

- Glass;
- Hazardous material; and
- Timber.
- Left over materials (e.g. timber off-cuts, broken concrete blocks / bricks) and any suitable construction materials shall be re-used on-site, where possible; (alternatively, the waste will be sorted for recycling, recovery or disposal);
- All waste materials will be stored in skips or other suitable receptacles in designated areas of the site;
- Any hazardous wastes generated (such as chemicals, solvents, glues, fuels, oils) will also be segregated and will be stored in appropriate receptacles (in suitably bunded areas, where required);
- A Resource Manager will be appointed by the main Contractor(s) to ensure effective management of waste during the excavation and construction works;
- All construction staff will be provided with training regarding the waste management procedures;
- All waste leaving site will be reused, recycled or recovered, where possible, to avoid material designated for disposal;
- All waste leaving the site will be transported by suitably permitted contractors and taken to suitably registered, permitted or licenced facilities; and
- All waste leaving the site will be recorded and copies of relevant documentation maintained.

Nearby sites requiring clean fill material will be contacted to investigate reuse opportunities for clean and inert material, if required. If any of the material is to be reused on another site as by-product (and not as a waste), this will be done in accordance with regulation 15 (By-products) (Previously Article 27 of the European Communities (Waste Directive) Regulations 2011) of S.I. No. 323/2020 - European Union (Waste Directive) Regulations 2020. EPA approval will be obtained prior to moving material as a by-product.

These mitigation measures will ensure that the waste arising from the construction phase of the proposed development is dealt with in compliance with the provisions of the Waste Management Act 1996, as amended, associated Regulations and the Litter Pollution Act 1997, and the EMR Waste Management Plan 2015 – 2021. It will also ensure optimum levels of waste reduction, reuse, recycling and recovery are achieved and will promote more sustainable consumption of resources.

14.5.2 OPERATIONAL PHASE

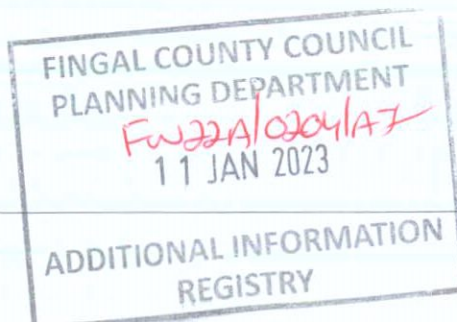
The following mitigation measures will be implemented during the operational phase of the proposed development:

All waste materials will be segregated into appropriate categories and will be temporarily stored in appropriate bins, skips or other suitable receptacles in a designated, easily accessible areas of the site.

- The Operator / Buildings Manager of the Site during the operational phase will be responsible for ensuring – allocating personnel and resources, as needed – the ongoing implementation of this sites current Operational Waste Strategy, ensuring a high level of recycling, reuse and recovery at the Site of the proposed Development.
- The Operator / Buildings Manager will regularly audits the onsite waste storage facilities and infrastructure, and maintain a full paper trail of waste documentation for all waste movements from the site.

The following mitigation measures will be implemented:

- The Operator will ensure on-site segregation of all waste materials into appropriate categories, including (but not limited to):
 - Organic waste;
 - Dry Mixed Recyclables;
 - Mixed Non-Recyclable Waste;
 - Glass;



- Waste electrical and electronic equipment (WEEE) including computers, printers and other ICT equipment;
- Waste Electrical and Electronic Equipment
- Hazardous waste; and
- Cleaning chemicals (paints, adhesives, resins, detergents, etc.).
- The Operator will ensure that all waste materials will be stored in colour coded bins or other suitable receptacles in designated, easily accessible locations. Bins will be clearly identified with the approved waste type to ensure there is no cross contamination of waste materials;
- The Operator will ensure that all waste collected from the Site of the proposed development will be reused, recycled or recovered, where possible, with the exception of those waste streams where appropriate facilities are currently not available; and
- The Operator will ensure that all waste leaving the Site will be transported by suitable permitted contractors and taken to suitably registered, permitted or licensed facilities.

