.	440
11803108	Maynooth	Maynooth Parochial House, c. 1840, Mill St.	442
11803035	Maynooth	House 1896 (Brady's), Main St, Court House Square.	442
11803040	Maynooth	House c. 1830 (Brady's), Doctors Lane.	461
11803036	Maynooth	House c. 1780, Court House Square.	462
11803046	Maynooth	Limestone sculpture, erected 1993, Court House Square	462
11803007	Collegeland	House c. 1800 (Hula-Bou), Main st/Fagan's Lane.	465
11803037	Maynooth	House c. 1780, Court House Square	468
11803006	Maynooth	House c. 1800 (Little China), Court House Square	471
11803038	Maynooth	House c. 1780 (Pottery Barn), Court House Square/Doctor's Lane	474
11803005	Maynooth	House c. 1800 (Romayo's Takeaway), Main St/Kelly's Lane	475
11803041	Maynooth	House c. 1870, Court House Square/Main St.	486
11803004	Maynooth	House c. 1800, (Maguire and Company Solicitors) Court House Square.	495
11803039	Maynooth	Lyreen House c. 1781, Court House Square	496
11803097	Maynooth	Boundary Wall 1821 (The Pound), Pound Lane/Mill St.	503
11803042	Maynooth	Hotel c. 1777 (The Leinster Arms), Main St.	511

NIAH Ref.	Townland	Classification	Distance (m)
11803087	Maynooth	William Bridge c. 1795, Main St.	521
11803043	Maynooth	House c. 1830 (Nuzstop), Main St	524
11803098	Maynooth	House c. 1820 , Leinster St.	528
11803044	Maynooth	House c. 1875 (Dawson's), Main St.	537
11803137	Maynooth	House c. 1875, Main St.	546
11803055	Maynooth	House c. 1760 , Mill St.	552
11803054	Maynooth	House c. 1760 , Mill St.	556
11803045	Maynooth	House c. 1760 (Harbour House (Bean House), Leinster St.	586
11803049	Maynooth	Houses c. 1800 (Maynooth Garda Station)	586
11803048	Maynooth	House c. 1800, Leinster St.	592
11803047	Maynooth	House c. 1800, Leinster St.	597
11803050	Maynooth	House c. 1770 (Buckley House), Main St.	599
11803141	Maynooth	Footbridge c. 1840 (Castle View House), Parson St.	631
11803093	Maynooth	Church of Ireland School c. 1860 (Geraldine Hall), Leinster St..	643
11803094	Maynooth	Former presbytery 1903, Leinster St.	660
11803142	Maynooth	Footbridge c. 1840 (Castle View House), Parson St.	668
11803102	Maynooth	House c.1725, (Castle View House), Parson St.	681
11803100	Maynooth	Saint Mary's CoI Church, 1859, Parson St.	698
11803103	Maynooth	Mullen Bridge c. 1795	750
11803113	Collegeland	House, c.1796-9, Saint Patrick's College (Entrance Block), Parson St.	801
11803107	Greenfield	Signal Box (Maynooth Railway Station), Straffan Road (off)	833
11803125	Collegeland	House c.1817 (Saint Patrick's College (Riverstown Lodge), Parson St.	842
11803120	Collegeland	Exam hall 1892-3 (Saint Patrick's College (Aula Maxima), Parson St.	844

NIAH Ref.	Townland	Classification	Distance (m)
11803106	Greenfield	Station Master's House 1884 (Maynooth Railway Station), Straffan Road (off)	851
11803110	Collegeland	Library 1984 (Saint Patrick's College (Pope John Paul II Memorial)	857
11803109	Railpark	House 1860	864
11803099	Maynooth	Maynooth Rectory (former) c1726. Parson St.	867
11803136	Maynooth	Section of Royal Canal, built 1790-1796	872
11803124	Collegeland	Building c. 1850 (Saint Patrick's College), Parson St.	880
11803134	Collegeland	Infirmary, 1862-3 (Saint Patrick's College), Parson St.	905
11803118	Collegeland	Building 1902 (Saint Patrick's College), Parson St.	908
11803127	Collegeland	Saint Patrick's College (Collegiate Chapel), 1875-1891, Parson St.	908
11803105	Greenfield	House c. 1905, Greenfield Cottages	909
11803123	Collegeland	House c. 1831-33 (Saint Patrick's College (Rhetoric House), Parson St.	909
11803104	Greenfield	House c. 1905, Greenfield Cottages	926
11803114	Collegeland	Engine House c. 1870 Saint Patrick's College (Saint Patrick's House), Parson St.	934
11803128	Collegeland	Saint Patrick's College, c. 1845-51 (The 'Quadrangle'), Parson St.	959
11803115	Collegeland	Saint Patrick's College c. 1860 (Saint Patrick's House), Parson St.	961
11803119	Collegeland	Outbuilding c. 1860. (Saint Patrick's College), Parson St.	965
11803126	Collegeland	Saint Patrick's College c. 1831-3 (Junior House/Logic House)	966
14404901	Moyglare	Saint Paul's Church of Ireland Church, Parson St.	986
11803129	Collegeland	Ball alleys c. 1930. (Saint Patrick's College), Parson St.	993
11803116	Collegeland	Saint Patrick's College 1932 (Museum), Parson St.	998
11803117	Collegeland	Saint Patrick's College c. 1880 (Loftus Hall), Parson St.	1030

NIAH Ref.	Townland	Classification	Distance (m)
11803112	Collegeland	Saint Patrick's College1835-6, (Junior Hospital), Parson St.	1072
11803122	Collegeland	Ball alleys 1837, St. Patrick's College, Parson St.	1075
11803133	Collegeland	Bond Bridge 1795	1114
11803132	Collegeland	Railway bridge c. 1850	1142
11803121	Collegeland	1810-present. Saint Patrick's College (Priest's Burial Ground), parson St.	1161
11900601	Carton Demesne	Pike Bridge, 1793.	1786

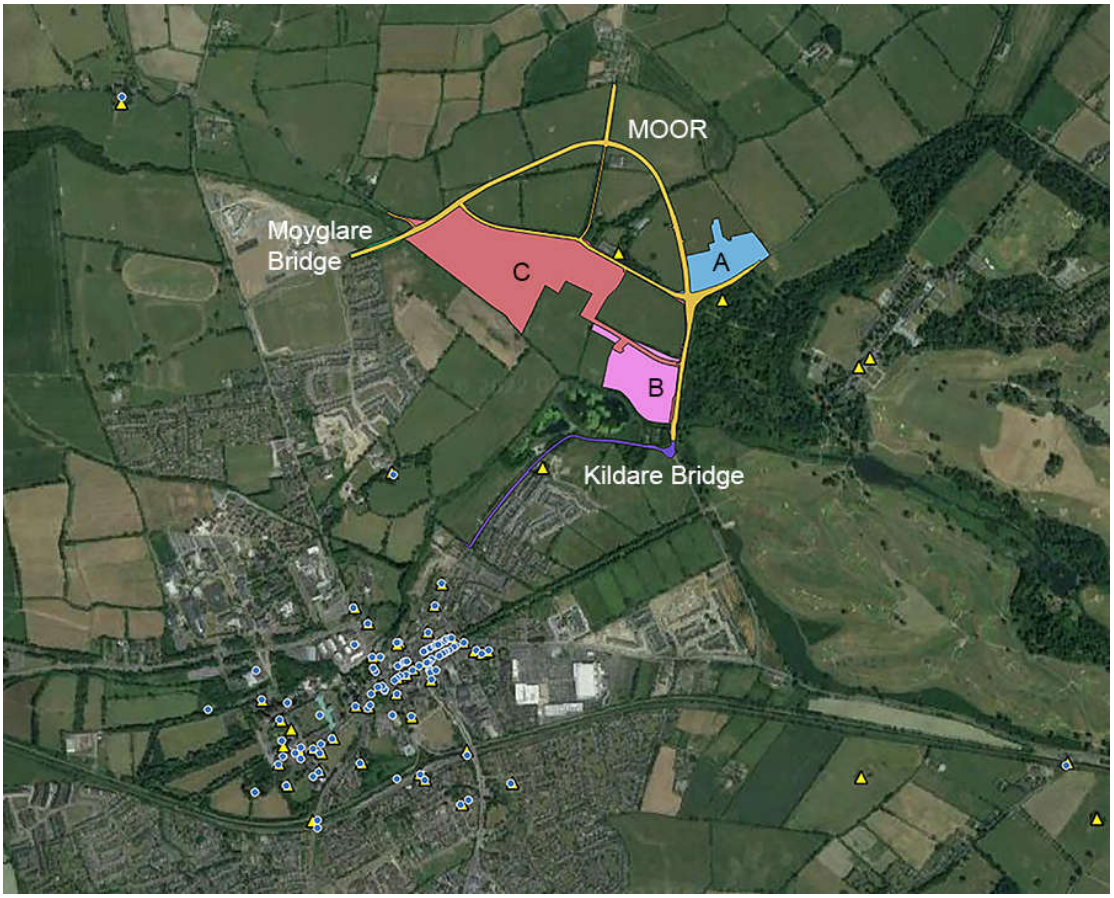

Figure 12-9 NIAH Structures (blue dots) and RPS (yellow triangles) within 2km of Proposed Development-note the cluster in Maynooth town. Site A in Red, Site B in Blue, Site C in pink, Moyglare Bridge in green, MOOR in yellow, Kildare Bridge in purple.

12.5.1.2.3 National Inventory of Architectural Heritage - Garden Survey

There are no recorded historic gardens/ designed landscapes within 1km of the proposed development.

12.5.1.2.4 Vernacular Structures

There are no vernacular structures within the proposed development.

12.5.1.2.5 Townland Boundaries

Townland boundaries were recorded for the first edition Ordnance Survey mapping of the 19th century. The townlands were then utilised as formal administrative units for the census and as the basic framework for Griffith's Valuation. The boundaries take a variety of forms and may consist of earth and stone banks and associated ditches, or stone walls, or natural features. The townland boundary between Moygaddy (Co. Meath) and Mariaville (Co. Kildare) is formed by the Rye Water River. This is also the county boundary between Meath and Kildare. Impacts are predicted as neutral as impacts have previously occurred to the boundary. (Mitigation measures are proposed for in water and underwater assessment for Kildare Bridge and Moyglare Bridge developments.) These have been included as boundaries CH4.

