

**R445 NEWHALL JUNCTION IMPROVEMENT SCHEME
Co. KILDARE**

CULTURAL HERITAGE ASSESSMENT REPORT

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**Report Commissioned by
KILGALLEN & PARTNERS CONSULTING ENGINEERS
Kylekiproe
Well Road
Portlaoise
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For
KILDARE COUNTY COUNCIL**

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R445 NEWHALL JUNCTION IMPROVEMENT SCHEME Co. KILDARE

CULTURAL HERITAGE ARCHAEOLOGY, ARCHITECTURAL HERITAGE & LOCAL HISTORY

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1. Introduction

This report provides a Cultural Heritage Assessment/Appraisal with respect to the proposed R445 Newhall Junction Improvement Scheme, Co. Kildare It was commissioned by Kilgallen & Partners, Consulting Engineers, Kylekiproe, Well Road, Portlaoise, Co. Laois for Kildare County Council.

Cultural Heritage has been defined by UNESCO as “the legacy of physical artefacts and intangible attributes of a group or society that are inherited from past generations, maintained in the present and bestowed for the benefit of future generations” (Tangible Cultural Heritage, UNESCO <http://www.unesco.org/new/en/cairo/culture/tangible-cultural-heritage>). Cultural Heritage is assumed to include all humanly created features on the landscape, including portable artefacts, which might reflect the prehistoric, historic, architectural, engineering and/or social history of the area. Where appropriate, it also includes for non-physical aspects of heritage, such as history, linguistics, folklore, etc.

The Heritage Act (1995) contains a list of various aspects of heritage, including archaeological monuments and objects, architectural heritage, fauna, flora, geology, heritage gardens and parks, heritage objects, inland waterways, landscapes, monuments, seascapes, wildlife habitats, and wrecks.

The Cultural Heritage of the area of the proposed scheme was examined through an Archaeological, Architectural, and Historical study. The Archaeological and Architectural studies involved a documentary/cartographic search and focussed field inspection of the area, while the Historical study involved a documentary search.

The Assessment has been prepared in accordance with TII ‘*Guidelines for Assessment of Architectural Heritage Impacts of National Road Schemes*’ (NRA 2005a) and ‘*Guidelines for Assessment of Archaeological Heritage Impacts of National Road Schemes*’ (NRA 2005b) and discusses the receiving environment from a Cultural Heritage perspective. It provides information with respect to previously identified baseline data and assesses the impact of the proposals on identified sites and areas of Cultural Heritage interest and/or potential. It also suggests a strategy in order to reduce and mitigate against significant adverse impacts.

2. Project Overview

The existing Newhall Crossroads is formed by the intersection R445 Road (Naas-Newbridge Dual-Carriageway) with local roads leading north (L2031) and south (L6064) – Figure 1. It is located approximately 4.1km west of the centre of Naas and 6km north-east of the centre of Newbridge.

The objective of the Scheme is to replace the existing Newhall Crossroads with a junction designed to modern standards. The Scheme, as illustrated in Figure 2, proposes a roundabout on the R445 at the same location as Newhall Crossroads. The Local Roads L6064 and L2031 will receive minor realignment required for the entry and exit geometry at the roundabout. Significant verge widening will be required on the realigned local roads to provide appropriate forward visibility on the local roads. The following junctions will be closed:

- R445 / Lady’s Cross Road east of Newhall Crossroads;
- R445 / Local Access Road west of Newhall Crossroads.

Traffic on the Local Access Road and Lady’s Cross Road will no longer access the R445 directly. The

Local Access Road will have direct access to the realigned L2031 only. All Lady's Cross Road traffic will use the new roundabout and the existing priority junction with the L6064.