These mitigation measures will ensure the waste arising from the proposed Project is dealt with in compliance with the provisions of the *Waste Management Act 1996*, as amended, associated Regulations, the *Litter Pollution Act 1997*, the *EMR Waste Management Plan (2015 - 2021)* and the FCC waste bye-laws. It will also ensure optimum levels of waste reduction, reuse, recycling and recovery are achieved.

14.6 RESIDUAL IMPACTS

The implementation of the mitigation measures outlined in Section 14.5 and in Appendix 14.1 will ensure that high rates of reuse, recovery and recycling are achieved at the Site of the proposed development during the construction and operational phases. It will also ensure that European, National and Regional legislative waste requirements with regard to waste are met and that associated targets for the management of waste are achieved.

14.6.1 CONSTRUCTION PHASE

A carefully planned approach to waste management as set out in Section 14.5.1 and adherence to the RWMP (which include mitigation) (Appendix 14) during the construction phase will ensure that the predicted effect on the environment will be **short-term, imperceptible and neutral**.

14.6.2 OPERATIONAL PHASE

During the operational phase, a structured approach to waste management as set out in Section 14.5.2 will promote resource efficiency and waste minimisation. When the mitigation measures are implemented and a high rate of reuse, recycling and recovery is achieved, the predicted impact of the operational phase on the environment will be **long-term, imperceptible and neutral**.

14.6.3 CONCLUSION

The full and proper implementation of the mitigation measures set out herein and, in the RWMP (Appendix 14), no likely significant negative effects are predicted to occur as a result of the construction or operational of the proposed development.

14.7 CUMULATIVE IMPACTS

The following considers the cumulative impacts of the proposed development and proposed and permitted and operating facilities in the surrounding area in relation to Material Assets – Waste Management. This considers the proposed development and other surrounding proposed and permitted developments considered in Chapter 4.

As has been identified in the receiving environment section all cumulative developments that are already built and in operation contribute to our characterisation of the baseline environment. As such any further environmental impacts that the proposed development may have in addition to these already constructed and operational cumulative developments has been assessed in the preceding sections of this chapter.

14.7.1 CONSTRUCTION PHASE

There are existing residential and commercial developments close by, along with the multiple permissions remaining in place in the area. In a worst-case scenario, multiple developments in the area could be developed concurrently or overlap in the construction phase.

Developments that potentially could overlap during the construction phase of note:

- FW22A/0108
- FW21A/0151
- F21A/0144
- FW19A/0015
- FW18A/0082

Due to the high number of waste contractors in the Kildare region as provided from the National Waste Collection Permit Office and the Environmental Protection Agency there would be sufficient contractors available to handle waste generated from a large number of these sites simultaneously, if required. Similar waste materials would be generated by all the developments.

Other developments in the area will be required to manage waste in compliance with national and local legislation, policies and plans which will mitigate against any potential cumulative effects associated with waste generation and waste management. As such the effect will be **short-term, imperceptible and neutral**.

14.7.2 OPERATIONAL PHASE

There are existing residential and commercial developments close by, along with the multiple permissions remaining in place. All of the current and potential developments will generate similar waste types during their operational phases. Authorised waste contractors will be required to collect waste materials segregated, at a minimum, into recyclables, organic waste and non-recyclables. An increased density of development in the area is likely improve the efficiencies of waste collections in the area.

Other developments in the area, and the indicative future Outline development, will be required to manage waste in compliance with national and local legislation, policies and plans which will minimise/mitigate any potential cumulative impacts associated with waste generation and waste management. As such the effect will be a **long-term, imperceptible and neutral**.

14.8 INTERACTIONS

This section discusses interactions between this Chapter and other specialist environmental topics considered in this EIAR.