12.5.1.2.6 Other Cultural Heritage Items

Some of the field boundaries depicted on the 1st edition Ordnance Survey map still survive. A granite gate pier also survives in Site C. (CH 5). The field boundaries are predominantly a mixture of mounded earthen banks with modern post and rail fencing. These are now substantial hedgerows. These have been included as field boundaries CH4 and CH5 gate pier.

12.5.1.2.7 Place Name Evidence

Place names may be derived from geological, archaeological or topographical features within the landscape or may also have taken the name of an important or famous person who once lived in the area. Place name evidence can refer to archaeological monuments within the vicinity which may no longer be visible in the landscape, or which are now only documented through local history or tradition. The database of Irish place names www.logainm.ie and the Ordnance Survey Name Books 1824-46 were consulted for the meaning of the place names located within the study area boundary and in the general environs of the site. The following was reported in the database:

- Moygaddy – *Moygaddy derives from* Irish *Maigh Gadaí* meaning 'magh' or 'plain' and '*gadaí*', meaning 'thief;
- Mariaville – The townland is named after the house 'Mariaville';
- Carton Demesne. The townland is named after the Carton House.

12.6 Potential Effects and Associated Mitigation Measures

12.6.1 Do Nothing Scenario

If the Proposed Development were not to proceed, the potential effects on heritage assets from the Proposed Development would not occur. The existing land-uses of small-scale agriculture for pasture and livestock grazing at the Proposed Development would continue and the natural effects of erosion and decay over time would take place.

12.6.2 Site A (Strategic Employment Zone)

12.6.2.1 Construction Phase (Direct Effects)

Direct effects refer to a physical effect on a monument or site. The construction phase of Site A consists largely of mechanical excavations such as topsoil stripping and the digging of all associated groundworks and site works. The potential effects on the known and potential archaeological and cultural heritage of the area are outlined below with the suggested mitigation measures.

12.6.2.1.1 *Effects on Recorded Archaeology and Cultural Heritage*

As no UNESCO World Heritage Sites, National Monuments or Recorded Monuments are located within the footprint of Site A, no direct effects on these aspects of the archaeological resource are identified. Similarly, as no Protected Structures, NIAH structures or historic gardens are located within the footprint of Site A, no direct effects on these aspects of the archaeological and cultural heritage resource are identified.

12.6.2.1.2 *Effects on Unrecorded Potential Sub-Surface Sites*

While no new upstanding archaeological sites were detected during the walkover survey, the geophysical survey (CH6) has established that there are potential sub-surface archaeological features present within Site A. Topsoil stripping and development excavations may affect these features.

Pre-Mitigation Impact

Should new archaeological sites or features be present beneath the topsoil (currently not visible on the surface) the impact is likely to be significant negative and permanent (i.e., development excavations would permanently remove the sites resulting in a significant negative impact).

Proposed Mitigation Measures

Pre-development targeted archaeological test trenching under licence from the National Monuments Service should take place to ascertain if the sub-surface features identified in the geophysical survey are archaeological in nature. Test trenching should also take place in areas of the site not covered by the geophysical survey, if development is proposed in these areas. A report on the results of targeted test trenching and a detailed archaeological impact assessment shall be compiled and submitted to the relevant authorities. If any archaeological sites or features are identified during the pre-construction test trenching, they will be preserved by record (archaeologically excavated) or preserved in-situ (avoidance) and therefore a full record made of same.

Residual Impact

The potential impact following implementation of the mitigation measures is considered to be permanent, slight, and negative.

12.6.2.1.3 *Effects on Cultural Heritage Items*

The development of Site A will require the removal of cultural heritage sites located within the Site A development footprint. Cultural heritage items identified during fieldwork are the existing field boundaries (CH4), which appear to date from the late eighteenth and early nineteenth centuries.

Pre-Mitigation Impact

The removal of the late eighteenth/nineteenth century field boundaries will result in a slight permanent negative impact on these cultural heritage items.

Proposed Mitigation Measures

- The development footprint of the project has been mitigated by design to avoid removal of townland and field boundaries wherever possible. Where it is not possible to maintain by design, an archaeological record (written and photographic) will be made of them prior to their removal.

Residual Impact

When the suggested mitigation measures are implemented during construction the effects on cultural heritage items will be permanent, imperceptible, and negative.

12.6.2.2 Construction Phase (Indirect Effects)

No indirect effects will occur at the construction phase of the development of Site A. All indirect effects are likely to occur at the operational phase of the Proposed Development (see Section 12.6.5).

12.6.2.3 Operational Phase (Direct Effects)

No direct effects will occur during the operational phase of the development of Site A. Any likely direct effects will occur at the construction phase of the development of site A (see Section 12.6.2).

12.6.2.4 Operational Phase (Indirect Effects)

Indirect effects are where a feature or site of archaeological, architectural heritage merit or their setting is located in close proximity to Site A. Indirect impacts here are mainly concerned with impacts on setting.

Impacts on setting of sites may arise when a development is proposed immediately adjacent to a recorded monument or cluster of monuments. While Site A may not physically impact on a site, it may alter the setting of a monument or group of monuments. There is no standardised industry-wide approach for assessing the degree of impact to the setting of a monument. For purposes of assessing visual impact on setting, the uniqueness of the monuments, the potential interrelationships of monuments, the inter-visibility of monuments, visual dominance and whether a setting is altered or unaltered can be used to assess impact.

Potential impact to the visual amenity of a site or area and the significance of same is dependent on a number of factors regarding the sensitivity of the location or 'receptor' and the scale or magnitude of the Proposed Development. Similarly, the extent of the development and its duration and reversibility should all be considered (*Guidelines for Landscape and Visual Impact Assessment 3rd edition* – Consultation Draft, Landscape Institute, 2013).

12.6.2.4.1 *Impact on setting of UNESCO World Heritage Sites (Tentative List)*

No monuments on the World Heritage Sites list and tentative list are located within 25km of the Site A. There will therefore be no impact on UNESCO sites as a result of the development of Site A.

12.6.2.4.2 *Impact on setting of National Monuments*

Impact on setting of National Monuments within 15km of the Proposed Development were considered for purposes of assessing potential impacts on visual setting. The assessments were based on the field survey and cartographic analysis. The National Monuments referred to in Section 12.5.1.1.2 are addressed here in terms of potential impacts on setting.

The closest National Monument to Site A is Maynooth Castle (KD005-015—), a National Monument in the Ownership of the Minister (NM 485). It is located approximately 1.5 km to the southwest of the Proposed Development. The other monuments vary in distance from the Proposed Development site from 4.6km to 13km.

Taghadoe (Round Tower & Church) KD010-014002- & KD010-014004-, is a National Monument in the Ownership of the Minister in Co. Kildare (NM 70 and 578), located approximately 4.6km southwest of the Proposed Development.

Rathcoffey Castle (Castle gatehouse), KD010-018001- is a National Monument in the Ownership of the Minister in Co. Kildare (NM 404), located approximately 8.5km to the southwest of the Proposed Development.

Dunshaughlin ME044-003002- is a National Monument in the Guardianship of the Minister (NM 400) in Co. Meath. It is 13km to the N of the Proposed Development site.

There is no inter-visibility between the monuments and the Site A. The impact on the setting of the monuments is therefore deemed to be imperceptible. There will be no impact on National Monuments as a result of the Proposed Development.

12.6.2.4.3 *Impact on setting of Recorded Monuments*

There are three recorded monuments within 1km of Site A. The table below presents the recorded archaeological monuments within 1km of Site A according to their sensitivity (visual dominance, above ground trace, uniqueness, proximity to site etc.) and the likely potential pre-mitigation impact on their setting. For example, low visibility monuments such as holy wells, could be considered to have less potential to be impacted by the proposed development of Site A and therefore their sensitivity could be regarded as low. High visibility monuments such as castles and houses visually dominant monuments on high ground within close proximity to the site of the proposed development of site A may be more at risk in terms of impact on their setting. Monuments that do not have any surface trace are not capable of having their setting impacted and these impacts are categorised as 'not significant'.

Development of Site A will not impact on the immediate setting of the monuments as no recorded monuments are located immediately adjacent to the Site A. Moygaddy Castle is over 200m from Site A is screened by trees. The Maynooth Environs Local Area Plan 2009-2015 states that *'it is a long-term strategy to create a homogenous intact woodland in Moygaddy; achieved through a combination of measures including woodland management, the establishment of new woodland and the retention of existing trees*'. The creation of a woodland around Moygaddy Castle will further screen the site from Site A. The likely pre-mitigation impacts for each monument are summarised below.

Pre-Mitigation Impact

Pre-mitigation impacts on the setting of RMP's are set out in Table 12-6 below.

Table 12-6 Pre-Mitigation Impacts on setting of RMP's within 1km of Proposed Development

RMP No.	Townland	Classification	Distance (m)	Sensitivity of Asset	Significance of Effect
ME053-001—	Moygaddy	Castle	230m E	High	Permanent, Slight, Neutral
KD006-009—	Carton Demesne	House - 17th century	500mm	High	Permanent, Imperceptible, Neutral
KD006-013—	Carton Demesne	Holy Well	210 to SE	Low	Permanent, Imperceptible, Neutral

Proposed Mitigation Measures

No mitigation measures are proposed. The closest Recorded Monument is Moygaddy Castle (CH1). It is partially surrounded by a growth of mature trees, which lessens the visual impact of the proposed development of Site A.

Residual Impact

The residual impact on the setting of Recorded Monuments due to the proposed development of Site A will be permanent, imperceptible to slight, and neutral in effect.

12.6.2.4.4 *Impact on setting of RPS/NIAH structures*

Low visibility structures are less likely to have a setting associated with them and are less likely to be visually impacted in contrast to more dominant upstanding structures such as houses which often have obvious visible remains. The sensitivity of an asset together with the distance from the Proposed Development dictates the significance of potential impacts.

The closest Protected Structure is Carton Demesne Wall (CH3). There will be a slight impact on the wall. Moygaddy House (CH2) is 160m from Site A. This is partially screened from the Site A by mature trees along its avenue. There will be a slight impact on Moygaddy House -however, the house is screened by trees, and is located 160m from Site A. None of the structures listed below will be directly impacted and no significant or adverse impacts will take place.

