

## Chapter 14

## Archaeology & Cultural Heritage

### 14.1 Introduction

The proposed N5 Ballaghaderreen to Scramoge Road project comprises a Type 1 Single Carriageway 33.4km in length and passes through 46 townlands. A description of the proposed road development is provided in Chapter 4.

The purpose of the assessment is to evaluate the potential impact of the proposed road development on the receiving archaeological and cultural heritage environment and to propose mitigation measures to ameliorate any perceived impacts on monuments, finds or features of archaeological or cultural heritage significance.

Cultural Heritage as set out in the Draft EPA Guidelines, May 2017 is to consist of Archaeology (Chapter 14), Architectural Heritage (Chapter 15), and Folklore and History (Chapter 14). Topics to be assessed under Archaeology include known archaeological monuments, areas of archaeological potential and underwater archaeology, while Architectural Heritage is to focus on designated architectural heritage and other significant architectural heritage. Designations or sensitivities are included under the category of Folklore and History.

For the purpose of this chapter, archaeological heritage consists of 'such material remains (whether in the form of sites and monuments or artefacts in the sense of movable objects) and environmental evidence' (DAHGI 1999, 9).

Consideration of the historic environment included:

#### **The Constraints Corridor**

The area examined for the study includes the full extent of the proposed road development. All recorded archaeological monuments (RMP), the sites and monument record (SMR), stray finds, archaeological artefacts, historic landscapes, cultural heritage features, place names, and inherited traditions were examined in order to provide an archaeological and cultural heritage assessment.

The National Monument Act, 1930 (as amended) provides the formal legal mechanism to protect monuments in Ireland (Appendix 14.1). Protection of a monument is provided via:

- Record of Monuments and Places (RMP).
- National Monument in the ownership or guardianship of the Minister for Arts, Heritage, Regional, Rural & Gaeltacht Affairs or a Local Authority.
- National Monument subject to a Preservation Order (or temporary Preservation Order).
- Register of Historic Monuments (RHM).

#### **The Receiving Archaeological and Historical Landscape**

The eastern part of the proposed road development is located in an area of rolling lowland, interspersed with drumlin features, lakes and watercourses. The western part of the proposed road development consists of predominantly flat-to-undulating lowland including bogland. The landscape is rural in nature with pasture fields dominating, bogland and forestry plantations are also present throughout. The existing environment and historic landscape was assessed in order to inform the archaeological potential of the proposed road development. A wide variety of

recorded monuments including linear earthworks, standing stones, enclosures, ringforts, souterrains, hut sites, field systems, early roads, holy wells, ecclesiastical remains and deserted settlements all contribute to the historic character of the landscape.

### **The Candidate UNESCO World Heritage Site of the Rathcroghan Archaeological Complex**

The Candidate UNESCO World Heritage Site of the Rathcroghan Archaeological complex is located to the south of the proposed road development on a low limestone plateau and was visited and examined as part of the study. The proposed road development has been specifically designed to avoid any known or recorded impact on the Royal site. The area around Rathcroghan contains many monuments which cover a wide span of time. Cemeteries of prehistoric burials mounds comprise the central remains.

## **14.2 Methodology**

The evaluation of the archaeological resource and cultural heritage of the proposed road development is based on a desk study of published and unpublished documentary and cartographic sources, supported by a field survey.

The assessment was also informed by a LiDAR assessment survey conducted by University College Dublin (UCD 2015) and photomontages taken from key monuments within the Rathcroghan complex with views towards the proposed road development. A programme of geophysical survey (Licence Ref. 15R0123; 15E0438 Bonsall & Gimson 2015) and archaeological testing (Licence Ref. 15E0545; 15E0587; 15E0588 and 15E0589 Archer Heritage Planning Ltd 2016), was undertaken in September - December 2015 and January-March 2016 to inform the process.

The most recent investigations were carried out to supplement and clarify documentary research, the LiDAR survey and field survey inspection findings and to expand upon the results recorded to date from these sources. Test excavation was undertaken at the following sites where geophysical survey had identified anomalies consistent with potential archaeological features on the proposed road development. The site referencing for each site as presented in the EIAR and separate testing reports is as follows:

#### **EIAR Identification**

AH28 possible route way  
 AH31 recorded pit field and potential pit field  
 AH34 possible pit field and enclosure  
 AH57, 58 and 59 field system and enclosures  
 AH98, 99 and 103 potential pit fields & relict field system  
 Shankill AH A possible association early ecclesiastical site  
 AH72 possible enclosure site

#### **Testing Identification**

AH01; Kilvoy  
 AH02; Kilvoy  
 AH03; Cloonyeffer  
 AH04; Gortnacranagh  
 AH5a, 5b Lavally & 5c Vesnoy  
 AH06; Shankill  
 AH09; Killeen East

Testing was carried out in order to assess the nature, extent and character of the potential archaeological sites identified along the proposed road development.

All of the sites and features identified during the course of this assessment are given a unique ID number and are contained within inventories for Archaeology and for Cultural Heritage Sites (Appendices 14.2 and 14.3). The ID numbers distinguish items of archaeological heritage (AH), and cultural heritage constraints (CHC) and those sites located along or in proximity to the proposed road development are shown on accompanying mapping (Figures 14.1-14.25 in Volume 3).

#### **14.2.1 Cultural Heritage Evaluation**

The appraisal availed of the following sources:

- The National Monuments, Preservation Orders, Register of Historic Monuments list for County Roscommon was sourced directly from the Department for Arts, Heritage, Regional, Rural and Gaeltacht Affairs (DAHRRGA).
- Record of Monuments and Places (RMP) and Sites and Monuments Record (SMR);
- The topographical files of the National Museum of Ireland (Appendix 14.4);
- Documentary and cartographic sources;
- Excavations Bulletins and Excavations Database (1970-2013);
- Roscommon County Development Plan 2014–2020;
- County Roscommon Heritage Plan 2012-2016;
- Rathcroghan Archaeological Complex Conservation Study, (Oxford) July 2007
- Aerial photographs;
- LiDAR assessment survey; and
- N5 Strokestown-Ballaghaderreen Corridor: Lidar Assessment, 2015 (Dr. Stephen Davis, UCD School of Archaeology);
- The sources used in the methodology are contained in Appendix 14.5;
- The desk study was also informed by data contained in a suite of reports detailing previous assessments undertaken for the proposed road development, including a constraints study and route option assessments:
- N5 Strategic Corridor Constraints Report December 2006 (Roscommon National Roads Design Office);
- Archaeological report for the Constraints Study December 2006 (ACS);
- N5 Strategic Corridor Route Corridor Selection Report, March 2010 (Roscommon National Roads Design Office);
- N5 Strategic Corridor Phase 3 Route Selection Study for Archaeological, Architectural and Cultural Heritage Architectural Assessment March 2009 (ADS for Roscommon County Council and National Roads Authority).

#### **14.2.2 Legislation, Standards, Guidelines**

The following legislation, standards and guidelines were consulted:

- National Monuments Acts, 1930 as amended;
- The Planning and Development Act 2000, as amended;
- Heritage Act, 1995;
- The UNESCO World Heritage Convention, 1972;
- ICOMOS Xi'an Declaration on the Conservation of the Setting of Heritage Structures, Sites and Areas, 2005;

- European Convention Concerning the Protection of the Archaeological Heritage of Europe, 'Valetta Convention' (ratified by Ireland in 1992);
- Council of Europe Convention of the Protection of the Archaeological Heritage of Europe, 'Granada Convention' (ratified by Ireland in 1997);
- The European Landscape Convention 2000;
- Guidance on Heritage Impact Assessments for Cultural World Heritage Properties – A publication of the International Council on Monuments and Sites, January 2011;
- Guidelines on the information to be contained in Environmental Impact Statements, 2002, EPA;
- Advice Notes on Current Practice (in preparation of Environmental Impact Statements), 2003, EPA;
- EPA: Guidelines on the Information to be contained in Environmental Impact Assessment Reports, Draft May 2017;
- EPA: Advice Notes for Preparing Environmental Impact Statements, Draft, September 2015;
- Frameworks and Principles for the Protection of the Archaeological Heritage, 1999, (formerly) Department of Arts, Heritage, Gaeltacht and Islands;
- Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act, 2000 and the Planning and Development Act 2000;
- Code of Practice between the National Roads Authority (NRA) and the Minister for Arts, Heritage and the Gaeltacht, June 2000;
- Guidelines for the Assessment of Architectural Heritage Impact of National Road Schemes, 2006, NRA;
- Guidelines for the Assessment of Archaeological Heritage Impact of National Road Schemes, 2006, NRA;
- Guidelines for the Testing and Mitigation of the Wetland Archaeological Heritage for National Road Schemes, 2006, NRA; and
- National Landscape Strategy for Ireland 2015-2025, Department of Arts, Heritage and the Gaeltacht.

Excerpts from the relevant legislation and details regarding standards and guidelines are contained in Appendix 14.1.

### **14.2.3 Approach to the Historic Landscape Environment and Character**

In order to achieve an optimal design with respect to the receiving archaeological and cultural heritage environment, constant refinement of the route took place throughout the Environmental Impact Assessment (EIA) and design phases to minimise the potential direct and indirect impact to archaeological and cultural heritage assets.

A landscape approach was undertaken where not only individual assets were assessed but also how they present in the landscape, their connectivity and their relationship to other features and clusters of monument types. These assets were analysed through mapping, documentary sources and techniques such as LiDAR survey.

The EIA process has been conducted based on the available information and has followed the existing best practice format of desk and field study, supplemented by

archaeological investigation through geophysical analysis and test excavation. In addition blanket LiDAR coverage of the proposed road development was undertaken in order to ascertain the likely and significant effects of the proposed development on the receiving historic environment.

Using the Record of Monuments and Places (RMP), historic mapping, aerial photography, Record of Protected Structures (RPS), NIAH Building and Garden inventory, excavations, place name evidence, and other relevant documentary historic sources including Roscommon County Development Plan, conservation plans and modern cartographic references as well as field inspection the proposed road development has been examined. Equally as part of an interdisciplinary approach, the assessment on the cultural heritage landscape has taken place in consultation with the wider EIAR team, in particular with the landscape and visual consultants and architectural heritage consultant as well as the designers for the proposed road development.

As a result, within the EIAR, the cultural heritage methodology has been designed so a full understanding on the potential impact on the character of the historic landscape can be assessed, while a detailed archaeological and historical background has been included which describes the character of the immediate and wider historic landscape as well as the individual heritage assets and the potential to reveal subsurface features. The methodology used is based on the EPA Guidelines and Heritage Impact Assessment (HIA) based on ICOMOS guidelines, and both direct physical impacts as well as impacts to the setting of individual heritage assets have been rigorously and consistently assessed.

By using all the different sources and data sets we have developed an understanding of the historic landscape character that surrounds and is part of the proposed road development. The modern landscape is a result of change and modifications over the millennia, and understanding how these processes occur and how they are represented in today's landscape is critical in providing an understanding of the layering and development of the cultural landscape and appreciating an areas unique character. The process is concerned with identifying the dominant historic influences which have formed and define the present landscape. By using existing data sets such as the RPS, RMP, NIAH for example, through the use of GIS and CAD for the project, dominant clusters of monuments, broad and spatial patterns within monument and building classes also begin to emerge. The mapping broadly reflects occupation and settlement character types dating from the early medieval period and the 19<sup>th</sup> century in the immediate road development lands and in the wider landscape ritual patterns.

In order to provide an understanding of the historic landscape a holistic approach has been undertaken for this assessment.

### **The Constraints Corridor**

Initially a 300m wide corridor (150m on either side of the centre line) was assessed in order to inform the design team of potential cultural heritage issues. This was later redefined in width once the final corridor design had been decided so a detailed and focussed assessment of the likely and significant impacts on archaeological heritage and cultural heritage arising from the construction and operation of the new road could take place. This corridor for the purpose of the impact assessment is 100m on either side of the centre line of the new road development.

The significance and type of impacts experienced by archaeological monuments and complexes and other cultural heritage features located in the vicinity of the proposed road development was then evaluated for the construction and operation phases of the project.

As required the relationship of sites, monuments and complexes that fall outside this corridor were considered and evaluated where appropriate.

### **The Receiving Archaeological and Historical Landscape**

A desk based narrative was produced which detailed the archaeological and historic development of the wider area through documentary and cartographic sources and is discussed on a chronological basis in Section 14.3.3 of the chapter. However some sites and areas of archaeological potential for example wetland, rivers, bogland and pitfields are unclassified and do not conform or belong to any one time period and as such are discussed separately. All townland names and stray finds were reviewed and are listed in Appendices 14.6 and 14.4 respectively.

### **The Candidate UNESCO World Heritage Site of the Rathcroghan Archaeological Complex**

The monuments of Rathcroghan lie to the south and are avoided by the proposed road development. Rathcroghan complex has been previously defined by:

- *National Monuments in State Care (20 Feb 2009)*  
Rathcroghan is defined as an archaeological complex located within the townlands of Carrowgobbadagh, Glenballythomas, Toberrory in Co Roscommon and comprises:  
RO022-057025-, RO021-042015-, RO021-042016-, RO021-042017-, RO021-042019-, RO022-057004-, RO022-057017-, RO022-057020-, RO022-057021-, RO022-057022-,  
RO022-057024-, RO022-057028-, RO022-057029-, RO022-057030-, RO022-057031-, RO022-057035-, RO022-057036-, RO022-057037-, RO022-057038-, RO022-057039-,  
RO022-057043-, RO022-057046-, RO022-057047-, RO022-057049-, RO022-057051-, RO022-057052-, RO022-057073-, RO022-057077-, RO022-057084-, RO022-057007-,  
RO022-057012-, RO022-057085-, RO022-056030-, RO022-056017-, RO022-056028-, RO022-056029-, RO022-056035-, RO022-056052-, RO022-056053-, RO022-057001-,  
RO022-057006-, RO022-057008-, RO022-057010-, RO022-057011-, RO022-057013-, RO022-057014-, RO022-057053-  
National Monuments Numbers 473 and 294 have been assigned to the complex.
- *The Record of Monuments and Places (1994) – Distance from the southern edge of the proposed road development 378m*  
This complex consists of Ballyconboy, Kilvoy, Grallagh, Toberrory, Moneylea, Kilhanooan, Tullintuppeen, Glenballythomas, Carrowntoosan, Carrowgobbadagh, Cammoge, Knockavurree and Kilree townlands. It is partly located on sheets 56 and 57 archaeological constraints maps.  
The closest part of the complex is attributed to a possible linear trackway. According to the RMP files, this trackway is located on the north-facing slope of the Rathcroghan ridge. It ran from the complex rath of Rathmore (RO022-

056017) down the slope just west of enclosure (RO022-056015) and east of barrow (RO022-056004) and the mound Croghaunbawn (RO022-056003) to an east/ west public road (length c. 2 km). It may have been continued c. 1km to the north of the public road along the avenue to Mantua House (total length c. 4km). This possible continuation is shown on the RMP map as the most northerly extent of the RMP constraint zone.

- *Rathcroghan Archaeological Complex Conservation Study (2007) – Distance from the southern edge of the proposed road development 2276m*

This comprises a study area that lies on the east side of the plateau of land at 120-140m OD. Lower land extends along the eastern and southern sides, reaching its lowest point, 90m OD in the south-east corner. (Oxford Archaeology 2007 Figure 1, extent of study area). The boundary of the study area was defined with the assistance of the DoEHLG (now DAHRRGA) to incorporate the main complex of monuments and their setting (2007, pg. 7).

- *The Landscape Characterisation Assessment for Roscommon (2008) Tusk and Rathcroghan Plateau (LCA 28)*

This LCA is located in the centre of the northern half of County Roscommon. The character area rises to the summit of a hill at Rathkineely, with a slightly lower hill to the east at Rathcroghan Cross Roads. It is distinguished from its surrounds due to the visually striking concentration of archaeological monuments.

Waddell (2009, 1) describes the monuments that constitute Rathcroghan as 'scattered over some 1,000ha (four square miles) of elevated ground, forming a significant concentration above the 120m contour'.

- *Rathcroghan Key Constraint (defined for the purpose of this assessment) – Distance from the southern edge of the proposed road development 832m*

The Rathcroghan Archaeological Complex as defined by the statutory authorities, academics and archaeologists all place the northern extent of various boundaries associated with the complex to the south of the proposed road development.

For the purpose of this assessment, a precautionary approach was taken and having considered the above existing boundaries and in consultation with the Archaeological Department of the National University of Ireland Galway the key constraint area of the Rathcroghan archaeological complex (main concentration of monuments) has been established as extending to the east and north to the 100m contour in general, to the southwest it is defined by the 110m contour, with the existing RMP complex boundary forming the western boundary (Phase 3 Route Selection Study March 2009).

This approach was agreed with the Department of Arts, Heritage and Local Government (now known as the Department of Arts, Heritage, Regional, Rural & Gaeltacht Affairs) (DAHRRGA). At its closest point this low lying 100m contour is located some 943.5m to the south of the centre point of the proposed road development (Table 14.1) and 832m from the edge of the proposed road development. The key monuments (Oxford Archaeology 2007, 44-49 and Herity 1991, 9-25) that form part of this complex are all located over 3km from the proposed road development apart from Caran Fort (RO022-056023) and mound barrow (RO022-056022) which is located approximately 2887m south of the centreline of the proposed road development and 2823m from the edge of the proposed landtake (Figure 14.26 in Volume 3). Table 14.1 shows the distances between the proposed road development and publically accessible monuments in state care within the

Rathcroghan complex, it also documents the distances from the proposed road development and pre-existing recorded boundaries for the complex.

This area of the Rathcroghan archaeological complex, established through consultation, was understood to define the limits of the key constraint of Rathcroghan for the purpose of the assessment (Figure 14.26).

**Table 14.1 Key Distances**

Archaeological Constraint	Distance to Edge of Proposed Road Development	Distance to Centreline of Proposed Road Development
RMP Archaeological Complex (RO022-056, RO022-057 and RO021-042)	378m	422m
Rathcroghan Key Constraint Area (as defined for the purpose of this assessment)	832m	943.5m
Rathcroghan Conservation Study Area	2276m	2364m
Rathcroghan Mound (RMP RO022-057010) National Monument	3741m	3755m
Rathmore (RMP RO022-056017) National Monument	2926m	3007m
Rathnadarve (RMP RO022-057004) National Monument	3744m	3865m
Rathbeg (RMP RO022-057001) National Monument	3350m	3388m

#### 14.2.4 Field Survey

The proposed road development, emerging was inspected at different intervals from July 2014 to July 2016. The purpose of the field survey was to identify potential archaeological, historical heritage features and structures/features of cultural heritage merit that may be subject to direct or indirect impacts as a result of the proposed road development. The site visits also sought to clarify the anomalies detected by the LiDAR survey and assessment.

Site work was carried out on a field by field basis and all areas that are traversed by the proposed road development were visited in the field. An account of the field work is detailed in the narrative of the report under the following headings: physical environment, cultural landscape and archaeological potential. Each section of the proposed road development is discussed sequentially and identified by the chainage number. The type of terrain and ground visibility is noted and where the route passes through areas of bog land, the open sides of drains if free from vegetation were assessed where possible. Given the buried nature of archaeological features in bogland, a walkover survey provides a limited amount of information on the subsurface potential, this is why it is important to assess drains or banks of peats where possible.

Field work was also assisted by a review of detailed aerial photography and the results of an archaeological LiDAR survey and assessment as well as a review of historic map sources. All anomalies detected by using these techniques were visited in the field and assessed. Geo-referenced photographs were taken along the route and are included in the inventory.



All archaeological monuments, sites and areas of potential were then individually detailed in the archaeological and cultural heritage inventory (Appendix 14.2 and 14.3).

#### 14.2.5 Mapping

All archaeological and cultural heritage constraints and areas of archaeological potential are shown on the accompanying mapping (Figures 14.1-14.25). The proposed road development and its proximity to the key constraint area of Rathcroghan is also shown on Figure 14.26 in Volume 3. Mapping is also provided of all key viewpoints that formed the basis for the photomontages (Figures 14.27-14.61).

#### 14.2.6 Consultation

Crucial to the sensitive development of the road from an archaeological perspective was the early and consistent consultation with the authorities and relevant stakeholders that informed the design process in order to limit the impact on recorded monuments and to minimise the overall physical and visible impact.

Critical to this consultation process was an understanding as to the extent of the Royal landscape of the Rathcroghan complex and the avoidance of this nationally important complex ensuring that its authenticity, outstanding universal value and integrity remain intact.

Currently the existing N5 bisects the main concentration of monuments, creating a significant severance effect due to the frequency, type and speed of traffic (Oxford Archaeology 2007, pg 17). The proposal to create a new road to the north of the complex may be seen as beneficial, enhancing the overall historic character of the area.

As early as 2003 and throughout the evolution of the proposed road development in 2004 and 2005, consultations were held with the National Monuments Service (NMS) (then the Department of Arts, Heritage and the Gaeltacht – DAHG) and National University of Ireland Galway (NUIG) in order to inform the Phase 2 Constraints Study (December 2006). Further consultation with the NMS of the DAHG, the Department of Archaeology at NUIG and The Discovery Programme took place during Phase 3 Route Selection Study (March 2009).

A letter dated April 6<sup>th</sup> 2004 from NUI Galway to the NRA articulated that an '*on-line option on the present N5 is best avoided*', other considerations included '*the landscape to the south contains the hugely important complex at Carnfree and many other sites and again is best avoided. The best option is a route that seems to be relatively free of visible archaeological remains extending roughly from the line of the proposed Tulsk by-pass, north-westwards to Cartron and then to just beyond Bellanagare*'.

At a meeting between NUIG and Roscommon County Council in 2006 (16<sup>th</sup> October) the above sentiments were re-iterated, with both Rathcroghan and Carnfree highlighted as areas of obvious archaeological significance through which to avoid developing any route.

In January 2007 at a meeting to inform the route options it was agreed by the NMS that all proposed route corridor options were feasible apart from Option 3 (the online N5 improvement) and on an initial review Option 1 or 1A would appear to be the

furthest from the Rathcroghan 'archaeological complex'. It was stated that the on-line option was not acceptable to the Department.

Following consultation, the key constraint area of the Rathcroghan archaeological complex was established as being defined to the east and north by the 100m contour and to the southwest by the 110m contour, with the existing RMP complex boundary forming the western boundary of the key constraint area. This area of the Rathcroghan archaeological complex, established through consultation, was understood to define the limits of the key constraint of Rathcroghan for the purpose of the assessment (Figure 14.26).

Stakeholder consultation with the statutory authorities, academic institutions, archaeologists, heritage consultants as well as landowners and public consultation (Appendix 14.8) was undertaken during the preparation of the EIAR.

Consultation with Brian Duffy and Mark Keegan of the National Monuments Service (NMS) was undertaken on the 9<sup>th</sup> of October 2014 and the 20<sup>th</sup> May 2015. Given that corporate governance had changed since the route options had been published in 2009, the NMS were asked if they still held the same view that the online option was not a feasible option. Brian Duffy confirmed that the NMS still do not consider the online option a feasible option and 'agreed that the emerging preferred route to the north of Rathcroghan could be considered positive as it would be moving traffic away from the complex' (2014).

On the 22<sup>nd</sup> of January 2015 a letter was received from the NMS stating that an online option was undesirable and should be avoided.

Additional meetings took place with the NMS with Margaret Keane and Mark Keegan on the 10<sup>th</sup> of February 2016 as well as Freddie O'Dwyer from the Built Heritage and Architectural Policy Unit (BH&APU). On the 27<sup>th</sup> of June 2016 a meeting took place with Sean Kirwan and Mark Keegan of the NMS and Freddie O'Dwyer (BH&APU) to discuss the finalised proposed road development.

Consultation took place with Dr. Kieran O'Connor and Joe Fenwick from the Department of Archaeology, National University of Ireland, Galway (NUIG) on the 20<sup>th</sup> of January 2015 and 15<sup>th</sup> of April in 2016 while Kieran O'Connor also participated on a multi-disciplinary field trip on the 13<sup>th</sup> March 2015.

Dr Edel Bhreathnach from the Discovery Programme was consulted on the 29<sup>th</sup> October 2014 and again with Dr Roseanne Schot on the 31<sup>st</sup> of March 2016. Former Discovery Programme employees, Anne Connors and Brian Shanahan who had both conducted research in County Roscommon were contacted on the 16<sup>th</sup> of January 2015 and June 2015 respectively.

Mary Cahill from the National Museum of Ireland was met at Strokestown House on the 16<sup>th</sup> October 2015 and was also contacted on several occasions in relation to a number of finds from the general area in January 2016. Local historians Sean Neary, and Jim Callery were also met on the 16<sup>th</sup> as well as on the 28<sup>th</sup> October 2015. Martin Timoney was met on the 20<sup>th</sup> of January 2016 and a site visit to the archaeological investigations at Lavally took place.

A number of multidisciplinary workshops for the member of the EIAR and design team took place at the offices of Roughan O'Donovan on the 2<sup>nd</sup> December 2014, 27<sup>th</sup> August 2015 and 13<sup>th</sup> July 2016.

Members of Roscommon County Council including the heritage and conservation officer; Nollaig Feeney, the head planner; Mary Greary and Mark Keaveny from Roscommon National Road Design Office were met with on the 23<sup>rd</sup> of June 2015.

The above mentioned meetings and workshops were also attended by TII Project archaeologists, namely Ronan Swan (Head of Archaeology and Heritage), Mary Deevy (Senior Archaeologist) and Project Archaeologist for the scheme Orlaith Egan.

A number of archaeologists and academics were also consulted by phone call or email for example Ian Doyle of the Heritage Council, Professor Michael Herity, Susan Curran, Dr Chris Read. Consultation also took place with Dr Stephen Davis who conducted the LiDAR survey for the proposed road development.

Landowners were consulted throughout the field walking and archaeological site investigations for the proposed road development.

#### **14.2.7 Significance Criteria**

Archaeological and cultural heritage sites are considered to be a non-renewable resource and cultural heritage material assets are generally considered to be location sensitive. In this context, any change to their environment, such as construction activity and ground disturbance works, could adversely affect these sites.

The likely significance of all impacts is determined in consideration of the magnitude of the impact and the baseline rating upon which the impact has an effect. The impact significance is defined as imperceptible, slight, moderate, significant and or profound (Appendix 14.7 Table 14.31, Table 14.32 and Table 14.33).

#### **Archaeological Heritage**

In accordance with the NRA 'Guidelines for the Assessment of Archaeological Heritage Impact of National Road Schemes' (2006), the significance criteria used to evaluate an archaeological site, monument or complex are as follows: existing status (level of protection), condition or preservation, documentation or historical significance, group value, rarity, visibility in the landscape, fragility or vulnerability, and amenity value (Appendix 14.8). In accordance with EPA guidelines, the context, character, significance and sensitivity of each heritage asset, was evaluated. The significance of the impact is then determined by consideration of the significance of the asset and the predicted magnitude of impact. A glossary of impacts as defined by the EPA is provided in Appendix 14.7.

The baseline archaeological and cultural heritage environment is assigned a baseline rating, taking into account the importance, sensitivity of the receiving environment.

#### **World Heritage Sites and National Monuments**

World Heritage Sites, National Monuments and assets of acknowledged international importance or that can contribute significantly to international and national research objectives are considered to be of very high importance.

#### **Recorded Monuments**

Recorded Monuments and complexes of monuments of regional significance or designated assets that contribute to regional research objectives are considered to be of high importance.

## Non-Designated Sites

Newly identified archaeological sites or undesignated assets that contribute to regional research objectives are considered to be of medium importance. Areas of considered archaeological potential due to research or stray finds have also been ascribed a medium value. While undesignated sites of local importance are considered to be of low sensitivity. This may be due to the assets being compromised by poor preservation levels and/or poor survival of contextual associations.

## Cultural Heritage

Cultural heritage is a broad term that includes a wide range of tangible and intangible cultural considerations. It encompasses aspects of archaeology and architecture and is expressed in the physical landscape as well as in non-physical ways. Cultural heritage can relate to settlements, former designed landscapes, building and structures, which are all detailed in Chapter 15 as well as folklore, townland and place names, historical events and traditions such as mass paths, pilgrim ways which are detailed in this chapter. Potential buried foundations associated with features/structures shown the 1<sup>st</sup> edition Ordnance Survey six-inch mapping (1843) are also included in this evaluation as features may often be of interest and valued from an architectural and archaeological perspective.

Tangible cultural heritage assets along the proposed road development are represented by townland boundaries, field systems, sunken laneways, commemorative sites and structures. Cultural heritage sites that are afforded protection either as Recorded Monuments or as Protected Structures and are regarded as being of high importance. Cultural heritage sites with upstanding features which are not afforded protection under the above criteria are considered to be of medium importance, those with no upstanding features, ('sites of') are considered to be of low importance.

## The Contribution of Setting and Visual Impact to the Significance of a Monument

As well as the physical preservation of a monument, the legislation includes provision for the protection of the amenity of the monument or structure which can be fundamental to its significance. English Heritage in their guidance document on *The Setting of Heritage Assets* (2011) define setting as:

*The surroundings in which a heritage asset is experienced.*

and also makes clear that:

*“Setting is not a heritage asset, nor a heritage designation. Its importance lies in what it contributes to the significance of the heritage asset. This depends on a wide range of physical elements within, as well as perceptual and associational attributes, pertaining to the heritage asset’s surroundings. Each of these elements may make a positive or negative contribution to the significance of the asset, or be neutral. In some instances the contribution made by setting to the asset’s significance may be negligible: in others it may make the greatest contribution to significance.”<sup>1</sup>*

The step by step approach to setting (English Heritage 2011) was considered for the purpose of this report which sets out to:

- identify which heritage assets and their settings are affected;

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<sup>1</sup> Section 2.4, page 7

- assess whether, how and to what degree these settings make a contribution to the significance of the heritage asset(s);
- assess the effects of the proposed development – direct, indirect, cumulative
- explore mitigation measures; and
- make and document the decision and monitor outcomes.

The importance of setting lies in the degree to which it contributes to the significance of the heritage asset and the attributes associated with it (such as its relationship to other sites or landforms, cultural associations and traditions) and the degree to which the existing environment contributes to the understanding or appreciation of the site.

Consideration of setting and the degree to which setting makes a contribution to the significance of a heritage site is:

- determined on a case by case basis in consultation with other relevant disciplines;
- informed by the road design proposals; and
- dependant on landscape and topography.

### **The Candidate UNESCO World Heritage Site of the Rathcroghan Archaeological complex**

As part of the assessment criteria an evaluation took place to ensure that the proposed road development will not detract from the Rathcroghan Archaeological Complex submission for addition to the Tentative List for future inscription as a UNESCO World Heritage Site as part of the Royal Sites of Ireland.

The World Heritage Convention, for the protection of the World's Cultural and Natural Heritage, recognises properties of 'Outstanding Universal Value' (OUV) which are part of the 'world heritage of mankind as a whole' and deserve 'protection and transmission to future generations'. Such properties are recognised through inscription on the World Heritage list. Their OUV is fixed by the World Heritage Committee at the time of inscription and so OUV thus defines the thinking and philosophy of the site at the time of inscription and is non-negotiable.

World heritage sites are thus single heritage assets with an international value that has been clearly articulated. Not everything within them contributes to the OUV, but those attributes that do must be appropriately protected (ICOMOS 2011).

For the purpose of this assessment, this chapter has reviewed the submission which provides an overview of the justification of OUV of the Royal Sites of Ireland (Appendix 14.9) for inclusion on the tentative list. In addition to this, consideration has been given to the ICOMOS Guidelines on Heritage Impact Assessment for Cultural Heritage Properties (2011) when evaluating the overall impact of the proposed road development (Appendix 14.10). A review has also taken place on the existing documentation which supports the conservation and details the significance of the complex through research and investigation (Oxford Archaeology 2007, Waddell et al 2009, Herity 1991).

The narrative of this chapter sets out a short description and history of the Rathcroghan complex in order to understand its significance and in order to provide an appropriate heritage assessment, a description of the proposed road development and an evaluation of the overall impacts of the proposed changes as well as

mitigation measures in terms of measures to avoid, reduce or to compensate for impacts.

#### 14.2.8 Roscommon County Development Plan (2014-2020)

Roscommon County Development Plan (RCDP) contains a list of cultural heritage sites including national monuments, recorded monuments, architectural conservation areas and protected structures (which, in this EIAR, are detailed in Chapter 15) and protected views as well as an assessment of the landscape and historic landscape character of the county. The plan outlines the policies and objectives in relation to heritage in order to protect, enhance and promote the county's archaeology and cultural heritage resource. This evaluation was carried out with due regard to these policies and other relevant information contained within the plan.

Within Chapter 6 of the RCDP - Built Heritage and Archaeology - the policies and objectives for the promotion and protection of the cultural heritage resource are articulated. With respect to archaeological heritage (Section 6.7 of the County Development Plan) the protection mechanisms for monuments are outlined as well as when an archaeological assessment, monitoring etc. is required and how to address the archaeological potential (subsurface and upstanding monuments) of an area be it terrestrial or underwater. The policies (Policy 6.9-6.11) and objectives (Objective 6.21-6.27) generally outline the legal protection afforded to the monuments, their setting and detail the role of the planning authorities and the Department of Arts, Heritage, and the Gaeltacht (DAHG) now known as Department Arts, Heritage, Regional, Rural & Gaeltacht Affairs (DAHRRGA).

Section 6.8 of the RCDP details the significance of the Rathcroghan Archaeological Complex and, the following are the listed policies and objectives for this nationally important complex:

**Table 14.2 Roscommon County Development Plan Policies**

Policy 6.12	Support the implementation of the Rathcroghan Archaeological Complex Conservation Study, as prepared for the Department of the Environment, Heritage and Local Government.
Policy 6.13	Facilitate sustainable development within the zones of archaeological potential associated with the Rathcroghan site in accordance with 'Sustainable Rural Housing Guidelines for Planning Authorities' (Government of Ireland 2005).
Policy 6.14	Protect and conserve the vulnerable archaeological and cultural landscape and to conserve and enhance views from and between the 12 key archaeological monuments and 4 key view points as identified in the Rathcroghan Archaeological Complex Conservation Study.

**Table 14.3 Roscommon County Development Plan Objectives**

Objective 6.28	Permit individual housing only in accordance with the Rural Housing Strategy as set out in Chapter 5 of the Roscommon County Development Plan 2014-2020.
Objective 6.29	Facilitate modestly scaled development, such as extensions to existing domestic dwellings, sensitively designed and sited agricultural building, reuse of existing buildings and where appropriate, replacement buildings comparable in scale to buildings being removed.
Objective 6.30	Discourage development along the existing N5 road as it passes through the Rathcroghan area, even if the status of that route changes during the lifetime of this plan.

Objective 6.31	Carry out a capacity study for the Rathcroghan Complex Study area to assess the capacity of the landscape to accommodate future development. This is necessary because the greatest concern in relation to rural housing is its cumulative impact on the landscape as well as the national and international significance of the Rathcroghan complex landscape which is based on its landscape and intervisibility between the key monuments.
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In addition to these policies and objectives, development standards must consider the following:

*All developments that may be considered on the Rathcroghan Plateau (defined by the 120-130m contour), in the vicinity of the 12 key monuments identified in Section 8.4 to 8.15 and the 4 key viewpoints highlighted as being of significance in Figure 5 of the Rathcroghan Archaeological Complex Conservation Study must be subject to a visual impact assessment to ensure the intervisibility and setting of the monuments is conserved.*

*All developments that may be considered within the archaeological zone will be subject to archaeological assessment requirements.*

The plan also refers to UNESCO World Heritage Sites (RCDP section 6.8.2). Rathcroghan Archaeological Complex has been submitted for addition to the Tentative List for future inscription as a UNESCO World Heritage Site as part of the Royal Sites of Ireland which also includes Cashel, Dun Ailinne, Hill of Uisneach and Tara.

**Table 14.4 Policy for UNESCO World Heritage Sites**

Policy 6.15	To recognise and respect potential World Heritage Sites in Roscommon on the UNESCO Tentative List – Ireland – 2010 and support their nomination to World Heritage status.
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While public access to many of the monuments within the complex is limited as they are located within private land holdings, the Rathcroghan Visitor Centre (Cruachan Ai Heritage Centre), in Tulsk brings to life the Rathcroghan complex, an area with over two hundred archaeological monuments through an array of interactive displays and actively encourages research, the dispersal of knowledge and interpretation of the complex. The centre provides a valued place for presentations, public seminars and lectures.

Strokestown Famine Museum, located in the original stable yards of Strokestown Park House commemorates the history of the famine in Ireland while providing an historic context for the 'Big House' and the landed gentry. It is a valuable local and national resource with a strong educational focus providing access to unique documents of the time.

The Douglas Hyde Centre celebrates the life and achievements of Dr. Douglas Hyde (1860-1949), the first President of Ireland. The interactive exhibition is housed in Portaghard Church of Ireland (built in 1740) and restored in 1988 by Roscommon County Council.

It is a policy within the plan (Policy 8.54) 'to maintain and expand cultural activities and services throughout the County'.

## **Landscape Character Assessment & Historic Landscape Character Assessment**

A landscape character assessment including a historic landscape character assessment was carried out for County Roscommon in 2008 (Mosart 2008).

The aim of the project was to carry out a landscape character assessment that will provide the technical background for the Planning Authority to formulate a set of landscape objectives and policy recommendations. These objectives and recommendations strive to achieve a balance between the proactive need to accommodate change, optimising of landscape aesthetics and due reflection of the sensitivity of various landscape related values involving;

- The conservation and enhancement of landscape diversity, character and quality.
- Protection of sensitive areas from development that would detract from or be injurious to the amenity of the area.
- Provision for development and change that would benefit the economy of the county including the rural economy while protecting and enhancing the landscape.
- Identification of suitable 'working' landscapes where there is potential to accommodate development.

Thirty six landscape character areas have been identified and these key landform characteristics form the backdrop to the GIS mapping. The landscape values presented within the study ranged from Exceptional Value, Very High Value, High Value and Moderate Value. Two landscapes are classified as Exceptional Value, namely the Tusk and Rathcroghan Plateau in the centre of the county (LCA 28) and Lough Key and Boyle River Network in the northeast of the county (LCA 16). Classification of the former area is greatly influenced by the cultural heritage significance of Rathcroghan, whereas the latter area is valued for its aesthetic and amenity qualities.

County Roscommon is one of the counties noted by the Heritage Council for having carried out a HLC (Lambrick et al 2013).

It is an objective of the RCDP (Objective 7.37) '*to seek to minimise visual impact on areas categorized within the County Roscommon Landscape Character Assessment including 'moderate value', 'high value' 'very high value' and with special emphasis on areas classified as 'exceptional value' and where deemed necessary, require the use of visual impact assessment where proposed development may have significant effect on such designated areas*'.

### **14.2.9 County Roscommon County Heritage Plan (2012-2016)**

The heritage plan seeks to collect and disseminate heritage information while protecting the cultural resource by promoting best management heritage conservation and raising awareness.

An action of the Heritage Plan was the development of the Tusk Gaelic Medieval Complex, Co. Roscommon Conservation Management Plan Vol 1 March 2009. This plan assess the three historic monuments – Tusk Priory, Tusk Castle and Tusk Earthwork, the wider study area and the heritage centre.



It is the intention of RCC to prepare a new County Roscommon Heritage Plan once the current one expires at the end of 2016.

#### **14.2.10 Direction by An Bord Pleanála**

Relevant to this chapter, An Bord Pleanála (the Board) (Ref Number 20.HD0035) has deemed that the proposed road development is likely to have significant effects on the environment amongst other reasons and considerations and that an EIA is therefore required:

*'Environmental sensitivity of the receiving environment in the vicinity of the preferred route and the potential for impacts arising, with particular reference to the archaeological sites on and in the vicinity of the project route.....'*

The Inspector's report that informed An Bord Pleanála's decision had regard to the N5 Ballaghaderreen to Scramoge Road Project EIA Screening Report (Roscommon County Council 2015).

### **14.3 Receiving Environment**

#### **14.3.1 Local Geology and Topography**

This area of north Roscommon lies in the central plain of Ireland, with the topography ranging between 50m and 140m above sea level. Much of the bedrock in Co. Roscommon consists of varying types of limestone, a sedimentary type of rock, which originated as sediment in open, relatively shallow seas during the Lower Carboniferous Period, between 355 and 310 million years ago (Meehan and Parkes 2014, 8–9). This bedrock is concealed underneath a thin mantle of glacial deposits, punctuated by pockets of raised bog. The soil types are chiefly grey-brown podzolics which are variable in quality, with gleys towards the northwest of the county where conditions are wetter (Aalen et al. 1997, 17, fig. 29). The place name element 'cloon' is evident in many townlands across Roscommon, such as Cloonyeffery and Cloonratoon in the study corridor. The word translates into a meadow or a dry site, an important consideration in wetland areas where dry meadow was a valued resource (Aalen et al. 1997, 17, fig. 30). For a full description of townland names and their meaning please refer to Appendix 14.6.

This prevalence of limestone has resulted in a karst landscape that occurs across much of the county, but is typically hidden beneath deep glacial deposits. The attractiveness of the area around Rathcroghan for prehistoric and historic settlement is chiefly derived from its topographical setting, given that it is situated on a broad elevated limestone plateau of relatively good farmland (the wider landscape of Mag nAí extending from Roscommon town in the south to Elphin in the north, Strokestown in the east and Castlerea in the west (Waddell et al., 2009, 1, Fig. 1.1) surrounded by lowland and peat bogs. The plains of central County Roscommon were famous for livestock and sheep grazing as Samuel Lewis observed in 1837, 'The pastures are unrivalled in beauty and fertility.... The best land for feeding bullocks is the district from Elphin to Castlerea; that for sheep from Roscommon to Tulsk and thence northwards to Boyle.' (Lewis 1837, 522).

Peatlands or bogs are a distinctive feature of the Roscommon landscape (RCDP 2014-2020, 183) and sections of bogland landscapes, reclaimed and cutover are located along the proposed road development, particularly from Ch. 10+750 to Ch. 12+250. Bogs have been found to contain semi fossilised plant remains and human artefacts. Due to the anaerobic conditions they preserve organic material remarkably

well and many wooden toghers (trackways) as well as wooden artefacts, bog bodies and bog butter have been found deposited in bogs.

Caves, in particular, are characteristic of the local environment. Subterranean streams have carved out caves including an example at Pollnagran, near Frenchpark or Oweynagat, c.800m southwest of Rathcroghan (Meehan and Parkes 2014, 11 & 16–17). The latter is a linear rift cave whose entrance was integrated into an early medieval souterrain, the roof of which contains two re-used ogham stones. Originally the site was enclosed within a circular earthwork that no longer survives, but more than likely was a ringfort. This site is considered to be the 'cave of the cats' or Úaim na Cat; an entrance to the otherworld where mythical creatures and supernatural beings would have resided (Fenwick and Parkes 1997, 11–12). The cave featured much in early medieval literature as the famed 'cave of Crúachain' (Waddell et al., 2009, 31).

One aspect of the local physical environment is the phenomenon of pit fields—shallow rectangular pits, often forming a pattern of a number of parallel straight lines (further discussed in section 14.3.3). They occur on both flat and sloping ground. Both geology and archaeology have been used to explain the origin of these pits. For the purpose of this study a number have been investigated using a variety of methods and the results are discussed in section 14.4 of the report.

### 14.3.2 Valued Landscapes

The Roscommon Landscape Character Assessment (2008) (Plate 14.1) identified the following as the most highly valued landscapes within Co Roscommon.

- Lough Key Forest Park and surrounding area, including Boyle and the Curlew Mountains.
- Rathcroghan archaeological complex.
- The Shannon and Suck river corridors which flow in a north-south direction on the eastern and western side of the county.
- Roscommon Town and surrounding areas, including Skrine Hill to the south, due to its unique built heritage.
- Castlerea bogland area retains a unique sense of isolation and tranquillity which was particularly highlighted by the public as a quality that needed protection as a distinctive feature of the landscape in Roscommon.
- Eskers were considered sensitive to quarrying. This is further supported by discussions held with staff working at the GSI.

Relevant to this chapter is the Rathcroghan archaeological complex which lies within *Landscape Character Area 28: Tulsk and Rathcroghan Plateau (LCA 28)* and is described as of Exceptional Value due to its archaeological and historic associations (Mosart 2008, 43, Landscape Values Map) (Plate 14.2 and 14.3). This character area is located to the south of the proposed road development and will be avoided and will not be impacted by it.

All the LCAs through which the proposed road development travels namely LCA 20, 21, 29 and 4<sup>2</sup> have been ascribed a moderate rating apart from LCA 27, Castlerea Raised Bogland, which is highly valued for its tranquillity and ecological importance.

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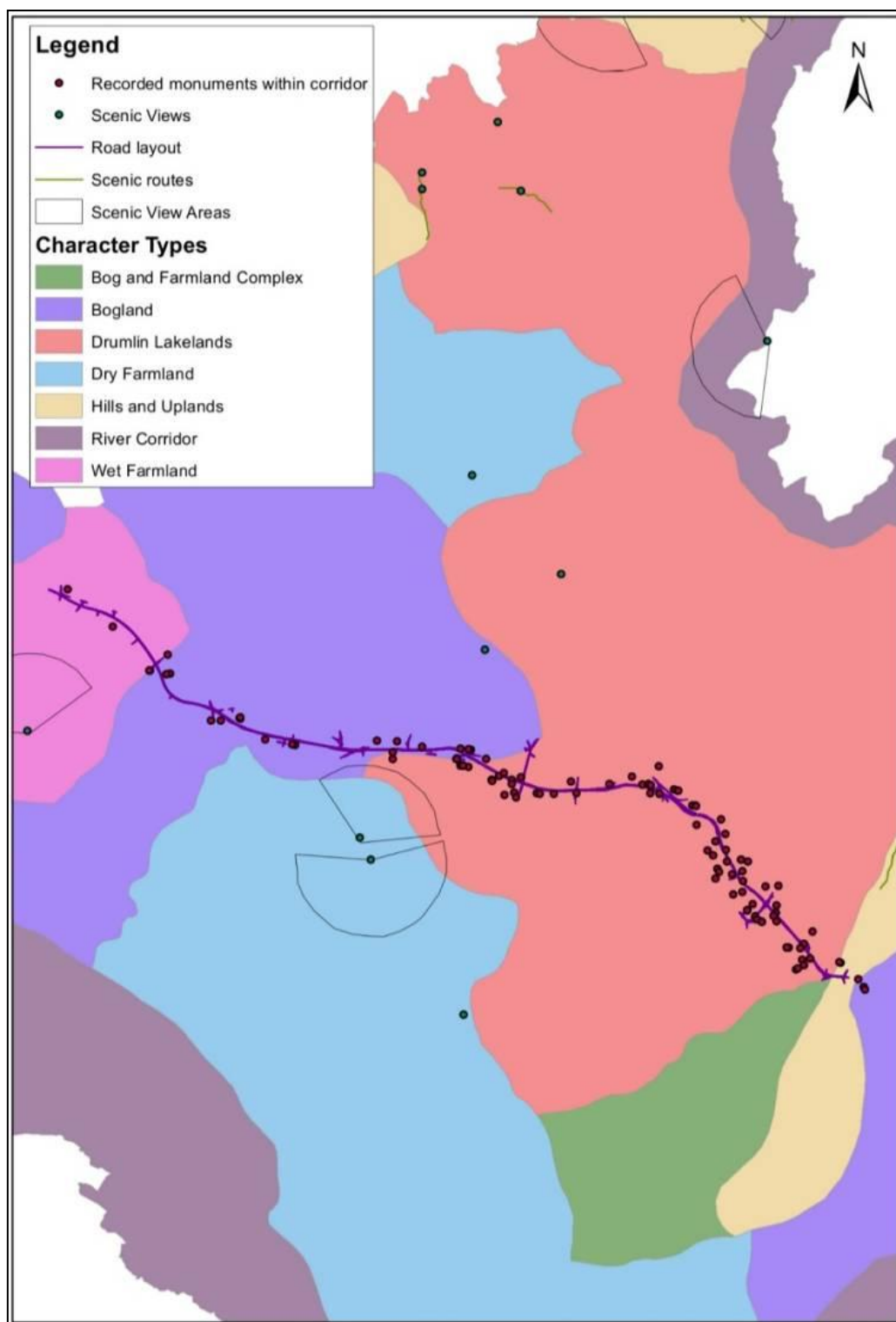
<sup>2</sup> 21; Mullaghnashee Wet Farmland Plateau, 27; Castlerea Raised Bogland, 20; Breedoge Bogland Basin, 29; Strokestown Drumlin and Turlough Belt and 4; Kilglass Drumlin Lakelands.

The key characteristics of each landscape character area is detailed in the report including historical attributes where they contribute to the modern landscape value.

LCA 29; Strokestown Drumlin and Turlough Belt and LCA 21; Mullaghmashee Wet Farmland Plateau are noted for their cultural influences in the form of Strokestown House and estate town and Frenchpark Demesne with its walled estate grounds, parkland landscape and folly. The burial place of Douglas Hyde, the first President of Ireland is also highlighted within LCA 21.

The main features of historical value for the landscape character area (LCA 29) as described in the report are the planned settlement of Strokestown with its associated demesne developed in the 18<sup>th</sup> century. The area is also characterised by the amount of lakes and turloughs which are visually significant.

In the Roscommon Landscape Character Assessment report (2008), the rerouting of the existing N5 is seen as a change that could result in a fundamental alteration in the character of LCA 28. It has been determined that the existing N5 considerably detracts from the visitor experience of the publically accessible monuments within the Rathcroghan complex due to the intrusion of noise and traffic. If the existing traffic is diverted there is huge potential to significantly improve the quality of the Rathcroghan experience (Mosart 2008, 100).



**Plate 14.1 Character Type Areas and viewpoints (Mosart 2008) with the Proposed Route and Adjacent Recorded Monuments Shown**

An analysis of the historical landscapes of Co. Roscommon was produced by Archaeological Development Services (ADS) and complemented and integrated into the LCA process. The study on historical landscapes provided an historical analysis of the processes and key historical and archaeological attributes that contribute to the present day landscape. It was carried out on a county basis and provided a:

- Broad-brush geographical definition of cultural heritage assets
- And an analysis of archaeological and architectural history data to identify areas of special interest.

Thirteen historic land-use type were identified. According to the study '*each type is characterised by its period of origin as well as its form and function. Historical Landscape characterisation (HLC) brings to the fore the effect of human activity on the landscape and how people have interacted with and manipulated the natural environment. The emphasis is on the present day landscape character as created by human interaction and perception*' (Mosart 2008).

The historic land-use types classified in the report are:

#### *Town/Villages (Early Medieval 4<sup>th</sup> – 8<sup>th</sup> Century)*

The earliest towns in Ireland often grew up around monastic settlements. There are several examples of towns/ villages in Roscommon that had early inception dates and formed proto-towns: Roscommon Town and Elphin.

#### *Town/ Villages (Medieval 12<sup>th</sup> Century – Modern)*

The concept of a true town was introduced by the Anglo-Normans. Extant medieval towns and villages in Roscommon County are: Knockvicar, Boyle, Castleplunket, Tulsk, Ballintober, Athleague, Termonbarry, Castlerea and Athlone.

#### *Town/ Villages (Post Medieval – Modern)*

These smaller urban areas owe their inception to the Plantation settlements of the 17<sup>th</sup> century, the Estate towns of the 18<sup>th</sup> century (e.g. Strokestown and Frenchpark) and towns that developed during the 19<sup>th</sup> century. Extant towns and villages from this period are: Keadew, Ballinameen, Cootehall, Ballyfarnon, Arigna, Frenchpark, Ballaghaderreen, Loughglynn, Ballinalough, Cloonfad, Bellanagare, Strokestown, Lanesborough, Roosky, Castlecoote and Knockcroghery.

#### *Rectilinear Fields – Hedgerows (18<sup>th</sup> – 19<sup>th</sup> Centuries)*

This is the predominant historic landscape type in County Roscommon. These enclosed fields are typically rectangular or sub-rectangular in shape with relatively straight sides. The boundaries of these fields are made up of hedgerows with possible banks and ditches. This landscape was significantly remodelled by the work of the Congested Districts Board in the middle of the 19<sup>th</sup> century replacing the older, more informal clachan-and-rundale system. The result was the regimented ladder farms that we see today.

A clachan (or baile or 'village') was a nucleated group of farmhouses, with landholding organised communally (often on a townland basis and often with kinship ties). The houses were surrounded by the best possible land in the area known as the infield (a large open-field unenclosed and permanently cultivated). Outside of the infield was the outfield which would be poorer land and used as commonage. Many clachans were initiated in the 18<sup>th</sup> century (due to population increases and the ability of the potato to grow in poor soils) but were probably even earlier.

#### *Rectilinear Fields – Stone Walls (18<sup>th</sup> – 19<sup>th</sup> Centuries)*

There are several areas of the county where the material used to enclose the field systems are stone.

*Rectilinear Fields – Hedgerows- Cutover Blanket Bogs (19<sup>th</sup> – 20<sup>th</sup> Centuries)*

Enclosed fields bounded by hedgerows on reclaimed wetland.

*Rectilinear Fields – Hedgerows – Cutover Raised Bogs (19<sup>th</sup> – 20<sup>th</sup> Centuries)*

Enclosed fields bounded by hedgerows on reclaimed wetland.

*Extractive Industries (17<sup>th</sup> – 20<sup>th</sup> Centuries)*

These consist of commercial peat milling, iron and coal mining. The commercial peat milling has taken place in the 20<sup>th</sup> century. The Arigna mine was originally in the 17<sup>th</sup> century an iron mine but later on large coal seams were found.

*Mature Forest (17<sup>th</sup> – 19<sup>th</sup> Centuries)*

Woods that were possibly managed for timber production or as part of parkland of large estates. Mixed deciduous and coniferous species.

*Coniferous Plantations (20<sup>th</sup> Century)*

Trees planted as part of grant schemes or by Coillte.

*Bogland (Pre-historic-Modern)*

Areas of bog with no visible evidence of peat extraction or land improvement. These areas often contain archaeological features with no above ground expression.

*Rathcroghan, Carns, Tulsk (Late Prehistory, Early Medieval, Medieval)*

Settlement, ceremonial activities (inauguration site for the Kings of Connaught), agricultural systems (elongated rectangular fields dating to Early Medieval period or earlier), roadways.

*Demesnes (18<sup>th</sup> – 19<sup>th</sup> Centuries)*

Lands held by a large house which incorporated farmland, gardens, woods and buildings. These include Strokestown, Frenchpark, Rockingham, Mote Park, Kilonan Castle Demesne and Cootehall.

According to the historical map of Landscape Character Areas, the proposed road development largely passes through historic landscape character types of rectilinear field and hedgerow 18<sup>th</sup>-19<sup>th</sup> century in date, which is the predominant HLC type in Co Roscommon, some rectilinear fields – hedgerow and reclaimed raised bog (19<sup>th</sup>-20<sup>th</sup> century) and coniferous plantations (20<sup>th</sup> century) (Mosart 2008, 35, Historical Map of Landscape Character Areas, Plate 14.2).

The present day appearance of the countryside very much owes its existence to a process of enclosure that was initiated with the plantation, but gathered apace in the 18<sup>th</sup> and indeed the 19<sup>th</sup> centuries. Late medieval and early modern settlement patterns dominated by nucleated settlement gave way to isolated farms dispersed across this newly enclosed landscape.

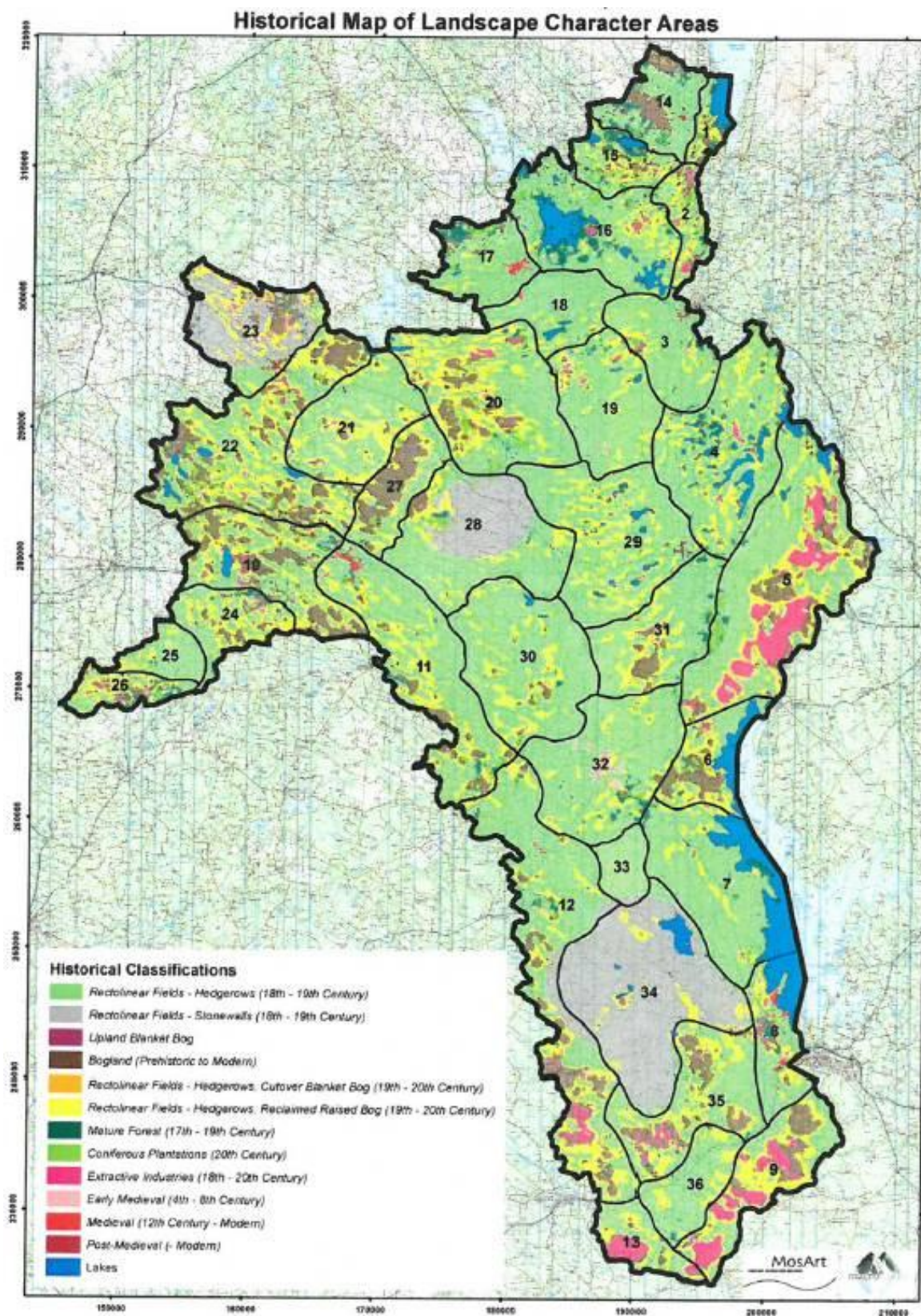
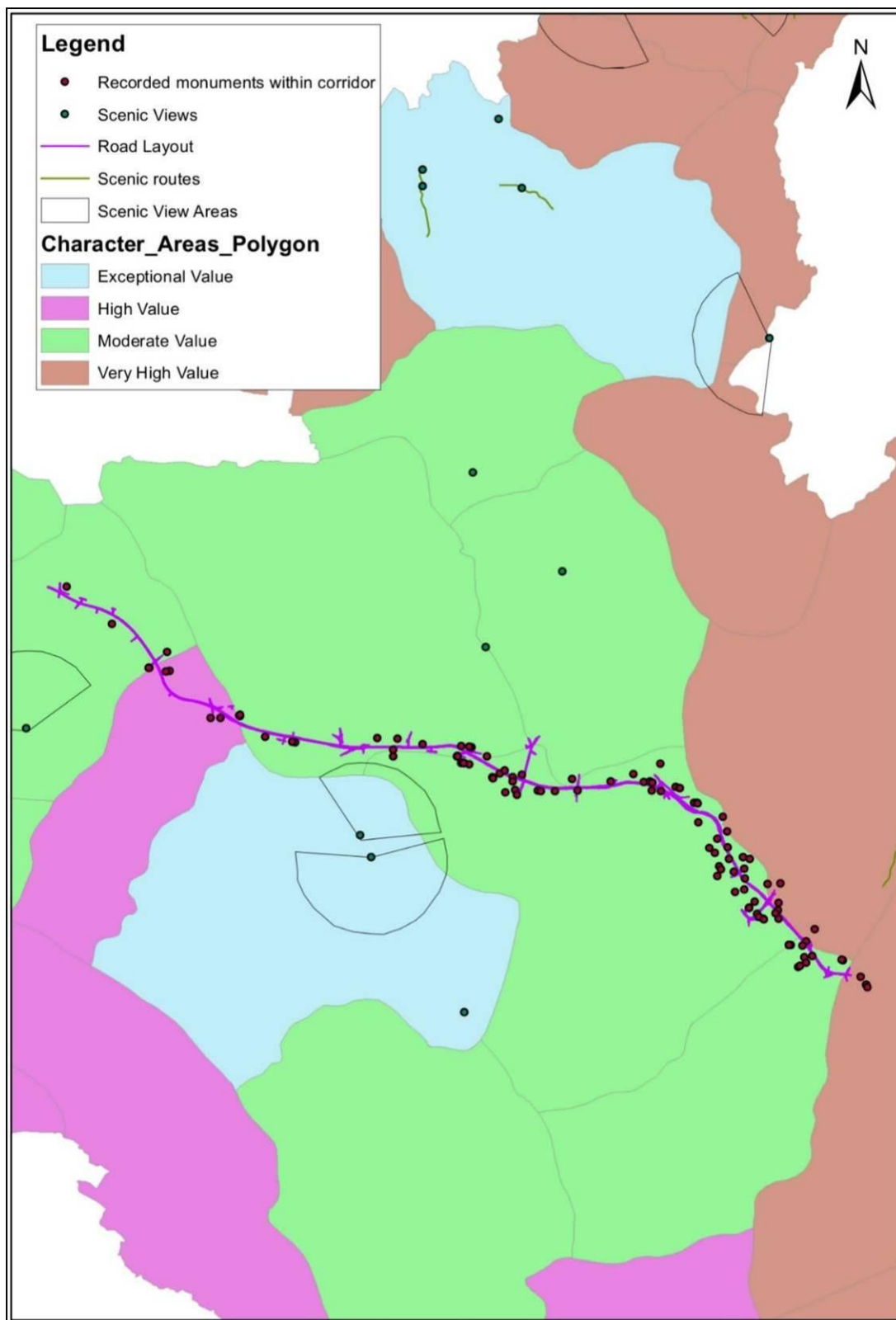


Plate 14.2 Historical Map of the Landscape Character Areas



**Plate 14.3 Character Value Areas and Viewpoints (Mosart 2008) with the Proposed Route and Adjacent Recorded Monuments Shown**



### 14.3.3 Archaeological and Historical Background

#### Introduction

The introduction provides a brief overview of the historic development of the lands along or in the vicinity of the proposed road development, commencing with the Mesolithic (c.7000-4000 BC) and concluding with the Early Modern period (c.1700 AD onwards). This is followed by an account of sites and areas of archaeological potential such as wetland and bogland archaeology and pit fields.

The areas around Rathcroghan and Carnfree contain many monuments which cover a wide span of time, including the Iron Age, Early Christian and Medieval Periods. Cemeteries of prehistoric burial mounds comprise the central remains at both Rathcroghan and Carnfree, whilst in their hinterland are a wide variety of recorded monuments including linear earthworks, standing stones, enclosures, raths, souterrains, hut sites, field systems, early roads, holy wells, ecclesiastical remains and deserted settlements.

Historical documents record that the origins of the medieval settlement of Tulsk lie in the foundation, by the O'Connor lords, of a castle in 1406 and a Dominican Friary in 1448 (Bradley 1988). In the late medieval period the O'Connor lands including Tulsk lay outside the main area of Anglo-Norman settlement (Bradley 1988). However by the late 16<sup>th</sup> and early 17<sup>th</sup> century Tulsk was the centre of an English garrison and by 1662 it had been created a borough under royal charter (Discovery Programme 2005).

The county of Roscommon developed from an area commonly called 'Kings Cantred' in the years succeeding the Anglo-Norman conquest. The first reference to this area of the country being called 'Roscommon' is from court papers from the late fourteenth century. In the 16<sup>th</sup> century new bridges were built over the rivers Shannon and Suck to facilitate English control of Connacht. At this time the county of Roscommon was set up by Sir Henry Sydney based on the English shire system. During the mid-17<sup>th</sup> century Roscommon was one of the counties in Connacht that were reserved by Cromwell for the native Irish under the terms of the Settlement Act of 1653.

The majority of the modern towns in Roscommon appear to have developed during the 17<sup>th</sup> and 18<sup>th</sup> centuries, with only a few settlements having an earlier date, such as the Early Medieval/Medieval towns of Ballintober, Boyle, Rindown, Roscommon and Tulsk. The county boundaries of Roscommon remained relatively static until the nineteenth century when some townlands from the northeast of Mayo were transferred to the Barony of Frenchpark in mid Roscommon (RFHS 1993).

The 18<sup>th</sup> and 19<sup>th</sup> centuries in County Roscommon saw the establishment of a number of substantial demesnes and estate houses. In mid Roscommon is Strokestown Park House, an important Palladian house, modified c.1730 to a design by the celebrated 18<sup>th</sup> century architect Richard Castle and concealing an earlier 17<sup>th</sup> century structure. Strokestown Park House was owned by the Mahon family, who were responsible for formally setting out the town of Strokestown to be orientated on their demesne house (NIAH 2004). Today the house and gardens have been restored and are open to the public.

Two other houses in the mid Roscommon area linked with the architect Richard Castle are French Park (built c.1730) and Mantua (built c.1747). These two estate houses are recorded as no longer extant (NIAH 2009). French Park, home to the French family, was a 17<sup>th</sup> century building modified in the 18<sup>th</sup> century to the Palladian style similar to Strokestown Park. It was dismantled in the 1950s and fully

demolished in the 1970s (MacDonnell 2002). Little upstanding remains today of the historic French Park demesne except a smokehouse, some sections of walled garden and a gate lodge. Recent housing developments within the historic demesne have significantly compromised the integrity of the French Park demesne. Another house in mid Roscommon built in the Palladian style was Mantua House. In the early 19<sup>th</sup> century Mantua was the seat of O.J.D. Grace Esq and was described at that time as 'surrounded by a well planted and highly improved demesne' (Lewis 1837). Today the lands about the site of Mantua house are mainly in agricultural and forestry usage.

Many of the 19<sup>th</sup> century estate houses in the wider study area no longer exist. Rathmoyle built in late 1830s is now demolished (Dodd 1993); Cloonyquin, birthplace of Percy French, was demolished in 1964; Ratra, the former home of Dr Douglas Hyde, was recently demolished and then rebuilt. The house and estate known as Hermitage is associated with the noted 18<sup>th</sup> century antiquarian Charles O'Connor of Bellanagare. Other houses mentioned in the early 19<sup>th</sup> century are 'Raheen of Major Fawcett' and 'Mount Druid of M. O'Connor Esq' (Lewis 1837, [www.landedestates.ie](http://www.landedestates.ie)). Architectural structures from the simple vernacular to the big house and demesnes are discussed in Chapter 15.

## **Prehistoric Period**

### Mesolithic (c. 7000–4000 BC)

The wide availability of fish and waterfowl attracted human activity into the region in the Mesolithic period (Meehan and Parkes 2014, 24). This was a heavily wooded landscape of hazel scrub, overlooked by oak, ash, elm and pine. Hunter-gatherer groups focused on lake and river shores, with no significant changes in the natural forest ecosystem. Wild pig and a variety of birds and fish were the mainstay for human consumption (Waddell 2000, 11).

The earliest known Mesolithic site in Ireland is Mount Sandel in Co. Derry which dates to c.7000 BC which suggests that the earliest settlers arrived on the northeast coastline. These hunter-gatherer groups spread rapidly across the island, into the Shannon river basin as evidenced by a camp site at Lough Boora in Co. Offaly, which is broadly contemporary in date to Mount Sandel. This was a camp site situated on a gravel ridge on a lakeshore. Excavation unearthed a number of hearths but no evidence for structures was found. Faunal evidence for mammals, birds and fish were recovered, as well as chert microliths and partly polished stone axes (Waddell 2000, 14). To date, no burials or ritual sites dating to the Mesolithic have been found and the finds of faunal material has also been quite limited in Ireland. Part of a dug-out logboat has been found at Carrigdirty, Co. Limerick on the tidal foreshore of the Shannon estuary and radiocarbon dated to 4788 – 4590 BC (Waddell 2000, 22).

Hunter-gatherer groups probably had a shifting, seasonal pattern of settlement and subsistence, however the general lack of settlement evidence prohibits a more detailed appraisal. The evidence from Lough Boora suggests that other early sites may await discovery beneath raised bogs, including those adjacent to the route of the N5 corridor in neighbouring Co. Roscommon (Waddell 2000, 22). Indeed, lithic artefacts from the later Mesolithic (5500–4000 BC) including Bann flakes, have been found on the foreshore of Lough Gara on the Sligo / Roscommon border (Waddell 2000, 22-3).

The transitory hunter-gatherer groups of this period were sustained by the postglacial climate, and attracted to dense woodland cover and large population of wild fauna.

Mesolithic groups predominantly exploited the river valleys, leaving behind them only ephemeral archaeological remains such as shell middens (mounds sometimes referred to as kitchen middens comprising accumulated discarded shells, animal bones, flint implements and sometimes occupation debris) and flint scatter sites. No such remains have been recorded along the proposed road development.

#### Neolithic (c.4000 –2200 BC)

By c. 4000 BC, the earlier hunter-gatherer economy of the Mesolithic period was replaced by one dominated by farming, which led to more settled communities in permanent locations. The Neolithic saw the transition of the early settlers from a hunter-gatherer life-style to a farming economy with the introduction of cattle, sheep, wheat and barley and possibly the introduction of new peoples. This period was characterised by land clearance and the establishment of field systems and permanent settlement sites further inland along river valleys. This period also saw new developments in ritual activity, and the first permanent monuments, megalithic tombs, were built in the Irish landscape, representing a complex and well-structured social hierarchy.

The local ecosystem was more significantly encroached upon by the fourth millennium BC, with the arrival of Neolithic farmers, who began to clear the forest. The lighter soils on the Rathcroghan plateau where woodland cover was thinner and the soils more free-draining would have encouraged permanent settlement to be first established here over the heavier soils of the lower ground. While Neolithic settlement evidence is scant, the remains of a probable Neolithic House (RO021-042049) in Glenballythomas townland was located towards the bottom of a south-facing slope, and just north of the third, most southerly and slightest of the southern Mucklagh banks (RO021-042016-), although the relationship is probably fortuitous. Intensive geophysical survey recorded evidence of a rectangular area (dims. c. 10m NE-SW; c. 7m NW-SE) with some internal features defined by what may be a slot-trench (Wth c. 2m), the north angle of which appears to be destroyed by or buried deeply beneath the central bank of the southern Mucklaghs (Waddell et al. 2009, 95-101).

Neolithic activity certainly took place with the remains of a megalithic tomb in Glenballythomas. The presence of megalithic tombs, permanent monuments erected by these early farmers, probably reflects the monumentalisation of an increasingly settled and ordered landscape. There are almost 1500 tombs found across the country – divided into four types on the basis of their form, contents and distribution: court, portal, passage and wedge. While these different tomb types have been interpreted on a chronological basis with court tombs being the earliest and the wedge tombs being the latest, radiocarbon dating suggests considerable overlap in their use (Aalen et al. 1997, 33).

This example at Glenballythomas has been interpreted as the fragmentary ruins of a court tomb – a type which is largely concentrated in the northern part of Ireland with particular concentrations in counties Mayo, Sligo, Leitrim and Fermanagh. This monument provided a ceremonial focus for a nearby farming community whose settlement and farmlands were probably located on higher and better drained land upslope to the north, the tomb situated on the southern margins of the settlement area. Indeed, one or more of the circular enclosures in the Rathcroghan complex or the presumed 80m ditched enclosure beneath the periphery of Rathcroghan Mound, may also prove to be early prehistoric in date. Settlement sites associated with these early farmers may be revealed during the process of road development between

Ballaghaderreen and Scramoge, however there is no recorded evidence dating to this period.

### Bronze Age (c. 2400–500BC)

With the improving technology in the Bronze Age and Iron Age, the heavier soils in the lowlands also became settled (Aalen et al. 1997, 20). With social development and the growth in population, the natural forest growth was progressively removed for cultivation, however pollen analysis indicates that this transformation was not an even development. There were cyclical waves of clearance, farming and reversion back to woodland, often several centuries in duration, before extensive clearances became permanent.

The Bronze Age is characterised by an introduction of metal and metalwork technology probably first brought about through trading and cultural contacts. During this period, copper was mined intensively to produce copper and bronze tools and weapons and some of the evidence for Bronze Age activity within the study corridor comes in the form of stray finds of copper, bronze and gold artefacts.

A change also occurred in burial rites. Replacing the megalithic monuments Bronze Age burials occurred in simple pits and cists (pits lined with stone flags) and was sometimes accompanied by pottery or other grave goods. These cists may be placed in tumuli, cairns and barrows or set within 'natural' monuments such as sand ridges or laid in so-called flat cemeteries with no above ground evidence at all.

Barrows generally date to the Bronze and Iron Ages. Barrows usually consist of a circular central area, which may be flat or slightly dished (a ring ditch), or domed (a ring barrow), and have an enclosing ditch and occasionally an external bank. Mound barrows comprise a circular or oval earthen or earth and stone mound usually with no external features.

Compared to the Neolithic, the nature of burial in the Bronze Age was simpler with burials placed in pits or cists, sometimes in cemeteries or under mounds as was the case at Rathcroghan, though the construction of the earlier communal tomb, the wedge tomb, did persist into the Bronze Age in the west of Ireland. Now more common were ceremonial circles built of earth, or free-standing megalithic stones. Towards the end of the Bronze Age stone circles began to make their appearance in the landscape, though none appear to have been found in Co. Roscommon.

Hilltop enclosures, lowland and wetland settlements, and temporary occupation sites have all been attributed to the Bronze Age, hinting at an increasing social complexity over time, however, archaeological evidence was sporadic in nature and a larger sample of settlement sites was needed before a fuller understanding of social and economic patterns could be attained (Waddell 2000, 117-8, 205–22 & 264–75). The opportunity to further identify and investigate Bronze Age settlement arose with the major road building and gas pipe laying schemes in the last 15 years. For example, on the route of the M7 between Limerick and Nenagh 7 new settlement sites were discovered, comprising 11 structures and one possible structure, all of which were roughly circular in plan. Five were substantial structures, outlined by slot-trenches and post holes, with diameters ranging between 6.9m to 11.6m (O'Keeffe 2007, 45). A Bronze Age landscape with settlement, burial and possible ritual sites was similarly uncovered on the route of the M9 between Carlow and Kilkenny (Coughlan and Brick 2009, 16). These schemes have transformed our knowledge revealing considerable evidence for settlement in this period for example circular huts and cooking sites known as fulachta fiadh.

Fulachta fiadh are the commonest prehistoric monument to be found in Ireland – mounds of burnt stone derived from heating stones in fires and then placing them in water-filled wooden troughs dug into the ground in order to boil water. The heat shattered stone was then removed from the trough and cast away in rough fashion, creating the horseshoe-shaped mound which is so characteristic of the monument type. The function of these sites is not clearly understood, though a number of theories have been put forward, suggesting their use for sweat-houses, bathing, cooking and the brewing of alcoholic beverages. Fulachta fiadh are usually located close to a water source (marshy areas, streams or springs) and their presence is often indicative of Bronze Age seasonal communal activity in river valleys and boggy ground. They often appear in groups and are represented by small grass-covered mounds of burnt stone or spreads of burnt stone ('burnt spreads') where the field has been ploughed and the mound levelled. The LiDAR survey assessment detected a burnt mound (AH46) to the south of the alignment in Creeve townland and this was verified in the field as a well preserved mushroom shaped mound approximately 12m east-west and 11m north-south surrounded by slightly waterlogged grassy terrain.

Outside the proposed road development to the south, a fine example of such a fulacht fiadh can be found in the townland of Peak. This is a low horseshoe-shaped mound, measuring 11.5m northeast-southwest by 9m northwest-southeast. The depression in the centre of the mound opens to the southeast, and is the location of the trough (National Monuments file for RO015-067, [www.archaeology.ie](http://www.archaeology.ie), accessed 28 May 2015).

Another feature of this period is the deposition of hoards – the deposition of tools, jewellery and other items for safe keeping or as acts of votive ritual deposits (see section 14.3.4 Archaeological and Historical Background, Wetland Archaeology pgs. 26-28, for information on the Strokestown Hoard). A single item, possibly of Bronze Age date was found in Mullen – a bronze spearhead (NMI Reg. No. 1941:351). The formal disposal of weaponry was a feature of ritual practices in Bronze Age Ireland, with items being discarded into river waters. The significant number of prehistoric weapons from riverine contexts supports this theory, though some finds may reflect proximity to nearby settlements, or be the result of accidental loss (Waddell 2000, 185-6). The end of the Bronze Age and the Iron Age were marked by woodland regeneration, the spread of bogs, and the decline of cultivation and increased pastoralism. These changes were brought about by a cooler climate, as well as by soil misuse creating unstable conditions that are reflected in the greater number of hoards deposited towards the end of the Bronze Age, as well as in the appearance of metal spears and swords in the archaeological record. Hillforts were now also being constructed across the country (Aalen et al. 1997, 21, 40-1).

#### Iron Age Period (c. 600 BC-400 AD)

The transition between the end of the Bronze Age and the beginning of the Iron Age in the first millennium B.C. is difficult to define and the monuments directly dated to this period are few (O'Riordan & DeValera 1979). Iron Age culture in Ireland is marked by the transition from bronze to iron working, by the introduction of rotary querns, by a tradition of large decorated stones, of linear earthworks and the continued use of hillforts. The Iron Age period is broken down into two periods - the early Iron Age Hallstatt period and the La Tène phase (300 BC) when the Irish progressed into a full iron-using community.

La Tène influences started to reach Ireland from around the third century BC with evidence largely from a limited range of weaponry, horse trappings and armour. There are also some carved heads and decorated standing stones including the

example at Turoe in east Co. Galway. This period saw the emergence of kingdoms which were defended by hilltop fortifications and linear earthworks. The 'Doon of Drumsna' in northeast Co. Roscommon guarded an important fording point across the River Shannon, forming part of the northern frontier of Connacht, protecting its ceremonial centre at Rathcroghan (Aalen et al. 1997, 43). While Iron Age settlements have traditionally proved elusive for archaeologists, a number of road schemes have yielded evidence from this period. 30 Iron Age sites have been discovered in Counties Cork, Limerick and Tipperary, including six circular and sub-circular house sites (McLaughlin and Conran 2008, 51-2). Enclosed settlement was uncovered at 2 sites – Konckcommane, Co. Limerick and Ballywilliam, Co. Tipperary, while a number of fulachta fiadh from this period were also found (McCloughlin and Conran 2008, 52). It would appear that people in the Iron Age continued to inter-cremate burial within ring ditches (McLaughlin and Conran 2008, 53).

#### Early Medieval (500 AD-1100 AD)

The early medieval period, from c.500 to c.1100 AD, with a new religious culture and evolving technologies, saw significant woodland clearance and the expansion of grassland. A new type of plough and the horizontal mill were two innovations that improved agriculture and allowed for the population to increase. Consequently, from c.500 AD onwards, the landscape as a whole became well settled, as evidenced by the profuse distribution of ringforts, a dispersed distribution of enclosed settlements, normally associated with various grades of well-to-do farming and aristocratic classes in early medieval Ireland (Aalen et al. 1997, 20). There can be variation in size but most ringforts are 30m in diameter, usually a circular area, enclosed by an earthen bank and external ditch. In areas with shallow topsoil, the banks are constructed of stone, and these enclosures are known as cashels. Over 18,000 ringforts have been identified on the ground, with a further 28,000 identified from cartographic sources and aerial photography, typically in the guise of crop marks (Aalen et al. 1997, 44) (there are over 30,000 ringforts recorded in the Archaeological Survey of Ireland, making it the most common type of monument in Ireland). Along with the ringforts, there are surviving traces of the irregular fields in places, reflecting the dominance of agricultural activities in society and a mixed farming economy, namely pastoralism and tillage. There was preference for sites on slopes where there were better drained soils, and where elevation allowed for surveillance over the surrounding area in case of an imminent attack.

Ringforts are essentially habitation sites or farmsteads, which vary in both size and morphology; from simple univallate enclosures to larger bivallate or trivallate sites in strategic locations. They were not simple isolated homesteads, however, and should be considered within their contemporary settlement landscape, which would have consisted of unenclosed settlements, farms and fields, route ways and natural resources (Stout 1997). Typically, they are sited on good, well-drained soils, usually over the 100m contour, close to a water source, and often located in proximity to route ways (ridges, eskers, moraines). Nancy Edwards supports this theory in consideration of their siting and states that 'while it is clear that a prominent position with a good view of the surrounding countryside was favoured for the siting of ringforts, defence does not always seem to have been the primary consideration' (Edwards 1990).

Of the 19 recorded archaeological sites situated within the proposed road development, 15 are ringforts, highlighting the extent to which this area was settled during the early medieval period. The recorded ringforts are located within or adjacent to the study corridor developed for the development, all are located outside

the proposed landtake (CPO boundary) so there will be no direct physical impact by the proposed road development on any recorded ringfort.

Ringforts are largely well preserved within the existing landscape, however a small number appear to have been heavily eroded or largely removed since they were first recorded by the Ordnance Survey for example at Gortnacranagh (R0022-032) (AH49) where only subtle traces survive above ground, at Lettreen/Doughloon (R0023-121) (AH92) where the site has been incorporated into a townland boundary and at Bumlin (R0029-033) (AH107) where the monument is defined by a heavily eroded earthen bank. The remainder have substantially survived to varying degrees: such as univallate ringforts located in Cartronagor (R0016-114) (AH42) (now surrounded by a forestry plantation), or well preserved examples within the former parkland setting of Strokestown Demesne at Lavally (R0023-174 (AH100) and 175 (AH101)), Cloonradoo (R0029-030) (AH105) and the ringfort within the former demesne lands at Raheen (R0016-115001) (AH41).

Earthen ringforts of varying sizes predominate this area of north Roscommon. The ringforts around the Strokestown area are located mainly on grey brown podzolic soils and occur in great densities. Both Stout (1997) and Keegan (1984) have noted associations between high and low status sites, with low status sites often clustering around more impressive sites and this situation is to be found in low-lying areas in Roscommon. For example, in Lugboy townland, north of the route there are three impressive ringforts which are located on an east-west ridge overlooking Clooncullan Lough, a large con-joined ringfort prominently located on the slopes of Cregga Hill overlooks this arrangement and perhaps could be considered a high status site.

Monuments recorded as enclosures in the archaeological record, may also represent the remains of ringforts, similarly enclosures as located by the LiDAR survey may represent heavily denuded and ploughed out ringforts. Again the road development has been located to avoid the vast majority of these newly revealed potential sites but possible enclosures are traversed for example in Gortnacranagh (AH57) and Killeen East (AH72) townlands. The proposed road alignment has been altered where possible in order to minimise any impact to archaeological features but in the case of Gortnacranagh where the proposed alignment intersects with the existing N61, this will result in the excavation of part of the enclosure that lies within the road take and at Killeen due to the topography, this particular site was unavoidable and no design measures could be put in place to ensure its preservation in-situ. However within the same townland, design measures have been put in place to ensure the preservation in-situ of another newly revealed enclosure AH70 (now recorded as SMR R0022-170).

Ringforts are sometimes found associated with souterrains, which are underground structures consisting of one or more chambers connected by narrow passageways or creep ways, usually constructed of drystone-walling with a lintelled roof over the passages and a corbelled roof over the chambers. Souterrains also occur independently and may represent the only surviving remains of former settlements of the early medieval period that may have been unenclosed (Clinton 2001). While a number of caves are recorded in the wider karst landscape, there are no recorded souterrains located along the proposed route and recorded examples of this monument type will not be affected by the proposed alignment.

Broadly contemporary with ringforts, and of similar shape and size are crannogs or lake dwellings. They were sited on semi-artificial islands and made with timber, brushwood, gravel and stones. By the nature of their location, crannogs involved a considerable investment in manpower and resources and consequently are more

typically associated with elite households but obviously due to the finds are considered to be multi-purpose in nature. O'Sullivan has commented that '*crannogs were not only refuges or royal sites, but were also centres of craft production. While the waterlogged nature of many crannogs must have enhanced the preservation of finds; it is evident that the artefactual assemblings from such crannogs are unusually rich*' (O'Sullivan 1998).

As part of the constraints study process, south of the existing N5 and west of Strokestown the high status crannogs associated with Cloonfree Lough, Fin Lough and Ardakillin Lough, along the Clonart Stream were identified as key constraints forming part of a significant wetland and surrounding dryland landscape. As a result of drainage works, human remains including skulls have also been found in the vicinity of these lakes suggesting that these watery places were significant wetlands for ritual and human sacrifice. The imagery of water and islands feature in early literary sources and as well as being inhabited as lake dwellings these areas may also have been considered to have a special significance in the wider landscape.

With the karst landscape of the raised limestone plateau of Rathcroghan, cavities, caves, underground streams and seasonal lakes all play a part of the unique natural geology of the area and would have possibly be seen as mysterious by the inhabitants experiencing these natural phenomenon.

North of the existing N5, south of Elphin and in between the N61 and the R368 a number of lakes such as Annaghmore Lough, Clooncullaan Lough, Lough Nahincha, Lough O'Moran and the former Ballyoughter Lough all have associated crannogs and are located in a low-lying undulating landscape. As the surrounding region of Rathcroghan is less well drained and contains a number of permanent lakes which may have given rise to the construction of a number of crannogs (Stout 1997). While the proposed road development avoids these natural and manmade structures it will cross the Owenur River (AH64 chainage 30+750).

This river has also been subject to drainage works and as a result of this a number of finds have been made along its banks including human skulls, a logboat and in Tullycartron townland which borders the river to the south, a hoard of bronze objects was found in the adjacent field (IA/07/1984). Recorded monuments along the river also indicate an early presence with fulachta fia in Tullyloyd, earthen mounds shown as 'Carns' on the 1<sup>st</sup> edition six inch OS and a standing stone in Lurgan. Closer and to the south of the proposed route in Killeen West (175m south of the centreline of the route) another mound is recorded in the archaeological archive as RO022-149. (AH65)

A human skull (RO017-218) was recovered in dredging operations on the Owenur River, c. 200m west of the point where it enters Cloonahee Lough approximately 7.7km east from where the proposed route crosses the river. It was found during dredging operations in 2006, where it was lifted from the riverbed by the digger engaged in clearing the river (Sikora and Cahill 2011, vol. 2 pg. 510, 7.180) (NMI 2006:58) (Fredengren, Islands of the Dead, forthcoming).

In addition to this find and closer to the proposed route, a local historian has recorded three previously unrecorded skulls at Lisboy, Cartron and at Cherryfield along the Owenur River (these are now in the care of the National Museum of Ireland pers. comm. Sean Neary). These finds are recorded to the townlands of Lisboy, Tullyloyd and Lurgan in the NMI Register. The placement of these skulls may be associated with the former Ballyoughter Lough in the case of the Cherryfield/ Lurgan find and



Lough O'Moran with the Lisboy find. These skulls were revealed during dredging works in the river and while the exact find spots are unknown to the author, the National Museum of Ireland have recorded three finds of human remains in Lisboy, Lurgan and Tullyloyd townlands, all located along the Owenur River but at some distance and to the north of the road development (Table 14.5).

The find spots of these three skulls may form a pattern of ritual deposition at the entrance or in the vicinity of the loughs. There is also a recorded presence in the form of crannogs within these lakes. Dating evidence of the individual skulls suggest a timeframe ranging from the Late Bronze Age to the Early Medieval period (Fredengren, forthcoming).

**Table 14.5 Human Remains Associated with the Owenur River, NMI files and the Heritage Council Heritage Maps Viewer, NMI: Finds Database**

NMI Register No	Simple Name	Townland	Find Place
1993:54	Human remains	Lisboy	River Owenur
2006:58	Human remains	Drumlish / Cloonahee	River Owenur
IA/35/2005	Human skull	Lurgan	River Owenur
2005:10	Human skull	Tullyloyd	River Owenur

With the arrival of Christianity in the fifth and sixth centuries AD ecclesiastical sites emerged in the wider landscape for example Elphin, Baslick, Lissallow and Ogulla (O'Connell 2003). Historical and local references also support the presence of St Patrick and mention is made of Shankill as an early church site, 'when Patrick left Elphin and Shankill, he travelled an old road to the west of the present road to Tulsk, where he camped. At sunrise he went to the fountain of Clebach, on the eastern slopes of Rathcroghan (Gormley 1990). The Archaeological Survey of Ireland also refers to Shankill as a possible early church site referencing:

*'an early ecclesiastical site identified as Senchell Dumaige where St Patrick founded a church at the mound of Ui-Oilealla for Rodan, who had come into Ireland with him (O Riain 2011, 537) and probably the site of the parish church of Shankill, listed as Schevrill in the ecclesiastical taxation of Elphin diocese in 1306 (Calender of documents relating to Ireland, vol. 5, 223).*

*Situated towards the southern edge of a plateau. John O'Donovan c. 1837 records that a fragment of a church survived here (O'Flanagan 1931, vol. 2, 28). Nothing survives of a church now within a wedge-shaped graveyard (R0016-123002) (dimensions 63m east/ west; 33m north/ south at east to 51m north/ south at west) defined by masonry walls and containing 18th-20th century headstones and one burial vault'.*

Cusack (1800) also favours Shankill, Co Roscommon as a patrician site of Senchell-Dumaighe and describes the site:

*'as the church of Shankill, barony and county of Roscommon, immediately south of Elphin. Colgan was wrong in his Index in placing the church in Kierrag-Arnenai, which was in the barony of Costello, County Mayo, instead of Ciarraidhe-Aei, which was in the west of Roscommon, having in it the parish of Kilkeevan, near Castlerea – 'Book of Rights' pg 101. What probably led him astray is that Machet, whom St Patrick placed here, being grandson of Ailell (Ui-Ailella), he took it for Tir-Ailell, confounding the descendants with their country'.*

Morris (1930) disputes the location of Shankill in Roscommon and suggests County Sligo although he has difficulty in attributing a suitable location for the early church site. Shankill is attributed as a secular chapel in Gwynn and Hadcock (1988).

Archaeological geophysical survey and test excavation took place in the vicinity of Shankill graveyard and within the proposed land take in order to determine if there were any further below ground remains of a more extensive archaeological complex (see section 14.4 for the results).

Ecclesiastical enclosures were typically enclosed within circular banks of stone or earth, and varied in size from 30m to over 300m in diameter. Many of these enclosures are still visible in the present-day field boundaries, though sometimes only visible as cropmarks. A number of these sites developed into significant monasteries, becoming centres of population which continued into the later medieval period and beyond, but many did not, becoming abandoned or simply continuing as isolated church and graveyard sites. A number of abandoned sites were reused as burial grounds in recent centuries for the burial of unbaptised children – known as *cillíní* or *cellúracha* (Aalen et al. 1997, 50). By c.1100 AD the townland system had evolved, dividing the landscape into territorial units that have survived down to the present day.

In Ballaghcullia townland, north of the proposed road development are the remains of a significant enclosure and church site known as 'Caltragh'. This possible early ecclesiastical site was identified by O'Donovan as *Cill Beo Aid* (O'Fanagan 1930, vol. 1, 41) (RO015-047) and recorded in the OS Name Book (1910) as '*Caltragh. Ancient burial ground, now disused except for unbaptised infants, but no burials have taken place here for 44 years or over. Church (Site Of). Site of ancient church, but no date is known*'.

The site is located on a gentle east facing slope and presents as a sub circular grass covered area measuring approximately 96m north-south and 83m east-west. It is located in wet and marshy area in lands formerly associated with Hermitage Demesne. The church site is marked on the 1<sup>st</sup> edition six-inch OS as a small rectangular structure. Associated remains include children's burial ground, possible house sites, a cross and a field system. (Plate 14.4).

Urney church (RO023-177001/002) within Strokestown Demesne is located 600m to the south of the proposed road development. The church is located within a circular enclosure measuring 30.6m east-west and 27.4m north-south planted with trees and defined by a wall footing. The parish church of Kildallog, is listed as Kildlog in the ecclesiastical taxation of Elphin in 1306 (Cal. doc. Ire., vol. 5, 223), and situated on a level low-lying landscape. It is described in Gwynn and Hadcock as an early monastic site (1988 390).

The church is a rectangular structure approximately 14.6m east-west by 7.4m north-south. The west end of the south wall and the north wall have been reduced to foundation level. The re-built pointed doorway with external chamfer in the west gable has a plain rectangular window with external chamfer overhead, and the east gable has a two-light cusped ogee-headed window with square hood moulding and decorated spandrels, but the centre of the head and the mullion are missing (Archaeological Survey of Ireland).

The potential impact to this site from the proposed road development is discussed in the architectural heritage section of the report as well as the landscape and visual chapter. Given the distance of this site from the proposed road, these chapters

review the potential for vibration in relation to the stability of the structure and assess the views through assessing photomontages.



**Plate 14.4 Aerial Photograph from ASI of Caltragh**

*Medieval (1100 AD–1350 AD) and Late Medieval Period (1350 AD–1534 AD)*

The coming of the Anglo-Normans in the late twelfth and early thirteenth centuries brought about further change in the appearance of the landscape with the development of town boroughs and manorial villages, underpinned by the presence of castles and monastic orders newly arrived from Britain and the Continent. The Anglo-Normans did not settle west of the Shannon until 1234. Their lateness in crossing the Shannon illustrated by the lack of motte-and-bailey castles in Co. Roscommon, a type of earth-and-timber castle which had fallen out of fashion by that stage in the earlier colonised areas in southern and eastern Ireland. Knox (1911, 115) argues that by the time of effective occupation in Connacht, the Anglo-Normans were building stone castles rather than mottes. Nevertheless, there are numerous earthworks, superficially of Anglo-Norman provenance, west of the Shannon, however it has been argued by many scholars that many of these may have been Irish. In particular, moated sites, commonly found in north County Roscommon (Graham, 1988, 25; Waltron 1980, 182 and O'Connor 1998, 79-89; 2001, 331-345) Another type of earth-and-timber castle, the ringwork (comparable in form to the typical ringfort, but with more significant banks and ditches) has not, as of yet, been identified in the county.

Quickly thereafter portions of the native kingdoms were carved up and bequeathed to the new lords. The area of present day Roscommon was reserved for the crown; known as the King's Five Cantreds, it was granted back to the O'Conchubair in return for tribute and loyalty. Consequently Anglo-Norman settlement was relatively slight in the region, with the exception of castles in Ballintubber, Roscommon and Rindoon (on the western shore of Lough Ree) and their associated settlements. These castles were one of numerous large castles types built by the Anglo-Normans between the late 12<sup>th</sup> and early 13<sup>th</sup> centuries. Earlier examples were characterised by a great tower or 'keep' associated with an enclosed courtyard, later examples shifted away from the idea of the keep as being the final redoubt and focussed instead on strong curtain walls that protected domestic buildings within.

Overall though, Gaelic Irish patterns of settlements continued in the region, albeit not without some change – native lords like the O'Conors and O'Driscolls began to live in moated style sites, a settlement form more typical of large, free farmers on the margins of Anglo-Norman manors. One pre-eminent example was at Cloonfree

(RO029-009), located immediately north of the existing N5 built by Aodh O'Connor sometime in the first decade of the fourteenth century. As this was an O'Connor stronghold it was a substantial moated site and is described in two 14<sup>th</sup> century Gaelic poems and in the Annals in 1306 as a 'square fort' and it is shown on the 1<sup>st</sup> edition OS six-inch Ordnance Survey (OS) as 'site of Palace'. As a Gaelic stronghold for the O'Connors, Cloonfree reminds us that there were many different ways of demonstrating high status occupancy other than building large stone structures and that they chose not to build castles due to the way society was structured (O'Connor, 2012, PowerPoint presentation).

Resources and significance within medieval Gaelic Ireland appear to have been placed on feasting, ceremonies, outdoor assemblies, inauguration site, the ownership of cattle and horses, patronage of the Church and scholars (Finan and O'Connor 2002 86). Cloonfree has been described as lying on the southern edge of a group of moated sites in the north-east of Roscommon, mostly in what was the Trí Tuatha cantred (territory) (Graham 1988, 31). As part of integrated research a series of Gaelic Irish lordly sites of 13<sup>th</sup> and 14<sup>th</sup> century date were identified in north Roscommon in what were the cantreds of Magh nAi, Magh Luirg and Tri-Tuatha – areas under the administration of the O'Connors, MacDermots and others during the later medieval period (O'Connor 1998, 79-89; 2001, 331-345). This area was never effectively settled by the Anglo-Normans (Graham 1988, 31). However it has been argued that Cloonfree and other moated sites in north Roscommon could represent a hitherto unrecognised Anglo-Norman settlement in the area (O'Keefe 2000, 77). Other moated sites closer but still avoided by the proposed route include a rectangular site in Killeen West (R0022-047) located at the outer edge of a dryland shelf towards the bottom of a north facing slope overlooking the Owenur River and a sub-rectangular grass covered area in Lisboy (RO016-129) and a square grass covered area in Carrownurlar (RO017-151) located a kilometre to the north of the route. The later site is located to the west of an area identified as the ford of Ath Slisean by J.O'Dovan in 1837 where Manus O'Connor defeated his brother Cathal in 1288 (AFM vol. 3, 447) and where William Burke fought Roderic O'Connor in 1309 (AFM vol. 3, 493). The variety of Gaelic sites and the adoption of other cultural building practices as well as field systems and landscapes of broad 12<sup>th</sup> to early 17<sup>th</sup> century made this an attractive area for the Discovery Programme to examine rural settlement and land management within a Gaelic lordship during the later medieval period (Brady 2009, McNearly and Shanahan 2006).

The surviving evidence for the medieval Gaelic field systems which overlies the earlier monuments has the potential to contribute to the understanding of how the land was organised and managed during that period. The visible patterns show that these were different in the Gaelic lands from the models studied in the Anglo Norman areas which adds to their value as a resource. The Gaelic system of land enclosure is considered to be of considerable significance in the Rathcroghan Archaeological Complex Conservation Study (Oxford Archaeology 2007, vii and 24) and one of the elements that adds to the overall significance of the complex.

Elsewhere, previous settlement forms continued to exercise influence as is evident with the raised ringforts at Rathmore and Tulsk, which were built by the O'Connors to house their leading branches. A Dominican priory was also established within a short distance of the latter ringfort in 1448, reinforcing the importance of Tulsk to the family (Gwynn and Neville Hadcock 1988, 220). The prehistoric monuments at nearby Rathcroghan continued to exert a resonance with the native society. A stone cairn in Carnfree was reutilised as an inauguration mound by the O'Connors to enthrone their new kings and lords, a practice which was first documented in the late 12<sup>th</sup> century, but which gathered apace through the later medieval era. There are

suggestions that Rathcroghan mound could have been similarly used. Indeed, a moated site and church is also located in the same townland as the inauguration mound at Carnfree suggesting that the locality here formed part of a wider lordly landscape (McNeary and Shanahan 2009, 127). The persistence of Gaelic Irish political culture into the late medieval and early modern eras is reflected in the presence of over fifty known inauguration sites, known from contemporary sources, tradition and place name evidence – these sites are typically found on low hills in association with a range of monuments and features, including mounds, ringforts, stone chairs and flagstones. These attracted the attention of English commentators concerned over the persistence of Gaelic brehon laws and traditions (Aalen et al. 1997, 60).

The Anglo-Norman invasion provided an impetus for change in the Irish church, pushing its reorganisation on a parochial basis. New parish churches began to appear – relatively plain buildings with ornamentation confined to door and window surrounds. The foundation of Continental monastic orders, initiated in the early twelfth century, continued following the Anglo-Norman invasion with the arrival of the Augustinians, Dominicans and Franciscans until the economic decline of the mid-fourteenth century. The 'Gaelic revival' of the 15<sup>th</sup> century saw a new phase of church building dominated by the Franciscans. Ninety new houses, including sixty-seven Franciscans houses were founded mainly in Gaelic-held Connacht and Ulster between 1400 and 1508 (Aalen et al. 1997, 57). At Tulsk the O'Conors founded a Dominican priory there in 1448 (Gwynn and Neville Hadcock 1988, 220).

From the end of the fourteenth century, and going into the next, the Gaelic Irish lords in increasing numbers began to adopt the practice of building stone castles. This was a period of acculturation with the descendants of the original Anglo-Normans and the Gaelic Irish intermixing with each other (certainly at elite level) and borrowing concepts and modes of behaviour. This had one visible consequence in the local landscape – the appearance of the tower house. These were largely single large towers, usually associated with a number of smaller less substantial buildings, all surrounded by a walled courtyard known as a bawn (coming from the Irish bó dhun or cow fort – when cattle could be corralled into these enclosed spaces for their protection, albeit only for short duration). Such a tower house was built by O'Connor Roe on the raised ringfort at Tulsk in 1406, suggesting continuity in that site's occupation through the later medieval period (O'Connor 2007, 196; Brady 2009). Excavation by the Discovery Programme in recent years revealed the rubble remains of a rectangular castle, including evidence for punch-dressed stone, the lintel of an ogee-headed window, and stones with plasterwork bearing evidence of wicker centring. All this suggests that the castle was a tower house (O'Connor 2007, 196). The extant wall of the tower had a curved corner and possessed a base batter. A garderobe chute was also clearly visible in the surviving wall fabric (Brady 2009, 23). Clearly, Tulsk was an important lordly centre from the first half of the fifteenth century onwards, with the possibility of a nucleated settlement growing up around the castle and priory.

#### Post Medieval (1534 AD – 1700 AD)

The days of O'Connor pre-eminence were numbered, however, with a renewed phase of intrusion and confiscation from the reign of Henry VIII onwards. The Dominican priory at Tulsk was taken over by English forces in the closing decades of the sixteenth century in an effort to curb the O'Conors. This was achieved by converting the eastern end of the church there into a tower house which housed a small garrison of eight men during the Nine Years' War (O'Connor 2007, 196). This reconquest gathered apace in the Elizabethan and Jacobean periods with the establishment of

an informal plantation in Co. Roscommon – a number of settlements were established including Boyle and Tulsk, both in the early 17<sup>th</sup> century (O'Connor 2007, 196).

An O'Connor Roe castle (RO028-172001) is thought to have existed at Strokestown and was destroyed by the Mac Diarmada in 1552 (ALC vol. 2, 361), an account from 1683 states that a bawn and flankers survived (O'Flanagan 1931, 68-9). The site was known as Beal Aith na mBuille – the mouth of the ford of the strokes (battle), although it has also been interpreted as the town of the mills. The land was sold to Nicholas Mahon in 1662.

The location for the stone castle may have been where Strokestown Park House is now located and a 3m wide wall in the basement is thought to be part of the former structure. The new house was built by Mahon and completed in 1696. This structure was later remodelled in 1730 by Richard Castle and designed in a palladian style (see Early Modern period).

The presidency of Connaught was established and headquartered in the newly refurbished Roscommon Castle, while an army garrison was established in the dissolved Cistercian abbey in Boyle from the 1590s onwards. By 1607 an additional fortification, an earthen star-shaped fort was also constructed in Boyle reinforcing the settlement's location in the border region between Connacht and Ulster (O'Connor 2007, 192-5). Newly arrived landlords either appropriated pre-existing castles like Rindoon or built English-style fortified houses, surrounded by bawns, a new architectural genre that heralded in the eventual demise of the medieval castle and its replacement with the country house.

Within the wider area but outside the proposed road development are a couple of sites that were appropriated and developed by English planters – a Dominican friary at Cloonshanville, just outside of Frenchpark, was held by Edward White in 1596. The foundations of a rectangular house can be seen there today, possibly the remains of White's residence (O'Connor 1997, 197). Callow Castle was an important MacDermot Gall centre from the late fourteenth century. Located in the townland of Dower on the shores of Lough Gara, it was granted to William Clifford in 1585 and held by his family down to the mid-seventeenth century. The remains reflect plantation period architecture – a rectangular bawn abutting onto the lakeshore, with walls protecting the landward sides. The remains of three small rectangular houses can be seen inside (O'Connor 2007, 198). The county, however, did not experience an influx of settlers as was the case in Ulster and Munster. By 1660, almost one fifth of the population were immigrants, of which 45% were in Ulster, but only 5% were in Connacht (Aalen et al. 1997, 23).

Notwithstanding the relatively low level of the planter plantation, the landscape underwent a profound change, with landowners, both native and newcomer beginning to enclose the countryside with 'quicksett' – a bank and ditch with an accompanying hawthorn hedge. This was accompanied by a reordering of farms and roads. This radically transformed the appearance of the landscape – the medieval Roscommon countryside with some areas open, other areas with irregular field systems – now came to be dominated by regular field enclosures – their relatively symmetrical appearance much influenced by notions of 'improvement', and how such improvements in the physical realm mirrored improvements in society as a whole. The pattern of rectilinear fields was developed to facilitate improved farming which involved more intensive livestock rearing, crop rotations and increased individual management of consolidated holdings (Aalen et al. 1997, 27).