14.8.1 LAND, SOILS, GEOLOGY & HYDROGEOLOGY

During the construction phase, excavated soil, stone, gravel and clay (c.64,500 m³) will be generated from the excavations required to facilitate site levelling and construction of new foundations. It is estimated that none of the excavated material will need to be removed off-site. If material has deemed unsuitable or is unable to be reused onsite it will be taken off-site, it will be taken for reuse or recovery, where practical, with disposal as a last resort. Adherence to the mitigation measures in Chapter 15 and

the requirements of the RWMP (Appendix 14.1), will ensure the effect is ***long-term, imperceptible*** and ***neutral***.

14.8.2 TRAFFIC & TRANSPORT

Local traffic and transportation will be impacted by the additional vehicle movements generated by removal of waste from the Site during the construction phase of the proposed Development. The increase in vehicle movements as a result of waste generated during the construction phase will be *temporary* in duration. There will be an increase in vehicle movements in the area during the operational phase. Traffic-related impacts during the construction phase and operational phase are addressed in Chapter 13 (Traffic and Transportation). Provided the mitigation measures are adhered to, the predicted effects are ***short to long-term, imperceptible*** and ***neutral***.

14.8.3 POPULATION & HUMAN HEALTH

The potential impacts on human beings are in relation to incorrect management of waste during construction phase, which could result in littering and presence of vermin – with associated potential for negative impacts on human health and residential amenity. A carefully planned approach to waste management and adherence to the project specific RWMP (Appendices 15.1), and the mitigation measures in Chapter 13, will ensure appropriate management of waste and avoid any negative impacts on the local population. The effects should be ***long-term, imperceptible and neutral***.

14.9 REFERENCES

- Dublin BusConnects Website: New Dublin Area Bus Network - BusConnects
- Design Manual for Urban Roads and Streets (DMURS), Department of Transport, Tourism and Sport
- Fingal Council Development Plan 2017 – 2023.
- Fingal City Council Draft Development Plan 2023 - 2029
- NRA Guidelines, Traffic and Transportation Assessment Guidelines (2014), National Roads Authority
- Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections, (May 2019), Transport Infrastructure Ireland Publications
- Project Appraisal Guidelines for National Roads Unit 16.1 – Expansion Factors for Short Period Traffic Counts, (2016), Transport Infrastructure Ireland Publications
- Sustainable Urban Housing: Design Standards for New Apartments, (2020), Department of Housing, Planning and Local Government
- Transport for Ireland (TFI): www.transportforireland.ie

15 ARCHAEOLOGY & CULTURAL HERITAGE

15.1 INTRODUCTION

This chapter presents the findings of an archaeological and cultural heritage impact assessment on the site of the proposed development located in Kilshane townland, Finglas, Co. Dublin (ITM 710777, 742666). The site is located c. 9km northwest of Dublin City Centre and is partially adjacent to and west of the M2 Motorway, south of Kilshane Rd., and to the north of Huntstown Quarry, close to the Huntstown Power Station (Figure 15.1). The site consists of five fields, with residential houses - Woodlands and Bungalow Farm occupying the northern part of the site.

The site lies within an area that was subject to a geophysical survey carried out under licence no. 22R0092^{xi}, and subsequently, the site was subject to test trenching under licence no. 22E0348^{xii}. The proposals for the site comprise the construction of a new Gas Turbine Power Generation Station, associated buildings, carparks, access roads, services and landscaping. A full project description is presented in Chapter 4 of this EIAR.

15.2 METHODOLOGY

This chapter's methodology is guided by a legislative framework that governs how aspects of archaeological, cultural and architectural heritage are protected. It has been prepared in compliance with all relevant EIAR legislation and guidance, including the recently published guidelines by the Environmental Protection Agency (EPA, 2022)^{xiii}.