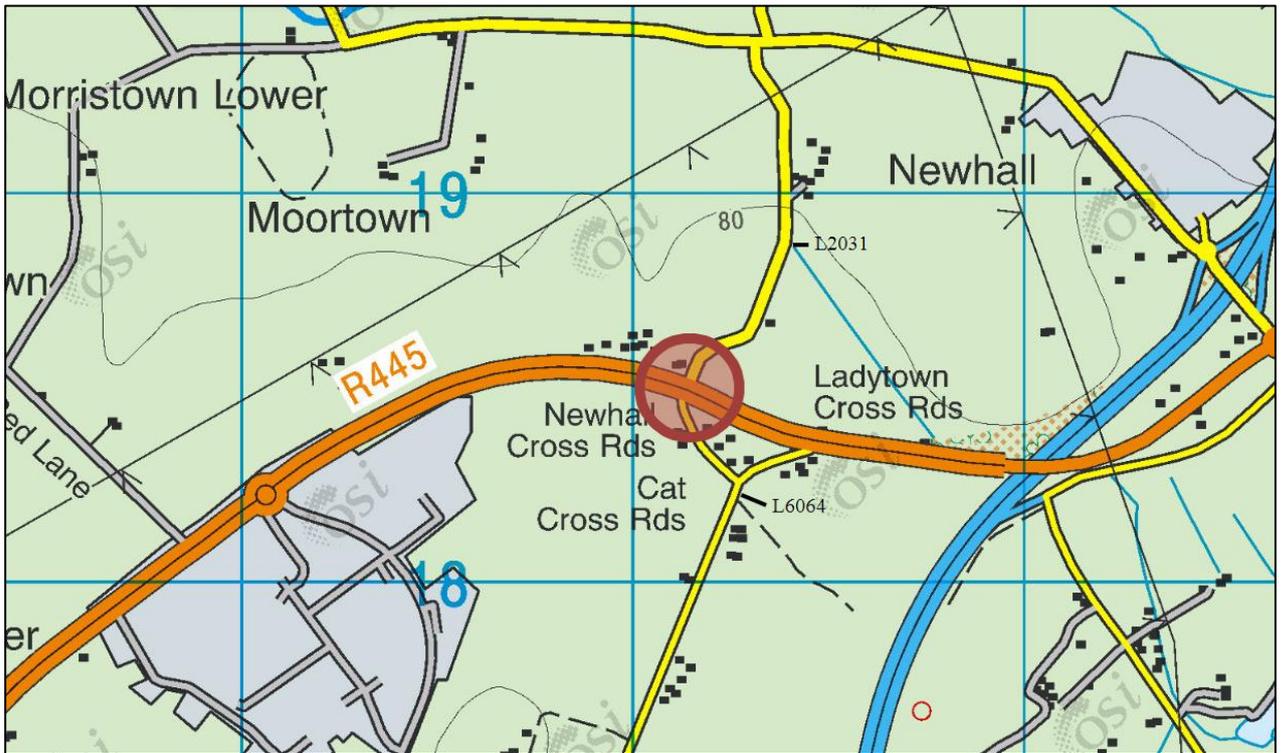


Figure 1 General Scheme Location

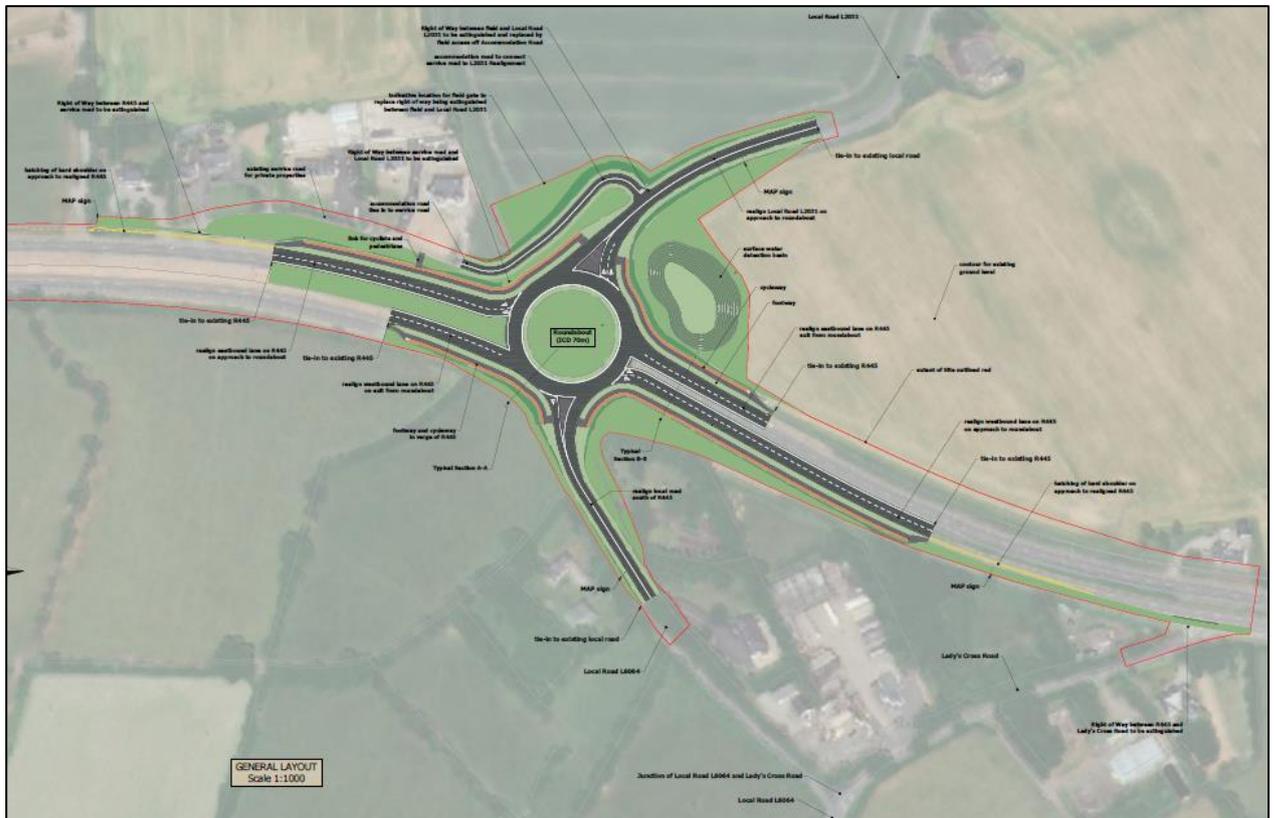


Figure 2 Proposed Layout

3. Methodology

The Cultural Heritage components of the study comprise the results of a survey and evaluation of sites of archaeological, architectural and historical potential within, and in the immediate environs of, the proposed development area. The work consists of the results of the paper survey and the field inspection.

3.1 Definition of Study Area

The overall extent of the proposed development area (Figure 3) and area of 500m surround such area was determined to be the Study Area for Cultural Heritage. The extent of the Cultural Heritage Study Area was chosen to reflect an appropriate context for the development, beyond which it was considered that a development of this nature would have no direct/indirect impacts.

3.2 Paper Survey

The Archaeological, Architectural and Local History components of the study comprise the results of a Paper Survey, from which a list of sites and areas of known interest was compiled. The Paper Survey comprised documentary, cartographic and aerial photographic research using the following principal sources:

- Record of Monuments and Places – Co. Kildare (RMP)
- Sites and Monuments Record of the Archaeological Survey of Ireland (SMR) – www.archaeology.ie
- Topographical Files of the National Museum of Ireland
- Annual Archaeological Excavations Bulletin – www.excavations.ie
- Aerial Photographic and Cartographic Archive of the Ordnance Survey of Ireland – www.osi.ie
- National Inventory of Architectural Heritage – Survey of the Architectural Heritage of County Kildare (NIAH) – www.buildingsofireland.ie.
- Documentary and historic cartographic sources (see Appendix 1)
- Kildare County Development Plan 2017-2023 (KCDP)
- Placenames Commission – www.logainm.ie
- Heritage Council Heritage Maps & Data – www.heritagemaps.ie
- National Folklore Collection (The School's Collection) – www.duchas.ie

3.2 Field Inspection

A detailed field inspection/surface reconnaissance survey was undertaken in late September 2020. This included an inspection of the existing field surfaces and the exposed edges of existing drains/streams.

An attempt was also made to identify previously unrecorded sites of cultural heritage potential within, and in the immediate environs of, the proposed development area. Sites of cultural heritage potential identified on the basis of the paper survey were inspected in an attempt to confirm their locations on the ground and to determine, if possible, their likely extent.

4. Introduction to Study Area / Receiving Environment

The study area with respect to this report included the proposed construction corridor (orange-line boundaries - Figures 3 & Plate 1) and an area of c. 500m outside the defined boundaries of such. This is termed the Cultural Heritage Assessment Corridor.

The Construction Corridor is largely located in the townlands of Newhall and Ladytown and comprises the existing Newhall Crossroads formed by the east-west orientated R445 Road (Naas-Newbridge Dual Carriageway) and L2031 and L6064 roads leading north and south respectively; the R445 incorporates a central grassed median and the local roads incorporate grass verges. A stream (Plate 2; VP-1) runs in an overgrown open channel along the western side of the L6064 road to a similar channel forming agricultural field boundaries to the north of the R445 with the section under the dual-carriageway routed through modern pipe culverts (Plate 3; VP-2).

In general terms, the area is largely agricultural, with the lands to the north – east and west sides of the L2031 – in arable use and those to the south under pasture.