Following the Cromwellian plantation of the 1650s, Catholics owned approximately one-tenth of Irish land. Thirty years earlier, they had owned nearly two-thirds. One of the planters, Nicholas Mahon was granted approximately six thousand acres at Strokestown for his services under Cromwell. This land had been confiscated from the Gaelic O'Connor Roe family.

#### Early Modern period (1700 AD onwards)

Following a period of rebellion and unrest in the 17<sup>th</sup> century, the 18<sup>th</sup> century heralded a period of relative peace linked to dramatic changes in the landscape. A system of estate landholding was imposed that involved the construction of classical houses with demesne landscapes and associated large farms, with the landscaping and house design strongly influenced by social and architectural ideas from Britain and mainland Europe. The presence of rich agricultural land meant that many large houses were constructed in this area (Power 1994), such as Strokestown, Mantua and Hermitage. There were also several smaller estates.

The landed gentry had culturally diverse origins – Norman settlers, Gaelic Irish, adventurers and recent settlers but they assumed a common purpose and identify in their efforts to subordinate and convert the disposed Catholic majority.

The eighteenth century saw the rise of the country house, buildings whose form and layout were inspired by classical design and precepts. Formal architecture, typically classical, was increasingly popularized in the Georgian era and was used to assert the standing of the landed gentry. Surrounding these houses were gardens, initially quite formal with symmetrical arrangements of trees, flower beds and lawns very much in vogue, but later in the century, under the influence of the English landscaper 'Capability' Brown, more naturalistic parkland demesne began to appear around these elite homes. These landscapes were designed to emphasise the centrality of the house, integrating house, garden and estate into a single physical entity. Strokestown House, residence of the Pakenham-Mahons, very much epitomises this. Notions of improvement also permeated into the planning of towns and villages – a notable example being Strokestown whose layout was designed in conjunction with the house. The main road from Dublin was rerouted to circumvent the parkland demesne, before making an abrupt turn northwards to meet the main entrance to the demesne at the head of the town's main street. The gate lodge and entrance at this prime location in the town's single linear street plan advertised the social pre-eminence of the landlord family. Their family's religious and cultural ethos, which differed from the predominantly Catholic population in the town, also highlighted by the presence of an Anglican Church at the opposite end of the main thoroughfare.

The landlords in the area continued to be influenced by notions of improvement with new crops and new breeds being introduced of sheep and cattle. There were other improvements as well; in liming, draining, land reclamation and continued field enclosure (Aalen et al. 1997, 68). Developments in agriculture were connected with a nascent market economy that had been developing since the 17<sup>th</sup> century, a process aided by improvements in roads. The population grew from 3 million in 1700, to over 8 million by 1841. This population increase was particularly marked in areas of poor, marginal uplands and coastline, where compact farm clusters known as clachans, and their associated in-field and out-field field systems known as rundale began to develop (O'Sullivan and Downey 2008, 37). A distribution map of clachans in Ireland c.1840 depicts a significant concentration of this settlement form across south and central Roscommon (O'Sullivan and Downey, 37, fig. 1).

These clustered rundale settlements represented a sophisticated environmental response to the farming of marginal lands and were very successful in reclaiming bog and mountain areas. As the population grew these clusters swelled rapidly and large scale reclamation of wastelands was made possible by intensive manual labour and by a system of 'lazy bed' spade cultivation. The 'in field' represented an intensively cultivated tillage plot that surrounded the standing cabin while the 'outfield' a communal area, was separated from the 'in field' by a stone wall and used for pasture and the use of bog for cultivation, fuel and fertilizer.

Farming continued to determine the general appearance of the built environment into the 19<sup>th</sup> century. A hierarchical society had developed comprising landlords, tenants and labourers which was reflected in the diverse nature of the built heritage in this area. The few surviving built and cultural heritage sites along or in the vicinity of the proposed road development consist of vernacular cottages, farmhouses and their outbuildings or examples of dry-stone boundary walls of later 19<sup>th</sup> and 20<sup>th</sup> century date. These are detailed in the architectural heritage chapter of the report.

Low dry stone walls are a type of boundary that is typical throughout Roscommon. A concentration of stone walls dating to the 18<sup>th</sup> and 19<sup>th</sup> century is shown on the HLC map (Plate 14.2) and is located to the south of the proposed road development and contribute to the historical character of the Rathcroghan-Tulsk limestone plateau landscape (Roscommon LCA Area 28). Two other areas noted for stone walls within the LCA are Ballaghaderreen and Bockagh Hill Uplands (Roscommon LCA Area 23) where an intimate character of a stone wall landscape forms part of the northwest of the character area. Lough Funshinagh, stone wall grasslands and esker ridges (Roscommon LCA 34) is characterised by stone walls that evolved as a system of enclosure throughout this area and in places the field sizes are particularly small contributing significantly to the landscape character and sense of place. All these character areas have been avoided by the proposed road development.

While the dominant system of enclosure encountered along the proposed road development consists of 18<sup>th</sup> and 19<sup>th</sup> century rectilinear field and hedgerow, sections of stone walls will be removed as a result of the proposed development. Stone walls use a building technique that constructs a wall in the 'dry', using stones that sit comfortably and balance without mortar to achieve this purpose.

Stone walls are commonly used as field and road side boundaries and along the proposed road development, these walls are in various state of repair; some have been removed in order to amalgamate fields, some are now totally overgrown with vegetation and enveloped by hedgerows while others have been well maintained and form part and add to the local character of the area.



**Plates 14.5 & 14.6 Stone Wall and Stile at Cregga Townland and Stone Walls at Ballaghcullia, Former Hermitage Demesne**





**Plate 14.7 and 14.8 Roadside Stone Wall Ballaghcullia and Former Lands Associated with Strokestown Demesne, Killdalloge**

The lands associated with former demesnes are often clearly defined by stone walls (mortared and unmortared) and this is the case with Frenchpark, Hermitage and Strokestown where long expanses of stone walls can be viewed along the existing roadside for example in townlands such as Cashel, Ballaghcullia and Killdalloge.

The houses of the area were characterised by single or two-storey houses constructed of locally available materials, including stone and timber. Houses were typically rectangular in plan, the width dictated by the length of available roofing materials. The majority of houses would originally have been thatched or roofed in slate which was locally available. Outbuildings to house animals and store feed were generally constructed around a farmyard to the rear or side of the farmhouse.

The relatively late date of the surviving structures is a pattern that is clearly illustrated in the cartographic sources. Many of the earlier structures built some time prior to the 19<sup>th</sup> century that are depicted on the first edition OS map had disappeared by the time of the revised editions in the later 19<sup>th</sup> century. There is a marked change between the first edition OS maps, surveyed in the 1830s, and the revised editions of the later 19<sup>th</sup> century. The early 19<sup>th</sup> century landscape was more densely populated, with a patchwork of small fields and network of roads and laneways lined with small houses or cottages. This is a pattern of settlement that has been clearly depicted within the inventory with the possible below ground remains of 6 structures identified from Section A, 15 structures identified from Section B, 20 areas identified from Section C and 8 areas from Section D (Appendix 14.3). And perhaps provides an insight as to the devastating effect the Great Famine had on the population.

### Famine

The Great Famine of 1845-1852 is remembered as the most devastating in Ireland's history. The blight of the potato, the failure of subsequent crops and a bitter winter of 1846/7 set against a fragile economic, social and political structure became the catalyst for widespread uncontrollable disease, hunger and death recorded as the Great Hunger.

The population loss of Roscommon during the famine was recorded to be the highest of any county in Ireland. The worst affected part of the county, an area stretching from the parish of Kilglass just north of Strokestown, moving southwards along the Slieve Bawn Mountains, was a part of the county that experienced continued population increase in the two decades before the Famine, and was characterised by poor land valuations and high population densities.

This part of the county was also made infamous by the Ballykilcline rebellion, evictions, assisted migration of paupers and the murder of Major Denis Mahon, the landlord of Strokestown Demesne. Ballykilcline has been the focus of study and investigation by Charles Oser, who has written extensively and undertaken excavation on land holdings in the area (Oser 2006) (Appendix 14.13). To the west of the proposed road development, investigation has taken place at Mulliviltrin an unrecorded 19<sup>th</sup> century village consisting of mud or sod houses, Aughamore a 19<sup>th</sup> century tenant village and Gorttoose; a late 18<sup>th</sup>/19<sup>th</sup> century agricultural village all of which formed part of the Mahon Estate. Part of the research strategy was to facilitate the recovery of material that would provide an understanding of day to day life at the time. Vast artefact assemblages were recovered and the work has assisted in throwing light at a time in our history that is much overlooked.

Preceding the famine, poverty was widespread and the particular acute nature of population pressure on marginal land in the county was recognised by John Longfield in 1814 in his report to the Bogs Commission:

*'the population of the county of Roscommon (although generally considered as a grazing county) is exceedingly great, so much so, that every little island or peninsula in the bogs contains more than an ordinary proportion of inhabitants<sup>3</sup>...'*

Issac Weld in his statistical survey of Roscommon 1832 recorded the following:

*'The hovels which the poor people were building as I passed, solely by their own efforts, were of the most abject description; their walls were formed, in several instances, by the backs of fences; floors sunk in the ditches; the height scarcely enough for a man to stand upright; poles not thicker than a broomstick for couples; a few pieces of grass sods the only covering; and these extending only partially over the thing called a roof; the elderly people miserably clothed; the children all but naked.'*

In other areas of marginal land, such as Frenchpark, it was reported that the tenants were 'all paupers in this district' (Kelly 2012, 309). Clearly, Roscommon with a population already struggling for survival was hopelessly overwhelmed with the failure of the potato crop.

By 1846 thirteen relief committees were operating in Roscommon, with relief measures and public works schemes in place. The Strokestown Famine Museum records that a total of 4,599 ejections were carried out in this year. By 1849, four times that number were evicted and this again increased in the following year. In 1847 3,006 tenants were evicted from the Strokestown estate alone. The devastation of these evictions in two of the townlands, Cregga and Lugboy, through which the proposed route travels, is clearly evidenced in a newspaper article that printed a list of the evictees (Plate 14.9).

A workhouse was established in Strokestown in 1850 to cater for the needs of the people of the district. From this time onwards potato cultivation began to gradually recover.

The impact of the Great Famine (1845-52) in the intervening years is clear from the later historic maps, where former roadways have disappeared or survive only in part, the myriad small dwellings are mostly gone and many of the field boundaries have

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<sup>3</sup> 'The third report of the Commissioners appointed to enquire into the nature and extent of the several bogs in Ireland, an, the practicability of draining and cultivating them', HC 1813-14 (130), p.16.

been removed to create larger fields. All of these are the result of a sharp decline in population, caused either by death or emigration during the famine years.

The aftermath of the Great Famine saw a major consolidation of landholdings, with the smaller farms associated with the rundale and clachan system being cleared and replaced with larger, more dispersed farms dedicated to cattle raising – an economic activity particularly favoured in the level limestone lowlands of central Co. Roscommon (Aalen et al. 1997, 90–1). By c.1900 most of the clachans had disappeared with only a small number remaining along Lough Ree and the River Suck (O'Sullivan and Downey, 37, fig. 1). This area of the county came under the ambit of the Congested Districts Board in 1891 whose remit was to encourage economic development by the development of the communications infrastructure and the agricultural sector, including the provision of social housing and medicine (Aalen et al. 1997, 93). The impact of the CDB on the landscape can be seen in the further dispersal of farms consolidated into single holdings, abandoning the clachans with their in-field and out-field system. The board also funded the construction of new farmhouses, bearing a standardised appearance with their slate or tiled roofs, replacing the thatch cabins of the earlier vernacular tradition. More regular fields arranged in a stripped patterns were laid out, as well as new roads (Aalen et al. 1997, 94).

Frank Lyons	...	7	Patt Moore	...	7	
Frank Conlan	...	5	Arthur Goodwin	...	7	
John Beirne	...	5	Thomas Kenny	...	7	
Patt M'Dermott	...	6	Patt Kelly	...	5	
Bryan Finnegan	...	7	Michael Beirne	...	6	
Bryan Dufficy	...	7				
Total, 106 souls.						
CREGGA.						
7	Bernard Reynolds	...	6	Widow Farrell	...	3
2	Phelim Hanly	...	8	Carberra Duffy	...	5
5	Edward Hanly	...	6	Thomas Egan, sen	...	4
4	John Egan	...	6	Michael Fallon	...	10
5	Thomas Callery	...	4	Patt Hogan	...	4
7	Thomas Egan	...	4	Thomas Dillon	...	7
8	James Dufficy	...	5	Widow Casserly	...	1
6	Patt Fallon	...	4	Hugh Kelly	...	5
1	Gilbert Beirne	...	3	Widow Shaughnessy	...	2
7	John Fallon	...	6	Patt Bolan	...	5
4	William Fihily	...	5	Michael Teernan	...	4
5	James Flood	...	11	Patt Dowd	...	5
6	Owen Fallon	...	4	Michael Coughlin	...	3
3	Thomas Fallon	...	6	Patt Feeney	...	2
8	Widow Duffy	...	3	Widow Gannon	...	4
	Michael Beirne	...	7	Widow Beirne	...	3
Total [including six widows], 155 souls.						
LUGBOY.						
5	James Gilloran	...	3	Andrew Connor	...	2
7	John Moran	...	6	Michael Duffy	...	7
6	Patt Gannon	...	6	Michael Duffy	...	6
5	Edward Keogh	...	5	Widow M'Dermott	...	6
4	Patt Crosby	...	5	John Tracey	...	2
8	Patt Tracey	...	3	Edward Hanly	...	2
5	Thady Mongan	...	4	Widow Brett	...	5
4	Thady Duffy	...	4	Edward Dooner	...	5
4	James Duffy	...	8	Edward Duffy	...	7
2	John M'Giff	...	3			
Total [including two widows], 89 souls.						
TULLYCARTON.						
8	Michael M'Hugh	...	6	Bryan Cuncannon	...	2
9	Martin M'Hugh	...	6			

Plate 14.9 List of Evictees from Cregga and Lugboy Courtesy of the Strokestown Famine Museum

Political and social change was brought about by a number of land acts in the late nineteenth and early twentieth centuries which dismantled the estate system – the Gladstone (1881), the Ashbourne (1885), Balfour (1891), the Wyndham (1903) and the Birrell (1909) Acts. Many of the country residences were reused to house schools, hospitals, convents, hotels or government buildings – in the case of Strokestown House, a museum. Many others though fell into dereliction and ruin. The various land acts resulted in tenants being transformed into landowners in their own right – albeit on small farms for the most part. By 1921, two-thirds of the tenants now owned their farms, with Ireland becoming a nation of small farm proprietors, in direct contrast to Britain (Aalen et al. 1997, 25). Because tenants bought out their own existing holdings, there was little large-scale re-organisation of the land outside of the areas covered by the Congested Districts Board (CDB).

The demesnes were not directly affected by the land reforms, but the social and economic power of the landlords had been undermined, ultimately resulting in their gradual neglect, and in some cases in their destruction. During the War of Independence and the Civil War, the burning campaign of 1919-1923 contributed to the destruction of the 'big house' throughout Ireland which saw approximately 275 country houses deliberately burned down by republican forces including Mount Talbot House in County Roscommon. Following independence, the work of the CDB was taken over by the Land Commission in restructuring farms in Co. Roscommon – this involved the breaking up of large grazier farms (Aalen et al. 1997, 95-6). In recent decades, greater mechanisation within farming and the common agricultural policy promulgated by the European Economic Community and the European Union has favoured larger farms and has encouraged the removal of field boundaries to create large fields.

### **The War for Independence 1919-1921**

The War of Independence (1919-1921) gave way to the Irish Civil War (1922-1923) and each was fought with vigour in Co Roscommon. A number of ambushes and skirmishes are recorded in the county, among these is the Scramoge Ambush which resulted in the death of six members of the British forces on the 23<sup>rd</sup> March 1921. These skirmishes were fought using guerrilla warfare tactics and relied on the element of surprise and an in depth knowledge of the local terrain. In February of the same year and prior to this ambush a large force of Royal Irish Constabulary (RIC) and Black and Tans (a special reserve force largely recruited from Britain to help maintain control and fight the Irish Republican Army (IRA)) had been deployed to Strokestown with the sole purpose of detaining volunteers and their supporters. In total, some 200 people were arrested during this period leading to great local unrest (Thorne 2013, 80). The Roll of Honour Memorial at Shankill lists the Volunteers from Roscommon who died in the War for Independence and Civil War. Amongst those listed are Patrick Wynne, a sixteen year old who was shot by the Tans in 1921 and Sean Bergin a young man who reputedly participated in a number of attacks and ambushes in the early part of 1921 including the attacks on the Frenchpark and Elphin Barracks. He was killed by the Tans on the 19<sup>th</sup> April 1921.

### **Wetland Archaeology**

To the east of the fertile limestone plateau of Rathcroghan are numerous lakes that attracted settlement in the form of crannogs, waterways that would have been used for communication and transport and findings from these areas such as human skulls dating from the late Bronze Age to the Early Medieval Period suggest ritual and burial practices across the ages. While to the north and west of the plateau, bogland, previously partially hand cut has now been largely planted with coniferous forestry

and finds such as bog butter and wooden toghers suggest settlement activity and access across these former watery areas.

Bogs act as a rich archaeological repository; they have perfect anaerobic environmental conditions where the decay of organic material is almost stopped. They have also had ritual, social and economic significance through all phases of human activity and as such are considered to have an inherent archaeological potential. Wooden and organic finds survive in this environment and the boglands can be rich in these artefacts and wooden trackways used as ancient communication routes. For example, bog butter has been recovered from a bog at Drummin (NMI 1961:189:3) (Plate 14.10) while a spoon made of horn and a wooden mether have been recovered further afield from a bog at Bellanagare. From Mullen townland there is a record of bog butter in a wooden vessel being revealed.



**Plate 14.10** Photograph of Wooden Vessel Containing Bog Butter from Drummin Bog Courtesy NMI

In assessing the importance of the togher and the role it played in the economic and social life of a local and wider area we have to bear in mind that the landscape was very different in many ways to what we see about us today. Great forests still clothed large tracts of land, leaving much less room for settlement and cultivation. Vast areas from which peat has now been exploited were still wide wildernesses of bogland, and huge expanses which have since been drained and reclaimed were still impassable swamps and fens. It was the presence of these bogs and fen embayed in areas of fertile ground, making passage from one area to another impossible, except by long detours which led to the construction of the great majority of toghers.

Wooden trackways have been found in raised bogs all over the midlands and are traditionally known as toghers (from the Irish word *tóchar* meaning causeway, describing wooden or gravel trackways or roads across the bogs) and occasionally as Danes' roads, although there is no evidence to link them with the Vikings. They range in date from the Mesolithic to the medieval period and a wide variety of methods of construction are known. These range from simple brushwood paths,

wattles of hazel rods, roundwood sleepers or runners, large split oak planks, some tracks also have gravel and clay incorporated presumably to consolidate the bog beneath. Their main function appears to have been to linked islands in the bogs with other dry land or the 'mainland'. While no recorded trackways will be crossed by the proposed route, there are several known in the general area, such as in Drummin townland to the south of the proposed route (RMP RO015-063) and in Cartronagor north of the proposed route (RMP RO016-116002). Also in Kilvoy townland, an ancient track (RO022-056002) in the form of modern forestry track, may extend from Rathmore some 4km to the south.

Conclusions drawn from the ongoing survey work of the Irish Wetland Unit (Whitaker 2005) are that custom built track ways dating from the Mesolithic onwards were constructed as a response to changing local and environmental conditions and that these trackways formed an increasingly dense communication network until very recently.

As well as organic material bogs also act as repositories for ritual activities and at Vesnoy townland within Strokestown Demesne a significant hoard of personal ornaments was revealed in 1849 during a famine relief drainage scheme (Plate 14.11). Hoards are collections of objects buried together in either the ground or in bogs or wetland environments. These items may have been deposited with the intention of recovery or may have been intended as religious offerings as part of a ritual ceremony never to be recovered (Mount 2011).



**Plate 14.11 Photograph of the Five Gold Bracelets (NMI 6993:W94-6998:W99), Vesnoy Townland**

Unfortunately the exact find spot was not recorded however the hoard was either found in the Strokestown River, on its banks or in the marshy area between the House and Urney Church. The hoard contained five gold bracelets (NMI 6993:W94-6998:W99) and while a chronological date was difficult to assign, Eogan (1983) thought them to be of probable Late Bronze Age in date. In Ireland there are 157 hoards that date to the Late Bronze Age containing ornaments, tools, weapons, musical instruments and scrap metal. More recently Sheehan (2012) has suggested that these unornamented arm-rings are gold versions of the common Hiberno-Scandinavian broad-band type that normally occur in silver. He postulates that they were most likely produced in Viking Dublin and date to the late 9<sup>th</sup> and early 10<sup>th</sup> centuries.

Gold hoards from a Viking age are rare in the known archaeological record from Ireland, however there are significant parallels between the hoard at Vesnoy and the gold hoard that was revealed in Dromgarrif (Glengarriff), Co Cork and it is of interest that all recorded Viking Age gold hoards from Ireland, with the exception of a pair of arm-rings from High Street, Dublin have an apparent association with water or watery

places (Graham-Campbell & Sheehan 2009, 81). Hårdh (1996, 134) has also suggested that silver and gold hoards in Scandinavia are also found in watery places suggesting that these were votive offerings and deposited with no intention of recovery. While gold hoards may be considered unusual they are by no means unknown, with Hare Island, on Lough Ree providing an exceptional example of the largest gold hoard on record, now however sadly melted down (Graham-Campbell & Sheehan 2009, 82). It is difficult to demonstrate if not impossible that hoards were deposited with a view to no recovery during the Viking Age however given the difficulty in their identification it is conceivable that they are more common than the record would show (Graham-Campbell & Sheehan 2009, 90).

All rivers that are crossed by the proposed development are detailed and described in Appendix 14.11. The significance of the finds along the Owenur River (NMI Reg. 1993:54 and 2006:58, Table 14.6) revealed from dredging practices are listed in Appendix 14.11 and in the context of lakes and crannogs described in the archaeological background of the report.

Recent entries from 1993 onwards to the National Museum of Ireland's register for Roscommon suggests that human remains have been revealed in watery places or former watery places and have been largely identified through dredging practices.

**Table 14.6 Human Remains Found in Watery Places in Roscommon, NMI**

NMI Register No	Simple Name	Townland	Find Place
1993:54	Human remains	Lisboy	River Owenur
1995:106	Human remains	Canbo	Canbo Lake
1996:34	Human remains	Carrownaglearagh	Bed of stream
1998:88	Human remains	Carrownaglearagh	Carrow river
1999:32	Human remains	Corry/Cartron	Drained lake bed
2000:70	Human remains	Cappaleitrim	N/A
2005:10	Human remains	Lisboy	N/A
2005:35.1	Human remains	Cloonshannagh	Bony Bog
2006:58	Human remains	Drumlisk / Cloonahee	Owenur River
2011:8	Human remains	Clooncunny	Lough Gara at Clooncunny Bridge

**Pit Field Patterns**

An enigmatic monument traditionally associated with the Rathcroghan area is the pit field (previously discussed Section 14.3.1 Local Geology & Topography). While associated with the Rathcroghan archaeological complex and the underlying karst landscape, with more research being conducted and new discoveries being made it is emerging that pit fields may occur over a much bigger area in differing ground conditions. It is also emerging that instead of a homogenous grouping, recorded and newly revealed examples may represent different manmade features and activities as well as geological features.

In total there are some 42 pit fields now known in central north Roscommon which extend to Boyle in the north and Ballinlough in the west (Meehan and Parkes 2014). However, the online SMR records 30 entries for pit fields in Co Roscommon (with no entries in any other county). The recorded pit fields are mainly concentrated in an area broadly west and north of Tulsk, with the most southerly example recorded at

Carroweigher, roughly 11km northwest of Roscommon Town (O'Connell 2016). Timoney (2009) estimates that there is possibly between 1,500 to 2,000 pits in Roscommon and that these vary in length from 2m to 8m, although some are longer and vary in width from 1.5 to 2.5m. In depth they are reasonably consistent averaging 40cm to 70cm deep.

The depressions while displaying some level of variation are for the most part uniform and normally occur in clusters consisting of at least two parallel lines sometimes veering off at right angles.

### Function

The pit fields are not shown on the 1<sup>st</sup> edition six edition OS mapping or any historic mapping for the area, also there is no specific folklore or traditions attached to their occurrence and while suggestions have been made in relation to their form and functionality within the landscape, little is known about them locally.

An archaeological suggestion for these features is that they formed part of a ritual ceremony and that the material dug out from a pit was used as an offering for the construction of archaeological monument. So it was the excavated material rather than the resultant pit that was deemed to be important.

It has also been suggested that there is evidence of the pits respecting earlier field boundaries which would indicate that they are manmade rather than natural in origin (Dempsey 2012). There are also instances where pits are located on or within prehistoric burial mounds and ringforts suggesting that they were later than these structures and indeed dug into these features. The evidence for which can best be appreciated when viewing aerial photography, indeed this monument type is most impressive when viewed from the air or by LiDAR survey.

Other possible manmade functions for these pits include flax rhetting (Fenwick and Parkes 1997, 14; Meehan and Parkes 2014, 37), drainage, water collection, storage, military activities, a source for clay, rock or lime and/or damaging fields owned by a landlord, other local suggested uses include storage for potatoes and quarrying.

Pit alignments have long been recorded in Britain and have a wide distribution with much variation in form and situation (Waddington 1997; Wigley 2007). According to O'Connell (2016) British examples are defined as 'pit features of consistent size and spacing arranged in lines, usually with a linear or slightly curved axis, and commonly occurring as a complex of such features in a given area' (Waddington 1997, 22). Excavation has revealed them to be archaeological in nature and it is generally accepted that they acted as linear boundaries on a landscape scale (O'Connell 2016).

Geological suggestions have included that ice sheets plucked blocks of regularly jointed limestone from the surface (Waddell et al 2009, 86-9) while it is acknowledged that these depressions display some variation over the area. However it is not plausible that glaciers would selectively erode in this manner. Equally the features do not appear to be natural enclosed depressions in the limestone (Meehan and Parkes 2014, 37).

Another explanation has been attributed to dolines, an enclosed karstic depression with no surface water drainage associated with them. They form by either, slow dissolution of the underlying limestone rock or by rapid collapse events (Meehan and Parkes 2014, 15). The discreet nature and pattern of the pit fields would appear to



contradict this possibility but it may be considered in some areas of this karst landscape as for example, many geological features have been recorded in Kilvoy townland including swallow holes and enclosed depressions (F Number 1727NWK148, 149, 145 and 322 Geological Survey of Ireland) (Meehan 2016).

#### Recorded Pit Fields in the RMP

In the landscape to the south and outside the proposed road development a number of pit fields have been recorded in the archaeological record (RMP). These examples include Gortnacranagh where a pit field (RO022-036) (AH51) is described as visible on an aerial photograph and situated on the south-facing slope of a broad east/ west ridge. An area of c. 5 hectares has a few shallow pits (dimensions c. 10m x c. 2m) generally aligned east/ west.

While further afield there are other recorded examples at Glenballythomas (RO022-05734) where pits (10-15m x 2-3m and 0.5m in depth) are generally aligned east-west and frequently shadowing the banks of the southwest part of a field system (RO022-057003) cover an area of c. 1km square. Also in Glenballythomas (RO022-057045) another pit field is located on a low east-west ridge on the floor of a northwest-southeast valley at the bottom of the south facing slope of Rathcroghan ridge. Rectangular grass-covered pits (dims c. 5-10m c x 2-3m and averaging 0.6m in depth) survive amongst the field banks of a field system (RO022-057044) covering an area of c.12ha (c. 30acres). These are also generally aligned east-west and are frequently aligned on field banks. At Grallagh on the north facing slope of the Rathcroghan ridge, a pit field (RO022-05600) was detected by aerial photography. A band of four lines of east northeast-west southwest pits (approximately 10m x 2m in dimensions) extending for some 300m covers an area of c. 4ha was revealed.

North-south trending pits (c. 10m x 2m and 0.5m deep) were noted in Toberrory townland in an area between Courtmoyle (RO022-056028-) and at Carran fort (RO022-056023) on a slight north-south rise on the north facing slope of the Rathcroghan ridge. The pits are placed 10m apart and appeared in two parallel lines c. 20m apart. There were further lines of pits in the wider area within a field system (RO022-056032), that were visible on aerial photographs from the 1970s but few of them are now visible in the landscape. Archaeological testing within the area of the pit field produced no related material (Timoney 2009).

#### Newly Identified Features Along the Proposed Road Development

Additional potential pit fields in Portaghard (Frenchpark area) at the western end of the scheme, Kilvoy (central portion of the proposed development) (Plate 14.12) and in Lavally and Vesnoy townlands (Strokestown area) in the east were revealed through the use of aerial photography, LiDAR survey and site inspection (Appendix 14.2 Archaeological Inventory).

As part of the investigative work for this project a programme of geophysical survey has been carried out over a sample of the best preserved potential pit sites that will be traversed by the proposed road development. In addition to this metal detection, electrical resistivity imaging, topographical survey and targeted test trenching of the pits and the ground between them, soil sampling and an assessment by a consultant hydrogeologist took place in an attempt to gain a better understanding of these features.

Following intensive investigation it is now thought that these potential sites could be a mixture of geological sites and manmade features . The results of the geophysical survey and test trenching are included in Section 14.4 of the report.

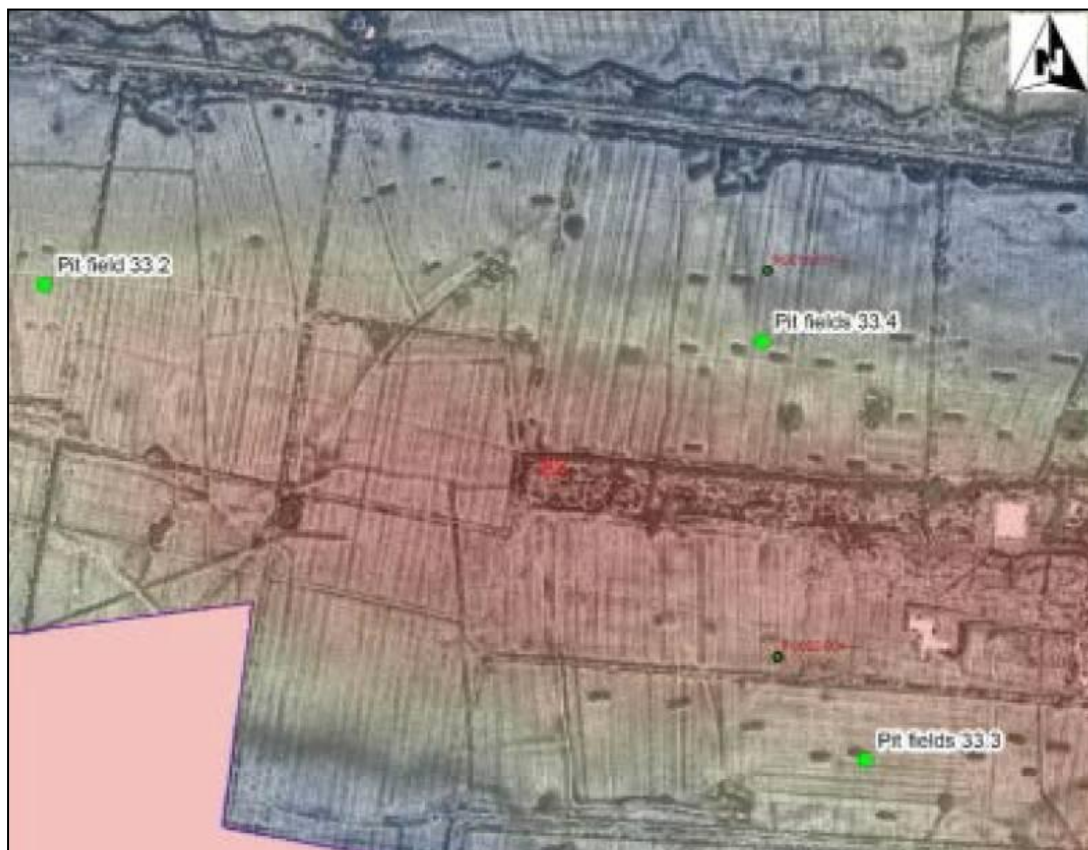


Plate 14.12 LiDAR Image of Pit fields at Kilvoy Townland (Davis 2015)

#### 14.3.4 The Candidate UNESCO World Heritage Site of the Rathcroghan Archaeological Complex

Rathcroghan as defined by the Record of Monuments and Places lies 378m to the south of the proposed road development. Rathcroghan is one of six major royal sites in ancient Ireland and today is represented as an archaeological complex of over 100 monuments<sup>4</sup>, set in a rural pastoral landscape, located to the north-west of the village of Tulsk in County Roscommon. The ancient name *Crúachain* may mean 'place of burial mounds' and refers to the mounded landscape surrounding the great monument of *Ràth Cruachan*, the landscape of great assemblies and ancestral cemeteries. This complex of nationally important monuments has been included on the tentative list as part of a submission of the Royal Sites of Ireland for consideration as a UNESCO World Heritage Site (Appendix 14.8).

<sup>4</sup> Herity (1991) in his study 'Rathcroghan and Carnfree' attributes over 200 pre-Norman monuments to this part of Roscommon. The Archaeology Ireland Heritage Guide (2009) 'Rathcroghan Co Roscommon' estimate the complex to contain over 60 monuments while the 'Rathcroghan Archaeological Complex Conservation Study' (2007) defined the study area of Rathcroghan to largely follow the 120-140m contour comprising a total of 114 Recorded Monuments, of which 39 are in state care. Waddell 2009 has identified over 60 monument centred on Rathcroghan, including 19 enclosures, 27 burial mounds, pillar stones and other earthworks, mostly dating from the prehistoric period.

The attractiveness of the area around Rathcroghan for prehistoric and historic settlement is chiefly derived from its topographical setting, given that it is situated on a broad elevated plateau of relatively good farmland surrounded by lowland and peat bogs.

Rathcroghan consists of monuments scattered over this elevated limestone plateau that constitute an archaeological landscape which stretches back to the Neolithic and documents over five thousand years of ritual and settlement activity.

Photomontages (section 14.3.5) taken from several of these key monuments (Figure 14.27 and Figures 14.28 – 14.61 in Volume 3) show the views experienced towards the north and hence in the direction of the proposed road development, and assist in the characterisation of the existing landscape and topography whilst examining the intervisibility between monuments. Appendix 14.11 provides information and photographs in relation to key monuments and monuments located on the northern edge of the plateau at the 100m contour line and how they present in the landscape and views to the north.

While Rathcroghan is traditionally considered the seat and burial site of the Kings of Connacht, Carnfree known as *Fraoich mhic Fhiodaigh Fholtruadh* is according to the annals allegedly the burial place of Fraech (a great warrior of Connacht and son in law to Ailill and Medb) and the inauguration place of the Kings of Connacht.

The central remains at both Cruachain and Carnfree are cemeteries of prehistoric burial mounds. Expansive medieval field systems, constructed by the O'Conors respect the most sacred and ancient monuments and form many of the boundaries of the modern townland system.

Both complexes are strongly linked to myth and legend and the great Irish sagas *Táin Bó Cúailgne* and *Táin Bó Fraích* emerge from Rathcroghan as well as the stories of St Patrick's visits to Ogulla and Carnfree, chronicled by *Tírechán* before 1700. Both Carnfree and Rathcroghan are associated with the transformation of Ireland from paganism to Christianity and Saint Patrick.

### **The Monuments**

Holistically the monuments of Rathcroghan present as well preserved and a largely intact complex incorporating many different monument types and phases retaining high visual landscape qualities which help to preserve the ancient character of the landscape. While the area has been well documented by archaeological scholars and institutions and individual monuments investigated, large areas of the complexes remain unexcavated.

The significance of each of the key monument groups<sup>5</sup> located on the eastern end of a limestone plateau, above the 120m contour line is described in the Rathcroghan Conservation Study (2007, 44-49) – including the largest and most iconic monument, Rathcroghan Mound.

Rathcroghan Mound (RO022-057010) also known as *Ráth Cruachan* is located in Toberrory townland. This large mound with steeply sloping sides and a slightly

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<sup>5</sup> Rathcroghan (RO022-057010); Dathi's Stone (RO022-057047) and Knochennagorp (RO022-057046); Relig na Ri (RO022-057035); Owneynagat (RO022-057029); Rathnadarve (RO022-057004); Cloghannagorp (RO022-057043); The Mucklaghs (RO021-042016-); Misgaun Meva (RO022-057008) and Milleen Meva (RO022-057006); Rathscrag (RO022056034); Cashelmannan (RO021-042017); Caran Fort (RO022-056023) and Rathmore (RO022-056017).

domed top, measures at its base 89m in diameter and stands to a height of around 5.5m. Sloping ramps on the east and west sides allow access to the summit on which there is a low circular mound around 6m across, adjacent to a circular embanked enclosure around 18m in diameter. Around the burial mound are a number of smaller ring barrows, ranging in size from 3.7m to 64m in diameter. Geophysical survey revealed the complexity of the mound's development. Buried underneath the mound to a depth of 1m to 2m are the remains of two concentric stone walls – one 35m in diameter, the other 22m in diameter. The burial of these upstanding features is comparable to the burial of the 40m structure beneath the cairn of the great mound at Navan in c.95BC. On the summit of the mound is a double circle of pits with a diameter of about 32m, again revealed by geophysical survey. These may represent a substantial timber-built structure on the mound. The mound perimeter was apparently retained by a timber palisade (Waddell 2009). Geophysical survey revealed a large circular enclosure, formed by a 5m wide ditch, 360m in diameter – the scale of this enclosure very much reminiscent of the huge circular earthworks to be found at the other prominent royal sites in Ireland (Waddell 2009). This location marks the approximate centre of the limestone plain called Machaire Connacht (Mag nAi) or 'the plain of Connacht' which lies between the present-day towns of Roscommon, Elphin, Strokestown and Castlerea (Waddell et al., 2009, 1, Fig. 1.1).

Herity (1991) in discussing the main concentration of monuments at Rathcroghan divides the sites into the following groups:

In addition to the central mound at Rathcroghan (Fig. 14.28), there are at least ten ring barrows, a ring fort, and three very small stone and earthen mounds as well as two standing stones Milleen Meva and Misgaun Meva and an ancient avenue, running east-west to the south of Rathcroghan in the **Rath Cruachan Group**.

From **Rathnadarve to Dathi's Stone** –to the south of the Rathcroghan group includes; Rathnadarve (RO022-057004) a large well preserved circular enclosure and a prominent feature of national significance within this ceremonial landscape. It was described as a possible ringbarrow (Heritage 1983, 132; 1988, 131 and Waddell 1983, 33-5; 1988, 8, No. 23) and recorded in the RMP as a ringfort. *Úaimh na gCat* (*Owenynagat*), the *Cave of the Cats* souterrain is a natural limestone fissure with a souterrain attached that is famous in the literature as an entrance to the Otherworld with a remarkable wealth of associated legend. As such it forms an essential part of the main complex. *Relig na Riogh* (also known as Relignaree and *Reilig na Ri*) cashel forms part of this group together with a souterrain and two ring-barrows approximately 20m and 28m in diameter respectively and a second ringfort 48m in diameter with a small souterrain. *Relig na Riogh* is known as the 'burial place of the Kings' and is a fine example of an early medieval monument within a medieval field system.

A possible outlier to this group, a ringfort (RO021-030) located in Rathkineely townland to the west on the summit of a broad hill with extensive views in all directions was also included as a location for a photomontage (Fig. 14.32). The monumental size and scale which is similar to Rathnadarve as well as the prominent position in the landscape make it a key consideration in the wider landscape.

**The Mucklaghs Group** – these lie largely to the southwest of the Rathnadarve group and include a multi-vallate stone fort (Cashelmannan, RO021-042017), a ring barrow, a megalithic tomb (Cloghannagorp, RO022-057043 and the only monument within the complex assigned to the Neolithic period) and, most prominently, the Mucklaghs an important cursus-like avenue of paired linear earthworks, reflecting those at Tara,

Emain Macha and Cashel. The Mucklaghs are regarded as being of national significance (RO021-042016-)

**The Rathscreg Group** – these lie to the north of the Rathcroghan Group and include three small ring barrows, another cursus-like avenue, a larger ring barrow approximately 60m across known as Flanagan's Fort, the remains of a ringfort (Mac Dermot's fort), and a ringfort associated with a natural spring known as *Tobar Ruaidhrí*. The Caran Fort Bronze Age mound (RO022-056022-) is located on a slight north-south ridge on the north facing slope of Rathcroghan and forms part of a complex of monuments including a field system, ringfort and enclosures. An ecclesiastical church site in Kilnanooan townland is known as Templemoyle Abbey.

**The Rathmore Group** – is located on the west side of the Rathcroghan crossroads and includes Rathmore (RO022-056015-) which is described in the record as a ringfort, comprising a circular grass-covered earthen platform, it occupies a prominent position in the ceremonial landscape and rises to a great height over the surrounding land. A medieval field system as well as a spring well and ringbarrow are present and located to the northwest is a north-south trending road/ track way (RO022-056002). Rathbeg ring barrow is sited on a natural knoll in Toberrory townland and archaeological testing suggested that the surrounding field system may be post medieval in date (McCarthy 2012).

**The Cahernaloddy Group** – is the most south-easterly group of monuments located in Glenballythomas townland, over 1.2km to the south-east of Rath Cruachan group. This group includes the Cahernaloddy ringfort which is also described as a barrow (Herity 1988, 73) and an ancient avenue adjacent to it, oriented east-west, as well as two smaller ring barrows.

### **Connectivity in the historic landscape**

The elevated position of the complex, the large size of some of the monuments, the number of burial mounds, and the associated legend and history, all contrive to create a place apart (Waddell et al. 2009, 198). Even though there is no formal physical boundary to the complex, the degree of intervisibility between most of the sites, would suggest that this group of monuments and the high ground that they occupied were bounded in a less tangible, but possibly more potent fashion (Waddell et al. 2009, 198).

Consequently, approaches to this ritualised landscape would be particularly important – the present-day Rathcroghan crossroads, close to the large platform ringfort at Rathmore, might have been a feature of the locality as early as medieval times. There are possible traces of an earlier north-south route visible just east of Rathnadarve and north of Rathmore (which may extend northwards as far as Mantua), while an old east-west road exists south of Rathcroghan Mound (Waddell et al. 2009, 198) (Fig. 14.26).

The antiquarian Hubert Knox (1918, 157-8) briefly highlighted traces of historic route ways in the area. To a certain extent roads have always played a role in transporting peoples, goods and ideas across the landscape. The Archaeological Survey has recorded 83 fords in Co. Roscommon, highlighting the importance of riverine crossings even where no bridges were available (Doran 2004, 63-4).

Roscommon was bisected by two major route ways: Slighe Assail and Slighe Mhór, the former running from a fording of the Shannon at Termonbarry all the way across to the O'Connor centre at Tulsk, before reaching Rathcroghan, while the latter crosses

the southern extremity of the county, linking Clonmacnoise and Ballinasloe, (Doran 2004, 59, fig. 1). Almost all of the known medieval routeways in Co. Roscommon move towards or radiate from the royal centre at Rathcroghan. Many of these routes are associated with religious sites such as Cloonshanville, Tibohine, Elphin and Moycoyne. Clergy from the latter site had the right to attend the inauguration of Connacht kings at the prehistoric complex (Doran 2004, 71, 73). The Slighe Assail linked this region with ports on the east coast, and consequently with markets further afield in England and the Continent (Doran 204, 79).

In areas where extensive tracts of raised bog hindered communication, much effort was expended in the construction of wooden causeways. Known as toghers, from the Irish *tóchar* for causeway, these were constructed of roundwoods, brushwoods, and gravel, which were laid directly on the surface of bogs (Lucas 1985, 37). Togher varied much in length and size: an example at Monevullagh in Co. Kildare only consisted of a single line of oak split trunks laid end to end (Lucas 1985, 38). Other toghers were much more substantial in construction – one example at Clonsast in Co. Offaly ran from a graveyard in that townland eastwards towards another graveyard known as 'Relic'. It was known locally as St. Broghan's Road or St. Kieran's Road, and was constructed of sticks, covered with brushwood, on top of which was a layer of stone and gravel. The road was 3m in width (Lucas 1985, 42). While this example was radiocarbon-dated to AD 780±80, and consequently dates to the early medieval period, many other examples are prehistoric in date (Lucas 1985, 44). References to toghers and causeways crossing bogland in various literary annalistic, and documentary sources, along with place-name evidence, strongly suggests that wooden and gravel trackways were a feature of the countryside. In a description of neighbouring Co. Longford in 1682, the county is described as having '*...very much red bogg in the west part of it, which occasioned the making of severall long Toghers or cawsyses to unite the lands: and in these red bogs there are spacious parcells of good and profitable lands and woods*' (Lucas 1985, 55). Recorded toghers in the vicinity of the proposed route are discussed under the heading Wetland Archaeology.

The earliest monument in the Rathcroghan complex is a much ruined megalithic tomb, possibly a court tomb, in the townland of Glenballythomas. The presence of this monument points to an early farming community, possibly of the fourth millennium BC on the south facing slope of the Rathcroghan plateau (Waddell et al. 2009, 10 & 198). However, the most significant site is at Rathcroghan mound itself. Three ancient avenues, bounded by banks, ran east-west across the landscape of Rathcroghan.

An additional roadway was recently revealed using Air Corps photos (1950s) west of Rathcroghan in Glenballythomas townland. It consists of two curving parallel earthen banks approximately 3-4m apart traveling over 115m (RO022-057095) (Dempsey 2014). This feature was verified in the field lying to the north-northeast of the Mucklaghs and unlike other trackways or roads did not appear to connect to other monuments in the area. It may have functioned as a cattle track as has been suggested by Knox (1918).

Another significant location in the area is Carnfree where there are 16 monuments including a number of ring-barrows, a conjoined ring-barrow and a ringfort, a large burial mound and an embanked enclosure and pillar stone (Waddell et al. 2009, 13). One of these mounds is a circular cairn, the supposed site of Carn Fraích, an inauguration site for several O'Connor kings – until relatively recent times there was an inauguration stone located on site, marked with the imprint of two human feet (Herity 1991, 26). The earliest reference to such an inauguration is a late twelfth-

century poem praising the exploits of Cathal Croibdearg, who became king of Connacht in 1189, while another poem recounts the enking of Cathal's son Áed at Carnfree in 1224. Annalistic references also record four O'Conchobair inaugurations at the site between 1225 and 1407, though the practice may have its roots in the early medieval period when the sept assumed the kingship of Connacht in the ninth century (Waddell et al. 2009, 33). This inauguration mound, about 11m in diameter and 2m in height, stands on the highest point of the ridge at Carns and probably is a reused Bronze Age burial mound (Herity 1991, 28; Waddell et al. 2009, 10–12). Clearly, the mounds at Rathcroghan and Carnfree were the focus of a ritualised landscape with roots going back into prehistory. It has been suggested by the archaeologist Elizabeth FitzPatrick that some small circular mounds built on larger mounds may have been specifically constructed in medieval times to facilitate kingly inauguration rites; examples include the possible Ó Dubhda inauguration site in Kilrusheighter townland in Aughris, Co. Mayo and the probable inauguration site of the Maguires at Cornashee, near Lisnaskea, Co. Fermanagh (Waddell et al. 2009, 209).

During the early medieval period, the area became associated with Patrician lore. Tírechán, writing in the seventh century AD, recorded that St. Patrick baptised the daughters of King Loígaire of Tara at the Well of Clébach, possibly at either Templemoyle, a ruined church with a nearby well in the townland of Kilnanooan, or at Ogulla where there is also a church and well (Waddell et al. 2009, 29–30). The missionary also camped with several bishops and other clergy at Selc, probably the ecclesiastical site of Carns, 800m east of Carnfree (Herity 1991, 7, 26–7). John O'Donovan identified this site as Domhnach Mór Maighe Seilge – the word domhnach being significant as churches bearing this name were often associated with the initial stages of Christian missionary work (McNeary and Shanahan 2009, 131). The foundations of a rectangular building, 12.8m in length and 6.4m in width are to be found on this site, surrounded by a curvilinear enclosure, 130m in diameter (Herity 1991, 32). Rathcroghan and Carnfree also became locations for great assemblies, the latter also being where the O'Conor kings were inaugurated. In the Dindshenchas, Crúachu is described as both a place of assembly and a royal residence (Herity 1991, 7).

Significantly, it was thought that secular sites appear to have deliberately avoided this landscape – none of the 130 ringforts in the general locality are to be found in what was even considered then a ritualised landscape – early Irish texts regarded Rathcroghan as sacred (Herity 1991). However, more recent work has noted the presence of some twelve ringforts (including a rather large example at Rathnadarve) which counters the notion that the area was exclusively for ritual use – certainly by the early medieval period anyway (Waddell 2009, 9). Three univallate ringforts, including Relignaree, lie to the south of Rathcroghan Mound, while the large ringfort of Rathnadarve is situated to the west (Waddell et al. 2009, 210). Also nearby is the large raised ringfort Rathmore. The presence of nearby Templemoyle, and the literary references of the eighth and 9<sup>th</sup> centuries to the promulgation of the laws of Patrick and Ciarán at Rathcroghan and to a fair or óenach all confirm significant activity in the area during medieval times (Waddell et al. 2009, 212).

Over time the monuments have become associated with lore and legend. According to the Táin Bó Cúailnge, following the death of *Cúchulainn*, the rival bulls from Ulster (*Donn Cúailgne*) and Connaught (*Finn Bennach*) fought out a long awaited challenge here at Rathnadarve (*Ráth na dTarbh* – the Fort of the Bulls with the latter losing (Herity 1991, 16). Another monument, a ring barrow, is marked with a standing stone of red sandstone. Known as Coirthe Dearg, Red Pillar Stone or Dathi's Mound, this stone reputedly marked the grave of King Dathi, nephew of Niall of the Nine

Hostages (Herity 1991, 19; Waddell et al. 2009, 5). Nearby to the northwest is Relignaree (*Relig na Rí* - the cemetery of the kings), an early medieval ringfort, bounded by a single ditch and bank, inside of which is a souterrain and a number of house sites of more recent vintage (Herity 1991, 19; Waddell 2009 et al. 5).

Even so, in the high medieval period, the landscape around Rathcroghan was subdivided into fields in the form of a grid based on parallel lines running along the axis of the ridge and other lines laid roughly at right angles to these (Herity 1991, 15). Three of the axial east-west lines appear to coincide with the ancient avenues at Rathscreg, Rathcroghan and Cahernabavalody. Some ringbarrows were used as landmarks to help in setting out the grid, while the boundaries both ran over and went around pre-existing ringforts. Most of the fields are between 170m and 260m in width, and 250m and 400m in length. The fields are enclosed with banks, measuring up to 6.5m in width and up to 1m in height above the ground surface. Significantly, some of these field banks coalesce with townland boundaries and they also coincide with portions of the three avenues incorporated into the field system (Herity 1991, 15). Similarly, a second set of similar fields were laid out around Carns, though the fields here tend to be longer and narrower (Herity 1991, 33). It is thought that these field systems were laid out under Cathal Cróhbdearg O'Connor around 1200 AD when he was regranted land here as part of a territory known as the King's Five Cantreds (corresponding to the present day county of Roscommon) (Herity 1991, 15). Recent research by the Discovery Programme has mapped this relict field system in Carns using aerial ortho-imagery (McNeary and Shanahan 2009, 128, fig. 10.4). Overlying the field system are the remains of a deserted village, containing several houses, known locally as sean-bhaile and probably recorded in the townland name of Glenballythomas (Gleann Bhaile Thomáis – the glen of Thomas' village) (Herity 1991, 15). The visible remains of this settlement were also recorded, as well as the ecclesiastical site of Domhnach Mór Maighe Seilge surrounded by a circular enclosure in the same townland (McNeary and Shanahan 2009, 128, fig. 10.4). The latter site was subject to excavation which revealed the remains of a 15<sup>th</sup> or 16<sup>th</sup> century chapel of ease, a daughter chapel to the nearby parish church of Ogulla or the Dominican Priory in Tulsk (McNeary and Shanahan 2009, 131 & 134).

### **Legend and Folklore – Intangible Heritage**

The legends and history associated with the Rathcroghan complex imbue the locality with a sense of otherworldliness. Efforts have been made by antiquarians to correlate specific monuments with sites mentioned in early Irish tales – a difficult, if not impossible task.

The Rathcroghan complex is the setting for some of the most significant events in the *Táin Bó Cúailgne* and is closely associated with the legendary Queen Maeve. This legend is brought to life through the Táin March celebrated every year from May to June. This festival and family celebration traces the route of Queen Meabh and her army in their attempt to seize the Brown Bull of Cooley. The festival route begins in County Roscommon at Rathcroghan and eventually finishes in Omeath, Co Louth after numerous stages and events along the way. The festival is growing in popularity every year and inspires local communities to engage with their local heritage in the form of re-inactments and marches bringing to life the myths and legends of the region.

The mound of Rathcroghan is reputed to have been the site of Maeve's and Ailil's great hall, *Relig na Rí* the burial place of their kin and *Rathnadarve* the scene of the mythical battle between the two bulls. Owneynagat cave (the cave of *Crúacha*) is known as the gate to the underworld and particularly associated with the goddess of



war, Morrigan. It is also associated with Freach son of Maeve and Alill through an inscription on an Ogham stone within its entrance. Knockannagorp is also known as *Dathi's Mound* who was the last Pagan King of Ireland and a standing stone on its summit corresponds to descriptions within medieval literature.

The monuments and the landscape in which they are situated are a physical legacy of past human endeavour – they represent a tangible heritage. Intangible are the beliefs, myths and legends which have invested the landscape with a ritual significance. Archaeological sites and natural features can be described, measured and planned, and on the basis of which a chronology spanning the centuries can be constructed. Intangible heritage – myths and popular history are not measurable in this manner, but combine with the natural and man-made environment to create linkages between people and the past (Waddell et al. 2009, 198).

#### 14.3.5 Viewpoints and Photomontages from the Rathcroghan Complex

The Rathcroghan complex is located on a limestone plateau at the east end of a broad spur with the land sloping down at the edges in all directions except to the west where it steeply rises. The lower ground to the north where the proposed road development will be placed and to the east is part of the greater Shannon catchment area. Long distant views are possible across the Shannon Valley and beyond to distant hills. To the north the dominant view on the horizon is the table-top Kesh Corran Mountain, Co Sligo, while to the east, the aspect is dominated by Slieve Bawn.

The complex local topography, numerous boundaries and general lack of visual definition to the monuments results in a landscape difficult to interpret (Oxford Archaeology 2007, pg 33). The predominance of shelterbelts and some built structures has limited many local views (*ibid*). Long distance views are broadly uninterrupted. Intervisibility between the main monuments will not be affected and indeed may benefit from the relocation of the existing N5 alignment.

Eight key viewpoints were selected from the Rathcroghan area and these were located to coincide with monuments of national significance in prominent positions that rise above the sloping topography that surrounds the plateau area. The four key views or vantage points selected in the Rathcroghan Archaeological Complex Conservation Study and further reiterated in the RCDP (Policy 6.14), all formed part of the selection process, namely:

- Rathcroghan Plateau – A significant vantage point, looking north from Rathmore.
- Rathcroghan Plateau View north towards Caran Fort from Rath Beg with the N5 in the middle distance. A significant vantage point.
- Plateau Edge – View south from the edge of earthworks associated with Relig na Rí. Hedge lined fields in the distance across the valley mark a change of character from one side of the valley to the other. A significant vantage point.
- Plateau Edge – View north-west from Caran Fort. New single properties demonstrate the effect on the wider landscape of open landscape of improved pasture. A significant vantage point.

The protected view (V12) as shown on the Roscommon Scenic Routes and Views map (Mosart 2008, 117 and Roscommon Scenic Routes and Views Map) - a viewpoint is taken from Rathmore looking north – also formed part of the sample.

A multidisciplinary<sup>6</sup> field visit took place to the complex in March 2015 in order to assist and facilitate the final selection of viewpoints that were then submitted to the National Monuments Service of the DAHRRGA for their review.

In all, ten viewpoints (Figure 14.27) were selected for archaeological purposes to demonstrate the level of visibility from the main concentration of archaeological monuments within the Rathcroghan complex as defined for this project and associated complexes to the east such as Carnfree and Tulsk as well as a possible outlier at Rathkineely the high ground to the west. All photomontages were taken looking north and east in the direction of the proposed road development. The sample encompasses monuments that are presently accessible to the public as well as monuments on privately owned land, it also sought to represent prominent, well defined monuments or groups that would provide the best vantage points and clearest uninterrupted panoramic views. The sample also sought to capture the change in views in relation to the natural topography of the plateau and as such represents views from the 100m contour to above the 140m contour line. Finally the photomontages sought to demonstrate that monuments positioned to the south of Rathcroghan such as Rathnadarve, the Mucklaghs and Relig na Riogh had limited views to the north due to the rising topography and had no clear views in the direction of the proposed road development.

The centre line of the proposed road development is located approximately 943.5m north of the 100m contour line (at its closest point) which surrounds the complex and roughly corresponds with the edge of the plateau and 832m from the outer edge of the proposed road development. A group of monuments at Ballymurray consisting of two mounds and two enclosures as well as a field system (RO022-009001-003-004-006-007) were selected for inclusion in the sample as they are the only group of monuments along the 100m contour line with uninterrupted long distance views to the north. Other sites were considered such as the barrow sites (RO022-056-006 and 007) at Grallagh, or a ringfort (RO022-056001) at Ballyconboy but were excluded on the basis that they were not truly representative of views from the 100m contour line or had obstacles blocking their views.

Beyond the 100m line and to the north of the plateau and south of the proposed road development, monuments and sites such as Rathlough (RO022-006001/002) (located c.827.3m south of the centre line) and a mound site (RO022-007) in Clogher Beg and an enclosure (R0022-003) in Kilvoy are located along the floor of an east-west trending valley at the northern foot of the Rathcroghan plateau with limited views to the north. All sites from where photomontages were taken are detailed in Appendix 14.11.

With mitigation there will be no appreciable difference to the northern views extending from the monuments to where the proposed road development is located.

**Table 14.7 A Photomontage Locations**

Photomontage Number	Name of Site	Co-ordinates (ITM)	Figure in Volume 3
AV01	Rathcroghan Mound	579965 E, 783676 N	14.28-14.29
AV02	Rathmore	579535 E, 784548 N	14.30-14.33

<sup>6</sup> Members from Roscommon County Council, TII/NRA, the Archaeological Department from the National University of Ireland, Galway (NUIG), landscape and visual consultants; Brady, Shipman and Martin, engineering design team; Roughan O'Donovan, architectural heritage consultant; Rob Goodbody and archaeological consultants; Courtney Deery Heritage Consultancy were present.

Photomontage Number	Name of Site	Co-ordinates (ITM)	Figure in Volume 3
AV03	Caran Fort	580375 E, 784706 N	14.34-14.35
AV04	Rathkineely ringfort	576704 E, 784770 N	14.36-14.37
AV05	Tulsk	583366 E, 781093 N	14.38-14.39
AV06	Ballymurray	581059 E, 785551 N	14.40-14.41
AV07	Carnfree	582421 E, 778463 N	14.42 -14.45
AV08	Rathnadarve	579385 E, 783690 N	14.46-14.47
AV09	The Mucklaghs	579086 E, 782887 N	14.48-14.49
AV10	Relig na Riogh	579772 E, 782868 N	14.50-14.51
AV01	Rathcroghan night time	579965 E, 783676 N	14.58-14.59
AV03	Caran Fort night time	580375 E, 784706 N	14.60-14.61

**Table 14.7B Photomontage Descriptions**

Photomontage	Name of Site	Description
AV01 (Figures 14.28, 14.29)	Rathcroghan Mound	AV01 shows the view to the north of Rathcroghan mound. From the top of the mound there are 360° panoramic views afforded over the rural landscape. The proposed road development is located over 3.5km to the north and at this distance is barely discernible with the intermittent natural screening and topography. The significance of the site remains unaltered.
AV02 (Figures 14.31-14.34)	Rathmore	The predominance of shelterbelts and built structures has limited local views. At a distance of just under 3km, there is a low degree of visibility of the proposed road development (76°-92°), the impact is considered negligible and the significance of the site remains unaltered.
AV03 (Figures 14.35-14.36)	Caran Fort	This monument is located approximately 2.8km south of the proposed road development. The long distance views will remain uninterrupted with existing shelterbelts of trees and structures limiting some foreground views. At this distance and with the intervening skyline vegetation, the proposed road development is barely discernible and will not affect the significance of the site or detract from the views.
AV04 (Figure 14.38-14.39)	Rathkineely	No appreciable change, the proposed road development is largely located in the valley and is difficult to view from this vantage point. The long distance views remain uninterrupted.
AV05 (Figures 14.40-14.41)	Tulsk	No clear view of the proposed road development.
AV06 (Figures 14.42-14.43)	Ballymurray	Intermittent and limited visibility of the proposed road development (85°-95°) in the distance (over 2km north). This does not distract from the setting of the low mound and the significance and setting of the group of sites is unaltered by the proposed road development.
AV07 & AV07B (Figures 14.44-14.47)	Carnfree	No discernible difference noted, intermittent visibility of the proposed road development in the far distance (over 8km north of the site).
AV08 (Figures 14.48-14.49)	Rathnadarve	No clear view of the proposed road development due to the rising topography in the foreground.
AV09 (Figures 14.50-14.51)	Mucklaghs	No clear view of the proposed road development due to the rising topography in the foreground.

Photomontage	Name of Site	Description
AV10 (Figures 14.52-14.53)	Relig na Riogh	Generally limited views to the north as the ground rises. The redline depicting the road can be glimpsed (90°-94°) over the horizon at a considerable distance, however at this distance it is doubtful if the road will be visible to the naked eye. The location of the road development does not detract from the site and the significance of the site and its setting remains unaltered.
AV01 (Figures 14.30)	Rathcroghan (night time)	At night time there is a slight increase in dispersed light, however this change is not readily appreciable as there are already background light sources.
AV03 (Figures 14.37)	Caran Fort (night time)	At night time any change is not readily appreciable as there is already a background light source at Elphin.

### 14.3.6 Archaeological Heritage

#### National Monuments

There are no sites or monuments under Preservation Order and no National Monuments in state care or ownership and guardianship of the Minister for the Arts, Heritage, Regional; Rural & Gaeltacht Affairs, within or in the vicinity of the proposed road development.

#### Recorded Archaeological Monuments (RMP sites)

There is one recorded archaeological monument, a pit field (RO016-151 (AH31)) in Kilvoy townland, which will be partially impacted by the proposed road development. A redundant record of earthworks (RO022-015) (AH53) will also be traversed by the proposed development. LiDAR and geophysical survey have recorded a possible field system (AH54) in this area.

A further 19 recorded archaeological monuments are located within c. 100m on either side of the centre line of the proposed road development while the area of interest of a further 10 recorded monuments encroach on this constraint corridor. All of these sites are listed in the Archaeological and Cultural Heritage Inventories, Appendices 14.2 and 14.3, along with SMR sites; sites of archaeological potential and cultural heritage interest identified from the LiDAR survey, cartographic sources, aerial photographs and field survey.

#### Topographical Files of the National Museum of Ireland (Stray Finds)

The stray finds recorded within the townlands along the proposed road development are referenced in the context of the archaeological and historical background (Section 14.3.1). See Appendix 14.4 for a table containing details of all stray finds recorded within the townlands along the proposed development.

#### Archaeological investigations

A study of all archaeological investigations in the vicinity of the proposed road development between 1970 and 2015 was undertaken. These sites are listed in Appendix 14.13 by townland and chainage following the proposed route from west to east. Numerous archaeological excavations have taken place in the vicinity of the proposed route, the earliest was in 1989 when a research excavation was carried out by an American college, a number of small scale residential development led excavations occurred intermittently from the late 90s, an N5 road realignment in 2000 saw excavations on the margins of raised bog and large scale testing programmes took place in 2009, 2010 and 2011 as part of the Ballaghaderreen road project.

Investigations that took place as part of this scheme are discussed in Section 14.4 of the chapter.

This study was based on records on the excavations.ie website. During the course of the study it was noted that discrepancies occurred between the ITM grid reference detailing the excavation location and the description of the location of the excavated site. For example, in some cases a nearby RMP is mentioned as being a certain distance away but the ITM places the excavation at a much greater distance. Taking the text descriptions of sites as the most reliable, where possible, any discrepancies have been rectified in their favour.

### 14.3.7 Cartographic Sources

#### Down Survey Map (c. 1656)

The Down Survey of Ireland only provides a general picture of the overall geographic environment in to which the route is proposed (Plate 14.13). Some features and towns in the wider landscape such as Elphin and Tulsk (Ogley) can be gleaned from this source. The maps at parish level for the area of the route were lost in 1711.



Plate 14.13 Down Survey Map of Ireland ([www.downsurvey.tcd.ie](http://www.downsurvey.tcd.ie))

#### Taylor and Skinner's Maps of the Roads of Ireland surveyed 1777 and published 1778

This book of maps shows the 18<sup>th</sup> century road network and major houses and places of interest along each of the routes. The maps of interest for this project are as follows:

Tulsk and Ballaghaderreen pg 69

Elphin pg 239

Boyle Road pg 71

Strokestown pg 68

The land to the south of French Park Estate and north of Bellanagare is shown as boggy. Two houses are shown belonging to the O'Connor's and a 'ch. Rus' may equate to the remains at Caltragh. A house is shown at Mantua and recorded as belonging to 'Rich. Underwood Esq.' Tulsk and an 'Abbey Rns' are shown on the

mapping along with Foxborough house which are both a considerable distance to the south of the proposed road development.

Cherryfield part of the 'Mills Esqr' which lies to the north of the proposed road development is shown on the Elphin map. To the west of Elphin, church ruins are shown, north of the road at the junction for Cherryfield. This church may represent the church and graveyard remains at Shankill. Strokestown House is shown and named on pg. 68 of the map book. The road to Boyle shows 'Ballinvoghter' house belonging to 'Goldsmith Es.' (this lies to the north of the proposed road development) and the 'Owen Ure River' is also shown. 'Kilthruston ch' is annotated on a hillock along with another structure which may represent Mullughcruigha church site.

### **1<sup>st</sup> edition six-inch Ordnance Survey (OS) 1837-1838 and Subsequent Revised Editions**

Detailed cartographic analysis of each townland from historic Ordnance Survey mapping along the proposed road development is provided in the context of the field inspection and aerial photographic analysis and described in the field reports and inventories (Section 14.3.8, Appendices 14.2 and 14.3). The original six-inch survey of Roscommon was published in 1837 and 1838. A second edition of the six-inch survey was published between 1888 and 1891, but didn't cover the entire county - though it covered almost all of the route of the N5 Ballaghaderreen to Scramoge, except from mid-way through the demesne of Strokestown Park, to the end at Scramoge (i.e. six-inch sheets 29 and 30 were not updated).

The first edition 25-inch was apparently published between 1888 and 1892, but only for the southern part of the county - i.e. sheets 29 and 30 were included, but not the rest of the route. The northern part of the county, down as far as Strokestown demesne, was published in a 25-inch edition in 1911-1913 - so most of the route would have been surveyed around 1913. The survey progressed southwards, covering the southern part of the county in 1912-1913. The final revised six-inch maps were published about 1936.

For the purpose of identifying features from Ordnance Survey mapping, this mapping was superimposed digitally onto the background mapping of the proposed route (Licence number 2014/18/CCMA Roscommon County Council Ordnance Survey Ireland. All rights reserved.). It is through this process that an accurate assessment could be made in relation to the potential impacts of the development and also how recorded sites have developed or changed over time.

#### **14.3.8 Cultural Heritage**

North Roscommon has a rich cultural heritage expressed physically through archaeological monuments, architecture, and designed landscapes as well as through its folklore, historical events, notable people and traditions. People, events and traditions of cultural heritage significance are remembered in interpretive centres such as the Douglas Hyde Centre in Portaghard townland, the Rathcroghan Visitor Centre in Tulsk and the Famine Museum located with the grounds of Strokestown House.

These centres provide access locally to valuable documents and manuscripts and act as centres of learning in order to provide an educational resource in relation to the rich folklore, ancient legends and myths of the area as well as the struggles of the population during the famine and highlight notable figures in Roscommon such as Douglas Hyde.

Douglas Hyde was born in Castlrea, County Roscommon on January 17<sup>th</sup> 1860. His father became the rector of Tibohine and moved the family to Frenchpark, where Douglas spent his childhood years. Passionate about the Irish language, Hyde led the Irish language revival playing a leading role in the foundation of the Gaelic League. In 1938 he was elected the first President of Ireland under the new Constitution of 1937. He died 4 years later, after completing his term of office, on July 12, 1949 and is buried within the graveyard of Portaghard church (CHC9). Douglas Hyde had a long association with and fondness for Ratra House having befriended the French family who lived there and then leased the house throughout his married life. The house originally the property of Lord de Freyne is no longer extant.

Another person of note associated with north Roscommon is William Percy French. William was born on the 1<sup>st</sup> of May 1854 and became one of Ireland's foremost songwriters and entertainers. He was born at Cloonyquin House, near Tulsk in County Roscommon and died sixty-five years later in January 1920 having penned some of the most renowned and comic songs of the era. His grave is in the churchyard of St Luke's Parish Church, Formby, Merseyside. The Percy French name is linked closely to the Tulsk and Strokestown areas of Roscommon.

### **Undesignated Sites**

As revealed by the field survey and walk over, there were relatively few sites of a previously unrecognised built or cultural heritage interest or an upstanding nature identified during the course of the survey along the proposed road development. Structures within the proposed road development include vernacular buildings and features as shown on the 1<sup>st</sup> edition OS six-inch mapping. In many cases these structures no longer have an above ground presence but have been recorded as items of cultural heritage interest. Descriptions of each site are provided in the Inventory of Cultural Heritage Sites (Appendix 14.3). With these sites where there is an overlap with the Architectural Heritage chapter, it has been noted in the relevant inventory.

Demesnes and designed landscapes as well as protected structures, Architectural Conservation Areas (ACAs) and features of an architectural merit are discussed in Chapter 15, Architectural Heritage section of the report.

### **Place Name Evidence and Townland Boundaries**

Townland names are a rich source of information, not only on the topography, land ownership and land use within the landscape, but also on its history, archaeological monuments and folklore. Where a monument has been forgotten or destroyed, a place name may still refer to it and may indicate the possibility that the remains of certain sites survive below the ground surface.

The unit of measurement in the form of a townland is a unique feature in the Irish landscape. They are one of the oldest land divisions in the country and their origins are undoubtedly of great antiquity, most certainly pre-Norman. They existed well before parishes or counties. There are 62,000 townlands in Ireland, grouped into civil parishes, then counties and finally provinces. Several of the townlands along the proposed development derive from the names of English landowners or their country houses. Appendix 14.6 contains a table of all the townland names and their possible derivation.

The boundaries were described and recorded in the great surveys following the land confiscations of the mid-17<sup>th</sup> century and were further standardised in the mid-19<sup>th</sup>

century with the work of the Ordnance Survey. Townland boundaries were often laid out along natural features including rivers, streams and high ground or manmade features such as roads and walls (Nolan 1982). Townlands and other landholdings were further subdivided into individual fields generally by means of earthen banks, which over time were colonised by hedgerow and trees. The typology of the boundaries can vary in different parts of the country, with some areas favouring distinctive high, wide earthen banks or just stone walling; sometimes there is a combination of earth and stone, with a stone-revetment or a facing on an earthen bank. The field and townland boundaries within the study area were, for the most part, formed by earthen banks. The intensification and mechanisation of agricultural production in the second half of the 20<sup>th</sup> century has led to the removal of internal field boundaries to create larger fields. The remains of removed field boundaries can survive in the landscape as linear earthworks or ditches, sometimes evident on aerial photographs. The individual townland boundaries crossed by the proposed development are described in the context of the field survey and listed in Appendix 14.12.

### 14.3.9 Field Survey Reports

#### Section A, Chainage 1+000 – 1+800, Rathkeery (Figure 14.1 in Volume 3)

##### Physical Environment

The townland of Rathkeery lies within the civil parish of Tibohine and the barony of Frenchpark. The route veers off the current alignment of the N5 in the northeast corner of the townland (Chainage 1+250) and crosses a number of fields, ranging in size from small to large. To the west the land is low-lying, with poorly drained soils and rushy vegetation. The field boundaries consist of low earthen banks with hawthorn trees growing on top. To the east the ground starts to rise, and well drained pasture can be found in larger fields. The field boundaries here, are earthen banks with vegetation growing on top, though they tend to be more substantial.

North of the existing N5 has experienced disturbance with the development of the Ballaghaderreen Bypass and auxiliary works such as an attenuation pond are now in place and the junction with Glebe East has been improved. Additional ponds may be added as a result of the proposed development extending further into the field. It will be set within an undulating field of rough pastureland, which rises to the north and is surrounded by a tree-lined boundary. Long reeds indicate that wet ground occupies the majority of the area proposed for development.

##### Cultural Landscape

The present day N5 follows the line of a road that is depicted on the 1<sup>st</sup> edition six-inch Ordnance Survey (1836), running between Ballaghaderreen to the west and Bellanagare to the south. At chainage 1+150 and 1+200 structures are depicted adjacent to the south of the road and one structure is shown to the north of the road at chainage 1+300 on the same cartographic source (CHC1 and 2). To the south of the route, c.150m, a couple of clachan settlements were evident; the first consisting of eight buildings associated with a number of in-fields, followed by another group of ten to eleven buildings a short distance further eastwards. The latter's location is now partly occupied by a modern farm complex.

Rathkeery Glebe (CHC3) in Glebe East townland is depicted on the 1<sup>st</sup> edition six-inch Ordnance Survey, today it is located immediately to the north of the existing N5 with mature treeline boundaries in place to the east, north and partially to the west.



### Archaeological Potential

The remains of two early nineteenth-century dwellings depicted on the 1<sup>st</sup> edition Ordnance Survey are located at chainages 1+150 and 1+200 where the new road development meets with the current N5 (CHC1 and 2). Otherwise there are no specific areas of archaeological interest within the townland, but as with all areas of greenfield, there remains the potential that previously unidentified archaeological sites or features may survive below the present surface.

Works associated with the upgrade as a result of the Ballaghaderreen Bypass is evidenced from the junction at Rathkeery Glebe and N5 westwards and has been subject the previous archaeological investigation. No archaeological features were revealed as a result of this work.

### **Section A, Chainage 1+800 – 3+950, Portaghard Townland (Figures 14.1 and 14.2 in Volume 3)**

#### Physical Environment

The townland of Portaghard lies within the civil parish of Tibohine and the barony of Frenchpark. The landscape is flat, containing for the most part well-drained, pastoral farmland. However there are pockets of poorly drained land characterised by the presence of long reeds and used for rough grazing. The fields are divided by low earthen banks with hawthorn and other vegetation growing on top. The northern boundary of the townland for the most part runs along the current N5. The former Anglican parish church and graveyard of Tibohine is located on this stretch of road.

#### Cultural Landscape

Frenchpark Demesne abuts the northern boundary of the townland (CHC 10). The 1<sup>st</sup> edition six-inch Ordnance Survey depicts a building structure (CHC 5) on the route at chainage 2+000, along with another dwelling and property plot at chainage 2+500 (CHC 8). The site of a group of structures lie adjacent to the route at chainage 2+250. There are no visible surface traces of these buildings (CHC 7). A vernacular house still stands at chainage 2+225 – a single pile, four-bay building (13m x 5m), built of roughly coursed limestone that is bonded with mortar (CHC 6) (detailed in Ch. 15 Architectural Heritage). This house is depicted on the revised OS 6-inch and 25-inch maps but not on the 1<sup>st</sup> edition Ordnance Survey. About 100m to the north of chainage 2+750 lies the Anglican church and graveyard of Tibohine that served the local parish (CHC 9). Now closed for worship, it is currently used as an interpretative centre celebrating the life of Douglas Hyde, Irish language activist and first president of Ireland.

In Portaghard (NGR/ITM 169756, 292491 / 569714, 792506) (AH 1), LiDAR results show a broad spread of possible pits across a number of rough pasture fields. The extent of the area is relatively poorly defined and included some typical elongated forms to the west of the group but many smaller individual pits also. The sweep of possible pits extend from the southwest to the northeast in a double row in an arc like form and could not be clearly identified in the field adjacent to the proposed road development or neighbouring field from field inspection. Recent disturbance was noted within the area, and some areas detected by LiDAR appeared to be natural waterlogged sumps especially along the northern tree lined boundary. The main concentration of pit features appear from the LiDAR survey to be focused to the south of the proposed road development.

There are two rectilinear pits visible on the route, located respectively at Ch. 3+175 and Ch. 3+200, both measuring 2m by 1m in extent and up to 80cm in depth where

visible. A third example lies c.30m to the north of the route (at 3+200), with similar dimensions, but is currently waterlogged. They were dug recently by a local farmer, in an effort to improve drainage on his land. At Ch. 3+850 another building is depicted by the 1<sup>st</sup> edition Ordnance Survey, again of which there is no surface trace, this structure was originally accessed by a laneway that extended north-south from the N5 and while there is no visible trace, this former access track is crossed by the proposed route.

#### Archaeological Potential

The remains of four dwellings depicted on the first edition 6-inch Ordnance Survey, each at different locations in this townland may survive below surface (CHC 5, CHC 7, CHC 8). An example of a late nineteenth / early twentieth rural dwelling stands on the route as well and this is to be retained (CHC 6). A possible pit field (AH1) was identified by LiDAR, the main concentration of pit features appear from the survey to be focused to the south of the proposed route. Evidence of these pits were not identifiable during the field inspection along the route. There are no other specific areas of archaeological interest within the townland, but as with all areas of greenfield, there remains the potential that previously unidentified archaeological sites or features may survive below the present surface.

### **Section A, Ch. 3+950 – Ch. 4+600, Turlaghnamaddy (Figure 14.3 in Volume 3)**

#### **Physical Environment**

The townland of Turlaghnamaddy lies in the civil parish of Tibohine and the barony of Frenchpark. The land is flat and for the most part is poorly drained. The western half of the townland contains waterlogged marshy fields, while the remainder to the east is covered by modern woodland plantations. A local road running in a general northeast-southwest direction defines the eastern side of this townland.

#### Cultural Landscape

Much of the land in this townland is waterlogged and covered with rushy vegetation typical of poorly drained fields. At Ch. 4+050 there is a raised earthen platform (AH4), trapezoidal in plan, measuring c.18m by 13m in maximum extent, and 1.3m in height above the surrounding field. There are no structures apparent on top of the platform, though brick fragments are apparent in places along the sides of the platform. This earthen platform possibly served as a good vantage point for hunting purposes in the post-medieval period. There are no upstanding structures on the route in this townland. The 1<sup>st</sup> edition Ordnance Survey reveals a structure at Ch.4+250. The same cartographic sources depict another dwelling lying c.30m to the south of the route at Ch. 4+475. Neither of these dwellings are depicted on the later OS 6 inch or the 25 inch maps.

#### Archaeological Potential

The upstanding remains of a trapezoidal platform lies on the route at chainage 4+050 (AH4), while the remains of a pre-famine structure may lie to the north of the route below the ground at chainage 4+250. An enclosure identified by LiDAR survey (now recorded as RO15-072 in the SMR) is located outside the landtake to the north (AH5). Due to the presence of wetlands along the route, there is a potential that previously unidentified archaeological sites or artefacts of an organic nature may survive below the present surface.

### **Section A, Ch. 4+600 – Ch. 5+698, Dungar, Mullen and Corskeagh (Figure 14.3 in Volume 3)**

#### Physical Environment

The townlands of Dungar, Mullen and Corskeagh are situated in the civil parish of Tibohine in the barony of Frenchpark. The route passes through flat, poorly drained countryside, containing a mixture of rushy pasture and modern tree plantations. Field boundaries are typically marked by drains flanked with fence lines. The route crosses small portions of the townland of Dungar, as well as through a northerly portion of Mullen, before entering the townland of Corskeagh. It is in this townland that the proposed route will meet with an existing main road, the R361 that runs between Frenchpark and Castlerea. Material recovery areas (Ch. 4+625 - Ch. 4+850) are scheduled in areas of open fields that are boggy and wet underfoot surrounded by tree lined field boundaries and forestry plantations.

#### Cultural Landscape

The 1<sup>st</sup> edition six-inch Ordnance Survey reveals that much of the land was unenclosed and marshy largely bereft of settlement apart from isolated single structures. In the south-eastern corner of Corskeagh a single dwelling is recorded by the same cartographic source at Ch. 10+000 (CHC 13), along the west side of an existing main road, the R361 that runs between Frenchpark and Castlerea. A smaller, more square-like structure existed on the site in later 6-inch and 25-inch Ordnance Survey. The remains of two structures are located at Ch. 4+775 and Ch.4+800 in the southwest corner of Corskeagh townland, the site of one of these structures is on the line of the route (CHC12) while the remains of an upstanding vernacular structure is located within a material recovery area (CHC11).

#### Archaeological Potential

Due to the presence of former wetlands along the route, there is a potential that previously unidentified archaeological sites or artefacts of an organic nature may survive below the present surface.

According to the topographical files of the National Museum of Ireland, a wooden vessel containing bog butter (1943:288) was found in an unspecified bog in Mullen. In the same townland, a bronze triangular spearhead was also found (1941:351), but again in an unspecified location.

### **Section B, Ch. 10+000 – Ch. 12+750, Mullen, Leggatinty (Figures 14.4 and 14.5 in Volume 3)**

#### Physical Environment

The townland of Leggatinty lies in the civil parish of Tibohine in the barony of Roscommon. Leaving the proposed roundabout at the junction with the R361, a main road that runs between Frenchpark and Castlerea, the route crosses rushy grassland before crossing the Carricknabraher River (AH6) and entering a modern forestry plantation with coniferous trees planted in regular rows until Ch. 10+900. Beyond this, for 350m, former bogland that was previously harvested is now covered with vegetation and is very uneven beneath the foot. The boundaries of these fields consist of drains lined with wire fences, as well as vegetation in some parts. The proposed route then re-enters a narrow belt of coniferous forestry from Ch. 11+250-Ch.11+750.

Vegetated bogland and rough pasture land occupy the next stretch along the route and this is poorly drained, marshy, covered with rushy vegetation and heavily overgrown with long grasses and small bushes. Beyond this, the land quality

improves and at Ch. 12+375 the route emerges into long strip fields defined by deep drains and scrub boundaries with the occasional mature tree. These fields are oriented east northeast-west southwest extending from the present N5. It is at Ch.12+750 that the route crosses the existing N5 with a pair of ancillary roads linking the local roads coming from the north and south.

The route does not pass any actively cut bog and any exposed peat faces or open cut drains that were inspected lay to the south of the proposed route and will not be affected by the development (Plates 14.14 and 14.15).



**Plates 14.14 / 14.15 Peat Faces to the South of the Route at Ch. 11+500 and 12+250**

Cultural Landscape

There are no recorded monuments on this stretch of the proposed road development as it passes through the townlands of Mullen and Leggatinty. The area is shown as bogland on the 1<sup>st</sup> edition six-inch OS mapping. The character of the landscape has considerably changed since the mid-19<sup>th</sup> century with a greater number of enclosed fields and forestry plantations than was the case in the late 1830s when there was considerably more open land of a marshy or boggy nature as shown on the 1<sup>st</sup> edition six-inch OS. A large portion of the bog has also now been reclaimed (Plates 14.16 and 14.17) and used as rough grazing land.



**Plates 14.16 / 14.17 Reclaimed Bogland Along the Route at Ch. 12+250 and 10+950**

Archaeological Potential

This area has been subject to a number of reroutes and all recorded monuments have now been avoided including the well in Leggatinty (RO015-033001). Re-routing has avoided a vernacular structure and barrow site identified by LiDAR survey (now recorded in the SMR as RO015-073). However, the re-route has a direct impact on a mound site, identified by LIDAR at Ch. 12+625. It is an earthen mound (AH9)

measuring c.14.5m north/ south by 12.5m east/ west, and is approx. 1m in height. This mound (AH9) occurs in the same area as a site of a structure located on the 1st edition six-inch OS map (CHC14). Due to the presence of wetlands along the route, there is a potential that previously unidentified archaeological sites or artefacts of an organic nature may survive below the present surface.

### **Section B, Ch. 12+750 – Ch. 15+200, Cashel, Ballaghcullia & Drummin (Figures 14.5-14.7 in Volume 3)**

#### Physical Environment

The townlands of Cashel, Ballaghcullia and Drummin lie in the civil parish of Kilcorkey and the barony of Castlereaugh. The route crosses the existing N5 route at Ch. 12+750 with ancillary roads linking up the existing road network with the new development. The route proceeds in a south-easterly direction across a rushy field and a lane before proceeding onto rising land. The route proceeds gradually uphill and then downhill, the surrounding land consisting of well-drained pastoral fields bounded by a mixture of hedgerows, stone walls and wire fences. At Ch. 13+800 the land is once more low-lying, with drains again becoming a feature of the farming landscape.

The route proceeds through a mixture of deciduous woodland and bog for 400m. At Ch. 14+200 the land becomes pastoral grassland for a short interval, before the route cuts through another deciduous woodland for nearly 200m, before again passing onto flat pastoral farmland. This landscape, consisting of large pastoral fields of former bogland divided by drains and wire fencing, extends from Ch. 14+750 to Ch.15+150 before coming across another small belt of deciduous woodland for the final 50m of this section, growing along the eastern boundary of Drummin townland. The Owennaforesha River (AH21) forms the boundary between Ballaghcullia and Drummin at chainage 14+525.

#### Cultural Landscape

The route passes through the former demesne (Ch. 13+100 - Ch. 14+100 as shown on the 1<sup>st</sup> six-inch edition OS) of Hermitage (CHC 16). At Ch. 13+100 a building structure (CHC 17) was recorded by the 1<sup>st</sup> edition Ordnance Survey of which there is no visible surface trace today. In Cashel townland at Ch. 13+175 the 1<sup>st</sup> edition Ordnance Survey depicted a building (CHC 18) of which there is no surface trace. A plectrum enclosure (AH 17) was also identified in Ballaghcullia, c.110m northeast of the route, at Ch. 13+500. This was revealed by field inspection as an impressive enclosure measuring 85m east-west, with an earthen bank and outer fosse. Trees are growing on the bank which suggests that this monument may have been reused as a tree ring given that it is situated within the demesne of nearby Hermitage House. The copse of deciduous trees in Drummin between chainage 14+500 and 14+750 may be the result of landscaping associated with Bellanagare Castle to the south. Another copse of deciduous woodland evident on the townland boundary between Drummin and Peak, at Ch. 15+200 formed part of a curving demesne tree belt also associated with Bellanagare Castle. This castle was the one-time residence of the O'Conors before they moved to Hermitage House.

#### Archaeological Potential

There are no recorded archaeological monuments within the proposed landtake on this stretch of the route as it passes through the townlands of Cashel, Ballaghcullia and Drummin. Lying outside the proposed landtake on either side of the route, there are three recorded monuments: a cashel (RO015-046) in the townland of the same name, an ecclesiastical enclosure (RO015-047) in Ballaghcullia known as Caltragh

containing houses, a relic field system, a cross and a children's burial ground; and a linear earthwork in Drummin (RO015-063).

Eleven sites in total have been identified by LiDAR along the proposed route as it proceeds through the townlands of Cashel, Ballaghcullia and Drummin (AH11-AH23). At Ch. 13+050 a potential enclosure (AH11) was recorded by LiDAR, which appears only as rising ground in a corner of a field with no enclosing feature evident. At Ch.13+075 in Cashel townland LiDAR recorded another possible enclosure (AH12) of which there is no apparent evidence on the ground. Also in Cashel townland, at Ch. 13+125 LiDAR noted the presence of a possible enclosure (AH13), which in the field has the appearance of a scarp and is not necessarily of archaeological nature. Just inside the townland boundary between Cashel and Ballaghcullia, at Ch. 13+200, LiDAR noted the presence of a hollow way (AH14) of which there is no trace today. However, the 1<sup>st</sup> edition Ordnance Survey recorded a tree belt that bordered the demesne of nearby Hermitage House whose curved outline follows that of the hollow way as depicted on the LiDAR.

Elsewhere in Ballaghcullia, the LiDAR identified a mound (AH16) c.100m southwest of the centreline of the route at Ch. 13+475 which appears as a general rise in the ground. This may also have traces of it preserved beneath the sod. LiDAR also revealed three other sites in Ballaghcullia – a possible enclosure (AH18) c.165m northeast of the centre line of the route at Ch. 13+575, and two other potential sites directly on the route: possible hollow ways (AH19 and AH20) at Ch.13+800 and Ch.13+900 respectively. For these three sites there are no visible remains on the ground. The Owennaforeesha River forms an area of archaeological potential and the townland boundary between Ballaghcullia and Drummin (AH21).

In Drummin, LiDAR indicated a mound (AH22) (now recorded in the SMR as RO015-078) located to the east of a proposed attenuation pond and outside the landtake at Ch. 14+700 and another mound (AH23) (now recorded in the SMR as RO015-077) on the route on Ch. 14+725. The former measured c.12m in diameter and 1m in height, while the latter was slightly larger at 16m in diameter and 1m in height.

Review of the 1<sup>st</sup> edition six-inch Ordnance Survey revealed two sites – buildings at Ch. 13+100 and Ch. 13+175 (CHC 17 and 18), and while no longer evident in the present day landscape, the foundations of these buildings and associated structures may still lie in the ground.

### **Section B, Ch. 15+200 – Ch. 17+625, Peak, Carrigeenacreeha, Garrynaphort and Mullenduff (Figures 14.7 and 14.8 in Volume 3)**

#### Physical Environment

The townland of Peak lies in the civil parish of Kilcorkey in the barony of Castlereagh, while Carrigeenacreeha and Mullenduff are situated in the civil parish of Kilcolagh in the barony of Frenchpark. Crossing into the townland of Peak, the route enters a small wood for 75m before entering an area of boggy land. The route then proceeds through a coniferous forestry plantation with the trees planted in regular rows. After 30m, the route crosses a rushy pastoral field before entering another belt of regularly planted coniferous trees for 60m. After this the landscape becomes open again between Ch. 15+700 and Ch.16+750 – the land is covered by pasture divided by drains and wire fences, before entering an area of boggy woodland, containing a mixture of deciduous and coniferous woodland for 270m. Following this the route enters an area of mixed character with pasture alternating with coniferous woodland and settlement along an existing roadway at the eastern boundary of Mullenduff at Ch. 17+652. Material deposition areas are proposed from Ch. 15+250-15+750 in

area of reclaimed bog land now used for forestry plantation and rough pasture grazing. Also to the south of the route in Garrynaphort from Ch. 17+100 - Ch.17+600 another material deposition area is proposed in an area of regenerating forestry and previously occupied by plantation forestry.

### Cultural Landscape

There are no recorded archaeological monuments on the route in the townlands of Peak, Carrigeenacreeha and Mullenduff. Adjacent to the south of an ancillary road improvement, between Ch. 15+350 and Ch. 15+500, are the possible remains of a deserted settlement (AH24), depicted on LiDAR and confirmed by field inspection. There are a series of earthworks consisting of banks defining rectilinear enclosures of varying sizes. On the western side of the settlement a house platform is apparent, measuring 12m northwest-southeast, 9m northeast-southwest and 0.40m in height. On the route in Carrigeenacreeha townland, at Ch. 16+375, there are the remains of a vernacular house (CHC 19), consisting of the south-west corner of a cottage. The surviving remains consist a south wall measuring 4m in length and a west wall (the gable-end) measuring 2.5m in length. It is built of roughly coursed limestone blocks. The house stands within its own plot – defined by an earthen bank with trees growing on it. At the southern extent of the proposed material deposition area four structures were noted on the historic mapping (CHC 20, 22 and 24) while a stream was noted during the field inspection extending through the site from the north to the south and crossing under a modern road side bridge/ culvert marked RNR369-003.

At Mullenduff, at Ch.e 17+375 the site of a structure was recorded (CHC 21) but there is no visible trace of this in the field. At Ch. 17+550, the site of a school house (CHC 23) was recorded by the 1<sup>st</sup> edition six-inch OS outside the proposed landtake and east of ancillary road improvements.

### Archaeological Potential

The LiDAR has recorded three sites adjacent or within a short distance of the route – the deserted settlement (AH 24) in Peak, a possible enclosure (AH 25) at Ch.16+525 and an enclosure (AH 26) at Ch. 16+550, both in Carrigeenacreeha. While in close proximity, all these sites are located outside the proposed landtake. The remains of the deserted settlement are clearly discernible on the ground and are quite extensive, covering an area measuring c.150m northwest-southeast by c.135m northeast-southwest.

At Ch. 16+525, c.55m south of the centreline of the route, LiDAR recorded a possible enclosure (AH 25). Field inspection revealed no evidence for an enclosure, except for rising ground, measuring 25m E-W by 17m N-S, and 1m in height above the surrounding area. A short distance to the east at Ch. 16+550, approximately 50m south of the centreline of the route, an enclosure (AH 26) was recorded by LiDAR, but high grass prohibited any surface identification. While there are no visible surface traces of the potential enclosure sites, archaeological remains of such sites may still lie preserved underneath the sod. The remains of the vernacular dwelling (CHC 19) and associated property plot at Ch. 16+375 are clearly evident, and further structures or features associated with this site may lie below ground. The school house recorded on the 1<sup>st</sup> edition Ordnance Survey (CHC 23) no longer remains upstanding, but again structures associated with this may survive below ground.

## **Section B, Ch. 17+625 – Ch. 20+625, Corry West, Kilvoy, Corry East and Cloonyeffer (Figures 14.8-14.10 in Volume 3)**

### Physical Environment

The townlands of Corry West, Kilvoy, Corry East and Cloonyeffer are in the parish of Shankill in the barony of Roscommon. The route enters the townland of Corry West before proceeding into a reasonably mature woodland, consisting for the most part of regularly spaced coniferous trees, though with some deciduous trees also growing in pockets. At Ch. 18+125 the route crosses a regional road, the R369, which runs between Bellanagare and Elphin. At this point it enters a newly planted deciduous wood plantation before moving into a field with rushy vegetation. At the far end of this field is a laneway (at Ch. 18+300) which runs in a north-south orientation (AH 28). To the north, the laneway meets the main gate (CHC 29) of the demesne of Mantua House.

Continuing eastwards, beyond the laneway, the land remains poorly drained, with rushy vegetation being characteristic of the field growth. At Ch. 18+625 the route crosses a newly planted deciduous woodland for 80m. After this, the land rises a little and well-drained pasture becomes a feature of the landscape. The route crosses the R369 again at Ch. 19+125, cutting through a demesne tree belt associated with the Mantua Demesne (CHC 25) on the north side of the existing road. The land continues to rise and well-drained pastures dominate the environment, the fields are divided by hedgerows, with trees and hawthorn bushes growing on earthen banks. A particularly high and well defined curvilinear field bank (AH33) is encountered on the line of the townland boundary between Corry East and Cloonyeffer. At Ch. 19+750 the route crosses another small laneway, north of Mantua crossroads, and then continues across more pastoral farmland. The fields are small and boggy cut by drainage ditches to the east of the crossroads. At Ch.20+625 the route meets another laneway. Pastoral grassland dominates, though there is now a slight fall in topography so that by Ch.20+625 the land is not as well drained and rushy vegetation has appeared again.

### Cultural Landscape

In Corry West, a proposed ancillary road cuts through a deciduous tree belt associated with the demesne of Mantua House (CHC 25). The main route itself cuts through the same tree belt (and another deciduous tree belt also associated with the demesne within a modern forestry plantation). The 1<sup>st</sup> edition Ordnance Survey records the presence of a gate lodge for Mantua House (CHC 28), this would have been located to the north of the proposed landtake.

A forestry track c.4m in width (AH 28) will be crossed by the proposed road to the south of Mantua House. This track, runs in a north-south orientation and was thought to be a possible extension of the recorded monument (RO022-056002), a road/trackway that extends from Rathmore. As a result the forestry track was subject to test excavation, however this exercise failed to reveal material or features of an archaeological nature (see section 14.4 of the chapter).

The 6-inch and 25-inch Ordnance Survey maps record the presence of a geological feature called 'Polloweneen' (CHC 30) in the townland of Kilvoy to the north of the proposed route. This presents is a tree-lined depression with a stream curving through it. The local name suggests the presence of an underground stream/ cave on site.

East of the entrance to Mantua, the aforementioned tree belt is a dominant feature of the local landscape, running along the north of the R369 – it consists of an earthen



bank that zigs-zags in a general east-west orientation with mature trees planted alongside.

At Ch. 18+900 there is a cluster of mature trees (not associated with the planting of Mantua House as shown on the 1<sup>st</sup> edition six inch edition OS) this time to the south of the R369 – the route will run through this. A short distance east from this, at Ch.19+000, there are earthworks (AH 30) consisting of raised platforms divided by drains. These are not recorded on the 1<sup>st</sup> edition six-inch OS map for the area and the results of a geophysical survey and test excavation in this area are included in section 14.4 of the chapter.

The 1<sup>st</sup> edition six-inch Ordnance Survey depicts the site of Yambo House (CHC 31), this site lies to the south of the route; the townland boundary (AH 33) between Corry East and Cloonyeffe, running along a potential large outer enclosure associated with a tree ring (AH 35) is to be found in the same location. The site of a post office (CHC 32) adjacent to a proposed ancillary road is recorded on the 25-inch Ordnance Survey map. The site AH 36 (35.6) identified by LiDAR survey was identified as a small, flat-topped mound, 13m in diameter and possible modern in origin. This site partially corresponds with a farmyard/ plot of land associated with a dwelling marked on the 1<sup>st</sup> edition six-inch OS and recorded in the field as a raised rectangular enclosure defined by earthen banks on the north and west side approximately 40m east-west and 24m north-south.

Within the landtake at Ch. 20+100 a number of drains meet forming a small semi-circular wetland area to the north of an existing east-west bank and ditch boundary (this boundary is not on the 1<sup>st</sup> edition and only is shown on later revised OS editions). Two earthen banks approximately 2m apart protrude in a north-south direction from this boundary, acting as a channel for water and filling this natural wetland sump area. It is thought that the feature is a possible result of land reclamation practices in the area (Plate 14.8).



**Plate 14.8** Wetland Area at Ch. 20+100

### Archaeological Potential

The route runs along the boundary between Corry West and Kilvoy where a number of sites of potential are encountered. A forestry trackway (AH 28) at Ch. 18+300, while it appears to be of modern provenience may be the northerly extension of an

ancient roadway (RO022-056002) that extended from Rathmore 4km to the south. This track was test excavated and nothing of an archaeological derivation was revealed. The site of 'Polloweneen' (CHC 30) is potentially of archaeological significance as underground streams/caves are known to have attracted human activity over the centuries for the purposes of settlement and ritual.

The northwest corner of an area containing a recorded monument – a pit field (RO016-151) (AH 31) is traversed by the proposed road development in Kilvoy townland. The area of interest for this monument extends for 220m east-west and 100m north-south.

The feature is described in the Archaeological Survey of Ireland as encompassing 15 grass-covered pits (dimensions c. 10-15m x. c. 4m; with a depth of c. 0.5-.08m) generally aligned east/west, forming two rows c. 50m apart and covering an area of c. 6 ha (c. 16 acres). Field inspection revealed two pits within the landtake (pits 8 and 9). The main concentration of pits identified as the RMP are located to the south of the proposed road development.

LiDAR survey has identified additional pits to the north, south and west of the route. Field inspection revealed twelve pits in a number of discrete areas either on or close to the route between Ch. 18+825 and Ch. 19+750. They appear to be aligned in a linear formation running east-west. They are detailed as follows:

**Table 14.8 Pit Field at Kilvoy (AH 29)**

Number	Description of Pits Found Between Ch. 19+025 and Ch. 19+075 in Kilvoy
1	This pit measures 5m E-W by 2m N-S, and 0.4m in depth
2	This pit measures 3.5m in diameter and 1.1m in depth
3	This pit is c.9m E of pit 2. It measures c.2.5m in diameter and 0.9m in depth
4	This pit is c.10m E of pit 3. It measures 2m in diameter and 1.1m in depth
5	This pit is c.17m S of pit 4. It measures 2.2m in diameter and 0.9m in depth

**Table 14.9 Pit Field at Kilvoy (AH 29)**

Number	Description of Pits Found Between Ch. 19+175 and Ch. 19+200 in Kilvoy
6	This pit is sub-rectangular and measures 8.5m E-W & 3.5m N-S
7	This pit is c.25m SE of pit 5. It is waterlogged and measures 9m E-W & 4m N-S

**Table 14.10 Pit Field at Kilvoy (AH 31)**

Number	Description of Pits Found Between Ch. 19+450 and Ch. 19+500 in Kilvoy
8	This pit is sub-rectangular and measures 14m E-W & 8m N-S and 1.1m in depth
9	This pit is sub-rectangular. It is waterlogged and measures 10m E-W & 6m N-S

**Table 14.11 Pit Field at Corry East (AH 32)**

Number	Description of Pits Found Between Ch. 19+425 in Corry East
10	This pit is sub-rectangular and has trees growing around it. It measures 12m E-W by 6m N-S, and is 1m in depth

**Table 14.12 Pit Field at Cloonyeffer (AH 34)**

Number	Description of Pits Found Between Ch. 19+625 - Ch. 19+775 in Cloonyeffer
11	This pit is sub-rectangular and measures 12m N-S and 5m E-W and 0.35m in depth
12	Not possible to measure pit due animals in field, but similar dimensions to pit 11

The origins of the pit fields, including those detected by LiDAR and fieldwork (AH 29, 32 and 34) across the area, are unknown and as such were subject to a geophysical survey and test excavation, the results are included in Section 14.4 of this chapter and suggest a natural derivation.

In Kilvoy, earthworks (AH 30) consisting of raised platforms divided by drains may be the remains of a relict settlement or field system again this was subject to geophysical survey and test excavation (section 14.4). A curving field boundary (AH 33), with a high bank, runs along the boundary between Corry East and Cloonyeffer. This bank may also be an outer enclosure associated with a smaller, tree-lined enclosure (AH 35) located to the north of the route within Cloonyeffer. Test excavation did not reveal any association between the two (O'Connell 2016).

In the townland of Cloonyeffer a multi-ditched enclosure with an internal mound /or a potential ring barrow (AH 37) that was initially identified by the LiDAR as an enclosure, and field inspection revealed to be a D-shaped mound c.12m north-south by c.10m east-west, and 0.70m in height. This is surrounded by a circular internal fosse (up to c.7m in width) and an external bank (up to c.8.5m in width), which is visible from north to east to southeast. Overall site dimensions are c.23m east-west and c.35m north-south. Geophysical survey of this feature was undertaken and results suggest that this site extends 45m north-south and 50m east-west. The route was realigned to the south to avoid this potentially significant site and also a redundant record, recorded as RO016-152 in the RMP, a possible former quarry site (AH38).

**Section B, Ch. 20+625 – Ch. 23+175, Clogher More, Raheen, Cartronagor and Creeve (Figures 14.10 and 14.11 in Volume 3)**

Physical Environment

The townlands of Clogher More and Raheen are located in the parish of Elphin in the barony of Roscommon, while the townlands of Cartronagor and Creeve are situated in the parish of Shankill in the same barony. The road enters Clogher More, crossing flat pastoral farmland for 250m.

At Ch. 21+000 in the townland of Cartronagor the route enters a forestry plantation and it is at this point that the proposed landtake opens out, to include land to the north and the south of the route for the purpose of material deposition areas and attenuation ponds. The majority of this land is former bogland now used for grazing. The ground is very flat and divided by substantial drains. A significant tract of woodland consisting of dispersed coniferous trees standing on boggy land, followed by a more regularly laid out coniferous wood plantation is crossed by the proposed route. The route emerges onto a relatively low-lying field with rushes growing before meeting R369 again at Ch. 21+900. Crossing the road, the land rises and well drained pasture land becomes a feature of the landscape, the fields are divided by hedgerows. At Ch.22+500 the route meets another patch of planted coniferous woodland. It is here that the landtake opens up again to include an area currently forested which is proposed for a material recovery area and a small attenuation pond

Beyond this woodland is undulating well-drained pasture where the route meets the eastern boundary of Creeve townland.

### Cultural Landscape

In Cartronagor townland the sites of structures (CHC 35, 36 and 37) were identified on the 1<sup>st</sup> edition six-inch OS map but these have no visible trace in the field. The former demesne landscape of Raheen (CHC 34) lies to the south of the proposed route. The route does not impact on any recorded monuments in the townlands of Clogher More, Raheen, Cartronagor and Creeve. In Clogher More, a pit field (RO022-011) (AH 39) is also recorded by the LiDAR survey south of an ancillary road associated with the route at Ch. 20+675. Three pits were recorded in the field as lying c.45m of the south of an ancillary road development – the first pit was the most visible in the field measuring 7m east-west by 4m north-south and 0.5m in depth. The second pit is 11m east of the first but just presents itself as a slight depression, while the third pit is not really visible, just a very slight depression in the ground, 30m east of the first pit. These features will not be impacted by the proposed development and were recorded to gather more information on pit fields in the general area.