15.2.1 DOCUMENTARY SOURCES

For the purposes of this report, archaeology, architectural & cultural heritage is considered to include the following elements:

- Sites listed in the Sites & Monuments Record (SMR)
- Record of Monuments & Places (RMP)
- National Monuments
- Archaeological sites listed on the National Monuments Service website
- Sites reported in the Excavations Database
- Any previously unrecorded sites
- A list of protected monuments
- A list of architectural heritage structures (NIAH)
- A list of protected structures (Fingal County Development Plan 2017-2023)

The following sources were consulted in order to identify and map archaeological sites within and adjacent to the proposed development site:

15.2.1.1 Sites and Monuments Record (SMR) and Record of Monuments & Places (RMP)^{xiv}

A primary cartographic source and base-line data for the assessment was the consultation of the Sites and Monuments Record (SMR) and Record of Monuments and Places (RMP) for County Dublin^{xv} (Figure 15.1). All known recorded archaeological monuments are indicated on 6-inch Ordnance Survey (OS) maps and are listed in this record^{xvi}. The SMR/RMP is not a complete record of all monuments as newly discovered sites may not appear in the list or accompanying maps. In conjunction with the consultation of the SMR and RMP, the electronic database of recorded monuments that may be accessed on their website^{xvii} was also consulted.