There is an open yard with sheds located on the immediate western side of the L2031, where it joins the R443, to the west of which are a number of modern residential properties fronting onto a separate access road linked at its western end to the R445 and separated from such by a wide grass verge feature (Figure

3; Plate 1). The road frontage boundaries to the L2031 are formed by planted hedges, with access gates to the yard property and agricultural lands located along the western side; likewise, a planted hedge exists along the road frontage boundary to the R445 to the east of the crossroads.

There are a number of residential property plots located on the eastern side of the L6064 and a single residential property on the western side; the road frontage boundaries along this road, together with those along the southern side of the R445, to the west and east of the crossroads are formed by hedges and trees and all incorporate grass verges (Figure 3; Plate 1). In addition, a stream in an open-cut ditch runs northwards along the western edge of the L6064 road (Plate 2).



Figure 3 Location and Extent of Construction Corridor



Plate 1 Aerial Photograph of Subject Area (2005)

Photographic views of selected scheme areas are illustrated below in Plates 2 – 9, with the respective 'viewpoints' indicated in Figure 4.



Plate 2 Stream along L6064 – western side (from north) [VP1]



Plate 3 Concrete Pipes/Culvert to stream under R445 Road [VP2]

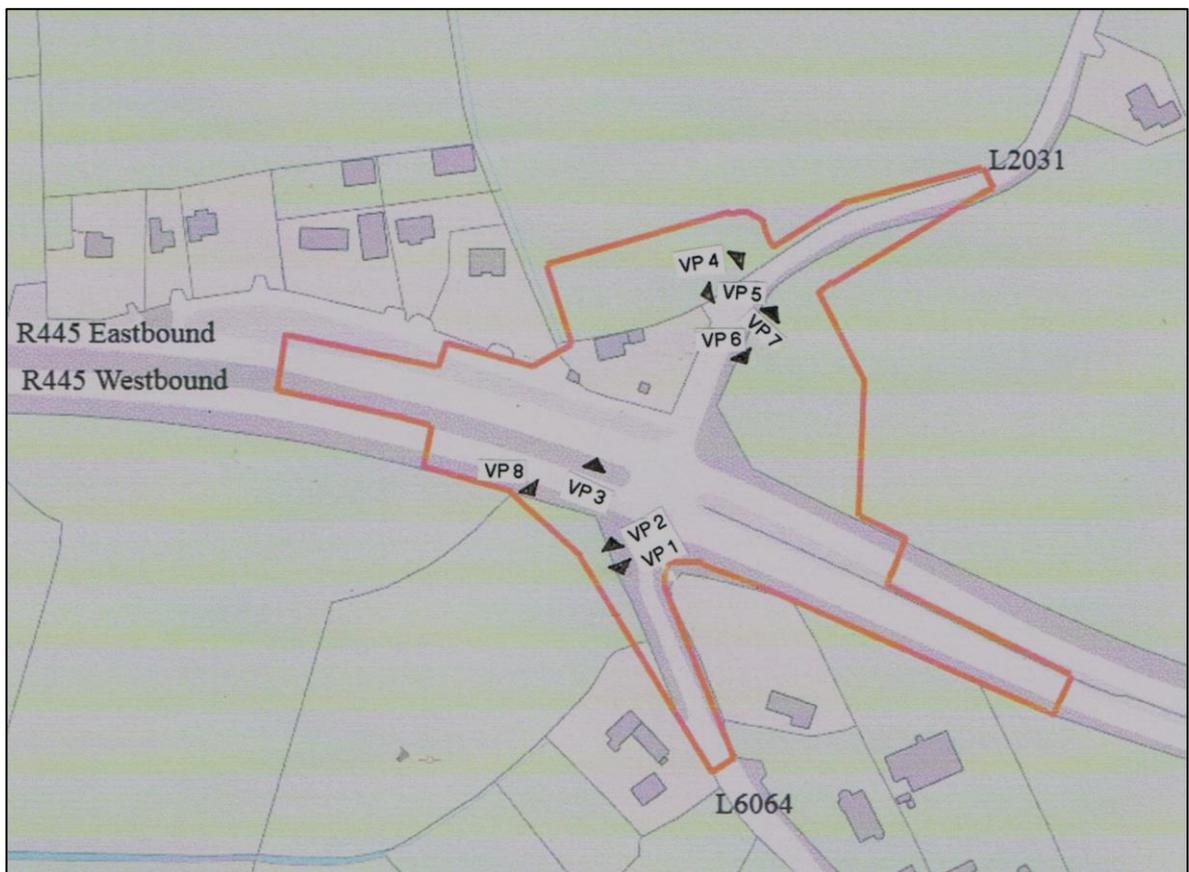


Figure 4 Viewpoint Locations [VP] for Plates 2 - 9



Plate 4 VP3



Plate 5 VP4

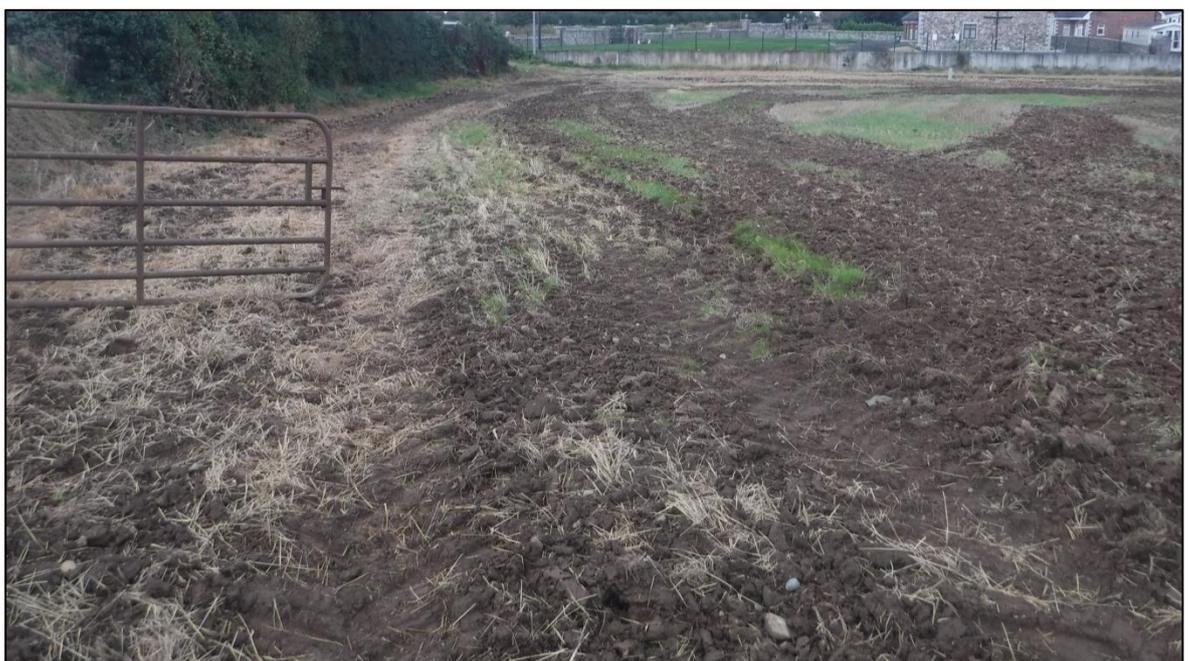


Plate 6 VP5



Plate 7 VP6



Plate 8 VP7



Plate 9 VP8

5. General Historical Background

The proposed development area is located in the townlands of Newhall and Ladytown (O.S. 6-inch maps: Kildare Sheets 18 & 19); the relevant boundary between these townlands is the centre of the existing access road to the residences west of Newhall Crossroads and to the north of the R445, which then turns to the general southeast across the dual-carriageway and along the centre of the L6064 road to the south.