In Cartronagor townland the field inspection revealed that the area of a possible enclosure as grassed flat land with a scrub surround (two small scrub trees appear on the site) without any discerable features. The 1st edition six-inch OS map depicts a structure on the site within a rectangular plot and LiDAR recorded an rectangular enclosure 21m x 13m as a possible farmstead. The potential site (AH 40) is located to the southeast of a proposed material deposition area and to the north of a proposed attenuation pond and will not be impacted.

Within the grounds of Raheen Demesne, a ringfort (RO016-115001), an enclosure (RO016-115002) and a house site (RO016-115003) (AH 41) lie within a field that is c.10m south of an ancillary road improvement.

### Archaeological Potential

The pit field (RO022-011) in Clogher More is another example of this site type present to the south of the route and an ancillary route. Recorded monuments RO016-115001-003 (AH 41) - a ringfort along with an enclosure and a house- lie adjacent to an ancillary road improvement within the lands associated with Raheen Demesne. While the road development will not directly impact upon this site, structures and features associated with the upstanding monuments may lie below the ground surface, closer to the road development.

In the townland of Cartronagor at chainage 22+100, LiDAR identified a possible moated site (AH 44) part of which is located within the proposed landtake, though fieldwork failed to reveal definitive evidence of this. A possible bank c.50m in length runs along the eastern side of the feature, with a scarp defining the southwest corner of the feature, c.25m to the west. The 1<sup>st</sup> edition six-inch Ordnance Survey records a rectilinear enclosure with a building on the south side of it, adjacent to the possible moated site. In the same townland, LiDAR identified a possible enclosure site (AH 45) c.10m northeast of the landtake for the proposed route. The possible feature is defined by rising ground on eastern side and nothing visible on the northern and southern sides. Traces of an incomplete bank is located on the western side. The feature is c. 15m north-south and 36m east-west. Bounded by laneway to south and the remains of a dry stone, low wall are apparent along the southern side. The interior has a raised appearance but it is not clear if it is archaeological in nature or due to more recent disturbance. Geophysical survey revealed anomalies thought to

be representative of a field boundary and a possible enclosing element although this could also be interpreted as geological in nature. The results do not correspond with the LiDAR findings.

In Creeve townland a possible burnt mound (A46) (now recorded in the SMR as RO022-163 – a mound) presents as a nicely preserved mushroom shaped mound (diameter 12m east/ west, 11m north/south, height 0.35m – highest at northern end) surrounded by slightly waterlogged grassy terrain. While the area is located within the proposed landtake, no activity is scheduled in the vicinity of this feature. The closest development is an attenuation pond to the northwest.

In the townland of Creeve, at the townland boundary, at chainage 23+175, LiDAR recorded a possible enclosure (AH 48). Field inspection revealed a very slight rise in the field, with a possible ditch running from northeast to southeast and from southwest to north-northwest, defining an area roughly oval in plan, measuring c.22m east-west by c.16m north-south. Geophysical survey revealed no significant findings, a possible small field enclosure, drainage ditches and an historic field boundary.

### **Section B and C, Ch. 23+175 – Ch. 30+750, Gortnacranagh (Figures 14.11, 14.12 and 14.14 in Volume 3)**

#### Physical Environment

The townland of Gortnacranagh is in the civil parish of Shankill in the barony of Roscommon. The route crosses in a south-eastern direction into the townland. The land is low-lying pasture with rushy vegetation growing. The land rises steadily towards the east with the quality of pasture improving. Large fields defined by hedgerows are dominant in this area. The route meets an existing main road, the N61 at Ch. 30+000 (Section C), which runs north-south between Boyle and Tulsk. The route continues in a south-eastern direction running through similar farmland. It is in this area that the route follows a ridge of high ground with extensive views to the south. However, at Ch. 30+350, the land descends again down to a low-lying waterlogged area where the Owenur River defines the boundary between Gortnacranagh and Killeen West.

#### Cultural Landscape

'Gortnacranagh House' is shown on the revised six-inch OS map, adjacent and to the east of the road (now named N61) and is noted in the inventory as CHC 38. At chainage 30+200 the 1<sup>st</sup> edition six-inch Ordnance Survey depicts a T-plan building attached to its own property plot (CHC 39). There is no surface trace of these structures. Also recorded as part of CHC 39, lying adjacent and to the south side of the proposed route is an almost square enclosure on a break of slope overlooking the area to the south. It measures c.25m north-south by c.25m east-west and is defined by a fosse to the west, north and east that measures up to 4m in width and 1m in depth. The eastern fosse continues as a field ditch to the southeast. The 1<sup>st</sup> edition six inch Ordnance Survey depicts the square enclosure with a building situated along its west side. LiDAR (45.8) survey records this feature as sub-rectangular and measuring c. 28m x 33m.

At Ch. 30+300, field survey revealed traces of a hollow way (AH 61), extending for c.90m to the northeast before turning southeast for c.35m. It is 5m to 6m in width and there may possibly be the remains of banks associated with it too. The eastern boundary of Gortnacranagh is defined by the Owenur River (AH 64) – the 1<sup>st</sup> edition Ordnance Survey records it as having a winding course – it was later straightened to its present course by the time that the revised six-inch and 25 inch and Ordnance Survey were compiled.

### Archaeological Potential

Between Ch. 23+500 and Ch. 23+950 there is a recorded pit field RO022-036 (AH 52), though there is no surface trace, this lies to the south of the proposed route. At chainage 23+750 there is a delisted monument (RO022-015) (AH 53) – some possible earthworks revealed on aerial photographs, but of which there were no surface traces on inspection by the Archaeological Survey. In the same area, as the redundant record, the LiDAR survey recorded a field system (AH 54), of which there is no surface trace on present inspection. No relict field system was recorded by the 1<sup>st</sup> edition Ordnance Survey. Geophysical survey detected anomalies that are suggestive of a clear and coherent medieval field system. At Ch. 24+150, the LiDAR revealed an enclosure (AH 57) partly situated within the landtake for a roundabout on the intersection between the proposed route and the pre-existing N61 road. Field survey did not reveal any surface trace. Geophysical survey revealed a ditched enclosure oval in plan and measuring 52m x 42m. Testing confirmed the presence of this enclosure (Section 14.4).

At 30+000, LiDAR also indicated the presence of another enclosure (AH 58) (now recorded in the SMR as RO022-167 – barrow unclassified) – of which again there was notable surface trace in the field. Geophysical survey recorded modern disturbance in the area and testing revealed a single pit (1.7m east-west x 1.45 x 0.13m deep) and two linear features probably cultivation ridges. Between Ch.30+050 and Ch. 30+150 another field system (AH 59) pre-dating the 1<sup>st</sup> edition Ordnance Survey was revealed - a pair of rectilinear fields adjacent to each other, laid out on a northwest-southeast orientation. LiDAR suggested that this is potentially an early field system possibly pre-historic. Field inspection detected the northernmost of these fields. It is partly truncated by the N61 close to its west corner, consisting of a raised platform, c.60m southwest-northeast by c.50m northwest-southeast, defined by a scarp 0.4m in height to the north, east and south. The second field is not visible except for a partly visible bank that forms its north-eastern side. Another field bank c.30m to c.80m to the east, runs in a general north-south orientation for c.150m. This bank measures 4m in width, varying in height from 0.3m to 1m in height, with possible traces of a fosse (2m in width) on west side of bank. Geophysical survey identified enclosing elements probably representing conjoined field systems and suggested that they were medieval in date. Test excavation has confirmed the presence of this field system.

To the north of this field system and undetected by LiDAR survey, geophysical survey detected a ditched enclosure of archaeological potential. The enclosure measures approx. 20m in diameter and test excavation recorded a ditch cut at 3 separate locations (AH 59.1).

A further enclosure identified by LiDAR survey (AH 60) is located to the south of the route and will be avoided by the proposed route.

The 1<sup>st</sup> edition Ordnance Survey records a T-shaped building and associated property plot at chainage 30+200, and while there are no surviving traces of this building, its foundation and other features may lie preserved beneath the ground. Still visible to the eye is a rectilinear enclosure, once associated with a building on its western side that is also recorded by the 1<sup>st</sup> edition Ordnance Survey (CHC 39). A short distance to the northwest of the previous two sites is a hollow way (AH 61) at Ch. 30+300. All riverine environs are considered to have an inherent archaeological potential and finds along the Owenur River (AH 64) would demonstrate that it was considered to be a significant watercourse.

## **Section B, Shankill (Figures 14.13 in Volume 3)**

### Physical Environment

The townland of Shankill is located in the civil parish of Shankill in the barony of Roscommon. The landscape is of open large fields undulating in nature.

### Cultural Landscape

A War of Independence Memorial (Shankill CHC A) is located on the northwest side of the road entering Elphin from the south. Bettyfield, a former small demesne is located to the southeast of Shankill crossroads.

### Archaeological Potential

Recorded monuments of a church, graveyard and bullaun stone (Shankill AH A) are located immediately to the northwest of the existing crossroads at Shankill, a well site is located to the south of the crossroads (Shankill AH B). Given that this site may be part of an early ecclesiastical site associated with St Patrick, the surrounding lands were considered to be of significant potential. Geophysical and test excavation took place to establish the archaeological potential of the lands located within the landtake to the east and south east of the recorded monument (RO016-123001-003). Testing confirmed the presence of linear features and pits, while geophysical survey detected clear and coherent traces of enclosure elements and industrial activity, the results are outlined in Section 14.4 of the report.

## **Section C, Ch. 30+750 – Ch. 32+150, Killeen West and Lurgan (Figures 14.15 and 14.16 in Volume 3)**

### Physical Environment

The townlands of Killeen West and Lurgan are located in the civil parish of Shankill in the barony of Roscommon. The route crosses the Owenur River into Killeen West at Ch. 30+750, and proceeds in an eastern direction across low-lying water-logged fields for 750m – the fields are covered with rushy vegetation and grasses for the most part, and bounded by drains flanked by wire fences and the occasional hawthorn bush. The subsoil exposed in drains consists of peat. The route crosses into Lurgan at Ch. 31+450. Shortly thereafter, at Ch. 31+500, the land rises and the pasture becomes grassier and better drained immediately. The field boundaries now consist of banks with deciduous trees and hawthorn bushes growing on them. At Ch.31+900, the route crosses a minor road and then continues eastwards for 250m until it meets the townland boundary of Killeen East.

### Cultural Landscape

There are no recorded monuments on the immediate route in the townlands of Killeen West and Lurgan, though to the south of the mainline, at Ch. 31+900, there is a ringfort (RO022-049) (AH68) which lies adjacent to the proposed ancillary road improvement. The western boundary of Killeen West is defined by the Owenur River – the 1<sup>st</sup> edition six-inch Ordnance Survey (1836) records it as having a winding course – it was later straightened to its present course by the time that the revised six-inch and Ordnance Survey 25-inch were compiled. From the north Cherryfield Demesne overlooks the Owenur River and Ballyoughter House and bridge are also located to the north of the route. Along the line of the minor road the historic maps record a number of structures which are no longer present (CHC40, 4 structures and CHC41, the site of a structure).

LiDAR detected a landscape feature (CHC 42) which takes a geometric form and comprises a possible avenue that extends in a southerly direction from Ballyoughter

House towards the existing local where road improvements are proposed. No features were visible during the field inspection.

### Archaeological Potential

All riverine environs are considered to have an inherent archaeological potential and the Owenur River at Ch. 30+750 is no exception. To the south of this crossing LiDAR detected an enclosure and a mound is recorded (AH 65, RO022-149) in the RMP. Both these sites are avoided by these and other monuments along with finds along the course of the Owenur River indicate a human presence since prehistory.

At Ch. 31+900 a ringfort (AH 68) lies adjacent to an ancillary road improvement – potential structures, features and artefacts associated within the immediate environs of this monument may be found. A moated site (RO022-047) (AH 67) is situated just above the edge of the original floodplain of the Owenur River and marks the edge of dryland settlement in the area.

## **Section C, Ch. 32+150 – Ch. 34+050, Killeen East, Tullyloyd and Tullycartron (Figures 14.16 and 14.17 in Volume 3)**

### Physical Environment

The townland of Killeen East is in the civil parish of Shankill in the barony of Roscommon, whereas the townlands of Tullyloyd and Tullycartron lie in the parish of Elphin, though still in the same barony. In Killeen East, the land is still relatively elevated, and the pasture is of good quality grassland. The field boundaries consist of banks with deciduous trees and hawthorn bushes growing on them. At Ch.32+500, despite no fall in land relief, the soil quality deteriorates and rushy vegetation reappears. The land begins to fall steeply at Ch. 32+925, and continues to slope to the northeast until it reaches the boundary between Killeen East and Tullyloyd at Ch. 33+225. At this point the landscape has the appearance of a steep sided valley, with the land quickly rising to the northeast. In Tullyloyd, between Ch.33+300 and Ch. 33+725, the route crosses a number of small fields with heavily overgrown hedgerows. There are a significant number of deciduous trees growing along these field boundaries. The pasture within is of relatively poor quality and in places overgrown with bramble bushes. In Tullycartron townland the route runs to the south in an east-west direction of a minor road.

### Cultural Landscape

There are no recorded monuments on the route in the townlands of Killeen East, Tullyloyd, and Tullycartron however, a large ringfort or hilltop enclosure (RO022-054) (AH 73) is located at Ch. 33+100, at the end of an ancillary road improvement. The site is located on a southerly facing slope, and does not appear to occupy a prominent spot in the locality but has contained views to the south overlooking a steep sided valley where LiDAR survey has recorded a number of possible sites (AH 72, 74 and 75).

In Tullyloyd and Tullycartron the site of two structures were noted on the historic mapping (CHC 43 and 44), present boundaries consisting of shrub and hedgerow may reflect the original plot of land around CHC 43.

The land at Ch. 33+800 is of poor quality, water logged in places at the time of the field inspection and occupied by rushes and uneven under foot. A number of stone features, including possibly former stone boundaries consisting of a linear set of stones oriented northeast-southwest were revealed during the field inspection. A spread of stones, roughly circular (5m east-west x 3.5m north-south) were noted on



the edge of the wetland/dryland interface in boggy land where an attenuation pond is proposed.

### Archaeological Potential

In Killeen East, LiDAR has identified two enclosures on and adjacent to the route. The first of these, on Ch. 32+250 (AH 70) (now recorded in the SMR as RO022-170), is a possible D-shaped platform, measuring c.11.5m east-west by c.6.5m north-south, the interior of which is c.0.6 to 0.7m above the surrounding ground. The site is situated on the top of a north facing slope. Running along the west side of it, is a possible ditch, 2m in width and 0.2m in depth. Its length is unclear, but the LiDAR survey depicts it as running in a north-south orientation along the length of the field. This site will be preserved in-situ through mitigation by design.

At Ch. 32+850, LiDAR survey has identified a possible enclosure (AH 72), though field inspection did not reveal any obvious surface trace except for a general rise in the corner of a field, measuring 50m east-west by 20m north-south. Geophysical survey detected clear and coherent traces of an enclosure at both AH 70 and 72. Test excavation confirmed the presence of a C-shaped enclosure approximately 33m north-south x 25m east-west at AH 72.

At Ch. 33+200, LiDAR recorded another enclosure (AH 75), this time c.10m west of an ancillary road improvement. Field survey revealed it to be a rectilinear enclosure, measuring c.26m east-west by c.25m north-south. The site is defined by a slope c.0.5m to 1m in height on the north side and traces of a fosse on the west side – the fosse is c.2m in width and 0.2m in depth. The rectilinear enclosure at 33+150 may represent the remains of a relict small field system. LiDAR also revealed other possible enclosure in Killeen East which will not be impacted by the proposed route (AH 71 and AH 74 now recorded in the SMR as RO022-165 and RO022-166 respectively). A field system (AH 76 detected by the LiDAR survey in Tullyloyd townland will also remain unaffected by the proposed scheme.

The large ringfort or hilltop enclosure in Tullyloyd (RO022-054) is a significant archaeological monument and there may be structures and features below ground surface within the vicinity of it as well as the sites revealed by the LiDAR survey and confirmed by geophysical survey and test excavation.

## **Section C, Ch. 34+150 – Ch. 35+000, Lugboy and Clooncullaan (Figures 14.17 in Volume 3)**

### Physical Environment

The townlands of Lugboy and Clooncullaan are located in the civil parish of Elphin in the barony of Roscommon. The proposed road development is located within a landscape of large pasture fields that gently slope to the southwest. Three ringforts (AH 77, AH 78 and AH 79) occupy a low east-west ridge which the route passes to the south of and at a lower elevation. Compared to the previous townland, Killeen East, the land consists of rolling pasture of good quality with some stone outcropping and in some cases shallow pools of water have collected on the surface of the field (due to the heavy and prolonged rainfall at the time of survey). The fields are divided by substantial hedgerows with hawthorn bushes and mature trees as well as stone wall boundaries especially along the existing roadways. At Ch. 34+700 a drainage ditch that acts as the townland boundary between Lugboy and Clooncullaan will be utilised as a drainage outfall for the proposed works.

At 35+000 the proposed road development meets the R368, a regional road that runs between Elphin to the north and Strokestown to the south, the fields to the west of

this have somewhat levelled out although they are still undulating in nature and consist of rough pasture. The proposed road development passes immediately to the north of a ringfort (AH 80) as well as through what appears to be a former quarry site.

Cultural Landscape

The 1<sup>st</sup> and revised six inch edition Ordnance Survey depict five large fields in this area of Lugboy townland with a marshy area to the southwest. Five ringforts are shown within these fields. A footpath shown on the revised edition of the OS as 'FP' extends from the road to the north to the marshy area in the south. Here it crosses the wetland that drains from Clooncullaan Loughs by the use stepping stones. This footpath is adjacent to the eastern side of a ringfort (RO023-005) (AH 77) and is now subsumed into the existing field boundary as shown on the mapping. A number of structures are shown on either side of the Strokestown-Elphin roadway including a schoolhouse (CHC 46) which is annotated on the 1<sup>st</sup> edition six-inch map. The crossroads to the north is also well occupied on all sides with structures and there will be no disturbance from the proposed route to the existing arrangement of dwellings and structures in this area. The structure shown on the revised OS edition to the southwest of the cross roads and associated out buildings and orchards have all been avoided by the proposed route. This structure presents as a two storey 3 bay dwelling with central doorway and dates to the late 19<sup>th</sup> - early 20<sup>th</sup> century.

A quarried/pond area shown on the 1<sup>st</sup> edition map is now surrounded by trees and will be impacted by the proposed route. This possible quarry site presents as a large irregular area that appears to be cut into a northeast facing slope in the field. To the east there appears to be a level surface that acted as a former track that would have provided access to this feature. Further east along this possible route way is a smaller quarried area, possibly a field kiln (Plates 14.19 - 14.21). These kilns were once a common feature of the north Roscommon landscape and consisted of a free standing structure close to a quarry with a supply of limestone (Ganly 2009). A draw hole would be cut into the base of the kiln. A layer of sandstone was then pushed into the clay to give a heat resistant coating to the inside of the kiln. Many of these features had their steep sidewalls levelled to avoid injury to animals grazing the land.



**Plate 14.19 Possible Field Kiln**



**Plate 14.20 Possible Route Way/ Track**

Within the field following and to the west of an internal field boundary there appears to be a levelled track approximately 2.5 m wide. This track extends in a westward direction across the field from the existing road network (at the time) and to the south of the possible field kiln and quarry. These possible associated features are recorded as CHC 44A in Appendix 3.

Plate 14.21 shows a view from the possible levelled route way towards the field kiln and quarried area and while the route way is not shown on the 1<sup>st</sup> edition six-inch OS, it is shown on the revised editions as an internal field boundary. However on these later mapping editions, the quarry site is not annotated.

The gable end of a stone structure (CHC45) shown on the revised OS mapping along the Strokestown-Elphin Road will be impacted by a spur of the mainline meeting this existing road.



**Plate 14.21 Photo Taken from Possible Former Track Overlooking the Quarry and Field Kiln Site (CHC 44A)**

### Archaeological Potential

The route enters the townland of Lugboy to the south of an upstanding and substantial ringfort (RO023-005) (AH77) which affords views in all directions. This ringfort is visible from the route as it occupies a south facing slope to the north of the proposed mainline. This and two other ringforts (RO023-006 and RO023-007) (AH78 and AH79) occupy a low-lying east-west ridge in these large open fields, however the latter ringfort now acts and is incorporated into a field boundary. AH78 and 79 are not visible from the route as they are located just over the crest of the undulating field and the proposed route is positioned on sloping land to the south of these features. All these ringforts are outside the land take for the proposed development.

To the south of the route two additional ringforts are located, these are RO023-010 and RO023-012 (AH80). The latter (AH80) is located to the south of an area proposed for a large junction and attenuation pond. The ringfort sits in a broad saddle of higher ground and is well defined on the ground (Plate 14.22) however it has suffered disturbance to the southeast, where it appears to have been quarried away.

In the distance high on a steep north-west facing slope of Cregga Hill a pair of conjoined ringforts (RO023-014001-2) form a substantial, prominent feature in the landscape overlooking this group of ringforts to the west and north-west and the low-lying area of the Cloncullaan Loughs and crannogs located further west again.



**Plate 14.22 RO023-012 Ringfort (AH80) Located to the South of the Route**

The proposed road development runs from the northwest to the southeast on the lower slopes of pasture fields just above the marginal land on the outskirts of Cloncullaan lakes. These lakes were inhabited with many crannogs and lie below the ringforts located at the higher reaches of the undulating fields of pasture. While there are no obvious sites along the route, there is the potential to reveal subsurface features and finds within this recorded early medieval landscape including earlier prehistoric features.

There are a number of structures recorded by the 1<sup>st</sup> edition six-inch Ordnance Survey in the townlands Lugboy and Clooncullaan along the old roadways. These were probably the homesteads of tenant farmers living in the area. Judging from the revised 6-inch and 25-inch map series, the same buildings appear to have disappeared by the late nineteenth or early twentieth century. Features such as wall foundations, floors and cesspits may still lie preserved beneath the sod (CHC 45, 47 and 49).

**Section C, Ch. 35+000 – Ch. 37+950, Cregga and Cuilrevagh (Figures 14.18 and 14.19 in Volume 3)**

*Physical Environment*

It is within Cregga townland that the route takes a southern orientation towards Strokestown and rises to higher ground. At Ch. 35+000 the route crosses the main Elphin-Strokestown Road into a large open field of excellent quality, well-drained pasture. From Ch. 35+500 the fields become smaller, but the quality of the land remains the same.

The townlands of Cregga and Cuilrevagh lie in the civil parish of Kiltristan in the barony of Roscommon. The landscape in these townlands is a rolling landscape of pasture, the fields varying in size, with some exceptionally large examples. The

hedgerows are relatively well maintained, hawthorn bushes, interspersed with the odd tree. Once the route enters Cregga, the land rises to a significant height, before levelling off a little, until the topography starts to fall again. There are significant views of the countryside to the north, west and south along this stretch of the route – the large field between Ch. 36+000 and Ch. 36+700 is very open with a line of mature trees planted across it – an arrangement reminiscent of parkland demesne but outside the lands associated with the former Cregga Demesne. The route sweeps down a sharp slope in a south-easterly direction before it meets the boundary with Cuilrevagh townland.

On entering this townland, the land starts to rise again, the character of the landscape remaining the same as in Cregga. Again there are widespread views of the surrounding countryside the north, west and south. For the majority of this townland the route runs along high ground. At Ch. 37+500 the land again falls in height, and when on reaching the bottom of the slope, the route meets the townland boundary of Tullen.

An interesting feature of the landscape are a number of ponds, oval shaped with their long sides embanked with a mixture of earth and stone, probably as the result of stockpiling from field clearance. Two examples are found in Cregga, while a third is found in Cuilrevagh at Ch. 37+550. Their cultural significance is not as yet known but locally landowners have confirmed that the earthen and stone material is from the constant dredging of the ponds and that as the fields are relatively dry that are used for watering cattle.

### Cultural Landscape

There are no recorded monuments on the route in the townlands of Cregga and Cuilrevagh. In the former townland, there are a number of structures recorded on the 1<sup>st</sup> edition Ordnance Survey as lying directly on and adjacent to the route – which are no longer upstanding for example CHC 52 and CHC 54.

These former structures and present buildings such as CHC 51, the upstanding remains of a single storey, four-bay farmhouse, built of stone, with the remains of a stone-built outhouse or shed are associated with an early route way that fell out of use at some stage in the late 19<sup>th</sup> or early 20<sup>th</sup> centuries. Associated with the farm stead, and located to the north and northwest of it is another shed, along with a relict field system, possibly associated with the buildings recorded by the Ordnance Survey in the early nineteenth century.

A pair of gate pillars (CHC 54) lying on the route marked an entrance into Cregga House from the disused route way. This laneway, which runs in a general northwest-southeast orientation was a significant feature of the local landscape before it was abandoned at some stage in the twentieth century. Between Ch. 36+000 and Ch.36+200 there is another relict field system with banks and ditches visible over a wide area (CHC 55), along with a possible rectilinear enclosure measuring c.29m northeast-southwest by c. 33m northwest-southeast, defined by a scarp 0.4 to 0.5m in height above surrounding ground. This area is located to the south of the former demesne of Cregga House (CHC 52) as shown on the 1<sup>st</sup> edition six-inch OS map. According to the topographical files of the National Museum of Ireland, the lower stone of a rotary quern (1984:149 & IA/199/1984) was found while digging for gravel inside a ringfort in the townland of Cregga.

### Archaeological Potential

There are a number of building structures recorded by the 1<sup>st</sup> edition Ordnance Survey in the townlands of Cregga and Cuilrevagh. These buildings were probably the homesteads of tenant farmers living in the area. It is proposed to partially reinstate the laneway as shown on the 1<sup>st</sup> edition six-inch OS to allow local access and this is discussed under Section C Cregga Lane Local Access.

Judging from the revised six-inch and 25-inch OS map series, the same buildings appear to have disappeared by the late 19<sup>th</sup> or early 20<sup>th</sup> century. Features such as wall foundations, floors and cesspits may still lie preserved beneath the sod.

The site of an enclosure (AH 81) detected by LiDAR Survey will be impacted by the proposed development in Cregga townland, this site was visited and no upstanding remains could be discerned, however the site is located in good quality grazing land on gently sloping land with good views to the south and west. A very small mound (AH 82) is located on the edge of the proposed landtake.

A relict field system was identified by field walking to the south of Cregga Demesne along the line of the route in Cregga townland (CHC 55).

### **Section C, Ch. 37+950 – Ch. 40+500, Tullen, Lettreen, Doughloon and Corskeagh, Lavally (Figures 14.19-14.21 in Volume 3)**

#### Physical Environment

The townlands of Tullen, Lettreen, Doughloon and Corskeagh lie in the civil parish of Kiltristan in the barony of Roscommon. The landscape in these townlands is a rolling landscape of largely well-drained, good quality pasture. The hedgerows are relatively well maintained, hawthorn bushes, interspersed with the odd tree. Once the route enters Tullen, the land begins to rise, reaching a plateau of sorts at Ch.39+500 in Dougloon townland. Excellent views are to be had of the surrounding countryside, particularly to the northwest, west and southwest. Within Tullen townland at Ch.e 38+500 there is a slight dis-improvement in the quality of the pasture with rushy vegetation appearing. Within Lettreen the quality of the pasture improves again with large open fields. It is also at this point that the level of the land starts to fall gently to the west. The route runs more or less level on this slope through Lettreen and Doughloon. The route starts to go downslope on entering Corskeagh, and reaches the base of the hillside on the south-eastern boundary of Corskeagh at Ch. 40+250.

An interesting feature of the landscape are a number of ponds, oval shaped with their long sides embanked with a mixture of earth and stone, probably as the result of stockpiling from field clearance. An example is found in Tullen at Ch. 38+600 and another in Doughloon at Ch. 39+575. Their cultural significance is not as yet known. A drainage channel extends in a westerly direction at Ch. 40+250, this linear extension avoids all recorded monuments and features identified by the LiDAR survey. The route extends to Ch. 40+500 where a roundabout is planned and for 250m it is located within Lavally townland, no features of a cultural heritage interest were recorded on the route within this area. On crossing the townland boundary into Lavally, the land is flat but begins to rise steadily again towards the southeast. The land use, as is typical of the area, is pastoral farmland, bounded by hedgerow enclosures.

### Cultural Landscape

In Tullen, LiDAR has recorded a relict field system (AH 86) whose boundaries are depicted on the earlier Ordnance Survey maps such as the 1<sup>st</sup> edition six-inch and the 25-inch series. There were no apparent surface traces of these boundaries, though ephemeral traces of ridge and furrow were visible to eye, extending over an area measuring c.60m east-west by c.80m north-south. The orientation of the ridge and furrow is different from the present field system. Small plots of land associated with a clachan of five structures as shown on the 1<sup>st</sup> edition six inch OS is located to the southwest of the landtake in Tullen townland. These plots of land are now reflected by irregular field boundaries.

In the same townland, a rectilinear enclosure (AH 88) measuring c.27m northeast-southwest by c.25m northwest-southeast lies on the route at Ch. 38+800. It lies in the corner of a field, and is defined by a bank which measures c.3.5m in width and 0.4m to 0.6m in height on the southeast and southwest sides. A bank extends from the southern corner in a northeast-southwest orientation, measuring c.15m in length, c.3.5m in width and 0.4m in height. The site is not recorded on the 1<sup>st</sup> edition six-inch Ordnance Survey or the 25-inch series. A local historian has identified this area as a possible stronghold of the Conroy's, who after the battle of Cregga took control of this area (Sean Neary pers comm).

In the townland of Lettreen, there is a relict field system (AH 91), recorded by LiDAR as lying adjacent to an ancillary road improvement at Ch. 39+200. Visible remains consist of a boundary bank, zig-zagging in general east-west orientation for c.111m. The bank varies in width from c.2m to 4m, and stands up to 1m in height. Midway along its length, another bank projects from it – it measures c.2m in width and 0.3m in height, its full length not perceptible. At the eastern end of the first bank, there is a rectilinear raised platform, measuring c.34m northeast-southwest by c.20m northwest-southeast. There is evidence for terracing associated with this platform. To the immediate north of the field system, LiDAR recorded an enclosure site, traces of which are also visible, measuring c.21m northwest-southeast by c.10m northeast-southwest – it is defined by a bank c.2m and 0.5 m to 0.7m in height. The field system is visible on the 1<sup>st</sup> edition six-inch Ordnance Survey.

In Doughloon, a relict field boundary (AH 93), in the form of a bank, runs in a northwest-southeast orientation, between Ch. 39+425 and Ch. 39+650. It is not visible on either the 1<sup>st</sup> edition six-inch Ordnance Survey or the 25-inch series. In the same townland, another relict field bank can be seen, running in a north-south orientation for c.41m in length, measuring c.2m in width and 0.3 to 0.4m in height. It is also not visible on any of the Ordnance Survey maps. In Corskeagh, the 1<sup>st</sup> edition six-inch Ordnance Survey records two buildings of which there are no surface traces at Ch. 40+250 (CHC 56).

### Archaeological Potential

There are no recorded monuments on the route in the townlands of Tullen, Doughloon and Corskeagh, in Lettreen, an outer fosse of a ringfort (RO023-121) (AH 92) whose curvature is preserved in the townland boundary between Lettreen and Doughloon is located to the northeast of the route and outside the landtake. The fosse of this ringfort measures 3.5m in width and up to 0.5m in depth. Also in Tullen townland the site of a recorded earthworks feature (RO023-115) (AH 87) will be avoided.

Of interest is the rectilinear enclosure (AH 88) that was revealed during field work in Tullen townland further investigation will reveal the origins and nature of this feature.

Also noted along this stretch of route were a number of ringforts/ earthworks (unaffected by the route) with pond like features in close proximity. This relationship is shown on the 1<sup>st</sup> edition OS with the ringfort (RO023-075) and earthwork (RO023-115) (which is shown as a circular fort on the 1<sup>st</sup> edition six-inch OS) each of which has a pond like feature nearby. A ringfort in Lavally (RO023-174) also has incorporated a pond to the southwest of the monument. Whether or not these ponds are as a result of localised quarrying or more recent disturbance is unclear, they could also be deliberately associated with these monuments.

Banks and ditches associated with relict field systems (AH86, AH91 and AH93) are visible in Tullen at chainage 38+375, in Lettreen at Ch. 39+200, and in Doughloon between Ch. 39+425 and Ch. 39+650. The site of two structures in Corskeagh, either lay adjacent to or on the route of proposed development (CHC 56). These structures were probably the homesteads of tenant farmers living in the area and were part of a larger clachan known as 'Clogher' on the historic maps. Judging from the revised OS editions, the same buildings appear to have disappeared by the late nineteenth or early twentieth century. Features such as wall foundations, floors and cesspits may still lie preserved beneath the sod.

### **Section C, Strokestown Link Road from Ch. 40+500, Kildallogge (Figure 14.22 in Volume 3)**

#### Physical Environment

The townland of Kildallogge is located in the civil parish of Kiltristan in the barony of Roscommon. The local landscape can be characterised as rolling pastoral farmland enclosed within hedgerows of hawthorns, bramble bushes and small trees. This area is also located on the outskirts of Strokestown, with the L1405 approaching the town from the east, and the R368 approaching from the north from Elphin. This section of the development involves the upgrading and realignment of the local road L1405 to link with a roundabout on the proposed N5 route at Ch.e 50+000. The L1405 will then link with the R368 at another proposed roundabout. The R368 on its northern and southern approaches to this second roundabout will also be upgraded. The current L1405 is a relatively narrow road, bounded by stone walls on either side, along with some wire fencing and hedging. The R368 is a narrow two-lane road, bounded by high hedgerows on either side.

#### Cultural Landscape

Adjacent to the northern end of the road improvement to the R368 is a site labelled 'Polladooey' on the 1<sup>st</sup> edition six-inch OS. The local name suggests the presence of a hole, pool and spring on site. The 1<sup>st</sup> edition Ordnance Survey depicts a number of structures along the current L1405, five structures are encompassed by CHC 60 and eight structures by CH C61. Another dwelling is depicted as being situated on the east side of the R368, close to where it will merge with the roundabout, this is one of five structures shown on the 1<sup>st</sup> edition OS map heading towards Strokestown (CHC 58). A structure is also located on the west side of the R368, at the northern end of its proposed redevelopment (CHC 57). Another feature also on the L1405, and on the route of the development, is a well, surrounded by a stone wall, with steps leading down into a vault over the well opening. The well is recorded on the 25-inch map series and is discussed in the architectural heritage chapter. A low stone wall associated with Strokestown Demesne also aligns the southern extent of the existing L1405 road. This wall acted as the northern boundary of the parkland associated with Strokestown Demesne and the low stone walls on either side of the L1405 add to the character and charm of the area.



According to local information, a possible ringfort/ ringforts is/are located either on or close to the footprint of the second roundabout that will link the L1405 and the R368 in Kildallogge townland. There are no traces of such a ringfort or other archaeological monument evident on the 1<sup>st</sup> edition Ordnance Survey, or the revised editions, or on aerial photographs taken of the area in 2005, 2000 and 1995. There is no recorded monument on site either. The southern end of this north facing sloping field, levels out to form a plateau and has good expansive views to the north, this siting is ideal for the location of a possible ringfort and while field inspection did reveal terracing in the field and linear features, none of the above ground, low visibility banks and ditches conform to the morphology of an enclosure. In addition to this, LiDAR survey and geophysical survey did not reveal any above ground features or below ground anomalies that suggest the presence of a ringfort. The field (AH 94) is considered to be of archaeological potential given the local knowledge of the area and will be subject to test excavation.

A modern cemetery, 20<sup>th</sup>-century in date is located beside an ancillary road improvement to the south.

#### Archaeological Potential

The site of a standing stone (RO023-170) (AH 97) is located adjacent to the southeast side of the L1405. There is no visible surface trace of this standing stone, which according to the 1<sup>st</sup> edition Ordnance Survey was located close to the southwest corner of the field there. There is a possibility that the standing stone (AH 97) is lying recumbent underneath the ground surface of the field.

The site of 'Polladooey' (CHC 57 A) is potentially of archaeological significance as springs are known have attracted human activity over the centuries for the purposes of settlement and ritual. The first edition Ordnance Survey also recorded the presence of dwellings along the current L1405 and R368 where improvements are to be made, and while the houses no longer remain, structures and features associated with the same may lie beneath the ground (CHC 57, 58, 59, 60 and 61). The well and its surrounding superstructure are located on the route of the ancillary road improvement. The reported ringfort site(s) is on the route as well and will be subject to archaeological investigation.

### **Section C, Cregga Lane, Local Access (Figures 14.16 & 14.17 in Volume 3)**

#### Physical Environment

The townland of Cregga lies in the civil parish of Kiltristan in the barony of Roscommon. It is proposed to partially reinstate a laneway as shown on the 1<sup>st</sup> edition six-inch OS to allow local access. The line of the former laneway can be seen to a large extent by the field boundaries and line of trees. It extends from the Strokestown-Elphin Road in the northwest to a laneway at Ch. 35+000 that rises up the slope of Cregga Hill. Good views are afforded to the west from this vantage point as the laneway rises to the southeast.

#### Cultural Landscape

It is shown on the 1<sup>st</sup> edition six-inch OS as a laneway with a number of structures aligned along it and would have been a former route way to provide access to dwellings located in and around Cregga Hill. From its most northern end the foundations of a number of structures can be seen in the field to the east and adjacent to the former laneway (Plate 14.23 and 14.24). These foundations will not be impacted. The site of two structures as shown on the 1<sup>st</sup> edition six inch OS and these now have no visible trace and lie adjacent to the route (CHC CL A). The route

way climbs the side of the hill to the southeast and passes to the rear of a dwelling that is surrounded by mature coniferous trees, further to the south east it passes through an open field before meeting up with a tree lined field boundary that demarcates the former laneway. In amongst the trees a former stone farmstead is located, this group of structures and another structure are described in the cultural heritage inventory under ID's CHC 50 and CHC 51.



**Plate 14.23 Northern Extent of Former Laneway**



**Plate 14.24 Stone Remains of a Former Clachan, Located East of the Laneway, RO023-014001 is Located on the Crest of the Hill.**

### Archaeological Potential

There are no recorded monuments along this former laneway but further up slope are three sites, an enclosure (RO023-013) and two conjoined ringforts (RO024-014001/002). LiDAR revealed a field system in amongst these features. A hollow way was noted to the northeast by the LiDAR survey and may extend into the path of the laneway. A number of post medieval structures (18<sup>th</sup> and early 19<sup>th</sup> century) were formerly located along this laneway and excavation may reveal stone foundations or associated remains, if this is the case they will have to be archaeologically recorded, surveyed and removed. Any upstanding structures will be recorded by a scaled survey and photographic record.

### **Section D, Ch. 50+000 – Ch. 51+200, Lavally and Vesnoy (Figure 14.23 in Volume 3)**

#### Physical Environment

Lavally lies in the civil parish of Kiltrustan, while Vesnoy is in the civil parish of Bumlin, both parishes being located in the barony of Roscommon. At Ch. 50+000 the land levels out before reaching a local road at Ch. 50+100. Beyond this, the quality of the pasture improves, and the fields tend to be larger than average. The fields are bounded with well-maintained hedgerows for the most part, with mature trees in evidence in some spots. At Ch. 50+500 the land starts into a gentle decline towards the southeast. At Ch. 50+750 there is a small area with rushy vegetation, but the good pastoral farmland continues all the way to Ch. 51+000. The route then enters a belt of deciduous woodland growing in boggy ground, before meeting a wide water-filled, the Strokestown River (AH104) that runs along the eastern boundary of Vesnoy at Ch. 51+200. An oval shaped pond with its long sides embanked with a mixture of earth and stone, probably as the result of stockpiling from field clearance, is found in Lavally at Ch. 50+250 – it was recorded on the 1<sup>st</sup> edition Ordnance Survey, that landowner say that it is now used for watering cattle.

### Cultural Landscape

The greater proportion of the townland of Lavally is within the demesne of Strokestown House (CHC 65) and is also annotated on the 1<sup>st</sup> edition six inch edition map as Ballybeg (the house and former parkland demesne is detailed in the Architectural Heritage chapter). The parkland as recorded by the 1<sup>st</sup> edition Ordnance Survey has undergone considerable change with woodland cut down and open areas enclosed. Modern forestry plantations are now a dominant feature within the boggy lands and housing has encroached into the former parkland.

Only the mature trees growing in the vicinity of chainage 50+500 hint that a planned elite landscape once existed here. At Ch. 50+050 LiDAR recorded a rectilinear enclosure (CHC63) on the route – field inspection revealed the remnants of this enclosure, measuring c.21m northwest-southeast by c.37m northeast-southwest. This is defined by a fosse along its northeast and northwest sides, measuring c.2m to 2.4m in width, and 0.25m in depth. This enclosure is visible on the 1<sup>st</sup> edition Ordnance Survey, but not on later maps like the Ordnance Survey 25-inch. The enclosure is associated with a building facing onto the road along its eastern side. No surface trace of this house exists. Along the same road, c.10m northeast of the proposed route at Ch. 50+100, the 1<sup>st</sup> edition Ordnance Survey also records a terraced row of houses with narrow plots running from the rear into the present day field (CHC64). Neither the houses nor their property boundaries have visible surface traces, though the latter are visible in the LiDAR.

Between Ch. 50+500 and Ch. 50+525 the route runs between a pair of ringforts. Both monuments – (RO023-174) (AH100) and (RO023-176) (AH101) are located outside the landtake for the proposed route. Both ringforts, are well preserved examples of the monument type – a circular, slightly raised area, surrounded by a bank and an outer fosse.

According to the topographical files of the National Museum of Ireland, five gold bracelets were recovered as part of a hoard of decorated objects including gorgets, beads, necklaces, pins, and brooches during arterial drainage works in Vesnoy within Strokestown Demesne in 1849 (2004:29; 6998:W99; 6997:W98; 6995:W96; 6994:W95 & 6993:W94). While the exact find spot is unknown it was supposedly found along the banks of the Strokestown River, near the ruins of Urney Church at a depth of six feet. It is thought that this hoard is Viking in origin (Sheehan 2012, Mary Cahill of the National Museum of Ireland pers comm.).

### Archaeological Potential

The townlands of Lavally and Vesnoy are located within the demesne of Strokestown House (CHC 65). The 1<sup>st</sup> edition six-inch Ordnance Survey recorded the presence of dwellings in the vicinity of a roundabout proposed at Ch. 50+000 – while the houses no longer remain, structures and features associated with the same may lie beneath the ground (CHC 63 and 54). LiDAR and field inspection has indicated that property boundaries associated with these dwellings still survive in the area. Another relict field system was recorded by LiDAR (69.5) between Ch. 50+350 and Ch. 50+750 – a linear field system (AH99) that predates the 1<sup>st</sup> edition six-inch Ordnance Survey. The route runs closely between two ringforts – structures, features and artefacts associated with the occupation of these settlement forms may be more extensive than the upstanding monuments, and lie directly on the proposed route. For this reason both geophysical survey and test excavation was carried out. Geophysical survey identified traces of pits from a pit field and a field system (AH 99) as well as possible small enclosure features.

From Ch. 50+200 to Ch. 50+300, LiDAR (65.1) has recorded a possible pit field (AH 98) – six long rectilinear depressions arranged in three parallel lines running east-west. These depressions are more elongated than the oval pits that would be more typical of the other pit fields found along the proposed road development. Field inspection along the proposed road development recorded three of these pits:

**Table 14.13 Pit Field at Lavally (AH 98)**

Number	Description of Pits Found Between Ch. 50+200 and Ch. 50+300 in Lavally
1	This pit measures 37m east-west by 4m north-south, and 0.3m in depth
2	This pit measures 26m east-west (before merging into hedge) by 4m north-south, and 0.3m in depth
3	This pit measures 23m east-west by 4m in width, and 0.4m in depth

Between Ch. 50+350 and Ch. 50+750 there is another pit field (AH 99) that has been recorded by the LiDAR on the route. A dozen pits are recorded running in five lines – humps and hollows were visible on the proposed road development, but nothing distinct enough to indicate specific pits. A relict field system was also recorded by the LiDAR in the same area – a linear field system that appears to predate the first edition Ordnance Survey.

A field survey recorded three possible irregular pits appearing to the east of ringfort RO023-175. Measurements varied, Pit 1 was 3m x 5m x 0.6m, Pit 2 was roughly circular and 6m in diameter and 0.6m in depth, and Pit 3 was 9m x 4m x 0.7m. The LiDAR survey (69.5) describes this site as two rows of rectangular pits, oriented north/ south, 12m x 5m. There are more extensive areas of pitting downslope to the east.

In the townland of Vesnoy the LiDAR (69.1) revealed another extensive pit field (AH103) on the route – numerous pits are recorded, distributed in a broad swathe that runs from the north to the southwest. Again, nothing clearly discernible for the most part, except for humps and hollows which appear to be natural topographical features. Field inspection did, however, reveal three roughly oval pits associated with the pit field. They are tabulated as follows:

**Table 14.14 Pit Field at Vesnoy (AH 103)**

Number	Description of Pits Found Between Ch. 50+750 and Ch. 50+950 in Vesnoy
1	This pit measures 10m north-south by 5m east-west, and 0.4 to 0.5m in depth
2	This pit measures 6m north-south by 3.5m east-west, and 0.4 to 0.5m in depth
3	This pit measures 7m north-south by 4m east-west, and 0.5m in depth

While only six pits were recorded in the field, the LiDAR has indicated presence of dozens of examples in these two townlands. The LiDAR survey describes this site as an extensive area of pits running perpendicular to hillslope, c. 16m x 3.5m, but variable.

Testing confirmed the presence of archaeological features including a disturbed fulacht fia (AH 101A).

Test excavation also revealed that the strongest indications of an archaeological origin for 'pits' revealed in Lavally and Vesnoy townlands is a post medieval pottery sherd, and the strong magnetism recorded in the upper portion of F10 (P10). In the

case of the pottery sherd, this indicates that the pit may be of relatively recent origin. However, it cannot be discounted that it is an intrusive object. Possible seeds retrieved from F12 & F14/P9 may have been wind-borne. No other material was retrieved from any of the pits. For a full discussion on the results see section 14.4 of the report.

Strokestown River (AH 104) forms the boundary between Vesnoy and Cloonratoon townlands, and a drainage scheme in 1849 revealed a buried hoard of Viking origin. The area is considered to be of archaeological potential.

### **Section D, Ch. 51+200 – Ch. 54+000, Cloonratoon, Bumlin and Scramoge (Figures 14.23-14.25 in Volume 3)**

#### Physical Environment

The townlands of Cloonratoon, Bumlin and Scramoge are located in the civil parish of Bumlin in the barony of Roscommon. At Ch. 51+200, the route crosses the Strokestown River into the townland of Cloonratoon and proceeds in a south-easterly direction. The land is low-lying and boggy with deciduous trees growing in spots. At Ch.s 51+400 and Ch. 51+650 the route cuts through a copse of deciduous trees, and then continues to proceed through boggy land. At Ch. 51+900 the land becomes drier, with well-drained pasture being now characteristic of the fields. The route crosses into Bumlin at Ch. 52+175 where the townland boundary is marked by a stone wall. A short distance thereafter, at Ch. 52+250 the route enters a more substantial belt of deciduous woodland before re-emerging into pasture again at Ch.52+450. This area is on the crest of a rise that starts to slope down to the Scramoge River at Ch. 52+850 (AH 108). Crossing the river into the townland of Scramoge itself, the land still remains to be good pasture for the most part. At Ch.53+250 the route crosses a local road and it is at this point that the route takes a more easterly direction, crossing a pastoral field and clipping the edge of deciduous woodland, before meeting the current N5 at Ch. 53+550. The remainder of the proposed road development continues along the line of the existing N5 before terminating at Ch. 54+350 with works taking place up to Ch. 54+000.

#### Cultural Landscape

The townlands of Cloonratoon and Bumlin were located within the demesne of Strokestown House as shown on the 1<sup>st</sup> edition OS mapping (CHC 65). In the Bumlin townland, there is a one storey shed (CHC 66), built of roughly coursed limestone, lying outside the landtake at Ch. 52+725. Another single storey building that was formerly a toll house (CHC 67) is also located outside the landtake at Ch.52+750. This structure was restored recently with the aid of a heritage grant. The site of a boat house (CHC 68) was recorded on the revised 6-inch Ordnance Survey map as situated on the north bank of the Scramoge River, it is located on the landtake boundary line and approximately 20m north of a proposed attenuation pond. No similar depiction is evident on either the 1<sup>st</sup> edition six-inch OS or the 25-inch map series, and field inspection did not reveal any surface trace of this building. The site of former bridge (CHC 69) is located within the landtake, the stone foundations of which are still insitu on the northern bank of the river. The remnants of a former roadway can be defined outside the road take extending to the northwest. Further north of the river bank this former route way divides and extends to south to the existing N5 via a tree lined avenue and this former avenue is shown on the 1<sup>st</sup> edition six-inch OS mapping.

This former roadway would have extended across the Scramoge River and connected with a linear settlement formed along the old Termonbarry road. Today

there is no sign of the former road and a large drain planted with trees now occupies the line of the route.

The first edition six-inch OS also recorded a number of building structures in Scramoge which no longer have a surface trace. The sites of several structures have been recorded and detailed in the inventory under the unique identification of CHC 70-74. The majority of these sites are now located under new roads or forestry. According to the topographical files of the National Museum of Ireland, a flat bronze axehead (1941:370) was found in Scramoge, the exact location of which is not specified.

#### Archaeological Potential

There are no recorded monuments on the route in the townlands of Cloonradoo, Bumlin and Scramoge. Between Ch. 51+950 and Ch. 52+000 the proposed road development runs between a pair of ringforts – the first in Cloonradoo (RO029-030) (AH105) is outside the landtake and east of the route, while the second (RO029-031) (AH106) is located across the townland boundary in Bumlin, in a separate field. Both ringforts, c.40m to 50m in diameter, are surrounded by the remains of a bank and an outer fosse.

In Bumlin, at chainage 52+500, the remains of another ringfort (RO029-033) (AH 107) is located immediately outside the landtake and to the west of the proposed route. It measures c.30m in diameter and is defined by the denuded remains of a bank. A geophysical survey was carried out along the route in the vicinity of the ringfort to determine if any subsurface features associated with the site extend into the proposed landtake area. No significant findings were encountered and a possible drainage ditch or furrow were noted (Bonsall and Gimson, Earthsound 2016).

Excavation may reveal the remains of cultural heritage features in the form of various structures, dwellings, boundaries and roadways in Bumlin and Scramoge townlands. The first edition Ordnance Survey also recorded the presence of dwellings in Scramoge underneath the route of the current N5 where improvements are to be made and while the houses no longer remain, structures and features associated with the same may lie beneath the ground (CHC 71, 72, 73 and 74).

## **14.4 Geophysical Survey and Test Excavation Results**

Geophysical survey and investigative work (test excavation) were carried out to inform the EIAR and provide a greater level of certainty around areas considered to be of archaeological potential. In total fourteen areas along the route were subject to advance geophysical survey and seven areas were subject to test excavation.

The geophysical survey took place under licence no. 15R0123 and was conducted by Earthsound (Bonsall & Gimson 2015). The hand-auger excavations at the pit field sites were carried out under a separate licence (Licence No. 15E0438).

Test excavation took place under separate licences 15E0588, 15E0587, 15E0589, 15E0545; and was carried out by Archer Heritage Planning Ltd (O'Connell 2016).

The table below details the areas that were subject to test excavation and/or geophysical survey and how those areas are referenced in the EIAR. The results are discussed by each individual area from west to east and all the information presented below is taken from the geophysical and test excavation reports.

**Table 14.15 Notation Reference Table**

EIAR	Test Excavation	Geophysical Survey
AH 28	AH01 Kilvoy	N/A
AH 29, 30 & 31	AH02 Kilvoy	GA 1 Kilvoy
AH 37	AH03 Cloonyeffer	GA 2 Cloonyeffer
AH 57, 58, 59 & 60	AH04 Gortnacranagh	GA 7 Gortnacranagh
AH 98	AH05A Lavally	GA 11 Lavally
AH 99	AH05B Lavally	GA 11 Lavally
AH 103	AH05C Vesnoy	GA 11 Vesnoy
Shankill AH A	AH06 Shankill	GA 14 Shankill
AH 72	AH09 Killeen East	GA 9 Killeen East
AH 37	Route moved to avoid the site	GA 3 Cloonyeffer
AH 44 & 45	N/A geophysical results indicated no significant findings, possible field ditches/ boundaries	GA 4 Cartronagor
AH 48	N/A No significant findings: possible small field enclosure, drainage ditches and historic field boundary	GA 5 Creeve
AH54	Geophysical results indicated clear and coherent medieval field system	GA 6 Gortnacranagh
AH 70	N/A Avoided by mitigation by design	GA 8 Killeen East
AH 75	N/A Avoided	GA 10 Killeen East
AH 107	N/A No significant findings, possible curvilinear ditches and historic field boundaries	GA 12 Bumlin
AH 94	N/A No significant findings, possible curvilinear ditches and historic field boundaries	GA 13 Kildalloge

### Targeted Geophysical Survey

A geophysical survey was conducted at fourteen areas where there are potential archaeological sites, in advance of test excavations so as to inform the test trenching strategy and to determine as far as possible the nature and extent of these potential archaeological features. Geophysical survey also sought to provide a greater understanding of the pit field site type in townlands Kilvoy, Cloonyeffer, Lavally and Vesnoy. At these locations a suite of geophysical surveys in addition to other methodologies were undertaken including 2D electrical resistivity imaging (ERI) surveys, magnetometry, metal detecting, topographic mapping, hand auguring and soil analysis.

- Metal detection was undertaken in order to enable avoidance of pits with significant metal content for further analysis
- Electrical Resistivity Imaging (ERI) was undertaken in order to establish the sub-surface dimensions/depth of individual pits/depressions and to establish the electrical resistivity of their contents/fills
- Topographical survey to record location and elevation data for the pits
- Soil samples were extracted from pits/depressions with a hand-auger in order to calibrate the ERI analysis and to undertake further analysis aiming to measure the moisture content, particle size, organic content ('loss-on-ignition analysis') and mass-specific magnetic susceptibility.

The aim of the geophysical survey was to determine the nature of the below ground archaeological resource in advance of the proposed road development throughout 14 separate areas. Geophysical survey was carried out in Kilvoy (GA1), Cloonyeffey (GA2 & 3), Cartronagor (GA4), Creeve (GA5), Gortnacranagh (GA6 & 7), Killeen East (GA8, 9 & 10), Lavally (GA11), Vesnoy (GA11), Bumlin (GA12), Kildalloge (GA13) and Shankill (GA14) townlands.

**Table 14.16 Summary Table of Geophysical Results**

Area No.	Description of Significant Anomaly	Detection Technique
GA1	Possible Pits within a Pit Field.	Magnetometry
GA2	A strip-field system and a possible ( <u>very</u> poor contrast) oval enclosure 60m x 48m).	Magnetometry
GA3	A very clear and coherent trivallate enclosure complex.	Magnetometry
GA4	No significant findings: possible field ditches / boundaries.	Magnetometry
GA5	No significant findings: possible small field enclosure, drainage ditches, historic field boundary	Magnetometry
GA6	Clear and coherent medieval field systems.	Magnetometry
GA7	Clear and coherent traces of 2 circular enclosure sites and medieval field systems.	Magnetometry
GA8	Clear and coherent trace of an enclosure site.	Magnetometry
GA9	Clear and coherent trace of an enclosure site.	Magnetometry
GA10	No significant findings: possible small field enclosure	Magnetometry
GA11	Clear and coherent traces of pits in a known pit field and a field system. Possible small enclosure features.	Magnetometry / Apparent Electrical Resistivity
GA12	No significant findings: possible linear and curvilinear ditches	Magnetometry
GA13	No significant findings: possible curvilinear ditches and historic field boundaries	Magnetometry
GA14	Clear and coherent traces of enclosure elements, industrial activity.	Magnetometry / Apparent Electrical Resistivity

### Targeted Archaeological Test Excavation

Targeted test excavation was carried out at seven locations which were deemed to have a specific archaeological potential given the results of the geophysical survey and this investigation will further inform the design team of the possible function and extent of these features.

Trench locations were established using a Stonex S9 GNSS Rover Kit. A 16-ton mechanical digger equipped with a ditching bucket was used to excavate topsoil under the supervision of Senior Archaeologist.

**Table 14.17 Summary Table of Test Excavation Results**

Test Excavation	Results
AH01 Kilvoy (AH28 EIAR)	No surviving trace of an earlier road or trackway construction was detected during archaeological investigations.



Test Excavation	Results
AH02 Kilvoy (AH29 & AH31 EIAR) & AH03 Cloonyeffer (AH34 EIAR)	No archaeological material was noted in any of the pit field trenches. It was concluded that the pit-like depressions are natural enclosed karstic depressions and of no archaeological significance. Test excavation has confirmed the survival of a subsurface isolated pit with no surface expression in Kilvoy townland within the road take (Kilvoy 1, O'Connell 2016). A charcoal sample was radiocarbon dated to 3774-3654 BC, indicating it was early Neolithic in origin. This pit was not associated with the previously identified pit field.
AH04 Gortnacrannagh (AH57 & AH59A EIAR)	The survival of sub surface archaeological remains in the form of 2 circular ditched enclosures and an isolated pit within the road take has been confirmed. A significant quantity of the potential features identified in geophysical survey would appear to be natural in origin. Analysis of soil samples followed by radiocarbon dating provided following dates, Enclosure (AH59A) (D-AMS 018486) has been dated to the middle-later Bronze Age (1266-1058 BC). The internal ringditch associated with Enclosure (AH57) is an early medieval feature (D-AMS 018487) (AD 554-642). The pit (F36) was also dated to the early medieval period (D-AMS 019281) (AD611-670).
AH05A Lavally (AH98 EIAR)	There was no evidence recorded for a human origin for the enclosed depressions. The contrasting plan form of these depressions as noted in the hydrogeological assessment might indicate that it is less certain that they are derived from natural processes. Results are inconclusive and further archaeological investigations are recommended.
AH05B Lavally (AH99 & AH101A EIAR)	Testing confirmed the presence of a levelled, disturbed fulacht fia (AH101A). A sherd of pottery recovered from within one of the depressions of the possible pit field, indicated that it is an archaeological feature of relatively recent origin. A single charcoal sample from this pit was sent for radiocarbon dating and produced a post medieval date (AD 1687-1927). However the size, depth and plan form of the depressions that form the possible pit field and the underlying geology indicate that they could be formed by natural processes.
AH05C Vesnoy (AH103 EIAR)	No archaeological material was noted within any of the surface depressions. Also the size, depth and plan form of depressions and the underlying geology indicate that they could be formed by natural processes. Results are inconclusive and further archaeological investigations are recommended.
AH06 Shankill (AH A EIAR)	Testing confirmed the presence of sub surface archaeological features, comprising hearths, linear features and dispersed pits. A significant quantity of the potential features identified in the geophysical survey would appear to be natural in origin. Two samples collected during the test excavations were selected for radiocarbon dating and the results suggest that linear ditch (F16) is an early Neolithic feature (3708-3637 BC) and the pit/hearth (F30) is early medieval (AD 409-540) in origin.
AH09 Kileen East (AH72 EIAR)	C-shaped enclosure corresponding with geophysical anomaly 2. Enclosure is open on the east side and occupies an area of c. 33m N-S x 25m E-W. 1 box section was excavated revealing steep diagonal sides and a flat base (dimensions 2.46m wide x 1.3m deep). A single charcoal sample indicated that a radiocarbon date taken from the upper fill of the enclosure is late medieval in date (AD1409-1444).

## Findings

### AH01 Kilvoy

Test excavation took place across an existing forestry track in Kilvoy townland, in order to determine (if possible) if this track is of antiquity and an extension of a recorded route way (AH 28). A single trench (Trench 1) was excavated across the roadway to ascertain if any trace of a possible early road/trackway associated with RMP site (RO022-056002). Excavation was undertaken from the east of the present road and exposed the natural subsoil in the field to the east bounded to the west by an open ditch and a 1.4m high bank of peaty topsoil at the west. To the west of the bank there was c. 0.15m of road material deposited on a grey subsoil. This was excavated to a maximum depth of 1m. No archaeological material was recorded in this cutting. There was no surviving trace of earlier road or trackway construction.

### GA 1 AH02 Kilvoy and GA2 AH03 Cloonyeffe

Geophysical survey identified possible pits. Test excavation took place at the recorded archaeological monument (AH 31 RO016-151, a pit field), in order to provide a greater degree of clarity in relation to the extent, type and nature of the newly revealed and existing pit field features. Five of the excavated trenches were specifically targeted on grass covered depressions associated with the pit field (RO016-151). It would appear that the depressions in this area are derived from natural processes and are natural enclosed karstic depressions and of no archaeological significance (O'Connell 2016).

The identification of an upper glacial till derived from a sandstone source might be significant in creating an acidic environment which in turn would have caused localised dissolution at joints in the limestone bedrock, leading to the creation of a surface depression (B. O'Keeffe & R Meehan pers. comm.). This would have caused a cumulative effect whereby, the establishment of an initial depression would have lowered the water table in the immediate vicinity, and promoted the development of further depressions nearby, leading to a pitted terrain characteristic of karst landforms known as dolines (Summerfield 1991, 150; R Meehan pers. comm.). No archaeological material was noted in any of the pit field trenches in the course of these investigations.

Testing at Cloonyeffe and Kilvoy confirmed the location of archaeological features. These were 3 pits, and numerous furrows. None of the recorded archaeological pits had any surface expression nor were they associated with or located at the grass covered depressions which are part of the pit field complex (AH 34). The pits were recorded as follows:

- F39, T19; 1.7m x 0.2m deep (outside road-take)
- F74, T11; 1.6m x 0.9m x 0.3m deep (early modern field clearance pit)
- F77, T2; 0.75m x 0.1m deep, circular pit with rounded sides and a rounded base.

F77, an isolated subsurface pit with no above ground expression detected through test excavation in Kilvoy was named Kilvoy 1 (O'Connell 2016). A charcoal sample from this pit was dated to 3774-3654BC, indicating that it was early Neolithic in origin.

The remaining features recorded in testing comprised cultivation furrows. The majority of anomalies recorded in the geophysical survey (GA 2) were not related to archaeological features.

### GA3 Cloonyeffery

This area was geophysically surveyed as LiDAR identified an enclosure that was confirmed in the field as archaeological in nature and possibly a multi ditched enclosure/barrow (AH 37 LiDAR 35.5). This site is now recorded in the SMR as RO016-0172. Geophysical survey revealed a significant enclosure complex. Comprised of an inner circular enclosure, a middle circular ditch and an ovoid outer ditch measuring some 45m north-south and 50m east-west. There are multiple pits and areas of enhancement within the complex. A pair of linear anomalies enter the enclosures from the east and continue beyond the survey area. This site has now been avoided and the proposed road development is located to the south of the feature.

### GA4 Cartronagor

Two sites detected by the LiDAR survey a possible moated site (AH 44, LiDAR 40.3) and possible rectilinear enclosure (AH 45, LiDAR 40.4) were geophysically investigated. Detected anomalies were interpreted as a field boundary and a possible enclosing element or possible geology. No significant findings were noted.

### GA5 Creeve

A possible rectangular enclosure (AH 48) was detected by LiDAR survey (42.10). Geophysical survey observed that the area was very wet in nature and contained many land drains, possible ditches were detected but it is likely that these anomalies represent changes in soil rather than archaeological features. A possible small rectilinear enclosure measuring 13m x 10m was detected.

### GA6 Gortnacranagh

A redundant record (RO022-015) (AH 53) of possible earthworks was recorded by the LiDAR survey (42.3) (AH 54) as a possible field system. Geophysical results were suggestive of enclosing elements possibly representing rectilinear field systems.

### AH4 and GA7 Gortnacranagh

LiDAR (45.5) survey revealed a possible enclosure (AH 57). Geophysical survey (GA7) suggested that the site was a ditched enclosure, oval in plan and measuring 52m (northwest-southeast) x 42m in width. The eastern side of the enclosure is located under the current N61. There are indications of pits and possible internal divisions and possible annexes to the west. Cultivation ridges appear to respect the monument which would suggest that the enclosure was extant at the time of cultivation.

Test excavation (AH4) recorded an oval ditched enclosure with the main enclosing ditch as flat bottomed 1.9m wide x .26m deep. It was filled with a sterile reddish brown clay. A ring ditch (7-8m wide) and an associated linear ditch possibly representing an internal division were recorded in the interior of the enclosure. The cut of the ring ditch was 0.75m wide x 0.3m deep. It had steep sides and a rounded base and was filled with a charcoal rich clay from which a fragment of animal bone (Sheep) was retrieved. This enclosure was classified of moderate significance in the test excavation report.

LiDAR survey (45.4) recorded a further possible enclosure (AH 58) now recorded in the SMR as RO022-167 in Gortnacranagh townland, this time on the eastern side of the N61. Geophysical survey recorded the area as modern disturbance and test excavation recorded a single pit and two linear features (probably cultivation furrows)

in this area. The pit presented as a sub-oval feature measuring 1.7m east-west x 1.45m north-south x 0.13m deep, it had a fill of loose black silty clay and a thin layer of silt was noted on the side and base of the pit. The fill of the pit was subject to radiocarbon dating and the pit (F36) was dated to the early medieval period (D-AMS 019281) (AD611-670).

A small circular enclosure (AH59 A) approximately 20m wide was revealed by geophysical survey and confirmed to be archaeological in nature by test excavation in Gortnacranagh. This feature had no visible expression. The recorded ditch had rounded sides and a rounded base, two fragments of animal bone were retrieved from a box-section cut through the ditch. This enclosure was classified as moderate significance in the test excavation report (O'Connell 2016).

A field system (AH 59) detected by LiDAR survey is interpreted as conjoined field systems in the geophysical survey and testing confirmed a series of 5 linear ditches, the dimension ranged from 0.8-1.2m wide x 0.18-0.27m deep and were filled with reddish brown clay. A single sherd of white glazed early modern pottery was retrieved. The test excavation report concluded that this was early modern in nature and of no archaeological significance.

#### GA8 Killeen East

An enclosure measuring 26m east-west x 29m north-south with an internal ring ditch approximately 5m in diameter was detected by geophysical survey. Internally possible pits or burnt remains were also indicated which could suggest that the anomalies relate to graves or cremated material suggestive of a barrow site.

LiDAR (49.3) survey describes the site as oval in nature possibly a ringfort measuring 31m x 24m (AH 70). This site is now recorded in the SMR as RO022-170. This site will be preserved in-situ by design.

#### AH09 and GA9 Killeen East

LiDAR survey (51.1) identified a possible enclosure (AH 72) and site inspection recorded a rise in the field. Geophysical survey detected a C-shaped enclosing feature measuring 41m x 22m and test excavation confirmed the presence of a sub-surface enclosure open on the east side occupying an area 33m north-south x 25m east-west. Soil sampling and radiocarbon dating will provide further information on the character and dating evidence of the site.

#### GA10 Killeen East

This area was identified by LiDAR survey (51.4) as a possible rectangular enclosure (AH 75) and measured in the field as 26m east-west by 25m north-south. Geophysical survey did not detect any significant results apart from a possible small field enclosure.

#### GA14 and AH06 Shankill

In order to assess the possibility of features associated with a church and graveyard monument (Shankill AH A, RO022-123001-003) extending beyond the present day boundaries, a geophysical survey and targeted test excavation took place.

The main findings from the geophysical survey along with the investigatory trench layout are summarised below:

**Table 14.18 Geophysical Survey Results and Test Trench Layout**

No.	Description	Test trench Ref.
2	Possible oval enclosure (45m x 31m) bisected by linear ditch/field boundary. Putative enclosure defined by possible ditch or pit features with stronger responses to the north.	T4, T6, T7, T8, T9 HT1, HT2, HT3
3	Ditch, 16m long within LMA and extending to NW outside the CPO. This was located in the northern field which was not tested due to flooding.	Not tested due to flooding
4	Possible rectilinear ditch/structure (17m x 10m).	T10, T16, T18, HT11
5	Possible rectilinear ditch/structure (28m x 21m); extends beyond LMA.	T16, HT5
6	Possible ditch and possible pits.	T11, T13-15, HT8
7	Soil disturbance and possible industrial features.	T1-T4
13	Outside the LMA. Possible square enclosure (42m x 42m) with rounded corners and subdivisions. Small rectangular enclosure/structure to north (8m x 11m).	HT9, HT12

A total of 19 machine-assisted test-trenches (730 linear metres) and 10 hand-excavated trenches (50 lin m), amounting to 780 linear metres were excavated within the site (c. 11% of the LMA). Two additional hand-excavated trenches (10 linear metres) were located outside the LMA and targeted on a geophysical anomaly (possible rectangular enclosure). A small portion of the site was unavailable for testing due to flooding. The investigations aim to identify the presence of any potential archaeological features and to confirm the nature, character and extent of any features present. Test excavations targeted the potential archaeological features as identified by the geophysical survey.

Testing confirmed the presence of archaeological features, comprising linear features and pits. These features consisted 5 pits, 8 furrows, 4 ditches, 1 slot and 2 isolated hearths. The majority of features were concentrated in the central portion of the site and radio carbon dating indicated that the linear ditch (F16) is an early neolithic feature and the pit (F30) is early medieval in origin.

The results do not suggest the presence of an enclosing element associated with the adjacent church and graveyard site. Also no burials were recorded in any of the excavated trenches. The proposed junction upgrade works will result in the permanent removal of the newly identified below ground features and will therefore have a significant impact on these features. Preservation by record, i.e. full excavation would be the preferred mitigation measure (O'Connell 2016).



**Plate 14.24 Test Excavation in Progress at Shankill**

**GA11 AH5A AH5B Lavalley and AH5C Vesnoy**

Agreement between the results of geophysical survey and test trenching was inconsistent. The most consistent responses were the elongated pits (AH 103) which were also recorded on the LiDAR survey (69.1). A total of 8 of these pits were recorded in the testing programme. A stone trackway was also recorded at the location of an anomaly. Charcoal and oxidised soil were noted in topsoil at the location of another geophysical anomaly. This was interpreted as a relatively recent episode of vegetation clearance or bonfire. The main findings from the geophysical survey and the trench investigation are summarized below:

**Table 14.19 Comparison Table of Geophysical and Testing Results**

Area	Ga. No.	Geophysical Description	Test trench Ref.	Testing Results
AH5a	4	Possible trackway flanked by ditches / gullies / drains. Leads past a large depression/pond.	T14, T16-18	No archaeology found
AH5b	6	Field boundary enclosing cultivation furrows.	T10-12	Stone trackway F31
AH5b	7	Very weak response, beneath an overprint of cultivation furrows. Could represent a possible ring-ditch or geology.	-	-
AH5b	8	Very weak response, beneath an overprint of cultivation furrows. Could represent a possible ring-ditch or geology.	T10-11	No archaeology found

Area	Ga. No.	Geophysical Description	Test trench Ref.	Testing Results
AH5b	9	Possible enclosing element or field system. Continues beyond landtake.	-	-
AH5b	10	A break between the cultivation furrows –could indicate the presence of a field boundary that cannot be detected by magnetometry or imported product.	T10, T12	No archaeology found
AH5b	11	Very weak response, beneath an overprint of cultivation furrows. Could represent a possible circular feature or geology.	T10	No archaeology found
AH5c	12	Multiple (14) Pit Features from the Pit Field. Interpreted as archaeology based on the strength of the magnetometer response. Could represent infilled geological features. 5-9m in length by c. 2-2.5m in width. All broadly aligned N-S.	T2-3, T6-9	Pits F10, F12, F14, F16-18, F23, F25
AH5c	13	Possible three-sided industrial structure measuring 8m x 5m (with a 3m 'tail' on its western end). This could represent a brick kiln or other large industrial feature. May be associated with the gap in the adjacent field boundary.	T6	Charcoal and oxidized soil visible in topsoil. Non archaeological.

A total of 10 pits/depressions were examined in the combined programme of geophysical survey and ERI analysis followed by test trenching. Nine of these pits were recorded in the course of trenching. Seven out of these nine pits were subject to exploratory hand-excavated sections.

The strongest indications of an archaeological origin for the 'pits' revealed in Lavally and Vesnoy townlands are a post medieval pottery sherd, the strong magnetism recorded in the upper portion of a pit and possible seeds. In the case of the pottery sherd, this indicates that the pit may be of relatively recent origin. However, it cannot be discounted that it is an intrusive object. The possible seeds retrieved from F12 & F14/P9 may have been wind-blown (O'Connell 2016). No other material was retrieved from any of the pits.

Testing confirmed the presence of a disturbed levelled fulacht fia (AH 101A) comprising a sub circular trough (4m northwest-southeast 3m northeast-southwest x 0.9m deep) associated with a 7.7m northwest-southeast x 2m northeast-southwest x 0.15m deep burnt spread.

Testing has also confirmed the survival of potential pits, coinciding with the surface depressions designated as a pit field in the LiDAR survey. Radiocarbon dating of one pit has confirmed that this pit is post-medieval in date. Further, more extensive archaeological investigations are recommended at Lavally and Vesnoy to determine the nature of the potential pit fields.

#### GA12 Bumlin

A geophysical survey was carried out along the route in the vicinity of a recorded ringfort (RO029-033) (AH107) in Bumlin townland. The only anomaly to be detected was interpreted as a possible drainage ditch. No associated archaeological features were revealed within the landtake.

### GA13 Kildallogh

Local knowledge suggested the presence of two ringforts within a pasture field (AH94). The geophysical survey revealed widespread responses indicative of soil importing, field boundaries and two weak curvilinear anomalies that could be possible enclosing elements. The geophysical survey concluded that this area contained no significant findings.

### **Hydrogeological Assessment of Pits Fields Along the Proposed Road Development**

A hydrogeological assessment was undertaken by Dr. Robert Meehan of pit fields in the townlands of Kilvoy, Clooneyeffe, Lavally and Vesnoy. He concludes the report with the following observations:

*As data from Kilvoy and Clooneyeffe (Area AH-02-03) are lacking as to an anthropogenic origin for the features, they have been considered by archaeologists to potentially be natural. Field observations on the form and orientation of the features, as well as their situation over a few metres of subsoil overlying karsitified bedrock, would suggest that there is a strong possibility that the features are lines of yet-unmapped (by geologists in the field) dolines.*

*Given that such dolines are common in the general area around the proposed road development, and that some larger ones have already been mapped by the Geological Survey of Ireland (see Figure 7) would strengthen the case for this assertion.*

*As data from Lavally and Vesnoy (Area AH-05a-c), have some potential to be anthropogenic, the origin of these pits is less certain. As well as this, some of their geometries and planforms do not definitively suggest a probable natural origin. Field observations on the form and orientation of the features, as well as their situation over a few metres of subsoil overlying karsitified bedrock, would suggest that there is still a possibility that the features are lines of yet-unmapped (by geologists in the field) dolines. However, as with the pits at Kilvoy and Clooneyeffe, further investigation would be useful.*

*In order to better understand the features at both investigation sites, the preferred methodology would be that a geologist is present during the main advance archaeological investigation works at the pitfield sites located within the footprint of the routeway. This will allow for recording of further data on the internal structure of the features, and to attempt to determine from this a more conclusive interpretation for their origin.*

## **14.5 Potential Impacts**

The purpose of the impact assessment is to provide a high level of understanding of the likely and significant archaeological and cultural heritage constraints and impacts. It is to ensure that cultural heritage assets are included for consideration at the earliest possible stage of design of the route and during the consideration of alternatives.

The nature of the following impacts is assessed with reference to the Glossary of Impacts provided in the Advice notes on Current Practices in the preparation of Environmental Impact Statements, EPA, 2003, Guidelines for the Assessment of Architectural Heritage Impact of National Road Schemes, NRA, 2006 and Guidelines for the Assessment of Archaeological Heritage Impact of National Road Schemes, NRA, 2006. Impact ratings and significance are detailed in Appendix 14.7.



The impact assessment and mitigation tables (Tables 14.26-14.28) lists all the individual sites that fall within the landtake/CPO and describes the type of impact experienced. The overall level of impact is calculated by assessing the sensitivity/significance of the asset against the magnitude of the impact producing an overall significance rating (Appendix 14.7).

The placement of the final proposed road development (both in plan and vertical height) has been an iterative process with constant refinement so the final design solution has avoided as many recorded monuments and newly revealed features as possible.

### 14.5.1 Archaeology

#### Section A

Of the five sites of archaeological potential (ID no's. AH1-5) that appear within the constraint corridor for Section A, only one site is positioned completely or partially in the direct path of the proposed road development as evident from above ground remains. The site consists of a possible post medieval earthen platform (AH4) identified from field inspection.

#### Section B

Within the constraint corridor for Section B, 19 sites are positioned completely or partially in the direct path of the proposed road development, eleven of which were evident from above ground remains. The 19 sites consist of 2 mounds (possibly fulacht fiadh) (AH9 and AH23) (now SMR site RO015-077), 4 possible enclosures (AH11, 13, 48 & 57). Both AH48 and AH57 were subject to geophysical survey and AH57 was test excavated which confirmed the presence of archaeological remains that extend into the proposed road development area. 3 possible hollow ways (AH14, 19 & 20) 1 trackway (possibly an extension of recorded route way RO022-056002) (AH28), however test excavation did not reveal any evidence of this, 1 possible pit field (AH29), 1 recorded pit field (RO016-151) (AH31), 1 earthwork (AH30), 1 possible pit/depression (AH32), 1 curving banked boundary (also a townland boundary) (AH33), 1 potential rectangular enclosure (LiDAR identified it as a possible moated site) (AH44), 1 possible field system (AH54) (redundant record (RO022-015, earthworks, AH53). A possible burnt mound (AH46) is located within the landtake for the proposed road development but as no works are proposed for this area it will be avoided and preserved in-situ.

Further analysis in the form of geophysical survey, metal detection, electrical resistivity imaging, topographical survey, test excavation and soil sampling of the pit fields in the townlands of Kilvoy, Corry East and Cloonyeffe suggest that they are natural features and not archaeological (AH29, 31 and 32). A hydro-geological report concurs that the features are possible dolines (Meehan 2016).

Geophysical survey did not find any significant anomalies associated with a possible rectangular enclosure site (AH44) and rectilinear enclosure (AH45) in Cartronagor townland but did record possible field ditches and boundaries.

Three areas of archaeological potential will also be crossed by the proposed road development, Carricknabraher River at chainage 10+150 (ID AH6), and Owennaforeesha River at chainage 14+525 (AH21). Areas of bog as shown on the 1<sup>st</sup> edition six-inch OS are shown on the mapping and have been discussed in the text, the largest area to be traversed by the proposed road development is in Leggatinty and Ballaghcullia townlands (AH7).

A junction upgrade at Shankill is proposed as part of Section B. Recorded monuments of a church (RO016-123001), graveyard (RO016-123002) and bullaun stone (RO016-123003) (Shankill AH A) are located immediately to the northwest of the existing crossroads at Shankill, a well site is located to the south of the crossroads (Shankill AH B). Given that this site may be part of an early ecclesiastical site associated with St Patrick, the surrounding lands were considered to be of significant potential. Geophysical (Geophysical Area 14, 15R0123; Bonsall & Gimson 2015) and test excavation (AH06; Shankill, 15E0545; Aidan O'Connell of Archer Heritage Planning Ltd 2016) took place, while the findings indicate archaeological features within the landtake, the results do not suggest the presence of an enclosing element or burials associated with the adjacent church and graveyard site.

### Section C

Section C extends for some 10.5 km (Ch. 30+00 – Ch. 40+500) and includes a link road to Strokestown (Ch. 0+000 - Ch. 0+700). All recorded monuments have been avoided along this section of the proposed road development.

Along the main line road development, 12 archaeological assets are located within the proposed landtake that will be directly impacted, however this includes one site that will be avoided by mitigation by design, an enclosure AH70 (LiDAR 49.3) in Killeen East (SMR RO022-170). Preservation insitu will take place.

In Gortnacranagh townland a possible enclosure (AH58) (45.4) was revealed to be a simple pit by test excavation and a field system (AH59) (45.3) was identified by LiDAR survey and a hollow way (AH61) by field inspection. Geophysical survey and test excavation identified a small circular enclosure (AH59A). The Owenur River (AH64, Ch. 30+750) was identified as an area of archaeological potential.

In Killeen East, two oval enclosures (AH72) (51.1), confirmed by testing to be an enclosure measuring 33m north-south x 25m east-west was identified within the proposed landtake.

Within Cregga townland a possible enclosure (AH81) (54.2) identified by LiDAR as partially impacted by the proposed development and a possible small mound/cairn site identified by field inspection (AH82) is located at the edge of the proposed landtake.

A section of a field system (AH86) identified by LiDAR (61.8) and field work in Tullen townland will be traversed by the proposed development. Also in Tullen a rectilinear enclosure (AH88) revealed during field assessment and later verified as a possible site by a local historian will be directly impacted.

Sections of a relict field boundary (AH93) identified by field work will be partially impacted by the proposed road development in Doughcloon townland.

Four areas of archaeological potential were identified along the spur road leading towards Strokestown. One area (AH94) in Kildallogge townland was further investigated by geophysical and LiDAR survey as local knowledge suggested that there were the remains of two ringforts at this location. The surveys failed to locate any surface or subsurface presence of these features.

### Section D

Section D being 4.3km in length is the shortest of the four sections. Within the 100m constraint corridor on either side of the centre line, eleven recorded and potential sites of archaeological interest were identified. In addition to this; the area of interest of a recorded ringfort extends into the corridor (AH102). Four sites are positioned completely or partially in the direct path of the proposed road development, the sites consist of three possible pit field sites and a fulacht fia identified through test excavation (AH98, AH99, AH103, AH101A). The test excavation results for the pit field sites in Lavally and Vesnoy townlands were inconclusive and further investigation is recommended. The Strokestown River at Ch. 51+150 (AH104) and the Scramoge River at Ch. 52+830 (AH108) (both areas of archaeological potential) will be traversed.

A possible hollow way was added to the SMR by the archaeological survey in August 2016 but upon inspection this record has now been made redundant (SMR RO023-219, AH 98A) as no evidence of the site could be revealed.

Five monuments were identified within the constraint corridor but outside of the landtake or the direct path of the proposed road development. These five recorded ringforts are in close proximity but directly avoided by the proposed road development (RMPS; RO023-174 (AH100), RO023-175 (AH101), RO029-030 (AH105), RO029-031 (AH106), and RO029-033 (AH107)). They are all located within the former parkland associated with Strokestown Demesne (discussed in Chapter 15).

## **14.5.2 Cultural Heritage**

### **Undesignated Sites**

The proposed road development will have a potentially direct and negative impact on 54 undesignated sites of cultural heritage interest identified through field survey and cartographic analysis. Many sites marked as cultural heritage (CHC) were identified from the 1<sup>st</sup> edition six-inch OS and do not have any above ground expression.

Another consideration is the removal of sections of dry stone walls which characterise former demesne lands and field enclosures. While the main concentration (Roscommon LCA, Mosart 2008) (Plate 14.2) of extant stone wall enclosures are located outside the proposed road development, where a section of stone wall is encountered it is considered that its removal will result in a moderate impact on the cultural heritage feature of medium/low significance, causing an overall negative, direct and moderate impact.

### Section A

Of the 12 cultural heritage sites that appear within the constraint corridor of Section A, 8 are positioned completely or partially within the landtake of the proposed road development. The upstanding remains of a vernacular building (CHC11) at Ch.4+750 and the upstanding remains of a vernacular building at Ch. 2+240 (CHC6), will be removed. The other six sites are shown on the historic mapping as small structures and have no visible appearance. There may be potential subsurface remains associated with the foundations of these structures.

The 3 other sites located adjacent to the proposed road development are Rathkeevy Glebe (CHC3), the site of a smithy as shown on the revised 25 inch OS mapping (CHC4) and the Church which houses the Douglas Hyde centre at Ch. 2+750 (CHC9). These sites and sites of and historic landscapes will not be directly affected

by the proposed road development. Lands formerly associated with Frenchpark Demesne are avoided (CHC10).

### Section B

Of the 25 cultural heritage sites that appear within the constraint corridor of Section B, 16 are positioned completely or partially in the direct path of the proposed road development. 12 (CHC 13, 14, 15, 17, 18, 22, 26, 27, 31, 35, 36 and 37) of these sites are shown on the 1<sup>st</sup> edition six-inch OS mapping as small structures and have no visible appearance. There may be potential subsurface remains associated with the foundations of these structures. The site of Yambo House (CHC31) at Ch.19+600 will be removed as a result of the road development.

The four other areas of a cultural heritage value positioned partially or adjacent to the proposed road development are lands formerly associated with Hermitage (CHC16) and Mantua Demesne (CHC25), Raheen Demesne (CHC34) and Bettyfield Demesne. These structures are discussed as part of the Architectural Heritage Chapter (Chapter 15).

A proposed junction upgrade at Shankill crossroads will retain an IRA memorial (Shankill CHC A).

### Section C

There are 24 cultural heritage sites along Section C, 16 of these are located on the mainline and Cregga Lane while 5 occur along the spur route at Kildalloge. 12 sites (CHC 39-41, 43, 45-47, 49-52 and 56) will be directly impacted, these sites were identified by historic mapping. The majority of features are no longer upstanding and the remains of possible subsurface foundations of former dwellings, structures or outhouses may be revealed as part of the excavation of the proposed development. CHC44A, a former quarry and access road was identified by field work and will be directly impacted. The upstanding remains of a farmhouse and outbuilding complex (CHC51) will also be directly impacted. At Cregga townland a set of pillars and cast iron gate (CHC54) and a former field system (CHC55) will also be directly impacted.

Five areas of CHC's will be directly impacted along the spur road including CHC 57, 58, 59, 60 and 61.

CHC42, a possible designed landscape feature that was revealed by LiDAR survey will be avoided. Gortnacranagh House (CHC38), Clooncullaan School (CHC48) and Cregga Demesne (CHC53) will be avoided.

### Section D

Within the constraint corridor for Section D there are 13 known or potential CHC sites; 9 of these are positioned completely or partially in the direct path of the proposed road development. The nine sites directly affected consist of eight sites of structures which appeared on the 1st edition six-inch OS map and are no longer standing (CHC62, 63, 64, 70, 71, 72, 73, 74) and lands formerly associated with Strokestown Demesne (CHC65).

A further four sites were identified within the constraint corridor but outside of the direct path of the proposed road development. These four avoided sites included two standing vernacular structures, at Ch. 52+725 (CHC66) and Ch. 52+750 (CHC67), and the site of a boat house recorded at Ch. 52+800 on the northside of the Scramoge River (depicted on the revised edition six-inch OS map) (CHC68). A former bridge/ fording point (CHC69) will be avoided.

## **Townland Boundaries**

The proposed development will impact upon 42 townland boundaries (Appendix 14.12). These boundaries are listed in the appendix along with the chainage and map reference in order to locate them.

These boundaries take many forms varying from rivers, roads, ditch and earthen bank, mature tree boundaries, hedge and scrub, stone walls as well as large drains. Only one boundary has been removed while a few would appear to have changed in form over the years with large conifer plantations altering and using former boundaries as drains around the plantation sites. A number of boundaries are now formed by roads such as TB1, TB4, TB10, TB11, TB24 and TB32 and five are formed by rivers.

The proposed road will remove sections of these townland boundaries resulting in a moderate impact on cultural heritage features of medium/low significance, causing an overall negative, direct and moderate impact.

### **14.5.3 Setting: Recorded Monuments Within the Constraint Corridor of the Proposed Road Development**

In order to assess the setting of individual heritage assets along the proposed road development, it is necessary to assess the type of impact – in this case an indirect impact.

There will be a visual change in the immediate rural landscape of the proposed road development. The effect of this change and how it affects the contribution to the significance of the setting of an archaeological asset is assessed below. In some instances the contribution made by setting to an asset's significance may be negligible: in others it may make the greatest contribution to significance. When assessing the effect of visual change as part of the setting of a monument the approach as described in the methodology outlined in section 14.2.7 is:

- Describe the asset and explain its significance
- Describe the setting and how it contributes to the significance of the asset
- Describe the predicted visual relationship between the asset and development
- Explain why a visual change would affect the significance of the asset.

Setting is only one aspect that contributes to the significance of a monument and the visual intrusion is only one of the elements that is assessed when considering setting.

The newly revealed potential sites by LiDAR, field walking and/or geophysical survey do not have a well-defined upstanding physical presence in the present day landscape being either low in visibility or below ground, this while not detracting from the potential significance of these sites does mean that the setting in relation to the proposed road is not of an appreciable significance and does not contribute in a significant manner to the understanding of these sites.

There are 23 recorded monuments within the constraint corridor zone (100m on either side of the centre line) of the proposed road development, two of these monuments are directly impacted and discussed above. The area of interest of a further 10 monuments extend into this zone.

Seven monuments have no visible trace or are heavily eroded so they are barely discernible in the surrounding landscape (AH107, 63, 85, 87, 92, 38 and 49). The setting of a further five sites have already been altered by changes in the modern day landscape such as forestry plantations, houses and structures, enclosing elements such as walls and mature boundaries and roads and presently are not visible to or from the proposed road development, these are AH106, 89, 68, 56, 55 and 42.

A ringfort, enclosure and house site (AH41) (RO016-115001/002/003) are located in the former demesne of Raheen in boggy, poorly drained sloping land. The monuments are somewhat eroded with views to the south, southwest now restricted with the presence of access road and a structure. The monuments are located within a small confined field with a road and hedgerow to the north, access track to the west, structure to the south and drain/stream to the east. The proposed works will not detract from the existing setting of the monuments.

A holy well (AH90) located in Lettreen townland is located 70m south/east of an ancillary road and due to its discreet nature it is not visible to or from the development. Two monuments while located outside the 100m constraint area, their area of interest extends into this zone.

A mound (AH65) (RO022-149) is located 175m to the south of the proposed road development in a separate field to the proposed works, in a low-lying level landscape that has been altered by the dredging and straightening of the Owenur River. While there are a number of works planned at a distance to the north it is thought that these will result in a slight to negligible change to the setting of the site.

A circular earthen ringfort (AH89) (RO023-116) located 133m, to the north-west of an ancillary road is positioned in a corner of a field separating it from the main line (133m). Improvement works will take place to the ancillary road adjacent to the existing local route. There will be no discernible impact on the setting of this site.

In Cregga townland due to the undulating terrain there is no inter-visibility between the proposed road development and a number of upstanding ringforts. Only the tops of trees which now enshrine these monuments will be visible from the proposed road from AH78, 79 and 102. Ringfort (AH92) (RO023-121) has largely been destroyed and is represented as a slight curve in the southwest field boundary. A local access track is located 50m west. There will be no change in how the visual aspect or views contribute to the significance of this monument.

A pit field (AH 52) (RO022-036) is located to the south in a separate field to the proposed works. There is no visual relationship between it and the proposed road development. The significance of the setting of this site including the visual integrity will not be affected by the proposal.

The majority of upstanding sites within or extending into the constraint corridor (located 100m on either side of the centreline) are earthen in nature: ringforts, enclosures and a moated site, most of which are defined by trees or thorn bushes. While the proposed road development will open up views towards these monuments, many will be difficult to recognise as such from the road as with their present vegetation and foliage they blend into the natural mature and scrub boundaries in the wider landscape. There are no large scale, well preserved, up standing stone monuments such as castle or church sites that will be indirectly impacted by the proposed road development. Urney church (RO023-177001-002) which is located over 600m from the proposed road development is discussed in the Architectural Heritage chapter (BHD01).

How views (both long and short distance) historically contributed to the significance of monuments is dependent on each individual site. It is thought that ringforts tended to cluster around a prominent high status structure often in an elevated position with the others positioned on lower ground, contributing to a dispersed enclosed settlement pattern with a surrounding system of agricultural fields and route ways. Both Stout (1997) and Keegan (1984) have noted associations between high and low status sites, with low status sites often clustering around more impressive sites and this situation is to be found in low-lying areas in Roscommon. Nancy Edwards in considering the siting of ringforts in relation to defence states that 'while it is clear that a prominent position with a good view of the surrounding countryside was favoured for the siting of ringforts, defence does not always seem to have been the primary consideration' (Edwards 1990).

While the visual aspect, and more specifically views in one direction from the affected monuments will be diminished, the monuments and their relationship with other sites will be largely maintained. Where views are affected there is little in the form of mitigation apart from screening and changes in the setting of these sites will take place as a result of the road development (Table 14.28). The rating of impact is the combined significance of the asset and the magnitude of the impact, considered together (Appendix 14.7).

Outside the assessed constraint corridor a number of prominent monuments are located in commanding locations within the existing undulating landscape at the eastern end of the proposed road development. Some of these sites are large in scale, well preserved and have extensive views. These sites even though at a distance from the proposed road development have the potential to become landmark sites for example the conjoined ringforts at Cregga (RO023-014001-002) or the windmill on Cregga Hill (RO023-071). The proposed road development also has the potential to provide scenic views of the many lakes in the region such as Clooncullaan Lough and will open up different views providing glimpses of this interesting historic landscape.

Ringforts form the majority of upstanding recorded monuments along the proposed road development, which is unsurprising given the high densities of this site type in north county Roscommon. With the insertion of the road, the historic landscape will still be largely appreciated as early medieval in nature with remnants of 18<sup>th</sup>/19<sup>th</sup> century former demesne landscapes defined and enclosed by strong lines of earthen bank, scrub and tree boundaries to the east and stone walls to the west of the proposed road development.

The narrative within this impact statement has provided a greater understanding and definition of the local distinctiveness or significance of the historic character of the landscape and the historic processes that have formed the present landscape. This knowledge has led to the promotion of a road design that has minimised the impact on recorded archaeological monuments and the local historic character where possible. While views to and from nine monuments will be changed due to the presence of the new road development (Table 14.28), the main historic influences which have formed and define the present day landscape through the above ground physical expression of well-preserved monuments, groupings of monuments and their siting will be preserved.

#### 14.5.4 Setting: The Candidate UNESCO World Heritage Site of the Rathcroghan Archaeological Complex

**Value/Significance of the Asset:** Rathcroghan is an example of the development and preservation of a human landscape since the Neolithic to the modern period (4000 BC to present). It is a blend of monument, myth, legend, spiritual and historic features and cultural associations resulting in a well preserved, multi-period, ritual and royal landscape. As a symbol of Irish culture and identity, this landscape is of exceptional significance, both nationally and internationally.

The attributes that have been acknowledged through the Oxford Archaeology study (2007, vii) that contribute to this significance and outstanding universal value (OUV) include:

- As a well preserved, multi-period and ritual landscape, Rathcroghan is of exceptional significance both nationally and internationally.
- Cattle rearing is the principal agricultural use of the natural landscape. This type of farming is crucial for the preservation of the archaeological monuments as it has little adverse effect on their conservation.
- The monuments of the Rathcroghan complex are impressive as individual features, and some are of clear national importance, but the combination or group value of the various components, increase their significance.
- The association of the Rathcroghan monument with the myths and legends of early Irish history enhance public interest in them.
- The surviving pattern of medieval occupation and land use is of considerable significance, particularly as it lies in a former Gaelic lordship providing a contrast with better understood landscape in Anglo-Norman areas.

#### The Contribution Made by Setting to Significance of Rathcroghan

The key attributes that contribute to the OUV, namely the relationship between the main grouping of nationally important sites and the setting of the complex on the elevated limestone plateau, define the ritual and royal landscape of Rathcroghan. This royal site is located within the wider limestone pastures of the *Mag nAí* stretching from Strokestown, Castlerea, Elphin and Roscommon over which the Kings of Connacht reigned.

The Rathcroghan Archaeological Complex Conservation Study (2007 Figure 1, extent of study area) considered a plateau of land at the 120-140m OD for their study area. Waddell (2009, 1) describes the monuments that constitute Rathcroghan as 'scattered over some 1,000ha (four square miles) of elevated ground, forming a significant concentration above the 120m contour'.

Rathcroghan as it forms part of the tentative list of Royal sites for consideration as a world heritage property is currently undefined geographically however published sources to date are in agreement that

- The concentration of monuments that constitute Rathcroghan occur at and above the 120m contour line.

Following consultation, the key constraint area for Rathcroghan for the purpose of this project was defined to the east and north by the 100m contour and to the southwest by the 110m contour, with the existing RMP complex boundary forming the western boundary of the key constraint area. This area of the Rathcroghan archaeological complex, was understood to define the limits of the key constraint of



Rathcroghan (Figure 14.26) and the main concentration of monuments located on the limestone plateau.

**Experience/Authenticity of Rathcroghan:** Rathcroghan is directly and tangibly associated with Irish myths and legends and the great Irish saga of the *Táin Bó Cúailgne* and the stories of St Patrick's visits are chronicled in the *Tírechán* from 700A.D. Its authenticity is expressed through its well-presented character that is largely intact and has retained many original attributes. It is documented through research projects and publications such as The ArchaeoGeophysical Imaging Project which provided the research for the publication *Rathcroghan: archaeological and geophysical survey in a ritual landscape* (Waddell, J. Fenwick, J. and Barton, K. 2009). The monuments are located in a largely intact pastoral landscape, which has contributed to the retention of a unique sense of place, spirit and feeling. However the existing N5 disrupts this sense of place effectively bisecting the complex to the north and south of the road. There is limited access with the majority of monuments within private ownership, however Rathcroghan mound, Rathbeg, Rathnadarve and Rathmore are publically accessible.

The proposed road development will not affect the experience or affect the authenticity of the complex.

**The Visual Relationship/ Distance from the proposed road development:**

Overall Rathcroghan is a well preserved collection of monuments and has retained high visual landscape qualities described as exceptional value in the Roscommon Landscape Character Assessment (2008).

The Rathcroghan complex is located on a limestone plateau at the east end of a broad spur with the land sloping down at the edges in all directions except to the west where it steeply rises. The lower ground to the north where the proposed road development will be placed and to the east is part of the greater Shannon catchment area. Long distant views are possible across the Shannon Valley and beyond to distant hills. To the north the dominant view on the horizon is the table-top Kesh Corran Mountain, Co Sligo, while to the east, the aspect is dominated by Slieve Bawn.

At its closest, the centre line of the proposed road development is located approximately 943.5m north (and 832m from the outer edge of the proposed road development) of the 100m contour line which delineates the key constraint area for the purpose of this study. The key monuments (Oxford Archaeology 2007, 44-49 and Herity 1991, 9-25) that form part of this complex are all located over 3km from the proposed road development apart from Caran Fort (RO022-056023) and mound barrow (RO022-056022) which is located approximately 2887m south of the centreline of the proposed road development.

The main concentration of the nationally significant monuments groups that form the Royal site of Rathcroghan are all located on the eastern end of a limestone plateau above the 120m contour line and discussed in Section 14.3.4 of the chapter.

The photomontages provide a visual representation of the location of the proposed road development within the wider low lying plains that surround Rathcroghan and the higher undulating land to the east (Figures 14.28-61, Volume 3 Appendix 14.11). The landscape and visual chapter further elaborates on planting strategies that will be employed along the proposed road development. With mitigation there will be no appreciable difference from the monuments in the direction of the proposed road development (Table 14.7A) as shown in the photomontages.

**The impact on the significance of Rathcroghan:** The proposed road development is sufficiently distant and well-integrated within the existing landscape, using the natural topography, plantation and general vegetation so as not to give rise to an adverse visual impact on the Rathcroghan complex or its setting. The preservation of the setting of monuments within the key constraint area is seen as integral to the significance of the area and will be preserved as a result of the proposed road development.

The value of the archaeology, historic landscape and intangible cultural heritage associations are considered to be very high (Appendix 14.9 ICOMOS Guidelines (2011) while the magnitude of the impact from the proposed road development is deemed to have no impact/change on the archaeology, historic landscape or cultural heritage associations resulting in no adverse impact to the overall key constraint area of Rathcroghan from the proposed road development.

The development of the proposed road development has taken place in consultation with the heritage authorities and academics who have a specific knowledge and interest in the area. The location of the proposed road development meets with criteria contained within Policy 4: Enhancement and Improvement of the *Rathcroghan Archaeological Complex Conservation Study (2007)* which supports the development of an alternative route for the N5 (Policy 4.3) in order to enhance the character and qualities of the monuments by appropriate means.

**Table 14.20 Rathcroghan Conservation Study (2007)**

<b>Policy 4.3</b>	
To enhance the setting of the core area(s) of the archaeological complex following the re-routing of the N5 road away from the centre of the Rathcroghan archaeological complex	
•	Support proposal by the NRA to reroute the N5 away from the Rathcroghan archaeological complex
•	Take steps to prevent any adverse effects that may arise from increased access opportunities following rerouting of the N5 away from Rathcroghan.

A secondary impact of a moderate positive nature as a result of the implementation of the N5 Ballaghaderreen to Scramoge Road Project is the reduction of traffic on the existing N5 and the future enhancement of the setting of the key constraint area especially in the immediate vicinity of a number of nationally significant monuments, for example, Rathcroghan mound, Rathmore, Rathbeg. This will result in an overall direct improvement to the integrity of the complex.

The proposed road development has been developed in order to preserve the Royal landscape of Rathcroghan and thus does not threaten the world heritage nomination by maintaining attributes which contribute to the outstanding universal value (OUV), and authenticity while improving the integrity of the complex. The proposed road development has been placed so that it will not diminish the setting of individual monuments or groupings of monuments or affect protected key views and/or disrupt the inter-visibility between significant monuments. The relocation of the N5 provides an opportunity to contribute in a positive manner to the historic character of the overall area.

**14.5.5 Construction Phase**

Pre-mitigation there will be 36 direct impacts on archaeological assets during the construction phase of the proposed road development. These include the following:

- 10 direct impact with an impact significance level of significant
- 19 direct impacts with an impact significance level of moderate
- 7 direct impacts with an impact significance level of slight

Furthermore five rivers will be traversed by the proposed road development – in Section B: Carricknabraher River (AH6), Owennaforeesha River (AH21), in Section C: the Owenur River (AH64) and in Section D: the Strokestown River (AH104) and the Scramoge River (AH108) and an area of historic bogland (AH7) (as shown on the 1<sup>st</sup> ed six-inch OS map) in Section B.

See below for a breakdown of impact level per section and site type on archaeological assets.

**Table 14.21 Archaeological Impact Level per Section**

Section/Impact Level	Slight	Moderate	Significant
Section A	0	1	0
Section B	6	10	4
Section C	1	5	5
Section D	0	3 (potential)	1
Total	7	19	10

**Table 14.22 Impact Level and Archaeological Site Type**

Site Type / Impact Level	Slight	Moderate	Significant
RMP	1	1	0
SMR <sup>7</sup>	1	0	2
Newly identified site	0	1	5
Site of archaeological potential	5	17	2
Archaeological area	0	0	1
Total	7	19	10

Pre-mitigation there will be 9 indirect impacts on recorded monuments as a result of a visual intrusion during the construction stage of the proposed road development and 1 indirect impact on a SMR site due to mitigation by design.

- 4 indirect impact with an impact significance level of significant
- 4 indirect impacts with an impact significance level of moderate
- 2 indirect impacts with an impact significance level of low

**Table 14.23 Pre-mitigation Indirect Impacts**

Section/Impact Level	Slight	Moderate	Significant
RMP	2	3	4
SMR	0	1	0

<sup>7</sup> Sites included in the SMR by the Archaeological Survey of Ireland was based on information from an unpublished archaeological LiDAR report (Davis, 2015) and an unpublished archaeo-geophysical report (Bonsall 2015) commissioned by Roscommon County Council as part of the EIA for the N5 Ballaghaderreen to Scramoge Road Project. Sites were added to the record on the 8<sup>th</sup> March 2016. Information contained within this table is based on digital SMR data downloaded on the 07/04/2016

Section/Impact Level	Slight	Moderate	Significant
Total	2	4	4

There will be 54 direct impacts and no indirect impacts on cultural heritage assets during the construction phase of the proposed road development. These include the following:

- 0 direct impacts with an impact significance level of significant
- 52 direct impacts with an impact significance level of moderate
- 1 direct impact with an impact significance level of low
- 1 direct impact with an impact significance level of imperceptible

See below for a breakdown of impact level per section and site type on cultural heritage assets.

**Table 14.24 Cultural Heritage Impact Level per Section**

Section/Impact Level	Imperceptible	Slight	Moderate	Significant
Section A	0	0	8	0
Section B	1	1	14	0
Section C	0	0	21	0
Section D	0	0	9	0
Total	1	1	52	0

**Table 14.25 Impact Level and Cultural Heritage Site Type**

Site Type / Impact Level	Imperceptible	Slight	Moderate	Significant
Cultural heritage site	0	0	7	0
'Site of'	0	0	42	0
Former demesne lands	1	1	3	0
Total	1	1	52	0

The contractor or sub-contractor working is subject to the relevant planning legislation and to the National Monuments legislation and will comply with national policy guidelines and statutory provisions for the protection of the archaeological, architectural and cultural heritage.

For works that may be located outside the CPO of the approved development such as site compounds and other temporary works areas or ancillary works such as haul roads that are directly related to the proposed route, the contractor or sub-contractor is subject to the relevant planning legislation. The National Monuments Service of the DAHRRGA will be contacted in advance of such works so that advice may be issued with regard to the relevant permission required to carry out the work.

#### 14.5.6 Operational Phase

All direct archaeological and cultural heritage issues will be resolved at the pre-construction stage of the development. There will be indirect visual impacts relating to archaeological monuments located within the constraint corridor that will be experienced at the operational phase as a result of the proposed road development.