Pre-Mitigation Impact

Pre-mitigation impacts on the setting of RPS and NIAH structures are set out in Table 12-7 below.

Table 12-7 Pre-Mitigation Impacts on setting of NIAH/RPS structures within 1 km of Site A.

RPS/ NIAH Ref.	Townland	Classification	Distance (m)	Sensitivity of Asset	Significance of Effect
MH053-100 Not on NIAH	Moygaddy	Carton Demesne Wall	Immediately adjacent < 10	High	Slight, Permanent, Neutral

RPS/ NIAH Ref.	Townland	Classification	Distance (m)	Sensitivity of Asset	Significance of Effect
MH053-102 Not on NIAH	N/a	Moygaddy House, ranges and walls	160 to W	High	Slight, Permanent, Neutral
B05-09. NIAH 11900506	Maynooth	Maria Villa	990 to W	High	Imperceptible, Permanent, Neutral
B05-77. Not on NIAH	Maynooth	House (Pebble Mill	472 to WSW	High	Imperceptible, Permanent, Neutral
B06-09. Not on NIAH	Carton Demesne	Carton House	500m to E	High	Imperceptible, Permanent, Neutral
B06-091	Carton Demesne	Interiors of Carton Demesne	500m to E	High	Imperceptible, Permanent, Neutral
NIAH 11803095	Maynooth	House 1900-1910	999 to SW	High	Imperceptible, Permanent, Neutral

Proposed Mitigation Measures

No mitigation measures proposed.

Residual Impact

The residual impact of the proposed development of site A on setting of RPS/NIAH structures will be permanent, slight, and neutral in effect.

12.6.2.4.5 *Impact on setting of NIAH gardens*

There are no NIAH historic gardens within 1km of Site A.

Pre-Mitigation Impact

None, not applicable.

Proposed Mitigation Measures

No mitigation necessary, not applicable.

Residual Impact

Not applicable.

12.6.3 Site B (Healthcare Site)

12.6.3.1 Construction Phase (Direct Effects)

Direct effects refer to a physical effect on a monument or site. The construction phase of the Site B consists largely of mechanical excavations such as topsoil stripping and the digging of all associated groundworks and site works. The potential effects on the known and potential archaeological and cultural heritage of the area are outlined below with the suggested mitigation measures.

12.6.3.1.1 *Effects on Recorded Archaeology and Cultural Heritage*

As no UNESCO World Heritage Sites, National Monuments or Recorded Monuments are located within the footprint of the proposed development, no direct effects on these aspects of the archaeological resource are identified. Similarly, as no Protected Structures, NIAH structures or historic gardens are located within the footprint of Site B, no direct effects on these aspects of the archaeological and cultural heritage resource have been identified.

12.6.3.1.2 *Effects on Unrecorded Potential Sub-Surface Sites*

While no new upstanding archaeological sites were detected during the walkover survey, the geophysical survey (CH6) has established that there are potential sub-surface archaeological features present within Site B. Topsoil stripping and development excavations may affect these features.

Pre-Mitigation Impact

Should new sites be present beneath the topsoil (currently not visible on the surface) the impact is likely to be significant negative and permanent (i.e., development excavations would permanently remove the sites resulting in a significant negative impact).

Proposed Mitigation Measures

Pre-development targeted archaeological test trenching under licence from the National Monuments Service should take place to ascertain if the sub-surface features identified in the geophysical survey are archaeological in nature. Test trenching should also take place in areas of the site not covered by the geophysical survey, if development is proposed in these areas. A report on the results of targeted test trenching and a detailed archaeological impact assessment shall be compiled and submitted to the relevant authorities. If any archaeological sites or features are identified during the pre-construction test trenching, they will be preserved by record (archaeologically excavated) or preserved in-situ (avoidance) and therefore a full record made of same.

Residual Impact

The potential impact following implementation of the mitigation measures is considered to be permanent, slight, and negative.

12.6.3.1.3 *Effects on Cultural Heritage Items*

The proposed development of Site B will require the removal of all cultural heritage sites located within the development footprint. Cultural Heritage items identified during fieldwork are the existing field boundaries, which appear to date from the late eighteenth and early nineteenth centuries.

Pre-Mitigation Impact

The removal of the late eighteenth/nineteenth century field boundaries (CH 4) will result in a slight permanent negative impact on these cultural heritage items.

Proposed Mitigation Measures

The development footprint of the project has been mitigated by design to avoid removal of field boundaries wherever possible. Where it is not possible to maintain by design, an archaeological record (written and photographic) will be made of them prior to their removal.

Residual Impact

When the suggested mitigation measures are implemented during construction the effects on cultural heritage items will be permanent, imperceptible, and negative.

12.6.3.2 Construction Phase (Indirect Effects)

No indirect effects will occur at the construction phase of the Proposed Development of Site B. All indirect effects are likely to occur at the operational phase of the Proposed Development of site B (see Section 12.6.5).

12.6.3.3 Operational Phase (Direct Effects)

No direct effects will occur during the operational phase of the Proposed Development of site B. Any likely direct effects will occur at the construction phase of the Proposed Development of Site B (see Section 12.6.2).

12.6.3.4 Operational Phase (Indirect Effects)

Indirect effects are where a feature or site of archaeological, architectural heritage merit or their setting is located in close proximity to Site B. Indirect impacts here are mainly concerned with impacts on setting.

Impacts on setting of sites may arise when a development is proposed immediately adjacent to a recorded monument or cluster of monuments. While the Proposed Development of Site B may not physically impact on a site, it may alter the setting of a monument or group of monuments. There is no standardised industry-wide approach for assessing the degree of impact to the setting of a monument. For purposes of assessing visual impact on setting, the uniqueness of the monuments, the potential interrelationships of monuments, the inter-visibility of monuments, visual dominance and whether a setting is altered or unaltered can be used to assess impact.

Potential impact to the visual amenity of a site or area and the significance of same is dependent on a number of factors regarding the sensitivity of the location or 'receptor' and the scale or magnitude of the proposed development of Site B. Similarly, the extent of the development and its duration and reversibility should all be considered (*Guidelines for Landscape and Visual Impact Assessment 3rd edition* – Consultation Draft, Landscape Institute, 2013).

12.6.3.4.1 *Impact on setting of UNESCO World Heritage Sites (Tentative List)*

No monuments on the World Heritage Sites list and tentative list are located within 25km of Site B. There will therefore be no impact on UNESCO sites as a result of the proposed development of Site B.

12.6.3.4.2 *Impact on setting of National Monuments*

Impact on setting of National Monuments within 15km of Site B were considered for purposes of assessing potential impacts on visual setting. The assessments were based on the field survey and cartographic analysis. The National Monuments referred to in Section 12.5.1.1.2 are addressed here in terms of potential impacts on setting.

The closest National Monument to the Proposed Development is Maynooth Castle (KD005-015—), a National Monument in State Ownership (NMO 485). It is located approximately 1.5 km to the southwest of the Proposed Development. The other monuments vary in distance from Site B from 4.6km to 13km.

Taghadoe (Round Tower & Church) KD010-014002- & KD010-014004-, is a National Monument in State Ownership in Co. Kildare (NMN 70 and 578), located approximately 4.6km southwest of the Site B.

Rathcoffey Castle (Castle gatehouse), KD010-018001- is a National Monument in State Ownership in Co. Kildare (NMN 404), located approximately 8.5km to the southwest of Site B.

Dunshaughlin ME044-003002- is a National Monument in State Guardianship (NMN 400) in Co. Meath. It is 13km to the N of Site B.

There is no inter-visibility between the monuments and Site B. The impact on the setting of the monuments is therefore deemed to be imperceptible. There will be no impact on National Monuments as a result of the proposed development of Site B.

12.6.3.4.3 *Impact on setting of Recorded Monuments*

There are three recorded monuments within 1km of Site B. The table below presents the recorded archaeological monuments within 1km of Site B according to their sensitivity (visual dominance, above ground trace, uniqueness, proximity to site etc.) and the likely potential pre-mitigation impact on their setting. For example, low visibility monuments such as holy wells, could be considered to have less potential to be impacted by the Proposed Development of Site B and therefore their sensitivity could be regarded as low. High visibility monuments such as castles and houses visually dominant monuments on high ground within close proximity to Site B may be more at risk in terms of impact on their setting. Monuments that do not have any surface trace are not capable of having their setting impacted and these impacts are categorised as 'not significant'.

Development will not impact on the immediate setting of the monuments as no recorded monuments are located immediately adjacent to Site B. The Maynooth Environs Local Area Plan 2009-2015 states that '*it is a long-term strategy to create a homogenous intact woodland in Moygaddy; achieved through a combination of measures including woodland management, the establishment of new woodland and the retention of existing trees'*. The creation of a woodland around Moygaddy Castle will further screen the site from Site B, which is already almost completely screened by existing trees. The likely pre-mitigation impacts for each monument are summarised below.

Pre-Mitigation Impact

Pre-mitigation impacts on the setting of RMP's are set out in Table 12-8 below.

Table 12-8 Pre-Mitigation Impacts on setting of RMP's within 1km of Proposed Development

RMP No.	Townland	Classification	Distance (m)	Sensitivity of Asset	Significance of Effect
ME053-001—	Moygaddy	Castle	281m NW	High	Permanent, Slight, Neutral
KD006-009—	Carton Demesne	House - 17th century	609m to E	High	Permanent, Imperceptible, Neutral
KD006-013—	Carton Demesne	Holy Well	200 to SE	Low	Permanent, Imperceptible, Neutral

Proposed Mitigation Measures

No mitigations are proposed. The closest Recorded Monument is Moygaddy Castle. It is almost completely screened from Site B by a growth of mature trees, which lessens the visual impact of the Proposed Development.

Residual Impact

The residual impact on the setting of Recorded Monuments due to the proposed development of Site B will be permanent, imperceptible to slight, and neutral in effect.

12.6.3.4.4 *Impact on setting of RPS/NIAH structures*

Low visibility structures are less likely to have a setting associated with them and are less likely to be visually impacted in contrast to more dominant upstanding structures such as houses which often have obvious visible remains. The sensitivity of an asset together with the distance from Site B dictates the significance of potential impacts.