Both townlands form part of the civil parish of Ladytown and barony of Connell. The name Newhall (Irish translation: *An Halla Nua*) is known from at least the mid-seventeenth century and considered to be of English derivation (Placenames Commission: www.logainm.ie). The Irish form of the name Ladytown – *Baile na Mná Maithe* – is considered a non-validated name by the Placenames Commission, who note that the *Calendar of Judiciary Rolls [Ireland], 1295-1307* indicate that it was known as *Villate Domine* in the late-thirteenth century.

The Civil Survey (1655-8) (www.downsurvey.tcd.ie/down-survey-maps.php) notes that 'Ladyestown' comprised 593 plantation acres, while 'Newhall' comprised 433 plantation acres, all forming part of an extensive landholding owned by Sir Nicholas White of Leixlip, who is recorded as the owner in 1641 and 1670; a census of 1659 records that Ladytown had a population of 75 English, with George Fitzgerald and Thomas Moore acting as 'Titulados', while Newhall had population of 80 English and 3 Irish. Extracts from

the Down Survey Map of 1655-6 (Figure 5) and a map of 1670 (Figure 6) for the parish of Ladytown indicate some residential activity in the townlands of Newhall and Ladytown, with a church indicated in the latter.

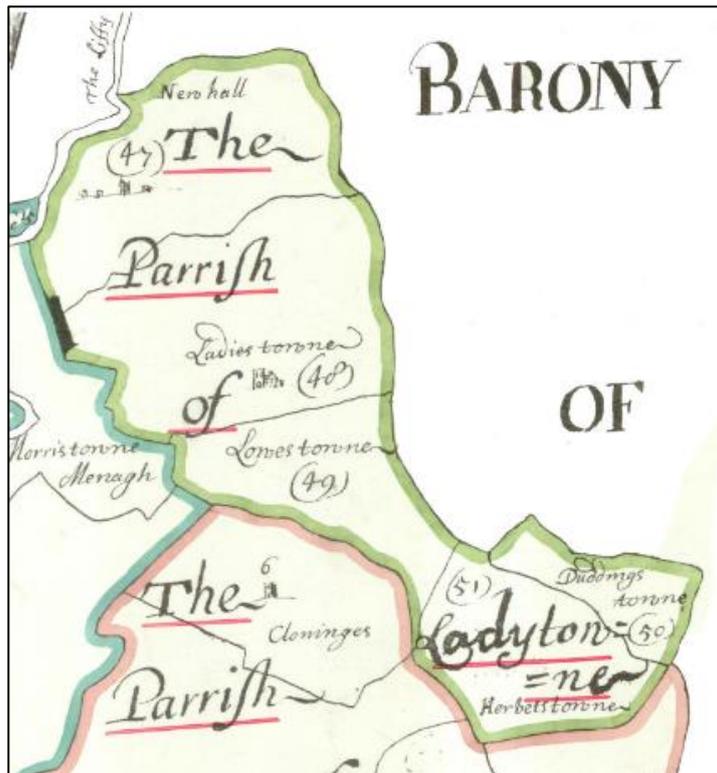


Figure 5 Extract from Civil Survey Map of 1655-6



Figure 6 Extract from Map of 1670

A generalised indication of the area in the mid-1700s is illustrated by Noble & Keenan's 'Grand Jury Map' of 1752 (Figure 7). This indicates the road linking Naas to Newbridge had been established by this time, as was the road leading south (L6064) from the present crossroads, although the road leading north (L2031) is not indicated.



Figure 7 Extract from Noble & Keenan - 1752

Likewise review of Taylor & Skinner's *Maps of the Roads of Ireland, Surveyed 1777* (Figure 8) indicates that the road leading north from the present Newhall Crossroads had not been established by this time; it does, however, appear to have been established by 1783, as indicated in Taylor's map (Figure 9).