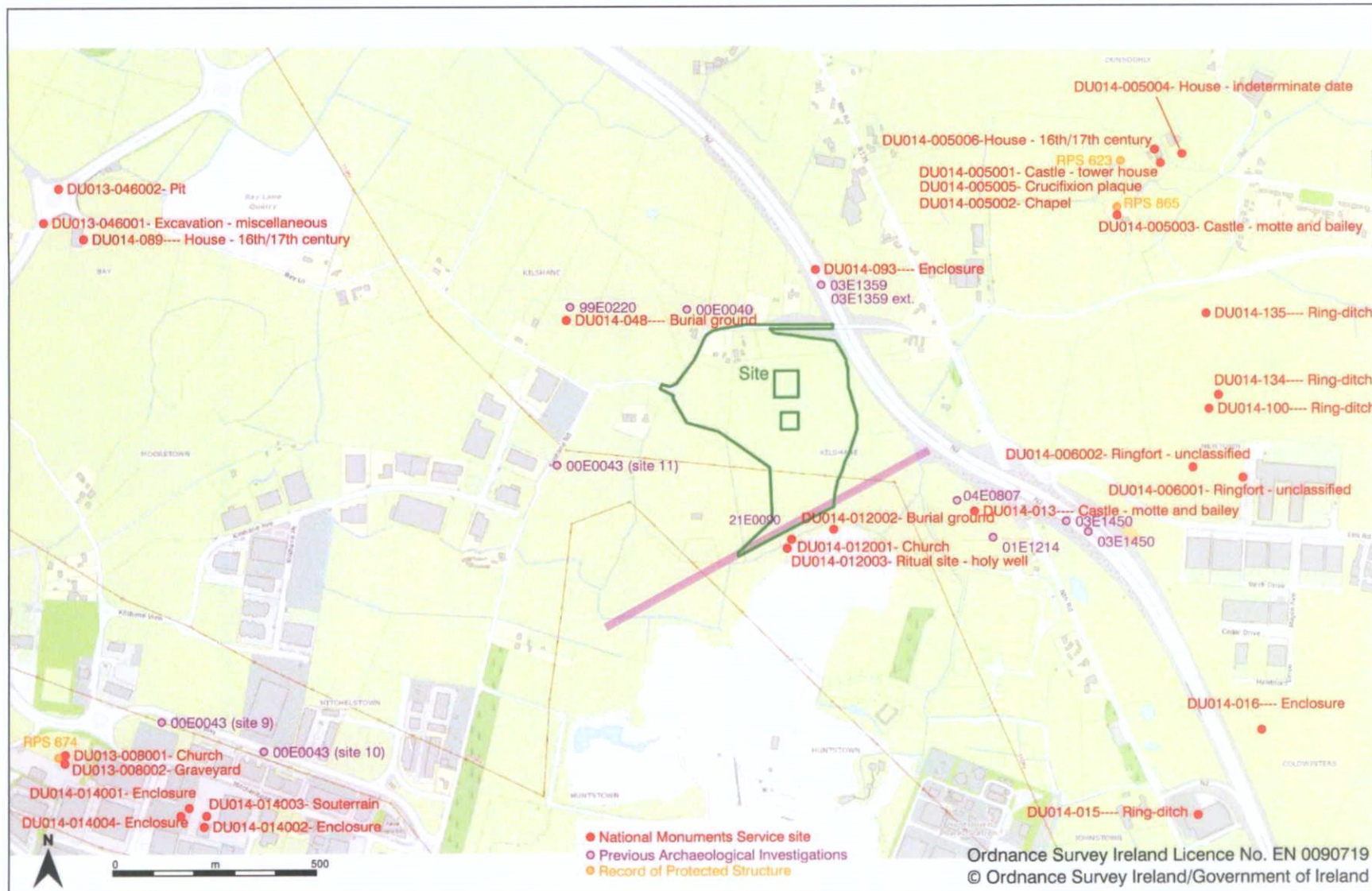


Figure 15.1 Location of site and nearby Recorded Monuments, Protected Structures and excavations

15.2.1.2 National Monuments^{xviii}

A List of Monuments covered by Preservation Orders and a List of National Monuments in the ownership/guardianship of the Minister for Housing, Local Government & Heritage. National Monuments in the ownership/guardianship of the Minister for Housing, Local Government & Heritage are listed on the Department's website^{xix}.

15.2.1.3 Excavations Database^{xx}

The excavations database is an annual account of all excavations carried out under license. The database includes excavations from 1970 to present. This database was consulted as part of the desktop research for this assessment to establish if any archaeological excavations had been carried out on or near to the proposed development area.

15.2.1.4 Topographical Files, National Museum of Ireland

The topographical files of the National Museum of Ireland contain information pertaining to archaeological finds (mainly artefactual) and excavations in numerous townlands throughout the country, which were reported to the museum from the 1920s. While many of these findspots are not recorded monuments, they can provide an indication of archaeological activity in a townland and consequently add to the archaeological potential of an area.

15.2.1.5 Cartographic Sources

A number of cartographic sources were also consulted as part of the desktop assessment, namely the Down Survey maps of the area (1656-8), the first edition 6-inch (1836) and the 25-inch edition (1906) OS maps and available aerial photography.

15.2.1.6 Tangible Cultural Heritage Area

Cultural heritage is a broad term encompassing aspects of archaeology as well as architecture. Both elements can be expressed in landscape and can relate to designated landscapes, historic places, monuments, settlements, including buildings and structures.

Tangible cultural heritage areas within the site were identified via examination of Ordnance Survey mapping and as a result of the site visit.

15.2.1.7 Protected Structures (RPS)^{xxi}

The Fingal County Development Plan 2017-2023^{xxii} was consulted. These contain a list of Architectural Conservation Areas and a Record of Protected Structures for the County. The latter lists cultural heritage sites, buildings of historic, architectural, -cultural, scientific and/or artistic interest. These are protected by the Local Government (Planning and Development) Act 1999 and the Planning and Development Act 2000 (Part IV Architectural Heritage).

15.2.1.8 Architectural Heritage (NIAH)^{xxiii}

The National Inventory of Architectural Heritage for County Dublin was consulted to determine if any architectural heritage sites were present within the proposed development site. It contains a record and evaluation of the post-1700 architectural heritage of Ireland, as an aid in the protection and conservation of the built heritage. It provides the basis for recommendations of the Minister for Housing, Local Government and Heritage to the planning authorities for the inclusion of particular structures in their Record of Protected Structures (RPS).

15.2.1.9 Additional Sources

The following additional sources were also consulted in order to inform the assessment of all aspects of the archaeological resource within and adjacent to the proposed development site and that the assessment is cognisant of all relevant policies and objectives.

- Report on Geophysical Survey at Kilshane, County Dublin (22R0092), Leigh, J.M. 2022.

- Geophysical Survey, in the form of magnetic gradiometry, is a non-intrusive method that is used in

Irish Archaeology. It is a method for rapidly mapping archaeological objects, structures, deposits and other features, including geological anomalies, that survive beneath the ground surface. The results are presented as a grey-scale map of anomalies detected that are interpreted by an experienced archaeologist. A licence to carry out work is required and is granted by the Department of Housing Local Government and Heritage following submission of a licence application for the site in question. (in this case Licence Number 22R0092 was granted to Joanna Leigh). Upon completion of the survey, a report detailing the results of the work carried out is submitted to the Department and the National Museum of Ireland.