- 0 indirect impact with an impact significance level of significant

5 indirect impacts with an impact significance level of moderate

5 indirect impacts with an impact significance level of slight

#### **14.5.7 'Do-Nothing' Scenario**

In the “do-nothing” scenario the proposed road development would not be constructed and therefore there would be no adverse impacts to any archaeological sites or features of archaeological potential or as yet undiscovered subsurface sites, nor to any features of cultural heritage.

Any benefits to the historic character of the overall area by relocating traffic from the existing N5 at Rathcroghan (and the historic settlement of Tulsk, Rathmore, etc) would be lost.

### **14.6 Mitigation Measures**

The archaeological services described in this chapter will form part of the mitigations for the development, pending approval by An Bord Pleanála. These mitigations will require Ministerial Directions from the Minister for the Arts, Heritage and Regional, Rural and Gaeltacht Affairs under the terms of the National Monuments (Amendment) Act 2004. Mitigation can take place in the form of

- Avoidance
- Preservation in situ by design
- Preservation by Record

Roscommon County Council and TII will make provision to allow for and to fund any necessary archaeological monitoring and inspection work that may be required on the site during the route preparation phase of development. It is anticipated that lands requiring monitoring will primarily consist of areas that could not previously be assessed due to environmental, safety or access constraints. Adequate financial provision should also be made available for post-excavation work, the conservation of artefacts and the publication of any archaeological excavation results.

In total 24 potential archaeological sites, five rivers and one area of bogland (areas of archaeological potential) will be impacted by the proposed road development and will require mitigation. The design of this proposed road development will enable one archaeological asset (AH70) to be preserved in situ.

In addition to this the cultural heritage findings have revealed the possible remains of below ground structures present prior to the famine and shown on the 1<sup>st</sup> edition six-inch OS mapping. In total 45 areas were identified (6 in Section A, 14 in Section B, 18 in Section C and 7 in Section D). These areas will have to be investigated by archaeological methods and if remains are revealed appropriately recorded. These features will be mitigated by preservation by record.

Mitigation measures shall be undertaken as directed by the Minister for AHRRGA in compliance with national policy guidelines and statutory provisions for the protection of archaeology and cultural heritage. It is proposed that the following measures will take place as a minimum:

#### **Building Survey**

Mitigation strategies for built heritage and above grounds cultural heritage sites are discussed in Chapter 15. The aim of these strategies/ surveys will be to compile a

comprehensive written and illustrated record of structures and features which are within the lands acquired for construction and which will be directly impacted on.

### **Townland Boundary Surveys**

The sections of boundaries affected by the proposed development will be mitigated by preservation by record. The proposed development impacts on 42 (TB1- 42) townland boundaries listed in Appendix 14.12. Mitigation measures for townland boundaries shall take the form of a survey. The aim of this survey shall be to make a representative written and photographic record of the townland field boundaries impacted on by the proposed road development and provide additional information on the system of enclosure in this area of North Roscommon.

The survey will consist of a photographic and written record of the nature and structure of the boundary, followed by a single machine-dug test trench through each townland field boundary where feasible. The test trench shall be of a sufficient length and width so as to provide a section through the boundary. The resulting section through the townland boundary shall then be drawn and photographed with a written description.

In those instances where townland boundaries are formed by watercourses, no test excavations shall be required and where in such cases these watercourses are being impacted on by the proposed road development that shall be assessed by an underwater and or wade survey.

In addition to the townland boundary survey, where a section of an extant dry stone wall is encountered, it will be recorded by the means of a photographic and written record prior the removal of the feature and the construction of the road.

### **Investigation of Rivers**

In general test excavation is not conducted within 10m of the bank of any stream or river which traverses the proposed road development. This measure is to protect the aquatic life and to avoid contamination of the watercourse by silt or spoil from test trenches.

When investigating the rivers (AH 6, 21, 64, 104 and 108) all vegetation should be stripped back from the sides of the banks so a clear uninterrupted assessment can be made. Test excavation of the river banks and/or visual assessment and metal detection survey of the river bed and banks can take place once the vegetation has been cleared.

### **Screen Planting**

A landscaping plan has been prepared for the proposed development as described in Chapter 11 Landscape and Visual. This will strengthen current mature boundaries and will provide additional screening in order to lessen any potential visual impact in relation to sensitive cultural heritage assets and will be adopted throughout the proposed development (Chapter 11).

### **Geophysical Strategy**

As the soils in this area are known to be receptive and have produced good results in the past and given the success of the pilot geophysical survey throughout 14 areas of the proposed road development, it is proposed that further geophysical survey will be undertaken in advance of construction. This survey will be carried out in areas where

ground conditions are appropriate, for example the following areas of bogland, former bogland and forestry plantations may prove to be problematic:

- Turlaghamaddy and Dungar ch 4+250-5+300
- Leggatinity ch 10+150-12+400
- Ballaghcullia ch 14+100-15+550
- Peak ch 15+550-15+700
- Mullenduff and Corry West ch 16+700-18+100
- Cartronagor and Creeve ch 21+000-22+900

The suitability of land will be ultimately assessed by a geophysical archaeologist as in addition to the areas listed above (which account for 24.5% or 8.2km of the proposed mainline) road crossings and river crossings as well as areas of outcropping limestone will have to be taken account of in relation to survey suitability. Geophysical survey will be carried out in order to detect features that presently have no surface indication and that would not have been detected by the LiDAR survey or other methods of identification used for the EIA process.

To date the geophysical survey has added further definition to the sites that have been detected by LiDAR, aerial photography and field work and 12.5% (or 3.150km) of available land (along the main line) has been subject to geophysical analysis. Further to this and outside this calculation two areas of archaeological potential in Kildalloge and Shankill have also been subject to geophysical survey.

At Gortnacranagh, the geophysical survey revealed an additional site that previously lay undetected by the other forms of investigation used on the proposed road development. This site was a small enclosure, a possible ring barrow (AH 59A).

The aim of the future survey is to achieve a finer definition of the below ground remains that have no surface expression and to provide further clarity on the full archaeological potential of the proposed route. The benefit of using this non-invasive method is that it can cover a large amount of ground rapidly without disturbing the surface of the fields and provide definition on the nature, extent and often plan layout of below ground sites in order to inform the testing strategy. The work will have to be conducted by a suitably qualified geophysical surveyor taking account of all the results and newly revealed sites revealed to date while working in tandem with the TII Project Archaeologist.

### **Test Excavation Strategy**

Given the presence of recorded sites both within and in proximity to the proposed road development, the identification of new areas of archaeological potential and the proven potential for discovery of previously unknown sites or features along the proposed route, it is proposed that a programme of archaeological blanket test excavation in accordance to the guidelines be undertaken within the land acquisition area of the proposed road development.

The purpose of this blanket testing strategy is to determine the location, date, nature and extent of any previously unknown archaeological sites.

The testing strategy will be guided by the results of the geophysical, LiDAR survey, geotechnical data and test excavation results. These findings will be used to inform the layout of the archaeological test excavation trenches.

The archaeological test trenching strategy shall entail mechanical excavation of a 2m wide (or at least a 1.8m wide) trench along the centre-line of the proposed route with regular off set trenches to the edge of the land to comprise a testing sample of a minimum of 12% of the dry-land take and 10% of the wet land take. The frequency and pattern of the trenching layout is not prescribed and the testing array may vary from one area to another, with the agreement of the TII Project Archaeologist and the DAHRRGA, to take account of local topographic factors. In areas of increased archaeological potential the level of testing can be increased accordingly.

The process of archaeological excavation, recording and publication of results ensures that all the features are recorded and excavated in advance of development. Excavation results in the removal of archaeological remains from their natural environment. Archaeological excavation ensures that this removal is systematically and accurately recorded, drawn and photographed, providing a paper and digital archive and adding to the archaeological knowledge of a specified area. The detailed technical reports arising from this will form part of the national archive of archaeological data in the Sites and Monuments record curated by the DAHRRGA.

### **Test Excavation of Wetland Areas**

In general test excavations in wetland areas will take place in accordance to the *Guidelines for the Testing and Mitigation of the Archaeological Wetland Heritage for National Road Schemes* (NRA 2005).

### **Protection of Newly Revealed Archaeological Remains**

Features and sites that have been investigated by advance test excavation at the EIA stage of the project and proven to be archaeological in nature will have to be excavated by hand, for example the newly revealed fulacht fiadh in Lavally townland (AH101A) and the series of pits and linear features at Shankill townland.

Archaeological test trenches previously opened within the land acquisition area of the proposed road development will be appropriately reinstated in association with an agreed landscape strategy for the preservation in situ of the newly identified archaeological remains. If the road is approved these features will be fully excavated at the next stage of the contract.

Measures will have to be put in place to protect all archaeological features that are revealed prior to backfilling. This generally involves placing a geotextile protective membrane over any archaeological features identified during the test excavation exercise. Other measures such as the provision of hardboard over fragile remains must be used where appropriate.

This is in accordance with the Code of Practice between the NRA and the Minister for AHRRGA (formerly Arts, Heritage, Gaeltacht and Islands), 2000.

### **Reporting and Public Engagement**

The results of the archaeological excavations will be disseminated through various means, for example:

- Reports will be made available to the public at Roscommon County Library
- Publication of the results in TII monograph publication and suitable periodicals
- Public lectures



- Engagement with schools, community groups and other institutions to develop projects which will enhance peoples knowledge and understanding of their local heritage in relation to the N5 study area

#### 14.6.1 Construction Phase

Archaeological and cultural heritage issues will be resolved where possible at the pre-construction and construction stages of the development. This will include any necessary archaeological monitoring and inspection work required along the proposed road development during the site preparation/ advanced works phase of the development.

#### 14.6.2 Operational Phase

Archaeological and cultural heritage surveys and investigations will be completed by the operational phase of the development.

### 14.7 Predicted Residual Impacts

#### 14.7.1 Construction Phase

Residual impacts in relation to the setting of archaeological monuments and heritage assets in terms of visibility to and from monuments (see Table 14.28) and the implementation of screening/planting strategies are envisaged at the early stages of the road development. Planting regimes can take several years to develop and successfully establish and visual impacts will be most pronounced during the construction and initial operation stages, after which mitigation measures will be increasingly effective in integrating the road within the landscape and in reducing visual impacts. Residual impacts in relation to direct impacts on archaeological and cultural heritage assets are set out in Tables 14.26 and 14.27.

During the construction phase a mechanism for recording, protecting and where necessary resolving existing archaeological monuments and newly revealed sites within the landtake will have to be agreed with the TII Project Archaeologist and The National Monuments Service of the DAHRRGA.

If features are to be left *in-situ*, details plans will be required as to the layout and extent of these features/ sites as well as a geographical location. Before and after photographs will be required as well as a full report on the preservation of the site and how this was achieved, by the National Monuments Service.

#### 14.7.2 Operational Phase

Residual impacts in relation to the setting of archaeological monuments and heritage assets in terms of visibility to and from monuments (see Table 14.28) and the implementation of screening/planting strategies are envisaged at the early stages of the road development. Planting regimes can take several years to successfully establish and a monitoring programme will be implemented to ensure that any failures are detected and replaced.

**Table 14.25 Impact Level and Residual Impacts After Mitigation**

Site Type/Impact Level	Slight	Moderate	Significant
RMP	5	4	0
SMR	0	1	0
Total	5	5	0

Steps to prevent any adverse effects that may arise from increased access opportunities and the reduction of traffic following the rerouting of the existing N5 away from Rathcroghan will need to be considered by Roscommon County Council and the National Monuments Service, this may take the form of recording visitor numbers, consultation and a management plan for the accessible monuments within the Rathcroghan Complex.

### **Conclusion**

It is anticipated that after mitigation measures have been applied to direct impacts that there will be no significant residual archaeological and cultural heritage impacts as outlined in Tables 14.26-14.28. With excavation and planned recording, preservation by record will be achieved throughout the proposed road development at the pre-construction and construction stage of the development.

Most significantly the removal of a significant level of existing traffic from the N5 through the Rathcroghan Archaeological Complex will have a significant positive impact on the visual context and setting of this important landscape. The proposed road project is sufficiently distant and well-integrated within the existing landscape, by means of ridges and valleys, plantations and general vegetation so as not give rise to any adverse landscape or visual impact on the Rathcroghan Complex or its setting. This assessment is supported by and the effect illustrated on the photomontages prepared from viewpoints in the Rathcroghan landscape.

**Table 14.26 Impact and Mitigation Table – Archaeology**

**Section A Archaeology Impact and Mitigation**

ID NO	Constraint	Impact	Baseline Rating	Impact Magnitude	Impact Significance	Mitigation Measure	Residual Impact
AH4	<b>Site of Archaeological Potential</b> Turlaghnamaddy Possible post medieval earthen platform identified through site inspection	Constraint located within the landtake. Direct and permanent construction impact.	Medium	Medium	Moderate	A programme of archaeological test trenching will be designed in order to establish the presence or absence, as well as the nature and extent, of any archaeological deposits that may be present within the landtake of the proposed road development.  Should any subsurface archaeological stratigraphy associated with this constraint be encountered, an appropriate ameliorative strategy will be implemented. This will entail licensed archaeological excavation in full or part of any identified archaeological remains (preservation by record).	None

**Section B Archaeology Impact and Mitigation**

ID NO	Constraint	Impact	Baseline Rating	Impact Magnitude	Impact Significance	Mitigation Measure	Residual Impact
AH9	<b>Site of Archaeological Potential</b> Leggatinty Mound (possibly a fulacht fiadh) (LiDAR 19.2) and field inspection (Site of structure CHC14).	Constraint partially located within the landtake. Direct and permanent construction impact.	Medium	High	Moderate	A programme of archaeological test trenching will be designed in order to establish the presence or absence, as well as the nature and extent, of any archaeological deposits that may be present within the landtake of the proposed road development.  Should any subsurface archaeological stratigraphy associated with this constraint be encountered, an appropriate ameliorative strategy will be	None

ID NO	Constraint	Impact	Baseline Rating	Impact Magnitude	Impact Significance	Mitigation Measure	Residual Impact
						implemented. This will entail licensed archaeological excavation in full or part of any identified archaeological remains (preservation by record).	
AH11, AH12	<b>Sites of Archaeological Potential</b> Cashel (2) 2 possible enclosures (LiDAR 18.1 & 18.2). Site of structure on 1st ed and landscape feature.	Constraints located within the landtake. Direct and permanent construction impact.	Medium	High	Potentially moderate	A programme of archaeological test trenching will be designed in order to establish the presence or absence, as well as the nature and extent, of any archaeological deposits that may be present within the landtake of the proposed road development. Should any subsurface archaeological stratigraphy associated with this constraint be encountered, an appropriate ameliorative strategy will be implemented. This will entail licensed archaeological excavation in full or part of any identified archaeological remains (preservation by record).	None
AH14	<b>Site of Archaeological Potential</b> Cashel 1 hollow way (LiDAR 18.4) & historic mapping	Section of hollow way is within the landtake.	Medium	Medium	Moderate	A programme of archaeological test trenching will be designed in order to establish the presence or absence, as well as the nature and extent, of any archaeological deposits that may be present within the landtake of the proposed road development. Should any subsurface archaeological stratigraphy associated with this constraint be encountered, an appropriate ameliorative strategy will be implemented. This will entail licensed archaeological excavation in full or part of any identified archaeological remains (preservation by record).	None

ID NO	Constraint	Impact	Baseline Rating	Impact Magnitude	Impact Significance	Mitigation Measure	Residual Impact
AH19, AH20	<b>Site of Archaeological Potential</b> Ballaghculia 2 hollow ways (LiDAR 21.5 & 21.6) & historic mapping	Section of hollow way is within the landtake.	Medium	Medium	Moderate	As above.	None
AH23	<b>Site of Archaeological Potential-SMR RO015-077</b> Drummin Mound/ possible burnt mound (LiDAR24.1) and fieldwork	Constraint is located within the landtake	Medium	High	Potentially Significant/ Moderate	As above	None
AH28	<b>Site of Archaeological Potential</b> Kilvoy Existing forestry track (possible extension to recorded route way (RO022-056002), historic maps.	Existing forestry track will be traversed by the route, ie located within the landtake. Test excavation did not reveal any trace of an historic route.	Low	Low	Slight	Targeted test excavation did not reveal any trace of an historic route (TE1), test excavation will occur within the wider landtake.	None
AH29	<b>Site of Archaeological Potential</b> Kilvoy Pit field (LiDAR 33.2), field work and aerial photography, possible extension to the west of recorded monument (RO016-151). Subject to geophysical survey (GA1) and test excavation	Five pits are located within the landtake. Archaeological investigation strongly suggests that these features are natural and non-archaeological in origin.	Low	Low	Slight	It was concluded that the pit-like depressions are natural enclosed karstic depressions and of no archaeological significance. No further mitigation necessary, test excavation will occur within the wider landtake.	None

ID NO	Constraint	Impact	Baseline Rating	Impact Magnitude	Impact Significance	Mitigation Measure	Residual Impact
AH30	<p><b>Site of Archaeological Potential</b> Kilvoy Earthwork – series of banks and ditches identified by fieldwork. Subject to geophysical survey (GA1) and test excavation.</p>	<p>Constraint located partially within the landtake. Although testing was curtailed in this area, the eastern end of the earthworks were assessed in T5. No archaeological features associated with these surface features were detected.</p>	Low	Low	Slight	<p>A programme of archaeological test trenching will be designed in order to establish the presence or absence, as well as the nature and extent, of any archaeological deposits that may be present within the landtake of the Proposed Road Development. Should any subsurface archaeological stratigraphy associated with this constraint be encountered, an appropriate ameliorative strategy will be implemented. This will entail licensed archaeological excavation in full or part of any identified archaeological remains (preservation by record).</p>	None
AH31	<p><b>Recorded Monument</b> Kilvoy Recorded pit field (RO016-151). The route clips the north-western extent of the zone of archaeological potential that surrounds this pit field. The proposed road development avoids the main concentration of pits identified as the recorded monument. However 2 previously unrecorded pits identified through LiDAR (33.4) and fieldwork will be directly impacted. Subject to geophysical survey (GA1) and test excavation.</p>	<p>Archaeological investigation strongly suggests that these features are natural and non-archaeological in origin.</p>	Low	Low	Slight	<p>Test trenching did not reveal any features of an archaeological significance. A report by a consultant hydrogeologist stated that '<i>field observations on the form and orientation of the features, as well as their situation over a few metres of subsoil overlying karsitified bedrock, would suggest that there is a strong possibility that the features are lines of yet-unmapped dolines</i>' (Meehan 2016). It was concluded that during the programme of archaeological test trenching, the presence of a geologist will allow for recording of further data in order to determine a more conclusive interpretation for the origin of the pits.</p>	None

ID NO	Constraint	Impact	Baseline Rating	Impact Magnitude	Impact Significance	Mitigation Measure	Residual Impact
AH32	<b>Site of Archaeological Potential</b> Corry East Possible pit/tree lined depression identified by field work likely to be geological in nature.	1 pit located within the landtake. Likely to be non-archaeological and natural in origin	Low	Low	Slight	A programme of archaeological test trenching will be designed in order to establish the presence or absence, as well as the nature and extent, of any archaeological deposits that may be present within the landtake of the proposed road development.  Should any subsurface archaeological stratigraphy associated with this constraint be encountered, an appropriate ameliorative strategy will be implemented. This will entail licensed archaeological excavation in full or part of any identified archaeological remains (preservation by record).  It was concluded that during the programme of archaeological test trenching, the presence of a geologist will allow for recording of further data in order to determine a more conclusive interpretation for the origin of the pits.	None
AH33	<b>Site of Archaeological Potential</b> Corry East/Clooneffer Possible curvilinear enclosing earthen banked boundary also townland boundary between Corry East & Cloonyeffer. Fieldwork and historic mapping	Section of a curvilinear townland boundary will be removed as a result of the proposed road development.	Medium	Medium	Moderate	A full measured, written, drawn and photographic survey of upstanding elements of the constraint to be undertaken prior to removal.  Should any subsurface archaeological stratigraphy associated with a constraint be encountered, an appropriate ameliorative strategy will be implemented. This will entail licensed archaeological excavation in full or part of any identified archaeological remains (preservation by record).	None
AH29A	<b>Newly identified</b>	Direct and permanent	Medium	High	Significant	Archaeological Excavation. This will entail licensed archaeological	None

ID NO	Constraint	Impact	Baseline Rating	Impact Magnitude	Impact Significance	Mitigation Measure	Residual Impact
	<b>Archaeological Site</b> Kilvoy Isolated sub-surface pit identified by test excavation produced an early Neolithic date	impact.				excavation in full of any identified archaeological remains (preservation by record).	
AH44	<b>Site of Archaeological Potential</b> Cartronagor Potential rectangular enclosure site. LiDAR (40.5).	Part of the potential site is located within the proposed landtake. Direct and permanent impact. Geophysical survey (GA4) did not detect any significant anomalies.	Medium	Medium	Potentially Moderate	A programme of archaeological test trenching will be designed in order to establish the presence or absence, as well as the nature and extent, of any archaeological deposits that may be present within the landtake of the Proposed Road Development. Should any subsurface archaeological stratigraphy associated with this constraint be encountered, an appropriate ameliorative strategy will be implemented. This will entail licensed archaeological excavation in full or part of any identified archaeological remains (preservation by record).	None
AH46	<b>Newly identified Archaeological Site</b> Creeve Possible Burnt Mound (SMR RO022-163)	Located within the landtake to the south of the road alignment and attenuation pond. No works are planned for this area.	Medium	Low/ Negligible	Slight/ Moderate	The site is to be avoided and fenced off during the construction of the proposed road development.	None
AH48	<b>Site of Archaeological Potential</b> Creeve Possible enclosure (LiDAR (42.10).	Part of the potential constraint is located within the proposed	Medium	Medium	Moderate	As above	None



ID NO	Constraint	Impact	Baseline Rating	Impact Magnitude	Impact Significance	Mitigation Measure	Residual Impact
		landtake. Geophysical survey (GA5) did not reveal any significant findings. Interpreted as a possible small field enclosure.					
AH53	<b>Recorded Monument</b> Gortnacranagh Redundant record (RO022-015) – previously recorded as earthworks. Geophysical survey (GA6). AH53 is the same site as AH54.	See below	Medium	Medium	Moderate	A programme of archaeological test trenching will be designed in order to establish the presence or absence, as well as the nature and extent, of any archaeological deposits that may be present within the landtake of the proposed road development. Should any subsurface archaeological stratigraphy associated with this constraint be encountered, an appropriate ameliorative strategy will be implemented. This will entail licensed archaeological excavation in full or part of any identified archaeological remains (preservation by record).	None
AH54	<b>Site of Archaeological Potential</b> Gortnacranagh On the site of the redundant record. LiDAR (42.3) revealed a possible field system. Geophysical survey (GA6)	Part of the potential field system is located within the proposed landtake. Direct & permanent impact.	Medium	Medium	Moderate	As above	None
AH57	<b>Newly identified Archaeological Site</b>	Southern part of the enclosure	Medium	High	Significant	Archaeological Excavation. This will entail licensed archaeological	None

ID NO	Constraint	Impact	Baseline Rating	Impact Magnitude	Impact Significance	Mitigation Measure	Residual Impact
	Gortnacranagh Enclosure – LiDAR (45.5), not visible in the field. Geophysical survey (GA6) confirmed the presence of an oval enclosing anomaly. Test excavation confirmed it was archaeological and early medieval in date.	extends into the landtake. Eastern section of the site located under the existing N61 road.				excavation in full of any identified archaeological remains (preservation by record) within the landtake.	
AH A	<b>Area of Archaeological Sites</b> Shankill Three recorded monuments, RO016-123001/002/003 are located to the northwest of the proposed landtake. Landtake area subjected to geophysical survey (GA14) and test excavation (AH06; Shankill) to establish if there was an earlier more extensive site and subsurface archaeological presence outside the current upstanding boundaries. Test excavation confirmed it was neolithic and early medieval in date.	Newly revealed archaeological features located within the landtake. Preliminary assessment would suggest that these features are not associated with the RMP site.	Medium	High	Significant	Archaeological Excavation of the newly revealed features including 5 pits, 8 furrows, 4 ditches, 1 slot trench and 2 isolated hearths located within the landtake. This will entail licensed archaeological excavation in full of any identified archaeological remains (preservation by record).	None

### Section C – Archaeology Impact and Mitigation

ID NO	Constraint	Impact	Baseline Rating	Impact Magnitude	Impact Significance	Mitigation Measure	Residual Impact
AH58	<p><b>Site of Archaeological Potential – SMR RO022-167)</b> Gortnacranagh Possible enclosure identified by LiDAR (45.4) 13m in diameter possibly a ring barrow. Area subject to geophysical survey (GA7) and test excavation (TE4), revealed to be non-archaeological. Test excavation revealed a single sub-oval pit and two linear features. The pit was dated to the early medieval period.</p>	Constraint located within the landtake. Direct and permanent construction impact.	Medium	High	Significant	Archaeological Excavation - This will entail licensed archaeological excavation in full of any identified archaeological remains (preservation by record).	None
AH59	<p><b>Newly identified archaeological site</b> Gortnacranagh Field system, possibly early (LiDAR (45.3)). Identified by geophysical survey and confirmed by test excavation.</p>	Constraint located partially within the landtake. Direct and permanent construction impact.	Medium	Medium	Moderate	Archaeological Excavation - This will entail licensed archaeological excavation in full of any identified archaeological remains (preservation by record).	None
AH59A	<p><b>Newly identified archaeological site</b> Gortnacranagh Geophysical survey (GA7) revealed a possible ring barrow. Test excavation</p>	Constraint located within the landtake. Direct and permanent construction impact.	Medium	High	Significant	Archaeological Excavation - This will entail licensed archaeological excavation in full of any identified archaeological remains (preservation by record).	None

ID NO	Constraint	Impact	Baseline Rating	Impact Magnitude	Impact Significance	Mitigation Measure	Residual Impact
	confirmed a small circular enclosure (20m) that produced a date of the middle to later Bronze Age.						
AH61	<b>Site of Archaeological Potential</b> Gortnacranagh Hollow way identified by field inspection and visible on aerial photography	Section of hollow way is within the landtake. Direct and permanent construction impact.	Low	Medium	Moderate	As above.	None
AH72	<b>Newly identified archaeological site</b> Killeen East Enclosure; LiDAR (51.1), identified as elements of two conjoined oval enclosures. Geophysical survey (GA9) noted archaeological responses. Test excavation confirmed the presence of an enclosure 33m north-south x 25m east-west.	Constraint is located within the landtake. Direct and permanent construction impact.	Medium	High	Significant	Archaeological Excavation - This will entail licensed archaeological excavation in full of any identified archaeological remains (preservation by record).	None
AH75	<b>Site of Archaeological Potential</b> Killeen East A possible rectilinear enclosure; LiDAR (51.4) identified, this is marked as a property plot on the 1 <sup>st</sup> edition six-inch OS. Geophysical survey did not detect any significant	Constraint is immediately outside the landtake.	Low	Low	Low	A programme of archaeological test trenching will be designed in order to establish the presence or absence, as well as the nature and extent, of any archaeological deposits that may be present within the landtake of the Proposed Road Development. Should any subsurface archaeological stratigraphy associated with this constraint be encountered, an	None

ID NO	Constraint	Impact	Baseline Rating	Impact Magnitude	Impact Significance	Mitigation Measure	Residual Impact
	results (GA10).					appropriate ameliorative strategy will be implemented. This will entail licensed archaeological excavation in full or part of any identified archaeological remains (preservation by record)	
AH81	<b>Site of Archaeological Potential</b> Cregga Possible enclosure; LiDAR (54.2), 48m in diameter, possible ringfort	Constraint located partially within the landtake. Direct and permanent construction impact.	Medium	High	Significant	A programme of archaeological test trenching will be designed in order to establish the presence or absence, as well as the nature and extent, of any archaeological deposits that may be present within the landtake of the proposed road development. Should any subsurface archaeological stratigraphy associated with this constraint be encountered, an appropriate ameliorative strategy will be implemented. This will entail licensed archaeological excavation in full or part of any identified archaeological remains (preservation by record).	None
AH82	<b>Site of Archaeological Potential</b> Cregga Small mound (possible clearance cairn) identified by field work.	Located at the northern edge of the landtake. Direct and permanent construction impact.	Low	Medium	Moderate	A programme of archaeological test trenching will be designed in order to establish the presence or absence, as well as the nature and extent, of any archaeological deposits that may be present within the landtake of the proposed road development. Should any subsurface archaeological stratigraphy associated with this constraint be encountered, an appropriate ameliorative strategy will be implemented. This will entail licensed archaeological excavation in full or part of any identified archaeological remains (preservation by record).	None

ID NO	Constraint	Impact	Baseline Rating	Impact Magnitude	Impact Significance	Mitigation Measure	Residual Impact
AH86	<b>Site of Archaeological Potential</b> Tullen Field system; LiDAR (61.8), likely to be post-medieval in date	Constraint partially located within the landtake. Direct and permanent construction impact	Medium	Medium	Moderate	A programme of archaeological test trenching will be designed in order to establish the presence or absence, as well as the nature and extent, of any archaeological deposits that may be present within the landtake of the Proposed Road Development.  Should any subsurface archaeological stratigraphy associated with this constraint be encountered, an appropriate ameliorative strategy will be implemented. This will entail licensed archaeological excavation in full or part of any identified archaeological remains (preservation by record).	None
AH88	<b>Site of Archaeological Potential</b> Tullen Rectilinear enclosure identified by field inspection	Constraint partially located within the landtake. Direct and permanent construction impact	Medium	High	Significant	As above	None
AH93	<b>Site of Archaeological Potential</b> Doughcloon Relict field boundary – two sections identified by field inspection.	Constraint partially located within the landtake. Direct and permanent construction impact	Medium	Medium	Moderate	A full measured, written, drawn and photographic survey of upstanding elements of each constraint to be undertaken prior to removal.  Should any subsurface archaeological stratigraphy associated with a constraint be encountered, an appropriate ameliorative strategy will be implemented. This will entail licensed archaeological excavation in full or part of any identified archaeological remains (preservation by record).	None

ID NO	Constraint	Impact	Baseline Rating	Impact Magnitude	Impact Significance	Mitigation Measure	Residual Impact
AH94	<b>Area of Archaeological Potential</b> Kildalloge Local knowledge suggested the presence of 2 ringforts – Geophysical survey (GA13) concluded that the area contained no significant archaeological findings	No impact	None	None	No impact	A programme of archaeological test trenching will be designed in order to establish the presence or absence, as well as the nature and extent, of any archaeological deposits that may be present within the landtake of the Proposed Road Development.  Should any subsurface archaeological stratigraphy associated with this constraint be encountered, an appropriate ameliorative strategy will be implemented. This will entail licensed archaeological excavation in full or part of any identified archaeological remains (preservation by record).	None

#### Section D – Archaeology Impact and Mitigation

ID NO	Constraint	Impact	Baseline Rating	Impact Magnitude	Impact Significance	Mitigation Measure	Residual Impact
AH98	<b>Site of Archaeological Potential</b> Lavally Possible pit field; identified by LiDAR (65.1), field inspection and geophysical survey (GA11).	Constraint located within the landtake. Direct and permanent construction impact.  There was no evidence recorded for a human origin for the enclosed depressions. The contrasting plan form of these	Unknown	Moderate	Potentially Moderate	Archaeological Excavation - This will entail licensed archaeological excavation in full of any identified archaeological remains (preservation by record).  A report by a consultant hydrogeologist stated that ' <i>field observations on the form and orientation of the features, as well as their situation over a few metres of subsoil overlying karsified bedrock, would suggest that there is a strong possibility that the features are lines of yet-unmapped dolines</i> ' (Meehan 2016). It was concluded that at the time of the	None

ID NO	Constraint	Impact	Baseline Rating	Impact Magnitude	Impact Significance	Mitigation Measure	Residual Impact
		depressions as noted in the hydrogeological assessment might indicate that it is less certain that they are derived from natural processes. Results are inconclusive and further archaeological investigations are recommended.				archaeological resolution of the site, the presence of a geologist will allow for recording of further data in order to determine a more conclusive interpretation for the origin of the pits.	
AH98A	<b>Redundant Record</b> Lavally SMR RO023-219 added to the record 8 August 2016 Geophysical survey did not detect a hollow way or possible road feature at this location within the proposed landtake.	Upon inspection this feature could not be found and so is to become a redundant record.	N/A	N/A	N/A	A programme of archaeological test trenching will be designed in order to establish the presence or absence, as well as the nature and extent, of any structural deposits that may be present within the landtake of the proposed road development. Should any subsurface features associated with this constraint be encountered, an appropriate ameliorative strategy will be implemented. This will entail licensed archaeological excavation in full or part of any identified remains (preservation by record).	None
AH99	<b>Site of Archaeological Potential</b> Lavally Possible pit field/ Relict field system (LiDAR 69.5),	Constraint located within the landtake. Direct and permanent construction	Unknown	Moderate	Potentially Moderate	Archaeological Excavation - This will entail licensed archaeological excavation in full of any identified archaeological remains (preservation by record).	None



ID NO	Constraint	Impact	Baseline Rating	Impact Magnitude	Impact Significance	Mitigation Measure	Residual Impact
	and geophysical survey (GA11).	impact. A sherd of pottery or recent origin was recorded and dated to (AD1687-1927). The contrasting plan form of these depressions as noted in the hydrogeological assessment might indicate that it is less certain that they are derived from natural processes. Results are inconclusive and further archaeological investigations are recommended.				A report by a consultant hydrogeologist stated that <i>'field observations on the form and orientation of the features, as well as their situation over a few metres of subsoil overlying karsified bedrock, would suggest that there is a strong possibility that the features are lines of yet-unmapped dolines'</i> (Meehan 2016). It was concluded that at the time of the archaeological resolution of the site, the presence of a geologist will allow for recording of further data in order to determine a more conclusive interpretation for the origin of the pits.	
AH101A	<b>Newly identified archaeological site</b> Lavally Fulacht fia and burnt spread identified by test excavation.	Constraint located within the landtake. Direct and permanent construction impact.	Medium	High	Significant	Archaeological Excavation - This will entail licensed archaeological excavation in full of any identified archaeological remains (preservation by record).	None
AH103	<b>Site of Archaeological Potential</b> <b>Vesnoy</b> Possible pit field; identified by LiDAR (69.1),	Constraint located within the landtake. Direct and permanent construction impact.	Unknown	Moderate	Potentially Moderate	Archaeological Excavation - This will entail licensed archaeological excavation in full of any identified archaeological remains (preservation by record). A report by a consultant hydrogeologist	None

ID NO	Constraint	Impact	Baseline Rating	Impact Magnitude	Impact Significance	Mitigation Measure	Residual Impact
	field inspection. Geophysical survey (GA11).	No archaeological material was noted within any of the surface depressions. Also the size, depth and plan form of depressions and the underlying geology indicate that they could be formed by natural processes. Results are inconclusive and further archaeological investigations are recommended.				stated that ' <i>field observations on the form and orientation of the features, as well as their situation over a few metres of subsoil overlying karsified bedrock, would suggest that there is a strong possibility that the features are lines of yet-unmapped dolines</i> ' (Meehan 2016). It was concluded that at the time of the archaeological resolution of the site, the presence of a geologist will allow for recording of further data in order to determine a more conclusive interpretation for the origin of the pits.	

**Table 14.27 Impact and Mitigation Table- Cultural Heritage**

**Section A Cultural Heritage Impact and Mitigation Table**

ID NO	Constraint	Impact	Baseline Rating	Impact Magnitude	Impact Significance	Mitigation Measure	Residual Impact
CHC 1, 2, 5, 7, 8 & 12	<p><b>Sites of Cultural Heritage Potential</b> Rathkeery, Portaghard &amp; Corskeagh The below ground remains (if present) of six structures shown on the 1<sup>st</sup> edition OS six-inch mapping. No visible trace.</p>	Constraints potentially located within the landtake. A direct and permanent construction impact may arise due to ground disturbance.	Low/ Medium	Potentially high	Potentially moderate	<p>A programme of archaeological test trenching will be designed in order to establish the presence or absence, as well as the nature and extent, of any structural deposits that may be present within the landtake of the proposed road development.</p> <p>Should any subsurface features associated with this constraint be encountered, an appropriate ameliorative strategy will be implemented. This will entail licensed archaeological excavation in full or part of any identified remains (preservation by record).</p>	None
CHC6	<p><b>Cultural Heritage Site</b> Portaghard Upstanding vernacular structure</p>	Constraints located within the landtake. Direct and permanent construction impact.	Low/ Medium	High	Moderate	<p>Preservation by record. The house and outbuilding will be recorded by means of measured survey, photography and written description prior to commencement of works. The methodology for the required survey is to be approved by a Conservation Architect.</p>	None
CHC11	<p><b>Cultural Heritage Site</b> Corskeagh Upstanding stone built structure in ruins</p>	Located within a material deposition area. Direct and permanent construction impact.	Low/ Medium	High	Moderate	<p>The structure will be recorded by means of measured survey, photography and written description prior to commencement of works. The methodology for the required survey is to be approved by a Conservation Architect.</p>	None

### Section B Cultural Heritage Impact and Mitigation Table

ID NO	Constraint	Impact	Baseline Rating	Impact Magnitude	Impact Significance	Mitigation Measure	Residual Impact
CHC 13, 14, 15	<p><b>Sites of Cultural Heritage Potential</b> Corskeagh, Leggatinty and Derreen The below ground remains (if present) of three structures shown on the 1<sup>st</sup> edition OS six-inch mapping. No visible trace.</p>	Constraints located within the landtake. A direct and permanent construction impact may arise due to ground disturbance.	Low/ Medium	Potentially high	Potentially moderate	<p>A programme of archaeological test trenching will be designed in order to establish the presence or absence, as well as the nature and extent, of any structural deposits that may be present within the landtake of the proposed road development.</p> <p>Should any subsurface features associated with this constraint be encountered, an appropriate ameliorative strategy will be implemented. This will entail licensed archaeological excavation in full or part of any identified remains (preservation by record).</p>	None
CHC 16	<p><b>Former Demesne Lands</b> Ballaghcullia Former Hermitage Demesne (Chapter 15, BH-B01)</p>	Direct impact on sections of stone walls located on the road development within the former demesne lands	Medium	Medium	Moderate	<p>Preservation by record of the dry stone walls by means of a measured survey, photography and written description.</p> <p>Targeted test excavation of lands within the landtake.</p>	
CHC 17, 18	<p><b>Sites of Cultural Heritage Potential</b> Cashel The below ground remains (if present) of two structures shown on the 1<sup>st</sup> edition OS six-inch mapping. No visible trace.</p>	Constraints located within the landtake. A direct and permanent construction impact may arise due to ground disturbance.	Low/ Medium	Potentially High	Potentially Moderate	<p>A programme of archaeological test trenching will be designed in order to establish the presence or absence, as well as the nature and extent, of any structural deposits that may be present within the landtake of the proposed road development.</p> <p>Should any subsurface features associated with this constraint be encountered, an appropriate ameliorative strategy will be</p>	None

ID NO	Constraint	Impact	Baseline Rating	Impact Magnitude	Impact Significance	Mitigation Measure	Residual Impact
						implemented. This will entail licensed archaeological excavation in full or part of any identified remains (preservation by record).	
CHC 22	<b>Sites of Cultural Heritage Potential</b> Garrynaphort The below ground remains (if present) of four structures shown on the 1 <sup>st</sup> edition OS six-inch mapping. No visible trace.	Located within a material deposition area. A direct and permanent construction impact may arise due to ground disturbance.	Low/ Medium	Potentially High	Potentially Moderate	A programme of archaeological test trenching will be designed in order to establish the presence or absence, as well as the nature and extent, of any structural deposits that may be present within the landtake of the proposed road development.  Should any subsurface features associated with this constraint be encountered, an appropriate ameliorative strategy will be implemented. This will entail licensed archaeological excavation in full or part of any identified remains (preservation by record).	None
CHC 25	<b>Former Demesne Lands</b> Corry West and East Former Mantua Demesne (Chapter 15, BH-B02 and BH-B04)	Direct impact on a section of an earth bank, stone wall and line of trees and an area of planting associated with former demesne lands by the proposed road development.	Medium	Medium	Moderate	Architectural Heritage (Chapter 15) recommends that broadleaf trees to be replanted at the margins of the new road, whilst a new stone wall, earth bank and tree and hedge planting will also be provided at the new margin of the demesne. The methodology for all conservation measure to be put in place are to be specified by a conservation architect. Preservation by record and test excavation will occur within the landtake.	Slight
CHC 26 CHC 27	<b>Sites of Cultural Heritage Potential</b> Kilvoy	Located within a material deposition area and on an	Low/ Medium	Potentially High	Potentially Moderate	A programme of archaeological test trenching will be designed in order to establish the presence or absence, as well as the nature and extent, of any	None

ID NO	Constraint	Impact	Baseline Rating	Impact Magnitude	Impact Significance	Mitigation Measure	Residual Impact
	The below ground remains (if present) of four structures shown on the 1 <sup>st</sup> edition OS six-inch mapping. No visible trace.	ancillary proposed road. A direct and permanent construction impact may arise due to ground disturbance.				structural deposits that may be present within the landtake of the proposed road development. Should any subsurface features associated with this constraint be encountered, an appropriate ameliorative strategy will be implemented. This will entail licensed archaeological excavation in full or part of any identified remains (preservation by record).	
CHC 31	<b>Site of Cultural Heritage Potential</b> Cloonyeffer Site of 'Yambo House'	Located within the landtake. A direct and permanent construction impact may arise due to ground disturbance.	Medium	Potentially High	Potentially Moderate	The structure will be recorded by means of measured survey, photography and written description prior to commencement of works.	None
CHC 34	<b>Former Demesne Lands</b> Raheen Raheen Demesne. No features associated with the demesne will be affected by the proposed road development.	Upgrade of private access route and ancillary road that borders former demesne lands.	Low	Very Low	Imperceptible	A programme of archaeological test trenching will be designed in order to establish the presence or absence, as well as the nature and extent, of any structural deposits that may be present within the landtake of the proposed road development. Should any subsurface features associated with this constraint be encountered, an appropriate ameliorative strategy will be implemented. This will entail licensed archaeological excavation in full or part of any identified remains (preservation by record).	None
CHC 35,	<b>Sites of Cultural</b>	Located within a material	Low/	Potentially	Potentially	A programme of archaeological test trenching will be designed in order to	None

ID NO	Constraint	Impact	Baseline Rating	Impact Magnitude	Impact Significance	Mitigation Measure	Residual Impact
36, 37	<b>Heritage Potential</b> Cartronagor The below ground remains (if present) of structures shown on the 1 <sup>st</sup> edition OS six-inch mapping. No visible trace.	deposition area. A direct and permanent construction impact may arise due to ground disturbance.	Medium	High	Moderate	establish the presence or absence, as well as the nature and extent, of any structural deposits that may be present within the landtake of the proposed road development.  Should any subsurface features associated with this constraint be encountered, an appropriate ameliorative strategy will be implemented. This will entail licensed archaeological excavation in full or part of any identified remains (preservation by record).	
Shankill CHC B	<b>Former Demesne Lands</b> Shankill Former Bettyfield Demesne	Sections of the denuded western and southern tree line and scrub boundaries associated with the former demesne lands of the house will be partially impacted by proposed junction upgrade	Low	Low	Slight	No mitigation measures proposed	None

### Section C Cultural Heritage Impact and Mitigation Table

ID NO	Constraint	Impact	Baseline Rating	Impact Magnitude	Impact Significance	Mitigation Measure	Residual Impact
CHC 39-41, 43, 45-47, 49-52 and 56	<p><b>Sites of Cultural Heritage Potential</b> Gortnacranagh, Lurgan, Tullyoyd, Lugboy, Cregga, Corskeagh</p> <p>The below ground remains (if present) in thirteen areas containing the possible remains of 21 structures shown on the 1<sup>st</sup> edition OS six-inch mapping. No visible trace.</p>	Constraints located within the landtake. A direct and permanent construction impact may arise due to ground disturbance.	Low/Medium	Potentially High	Potentially Moderate	<p>A programme of archaeological test trenching will be designed in order to establish the presence or absence, as well as the nature and extent, of any structural deposits that may be present within the landtake of the proposed road development.</p> <p>Should any subsurface features associated with this constraint be encountered, an appropriate ameliorative strategy will be implemented. This will entail licensed archaeological excavation in full or part of any identified remains (preservation by record).</p>	None
CHC51	<p><b>Cultural Heritage Site</b> Cregga</p> <p>The upstanding remains of a farmhouse is described in the architectural heritage chapter as (see BH-C09 in Chapter 15) the remains as a single storey, four-bay farmhouse, built of stone, with the remains of a stone-built outhouse or shed also in the vicinity</p>	Constraints located within the landtake. A direct and permanent construction impact may arise due to ground disturbance.	Low	High	Moderate	The features will be recorded by means of measured survey, photography and written description prior to commencement of works	None
CHC44A	<p><b>Cultural Heritage Site</b> Site of former quarry, field kiln and former access</p>	Constraints located within the landtake. A direct and permanent	Low	High	Moderate	The features will be recorded by means of measured survey, photography and written description prior to commencement of works. A programme	None



ID NO	Constraint	Impact	Baseline Rating	Impact Magnitude	Impact Significance	Mitigation Measure	Residual Impact
	track	construction impact will arise due to ground disturbance.				of archaeological test trenching will be designed in order to establish the presence or absence, as well as the nature and extent, of any structural deposits that may be present within the landtake of the proposed road development. Should any subsurface features associated with this constraint be encountered, an appropriate ameliorative strategy will be implemented. This will entail licensed archaeological excavation in full or part of any identified remains (preservation by record).	
CHC 55	<b>Cultural Heritage Site</b> Cregga Former field system and site of structure	Partially located within the landtake. A direct and permanent construction impact may arise due to ground disturbance.	Low/ Medium	Potentially High	Moderate	A programme of archaeological test trenching will be designed in order to establish the presence or absence, as well as the nature and extent, of any deposits that may be present within the landtake of the proposed road development. Should any subsurface features associated with this constraint be encountered, an appropriate ameliorative strategy will be implemented. This will entail licensed archaeological excavation in full or part of any identified remains (preservation by record).	None
CHC 54	<b>Cultural Heritage Site</b> Cregga Set of upstanding pillars with cast iron gates and the possible foundations	Constraints located within the landtake. A direct and permanent construction	Low/ Medium	Potentially High	Moderate	The features will be recorded by means of measured survey, photography and written description prior to commencement of works. A programme of archaeological test trenching will be	None

ID NO	Constraint	Impact	Baseline Rating	Impact Magnitude	Impact Significance	Mitigation Measure	Residual Impact
	of two structures depicted on the 1 <sup>st</sup> edition six-inch OS mapping.	impact may arise due to ground disturbance.				designed in order to establish the presence or absence, as well as the nature and extent, of any structural deposits that may be present within the landtake of the proposed road development. Should any subsurface features associated with this constraint be encountered, an appropriate ameliorative strategy will be implemented. This will entail licensed archaeological excavation in full or part of any identified remains (preservation by record).	
CHC 57-61	<b>Sites of Cultural Heritage Potential</b> Kildallogge The below ground remains (if present) in five areas containing the possible remains of 21 structures shown on the 1 <sup>st</sup> edition OS six-inch mapping. No visible trace.	Constraints located within the landtake. A direct and permanent construction impact may arise due to ground disturbance.	Low/ Medium	Potentially High	Potentially Moderate	A programme of archaeological test trenching will be designed in order to establish the presence or absence, as well as the nature and extent, of any structural deposits that may be present within the landtake of the proposed road development. Should any subsurface features associated with this constraint be encountered, an appropriate ameliorative strategy will be implemented. This will entail licensed archaeological excavation in full or part of any identified remains (preservation by record).	None

**Section D Cultural Heritage Impact and Mitigation Table**

ID NO	Constraint	Impact	Baseline Rating	Impact Magnitude	Impact Significance	Mitigation Measure	Residual Impact
CHC 62, 64, 70-74	<b>Sites of Cultural Heritage Potential</b> Corskeagh, Lavally, Scramoge The below ground remains (if present) in eight areas containing the possible remains of 19 structures shown on the 1 <sup>st</sup> edition OS six-inch mapping. No visible trace.	Constraints located within the landtake. A direct and permanent construction impact may arise due to ground disturbance.	Low/ Medium	Potentially High	Potentially Moderate	A programme of archaeological test trenching will be designed in order to establish the presence or absence, as well as the nature and extent, of any structural deposits that may be present within the landtake of the proposed road development.  Should any subsurface features associated with this constraint be encountered, an appropriate ameliorative strategy will be implemented. This will entail licensed archaeological excavation in full or part of any identified remains (preservation by record).	None
CHC 63	<b>Cultural Heritage Site</b> Lavally LiDAR (65.2) identified an enclosure, almost certainly modern in origin. Recorded on the 1 <sup>st</sup> edition six-inch OS as a structure and property plot and currently defined by a ditch.	Partially located within the landtake. Direct impact and permanent construction impact.	Low/ Medium	Potentially High	Potentially Moderate	A programme of archaeological test trenching will be designed in order to establish the presence or absence, as well as the nature and extent, of any structural deposits that may be present within the landtake of the proposed road development.  Should any subsurface features associated with this constraint be encountered, an appropriate ameliorative strategy will be implemented. This will entail licensed archaeological excavation in full or part of any identified remains (preservation by record).	None
CHC 65	<b>Former Demesne Lands</b> Lavally, Vesnoy, Cloonradoon, Bumlin.	Impact on sections of stone walls & woodland	Medium	Medium	Moderate	The Architectural Heritage chapter (chapter 15) recommends that replacement planting is to be	Slight

ID NO	Constraint	Impact	Baseline Rating	Impact Magnitude	Impact Significance	Mitigation Measure	Residual Impact
	Former parkland associated with Strokestown Demesne	located within the landtake within the former parkland of Strokestown Demesne.				<p>undertaken to supplement the existing trees. Features such as stone walls will be recorded by means of measured survey, photography and written description prior to commencement of works. A programme of archaeological test trenching will be designed in order to establish the presence or absence, as well as the nature and extent, of any structural deposits that may be present within the landtake of the proposed road development.</p> <p>Should any subsurface features associated with this constraint be encountered, an appropriate ameliorative strategy will be implemented. This will entail licensed archaeological excavation in full or part of any identified remains (preservation by record).</p>	

**Table 14.28 Indirect Impacts and Mitigation Measures during the Construction and Operational Stages**

ID NO	Constraint	Impact	Baseline Rating	Impact Magnitude	Impact Significance	Mitigation Measure	Residual Impact
AH100	<b>Recorded Monument</b> Ringfort, Lavally RO023-174  The proposed road development is located to the southwest of this well preserved monument which is defined by an earthen bank and ditch and mature trees.	Constraint located outside the landtake. Indirect, visual construction and operation impact. The visual relationship with AH101 will be diminished as the proposed road will lie between the two ringforts.	High	Medium	Significant	The landscape architect has developed appropriate planting and screening strategies to ensure the sensitive incorporation of the proposed road development into the existing landscape. The road is located at grade to minimise the landtake. LiDAR/ Geophysical Survey & test excavation were conducted to ensure a full understanding of the extent of the below ground remains in between these monuments.	Moderate Post establishment operation impact.
AH101	<b>Recorded Monument</b> Ringfort, Lavally RO023-175 Route located to the northeast of the well preserved monument defined by an earthen bank and ditch and mature trees. A field boundary cuts through the site in a north-south direction.	Constraint located outside the landtake. Indirect, visual construction and operation impact. The visual relationship with AH100 will be diminished as the road now separates/lies between both ringforts.	High	Medium	Significant	The landscape architect has developed appropriate planting and screening strategies to ensure the sensitive incorporation of the proposed road development into the existing landscape. The road is located at grade to minimise the landtake. The road is located at grade to minimise the landtake. LiDAR/ Geophysical Survey & test excavation were conducted to ensure a full understanding of the extent of the below ground remains in between these monuments.	Moderate Post establishment operation impact.
AH105	<b>Recorded Monument</b> Ringfort, Cloonradoon RO029-030 Ringfort is heavily altered and located in low-lying, wet scrubby	Constraint located outside the landtake. Indirect, visual construction and operation impact. The view to the	High	Low	Moderate	The landscape architect has developed appropriate planting and screening strategies to ensure the sensitive incorporation of the proposed road development into the existing landscape.	Slight Post establishment operation impact.

ID NO	Constraint	Impact	Baseline Rating	Impact Magnitude	Impact Significance	Mitigation Measure	Residual Impact
	land, with limited views. The road will be raised & located to the southwest.	southwest of the monument will be restricted as a result of the road development.					
AH67	<b>Recorded Monument</b> Moated Site, Killeen West RO027-047 This site is located towards the bottom of a north-facing slope overlooking the Owenur River and wetlands.	Constraint located outside the landtake. Indirect, visual construction and operation impact. The setting of the site will be preserved in situ, with views limited to the north.	High	Low	Moderate	The landscape architect has developed appropriate planting and screening strategies to ensure the sensitive incorporation of the proposed road development into the existing landscape. The road is located at grade to minimise the landtake.	Slight Post establishment operation impact.
AH73	<b>Recorded Monument</b> Hilltop enclosure RO022-054 Tullyloyd Monument located on sloping ground towards the top of an east-west ridge of a south-facing slope. It overlooks the narrow valley traversed by the proposed road development to the south.	Constraint located outside the landtake. Indirect, visual construction and operation impact. View to the south will be disrupted resulting in a moderate impact to the setting of the monument.	High	Low	Moderate	The landscape architect has developed appropriate planting and screening strategies to ensure the sensitive incorporation of the proposed road development into the existing landscape.	Slight Post establishment operation impact.
AH77	<b>Recorded Monument</b> Ringfort, Lugboy RO023-005 The proposed development is located	Constraint located outside the landtake. Indirect, visual construction and operation impact. Inter-visibility with the	High	Negligible	Slight	The landscape architect has developed appropriate planting and screening strategies to ensure the sensitive incorporation of the proposed road development into the existing landscape. The road is	Slight Post establishment operation impact

ID NO	Constraint	Impact	Baseline Rating	Impact Magnitude	Impact Significance	Mitigation Measure	Residual Impact
	to the south of the ringfort on lower lying land, sitting into and using the natural topography of the landscape. The ringfort has good views in all directions and the longer distance view towards the lakes will be maintained.	other ringfort sites within this townland located on the low east-west ridge will be maintained. The proposed road development will not detract from the significance of the monument and how it presents in the landscape.				located at grade to minimise the landtake. The ringfort has good views in all directions and the longer distance view towards the lakes will be maintained.	
AH80	<b>Recorded Monument</b> Ringfort, Lugboy RO023-012 Defined by a low bank and scrub surround on low-lying land with limited views.	Constraint located outside the landtake. Indirect, visual construction and operation impact. The proposed road development will be raised, an attenuation pond, new link and improvements to local roads are planned to the north of the monument. The proposed works will result in a change to the local landscape to the northwest, north and northeast of the ringfort. While the significance of this ringfort cannot be attributed to the limited views it would have held, the	High	Medium	Significant	The landscape architect has developed appropriate planting and screening strategies to ensure the sensitive incorporation of the proposed road development into the existing landscape. Good site management practices will be implemented and appropriate screening of construction works and site compound will be installed to minimise visual impacts. Planting and landscaping work will improve the appearance of works in this area.	Moderate Post establishment operation impact.

ID NO	Constraint	Impact	Baseline Rating	Impact Magnitude	Impact Significance	Mitigation Measure	Residual Impact
		change to the local landscape will be high, resulting in a moderate/ significant impact.					
AHA	<b>Recorded Monument</b> Church, graveyard & bullaun stone RO016-123001/002/003 Shankill The graveyard is currently defined by modern boundaries to the west side of a busy road junction.	Constraint located outside the landtake. Indirect, visual construction and operation impact. The proposed works will upgrade this junction with a roundabout. The setting of this site has been altered in the past and the proposed changes will result in a safer road layout while not directly impacting the site as it is currently defined above ground. Changes will occur in terms of lighting and signage leading to a moderate change in the setting of the monument.	High	Moderate/ Low	Significant/ Moderate	The landscape architect has developed appropriate planting and screening strategies to ensure the sensitive incorporation of the proposed road development into the existing landscape.	Moderate Post establishment operation impact.
AH50	<b>Recorded Monument</b> Ringfort, Gornacrannagh RO022-033	Constraint located outside the landtake. Indirect, visual construction and operation impact.	High	Negligible	Slight	The landscape architect has developed appropriate planting and screening strategies to ensure the sensitive incorporation of the proposed road development into	Slight Post establishment operation impact.



ID NO	Constraint	Impact	Baseline Rating	Impact Magnitude	Impact Significance	Mitigation Measure	Residual Impact
	Denuded ringfort with scrub surround located on a rise in marshy, poorly drained land. Located 103m north of the centreline of the proposed road development.	The proposed road development will be raised to the south in undulating grassland. The proposed road development will not detract from the existing setting of this monument.				the existing landscape. The change or impact to the surrounding landscape will be in the order of a minor to negligible magnitude.	
AH70	<b>Newly identified archaeological site- SMR RO022-170</b> Killeen East LiDAR (49.3) identified an oval enclosure, possibly a small ringfort. Geophysical survey (GA8) noted archaeological responses.	Constraint is located within the landtake. The site is not visible at ground level. Indirect construction and operational impact.	High	Low	Moderate	Preservation in situ by design. Ensure that it is recognised on 'as built' drawings that there are insitu archaeological remains. The extent and location of remains to be recorded.	Moderate

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## Appendix 14.1 Legislation, Standards and Guidelines

### National Monuments Legislation (1930-2004)

All archaeological sites have the full protection of the national monuments legislation (Principal Act 1930; Amendments 1954, 1987, 1994 and 2004). In the 1987 Amendment of Section 2 of the Principal Act (1930), the definition of a national monument is specified as:

*any artificial or partly artificial building, structure or erection or group of such buildings, structures or erections;*  
*any artificial cave, stone or natural product, whether forming part of the ground, that has been artificially carved, sculptured or worked upon or which (where it does not form part of the place where it is) appears to have been purposely put or arranged in position;*  
*any, or any part of any, prehistoric or ancient tomb, grave or burial deposit, or (ii) ritual, industrial or habitation site*  
*and*  
*any place comprising the remains or traces of any such building, structure or erection, any cave, stone or natural product or any such tomb, grave, burial deposit or ritual, industrial or habitation site...*

Under Section 14 of the Principal Act (1930):

It shall be unlawful...

*to demolish or remove wholly or in part or to disfigure, deface, alter, or in any manner injure or interfere with any such national monument without or otherwise than in accordance with the consent hereinafter mentioned (a licence issued by the Office of Public Works National Monuments Branch),*

or

*to excavate, dig, plough or otherwise disturb the ground within, around, or in the proximity to any such national monument without or otherwise than in accordance...*

Under Amendment to Section 23 of the Principal Act (1930),

*A person who finds an archaeological object shall, within four days after the finding, make a report of it to a member of the Garda Síochána...or the Director of the National Museum...*

The latter is of relevance to any finds made during a watching brief.

In the 1994 Amendment of Section 12 of the Principal Act (1930), all the sites and 'places' recorded by the Sites and Monuments Record of the Office of Public Works are provided with a new status in law. This new status provides a level of protection to the listed sites that is equivalent to that accorded to 'registered' sites [Section 8(1), National Monuments Amendment Act 1954] as follows:

The Commissioners shall establish and maintain a record of monuments and places where they believe there are monuments and the record shall be comprised of a list of monuments and such places and a map or maps showing each monument and such place in respect of each county in the State.

The Commissioners shall cause to be exhibited in a prescribed manner in each county the list and map or maps of the county drawn up and publish in a prescribed manner information about when and where the lists and maps may be consulted.

In addition, when the owner or occupier (not being the Commissioners) of a monument or place which has been recorded, 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 Commissioners and shall not, except in the case of urgent necessity and with the consent of the Commissioners, commence the work for a period of two months after having given the notice.

The National Monuments Amendment Act enacted in 2004 provides clarification in relation to the division of responsibilities between the Minister of Environment, Heritage and Local Government, Finance and Arts, Sports and Tourism together with the Commissioners of Public Works. The Minister of Environment, Heritage and Local Government will issue directions relating to archaeological works and will be advised by the National Monuments Section and the National Museum of Ireland. The Act gives discretion to the Minister of Environment, Heritage and Local Government to grant consent or issue directions in relation to road developments (Section 49 and 51) approved by An Bord Pleanála and/or in relation to the discovery of National Monuments.

14A. (1) The consent of the Minister under section 14 of this Act and any further consent or licence under any other provision of the National Monuments Acts 1930 to 2004 shall not be required where the works involved are connected with an approved road development.

14A. (2) Any works of an archaeological nature that are carried out in respect of an approved road development shall be carried out in accordance with the directions of the Minister, which directions shall be issued following consultation by the minister with the Director of the National Museum of Ireland.

14A (4) Where a national monument has been discovered to which subsection (3) of this section relates, then the road authority carrying out the road development shall report the discovery to the Minister subject to subsection (7) of this section, and pending any directions by the minister under paragraph (d) of this subsection, no works which would interfere with the monument shall be carried out, except works urgently required to secure its preservation carried out in accordance with such measures as may be specified by the Minister.

The Minister will consult with the Director of the National Museum of Ireland for a period not longer than 14 days before issuing further directions in relation to the national monument. The Minister will not be restricted to archaeological considerations alone, but will also consider the wider public interest.

### **Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act, 1999**

This Act provides for the establishment of a national inventory of architectural heritage and historic monuments.

Section 1 of the act defines “architectural heritage” as:

- (a) all 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.

Section 2 of the Act states that the Minister (for Arts, Heritage, Gaeltacht and the Islands) shall establish the NIAH, determining its form and content, defining the categories of architectural heritage, and specifying to which category each entry belongs. The information



contained within the inventory will be made available to planning authorities, having regard to the security and privacy of both property and persons involved.

Section 3 of the Act states that the minister may appoint officers, who may in turn request access to premises listed in the inventory from the occupiers of these buildings. The officer is required to inform the occupier of the building why entry is necessary, and in the event of a refusal, can apply for a warrant to enter the premises.

Section 4 of the Act states that obstruction of an officer or a refusal to comply with requirements of entry will result in the owner or occupier being guilty of an offence.

Section 5 of the Act states that sanitary authorities who carry out works on a monument covered by this Act will as far as possible preserve the monument with the proviso that its condition is not a danger to any person or property, and that the sanitation authority will inform the Minister that the works have been carried out.

The provisions in the Act are in addition to and not a substitution for provisions of the National Monument Act (1930–94), and the protection of monuments in the National Monuments Act is extended to the monuments covered by the Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act (1999).

### **Standards and Guidelines**

#### *EC (EIA) (Amendment) Regulations, 1999*

The EIA Amendment Regulations, S.I.93 of 1999, specify in Section 2(b) of the Second Schedule, 'Information to be contained in an Environmental Impact Statement', that further information is to be provided on: Material assets, including the architectural and archaeological heritage, and the cultural heritage.

#### *Environmental Protection Agency (EPA)*

The following advice notes and guidelines were consulted during the course of the study:

Advice Notes on Current Practice in the Preparation of Environmental Impact Statements (2003) and Guidelines on the information to be contained in Environmental Impact Statements (2002).

#### *Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act, 2000 and the Local Government (Planning and Development) Act 2000*

The Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act provides for the establishment of a national inventory of architectural heritage and historic monuments.

Section 1 of the act defines "architectural heritage" as:

- (a) all 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.

The Local Government (Planning and Development) Act, 1999, which came into force on 1st January 2000, provides for the inclusion of protected structures into the planning authorities' development plans and sets out statutory regulations regarding works affecting such structures, thereby giving greater statutory protection to buildings. All structures listed in the

development plan are now referred to as Protected Structures and enjoy equal statutory protection. Under the 1999 Act the entire structure is protected, including a structures interior, exterior, the land lying within the curtilage of the protected structure and other structures within that curtilage. This Act was subsequently repealed and replaced by the Planning and Development Act, 2000, where the conditions relating to the protection of architectural heritage are set out in Part IV of the Act.

## Appendix 14.2 Inventory of Archaeological Sites (AH)

The following is an inventory that includes all known and potential archaeological sites and monuments within a constraint corridor of 100m from the centre line of the proposed N5 Ballaghaderreen to Scramoge road development. An assessment of the potential effects of the proposed road development, on each individual archaeological site and monument is outlined, as well as proposed mitigation measures.

The information for this inventory was acquired via a number of sources. A desk-based study of all relevant archaeological monuments on the Record of Monuments and Places (RMP) was undertaken to establish recorded sites in the area. An examination of all relevant aerial photography, and mapping, modern and historic, was undertaken to note any hitherto unrecorded archaeological features.

A LiDAR (Light Detection and Ranging) or ALS (Airborne Laser Scan) data assessment was undertaken by Dr Stephen Davis of the UCD School of Archaeology (Davis 2015). This entailed a fly-over of the proposed route with measurements captured using a laser scanner mounted on an aircraft by NM Group. The equipment has remote sensing technology that measures distance by illuminating a target with a laser and analysing the reflected light. The benefits for archaeological studies are its ability to map features obscured by vegetation and which may be indistinguishable on the ground. However it must also be noted that LiDAR data are generally ineffectual in wetland environments as the majority of archaeological features are buried and have no surface expression in such situations. LiDAR can only identify features with an upstanding topographic representation.

Compiling all this information of known and potential sites and monuments onto a series of maps it was then possible to carry out a field survey.

A field survey by two archaeologists from Courtney Deery Heritage Consultancy took place in June, July, September and October 2015 and January 2016. The entire route was walked and every known site effected by the proposed road was visited, assessed, recorded, and photographed. On-site assessment was made of the recorded features, the current state of recorded monuments (many had not been visited in a number of years), and where possible verification of the status or potential of sites flagged by the LIDAR results. Photography was carried out using GPS locating cameras and through the use of the GeoSetter program, national grid references and accurate placing of the position of these photographs could be established.

Whilst access on private lands was unfettered and the field surveyors were accommodated across the board, limitations and restrictions occurred in different guises. Long vegetation was encountered at different stages throughout the route impairing the identification of potential sites, whilst dense forest plantations meant the likelihood of identifying previously unknown sites was unlikely. Occasionally the presence of livestock prevented access. Instances of the surveyor's work being hindered were few, and where work was impeded, the area was revisited at a later stage and assessed.

Each inventory listing is broken down into 13 entries.

1. **Identification No.** – an individual inventory reference number.
2. **Legal Status** – whether the site/ structure has been listed on the Record of Monuments & Places (RMP), is a Protected Structure, or requires Ministerial Consent. Newly included sites to the SMR record (February and March 2016) as a result of studies undertaken for this scheme are also referenced here.

3. **RMP Reference No.** – the reference number of the archaeological Recorded Monument on the RMP.
4. **Townland** – the townland the site/ monument is situated in.
5. **Chainage** – the closest chainage point along the proposed route that the site/ monument appears. These numbers are perpendicular lines taken from the chainage line to the site/ monument, serving a functional use to position the site on a map, they have been given to the nearest 25m.
6. **Site Type** – Categorisation of the known or potential archaeological site.
7. **NGR/ITM** – National Grid Reference number and Irish Transverse Mercator Number given to the closest metre. Taken from the centre of potential and identified sites.
8. **Description** – A visual description of the site/ monument where possible, including overall measurements and orientation.
9. **Sources** – A series of sources were used. LIDAR mapping was examined for the entire route. OS mapping was consulted throughout and the earliest map studied was the 1st edition 6-inch OS map dating to 1837-38. Subsequent maps included the revised 25-inch edition OS map, which was published in two parts, the earlier part, which covers the southern half of the county and which illustrates the area of the route mid-way through the demesne of Strokestown Park to the end of Scramoge, dates to between 1888 and 1892, whilst the mapping covering the northern half of the county, and takes in the majority of the route, dates to between 1911 and 1913. The revised 6-inch OS map was also examined, this edition dates to the early 1930s and was completed by 1936. The RMP files, which contain field notes and site/ monument descriptions, were consulted. Excavations.ie and archaeology.ie were also referenced. Illustrations of historic mapping and LIDAR results with the proposed road scheme overlaid accompany inventory entries where relevant. LiDAR results are cross referenced with the codes used in the LiDAR report.
10. **Impact of scheme** – An assessment and grading of the potential impacts of the proposed road scheme was undertaken.
11. **Proposed mitigation** - Archaeological mitigating measures were recommended based on the impact of the proposed road scheme.
12. **Approx. distance from route** – a uniform method was used to record the distance between identified or potential sites/ monuments and the route. All (known and potential) sites/ monument are identified on the mapping by a circle. Distances were taken from the centre point of the circle of a site to the centre line of the proposed main route and in any cases where it was closer, the distance to the nearest ancillary road, attenuation area, or material recovery area. Along with a centre line to centre of site distance, in any circumstances where the circle appears partially on the route, aerial photography, mapping, and field notes were consulted for an accurate distance from the existing site to the closest ground breaking works. Also where a site was extensive in nature such as a pit field or field system a distance was taken from centre point to centre point as well as the nearest extent feature to the route.
13. **Photography** – On site photography conducted during the field survey in June, July, September and October 2015 and January 2016. Direction facing included in description.

The proposed road development of 33.4 km and has been broken down into four chainage sections (A-D). Similarly the inventory is broken into these four sections, which are:

Section A, from Ch. 1+000 to 5+700.

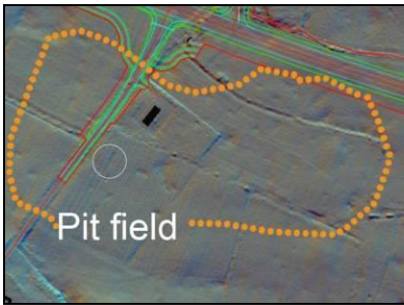

Section B, from Ch. 10+000 to 24+250.


Section C, from Ch. 30+000 to 40+500.

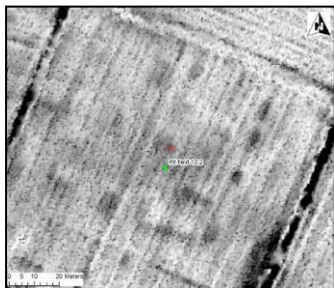
Section D, from Ch. 50+000 to 54+000.

A constraint corridor of 100m was extended to encompass all known and potential archaeological remains on either side of the centre line of the proposed road development.


**Archaeology Section A (Ch. Point 1+000 to 5+700).**

<b>Identification No.</b>	AH1
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Portaghard
<b>Chainage</b>	2+250 – 2+500
<b>Site Type</b>	Possible Pit Field & relict field boundaries.
<b>NGR/ITM</b>	169756, 292491 / 569714, 792506
<b>Description</b>	<p>LiDAR results show a broad spread of possible pits across a number of rough pasture fields. The sweep of which extend from the southwest to the northeast in a double row. Appearing as an arc on the LiDAR image however the pits could not be clearly identified in the field adjacent to the proposed route or neighbouring field from inspection.</p> <p>The possible pits were not discernible to the eye, long grass and reeds were present and the area very rough under foot. Recent disturbance was noted within the area, and some areas detected by LiDAR appeared to be natural waterlogged sumps especially along the northern tree lined boundary. The main concentration of pit features appear from the LiDAR survey to be focused to the south of the proposed route.</p>
<b>Sources</b>	<p>LiDAR (4.2) A relatively poorly defined area of pits, including some typical elongated forms to the west but many smaller ones also.</p> 
<b>Impact of scheme</b>	Test trenching as part of development will verify the nature of any features along the proposed road development.
<b>Proposed mitigation</b>	Avoidance. Test excavation along the proposed road development.
<b>Approx. distance from route</b>	Adjacent to route.
<b>Photography</b>	 <p>West facing view toward possible pit field area.</p>

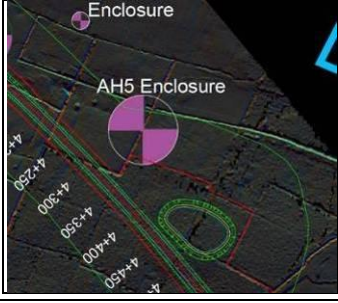
<b>Identification No.</b>	AH2
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Portaghard
<b>Chainage</b>	3+400
<b>Site Type</b>	Terrestrialised Lake
<b>NGR/ITM</b>	170961, 292356 / 570919, 792371
<b>Description</b>	A large circular depression within an open pasture field. Noted on LiDAR as a terrestrialised lake (a small oval basin approx. 33m x 29m which is likely to have held water). Field inspection identified the depth of the feature as c.2m. It may have been a focus for archaeological activity. No other features were recorded in the immediate surrounding landscape.
<b>Sources</b>	LiDAR (7.2)
<b>Impact of scheme</b>	No physical impact.
<b>Proposed mitigation</b>	Avoidance. No mitigation measures are necessary.
<b>Approx. distance from route</b>	40m from the centre line of the ancilliary road.
<b>Photography</b>	 <p>Northwest facing view towards LIDAR site.</p>

<b>Identification No.</b>	AH3
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Portaghard
<b>Chainage</b>	3+925
<b>Site Type</b>	Possible Pit Field
<b>NGR/ITM</b>	171288, 291835 / 571246, 791850
<b>Description</b>	LiDAR results show a broad spread of possible pits across a field located in a greenfield area. However, no irregular depressions were noted within the field during survey.
<b>Sources</b>	LiDAR (10.2). A relatively poorly preserved pit field incorporating typical rectangular pits, aligned both northeast-southwest and southeast-northwest. Pit dimensions are approximately c. 11m x 5m. 

<b>Impact of scheme</b>	No impact
<b>Proposed mitigation</b>	Avoidance. No mitigation measures are proposed as the possible pit field is located outside the proposed landtake.
<b>Approx. distance from route</b>	85m from closest development (an ancillary road).


<b>Identification No.</b>	AH4
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Turlaghnamaddy
<b>Chainage</b>	4+050
<b>Site Type</b>	Earthen Platform.
<b>NGR/ITM</b>	171469, 291863 / 571427, 791878
<b>Description</b>	A raised earthen platform, trapezoidal in plan, measuring c.18m (north/south) by 13m (east/ west) on its western and northern sides respectively, and c.10m (north northeast/ south southwest) by 6m (northeast/ southwest) on its eastern and southern sides respectively was noted field inspection. The platform rises 1.3m in height above the surrounding field. There are no structures apparent on top of the platform, though brick fragments are apparent in places along the sides of it. This platform possibly served as a hunting platform in the post-medieval period. This possible feature is not noted on any historic OS mapping.
<b>Sources</b>	Fieldwork.
<b>Impact of scheme</b>	Direct and moderate impact
<b>Proposed mitigation</b>	Test trenching will determine the nature and extent of this feature.
<b>Approx. distance from route</b>	The feature partially extends into the proposed road development.
<b>Photography</b>	 <p>Northwest facing view.</p>

<b>Identification No.</b>	AH5
<b>Legal Status</b>	NA added to the SMR on the 8 <sup>th</sup> of March as SMR RO015-072
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Turlaghnamaddy
<b>Chainage</b>	4+300
<b>Site Type</b>	Possible Enclosure.
<b>NGR/ITM</b>	170708, 291727 / 571666, 791742
<b>Description</b>	Not recorded on 1 <sup>st</sup> edition 6-inch OS map. A field survey revealed no visible trace of any of the features highlighted by the LiDAR survey (10.5). Visible on orthophotography as a raised circular area, 33m in diameter.
<b>Sources</b>	LiDAR (10.5)



		
<b>Impact of scheme</b>	No impact	
<b>Proposed mitigation</b>	Avoidance. No mitigation measures are proposed as the possible enclosure is located outside the proposed landtake.	
<b>Approx. distance from route</b>	90m northeast of centre line.	



### Archaeology Section B (Ch. Point 10+000 to 24+250)

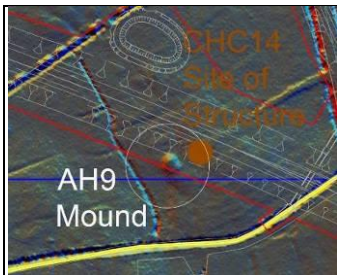

<b>Identification No.</b>	AH6
<b>Legal Status</b>	None
<b>RMP Reference No.</b>	None
<b>Townland</b>	Corskeagh, Leggatinty and Mullen
<b>Chainage</b>	10+150
<b>Site Type</b>	Area of archaeological potential – Carricknabraher River
<b>NGR/ITM</b>	172515, 290435/ 572472, 790450
<b>Description</b>	<p>The Carricknabraher River is crossed by the proposed route at chainage 10+150. Appearing c.1.5m below surrounding ground level and measuring 2m in width, it is a shallow stream c.0.2m in depth. The river forms the townland boundary between the townland of Corskeagh and its neighbouring townlands of both Mullen and Leggatinty to the east. The sinuous river has steep grass and banks, and separates an area of waterlogged open fields and plantation forest. It is slow running, shallow, and has a gravel, pebbled, gritty base.</p> <p>The river at this point has not been altered or dredged. The 1st edition six-inch mapping (1837-8) shows that the river served two mills situated c.500m downstream.</p>
<b>Sources</b>	Mapping and field work
<b>Impact of scheme</b>	Direct and moderate impact
<b>Proposed mitigation</b>	Preservation by record of any archaeological remains. Test excavation within the landtake on the banks of the river and /or visual assessment and metal detecting survey of riverbed and banks following vegetation clearance.
<b>Approx. distance from route</b>	The proposed road development crosses the river
<b>Photography</b>	 <p>Southwest facing view of the river</p>

<b>Identification No.</b>	AH7
<b>Legal Status</b>	None
<b>RMP Reference No.</b>	None
<b>Townland</b>	Leggatinty and Ballaghcullia
<b>Chainage</b>	10+925-11+275 and 11+725 - 12+350 and 14+100-15+100
<b>Site Type</b>	Areas of archaeological potential - Bogland
<b>NGR/ITM</b>	172807, 289304 / 572764, 789320 (roughly centre point)
<b>Description</b>	<p>The first edition mapping shows a wide expanse of bogland that has been gradually reclaimed over the years and is now used for various purposes ranging from rough grazing to forestry to hand excavated peat extraction. The area through which the proposed road will travel is located in areas of bog that were previously exploited as well as areas that are covered with a vegetated surface. The bog is both soft, spongy and waterlogged underfoot. Lowlying scrub, heather with Spagnum moss forms an uneven</p>

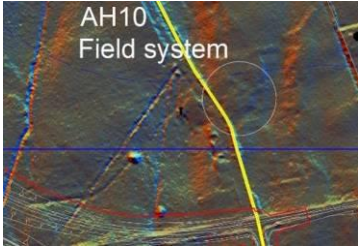
	vegetated surface which obscures a reading of the archaeological potential of the area. No discernible archaeological features were noted. There were no clear drains or faces of cut peat along the route. However where sheer faces of cut peat and drains were encountered (when accessing the area), they were inspected.
<b>Sources</b>	Historic mapping and field work
<b>Impact of scheme</b>	Direct, level of impact is as yet unknown, potential to reveal buried organic archaeological remains.
<b>Proposed mitigation</b>	Preservation by record of any revealed archaeological remains. Test excavation within the land take and a review of the geotechnical information gathered for the scheme.
<b>Approx. distance from route</b>	On the proposed road development.
<b>Photography</b>	 <p>Southeast facing view across the bog at Leggatinty (Chainage 10+950)</p>  <p>Southeast facing view across the bog at Leggatinty (Chainage 12+250)</p>


<b>Identification No.</b>	AH8
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Leggatinty
<b>Chainage</b>	12+400
<b>Site Type</b>	Possible Barrow
<b>NGR/ITM</b>	174116, 289173 / 574073, 789189
<b>Description</b>	No surface trace is visible.
<b>Sources</b>	LiDAR (19.1) describes the site as a circular, depressed area, c.14m in diameter. It appears to have a slightly raised centre.
<b>Impact of scheme</b>	No impact
<b>Proposed mitigation</b>	Avoided, no mitigation required
<b>Approx. distance from route</b>	85m north of centre line of route.

<b>Photography</b>	 <p>Northeast facing view.</p>
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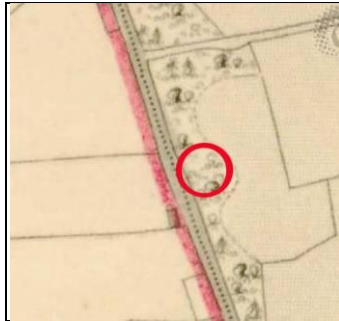

<b>Identification No.</b>	AH9
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Leggatinty
<b>Chainage</b>	12+625
<b>Site Type</b>	Mound – possible fulacht fiadh
<b>NGR/ITM</b>	174299, 288992 / 574256, 789008
<b>Description</b>	LIDAR recorded a small mound approximately 13m in diameter lying c.25m south of the centreline, it suggests that these may be a possible fulacht fiadh. In the field this feature presents as an earthen mound measuring c.14.5m north/ south by 12.5m east/ west, and is approx. 1m in height. The 1 <sup>st</sup> edition six inch mapping notes a structure in this area of the field (CHC14).
<b>Sources</b>	LiDAR (19.2), field inspection. 
<b>Impact of scheme</b>	Direct, partially located within the landtake, moderate
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation of the site within the landtake and the wider area within the landtake.
<b>Approx. distance from route</b>	25m south of centre line of route.
<b>Photography</b>	 <p>Southwest facing view.</p>

<b>Identification No.</b>	AH10
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Cashel/ Ballaghcullia


<b>Chainage</b>	12+950
<b>Site Type</b>	Possible field system
<b>NGR/ITM</b>	174682, 289018 / 574639, 789034
<b>Description</b>	LiDAR recorded a field system as an area of low profile linear embankments, potentially representing a small settlement cluster.
<b>Sources</b>	LiDAR (19.3) 
<b>Impact of scheme</b>	No impact
<b>Proposed mitigation</b>	Site avoided. Test excavation along the proposed road development
<b>Approx. distance from route</b>	85m north of auxiliary route.

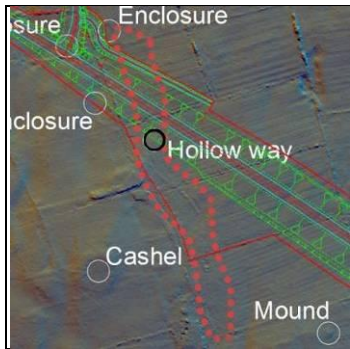
<b>Identification No.</b>	AH11
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Cashel
<b>Chainage</b>	13+050
<b>Site Type</b>	Possible Enclosure
<b>NGR/ITM</b>	174702, 288817 / 574659, 788833
<b>Description</b>	Recorded by LiDAR as a rectangular platform 23m x 18m, likely to be a post medieval feature which is abutted by a field boundary at the southern side. No surface trace visible was revealed during the field inspection, however it was noted that the potential site is located within rising ground. The site of a structure is noted in this area on the 1 <sup>st</sup> edition six inch OS mapping and is recorded as CHC 17 in the cultural heritage inventory.
<b>Sources</b>	LiDAR (18.1) (enclosure).
<b>Impact of scheme</b>	Direct and potentially moderate impact.
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation of the site within the landtake and the wider area within the landtake.
<b>Approx. distance from route</b>	On the proposed road development.
<b>Photography</b>	 West southwest facing view.



<b>Identification No.</b>	AH12
<b>Legal Status</b>	NA

<b>RMP Reference No.</b>	NA
<b>Townland</b>	Cashel
<b>Chainage</b>	13+075
<b>Site Type</b>	Possible Enclosure
<b>NGR/ITM</b>	174750, 288834 / 574707, 788850
<b>Description</b>	Recorded by LiDAR as a rectangular enclosure, surrounded by a bank and suggestions of inner scarping. The average dimension of the feature was c.25m x 20m. The LiDAR survey suggested that this feature may be an element of the demesne landscape. Field inspection recorded no surface trace of the feature. It is possible the ground disturbance noted by LiDAR was caused by the uprooting of mature trees which previously formed the Hermitage Demesne boundary.
<b>Sources</b>	LiDAR (18.2)  1 <sup>st</sup> edition six-inch Ordnance Survey Map (position of enclosure circled in red).
<b>Impact of scheme</b>	Direct and potentially moderate.
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation of the site within the landtake and the wider area within the landtake.
<b>Approx. distance from route</b>	On the proposed road development route.
<b>Photography</b>	 Southwest facing view.



<b>Identification No.</b>	AH13
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Cashel
<b>Chainage</b>	13+125
<b>Site Type</b>	Possible Enclosure
<b>NGR/ITM</b>	174734, 288753 / 574690, 788768
<b>Description</b>	Recorded by LiDAR, as a rectangular enclosure, possibly a former quarry site (20m x 21m). In the field, this feature has the appearance of a scarp (sloping ground) and is not necessarily of an archaeological nature.

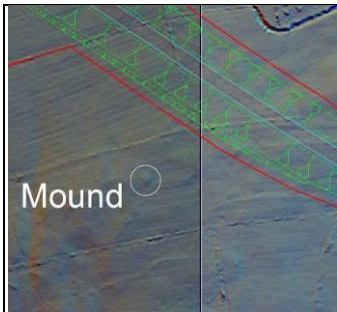
<b>Sources</b>	LIDAR (18.3).
<b>Impact of scheme</b>	Indirect, possible enclosure is not on route.
<b>Proposed mitigation</b>	Preservation in situ. Test excavation in the environs of the site within the landtake.
<b>Approx. distance from route</b>	Adjacent to the proposed route, the centre point of the site is 40m south of the centre point of the proposed road development.
<b>Photography</b>	 <p>Northwest facing view of potential enclosure</p>

<b>Identification No.</b>	AH14
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Cashel
<b>Chainage</b>	13+200
<b>Site Type</b>	Possible Hollow way.
<b>NGR/ITM</b>	174820, 288726 / 574757, 788727
<b>Description</b>	Just located inside the townland boundary between Cashel and Ballaghcullia, at chainage 13+200, LiDAR noted the presence of a hollow way of which there is no trace today. The hollow way extends from AH12 (LiDAR 18.2) southwards, extending in a sinuous manner for some 400m in a southeast direction. However, the 1 <sup>st</sup> edition six-inch Ordnance Survey records a mature tree belt bordering the boundary Hermitage House demesne whose curved outline follows that of the hollow way as depicted on the LiDAR.
<b>Sources</b>	LiDAR (18.4) (Hollow way seen at centre of accompanying LiDAR map) 

	 <p>1<sup>st</sup> edition six-inch Ordnance Survey map.</p>
<b>Impact of scheme</b>	Moderate, direct impact on a section of the hollow way which is potentially a former landscape feature of the demesne.
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation of the site within the landtake and the wider area within the landtake.
<b>Approx. distance from route</b>	Hollow way runs in a north/ south direction through the proposed route.
<b>Photography</b>	 <p>South facing view of the hollow way</p>


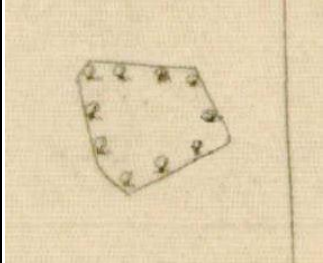
<b>Identification No.</b>	AH15
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Ballaghcullia
<b>Chainage</b>	13+275
<b>Site Type</b>	Possible Enclosure.
<b>NGR/ITM</b>	175065, 289051 / 575022, 788967
<b>Description</b>	<p>LiDAR identified a rectangular enclosure, dimensions 50m x 32m near a proposed upgrade for a T-junction. It is suggested that this could represent the northern extent of a linear deserted settlement as there are possible internal structures noted as well. However there are no features marked on the 1<sup>st</sup> edition OS, apart from mature woodland in the area.</p> <p>Changes are occurring to the road, 25m to the northeast of the site's position. No above ground remains were visible during a field inspection and the possible enclosure site will not be affected by the proposed junction upgrade.</p> <p>A dry stone wall forms the field boundary to the northeast at the junction. The proposed junction upgrade occurs to the south of the original mature tree lined avenue to Hermitage House, features associated with Hermitage House will not be affected by the proposed upgrade.</p>
<b>Sources</b>	LiDAR (21.10).

	 <p>Enclosure</p> <p>Aerial Photography.</p> 
<b>Impact of scheme</b>	No direct impact.
<b>Proposed mitigation</b>	Avoidance of feature. Preservation in situ.
<b>Approx. distance from route</b>	25m southwest of centre line of upgraded T-junction (outlined above). The proposed upgrade is located immediately south to the tree lined former avenue associated with Hermitage House.

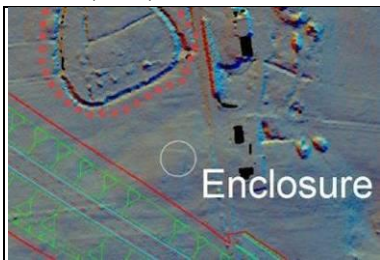

<b>Identification No.</b>	AH16
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Ballaghcullia.
<b>Chainage</b>	13+475
<b>Site Type</b>	Possible Mound
<b>NGR/ITM</b>	175003, 288500 / 574953, 788510
<b>Description</b>	Whilst the LiDAR identified a small mound, approx. 8m in diameter, a walkover did not verify any archaeology (but a general rise in the ground was noted).
<b>Sources</b>	LiDAR (18.6). 
<b>Impact of scheme</b>	No direct impact, the mound is located outside the proposed landtake.
<b>Proposed mitigation</b>	None. Avoidance of feature. Preservation in situ.
<b>Approx. distance from route</b>	100m southwest of the centre line.



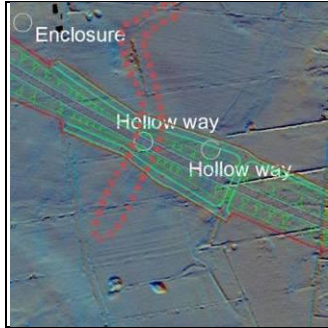
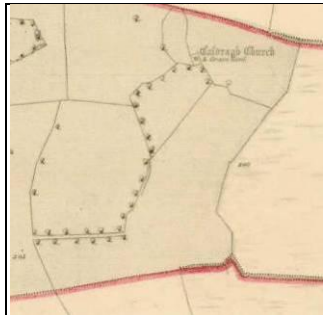

<b>Photography</b>	 <p>Southeast facing view.</p>
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<b>Identification No.</b>	AH17
<b>Legal Status</b>	None
<b>RMP Reference No.</b>	None
<b>Townland</b>	Ballaghcullia.
<b>Chainage</b>	13+500
<b>Site Type</b>	Plectrum shaped enclosure.
<b>NGR/ITM</b>	175124, 288663 / 575081, 788679
<b>Description</b>	This was revealed through reviewing the historic mapping and by field inspection. It presents as an impressive enclosure measuring 85m east/west, with an earthen bank and outer ditch. Trees are growing on the bank which suggests that this monument may have been reused as a tree ring given that it is situated within the demesne of nearby Hermitage House.
<b>Sources</b>	<p>OS mapping (all editions), LiDAR (21.8), aerial photography, and fieldwork. LiDAR records this site as 85m in diameter and that some interior divisions may relate to drainage. It is likely to be a demesne feature of Hermitage House and it is marked as a copse of trees on the six-inch OS series.</p>   <p>1<sup>st</sup> edition six-inch OS map.</p>
<b>Impact of scheme</b>	No physical effect on the site by the proposed road development. The site is outside and to the northwest of the proposed landtake.
<b>Proposed mitigation</b>	Site avoided. Test excavation in the form of trenching along the proposed road development.
<b>Approx. distance from route</b>	The centre of the site is 110m northeast from centre line of the proposed road development.

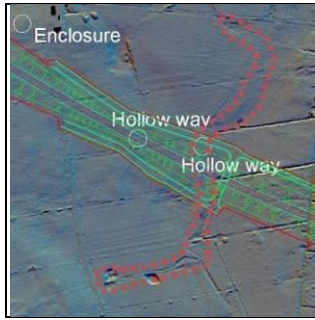

<b>Photography</b>	 <p>Northeast facing view.</p>
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<b>Identification No.</b>	AH18
<b>Legal Status</b>	None
<b>RMP Reference No.</b>	None
<b>Townland</b>	Ballaghcullia
<b>Chainage</b>	13+575
<b>Site Type</b>	Possible Enclosure
<b>NGR/ITM</b>	175169, 288579 / 575126, 788595
<b>Description</b>	No remains were visible on the ground. LiDAR records a small trapezoidal enclosure, 13m x 19m, likely to represent a building platform.
<b>Sources</b>	LiDAR (21.7). 
<b>Impact of scheme</b>	No direct effect as the feature lies outside the landtake.
<b>Proposed mitigation</b>	Site avoided. Test excavation in the form of trenching along the proposed road development.
<b>Approx. distance from route</b>	65m northeast of the centre line of the proposed route.
<b>Photography</b>	 <p>Southeast facing view towards the possible enclosure</p>


<b>Identification No.</b>	AH19
<b>Legal Status</b>	None
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Ballaghcullia
<b>Chainage</b>	13+800
<b>Site Type</b>	Possible Hollow way.
<b>NGR/ITM</b>	175333, 288415 / 575290, 788431

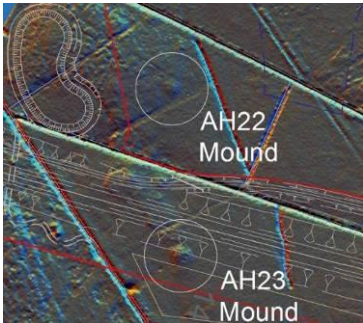

<b>Description</b>	No remains were visible on the ground. Visible on the 1 <sup>st</sup> edition six-inch as a tree lined route leading to Caldragh Church and Graveyard. Also appears on the 25-inch revised OS mapping. Possible former mass path.
<b>Sources</b>	<p>LiDAR (21.5) (Hollow way on left) recorded as a pair of hollow ways associated with the ecclesiastical enclosure, part of the demesne landscape of Hermitage House and likely to be post-medieval features.</p>   <p>1<sup>st</sup> edition six-inch OS map</p>
<b>Impact of scheme</b>	Moderate impact, part of the potential feature crossed by the proposed road development.
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation of the site within the landtake and the wider area within the landtake.
<b>Approx. distance from route</b>	On the route.
<b>Photography</b>	 <p>Southeast facing view.</p>

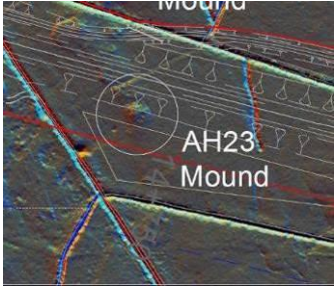

<b>Identification No.</b>	AH20
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Ballaghcullia
<b>Chainage</b>	13+900
<b>Site Type</b>	Possible Hollow way.
<b>NGR/ITM</b>	175425, 288404 / 575382, 788420
<b>Description</b>	No remains were visible on the ground. Not visible on the 1 <sup>st</sup> edition six-

	inch OS map and probably pre-dates this mapping. Possible former mass path
<b>Sources</b>	LiDAR (21.6) (Hollow way to the right) recorded as a pair of hollow ways associated with the ecclesiastical enclosure, part of the demesne landscape of Hermitage House and likely to be post-medieval features. 
<b>Impact of scheme</b>	Moderate, part of the potential feature crossed by route.
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation of the site within the landtake and the wider area within the landtake.
<b>Approx. distance from route</b>	On the route.
<b>Photography</b>	 Northeast facing view.

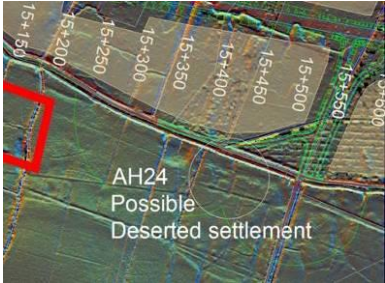

<b>Identification No.</b>	AH21
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Ballaghcullia and Drummin
<b>Chainage</b>	14+525
<b>Site Type</b>	Area of archaeological potential – Owennaforeesha River
<b>NGR/ITM</b>	176003, 288168/ 575960, 788184
<b>Description</b>	The Owennaforeesha River forms the boundary between the townlands of Ballaghcullia and Drummin. A slight bank appears on the eastern side of the river. The river is c.0.9m -1.1m below the surrounding ground level and measures c2.5m in width. It is a shallow stream c.0.2m – 0.3m in depth. The river has steep grass and banks, and separates an area of reclaimed bog from drier open fields. The river at this point does not appear to have been altered or dredged, however mapping shows that a meandering stretch of the Owennaforeesha River (located 0.7km to the southwest) leading from Bellanagare town on the the 1st edition OS map (1837-8) has been straightened by the time of the 25-inch OS mapping (1888-92).
<b>Sources</b>	Mapping and field work
<b>Impact of scheme</b>	Direct, river crossed by route and while there are no known finds or features of antiquity it is seen as an area of archaeological potential. It is considered to be a moderate impact.
<b>Proposed mitigation</b>	Preservation by record of any archaeological remains. Test excavation within the landtake on the banks of the river and /or visual assessment

	and metal detecting survey of riverbed and banks following vegetation clearance.
<b>Approx. distance from route</b>	On the route.
<b>Photography</b>	 <p>Southwest facing view of the river</p>

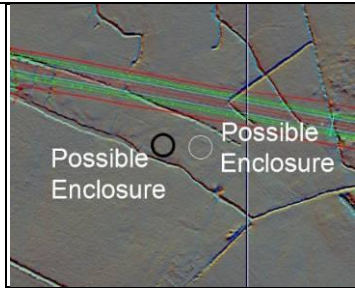

<b>Identification No.</b>	AH22
<b>Legal Status</b>	Recorded on the 8 <sup>th</sup> March 2016 as SMR RO015-078
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Drummin
<b>Chainage</b>	14+700
<b>Site Type</b>	Mound.
<b>NGR/ITM</b>	176184, 288199 / 576144, 788221
<b>Description</b>	An earthen mound measuring c.12m in diameter and 1m in height. Not visible on the 1 <sup>st</sup> edition six-inch OS map but clearly visible in the field.
<b>Sources</b>	Fieldwork and LiDAR (24.2) which records this feature as a possible burnt mound (13m in diameter). 
<b>Impact of scheme</b>	No impact. Outside landtake boundary line.
<b>Proposed mitigation</b>	Avoidance. No mitigation measures are proposed.
<b>Approx. distance from route</b>	50m east of attenuation pond and 87m north of the centreline of the proposed route.
<b>Photography</b>	 <p>Southeast facing view.</p>

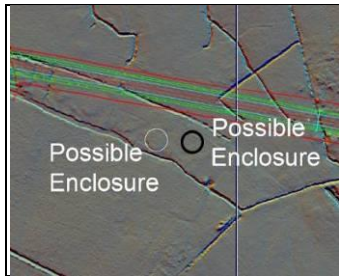
<b>Identification No.</b>	AH23
<b>Legal Status</b>	Recorded on the 8 <sup>th</sup> of March 2016 as SMR RO015-077
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Drummin
<b>Chainage</b>	14+725
<b>Site Type</b>	Mound
<b>NGR/ITM</b>	176193, 288090 / 576150, 788106
<b>Description</b>	An earthen mound, slightly larger to the mound to the immediate north (AH22), measuring c.16m in diameter and 1m in height. Not visible on the 1 <sup>st</sup> edition six-inch OS map but clearly visible during the field inspection. It appears as a noticeably raised area within a waterlogged/ marshy field and is possibly a fulacht fiadh. The field is now used for pasture farming but is shown on the 1 <sup>st</sup> edition six-inch OS as open bogland.
<b>Sources</b>	Fieldwork and LiDAR (24.1) which records this feature as a small mound, 12m in diameter, possibly a burnt mound. 
<b>Impact of scheme</b>	Direct and potentially significant/ moderate impact. The mound may be the result of manmade or buried natural features (for example a stump of a tree) in this former bogland environment.
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation of the sites within the landtake and the wider area within the landtake.
<b>Approx. distance from route</b>	On the route.
<b>Photography</b>	 East facing view of the mound/possible fulacht fiadh.

<b>Identification No.</b>	AH24
<b>Legal Status</b>	None
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Peak
<b>Chainage</b>	15+350 – 15+500
<b>Site Type</b>	Possible Deserted Settlement.
<b>NGR/ITM</b>	176848, 287755 / 576805, 787771
<b>Description</b>	Adjacent to an ancillary road improvement, is the remains of a deserted settlement, depicted on LiDAR and confirmed by field inspection. There are a series of earthworks consisting of banks defining rectilinear enclosures of varying sizes. On the western side of the settlement a


	house platform is apparent, measuring 12m northwest/ southeast, 9m northeast – southwest, and 0.40m in height.
<b>Sources</b>	LiDAR (23.1) records the site as an area with small subdivisions and possible areas of enclosure that could perhaps be related to drainage. It is not marked on the 1 <sup>st</sup> edition six-inch OS map and it was detected during fieldwork. 
<b>Impact of scheme</b>	No direct impact.
<b>Proposed mitigation</b>	Test excavation of the land take within the proposed road development, avoidance of possible deserted settlement.
<b>Approx. distance from route</b>	Contained within a separate field to the south of the proposed ancillary road. Located 40m south of centre line of an ancillary road from the point identified in the LiDAR survey (205m south of the proposed route).
<b>Photography</b>	 East southeast facing view of the possible deserted settlement.

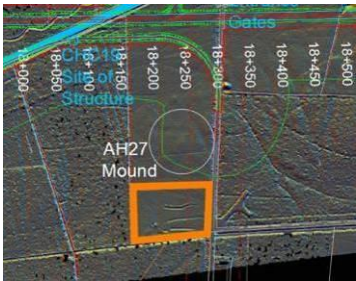
<b>Identification No.</b>	AH25
<b>Legal Status</b>	None
<b>RMP Reference No.</b>	None
<b>Townland</b>	Carrigeenacreeha
<b>Chainage</b>	16+525
<b>Site Type</b>	Possible Enclosure
<b>NGR/ITM</b>	177952, 287704 / 577908, 787720
<b>Description</b>	Field inspection revealed no evidence for an enclosure, except for rising ground, measuring 25m east/ west by 17m north/ south, and 1m in height above the surrounding area. Located within reclaimed bogland shown as pasture land on later OS mapping editions. LiDAR recorded the site as a very low profile, possible enclosure, c. 21m in diameter and possibly a heavily denuded ringfort.
<b>Sources</b>	LiDAR (26.4) (see below to the left, circled in black).

	
<b>Impact of scheme</b>	No direct impact.
<b>Proposed mitigation</b>	Avoidance. No mitigation required, outside the area of the proposed landtake.
<b>Approx. distance from route</b>	55m south of centre line.
<b>Photography</b>	 East facing view of possible enclosure.

<b>Identification No.</b>	AH26
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Carrigeenacreeha
<b>Chainage</b>	16+550
<b>Site Type</b>	Possible Enclosure.
<b>NGR/ITM</b>	177993, 287701 / 577949, 787717
<b>Description</b>	An enclosure was recorded by LiDAR, but no surface trace was visible, identification was prohibited by long grass. Not identifiable from aerial photography either. LiDAR records the site as a large, low profile ditched enclosure, 46m in diameter with some evidence of interior features.
<b>Sources</b>	LiDAR (26.5) (seen below to the right, circled in black). 
<b>Impact of scheme</b>	No direct impact.
<b>Proposed mitigation</b>	Avoidance, outside the area of the proposed landtake.
<b>Approx. distance from route</b>	50m south of centre line.



<b>Photography</b>	
	East facing view of the possible enclosure site.

<b>Identification No.</b>	AH27
<b>Legal Status</b>	Recorded on the 8 <sup>th</sup> of March 2016 as SMR RO016-173
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Kilvoy
<b>Chainage</b>	18+250
<b>Site Type</b>	Possible Mound
<b>NGR/ITM</b>	179664, 287350 / 579620, 787366
<b>Description</b>	No remains were visible on the ground. Not visible on the 1 <sup>st</sup> edition six-inch OS map. LiDAR records the site as a very-ploughed down mound, up to 12m in diameter, possible burnt mound.
<b>Sources</b>	LiDAR (31.1) 
<b>Impact of scheme</b>	No direct impact. Feature avoided by the proposed road development.
<b>Proposed mitigation</b>	Avoidance of the site. Test excavation of the proposed route.
<b>Approx. distance from route</b>	55m southwest from auxiliary road.

<b>Identification No.</b>	AH28
<b>Legal Status</b>	None
<b>RMP Reference No.</b>	Located to the north of RO022-056002 (Recorded monument), possible extension
<b>Townland</b>	Kilvoy
<b>Chainage</b>	18+300
<b>Site Type</b>	Possible road - road/trackway extending from Ballyconboy to the south
<b>NGR/ITM</b>	179525, 284915 / 579480, 784931 (RMP point) – a road running north/south, and may have extended from Rathcroghan to Mantua Estate. If so it will be traversed by the proposed route at 179729, 287646 / 579685, 787562 (see below).
<b>Description</b>	The area of interest presents as a north-south trending track, approximately 2.5m wide and aligned with drainage ditches and trees on either side. The track is used as a service road for numerous forestry plantations in the area and leads northwards to the main avenue of Mantua House.

According to the RMP files, this linear trackway is located on the north-facing slope of the Rathcroghan ridge. It ran from the complex rath of Rathmore (RO022-056017) down the slope just west of enclosure (RO022-056015) and east of barrow (RO022-056004) and the mound Croghaunbawn (RO022-056003) to an east/ west public road (length c. 2 km). It may have been continued c. 1km to the north of the public road along the avenue to Mantua House (total length c. 4km).