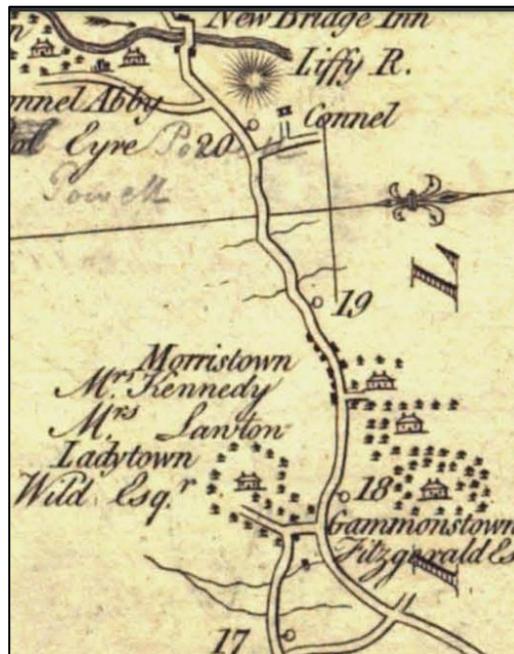


Figure 8 Extract from Taylor & Skinner, 1777 (Map 96) – north to right

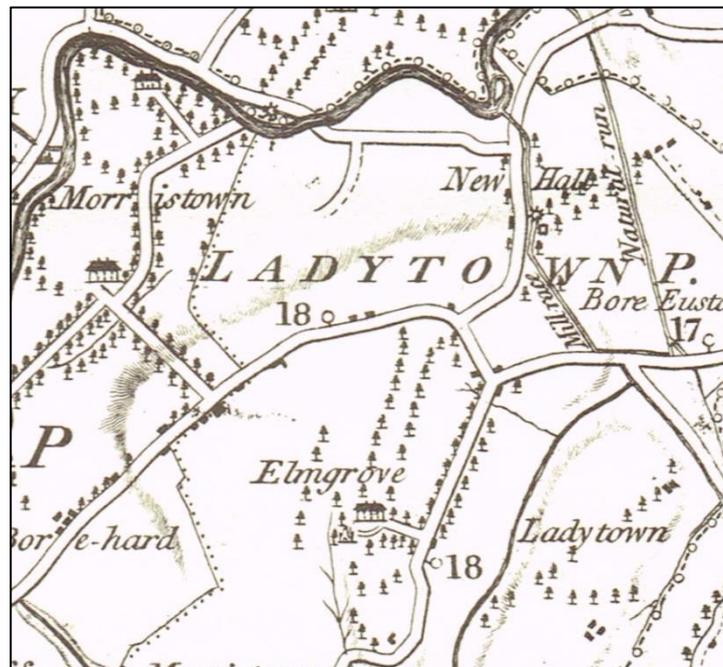


Figure 9 Extract from Taylor - 1783

The topographical nature of the immediate subject area in 1837 is illustrated below in Figure 10 superimposed on a modern aerial photograph. This indicates that the existing access road to the residential properties to the north of the R445 and immediately west of the present Newhall Junction, formed part of the main road from Naas to Newbridge; the townland boundary is shown in the centre of this road as a dotted line, as well as along the centre of the local road to the south (L6064). The local road to the north (L2031) originally forked north-east from the former main road and this, together with the local road to the south was identified as Newhall Cross Roads. The lands in the immediate area were largely in agricultural use, with two structures (houses?) located in a triangular plot formed by the junction of the main road with the southern local road L6064; in addition, a complex of structures (residence and outbuildings?) are present on the western side of this road adjacent the termination point of the proposed scheme.



Figure 10 Extract from Ordnance Survey 6" Map of 1837 superimposed on modern aerial photograph

Lewis (1837, 242) noted that the civil parish of Ladytown had a population of 402 at that time and that it "comprises 2629 statute acres, as apportioned under the tithe act, and [was] valued at £1683 per annum". He further notes that the parish was "a vicarage, in the diocese of Kildare, forming part of the union of Great Connell; the rectory is impropriate in Sir T. Molyneux, Bart., Sir G. Cockburn, K.G.H., and A. Rourke, Esq. The tithes amount to £95.9.6., of which £63.13 is payable to the impropiators, and £31. 16. 6 to the vicar. In the R. C. divisions it is part of the union or district of Caragh and Downings".

Griffith's Valuation (*Primary Valuation of Ireland 1848-64*) of 1854 notes that the proposed development lands within the townland of Newhall were owned by Michael A. Rourke and leased to Thomas Flood, with those within Ladytown owned by Sir Capel Molyneux and leased to Eleanor Holohan and Thomas Duggan.

The topographical nature of the subject development area in 1908/9 is illustrated in Figure 11, superimposed on a modern aerial photograph. Very little changes to the area are indicated, with the extent of the triangular plot on the eastern side of the road leading to the south (L6064) indicated as comprising a smithy and probable residence accessed from the road to the west, as well as changes to the property on the western side of the road, including extensions to previous structures as well as additional structures. The stream running along the western side of the southern road (L6064) is indicated.



Figure 11 Extract from Ordnance Survey Map of 1908/9

The topographical nature of the subject development area in 1939 is illustrated in Figure 12, superimposed on a modern aerial photograph. Very little changes to the area are indicated, with some changes to the structures within the triangular plot on the eastern side of the road, including a third structure, as well as changes to the property on the western side of the road, named 'Ladyville' including a reduction in the number and form of the structures to previous structures. The stream running along the western side of the southern road (L6064) is indicated.



Figure 12 Extract from Ordnance Survey Map of 1939

The present dual-carriageway was constructed in the 1960s and formed part of the former N7 Road. This resulted in a realignment of the southernmost section of the L2031 to its present form; in addition, the southern westbound lane of the carriageway was routed through the former triangular plot to the east of the L6064 road. Furthermore, part of the original road to the west of Newhall Crossroads was not incorporated into the northern eastbound lane of the carriageway but was retained and now forms the access road to a number of residential properties.

6. Archaeological Heritage

Archaeology is the study of past societies through their material remains and the landscapes they lived in. "The archaeological heritage consists of such material remains (whether in the form of sites and monuments or artefacts in the sense of moveable objects) and environmental evidence" (DoAHG 1999, p9).

6.1 Statutory Protections

The statutory and administrative framework of development control in zone of archaeological potential or in proximity to recorded monuments has two main elements:

- Archaeological preservation and licensing under the National Monuments Acts and
- Development plans and planning applications under the Planning Acts.

6.1.1 National Monuments Acts 1930 - 2014

Section 12 (1) of the National Monuments Acts, 1930 - 2014 provides that the Minister for Arts, Heritage, Regional, Rural and Gaeltacht Affairs shall establish and maintain a record of monuments and places where the Minister believes there are monuments, such record to be comprised of a list of monuments and relevant places and a map or maps showing each monument and relevant place in respect to each county of the State. This is referred to as the 'Record of Monuments and Places' (RMP), and monuments entered into it are referred to as 'Recorded Monuments'.

Section 12(3) of the National Monuments Acts 1930 – 2014 provides for the protection of monuments and places in the record, stating that

"When the owner or occupier (not being the Minister) of a monument or place which has been recorded under subsection (1) of this section or any person proposes to carry out, or to cause or permit the carrying out of, any work at or in relation to such monument or place, he shall give notice in writing of his proposal to carry out the work to the Minister and shall not, except in the case of urgent necessity and with the consent of the Minister, commence work for a period of two months after having given the notice."