The closest Protected Structure is Moygaddy House, which is partially screened from the Proposed Development by mature trees along its avenue. There will be a slight impact on Mogaddy House - however, the house is screened by trees, and is located 270m from the Proposed Development. None of the structures listed below will be directly impacted and no significant or adverse impacts will take place.

Pre-Mitigation Impact

Pre-mitigation impacts on the setting of RPS and NIAH structures are set out in Table 12-7 below.

Table 12-9 Pre-Mitigation Impacts on setting of NIAH/RPS structures within 1 km of Proposed Development

RPS/ NIAH Ref.	Townland	Classification	Distance (m)	Sensitivity of Asset	Significance of Effect
MH053-100 Not on NIAH	*Moygaddy*	*Carton Demesne Wall*	Immediately adjacent < 10	High	Slight, Permanent, Neutral

RPS/ NIAH Ref.	Townland	Classification	Distance (m)	Sensitivity of Asset	Significance of Effect
MH053-102 Not on NIAH	N/a	Moygaddy House, ranges and walls	270 to NW	High	Slight, Permanent, Neutral
B05-09. NIAH 11900506	Maynooth	Maria Villa	811 to SW	High	Imperceptible, Permanent, Neutral
B05-77. Not on NIAH	Maynooth	House (Pebble Mill	375 to SW	High	Imperceptible, Permanent, Neutral
B06-09. Not on NIAH	Carton Demesne	Carton House	510 to E	High	Imperceptible, Permanent, Neutral
B06-09i	Carton Demesne	Interiors of Carton Demesne	510 to E	High	Imperceptible, Permanent, Neutral
NIAH 11803067	Maynooth	House (Butler's House).	996 to SW	High	Imperceptible, Permanent, Neutral
11803092	Maynooth	House (1815 – 1835)	990 to SW	High	Imperceptible, Permanent, Neutral
11803095	Maynooth	House 1900-1910	920 to SW	High	Imperceptible, Permanent, Neutral

Proposed Mitigation Measures

No mitigations proposed

Residual Impact

The residual impact of the proposed development on setting of RPS/NIAH structures will be permanent, slight, and negative in effect.

12.6.3.4.5 *Impact on setting of NIAH gardens*

There are no NIAH historic gardens within 1km of the Proposed Development.

Pre-Mitigation Impact

No impact.

Proposed Mitigation Measures

No mitigation necessary

Residual Impact

No residual impacts are predicted to occur.

12.6.4 Site C (SHD)

12.6.4.1 Construction Phase (Direct Effects)

Direct effects refer to a physical effect on a monument or site. The construction phase of the Proposed Development of Site C consists largely of mechanical excavations such as topsoil stripping. The potential effects on the known and potential archaeological and cultural heritage of the area are outlined below with the suggested mitigation measures.

12.6.4.1.1 *Effects on Recorded Archaeology and Cultural Heritage*

As no UNESCO World Heritage Sites or National Monuments are located within the footprint of the proposed development no direct effects on these aspects of the archaeological resource are identified. Similarly, as no Protected Structures, NIAH structures or historic gardens are located within the footprint of the Site B, no direct effects on these aspects of the archaeological and cultural heritage resource are identified. One Recorded Monument is located within Site C. this is Moygaddy Castle. However, no development is proposed near the location of the castle. There will be no direct physical effect on the castle. In order to mitigate the longer-term future protection of the Castle a Conservation and Management Plan should be prepared for the monument.

12.6.4.1.2 *Effects on Unrecorded Potential Sub-Surface Sites*

While no new archaeological sites were detected during the walkover survey, the geophysical survey has established that there are potential sub-surface archaeological features present within Site C. Topsoil stripping and development excavations may affect these features.

Pre-Mitigation Impact

Should new sites be present beneath the topsoil (currently not visible on the surface), or underwater at the proposed crossing of the Blackhall Little Stream, the impact is likely to be significant negative and permanent (i.e., development excavations would permanently remove the sites resulting in a significant negative impact).

Proposed Mitigation Measures

Pre-development targeted archaeological test trenching under licence from the National Monuments Service should take place to ascertain if the sub-surface features identified in the geophysical survey are archaeological in nature. Test trenching should also take place in areas of the site not covered by the geophysical survey, if development is proposed in these areas. Where works are proposed at Blackhall Little Stream, a dive/wade survey, undertaken under licence from the National Monuments Service should be undertaken at the location of the proposed bridge. A report on the results of targeted test trenching and underwater survey, and a detailed archaeological impact assessment shall be compiled and submitted to the relevant authorities. If any archaeological sites or features are identified during the

pre-construction test trenching, they will be preserved by record (archaeologically excavated) or preserved in-situ (avoidance) and therefore a full record made of same.

Residual Impact

The potential impact following implementation of the mitigation measures is considered to be slight, permanent, and negative.

12.6.4.1.3 *Effects on Cultural Heritage Items*

The proposed development of Site C will require the removal of all cultural heritage sites located within the development footprint. Cultural Heritage items identified during fieldwork are the existing field boundaries, which appear to date from the late eighteenth and early nineteenth centuries, and also a gate pier (CH 5).

Pre-Mitigation Impact

The removal of the late eighteenth/nineteenth century field boundaries (CH4) and gate pier (CH 5) will result in a slight permanent negative impact on these cultural heritage items.

Proposed Mitigation Measures

The development footprint of the project has been mitigated by design to avoid removal of field boundaries wherever possible. Where it is not possible to maintain by design, an archaeological record (written and photographic) will be made of them prior to their removal. The gate pier should be recorded and re-used elsewhere on the land holding.

Residual Impact

When the suggested mitigation measures are implemented during construction the effects on cultural heritage items will be permanent, imperceptible, and negative.

12.6.4.2 Construction Phase (Indirect Effects)

No indirect effects will occur at the construction phase of the proposed development of site C. All indirect effects are likely to occur at the operational phase of the proposed development of Site C (see Section 12.6.5).

12.6.4.3 Operational Phase (Direct Effects)

No direct effects will occur during the operational phase of the proposed development of Site C. Any likely direct effects will occur at the construction phase of the proposed development of Site C (see Section 12.6.2).

12.6.4.4 Operational Phase (Indirect Effects)

Indirect effects are where a feature or site of archaeological, architectural heritage merit or their setting is located in close proximity to Site C. Indirect impacts here are mainly concerned with impacts on setting.

Impacts on setting of sites may arise when a development is proposed immediately adjacent to a recorded monument or cluster of monuments. While the proposed development of Site C may not physically impact on a site, it may alter the setting of a monument or group of monuments. There is no

standardised industry-wide approach for assessing the degree of impact to the setting of a monument. For purposes of assessing visual impact on setting, the uniqueness of the monuments, the potential interrelationships of monuments, the inter-visibility of monuments, visual dominance and whether a setting is altered or unaltered can be used to assess impact.

Potential impact to the visual amenity of a site or area and the significance of same is dependent on a number of factors regarding the sensitivity of the location or 'receptor' and the scale or magnitude of the proposed development of Site C. Similarly, the extent of the development and its duration and reversibility should all be considered (*Guidelines for Landscape and Visual Impact Assessment 3rd edition* – Consultation Draft, Landscape Institute, 2013).

12.6.4.4.1 *Impact on setting of UNESCO World Heritage Sites (Tentative List)*

No monuments on the World Heritage Sites list and tentative list are located within 25km of Site C. There will therefore be no impact on UNESCO sites as a result of the proposed development of Site C.

12.6.4.4.2 *Impact on setting of National Monuments*

Impact on setting of National Monuments within 15km of Site C were considered for purposes of assessing potential impacts on visual setting. The assessments were based on the field survey and cartographic analysis. The National Monuments referred to in Section 12.5.1.1.2 are addressed here in terms of potential impacts on setting.

The closest National Monument to the Proposed Development is Maynooth Castle (KD005-015—), a National Monument in State Ownership (NMO 485). It is located approximately 1.4 km to the southwest of Site C. The other monuments vary in distance Site C from 4.6km to 13km.

Taghadoe (Round Tower & Church) KD010-014002- & KD010-014004-, is a National Monument in State Ownership in Co. Kildare (NMN 70 and 578), located approximately 4.5km southwest of Site C.

Rathcoffey Castle (Castle gatehouse), KD010-018001- is a National Monument in State Ownership in Co. Kildare (NMN 404), located approximately 8.4km to the southwest of Site C.

Dunshaughlin ME044-003002- is a National Monument in State Guardianship (NMN 400) in Co. Meath. It is approximately 13km to the N of Site C.

There is no inter-visibility between the monuments and Site C. The impact on the setting of the monuments is therefore deemed to be imperceptible. There will be no impact on National Monuments as a result of the Proposed Development of Site C.

12.6.4.4.3 *Impact on setting of Recorded Monuments*

There are three recorded monuments within 1km of the Site C. The table below presents the recorded archaeological monuments within 1km of Site C according to their sensitivity (visual dominance, above ground trace, uniqueness, proximity to site, etc.) and the likely potential pre-mitigation impact on their setting. For example, low visibility monuments such as holy wells, could be considered to have less potential to be impacted by the proposed development of Site C and therefore their sensitivity could be regarded as low. High visibility monuments such as castles and houses visually dominant monuments on high ground within close proximity to Site C may be more at risk in terms of impact on their setting. Monuments that do not have any surface trace are not capable of having their setting impacted and these impacts are categorised as 'not significant'.

There is 1 Recorded Monument in Site C (Moygaddy Castle). Development will not impact on the immediate setting of the monument. The Maynooth Environs Local Area Plan 2009-2015 states that *'it is a long-term strategy to create a homogenous intact woodland in Moygaddy; achieved through a*

combination of measures including woodland management, the establishment of new woodland and the retention of existing trees'. The creation of a woodland around Moygaddy Castle will further screen the site from the proposed development of Site C. The likely pre-mitigation impacts for each monument are summarised below.

Pre-Mitigation Impact

Pre-mitigation impacts on the setting of RMP's are set out in Table 12-10 below.