Only short sections are visible to-day, but it is known locally to be a hard stony surface which parches in dry weather. Just north of Rathmore it presents as a grass-covered causeway (width 6m; height c. 0.4m; length c. 100m) with a drystone wall on the east side. About 200m to the north is a further section (length c.100m) visible as a causeway (width 2m; height 0.3-0.6m) with a drystone wall down the centre and a flat-bottomed silted ditch (width of base 1.7m; depth 0.3m) on the west side. West of the ditch a parched strip (width c. 2m) indicates the presence of a bank. To the north of an east/ west public lane in Ballyconboy it is visible as a causeway (width 7m; height c. 0.2m; length c.300m) from which a stone wall has been removed and with a lush grass strip on the west side.

Compiled by: Michael Moore

Date of upload: 24 August 2010

Date of last visit: 24 October 1995

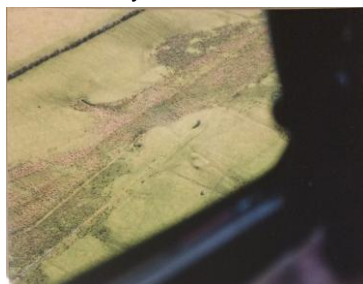
[www.archaeology.ie](http://www.archaeology.ie)

Just north-west of 22:5617 a small section can be traced (c.100m). It is defined by a clay stone wall on the east, but the boundary on the west (as marked on the map) has been removed and appears now as a slight scarp 5.8m in wide. Further north there is no trace of the road. It is not found at 22:5603 but the field banks in this area have been removed.

At the very north of the 22:56 area it might survive to the east of the ringfort 22:5601. There is a low wall field boundary. The "roadway" is only c.2m wide. I suspect that this roadway might be no more than a linear earthwork boundary pre-dating the present field boundary provided by the stone wall.

Compiled by: Unknown


Date: 4 July 1995



A laneway which runs northwards towards the main gate of the demesne of Mantua House. This laneway (c. 4m in width) is possibly associated with landscaping in the vicinity of the landed estate or with (as discussed above) with RO022-056002 a road/ trackway running from Rathcroghan.

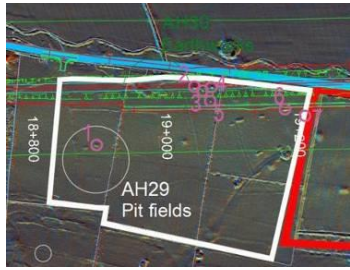




1<sup>st</sup> edition six-inch OS map (extract above).

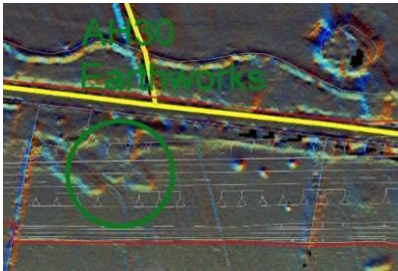
<b>Sources</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a> National Monuments RMP File, field inspection and historic maps.
<b>Impact of scheme</b>	Slight impact, a section of the existing forestry track will be traversed. The proposed route traverses what may be an extension of a road way recorded in the Record of Monuments and Places.
<b>Proposed mitigation</b>	Advance test excavation (TE1) of the existing laneway did not reveal any surviving trace of an historic route/ earlier road or trackway construction. No further mitigation necessary, test excavation will occur within the landtake.
<b>Approx. distance from route</b>	On the route.
<b>Photography</b>	 <p>North facing view.</p>

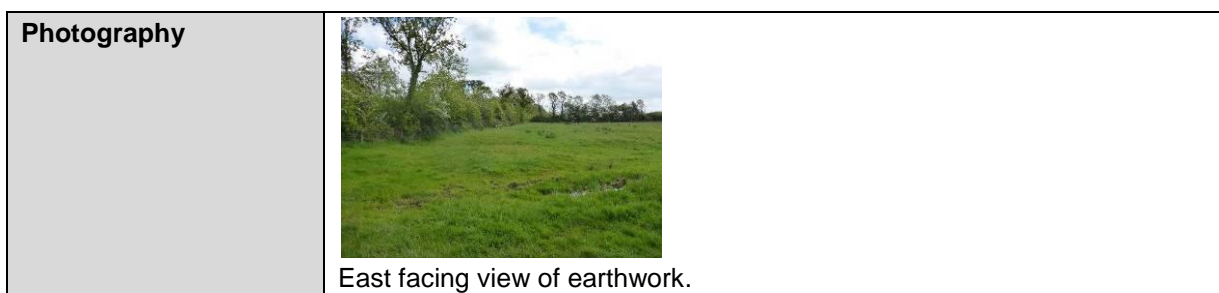
<b>Identification No.</b>	AH 29A
<b>Legal Status</b>	None
<b>RMP Reference No.</b>	None
<b>Townland</b>	Kilvoy
<b>Chainage</b>	18+860
<b>Site Type</b>	Isolated sub-surface pit
<b>NGR/ITM</b>	ITM 580237,787562
<b>Description</b>	<p>This feature was revealed as a result of test excavations in a pasture field in Kilvoy townland and named Kilvoy 1. It presents as a single isolated pit with no associated features. The feature is described as a circular pit with rounded sides and a rounded base approximately 0.75m in diameter and 0.1m deep (F77). The fill (F78) was a charcoal rich brown clay mottled with blue/grey clay inclusions.</p> <p>This fill was sampled and produced a date of 4939+ 28 BP or 3774-3654 BC, revealing an early Neolithic date for the feature.</p>
<b>Sources</b>	Test Excavation
<b>Impact of scheme</b>	Significant impact. This area has been subject to geophysical survey (GA1) and test excavation (TE2). Test excavation has confirmed the survival of sub-surface archaeological remains in the form of an isolated pit within the road take. A significant quantity of the potential features identified in geophysical survey would appear to be natural in origin.
<b>Proposed mitigation</b>	Archaeological excavation required to define the extent of the site. This will entail licensed archaeological excavation in full of the identified archaeological remains (preservation by record).
<b>Approx. distance from route</b>	On the route.


<b>Identification No.</b>	AH 29
<b>Legal Status</b>	None
<b>RMP Reference No.</b>	None

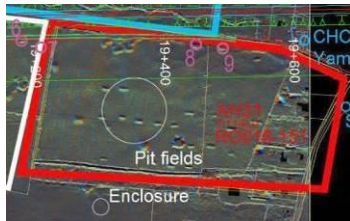

<b>Townland</b>	Kilvoy																		
<b>Chainage</b>	18+825 – 19+200																		
<b>Site Type</b>	Possible Pit field																		
<b>NGR/ITM</b>	180313, 287446 / 580269, 787462																		
<b>Description</b>	<p>A series of pits were noted from field work and the LiDAR survey to the west of a recorded monument (RO016-151 – Pit field). These pits probably represent an extension of the recorded monument. There are three distinct clusters shown on the LiDAR image, two uniform in their distribution and one with more randomly placed pits. The most westerly of these clusters, consists of 4 pits in total, in two parallel rows. One of these pits was detected during field work.</p> <table border="1"> <tr> <td>1</td> <td>This pit measures 5m E-W by 2m N-S, and 0.4m in depth</td> </tr> </table> <p>This cluster of pits will be avoided by the proposed route.</p> <p>Immediately south of the existing road, 4 pits were recorded at ITM/NGR 580430, 787573/ 180474, 287557. These pits will be impacted by the proposed route. These features differ from the other pits in that they are not uniform in size and are randomly placed.</p> <table border="1"> <thead> <tr> <th>Number</th> <th>Description of pits found between 19+025 and 19+075 in Kilvoy</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>This pit measures 3.5m in diameter and 1.1m in depth</td> </tr> <tr> <td>3</td> <td>This pit is c.9m E of pit 2. It measures c.2.5m in diameter and 0.9m in depth</td> </tr> <tr> <td>4</td> <td>This pit is c.10m E of pit 3. It measures 2m in diameter and 1.1m in depth</td> </tr> <tr> <td>5</td> <td>This pit is c.17m S of pit 4. It measures 2.2m in diameter and 0.9m in depth</td> </tr> </tbody> </table> <p>The other cluster consists of 6 pits (3 pits in two parallel lines) trending northeast-southwest, south of the existing road, only one of these pits (the most northeast pit, pit No 6 as described below, NGR/ITM 180599, 287528/ 580555, 787544) will be impacted as a result of this scheme, all the other pits are located to the south of the proposed landtake. Only 2 pits were detected during the field inspection.</p> <table border="1"> <thead> <tr> <th>Number</th> <th>Description of pits found between 19+175 and 19+200 in Kilvoy</th> </tr> </thead> <tbody> <tr> <td>6</td> <td>This pit is sub-rectangular and measures 8.5m E-W &amp; 3.5m N-S</td> </tr> <tr> <td>7</td> <td>This pit is c.25m SE of pit 5. It is waterlogged and measures 9m E-W &amp; 4m N-S</td> </tr> </tbody> </table>	1	This pit measures 5m E-W by 2m N-S, and 0.4m in depth	Number	Description of pits found between 19+025 and 19+075 in Kilvoy	2	This pit measures 3.5m in diameter and 1.1m in depth	3	This pit is c.9m E of pit 2. It measures c.2.5m in diameter and 0.9m in depth	4	This pit is c.10m E of pit 3. It measures 2m in diameter and 1.1m in depth	5	This pit is c.17m S of pit 4. It measures 2.2m in diameter and 0.9m in depth	Number	Description of pits found between 19+175 and 19+200 in Kilvoy	6	This pit is sub-rectangular and measures 8.5m E-W & 3.5m N-S	7	This pit is c.25m SE of pit 5. It is waterlogged and measures 9m E-W & 4m N-S
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7	This pit is c.25m SE of pit 5. It is waterlogged and measures 9m E-W & 4m N-S																		
<b>Sources</b>	<p>LiDAR (33.2), fieldwork and aerial photography. LiDAR image with pit numbers 1-7 circled.</p> 																		
<b>Impact of scheme</b>	<p>This area has been subject to geophysical survey (GA1) and test excavation (TE2) as well as consultation with the NMS and consultant geologists in order to ascertain the nature and extent of this complex. No archaeological material was noted in any of the pit field trenches. It was concluded that the pit-like depressions are natural enclosed karstic depressions and of no archaeological significance and are natural and non- archaeological in origin. Slight impact.</p>																		
<b>Proposed mitigation</b>	<p>Test excavation will take place within the landtake.</p>																		

<b>Approx. distance from route</b>	On the route.
<b>Photography</b>	 <p>Southwest facing view of pit 1.</p>
<b>Photography</b>	 <p>West facing view of pit 7</p>


<b>Identification No.</b>	AH30
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Kilvoy
<b>Chainage</b>	19+000
<b>Site Type</b>	Earthworks.
<b>NGR/ITM</b>	180405, 287549 / 580361, 787565
<b>Description</b>	There are earthworks consisting of raised platforms divided by fosses, measuring 60m east/ west, and 20m north/south. These are not recorded on any OS mapping for the area. Although testing was curtailed in this area, the eastern end of the earthworks were assessed in T5. No archaeological features associated with these surface features were detected. Archaeological investigation suggests that these features are natural and non-archaeological in origin.
<b>Sources</b>	Fieldwork. 
<b>Impact of scheme</b>	Direct and slight impact.
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation of the site within the landtake and the wider area within the landtake.
<b>Approx. distance from route</b>	On the route.





<b>Identification No.</b>	AH31						
<b>Legal Status</b>	Recorded Monument.						
<b>RMP Reference No.</b>	RO016-151						
<b>Townland</b>	Kilvoy						
<b>Chainage</b>	19+200-19+675						
<b>Site Type</b>	Pit field.						
<b>NGR/ITM</b>	180773, 287455 / 580729, 787471 (RMP point on archaeology.ie)						
<b>Description</b>	<p>Pit field (RO016-151) is a recorded monument lying to the south of the route. It extends 220m east/west and 100m north/south. LiDAR and aerial photography have identified a more extensive area where pits have been noted to the north, south and west of the proposed route. Field inspection revealed two pits within the landtake (pits 8 and 9). The main concentration of pits identified as the RMP are located to the south and consist of parallel lines of 16 pits in total. These will not be affected by the proposed route. Pit Nos. 8 and 9 are detailed as follows and their NGR/ITM are 180865, 287518/ 580821, 787534 (Pit 8) and 180968, 287499/ 580924, 787515 (Pit 9):</p> <table border="1"> <thead> <tr> <th>Number</th> <th>Description of pits found between 19+450 and 19+500 in Kilvoy</th> </tr> </thead> <tbody> <tr> <td>8</td> <td>This pit is sub-rectangular and measures 14m E-W &amp; 8m N-S and 1.1m in depth</td> </tr> <tr> <td>9</td> <td>This pit is sub-rectangular. It is waterlogged and measures 10m E-W &amp; 6m N-S</td> </tr> </tbody> </table> <p>This Recorded Monument is described in <a href="http://www.archaeology.ie">www.archaeology.ie</a> as about 15 grass-covered pits (dimensions c. 10-15m x. c. 4m; with a depth of c. 0.5m) generally aligned east/west, forming two rows c. 50m apart, covering an area of c. 6 ha (c. 16 acres). Archaeological testing (02E1222) over the eastern extremity of the area failed to recover any related material (Read 2002).</p>  <p>Located on a slight north facing slope. There are a number of pits generally aligned east/ west (dimensions c.13m east/ west, c.4m north/ south, depth 0.5m – 0.8m). The pits in a line 10-30m apart. In the west field there are two lines 35m-50m apart. The pits are located towards the south end of both fields. Eight were seen in the west field and there might be as many in the east field. There are clearly part of the same sequence and predate the north/ south field bank between them and the field system generally.</p> <p>Compiled: Unknown entry in RMP file</p>	Number	Description of pits found between 19+450 and 19+500 in Kilvoy	8	This pit is sub-rectangular and measures 14m E-W & 8m N-S and 1.1m in depth	9	This pit is sub-rectangular. It is waterlogged and measures 10m E-W & 6m N-S
Number	Description of pits found between 19+450 and 19+500 in Kilvoy						
8	This pit is sub-rectangular and measures 14m E-W & 8m N-S and 1.1m in depth						
9	This pit is sub-rectangular. It is waterlogged and measures 10m E-W & 6m N-S						

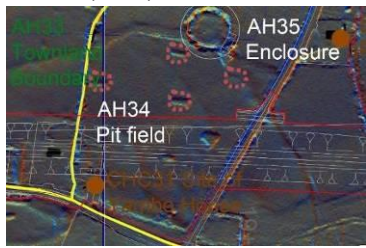

	<p>No historical cartographic evidence of these features was uncovered.</p> <p>To the south of this recorded pitfield, another pitfield is now a redundant record (RO022-004). LiDAR survey (33.3) shows approximately 5 pits in this area. The entry to the RMP describes the pits as visible on an aerial photograph (ACAP: V206/60, 59, 44) and that no features were visible at ground level.</p>
<b>Sources</b>	<p>Aerial survey, RMP File, fieldwork, and LIDAR (33.4). LiDAR image with pit numbers 8 and 9 circled.</p> 
<b>Impact of scheme</b>	<p>The proposed route clips the northwestern extent of the archaeological potential that surrounds this pit field site. The route avoids the main concentration of pits as identified as the recorded monument. However two previously unrecorded pits identified through LiDAR and field work will be directly impacted. Partially impacted, and slight impact.</p>
<b>Proposed mitigation</b>	<p>Archaeological investigation strongly suggests that these features are natural and non- archaeological in origin. No archaeological material was noted in any of the pit field trenches. It was concluded that the pit-like depressions are natural enclosed karstic depressions and of no archaeological significance.</p>
<b>Approx. distance from route</b>	<p>On the route.</p>
<b>Photography</b>	 <p>South facing view of pit 9.</p>



<b>Identification No.</b>	AH32
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Corry East.
<b>Chainage</b>	19+425
<b>Site Type</b>	Possible pit/ tree lined depression likely to be geological in nature
<b>NGR/ITM</b>	180907, 287602 / 580863, 787618
<b>Description</b>	<p>The depression is sub-rectangular and has trees growing around it. It measures 12m east/ west by 6m north/ south and is 1m in depth. This pit has a natural feel to it and is roughly shaped compared to the previously identified pits. This feature is not visible on the 1<sup>st</sup> edition six-inch OS map.</p>
<b>Sources</b>	Fieldwork.
<b>Impact of scheme</b>	Direct, and slight impact. The pit appears to be natural or a geological anomaly rather than archaeological in nature.
<b>Proposed mitigation</b>	Preservation by record. Test excavation will be undertaken to understand the nature of the depression/ pit feature.

<b>Approx. distance from route</b>	On the route.
<b>Photography</b>	 <p>East facing view of pit.</p>


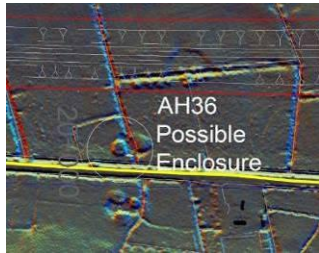

<b>Identification No.</b>	AH33
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Corry East / Cloonyeffe
<b>Chainage</b>	19+600
<b>Site Type</b>	Townland Boundary / Possible curvilinear enclosing boundary surrounding AH 35 (a possible enclosure).
<b>NGR/ITM</b>	181026, 287568 / 580982, 787584.
<b>Description</b>	A curving field boundary, with a high bank, runs along the boundary between Corry East and Cloonyeffe. This bank may also be an outer enclosure associated with a smaller, tree-lined enclosure 40m north of the route within Cloonyeffe (SMR RO 016-171). Extensive test excavation within the curved area of the boundary did not reveal archaeological material or features that could be associated with either site. It is visible on the 1 <sup>st</sup> edition six-inch OS map.
<b>Sources</b>	Fieldwork and mapping.  <p>1<sup>st</sup> edition six-inch OS map.</p>
<b>Impact of scheme</b>	Direct, and moderate impact as part of this boundary will be removed.
<b>Proposed mitigation</b>	Preservation by record. A full measured, written, drawn and photographic survey of upstanding elements of the constraint to be undertaken prior to removal. Archaeological monitoring of all groundworks within the boundaries of the constraint will be carried out. Targeted test excavation in order to verify the nature and extent of this boundary.
<b>Approx. distance from route</b>	Within the proposed road development.
<b>Photography</b>	 <p>North facing view of the associated tree-ring (AH35).</p>



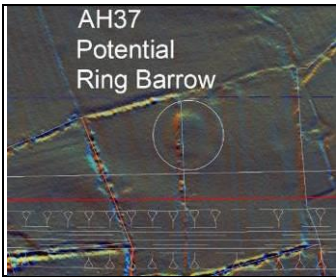

<b>Identification No.</b>	AH34
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Cloonyefferr
<b>Chainage</b>	19+625 – 19+775
<b>Site Type</b>	Possible Pit Field.
<b>NGR/ITM</b>	181039, 287595 / 580995, 787611 – 181152, 287558 / 581108, 787574. LiDAR centrepoint – 181080, 287613 / 581036, 787629.
<b>Description</b>	Two shallow depressions were noted within the field containing the tree ring or possible enclosure (LiDAR No. 35.4, approximately 35m in diameter, it is possibly a former demesne feature). The first pit was orientated east/ west and measured 12m x 5m with a depth of .35m. Due to the presence of animals in the field it was not possible to measure the second pit but it had similar dimension to the first. LiDAR indicates the presence of four pits none of which are within the landtake.
<b>Sources</b>	LiDAR (35.3) & Fieldwork. 
<b>Impact of scheme</b>	The route was realigned so all pits are now be avoided. However geophysical survey (GA2) revealed a strip-field system and a possible oval enclosure (60m x 48m). Advance test excavation (TE3) did not identify any enclosure or any archaeological features in this area. No impact.
<b>Proposed mitigation</b>	A programme of archaeological test trenching will be designed in order to establish the presence or absence, as well as the nature and extent, of any archaeological deposits that may be present within the landtake of the proposed road development. Should any subsurface archaeological stratigraphy associated with this constraint be encountered, an appropriate ameliorative strategy will be implemented. This will entail licensed archaeological excavation in full or part of any identified archaeological remains (preservation by record).
<b>Approx. distance from route</b>	The four pits identified by LiDAR are located immediately north of route.
<b>Photography</b>	 Southeast facing view of first pit.


<b>Identification No.</b>	AH35
<b>Legal Status</b>	Recorded on the 8 <sup>th</sup> of March 2016 as SMR RO016-171
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Cloonyeffer
<b>Chainage</b>	19+700
<b>Site Type</b>	Possible Enclosure
<b>NGR/ITM</b>	181134, 287653 / 581090, 787669.
<b>Description</b>	A tree-lined enclosure 40m north of the route within Cloonyeffer. The townland boundary encircles the feature to the north, west, and east may be a part of a former larger, outer enclosure. It is visible on the 1 <sup>st</sup> edition six-inch OS map as a copse of trees. LiDAR identified the feature as a possible demesne feature however it also states that it is very like a ringfort in appearance and presents as a circular embanked enclosure 33m in diameter.
<b>Sources</b>	Fieldwork, mapping, and LiDAR (35.4).  1 <sup>st</sup> edition six-inch OS map.
<b>Impact of scheme</b>	No impact as the site is avoided.
<b>Proposed mitigation</b>	Avoidance. No mitigation measures are required.
<b>Approx. distance from route</b>	105m north of centre line of proposed development.
<b>Photography</b>	 Northwest facing view of the possible enclosure.

<b>Identification No.</b>	AH36
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Cloonyeffer
<b>Chainage</b>	20+050
<b>Site Type</b>	Possible Enclosure
<b>NGR/ITM</b>	181457, 287462 / 581413, 787478
<b>Description</b>	A raised rectilinear enclosure (measuring 40m east/ west, 24m north/south), defined by a bank (measuring 1.5m in width, 0.6m - 1.1m in height) on the north and west sides. A D-shaped flat topped mound is situated to the southwest of the quadrant, measuring 12m north/south, 9m east/ west and 1m in height. Rocks project out from side of mound, possibly a modern cairn caused by field clearance. As noted in the LiDAR report, the existing rectilinear feature and bank partially corresponds with the farmyard marked on the 1 <sup>st</sup> edition six-inch OS map (see below) and is described as a small, flat-topped mound, 13m in

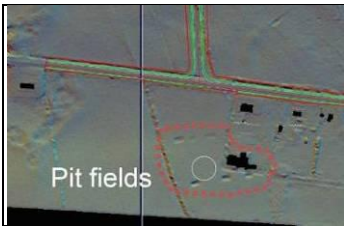

	diameter. It is possibly modern in nature.
<b>Sources</b>	<p>Fieldwork, mapping, and LiDAR (35.6).</p>  <p>1<sup>st</sup> edition six-inch OS map (area of site circled).</p>  <p>LiDAR (35.6).</p>
<b>Impact of scheme</b>	No impact as the site is avoided.
<b>Proposed mitigation</b>	Avoidance. No mitigation measures are required.
<b>Approx. distance from route</b>	70m south of centre line of proposed development.
<b>Photography</b>	 <p>South facing view of the flat topped mound and surrounding bank.</p>

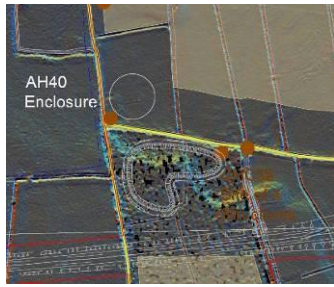

<b>Identification No.</b>	AH37
<b>Legal Status</b>	Recorded on the 8 <sup>th</sup> of March 2016 as SMR RO016-172
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Cloonyeffer
<b>Chainage</b>	20+225
<b>Site Type</b>	Multiple-ditched enclosure with internal mound
<b>NGR/ITM</b>	181635, 297608 / 581590, 787624.
<b>Description</b>	<p>In Cloonyeffer, LIDAR survey identified an enclosure, and field inspection revealed to be a D-shaped mound c.12m north/ south by c.10m east/ west, and 0.70m in height. This is surrounded by a circular internal ditch (up to c.7m in width) and an external bank (up to c.8.5m in width), which is visible from north to east to southeast. Overall site dimensions are c.23m east/ west and c.35m north/ south. It is not visible on historic mapping. LiDAR has recorded the extent of this site as 47m in diameter with an inner ditch and central platform 32m in diameter. Field work identified the feature as a possible barrow or multiple ditched enclosure.</p> <p>Geophysical survey (GA3) produced results of a very clear and coherent trivallate enclosure complex.</p>

<b>Sources</b>	Fieldwork and LiDAR (35.5) (highlighted as an enclosure). 
<b>Impact of scheme</b>	No impact as the site is avoided.
<b>Proposed mitigation</b>	Avoidance. Following the geophysical survey results (GA3) which displayed a multiple ditched enclosure with internal central mound/ trivallate enclosure complex, the proposed road development was realigned to the south and the site is now avoided.
<b>Approx. distance from route</b>	75m to the north of the centreline of the route.
<b>Photography</b>	 East facing view of the potential archaeological feature.

<b>Identification No.</b>	AH38
<b>Legal Status</b>	Recorded Monument – Redundant Record.
<b>RMP Reference No.</b>	RO016-152
<b>Townland</b>	Cloonyeffer
<b>Chainage</b>	20+375
<b>Site Type</b>	Redundant Record
<b>NGR/ITM</b>	181804, 287656 / 581759, 787672
<b>Description</b>	<p>The site is visible on aerial photograph (ACAP V206/45). It is a rectangular quarry (dimensions c. 30m x c. 20m; depth c. 0.5-1m). Compiled by: Michael Moore Date of upload: 24 August 2010 Date of last visit: 06 August 2004 <a href="http://www.archaeology.ie">www.archaeology.ie</a></p>  <p>This is a rectangular grass covered quarry (diameter c.30m x c. 20m depth 0.5m) with a small spoil mound (grass covered) nearby. Compiled by: Mick Moore Date: 5.September 2004 The aerial photograph on file in the archive does appear to show a circular</p>

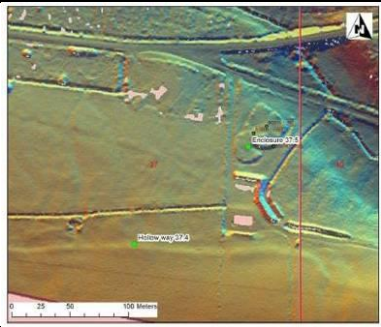
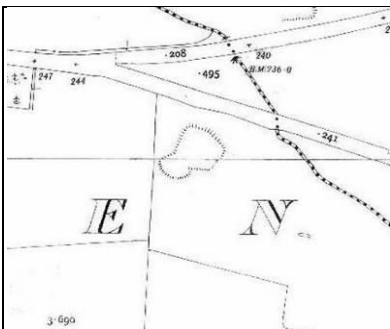


	feature with central mound.
<b>Sources</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a> Michael Moore 2004 National Monuments RMP File
<b>Impact of scheme</b>	No impact, site avoided.
<b>Proposed mitigation</b>	Avoidance. No mitigation measures are required.
<b>Approx. distance from route</b>	The site is 120m to the north of the centreline.

<b>Identification No.</b>	AH39
<b>Legal Status</b>	Recorded Monument
<b>RMP Reference No.</b>	RO022-011
<b>Townland</b>	Clogher More
<b>Chainage</b>	20+675
<b>Site Type</b>	Pit field
<b>NGR/ITM</b>	182109, 287307 / 582064, 787323.
<b>Description</b>	<p>LiDAR recorded rectangular six pits (c. 10m x 5m) north of the recorded monument (RO022-011). These pits occurred in two parallel lines trending east-west.</p> <p>Three pits were recorded in the field as lying c.45m south of the upgraded auxiliary road – the first pit was the most visible in the field measuring 7m east/ west by 4m north/ south and 0.5m in depth. The second pit is 11m east of the first but just presents itself as a slight depression, while the third pit is not really visible, just a very slight depression in the ground, 30m east of the first pit. These depressions aren't visible on the 1<sup>st</sup> edition six-inch Ordnance Survey mapping or any historical maps examined. A number of similar depression features making up the pit field appear to be spread throughout this field and the adjacent field to the east.</p> <p>A pit field (RO022-011) is recorded 200m (to the centre point) south of an ancillary road.</p>
<b>Sources</b>	<p>RMP, Fieldwork and LiDAR (37.1)</p> 
<b>Impact of scheme</b>	No impact.
<b>Proposed mitigation</b>	Avoidance. No mitigation proposed as the newly revealed features will not be affected by the proposed scheme.
<b>Approx. distance from route</b>	Over 100m south of the proposed road development.
<b>Photography</b>	 <p>Northeast facing view of first depression within Pit field.</p>

<b>Identification No.</b>	AH40
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Cartronagor
<b>Chainage</b>	21+000
<b>Site Type</b>	Possible enclosure
<b>NGR/ITM</b>	182413, 287744 / 582368, 787760
<b>Description</b>	LiDAR identified a possible rectangular enclosure, low in profile and 21m x 13m in extent as a possible farmstead. The area presents as flat open pasture fields of former bogland, surrounded by deep ditches and forestry. The potential site is located to the southeast of a proposed material recovery area. A field inspection revealed that the area of enclosure is green flat land with a scrub surround (two small scrub trees appear on the site). The 1st edition six-inch OS map depicts a structure on the site within a rectangular plot. The remains of which the LiDAR survey may have detected. There is no surface evidence of any feature. A proposed attenuation pond appears to the immediate south within forestry.
<b>Sources</b>	RMP, Fieldwork and LiDAR (37.2) 
<b>Impact of scheme</b>	No direct impact.
<b>Proposed mitigation</b>	Avoidance. No mitigation measures are necessary.
<b>Approx. distance from route</b>	45m east of proposed material recovery area and 50m north of proposed attenuation pond to the centre point of the LiDAR ID.
<b>Photography</b>	 North facing view of area detected by LiDAR survey.

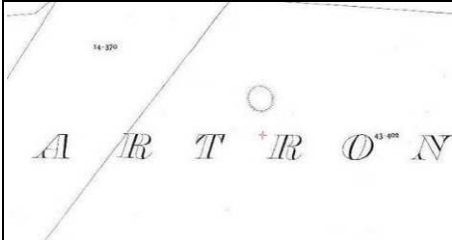
<b>Identification No.</b>	AH41
<b>Legal Status</b>	Recorded Monuments.
<b>RMP Reference No.</b>	RO016-115001 (Ringfort) RO016-115002 (Enclosure) RO016-115003 (House)
<b>Townland</b>	Raheen
<b>Chainage</b>	21+750
<b>Site Type</b>	Ringfort/ Enclosure and House Site
<b>NGR/ITM</b>	183016, 287247 / 582971, 787247 (Ringfort) 183005, 287225 / 582960, 787241 (Enclosure)

	<p>183022, 787214 / 582977, 787230 (House) LiDAR centre point 183000, 287213 / 582955, 787229</p>
<p><b>Description</b></p>	<p>Three recorded monuments appear clustered together within the grounds of Raheen House, a ringfort (RO016-115001), an enclosure (RO016-115002), and a house (RO016-115003) lie within a field that is c.10m south of an ancillary road improvement. The monuments are not recorded on the 1<sup>st</sup> edition OS mapping.</p> <p>The ringfort site (RO016-115001) is situated in poorly drained, boggy land on the lower slope of a large, high ridge running east/ west. The site slopes down from the south to the north. On the west the site is closely bounded by a modern field fence. The site consists of a ringfort with annex to the south. The ringfort measures 32m north/ south, 27m east/ west (crest – to – crest of bank) and is almost circular. On the west side the internal bank has been partially destroyed. The original entrance may be on this side, as no other entrance, modern or otherwise is apparent. The internal bank is best preserved on the south side and is 2.3m wide, rising 1m from the interior of the fort, and 2.1m from the exterior. The bank has a large quantity of stone in make-up and this is probably the remains of stone revetment. Outside the bank is a ditch, 2m wide, and very wet on the east side, the ditch is 30 cm below the level of the ground outside, and 60cm below the annex. To the south of the ringfort is a D-shaped annex, rising 30-60cm above ground-level, with no apparent trace of a bank. The annex measures 12m north/ south, 21 m east/ west.</p> <p>On the east side of the ringfort is an outer bank 1.5m wide, 40-50cms high, which runs for 8m of the circumference of the ringfort. This is badly eroded. Built into the inside of the bank of the ringfort on the southwest side is a house-site (see RO016-115003 below). There is an entrance to north and the bank of the ringfort is used as the rear wall.</p> <p>Compiled by : Victor Buckley Date : May 1982</p> <p>The enclosure site (RO016-115002) is located towards the bottom of a north-facing slope with a northwest/ southeast flowing stream located c. 40m to the north of it. The site is a D-shaped grass-covered area (dimensions 21m east/ west; 12m north/ south) defined by a scarp (height 0.3-0.6m). The site is attached to the south of rath (RO016-115001).</p> <p>Compiled by: Michael Moore Date of upload: 24 August 2010 Date of last visit: 05 July 1995</p> <p>A house site is attached to the inside of the bank of rath (RO016-115001-) at the southwest. It is a rectangular area, measuring 3.7m north/ south and 2.5m east/ west, defined by earthen banks. The banks are constructed of stone and earth from the east to west rising to 50cm in height.</p> <p>Compiled by: Michael Moore Date of upload: 24 August 2010 Date of last visit: 05 July 1995 Date of last visit: 05 July 1995</p>
<p><b>Sources</b></p>	<p>Victor Buckley, 1982, National Monuments RMP File, 25-inch OS mapping, and LiDAR (37.5).</p>

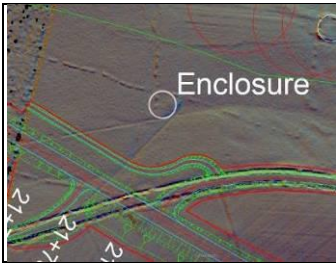
	 <p>LiDAR results.</p>  <p>25-inch OS mapping</p>
<b>Impact of scheme</b>	No impact, located within private ownership.
<b>Proposed mitigation</b>	Avoidance. Test excavation will occur within the landtake, along the route and the upgrade to the private access route.
<b>Approx. distance from route</b>	Centre of ringfort (and the concentration of the three sites) is 35m south of an ancillary road, 290m south west of the main route.
<b>Photography</b>	 <p>Southeast facing view. Road to be upgraded is to the left, private grounds containing the three Recorded Monuments (RO016-115001, RO016-115002, RO016-115003) into the right. The access road is also to be upgraded and is located approximately 15m west of the complex of the monuments.</p>
<b>Photography</b>	 <p>South southwest facing view of the three Recorded Monuments (RO016-115001, RO016-115002, RO016-115003).</p>

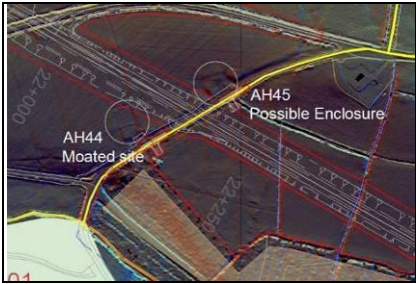
<b>Identification No.</b>	AH42
<b>Legal Status</b>	Recorded Monument.
<b>RMP Reference No.</b>	RO016-114

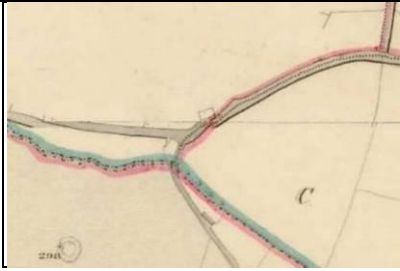



<b>Townland</b>	Cartronagor
<b>Chainage</b>	21+700
<b>Site Type</b>	Ringfort
<b>NGR/ITM</b>	183143, 287594 / 583098, 787610
<b>Description</b>	<p>The Sites and Monuments Record have two recordings of this site: The site is located on a low east/ west ridge. The site is a circular grass-covered but poached area (diameter 20m east/ west; 19m north/ south). It is defined by a gapped earthen bank (width 2.65-3.4m; internal height 0.1-0.35m; external height 0.6-0.65m). From north to south-southwest the bank is reduced to a scarp (height 0.65m) with an outer fosse (width 3.1m; depth 0.2m) visible on northeast/ southeast side. There is no visible entrance. Compiled by: Michael Moore Date of upload: 24 August 2010 <a href="http://www.archaeology.ie">www.archaeology.ie</a></p> <p>The site consists of a roughly circular area surrounded by an earthen-stone bank. The interior is level with the south half covered with reeds and rushes. The bank is very low and defaced. Sited on crest of east/ west ridge of wet average grass land. Site dimensions east/ west 10.50m, north/ south 20m. The site consists of the remains of a small circular ringfort 19-20m in internal diameter. The edges of the ringfort's interior are defined by a low eroded grassed earthen bank on the sites northern, eastern, southern and south southwestern sides. This bank has an overall width of 2.65m (at east) – 3.4m (at north). Its top is ruined. Compiled by: Anne Gannon Date: 26<sup>th</sup> July 1971 The site is now located within a clearing in a forestry plantation and LiDAR survey also detected an enclosure (26m in diameter) at this point.</p>
<b>Sources</b>	<p>LiDAR survey (40.6), OPW Field Notes, Anne Gannon Field Survey 1970-1972 (Unpublished), National Monuments RMP File <a href="http://www.archaeology.ie">www.archaeology.ie</a></p>  <p>25-inch OS Map</p>
<b>Impact of scheme</b>	No impact
<b>Proposed mitigation</b>	Avoidance. No mitigation measures are necessary.
<b>Approx. distance from route</b>	90m northeast of centreline of proposed route.

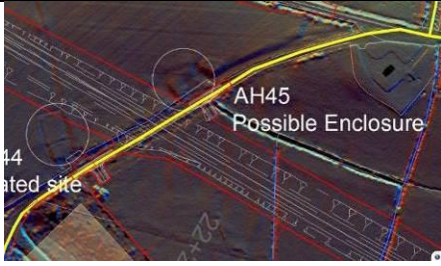

<b>Identification No.</b>	AH43
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Cartronagor
<b>Chainage</b>	21+925
<b>Site Type</b>	Possible Enclosure.
<b>NGR/ITM</b>	183356, 287464 / 583311, 787480.


<b>Description</b>	LiDAR identified an oval, raised enclosure site (30.5m x 17m in diameter). In the field this presents as a raised area defined by partially surviving bank apart from the west and south west. Dimensions are approximately 29m east-west and 26m north-south with an external ditch 1.6-1.8m in width and 0.3-0.4m in height. No cartography depicts any archaeological features at this point.
<b>Sources</b>	LiDAR (40.5) results. 
<b>Impact of scheme</b>	No direct, physical impact.
<b>Proposed mitigation</b>	Avoidance. No mitigation measures are required.
<b>Approx. distance from route</b>	55m northwest of centre line of ancillary road to the centre point of the LiDAR feature. 90m northeast of centreline of main route.


<b>Identification No.</b>	AH44
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Cartronagor
<b>Chainage</b>	22+100
<b>Site Type</b>	Possible rectangular enclosure site.
<b>NGR/ITM</b>	183431, 287260 / 583386, 787276
<b>Description</b>	LiDAR identified a possible moated site c.10m south of the route, though fieldwork failed to reveal definitive evidence of this. The survey records the possible site as a rectangular ditched enclosure 27m x 19m and states that it is probably associated with a small rectangular enclosure marked on the 1 <sup>st</sup> edition OS mapping. Geophysical survey (GA4) produced no significant findings, possible field ditches and boundaries within the landtake. In the field a possible bank c.50m in length runs along the eastern side of the feature, with a scarp defining the southwest corner of the feature, c.25m to the west. The 1 <sup>st</sup> edition six-inch Ordnance Survey records a rectilinear enclosure with a building on the south side of it, adjacent to this possible feature.
<b>Sources</b>	Fieldwork and LiDAR (40.3). 

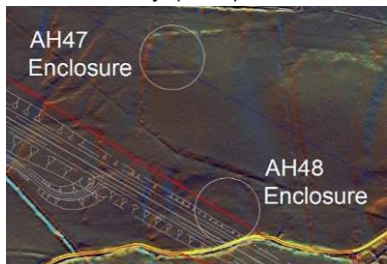

	 <p>1<sup>st</sup> edition six-inch OS map.</p>
<b>Impact of scheme</b>	<p>Direct and possible moderate impact. Part of the potential site is located within the landtake likely to be part of a historic field boundary (1<sup>st</sup> edition six-inch OS map). The presence of a LIDAR identified enclosure (AH45) 110m to the northeast suggests archaeological activity in the environs. The route runs between both sites.</p>
<b>Proposed mitigation</b>	<p>Preservation by record. Targeted test excavation of the potential site that lies partially within the landtake and test excavation of the wider area within the landtake.</p>
<b>Approx. distance from route</b>	<p>45m from centreline to the centre of the LiDAR ID, the feature will be impacted by the proposed route.</p>
<b>Photography</b>	 <p>Southeast facing view of possible enclosure site.</p>

<b>Identification No.</b>	AH45
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Cartronagor
<b>Chainage</b>	22+175
<b>Site Type</b>	Possible Enclosure.
<b>NGR/ITM</b>	183532, 287304 / 583487, 787320.
<b>Description</b>	<p>LiDAR identified an enclosure site defined as two ditch sections bisected by the road. The possible feature is defined by rising ground on eastern side and nothing visible on the northern and southern sides. Traces of an incomplete bank is located on the western side. The feature is c. 15m north-south and 36m east-west. Bounded by laneway to south and the remains of a dry stone, low wall are apparent along the southern side. The interior has a raised appearance but it is not clear if it is archaeological in nature or due to more recent disturbance. Cartographic sources do not depict any archaeological features at this point.</p> <p>Geophysical survey (GA4) produced no significant findings, possible field ditches and boundaries within the landtake.</p>
<b>Sources</b>	LiDAR (40.4) results.

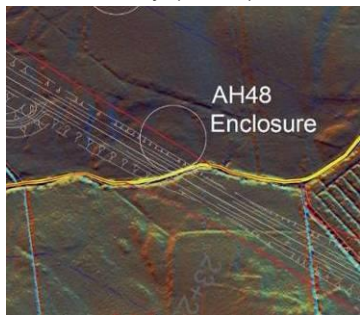

		
<b>Impact of scheme</b>	No physical impact.	
<b>Proposed mitigation</b>	Avoidance. Test excavation of the proposed route will take place to the immediate southwest. This site is outside the CPO area.	
<b>Approx. distance from route</b>	Adjacent to the laneway upgrade to the southeast of the field. 10m northeast of the proposed landtake. 40m northeast of centre line of proposed road development.	
<b>Photography</b>		South facing view of area detected by LiDAR.

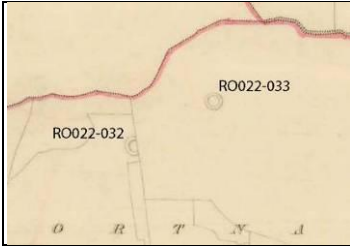

<b>Identification No.</b>	AH46	
<b>Legal Status</b>	Recorded on the 8 <sup>th</sup> of March 2016 as SMR RO022-163	
<b>RMP Reference No.</b>	NA	
<b>Townland</b>	Creeve	
<b>Chainage</b>	22+950	
<b>Site Type</b>	Possible Burnt Mound.	
<b>NGR/ITM</b>	184137, 286768 / 584092, 786784.	
<b>Description</b>	LiDAR identified a possible burnt mound site in low-lying ground. The site presents as a nicely preserved mushroom shaped mound (diameter 12m east/ west, 11m north/south, height 0.35m – highest at northern end) surrounded by slightly waterlogged grassy terrain. Cartographic sources do not depict any archaeological features at this point.	
<b>Sources</b>		LiDAR survey (42.7) and field inspection.
<b>Impact of scheme</b>	Located within the landtake, no works are anticipated within this area and the site will be fenced off during construction. No direct impact is anticipated.	
<b>Proposed mitigation</b>	Avoidance and preserved in-situ. Test excavation will take place within the proposed landtake.	
<b>Approx. distance</b>	Located within the landtake for the proposed road development. 85m south	

<b>from route</b>	of proposed attenuation pond to the centre point of the LiDAR ID.
<b>Photography</b>	 <p>Northeast facing view of possible burnt mound.</p>

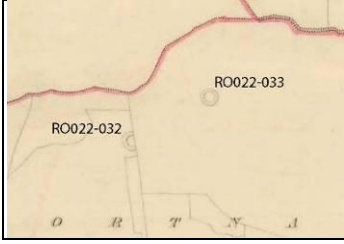

<b>Identification No.</b>	AH47
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Creeve
<b>Chainage</b>	23+075
<b>Site Type</b>	Possible Enclosure.
<b>NGR/ITM</b>	184348, 286904 / 584303, 786920
<b>Description</b>	LiDAR recorded a possible rectangular enclosure (39m x 29m). In the field a large platform area was evident with a slight fosse. Measurements of site were approximately 45m east/ west, 25m north/ south, height 0.3m.
<b>Sources</b>	LiDAR survey (42.9) and field inspection 
<b>Impact of scheme</b>	No impact
<b>Proposed mitigation</b>	Avoidance. No mitigation required.
<b>Approx. distance from route</b>	105m northeast of centre line of proposed road development.
<b>Photography</b>	 <p>Northeast facing view of enclosure.</p>

<b>Identification No.</b>	AH48
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Creeve
<b>Chainage</b>	23+175
<b>Site Type</b>	Possible Enclosure.

<b>NGR/ITM</b>	184391, 286786 / 584346, 786802.
<b>Description</b>	<p>LiDAR recorded an oval enclosure measuring 26m x 19m. Field inspection revealed a very slight rise in the field, with a possible ditch running from northeast to southeast and from southwest to north northwest, defining an area roughly oval in plan, measuring c.22m east/ west by c.16m north/ south. Ephemeral remains.</p> <p>Geophysical survey (GA5) produced no significant findings, a possible small field rectilinear enclosure, drainage ditches and an historic field boundary (visible on the 1<sup>st</sup> edition six inch OS map).</p>
<b>Sources</b>	<p>LiDAR survey (42.10) and field inspection.</p> 
<b>Impact of scheme</b>	Potentially moderate impact, located partially within the landtake. This site was subjected to geophysical survey (GA 5) which produced no significant findings interpreted the site as a possible small field enclosure.
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation of the section of the possible enclosure within the landtake and test excavation of the wider area within the landtake.
<b>Approx. distance from route</b>	Southern extent of this enclosure is on the route (22m from the centreline line to centre of site).
<b>Photography</b>	 <p>Southeast facing view of Enclosure.</p>
<b>Identification No.</b>	AH49
<b>Legal Status</b>	Recorded Monument
<b>RMP Reference No.</b>	RO022-032
<b>Townland</b>	Gortnacranagh
<b>Chainage</b>	23+350
<b>Site Type</b>	Ringfort
<b>NGR/ITM</b>	184491, 286631 / 584446, 786647
<b>Description</b>	<p>Whilst this ringfort appears on historic mapping, and has been disturbed (bulldozed) in the past, fieldwork revealed visible traces. A raised platform is surrounded by a ditch with no traces of an internal bank, roughly semi-circular in plan and largely truncated by a field boundary and land improvement practices. There are also features present to the east of the field fence and the site overall has the appearance of a circular ringfort approximate 40m in diameter.</p> <p>The site is marked as a circular area (external diameter c. 40m-45m) on the 1837 and 1927 eds. of the OS 6-inch map, and situated on a shelf of a</p>

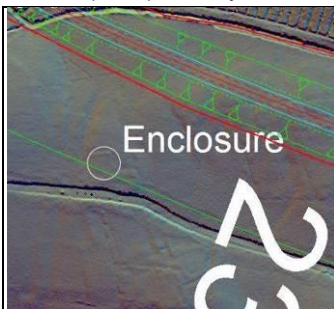

	<p>northwest-facing slope. The site consists of a D-shaped grass-covered area (dimensions 30m east/ west; c. 30m north/ south) defined by a fosse (width of top 5m; max. depth 0.2m) in the south and west sections. There is a north/ south field wall just to the east and nothing is visible east of this feature. Rath (RO022-033) is c. 150m to the northeast.</p> <p>Compiled by: Michael Moore Date of upload: 24 August 2010 Date of last visit: 08 August 1995 Date of last visit: 08 August 1995 <a href="http://www.archaeology.ie">www.archaeology.ie</a></p> <p>The site has been bulldozed, there remains slight traces of the bank to the east of the northwest/ southeast trending field fence. Sited on shelf of ridge of average/wet grazing land.</p> <p>Compiled by: Anne Gannon Date: 3<sup>rd</sup> February 1971</p>
<b>Sources</b>	<p>LiDAR survey (42.5) and field inspection, Anne Gannon Field Survey 1970-1972 (Unpublished) National Monuments RMP File <a href="http://www.archaeology.ie">www.archaeology.ie</a></p>  <p>1<sup>st</sup> edition six-inch OS map.</p>
<b>Impact of scheme</b>	No direct impact on this recorded monument.
<b>Proposed mitigation</b>	Avoidance. Test excavation within the landtake of the proposed road development.
<b>Approx. distance from route</b>	60m south of centreline of route to the centre point of the RMP and 65m south of centreline of route to the centre point of the LiDAR ID.
<b>Photography</b>	 <p>Southwest facing view of site of RO022-032.</p>

<b>Identification No.</b>	AH50
<b>Legal Status</b>	Recorded Monument.
<b>RMP Reference No.</b>	RO022-033
<b>Townland</b>	Gortnacranagh
<b>Chainage</b>	23+450
<b>Site Type</b>	Ringfort
<b>NGR/ITM</b>	184669, 286738 / 584624, 786754
<b>Description</b>	Ringfort with annex attached to northwest side. Interior is overgrown with reeds and it is situated on a rise surrounded by marshy, poorly drained land. A bank and ditch are well defined and the ringfort internally measures 23m north-south and 17m east-west. The bank is 2.5m in width and 1.2m in height above the ditch on the northern side. The ditch varies from 2.5-3.5m

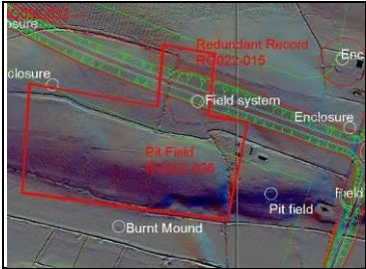
	<p>in width and the annex is c. 12m east-west and 19m north south and defined by a scarp not necessarily a ditch. The bank is not as well preserved on southern side of ringfort.</p> <p>The RMP records the site in 1995 as follows: The site is located on a slight northwest/ southeast ridge. The site consists of a circular grass and reed-covered area (diameter 26.8m north northwest/ south southeast; 26.4m east northeast/ west southwest) defined by an overgrown earthen bank (width 2.8m; internal height 0.1-0.2m; external height 0.5-0.8m), which is reduced to a scarp (height 0.7m) south/ west. A fosse (width of top 4.7m; width of base 2.4m; max. depth 0.4m) is evident in the east southeast/ west southwest section. There is an entrance (width 2m) at east southeast. A flat-topped grass-covered mound (diameter of base 6m; height 0.4m) against the inside of the perimeter at northwest may be spoil from shallow quarries in the east of the interior. Rath (RO022-032) is c. 150m to the southwest.</p> <p>Compiled by: Michael Moore Date of upload: 24 August 2010 Date of last visit: 08 August 1995 <a href="http://www.archaeology.ie">www.archaeology.ie</a></p>
<b>Sources</b>	<p><a href="http://www.archaeology.ie">www.archaeology.ie</a>, RMP, and 1st edition <a href="#">six-inch OS map (see below)</a>, <a href="#">LiDAR survey (42.6)</a> and <a href="#">field inspection</a></p> 
<b>Impact of scheme</b>	<p>No direct impact as the recorded monument lies outside the landtake to the north of the proposed road development.</p>
<b>Proposed mitigation</b>	<p>Avoidance. Test excavation along the landtake of the proposed road development.</p>
<b>Approx. distance from route</b>	<p>103m north of route of the centre line to the centre of the recorded monument and from the centre point of the route to the centre of the LiDAR ID is 110m.</p>
<b>Photography</b>	 <p>Southwest facing view of site of RO022-033.</p>

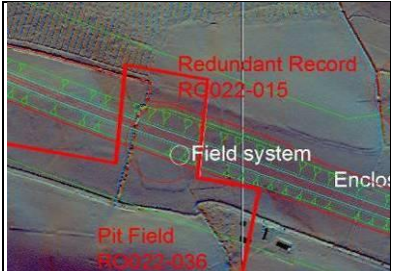
<b>Identification No.</b>	AH51
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Gortnacranagh
<b>Chainage</b>	23+525
<b>Site Type</b>	Possible Enclosure.
<b>NGR/ITM</b>	184660, 286520 / 584615, 786536.




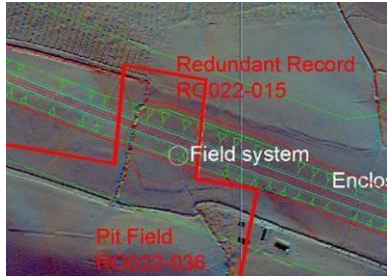
<b>Description</b>	<p>LIDAR recorded an enclosure approximately 19m x 19m.</p> <p>Field work revealed the following: the enclosure is rectilinear in plan and defined by a slight fosse 0.3m in depth and c. 3m wide. It is c. 27m north-south and 30m east-west in its full extent. There is an additional enclosure attached to the southeast corner of the main site. It is c. 24m east-west and c. 17m north-south, in this instance it is defined by a slight scarp.</p> <p>No evidence of a record on any historic mapping.</p>
<b>Sources</b>	<p>LiDAR (42.4) survey and field inspection.</p> 
<b>Impact of scheme</b>	No impact as the site lies to the south and outside the landtake for the proposed road development.
<b>Proposed mitigation</b>	Avoidance. No mitigation required.
<b>Approx. distance from route</b>	93m south-southeast of the centre line of the proposed route from the centre of the LiDAR ID.
<b>Photography</b>	 <p>Southeast facing view of Enclosure.</p>

<b>Identification No.</b>	AH52
<b>Legal Status</b>	Recorded Monument.
<b>RMP Reference No.</b>	RO022-036
<b>Townland</b>	Gortnacranagh
<b>Chainage</b>	23+500 - 23+950
<b>Site Type</b>	Pit field
<b>NGR/ITM</b>	184947, 286339 / 584901, 786355 (RMP point)
<b>Description</b>	<p>Not evident on historic cartography and a field survey failed to discovery any related features. The designated RMP area is T-shaped, covers a large field, and incorporates the site of a designated Redundant Record (RO022-015).</p> <p>RMP file records note:</p> <p>The site is visible on aerial photograph (ACAP V206/54, 53), and situated on the south-facing slope of a broad east/ west ridge. An area of c. 5 hectares has a few shallow pits (dimensions c. 10m x c. 2m) generally aligned east/ west.</p> <p>Compiled by: Michael Moore Date of upload: 24 August 2010 Date of last visit: 08 August 1995 <a href="http://www.archaeology.ie">www.archaeology.ie</a></p>


	A pit field was identified by LiDAR in the next field, which is unaffected by the proposed route and is situated outside the 100m buffer zone. Clear pock marks within the terrain are visible. This field may in fact be the intended placement area of the RMP site on the RMP map, which was based initially on aerial photography.
<b>Sources</b>	Field inspection and the RMP, <a href="http://www.archaeology.ie">www.archaeology.ie</a> 
<b>Impact of scheme</b>	No impact, the pit field (RO022-036) is outside and to the south of the proposed landtake, the area containing redundant record (RO022-015) is located within the proposed road development.
<b>Proposed mitigation</b>	Avoidance. No mitigation required.
<b>Approx. distance from route</b>	RMP pit field (RO022-036) site is outside the proposed landtake.

<b>Identification No.</b>	AH53
<b>Legal Status</b>	Recorded Monument
<b>RMP Reference No.</b>	RO022-015
<b>Townland</b>	Gortnacranagh
<b>Chainage</b>	23+750-23+850
<b>Site Type</b>	Redundant Record – possible Earthworks
<b>NGR/ITM</b>	184943, 286500 / 584897, 786516
<b>Description</b>	The site is located on the gentle south-facing slope of an east/ west ridge. There were some possible earthworks visible on aerial photograph (ACAP V206/47-8), but nothing is visible at ground level in pasture. Compiled by: Michael Moore Date of upload: 24 August 2010 Date of last visit: 08 August 1995 <a href="http://www.archaeology.ie">www.archaeology.ie</a> The possible earthworks mentioned above (which were not visible at ground level) may relate to the features identified by LIDAR, which have been judged to be a possible field system (42.3) (see next entry, AH54).
<b>Sources</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a> and fieldwork. 
<b>Impact of scheme</b>	Direct, on the route. Part of a newly identified field system will be impacted. Moderate impact.

<b>Proposed mitigation</b>	Preservation by record. Geophysical survey (GA6) produced anomalies consistent with a field system within the proposed landtake. Targeted test excavation of the section of the possible earthworks/ field system within the landtake and test excavation of the wider area within the landtake.
<b>Approx. distance from route</b>	On the route
<b>Photography</b>	 <p>South facing view of identified area.</p>


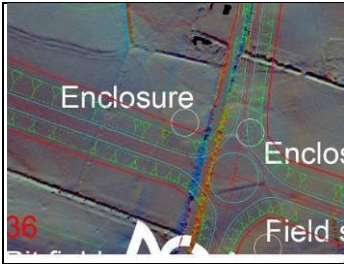
<b>Identification No.</b>	AH54
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Gortnacranagh
<b>Chainage</b>	23+825
<b>Site Type</b>	Possible Field System.
<b>NGR/ITM</b>	184962, 286486 / 584917, 786502
<b>Description</b>	LIDAR results flagged a potential field system consisting of a rectangular enclosure defined by low banks which is likely to be post medieval in date. No surface trace on inspection in the field. No relict field system was recorded by the 1 <sup>st</sup> edition six-inch Ordnance Survey. This field system is recorded in the area of the previous redundant record (RO022-015).
<b>Sources</b>	<p>LIDAR (42.3) and field inspection</p>  <p>LIDAR result. Field system located in the same area as the redundant record.</p>
<b>Impact of scheme</b>	Direct, on the route. Part of a newly identified field system will be impacted. Moderate impact.
<b>Proposed mitigation</b>	Preservation by record. Geophysical survey (GA6) produced anomalies consistent with a field system within the proposed landtake. Targeted test excavation of the section of the possible earthworks/ field system within the landtake and test excavation of the wider area within the landtake.
<b>Approx. distance from route</b>	On the route.


<b>Photography</b>	 <p>Southeast facing view of identified area.</p>
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<b>Identification No.</b>	AH55
<b>Legal Status</b>	Recorded Monument
<b>RMP Reference No.</b>	RO022-035
<b>Townland</b>	Gortnacranagh
<b>Chainage</b>	24+075
<b>Site Type</b>	Ringfort
<b>NGR/ITM</b>	185264, 286562 / 585218, 786578
<b>Description</b>	<p>The LiDAR survey describes this site as a sub circular enclosure, cut by linear field bank east-west. Diameter c. 36m.</p> <p>The Sites and Monuments Record describe the site as: 'Located on a rise at the east end of a broad ridge. The site consists of a circular grass-covered area (33.4m north/ south; 32.3m east/ west) defined by an earthen bank (width 3-3.7m; internal height 0.2-0.3m; external height 0.9-1.1m) southwest/ northeast, with a fosse (width of top 5m; width of base 2.4m; depth 0.1m). The perimeter is defined by a scarp (height 0.8m) running from the south to the southwest, but cannot be traced elsewhere. There are entrances at the north northwest (width 2.4m) and the north northeast (width 3m). An east/ west farm track overlies the south part of the site'.</p> <p>Compiled by: Michael Moore Date of upload: 24 August 2010 Date of last visit: 08 August 1995</p>
<b>Sources</b>	<p>LiDAR (45.6), field inspection and RMP files</p> <p><a href="http://www.archaeology.ie">www.archaeology.ie</a></p>
<b>Impact of scheme</b>	No impact
<b>Proposed mitigation</b>	Avoidance. No mitigation measures are necessary, a farmyard and associated buildings stand between the site and the proposed road development.
<b>Approx. distance from route</b>	70m from the centre of the RMP to the centre of the ancillary road and 72m west of a centre line of ancillary road from the LiDAR ID.
<b>Photography</b>	 <p>Northeast facing view toward RO022-035.</p>

<b>Identification No.</b>	AH56
<b>Legal Status</b>	Recorded Monument.

<b>RMP Reference No.</b>	RO022-039
<b>Townland</b>	Ross Beg
<b>Chainage</b>	24+150
<b>Site Type</b>	Ringfort
<b>NGR/ITM</b>	185099, 285894 / 585053, 785910 (RMP centre point)
<b>Description</b>	<p>LiDAR survey records this as a large platform rath, approx. 39m in diameter, however it mis-identifies the feature as RO022-023, which is in fact a trackway in Clogher More.</p> <p>RMP: The site is located on a shelf at the west end of an east/ west valley. The site consists of a circular grass-covered platform (diameter 33.6m east/ west; 32m north/ south) defined by an earthen bank (width 4.4m; internal height 0.2m; external height 1.2m) and a scarp (height 0.3m at east to 1.4m at north). There is no visible fosse, but the entrance (width 3m) is at south southeast.</p> <p>Compiled by: Michael Moore Date of upload: 24 August 2010 Date of last visit: 09 August 1995 <a href="http://www.archaeology.ie">www.archaeology.ie</a></p> <p>This is a flat platform (diameter 31.9m north/ south, 33.6m east/ west). It is defined by a scarp which ranged in height from 0.3m east to 880cm south and 1.9m north. This height is related to the undulating ground level outside.</p> <p>There are traces of a bank from southwest (220°) to north northwest (350°). At the west it is 4.4m wide with 0.2m high internally and 1.2m high externally. This stretch of bank is interrupted by 5 small quarry dumps of spoil adjacent and the bank is not in good condition.</p> <p>The defining scarp becomes very indistinct at the east and there is a dip of a possible ramp entrance (width 3m) at the south southeast (170 °).</p> <p>There is an old field bank going east to west c. 10m south of the site and a modern field bank c. 10m to the west.</p> <p>There is absolutely no visible evidence of a fosse and the interior is completely level. Basal dimensions 36.7m north/ south, 37m east/ west. This is a very eroded site and it should perhaps be classified as an enclosure.</p> <p>Compiled by :Mick More Date: 1995</p> <p>The site consists of a roughly circular area enclosed by the remnants of a defaced earthen-stone embankment. The interior is level and is of a semi platform type. The embankment/bank has many gaps and cow tracks through it. The east portion is much defaced. At northeast section a quarry skirts and encroaches in the earthwork. The site is located on the crest of east/ west rib of undulating shelf of ridge of average grazing land with wet land to north.</p> <p>Diameter north/ south 31m, east/ west 32.</p> <p>Compiled by: Anne Gannon Date: 3<sup>rd</sup> February 1971</p>
<b>Sources</b>	<p>LiDAR (44.2) and field inspection and Anne Gannon Field Survey 1970-1972 (Unpublished)</p> <p>National Monuments RMP File <a href="http://www.archaeology.ie">www.archaeology.ie</a></p>

		
	1st edition six-inch OS map	
<b>Impact of scheme</b>	No impact	
<b>Proposed mitigation</b>	Avoidance. No mitigation measures are required.	
<b>Approx. distance from route</b>	65m west of the centre line of an upgrade for an ancillary road from the centre of the RMP and 65m from the centre of the LiDAR ID.	
<b>Identification No.</b>	AH57	
<b>Legal Status</b>	NA	
<b>RMP Reference No.</b>	NA	
<b>Townland</b>	Gortnacranagh	
<b>Chainage</b>	24+150	
<b>Site Type</b>	Enclosure.	
<b>NGR/ITM</b>	185279, 286430/ 585234, 786446	
<b>Description</b>	<p>LiDAR revealed a possible enclosure northwest of proposed roundabout on the intersection between the proposed route and the pre-existing N61 road. The site is described as a circular platform with radiating field boundaries. Possibly later in date, diameter c. 41m. Field survey did not reveal any surface trace. Not visible on 1<sup>st</sup> edition six-inch OS map.</p> <p>Geophysical survey (GA7) revealed a ditched enclosure, oval in plan and measuring 52m (northwest-southeast) x 42m in width. The eastern side of the enclosure is located under the current N61 (resultant loss of 6% of the site). There are indications of pits and possible internal divisions and possible annexes to the west. The cultivation ridges appear to respect the monument which would suggest that the enclosure was extant at the time of cultivation (Earthsound 2016).</p> <p>Testing confirmed that these features were archaeological in nature and dating evidence suggests that internal ringditch associated with Enclosure (AH57) is an early medieval feature (D-AMS 018487) (AD 554-642). The pit (F36) was also dated to the early medieval period (D-AMS 019281) (AD611-670).</p>	
<b>Sources</b>	<p>LiDAR (45.5) and field inspection.</p> 	
<b>Impact of scheme</b>	Direct and significant impact, the southern part of the enclosure extends into landtake. Geophysical survey (GA7) identified the presence of below ground archaeological features and advance test excavation (TE4) confirmed that these anomalies were archaeological and early medieval in	




	nature.
<b>Proposed mitigation</b>	Preservation by record. Excavation of the southern part of the enclosure located within the landtake and test excavation of the wider area within the landtake.
<b>Approx. distance from route</b>	Located adjacent to road. 35m from centreline of proposed road to the LiDAR ID centrepoint.
<b>Photography</b>	 <p>West northwest facing view of area identified by LiDAR.</p>





**Shankill Interchange and N61/R369 Junction Upgrade. Works are located to the north of the proposed route.**

<b>Identification No.</b>	Shankill AH A
<b>Legal Status</b>	3 Recorded Monuments
<b>RMP Reference No.</b>	RO016-123001/002/003
<b>Townland</b>	Shankill
<b>Chainage</b>	24+100
<b>Site Type</b>	Church (RO016-123001), Graveyard (RO016-123002), Bullaun Stone (RO016-123003)
<b>NGR/ITM</b>	185523, 287609 / 585477, 787624 (Church) 185531, 287617 / 585485, 787632 (Graveyard)
<b>Description</b>	<p>A potential ancient abbey complex is situated at a proposed junction upgrade at Shankill, which will link Elphin with the proposed main N5 route at Gortnacranagh.</p> <p>Two recorded monuments; a church (RO016-123001) and a graveyard (RO016-123002), are situated to the northwest of an existing crossroads at Shankill. The church site (RO016-123001) of which no apparent above ground trace survives, is situated within a wedge shaped graveyard (RO016-123002), detailed below.</p> <p>RMP files (following a site visit by Michael Moore in 1996) record the two sites as being part of “<i>an early ecclesiastical site identified as Senchell Dumaige where St Patrick founded a church at the mound of Ui-Oilealla for Rodan, who had come into Ireland with him (O Riain 2011, 537) and probably the site of the parish church of Shankill, listed as Schevrill in the ecclesiastical taxation of Elphin diocese in 1306 (Calendar of documents relating to Ireland, vol. 5, 223).</i>”</p> <p><i>Situated towards the southern edge of a plateau. John O'Donovan c. 1837 records that a fragment of a church survived here (O'Flanagan 1931, vol. 2, 28). Nothing survives of a church now within a wedge-shaped graveyard (RO016-123002) (dimensions 63m east/ west; 33m north/ south at east to 51m north/ south at west) defined by masonry walls and containing 18th-20th century headstones and one burial vault.”</i></p> <p>References: Cal. doc. Ire. - Calendar of documents relating to Ireland 1171-1307, ed. H.S. Sweetman (5 vols., London, 1875-86). O Riain, P. 2011 A dictionary of Irish Saints. Dublin. Four Courts Press. O'Flanagan, Rev. M. (Compiler) 1931 Letters containing information relative to the antiquities of the county of Roscommon collected during the progress</p>


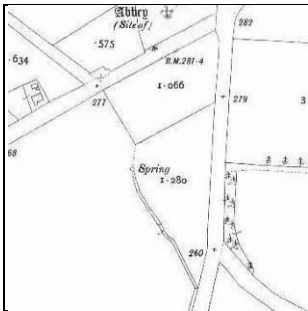
	<p>of the Ordnance Survey in 1837. Bray.</p> <p>Gwynn and Hadcock (1988) in <i>Medieval Religious Houses of Ireland</i> (pg 368) record the site as:</p> <p><i>'Shankill p., nr. Bettyfield, Co Roscommon. 'Abbey' south-west of Elphin: MAI. Possibly only a secular chapel: Egan. Cf. Carricknahorna'.</i></p> <p>An account from the <i>Life of Saint Patrick</i> (Mary Francis Cusack (1800, pg 403)) describes St Patrick building a church at Senchell-Dumaighe. This is clarified in the footnotes of the text <i>'as the church of Shankill, barony and county of Roscommon, immediately south of Elphin. Colgan was wrong in his Index in placing the church in Kierrag-Arnenai, which was in the barony of Costello, County Mayo, instead of Ciarraidhe-Aei, which was in the west of Roscommon, having in it the parish of Kilkeevan, near Castlereas – 'Book of Rights' pg 101. What probably led him astray is that Machet, whom St Patrick placed here, being grandson of Ailell (Ui-Ailella), he took it for Tir-Ailell, confounding the descendants with their country'.</i></p> <p>Mary Francis Cusack (1800) later edition edited by William Maunsell Hennessy 1869 Tripartite <i>Life of St Patrick</i> in <i>The Life of Saint Patrick, Apostle of Ireland</i>, pg 403.</p> <p>The record of church ruins, the presence of a graveyard, the curving field boundary to the north of the site shown on the 1<sup>st</sup> edition six inch OS mapping, the spring/well to the south of the complex (detailed in the inventory below), and the potential of an association with St. Patrick – all indicate that the site has the potential to be part of an early ecclesiastical complex. In addition to this, M.B. Timoney recently recorded a bullaun stone (RO016-123003) from the northwest part of the graveyard, west of the mausoleum. The bullaun stone measures 0.59m x 0.5m and is 0.3m in height with a single basin approximately 0.2m in diameter and 0.22m in depth that is broken at one edge. Bullaun stones are frequently associated with ecclesiastical sites and date from the prehistoric period to the early medieval period (5<sup>th</sup>-12<sup>th</sup> centuries AD). Local knowledge refers to an 'angels plot', suggesting a cillin type burial outside the formal graveyard.</p> <p>A site visit was carried in September 2015. The graveyard is enclosed by a combination of an old stone random rubble wall with a lime mortar, a cement capped wall, and modern fencing. A number of mature trees are scattered throughout. The terrain of the graveyard is very uneven underfoot. Some early stone markers are present amongst the 19th and 20th century headstones, these markers are weathered and illegible now.</p> <p>The site sits within a natural plateau with the surrounding landscape falling away to the north and east affording good views. There is the possibility that external earthworks surrounding the site exist below ground, as intimated in the historic OS mapping (see below) where a crescent-shaped outline of a field boundary is seen to the immediate west, north and northeast. There is the potential that this earthwork originally formed a complete oval monastic enclosure.</p> <p>According to a local historian (Sean Neary) a graveyard clean up FAS scheme took place some years back where he came upon a stone with a spiral motif (a possible decorated quern stone) and handed it into the National Museum of Ireland (NMI). This was confirmed by the NMI as a fragment of a disc quern of quartzite comprising approximately one quarter of the original. Part of the arc of the central perforation survives. About three quarters of the arc of the handle hole is present. The underside is worn smooth and flat. The upper surface is decorated with a raised moulding which curves towards the rim ending in a loop.</p>
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	 <p>Photograph courtesy of local historian, Sean Neary (NMI Reg. No. 1999:56)</p> <p>Archaeological testing results do not suggest the presence of an enclosing element associated with the adjacent church and graveyard site. Also no burials were recorded in any of the excavated trenches. The proposed junction upgrade works will result in the permanent removal of the newly identified below ground features and will therefore have a significant impact on these features. Testing confirmed the presence of archaeological features, comprising linear features and pits. These features consisted 5 pits, 8 furrows, 4 ditches, 1 slot and 2 isolated hearths. The majority of features were concentrated in the central portion of the site.</p> <p>Preservation by record, i.e. full excavation would be the preferred mitigation measure (O'Connell 2016). Two samples collected during the test excavations were selected for radiocarbon dating and the results suggest that linear ditch (F16) is an early Neolithic feature (3708-3637 BC) and the pit/hearth (F30) is early medieval (AD 409-540) in origin.</p>
<p><b>Sources</b></p>	<p>On the 1st edition six-inch OS mapping the site is noted as an Abbey.</p>   <p>Revised 25-inch OS map.</p>
<p><b>Impact of scheme</b></p>	<p>The recorded monuments of the church site and graveyard and their present day boundaries lie to the northwest of the proposed junction improvement works and will remain unaffected. However, given that these features may be part of an earlier, more extensive site, and that there is a potential that below ground remains including burials may extend beyond the graveyard boundary wall and/ or external below ground earthworks may exist, geophysical survey and test excavation was conducted to establish if there is a subsurface archaeological presence outside the current boundaries. Geophysical survey (GA14) identified clear and coherent traces of enclosure elements and industrial activity. A preliminary testing assessment (TE6) did not suggest the presence of an enclosing element</p>

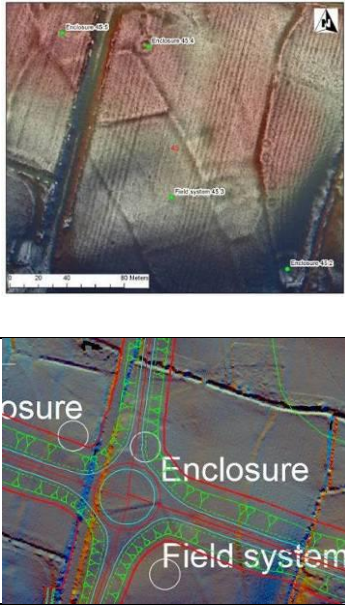

	associated with the adjacent church and graveyard site. Also no burials were recorded in any of the excavated trenches. The proposed junction upgrade works will result in the permanent removal of the newly identified below ground features and will therefore have a significant impact on these features (O'Connell 2016). For further information see the EIAR and original reports (Bonsall & Gimson 2015, Earthsound 2016 and O'Connell 2016). Significant and direct impact on newly revealed features.
<b>Proposed mitigation</b>	Avoidance of the recorded monument. Geophysical survey (GA14) and test excavation (AH06; Shankill) were completed in order to establish the archaeological potential of the wider area outside the present day graveyard boundary. The investigations were limited to the area proposed for excavation as part of the junction upgrade works. Preservation by record of the newly revealed archaeological remains within the landtake. Excavation will take place of all newly revealed features.
<b>Approx. distance from route</b>	The church and graveyard are located to the north and west of the proposed upgrade and roundabout.
<b>Photography</b>	 <p>Northwest facing view of graveyard.</p>
<b>Photography</b>	 <p>Northwest facing view within graveyard.</p>
<b>Photography</b>	 <p>Southeast facing view of graveyard.</p>
<b>Photography</b>	 <p>Northwest facing view of stone grave marker.</p>


<b>Identification No.</b>	Shankill AH B
<b>Legal Status</b>	NA

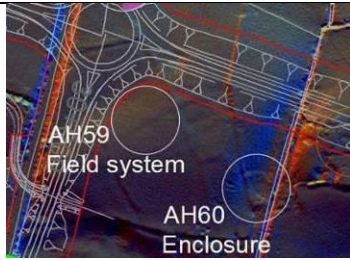

<b>RMP Reference No.</b>	NA
<b>Townland</b>	Shankill
<b>Chainage</b>	N/A
<b>Site Type</b>	Well/ Spring.
<b>NGR/ITM</b>	185506, 287462 / 585461, 787478
<b>Description</b>	<p>Situated within an open, flat pasture field, the internal boundaries of which have recently changed. The field contains two areas of wetness that may be natural springs or wells. No superstructure present, or any evidence that these are wells that are still visited as religious sites.</p> <p>Noted as Toberaconlally on the 1<sup>st</sup> edition six-inch OS map and as 'spring' on the 25-inch OS map. Possibly associated with the two recorded monuments, a church (RO016-123001) and a graveyard (RO016-123002), situated nearby to the north, as part of a monastic enclosure but there is not extant evidence for this.</p>
<b>Sources</b>	<p>1st edition six-inch OS map.</p>  <p>25-inch OS map.</p> 
<b>Impact of scheme</b>	No impact from the proposed scheme.
<b>Proposed mitigation</b>	Avoidance. Test excavation along the route of the proposed scheme.
<b>Approx. distance from route</b>	45m from centre line of upgraded road.

### Archaeology Section C (from Ch. 30+000 to Ch. 40+500)

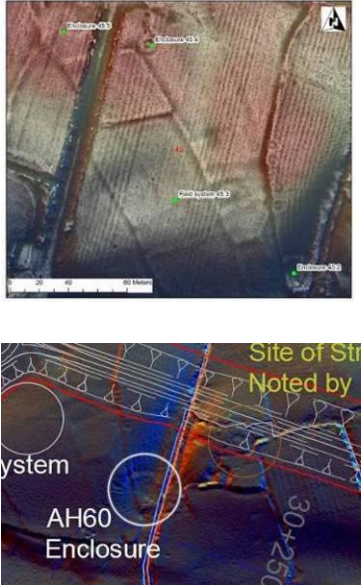

<b>Identification No.</b>	AH58
<b>Legal Status</b>	Recorded on the 8 <sup>th</sup> of March 2016 as SMR 022-167
<b>RMP Reference No.</b>	N/A
<b>Townland</b>	Gortnacranagh
<b>Chainage</b>	30+000
<b>Site Type</b>	Possible Enclosure.
<b>NGR/ITM</b>	185339, 286421 / 585294, 786437
<b>Description</b>	<p>LIDAR survey revealed a possible enclosure situated on the proposed roundabout located at the intersection of the proposed route and the pre-existing N61 road. Field survey did not reveal any surface trace. Not visible on 1<sup>st</sup> edition six-inch OS map.</p>

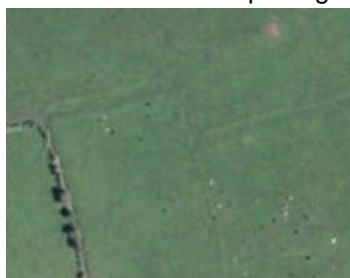
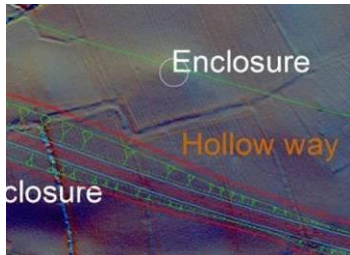

	<p>The LiDAR survey (45.4) describes this site as a small, circular enclosure within a field system (45.3), c.13m in diameter and ditched both internally and externally. The proposed junction will impact field system 45.3 and enclosure 45.4.</p> <p>Geophysical survey and test excavation failed to locate this feature and demonstrated that this was an area of disturbance. A single pit and two linears (possible cultivation furrows) were identified. It is proposed that limited environmental analysis and radiocarbon dating will provide further information on the nature and character of the identified features.</p>
<p><b>Sources</b></p>	<p>LiDAR (45.4).</p> 
<p><b>Impact of scheme</b></p>	<p>Possible enclosure (SMR R0022-167); LiDAR (45.4) 13m in diameter possibly a ring barrow. Area subject to geophysical survey (GA7) which revealed disturbance and test excavation (TE4).</p> <p>Test excavation revealed a single pit and two linear features (O'Connell 2016). The pit was dated to the early medieval period (AD611-670). Direct impact on a site of medium/high significance. Impact level is considered to be significant.</p>
<p><b>Proposed mitigation</b></p>	<p>Preservation by record through the excavation of the single oval pit and two linear features. A programme of archaeological test trenching will be designed in order to establish the presence or absence, as well as the nature and extent, of any other archaeological deposits that may be present within the landtake of the proposed road development.</p> <p>Should any subsurface archaeological stratigraphy associated with this constraint be encountered, an appropriate ameliorative strategy will be implemented. This will entail licensed archaeological excavation in full or part of any identified archaeological remains (preservation by record).</p>
<p><b>Approx. distance from route</b></p>	<p>On the route.</p>
<p><b>Photography</b></p>	 <p>West facing view of enclosure site identified by LiDAR.</p>

<b>Identification No.</b>	AH59
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Gortnacranagh
<b>Chainage</b>	30+050 - 30+150
<b>Site Type</b>	Field System.
<b>NGR/ITM</b>	185355, 286315 / 585310, 786331 (LIDAR point).
<b>Description</b>	<p>A field system pre-dating the 1<sup>st</sup> edition six-inch Ordnance Survey was revealed – in the form of a pair of rectilinear fields adjacent to each other, laid out on a northwest/ southeast orientation. Field inspection detected the northernmost of these fields. It is partly truncated by the N61 close to its western corner, consisting of a raised platform, c.60m southwest/ northeast by c.50m northwest/ southeast, defined by a scarp 0.4m in height to the north, east and south. The second field is not visible except for a partly visible bank that forms its north-eastern side. Another field bank c.30m to c.80m to the east, runs in a general north/ south orientation for c.150m. This bank measures 4m in width, varying in height from 0.3m to 1m in height, with possible traces of a fosse (2m in width) on west side of bank.</p> <p>The LiDAR survey describes this site as a field system (45.3), aligned northwest/ southeast and shows some elements of coaxiality and pre-1836 mapping. Possibly prehistoric. The proposed scheme will impact field system 45.3 and enclosures 45.4 and 45.5. This is potentially an early field system and while it is possible it will preserve little in situ archaeology, it could be an important area.</p> <p>Geophysical survey (GA7) identified enclosing elements, probably representing conjoined field systems. The field systems which encompass a 90m x 30m area, extend into the CPO area and clearly continue beyond the CPO to the south.</p> <p>To the north of this field system and undetected by LiDAR survey, geophysical survey detected a ditched enclosure of archaeological strength. The northern end appears incomplete. The enclosure measures approx. 20m in diameter and is contiguous to a series of ditches that suggests that the field system to the south extends to the north also.</p> <p>A series of 5 linear ditches (F43, F45, F47, F49, F51) with NW-SE alignments were recorded towards the southeast of the testing area. Their dimensions ranged from 0.8-1.2m wide x 0.18-0.27m deep and were filled with similar compact reddish brown clay fills. The fills were largely sterile. However, a single sherd of white glazed early modern pottery (15E587:52:1) was retrieved from the fill of the most easterly ditch (F51). Although the pottery is a good indication of the date of these features, no field boundaries are noted on the early OS maps in this area.</p>
<b>Sources</b>	<p>LiDAR (45.3).</p> 

	
<b>Impact of scheme</b>	Direct, and moderate impact on low visibility and below ground archaeological remains.
<b>Proposed mitigation</b>	Preservation by record. Excavation of the field system that lies within the landtake and test excavation of the wider area within the landtake.
<b>Approx. distance from route</b>	On the route.
<b>Photography</b>	 East facing view of field system.



<b>Identification No.</b>	AH59A
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Gortnacranagh
<b>Chainage</b>	30+100
<b>Site Type</b>	Possible Enclosure.
<b>NGR/ITM</b>	ITM 585377, 787387 (66m OD)
<b>Description</b>	<p>An enclosure was located towards the northeastern end of the testing area. An enclosure corresponds with geophysical anomaly 5, comprising a c. 20m wide circular enclosure. The ditch cut was recorded at 3 separate locations. The recorded ditch had rounded sides and a rounded base. It measured 1.2-1.5m wide x 0.2-0.3m deep and was filled with a moderately compacted mid brown stony clay. Two fragments of animal bone were retrieved from the box-section cut through the ditch in Trench 7. A 6m x 2m extension to Trench 6 was excavated to the north in an attempt to record the southern return of the ditch as depicted in the geophysical survey. This expected section of ditch was not recorded in the test trench and further excavation to the east was hampered by overhead powerlines in this area. Two geophysical anomalies were recorded on the interior of the enclosure. Neither was recorded in the course of testing.</p> <p>Enclosure (AH59A) (D-AMS 018486) has been dated to the middle-later Bronze Age (1266-1058 BC).</p>
<b>Sources</b>	Geophysical survey (Bonsall & Gimson 2015) and test excavation (O'Connell 2016, Area AH04 Gortnacranagh)
<b>Impact of scheme</b>	Direct and significant impact.
<b>Proposed mitigation</b>	Preservation by record. Excavation of the circular enclosure that lies within the landtake and test excavation of the wider area within the landtake.
<b>Approx. distance from route</b>	On the route

<b>Identification No.</b>	AH60
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Gortnacranagh
<b>Chainage</b>	30+150
<b>Site Type</b>	Possible Enclosure.
<b>NGR/ITM</b>	185337, 286266 / 585392, 786282
<b>Description</b>	<p>A roughly defined possible enclosure is located at the southern apex at the convergence of two field banks. The western most field bank mentioned above (it defines the eastern edge of the field system), runs in a general north/ south orientation for c.150m. This bank measures 4m in width, varying in height from 0.3m to 1m in height, with possible traces of a fosse (2m in width) on west side of bank. The eastern bank is less clearly defined, runs north/ south for c.40m and has a gradual slope (to the east, 3m in width). A rough enclosure is formed by these two banks (to the east and west), a northern ephemeral arching bank (running east/ west) measuring 16m in length, and a southerly sloping bank. No evidence of an enclosure appears on the 1<sup>st</sup> edition six-inch OS map.</p> <p>LiDAR survey describes this site (45.2) as a probable ringfort. It is represented as part of a circular, ditched enclosure, largely destroyed by a field boundary to the east and originally c.30m in diameter.</p>
<b>Sources</b>	<p>LiDAR (45.2) and field work.</p> 
<b>Impact of scheme</b>	No impact, the site lies outside and to the south of the landtake for the proposed road development.
<b>Proposed mitigation</b>	Avoidance. No mitigation measures are necessary.
<b>Approx. distance from route</b>	The centre point of the possible enclosure site is located 70m south of centre-line of route.
<b>Photography</b>	 <p>Northwest facing view of enclosure.</p>

<b>Identification No.</b>	AH61
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Gortnacranagh
<b>Chainage</b>	30+300 – 30+400
<b>Site Type</b>	Possible Hollow way.
<b>NGR/ITM</b>	185638, 286318 / 585593, 786334
<b>Description</b>	Discovered during the field inspection. The site presents as an east/ west depression c.3m in width, 0.3m in depth, and 50m in length. At its eastern end it turns at a right angle to the south for c.60m (at c.20m along this north/ south depression another east/ west linear feature can be seen for c.60m). Visible in aerial photography.
<b>Sources</b>	Fieldwork and aerial photography (see below).   LiDAR results.
<b>Impact of scheme</b>	Moderate and direct impact, the most western extent of this linear feature lies within the proposed landtake.
<b>Proposed mitigation</b>	Preservation by record. Excavation of the hollow way within the landtake and test excavation of the wider area within the landtake.
<b>Approx. distance from route</b>	On route.
<b>Photography</b>	 Southwest facing view of hollow way.

<b>Identification No.</b>	AH62
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Gortnacranagh




<b>Chainage</b>	30+350
<b>Site Type</b>	Possible enclosure.
<b>NGR/ITM</b>	185692, 286360 / 585647, 786376
<b>Description</b>	Field inspection revealed no surface trace, just a rise in the ground. LiDAR survey describes this site (45.10) as an enclosure. Slight mound defined by low bank. Oval in shape and 39m x 26m in dimension.
<b>Sources</b>	LiDAR (45.10). 
<b>Impact of scheme</b>	No impact as the feature is located outside the landtake for the proposed road development.
<b>Proposed mitigation</b>	Avoidance. No mitigation measures are necessary in relation to this site.
<b>Approx. distance from route</b>	100m north of centre-line of route.
<b>Photography</b>	 South facing view of enclosure.


<b>Identification No.</b>	AH63
<b>Legal Status</b>	Recorded Monument.
<b>RMP Reference No.</b>	RO022-043
<b>Townland</b>	Gortnacranagh
<b>Chainage</b>	30+575
<b>Site Type</b>	Redundant Record
<b>NGR/ITM</b>	185820, 286030 / 585774, 786046
<b>Description</b>	This site is located on a level landscape. It is recorded in the ASI as 'Something is visible on aerial photograph (OS 4/2056), but nothing is visible at ground level in reclaimed pasture. Nothing is visible on the older photography (V206/ 48, 49)'. Compiled by: Michael Moore Date of upload: 24 August 2010 Date of last visit: 23 October 1995 <a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>Sources</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a>
<b>Impact of scheme</b>	No impact as the redundant record is located outside the proposed landtake for the scheme.

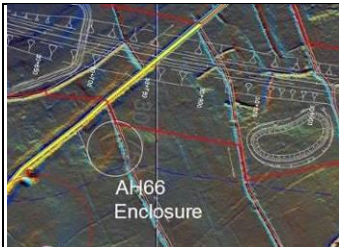

<b>Proposed mitigation</b>	Avoidance. No mitigation required.
<b>Approx. distance from route</b>	At it closest point this site is located 105m south of an ancillary road.

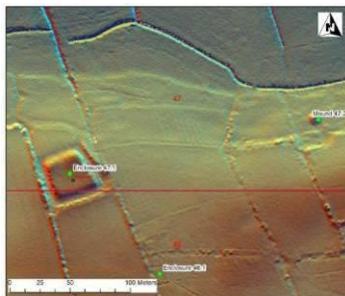
<b>Identification No.</b>	AH64
<b>Legal Status</b>	None
<b>RMP Reference No.</b>	None
<b>Townland</b>	Gortnacranagh/ Killeen West
<b>Chainage</b>	30+700
<b>Site Type</b>	Area of archaeological potential – Owenur River
<b>NGR/ITM</b>	186049, 286162 / 586004, 786178
<b>Description</b>	<p>The river forms the boundary between the townlands of Gortnacranagh and Killeen West. Historic mapping shows that it has been reshaped and straightened between the time of the 1st edition six-inch OS mapping (1837-8) and the 25-inch OS mapping (1888-92) and that dredging has taken place in the past.</p> <p>The river is c.1.4 - 1.6m below the surrounding ground level and measures c.3.5m - 4m in width. It is relatively fast flowing and has steep reed covered banks, and measures c.5m – 0.7m in depth. The base of the river is very soft and bog like underfoot. It is a significant water body in comparison to the stream like Carricknabraher and Owennaforeesha rivers.</p> <p>A human skull (RO017-218) was recovered in dredging operations on the Owenur River, c. 200m west of the point where it enters Cloonahee Lough approximately 7.7km east from where the proposed route crosses the river. It was found during dredging operations in 2006, where it was lifted from the riverbed by the digger engaged in clearing the river (Sikora and Cahill 2011, vol. 2 pg. 510, 7.180) (Fredengren forthcoming).</p> <p>In addition to this find and closer to the proposed route, a local historian has recorded two previously unrecorded skulls at Lisboy and at Cherryfield along the Owenur River (these are now in the care of the National Museum of Ireland) (Neary pers. comm.). These skulls were revealed during dredging works in the river and while the exact find spots are unknown to the author, the placement of these skulls may be associated with the former Balloughter Lough in the case of the Cherryfield find and Lough O'Moran with the Lisboy find.</p> <p>The find spots of these three skulls may form a pattern of ritual deposition at the entrance or in the vicinity of the loughs. There is also a recorded presence in the form of crannogs within these lakes. Dating evidence of the individual skulls suggest a timeframe ranging from the Late Bronze Age to the Early Medieval period (Discovery Programme forthcoming).</p> <p>These finds from within the river along with isolated stray finds from the banks such as a bronze pin from Gortnacranagh and bronze objects from Tullyloyd (Sean Neary pers. comm.) suggest that the Owenur River was an important route way throughout prehistory and into the historic period and there is therefore a significant potential associated with it and the adjoining lands.</p>
<b>Sources</b>	<p>Mapping and field work. As part of the field work, two archaeologists waded across the river. No features or finds of an archaeological nature was noted during this exercise.</p> <p><a href="http://www.archaeology.ie">www.archaeology.ie</a></p> <p>Sikora, M. and Cahill, M. 2011 Inventory of uninvestigated reports of human remains. In M. Cahill and M. Sikora (eds.), Breaking ground, finding graves – reports on the excavation of burials by the National Museum of Ireland, Vol. 2, 447-526.</p>

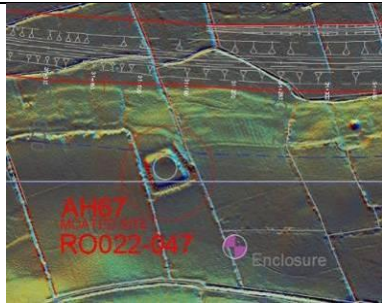
	Fredengren (forthcoming) The Islands of the Dead. Discovery Programme Local Historian, Sean Neary
<b>Impact of scheme</b>	Direct and potentially moderate impact on the river as it will be crossed in one area.
<b>Proposed mitigation</b>	Preservation by record of any archaeological remains. Test excavation within the landtake on the banks of the river and /or visual assessment and metal detecting survey of riverbed and banks following vegetation clearance.
<b>Approx. distance from route</b>	The route crosses the river.
<b>Photography</b>	 <p>East facing view of the river</p>

<b>Identification No.</b>	AH65
<b>Legal Status</b>	Recorded Monument.
<b>RMP Reference No.</b>	RO022-149
<b>Townland</b>	Killeen West
<b>Chainage</b>	30+675
<b>Site Type</b>	Mound
<b>NGR/ITM</b>	185937, 286004 / 585891, 786020
<b>Description</b>	<p>The site is marked only on the revised edition (1927) of the OS six-inch map. It is situated in a low-lying level landscape. The site consists of a sub-rectangular grass-covered and flat-topped mound (dimensions of base 12m northwest/ southeast; 10m northeast/ southwest; dimensions of top 8m northwest/ southeast; 7m northeast/ southwest) defined by scarps (height 0.3m northwest to northeast section to 0.8-1.1m southeast to southwest section). Immediately to the southwest is a fragment of a field bank (width 3.3m; height 0.3-0.4m; length 12m).</p> <p>Compiled by: Michael Moore Date of upload: 24 August 2010 Date of last visit: 23 October 1995 <a href="http://www.archaeology.ie">www.archaeology.ie</a></p> <p>The farm to east is abandoned. The field was called the Rath field.</p> <p>This is a clay mound with no evidence of stone. It has a sub-circular form with some 'blobs' attached to south and northwest. It tends to be flat-topped (diameter top 8m northwest/ southeast, 7m northeast/ southwest) sloping down to the east and northeast. Basal diameter 12m northwest/ southeast. The max height of 1.1m is achieved on the northwest side.</p> <p>To the southwest of the site is a fragment of an old clay field bank surviving. It is 12m long and 3.3m in average width and survives to a height of 30-40cm. It is aligned northwest/ southeast but there is no evidence for the continuation of the feature in either direction.</p> <p>Compiled by: Unknown Date: 23 October 1995</p> <p>LiDAR survey also detected a mound (45.11) at this point and describes the site as a flat-topped mound, 13m in diameter, cut by a ditch to the west.</p>



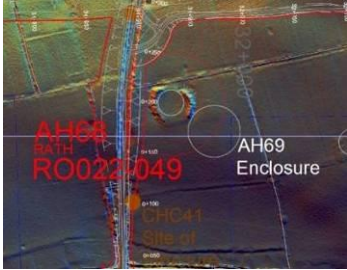

<b>Sources</b>	<a href="http://www.archaeology.ie">www.archaeology.ie</a> National Monuments RMP File LiDAR (45.11) 
<b>Impact of scheme</b>	No impact, the site is outside the proposed landtake.
<b>Proposed mitigation</b>	Avoidance. No mitigation measures are necessary.
<b>Approx. distance from route</b>	175m south of the centreline of the route.

<b>Identification No.</b>	AH66
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Gortnacranagh
<b>Chainage</b>	30+750
<b>Site Type</b>	Possible Enclosure
<b>NGR/ITM</b>	186006, 286078 / 585961, 786094
<b>Description</b>	<p>The 1<sup>st</sup> edition six-inch Ordnance Survey records a rectilinear enclosure, which is still visible to the eye. Square in layout it measures 25m north/south by 18m east/ west, and rises to the south west. It is truncated by a field boundary on its western side. Also visible on LiDAR.</p> <p>****LiDAR numbers double up here. It is recorded as 45.7 which is also a field system (notes on 45.7 only describe the field system, there is also no image of the feature).</p>
<b>Sources</b>	<p>LiDAR and field work.</p> 
<b>Impact of scheme</b>	No impact, the site is located outside the proposed landtake for the scheme
<b>Proposed mitigation</b>	Avoidance. No specific mitigation measures are required.
<b>Approx. distance from route</b>	90m south of the centreline of the route.
<b>Photography</b>	 Northeast facing view of rise of enclosure.


<b>Identification No.</b>	AH67
<b>Legal Status</b>	Recorded Monument.
<b>RMP Reference No.</b>	RO022-047
<b>Townland</b>	Killeen West
<b>Chainage</b>	31+150
<b>Site Type</b>	Moated Site
<b>NGR/ITM</b>	186415, 285997 / 586369, 786013
<b>Description</b>	<p>The site is located at the outer edge of a shelf towards the bottom of a north-facing slope. The site consists of a rectangular grass-covered platform (dimensions 31.6m east/ west; 28.5m north/ south; height 1-1.6m) defined by a flat-bottomed moat (width of top 4.8-7m; width of base 2.5-5m; depth 0.5-1.2m) on all sides except to the north where the moat is overgrown with a band of rushes (width 4.4m). An outer flat-topped bank (width of top 3.3m; height 0.5m) is evident at the east. It is surrounded by field banks on all sides except the north, and the corners of the platform are slightly raised (max. external dimensions 59m east/ west; 46m north/ south).</p> <p>Compiled by: Michael Moore                  Date of upload: 29th September, 2010                  Date of last visit: 07 September 1995  <a href="http://www.archaeology.ie">www.archaeology.ie</a></p> <p>The site consists of a sub-rectangular semi-platform area enclosed by an earthen – stone embankment and remnants of outer fosse. The interior is level sloping slightly towards centre. The south portion of earthwork is skirted by an east/ west field fence. At the north the embankment is defaced and gradually slopes to east/ west field fence. Possible entrance at north. Some trees and bushes occur on perimeter. Sited on northern side of a shelf of high ridge. Average grazing land and marshland occurs to north. Diameter north/ south 27.7m, east/ west 31m</p> <p>Compiled by: Anne Gannon                  Date: 9<sup>th</sup> February 1971                  LiDAR survey also describes the site as an enclosure (47.1) at this point.</p>
<b>Sources</b>	<p>Anne Gannon Field Survey 1970-1972 (Unpublished)                  National Monuments RMP File  <a href="http://www.archaeology.ie">www.archaeology.ie</a> (SMR data)                  LiDAR (47.1)</p> 


		
<b>Impact of scheme</b>	No impact, the monument is located to the south and outside the proposed landtake.	
<b>Proposed mitigation</b>	Avoidance. No mitigation required.	
<b>Approx. distance from route</b>	120m south of centre line of the proposed route.	

<b>Identification No.</b>	AH68
<b>Legal Status</b>	Recorded Monument.
<b>RMP Reference No.</b>	RO022-049
<b>Townland</b>	Lurgan (Roscommon By.)
<b>Chainage</b>	31+925
<b>Site Type</b>	Ringfort
<b>NGR/ITM</b>	187222, 286015 / 587176, 786031
<b>Description</b>	<p>The site is located on the summit of an east/ west ridge. The site is a sub-circular grass-covered area (dimensions 36.5m east/ west; 32.5m north/ south) defined by an earthen bank and hedge (width 4-4.5m; internal height 0.3-1m; max. external height 1.5-1.6m) from the northeast to southeast and from the southwest to northwest. A scarp (H 0.1-0.3m) defines the remainder of the site. There is no visible fosse or entrance.</p> <p>Compiled by: Michael Moore Date of upload: 24 August 2010 Date of last visit: 07 September 1995 <a href="http://www.archaeology.ie">www.archaeology.ie</a></p> <p>The site consists of two semi-circular portions of an earthen-stone bank. The north portion appears to have been cut away by an east/ west trending field fence. The south portion has also disappeared. The site is located on crest of high narrow ridge of good grassing land. Diameter east/ west is 35m.</p> <p>Compiled: Anne Gannon Date: 9<sup>th</sup> February 1971</p> <p>This is a sub-circular area defined by an earthen bank from the northeast to southeast and southwest to northwest and by a scarp elsewhere. Diameter crest to crest is 36.5m east/ west and 32.5m north/ south. The bank is 4m – 4.5m in width but appears more substantial on the east. The external height of the bank is 1.5m – 1.6m at the maximum achieved to the east and west, but the bank becomes less substantial towards either end of the surviving sections.</p> <p>Compiled: Unknown Date 7 August 1995 LiDAR survey (49.2) describes this feature as an embanked enclosure, c. 45m diameter with possible entrances at the north and south.</p>
<b>Sources</b>	Anne Gannon Field Survey 1970-1972 (Unpublished) National Monuments RMP File

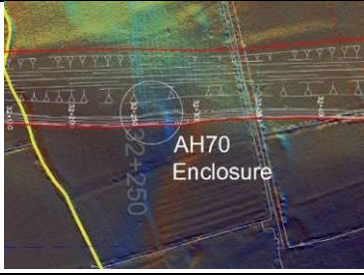

	<p><a href="http://www.archaeology.ie">www.archaeology.ie</a>                  1<sup>st</sup> edition six-inch OS map</p>  <p>LiDAR (49.2)</p>  
<b>Impact of scheme</b>	Development to take place within zone of potential archaeology for a recorded monument. However the monument itself is located outside the proposed landtake. There is no direct impact to the monument.
<b>Proposed mitigation</b>	Avoidance. Test excavation of landtake. Existing route which runs to the west of the monument will be subject to upgrade. Upstanding remains of the well defined monument to be fenced off and protected from proposed works.
<b>Approx. distance from route</b>	Centre point of the site is 50m east of the centre line of proposed ancillary road upgrade.
<b>Photography</b>	 <p>Northeast facing view toward RO022-049.</p>

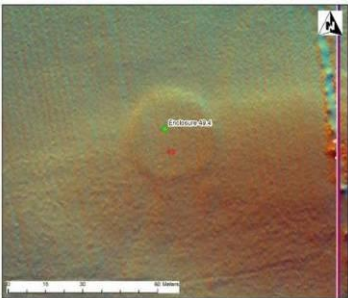
<b>Identification No.</b>	AH69
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Lurgan (Roscommon By.)

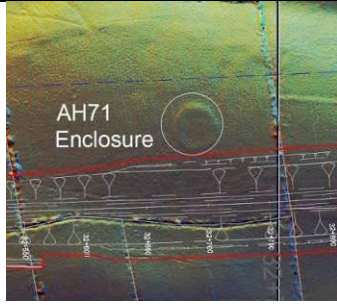

<b>Chainage</b>	31+975
<b>Site Type</b>	Possible Enclosure
<b>NGR/ITM</b>	187262, 285988/ 587216, 786004
<b>Description</b>	LiDAR records a possible enclosure, to the southeast of the ringfort RMP RO022-049. No features were visible during field walking. There is no evidence of this feature on any OS historic mapping.
<b>Sources</b>	LiDAR (49.7). 
<b>Impact of scheme</b>	No impact
<b>Proposed mitigation</b>	Avoidance. No mitigation measures are necessary in relation to this possible site.
<b>Approx. distance from route</b>	90m east of the centre line of the proposed ancillary road to the centre point of the possible enclosure.

<b>Identification No.</b>	AH70
<b>Legal Status</b>	Recorded on the 8 <sup>th</sup> of March 2016 as SMR RO022-170
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Killeen East.
<b>Chainage</b>	32+250
<b>Site Type</b>	Possible Enclosure
<b>NGR/ITM</b>	187553, 286110 / 587507, 786126
<b>Description</b>	A possible D-shaped platform, measuring c.11.5m east/ west by c.6.5m north/ south, the interior of which is c.0.6 to 0.7m above the surrounding ground was recorded during the field inspection. The site is situated on the top of a north facing slope. Running along the west side of it, is a possible ditch, 2m in width and 0.2m in depth. Its length is unclear, but the LiDAR depicts it as running in a north/ south orientation along the length of the field.  LiDAR survey describes the site as an oval enclosure (49.3) on high ground, probable ringfort. c.31m x 24m. Geophysics (GA8) identified a clear and coherent trace of an enclosure site.
<b>Sources</b>	Fieldwork and LiDAR (49.3). 

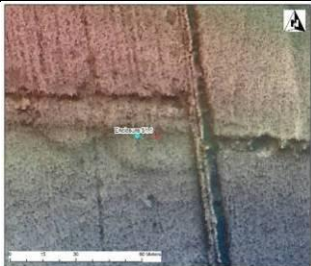
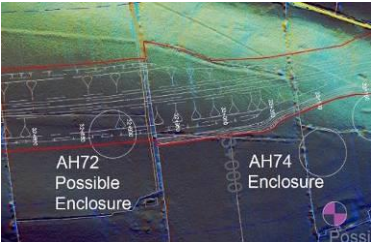



		
<b>Impact of scheme</b>	The northern extent of the enclosure site as defined by the LiDAR and geophysical survey extends into the CPO area and underneath an access track. Prior to mitigation, this part of the site is subject to a direct, and significant impact but it is proposed to preserve the site in situ by using a design solution.	
<b>Proposed mitigation</b>	Preservation in situ by design. The slopes of the mainline have been steepened and retained to avoid a direct impact on the site. Access track to be raised and avoid the site.	
<b>Approx. distance from route</b>	On the route.	
<b>Photography</b>		
North facing view of enclosure.		