6.1.2 Kildare County Development Plan 2017 – 2023

The following relevant Archaeological Heritage Policies are set out in Section 12.9.1 of the Plan:

- AH1** Manage development in a manner that protects and conserves the archaeological heritage of the county, avoids adverse impacts on sites, monuments, features or objects of significant historical or archaeological interest and secures the preservation in-situ or by record of all sites and features of historical and archaeological interest. The Council will favour preservation in – situ in accordance with the recommendation of the Framework and Principles for the Protection of Archaeological Heritage (1999) or any superseding national policy.
- AH2** Have regard to the Record of Monuments and Places (RMP), the Urban Archaeological Survey and archaeological sites identified subsequent to the publication of the RMP when assessing planning applications for development. No development shall be permitted in the vicinity of a recorded feature, where it detracts from the setting of the feature or which is injurious to its cultural or educational value.
- AH3** Secure the preservation (in-situ or by record) of all sites, monuments and features of significant historical or archaeological interest, included in the Record of Monuments and Places and their settings, in accordance with the recommendations of the Framework and Principles for the Protection of Archaeological Heritage, DAHG (1999), or any superseding national policy document
- AH4** Ensure that development in the vicinity of a site of archaeological interest is not detrimental to the character of the archaeological site or its setting by reason of its location, scale, bulk or detailing and to ensure that such proposed developments are subject to an archaeological assessment. Such an assessment will seek to ensure that the development can be sited and designed in such a way as to avoid impacting on archaeological heritage that is of significant interest including previously unknown sites, features and objects.

NOTE: The RMP for County Kildare was published in 1996. Any archaeological monuments and sites discovered since the publication are not subject to protections under the National Monuments Acts, unless specifically the subject of a Preservation order, but are protected in the Kildare County Development Plan under Policy AH2 above.

6.2 Archaeological Inventory

6.2.1 Terrestrial Archaeology

In terms of the subject proposals, there are no previously identified monuments located within the extent of the subject development lands. In addition, no features of archaeological potential were noted as a result of cartographic or aerial photographic research undertaken as part of the preparation of this report, or by a subsequent detailed surface reconnaissance survey.

There is, however, one recently discovered monument located within the defined study area, outside the northern extent of the subject development. This is an enclosure site described below and illustrated in Plate 10; the extent of the associated 'Zone of Archaeological Notification' with respect to the proposed development extent is illustrated in Figure 13.

SMR No:

KD019-071

TOWNLAND:

Newhall

CLASSIFICATION:

Enclosure

PROTECTION:

KCDP

An aerial photograph (Ref: GB89.AF.22) taken by Dr. Gillian Barret and submitted to the Archaeological Survey of Ireland shows cropmark of a curvilinear enclosure defined by a fosse.

The feature is clearly identifiable in the most recent Google aerial image (www.google.ie/maps), as illustrated in Plate 10. This indicates a curvilinear feature with a diameter of approximately 40m enclosed by a fosse. A possible ditch feature extends from the north-eastern extent east-north-east for a distance of approximately 45m from the north-eastern tip of the monument before turning southeast for a distance of approximately 70m; this may be the subsurface remains of a possible field system.

As indicated in Figure 13, the closest extent of the associated 'Zone of Archaeological Potential/Notification' is 72m from the subject construction corridor.

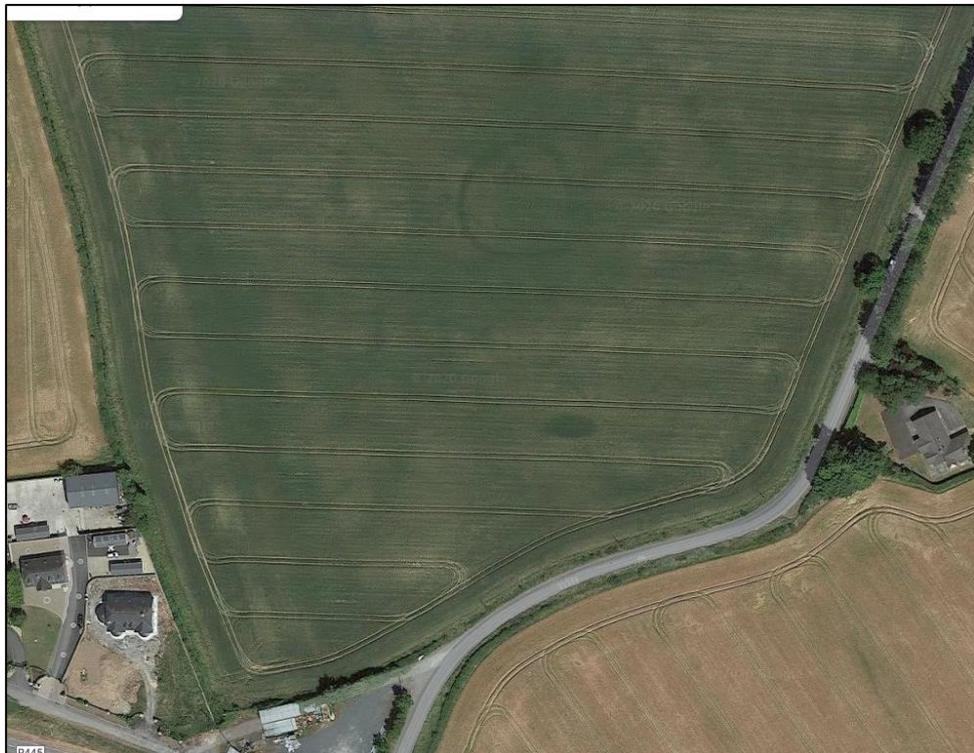


Plate 10 Aerial Image of KD019-071 (Source: Google)



Figure 13 Location of Construction Corridor with respect to Archaeological Zone associated with KD019-071

6.2.2 Underwater Archaeology

Watercourses have always attracted human activity for a variety of reasons, as a source of water and food, as transport routes, as a source of energy and for their spiritual, religious or ritual associations. They also act as depositories for archaeological artefacts.

A reconnaissance survey of the stream banks along the western side of the L6064, where possible, together with historic cartographic research, indicates that there are no associated features such as stepping stones or fording points associated with the stream, either within the proposed construction corridor or within the wider defined study area. There was some evidence for low spoil heaps along the adjacent grass verge, most likely associated with clearance of the stream.

6.3 Archaeological Artefacts

No artefacts are listed in the Topographical Registers of the National Museum of Ireland, as having been discovered within the defined Cultural Heritage Study Area

6.4 Results from previous documented relevant archaeological investigations

A search undertaken of the annual Archaeological Excavations Bulletin (www.excavations.ie) indicates that no licenced archaeological investigations have been undertaken within the development lands or wider defined Cultural Heritage Study Area.

6.5 Archaeological Potential of Study Area / Receiving Environment

The siting preferences of particular monument types are well documented. Broadly speaking, the general landscape of the study area offers a potential setting for additional sites and remains as follows:

- The general gently sloping flat landscape is a favoured position for the location of ringforts in the general region surrounding the study area.
- The subject lands and surrounding landscape offer many opportunities for the location of Fulachta Fiadh (prehistoric cooking sites). These sites are location specific, generally located close to rivers and

streams or in wet marshy areas, and sometimes occur in groups.