Table 12-10 Pre-Mitigation Impacts on setting of RMP's within 1km of Proposed Development

RMP No.	Townland	Classification	Distance (m)	Sensitivity of Asset	Significance of Effect
ME053-001---	Moygaddy	Castle	On Site C E	High	Permanent, Slight, Neutral
KD006-009---	Carton Demesne	House - 17th century	880m to ESE	High	Permanent, Imperceptible, Neutral
KD006-013---	Carton Demesne	Holy Well	680m to SE	Low	Permanent, Imperceptible, Neutral

Proposed Mitigation Measures

No mitigation measures are proposed. The closest Recorded Monument is Moygaddy Castle. It is partially surrounded by a growth of mature trees, which lessens the visual impact of the proposed development of Site C.

Residual Impact

The residual impact on the setting of Recorded Monuments due to the proposed development of Site C will be permanent, imperceptible to slight, and neutral in effect.

12.6.4.4.4 *Impact on setting of RPS/NIAH structures*

Low visibility structures are less likely to have a setting associated with them and are less likely to be visually impacted in contrast to more dominant upstanding structures such as houses which often have obvious visible remains. The sensitivity of an asset together with the distance from site C dictates the significance of potential impacts.

The closest Protected Structure is Moygaddy House, which is partially screened from the area proposed for construction in Site C by mature trees which surround Moygaddy Castle. The trees which surround Moygaddy Castle also screen Moygaddy House from the proposed area of development area in Site C The boundary of Site C abuts the curtilage of Moygaddy House. No works are proposed to Moygaddy House or its curtilage. None of the structures listed below will be directly impacted and no significant or adverse impacts will take place.

Pre-Mitigation Impact

Pre-mitigation impacts on the setting of RPS and NIAH structures are set out in Table 12-11 below.

Table 12-11 Pre-Mitigation Impacts on setting of NIAH/RPS structures within 1 km of Proposed Development

RPS/ NIAH Ref.	Townland	Classification	Distance (m)	Sensitivity of Asset	Significance of Effect
MH053-100 Not on NIAH	Moygaddy	Carton Demesne Wall	Immediately adjacent 281m to E	High	Imperceptible, Permanent, Neutral
MH053-102 Not on NIAH	N/a	Moygaddy House, ranges and walls	Immediately adjacent to N, < 10	High	Slight, Permanent, Neutral
B05-09. NIAH 11900506	Maynooth	Maria Villa	700 to SW	High	Imperceptible, Permanent, Neutral
B05-77. Not on NIAH	Maynooth	House (Pebble Mill	460m to SE	High	Imperceptible, Permanent, Neutral
B06-09. Not on NIAH	Carton Demesne	Carton House	880m to E	High	Imperceptible, Permanent, Neutral
B06-09i	Carton Demesne	Interiors of Carton Demesne	880m to E	High	Imperceptible, Permanent, Neutral
11803095	Maynooth	House 1900-1910	928 to SSW	High	Imperceptible, Permanent, Neutral

Proposed Mitigation Measures

No mitigations proposed

Residual Impact

The residual impact of the proposed development on setting of RPS/NIAH structures will be permanent, slight, and negative in effect.

12.6.4.4.5 *Impact on setting of NIAH gardens*

There are no NIAH historic gardens within 1km of the Proposed Development.

Pre-Mitigation Impact

No impacts.

Proposed Mitigation Measures

No mitigation necessary

Residual Impact

No residual impacts have been predicted to occur.

12.6.5 MOOR

12.6.5.1 Construction Phase (Direct Effects)

Direct effects refer to a physical effect on a monument or site. The construction phase of the MOOR development consists largely of mechanical excavations such as topsoil stripping, and the construction of a single span bridge over the Rye Water River. The potential effects on the known and potential archaeological and cultural heritage of the area are outlined below with the suggested mitigation measures.

12.6.5.1.1 *Effects on Recorded Archaeology and Cultural Heritage*

As no UNESCO World Heritage Sites, National Monuments or Recorded Monuments are located within the footprint of the MOOR development no direct effects on these aspects of the archaeological resource are identified. A protected structure, Carton Demesne Wall (MH053-100) is located along the eastern side of the proposed MOOR development. However, no works are proposed to the wall. No NIAH structures or historic gardens are located within the footprint of the MOOR development. No direct effects on these aspects of the archaeological and cultural heritage resource are identified.

12.6.5.1.2 *Effects on Unrecorded Potential Sub-Surface Sites*

While no new archaeological sites were detected during the walkover survey, the geophysical survey has established that there are potential sub-surface archaeological features present within the proposed MOOR development. There is also a potential for previously unrecorded archaeological features to lie underwater at the location of the proposed bridge. Topsoil stripping and development excavations may affect these features.

Pre-Mitigation Impact

Should new sites be present beneath the topsoil (currently not visible on the surface), or under water at the proposed bridge crossing the impact is likely to be significant negative and permanent (i.e., development excavations would permanently remove the sites resulting in a significant negative impact).

Proposed Mitigation Measures

Pre-development targeted archaeological test trenching under licence from the National Monuments Service should take place to ascertain if the sub-surface features identified in the geophysical survey are archaeological in nature. Test trenching should also take place in areas of the site not covered by the geophysical survey, if development is proposed in these areas. A dive survey, undertaken under licence from the National Monuments Service should be undertaken at the location of the proposed bridge(s). A report on the results of test trenching shall be compiled and submitted to the relevant authorities detailing the results of the test trenching. If any sites are identified during the pre-construction test trenching, they will be preserved by record (archaeologically excavated) or preserved in-situ (avoidance) and therefore a full record made of same.

Residual Impact

The potential impact following implementation of the mitigation measures is considered to be slight, permanent, and negative.

12.6.5.1.3 *Effects on Cultural Heritage Items*

The Proposed Development will require the removal of all cultural heritage sites located within the MOOR development footprint. Cultural heritage items identified during fieldwork are the existing field boundaries (CH 4), which appear to date from the late eighteenth and early nineteenth centuries.

Pre-Mitigation Impact

The removal of the late eighteenth/nineteenth century field boundaries will result in a slight permanent negative impact on these cultural heritage items.

Proposed Mitigation Measures

The development footprint of the project has been mitigated by design to avoid removal of field boundaries wherever possible. Where it is not possible to maintain by design, an archaeological record (written and photographic) will be made of them prior to their removal.

Residual Impact

When the suggested mitigation measures are implemented during construction the effects on cultural heritage items will be permanent, imperceptible, and negative.

12.6.5.2 Construction Phase (Indirect Effects)

No indirect effects will occur at the construction phase of the proposed MOOR development. All indirect effects are likely to occur at the operational phase of the Proposed Development (see Section 12.6.5).

12.6.5.3 Operational Phase (Direct Effects)

No direct effects will occur during the operational phase of the proposed MOOR development. Any likely direct effects will occur at the construction phase of the Proposed Development (see Section 12.6.2).

12.6.5.4 Operational Phase (Indirect Effects)

Indirect effects are where a feature or site of archaeological, architectural heritage merit or their setting is located in close proximity to the MOOR development. Indirect impacts here are mainly concerned with impacts on setting.

Impacts on setting of sites may arise when a development is proposed immediately adjacent to a recorded monument or cluster of monuments. While the proposed MOOR development may not physically impact on a site, it may alter the setting of a monument or group of monuments. There is no standardised industry-wide approach for assessing the degree of impact to the setting of a monument. For purposes of assessing visual impact on setting, the uniqueness of the monuments, the potential interrelationships of monuments, the inter-visibility of monuments, visual dominance and whether a setting is altered or unaltered can be used to assess impact.

Potential impact to the visual amenity of a site or area and the significance of same is dependent on a number of factors regarding the sensitivity of the location or 'receptor' and the scale or magnitude of the proposed MOOR development. Similarly, the extent of the development and its duration and reversibility should all be considered (*Guidelines for Landscape and Visual Impact Assessment 3rd edition* – Consultation Draft, Landscape Institute, 2013).

12.6.5.4.1 *Impact on setting of UNESCO World Heritage Sites (Tentative List)*

No monuments on the World Heritage Sites list and tentative list are located within 25km of the proposed MOOR development. There will therefore be no impact on UNESCO sites as a result of the proposed MOOR development.

12.6.5.4.2 *Impact on setting of National Monuments*

Impact on setting of National Monuments within 15km of the proposed MOOR development were considered for purposes of assessing potential impacts on visual setting. The assessments were based on the field survey and cartographic analysis. The National Monuments referred to in Section 12.5.1.1.2 are addressed here in terms of potential impacts on setting.

The closest National Monument to the MOOR development is Maynooth Castle (KD005-015—), a National Monument in State Ownership (NMO 485). It is located approximately 1.5 km to the southwest of the Proposed Development. The other monuments vary in distance from the Proposed Development site from 4.6km to 13km.

Taghadoe (Round Tower & Church) KD010-014002- & KD010-014004-, is a National Monument in State Ownership in Co. Kildare (NMN 70 and 578), located approximately 4.6km southwest of the Proposed Development.

Rathcoffey Castle (Castle gatehouse), KD010-018001- is a National Monument in State Ownership in Co. Kildare (NMN 404), located approximately 8.5km to the southwest of the Proposed Development.

Dunshaughlin ME044-003002- is a National Monument in State Guardianship (NMN 400) in Co. Meath. It is 13km to the N of the Proposed Development site.

There is no inter-visibility between the monuments and the Proposed Development. The impact on the setting of the monuments is therefore deemed to be imperceptible. There will be no impact on National Monuments as a result of the Proposed Development.

12.6.5.4.3 *Impact on setting of Recorded Monuments*

There are three recorded monuments within 1km of the proposed MOOR development. The table below presents the recorded archaeological monuments within 1km of the proposed MOOR development according to their sensitivity (visual dominance, above ground trace, uniqueness, proximity to site etc.) and the likely potential pre-mitigation impact on their setting. For example, low visibility monuments such as holy wells, could be considered to have less potential to be impacted by the proposed MOOR development and therefore their sensitivity could be regarded as low. High visibility monuments such as castles and houses visually dominant monuments on high ground within close proximity to the site of the proposed MOOR development may be more at risk in terms of impact on their setting. Monuments that do not have any surface trace are not capable of having their setting impacted and these impacts are categorised as 'not significant'.

Development will not impact on the immediate setting of the monuments as no recorded monuments are located immediately adjacent to the Proposed Development site. The Maynooth Environs Local Area Plan 2009-2015 states that '*it is a long-term strategy to create a homogenous intact woodland in*

Moygaddy; achieved through a combination of measures including woodland management, the establishment of new woodland and the retention of existing trees'. The creation of a woodland around Moygaddy Castle will further screen the site from the proposed MOOR development. The likely pre-mitigation impacts for each monument are summarised below.