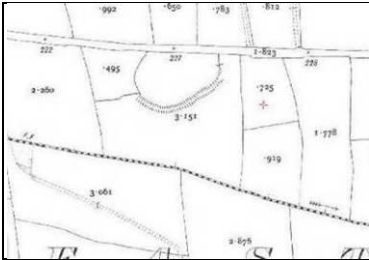

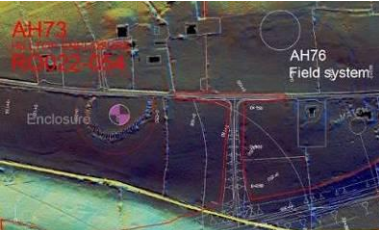
<b>Identification No.</b>	AH71	
<b>Legal Status</b>	Recorded on the 8 <sup>th</sup> of March 2016 as SMR RO022-165	
<b>RMP Reference No.</b>	NA	
<b>Townland</b>	Killeen East.	
<b>Chainage</b>	32+700	
<b>Site Type</b>	Possible Enclosure.	
<b>NGR/ITM</b>	188267, 286202 / 588221, 786218	
<b>Description</b>	LiDAR has identified a possible enclosure, though field inspection did not reveal any obvious surface trace other than a slight rise in the terrain. Not visible on 1 <sup>st</sup> edition six-inch OS. LiDAR describes the site as a circular enclosure (49.4), 37m diameter on high ground, probably a ringfort.	
<b>Sources</b>	LiDAR (49.4). 	

	
<b>Impact of scheme</b>	No impact
<b>Proposed mitigation</b>	Avoidance. No mitigation measures are proposed as the site lies to the north, upslope and outside the proposed landtake.
<b>Approx. distance from route</b>	The centre of the possible enclosure is located 65m north of centre line of proposed route.
<b>Photography</b>	 <p>North-east facing view of area identified by LiGA7DAR of possible enclosure.</p>

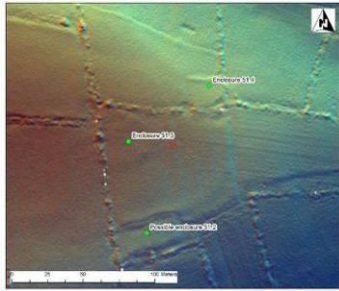
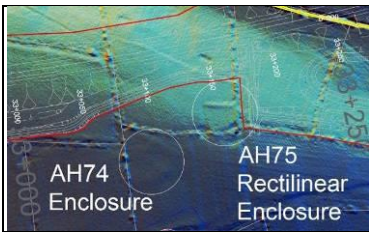
<b>Identification No.</b>	AH72
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Killeen East
<b>Chainage</b>	32+850
<b>Site Type</b>	Enclosure.
<b>NGR/ITM</b>	188172, 286132 / 588126, 786148
<b>Description</b>	<p>LiDAR has identified a possible enclosure, though field inspection did not reveal any obvious surface trace except for a general rise in the corner of a field, measuring 50m east/ west by 30m north/ south. Not visible on 1<sup>st</sup> edition 6-inch OS.</p> <p>LiDAR survey describes the site as consisting of possible elements of two oval enclosures (51.1). Remaining as curvilinear ditches to the south of the field boundary. Original diameters c.46m and 32m. Possibly the remains of one or two ringforts.</p> <p>Geophysical survey (GA9) identified a clear and coherent trace of an enclosure site and test excavation confirmed the presence of an enclosure 33m north-south x 25m east-west. A radiocarbon date taken from the upper fill of the enclosure produced a late medieval date (AD1409-14444)</p>
<b>Sources</b>	LiDAR (51.1).

	 
<b>Impact of scheme</b>	Direct and significant impact.
<b>Proposed mitigation</b>	Preservation by record. Excavation of the enclosure within the landtake and test excavation of the wider area within the landtake.
<b>Approx. distance from route</b>	On route.
<b>Photography</b>	 <p>Southeast facing view of area identified by LiDAR of a possible enclosure.</p>

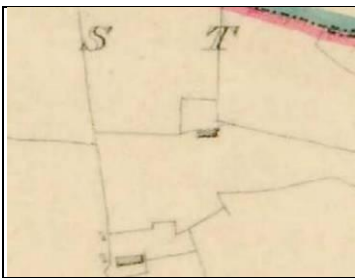
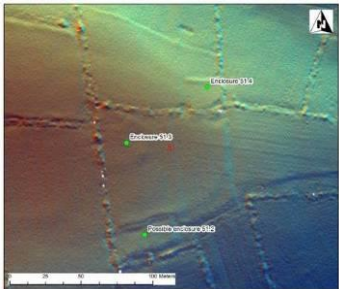
<b>Identification No.</b>	AH73
<b>Legal Status</b>	Recorded Monument
<b>RMP Reference No.</b>	RO022-054
<b>Townland</b>	Tullyloyd
<b>Chainage</b>	33+100
<b>Site Type</b>	Hilltop enclosure
<b>NGR/ITM</b>	188349, 286361 / 588303, 786377
<b>Description</b>	<p>The site is marked as a D-shaped enclosure on the 1927 ed. of the OS six-inch map. The site is situated towards the top of the south facing slope of an east/ west ridge. The site is a D-shaped grass-covered area (dimensions 75m east/ west; 48m north/ south) defined by a scarp and hedge (height 0.7-1.2m), with a fosse (width of top 6m; depth 0.3m) and traces of an outer bank (width 3.5m; external height 0.2m) at the east southeast section. There is a modern entrance (width 5m) at west. The site is truncated by an east/ west road at north and does not survive north of this feature. Archaeological testing immediately to the northeast on the north side of the road during 2003 failed to produce any related material.</p> <p>Compiled by: Michael Moore Date of upload: 24 August 2010 Date of last visit: 11 August 1995 <a href="http://www.archaeology.ie">www.archaeology.ie</a></p>

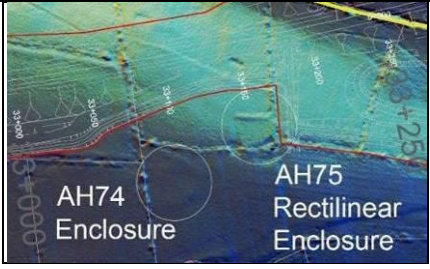

	<p>South portion of semi-circular earthen bank and outer fosse remain. The north portion has been destroyed and cut through by east/ west roadway. At west end a field fence has also disturbed the original bank. The site is located on a shelf of a ridge of good grazing land.</p> <p>Compiled by : Anne Gannon                  Date: 9<sup>th</sup> February 1971</p> <p>This is a large sub-circular or D-shaped area which is exactly as depicted on the map (diameter 75m east/ west, 48m north/ south crest to crest) defined by the road wall on the north and by a scarp elsewhere (height 0.7m – 1.2m). There is a fosse outside the scarp in the east southeast section (width at top 6m external depth 0.3m). There are traces of an outer bank (width 3.5m, height over fosse 0.5m, external height 0.2m), it is difficult to determine if this is original. It occurs in interrupted sections.</p> <p>No entrance can be identified, except a wide modern one (width 5m) at western side of the site.</p> <p>Compiled by: Unknown                  Date: 11 September 1995</p> <p>LiDAR survey also detected an enclosure (51.5) at this point, and describes a large oval embanked enclosure. Original dimensions c.83m x 74m.</p>
<p><b>Sources</b></p>	<p>Anne Gannon Field Survey 1970-1972 (Unpublished)                  National Monuments RMP File  <a href="http://www.archaeology.ie">www.archaeology.ie</a></p>  <p>25-inch OS map.                  LiDAR (51.5)</p>  
<p><b>Impact of scheme</b></p>	<p>No impact</p>
<p><b>Proposed mitigation</b></p>	<p>The monument is avoided, however all works associated with the proposed road development within the landtake will be archaeologically tested.</p>
<p><b>Approx. distance from route</b></p>	<p>106.5m from centre of the recorded monument to the closest point on the ancillary road and 56m at the outer edge of the monument to the proposed road development.</p>

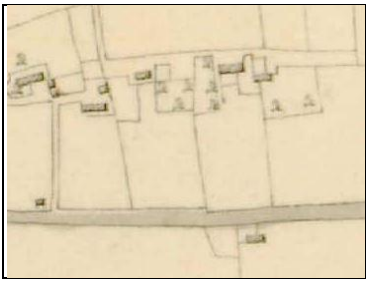
<b>Photography</b>	 <p>Northwest facing view toward RO022-049.</p>
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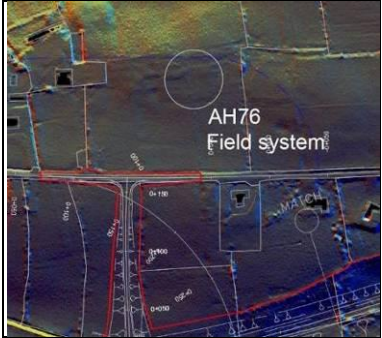

<b>Identification No.</b>	AH74
<b>Legal Status</b>	Recorded on the 8 <sup>th</sup> of March 2016 as SMR RO022-166
<b>RMP Reference No.</b>	NA.
<b>Townland</b>	Killeen East.
<b>Chainage</b>	33+100
<b>Site Type</b>	Possible Enclosure
<b>NGR/ITM</b>	188394, 286112 / 588348, 786128
<b>Description</b>	<p>LiDAR survey has identified a possible enclosure, though field inspection did not reveal any obvious surface trace. Not visible on 1<sup>st</sup> edition six-inch OS.</p> <p>LiDAR describes the site as a low profile circular enclosure (51.3), destroyed to the northwest, c.37m in diameter probably a ringfort.</p>
<b>Sources</b>	<p>LiDAR (51.3).</p>  
<b>Impact of scheme</b>	No impact the site is located outside the proposed landtake
<b>Proposed mitigation</b>	Avoidance. No mitigation measures are required.
<b>Approx. distance from route</b>	55m south of centre line of an ancillary road.

<b>Photography</b>	 <p>Southwest facing view of identified site.</p>
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<b>Identification No.</b>	AH75
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Killeen East
<b>Chainage</b>	33+150
<b>Site Type</b>	Possible Rectilinear Enclosure
<b>NGR/ITM</b>	188451, 286151 / 588405, 786167
<b>Description</b>	<p>LiDAR survey recorded an enclosure, this time c.10m west of an ancillary road improvement. Field survey revealed it to be a rectilinear enclosure, measuring 26m east/ west by 25m north/ south. The site is defined by a slope measuring 0.5m to 1m in height on the north side and traces of a ditch on the west side – the ditch is 2m in width and 0.2m in depth. Visible on the 1<sup>st</sup> edition six-inch OS map as a plot of land associated with a structure.</p> <p>The LiDAR survey (51.4) describes the site as a rectangular ditched enclosure, c.22m x 27m. Marked as a field on the six-inch series.</p> <p>Geophysical survey (GA10) produced no significant findings, a possible small field enclosure that may represent later activity.</p>
<b>Sources</b>	<p>LiDAR, fieldworks and 1<sup>st</sup> edition six-inch OS map.</p>  <p>LiDAR (51.4)</p> 

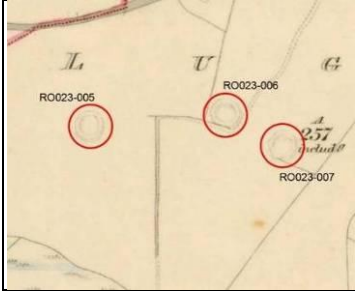
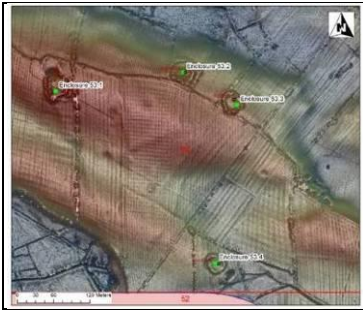
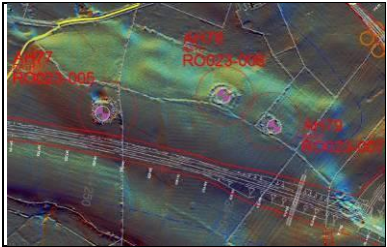

		
<b>Impact of scheme</b>	No impact – located adjacent to the proposed road development.	
<b>Proposed mitigation</b>	No mitigation required. Targeted test excavation within the landtake of the proposed road development	
<b>Approx. distance from route</b>	The landtake of an ancilliary road is located immediately to the eastern boundary line of the rectilinear enclosure.	
<b>Photography</b>		Southeast facing view of rectilinear enclosure.

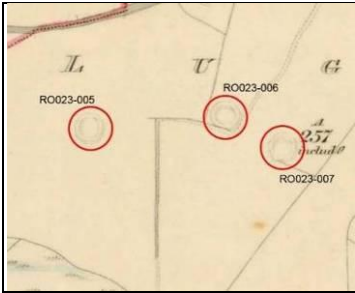
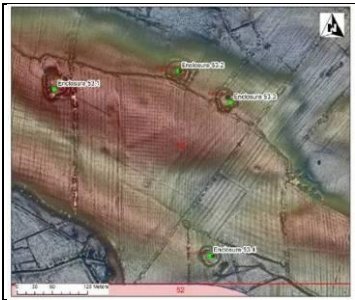
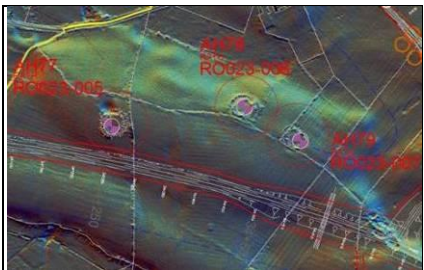
<b>Identification No.</b>	AH76	
<b>Legal Status</b>	NA	
<b>RMP Reference No.</b>	NA	
<b>Townland</b>	Tullyloyd	
<b>Chainage</b>	33+350	
<b>Site Type</b>	Field System	
<b>NGR/ITM</b>	188555, 286465 / 588509, 786481	
<b>Description</b>	<p>LiDAR survey notes a field system within a large rectangular field. Significant grass growth was present but a pair of north/ south linear ditches were noted within the field, corresponding with the LiDAR identified plot boundaries of a number of farm dwellings. The 1<sup>st</sup> edition six-inch OS map clearly illustrates this. The boundaries are not recorded on the subsequent 25-inch or revised six-inch OS maps.</p> <p>The LiDAR survey (51.7) describes the site as a rectangular field system, probably post-medieval in date.</p>	
<b>Sources</b>	<p>1<sup>st</sup> edition six-inch OS map, field work and LiDAR (51.7).</p> 	

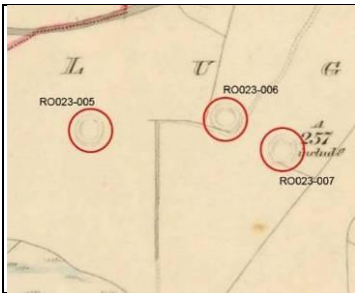
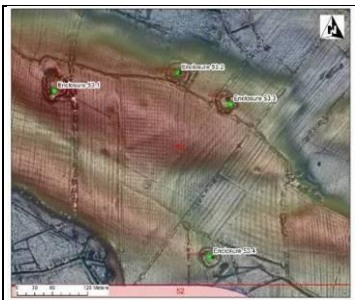
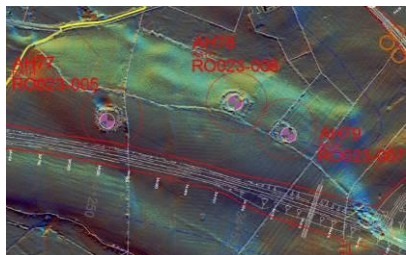
	 
<b>Impact of scheme</b>	Local upgrade of an existing road to the south of the field containing the historic field system, no impact.
<b>Proposed mitigation</b>	Avoidance. No mitigation required, test excavation will occur within the proposed landtake.
<b>Approx. distance from route</b>	The centre of the site as indicated by LiDAR is 80m to the north of the centre line of an ancillary road. LiDAR shows historic field boundary lines extending southwards through a field which is to the immediate north of an ancillary road.
<b>Photography</b>	 <p>Southwest facing view of southern end of field containing field system.</p>


<b>Identification No.</b>	AH77
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	RO023-005
<b>Townland</b>	Lugboy
<b>Chainage</b>	34+250
<b>Site Type</b>	Ringfort
<b>NGR/ITM</b>	189528, 28631/ 589481, 786337 (Archaeological Survey)
<b>Description</b>	<p>Recorded ringfort and also identified by the LiDAR survey as a possible enclosure. The archaeological survey of Ireland describes the monument as being sited on the broad crest of a low east-west ridge.</p> <p>The monument presents as a circular grass and scrub- covered platform (31.2m east-west, 28.6m north-south in diameter and 0.5m in height at the east and 1.5m in height at the north) with slight traces of a bank at the east and west. It is defined by a fosse and an overgrown outer bank which does</p>




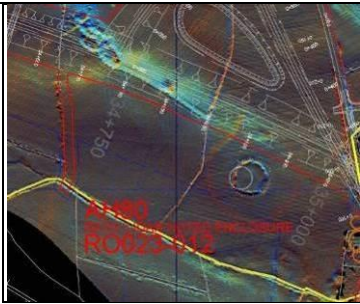

	<p>not survive at the north. There is no identifiable original entrance. Another ringfort (RO023-006) is located 160m to the east.</p> <p>Compiled by: Michael Moore                  Date of last visit: 22 May 1996</p> <p>The LiDAR survey (53.1) describes the site as a bivallate ringfort damaged to the northwest diameter c. 45m, (NGR 189524, 286315 ITM 589478, 786331).</p>
<p><b>Sources</b></p>	<p>1<sup>st</sup> edition six-inch OS map and LiDAR (53.1)</p>  <p>LiDAR results.</p>    <p>View of monument (AH77) located to the north of the route</p>
<p><b>Impact of scheme</b></p>	<p>No direct impact, the monument is located outside and to the north of the proposed landtake.</p>
<p><b>Proposed mitigation</b></p>	<p>Avoidance.No mitigation measures required, the site will fenced off from proposed works.</p>
<p><b>Approx. distance from route</b></p>	<p>60m north of the centreline of the proposed road and outside the landtake.</p>

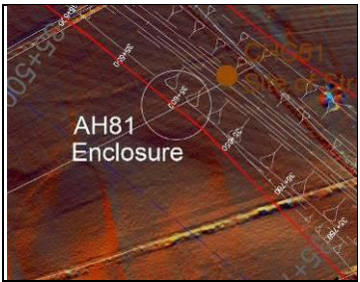
<b>Identification No.</b>	AH78
<b>Legal Status</b>	Recorded Monument.
<b>RMP Reference No.</b>	RO023-006
<b>Townland</b>	Lugboy
<b>Chainage</b>	34+450
<b>Site Type</b>	Ringfort
<b>NGR/ITM</b>	189737, 286347/ 589690, 786363
<b>Description</b>	<p>The monument is located just off the crest of a north-east facing slope of a broad east-west ridge. It presents as a sub-circular grass covered area approximately 31.2m east-west and 28m north-south in diameter. The LiDAR survey describes the site as a bivallate ringfort with a diameter of 52m.</p> <p>Compiled: Michael Moore Date of last visit: 22 May 1996</p>
<b>Sources</b>	<p><a href="http://www.archaeology.ie">www.archaeology.ie</a> National Monuments RMP File, LiDAR (53.2) (NGR 189736, 286346, ITM 589690, 786362) 1<sup>st</sup> edition six-inch OS map.</p>  <p>LiDAR (53.2) results.</p>  
<b>Impact of scheme</b>	No impact, the monument is located outside and to the north of the proposed landtake and it cannot be seen/viewed from the route.
<b>Proposed mitigation</b>	Avoidance, the site will be fenced off from the proposed works.
<b>Approx. distance from route</b>	133m north from the centreline of the route and outside the landtake.


<b>Identification No.</b>	AH79
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	RO023-007
<b>Townland</b>	Lugboy
<b>Chainage</b>	34+550
<b>Site Type</b>	Ringfort
<b>NGR/ITM</b>	189817, 286297/ 589770, 786313
<b>Description</b>	<p>The monument is located on a gentle east-facing slope of a broad east-west ridge. It presents as a circular grass-covered area defined by an over grown earthen bank, separated by a ditch from an outer bank which only survives to the west-northeast. The outer bank is overlain by a northeast-southwest field wall at the west and there is a northwest-southeast field wall outside the perimeter at the south. The original entrance cannot be identified.</p> <p>Compiled: Michael Moore                  Date of last visit: 22 May 1996                  LiDAR survey revealed a possible bivallate ringfort (53.3) c. 42m in diameter.</p>
<b>Sources</b>	<p><a href="http://www.archaeology.ie">www.archaeology.ie</a>                  National Monuments RMP File, LIDAR (53.3) (NGR 189824, 286293/ ITM 589778, 786309).                  1<sup>st</sup> edition six-inch OS map.</p>  <p>LiDAR results.</p>  

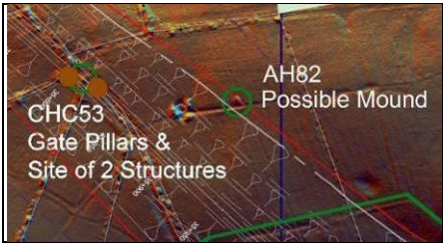
		
	View northwards towards RO023-007 taken from the route, only treetops visible from the route.	
<b>Impact of scheme</b>	No impact, located outside the landtake for the proposed road development. The monument is not visible from the proposed route.	
<b>Proposed mitigation</b>	Avoidance, the site will be fenced off from the proposed works.	
<b>Approx. distance from route</b>	110m to the north and outside the proposed landtake.	



<b>Identification No.</b>	AH80
<b>Legal Status</b>	Recorded Monument.
<b>RMP Reference No.</b>	RO023-012
<b>Townland</b>	Lugboy
<b>Chainage</b>	34+900
<b>Site Type</b>	Ringfort
<b>NGR/ITM</b>	190130, 286000/ 590084, 786016
<b>Description</b>	<p>Located in a broad saddle of land with higher ground to the east, northwest and southwest. The ringfort presents as a circular grass-covered area (32m north-south and 29.5m east-west in diameter) defined by an earthen bank with some scrub and an outer ditch. To the east southeast and to the south southeast, the perimeter of the site has been quarried.</p> <p>Compiled by: Michael Moore                  Date: 22 May 1996</p> <p>LiDAR records the site as an enclosure, possible ringfort c. 42m in diameter.</p>
<b>Sources</b>	<p><a href="http://www.archaeology.ie">www.archaeology.ie</a></p> <p>LiDAR (55.1) (NGR 190116, 285996/ ITM 590070, 786012).</p> <p>1<sup>st</sup> edition six-inch OS map.</p>
	

	  <p>Ringfort (RO023-012) located to the south of the proposed road development</p>
<b>Impact of scheme</b>	No direct impact. The site is avoided and located outside the proposed landtake but there will be a visual impact to the north as a result of the proposed road development.
<b>Proposed mitigation</b>	Avoidance. Testing of the proposed road development in the vicinity of the recorded monument.
<b>Approx. distance from route</b>	60m to the south of the centreline of the proposed road development.

<b>Identification No.</b>	AH81
<b>Legal Status</b>	None
<b>RMP Reference No.</b>	None
<b>Townland</b>	Cregga
<b>Chainage</b>	35+600
<b>Site Type</b>	Possible enclosure
<b>NGR/ITM</b>	190712, 285673/ 590666, 785689
<b>Description</b>	LiDAR (54.2) detected a circular embanked enclosure, c. 48m in diameter, possible ringfort. The potential site is not represented on any OS mapping and there is no obvious or discernible feature shown on the aerial photography for the area. Field inspection did not reveal any obvious surface trace. The site is divided by a scrub field boundary.
<b>Sources</b>	LiDAR (54.2) 
<b>Impact of scheme</b>	Part of the identified feature is located within proposed landtake and this will result in the removal of part of the possible site resulting in a direct and potential significant impact.

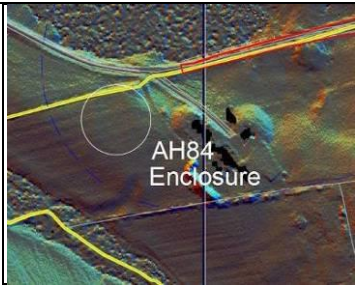
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation of the section of the possible enclosure within the landtake and test excavation of the wider area within the landtake.
<b>Approx. distance from route</b>	35m from centre line of proposed route and on the route.
<b>Photography</b>	 <p>Southwest facing view of identified site.</p>


<b>Identification No.</b>	AH82
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Cregga
<b>Chainage</b>	35+900
<b>Site Type</b>	Mound /Possible Cairn.
<b>NGR/ITM</b>	191011, 285553 / 590964, 785569
<b>Description</b>	A small mound, measuring c.8m in diameter, and ranging from 0.4 to 0.7m in height above the surrounding ground was revealed during field work. A cluster of stones (average dimensions 35cm x 25cm x 15cm are exposed on the eastern side and suggest the site is a possible cairn). No features are shown on the historic mapping and the area in which the mound appears is annotated as rough ground, located to the east of a former laneway.
<b>Sources</b>	Fieldwork identified this site. The site is shown on the LiDAR image but was not detected by this survey. 
<b>Impact of scheme</b>	Appears as a small, discrete cairn site and subject to a direct and potentially moderate impact.
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation of the small mound within the landtake and test excavation of the wider area within the landtake.
<b>Approx. distance from route</b>	70m northeast of centre line of route, located on the edge of the proposed landtake.

<b>Photography</b>	 <p>Northwest facing view of Mound.</p>
<b>Photography</b>	 <p>South facing view of stone cluster.</p>


<b>Identification No.</b>	AH83
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Cuilrevagh
<b>Chainage</b>	37+875
<b>Site Type</b>	Possible Enclosure
<b>NGR/ITM</b>	192176, 284238 / 592129, 784255
<b>Description</b>	LiDAR has identified a possible destroyed enclosure, 100m southeast of RO023-072, (a cashel site), though field inspection did not reveal any obvious surface trace. Not visible on 1 <sup>st</sup> edition six-inch OS. It is recorded as 25m in diameter with an upstanding central area 11m in diameter.
<b>Sources</b>	LiDAR (62.4).
<b>Impact of scheme</b>	No impact as the site lies beyond the landtake.
<b>Proposed mitigation</b>	Avoidance. No mitigation measures are necessary, test trenching along the route
<b>Approx. distance from route</b>	63m north of an auxilliary road and 98m west of centre line of proposed route.

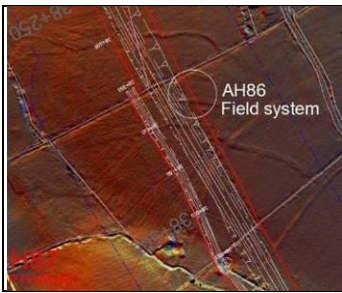
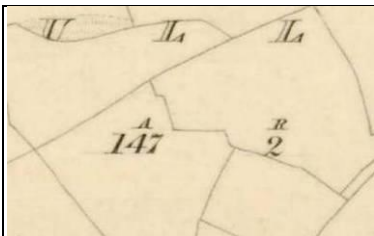
<b>Identification No.</b>	AH84
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA.
<b>Townland</b>	Cuilrevagh
<b>Chainage</b>	37+975
<b>Site Type</b>	Possible Enclosure
<b>NGR/ITM</b>	191983, 284101 / 591935, 784118
<b>Description</b>	LiDAR has identified a possible enclosure, though field inspection did not reveal any obvious surface trace. Not visible on 1 <sup>st</sup> edition six-inch OS. It is recorded as a very low profile circular enclosure, best preserved to the southwest, approx. 34m in diameter and probably a ringfort.
<b>Sources</b>	LiDAR (57.2).

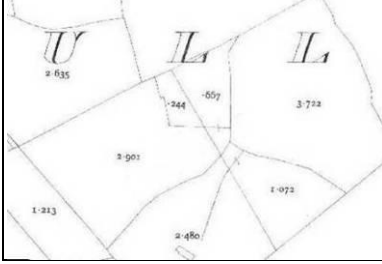

		
<b>Impact of scheme</b>	No impact	
<b>Proposed mitigation</b>	Avoidance. No mitigation measures are necessary.	
<b>Approx. distance from route</b>	60m southwest of centre line of ancillary road.	

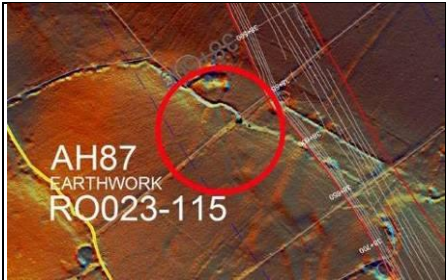
<b>Identification No.</b>	AH85
<b>Legal Status</b>	Recorded Monument.
<b>RMP Reference No.</b>	RO023-075
<b>Townland</b>	Tullen
<b>Chainage</b>	38+200
<b>Site Type</b>	Ringfort - unclassified
<b>NGR/ITM</b>	192461, 284022 / 592414, 784038
<b>Description</b>	<p>The site is marked as an oval embanked enclosure (external dimensions. c. 50m north/ south; c. 35m east/ west) on the 1837 and 1914 eds. of the OS six-inch maps. It is situated on the west-facing slope of Mullaghcreigha Hill. It is not visible at ground level in reclaimed pasture.</p> <p>Compiled by: Michael Moore Date of upload: 24 August 2010 Date of last visit: 06 June 1996 Date of last visit: 06 June 1996 <a href="http://www.archaeology.ie">www.archaeology.ie</a></p> <p>The site has been levelled leaving no obvious surface trace, as has the later field bank shown running south from south sector of the site on map. A small oval depression also shown on map c. 10m northeast survives measuring 15m x 8m and averaging 0.6m in depth. The interior is nettle filled. It appears to be a natural depression.</p> <p>Compiled by: Gearoid Conroy Date: 6 June 1996</p> <p>A site survey revealed that a small level oval depression in a sloping tillage field is all that remains of this ringfort above ground.</p>
<b>Sources</b>	<p><a href="http://www.archaeology.ie">www.archaeology.ie</a></p> <p>Gearoid Conroy 1996 National Monuments RMP File, LiDAR (62.2) recorded as an enclosure (30m in diameter) possible cashel with associated field systems.</p> <p>LiDAR.</p> <div style="text-align: center;">  </div>
<b>Impact of scheme</b>	No impact




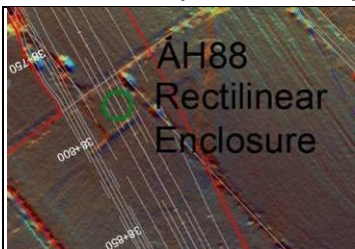
<b>Proposed mitigation</b>	Avoidance and test excavation of the proposed road development. The site itself will be fenced off from the proposed construction works as it is located outside the proposed landtake.
<b>Approx. distance from route</b>	80m to the east of the centre line of the proposed route.
<b>Photography</b>	 <p>South facing view of ringfort.</p>


<b>Identification No.</b>	AH86
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA.
<b>Townland</b>	Tullen
<b>Chainage</b>	38+375
<b>Site Type</b>	Possible Field System.
<b>NGR/ITM</b>	192515, 283806 / 592468, 783823
<b>Description</b>	<p>LiDAR survey recorded a relict field system whose boundaries spread across four modern fields. There were no apparent surface traces of these boundaries, though ephemeral traces of ridge and furrow were visible to the eye, extending over an area measuring c.60m east/ west by c.80m north/ south. The orientation of the ridge and furrow is different from the present field system. Seen on both the 1<sup>st</sup> edition six-inch OS map and the 25-inch OS map, as well as in LiDAR results.</p>
<b>Sources</b>	<p>Fieldwork, LiDAR (61.8) recorded a row of three small fields running north-south of probable antiquity, most likely to be post medieval in date. Historic maps namely the 1<sup>st</sup> edition six-inch OS mapping, and 25-inch OS mapping were reviewed.</p> <div style="display: flex; flex-direction: column; align-items: center;">   </div> <p>1<sup>st</sup> edition six-inch OS map.</p>

	 <p>25-inch OS map.</p>
<b>Impact of scheme</b>	Direct and moderate impact of part of a post-medieval field system.
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation of the section of the field system that lies partially within the landtake and test excavation of the wider area within the landtake.
<b>Approx. distance from route</b>	On route.
<b>Photography</b>	 <p>South facing view of field system.</p>

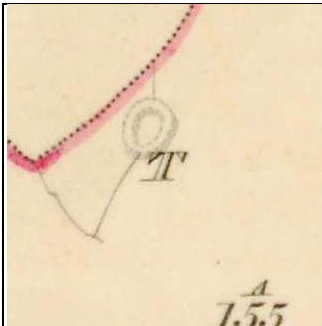
<b>Identification No.</b>	AH87
<b>Legal Status</b>	Recorded Monument.
<b>RMP Reference No.</b>	RO023-115
<b>Townland</b>	Tullen
<b>Chainage</b>	38+550
<b>Site Type</b>	Earthwork
<b>NGR/ITM</b>	192493, 283625 / 592446, 783642
<b>Description</b>	<p>Description: Marked as a small embanked enclosure (external diameter 25m) bisected by a north/ south lane on the 1837 ed. of the OS six-inch map and as a D-shaped field (dimensions c. 30m northeast/ southwest; c. 20m northwest/ southeast) truncated by a northeast/ southwest field bank at southeast on the 1914 ed. Situated on a west facing slope of Mullaghcreigha Hill, it is not visible at ground level.</p> <p>Compiled by: Michael Moore                  Date of upload: 24 August 2010</p>
<b>Sources</b>	<p><a href="http://www.archaeology.ie">www.archaeology.ie</a>                  Gearoid Conroy 1996 National Monuments RMP File                  LiDAR survey</p> 

<b>Impact of scheme</b>	No physical impact as the site lies outside the proposed landtake for the scheme.
<b>Proposed mitigation</b>	Avoidance.
<b>Approx. distance from route</b>	85m to the west of the centre line of the proposed route, outside the proposed landtake.
<b>Photography</b>	 <p>Southwest facing view of recorded monument.</p>

<b>Identification No.</b>	AH88
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA.
<b>Townland</b>	Tullen
<b>Chainage</b>	38+800
<b>Site Type</b>	Rectilinear Enclosure.
<b>NGR/ITM</b>	192682, 283455 / 592635, 783472
<b>Description</b>	<p>A rectilinear enclosure measuring c.27m northeast/ southwest by c.25m northwest/ southeast lies on the route. It lies in the corner of a field, its southeast and southwest sides defined by a bank measuring c.3.5m in width and 0.4m to 0.6m in height. From its south corner a bank extends in a northeast/ southwest orientation, measuring c.15m in length, c.3.5m in width and 0.4m in height.</p> <p>The site is not recorded in 1<sup>st</sup> edition six-inch Ordnance Survey or the 25-inch series. Possibly a moated site however a local historian, Sean Neary, has identified this area as possibly a stronghold of the Conroys, who after the battle of Cregga took control of this area. It is shown on the Hampton's maps (drawn c. 1813 but never published) and referred to in the geological office report of 1637 (Sean Neary <i>pers comm.</i>).</p>
<b>Sources</b>	<p>Fieldwork and local historian. Not identified by LiDAR survey.</p> 
<b>Impact of scheme</b>	Direct and potentially significant impact on the possible enclosure.
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation of the section of the rectilinear enclosure that lies partially within the landtake and test excavation of the wider area within the landtake.
<b>Approx. distance from route</b>	On route.

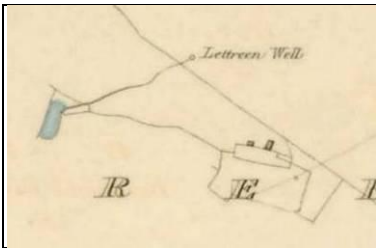

<b>Photography</b>	 <p>North facing view of rectilinear enclosure.</p>
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<b>Identification No.</b>	AH89
<b>Legal Status</b>	Recorded Monument.
<b>RMP Reference No.</b>	RO023-116
<b>Townland</b>	Lettreen
<b>Chainage</b>	39+400
<b>Site Type</b>	Ringfort - Rath
<b>NGR/ITM</b>	192678, 283188 / 592631, 783204
<b>Description</b>	<p>The site is described on <a href="http://archaeology.ie">archaeology.ie</a> as – ‘On a gentle southwest-facing slope of Mullaghcreigha Hill. Circular grass-covered area (diameter 32m east/ west; 31m north/ south) defined by a slight earthen bank (width 3.3m; internal height 0.4m; external height 1.1m) with some bushes northwest/ northeast which is reduced to a scarp (height 0.6- 1.1m) elsewhere, and a complete fosse (width of top 4.7- 5m; width of base 2.5- 3.5m; depth 0.2- 0.9m), with a slight outer bank (width 2.7m; height 0.3m) west southwest/ northwest. There is no identifiable original entrance’.</p> <p>Compiled by: Michael Moore                  Date of upload: 24 August 2010</p>

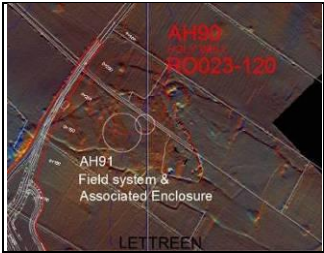
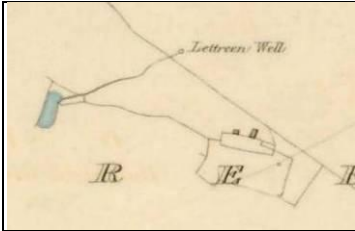

<b>Sources</b>	 <p>1<sup>st</sup> edition six-inch OS map.</p>
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<b>Impact of scheme</b>	No impact.
<b>Proposed mitigation</b>	Avoidance. No mitigation measures are necessary.
<b>Approx. distance from route</b>	115m to the west of an ancillary road.

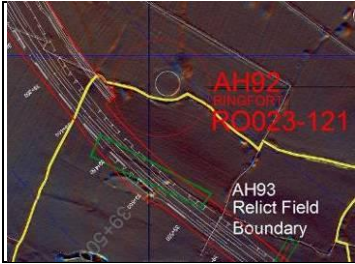
<b>Photography</b>	 <p>Northwest facing view of ringfort.</p>
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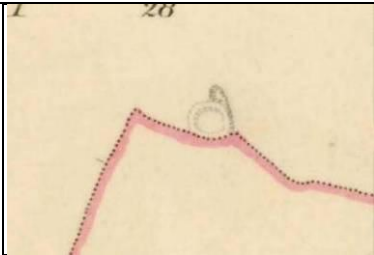


<b>Identification No.</b>	AH90
<b>Legal Status</b>	Recorded Monument
<b>RMP Reference No.</b>	RO023-120
<b>Townland</b>	Lettreen
<b>Chainage</b>	39+150
<b>Site Type</b>	Holy well.
<b>NGR/ITM</b>	193021, 283289 / 592974, 783306
<b>Description</b>	<p>The site is recorded on the 1<sup>st</sup> edition six-inch Ordnance Survey map and subsequent OS mapping.</p> <p>Described in the ASI file as follows: 'Marked on the 1837 and 1914 eds of the OS six-inch map and described as Lettreen Well in italic lettering on both, and situated on a gentle southwest facing slope of Mullaghcreigha Hill. Circular well (diameter. 0.9m) defined by a masonry wall (thickness 0.5m; external height 0.5m; internal height 1m) with an opening (width 0.6m) and two steps at the northeast. It is traditionally associated with St Patrick (Gormley 1989, 62), but there is no evidence of veneration'</p> <p>Compiled by: Michael Moore Date of upload: 24 August 2010</p>
<b>Sources</b>	<p>RMP and OS mapping.</p> <p>Gormley, M. (compiler) 1989b Tulsk parish in historic Maigh Ai. Aspects of its history and folklore. Journal of the Roscommon Historical and Archaeological Society 2, 61-2</p> 
<b>Impact of scheme</b>	No impact
<b>Proposed mitigation</b>	Avoidance, no mitigation measures are necessary.
<b>Approx. distance from route</b>	70m southeast of centre line of closest ancillary road.
<b>Photography</b>	 <p>Southwest facing view of holy well.</p>

<b>Identification No.</b>	AH91
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Lettreen
<b>Chainage</b>	39+200
<b>Site Type</b>	Field System & associated platform (enclosure).

<b>NGR/ITM</b>	192682, 283238 / 592965, 783255
<b>Description</b>	<p>In the townland of Lettreen, there is a relict field system, recorded by LiDAR. The field system is recorded as a complex area of linear features, possibly related to extraction activity but also linked with possible enclosure features.</p> <p>Field inspection revealed visible remains consisting of a boundary bank, zig-zagging in a general east/ west direction for c.111m. The bank varies in width from c.2m to 4m, and stands up to 1m in height. Midway along its length, another bank projects from it – it measures c.2m in width and 0.3m in height, its full length is not perceptible. At the eastern end of the first bank, there is a rectilinear raised platform, measuring c.34m northeast/ southwest by c.20m northwest/ southeast. There is evidence for terracing associated with this platform.</p> <p>To the immediate north of the field system, LiDAR recorded an enclosure site (61.6) overlain by the field system and truncated to the northeast, it is shown as c. 22m in diameter. During the field inspection traces of it were visible, it was recorded as measuring c.21m northwest/ southeast by c.10m northeast/ southwest – it is defined by a bank c.2m and 0.5m to 0.7m in height. The field system is visible on the 1<sup>st</sup> edition six-inch Ordnance Survey.</p>
<b>Sources</b>	<p>Fieldwork, OS mapping, and LiDAR (61.5 field system and 61.6 enclosure) (see below).</p> <div style="display: flex; flex-direction: column; align-items: center;">   </div> <p>1<sup>st</sup> edition six-inch OS map</p>
<b>Impact of scheme</b>	No direct impact.
<b>Proposed mitigation</b>	Avoidance.
<b>Approx. distance from route</b>	Adjacent to ancillary road.
<b>Photography</b>	 <p>East southeast facing view of field system.</p>

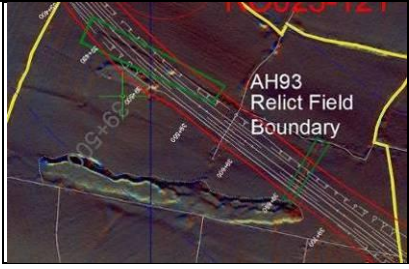


<b>Photography</b>	 <p>South southwest facing view of field system.</p>
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<b>Identification No.</b>	AH92
<b>Legal Status</b>	Recorded Monument.
<b>RMP Reference No.</b>	RO023-121
<b>Townland</b>	Doughloon/ Lettreen
<b>Chainage</b>	39+425
<b>Site Type</b>	Ringfort
<b>NGR/ITM</b>	193071, 282953 / 593024, 782970
<b>Description</b>	<p>The remains of the outer enclosure of a ringfort. A ditch measuring 1.5m to 3.5m in width and ranging in depth from 0.15 to 0.4m defines the southern side of the ringfort. This ditch becomes ephemeral but follows a c.40m diameter on the northern side of the ringfort. The ringfort is visible on the 1<sup>st</sup> edition OS map. The prominent southern arc of the ringfort has been incorporated into a townland boundary.</p> <p>Notes from the ASI describe the site:                  'The site is marked as a circular embanked enclosure (external diameter c. 40m) incorporated into the townland boundary with Doughloon on the 1837 and 1914 eds. of the OS 6-inch map. It is situated on a gentle south-facing slope of Mullaghcreigha Hill. It is not visible at ground level in reclaimed pasture, apart from a curve in the drystone wall and hedge boundary southeast/ southwest'.</p> <p>Compiled by: Michael Moore                  Date of upload: 24 August 2010                  Date of last visit: 08 May 1996  <a href="http://www.archaeology.ie">www.archaeology.ie</a></p> <p>The site is destroyed, nothing remains but a slight curve in the southwest townland boundary fence at the south. The site is located on south shelf of high ridge of good grazing land.</p> <p>Compiled by: Anne Gannon                  Date: 25<sup>th</sup> June 1971</p>
<b>Sources</b>	<p>Anne Gannon Field Survey 1970-1972 (Unpublished)                  National Monuments RMP File  <a href="http://www.archaeology.ie">www.archaeology.ie</a></p> <p>Fieldwork, and LiDAR survey (65.7) identified the site as a roughly circular enclosure, c. 44m in diameter. Destroyed to the north west.</p> 

	 <p>1<sup>st</sup> edition six-inch OS map.</p>
<b>Impact of scheme</b>	No impact as the site lies outside the landtake.
<b>Proposed mitigation</b>	Avoidance.
<b>Approx. distance from route</b>	50m to the west of the centre line of an ancilliary road. 75m northeast of the centre line of the proposed route.
<b>Photography</b>	 <p>Northwest facing view of ringfort.</p>
<b>Photography</b>	 <p>Southwest facing view of ringfort.</p>

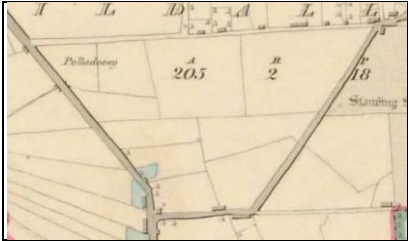

<b>Identification No.</b>	AH93
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA.
<b>Townland</b>	Doughcloon
<b>Chainage</b>	39+425 – 39+650
<b>Site Type</b>	Relict Field Boundary.
<b>NGR/ITM</b>	192988, 282888 / 592941, 782903 – 193109, 282823 / 593062, 782840 and 193181, 282763 / 593134, 782780
<b>Description</b>	In Doughloon, a relict field boundary, in the form of a bank, runs in a northwest/ southeast orientation. It is not visible on either the 1 <sup>st</sup> edition six-inch Ordnance Survey or the 25-inch series. At chainage 39+650 a relict field bank was identified, running in a north/ south orientation for c.41m, measuring c.2m in width and 0.3 to 0.4m in height. Not visible on any of the Ordnance Survey maps.
<b>Sources</b>	Fieldwork. LiDAR image showing the area detected as a possible relict field boundary by field inspection.



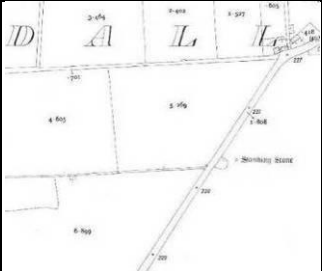
	
<b>Impact of scheme</b>	Direct and moderate impact on part of a possible relict field system.
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation of a section of the relict field boundary that lies partially within the landtake and test excavation of the wider area within the landtake.
<b>Approx. distance from route</b>	On route.
<b>Photography</b>	 <p>East southeast facing view of field boundary.</p>  <p>East southeast facing view of field boundary at ch. 39+650</p>

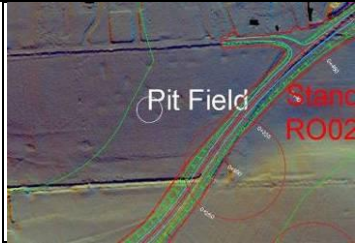

### Strokestown Link Road

<b>Identification No.</b>	AH 94
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Kildallogge
<b>Chainage</b>	40+500 main line with the Link Road from 0+00-0+450
<b>Site Type</b>	Two possible ringforts.
<b>NGR/ITM</b>	193253, 281694 / 593206, 781711 (centre point of field)
<b>Description</b>	<p>This field was walked during a site inspection in June but long meadow grass stopped any positive identification being made of potential archaeological features, it was uneven underfoot. The large field that appears now was previously subdivided on the 1st edition six-inch OS map. No discernible features were noted on the aerial photography or LiDAR survey.</p> <p>There is local knowledge of two ringforts in the field at Kildallogge. A revisit to the site was undertaken in Spetember after the grass was cut. A meeting took place with the land owner, a Mr. George Tanner. The fields had been in the family for generations and in that time had always been used as meadow and pastureland. Mature trees (appearing to the south and north) and hedgerows form the field boundary.</p>


	<p>The proposed location of the roundabout is at a highpoint within the field, and the land slopes away to the south. Scrub and hedgerow surround the lower fields, where a stream/ drain runs through to Lough Lee in the west. The land rises again to the north, where intermittent housing faces onto this small valley. A cemetery built in the last 80 years appears on the opposite side of the road to the southeast of this field, its gates were donated from the Strokestown estate. The 1st edition six-inch OS mapping shows two structures within the field, facing onto the southern boundary road. These structures are gone by the 25-inch OS mapping, replaced by a band of trees, a well is depicted to the very southwest near the modern day stile. Mr. Tanner mentioned a copse of trees was removed from this high ground in the 1950s.</p> <p>The field affords good views to the north, west, and east, limited to the south towards Strokestown and while linear features were noted in the field along with terracing, there were no obvious enclosing elements that fit the morphology of a ringfort or enclosure.</p> <p>The land forms a plateau at the highest area of the field (west of centre along the southern boundary) with linear features radiating out to the south. These linears appear as gullies or ditches on the surface of the field and in some places extend to 7m-10m in width with an average depth of 0.2-0.5m. A number of ringforts are recorded within the environs of the field.</p>
<p><b>Sources</b></p>	<p>1st edition six-inch Ordnance Survey map.</p>  <p>LiDAR survey did not reveal any features in this area and geophysical survey has failed to detect any subsurface anomalies of an archaeological origin that would correspond to an enclosure or ringfort.</p> <p>Geophysical survey (GA13) of the field took place to assist in identifying any potential below ground remains. The results produced no significant findings, anomalies were interpreted as possible curvilinear ditches and field boundaries were detected as shown on the 1st edition six-inch OS. Widespread responses were indicative of soil importing that impacted the effectiveness of the survey.</p> <p>Aerial Photography.</p> 
<p><b>Impact of scheme</b></p>	<p>The proposed scheme will impact on this field but field inspection, LiDAR and geophysical survey have failed to detect any subsurface anomalies or above ground features that reflect the presence of a ringfort. The proposed roundabout and connecting roads will be located in this field and have a direct impact on this area of potential. No impact recorded to date.</p>
<p><b>Proposed mitigation</b></p>	<p>Preservation by record. Targeted test excavation of the field where previous surveys have taken place and test excavation of the wider area within the landtake.</p>
<p><b>Approx. distance from route</b></p>	<p>On the route.</p>


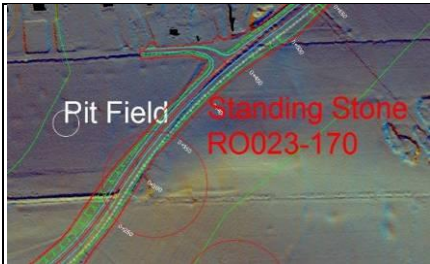
<p><b>Photography</b></p>		<p>East facing view of the field where local knowledge has suggested the presence of two ringforts.</p>
<p><b>Photography</b></p>		<p>Southwest facing view of linear ditch/gully.</p>


<p><b>Identification No.</b></p>	<p>AH95</p>
<p><b>Legal Status</b></p>	<p>NA</p>
<p><b>RMP Reference No.</b></p>	<p>NA.</p>
<p><b>Townland</b></p>	<p>Kildalloge.</p>
<p><b>Chainage</b></p>	<p>40+500 main line and 0+300-0+450 along the Link road</p>
<p><b>Site Type</b></p>	<p>Possible Pit Field.</p>
<p><b>NGR/ITM</b></p>	<p>193389, 281747 / 593339, 781767</p>
<p><b>Description</b></p>	<p>LiDAR survey (64.4) recorded a pit field adjacent and to the northwest of the proposed road improvements. The field slopes to the south to a drain/ stream running east/ west. A field inspection revealed a number of depressions (six pits) within the field running in an east/ west direction along the northern boundary. The pit field does not feature on any historic mapping.</p> <p>The depressions measured an average of 4.5m (east/ west) x 2.5m, with a depth of 0.3m. At the eastern end of this field a larger north/ south depression was noted, measuring 10m (north/ south) x 2.5m (east/ west). Local enquires didn't shed any light on the causes of these depressions within the field.</p> <p>The LiDAR describes the area as three rows of irregular rectangular pits, each c. 8m x 5m with multiple orientations.</p>
<p><b>Sources</b></p>	<p>25-inch Ordnance Survey map – no features are shown.</p>  <p>LiDAR (64.4) results with proposed route.</p>

		
<b>Impact of scheme</b>	Avoided by proposed development, the nearest pit is 10m south of centre line of ancillary road. The centre of the LiDAR ID is located 75m from the centre point of the proposed upgrade to the existing road. No impact.	
<b>Proposed mitigation</b>	Avoidance and testing of road scheme in the vicinity of the possible pitfield.	
<b>Approx. distance from route</b>	Adjacent to route.	
<b>Photography</b>		
West facing view of pit field within site.		

<b>Identification No.</b>	AH96
<b>Legal Status</b>	Recorded Monument
<b>RMP Reference No.</b>	RO023-212
<b>Townland</b>	Kildalloge
<b>Chainage</b>	0+250 along the Link road to Strokestown
<b>Site Type</b>	Ringfort.
<b>NGR/ITM</b>	193549, 281589 / 593501, 781606
<b>Description</b>	<p>The RMP file records this monument as an enclosure. It is located at the northern edge of a plateau. A D-shaped grass-covered area (dimensions 34.7m east/ west; 34m north/ south) defined by a slight scarp (height 0.2-0.3m) northeast/ southwest with slight traces of a bank (external width 3.2m; height 0.1m) and outer ditch (width approximately 4m) at south. It is truncated by an east/ west field bank, now removed, at north and a north/south field bank, also removed, at west. Archaeological testing (01E0564) approximately 95m to the east failed to produce any related material. Rath (RO023-171001) is approximately 120m to the east southeast.</p> <p>Compiled by: Michael Moore Date of upload: 24 August 2010</p>
<b>Sources</b>	RMP file, LiDAR (64.3) records a circular enclosure, low profile, diameter c. 40m, probable ringfort and recorded as a ringfort (RO023-212).


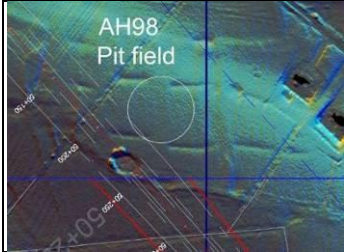

	 <p>LiDAR with proposed road.</p>
<b>Impact of scheme</b>	No impact.
<b>Proposed mitigation</b>	Avoidance and test excavation of the proposed link route.
<b>Approx. distance from route</b>	The monument is located 95m northeast of auxilliary road

<b>Identification No.</b>	AH97
<b>Legal Status</b>	Recorded Monument.
<b>RMP Reference No.</b>	RO023-170
<b>Townland</b>	Kildallogge.
<b>Chainage</b>	Located along the Link road to Strokestown at 0+300
<b>Site Type</b>	Standing Stone.
<b>NGR/ITM</b>	193474, 281691 / 593426, 781708
<b>Description</b>	<p>No trace of the standing stone remains today, although a rise in field is noted where the standing stone would have stood.</p> <p>Description: Marked similarly on the 1837 and 1914 eds of the OS six-inch maps and described as a standing stone on both. It is situated in a low-lying position with higher ridges to the east, south and west. Described as c. 0.9m high (OS Name Book), it is not now visible at ground level.</p> <p>Compiled by: Michael Moore Date of upload: 24 August 2010 Date of last visit: 14 April 1996</p>
<b>Sources</b>	<p><a href="http://www.archaeology.ie">www.archaeology.ie</a>, RMP file notes.</p> <p>1st edition six-inch Ordnance Survey map (below) and 25-inch OS mapping.</p> <div style="display: flex; flex-direction: column; align-items: center;">   </div>
<b>Impact of scheme</b>	The location of the standing stone could not be ascertained in the field. No impact on the recorded site.

<b>Proposed mitigation</b>	Avoidance.
<b>Approx. distance from route</b>	Judging by its original position on the OS mapping, the site of the standing stone is 25m southeast of centre line of the proposed link road.
<b>Photography</b>	 <p>East south east view of site of recorded standing stone.</p>

### Archaeology Section D (Ch. from 50+000 to Ch. 54+000).

<b>Identification No.</b>	AH98								
<b>Legal Status</b>	NA								
<b>RMP Reference No.</b>	NA.								
<b>Townland</b>	Lavally								
<b>Chainage</b>	50+100 – 50+300								
<b>Site Type</b>	Possible Pit Fields (three pits recorded).								
<b>NGR/ITM</b>	LiDAR centre point 194012, 282035 / 593965, 782052 Pit 1 193993, 282029 / 593946, 782046 Pit 2 193995, 282056 / 593948, 782073 Pit 3 194025, 282004 / 593978, 782021								
<b>Description</b>	<p>From 50+100 to 50+300, LiDAR (65.1) has recorded a pit field –six long rectilinear depressions arranged in three parallel lines running east/ west. These depressions are more elongated than the oval pits that would be more typical of the other pit fields found along the route. Field inspection along the route recorded three of these pits:</p> <table border="1"> <thead> <tr> <th>No.</th> <th>Description of pits found in Lavally</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>This pit measures 37m E-W by 4m N-S, and 0.3m in depth</td> </tr> <tr> <td>2</td> <td>This pit measures 26m E-W (before merging into hedge) by 4m N-S, and 0.3m in depth</td> </tr> <tr> <td>3</td> <td>This pit measures 23m E-W by 4m in width, and 0.4m in depth</td> </tr> </tbody> </table> <p>Not visible on the 1<sup>st</sup> edition six-inch OS map.</p> <p>The LiDAR survey describes this site as three rows of very elongated pits, c.29m x 4m in each case. Pit field (65.1) will be impacted by the proposed corridor and while not a protected monument this may afford an opportunity to study these enigmatic features.</p> <p>A pond feature was also noted during field work amongst the pits and on the proposed route. According to the landowner this pond feature has been dredged and the encircling stones are a result of this activity.</p> <p>Geophysical survey (GA11) revealed clear and coherent traces of pits and a field system. Possible small enclosure features were also detected.</p> <p>There was no evidence recorded for a human origin for the enclosed depressions. The contrasting plan form of these depressions as noted in the hydrogeological assessment might indicate that it is less certain that they are derived from natural processes. Results are inconclusive and further archaeological investigations are recommended.</p>	No.	Description of pits found in Lavally	1	This pit measures 37m E-W by 4m N-S, and 0.3m in depth	2	This pit measures 26m E-W (before merging into hedge) by 4m N-S, and 0.3m in depth	3	This pit measures 23m E-W by 4m in width, and 0.4m in depth
No.	Description of pits found in Lavally								
1	This pit measures 37m E-W by 4m N-S, and 0.3m in depth								
2	This pit measures 26m E-W (before merging into hedge) by 4m N-S, and 0.3m in depth								
3	This pit measures 23m E-W by 4m in width, and 0.4m in depth								
<b>Sources</b>	LiDAR survey (65.1) results (pit fields visible in southeast).								

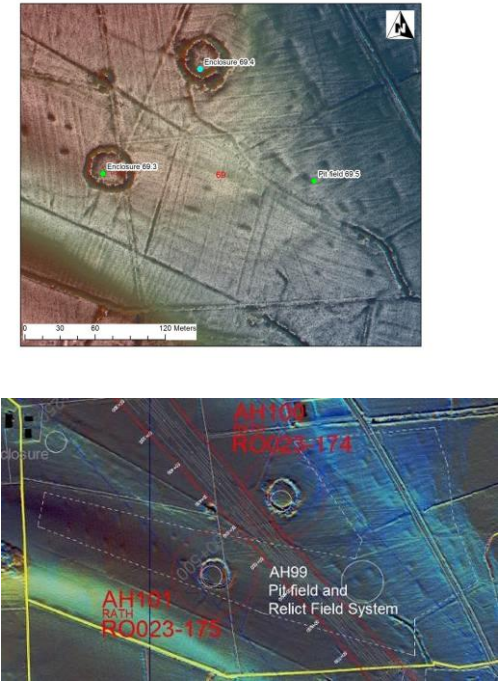

	  <p>LiDAR image with proposed road.</p>
<b>Impact of scheme</b>	Potentially moderate and direct impact.
<b>Proposed mitigation</b>	Preservation by record by archeological excavation. The presence of a geologist will allow for recording of further data in order to determine a more conclusive interpretation for the origin of the pits. Test excavation of the wider area within the landtake.
<b>Approx. distance from route</b>	On the route
<b>Photography</b>	 <p>Southeast facing view of Pit 1.</p>

<b>Identification No.</b>	AH98A
<b>Legal Status</b>	Newly added to the SMR RO023-219 (8 August 2016)
<b>RMP Reference No.</b>	N/A
<b>Townland</b>	Lavalley
<b>Chainage</b>	50+150
<b>Site Type</b>	Redundant Record
<b>NGR/ITM</b>	193903 282033 ITM 593855 78855
<b>Description</b>	<p>Taken from archaeology.ie 'First identified in an unpublished archaeological LiDAR report (David, 2015) commissioned by Roscommon County Council as part of the Environmental Impact Assessment for the N5 Ballaghaderreen-Scramoge road development. It is situated in pasture on a fairly level landscape. Although the LiDAR image (ibid. 168) shows what appears to be a road or hollow way as an area (wth c 10m) between two drains or banks running east-west (length c. 120m), no archaeological feature can be confirmed through field inspection. As this feature could not be confirmed through field inspection it will become a redundant record.</p> <p>Archaeological investigation work has taken place in the townland of</p>

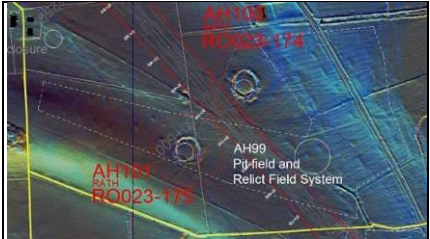
	Lavally, a possible trackway located to the southeast of the SMR feature was identified through geophysical survey (Area 11 anomaly no. 4) (Bonsall & Gimson 2016) and subjected to test excavation (T14, T16-T18), no archaeology was found (O'Connell 2016, Licence No.15E0589).
<b>Sources</b>	Davis, S. 2015 N5 Strokestown-Ballaghaderreen preferred route corridor: LiDAR assessment. Unpublished report for Roscommon County Council: UCD School of Archaeology.
<b>Impact of scheme</b>	No impact
<b>Proposed mitigation</b>	A programme of archaeological test trenching will be designed in order to establish the presence or absence, as well as the nature and extent, of any structural deposits that may be present within the landtake of the proposed road development.  Should any subsurface features associated with this constraint be encountered, an appropriate ameliorative strategy will be implemented. This will entail licensed archaeological excavation in full or part of any identified remains (preservation by record).
<b>Approx. distance from route</b>	On the route.


<b>Identification No.</b>	AH99
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA.
<b>Townland</b>	Lavally
<b>Chainage</b>	50+350 – 50+750
<b>Site Type</b>	Possible Pit field/relict field system
<b>NGR/ITM</b>	LiDAR centre point 194300, 281814 / 594253, 781831 194106, 281761 / 594059, 781778 – 194346, 281638 / 594299, 781655
<b>Description</b>	<p>A pit field that has been recorded by the LiDAR survey (69.5) on the route. A dozen or so pits are recorded running in five or so lines – humps and hollows were visible on the route. A field survey recorded three possible irregular pits appearing to the east of ringfort RO023-175. Measurements varied, Pit 1 was 3m x 5m x 0.6m, Pit 2 was roughly circular and 6m in diameter and 0.6m in depth, and Pit 3 was 9m x 4m x 0.7m.</p> <p>The LiDAR survey describes this site as two rows of rectangular pits, oriented north/ south. 12 x 5m. There are more extensive areas of pitting downslope to the east.</p> <p>At this point the road passes between two upstanding ringforts RO023-175 and RO023-174. LiDAR records these sites as 69.4 and 69.3 respectively. It also passes through and impacts upon pit field 69.5.</p> <p>Ringfort (RO023-175) and its buffer zone are located outside the proposed landtake to the south of the route while the ringfort (RO023-174) is located immediately to the north and while the monument is located outside the landtake its area of interest falls within the landtake.</p> <p>Geophysical survey (GA11) revealed clear and coherent traces of pits in a known pitfield and a field system. Possible small enclosure features were also detected.</p> <p>A sherd of pottery recovered from within one of the depressions indicated that it is an archaeological feature of relatively recent origin and sampling evidence produced a post medieval date ( AD 1687-1927). However the size, depth and plan form of the depressions and the underlying geology indicate that they could be formed by natural processes. Results are inconclusive and further archaeological investigations are recommended.</p>

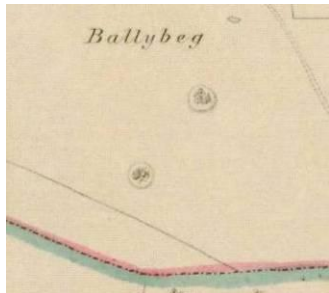


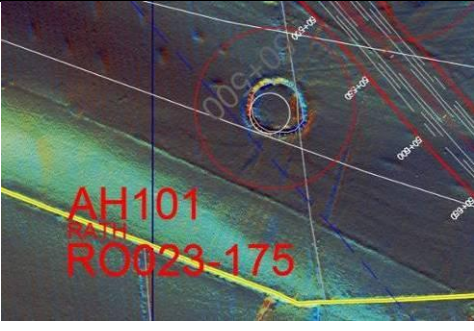

<p><b>Sources</b></p>	<p>LIDAR (69.5) results (pits visible running in a northwest/ southeast direction).</p> 
<p><b>Impact of scheme</b></p>	<p>Potentially moderate and direct impact</p>
<p><b>Proposed mitigation</b></p>	<p>Preservation by record by archeological excavation. The presence of a geologist will allow for recording of further data in order to determine a more conclusive interpretation for the origin of the pits. Test excavation of the wider area within the landtake.</p>
<p><b>Approx. distance from route</b></p>	<p>On the route.</p>
<p><b>Photography</b></p>	 <p>Southeast facing view of pit field hollow.</p>

<p><b>Identification No.</b></p>	<p>AH100</p>
<p><b>Legal Status</b></p>	<p>Recorded Monument.</p>
<p><b>RMP Reference No.</b></p>	<p>RO023-174</p>
<p><b>Townland</b></p>	<p>Lavally</p>
<p><b>Chainage</b></p>	<p>50+500</p>
<p><b>Site Type</b></p>	<p>Ringfort</p>
<p><b>NGR/ITM</b></p>	<p>194206, 281820 / 594158, 781837</p>
<p><b>Description</b></p>	<p>The site is located at the crest of an east-facing slope. The site consists of a circular grass and scrub-covered area (diameter 29.8m north/ south; 27.5m east/ west) defined by an overgrown earthen bank (width 4.4-7.7m; internal height 0.1-0.6m; external height 1.3m at south to 2.2m at west) and outer fosse (width of top 5.6-6m; width of base 1.8-2.6m; depth 0.5-0.9m) which has been extended to form ponds at the southwest (dimensions 16m x 6m)</p>

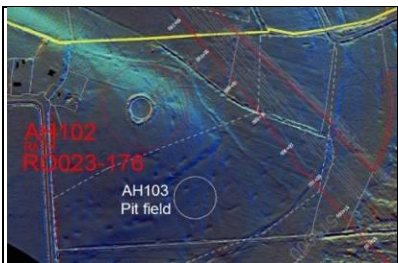
	<p>and northwest (dimensions 12m x 6m). The modernised entrance (width 3m) and causeway (width 6m) are at south southeast. Rath (RO023-173) is c. 210m to the north and rath (RO023-175) is c. 90m to the southwest.</p> <p>Compiled by: Michael Moore Date of upload: 24 August 2010 Date of last visit: 30 April 1996 <a href="http://www.archaeology.ie">www.archaeology.ie</a></p> <p>The site is a roughly circular area surrounded by a defaced earthen stone bank and outer U-shaped fosse. The interior is level and slopes very slightly from west to east. It is very overgrown with thistles and nettles. The bank is also overgrown with a lot of hawthorn bushes on the western portion of bank. There is a high outer face on bank. The fosse is deep and water filled at the southwest. The remainder is covered with briars etc. There is a large semi-circular annex bounded by a defaced bank and outer fosse. Possible causeway entrance now very defaced at the north. The site is located on the east shelf just off crest of a ridge of good grazing land. Diameter north/south c. 33m.</p> <p>Compiled by: Anne Gannon Date: 29<sup>th</sup> June 1971</p> <p>The LiDAR survey describes the monument as 41m in diameter with a possible bailey to the north, suggesting that it may be a ringwork.</p> <p>Testing confirmed the presence of archaeological features, comprising pits within a 'pitfield complex' and drains but no associated features. It is proposed that limited environmental analysis and radiocarbon dating will provide further information on the nature and character of the identified features.</p>
<p><b>Sources</b></p>	<p>Appears on all versions of OS historic mapping. Anne Gannon Field Survey 1970-1972 (Unpublished) National Monuments RMP File <a href="http://www.archaeology.ie">www.archaeology.ie</a> <a href="#">LiDAR survey (69.4).</a></p> 
<p><b>Impact of scheme</b></p>	<p>No direct physical impact to the upstanding recorded remains, the proposed road development will be visible from the site.</p>
<p><b>Proposed mitigation</b></p>	<p>Avoidance. The proposed road development runs between this ringfort and another ringfort (recorded monument RO023-175), 125m to the southwest (measuring centre to centre) (or 90m edge to edge). The area of land between the two ringforts is considered to be of archaeological potential. Geophysical survey (GA11) revealed clear and coherent traces of pits in a known pitfield and a field system. Possible small enclosure features were also detected. Test excavation did not reveal any associated features between these two monuments (O'Connell 2016).</p>
<p><b>Approx. distance from route</b></p>	<p>50m northeast of centreline of route and to the centre of the monument</p>

<b>Photography</b>	 <p>Northwest facing view of ringfort (RO023-174).</p>
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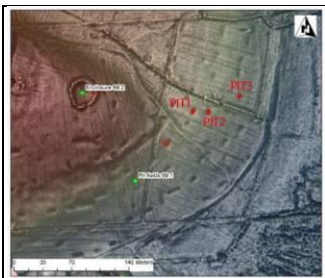
<b>Identification No.</b>	AH101
<b>Legal Status</b>	Recorded Monument
<b>RMP Reference No.</b>	RO023-175
<b>Townland</b>	Lavally
<b>Chainage</b>	50+525
<b>Site Type</b>	Ringfort
<b>NGR/ITM</b>	194124, 281728 / 594076, 781745
<b>Description</b>	<p>The site is located on the south-facing crest of a low ridge. The site consists of a circular grass-covered area (dimensions 30.8m east/ west; 30.2m north/ south) defined by a low earthen bank (width 3-5.5m; internal height 0.2-0.4m; external height 0.8-1.2m), which is reduced to a scarp (height 1.2m) from the southeast to the west southwest, and an outer fosse (width of top 4.6-6.6m; width of base 2.3-2.9m; diameter 0.2-0.5m). There is no visible entrance and the site is overlain by a north/ south field bank towards the perimeter at the east. Rath (RO023-174) is approximately 90m to the northeast and rath (RO023-176) is approximately 180m to the south southeast.</p> <p>Compiled by: Michael Moore                  Date of upload: 24 August 2010                  Date of last visit: 30 April 1996  <a href="http://www.archaeology.ie">www.archaeology.ie</a></p> <p>The LiDAR survey describes this monument as 44m in diameter and that it is a probable ringfort recorded as RO023-175.</p>
<b>Sources</b>	<p>Appears on all versions of OS historic mapping.                  National Monuments RMP File  <a href="http://www.archaeology.ie">www.archaeology.ie</a>                  LiDAR (69.3).                  1st edition six-inch OS map</p>  <p>LiDAR survey (69.3) with proposed road.</p>

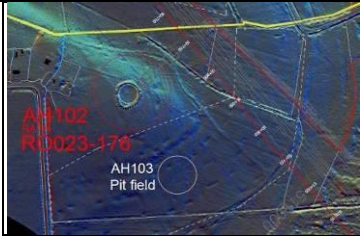



		
<b>Impact of scheme</b>	No direct physical impact to the upstanding recorded remains, the proposed road development will be visible from the site.	
<b>Proposed mitigation</b>	Avoidance. The proposed road development runs between this ringfort and another ringfort (recorded monument RO023-175), 125m to the southwest (measuring centre to centre) (or 90m edge to edge). The area of land between the two ringforts is considered to be of archaeological potential. Geophysical survey (GA11) revealed clear and coherent traces of pits in a known pitfield and a field system. Possible small enclosure features were also detected. Test excavation did not reveal any associated features between these two monuments (O'Connell 2016).	
<b>Approx. distance from route</b>	75m south west of the centre line of the proposed road development to the centre of this monument.	
<b>Photography</b>		<p>Northwest facing view of the two ringforts, between which the proposed route will pass. Ringfort (RO023-175) is to the left, ringfort (RO023-174) to the right.</p>

<b>Identification No.</b>	AH101A
<b>Legal Status</b>	N/A
<b>RMP Reference No.</b>	N/A
<b>Townland</b>	Lavally
<b>Chainage</b>	50+490
<b>Site Type</b>	Fulacht fia
<b>NGR/ITM</b>	ITM 594097, 781813
<b>Description</b>	Testing confirmed the presence of a disturbed fulacht fia (AH 101A) comprising a subcircular trough (4m northwest-southeast 3m northeast-southwest x 0.9m deep) associated with a 7.7m northwest-southeast x 2m northeast-southwest x 0.15m deep burnt spread.
<b>Sources</b>	Test Excavation Report (O'Connell 2016, AH05, Lavally & Vesnoy)
<b>Impact of scheme</b>	Direct and significant impact.
<b>Proposed mitigation</b>	Preservation by record. Excavation of the fulacht fia and test excavation of the wider area of the landtake.
<b>Approx. distance from route</b>	On the route.


<b>Identification No.</b>	AH102
<b>Legal Status</b>	Recorded Monument.
<b>RMP Reference No.</b>	RO023-176
<b>Townland</b>	Vesnoy
<b>Chainage</b>	50+750
<b>Site Type</b>	Ringfort – rath
<b>NGR/ITM</b>	194240, 281530 / 594192, 781547
<b>Description</b>	<p>The site is located on an east-facing slope. The site consists of a circular grass-covered area (diameter 30.6m east/ west; 30.2m north/ south) defined by an earthen bank (width 4m-4.4m west to north quadrant to 5.4-5.6m east/ south quadrant, internal height 0.5m at west to 0.9m at north; external height 0.6m at west to 1.2m at north) with no visible fosse. There is a modernised entrance (width 2m) at southeast. Rath (RO023-175) is c. 180m to the north northwest.</p> <p>Compiled by: Michael Moore Date of upload: 24 August 2010 Date of last visit: 30 April 1996 <a href="http://www.archaeology.ie">www.archaeology.ie</a></p> <p>The site consist of a circular area surrounded by an earthen stone bank. The interior is level and slopes from west to east. There are some tree trunks remaining on the bank and in interior. An entrance occurs to the south southeast. At the east; the inner face of the bank is slightly defaced. The site is located on a steep east shelf of a ridge of good grazing land. Diameter north/ south 23m, east/ west 31 m entrance 2m.</p> <p>Compiled by: Anne Gannon Date: 29<sup>th</sup> June 1971</p>
<b>Sources</b>	<p>OPW Field Notes 1962 Anne Gannon Field Survey 1970-1972 (Unpublished) National Monuments RMP File <a href="http://www.archaeology.ie">www.archaeology.ie</a></p>  <p>The LiDAR survey (69.2) with proposed road.</p>
<b>Impact of scheme</b>	No impact
<b>Proposed mitigation</b>	Avoidance. No mitigation measures are necessary.
<b>Approx. distance from route</b>	120m to the southwest of the centre line of the proposed road development.

<b>Identification No.</b>	AH103
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA.
<b>Townland</b>	Vesnoy.
<b>Chainage</b>	50+750 – 50+950
<b>Site Type</b>	Possible pit field.

<b>NGR/ITM</b>	LiDAR centre point 194298, 281420 / 594251, 781437 194287, 281523 / 592440, 781540 – 194417, 281400 / 594370, 781417								
<b>Description</b>	<p>In the townland of Vesnoy the LiDAR survey revealed another extensive pit field on the route – numerous pits are recorded, distributed in a broad swathe that runs from the north to the southwest. Again, nothing clearly discernible for the most part, except for humps and hollows which appear to be natural topographical features. Field inspection did, however, revealed three roughly oval pits associated with the pit field. They are tabulated as follows:</p> <table border="1"> <thead> <tr> <th>Number</th> <th>Description of pits in Vesnoy</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>This pit measures 10m north/ south by 5m east/ west, and 0.4 to 0.5m in depth</td> </tr> <tr> <td>2</td> <td>This pit measures 6m north/ south by 3.5m east/ west, and 0.4 to 0.5m in depth</td> </tr> <tr> <td>3</td> <td>This pit measures 7m north/ south by 4m east/ west, and 0.5m in depth</td> </tr> </tbody> </table> <p>The LiDAR survey describes this site as an extensive area of pits running perpendicular to hillslope. c.16m x 3.5m, but variable. The site will be impacted upon by the route.</p> <p>Geophysical survey (GA11) revealed clear and coherent traces of pits in a known pitfield and a field system. Possible small enclosure features were also detected.</p> <p>No archaeological material was noted within any of the surface depressions. Also the size, depth and plan form of depressions and the underlying geology indicate that they could be formed by natural processes. Results are inconclusive and further archaeological investigations are recommended.</p> <p>A total of 10 pits/depressions were examined in the combined programme of geophysical survey and ERI analysis followed by test trenching. Nine of these pits were recorded in the course of trenching. Seven out of these nine pits were subject to exploratory hand-excavated sections.</p> <p>The strongest indications of an archaeological origin for the ‘pits’ revealed in Lavally and Vesnoy townlands are a post medieval pottery sherd, the strong magnetism recorded in the upper portion of a pit and possible seeds. In the case of the pottery sherd, this indicates that the pit may be of relatively recent origin. However, it cannot be discounted that it is an intrusive object. The possible seeds retrieved from F12 &amp; F14/P9 may have been wind-borne. No other material was retrieved from any of the pits.</p>	Number	Description of pits in Vesnoy	1	This pit measures 10m north/ south by 5m east/ west, and 0.4 to 0.5m in depth	2	This pit measures 6m north/ south by 3.5m east/ west, and 0.4 to 0.5m in depth	3	This pit measures 7m north/ south by 4m east/ west, and 0.5m in depth
Number	Description of pits in Vesnoy								
1	This pit measures 10m north/ south by 5m east/ west, and 0.4 to 0.5m in depth								
2	This pit measures 6m north/ south by 3.5m east/ west, and 0.4 to 0.5m in depth								
3	This pit measures 7m north/ south by 4m east/ west, and 0.5m in depth								
<b>Sources</b>	Fieldwork and LiDAR survey.  LiDAR survey (69.1) results.								

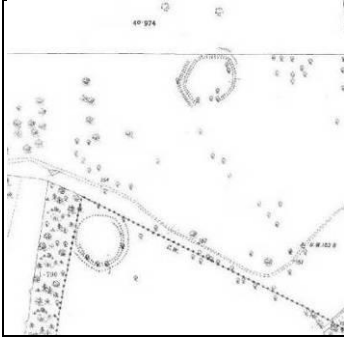
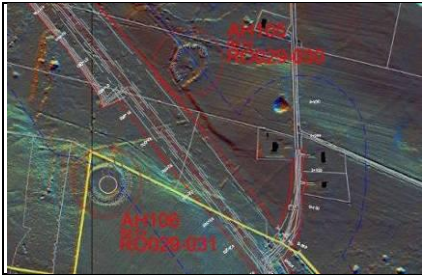
	 <p>LiDAR survey (69.1) with proposed road.</p>
<b>Impact of scheme</b>	Potential moderate and direct impact.
<b>Proposed mitigation</b>	Preservation by record. Archaeological excavation and the presence of a geologist will allow for recording of further data in order to determine a more conclusive interpretation for the origin of the pits. Test excavation of the wider area within the landtake.
<b>Approx. distance from route</b>	On the route
<b>Photography</b>	 <p>Southeast facing view of pit 2 (June 2015)</p>  <p>Test excavation of the pit field and pit 2 in the foreground (January 2016)</p>  <p>Test excavation of a pit feature (O'Connell 2016)</p>

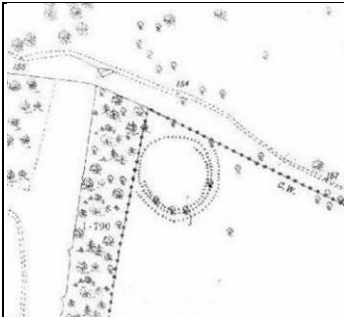
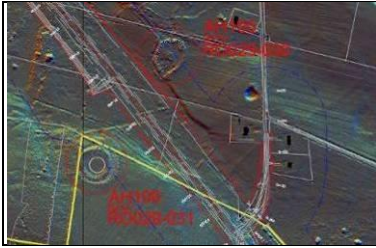
<b>Identification No.</b>	AH104
<b>Legal Status</b>	None
<b>RMP Reference No.</b>	None
<b>Townland</b>	Vesnoy, Cloonradoon
<b>Chainage</b>	51+150
<b>Site Type</b>	Area of archaeological potential – Strokestown River
<b>NGR/ITM</b>	194747, 281541 / 595580, 780010

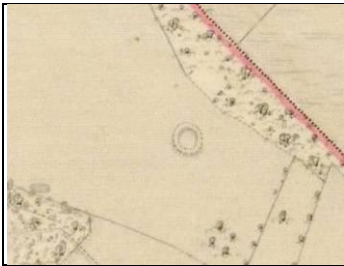
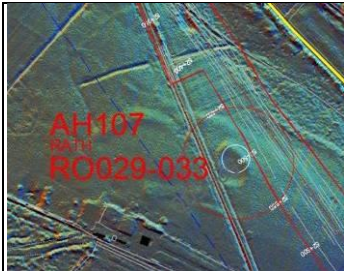
<b>Description</b>	<p>Strokestown River is crossed by the proposed route. It forms the boundary between the townlands of Vesnoy and Cloonradoon. Historic mapping shows that the river has been reshaped and straightened between the time of the 1st edition six-inch OS mapping (1837-8) and the 25-inch OS mapping (1888-92).</p> <p>The river channel has been straightened for a length of c.650m to the southwest of the proposed route. This was probably completed as part of the famine relief works in 1849. A gold hoard of five armlets was found in Vesnoy reportedly in or on the banks of the Strokestown River in the vicinity of Urney Church (600m to the south west of the proposed route) (NMI).</p> <p>The river is set within a clearing in a boggy, waterlogged area. It is surrounded by high grass on both banks, with a scattering of trees on the eastern side and to the northwest. The Strokestown River is a significant water body measuring c.3m – 3.5m in width. The river is slow flowing, has clear cut banks, and has a very soft base, depth approximately 0.4m – 0.8m.</p>
<b>Sources</b>	<p>Mapping and field work.</p> <p>MacMahon J. (1844) Report to the Commissioners on the proposed drainage of the lands along the River Scramoge and its tributaries near Strokestown in the County Roscommon. Dublin</p>
<b>Impact of scheme</b>	Direct and potentially moderate impact.
<b>Proposed mitigation</b>	Preservation by record of any archaeological remains. Test excavation within the landtake on the banks of the river and /or visual assessment and metal detecting survey of riverbed and banks following vegetation clearance.
<b>Approx. distance from route</b>	The proposed road development crosses the river. Culverting works are scheduled within the landtake around this area.
<b>Photography</b>	 <p>Southeast facing view of the Strokestown River</p>


<b>Identification No.</b>	AH105
<b>Legal Status</b>	Recorded Monument.
<b>RMP Reference No.</b>	RO029-030
<b>Townland</b>	Cloonradoon
<b>Chainage</b>	51+950
<b>Site Type</b>	Ringfort – rath
<b>NGR/ITM</b>	195189, 280764 / 595141, 780781
<b>Description</b>	<p>The site is located on a gentle south-facing slope in a low-lying level landscape. The site consist of a circular grass-covered area (diameter 43.7m east/ west) defined by an earthen bank (width 4.4-6.4m; internal height 0.8-1m; external height 0.4-1.4m) with an outer fosse (width of top 6m; width of base 2m; depth 0.9m) and a slight outer bank (width 3.4m; external height 0.2m) surviving to the west northwest. The south part of the site has been quarried. Rath (RO029-031) is approximately 150m to the south southwest.</p> <p>Compiled by: Michael Moore</p>



	<p>Date of upload: 24 August 2010 Date of last visit: 02 October 1996 <a href="http://www.archaeology.ie">www.archaeology.ie</a> The site consists of a large circular area surrounded by a defaced earthen stone bank. The interior is undulating and slopes north/ south. The southern portion of the bank is demolished where a rectangular earthwork encroaches on this area. The site is located on low lying average grassland. Diameter east/ west approximately 46m. Compiled by: Anne Gannon Date: 29<sup>th</sup> April 1971 Omitted from the 1st edition six-inch OS map but is on the 25-inch OS map (of 1888-92). Today, the site presents as an enclosure, heavily altered to the southwest but roughly oval in form and 65m x 49m in diameter. On the 1st edition six inch mapping the area is covered with woodland which has disappeared on later editions. Linear features were noted on the LiDAR survey in between the ringforts RO029-031 and RO029-030 within the landtake.</p>
<p><b>Sources</b></p>	<p>Anne Gannon Field Survey 1970-1972 (Unpublished) National Monuments RMP File <a href="http://www.archaeology.ie">www.archaeology.ie</a> <a href="#">Fieldwork.</a> <a href="#">25-inch OS map</a></p>   <p>LiDAR (73.4) with proposed road.</p>
<p><b>Impact of scheme</b></p>	<p>No physical impact on the Recorded Monument.</p>
<p><b>Proposed mitigation</b></p>	<p>Avoidance and test excavation of the proposed road development. The proposed road development runs between two ringforts (RO029-030 &amp; RO029-031) at this point.</p>
<p><b>Approx. distance from route</b></p>	<p>90m northeast of the proposed route, measuring from centre line of the route to the centre of the RMP circle.</p>
<p><b>Identification No.</b></p>	<p>AH106</p>
<p><b>Legal Status</b></p>	<p>Recorded Monument.</p>
<p><b>RMP Reference No.</b></p>	<p>RO029-031</p>

<b>Townland</b>	Bumlin
<b>Chainage</b>	52+000
<b>Site Type</b>	Ringfort – rath
<b>NGR/ITM</b>	195069, 280588 / 595021, 780605
<b>Description</b>	<p>The site is located on a gentle north-facing slope. The site consists of an oval grass-covered area (dimensions 55m northwest/ southeast; 46m northeast/ southwest) defined by an eroded earthen bank (width 4-8.5m; internal height 0.3-0.4m; external height 0.3-1m) and shallow fosse (width of top 5-7.6m; width of base 2-2.4m; depth 0.2-0.3m). There is no visible entrance. Rath (RO029-030) is c. 150m to the north northeast.</p> <p>Compiled by: Michael Moore Date of upload: 24 August 2010 Date of last visit: 01 October 1996 <a href="http://www.archaeology.ie">www.archaeology.ie</a></p> <p>The site is destroyed. Slight trace of circular depression. The site is located on the crest of good grazing land.</p> <p>Compiled by: Anne Gannon Date: 29<sup>th</sup> April 1972 Not visible on the 1<sup>st</sup> edition OS map, but is on the 25-inch (see below) and revised 6-inch OS maps. The LiDAR survey describes this site as an enclosure c.60m diameter.</p>
<b>Sources</b>	<p>Anne Gannon Field Survey 1970-1972 (Unpublished) National Monuments RMP File <a href="http://www.archaeology.ie">www.archaeology.ie</a></p>  <p>25-inch OS map.</p>  <p>LiDAR (73.3) with proposed road.</p>
<b>Impact of scheme</b>	No physical impact on the recorded monument.
<b>Proposed mitigation</b>	Avoidance of the monument and test excavation of the proposed road development. The proposed road development runs between two ringforts (RO029-030 & RO029-031) at this point.
<b>Approx. distance from route</b>	110m southwest of the proposed route, measuring from centre line of proposed route to the centre of the RMP circle.
<b>Identification No.</b>	AH107
<b>Legal Status</b>	Recorded Monument

<b>RMP Reference No.</b>	RO029-033
<b>Townland</b>	Bumlin
<b>Chainage</b>	52+500
<b>Site Type</b>	Ringfort – rath
<b>NGR/ITM</b>	195414, 280242 / 595366, 780259
<b>Description</b>	<p>The site is located on a gentle northeast-facing slope. The site consists of a circular grass-covered area (diameter 30m north/ south) defined by an eroded earthen bank (width 3.5m; internal height 0.2-0.3m; external height 0.3-0.5m). There is no visible fosse or entrance.</p> <p>Compiled by: Michael Moore Date of upload: 24 August 2010 Date of last visit: 02 October 1996 <a href="http://www.archaeology.ie">www.archaeology.ie</a></p> <p>The site is a destroyed, slight circular depression. The site is located on the shelf of a ridge of good grazing land.</p> <p>Compiled by: Anne Gannon Date: 21<sup>st</sup> April 1971</p> <p>The route is located to the northwest of the ringfort (RO029-033) in Bumlin which is truncated by a road on the west side. There is no apparent trace of a fosse. Appears on the 1<sup>st</sup> edition six-inch and later 25-inch OS maps (labelled as 'Fort' on the latter).</p> <p>Geophysical survey (GA12) was conducted from chainage 52+450-52+550 on the proposed route in the vicinity of the ringfort. No significant anomalies of a potential archaeological interest were noted apart from a possible drainage ditch or furrow.</p> <p>The LiDAR (73.2) survey describes this site as a possible plectrum-shaped enclosure, 30m x 43m.</p>
<b>Sources</b>	<p>Anne Gannon Field Survey 1970-1972 (Unpublished) National Monuments RMP File <a href="http://www.archaeology.ie">www.archaeology.ie</a> Fieldwork, OS mapping, and LIDAR (73.2) results.</p>  <p>1<sup>st</sup> edition six-inch Ordnance Survey.</p>  <p>LiDAR (73.2) with proposed road.</p>
<b>Impact of scheme</b>	The site and recorded remains are located outside but adjacent to the landtake.

<b>Proposed mitigation</b>	Avoidance. Geophysical survey (GA12) failed to detect any significant responses of an archaeological strength within the proposed landtake. Test excavation will be conducted to identify features as noted on by the LiDAR survey.
<b>Approx. distance from route</b>	From LiDAR (73.2) results (see above) the ringfort appears to be 10m west of landtake and 40m from centre line of proposed road to centre of RMP circle.
<b>Photography</b>	 <p>Southeast facing view of recorded monument.</p>

<b>Identification No.</b>	AH108
<b>Legal Status</b>	None
<b>RMP Reference No.</b>	None
<b>Townland</b>	Bumlin, Scramoge.
<b>Chainage</b>	52+850
<b>Site Type</b>	Area of archaeological potential – Scramoge River
<b>NGR/ITM</b>	195628, 279992 / 595580, 780010
<b>Description</b>	<p>The Scramoge River is crossed by the proposed route. It forms the boundary between the townlands of Bumlin and Scramoge. Historic mapping shows that the river has also been reshaped and straightened between the time of the 1st edition six-inch OS mapping (1837-8) and the 25-inch OS mapping (1888-92), possibly as part of Famine relief works.</p> <p>The river at this point is set within open fields, pasture fields on the northwest side, damp, waterlogged reedy fields to the southeast. The river has sloping banks. The Scramoge River is a significant water body, measures c.7m – 8m in width, with a depth c.1m.</p> <p>The site of a bridge (CHC 69) is located within the roadtake. The bridge would have provided access from the east through Strokestown Estate and into the west. This area of the river could have been the location of an earlier fording point prior to the bridge crossing and so has an archaeological potential.</p>
<b>Sources</b>	Mapping and field work
<b>Impact of scheme</b>	Direct and potentially moderate impact.
<b>Proposed mitigation</b>	Preservation by record of any archaeological remains. Test excavation within the landtake on the banks of the river and /or visual assessment and metal detecting survey of riverbed and banks following vegetation clearance.
<b>Approx. distance from route</b>	The proposed road development crosses the river. Culverting works are scheduled within the landtake around this area.

**Photography**



Northeast facing view of the Scramoge river

## **Appendix 14.3**

### **Inventory of Cultural Heritage Constraints Sites (CHC)**

The following is an inventory of cultural heritage constraint sites. The inventory was compiled using a number of different sources including a field survey, an examination of the National Inventory of Architectural Heritage (NIAH) for buildings and gardens, the 1<sup>st</sup> edition six-inch OS map (dating to 1837-38), the revised 25-inch edition OS map (constructed in two parts, the first dating to 1888-92, the second to 1911-13) and the revised 6-inch OS map (dating from the 1930-36). An examination of all relevant aerial photography, and mapping, modern and historic, was undertaken to note any hitherto unrecorded features, and establish the location of structural sites standing in the mid-19th and early 20<sup>th</sup> centuries which have since been demolished.

A LIDAR (Light Detection and Ranging) or ALS (Airbourne Laser Scan) data survey was undertaken by the UCD School of Archaeology (Davis 2015). This entailed a fly-over of the proposed route with measurements captured using a laser scanner mounted on an aircraft. The equipment has remote sensing technology that measures distance by illuminating a target with a laser and analysing the reflected light. The benefits for cultural heritage studies are its ability to map features obscured by vegetation and which may be indistinguishable on the ground. While the LIDAR survey did focus on revealing archaeological sites with little surface definition it does also have the potential to reveal sites of a cultural heritage interest for example former structures and relict field boundaries and as such was assessed for the purpose of this inventory.

The inventory includes all cultural heritage sites noted from historic mapping that are still standing and those that are no longer standing (having been identified through historic mapping) which fall directly on the proposed route or are affected by associated works (i.e. ancillary roads, attenuation areas and material recovery areas). In the case where a structure has been named on these maps but is no longer standing (e.g. a post office, manor house, or school) and falls within a buffer zone of 100m from the centre line of the proposed N5 Ballaghaderreen to Scramoge road development it has been included in the inventory.

Where an unnamed structure (e.g. dwelling, homestead, outhouse or shed) that appears on the 1<sup>st</sup> edition six-inch OS map (1837-38) falls directly within the proposed route, it has been included in the inventory. Where an unnamed structure appears on the 1<sup>st</sup> edition six-inch OS map (1837-38) or later editions and falls beyond the proposed route, it has not been included in the inventory.

Entries within the built heritage assessment carried out by Rob Goodbody have been referenced and included where applicable. An assessment of the potential effects of the proposed road, and all development associated with it, on each individual cultural heritage constraint site is outlined, as well as proposed mitigation measures.

A field survey by two archaeologists from Courtney Deery Heritage Consultancy took place in June, July, September and October 2015 and January 2016. The entire route was walked and every known site effected by the proposed road was visited, accessed, recorded, and photographed. On-site assessment was made of the recorded features, the current state of known CHCs, and where possible verification of the status or potential of sites flagged by the historic mapping. Photography was carried out using GPS locating cameras and through the use of the GeoSetter program, national grid references and accurate placing of the position of these photographs could be established.

Whilst access on private lands was unfettered and the field surveyors were accommodated across the board, limitations and restrictions occurred in the different guises. Long

vegetation was encountered at different stages throughout the route impairing the identification of potential sites, whilst dense forest plantations meant the likelihood of identifying previously unknown sites was mitigated. Occasionally the presence of livestock prevented access. Instances of the surveyor's work being hindered were few, and where it impeded access a return visit was undertaken to complete the survey.

Each inventory listing is broken down into 13 entries.

1. **Identification No.** – an individual inventory reference number.
2. **Legal Status** – whether the site/ structure has been listed on the Record of Monuments & Places (RMP), is a Protected Structure, or requires Ministerial Consent.
3. **SMR/RMP/RPS Reference No.** – the reference number of the archaeological Recorded Monument on the RMP and Sites and Monuments Record (SMR) or Protected Structure (RPS).
4. **Townland** – the townland the site/ monument is situated in.
5. **Chainage** – the closest chainage point along the proposed route that the site/ monument appears. These numbers are perpendicular lines taken from the chainage line to the site/ monument, serving a functional use to position the site on a map, they have been given to the nearest 25m.
6. **Site Type** – Categorisation of the known or potential archaeological site.
7. **NGR/ITM** – National Grid Reference number and Irish Transverse Mercator Number given to the closest metre. Taken from the centre of potential and identified sites.
8. **Description** – A visual description of the site/ monument where possible, including overall measurements and orientation.
9. **Sources** – A series of sources were used. LIDAR mapping was examined for the entire route. OS mapping was consulted throughout and the earliest map studied was the 1<sup>st</sup> edition 6-inch OS map dating to 1837-38. Subsequent maps included the revised 25-inch edition OS map, which was published in two parts, the earlier part, which covers the southern half of the county and which illustrates the area of the route mid-way through the demesne of Strokestown Park to the end of Scramoge, dates to between 1888 and 1892, whilst the mapping covering the northern half of the county, and takes in the majority of the route, dates to between 1911 and 1913. The revised 6-inch OS map was also examined, this edition dates to the early 1930s and was completed by 1936.
10. **Impact of scheme** – An assessment and grading of the potential impacts of the proposed road development was undertaken.
11. **Proposed mitigation** - Archaeological mitigating measures were recommended based on the impact of the proposed road development.
12. **Approx. distance from route** – a uniform method was used to record the distance between identified or potential sites of cultural heritage significance. All cultural heritage sites are identified on mapping by a 15m circle. This size circle was used to reflect the size of the approximate structure. Where larger structures or historic areas were encountered, the boundaries as shown on the historic mapping were marked and shown on the project mapping.

Distances were taken from the centre point of the circle of a site to the centre line of the proposed main route and in any case where it was closer, the distance to the nearest ancillary road, attenuation area, or material deposition area. Along with a centre line to centre of site distance, in any circumstances where the circle appears partially on the route, aerial photography, mapping, and field notes were consulted for an accurate distance from the existing site to the closest ground breaking works.

13. **Photography** – On site photography conducted during the field survey in 2015. Direction facing included in description.

The proposed road development of 33.4km has been broken down into four chainage sections (A-D). Similarly the inventory is broken into these four sections, which are:

Section A, from Ch. 1+000 to 5+700.

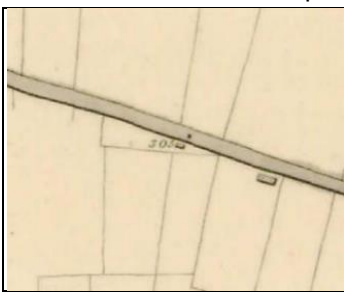

Section B, from Ch. 10+000 to 24+250.

Section C, from Ch. 30+000 to 40+500.

Section D, from Ch. 50+000 to 54+000.

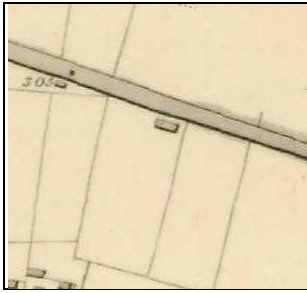

A constraint corridor of 100m was extended to encompass all known and potential archaeological remains on either side of the centre line of the proposed road development.


**Cultural Heritage Section A (Ch. point 1+000 to 5+700).**


<b>Identification No.</b>	CHC1
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Rathkeery
<b>Chainage</b>	1+100
<b>Site Type</b>	Site of Structure.
<b>NGR/ITM</b>	168821, 293104 / 568779, 793119
<b>Description</b>	No surface trace. Does not appear on 25-inch OS map.
<b>Sources</b>	1 <sup>st</sup> edition six-inch OS map. 
<b>Impact of scheme</b>	Direct moderate impact on possible foundation remains.
<b>Proposed mitigation</b>	Preservation by record. Test excavation will ascertain whether there are surviving below ground remains associated with this structure.
<b>Approx. distance from route</b>	On route.
<b>Photography</b>	 South facing view.

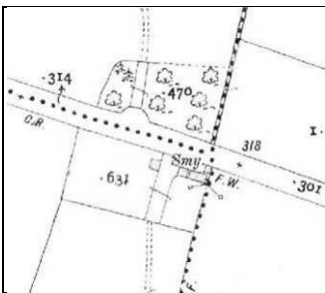
<b>Identification No.</b>	CHC2
<b>Legal Status</b>	NA



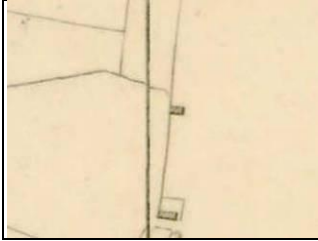

<b>RMP Reference No.</b>	NA
<b>Townland</b>	Rathkeery
<b>Chainage</b>	1+200
<b>Site Type</b>	Site of Structure.
<b>NGR/ITM</b>	168891, 293076 / 568849, 793091
<b>Description</b>	No surface trace. Also seen on the 25-inch OS map.
<b>Sources</b>	1 <sup>st</sup> edition six-inch OS map. 25-inch OS map. 
<b>Impact of scheme</b>	Direct moderate impact on possible foundation remains.
<b>Proposed mitigation</b>	Preservation by record and test excavation will ascertain whether there are surviving below ground remains associated with this structure.
<b>Approx. distance from route</b>	On route.
<b>Photography</b>	 Southeast facing view.

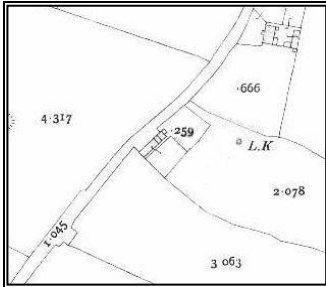
<b>Identification No.</b>	CHC3
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Glebe East
<b>Chainage</b>	1+300 to 1+800 (extent of demesne as shown on historic map sources)
<b>Site Type</b>	Site of House and grounds
<b>NGR/ITM</b>	168369, 293172/ 569318, 793187 (centrepnt)
<b>Description</b>	Former demesne. No upstanding trace of the house or original drive visible. Some of the mature trees that line the demesne boundaries are still extant but these will not be affected by the proposed scheme.
<b>Sources</b>	1 <sup>st</sup> edition six-inch OS map. 


<b>Impact of scheme</b>	A junction is to be upgraded at chainage 1+450. The upgrade will create a slip road that will enable traffic travelling south to join the east bound traffic on the existing N5. The proposed upgrade will go through c.100m of what is currently open field (to the immediate southwest of the site) before joining the existing N5. Slight/No impact to former demesne lands
<b>Proposed mitigation</b>	Avoidance. Preservation by record and test excavation of the CPO area.
<b>Approx. distance from route</b>	An upgraded ancillary road is adjacent to the western boundary of Rathkeevy Glebe. The southern boundary is 75m from the centre line of the proposed route and located along the existing N5.
<b>Photography</b>	 <p>North facing view of tree-lined local road to be upgraded, and western bank to be partially removed. The Rathkeevy boundary is to the east (right hand side of photograph).</p>

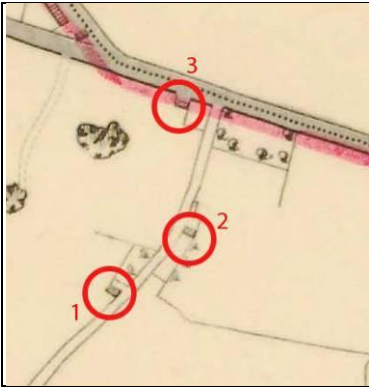
<b>Identification No.</b>	CHC4
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Rathkerry
<b>Chainage</b>	1+800
<b>Site Type</b>	Site of Smithy.
<b>NGR/ITM</b>	169457, 292887/ 569415, 792902
<b>Description</b>	No surface trace.
<b>Sources</b>	25 inch revised edition OS map (1888-92)
<b>Impact of scheme</b>	No impact
<b>Proposed mitigation</b>	Avoidance
<b>Approx. distance from route</b>	102m north of the proposed road development
<b>Photography</b>	<p>25 inch revised edition OS map.</p> 

<b>Identification No.</b>	CHC5
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Portaghard

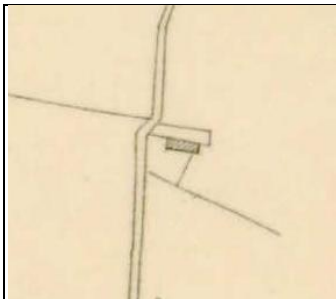

<b>Chainage</b>	2+000
<b>Site Type</b>	Site of Structure.
<b>NGR/ITM</b>	169591, 292709 / 569549, 792723
<b>Description</b>	No obvious surface trace, located in a pasture field.
<b>Sources</b>	1 <sup>st</sup> edition six-inch OS map. 
<b>Impact of scheme</b>	Direct moderate impact on possible foundation remains.
<b>Proposed mitigation</b>	Preservation by record and test excavation will ascertain whether there are surviving below ground remains associated with this structure.
<b>Approx. distance from route</b>	On route.
<b>Photography</b>	 East facing view.