7. Architectural Heritage

Architectural heritage has several definitions and meanings for people. A useful rule of thumb (which is actually the legal situation) is set out in the Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act, 1999 which provides the following definition:

- (a) structures and buildings together with their settings and attendant grounds, fixtures and fittings,
- (b) groups of such structures and buildings, and
- (c) sites, which are of architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest.

A rich architectural heritage has survived to the present day in County Kildare. While there are impressive demesne features and large houses in the County, much of the County's architectural heritage has come from vernacular traditions with local craftsmen sometimes borrowing from the traditions of classical architecture to construct buildings that met local needs. This rich architectural heritage contributes enormously to the overall built environment and, indeed, helps to give it definition in terms of place and character for those that live and work in the county as well as those who visit here.

7.1 Protected Structures

Section 51 of the Planning and Development Act, 2000 (as amended) requires the Development Plan to include a record of structures. These structures form part of the architectural heritage of the County and are to be protected. Kildare County Council has drawn up this list, referred to as the Record of Protected Structures (RPS), in which each structure is given a reference number and is a constituent part of the County Development Plan.

There are no structures listed in the Record of Protected Structures (RPS) of the Kildare County Development Plan 2017-2023 as being located within the defined Cultural Heritage Study Area.

7.2 National Inventory of Architectural Heritage (NIAH)

The National Inventory of Architectural Heritage (NIAH) is a state initiative under the administration of the Department of Culture, Heritage and the Gaeltacht. It was established on a statutory basis under the provisions of the Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999. Its purpose 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. It is intended that the NIAH will provide the basis for the recommendations of the Minister for Culture, Heritage and the Gaeltacht to the planning authorities. The NIAH includes structures and garden features.

There are no structures listed in the National Inventory of Architectural Heritage (NIAH) as being located within the defined Cultural Heritage Study Area.

8. Assessment of Impacts

8.1 Introduction

The following Table (from EPA, 2017, Table 3.3) provides the baseline criteria used to describe the impacts (effects) that the proposed development will have on Cultural Heritage Sites, Structures and Features.

Quality of Effects	
Quality of Effects	<p>Positive Effects</p> <p>A change which improves the quality of the environment</p> <p>Neutral Effects</p> <p>No effects or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error.</p> <p>Negative/adverse Effects</p>

	A change which reduces the quality of the environment
Significance of Effects	<p>Imperceptible An effect capable of measurement but without significant consequences.</p> <p>Not significant An effect which causes noticeable changes in the character of the environment but without significant consequences.</p> <p>Slight Effects An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.</p> <p>Moderate Effects An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.</p> <p>Significant Effects An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the environment.</p> <p>Very Significant An effect which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment.</p> <p>Profound Effects An effect which obliterates sensitive characteristics</p>
Extent and Context of Effects	<p>Extent Describe the size of the area, the number of sites, and the proportion of a population affected by an effect.</p> <p>Context Describe whether the extent, duration, or frequency will conform or contrast with established (baseline) conditions</p>
Probability of Effects	<p>Likely Effects The effects that can reasonably be expected to occur because of the planned project if all mitigation measures are properly implemented.</p> <p>Unlikely Effects The effects that can reasonably be expected not to occur because of the planned project if all mitigation measures are properly implemented.</p>
Duration and Frequency of Effects	<p>Momentary Effects Effects lasting from seconds to minutes</p> <p>Brief Effects Effects lasting less than a day</p> <p>Temporary Effects</p>

	<p>Effects lasting less than a year</p> <p>Short-term Effects</p> <p>Effects lasting one to seven years.</p> <p>Medium-term Effects</p> <p>Effects lasting seven to fifteen years.</p> <p>Long-term Effects</p> <p>Effects lasting fifteen to sixty years.</p> <p>Permanent Effects</p> <p>Effects lasting over sixty years</p> <p>Reversible Effects</p> <p>Effects that can be undone, for example through remediation or restoration</p> <p>Frequency of Effects</p> <p>Describe how often the effect will occur.</p>
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8.2 Potential Impacts of the Proposals

8.2.1 Construction Phase

8.2.1.1 Local History

The general historical background to the subject development area was introduced above in Section 5. In summary, there are no significant historical events associated with the proposed Construction Corridor or immediate environs which have the ability to be impacted upon by the proposed development.

Consequently, it is considered generally that, in terms of local history, a neutral impact/effect will occur during the construction phase associated with the scheme.

8.2.1.2 Archaeological Heritage

(a) Terrestrial

The general archaeological background to the subject development area was introduced above in Section 6.2. In summary, there are no previously recorded archaeological monuments located within the proposed Construction Corridor; a curvilinear enclosure site (KD0190071) with a possible associated field system is located to the north, within the wider defined study area. The closest extent of the associated 'Zone of Archaeological Potential/Notification' is 72m from the extent of the scheme. No additional features of archaeological potential were noted as a result of cartographic or aerial photographic research undertaken as part of the preparation of this report, or by a subsequent detailed surface reconnaissance survey.

Consequently in terms of effects on previously identified archaeological monuments, it is considered that a neutral impact will occur

In general, ground reductions associated with a development of this kind, in areas of previous generally undisturbed ground, have the ability to uncover and disturb hitherto unrecorded subsurface features, deposits, structures and finds of archaeological interest and potential. Without the adoption and implementation of a suitable mitigation strategy, any subsurface archaeological features or artefacts that might be located within the site during the construction phase of the development might not be identified and recorded.

(b) Underwater

A stream is located along the western side of the L6064 and is routed under the R445 by means of concrete pipes before emerging along a field/property boundary to the north of the main road. No associated features of interest were noted by a limited inspection of this stream or by aerial photographic and historic

cartographic research.

The section of stream along the L6064 within the defined scheme area will be culverted using concrete pipes and it is considered that a neutral impact of slight effect will occur during the construction phase associated with the scheme.

8.2.1.3 Architectural Heritage

As noted above in Section 7, there are no protected structures within the meaning of the Planning and Development Act, 2000 situated within the boundaries of the proposed Construction Corridor or wider Cultural Heritage Study Area. Likewise, no structures of architectural heritage interest/merit are listed by the National Inventory of Architectural Heritage as being located within such areas.

Consequently, it is considered that, in terms of architectural heritage, a neutral impact will occur during the construction phase associated with the scheme.

8.2.2. Operational (Post-Construction) Phase

8.2.2.1 Local History

The general historical background to the subject development area was introduced above in Section 5. In summary, there are no significant historical events associated with the proposed Construction Corridor or immediate environs which have the ability to be impacted upon by the proposed development, although a short section of townland boundary will be removed at construction phase.

Consequently, it is generally considered that, in terms of local history, a neutral impact will occur during the operational phase associated with the scheme.