Pre-Mitigation Impact

Pre-mitigation impacts on the setting of RMP's are set out in Table 12-12 below.

Table 12-12 Pre-Mitigation Impacts on setting of RMP's within 1km of Proposed Development

RMP No.	Townland	Classification	Distance (m)	Sensitivity of Asset	Significance of Effect
ME053-001---	Moygaddy	Castle	230m E	High	Permanent, Slight, Neutral
KD006-009---	Carton Demesne	House - 17th century	250m	High	Permanent, Imperceptible, Neutral
KD006-013---	Carton Demesne	Holy Well	210	Low	Permanent, Imperceptible, Neutral

Proposed Mitigation Measures

No mitigations are proposed. The closest Recorded Monument is Moygaddy Castle. It is partially surrounded by a growth of mature trees, which lessens the visual impact of the proposed MOOR development.

Residual Impact

The residual impact on the setting of Recorded Monuments due to the proposed MOOR development will be permanent, imperceptible to slight, and neutral in effect.

12.6.5.4.4 *Impact on setting of RPS/NIAH structures*

Low visibility structures are less likely to have a setting associated with them and are less likely to be visually impacted in contrast to more dominant upstanding structures such as houses which often have obvious visible remains. The sensitivity of an asset together with the distance from the Proposed Development dictates the significance of potential impacts.

The closest Protected Structure is Moygaddy House, which is partially screened from the proposed MOOR development by mature trees along its avenue. There will be a slight impact on Mogaddy House -however, the house is screened by trees, and is located 160m from the proposed MOOR development. None of the structures listed below will be directly impacted and no significant or adverse impacts will take place.

Pre-Mitigation Impact

Pre-mitigation impacts on the setting of RPS and NIAH structures are set out in Table 12-7 below

Table 12-13 Pre-Mitigation Impacts on setting of NIAH/RPS structures within 1 km of Proposed Development

RPS/ NIAH Ref.	Townland	Classification	Distance (m)	Sensitivity of Asset	Significance of Effect
MH053-100 Not on NIAH	Moygaddy	Carton Demesne Wall	Immediately adjacent < 10	High	Slight, Permanent, Neutral
MH053-102 Not on NIAH	N/a	Moygaddy House, ranges and walls	160 to W	High	Slight, Permanent, Neutral
B05-09. NIAH 11900506	Maynooth	Maria Villa	811 to SW	High	Imperceptible, Permanent, Neutral
B05-77. Not on NIAH	Maynooth	House (Pebble Mill	375 to SW	High	Imperceptible, Permanent, Neutral
B06-09. Not on NIAH	Carton Demesne	Carton House	510 to E	High	Imperceptible, Permanent, Neutral
B06-09i	Carton Demesne	Interiors of Carton Demesne	510 to E	High	Imperceptible, Permanent, Neutral
NIAH 11803067	Maynooth	House (Butler's House).	996 to SW	High	Imperceptible, Permanent, Neutral
11803092	Maynooth	House (1815 – 1835)	990 to SW	High	Imperceptible, Permanent, Neutral
11803095	Maynooth	House 1900-1910	920 to SW	High	Imperceptible, Permanent, Neutral

Proposed Mitigation Measures

No mitigation measures proposed.

Residual Impact

The residual impact of the proposed MOOR development on setting of RPS/NIAH structures will be permanent, slight, and negative in effect.

12.6.5.4.5 *Impact on setting of NIAH gardens*

There are no NIAH historic gardens within 1km of the proposed MOOR development.

Pre-Mitigation Impact

No impacts.

Proposed Mitigation Measures

No mitigation necessary

Residual Impact

No residual impacts have been predicted to occur.

12.6.6 Kildare Bridge Planning Application

12.6.6.1 Construction Phase (Direct Effects)

Direct effects refer to a physical effect on a monument or site. The construction phase of the proposed Kildare Bridge planning application consists largely of mechanical excavations such as topsoil stripping associated with road improvement works and the construction of a single span bridge over the Rye Water River. The potential effects on the known and potential archaeological and cultural heritage of the area are outlined below with the suggested mitigation measures.

12.6.6.1.1 *Effects on Recorded Archaeology and Cultural Heritage*

As no UNESCO World Heritage Sites, National Monuments or Recorded Monuments are located within the footprint of the proposed Kildare Bridge planning application no direct effects on these aspects of the archaeological resource are identified. A Protected Structure, Carton Demesne wall (MH053-100) is located along the eastern side of the proposed Kildare Bridge works. However, no works are proposed to the wall. No NIAH structures or historic gardens are located within the footprint of the Kildare bridge application. No direct effects on these aspects of the archaeological and cultural heritage resource are identified.

12.6.6.1.2 *Effects on Unrecorded Potential Sub-Surface Sites*

While no new archaeological sites were detected during the walkover survey, it is possible that that there are potential sub-surface archaeological features present within the proposed Kildare Bridge planning application, particularly at the location of the new bridge, where previously unrecorded archaeological features may lie underwater. Development excavations may affect these features.

Pre-Mitigation Impact

Should new sites be present beneath the topsoil (currently not visible on the surface), or under water at the proposed bridge crossing, the impact is likely to be significant negative and permanent (i.e., development excavations would permanently remove the sites resulting in a significant negative impact).

Proposed Mitigation Measures

Pre-development archaeological dive survey, and test trenching under licence from National Monuments Service should take place to ascertain if sub-surface archaeological features are present at the location of the construction works for the proposed bridge. A report on the results of dive survey and test trenching shall be compiled and submitted to the relevant authorities detailing the results of the test trenching. If any sites are identified during the pre-construction test trenching, they will be

preserved by record (archaeologically excavated) or preserved in-situ (avoidance) and therefore a full record made of same. It is not possible to carry out pre-development test trenching along the route of the rising main. Excavation works should be archaeologically monitored under licence from the National Monuments Service. A report on the results of the monitoring shall be compiled and submitted to the relevant authorities detailing the results of the monitoring. If any sites are identified during the archaeological monitoring, they will be preserved by record (archaeologically excavated) or preserved in-situ (avoidance) and therefore a full record made of same.

Residual Impact

The potential impact following implementation of the mitigation measures is considered to be slight, permanent, and negative.

12.6.6.1.3 *Effects on Cultural Heritage Items*

The proposed Kildare Bridge planning application may require the removal of all cultural heritage sites located within the development footprint. However, works proposed are located along an existing road, so it is likely that no cultural heritage assets will be affected.

Pre-Mitigation Impact

No cultural heritage sites were identified. Pre-mitigation impacts will be imperceptible, permanent and neutral.

Proposed Mitigation Measures

The development footprint of the project has been mitigated by design to avoid all cultural heritage features.

Residual Impact

When the suggested mitigation measures are implemented during construction the effects on cultural heritage items will be permanent, imperceptible, and negative.

12.6.6.2 Construction Phase (Indirect Effects)

No indirect effects will occur at the construction phase of the proposed Kildare Bridge and planning application All indirect effects are likely to occur at the operational phase of the Proposed Development (see Section 12.6.5).

12.6.6.3 Operational Phase (Direct Effects)

No direct effects will occur during the operational phase of the proposed Kildare Bridge planning application. Any likely direct effects will occur at the construction phase of the Proposed Development (see Section 12.6.2).

12.6.6.4 Operational Phase (Indirect Effects)

Indirect effects are where a feature or site of archaeological, architectural heritage merit or their setting is located in close proximity to the proposed Kildare Bridge planning application. Indirect impacts here are mainly concerned with impacts on setting.

Impacts on setting of sites may arise when a development is proposed immediately adjacent to a recorded monument or cluster of monuments. While the proposed Kildare planning application may not physically impact on a site, it may alter the setting of a monument or group of monuments. There is no standardised industry-wide approach for assessing the degree of impact to the setting of a monument. For purposes of assessing visual impact on setting, the uniqueness of the monuments, the potential interrelationships of monuments, the inter-visibility of monuments, visual dominance and whether a setting is altered or unaltered can be used to assess impact.

Potential impact to the visual amenity of a site or area and the significance of same is dependent on a number of factors regarding the sensitivity of the location or 'receptor' and the scale or magnitude of the proposed Kildare Bridge planning application . Similarly, the extent of the development and its duration and reversibility should all be considered (*Guidelines for Landscape and Visual Impact Assessment 3rd edition* – Consultation Draft, Landscape Institute, 2013).

12.6.6.4.1 *Impact on setting of UNESCO World Heritage Sites (Tentative List)*

No monuments on the World Heritage Sites list and tentative list are located within 25km of the Proposed Development. There will therefore be no impact on UNESCO sites as a result of the Proposed Development.

12.6.6.4.2 *Impact on setting of National Monuments*

Impact on setting of National Monuments within 15km of the Proposed Development were considered for purposes of assessing potential impacts on visual setting. The assessments were based on the field survey and cartographic analysis. The National Monuments referred to in Section 12.5.1.1.2 are addressed here in terms of potential impacts on setting.

The closest National Monument to the Proposed Development is Maynooth Castle (KD005-015—), a National Monument in State Ownership (NMO 485). It is located approximately 660m km to the southwest of the proposed Kildare Bridge planning application. The other monuments vary in distance from the Proposed Development site from 4km to 13km.

Taghadoe (Round Tower & Church) KD010-014002- & KD010-014004-, is a National Monument in State Ownership in Co. Kildare (NMN 70 and 578), located approximately 4km southwest of the proposed Kildare Bridge planning application.

Rathcoffey Castle (Castle gatehouse), KD010-018001- is a National Monument in State Ownership in Co. Kildare (NMN 404), located approximately 7.9km to the southwest of the proposed Kildare Bridge planning application.

Dunshaughlin ME044-003002- is a National Monument in State Guardianship (NMN 400) in Co. Meath. It is 13.5km to the N of the proposed Kildare Bridge planning application site.

There is no inter-visibility between the monuments and the Proposed Development. The impact on the setting of the monuments is therefore deemed to be imperceptible. There will be no impact on National Monuments as a result of the proposed Kildare Bridge planning application..