<b>Identification No.</b>	CHC6
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Portaghard
<b>Chainage</b>	2+225
<b>Site Type</b>	Vernacular House.
<b>NGR/ITM</b>	169827, 292583 / 569786, 792598
<b>Description</b>	A single pile, four-bay building (13m x 5m), built of roughly coursed limestone that is bonded with mortar. This house is depicted on the 25-inch OS map (of 1888-92) and the revised 6-inch OS map (of 1911-13) but not on the 1 <sup>st</sup> edition 6 inch Ordnance Survey (of 1837-38). This structure is discussed in Chapter 15, where it is noted as BH-A03.
<b>Sources</b>	Fieldwork and 25-inch OS mapping. 
<b>Impact of scheme</b>	Direct and significant impact, structure to be removed.
<b>Proposed mitigation</b>	The house and outbuilding will be recorded by means of measured

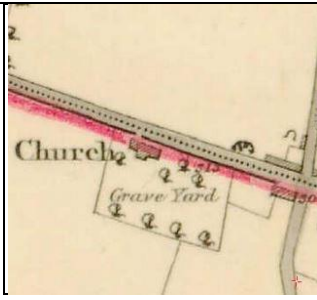

	survey, photography and written description prior to commencement of works.
<b>Approx. distance from route</b>	Immediately adjacent to route.
<b>Photography</b>	 <p>Photograph taken from the southwest towards the structure.</p>


<b>Identification No.</b>	CHC7
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Portaghard
<b>Chainage</b>	2+250
<b>Site Type</b>	Site of Structures.
<b>NGR/ITM</b>	Structure 1 : 169826, 292607 / 569784, 792622 Structure 2 : 169880, 292651 / 569838, 792667 Structure 3 : 169878, 292746 / 569836, 792761
<b>Description</b>	Three sites of structures appear on the 1st edition six-inch OS map (numbered below 1-3). No surface trace of structure 1 or 2 remains. Nor does either appear on the subsequent 25-inch OS map. Structure 3 appears to have been incorporated into a building that is currently under construction. It also appears on and 25-inch and revised 6-inch OS maps. This structure is in the CPO to be acquired.
<b>Sources</b>	1st edition six-inch OS mapping 
<b>Impact of scheme</b>	Direct moderate impact on possible foundation remains of site 1.
<b>Proposed mitigation</b>	Preservation by record and test excavation will ascertain whether there are surviving below ground remains associated with these structures.
<b>Approx. distance from route</b>	Within the proposed road development.

<b>Identification No.</b>	CHC8
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA

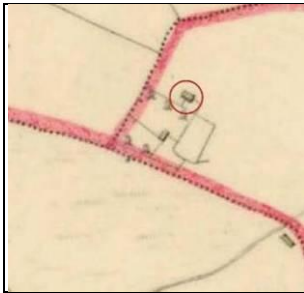

<b>Townland</b>	Portaghard
<b>Chainage</b>	2+500
<b>Site Type</b>	Site of Structure & Property Plot.
<b>NGR/ITM</b>	170042, 292544 / 570000, 792559
<b>Description</b>	No visible trace.
<b>Sources</b>	1 <sup>st</sup> edition 6-inch OS map. 
<b>Impact of scheme</b>	Direct moderate impact on the southernmost area of property plot. No direct impact on site of structure.
<b>Proposed mitigation</b>	Preservation by record and test excavation will ascertain whether there are surviving below ground remains associated with this structure.
<b>Approx. distance from route</b>	Property plot is on route. Site of structure is 10m north of proposed road development.
<b>Photography</b>	 North facing view.


<b>Identification No.</b>	CHC9
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Portaghard
<b>Chainage</b>	2+750
<b>Site Type</b>	Site of Church and Douglas Hyde Centre
<b>NGR/ITM</b>	170364, 292585 / 570322, 792600
<b>Description</b>	A church with interpretive centre and graveyard is located within its own grounds to the south of the existing N5. Carparking and toilet facilities are provided. The grave of Douglas Hyde, first president of Ireland, and extended family are located within the grounds. The grounds are surrounded by a low stone wall with hay fields and pasture to the south, subdivided by a scrub and ditch boundary. The land rises slightly to the south.
<b>Sources</b>	1 <sup>st</sup> edition six-inch OS map.


	
<b>Impact of scheme</b>	No direct physical impact.
<b>Proposed mitigation</b>	Avoidance. No mitigation measures are required.
<b>Approx. distance from route</b>	Southern boundary wall is 80m from the centre line of the proposed road development and a link road from this proposed development to the existing N5 is located to the west of CHC9.
<b>Photography</b>	 View to the south towards the proposed route showing boundary wall.

<b>Identification No.</b>	CHC10
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Frenchpark Demesne
<b>Chainage</b>	3+250-3+550 (area of improved junction works)
<b>Site Type</b>	Demesne
<b>NGR/ITM</b>	172417, 292523 / 572375, 792538
<b>Description</b>	Historic demesne
<b>Sources</b>	Historic mapping and <a href="http://www.landedestates.ie">www.landedestates.ie</a>  1 <sup>st</sup> edition 6-inch OS map
<b>Impact of scheme</b>	No impact
<b>Proposed mitigation</b>	Avoidance. No mitigation necessary
<b>Approx. distance from route</b>	The proposed road development is located over 100m south of Frenchpark Demesne.



<b>Identification No.</b>	CHC11
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Corskeagh

<b>Chainage</b>	4+750
<b>Site Type</b>	Vernacular House.
<b>NGR/ITM</b>	171978, 291341 / 571936, 791356
<b>Description</b>	A single storey, stone built structure in ruins, built of roughly coursed limestone that is bonded with mortar. Dimensions c. 13m (northwest/southeast) x 5m (northeast/ southwest). This structure is depicted on the 1 <sup>st</sup> edition six-inch Ordnance Survey (1837-38) and recorded in Chapter 15 as BH-A7.
<b>Sources</b>	Fieldwork and 1 <sup>st</sup> edition six-inch OS mapping (see below). 
<b>Impact of scheme</b>	Direct and significant impact as it is located within lands proposed for the construction of the road development.
<b>Proposed mitigation</b>	The structure will be recorded by means of measured survey, photography and written description prior to commencement of works.
<b>Approx. distance from route</b>	Within landtake of material recovery area.
<b>Photography</b>	 South facing view.

<b>Identification No.</b>	CHC12
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Corskeagh
<b>Chainage</b>	4+775
<b>Site Type</b>	Site of Structure.
<b>NGR/ITM</b>	171970, 291307 / 571928, 791322
<b>Description</b>	No visible trace.
<b>Sources</b>	1 <sup>st</sup> edition six-inch OS map. 

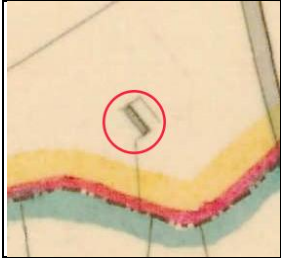
<b>Impact of scheme</b>	Direct moderate impact on possible foundation remains.
<b>Proposed mitigation</b>	Preservation by record and test excavation will ascertain whether there are surviving below ground remains associated with this structure.
<b>Approx. distance from route</b>	On route.
<b>Photography</b>	 <p>Northeast facing view.</p>

### Cultural Heritage Section B (Ch. point 10+000 to 24+250).

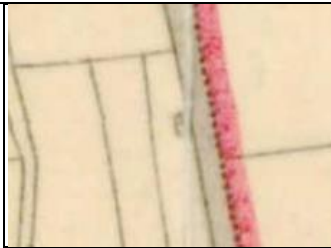
<b>Identification No.</b>	CHC13
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Corskeagh
<b>Chainage</b>	10+000
<b>Site Type</b>	Site of Structure.
<b>NGR/ITM</b>	172422, 290533 / 572379, 790548
<b>Description</b>	The 1 <sup>st</sup> edition six-inch OS map records a structure within the footprint of the route on the southerly approach to a proposed roundabout on the intersection of the proposed route with the existing R361. This dwelling also appears on the revised 6-inch and the 25-inch OS maps. No upstanding remains of this pre-famine dwelling are visible.
<b>Sources</b>	<p>1<sup>st</sup> edition six-inch OS map.</p>  <p>25-inch OS map.</p> 
<b>Impact of scheme</b>	Direct and potentially significant impact on possible foundation remains.
<b>Proposed mitigation</b>	Preservation by record and test excavation will ascertain whether there are surviving below ground remains associated with this structure.
<b>Approx. distance from route</b>	On the route

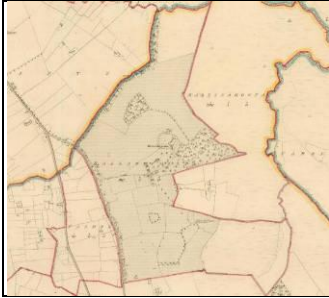


<b>Photography</b>	 <p>Northeast facing view of the site of the structure.</p>
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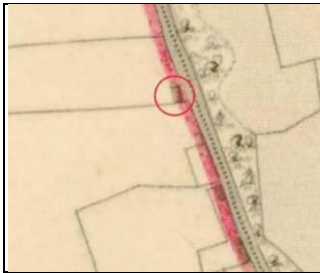
<b>Identification No.</b>	CHC14
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Leggatinty
<b>Chainage</b>	12+625
<b>Site Type</b>	Site of Structure.
<b>NGR/ITM</b>	174318, 289000 / 574275, 789016
<b>Description</b>	The 1 <sup>st</sup> edition six-inch OS map records a structure within the footprint of the route. It no longer stood by the late nineteenth century. The character of the landscape has changed since the mid-nineteenth century with a greater number of enclosed fields and woodland plantations than was the case in the late 1830s when there was considerably more open land of a marshy or boggy nature. A mound was noted during field inspection and LiDAR recorded a mound site, possibly a fulacht fiadh (AH9).
<b>Sources</b>	Identified on 1 <sup>st</sup> edition six-inch Ordnance Survey map. 
<b>Impact of scheme</b>	Direct and potentially significant impact on possible foundation remains.
<b>Proposed mitigation</b>	Preservation by record and test excavation will ascertain whether there are surviving below ground remains associated with this structure.
<b>Approx. distance from route</b>	On the route.

<b>Identification No.</b>	CHC15
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Derreen
<b>Chainage</b>	12+800
<b>Site Type</b>	Site of Structure.
<b>NGR/ITM</b>	174444, 288844 / 574401, 788860
<b>Description</b>	The 1 <sup>st</sup> edition six-inch OS map records a roadside structure within the footprint of the route. It no longer stood by the late nineteenth century.
<b>Sources</b>	Identified on 1 <sup>st</sup> edition six-inch Ordnance Survey map.


	
<b>Impact of scheme</b>	Direct and potentially significant impact on possible foundation remains.
<b>Proposed mitigation</b>	Preservation by record and test excavation will ascertain whether there are surviving below ground remains associated with this structure.
<b>Approx. distance from route</b>	On the route.


<b>Identification No.</b>	CHC16
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Ballaghcullia – former Hermitage Demesne
<b>Chainage</b>	12+800 to 14+100 (extent of demesne as shown on historic map sources)
<b>Site Type</b>	Demesne – lands associated with former demesne
<b>NGR/ITM</b>	173946, 288980/ 573903, 788996 (centrepoint)
<b>Description</b>	<p>Hermitage Demesne is described in Chapter 15 under reference number BH-B01. The area is a former demesne now re-divided into fields and includes a road running north/ south through its centre (dry stone wall lined, constructed post-1930s). There are no surviving demesne features in the vicinity of the proposed road.</p> <p>The architectural heritage report (Chapter 15) quotes from the NIAH gardens survey that “<i>few features of the designed landscape shown on the OS map are visible in aerial photography</i>” and the survey concludes that the main features are unrecognisable, while peripheral features are visible.</p> <p>Chapter 15 observes that ‘<i>the few surviving elements of the demesne landscape are on the northern fringes of the former demesne, which will be unaffected by the present road scheme. The southern section of the demesne is not recognisable as a former demesne and all features have disappeared other than planting around a rath to the east of the proposed main line. Some of the mature tree line the demesne boundaries are still extant but these will not be affected by the proposed scheme</i>’.</p>
<b>Sources</b>	<p>1<sup>st</sup> edition six-inch OS map.</p> 
<b>Impact of scheme</b>	The proposed road development passes through the southern part of the former demesne in a southeast/ northwest direction from chainage 13+100 to 14+100. There is a direct impact on former demesne land however no recognisable demesne features will be impacted. Sections of


	dry stone walls within the former demesne lands will be directly impacted resulting in a moderate impact.
<b>Proposed mitigation</b>	Preservation by record of the dry stone walls by means of a measured survey, photography and written description. Targeted test excavation of lands within the landtake.
<b>Approx. distance from route</b>	On the route.


<b>Identification No.</b>	CHC17
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Cashel
<b>Chainage</b>	13+100
<b>Site Type</b>	Site of Structure.
<b>NGR/ITM</b>	174731, 288804 / 574688, 788820
<b>Description</b>	At 13+100 a building structure was recorded by the 1 <sup>st</sup> edition 6-inch Ordnance Survey of which there is no visible surface trace today.
<b>Sources</b>	1st edition six-inch OS map. 
<b>Impact of scheme</b>	Direct and potentially moderate impact on possible foundation remains.
<b>Proposed mitigation</b>	Preservation by record and targeted test excavation will ascertain whether there are surviving below ground remains associated with this structure.
<b>Approx. distance from route</b>	On the route.

<b>Identification No.</b>	CHC18
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Cashel
<b>Chainage</b>	13+175
<b>Site Type</b>	Site of Structure.
<b>NGR/ITM</b>	174770, 288717 / 574727, 788733
<b>Description</b>	A building structure was recorded on the 1 <sup>st</sup> edition six-inch Ordnance Survey map and the 25-inch OS map. There is no visible surface trace today.
<b>Sources</b>	1st edition six-inch OS map.


		
<b>Impact of scheme</b>	Direct and potentially moderate impact on possible foundation remains.	
<b>Proposed mitigation</b>	Preservation by record and targeted test excavation will ascertain whether there are surviving below ground remains associated with this structure.	
<b>Approx. distance from route</b>	On an ancillary road.	


<b>Identification No.</b>	CHC19
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Carrigeenacreeha
<b>Chainage</b>	16+375
<b>Site Type</b>	Vernacular House and Plot.
<b>NGR/ITM</b>	177808, 287770 / 577764, 787786
<b>Description</b>	The remains of a vernacular house, consisting of the south/west corner of a cottage. The surviving remains consist a south wall measuring 4m in length and a west wall (the gable-end) measuring 2.5m in length. It is built of roughly coursed limestone blocks. The house stands within its own plot – defined by an earthen bank with trees growing on it.
<b>Sources</b>	Fieldwork and OS mapping.  1 <sup>st</sup> edition 6-inch OS map.
<b>Impact of scheme</b>	No impact as site is to be avoided and retained in situ. Located immediately adjacent to road.
<b>Proposed mitigation</b>	Avoidance, no mitigation measures are proposed.
<b>Approx. distance from route</b>	Within landtake.

<b>Photography</b>	 <p>West facing view of the structure.</p>
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<b>Identification No.</b>	CHC20
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Garrynaphort
<b>Chainage</b>	17+350
<b>Site Type</b>	Site of Structure.
<b>NGR/ITM</b>	178704, 287166 / 578660, 787182
<b>Description</b>	A structure is recorded on the 1 <sup>st</sup> edition six-inch Ordnance Survey map. There is no visible surface trace today.
<b>Sources</b>	1st edition six-inch OS map. 
<b>Impact of scheme</b>	No impact.
<b>Proposed mitigation</b>	Avoidance.
<b>Approx. distance from route</b>	The site of the structure is located on the outer boundary of a proposed of a material deposition area.

<b>Identification No.</b>	CHC21
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Mullenduff
<b>Chainage</b>	17+375
<b>Site Type</b>	Site of Structure.
<b>NGR/ITM</b>	174770, 288717 / 578660, 788712
<b>Description</b>	A structure is recorded on the 1 <sup>st</sup> edition six-inch Ordnance Survey map and the 25-inch OS map. There is no visible surface trace today.
<b>Sources</b>	1st edition six-inch OS map.


	
<b>Impact of scheme</b>	No impact
<b>Proposed mitigation</b>	Avoidance
<b>Approx. distance from route</b>	Located to the north of the proposed road development


<b>Identification No.</b>	CHC22
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Garrynaphort
<b>Chainage</b>	17+525
<b>Site Type</b>	Site of Structure.
<b>NGR/ITM</b>	178917, 287321 / 578873, 787337
<b>Description</b>	A structure was recorded by the 1 <sup>st</sup> edition six-inch Ordnance Survey map. There is no visible surface trace today.
<b>Sources</b>	1st edition six-inch OS map. 
<b>Impact of scheme</b>	Direct and potentially moderate impact.
<b>Proposed mitigation</b>	Preservation by record and targeted test excavation will ascertain whether there are surviving below ground remains associated with this structure.
<b>Approx. distance from route</b>	Within a material deposition area.

<b>Identification No.</b>	CHC23
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Mullenduff
<b>Chainage</b>	17+550
<b>Site Type</b>	Site of School House.
<b>NGR/ITM</b>	179011, 287819 / 578967, 787835
<b>Description</b>	The site of a school house is recorded on the 1 <sup>st</sup> edition six-inch OS

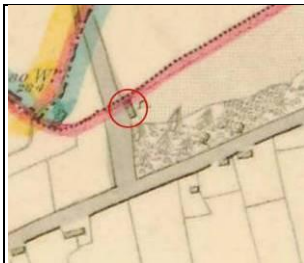
	map, depicting two east/west linear buildings and an outhouse. A single building (dated to 1822) survives and has been converted into an open sided shed with corrugated iron roof (see photography below). A larger schoolhouse, which is still in use, was built to the immediate south, and this appears on the 25-inch OS map. The site is situated 25m east of ancillary road improvements, and will not be disturbed by works. Reference number BH-10 in Chapter 15. Report describes the former Mantua School as a single-storey, stone-built structure with corrugated iron roof. Now in use as shed and with corrugated-iron-clad addition to west.
<b>Sources</b>	Fieldwork and OS mapping.  1 <sup>st</sup> edition six-inch OS map.
<b>Impact of scheme</b>	No direct, physical impact on school house remains, above or below ground.
<b>Proposed mitigation</b>	Avoidance. No mitigation measures are proposed.
<b>Approx. distance from route</b>	The site is located 255m north of centre line of the proposed road development.
<b>Photography</b>	 East facing view.


<b>Identification No.</b>	CHC24
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Garrynaphort
<b>Chainage</b>	17+575
<b>Site Type</b>	Site of 2 Structures.
<b>NGR/ITM</b>	178948, 287283 / 578904, 787299 178956, 287279 / 578912, 787295
<b>Description</b>	A structure is recorded by the 1 <sup>st</sup> edition six-inch Ordnance Survey map. There is no visible surface trace today.
<b>Sources</b>	1st edition six-inch OS map.

		
<b>Impact of scheme</b>	No impact.	
<b>Proposed mitigation</b>	Avoidance.	
<b>Approx. distance from route</b>	The site of the structure is located on the outer boundary of a proposed of a material deposition area.	

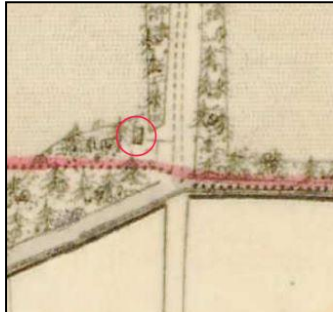
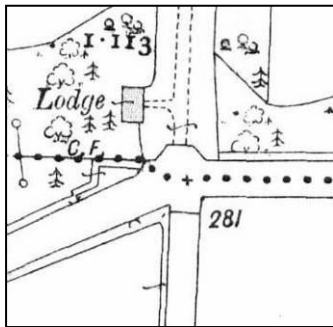
<b>Identification No.</b>	CHC25
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Corry West and Corry East – Mantua House
<b>Chainage</b>	17+675 to 19+575 (extent of demesne as shown on historic map sources).
<b>Site Type</b>	Former Demesne.
<b>NGR/ITM</b>	179982, 288168/ 579938, 788184 (centrepoint)
<b>Description</b>	Mantua Demesne is described in Chapter 15 under reference numbers BH-B02 and BH-B04. The proposed road development runs through this southern boundary of the demesne and as such it will be necessary to remove a belt of planting, wall and bank.
<b>Sources</b>	1 <sup>st</sup> edition six-inch OS map. 
<b>Impact of scheme</b>	The proposed road development passes through the southern extent of the demesne lands associated with former Mantua House in an east/ west direction. The proposed route passes through the Mantua Demesne to the east and west of the entrance avenue. The removal of a belt of planting between chainage 17+650 to 18+250 will be necessary, and the removal of a belt of planting, wall and bank between chainage 19+075 to 19+475 will be necessary. Direct, moderate impact.
<b>Proposed mitigation</b>	Chapter 15 (Architectural Heritage) recommends that broadleaf trees will be replanted at the margins of the new road, whilst a new stone wall, earth bank and tree and hedge planting will also be provided at the new margin of the demesne. Preservation by record and test excavation will occur within the landtake.
<b>Approx. distance from route</b>	On the route.



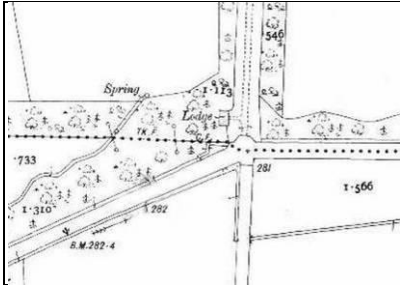

<b>Identification No.</b>	CHC26
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Kilvoy
<b>Chainage</b>	17+675
<b>Site Type</b>	Site of Structure.
<b>NGR/ITM</b>	179074, 287390 / 579030, 787406
<b>Description</b>	A structure was recorded by the 1 <sup>st</sup> edition six-inch Ordnance Survey map. There is no visible surface trace today.
<b>Sources</b>	1st edition six-inch OS map. 
<b>Impact of scheme</b>	Direct and potentially moderate impact as the site is located within the landtake of a material deposition area.
<b>Proposed mitigation</b>	Preservation by record and targeted test excavation will ascertain whether there are surviving below ground remains associated with this structure.
<b>Approx. distance from route</b>	Within landtake of a material deposition area.

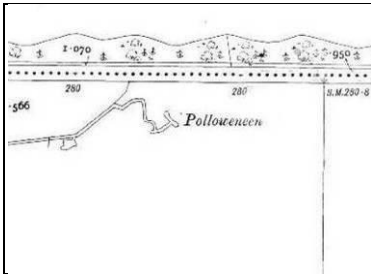

<b>Identification No.</b>	CHC27
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Kilvoy
<b>Chainage</b>	18+075
<b>Site Type</b>	Site of Structure.
<b>NGR/ITM</b>	179497, 287504 / 579453, 787520
<b>Description</b>	At 18+075 a structure is recorded by the 1 <sup>st</sup> edition six-inch Ordnance Survey map No surface trace evident.
<b>Sources</b>	1 <sup>st</sup> edition six-inch OS map depicting a roadside building. 
<b>Impact of scheme</b>	Direct and potentially moderate impact on possible subsurface remains.
<b>Proposed mitigation</b>	Preservation by record and targeted test excavation will ascertain whether there are surviving below ground remains associated with this structure.
<b>Approx. distance from route</b>	On route of an ancillary road.

<b>Photography</b>	 <p>Southwest facing view of the site of the structure.</p>
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<b>Identification No.</b>	CHC28
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Corry West
<b>Chainage</b>	18+300
<b>Site Type</b>	Site of Lodge.
<b>NGR/ITM</b>	179709, 287651 / 579665, 787667
<b>Description</b>	The 1st edition six-inch OS map records the presence of a gate lodge for Mantua House. The gate lodge also appears on the 25-inch and revised 6-inch OS maps. No surface trace evident.
<b>Sources</b>	<p>1st edition six-inch OS Map.</p>  <p>25-inch OS map.</p> 
<b>Impact of scheme</b>	No impact. The site of the lodge is avoided.
<b>Proposed mitigation</b>	Avoidance. No mitigation measures are necessary.
<b>Approx. distance from route</b>	Indicated position of gatelodge 35m northwest of centre line of closest ancillary road.

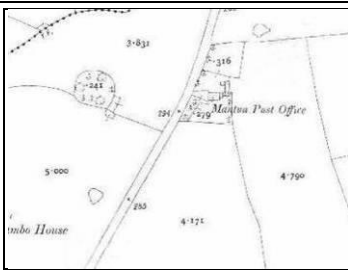
<b>Photography</b>	 <p>Northwest facing view of site position.</p>
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<b>Identification No.</b>	CHC29
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Corry West
<b>Chainage</b>	18+300
<b>Site Type</b>	Entrance Gates to Mantua House.
<b>NGR/ITM</b>	179730, 287626 / 579686, 787642
<b>Description</b>	The 25-inch revised edition OS map records the presence of entrance gates for Mantua House. The entrance gates are described in Chapter 15 under reference number BH-B03 as follows; “the demesne of Mantua House lies on the northern side of the R369, with a straight north-south driveway running from the house to the road. A local road runs southwards from the gateway on the same alignment as the drive. The gateway consists of rendered masonry piers flanking the driveway and curved wing walls, also rendered and painted, terminating in piers. The gateway appears to date from the twentieth century”.
<b>Sources</b>	25-inch revised edition OS Map. 
<b>Impact of scheme</b>	No direct impact, the entrance way has been modernised (18 <sup>th</sup> century with 20 <sup>th</sup> century gateway) but will be retained as part of the proposed road development.
<b>Proposed mitigation</b>	Avoidance. No mitigation measures are proposed.
<b>Approx. distance from route</b>	The site falls within the landtake. Adjacent to ancillary road.
<b>Photography</b>	 <p>Northwest facing view of entrance gates.</p>


<b>Identification No.</b>	CHC30
<b>Legal Status</b>	None
<b>RMP Reference No.</b>	None
<b>Townland</b>	Kilvoy
<b>Chainage</b>	18+500
<b>Site Type</b>	Geological feature – swallow hole.
<b>NGR/ITM</b>	179917, 287597 / 579873, 787613
<b>Description</b>	The revised 25-inch Ordnance Survey map records the presence of a geological feature called 'Polloweneen' in the townland of Kilvoy – this is a tree-lined depression with a stream curving through it. The local name (poll, a hole, pool or stream) suggests the presence of a stream cave on site. The site is not annotated on the 1 <sup>st</sup> edition six-inch OS map. About 1.5km south of Frenchpark is 'Pollnagran', this site is also annotated on the historic mapping and is the only known active stream cave in Roscommon.
<b>Sources</b>	Fieldwork.  25-inch OS map (extract above).
<b>Impact of scheme</b>	Falls within landtake. Site avoided.
<b>Proposed mitigation</b>	Avoidance. Test excavation of the proposed road development lands, however the site has been avoided.
<b>Approx. distance from route</b>	50m north of centre line.
<b>Photography</b>	 West facing view.

<b>Identification No.</b>	CHC31
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Cloonyefferr
<b>Chainage</b>	19+600
<b>Site Type</b>	Site of Yambo House.
<b>NGR/ITM</b>	181036, 287521 / 580992, 787537.
<b>Description</b>	To the immediate east of the townland boundary between Corry East and Cloonyefferr is the site of Yambo House. It is visible on the 1 <sup>st</sup> edition 6-inch OS map and a site inspection revealed ruined stone-built

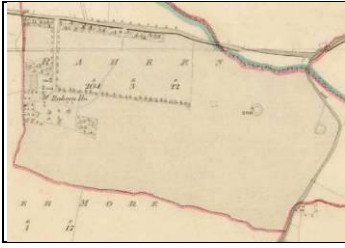
	structures on the northern side of the R369, including wrought iron gates and ruined outbuildings. Further subsurface remains are likely. Today a modern house appears within a plot to the immediate west of the Yambo House site. Yambo House is described in Chapter 15 under reference number BH-B06.
<b>Sources</b>	1 <sup>st</sup> edition six-inch OS map. 
<b>Impact of scheme</b>	Direct and moderate impact, removal of site
<b>Proposed mitigation</b>	The structure will be recorded by means of measured survey, photography and written description prior to commencement of works.
<b>Approx. distance from route</b>	Within landtake, 45m south of central line.
<b>Photography</b>	 West facing view of a ruined stone-built structure on the site of Yambo House.

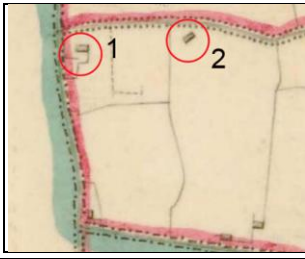
<b>Identification No.</b>	CHC32
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Cloonyeffer
<b>Chainage</b>	19+825
<b>Site Type</b>	Site of Post Office.
<b>NGR/ITM</b>	181245, 287646 / 581201, 787662.
<b>Description</b>	The site of a post office is first noted on the 25-inch OS mapping. It has since been converted into a two storey residence.
<b>Sources</b>	 25-inch OS map.
<b>Impact of scheme</b>	No impact.
<b>Proposed mitigation</b>	Avoidance. No mitigation measures are necessary.
<b>Approx. distance from</b>	Located to the north and outside the landtake of the proposed road



<b>route</b>	development
<b>Photography</b>	 <p>Northeast facing view of the former Post Office.</p>

<b>Identification No.</b>	CHC33
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Cloonyeffer
<b>Chainage</b>	19+850
<b>Site Type</b>	Site of Structure.
<b>NGR/ITM</b>	181274, 287805 / 581230, 787821
<b>Description</b>	A structure is recorded by the 1 <sup>st</sup> edition six-inch Ordnance Survey map. There is no visible surface trace today.
<b>Sources</b>	1st edition six-inch OS map. 
<b>Impact of scheme</b>	No impact.
<b>Proposed mitigation</b>	Avoidance.
<b>Approx. distance from route</b>	Located to the north and outside the landtake of the proposed road development.

<b>Identification No.</b>	CHC34
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Raheen - Raheen Demesne
<b>Chainage</b>	20+975 to 22+350 (extent of demesne as shown on historic map sources)
<b>Site Type</b>	Former Demesne
<b>NGR/ITM</b>	172931, 286903/ 572888, 786919 (centrepoint)
<b>Description</b>	On the 1 <sup>st</sup> edition six-inch OS mapping Raheen demesne presents as a manor house with grounds of open fields. The demesne is bounded to the north by the current R369 and a local road, to the east by a local road and to the west and south by field boundaries. Some landscaping and paths can be seen. Subsequent historic maps show that the land was separated into numerous fields in the latter half of the 19 <sup>th</sup> century and saw some localised development in the form of agricultural structures in the latter half of the 20 <sup>th</sup> century. The manor house, outbuildings and tree

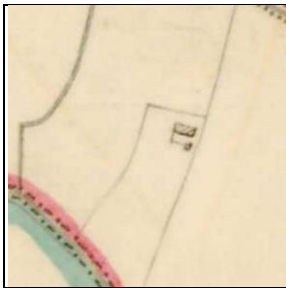
	lined drive all appear to be intact. Neither the house nor the demesne are listed on the NIAH building or garden survey.
<b>Sources</b>	1 <sup>st</sup> edition six-inch OS map. 
<b>Impact of scheme</b>	Upgrades to an existing access road within private ownership and an ancillary road, which borders the demesne to the north, are proposed. The access road is situated to the north of Raheen Demesne, leading from a local road into a privately owned site, which is located approximately 15m west of a complex of monuments (AH41; a ringfort, an enclosure and a house). The ancillary road is adjacent to the northern boundary of the demesne. These proposed works occur at chainage 21+650 to 21+850. No impact will occur to former demesne features and as such the impact is deemed to be imperceptible.
<b>Proposed mitigation</b>	Preservation by record and targeted test excavation will ascertain whether there are surviving below ground remains associated with these former demesne lands.
<b>Approx. distance from route</b>	An ancillary road adjacent to the demesne boundary to the north will be upgraded. An access road leading from said ancillary road into Raheen Demesne will also be upgraded.

<b>Identification No.</b>	CHC35
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Cartronagor
<b>Chainage</b>	20+975 – 21+100
<b>Site Type</b>	Site of 2 Structures.
<b>NGR/ITM</b>	182381, 287849 / 582336, 787865 (circled as site 1) 182479, 287855 / 582434, 787871 (circled as site 2)
<b>Description</b>	Two structures are recorded by the 1 <sup>st</sup> edition six-inch Ordnance Survey map. There is no visible surface trace today.
<b>Sources</b>	1st edition six-inch OS map. 
<b>Impact of scheme</b>	Direct and potentially moderate impact.
<b>Proposed mitigation</b>	Preservation by record and targeted test excavation will ascertain whether there are surviving below ground remains associated with these structures.
<b>Approx. distance from route</b>	Within a material deposition area.


<b>Identification No.</b>	CHC36
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Cartronagor
<b>Chainage</b>	20+975 – 21+250
<b>Site Type</b>	Site of 4 Structures.
<b>NGR/ITM</b>	182388, 287702 / 582343, 787718 (circled as Structure 1) 182511, 287682 / 582466, 787698 (circled as Structure 2) 182540, 287688 / 582495, 787704 (circled as Structure 3) 182657, 287643 / 582612, 787659 (circled as Structure 4)
<b>Description</b>	Four structures are recorded on the 1 <sup>st</sup> edition six-inch Ordnance Survey map. They also appear on the 25-inch OS map. There is no visible surface trace today.
<b>Sources</b>	1st edition six-inch OS map.   Positions of sites of structures with proposed road development and attenuation pond.
<b>Impact of scheme</b>	Direct and potentially moderate on Structure 2 which falls within the area of construction of an attenuation pond. Indirect impact on the other 3 sites.
<b>Proposed mitigation</b>	Preservation by record and avoidance and targeted test excavation will ascertain whether there are surviving below ground remains associated with these structures.
<b>Approx. distance from route</b>	Structure 2 falls within area of proposed attenuation pond. Structures 1, 3 and 4 are within the landtake of a material deposition area but avoided.

<b>Identification No.</b>	CHC37
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Cartronagor
<b>Chainage</b>	21+375
<b>Site Type</b>	Site of Structure.




<b>NGR/ITM</b>	182787, 287689 / 582742, 787705
<b>Description</b>	A site of structure is recorded by the 1 <sup>st</sup> edition six-inch Ordnance Survey map. There is no visible surface trace today.
<b>Sources</b>	1st edition six-inch OS map. 
<b>Impact of scheme</b>	Direct and moderate potentially moderate impact.
<b>Proposed mitigation</b>	Preservation by record and targeted test excavation will ascertain whether there are surviving below ground remains associated with this structure.
<b>Approx. distance from route</b>	Within a material deposition area.


### Cultural Heritage Section B: Shankill Interchange and Junction Upgrade (N61/R361)

<b>Identification No.</b>	Shankill CHC A
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Shankill
<b>Chainage</b>	On R369 near junction with N61
<b>Site Type</b>	IRA Memorial.
<b>NGR/ITM</b>	185668, 287747 / 585625, 787763
<b>Description</b>	An impressive County memorial at Shankill Cross, Elphin, erected in 1963. It features three 12-foot high figures in a Socialist-Realist style, on a 18-foot base. It commemorates about 40 Roscommon people, mainly IRA volunteers who died during the War of Independence.
<b>Impact of scheme</b>	No impact as the site is situated within a walled enclosed site.
<b>Proposed mitigation</b>	Avoidance. No mitigation measure are necessary.
<b>Approx. distance from route</b>	It is proposed that the upgraded road will be located further south and hence at a greater distance than the existing one. Access to the monument will be provided.
<b>Photography</b>	 Northwest facing view of IRA memorial.

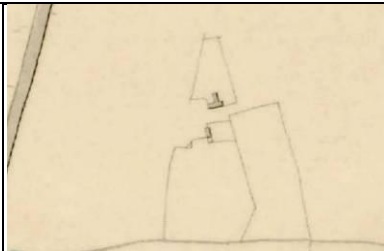
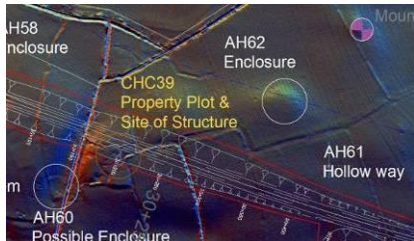

<b>Identification No.</b>	Shankill CHC B
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA

<b>Townland</b>	Shankill
<b>Chainage</b>	On R369 near junction with N61
<b>Site Type</b>	Bettyfield Demesne – former demesne lands
<b>NGR/ITM</b>	585696, 787516
<b>Description</b>	<p>A small demesne shown on the 1st edition six-inch OS mapping located to the southeast of Shankill crossroads. Three structures are shown at the centre of six surrounding fields. An avenue to the west of the main structure formed the entrance into the demesne. Trees are shown to the north hand side of the avenue only and on the western boundary along the outer edge of the lower field.</p> <p>Geophysical survey and test excavation has taken place within the lands of Bettyfield and subsurface archaeological features have been noted.</p>
<b>Impact of scheme</b>	The now denuded western and southern tree line and scrub boundaries associated with the former demesne lands of the house will be directly impacted as a result of the proposed upgrade resulting in a direct slight impact.
<b>Proposed mitigation</b>	No mitigation measures proposed.
<b>Approx. distance from route</b>	The demesne is located adjacent to the proposed upgrade works and part of the existing boundaries will be removed.
<b>Photography</b>	 <p>View of western boundary of former demesne lands</p>

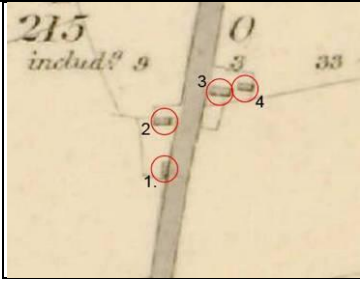

### Cultural Heritage Section C (from Ch. 30+000 to CH. 40+500)

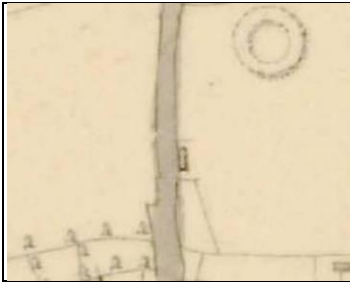
<b>Identification No.</b>	CHC38
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Gortnacranagh
<b>Chainage</b>	30+050
<b>Site Type</b>	Gortnacranagh House
<b>NGR/ITM</b>	185405, 286629/ 585360, 786645
<b>Description</b>	An existing two-storey, three bay mid nineteenth century farmhouse with projecting single-storey roof (see BH-B08 in Chapter 15).
<b>Sources</b>	Appears on 25 inch revised edition OS map.
<b>Impact of scheme</b>	No impact to the structure. Indirect visual impact
<b>Proposed mitigation</b>	Avoidance of structure. No mitigation measures are required.
<b>Approx. distance from route</b>	Adjacent to the upgrading of the existing road.
<b>Photography</b>	25 inch revised edition OS map. 

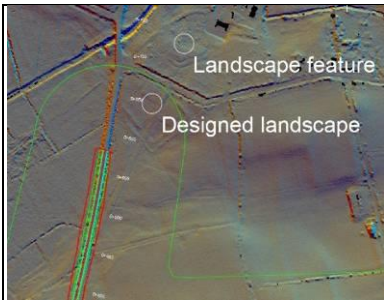

<b>Identification No.</b>	CHC39
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Gortnacranagh
<b>Chainage</b>	30+200
<b>Site Type</b>	Rectilinear Platform (a property plot as appears on the 1 <sup>st</sup> edition 6-inch OS map) & site of structure.
<b>NGR/ITM</b>	185507, 286279 / 585462, 786295 & 185508, 286305 / 585463, 786321
<b>Description</b>	<p>The 1<sup>st</sup> edition six-inch Ordnance Survey map records a T-shaped building and associated property plot, and while there are no surviving traces of this building, its foundation and other features may lie preserved beneath the ground. Still visible to the eye is a rectilinear enclosure, once associated with a building on its western side that is also recorded by the 1<sup>st</sup> edition Ordnance Survey, and LiDAR. The rectilinear enclosure is adjacent to the proposed road development.</p> <p>LiDAR survey (45.8) suggests a sub-rectangular enclosure, measuring c. 28m x 33m in dimension. The curve to the southwest suggests it may once have been circular.</p>
<b>Sources</b>	1 <sup>st</sup> edition six-inch OS map.

	  <p>LIDAR (45.8).</p>
<b>Impact of scheme</b>	Direct and potentially moderate impact on possible foundation remains of site of structure, no impact on the rectilinear enclosure.
<b>Proposed mitigation</b>	Preservation by record. Test excavation will ascertain whether there are surviving below ground remains associated with this structure.
<b>Approx. distance from route</b>	Site of structure is on route, rectilinear enclosure immediately to the south.
<b>Photography</b>	 <p>East facing view of site of structure.</p>

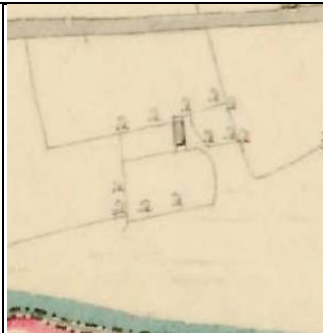

<b>Identification No.</b>	CHC 40
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Lurgan
<b>Chainage</b>	31+900-31+950
<b>Site Type</b>	Site of 4 Structures
<b>NGR/ITM</b>	<ol style="list-style-type: none"> <li>1. 187183, 286103 / 587137, 786119</li> <li>2. 187183, 286134 / 587137, 786150</li> <li>3. 187218, 286153 / 587172, 786169</li> <li>4. 187234, 286156 / 587188, 786172</li> </ol>
<b>Description</b>	The 1 <sup>st</sup> edition six-inch Ordnance Survey map depicts four stand-alone building structures on the route in Lurgan. Only buildings 3 and 4 were standing by the time that the 25-inch and revised six-inch series were compiled by the Ordnance Survey for the area and these structures may have been incorporated into a modern farmyard complex currently positioned on the site.
<b>Sources</b>	1 <sup>st</sup> edition six-inch Ordnance Survey map.


	
<b>Impact of scheme</b>	Direct and potentially moderate impact on possible foundation remains.
<b>Proposed mitigation</b>	Preservation by record. Test excavation to ascertain whether there are surviving below ground remains associated with these structures.
<b>Approx. distance from route</b>	On the route.
<b>Photography</b>	 East facing view toward site of Structure 2.


<b>Identification No.</b>	CHC 41
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Lurgan
<b>Chainage</b>	31+900
<b>Site Type</b>	Site of Structure
<b>NGR/ITM</b>	187185, 285924 / 587139, 785940
<b>Description</b>	The 1 <sup>st</sup> edition six-inch Ordnance Survey map depicts a stand-alone roadside structure on the route in Lurgan. The structure does not appear on the 25-inch series OS map (1889-95).
<b>Sources</b>	1 <sup>st</sup> edition six-inch Ordnance Survey map. 
<b>Impact of scheme</b>	Direct and potentially moderate impact on possible foundation remains.
<b>Proposed mitigation</b>	Preservation by record. Test excavation to ascertain whether there are surviving below ground remains associated with these structures.
<b>Approx. distance from route</b>	Within landtake of ancillary road.

<b>Identification No.</b>	CHC42
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Lurgan (Roscommon By.)
<b>Chainage</b>	32+000
<b>Site Type</b>	Designed landscape
<b>NGR/ITM</b>	187299, 286450 / 587253, 786466
<b>Description</b>	LiDAR records a geomatically designed landscape, near to the Ballyoughter grounds. An avenue appears to extend from the grounds in a south southwest direction towards the proposed road. No features were visible during field walking.
<b>Sources</b>	LiDAR. 
<b>Impact of scheme</b>	No impact on a former designed landscape feature that may extend into the proposed landtake.
<b>Proposed mitigation</b>	Avoidance of the feature. Preservation by record within and landtake.
<b>Approx. distance from route</b>	The LiDAR survey (49.6) appears to have detected a geometric designed landscape in and around Ballyoughter House. A possible avenue extends in a southerly direction towards the proposed road upgrade works.
<b>Photography</b>	 Southeast facing view of rise of site of designed landscape.

<b>Identification No.</b>	CHC 43
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Tullyloyd
<b>Chainage</b>	33+500
<b>Site Type</b>	Site of Structure and plot
<b>NGR/ITM</b>	188776, 286315 / 588730, 786331
<b>Description</b>	The 1 <sup>st</sup> edition six-inch Ordnance Survey map depicts a stand-alone structure on the route in Tullyloyd. The structure also appears on the 25-inch series OS map (1889-95) and revised 6-inch OS map (1911-13) Set within an area of thick overgrowth. No structural remains were evident.
<b>Sources</b>	1 <sup>st</sup> edition six-inch Ordnance Survey map and subsequent 25-inch and revised six-inch editions.


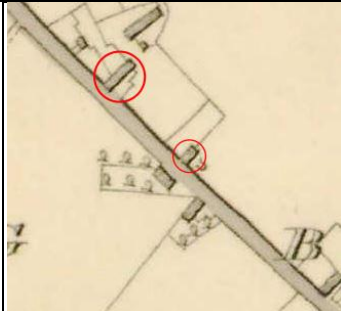
	
<b>Impact of scheme</b>	Direct and potentially moderate impact on possible foundation remains.
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation to ascertain whether there are surviving below ground remains associated with these structures.
<b>Approx. distance from route</b>	Within landtake, immediately north of the proposed road development.
<b>Photography</b>	 Southwest facing view towards site of structure.

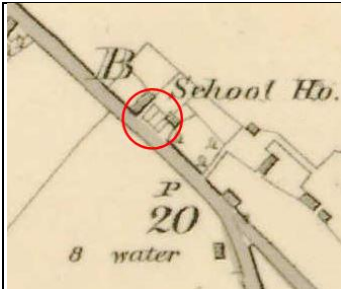
<b>Identification No.</b>	CHC 44
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Tullyloyd
<b>Chainage</b>	33+800
<b>Site Type</b>	Site of Structure
<b>NGR/ITM</b>	189085, 286391 / 589039, 786407
<b>Description</b>	The 1 <sup>st</sup> edition six-inch Ordnance Survey map depicts a small structure (possibly agricultural in nature) which falls within the landtake of the route in Tullyloyd. A second structure appears to its immediate east. Neither structure appears on the 25-inch series OS map (1889-95). No structural remains were evident.
<b>Sources</b>	1 <sup>st</sup> edition six-inch Ordnance Survey map. 
<b>Impact of scheme</b>	No impact.
<b>Proposed mitigation</b>	Avoidance.
<b>Approx. distance from route</b>	Located to the north and outside the landtake.


<b>Identification No.</b>	CHC 44A
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Clooncullaan
<b>Chainage</b>	34+800
<b>Site Type</b>	Site of Quarry, field kiln and former access track
<b>NGR/ITM</b>	ITM 589919 786156
<b>Description</b>	A quarried/pond area shown on the 1 <sup>st</sup> edition six-inch map is now surrounded by trees and will be impacted by the proposed route. This possible quarry site presents as a large irregular area that appears to be cut into a northeast facing slope in the field. To the east there appears to be a level surface that acted as a former track (2m wide) that would have provided access to this feature. Further east along this possible route way is a smaller quarried area, possibly a field kiln.
<b>Sources</b>	1 <sup>st</sup> edition six-inch Ordnance Survey map and field inspection. 
<b>Impact of scheme</b>	Direct and significant impact on the extant remains.
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation to ascertain whether there are surviving below ground remains associated with these structures. Recording of extant features by archaeological methods
<b>Approx. distance from route</b>	Within landtake.

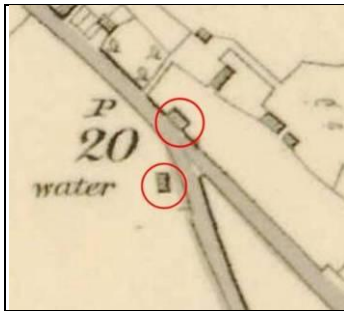
<b>Identification No.</b>	CHC 45
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA.
<b>Townland</b>	Lugboy
<b>Chainage</b>	34+600 – 34+650
<b>Site Type</b>	Site of 2 Structures
<b>NGR/ITM</b>	189959, 286515 / 589913, 786531 190003, 286463 / 589957, 786479
<b>Description</b>	The 1 <sup>st</sup> edition 6-inch Ordnance Survey map depicts two linear roadside structures which fall within the landtake of an ancillary road to the north of the proposed route in Lugboy. Neither structure appears on the 25-inch series OS map (1889-95). No structural remains were evident. There are the sites of two structures on the other side of the road that now have no surface expression. Further south on the western side of the road, on the revised edition of the OS a single structure is noted. The gable end of this structure is upstanding within a plot of land with two mature trees to the rear.
<b>Sources</b>	1 <sup>st</sup> edition six-inch Ordnance Survey map.



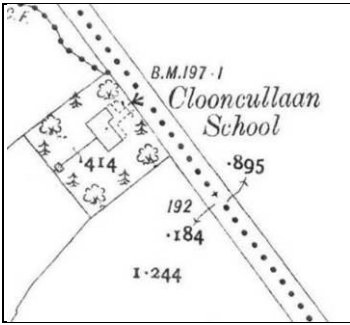
	 	
	Upstanding remains of gable wall of a structure (revised OS)	
<b>Impact of scheme</b>	Direct and potentially moderate impact on possible foundation remains. Significant impact on the gable stone wall.	
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation to ascertain whether there are surviving below ground remains associated with these structures. Record of the past by measured survey and photographic record of any upstanding remains.	
<b>Approx. distance from route</b>	On route of an ancillary road.	

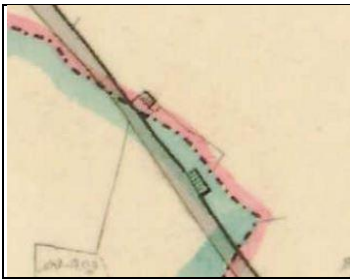
<b>Identification No.</b>	CHC 46
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Lugboy
<b>Chainage</b>	34+725
<b>Site Type</b>	Site of School House
<b>NGR/ITM</b>	190098, 286380 / 590052, 786396
<b>Description</b>	The 1 <sup>st</sup> edition six-inch Ordnance Survey map depicts two structures noted as a "School House" which fall within the landtake of an ancillary road to the north of the proposed route in Lugboy. The school house does not appear on the 25-inch series OS map (1889-95). No structural remains were evident.
<b>Sources</b>	1 <sup>st</sup> edition six-inch Ordnance Survey map. 
<b>Impact of scheme</b>	Direct and potentially moderate impact on possible foundation remains.
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation to ascertain whether there are surviving below ground remains associated with these structures.

<b>Approx. distance from route</b>	Within landtake of an ancillary road.
<b>Photography</b>	 <p>Northwest facing view towards site of school house. The site would have been situated to the right of the road.</p>

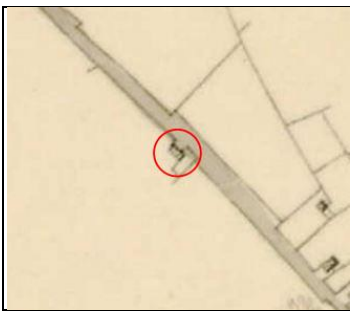
<b>Identification No.</b>	CHC 47
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Lugboy
<b>Chainage</b>	34+825
<b>Site Type</b>	Site of 2 Structures
<b>NGR/ITM</b>	190154, 286318 / 590108, 786334 190146, 286284 / 590100, 786300
<b>Description</b>	The 1 <sup>st</sup> edition six-inch Ordnance Survey map depicts two linear roadside structures which fall within the landtake of an ancillary road to the north of the proposed route in Lugboy. Neither structure appears on the 25-inch series OS map (1889-95). No structural remains were evident.
<b>Sources</b>	1 <sup>st</sup> edition six-inch Ordnance Survey map. 
<b>Impact of scheme</b>	Direct and potentially moderate impact on possible foundation remains.
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation to ascertain whether there are surviving below ground remains associated with these structures.
<b>Approx. distance from route</b>	Within landtake of an ancillary road.

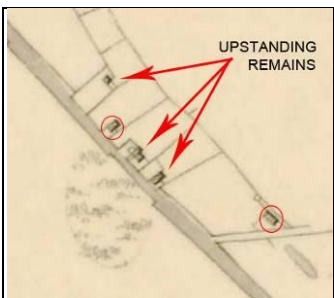
<b>Identification No.</b>	CHC 48
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA.
<b>Townland</b>	Clooncullaan
<b>Chainage</b>	35+225
<b>Site Type</b>	Cloncullaan School
<b>NGR/ITM</b>	190340, 2858804 / 590294, 785820
<b>Description</b>	The 25-inch Ordnance Survey map (1889-95) depicts a structure noted




	as “Cloncullaun School” to the south of an ancillary road. The school house also appears on the revised edition six-inch Ordnance Survey map (1911-13) and is still standing today. A plaque on the structure dates the building to 1886. Recorded in Chapter 15 as BH-C08.
<b>Sources</b>	1 <sup>st</sup> edition six-inch Ordnance Survey map. 
<b>Impact of scheme</b>	No direct impact, indirect visual impact.
<b>Proposed mitigation</b>	Avoidance. No mitigation measures are necessary.
<b>Approx. distance from route</b>	20m southeast of an ancillary road to the south of the proposed road development

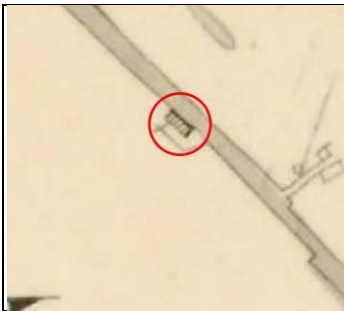
<b>Identification No.</b>	CHC 49
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Cregga/ Clooncullaun
<b>Chainage</b>	35+225 – 35+275
<b>Site Type</b>	Site of 2 Structures
<b>NGR/ITM</b>	190367, 285810 / 590321, 785826 190401, 285758 / 590355, 785774
<b>Description</b>	The 1 <sup>st</sup> edition six-inch Ordnance Survey map depicts two linear roadside structures on the route of an ancillary road to the south of the proposed route in Cregga. Neither structure appears on the 25-inch series OS map (1889-95). No structural remains were evident.
<b>Sources</b>	1 <sup>st</sup> edition six-inch Ordnance Survey map. 
<b>Impact of scheme</b>	Direct and potentially moderate impact on possible foundation remains.
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation to ascertain whether there are surviving below ground remains associated with these structures.
<b>Approx. distance from route</b>	On route of an ancillary road.


<b>Identification No.</b>	CHC 50
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA

<b>Townland</b>	Cregga
<b>Chainage</b>	35+325
<b>Site Type</b>	Site of Structure
<b>NGR/ITM</b>	190538, 285904 / 590492, 785920
<b>Description</b>	The 1 <sup>st</sup> edition six-inch Ordnance Survey map depicts a roadside structure which falls within the route of an ancillary road at Cregga. The structure does not appear on the 25-inch series OS map (1889-95). No structural remains were evident.
<b>Sources</b>	1 <sup>st</sup> edition six-inch Ordnance Survey map. 
<b>Impact of scheme</b>	Direct and potentially moderate impact on possible foundation remains.
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation to ascertain whether there are surviving below ground remains associated with this structure.
<b>Approx. distance from route</b>	On route of ancillary road.



<b>Identification No.</b>	CHC 51
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA.
<b>Townland</b>	Cregga
<b>Chainage</b>	35+300 – 35+550
<b>Site Type</b>	Farm Complex. Evidence for 19 <sup>th</sup> century occupation in the form of a field system, 3 (upstanding) vernacular structures, and the site of 2 structures and old roadway from the 1 <sup>st</sup> edition six-inch OS. Recorded in chapter 15 as BH-C09.
<b>NGR/ITM</b>	190655, 285846/ 590609, 785862 (centre point of cluster of features)
<b>Description</b>	The upstanding remains of a farmhouse is described in the architectural heritage chapter as (see BH-C09 in Chapter 15) the remains as a single storey, four-bay farmhouse, built of stone, with the remains of a stone-built outhouse or shed also in the vicinity. Associated with the farm, and located to the north and northwest of it is another shed, along with a relict field system, possibly associated with the buildings recorded by the Ordnance Survey in the early nineteenth century.
<b>Sources</b>	1 <sup>st</sup> edition six-inch Ordnance Survey and fieldwork. 

<b>Impact of scheme</b>	Direct and potentially moderate impact on the possible foundation remains of two sites of structure (both circled above). The upstanding remains are located within the proposed landtake, ie. the farmhouse and outbuildings, and will be removed as a result of the proposed development.
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation will ascertain whether there are surviving below ground remains associated with these structures. Above ground structures will be recorded by means of a measured survey, photography and written description.
<b>Approx. distance from route</b>	The site of one structure is within the landtake, the other site of structure is on an ancillary road (this is the southernmost building depicted in the above 1 <sup>st</sup> edition 6-inch OS map, nothing remains standing of either of these structures today). The farm, outhouses and shed are all upstanding and indicated by arrows above. The farm and outhouses are within the landtake and will be directly impacted by the proposed access track at Cregga, this will reduce the overall severance of lands.
<b>Photography</b>	 <p>Northwest facing view of shed structure.</p>
<b>Photography</b>	 <p>Southwest facing view of vernacular farmhouse and outhouse.</p>
<b>Photography</b>	 <p>Northwest facing view of field system. Avoided by proposed road development.</p>
<b>Identification No.</b>	CHC 52
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Cregga
<b>Chainage</b>	35+600
<b>Site Type</b>	Site of Structure
<b>NGR/ITM</b>	190749, 285695 / 590703, 785711


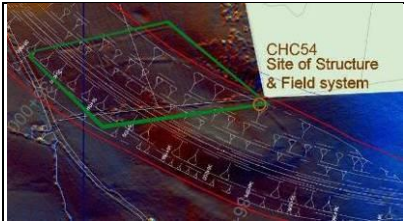

<b>Description</b>	The 1 <sup>st</sup> edition six-inch Ordnance Survey map depicts a roadside linear structure which falls within the route at Cregga. The structure does not appear on the 25-inch series OS map (1889-95). No structural remains were evident.
<b>Sources</b>	1 <sup>st</sup> edition six-inch Ordnance Survey map. 
<b>Impact of scheme</b>	Direct and potentially moderate impact on possible foundation remains.
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation to ascertain whether there are surviving below ground remains associated with this structure.
<b>Approx. distance from route</b>	On the route.

<b>Identification No.</b>	CHC 53
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA.
<b>Townland</b>	Cregga – Cregga Demesne
<b>Chainage</b>	35+750 to 36+700 (extent of demesne as shown on historic map sources)
<b>Site Type</b>	Demesne
<b>NGR/ITM</b>	191444, 285706 / 591397, 785722 (centre point)
<b>Description</b>	Cregga Demesne is described in Chapter 15 under reference number BH-C10. The 1 <sup>st</sup> edition Ordnance Survey six-inch map shows a house named Cregga House in the townland of Cregga and surrounded by a small demesne. The house is thought to have been built soon after 1661 when the land changed hands. The house had gone by the time of the first edition 1:2500 Ordnance Survey map in 1911, leaving only two returns that had projected to the rear of the house. These structures survive, though in ruins, as does a dovecote and the base of a former tower house. Some field boundaries that were shown on the 1 <sup>st</sup> Ordnance Survey map survive, though the land is now a combination of grazing land and scrub, with gorse, blackthorn and woodland, with limestone pavement
<b>Sources</b>	1 <sup>st</sup> edition 6-inch Ordnance Survey map. 
<b>Impact of scheme</b>	No direct impact former demesne lands are avoided by the landtake. The landtake is located adjacent to the southwest corner corner of the

	Cregga Demesne boundary. Slight, indirect visual impact.
<b>Proposed mitigation</b>	Avoided. No mitigation measures are proposed.
<b>Approx. distance from route</b>	The closest boundary of Cregga Demesne is 75m from the centreline of proposed route (6m from the closest road cutting).



<b>Identification No.</b>	CHC54
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA.
<b>Townland</b>	Cregga.
<b>Chainage</b>	35+800
<b>Site Type</b>	Gate Pillars and Site of Structures.
<b>NGR/ITM</b>	190887, 285581 / 590844, 785585
<b>Description</b>	The remains of two stone pillars with cast iron gates are seen. They appear to be associated with two nearby buildings recorded by the 1 <sup>st</sup> edition six-inch Ordnance Survey map from the early nineteenth century. No upstanding trace of these buildings was visible, although the area is heavily overgrown. It is possible that these extant features are associated with an old roadway leading to Cregga House but post date the house and demesne.
<b>Sources</b>	1 <sup>st</sup> edition six-inch OS map and field survey. 
<b>Impact of scheme</b>	Direct and moderate impact on two stone pillars and site of two structures.
<b>Proposed mitigation</b>	Preservation by record and targeted test excavation of the site of the two structures. The gate pillars will be recorded by means of a measured survey, photographic survey and written description prior to commencement of works.
<b>Approx. distance from route</b>	On the route.
<b>Photography</b>	 West facing view of Gate Pillars.

<b>Identification No.</b>	CHC 55
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA.
<b>Townland</b>	Cregga

<b>Chainage</b>	35+950 – 36+250
<b>Site Type</b>	Field system and site of structure.
<b>NGR/ITM</b>	190973, 285527 / 590926, 785543 191211, 285394 / 591164, 785410 Site of Structure 191253, 285384 / 591206, 785400
<b>Description</b>	There is a relict field system with banks and ditches visible over a wide area, along with a possible rectilinear enclosure measuring c.29m northeast/ southwest by c. 33m northwest/ southeast, defined by a scarp 0.4 to 0.5m in height above surrounding ground. This area is located beside the demesne of Cregga House. The site of a structure is recorded on the 1 <sup>st</sup> edition six-inch OS map, however there are no visible trace remains.
<b>Sources</b>	Fieldwork and 1 <sup>st</sup> edition six-inch OS map (area of Field System outlined in red).  
<b>Impact of scheme</b>	Direct and potentially moderate impact on the possible foundation remains of a structure, and a direct impact on the field system banks (outlined above in green).
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation of the field system and site of structure within the landtake and test excavation of the wider area within the landtake.
<b>Approx. distance from route</b>	On the route.
<b>Photography</b>	 Southeast facing view of field system banks.





<b>Photography</b>	 <p>South facing view of field system banks.</p>
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<b>Identification No.</b>	CHC 56
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Corskeagh
<b>Chainage</b>	40+250
<b>Site Type</b>	Site of 2 structures
<b>NGR/ITM</b>	193569, 282365 / 593522, 782382 (Structure 1) 193613, 282375 / 593566, 782392 (Structure 2)
<b>Description</b>	In Corskeagh, the 1 <sup>st</sup> edition six-inch Ordnance Survey records two buildings, one of which (structure 1) falls within the landtake of proposed drainage works, the other (structure 2) is situated directly on the route. These buildings were probably the homesteads of tenant farmers living in the area. No upstanding remains are visible today. Judging from the revised six-inch and 25-inch map series, the same buildings appear to have disappeared by the late nineteenth or early twentieth century. Features such as wall foundations, floors and cesspits may still lie preserved beneath the sod.
<b>Sources</b>	1 <sup>st</sup> edition six-inch Ordnance Survey map. 
<b>Impact of scheme</b>	Direct and potentially moderate impact on possible foundation remains.
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation will ascertain whether there are surviving below ground remains associated with these structures.
<b>Approx. distance from route</b>	The site of structure 1 falls within the landtake of proposed drainage works. The site of structure 2 is on the route.
<b>Photography</b>	 <p>Southeast facing view of site of structure 2</p>

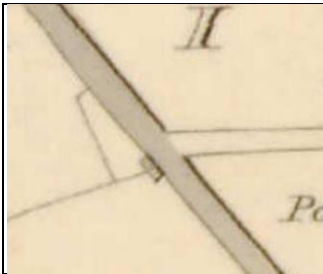
### Cultural Heritage Section C: Cregga Lane Local Access Route

In addition to the former sites and upstanding structures recorded along the former laneway at Cregga, namely CHC47, CHC50 and CHC51, that were considered for the main line and ancillary works, a further two sites of structures are located adjacent to the proposed local access route. These are described below as:

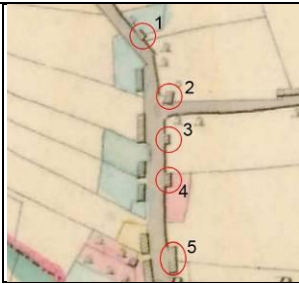
<b>Identification No.</b>	CHC CLA
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Cregga
<b>Chainage</b>	0+320 and 0+500
<b>Site Type</b>	Site of 2 structures
<b>NGR/ITM</b>	590293, 786161 (ITM) (Structure 1) 590422, 786031 (ITM) (Structure 2)
<b>Description</b>	In Cregga, the 1 <sup>st</sup> edition six-inch Ordnance Survey records two buildings, along the proposed local route alignment. These structures were located to the northeast of the former Cregga Lane. These buildings were probably the homesteads of tenant farmers living in the area. No upstanding remains are visible today. Judging from the revised six-inch and 25-inch map series, the same buildings appear to have disappeared by the late nineteenth or early twentieth century. Features such as wall foundations, floors and cesspits may still lie preserved beneath the sod.
<b>Sources</b>	1 <sup>st</sup> edition six-inch Ordnance Survey map and fieldwork.
<b>Impact of scheme</b>	No impact.
<b>Proposed mitigation</b>	Preservation insitu and test excavation of the proposed road development to record any subsurface structural remains.
<b>Approx. distance from route</b>	The sites of structure 1 and 2 falls are located adjacent to the proposed route.
<b>Photography</b>	 <p>Line of proposed route looking south east from chainage 0+50</p>  <p>Structural remains of a clachan, avoided and located to the east of the route, structures shown on the 1<sup>st</sup> edition six inch OS map.</p>

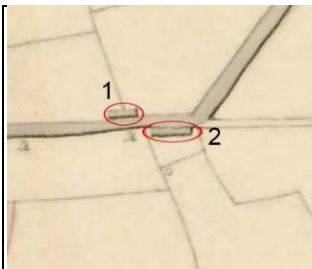
### Cultural Heritage: Section C - Spur Road

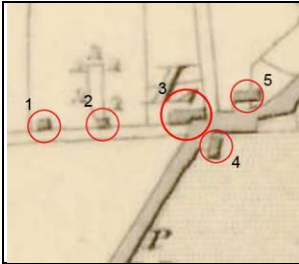

<b>Identification No.</b>	CHC 57
<b>Legal Status</b>	NA

<b>RMP Reference No.</b>	NA
<b>Townland</b>	Kildalloge
<b>Chainage</b>	40+500 main line on an upgraded section of the R368 leading to Strokestown at Link road chainage 0+025
<b>Site Type</b>	Site of Structure
<b>NGR/ITM</b>	192967, 281780 / 592920, 781797
<b>Description</b>	In Kildalloge, the 1 <sup>st</sup> edition six-inch Ordnance Survey records a structure near a T-junction on the main line on an upgraded section of the R368 leading to Strokestown at Link road chainage 0+025. The structure does not appear on the 25-inch OS map. No upstanding remains are visible today.
<b>Sources</b>	1 <sup>st</sup> edition six-inch Ordnance Survey map (1837-8). 
<b>Impact of scheme</b>	Direct potentially moderate impact on possible foundation remains.
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation of the site of the structure within the landtake, record any subsurface structural remains.
<b>Approx. distance from route</b>	The site of the structure falls within the landtake of the route of the Spur Road.

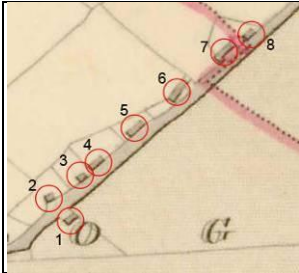
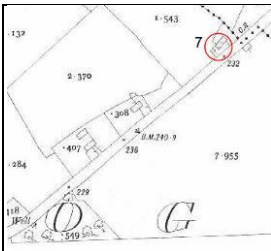
<b>Identification No.</b>	CHC 58
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Kildalloge
<b>Chainage</b>	40+500 main line on an upgraded section of the R368 leading from Strokestown at Link road chainage 0+100 to 0+250
<b>Site Type</b>	Site of 5 structures.
<b>NGR/ITM</b>	193161, 281571 / 593114, 781588 (Structure 1) 193183, 281521 / 593136, 781538 (Structure 2) 193182, 281487 / 593135, 781504 (Structure 3) 193183, 281455 / 593136, 781472 (Structure 4) 193186, 281392 / 593139, 781409 (Structure 5)
<b>Description</b>	In Kildalloge, the 1 <sup>st</sup> edition six-inch Ordnance Survey records five structures on an upgraded section of the R368 leading from Strokestown at Link road chainage (0+100 to 0+250). None of these structures appear on the 25-inch OS map. No upstanding remains are visible today.
<b>Sources</b>	1 <sup>st</sup> edition six-inch Ordnance Survey map (1837-8).

		
<b>Impact of scheme</b>	Direct potentially moderate impact on possible foundation remains.	
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation of the sites of structures within the landtake, record any subsurface structural remains.	
<b>Approx. distance from route</b>	The sites of 5 structures are possibly located on the proposed road.	

<b>Identification No.</b>	CHC 59
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Kildalloge
<b>Chainage</b>	40+500 main line with the Link road from 0+075-0+100
<b>Site Type</b>	Site of 2 structures.
<b>NGR/ITM</b>	193283, 281527 / 593236, 781544 (Structure 1) 193317, 281514 / 593270, 781531 (Structure 2)
<b>Description</b>	In Kildalloge, the 1 <sup>st</sup> edition six-inch Ordnance Survey records two linear roadside structures along a southern Link road from 0+075 to 0+100. Neither of these structures appear on the 25-inch OS map. No upstanding remains are visible today.
<b>Sources</b>	1 <sup>st</sup> edition six-inch Ordnance Survey map (1837-8). 
<b>Impact of scheme</b>	Both sites fall within landtake so there is a direct potentially moderate impact on any possible subsurface remains.
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation of the sites of structures within the landtake, record any subsurface structural remains.
<b>Approx. distance from route</b>	The sites of 2 structures fall within the proposed landtake of the Spur road.
<b>Identification No.</b>	CHC 60
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Kildalloge
<b>Chainage</b>	40+500 main line with the Link road from 0+375-0+475
<b>Site Type</b>	Site of 5 structures

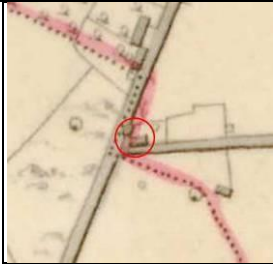
<b>NGR/ITM</b>	193455, 281822 / 593408, 781839 (Structure 1) 193486, 281822 / 593439, 781839 (Structure 2) 193529, 281826 / 593482, 781843 (Structure 3) 193544, 281809 / 593497, 781826 (Structure 4) 193561, 281837 / 593514, 781854 (Structure 5)
<b>Description</b>	In Kildallog, the 1 <sup>st</sup> edition six-inch Ordnance Survey records five structures at a T-junction along a southern Link road from 0+375 to 0+475. Of these five structures only Structure 3 is still standing by the time of the 25-inch OS map, it also appears on the subsequent revised 6-inch OS map. No upstanding remains are visible today.
<b>Sources</b>	1 <sup>st</sup> edition six-inch Ordnance Survey map (1837-8).  25-inch Ordnance Survey map (1888-92). 
<b>Impact of scheme</b>	Direct and potentially moderate impact on possible foundation remains.
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation of the sites of structures within the landtake, record any subsurface structural remains.
<b>Approx. distance from route</b>	The sites of 5 structures are possibly located within the proposed landtake of the link road.


<b>Identification No.</b>	CHC 61
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Kildallog
<b>Chainage</b>	40+500 main line with the Link road from 0+525-0+725
<b>Site Type</b>	Site of 8 structures
<b>NGR/ITM</b>	193621, 281854 / 593574, 781871 (Structure 1) 193602, 281870 / 593555, 781887 (Structure 2) 193630, 281887 / 593583, 781904 (Structure 3) 193642, 281900 / 593595, 781917 (Structure 4) 193675, 281929 / 593628, 781946 (Structure 5) 193709, 281961 / 593662, 781978 (Structure 6) 193748, 281992 / 593701, 782009 (Structure 7) 193767, 282007 / 593720, 782024 (Structure 8)




<b>Description</b>	In Kildalloge, the 1 <sup>st</sup> edition six-inch Ordnance Survey records eight roadside structures along a southern Link road from 0+525 to 0+725. Of these eight structures only Structure 7 is still standing by the time of the 25-inch OS map, it also appears on the subsequent revised six-inch OS map. No upstanding remains are visible today.
<b>Sources</b>	1 <sup>st</sup> edition six-inch Ordnance Survey map (1837-8).  25-inch Ordnance Survey map (1888-92). 
<b>Impact of scheme</b>	Direct potentially moderate impact on possible foundation remains.
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation of the sites of structures within the landtake, record any subsurface structural remains.
<b>Approx. distance from route</b>	The site of 8 structures are located within the proposed road development for the link road.

**Cultural Heritage - Section D (Ch. from 50+000 to Ch. 54+350).**

<b>Identification No.</b>	CHC62
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Corskeagh
<b>Chainage</b>	50+000
<b>Site Type</b>	Site of 2 structures.
<b>NGR/ITM</b>	194047, 282405 / 594000, 782422
<b>Description</b>	In Corskeagh, the 1 <sup>st</sup> edition six-inch Ordnance Survey records two roadside structures at a T-junction. No structures appear at this point on the 25-inch map series. No upstanding remains are visible today. A limekiln is located to the south of these structures on the townland boundary with Lavally. Another limekiln is located to the west side of the road in what is depicted as rough ground.
<b>Sources</b>	1 <sup>st</sup> edition six-inch Ordnance Survey map.

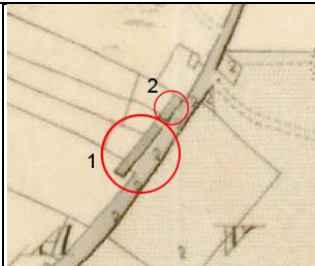
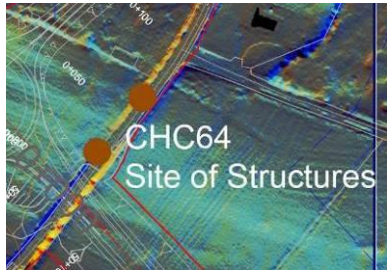

		
<b>Impact of scheme</b>	Direct potentially moderate impact on possible foundation remains.	
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation of the sites of structures within the landtake, record any subsurface structural remains.	
<b>Approx. distance from route</b>	Located on an upgraded ancillary road.	

<b>Identification No.</b>	CHC63
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Lavally
<b>Chainage</b>	50+050
<b>Site Type</b>	Rectilinear Enclosure (a property plot as appears on the 1 <sup>st</sup> edition six-inch OS map) & site of structure.
<b>NGR/ITM</b>	193825, 282081 / 593778, 782098
<b>Description</b>	<p>The 1<sup>st</sup> edition six-inch OS mapping depicts the site of a structure and a rectilinear enclosure on the route. The LiDAR survey (65.2) recorded the enclosure. Field inspection revealed the remnants of this enclosure or property plot as appears on the 1<sup>st</sup> edition OS map, measuring c.21m northwest/ southeast by c.37m northeast/ southwest. This is defined by a ditch along its northeast and northwest sides, measuring c.2m to 2.4m in width, and 0.25m in depth. This enclosure is visible on the 1<sup>st</sup> edition six-inch Ordnance Survey, but not on later maps like the Ordnance Survey 25-inch. The enclosure is associated with a building facing onto the road along its eastern side. No surface trace of this house exists. It is possibly part of an early farmstead.</p> <p>The LiDAR survey describes this site as almost certainly modern in origin.</p>
<b>Sources</b>	<p>1<sup>st</sup> edition six-inch Ordnance Survey map.</p> <div style="text-align: center;">  </div> <p>LiDAR (65.2).</p>


	 <p>LiDAR showing proposed road development.</p> 
<b>Impact of scheme</b>	Direct and potentially moderate impact on possible foundation remains.
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation of the site of the structure within the landtake, record any subsurface structural remains. Test excavation of the proposed route will ascertain whether there are surviving below ground remains associated with this structure.
<b>Approx. distance from route</b>	On ancillary road immediately south of roundabout.
<b>Photography</b>	 <p>Southeast facing view of enclosure and site of structure.</p>

<b>Identification No.</b>	CHC64
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Lavally
<b>Chainage</b>	50+050
<b>Site Type</b>	Site of 2 Structures.
<b>NGR/ITM</b>	193893, 282140 / 593846, 782157 (Structure 1) 193918, 282170 / 593871, 782187 (Structure 2)
<b>Description</b>	In Lavally, the 1 <sup>st</sup> edition six-inch Ordnance Survey records a terraced row of houses with narrow plots running from the rear into the present day field. Neither the houses nor their property boundaries have visible surface traces, though the latter are visible in the LiDAR survey results. These buildings were probably the homesteads of tenant farmers living in the area. No upstanding remains are visible today. Judging from the 25-inch map series, the buildings have disappeared by the late nineteenth century. Features such as wall foundations, floors and cesspits may still lie preserved beneath the sod.
<b>Sources</b>	1 <sup>st</sup> edition six-inch Ordnance Survey map.

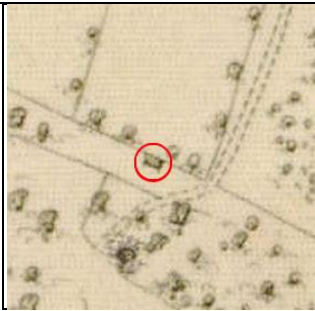




	  <p>LiDAR with proposed road development.</p>
<b>Impact of scheme</b>	Direct and potentially moderate impact on possible foundation remains.
<b>Proposed mitigation</b>	Preservation by record. Test excavation of proposed route will ascertain whether there are surviving below ground remains associated with these structures.
<b>Approx. distance from route</b>	Structure 1 is on the route of an ancillary road. Structure 2 falls within the landtake.
<b>Photography</b>	 <p>Northeast facing view of site of structures.</p>



<b>Identification No.</b>	CHC65
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA.
<b>Townland</b>	Lavally, Vesnoy, Cloonradoon, Bumlin – Strokestown Demesne
<b>Chainage</b>	50+075 – 52+850
<b>Site Type</b>	Former Demesne Lands.
<b>NGR/ITM</b>	194876, 280983 / 594829, 781000
<b>Description</b>	<p>Strokestown Demesne is described in Chapter 15 under reference number BH-D03 as follows –<i>“the demesne at Strokestown was laid out in the eighteenth century and covered a substantial tract of land. This had a walled garden, ornamental pond, woodland walks, a deer park and parkland.</i></p> <p><i>The NIAH garden survey concludes that the main features of the demesne are substantially present, though with some loss of integrity. The more detailed comments are that the “woodland is still present, though structural woodland has been lost” and “parkland trees have been lost from parkland east of the principal building. Other sections of the peripheral landscape are indistinguishable from surrounding farmland”.</i></p>


	<p><i>The NIAH survey does not note that much of the area of the demesne has been subdivided into fields for grazing and parkland has thus been given over to enclosed land without many of the clumps of trees that formerly dotted the demesne. Other parts of the land have been given over to conifer plantations, while a section along the southern margin of the demesne is now laid out as a golf course, with a significant degree of loss of the parkland landscape.</i></p> <p><i>The line of the proposed road through the demesne would run approximately north-west to south-east at a distance of approximately 1100m from the house at Strokestown Park. This line would run almost entirely within enclosed grassland fields, while most of the areas of trees or woodland that would be affected are not parts of the surviving demesne landscaping.”</i></p>
<b>Sources</b>	<p>1st edition six-inch OS map</p> 
<b>Impact of scheme</b>	Direct and moderate impact on the lands formerly associated with Strokestown Demesne. Removal of sections of low stone boundary walls.
<b>Proposed mitigation</b>	Replacement planting in a mix of native species and create a record of the walls by means of a measured survey, photography and written description.
<b>Approx. distance from route</b>	On route.



<b>Identification No.</b>	CHC66
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA.
<b>Townland</b>	Bumlin
<b>Chainage</b>	52+725
<b>Site Type</b>	Vernacular Structure.
<b>NGR/ITM</b>	195541, 280060 / 595493, 780078
<b>Description</b>	A stone-built structure is situated 35m west of the route. Rough dimensions 14m x 4.5m x 2.5m. The structure is single-storey and has a corrugated iron roof. It is divided internally into two compartments by a stone wall and this is expressed externally by two doorways. The structure is described in the Architectural Heritage Chapter (15) under entry BH-D04.
<b>Sources</b>	<a href="#">Fieldwork, OS mapping</a> - 1 <sup>st</sup> edition six-inch OS.

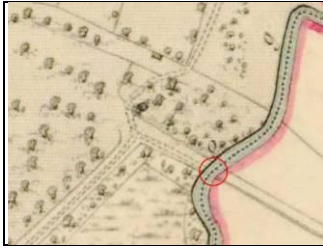
	 <p>1<sup>st</sup> edition six-inch Ordnance Survey.</p>
<b>Impact of scheme</b>	No direct impact. Located outside the landtake boundary.
<b>Proposed mitigation</b>	Avoidance. This structure is not physically affected by route so no mitigation measures are necessary.
<b>Approx. distance from route</b>	The site is located approximately 35m west of centre line of the proposed road development.
<b>Photography</b>	 <p>Southwest facing view of stone built vernacular structure.</p>



<b>Identification No.</b>	CHC67
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Bumlin
<b>Chainage</b>	52+750
<b>Site Type</b>	Vernacular Structure.
<b>NGR/ITM</b>	195530, 280021 / 595482, 780039
<b>Description</b>	Annotated on the 1 <sup>st</sup> edition six-inch OS, 25-inch and revised six-inch. Extant and restored toll building for bridge crossing into Strokestown Demesne. Described in Chapter 15 under heading BH-D05. The bridge crossing. Scramoge river was removed by the time of 1 <sup>st</sup> edition OS (1838).
<b>Sources</b>	<p>Fieldwork, OS mapping.</p>  <p>1<sup>st</sup> edition six-inch Ordnance Survey (1838)</p>

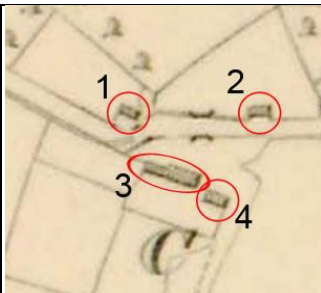
	 <p>25-inch Ordnance Survey (1890-92)</p>
<p><b>Impact of scheme</b></p>	<p>No direct impact as the structure is located outside the landtake boundary.</p>
<p><b>Proposed mitigation</b></p>	<p>Avoidance. This structure is not directly affected by route so no mitigation measures are necessary.</p>
<p><b>Approx. distance from route</b></p>	<p>65m southwest of centre line of the proposed road development.</p>
<p><b>Photography</b></p>	 <p>East facing view of toll building.</p>

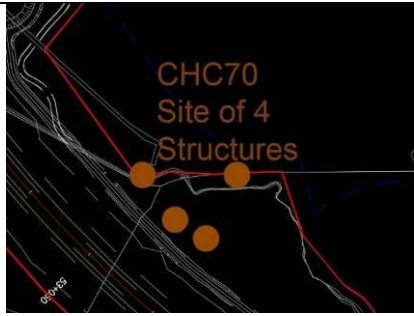
<p><b>Identification No.</b></p>	<p>CHC68</p>
<p><b>Legal Status</b></p>	<p>NA</p>
<p><b>RMP Reference No.</b></p>	<p>NA</p>
<p><b>Townland</b></p>	<p>Bumlin</p>
<p><b>Chainage</b></p>	<p>52+800</p>
<p><b>Site Type</b></p>	<p>Site of Boat House.</p>
<p><b>NGR/ITM</b></p>	<p>195655, 280014 / 595607, 780037</p>
<p><b>Description</b></p>	<p>A boat house is recorded on the revised six-inch Ordnance Survey map, and while no surface trace of it is apparent, structures or features associated with the boat house may still lie preserved beneath the ground surface. The boathouse is positioned on the bank of the Scramoge river. Mapping indicates the river was straightened at this point and altered considerably in this area (possibly as part of famine work scheme). The area would appear to be subject to disturbance.</p>
<p><b>Sources</b></p>	<p><a href="#">OS mapping.</a></p>  <p>Revised six-inch Ordnance Survey map (1911-13).</p>

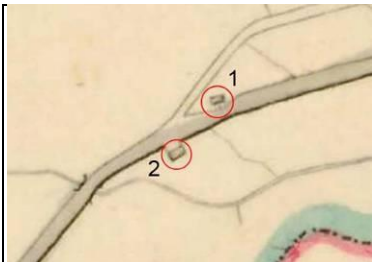
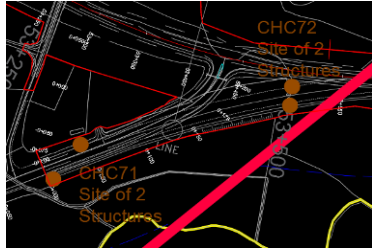
	 <p>1st edition six-inch OS map (1837-38) prior to the straightening of the Scramoge River and construction of boathouse at this point.</p>
<b>Impact of scheme</b>	Indirect, no direct effect on the site of this structure.
<b>Proposed mitigation</b>	Avoidance of the site.
<b>Approx. distance from route</b>	The site is located immediately outside the landtake.
<b>Photography</b>	 <p>Northeast facing view of the site of the boat house.</p>

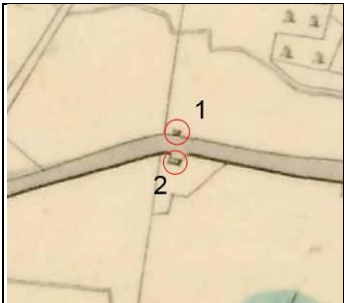
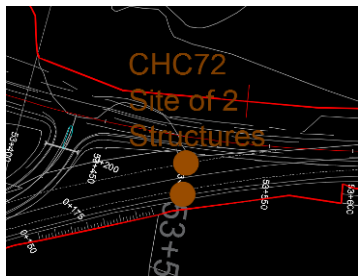
<b>Identification No.</b>	CHC69
<b>Legal Status</b>	None
<b>RMP Reference No.</b>	None
<b>Townland</b>	Bumlin and Scramoge
<b>Chainage</b>	52+825
<b>Site Type</b>	Site of former bridge and fording point– Scramoge River
<b>NGR/ITM</b>	195594, 279967 / 595546, 779985.
<b>Description</b>	The site of a former bridge and fording point on the Scramoge River is located at chainage 52+825. Remains of stone bridge are seen on the north-western side bank of the Scramoge River. By the time of the 1st edition six-inch OS mapping (1837-8) the bridge has been removed. Described in Chapter 15 under heading BH-D06.
<b>Sources</b>	<p>Mapping and field work. 1<sup>st</sup> edition six-inch OS mapping. Site of former bridge and fording point circled in red.</p> 
<b>Impact of scheme</b>	No impact, the new river crossing will be adjacent to the old bridge ruin. The remnants of the bridge will need to be safeguarded during construction.
<b>Proposed mitigation</b>	Preservation insitu. Ensure the structural remains are made safe during the construction process.

<b>Approx. distance from route</b>	The proposed route crosses the Scramoge River and associated culverting works are scheduled adjacent to this area.
<b>Photography</b>	 <p>East facing view of the remains of the former bridge.</p>  <p>Southeast facing view at site of former bridge/ fording point.</p>

<b>Identification No.</b>	CHC70
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Scramoge
<b>Chainage</b>	53+025 – 53+100
<b>Site Type</b>	Site of 4 Structures.
<b>NGR/ITM</b>	195794, 289864 / 595746, 779879 (Structure 1) 195849, 289864 / 595801, 779879 (Structure 2) 195813, 289838 / 595765, 789853 (Structure 3) 195831, 289827 / 595783, 779842 (Structure 4)
<b>Description</b>	In Scramoge, the 1 <sup>st</sup> edition six-inch Ordnance Survey records a village consisting of over 25 houses, of which no upstanding remains are visible today. The four western most recorded buildings fall within the landtake of the proposed road. Judging from the 25-inch map series, the buildings have disappeared by the late nineteenth century.
<b>Sources</b>	1 <sup>st</sup> edition six-inch Ordnance Survey map. 

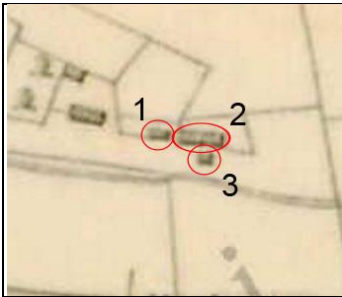
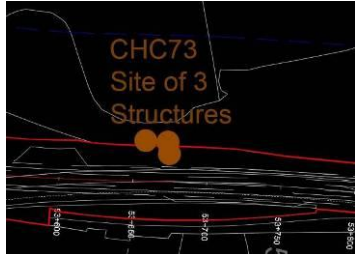
	
<b>Impact of scheme</b>	Direct and potentially moderate impact on possible foundation remains.
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation of the sites of the structures within the landtake, record any subsurface structural remains.
<b>Approx. distance from route</b>	All 4 sites of structures fall within the landtake but are not in the direct path of the proposed road development.

<b>Identification No.</b>	CHC71
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Scramoge
<b>Chainage</b>	53+325.
<b>Site Type</b>	Site of 2 Structures.
<b>NGR/ITM</b>	195948, 289543 / 595900, 779559 (Structure 1) 195921, 289508 / 595873, 779524 (Structure 2)
<b>Description</b>	In Scramoge, the 1 <sup>st</sup> edition six-inch Ordnance Survey records two sites of structures, of which no upstanding remains are visible today. The buildings are not depicted on the 25-inch OS map.
<b>Sources</b>	1 <sup>st</sup> edition six-inch Ordnance Survey map.  
<b>Impact of scheme</b>	Direct and potentially moderate impact on possible foundation remains.
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation will ascertain whether there are surviving below ground remains associated with these structures within the landtake, record any subsurface structural remains.
<b>Approx. distance from route</b>	Both sites of structures fall on the route of an ancillary road which connects the N5 to the proposed road development.

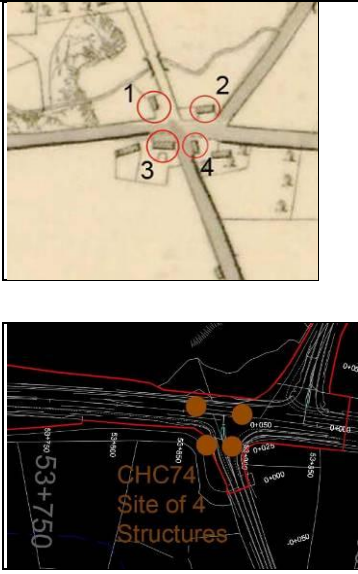

<b>Identification No.</b>	CHC72
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA.
<b>Townland</b>	Scramoge
<b>Chainage</b>	53+500
<b>Site Type</b>	Site of 2 structures.
<b>NGR/ITM</b>	196158, 279600 / 596110, 779618 (Structure1) 196156, 279582 / 596108, 779599 (Structure2)
<b>Description</b>	The 1st edition six-inch Ordnance Survey recorded the presence of two structures in Scramoge adjacent to the route of the current N5 where improvements are to be made. Whilst the buildings no longer remain, structures and features associated with the same may lie beneath the ground. Neither structure appears on the 25-inch OS map.
<b>Sources</b>	1 <sup>st</sup> edition six-inch Ordnance Survey map.  
<b>Impact of scheme</b>	Direct and potentially moderate impact on possible foundation remains.
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation will ascertain whether there are surviving below ground remains associated with these structures within the landtake, record any subsurface structural remains.
<b>Approx. distance from route</b>	Both sites of structures are within the landtake of the main route and situated in an area which may require landscaping following the removal of the current stretch of N5 at this point.

<b>Identification No.</b>	CHC73
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Scramoge
<b>Chainage</b>	53+650 – 53+675
<b>Site Type</b>	Site of 3 Structures.
<b>NGR/ITM</b>	196317, 279633 / 596269, 779651 (Structure1) 196332, 279632 / 596284, 779650 (Structure2) 196333, 279624 / 596285, 779642 (Structure3)



<b>Description</b>	The 1st edition six-inch Ordnance Survey recorded the presence of three structures in Scramoge to the immediate north of the route of the current N5 where improvements are to be made. Whilst the buildings no longer remain, structures and features associated with the same may lie beneath the ground. The structures in question do not appear on the 25-inch OS map.
<b>Sources</b>	1 <sup>st</sup> edition six-inch Ordnance Survey map.  
<b>Impact of scheme</b>	Direct and potentially moderate impact on possible foundation remains.
<b>Proposed mitigation</b>	Preservation by record. Targeted test excavation will ascertain whether there are surviving below ground remains associated with these structures within the landtake, record any subsurface structural remains.
<b>Approx. distance from route</b>	The three sites of structures are within the landtake of the proposed road development.

<b>Identification No.</b>	CHC74
<b>Legal Status</b>	NA
<b>RMP Reference No.</b>	NA
<b>Townland</b>	Scramoge
<b>Chainage</b>	53+850 and 53+900
<b>Site Type</b>	Site of 4 Structures.
<b>NGR/ITM</b>	196516, 279596 / 596468, 779614 (Structure 1) 196551, 279590 / 596503, 779608 (Structure 2) 196525, 279568 / 596477, 779586 (Structure 3) 196544, 279567 / 596496, 779585 (Structure 4)
<b>Description</b>	The 1st edition six-inch Ordnance Survey recorded the presence of four structures in Scramoge at a crossroads which appears to be underneath the current N5. Improvements are to be made to the road at this point. Whilst the structures no longer remain, structures and features associated with the same may lie beneath the ground. The structures in question are circled in red below, and do not appear on the 25-inch OS map.
<b>Sources</b>	1 <sup>st</sup> edition six-inch Ordnance Survey map.

	
<p><b>Impact of scheme</b></p>	<p>Direct and potentially moderate impact on possible foundation remains.</p>
<p><b>Proposed mitigation</b></p>	<p>Preservation by record. Targeted test excavation will ascertain whether there are surviving below ground remains associated with these structures within the landtake, record any subsurface structural remains.</p>
<p><b>Approx. distance from route</b></p>	<p>On the route.</p>
<p><b>Photography</b></p>	 <p>West facing view at the point of the old crossroads.</p>

## Appendix 14.4 Topographical files of the NMI

**Table 14.29 Topographical Files**

ID	Townland Name	Barony	Parish	Reference No.	Description
1	RATHKEERY	Frenchpark	Tibohine	x	
2	PORTAGHARD	Frenchpark	Tibohine	x	
3	TURLAGHNAMADDY	Frenchpark	Tibohine	x	
4	MULLEN	Frenchpark	Tibohine	1943:288	Bog butter in a wooden vessel, found in a bog (find spot unknown). Acquired from Mr. Patrick Lafferty, Mullen, Frenchpark.
				1941:351	Bronze triangular shaped spearhead. Acquired from Mr. Henry Morris as part of the Morris Collection.
5	DUNGAR	Frenchpark	Tibohine	x	
6	CORSKEAGH	Frenchpark	Tibohine	x	
7	LEGGATINTY	Frenchpark	Tibohine	x	
8	DERREEN (ED Bellanagare)	Castlereagh	Kilkeevin	x	
	n/a			1802:Wk085 1795:Wk078 1792:Wk075	3 iron stirrups from Derreen Lough crannog. Donated by Lord Farmham
9	CASHEL (ED Bellanagare)	Castlereagh	Kilcorkey	x	
10	BALLAGHCULLIA	Castlereagh	Kilcorkey	x	
11	BELLANAGARE	Castlereagh	Kilcorkey	1961:191 1961:190 1961:189:3 1961:189:2 1961:189 (IA/13/61)	Spoon made of horn (1961:191), wooden mether, one handled (1961:190). Bog butter (1961:189:3) contained in a wooden vessel (1961:189) with a covering of wool (1961:189:2). All acquired from Michael Mahon, Drummin, Ballinagare. The spoon and mether recovered from Bog at Bellanagare and the bog butter from the bog at Drummin. All recovered from c.3ft deep in the bog.
12	DRUMMIN	Castlereagh	Kilcorkey	see Bellanagare	
13	TONAKNICK	Frenchpark	Kilcolagh	x	

ID	Townland Name	Barony	Parish	Reference No.	Description
14	PEAK	Castlereagh	Kilcorkey	x	
15	CARRIGEENACREEHA	Frenchpark	Kilcolagh	x	
16	MULLENDUFF	Frenchpark	Kilcolagh	x	
17	GARRYNPHORT	Roscommon	Shankill	x	
18	CORRY WEST	Roscommon	Shankill	x	
19	KILVOY	Roscommon	Shankill	x	
20	CORRY EAST	Roscommon	Shankill	x	
21	CLOONYEFFER	Roscommon	Shankill	x	
22	CLOGHER BEG	Roscommon	Elphin	1935 - 18	Iron bell recovered from Rathlough (fort). 'Much crushed when found' during building of a local farmhouse under the congested districts board. Found during moving sand, found at c.15ft depth. Approx. 1 mile from the hill at Rathcroghan.
23	CLOGHER MORE	Roscommon	Elphin	x	
24	CARTRONAGOR	Roscommon	Shankill	x	
25	RAHEEN	Roscommon	Elphin	x	
26	CREEVE (ED Rossmore)	Roscommon	Shankill	x	
27	RUNNARUAG	Roscommon	Elphin	x	
28	GORTNACRANNAGH	Roscommon	Shankill	x	
29	KILLEEN WEST	Roscommon	Shankill	x	
30	LURGAN	Roscommon	Shankill	x	
31	KILLEEN EAST	Roscommon	Shankill	x	
32	TULLYLOYD	Roscommon	Elphin	x	
33	TULLYCARTON	Roscommon	Elphin	x	
34	LUGBOY	Roscommon	Elphin	x	
35	CREGGA	Roscommon	Kiltrustin	x	
36	CUILREVAGH	Roscommon	Kiltrustin	1984:149 IA/199/1984	Lower stone of a rotary quern stone. Found while digging for gravel inside a ringfort. Donated by John Gallagher, OPW, Mullingar.
37	TULLEN	Roscommon	Kiltrustin	x	

ID	Townland Name	Barony	Parish	Reference No.	Description
38	LETTREEN	Roscommon	Kiltrustin	x	
39	DOUGHLOON	Roscommon	Kiltrustin	x	
40	CORSKEAGH	Roscommon	Kiltrustin	x	
41	LAVALLY	Roscommon	Kiltrustin	x	
42	KILDALLOGE	Roscommon	Kiltrustin	x	
43	VESNOY	Roscommon	Bumlin	2004:29 6998:W99 6997:W98 6995:W96 6994:W95 6993:W94 (IA/94/1998)	<p>Polished stone axehead, find spot unknown (2004:29). 5 gold bracelets found at Strokestown Demesne near the ruins of the Urney Church and donated by Lord Clarendon, then Lord Lieutenant of Ireland. Part of a hoard of decorative articles - gorgets, balls, beads, necklaces, fore-head bands, plates, pins, brooches, ear-rings and armillae - numbered from 22-99. Found "lying just between the gravel and the turf at a depth of 6ft under the surface" in making a new cut through the demesne of Strokestown during the arterial drainage operations in Co. Roscommon in 1849.</p> <p><b>6998:W99</b> A flat oval, gold bracelet. Found with no's 94, 95, 96 and 98.</p> <p><b>6997:W98</b> Gold bracelet, perfectly plain with slightly everted edges and somewhat oval in form (fig 581 on p.364). See proceedings Vol IV p.389 and Vol V p.49.</p> <p><b>6995:W96</b> Gold bracelet, flat plain armilla, smaller than the others.</p> <p><b>6994:W95</b> Penannular gold bracelet, flat body and expanded terminals. Flat plain armilla, apparently unfinished, narrow at the extremities.</p> <p><b>6993:W94</b> Penannular gold bracelet, plain, oval.</p> <p>Ref. Eogan, G. 1983 Hoards of the Irish LBA Now thought to be Viking in origin (Sheehan 2012)</p>
44	CLOONRADOON	Roscommon	Bumlin	x	
45	BUMLIN	Roscommon	Bumlin	x	
46	SCRAMOGE	Roscommon	Bumlin	1941:370	Flat bronze Axehead, found in Yard Bog near Scramoge. Harbison type Ballyvalley. Acquired as part of the Morris Collection from Mr Henry Morris, Howth Rd, Dublin.
				1936:3450	Bronze kite-shaped spearhead with side loops. Found in a bog (find place not known). Acquired from Mr Luke Cox, Northyard, Scramoge.

## **Appendix 14.5 Methodology - Sources**

The desk study availed of the following sources:

### **National Monuments**

The National Monuments, Preservation Orders, Register of Historic Monuments list for County Roscommon was sourced directly from the Department for Arts, Heritage and the Gaeltacht (DAHG).

### **Record of Monuments and Places (RMP) and Sites and Monuments Record (SMR) Files**

The primary source of information for the desk study is the Record of Monuments and Places (RMP) of the Department of Arts Heritage and the Gaeltacht (DAHG). The RMP for Co. Roscommon was issued in 1997 and remains the 'legal' list of monuments which are subject to the provisions of Section 12 of the National Monuments (Amendment) Act 1994. The RMP records known upstanding archaeological monuments, their original location (in cases of destroyed monuments) and the position of possible sites identified as cropmarks on vertical aerial photographs. It is based on a comprehensive range of published and publicly available documentary and cartographic sources. The information held in the RMP files is read in conjunction with constraint maps (published at reduced six-inch scale). The non-statutory Sites and Monuments (SMR) database of the Archaeological Survey of Ireland which is available online at [www.archaeology.ie](http://www.archaeology.ie) was also examined and mapping for the project includes SMRs and RMP sites.

### **Record of Protected Structures (RPS sites) and Architectural Conservation Areas (ACAs)**

The primary source of architectural heritage information is the Roscommon County Council Development Plan 2014-2020 which was consulted for the Record of Protected Structures (RPS sites) and Architectural Conservation Areas (ACAs) in the study area. A number of categories of special interest are taken into consideration when assessing the significance of a property/structure. These include architectural, historical, archaeological, artistic, cultural, scientific, technical or social. Not all architectural heritage of Ireland is known or recorded by NIAH or RPS sites or is protected by legislation. Protected structures, ACAs and demesnes as well as structures of architectural heritage merit are all discussed in Chapter 15.

### **National Inventory of Architectural Heritage (NIAH) Building and Garden Surveys**

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. The surveys are ongoing and are carried out by county administrative area and are subject to change as new features come to light. Their purpose is to highlight a representative sample of the architectural heritage of each county, and raise awareness of the wealth of architectural heritage in Ireland. The objective of the Historic gardens and designed landscapes survey is to begin a process of understanding and recording the extent of Ireland's historic gardens and designed landscape. Features from both NIAH surveys are discussed in Chapter 15.

### **Documentary and Cartographic Sources**

Documentary and literary sources used in the report are listed in the references section of the chapter.

## **Topographical files of the National Museum of Ireland**

The topographical files of the National Museum of Ireland (NMI) identify recorded stray finds held in the museum's archive. The files, which are donated to the state in accordance with national monuments legislation, are provenanced to townland and sometimes include reports on excavations undertaken by NMI archaeologists earlier in the 20<sup>th</sup> century.

## **Excavations Bulletins and Excavations Database**

'Excavations' is an annual bulletin that contains summary accounts of all excavations carried out annually in Ireland. The online database contains summary accounts of all excavations carried out from 1985 to 2013. The bulletins and database were consulted to establish the results of excavations that previously have been undertaken at sites or as a consequence of development in the environs of the proposed development. The results of any previous archaeological investigations undertaken in the vicinity of the proposed development are discussed in the context of the archaeological and historical background.

## **LIDAR**

LiDAR is an acronym for Light Detection and Ranging and provides a cost-effective and fast method of recording topographic data over large areas. It can be carried out in order to obtain a fuller understanding and interpretation of the receiving physical, topographical and cultural heritage landscape.

A high quality LiDAR Survey for the N5 Ballaghaderreen to Scramoge Road Project Corridor was conducted over an area measuring measures approx. 34km<sup>2</sup> (Davis 2015). All information held within this report and in the appendices in relation to the LiDAR survey is attributed to Dr. Stephen Davis of University College Dublin unless otherwise specified. The primary aims for the LiDAR Survey is to provide a digital terrain model for the engineering design and also for detailed analysis of the above ground features in terms of archaeological potential.

## **Geophysical Survey**

The aim of the geophysical survey is to identify and locate the nature and extent of below-ground archaeological sites and remains. This is a non-invasive method of examining the below ground archaeological potential without disturbing the surface of the fields. The benefits of availing of this technique are that it can cover a large amount of ground rapidly and provide definition on the nature, extent and often plan layout of below ground sites. This work was carried out by Earthsound Archaeological Geophysics (Bonsall and Gimson 2016).

## **Test Trenching of Known and Recorded Areas**

Advance test excavation was undertaken in order to inform the EIA process as to the nature and extent of a monument or site and to examine areas of archaeological potential. Seven areas were examined by archaeological test excavation. This process involves the removal of the topsoil and excavating several test trenches across an area of archaeological potential and exposing if present the archaeological features beneath the soil. This work was carried out by Archer Heritage Planning Ltd (O'Connell 2016a, d).