8.2.2.2 Archaeological Heritage

The general archaeological background to the subject development area was introduced above in Section 6.2. In summary, there are no extant archaeological monuments located within the proposed Construction Corridor or wider Cultural Heritage Study Area. An enclosure site with possible associated field system is located to the north of the scheme; there are no surface traces for this complex of features.

Consequently, given the above and the nature of KD019-071 (enclosure), it is not considered likely that the setting of any archaeological monuments will be visually impacted by the ache and that a neutral impact will occur during the operational phase.

8.2.2.3. Architectural Heritage

As noted above in Section 7, there are no protected structures within the meaning of the Planning and Development Act, 2000 situated within the boundaries of the proposed Construction Corridor or wider Cultural Heritage Study Area. Likewise, no structures of architectural heritage interest/merit are listed by the National Inventory of Architectural Heritage as being located within such areas.

Consequently, it is considered that, in terms of architectural heritage, a neutral impact will occur during the operational phase associated with the scheme.

8.2.3. 'Do Nothing' Scenario

In terms of Cultural Heritage, no impacts will occur.

8.2.4. Potential Cumulative Impacts

It is not considered that any cumulative impacts will occur.

9. Mitigation Measures

9.1 Pre-Construction/Construction Phase

9.1.1 Local History

The general historical background to the subject development area was introduced above in Section 5. In general, there are no significant historical events associated with the proposed development lands which have the ability to be impacted upon by the proposed development.

Consequently, no mitigation measures are considered necessary.

9.1.2 Archaeological Heritage

The general archaeological background to the subject development area was introduced above in Section 6.2. In summary, there subsurface remains of an enclosure (KD019-071) with a possible associated field system is located to the north of the extent of the scheme.

As noted above in Section 8.2.1.2 (a), it is not considered likely that the development, as proposed, will cause any direct impacts to any identified archaeological monuments. However, it is noted that in general, ground reductions associated with a development of this kind, in areas of previous generally undisturbed ground, have the ability to uncover and disturb hitherto unrecorded subsurface features, deposits, structures and finds of archaeological interest and potential. Without the adoption and implementation of a suitable mitigation strategy, any subsurface archaeological features or artefacts that might be located within the site during the construction phase of the development might not be identified and recorded.

Given the above, and in order that potential subsurface, and hitherto unidentified and unrecorded, features of archaeological heritage interest that might exist within the subject development/construction corridor, can be identified at an early stage, particularly in advance of the construction phase of the development, the following pre-construction mitigation measures are suggested:

- A programme of Archaeological Testing should be undertaken within the greenfield/agricultural lands within the extent of the Construction Corridor (Parcels 1, 3 5 and 5). Such testing to be under licence from the Department of Housing, Local Government and Heritage.
- Following clearance of the undergrowth along the banks of the stream positioned along the west of the L6064, an Archaeological wade and metal-detecting survey should be undertaken, under licence from the Department of Housing, Local Government and Heritage.
- Following completion of the Programme of Pre-Development Archaeological Investigations, a report describing the results of such should be prepared. The report should include an impact statement with respect to any subsurface or watercourse-related features of archaeological interest/potential that might have been discovered/identified and include a mitigation strategy for the archaeological resolution of such features (e.g. Mitigation by Excavation, Recording and Publication) in advance of the commencement of construction works.

9.1.3 Architectural Heritage

As noted above in Section 7, there are no protected structures within the meaning of the Planning and Development Act, 2000 situated within the boundaries of the proposed Construction Corridor or in the wider Cultural Heritage Study Area. Likewise, no structures of architectural heritage interest/merit are listed by the National Inventory of Architectural Heritage as being located within such areas.

As noted in Section 8.2.1.3 it is considered that, in terms of architectural heritage, a neutral impact will occur during the construction phase associated with the scheme. Consequently, no mitigation measures are considered necessary at pre-construction/construction phase.

9.2 Operational (Post-Construction) Phase

9.2.1. Local History

The general historical background to the subject development area was introduced above in Section 5. In summary, there are no significant historical events associated with the proposed development lands which have the ability to be impacted upon by the proposed development, when operational.

9.2.2. Archaeological Heritage

The general archaeological background to the subject development area was introduced above in Section 6.2. In summary, there are no previously recorded archaeological monuments located within the proposed Construction Corridor or wider Cultural Heritage Study Area.

Consequently, as noted in Section 8.2.2.2, it is considered that, in terms of archaeological heritage, a neutral impact will occur during the operational/post-construction phase of the development and no mitigation measures are considered necessary.

9.2.3. Architectural Heritage

As noted above in Section 7, there are no protected structures within the meaning of the Planning and Development Act, 2000 situated within the boundaries of the proposed Construction Corridor or in the wider Cultural Heritage Study Area. Likewise, no structures of architectural heritage interest/merit are listed by the National Inventory of Architectural Heritage as being located within such areas.

Consequently, as noted in Section 8.2.2.3, it is considered that, in terms of architectural heritage, a neutral impact, of slight significance level, will occur during the operational phase associated with the scheme. Consequently, it is considered that no mitigation measures are required with respect to the operational/post-construction phase of the development.

10. Predicted Residual Impacts

10.1. Local History

There are no predicted impacts in terms of Cultural Heritage.

10.2. Archaeological Heritage

There are no predicted impacts in terms of Cultural Heritage.

10.3. Architectural Heritage

There are no predicted impacts in terms of Cultural Heritage.

10.4 'Worst-Case' Scenario

A 'worst case' scenario with respect to Cultural Heritage would arise where the development was permitted to commence without any suggested mitigation requirements being implemented/without the appointment of an archaeologist to undertake the mitigation requirements. In such scenarios, previously unidentified subsurface features of archaeological interest/potential and/or artefacts of archaeological/historical interest which might be uncovered during the course of the works would, most likely, be destroyed and not recorded.

10.5. Monitoring and Reinstatement Measures

Post-construction monitoring issues or reinstatement measures with respect to cultural heritage are not considered a requirement with respect to the subject development.

APPENDIX 1

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APPENDIX 2

Classification of Archaeological Monuments

A number of monument types have been identified within the study area. What follows is a brief introduction, describing the main characteristics and the broad cultural and chronological context of such monument types. This is based on the system adopted by the Archaeological Survey of Ireland (www.archaeology.ie).

CLASSIFICATION	SCOPE NOTE
Enclosure	An area defined by an enclosing element and occurring in a variety of shapes and sizes, possessing no diagnostic features which would allow classification within another monument category. These may date to any period from prehistory onwards.
Field System	A group or complex of fields which appear to form a coherent whole. These date to any period from the Neolithic (c. 4000-2400 BC) onwards.