12.6.6.4.3 *Impact on setting of Recorded Monuments*

There are 14 recorded monuments within 1km of the proposed Kildare Bridge planning application. However, a lesser distance was considered in this instance, as the works primarily consist of upgrade works and laying of a rising main. There are 2 Recorded Monuments within 500m of proposed Kildare Bridge planning application, and only 1 Recorded Monument within 250m of the proposed Kildare Bridge planning application) The table below presents the recorded archaeological monuments within

250m of the proposed Kildare Bridge planning application according to their sensitivity (visual dominance, above ground trace, uniqueness, proximity to site etc.) and the likely potential pre-mitigation impact on their setting. For example, low visibility monuments such as holy wells, could be considered to have less potential to be impacted by the proposed Kildare Bridge planning application and therefore their sensitivity could be regarded as low. High visibility monuments such as castles and houses visually dominant monuments on high ground within close proximity to the site of the proposed Kildare Bridge planning application may be more at risk in terms of impact on their setting. Monuments that do not have any surface trace are not capable of having their setting impacted and these impacts are categorised as 'not significant'.

The proposed Kildare Bridge planning application will not impact on the immediate setting of the monuments as no recorded monuments are located immediately adjacent to the proposed Kildare Bridge Planning Application site. The likely pre-mitigation impacts for each monument are summarised below.

Pre-Mitigation Impact

Pre-mitigation impacts on the setting of RMP's are set out in Table 12-14 below.

Table 12-14 Pre-Mitigation Impacts on setting of RMP's within 1km of Proposed Development

RMP No.	Townland	Classification	Distance (m)	Sensitivity of Asset	Significance of Effect
KD006-013—	Carton Demesne	Holy Well	130m to SE	Low	Permanent, Imperceptible, Neutral

Proposed Mitigation Measures

No mitigations are proposed. The closest Recorded Monument is a Holy Well (KD006-013—). It is within the grounds of Carton House and is not visible from the proposed Kildare Bridge planning application, due to the presence of the Carton Demesne Wall and mature trees.

Residual Impact

The residual impact on the setting of Recorded Monuments due to the proposed Kildare Bridge planning application will be permanent, imperceptible to slight, and neutral in effect.

12.6.6.4.4 *Impact on setting of RPS/NIAH structures*

Low visibility structures are less likely to have a setting associated with them and are less likely to be visually impacted in contrast to more dominant upstanding structures such as houses which often have obvious visible remains. The sensitivity of an asset together with the distance from the proposed Kildare Bridge planning application dictates the significance of potential impacts.

The closest Protected Structure is Pebble Mill House (RPS B05-77) which is less than 10m from the proposed Kildare Bridge planning application. The Carton House demesne wall is less than 10m from proposed Kildare Bridge planning application, and the portion in County Meath (MH053-100) is 20m to the N. Two other structures listed on the Kildare RPS are within 250m of the proposed Kildare Bridge planning application. There are 44 sites listed on the NIAH within 500m of the proposed Kildare Bridge planning application, and only one site listed on the NIAH within 250m of the proposed Kildare Bridge planning application. The above-mentioned sites within 250m are listed on the table below. None of the structures listed below will be directly impacted and no significant or adverse impacts will take place.

Pre-Mitigation Impact

Pre-mitigation impacts on the setting of RPS and NIAH structures are set out in Table 12-7 below.

Table 12-15 Pre-Mitigation Impacts on setting of NIAH/RPS structures within 250mm of Proposed Development

RPS/ NIAH Ref.	Townland	Classification	Distance (m)	Sensitivity of Asset	Significance of Effect
B05-30 NIAH 11803095	Maynooth	44 Mariaville	160m to SW	High	Imperceptible, Permanent, Neutral
B05-10 11803067	Maynooth	Butler's House Convent lane	247m to SW	High	Imperceptible, Permanent, Neutral
B05-77. Not on NIAH	Maynooth	House (Pebble Mill	375 to SW	High	Imperceptible, Permanent, Neutral

Proposed Mitigation Measures

No mitigation measures proposed.

Residual Impact

The residual impact of the proposed development on setting of RPS/NIAH structures will be permanent, slight, and negative in effect.

12.6.6.4.5 *Impact on setting of NIAH gardens*

There are no NIAH historic gardens within 1km of the Proposed Development.

Pre-Mitigation Impact

No impact.

Proposed Mitigation Measures

No mitigation necessary

Residual Impact

No residual impacts have been predicted to occur.

12.6.7 Moyglare Bridge Planning Application

12.6.7.1 Construction Phase (Direct Effects)

Direct effects refer to a physical effect on a monument or site. The construction phase of proposed Moyglare Bridge site consists largely of mechanical excavations such as topsoil stripping. The potential effects on the known and potential archaeological and cultural heritage of the area are outlined below with the suggested mitigation measures.

12.6.7.1.1 *Effects on Recorded Archaeology and Cultural Heritage*

As no UNESCO World Heritage Sites, National Monuments or Recorded Monuments are located within the footprint of the proposed development no direct effects on these aspects of the archaeological resource are identified. Similarly, as no Protected Structures, NIAH structures or historic gardens are located within the footprint of the Moyglare Bridge development, no direct effects on these aspects of the archaeological and cultural heritage resource are identified.

12.6.7.1.2 *Effects on Unrecorded Potential Sub-Surface Sites*

No new archaeological sites were detected during the walkover survey. However there is always the possibility that previously unrecorded archaeological features may lie undetected sub-surface on the development site. Topsoil stripping and development excavations may affect these features.

Pre-Mitigation Impact

Should new sites be present beneath the topsoil (currently not visible on the surface), or under water at the proposed bridge crossing, the impact is likely to be significant negative and permanent (i.e., development excavations would permanently remove the sites resulting in a significant negative impact).

Proposed Mitigation Measures

Pre-development archaeological dive survey, and test trenching under licence from National Monuments Service should take place to ascertain if sub-surface archaeological features are present at the location of the construction works for the proposed bridge. A report on the results of dive survey and test trenching shall be compiled and submitted to the relevant authorities detailing the results of the test trenching. If any sites are identified during the pre-construction test trenching, they will be preserved by record (archaeologically excavated) or preserved in-situ (avoidance) and therefore a full record made of same.

Residual Impact

The potential impact following implementation of the mitigation measures is considered to be slight, permanent, and negative.

12.6.7.1.3 *Effects on Cultural Heritage Items*

No cultural heritage items were identified during fieldwork.

Pre-Mitigation Impact

No pre-mitigation impacts were identified.

Proposed Mitigation Measures

No mitigation measures are proposed.

Residual Impact

When the suggested mitigation measures are implemented during construction the effects on cultural heritage items will be permanent, imperceptible, and negative.

12.6.7.2 Construction Phase (Indirect Effects)

No indirect effects will occur at the construction phase of the proposed Moyglare Bridge site. All indirect effects are likely to occur at the operational phase of proposed Moyglare Bridge site (see Section 12.6.5).

12.6.7.3 Operational Phase (Direct Effects)

No direct effects will occur during the operational phase of the proposed Moyglare Bridge site. Any likely direct effects will occur at the construction phase of the proposed Moyglare Bridge site (see Section 12.6.2).

12.6.7.4 Operational Phase (Indirect Effects)

Indirect effects are where a feature or site of archaeological, architectural heritage merit or their setting is located in close proximity to the proposed Moyglare Bridge site. Indirect impacts here are mainly concerned with impacts on setting.

Impacts on setting of sites may arise when a development is proposed immediately adjacent to a recorded monument or cluster of monuments. While the proposed Moyglare Bridge site may not physically impact on a site, it may alter the setting of a monument or group of monuments. There is no standardised industry-wide approach for assessing the degree of impact to the setting of a monument. For purposes of assessing visual impact on setting, the uniqueness of the monuments, the potential interrelationships of monuments, the inter-visibility of monuments, visual dominance and whether a setting is altered or unaltered can be used to assess impact.

Potential impact to the visual amenity of a site or area and the significance of same is dependent on a number of factors regarding the sensitivity of the location or 'receptor' and the scale or magnitude of the proposed Moyglare Bridge site. Similarly, the extent of the development and its duration and reversibility should all be considered (*Guidelines for Landscape and Visual Impact Assessment 3rd edition* – Consultation Draft, Landscape Institute, 2013).

12.6.7.4.1 *Impact on setting of UNESCO World Heritage Sites (Tentative List)*

No monuments on the World Heritage Sites list and tentative list are located within 25km of the proposed Moyglare Bridge site. There will therefore be no impact on UNESCO sites as a result of the proposed Moyglare Hall site.

12.6.7.4.2 *Impact on setting of National Monuments*

Impact on setting of National Monuments within 15km of the proposed Moyglare Bridge site were considered for purposes of assessing potential impacts on visual setting. The assessments were based on the field survey and cartographic analysis. The National Monuments referred to in Section 12.5.1.1.2 are addressed here in terms of potential impacts on setting.

The closest National Monument to the proposed Moyglare Bridge site is Maynooth Castle (KD005-015––), a National Monument in State Ownership (NMO 485). It is located approximately 1.5 km to the southwest of the proposed Moyglare Bridge site. The other monuments vary in distance from the Proposed Development site from 5km to 13km.

Taghadoe (Round Tower & Church) KD010-014002- & KD010-014004-, is a National Monument in State Ownership in Co. Kildare (NMN 70 and 578), located approximately 5km southwest of the proposed Moyglare Bridge site.

Rathcoffey Castle (Castle gatehouse), KD010-018001- is a National Monument in State Ownership in Co. Kildare (NMN 404), located approximately 9km to the southwest of the proposed Moyglare Bridge site.

Dunshaughlin ME044-003002- is a National Monument in State Guardianship (NMN 400) in Co. Meath. It is 12.5km to the N of the proposed Moyglare Bridge site.

There is no inter-visibility between the monuments and the proposed Moyglare Bridge site. The impact on the setting of the monuments is therefore deemed to be imperceptible. There will be no impact on National Monuments as a result of the proposed Moyglare Bridge site.