## Appendix 14.6 Townland Names

**Table 14.30 Townland Names**

ID	Townland Name	Barony	Parish	Origin	Translation	Meaning	Notes/Reference/ Associations
1	RATHKEERY	Frenchpark	Tibohine	Irish	<i>Ráth Chiara</i>	Keary's Rath or Fort	OS parish namebook 1837, logainm.ie
2	PORTAGHARD	Frenchpark	Tibohine	Irish	<i>An Portach Ard</i>	High bog, from <i>ard</i> meaning height / high	"A grave yard surrounds the church & has in it some trees." OS parish namebook 1837. logainm.ie
3	TURLAGHNAMADDY	Frenchpark	Tibohine	Irish	<i>Turlach na Madadh</i>	Dried lough of the dogs	OS parish namebook 1837. logainm.ie
4	MULLEN	Frenchpark	Tibohine	Irish	<i>An Muileann</i>	from <i>muileann</i> meaning mill	"The only good house on it is that called Mullin" OS parish notebook 1837. logainm.ie
5	DUNGAR	Frenchpark	Tibohine	Irish	<i>Dún Gar</i>	Gar's dun or fort, from <i>dún</i> (also <i>dúnaibh</i> ) meaning fort	"There is a fort on it at the road side" OS parish namebook 1837. logainm.ie
6	CORSKEAGH	Frenchpark	Tibohine	Irish	<i>An Chorsceach</i>	Round hill of the briars, from <i>sceach</i> (also <i>sceich</i> ) meaning hawthorn, thorn bush and <i>corr</i> meaning round hill, pointed hill, hollow, pointed, conspicuous, odd	OS parish namebook 1837, logainm.ie
7	LEGGATINTY	Frenchpark	Tibohine	English		Lag a teintidhe - hollow of the fires (Irish name to be confirmed)	OS parish notebook 1837, logainm.ie
8	DERREEN (ED Bellanagare)	Castlereagh	Kilkeevin	Irish	<i>An Doirín</i>	A small derry or oak wood	"The property of O'Connor Don M.P. OS parish namebook 1837, logainm.ie
9	CASHEL (ED Bellanagare)	Castlereagh	Kilcorkey	Irish	<i>An Caiseal</i>	Stone ring fort	OS parish namebook 1837, logainm.ie



ID	Townland Name	Barony	Parish	Origin	Translation	Meaning	Notes/Reference/ Associations
10	BALLAGHCULLIA	Castlereagh	Kilcorkey	Irish	<i>Béal Coille</i>	Pass of the wood. <i>Béal</i> meaning opening, approach, mouth and <i>coill</i> (also <i>coillidh</i> , <i>coillte</i> , <i>coille</i> ) meaning wood	"The O'Connor Donn, proprietor.Hermitage House, the residence of O'Connor Esq., stands in the N.E. part of the townland. There is also a trig. station called Stone Park in the S.W. part of said townland" OS parish namebook 1837, logainm.ie
11	BELLANAGARE	Castlereagh	Kilcorkey	Irish	<i>Béal Átha na gCarr</i>	'mouth of the ford of the Cars' <i>Áth</i> meaning ford and <i>Béal</i> meaning opening, approach, mouth	"The town of Belanagar is situated nearly in the centre of this townland. Also the ruins of an old castle formerly occupied by one of the O'Connors." OS parish namebook 1837, logainm.ie
12	DRUMMIN	Castlereagh	Kilcorkey	Irish	<i>An Dromainn</i>	A ridge or long hill	There is a fort in the S.W. part of this townland." OS parish namebook 1837, logainm.ie
13	TONAKNICK	Frenchpark	Kilcolagh	Irish	<i>Tóin an Chnoic</i>	Bottom of the hill, <i>cnoc</i> meaning hill and <i>tóin</i> (also <i>tón</i> ) meaning bottom (-land)	OS parish namebook 1837, logainm.ie
14	PEAK	Castlereagh	Kilcorkey	Irish	<i>Péac</i>	A stake	"There is a trig. station...called Peak Station...Peak Bog Station stands on the parish boundary" OS parish namebook 1837, logainm.ie
15	CARRIGEENACREEHA	Frenchpark	Kilcolagh	Irish	<i>Carraigín na Críche</i>	Little rock of the boundary	OS parish namebook 1837, logainm.ie
16	MULLENDUFF	Frenchpark	Kilcolagh	Irish	<i>An Muileann Dubh</i>	Black mill <i>dubh</i> (also <i>dú</i> , <i>duí</i> ) meaning black and <i>muileann</i> meaning mill	OS parish namebook 1837, logainm.ie
17	GARRYNPHORT	Roscommon	Shankill	Irish	<i>Garraí an Phoirt</i>	The garden of the landing-place / bank <i>Garraí</i> meaning garden, court and <i>port</i> meaning port, bank, fort	OS parish namebook 1837, logainm.ie

ID	Townland Name	Barony	Parish	Origin	Translation	Meaning	Notes/Reference/ Associations
18	CORRY WEST	Roscommon	Shankill	Irish	<i>Na Curraigh Thiar</i>	<i>Coraidh</i> , 'an eel weir, a dam in a stream' <i>currach</i> meaning marsh /low marshy ground	"Contains part of the demesne of Mantuahe. There is a subdiv: called Shraw Revagh." OS parish namebook 1837, logainm.ie
19	KILVOY	Roscommon	Shankill	Irish	<i>Cill Bheoidh</i>	'Beo-Aedh's church' <i>cill</i> meaning church	OS parish namebook 1837, logainm.ie
20	CORRY EAST	Roscommon	Shankill	Irish	<i>Na Curraigh Thoir</i>	<i>Coraidh</i> , 'an eel weir, a dam in a stream' <i>currach</i> meaning marsh /low marshy ground	OS parish namebook 1837, logainm.ie
21	CLOONYEFFER	Roscommon	Shankill	English		Cluain Uí Eifir, 'O'Heffir's lawn or boggy island' (Irish name to be confirmed)	"It contains a small house called Y[u]mbo House in the western end." OS parish namebook 1837, logainm.ie
22	CLOGHER BEG	Roscommon	Elphin	English			"Clogherbeg Lo: in the S.E. angle & a subdivision called Rowlough in the S.W. angle" OS parish namebook 1837, logainm.ie
23	CLOGHER MORE	Roscommon	Elphin	Irish	<i>An Clochar Mór</i>	Great stony place. <i>Mór</i> meaning great, big and <i>clochar</i> (also <i>cloichear</i> ) meaning stony place	OS parish namebook 1837, logainm.ie
24	CARTRONAGOR	Roscommon	Shankill	English		'cartron of the cranes'	OS parish namebook 1837, logainm.ie
25	RAHEEN	Roscommon	Elphin	English		Ráithin 'a small earthen fort' (Irish name to be confirmed)	"This townland contains the house & demesne of Raheen House" OS parish namebook 1837, logainm.ie
26	CREEVE (ED Rossmore)	Roscommon	Shankill	English		<i>Craobh</i> , 'a bush or wide branching trees'	OS parish namebook 1837, logainm.ie
27	RUNNARUAG	Roscommon	Elphin	English		<i>Roinn na ruag</i> , 'division of the defeats'	OS parish namebook 1837, logainm.ie
28	GORTNACRANNAGH	Roscommon	Shankill	English		Gort na cranncha, 'field of the trees'	"The Owenscarrif River forms part of the eastern mering." OS parish namebook 1837, logainm.ie

ID	Townland Name	Barony	Parish	Origin	Translation	Meaning	Notes/Reference/ Associations
29	KILLEEN WEST	Roscommon	Shankill	English		<i>Coillíni</i> , 'a small wood'	OS parish namebook 1837, logainm.ie
30	LURGAN	Roscommon	Shankill	English		<i>Lurgan</i> , 'a shin or long hill'	"Parts are bog. The rest is chiefly under grass. There is a school ho: in the village near Cullen L.: Ballyoughter Ho: is near L. Migh & two cairns near L. na Mourno." OS parish namebook 1837, logainm.ie
31	KILLEEN EAST	Roscommon	Shankill	English		<i>Coillíni</i> , 'a small wood'	"The southern border is bog. L. Namourne is on the northern angle & Clooncullane L. on the eastern. The townland is chiefly under grass." OS parish namebook 1837, logainm.ie
32	TULLYLOYD	Roscommon	Elphin	English		"Loyd's tully or hill"	OS parish namebook 1837, logainm.ie
33	TULLYCARTRON	Roscommon	Elphin	English		<i>Tulaigh</i> , 'a hill'	"It joins Cartron which is added to distinguish it from Tullyloyd" OS parish namebook 1837, logainm.ie
34	LUGBOY	Roscommon	Elphin	English		<i>Log buidhe</i> , 'yellow hollow'	"the south W. angle is bog & flooded pasture...& also several forts & villages" OS parish namebook 1837, logainm.ie
35	CREGGA	Roscommon	Kiltrustan	Irish		<i>creag</i> (also <i>craig</i> , <i>creig</i> , <i>screig</i> ) meaning rock, crag	"Cregga contains several forts, one called Lislegha. Also Cregga Ho: & well." OS parish namebook 1837, logainm.ie
36	CUILREVAGH	Roscommon	Kiltrustan	English		<i>Coill riabhach</i> , 'grey wood'	"The S.W. portion of this townland is bog & flooded pasture. The rest is under grass, having several detached woods & portions of rocky pasture. It also contains a fort & hill called Greywood F: & Hill." OS parish namebook 1837, logainm.ie
37	TULLEN	Roscommon	Kiltrustan	English		<i>Tullainn</i> , 'a hill'	"contains three small forts" OS parish namebook 1837, logainm.ie

ID	Townland Name	Barony	Parish	Origin	Translation	Meaning	Notes/Reference/ Associations
38	LETTREEN	Roscommon	Kiltrustan	English		<i>Leitrín</i> , 'a small spewy hillside' Known locally as the little wet hillside (RHAJ 1989, 76)	"It contains a fort called Lisaturnaught, a well called Leitreen Well & on the northern boundary the ruins of Mullaghcrigha R.C. chapel." OS parish namebook 1837, logainm.ie
39	DOUGHLOON	Roscommon	Kiltrustan	English		<i>Dubhchluain</i> , 'black lawn or meadow'	"contains a fort in its centre" OS parish namebook 1837, logainm.ie
40	CORSKEAGH	Roscommon	Kiltrustan	English		<i>Cor sgeathach</i> , 'round hill of the briers'	OS parish namebook 1837, logainm.ie
41	LAVALLY	Roscommon	Kiltrustan	English		<i>Leath bhaile</i> , 'half town'	"It is said in the County Book to be a part of Kildallagh. It contains a subdivision called Ballybeg." OS parish namebook 1837, logainm.ie
42	KILDALLOGE	Roscommon	Kiltrustan	Irish	<i>Cill Dalóg</i>	<i>Cill Dalóg</i> , 'Daluog's church'	"There were traces of a burial ground here". "It contains a well called 'Poul a Duny', a standing stone & a fort on the S. border called the Bawn Fort. That part of Strokestown in this townland is called Elphin Street." OS parish namebook 1837, logainm.ie

ID	Townland Name	Barony	Parish	Origin	Translation	Meaning	Notes/Reference/ Associations
43	VESNOY	Roscommon	Bumlin	Irish	<i>An Urnaí</i>		"This name is drawn from old documents and is probably a blundered one, but it must rest on the authority of Mr Conry who knows very little about it. It is probably a blunder for Lisnoy" [OD Nóta]; "meaning?" [p]; "Thos. Conroy Esq. denies that he ever spelled this Versnoy, because Vesnoy is the only name for which there is any authority. The people never heard of it" "Several parts of this townland is wooded, more extensively in the western portion where is Strokestown House. There are two [united] forts at N. boundary. There is a church in ruins within 6 chains of the southern boundary. Strokes town river forms south and eastern boundary's" OS parish name book 1837, logainm.ie
44	CLOONRADOON	Roscommon	Bumlin	English		<i>Clueing earth din</i> , 'lawn of the strong fort'	"The greater portion of this townland is under wood, bog & rough pasture. Scrooge River forms the south east boundary and Strokes town River, the western boundary. There are two Danish forts situated in the body of this townland" OS parish name book 1837, logainm.ie
45	BUMLIN	Roscommon	Bumlin	Irish	<i>Blimline</i>	<i>Blimline</i> , 'cow pond'	"A great portion of this townland is thickly wooded at the western boundary. Scrimmage (Scramoge) River forms a part of southern, and the whole of eastern boundary along which there is a stripe of bog & rough pasture" OS parish gamebook 1837, logainm.ie
46	SCRAMOGE	Roscommon	Bumlin	Irish	<i>Scram</i>	<i>Scram</i> , 'a scrap'	OS parish name book 1837, logainm.ie

## Appendix 14.7 Glossary of Impact Assessment

### Significance Criteria (NRA Guidelines 2006)

The significance criteria can be used to evaluate the significance of an archaeological site, monument or complex. It should not, however, be regarded as definitive, rather it is an indicator which contributes to a wider judgment based on the individual circumstances of a feature. Different monument types lend themselves more easily to assessment and it should be borne in mind that this can create a bias in the record, for example an upstanding stone monument such as a fortified house is easier to examine with a view to significance than a degraded enclosure site.

<b>Criteria</b>	<b>Explanation</b>
<i>Existing Status</i>	The level of protection associated with a monument or complex is an important consideration.
<i>Condition / Preservation</i>	The survival of a monument's archaeological potential both above and below ground is an important consideration and should be assessed in relation to its present condition and surviving features. Well-preserved sites should be highlighted, this assessment can only be based on a field inspection.
<i>Documentation / Historical Significance</i>	The significance of a monument may be enhanced by the existence of records of previous investigations or contemporary documentation supported by written evidence or historic maps. Sites with a definite historical association or an example of a notable event or person should be highlighted.
<i>Group Value</i>	The value of a single monument may be greatly enhanced by its association with related contemporary monuments or with monuments from different periods indicating an extended time presence in any specific area. In some cases it may be preferable to protect the complete group, including associated and adjacent land, rather than to protect isolated monuments within that group.
<i>Rarity</i>	The rarity of some monument types can be a central factor affecting response strategies for development, whatever the condition of the individual feature. It is important to recognise sites that have a limited distribution.
<i>Visibility in the landscape</i>	Monuments that are highly visible in the landscape have a heightened physical presence. The inter-visibility between monuments may also be explored in this category.
<i>Fragility / Vulnerability</i>	It is important to assess the level of threat to archaeological monuments from erosion, natural degradation, agricultural activity, land clearance, neglect, careless treatment or development. The nature of the archaeological evidence cannot always be specified precisely but it may still be possible to document reasons to justify the significance of the feature. This category relates to the probability of monuments producing material of archaeological significance as a result of future investigative work.
<i>Amenity Value</i>	Regard should be taken of the existing and potential amenity value of a monument.

### Assessment of material assets, as defined by the EPA (2002):

<i>Context</i>	Describe the location and extent of the asset. Does it extend beyond the site boundary?
<i>Character</i>	Describe the nature and use of the asset. Is it exploited, used or accessible? Is it renewable or non-renewable and if so over what period?
<i>Significance</i>	Describe the significance of the asset. Is the material asset unique, scarce or common in the region? Is its use controlled by known plans, priorities or policies? What trends are evident or may reasonably be inferred?

*Sensitivity* Describe the changes in the existing environment which could limit the access to, or the use of, the material asset.

## Glossary of Impacts as defined by the EPA and the NRA Guidelines 2006

### Archaeological and Cultural Heritage

Impacts are generally categorised as either being a direct impact, an indirect impact or as having no predicted impact:

- A *direct impact* occurs when an item of archaeological heritage is located within the proposed development area and entails the removal of part, or all of the monument.
- *Indirect impacts* may be caused due to the close proximity of a development to an archaeological feature. Mitigation strategies and knowledge of detail design can often ameliorate any adverse indirect impact.
- *No predicted impact* occurs when the proposed development does not adversely or positively affect an archaeological site.

The impacts of the proposed development on the archaeological environment are first assessed in terms of their quality i.e. positive, negative, neutral (or direct and indirect):

- *Negative Impact:* A change that will detract from or permanently remove an archaeological monument from the landscape.
- *Neutral Impact:* A change that does not affect the archaeological heritage.
- *Positive Impact:* A change that improves or enhances the setting of an archaeological monument.

#### Magnitude of impact

- *Extent* – size, scale and spatial distributions of the effect
- *Duration* – period of time over which the effect will occur
- *Frequency* – how often the effect will occur
- *Context* – how will the extent, duration and frequency contrast with the accepted baseline conditions.

**Table 14.31 Magnitude Criteria**

Magnitude of Impact	Criteria
Very High	Removal of a cultural heritage asset without recording. A change that would detract from and alter beyond recognition the setting of a monument
Major/ High	Change so that the cultural heritage asset is totally altered, leading to a total (including removal) or major alteration. Comprehensive changes to setting
Moderate/ Medium	Considerable changes to setting that affect (partially alter) the character of the asset/ significantly modify the setting of an archaeological monument
Minor/ Low	Slight change to the archaeological setting such that it is noticeably changed. Slight, detectable alteration to the existing baseline condition of the cultural heritage asset.
Negligible	Slight changes to archaeological monument so that it is hardly affected, barely distinguishable
No change	No change to the asset or setting

An evaluation of the value/ significance of sites and features is based on the extent to which assets contribute to the archaeological or built heritage character, though their individual or group qualities, either directly or potentially and guided by legislation, national policies,

acknowledged standards, designations and criteria. Table 14.53 presents the scale of values/ sensitivity together with criteria.

**Table 14.32 Sensitivity Criteria**

Sensitivity / Value	Criteria
Very High	Sites of international significance: World Heritage Sites National Monuments Protected Structures of international and national importance Designed landscapes and gardens of national importance Assets of acknowledged international importance or that can contribute significantly to international research objectives
High	Recorded Monuments and complexes of regional importance Designated assets that contribute to regional research objectives Architectural Conservation Areas that contain very significant buildings/structures Architectural Conservation Areas containing structures that contribute significantly to its historic character
Medium	Recently identified archaeological sites Greenfield areas with archaeological potential due research and stray finds Designated or undesignated assets that contribute to regional research objectives Sites listed in the NIAH Building and Garden surveys for which there are no upstanding remains
Low	Undesignated Sites of local importance Assets compromised by poor preservation and/or poor survival of contextual associations Assets of limited value but with the potential to contribute to local research objectives Historic townscapes or built up areas of limited historic integrity in their building or their settings
Negligible	Assets with very little or no surviving archaeological interest. Buildings of no architectural or historic note
Unknown	The importance of the resource has yet to be fully ascertained Structures with potential historic significance (possibly hidden or inaccessible)

A significance rating for these impacts is then given i.e. slight, moderate, significant or profound:

- *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 by a proposed development. An effect which obliterates sensitive characteristics.
- *Significant* – An impact which, by its character, magnitude, duration or intensity alters an important aspect of the environment. An impact like this would be where the part of a site would be permanently impacted upon leading to a loss of character, integrity and data about the archaeological feature/site.
- *Moderate* – A moderate direct impact arises where a change to the site is proposed which though noticeable, is not such that the archaeological integrity of the site is compromised. This arises where an archaeological feature can be incorporated into a modern day development without damage and that all procedures used to facilitate this are reversible. An effect that alters the character of the environment in a manner that is consistent with existing and emerging trends.



- *Slight* – An impact which causes changes in the character of the environment which are not significant or profound and do not directly impact or affect an archaeological feature or monument. An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
- *Imperceptible* – An impact capable of measurement but without noticeable consequences.

**Table 14.33 Criteria for assessment of impact significance**

Impact Significance					
Magnitude Impact (+/-)	Sensitivity/ Value of Archaeological/ Cultural Heritage asset				
Neutral	Very Low	Low	Medium	High	Very High
Very Low	Imperceptible	Imperceptible	Slight	Slight	Slight
Low	Imperceptible	Slight	Moderate	Moderate	Moderate
Medium	Slight	Moderate	Moderate	Significant	Significant
High	Slight	Moderate	Significant	Significant	Profound
Very High	Slight	Moderate	Significant	Profound	Profound

Duration of Impacts:

- *Temporary Impact* Impact lasting for one year or less.
- *Short-term Impacts* Impact lasting one to seven years.
- *Medium-term Impact* Impact lasting seven to fifteen years.
- *Long-term Impact* Impact lasting fifteen to sixty years.
- *Permanent Impact* Impact lasting over sixty years.

Types of Impacts:

- *Cumulative Impact* – The addition of many small impacts to create one larger, more significant, impact.
- *Do Nothing Impact* – The environment as it would be in the future should no development of any kind be carried out.
- *Indeterminable Impact* – When the full consequences of a change in the environment cannot be described.
- *Irreversible Impact* – When the character, distinctiveness, diversity or reproductive capacity of an environment is permanently lost.
- *Residual Impact* – The degree of environmental change that will occur after the proposed mitigation measures have taken effect.
- *'Worst case' Impact* – The impacts arising from a development in the case where mitigation measures substantially fail.

**The setting of Heritage Assets Historic Environment Good Practice advice in Planning: 3 (Historic England 2015)**

A check-list of potential attributes of a development affecting setting. Only a limited selection of these are likely to be pertinent of any particular development (Historic England 2015).

**Table 14.34 Setting Check List**

Location and siting of Development
<ul style="list-style-type: none"> <li>• Proximity to asset</li> <li>• Extent</li> <li>• Position in relation to landform</li> <li>• Degree to which location will physically or visually isolate asset</li> <li>• Position in relation to key views</li> </ul>
The form and appearance of the Development
<ul style="list-style-type: none"> <li>• Prominence, dominance or conspicuousness</li> <li>• Competition with or distraction from the asset</li> <li>• Dimensions, scale and massing</li> <li>• Proportions</li> <li>• Visual permeability (extent to which it can be seen through)</li> <li>• Materials</li> <li>• Architectural style or design</li> <li>• Introduction of movement or activity</li> <li>• Diurnal or seasonal change</li> </ul>
Other effects of the Development
<ul style="list-style-type: none"> <li>• Changes to built surroundings and spaces</li> <li>• Change to skyline</li> <li>• Noise, odour, vibration, dust, etc</li> <li>• Lighting effects and 'light spill'</li> <li>• Change to general character</li> <li>• Changes to public access, use of amenity</li> <li>• Changes to land use, land cover, tree cover</li> <li>• Change to archaeological context, soil chemistry or hydrology</li> <li>• Changes to communications/ accessibility/permeability</li> </ul>
Permanence of the Development
<ul style="list-style-type: none"> <li>• Anticipated lifetime</li> <li>• Recurrence</li> <li>• Reversibility</li> </ul>
Longer term or consequential effects of the Development
<ul style="list-style-type: none"> <li>• Changes to ownership arrangements</li> <li>• Economic and social viability</li> <li>• Communal use and social viability</li> </ul>

## Appendix 14.8 Consultation List

### **National Monuments Service**

Brian Duffy  
Mark Keegan  
Margaret Keane  
Michael Moore  
Sean Kirwan  
Paul Walsh

### **Built Heritage and Architectural Policy Unit**

Freddie O'Dwyer

### **Discovery Programme**

Dr Edel Bhreathnach  
Dr Roseanne Schot  
Rob Shaw  
Dr Anne Connon  
Brian Shanahan

### **National Museum of Ireland**

Mary Cahill

### **NUIG**

Professor emeritus John Waddell,  
Dr Kieran O'Connor  
Joe Fenwick

### **UCD**

Professor emeritus Michael Herity  
Dr Stephen Davis

### **Roscommon County Council**

Planning Department  
Heritage/Conservation Office  
Roscommon Road Design Office

Dr Nollaig Feeney (Heritage Officer)  
Dr Nollaig Ó' Muraile (formerly of NUIG)  
Dr Chris Read (Sligo IT Lecturer)  
Martin Timoney  
Gary Dempsey  
Dr Robert Meehan  
Sean Neary  
Jim Callery  
Aidan O'Connell - Archer Heritage Planning  
James Bonsall and Heather Gimson - Earthsound Archaeological Geophysics  
Ian Doyle – Heritage Council

## Appendix 14.9 Tentative List Submission Format

A tentative list is an inventory of properties which a country intends to consider for nomination to the World Heritage List. In October 2008, the Minister set up an Expert Advisory Group to review Ireland's Tentative List of properties for future nomination to the World Heritage List. The review was undertaken during 2008 and 2009 and a new Tentative List was approved by the Minister and submitted to UNESCO in March 2010.

The following submission relates to the Royal Sites of Ireland (Cashel, Dún Ailinne, Hill of Uisneach, Rathcroghan Complex and Tara Complex).

### Short Description of Properties

The Royal Sites represent unique expressions of Irish society as places of royal inauguration, ceremony and assembly, representing each of the five provinces of Ancient Ireland. The sites are also significant as symbols of indigenous Irish culture and identity directly associated with politics and power in Ireland through the ages, stretching from pre-colonial kingship to early political mobilisation in the 20<sup>th</sup> century. The myths, legends and folklore associated with the sites are also indicative of their role in the early indigenous belief systems of Ireland and in the transition to Christianity. As such, the sites also illustrate spiritual responses reflected in the transition from Irish Paganism to Christianity. The sites illustrate creative responses and continuity, through the array of monuments ranging from Neolithic and Bronze Age tumuli, ringbarrows, ring-forts and sacred sites to Christian architecture and cultural landscapes. Situated on strategic and elevated locations, the Royal Sites are organically evolved relict cultural landscapes where the pre-Christian kingship in Ireland evolved and ended.

**Table 14.35 Tentative List Submission**

<b>Name</b>	The Royal Sites of Ireland: Cashel, Dun Ailinne, Hill of Uisneach, Rathcroghan Complex and Tara Complex
<b>Location</b>	N53 46 46 W8 15 18 (Rathcroghan Complex)
<b>Submission Date</b>	31 March 2010
<b>Description</b>	The Royal sites were all sites of major royal inauguration, ceremony and assembly, representing each of the four Irish provinces: Ulster, Leinster, Munster and Connaught, as well as the region of Meath. Navan Fort is portrayed as the royal site for the kings of Ulster, Dún Ailinne for the kings of Leinster; Cashel for the kings of Munster and Rathcroghan for the kings of Connaught. Tara was the seat of the kings of Meath and the seat of the Irish high kings. In addition the Hill of Uisneach is traditionally the epicentre (navel) of Ireland, where the five provinces met. The sites are strongly linked to myth and legend and are associated with the transformation of Ireland from paganism to Christianity and Saint Patrick.
<b>Justification of OUV (preliminary identification of the values of the property which merit inscription on the World Heritage List)</b>	The ensembles of monuments of the Royal Sites are universally unique through their well-preserved cultural continuity and large-scale Iron Age complexes. The Royal Sites were sacred sites and places of royal inauguration and bear exceptional testimony to Iron Age civilisation. Historically, their roots go back to the Neolithic period and they illustrate significant stages in human history through the large array of monuments ranging from Bronze Age tumuli to Iron Age ring forts and to early Christian architecture. All of the Royal Sites form part of larger archaeological landscapes characterised by a large concentration of ritual monuments. Situated on strategic and elevated locations, the Royal Sites are organically evolved relict cultural landscapes where the pre-Christian kingship in Ireland evolved and ended. The Royal sites are directly associated with Irish mythology and traditional beliefs and continue to represent spiritual and symbolic

	centres of Irish culture and identity, which have influenced approaches to life in many countries of the world.
<b>Attributes expressing OUV</b>	<p>The State nominates that the sites fall under the following WH Convention criteria:</p> <p><i>(iii) to bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;</i></p> <p>The Royal Sites as a group bear exceptional testimony to Irish Iron Age civilisation (7th/6th century B.C. to 5th century A.D.). They reached their peak of activity at a time when most of Britain and Europe were under Roman domination. As pre-historic sacred centres the sites also became the focus for the introduction of Christianity in Ireland. Ireland was the last Western civilisation to still be living in a tribal community when Christianity arrived.</p> <p><i>(iv) to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;</i></p> <p>The Royal Sites illustrate significant stages in human history, with monuments stretching from the Neolithic Period and Iron Age to the Early Christian Period and later medieval centuries</p> <p><i>(vi) to be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance.</i></p> <p>The Royal Sites are directly associated with ancient traditions and belief systems. This can be traced in the wealth of literature describing folklore, myths and legends surrounding the sites. The great early Irish sagas Táin Bó Cúailgne and Táin Bó Fraich were set at Rathcroghan and Navan Fort, while the stories of St Patrick's visits to the Royal Sites are chronicled in the Tírechán from 700 A.D. Also, the sites are still used and celebrated as sacred sites by spiritual groups from across the world.</p>
<b>Integrity</b>	<p>Based on preliminary observation the sites appear as largely intact and to have retained their original attributes. Overall the sites are well preserved and retain high visual landscape qualities. The archaeological sites have been excavated to varying degrees (e.g. the Rathcroghan complex, remains largely unexcavated with some ongoing works). In the case of Cashel there have been recent restoration works on the buildings and the frescoes in Cormac's Chapel. Nevertheless, it would appear that the form, design, materials and substance of the archaeological complexes and monuments are reasonably intact. Ritual uses of the sites still occur on a small scale today, including celebrations of the Winter and Summer Solstices as well as <i>Bealtaine</i> and <i>Samhain</i>, and the tradition of agricultural use of the landscapes continues. The sites are located in largely pastoral landscapes and include hilltop locations with dramatic panoramic views, which contribute to a unique sense of character, spirit and feeling.</p> <p>To varying extent the sites have been impacted by erosion, agricultural and quarrying activity considering their rural location. However, the range of monuments and the considerable quantity of surviving earthworks across the archaeological complexes incorporates all the elements necessary to express the outstanding universal value of the royal sites. Each of the individual sites occupies a relatively large area, which is of adequate size to ensure the complete representation of the features, and processes conveying their significance.</p>
<b>Authenticity</b>	<p>In terms of intangible aspects of the sites, there is a wealth of historical sources, medieval manuscripts (e.g. <i>'The Martyrology of Oengus'</i>, c. 830 AD; Book of Leinster, c. 1160 AD) and academic literature testifying to the mythological and legendary values of the royal sites and their role in Irish history and culture (e.g. Hicks, 2007; Bhreathnach, 2005; Rees &amp; Rees, 1961)</p> <p>The sites are largely intact and have retained many of their original attributes. Overall the sites are well preserved and retain high visual landscape qualities and it would appear that the form design, materials and substance of the archaeological complexes and monuments are reasonably intact. The archaeological sites have been excavated to varying degrees. The sites are located in largely intact pastoral landscapes, which have contributed to the</p>

	retention of a unique sense of place, spirit and feeling.
<b>Comparison with other similar properties</b>	In general, sites illustrating the early evolution of man during the Iron Age are under-represented on the World Heritage List. The World Heritage List contains a number of sites linked to early kingship and transformation from Paganism to Christianity in Northern Europe, including: Jelling Mounds, Runic Stones and Church, Denmark (1994); Þingvellir National Park, Iceland (2004); Birka and Hovgården, Sweden (1993) and the Orkesta and Markim area, Sweden (Tentative List). There are no similar such inscriptions in countries like Norway, Finland, Germany, UK, and France. Although there are ritual and assembly sites of European Iron Age elsewhere, e.g. in Germany, UK/Northern Ireland and France, none of these are inscribed on the World Heritage List.
<b>Difference with Irish Royal Sites</b>	With regard to a comparative analysis of early indigenous belief systems in Europe, the Royal Sites are namely representative of the Iron Age, whereas other sites with a link to indigenous belief systems relate to different periods e.g. Stone Henge WHS, UK (Neolithic); Thracian Tomb WHS, Bulgaria (Hellenistic period); Sammallahdenmäki WHS, Finland (Bronze Age).

## Appendix 14.10

### ICOMOS Guidelines on Heritage Impact Assessments for Cultural World Heritage Properties (2011)

Every landscape presents different topographical and environmental conditions, land cover and land usage and as such the location, scale and physical form of the proposed N5 road development are site specific. Given the presence of an UNESCO Candidate World heritage site at Rathcroghan in the wider environment and to the south of the proposed route, consideration was given to the ICOMOS Guidelines on Heritage Impact Assessments for Cultural World Heritage Properties (2011) when evaluating the overall impact of the development (Tables 14.36-14.38). This document sets out a methodology for evaluating the potential impact of development on the Outstanding Universal Value (OUV) of a World Heritage Site.

According to ICOMOS guidelines (2011), World Heritage properties need to consider their international heritage value and also other local to national values and priorities or recommendations set out in national research agendas. Professional judgement used to determine the importance of the resource. The values of the asset may be defined using the following grading scale: Very high, high, medium, low, negligible and unknown potential. The following table is a sample of values and is not intended to be exhaustive.

The setting of a heritage asset, site or area is defined by the International Council on Monuments and Sites (ICOMOS):

*‘as the immediate and extended environment that is part of, or contributes to, its significance and distinctive character. Beyond the physical and visual aspects, the setting includes interaction with the natural environment; past or present social or spiritual practices, customs, traditional knowledge, use or activities and other forms of intangible cultural heritage aspects that created and form the space as well as the current and dynamic cultural, social and economic context’.*

**Table 14. 36 Value of the Heritage Assets**

Grading	Archaeology	Built heritage or Historic Urban Landscape	Historic landscape	Intangible Cultural Heritage (ICH) or Associations
<b>Very High (UNESCO World Heritage Property / Candidate World Heritage Sites for the Tentative World Heritage List)</b>	Sites of acknowledged International importance inscribed as WH property. Individual attributes that convey Outstanding Universal Value (OUV) of the WH property. Assets that can contribute significantly to acknowledged international research objectives.	Sites or structures of acknowledged International importance inscribed as of universal importance as WH property. Individual attributes that convey OUV of the WH property. Other buildings or urban landscapes of recognised International importance.	Landscapes of acknowledged international importance inscribed as WH property. Individual attributes that convey OUV of the WH property. Historic landscapes of international value, whether designated or not. Extremely well preserved historic landscapes with exceptional	Areas associated with Intangible Cultural heritage activities as evidenced by the national register. Associations with Particular innovations, technical or scientific developments or movements of global significance. Associations with particular individuals of global importance

Grading	Archaeology	Built heritage or Historic Urban Landscape	Historic landscape	Intangible Cultural Heritage (ICH) or Associations
			coherence, time depth, or other critical factors.	
<p><b>High</b> <i>(National Monuments or properties of national significance)</i></p>	<p>Nationally-designated Archaeological Monuments protected by the State Party's laws (i.e. the National Monuments Legislation) Undesignated sites of the quality and importance to be designated. Assets that can contribute significantly to acknowledged national research objectives.</p>	<p>Nationally-designated structures with standing remains. Other buildings that can be shown to have exceptional qualities in their fabric or historical associations not adequately reflected in the listing grade. Conservation Areas containing very Important buildings. Undesignated structures of clear national importance</p>	<p>Nationally designated historic landscape of outstanding interest. Undesignated landscapes of outstanding interest. Undesignated landscapes of high quality and importance, and of demonstrable national value. Well preserved historic landscapes, exhibiting considerable coherence, time depth or other critical factors.</p>	<p>Nationally designated areas or activities associated with globally important Intangible Cultural Heritage activities. Associations with particular innovations, technical or scientific developments or movements of national significance. Associations with particular individuals of national importance</p>
<p><b>Medium</b> <i>(RMP sites, RPS sites/ NIAH sites of Regional Rating)</i></p>	<p>Designated or undesignated assets that can contribute significantly to regional research objectives.</p>	<p>Designated buildings. Historic (unlisted) buildings that can be shown to have exceptional qualities or historical associations. Conservation Areas containing buildings that contributes significantly to its historic character. Historic townscapes or built-up areas with important historic integrity in their buildings, or built settings.</p>	<p>Designated special historic landscapes. Undesignated historic landscapes that would justify special historic landscape designation. Landscapes of regional value. Averagely well preserved historic landscapes with reasonable coherence, time depth or other critical factors.</p>	<p>Areas associated with Intangible Cultural heritage activities as evidenced by local registers. Associations with particular innovations or developments of regional or local significance. Associations with particular individuals of regional importance</p>
<p><b>Low</b> <i>(NIAH Local)</i></p>	<p>Designated or undesignated assets of local importance. Assets</p>	<p>'Locally Listed' buildings. Historic (unlisted) buildings of modest quality in</p>	<p>Robust undesignated historic landscapes. Historic</p>	<p>Intangible Cultural heritage activities of local significance Associations with particular</p>



<b>Grading</b>	<b>Archaeology</b>	<b>Built heritage or Historic Urban Landscape</b>	<b>Historic landscape</b>	<b>Intangible Cultural Heritage (ICH) or Associations</b>
	compromised by poor preservation and/or poor survival of contextual associations. Assets of limited value, but with potential to contribute to local research objectives.	their fabric or historical associations. Historic Townscape or built-up areas of limited historic integrity in their buildings, or built settings.	landscapes with importance to local interest groups. Historic landscapes whose value is limited by poor preservation and/or poor survival of contextual associations.	individuals of local importance Poor survival of physical areas in which activities occur or are associated
<b>Negligible</b>	Assets with little or no surviving archaeological interest.	Buildings or urban landscapes of no architectural or historical merit; buildings of an intrusive character.	Landscapes little or no significant historical interest.	Few associations or ICH vestiges surviving
<b>Unknown potential</b>	The importance of the asset has not been ascertained.	Buildings with some hidden (i.e. inaccessible) potential for historic significance.	n/a	Little is known or recorded about ICH of the area

### **Magnitude of Impact**

The value or the sensitivity of the asset, together with the magnitude of the impacts provides the effect of the overall impact; this can be summarized for each attribute described using the following matrix in Table 14.37.

**Table 14. 37 Assessment of Magnitude of Impact**

<b>Impact Grading</b>	<b>Archaeological attributes</b>	<b>Built heritage or Historic Urban Landscape attributes</b>	<b>Historic landscape attributes</b>	<b>Intangible Cultural Heritage attributes or Associations</b>
<b>Major</b>	<p>Changes to attributes that convey OUV of WH properties</p> <p>Most or all key archaeological materials, including those that contribute to OUV such that the resource is totally altered.</p> <p>Comprehensive changes to setting.</p>	<p>Change to key historic building elements that contribute to OUV, such that the resource is totally altered.</p> <p>Comprehensive changes to the setting.</p>	<p>Change to most or all key historic landscape elements, parcels or components; extreme visual effects; gross change of noise or change to sound quality; fundamental changes to use or access; resulting in total change to historic landscape character unit and loss of OUV.</p>	<p>Major changes to area that affect the ICH activities or associations or visual links and Cultural appreciation.</p>
<b>Moderate</b>	<p>Changes to many key archaeological materials, such that the resource is clearly modified.</p> <p>Considerable changes to setting that affect the character of the asset.</p>	<p>Changes to many key historic building elements, such that the resource is significantly modified.</p> <p>Changes to the setting of an historic building, such that it is significantly modified.</p>	<p>Change to many key historic landscape elements, parcels or components; visual change to many key aspects of the historic landscape; noticeable differences in noise or sound quality; considerable changes to use or access; resulting in moderate changes to historic landscape character.</p>	<p>Considerable changes to area that affect the ICH activities or associations or visual links and cultural appreciation</p>
<b>Minor</b>	<p>Changes to key archaeological materials, such that the resource is slightly altered.</p> <p>Slight changes to setting.</p>	<p>Change to key historic building elements, such that the asset is slightly different.</p> <p>Change to setting of an historic building, such that it is noticeably changed.</p>	<p>Change to few key historic landscape elements, parcels or components; slight visual changes to few key aspects of historic landscape; limited changes to noise levels or sound quality; slight changes to use or access; resulting in limited change to historic landscape character.</p>	<p>Changes to area that affect the ICH activities or associations or visual links and cultural appreciation.</p>

Impact Grading	Archaeological attributes	Built heritage or Historic Urban Landscape attributes	Historic landscape attributes	Intangible Cultural Heritage attributes or Associations
<b>Negligible</b>	Very minor changes to key archaeological materials, or setting.	Slight changes to historic building elements or setting that hardly affect it.	Very minor changes to key historic landscape elements, parcels or components; virtually unchanged visual effects; very slight changes in noise levels or sound quality; very slight changes to use or access; resulting in a very small change to historic landscape character.	Very minor changes to area that affect the ICH activities or associations or visual links and cultural appreciation.
<b>No Change</b>	No change.	No change to fabric or setting.	No change to elements, parcels or components; no visual or audible changes; no changes in amenity or community factors.	No change

### Overall Impact

The value or the sensitivity of the asset, together with the magnitude of the impacts provides the effect of the overall impact; this can be summarized for each attribute described using the following matrix:

**Table 14.38 Overall Impact**

Value of Heritage Asset	Scale & Severity of Change / Impact				
	No change	Negligible change	Minor change	Moderate change	Major change
<b>Very High (WH properties – attributes which convey OUV)</b>	Significance of Effect or Overall Impact (Either Adverse or Beneficial)				
	Neutral	Slight	Moderate /Large	Large/very large	Very Large
<b>For other Heritage Assets</b>	Significance of Impact (Either Adverse or Beneficial)				
<b>Very High</b>	Neutral	Slight	Moderate/Large	Large/Very Large	Very Large
<b>High</b>	Neutral	Slight	Moderate/ Slight	Moderate/ Large	Large/Very Large
<b>Medium</b>	Neutral	Neutral/Slight	Slight	Moderate	Moderate/ Large
<b>Low</b>	Neutral	Neutral/Slight	Neutral/Slight	Slight	Slight/ Moderate
<b>Negligible</b>	Neutral	Neutral	Neutral/Slight	Neutral/Slight	Slight

## Appendix 14.11 Location of Photomontages

Photomontages were undertaken at six prominent sites within the Rathcroghan Archaeological Complex (AV01, AV02, AV02B, AV03, AV08, AV09 and AV10), to the north of the complex at the 100m contour line at Ballymurray townland (AV06) and at Rathkineely ringfort (AV04) a possible outlier to the Rathcroghan complex, located on a high ridge to the west of the main concentration of monuments. Two night time photomontages were produced for Rathcroghan and Caran Fort (AV01 and AV03 night-time). A description of all the above photomontages are contained in Table 14.7B in the main report. Photomontages were also taken at Tulsk (AV05) and Carnfree (AV07). In addition to this, three photomontages were taken at Strokestown, two from the house (ground floor level and 2<sup>nd</sup> floor) (BH01 and BH02) and one from Urney Church (BH03), these photomontages are assessed in the architectural heritage chapter and the landscape and visual chapter of the EIAR.

The following are descriptions (taken from the Archaeological Survey of Ireland) of the monuments that were assessed as part of the photomontage location exercise undertaken for the study. Monuments were visited in order to provide an understanding of how they presented in the wider landscape and to identify the best vantage points to position the photomontages. This was a multidisciplinary, collaborative exercise, with landscape and visual consultants, road design engineers and archaeologists all feeding into the decision making process. The aerial photographs are reproduced courtesy of the National Monuments Service.

**Monument Designation: Rathcroghan Mound (RO022-057010-)**

Townland: Toberrory

ITM/ NGR 579965, 783676 /180010, 283660

Description: This monument is situated on a small north-south ridge on the plateau of Rathcroghan, and within the ceremonial enclosure (RO022-057012-). It was first identified and named 'Rathcroghan' by the antiquarian Charles O'Connor of Belanagare who thought it was an inauguration place of the O'Connor kings, but there is no evidence to support this (FitzPatrick 2004, 48-9, 82). The name, which was renowned as the cemetery of Kings, is more properly applied to a wider district, largely to the south and east of this mound, but within c. 1.5km of it. The mound is a circular slightly domed, grass-covered platform (diam. of top 65m E-W; 65m north-south; diam. of base c. 90m east-west; c. 85m north-south; H c. 3.5m at northeast to c. 6.5m at the south). Ramps rise up the sides of the monument at west and east, giving access to the summit where historically there was a barrow (RO022-05701-).

Geophysical survey confirms that the mound is largely artificial, although built on a slight north-south glacial ridge which may lie on the west side of the mound (Waddell et al. 2009, 178-82, 193-4). One of the most deeply buried features is a discontinuity of a resistant material, probably bedrock, at the perimeter of the mound. This may represent a large, wide ditch creating an enclosure (diam. c. 80m) (ibid. 182). Within this, and perhaps related to it, are two concentric walls, now buried deep within the mound. Both appear to be composed of stone, but the inner (ext. diam. c. 22m) is not as deeply buried as the outer (ext. diam. c. 30m), suggesting that it is on a rise (ibid.183-5). Their function is not known, but they are likely to have defended a settlement originally. These walls survive to a height of c. 2m, and were crucial to the raising of the mound to something near its present height, creating a platform on which a series of structures were built.

These consist of a complex of overlapping circular enclosures close to the surface. There is a large enclosure composed of a double ring of post-pits (ext. diam. 32m; int. diam. 28m). The area within has anomalies consistent with post-pits, but whether this represents a roofed structure is uncertain. Within this, but placed to the east of centre is a second enclosure (diam. 22m) composed of a single slot-trench or fosse with an distinct entrance at west northwest. There are also traces of a third enclosure eccentrically placed between the other two, and there is a possible fourth within them all. The northeast quadrant in every instance is poorly defined, and there may be entrance features in this sector. The high magnetic susceptibility values recorded suggest that some of these features, perhaps the double post-ring, might have been burnt. Just to the northeast of these is a single slot-trench (diam. 12m) (ibid. 162-7, 175-7). The east and west ramps may have played a role in the later use of the mound. The east ramp in particular seems to connect the east sector of the structures beneath the surface on the summit with the avenue (RO022-057093-) extending off to the east southeast of the mound (ibid. 174). A detailed topographical survey of the mound surface notes a slight platform (diam. c. 30m) circumscribed by faint traces of a bank in the surface of the mound, which is likely to represent a barrow-like feature on which the mound (RO022-057011-), noted in the 18<sup>th</sup> century, was built. This survey also records rill-like features radiating from the centre (ibid. 156-8, 176-7).

Outside the central features within the summit there are more nebulous traces of circular features, particularly to the southeast, southwest and northwest (ibid. 167-171). Encircling the mound close to its base, and probably relating to its final period of use, is a slot-trench feature (diam. 85m east-west; 81m north-south) which may have had a palisade with a narrow entrance at the east or a retaining wall for the mound. Evidence of a wide concentric outer feature, perhaps a fosse, was found outside this at southeast (ibid. 162-4, 172-4).

The mound is just east of the centre of the ceremonial enclosure (RO022-057012-), and a number of other monuments that relate to the mound are within the ceremonial enclosure. The standing stone (RO022-057006-) is c. 100m to the northwest with a mound barrow (RO022-057007-) c. 40m to its southeast, and standing stone (RO022-057008-) is c. 100m to the north. Barrows (RO022-057013-) and (RO-022-057014-) are c. 70m to the east, and barrows (RO022-056015-; RO022-056016-) are c. 60m and c. 75m south southeast and southeast of the mound respectively.



**Rathcroghan Mound (RO022-057010-) (NMS)**

In addition, geophysical survey recorded a previously unsuspected enclosure (RO022-057085-) and its associated double linear feature or ceremonial avenue (RO022-057094-) immediately northeast of the mound. There are also two ditch-like features converging on the mound from the east forming another avenue (RO022-057093-). The entire area of the ceremonial enclosure (RO022-057012-), but not the mound, was cultivated with lazy-beds in small plots of c. 0.4 ha at a later time.



**View to the northeast from Rathcroghan Mound (March 2015)**



**View to the north of Rathcroghan Mound (March 2015)**



**View from Rathcroghan mound (National Monument) (RO022-057010) located in Toberrory townland looking north (July 2016)**



**View from Rathbeg (National Monument) (RO022-057001) looking north (July 2016)**

**Monument Designation:** Rathmore (RO022-056017-) Recorded as a Ringfort

**Townland:** Toberrory

**ITM/ NGR** 579535, 784548/ 179580, 284532

**Description:** This monument is located at the northern edge of the Rathcroghan plateau, and within the ceremonial enclosure (RO022-056050-). It is a circular grass-covered earthen

platform (diam. of top 35.5m north-south; 32.5m east-west; diam. of base 65m north-south; 61m east-west) which has a north-south ridge through the centre defined by an earthen bank (int. H 0.3-0.7m) north northwest-southwest and a scarp elsewhere (H 4.5m over 10m at the south to H 6.2m over 14m at the north). It is surrounded by a flat-bottomed, partly rock-cut fosse (Wth of base 3.5m at the south to 6-7m generally; D 0.3-0.8m), and there is an outer bank (Wth 6.5m; H 0.4m) north northwest-north northeast (max. ext. diam. 79.5m N-S; 77.3m east-west). The entrance (Wth 3.3m) and causeway (Wth 3.3m; H 1m) are at southeast, and the fosse has been quarried northeast-southeast with the ancient spoil added to the fosse at northeast. Little Rathbeg (RO022-056-016-) is c. 160m to the west southwest. (Knox 1911, 224-5, 240; 1914, 13; Herity 1983, 132; 1988, 138, Toberrory 1; Waddell 1983, 35, 37; 1988, 7-8, No. 26).

Geophysical survey revealed that it may be built around a slight natural rise, but it also recorded anomalies suggestive of two, or possibly three penannular structures that are probably hut-sites on the summit. The central one (ext. diam. c. 15m) appears to have a hearth and an east entrance, while that to the southwest appears to underlie the rath bank (Waddell et al. 2009, 66-79).



**Rathmore (RO022-056017-) (NMS)**





Looking north from Rathmore March 2015

**Monument Designation:** Caran Fort RO022-056023 and Mound Barrow RO022-056022

**Townland:** Toberrory

**ITM/NGR** 580375, 784706 /180420, 284690

**Description:** This monument is located on a slight north-south ridge on the north facing slope of Rathcroghan. It presents as a circular, flat-topped and grass-covered earth and stone mound (diam. of base 13.3m north-south; diam. of top 3m north-south; H 2.2-2.5m) with a slip around its base. Caran Fort rath (RO022-056023-) is located 3.5m to the south. Geophysical testing failed to produce evidence of any internal structure, but it is suggested that the flat top might be a medieval adaption (Waddell 2009, 49-55). (Knox 1914, 16-7, 21; Herity 1983, fig. 37, Toberrory 3; 1984, 129; Waddell 1983, 37; 1988, 10, No. 35.)

A field system (RO022-056025) is part of a complex of monuments in this immediate area and extends around the afore mentioned barrow and surrounds Carran fort (RO022-056023-), and forms part of the unified field system at Rathcroghan.

Two rectangular enclosures (dims. c. 15m x c. 8-16m) defined by slight scarps or banks are aligned north-south, and along a north northeast-south southwest field bank just to their west, the field system extends off to the north where it truncates Carran Fort (RO022-056023-) on the west side. A further curving northwest-southeast field bank is located just to the northeast of the rath, and a rectangular enclosure (RO022-056021-) (dims. c. 10m x c. 8m) which is defined by slight scarps and is located c. 100m west of the rath. Geophysical testing of Caran Fort regards the field system as pre-dating the rath, and anomalies immediately south of the rath raise the possibility of metal- working in the area (Waddell et al. 2009, 51-2).



**Caran Fort (RO022-056023) and Mound Barrow (RO022-056022) (NMS)**



**Looking north from Caran Fort and barrow March 2015**

**Monument Designation: Mound (RO022-009006)**

Townland: Ballymurray

ITM/NGR 581059, 785551 /181104, 285535

Description: The low mound (RO022-009006) located within Ballymurray townland is sited on the 100m contour line that surrounds Rathcroghan. A cluster of monuments occur within this townland and in close proximity to one another and include a field system (RO022-009001), enclosures (RO022-009003 and 004) and another mound (RO022-009007). The sites are located towards the bottom of the north-facing slope of Rathcroghan and views from this location to the north are largely uninterrupted. The recorded mound presents as a

sub-circular grass-covered feature (6m north-south, 5m east-west and approximately 0.4m high).



**View looking north towards the proposed road development from Ballymurray**

**Monument Designation: Ringfort (RO021-030) Concentric enclosure**

Townland: Rathkineely

ITM/ NGR 576704, 784770/176748, 284754

Description: This ringfort is located at the summit of a broad hill. It is a sub-circular grass-covered natural mound (dims. 27m east-west; 21m north-south; height 1-1.6m) within an enclosure (diam. 55m north-south; 54m east-west) defined by an earthen bank (Width 4.5-6.5m; int. height 0.9-1.1m; ext. height 1.3-1.8m). There is an entrance (Width 2.3m) at northwest but there is no visible fosse. Evidence of a fosse was recovered in a gradiometry survey conducted by Target Geophysics for M. Croghan in 2009 to the southwest and northeast but could not be recorded elsewhere because of interference from barbed wire fences. The survey also recovered slight evidence of a possible circular hut-site at the centre, with other possible features inside the bank at the north and the south. The bank is overlain by the remains of a stone wall to the east northeast-southwest, and there is a trig. station on the perimeter at the northeast of the site. Archaeological testing c. 200m to the west, and monitoring in the vicinity, failed to produce evidence of ancient activity (Dunne 1998).

According to NUI Galway, the site is similar in scale and dimensions to Rathnadarve (RO022-057004) (c. 32m northeast-southwest; c. 28m northwest-southeast; height 2m at southeast to 3m at the northwest) and should be viewed as a possible outlier to Rathcroghan central complex. It is located to the south east of Bellanagare.



**Ringfort (RO021-030) (NMS)**



**View towards the north in the direction of the proposed road development from the ringfort**

**Monument Designation: Ringfort, 'Rathnadarve' RO022-057004**

Townland: Glenballythomas

ITM/ NGR 579385 783690/ 179430 283674

Description: Around a natural knoll (dims. c. 32m NE-SW; c. 28m NW-SE; H 2m at SE to 3m at NW) on a gentle south-facing slope of the Rathcroghan plateau. Circular grass-covered area (int. diam. c. 74m) defined by an earthen bank (at E: Wth 7.4m; int. H 1.4m; ext. H 2.2m) and outer fosse (at W: Wth of top 9.3m; Wth of base 4.5m; D 0.4m), which is obscured by a modern road bank east-south (max. ext. diam. c.110m N-S). The probable entrance (Wth 6m) is at SSE. Geophysical testing failed to record evidence of any internal structures

or activities, apart from what might be an episode of burning on the summit of the knoll (Waddell 2009, 58-66). Described as a possible ring-barrow (Herity 1983, 132; 1988, 131, Glenballythomas 3). (Knox 1911, 221; 1914, 13; Herity 1983, 132, Glenballythomas 3; Waddell 1983, 33-5; 1988, 8, No. 23).



**Rathnadarve (RO022-057004) Aerial view (NMS)**



**View from Rathnadarve (National Monument), recorded as a ringfort (RO022-057004) in Glenballythomas townland looking towards Rathcroghan mound (RO022-057010) July 2016**



**View from Rathnadarve (National Monument) (RO022-057004) looking north towards Rathbeg  
July 2016**

**Monument Designation:** Concentric enclosure, 'Relig na Riogh' RO022-057035

**Townland:** Glenballythomas

**ITM/ NGR** 579772 782868/ 179817 282851

**Description:** In a slight fold on the south-facing slope of Rathcroghan ridge. Named 'Relig na Riogh' and described as a cemetery by Charles O'Connor of Belanagare (1753, 129), this identification was followed by J. O'Donovan in 1837 who described it as the Royal Cemetery of Connaught (O'Flanagan 1931, vol. 1, 85), and others (Gormley 1989, 10). Investigations of the interior had been undertaken by Charles O'Connor of Mount Allen in the late 18th century when the souterrain (RO022-057036-) was opened, and later investigations conducted in 1913 when the remains of post medieval houses were uncovered demonstrated that it was not a cemetery (Macalister 1928, 179).

Circular grass-covered area (int. diam. 102m N-S; 99m E-W) defined by a stone spread (Wth 2-5m; H 0.4-1m) with internal and external facing stones sometimes visible (original Wth c. 1.5m), with an outer fosse (Wth of top 4m; D 0.6m) SW-NW. There is a raised central platform (diam. 65m N-S), perhaps the remains of a ringfort (RO022-057077-), defined by a scarp (H 0.3-0.5m) N-W, with the entrance to souterrain (RO022-057036-) in the scarp at the west. There is no identifiable entrance to either enclosure.

A rectangular enclosure or annexe (RO022-057038-) (dims. 27.5m NE-SW; 17.7m NW-SE) defined by scarps (H 0.3-0.8m) is situated on a slight height and attached to the outside of the outer enclosure at SE, but its perimeter at SW is overlain by a north-south field bank. There is a rectangular house site (RO022-057037-) (int. dims. 10.6m E-W; 4m N-S) on the perimeter of the inner enclosure at the west. Other house sites were investigated in 1913 (Waddell 1983, 26). The site is overlain by N-S and E-W field banks of the field system (RO022-057003-), and cashel (RO022-057039-) is c. 100m to the south. (Knox, 1914, 35-6; Herity 1983, 132, Glenballythomas 25; Waddell 1983, 29-31; 1988, 8-10, No. 13).



**Relig na Riogh (RO022-057035) (NMS)**

**Monument Designation:** Linear earthwork, 'Mucklaghs' RO021-042015

**Townland:** Glenballythomas

**ITM/ NGR** 579086 782887/ 179130 282870

**Description:** Towards the bottom of a gentle SW-facing slope. The name is derived from a local tradition that the linear features were made by a racing wild pig digging its tusks into the ground. The northern Mucklaghs are two parallel grass-covered earthen banks aligned ENE-WSW and curving slightly to the north at either end (L c. 100m). The north bank (Wth of base 11.2m; H 1.8m at S; H 2.8m at N) is flat-topped (Wth 2m) and separated by a berm (Wth 3.6m) in which a drain has been dug from the south bank (Wth of base 11.2m; H 2.2m at N; H 3.2m at south). The Southern Mucklaghs (RO021-042016-) are c. 70m to the south, and barrow (RO022-057027-) is c. 120m to the NE. Rather than being linear earthworks extending over the landscape, the two Mucklaghs may have been an attempt to create a large ceremonial enclosures (diam. c. 500m; c. 1km). (Knox 1914, 27-8; Herity 1983, 131; 1984, 138; Waddell 1983, 33; Waddell 1988, 15; Waddell 2009, 89-90).



**Mucklaghs (RO021-042015) (NMS)**

**CARNFREE**

**Monument Designation:** **Ceremonial Enclosure (RO028-069002) Ringfort,**

**Townland:** Carns, Carrowfarve, Lismurtagh

**ITM/ NGR** 582421, 778463/ 182466, 278446

Description: This complex of monuments is located to the south of Tulsk and the inauguration site of Carnfree presents as a small mound on the highest point of the hill of Carns (above the 120m contour line). Carnfree Carn is known as *Fraoich mhic Fhiodaigh Fholtruadh* and according to the annals is allegedly the burial place of Fraech.

The annals record the inauguration of several O'Conors on this mound. Among those was Felim O'Connor (Feildhlímídh Ó Conchubhair), who was made king of Connacht in 1310 at the age of eighteen by his foster-father, Mac Dermot of Moylurg, and died in battle five years later in Athenry. Mac Dermot made the inauguration as solemn an occasion as possible in order to hold at bay William Burke, who had seized control of affairs at the death of Aedh Bréifneach Ó Conchubhair (Herity 1991, 28).

The monument is located on a rock-outcrop rise at the eastern end and at the highest point of the broad west northwest – east southeast Carnfree ridge and commands wide views to the north, east and south. It presents as a sub-circular grass-covered area with rock outcrop (dims. 85m E-W; 75.5m north-south) defined by low scarps (H 0.3m), with traces of a fosse (Width of top 4m; D 0.2m) at the north. The cairn (RO028-069001-) is located at the centre (approximately 12.50m in diameter and 1.40m in height). The road (RO028-062----) veers to the east to avoid the enclosure, which is partly quarried, especially at the east and overlain by north-south and east-west field walls. Limited geophysical survey failed to confirm its existence (Waddell et al. 2009, 119). Mound (RO028-251----) is just outside it at southeast. (Herity 1983,126-7). To the east of the inauguration mound along the broad ridge, in Carns townland is another mounded site that has been re-identified as Carn Lamha (RO027-070) (FitzPatrick 2004, 65).





**Carn Lamha (RO027-070) (NMS)**

## **TULSK**

**Monument Designation:** Castle (RO022-114011-)

Townland: Tusk

ITM/ NGR 582421, 778463/ 182466, 278446

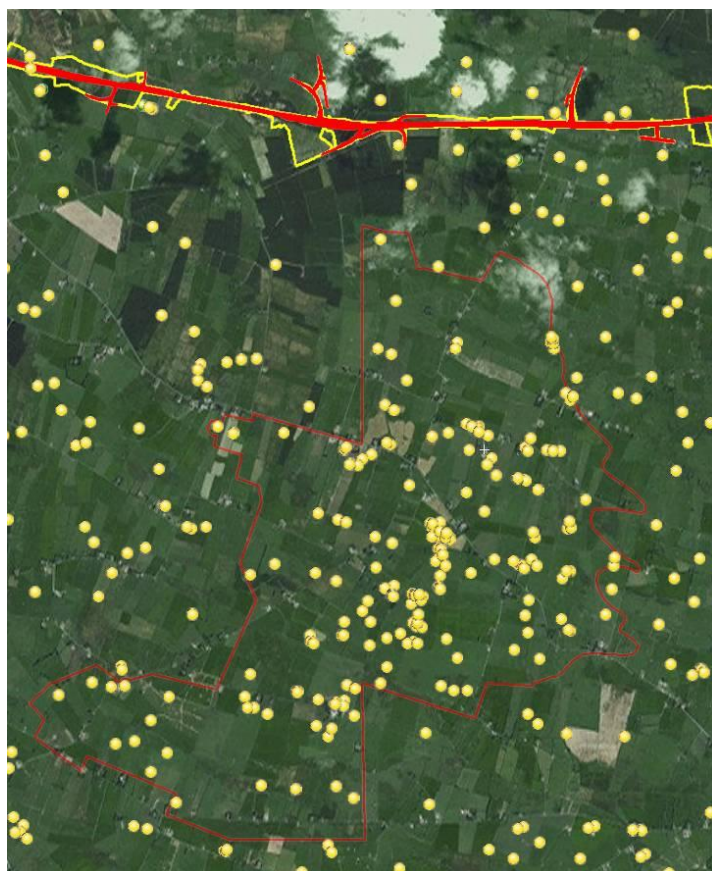
Description: A castle at Tusk was built in 1406 by O'Connor Rua, but it was burnt in 1407 by Brian O'Connor and the Clann Donnchada. In 1426 it was captured by Ruarai O'Connor from Cathal Dubh O'Connor, but in 1430 it was recaptured by O'Connor Rua. The castle was destroyed by Ulick Og Burke in 1485 and in 1490 O'Donnell failed to capture it, but it fell to the Earl of Kildare in 1499. Possession was disputed by O'Connor Rua and MacDermot in 1511, 1561 and 1577, by which time it was probably derelict. (Bradley and Dunne 1988, 114; Gormley 1989, 33-5; O'Connor 2007, 196).

It is situated on a rise on the SE bank of a SW-NE section of the Ogulla River, on the E edge of the mound of rath (RO022-114003-). Remote sensing surveys in 2003 revealed anomalies suggesting stonework on the east part of the mound. Excavation (04E0850) exposed the base of a rectangular tower, probably a tower house (ext. dim. c. 20m NNW-SSE; c. 10m ENE-WSW) with strong walls (at SW: Wth 1.8m) on a wide foundation (Wth c. 3m). It has a rounded corner at NE and a base-batter, and is straddling the east side of the mound. The tower is divided into a small northern room and larger southern room, which itself is divided into two, and there is no clear evidence of an external doorway. There is a garderobe chute in the east wall, and subsequently a building (dims c. 15m E-W; c. 9m N-S) was added to the east of the tower over the in-filled fosse (Brady 2009, 23-4). Further excavation in 2005 and 2006 removed the late 16<sup>th</sup> century layers post-dating the destruction of the castle, including a small oval feature, probably a late house-site or shelter (RO022-114012-) (dims c. 7m E-W; c. 4m N-S) at the north edge of the mound, associated with the re-use of the site by Bingham in the 1590s (Brady 2011, 309-310). During 2007 disturbed contexts containing early medieval material from the western edge of the rath were recovered including ring-brooches, glass beads and bone pins dating from the 10th-11th century. These layers may have been truncated at the east by a large fosse surrounding the castle, but some of the rath bank is preserved within the foundations of the castle.

Other sites were considered for inclusion but were dismissed due to restricted views and/or interrupted view sheds for example the barrows at Grallagh (RO022-056006 and 007), now somewhat artificially enclosed, (see photograph below) or the ringfort at Ballyconboy (RO022-056001) where large forestry plantations are located directly north. Rathlough ringfort (RO022-006001) to the north of the key constraint area (Figure 14.26) in Clogher Beg was also examined but as it is located at the bottom of an east-west valley at the northern foot of the Rathcroghan plateau and has limited views to the north which are now interrupted by vegetation and agricultural buildings it was not included in the record.



**RO022-056006 Ring-barrow Grallagh**



**Plate showing the key constraint area for Rathcroghan, SMRs and the proposed road development**



View from the southwest looking northwards towards a house and Rathlough ringfort site (RO022-006001/002) in Clogher Beg. The site is overgrown with vegetation and has been disturbed in the past with quarrying activity. It is located on a south-facing slope of an east-west valley at the northern foot of the Rathcroghan plateau. Views are restricted to the north.



Taken from the southeast, view towards an enclosure (RO022-003). This enclosure is named as 'Crockaunagat' and is located on a south-facing slope within an east-west valley at the northern foot of the Rathcroghan plateau. The views to the north are limited from the site and restricted by vegetation.



Taken from the south east in the direction of an enclosure site (RMP022-056001) in Ballyconboy. The site is located in a small field surrounded by mature hedgerow restricting views in all directions. Immediately to the north a forestry plantation is located.



Taken from the southeast of the redundant record site (RO022-004) also identified by LiDAR survey as a pit field site in Kilvoy townland. The views to the north are restricted and a number of tree shelter belts occur between the proposed road development and this area.

## Appendix 14.12 River Crossings

Five rivers are crossed by the proposed road development:

The Carricknabraher River at chainage 10+125.

The Owennaforeesha River at chainage 14+525.

The Owenur River is crossed at chainage 30+750.

Strokestown River is crossed at chainage 51+150.

The Scramoge River is crossed at chainage 52+830.

### RIVER DESCRIPTION

**The Carricknabraher River** is crossed by the proposed route at chainage 10+125. Appearing c.1.5m below surrounding ground level and measuring 2m in width, it is a shallow stream c.0.2m in depth. The river forms the townland boundary between the townland of Corskeagh and its neighbouring townlands of both Mullen and Leggatinty to the east. The sinuous river has steep grass and banks, and separates an area of waterlogged open fields and Coilte forest. It is slow running, shallow, and has a gravel, pebbled, gritty base.

The river at this point has not been altered or dredged. The 1st edition six-inch mapping (1837-8) shows that the river served two mills situated c.500m downstream.



**Southwest facing view of the Carricknabraher River.**

**The Owennaforeesha River** is crossed by the proposed route at chainage 14+525. It forms the boundary between the townlands of Ballaghcullia and Drummin. A slight bank appears on the eastern side of the river. The river is c.0.9m -1.1m below the surrounding ground level and measures c2.5m in width. It is a shallow stream c.0.2m – 0.3m in depth. The river has steep grass and banks, and separates an area of reclaimed bog from drier open fields.

The river at this point does not appear to have been altered or dredged, however mapping shows that a meandering stretch of the Owennaforeesha River (located 0.7km to the southwest) leading from Bellanagare town on the the 1st edition six-inch OS map (1837-8) has been straightened by the time of the 25-inch OS mapping (1888-92).



**Southwest facing view of the Owennaforesha River**

**The Owenur River** is crossed by the proposed route at chainage 30+750. It forms the boundary between the townlands of Gortnacrannagh and Killeen West. Historic mapping shows that the river has been reshaped and straightened between the time of the 1st edition six-inch OS mapping (1837-8) and the 25-inch OS mapping (1888-92). The river is c.1.4 - 1.6m below the surrounding ground level. The Owenur River measures c.3.5m - 4m in width, is relatively fast flowing, has steep reed covered banks, and measures c..5m – 0.7m in depth. The base of the river is very soft and boglike underfoot. It is a significant water body in comparison to the stream like Carricknabraher and Owennaforesha rivers.



**East facing view of the Owenur River**

**Strokestown River** is crossed by the proposed route at chainage 51+150. It forms the boundary between the townlands of Vesnoy and Cloonradoon. Historic mapping shows that the river has been reshaped and straightened between the time of the 1st edition six-inch OS mapping (1837-8) and the 25-inch OS mapping (1888-92), possibly as part of Famine relief works. The rivers route from near this crossing point towards Strokestown House has been straightened for c.800m. A gold hoard of five bracelets was found nearby in Vesnoy in 1849.

The river is set within a clearing in a boggy, waterlogged area. It is surrounded by high grass on both banks, with a scattering of trees on the eastern side. The Strokestown River is a significant water body measuring c.3m – 3.5m in width. The river is slow flowing, has clear cut banks, and has a very soft base, depth approximately 0.4m – 0.8m.



**Southeast facing view of the Strokestown River**

**The Scramoge River** is crossed by the proposed route at chainage 52+830. It forms the boundary between the townlands of Bumlin and Scramoge. Historic mapping shows that the river has also been reshaped and straightened between the time of the 1st edition six-inch OS mapping (1837-8) and the 25-inch OS mapping (1888-92), again possibly as part of Famine relief works. The rivers route from near this crossing point towards Strokestown House has been straightened substantially.

The river at this point is set within open fields, pasture fields on the northwest side, damp, waterlogged reedy fields to the southeast. The river has sloping banks. The Scramoge River is a significant water body, measures c.7m – 8m in width, with a depth c.1m.



**Northeast facing view of the Scramoge River.**

## Appendix 14.13 Archaeological Investigations

### *09E0476 – N5 Ballaghaderreen Bypass Phase 1 - Areas G-P, Rathkeery. Ch. 1+000.*

The archaeological testing of the N5 Ballaghaderreen bypass took place over three phases. The first phase was in 2009 and was carried out by Headland Archaeology Ltd. The proposed road development consisted of the construction of a bypass, 13.6km long, located to the north of Ballaghaderreen town. For the purpose of testing this development was divided into sixteen areas, labelled A–P. These areas were subsequently divided into two parts. The northwest portion of the proposed road development consisted of six areas, labelled A–F (this came under licence number 09E0475).

To the southeast of this were the remaining ten areas, labelled G–P investigated under licence 09E0476. It covered 24.23ha of mostly undulating pasture, with some scrub and marshy areas, and incorporated the townlands of Toobrackan, Tullaghanrock, Banada, Keelbabada, Ballinphuill, Teenacreeva and Rathkeery. The townland of Rathkeery is where the currently proposed route begins. A total of 7 sites were discovered during the testing of Areas G-P, comprising 4 burnt mound sites (Site 1 Bockagh 1, Site 3 Banada 1, Site 4 Keelbanada 1 and Site 5 Keelbanada 2), an Iron Age pit (Site 7 Teenacreeva 1), Neolithic activity (Site 6 Ballinphuill 1) and scattered pits and linear features (Site 2 Toobrackan 1) located in proximity to a ringfort (RO008-023). No finds or features of archaeological interest were uncovered in the townland of Rathkeery.

The closest archaeological features uncovered to the proposed route was a cluster of Neolithic pits. These pits were located 2.8km northwest of the start of the proposed route in Rathkeery. This site is now a RMP and is classified as an excavation (RO008-070). The Neolithic pits are described as a shallow curvilinear trench (length 3.5m; width 0.8m; diameter 0.4m) with associated deposits. A fragment of hazelnut shell produced a C14 date of 2460-2150BC. A subsequent phase of testing excavated three deposits of silty clay (10E0305) at the same site, but no features were recorded. However, nineteen pieces of struck stone, principally chert, were recovered. A flint scarpener was in the collection, which probably represents in situ knapping.

### *10E0307 – N5 Ballaghaderreen Bypass Phase 2 - Areas 8-13. Ch. 1+000*

A second phase of testing on the Ballaghaderreen bypass was carried out in 2010 by IAC under licences 10E0298 (Areas 1-4) and 10E0299 (Areas 5-7) and focused on the western end of the bypass. The third phase of testing was to the eastern end of the bypass and was carried out in 2011 again by IAC. This third phase covered Areas 8-13, which consist of the townlands of Toobrackan, Magheraboy, Tullaghanrock, Banada, Keelbanada, Ballinphuill, Teevnacreeva, Ratra and Rathkeery. These areas were being tested at this stage as they were unable to be investigated during the first phase.

A single Iron Age pit was uncovered at Site 7 Teevnacreeva. This Iron Age pit is c.1.4km northwest of the start of the proposed route in Rathkeery.

### *1989:084 - 'Sheepwalk Rath', Sheepwalk. Ch 3+600*

A two week research excavation was undertaken in 1989 in the south-eastern portion of Sheepwalk townland. It was carried under direction by the Department of Anthropology of The Graduate School C.U.N.Y. New York. The excavation took place on a multivallate rath (RO015-003) which is situated 280m to the northeast of an ancillary road of the proposed route. The testing consisted of a series of soil probes and the excavation of a 1m sq. test unit. Based on the results of the soil probing, the test unit was placed just west of the area believed to be the eastern entrance of the rath. The test unit yielded evidence for an area of



paving. The artefacts from this unit consisted of ceramics and lithics; faunal material and the fossilised remains of marine animals were also uncovered. The majority of the finds were imbedded in the paved area.

*Licence number 01E0072 – Bellanagare. Ch. 13+450*

Pre-development testing was carried out by North West Archaeological Services in advance of a three-house development near the site of a castle/house, known locally as Cushlaun. The site is situated 1.2km south of the proposed route. A 19th-century sawmill was the subject of an earlier impact assessment and building survey by Shirley Markley. Seven test-trenches were excavated to a depth of 0.6–0.95m. Several early modern finds were uncovered although no archaeological features or remains were revealed.

*Licence number 08E0312 – Bellanagare. Ch. 13+450*

Testing was undertaken in 2008 prior to the construction of a housing development. The site is situated 1.2km south of the proposed route. The site was adjacent to the zone of potential for a castle site. The trenches were excavated across the house sites, access road and associated works. No archaeological finds or features were uncovered.

*Licence number 05E0675 – Ballaghcullia. Ch. 13+600*

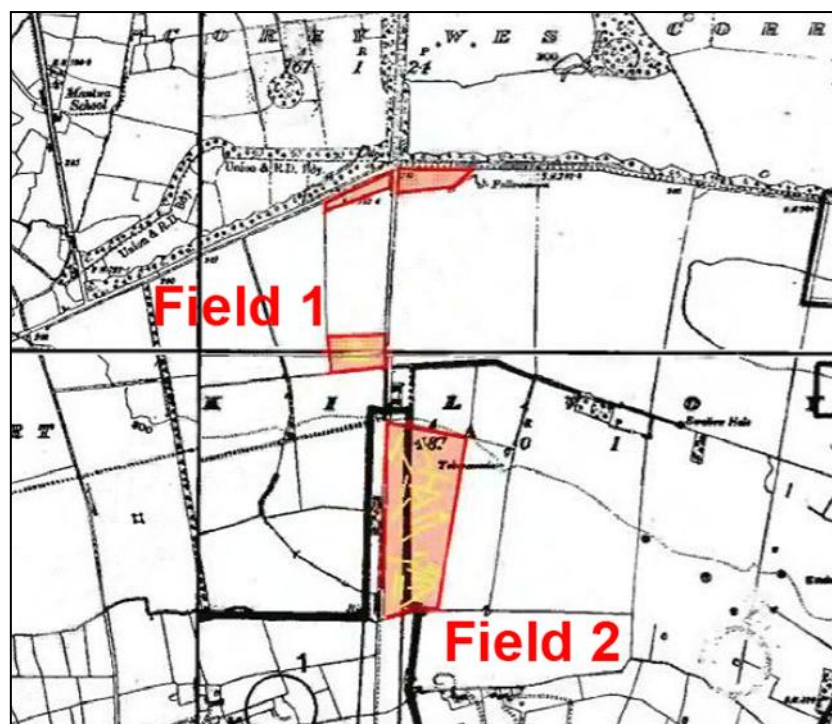
Test excavation was carried out by Mary Henry Archaeological Services in 2005. The site was situated 190m north of the centre line of the proposed route. Five test-trenches were opened on the site of a proposed single housing development site in Ballaghcullia, Ballanagare. Ecclesiastical remains (RO015-047) were situated c. 130m east of the development site, in an adjoining field. No archaeological remains were uncovered in the course of testing works.

*Licence number 09E0569 – Kilvoy. Ch. 18+250*

In 2009 Headland Archaeology Ltd carried out a series of archaeological investigations as part of further information required for the planning application for the proposed development of an off road competition track, viewing area and associated works at Kilvoy, Bellanagare. The site was situated 60m to the south of an ancillary road on the currently proposed route. The proposed development was situated in c. 5.88ha of undulating marsh/pasture.

Geophysical investigation of the site using magnetic gradiometry was undertaken in October 2009 (09R189). This identified a number of anomalies across the footprint of the site which required investigation in advance of the proposed development receiving full planning permission. Testing of the site was carried out in December 2009.

Testing was carried out in two areas, Fields 1 and 2 (Plate 14.21). Field 1 was located in the northern part of the proposed development. No geophysical survey was carried out in this area, as the land was waterlogged at the time of survey. During testing, three trenches were excavated and no archaeological features were identified. An elevated laneway links Field 1 to Field 2 to the south. This was a stone hard-core track that branches out into the forested areas to the east and west. Two derelict 19th-century stone buildings representing an old farmstead were located to the east of this elevated laneway.



**Plate 14.21: Map showing excavation areas opened under licence 09E0569**

A medieval trackway was located to the immediate south-west of Field 2. This was slightly elevated and was lined with mature trees. It was overgrown in parts by shrubs and bushes and a shallow ditch separated it from Field 2. It was recommended that prior to the construction phase that permanent fencing be put in place separating the development from the trackway, in order to prevent any possible damage to the trackway by machinery once the development is fully operational.

A total of 28 trenches were excavated in Field 2. These trenches were strategically placed to investigate the anomalies detected during the geophysical survey. Many of the anomalies were positively identified as features relating to agricultural practices. These included plough furrows, land clearance by burning and drainage ditches. Many geological features were also detected and included gravel ridges and iron pan deposits. One archaeologically significant feature was identified in Trench 22. It comprised a keyhole-shaped stone-built kiln and was constructed using sub-angular stones with no visible bonding material. It had a sub circular chamber or bowl with a stone-lined flue located to the west. The exterior of the chamber or bowl measured 1.4m in diameter and in total the kiln measured 2.8m long. The interior of the chamber or bowl was filled with moderately compact, mottled, medium-brown yellow/black silty clay with possible burnt clay, charcoal and lime inclusions. Lime was commonly used for improving crop production and kilns were commonly used to dry the cereal grains. Artefacts recovered during testing included seven post-medieval pottery sherds. These came from the topsoil and a shallow drainage ditch located in Trench 12. The presence of red brick in shallow ditches within Field 2 suggest activity dating to the post medieval period.

*Licence number 02E1222 – Kilvoy. Ch. 18+350*

In 2002 North West Archaeology Services Ltd excavated four test trenches in advance of a proposed development consisted of a dwelling-house, access lane and septic tank/percolation area. The excavation site is 300m south of an ancillary road, and 200m south of another later excavation site in Kilvoy, licence number 09E0569 (see above). The excavation site is immediately to the west of a large field containing monuments described as 'pits'. The four trenches revealed the same findings; topsoil to a depth of 20-30cm over a

light yellow/ grey compact natural subsoil. No archaeological remains or features were revealed during testing.

*Licence number 03E1009 - Tullyloyd. Chainage 33+350*

In 2003 North West Archaeology Services Ltd excavated a series of test trenches in advance of construction of a residential development. The site consisted of a half-acre plot, one mile east of the Ballyoughter crossroads, at Tullyloyd, Elphin. The site was situated 300m north of an ancillary road off the proposed route. The site was near a large enclosure (RO022-053). The proposed development consisted of a house, access, garage and septic tank. Five trenches were excavated by machine to the level of undisturbed natural. No archaeological remains were revealed during the course of excavation.

*Licence number 01E0564 - Kildallogge. Chainage 50+000*

In 2001 North West Archaeology Services Ltd excavated a series of test trenches in advance of a residential development and driveway outside the village of Strokestown. This site fronts onto a proposed ancillary road. Four trenches were excavated across the area to be affected to a depth of 0.6–0.8m. No archaeological remains or features were revealed.

*Licence number 98E0453 - Vesnoy. Chainage 50+550*

In 1998 pre-development testing was undertaken on the site of a proposed development in Vesnoy, Strokestown. The proposed development site lies within the designated archaeological area of a ringfort.

Five test-trenches were excavated by machine. Trench 1 was dug along the western boundary of the proposed development site adjacent to the ringfort. It ran in a north-south direction and measured 25m x 2m. The sod/topsoil layer directly overlay the boulder clay. Stratigraphy was similar in all the other trenches. No archaeological features or small finds were recovered from any of the trenches.

*Licence number 00E0530, 00E0532, 00E0533 and 01E0906 – 6km realignment of the N5 between Scramoge and Cloonmore – east of proposed route terminal at Chainage 54+350*

A series of archaeological investigations were carried out by Margaret Gowen & Co. Ltd in 2000 relating to the realignment of the N5 between Scramoge and Cloonmore. This realignment is situated to the immediate east of upgrading works at the eastern end of the proposed route. Test trenches were opened perpendicular to the line of the road at the margins of a raised bog to test for the presence of archaeological features. No features were uncovered.

150m east of upgrading works at the very end of the proposed motorway is the excavated burnt mound (RO029-149) in the townland of Gortlustia, this site was uncovered and excavated as part of the realignment in 2000. The site was exposed during topsoil-stripping as part of the realignment of the N5 and was identified as a small spread of heat-shattered stone and charcoal, considered to represent a possible burnt mound. A more detailed investigation of the vicinity of the site and the burnt spread revealed no further features, although the presence of individual burnt stones and charcoal on the surface of the natural boulder clay suggested that a much more substantial deposit once covered the site. Examination of the spread of burnt stone revealed a cut for a pit measuring 1.55m by 1.2m. The main features identified on the site were the pit, the fill of the pit, and a sparse scatter of burnt stone.

The pit, as originally opened, was irregular in shape, with two rounded corners on the 0.7m-wide north-eastern side continuing as straight sides for around 1m, where a rounded side was present (on the south-west). The sides were up to 0.45m deep and sloped at an angle

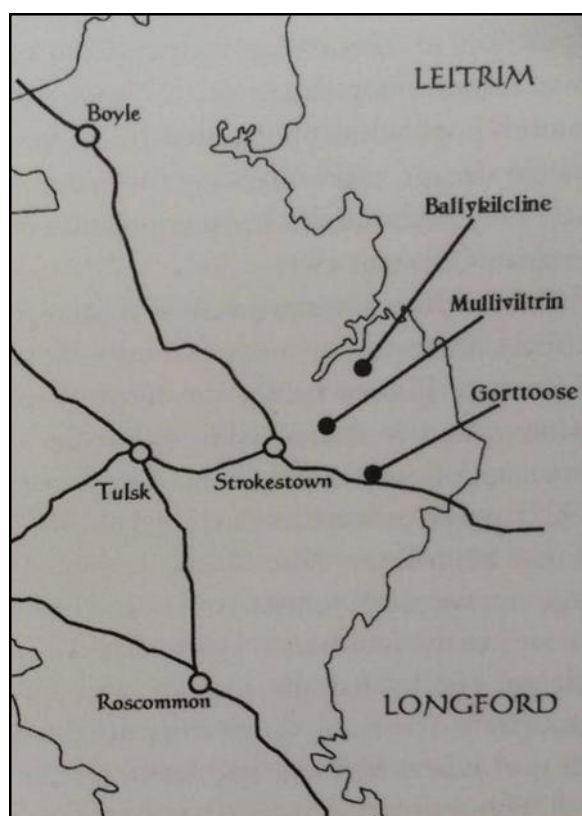
of 55° to the vertical, and gently breaking at a depth of 0.4m to form a concave base. The pit had an overall capacity of around 0.744m<sup>3</sup> (or 744 litres).

The pit was filled with a fine silty clay with substantial charcoal inclusions. Some 60% of the fill (0.446m<sup>3</sup>) was burnt stone, mainly fine sandstones, although other stone types, such as limestone, shale and quartz, were present in very small numbers. The largest of the stones were some 0.25m in length, although the vast majority were around 75mm in length, or less.

The dispersed burnt stones and charcoal flecking represented the former location of a more substantial mound that may have surrounded the pit. This could be traced over an area of some 7m (north–south) by 4m.

*Excavations of 19th century settlement clusters in the wider context of the proposed route*

Between 1996 and 2002, Charles E. Orser Jr. of the Anthropology Dept. of Illinois State University carried out a series of archaeological investigations focusing on the Famine period and attempted to broaden our understanding of early 19th rural tenant life in this part of the country. These excavations took place under licence numbers 96E0073, 97E0164 and 98E0267, in the townlands illustrated in Plate 14.27.



**Plate 14.22 Areas of investigation by Oser (Figure 2.1, 2006)**

*Licence number 96E0073 Gortloose – 2.25km east of the proposed route terminal at Chainage 54+200*

The excavation site of a recorded settlement cluster (RO030-020) took place under the direction of Charles E. Orser Jr. from June to August 1996. The object of the research was to facilitate discovery of the material aspects of late eighteenth and early 19<sup>th</sup> century life on the Mahon Estate, a somewhat typical agricultural holding in the Irish midlands. The archaeological research was preceded by preliminary field reconnaissance and historical research in 1994 and geophysical surveying in 1995. The research team excavated 34 excavation units, some 15% of the sites surface area.

Over 6000 artefacts were recovered from the site. As an assemblage, they provided an excellent view of the material culture of a head-tenant's household. Included in the collection was an abundant sample of locally made redwares. These utilitarian wares were the preferred ceramics of the countryside, and may hold the key to understanding the outside connections of the people who lived at Gorttoose.

In addition to the artefacts, significant structural remains were also uncovered from the immediate post-Famine period. These remains including one corner of a farmhouse and a well-made French drain, indicating that the landlords moved quickly to 'improve' the landscape once they had evicted their so-called 'unproductive' tenants in 1847.

*Licence number 97E0164 Mullivitrin – c.20km southwest of Strokestown*

Mullivitrin was an early 19<sup>th</sup> century village inhabited by poor sub-tenant cottiers who paid rent to Major Denis Mahon, owner of the Strokestown Park estate. Mahon became infamous when he evicted over 3000 tenants from his townlands in 1847 at the height of the Great Hunger. Mullivitrin, being a village composed of mud or sod houses, does not appear on Ordnance Survey maps either before or after 1847. The existence of the site is largely known through occasional references in estate records, local oral history, and from an article published in *The Freeman's Journal* on 29 April 1848. About 71 people lived in the village, and it was emptied and completely destroyed in 1847. It was never reoccupied. The beginning date for the village is unknown, but it probably dates from no earlier than the late 18th century.

Before excavation began in 1997, the Applied Geophysics Unit of the National University of Ireland, Galway, completed a non-invasive subsurface survey of the area indicated by local residents to have been the former village site. Today, the village is completely erased from the landscape, and the land it once occupied is now an unremarkable agricultural field. Geophysical survey located two discrete areas indicated by high readings. On the surface, these areas appeared as small, almost imperceptible, rises on the edge of the empty field.

Twenty-two excavation units, each measuring 2m x 2m, were excavated at the site over the two mounds, with most of the work focusing on the western, or better-defined, mound. Thirty-nine contexts were encountered in the 36.8 cubic metres excavated. One important context was a black ashy soil that indicated the burning of the tumbled cabin in 1847, exactly as the oral testimony had suggested. Another significant context was a large, rectangular stone feature, identified as a free-lying hearth. Free-lying hearths, without chimneys and usually placed in the centre of the cabin, were reported by 19<sup>th</sup> century travellers to be typical of the poorest dwellings in the countryside. The hearth consisted of a rectangular arrangement of medium-sized stones placed around smaller, flatter stones. A large stone had been placed at what appeared to be the back of the hearth. The back stone was extremely degraded from intense burning, and most of the other stones exhibited evidence of burning. The mud or sod walls of the building could not be readily identified, though remnants of them were encountered as soil layers near the hearth.

Only 66 artefacts were recovered from Mullivitrin. With the exception of two obvious intrusions (two centre-fire shotgun shells dating from after 1852), all of the artefacts date from before 1847. The archaeological collection consists of eighteen sherds of refined earthenware (plain pearlware/whiteware; both monochrome and polychrome hand-painted whiteware; blue transfer-printed whiteware, in Willow or Gazelle pattern; and banded whiteware), eighteen sherds of coarse redware (including black-glazed, dark brown-glazed, brown-glazed, tan-decorated, and unglazed varieties), ten pieces of glass (clear, clear-to-frosted, light green, brown, amber, and blue), seventeen pieces of metal, including one single-loop button with back stamp, a piece of black rubber, a piece of cloth, and one deer tooth.

All of the artefacts are domestic in nature, and provide a unique look inside one poor family's cabin at the time of eviction. The collection thus reveals the presence of at least five mismatched vessels of refined earthenware (probably small bowls or cups), four redware vessels, probably with utilitarian functions, and at least six different glass vessels. No prehistoric or early historic artefacts or other evidence were found during excavation.

*Licence number 98E0297 Aughamore Village – c.7.5km northeast of Strokestown*

Under the direction of Charles E. Orser Jr excavation took place in 1998 in the 19th-century village of Aughamore, Ballykilcline townland, Co. Roscommon.

The townland of Ballykilcline, which contains the village, was a Crown estate. The Mahons, who lived in Strokestown Park House, around seven miles away, leased the land from the 1790s to 1834. From 1834 to 1847, however, the townland's tenants owed their rents directly to the English Crown. Before their wholesale eviction in 1847 the tenants refused to pay and were involved in a protracted and violent rent strike. Actions such as this made it possible for early 19<sup>th</sup> century observers like John O'Donovan-lexicographer for the Ordnance Survey-to observe that 'the Parish of Kilglass...is proverbial...for its wickedness'. Bailiffs and cartographers were frequently afraid to travel into the townland without an armed escort.

Before excavation in 1998 a detailed topographical map of the site and geophysical survey took place. The placement of cuttings was based on these tests as well as on information appearing on the Ordnance Survey map. Thirty-five 1m x 2m excavation units were examined.

A total of 1134 artefacts was collected. With the exception of eight isolated stone flakes, all of the artefacts date to the 1800-47 period. The artefact distribution breaks down as follows: ceramics (fine earthenware, coarse earthenware, porcelain and stoneware); glass (curved and flat); metal (iron, brass, lead and gilding), and other (bone, charcoal sample, slate, animal tooth, whitewash). From a purely historical standpoint perhaps the most interesting artefact was a partial bowl from a white clay smoking pipe discretely stamped '...PEAL', undoubtedly for 'REPEAL'.

Thirty-two contexts were identified. Two of these were narrow, stone alignments that probably constitute the remains of house walls. Another context was a cobbled yard area, just north of one of the stone walls. The stone walls will be excavated in 1999.

The soil stratigraphy at the site consisted of five layers: sod, topsoil, two horizons of dark yellowish/ brown, loamy soil and a deeper, dark yellowish/ brown, culturally sterile clay. Most of the artefacts and man-made features were found in the topsoil or just below, in the two layers of loam. Little if any mixing could be observed in these soil layers.

This excavation was conducted as part of a larger archaeological effort to examine the material basis of rural life on the eve of the Great Hunger. Of the artefacts collected, the ceramic sample is interesting as a large amount of imported, English, fine earthenware was discovered and suggests that instead of paying their annual rents to the Crown the tenants used their meagre funds to improve their material conditions. In addition the collection of locally made coarse earthenware further argues for the importance of this industry to the men and women of the countryside.

*Licence number 98E0297ext Ballykilcline – c.7.5km northeast of Strokestown*

Field excavations were conducted at the early 19<sup>th</sup> century townland of Ballykilcline in Kilglass parish, Co. Roscommon, from 5 July to 6 August 1999. The placement of the cuttings was based on the results of the ground probing radar survey combined with three other sources of information: the results of the 1998 excavation (Excavations 1998, 177-8),

the results of earlier geophysical testing, and the house locations depicted on the Ordnance Survey map. A total of 38 1m-by-2m cuttings were excavated, and 1352 artefacts were collected.

With the exception of six isolated chert flakes, all of the artefacts date to the 1800-48 period. The artefact distribution breaks down into the following gross categories: ceramics (fine earthenware, coarse earthenware and porcelain) = 502 sherds; glass (curved and flat) = 610 sherds; metal (iron, brass, lead and copper) = 166 pieces; and 'other' (bone, charcoal, slate, animal teeth and bone, whitewash samples, turf samples) = 74. From a purely historical standpoint, perhaps the most interesting artefact discovered was a small, plain whiteware sherd with a hole drilled through it. This tangible evidence for use alteration confirms folkloric information about the repair and reuse of broken dishes in Irish homes.

Twenty-three contexts were identified in 1999. Three of these were layers identified in 1998, but the others were newly discovered. They included a cobble yard area or floor surface, the surface and curbing of a 19<sup>th</sup> century roadway, and a pit feature possibly used for storage. Further evidence of the stone walls discovered in 1998 was not found.

The soil stratigraphy at the site was straightforward. It consisted of five layers: sod, topsoil, two horizons of dark yellowish/brown, loamy soil, and a deeper, dark yellowish/brown, culturally sterile clay. Most of the artefacts and the human-built features were found just below the topsoil, often in a zone mixed with medium-sized rocks.

Current thinking about the site, which was the 19th-century home of the Nary family, is that the archaeology reveals evidence of conscious site destruction. This is the second season of research at the old Nary home site, and a comparison of the 1998 results with those from 1999 indicates some horizontal movement of artefacts across the site from west to east. Although conclusions are now too preliminary to advance with confidence, it is possible that when the Nary cabin was razed after the evictions it was pushed to the right (towards the east) and that many of the stones from the wall footings and the yard areas were salvaged and used to build post-eviction buildings and walls. If this is the case, evidence for the evictions must lie all around the Kilglass area, much of it in plain sight.

Ballykilcline is important from historical, anthropological and archaeological standpoints, and it is expected that further excavations will broaden our understanding of early 19th-century rural life in this part of the country.

*Licence number 98E0297ext Ballykilcline – c.7.5km northeast of Strokestown.*

Field excavations continued for the third season at the early 19<sup>th</sup> century townland of Ballykilcline in Kilglass parish, Co. Roscommon, between 25 June and 6 August 2000. As with the 1998 and 1999 seasons, excavations focused on a part of the townland traditionally known as Kiltullyvary or Bungariff (Excavations 1998, 177–8; Excavations 1999, 266–7). This year's excavations concentrated on the northern part of the 19th-century Nary farm, where excavations began in 1998.

The survey of this area began in 1998, and efforts this year were directed towards completing a more intensive survey based both upon earlier results and upon the excavation findings from previous years.

The students excavated 36 1m x 2m excavation units and collected 3757 artefacts. All of the artefacts collected this season date to the 1800–48 period. The artefact distribution breaks down into the following gross categories: ceramics (fine earthenware, coarse earthenware, stoneware and porcelain) = 2527 sherds; glass (curved and flat) = 656 sherds; metal (iron, brass, lead and copper) = 456 pieces and 'other' (bone, charcoal samples, slate, animal teeth and bone, whitewash samples) = 118.

As expected, the soil sequence encountered in 2000 was identical to that found in 1998 because the 2000 excavations were placed immediately adjacent and to the south of the 1998 cuttings. Because the site has been largely undisturbed since the evictions, only five distinct soil layers occur: the sod, the topsoil, the eviction/destruction zone (Context 5), the living surface (Context 6) and the culturally sterile clay (Context 12). The excavators found most of the artefacts in Context 5; they investigated two contexts first encountered in 1998 and found seven new contexts (Contexts 54–60), most of which were small pit features.

During the project, it became clear that the 2000 excavations were located directly over the remains of one of the 19<sup>th</sup> century houses shown on both the Ordnance Survey map and the 1836 estate plan. This determination was based on the density of artefacts (more than triple the 1998 amount) and the larger size of the artefacts when compared to those recovered in 1998. The 1998 excavations were undoubtedly located in the yard area behind the house, with the house located to the south, close to the road. This spatial arrangement is consistent with the changes in the settlement pattern of County Roscommon during the social changes of the early 19th century.

Another significant result of the research, which is still under investigation, involves the presence of a wide range of ceramics in the house before the eviction. It appears that the Nary family had access to English-made wares, as well as to more traditional Irish vessels. At this stage of the research, however, we do not know whether the Narys obtained these objects as gifts, through purchase or as charitable donations. The question of material culture access is, of course, an important topic within today's historical archaeology, and our research on this important element of daily life is continuing. Similarly, our research is providing useful information that will permit an in-depth consideration of rural Irish identity during the Union period.

#### *Licence number 98E0297ext Ballykilcline – c.7.5km northeast of Strokestown*

The 2001 excavations concentrated on the 'northern' part of the 19<sup>th</sup> century Nary farm, where excavations began in 1998. The overall focus of this research effort is to provide an anthropological, contextual understanding of early 19<sup>th</sup> century tenant farmer life, using excavation, historical research and landscape analysis as its primary components.

Thirty-four 1m by 2m units were excavated and 2,851 artefacts collected, bringing the total collection from the Nary site to 9,087 artefacts. All of the artefacts date from the 1800–48 period. The artefact sample contains objects that would typically have been used inside a rural home in the early 19<sup>th</sup> century, including fine earthenware, coarse earthenware and stoneware ceramics; bottle and window glass; several iron tools; pieces of eating utensils; brass buttons of many sizes; white clay smoking-pipes; and pieces of animal bone, slate and whitewash. The most evocative artefact found, especially given the history of removal at the site, was a small brass thimble embossed with the words 'FORGET ME NOT'. Also discovered were several tiny glass beads, some of which were probably used as weights on lace bobbins. If the excavator's supposition about the function of these beads is correct, then they, in conjunction with the thimble and a small pair of scissors found earlier, provide unique insights into the daily activities of the townland's women, a subject of significant interest within this research endeavour.

As expected, the soil sequence encountered was identical to that encountered in the earlier seasons. This year's work mainly involved uncovering the cobble floor of one of the Nary cabins. These cabins appear on both the Ordnance Survey map and the 1836 estate plan. The excavations succeeded in uncovering the entire spatial extent of the house remains, but the work of the men who demolished the tenants' homes after eviction was extremely thorough.



The 2001 excavations were conducted as part of the larger archaeological and anthropological effort to examine the material basis of rural life before the great diaspora of the 1840s. Ballykilcline is an important research locale because of its undisturbed nature and because it was the scene of significant social unrest. The rent strike provides an intriguing counterpoint to the large numbers of English ceramics found during the excavations.

*Licence number 98E0297ext Ballykilcline – c.7.5km northeast of Strokestown.*

Field excavations were conducted at Ballykilcline, Co. Roscommon, from 23 June to 2 August 2002. Placement of the cuttings was based on the review of three sources of information: the results of the 2001 excavation, the results of earlier geophysical testing, and the house locations depicted on the OS map. Eighteen cuttings, 1m by 2m, were excavated, and ten cuttings unfinished in 2001 were reopened and completed.

A total of 1252 artefacts were collected. With the exception of one isolated chert flake and one pre-modern shell artefact, all of the artefacts date to 1800–48. The artefact distribution breaks down into the following gross categories: ceramics (fine earthenware, coarse earthenware and porcelain) = 899 sherds; glass (curved and flat and glass beads) = 240 sherds; metal (iron, brass, lead and copper) = 99 pieces and 'other' (bone, charcoal samples, slate, animal teeth and bone, whitewash samples, turf samples) = 14.

Eleven contexts were identified in 2002. Five of these were layers that had been identified in previous excavation at Ballykilcline, but the remaining six were newly discovered. They included a possible stone pillar foundation and a stone-lined subsurface drain. Further excavation of the tumbled wall or cobbled area discovered in 2001 did not provide further clues to its purpose or formation history.

This is the fifth and final season of research at the old Nary home site. Work conducted during the previous field seasons has revealed two separate household sites and a sophisticated open and subsurface drainage system and discovered a diverse and complex artefact assemblage. The household sites showed clear evidence of conscious demolition, probably occurring immediately after the Famine era evictions. The lack of substantial wall foundations and the remains of large stones indicated that many of the stones from the wall footings and the yard areas were salvaged and used to build post-eviction buildings and walls. If so, many of the architectural remains of the Nary home now form part of the post-Famine structures in the Kilglass area.

Each of the artefact types has provided an important insight into the lives of pre-Famine tenant farmers in rural Ireland. In short, the excavations have broadened the concept of the material and economic world of the tenant farmer to encompass possibilities that had previously been ignored.

## Appendix 14.14 List of Townland Boundaries

**Table 14.39 List of Townland Boundaries**

Fig. No.	Reference	Chainage	Townlands
Fig. 14.2	TB1	1+450	Rathkeery/ Glebe East - Road
Fig. 14.2	TB2	1+800	Rathkeery/ Portaghard
Fig. 14.3	TB3	3+950	Portaghard/Turlaghnamaddy
Fig. 14.4	TB4	4+625	Turlaghnamaddy/Dungar - Road
Fig. 14.4	TB5	4+750	Dungar/Corskeagh
Fig. 14.4	TB6	4+750	Dungar/Mullen
Fig. 14.4	TB7	5+000	Mullen/Corskeagh
Fig. 14.5	TB8 (AH 6)	10+150	Corskeagh/Leggatinty/Mullen – Carricknabraher River (AH6)
Fig. 14.5	TB9	10+150-10+500	Leggatinty/Mullen (forestry plantation)
Fig. 14.6	TB10	12+700	Leggatinty/ Derreen/Cashel – earthen hedgerow bank and ditch and road (N5)
Fig. 14.6	TB11	13+175	Cashel/ Ballaghcullia - Road
Fig. 14.7	TB12	14+100-14+525	Ballaghcullia/Bellanagare – ditches through former bogland, aligned with shrub and trees
Fig. 14.7	TB13 (AH 21)	14+525	Ballaghcullia/Drummin – Owennaforesha River (AH21)
Fig. 14.8	TB14	15+225	Drummin/ Peak – mature tree boundary formerly associated with Bellanagare
Fig. 14.8	TB15	16+250	Peak/ Carrigeenacreeha, earthen bank and trees in the vicinity of CHC19
Fig. 14.8	TB16	16+750	Carrigeenacreeha/Mullenduff – treelined boundary demarcating former bogland to the east now planted.
Fig. 14.9	TB17	17+650	Mullenduff/ Mantua – Coniferous forestry
Fig. 14.9	TB18	17+750	Mantua/Kilvoy – Coniferous forestry
Fig. 14.10	TB19	19+250	Corry East/Kilvoy – Road and former Mantua demesne boundary of a raised bank and wodland
Fig. 14.10	TB20 (AH33)	19+600	Corry East/Cloonyeffer – substantial bank and ditch curving boundary
Fig. 14.11	TB21	20+700	Cloonyeffer/ Clogher More
Fig. 14.11	TB22	21+000	Clogher More/Raheen, historically shown as a laneway now a deep ditch/drain surrounds the conifer plantation
Fig. 14.11	TB23	21+300	Raheen/Cartronagor - drain
Fig. 14.12	TB24	22+175	Cartronagor/ Creeve tree lined road
Fig. 14.12	TB25	23+175	Creeve/Gortnacrannagh - a banked and fenced cut drain
Fig. 14.15	TB26 (AH64)	30+700	Gortnacrannagh/ Killeen West Owenur River (AH64)
Fig. 14.15	TB27	31+450	Killeen West/ Lurgan - drain

<b>Fig. No.</b>	<b>Reference</b>	<b>Chainage</b>	<b>Townlands</b>
Fig. 14.16	TB28	32+000	Lurgan/ Killeen East - mature field boundary
Fig. 14.16	TB29	33+200	Killeen East / Tullyloyd
Fig. 14.17	TB30	33+750	Tullyloyd/Tullycartron mature boundary former laneway and stone walling
Fig. 14.17	TB31	34+50	Tullcartron/Lugoy mature tree line boundary &, managed thorn bush boundary with stone walling
Fig. 14.17	TB32	35+000	Lugboy/Cregga roadway boundary with roadside stonewalls and trees/scrub
Fig. 14.18	TB33	36+700	Cregga/Cuilrevagh mature boundary and track to the east
Fig. 14.19	TB34	37+925	Cuilrevagh/Tullen mature boundary with farm access lane to south
Fig. 14.20	TB35	38+950	Tullen/Lettreen boundary removed, new grid like pattern of fields
Fig. 14.19	TB36	39+400	Lettreen/Doughloon tree lined boundary and the remains of a dry stone wall (c.1m in height)
Fig. 14.21	TB37	39+750	Doughloon/Corskeagh dry stone wall boundary interspersed with young trees
Fig. 14.20	TB38	40+250	Corskeagh/ Lavally intermittent remains of a dry stone wall and impassable dense hedging
Fig. 14.23	TB39	50+750	Lavally/Vesnoy
Fig. 14.23	TB40 (AH104)	51+150	Vesnoy/Cloonradoon, Strokestown River (AH104)
Fig. 14.24	TB41	52+225	Cloonradoon/Bumlin stone wall in various states of repair and mature trees
Fig. 14.24	TB42 (AH108)	52+850	Bumlin/Scramoge, Scramoge River (AH108)