12.6.7.4.3 *Impact on setting of Recorded Monuments*

There are three recorded monuments within 1km of the proposed Moyglare Bridge site. The table below presents the recorded archaeological monuments within 1km of the proposed Moyglare Bridge site according to their sensitivity (visual dominance, above ground trace, uniqueness, proximity to site etc.) and the likely potential pre-mitigation impact on their setting. For example, low visibility monuments such as holy wells, could be considered to have less potential to be impacted by the proposed Moyglare Bridge site and therefore their sensitivity could be regarded as low. High visibility monuments such as castles and houses visually dominant monuments on high ground within close proximity to the site of the proposed Moyglare Bridge site may be more at risk in terms of impact on their setting. Monuments that do not have any surface trace are not capable of having their setting impacted and these impacts are categorised as 'not significant'.

Development will not impact on the immediate setting of the monuments as no recorded monuments are located immediately adjacent to the proposed Moyglare Bridge site. The Maynooth Environs Local Area Plan 2009-2015 states that '*it is a long-term strategy to create a homogenous intact woodland in Moygaddy; achieved through a combination of measures including woodland management, the establishment of new woodland and the retention of existing trees'*. The creation of a woodland around Moygaddy Castle will further screen the site from the Proposed Development. The likely pre-mitigation impacts for each monument are summarised below.

Pre-Mitigation Impact

Pre-mitigation impacts on the setting of RMP's are set out in Table 12-16 below.

Table 12-16 Pre-Mitigation Impacts on setting of RMP's within 1km of Proposed Development

RMP No.	Townland	Classification	Distance (m)	Sensitivity of Asset	Significance of Effect
ME053-001—	Moygaddy	Castle	680m E	High	Permanent, Slight,

RMP No.	Townland	Classification	Distance (m)	Sensitivity of Asset	Significance of Effect
					Neutral
ME049A002—-	Moyglare	Church	995m to NW.	High	Permanent, Imperceptible, Neutral
ME049A002001-	Moyglare	Graveyard	995m to NW	High	Permanent, Imperceptible, Neutral

Proposed Mitigation Measures

No mitigations are proposed. The closest Recorded Monument is Moygaddy Castle, 680m to the east It is surrounded by a growth of mature trees, which lessens the visual impact of the Moyglare Bridge site.

Residual Impact

The residual impact on the setting of Recorded Monuments due to the Moyglare Bridge site will be permanent, imperceptible to slight, and neutral in effect.

12.6.7.4.4 *Impact on setting of RPS/NIAH structures*

Low visibility structures are less likely to have a setting associated with them and are less likely to be visually impacted in contrast to more dominant upstanding structures such as houses which often have obvious visible remains. The sensitivity of an asset together with the distance from the Moyglare Bridge site dictates the significance of potential impacts.

The closest Protected Structure is Moygaddy House, which is almost completely screened from the Moyglare Bridge site by mature trees along its western side. None of the structures listed below will be directly impacted and no significant or adverse impacts will take place.

Pre-Mitigation Impact

Pre-mitigation impacts on the setting of RPS and NIAH structures are set out in Table 12-7 below.

Table 12-17 Pre-Mitigation Impacts on setting of NIAH/RPS structures within 1 km of Proposed Development

RPS/ NIAH Ref.	Townland	Classification	Distance (m)	Sensitivity of Asset	Significance of Effect
MH053 102	Moygaddy	Moygaddy House, ranges and walls	690m to east.	High	Slight, Permanent, Neutral
B05-09. NIAH 11900506	Maynooth	Maria Villa	755 to S.	High	Imperceptible, Permanent, Neutral
11803092	Maynooth	House (1815 – 1835)	990 to SW	High	Imperceptible, Permanent, Neutral

RPS/ NIAH Ref.	Townland	Classification	Distance (m)	Sensitivity of Asset	Significance of Effect
11803095	Maynooth	House 1900-1910	920 to SW	High	Imperceptible, Permanent, Neutral

Proposed Mitigation Measures

No mitigation measures proposed.

Residual Impact

The residual impact of the Moyglare Bridge site on setting of RPS/NIAH structures will be permanent, slight, and negative in effect.

12.6.7.4.5 *Impact on setting of NIAH gardens*

There are no NIAH historic gardens within 1km of the Proposed Development.

Pre-Mitigation Impact

No impacts

Proposed Mitigation Measures

No mitigation necessary

Residual Impact

No residual impacts are likely to occur

12.6.8 Cumulative Impacts – Interaction of Effects between Various Elements of the Proposed Development

The interaction of the various elements of the proposed development was considered and assessed in this EIAR with regards cultural heritage. The potential for each individual element of the proposed development on its own to result in significant effects on cultural heritage was considered in the impact assessment. The entire project including the interactions between all its elements was also considered and assessed for its potential to result in significant effects on cultural heritage in the impact assessment presented. All interactions between the various elements of the project were considered and assessed both individually and cumulatively within this chapter. Where necessary, mitigation was employed to ensure that no cumulative effects will arise as a result of the interaction of the various elements of the development with one another.

12.6.8.1 Construction Phase (Direct Effects)

12.6.8.1.1 *Effects on Recorded Archaeology and Cultural Heritage*

There is a Recorded Monument (Moygaddy Castle CH1) on the Proposed development site and two Protected Structures (Moygaddy House CH2; Carton House Demesne wall stretch CH3). It is proposed that the castle will be surrounded by a green area with Site C and so no direct negative impacts are predicted. The Protected Structures are on the fringes of the Proposed Development Site. Moygaddy House (CH2) is immediately to the N of Site C and to the west of Site and is not predicted to be negatively impacted. The Demesne Wall stretch (CH3) bounds Site A and Site B. This wall currently runs along the main road and it is predicted that some works to its fabric may be required as part of the Proposed Development. These cumulative predicted impacts are considered slight and mitigation (recording prior to any works) will alleviate and negative impacts.

In regard to boundaries (CH4, County, Townland and field), the County and Townland boundary to the Proposed Development Site is formed by the Rye Water River (Site B and Site C and Kildare Bridge and Moyglare Bridge). No significant negative impacts are envisaged. There is a townland boundary located at the extreme western edge of Site C; this small section of boundary was found during field inspection to have been previously impacted. Suitable mitigation has been proposed for in-water and underwater survey and assessment at proposed bridge location along the Rye Water River. Field boundaries have been mitigated by design, but where this is impossible, mitigation (archaeological recording) has been proposed to alleviate any negative impacts.

12.6.8.1.2 *Effects on Unrecorded Potential Sub-Surface Sites*

A geophysical survey (CH6) has been carried out, which shows that there is a considerable amount of anomalies on the Proposed Development Site. These anomalies are located on Site A, Site B, Site C and MOOR development sites. These will be impacted upon during the construction phase. Suitable mitigation has been suggested. In the first instance, targeted test trenching will be carried out to ascertain if these geophysical anomalies are archaeological in nature. If this proves to be the case, then these will either be preserved in situ, (avoidance) or if this is not possible, then be archeologically excavated (preserved by record). The construction of the bridges (Kildare Bridge and Moyglare Bridge) as part of the development may have an impact on potential unrecorded archaeological features. Suitable mitigation has been suggested (in water wade/underwater dive survey) at pre-construction stage. Where any underwater/riverine archaeological features are discovered, these will be either preserved in situ (avoidance) or where this is not possible then excavated (preserved by record) at pre-construction stage.

12.6.8.2 Construction Phase (Indirect Effects)

No indirect effects are predicted during the cumulative construction phase of the proposed development.

12.6.8.3 Operational Phase (Direct Effects)

No direct effects are predicted during the cumulative operational phase of the proposed development. Moygaddy Castle (CH1) may require a Conservation and Management Plan so that it can be protected and maintained in a managed way within the proposed public park when operational.

12.6.8.4 Operational Phase (Indirect Effects)

12.6.8.4.1 *Impact on setting of UNESCO World Heritage Sites (Tentative List)*

No impact on WHS predicted as distance from Proposed Development Site is sufficient.

12.6.8.4.2 *Impact on setting of National Monuments*

No impact on National Monuments predicted as distance from Proposed Development Site is sufficient.

12.6.8.4.3 *Impact on setting of Recorded Monuments*

The predicted impact on the setting of the single recorded monument Moygaddy Castle (CH1) will be positive, as it will be enclosed by a public park space and its amenity improved. A Conservation and Management Plan will set out its continued protection into the future.

12.6.8.4.4 *Impact on setting of RPS/NIAH structures*

The impact on setting of the RPS structures Moygaddy House (CH2) and Demesne Boundary Wall (CH3) is predicted to be negligible. CH2 will be screened by trees. CH3 will continue as a boundary wall.

12.6.8.4.5 *Impact on setting of NIAH gardens*

No impact as there are no recorded historic gardens within or adjacent to the Proposed Development Site.

12.6.9 Cumulative In-Combination Effects

Cumulative impact is defined as 'The addition of many small impacts to create one larger, more significant, impact' (EPA 2022).

In this regard in order to assess overall cumulative effects on archaeology and cultural heritage the proposed project is considered in the context of a number of existing, proposed and permitted developments in the area as listed in Chapter 2 of this EIAR.

The nearest permitted and proposed developments are residential and are located immediately to the west and south of the Proposed Development. The addition of the Proposed Development to this already largely altered landscape will not result in a visual impact to any nearby recorded monuments, protected structures or NIAH structures or features. No direct physical impacts are predicted for Moygaddy Castle or Moygaddy House. Visual impacts on these sites are slight, as both are screened by existing woodland and trees respectively and are at a sufficient distance from the Proposed Development.

In terms of potential cumulative direct impacts. potential direct impacts which may occur to sub-surface archaeological features within the Proposed Development site will be mitigated against as discussed in Section 12.6.2. The Proposed Development in combination with other developments, could result in potential increased negative effects to sub-surface archaeological features (i.e. cumulative impacts). Since all projects have been assessed from a cultural heritage perspective through the EIAR process, all potential negative effects of other projects are deemed to have been dealt with through the use of effective mitigation measures and planning conditions issued through the Planning Authorities. There is no potential for cumulative impacts to sub-surface archaeological features arising from the Proposed Development in combination with other projects.

The analysis of potential direct and indirect impacts on cultural heritage concludes that the Proposed Development will result in no significant impacts. There is no potential for cumulative impacts arising from the Proposed Development in combination with other projects in the vicinity. No significant cumulative impacts on cultural heritage are anticipated during the construction or operation phases as long as mitigation measures outlined are put in place.