- Report on Archaeological Test Excavation, Kilshane Energy, Co. Dublin (22E0348) Lynn C., Long C., 2022)

Archaeological test trenching is carried out in advance of construction and is undertaken across the footprint of development. Test trenches are excavated to facilitate the early identification of archaeological deposits and features. In this case, test trenching was carried out following a geophysical survey. In such instances, the trenches are placed to target anomalies detected in order to assess their significance, extent and depth. The results allow for an informed decision on how best to deal with any discovered archaeological finds or features prior to works on site commencing. A licence to carry out work is required and is granted by the Department of Housing Local Government and Heritage following submission of the licence application for the site in question (in this case, Licence Number 22E0348 was granted to Chris Lynn). Upon completion of the survey, a report detailing the results of the work carried out is submitted to the Department and the National Museum of Ireland.



Figure 15.2 Aerial view of site

15.2.2 SITE INSPECTION

A site inspection was conducted by Billy Sines of ACSU on Tuesday, the 9th of August, 2022. The site is located partially adjacent to and west of the M2 Motorway, south of Kilshane Rd. and to the north of Huntstown Quarry and Power Station, to the north of Dublin City. It consists of four distinct areas; south, northwest, northeast and north (Figure 15.2).

The south part of the site consists of a majority of a large field up until recently under crop, bounded by mature hedges and trees from north, south and west, with a wet ditch forming the west boundary of the field. Electric pylons run east to west within the central portion of the field (Figure 15.3). The water-mains infrastructure bound the site from the south. The access to the field is from the north. At the time of the visit, the area of the enclosure was being stripped under archaeological supervision (Figure 15.4).

The northeast area consists of a portion of an overgrown field with two farmer access lanes off Kilshane Rd.; one leading to the southern field and the other southeast one to fields adjacent to and east of the site (Figure 15.5).

The northwest area consists of a field with tall grasses, bounded by mature hedges and trees. Kilshane Rd. bounds the site from the west; adjacent and to the north is the area consisting of a modern house, farmyard and a number of ancillary structures (Figure 15.6).



Figure 15.3 South field, facing southwest. West boundary detail: bottom left along the boundary facing south; bottom right, wet ditch boundary facing north



Figure 15.4 South field, facing northwest. Showing the area of the enclosure being stripped under archaeological supervision



Figure 15.5 Northeast field, facing south. Detail showing farmer access roads, bottom left facing southeast, bottom right, facing south



Figure 15.6 Northwest field, facing northeast. Bottom left: view along the west boundary facing north, bottom right: view towards the house, farmyard and ancillary structures facing north

15.3 THE PROPOSED DEVELOPMENT

The proposed development area is located in the townland of Kilshane, and lies to the west of the M2 Motorway, south of Kilshane Rd., and to the north of Huntstown Quarry.

The site comprises greenfield and consists of a portion of an arable field and pasture land with modern dwellings and ancillary structures within the northern portion of the site.

It is now proposed to develop the site. The development will include the demolition of a detached residential dwelling and associated farm buildings, and the construction of a new Gas Turbine Power Generation Station, associated buildings, carparks, access roads, services and landscaping. The latter includes grading and mounding of land areas to create berms at the northern, western and southern site boundaries, with associated drainage channels, and the planting of native hedgerows, wildflowers and woodland understory. Details of the latter are provided in the revised landscape plan (December 2022).

As outlined in the Preliminary Construction Environmental Management Plan (December 2022), the proposed development will be constructed in two broad phases: (1) site clearance and demolition of existing structures and construction of infrastructure such as roads, drains and services, and (2) parallel construction of Kilshane Road realignment and construction of power plant facility. As detailed above, following completion of construction works, site reinstatement (landscaping) will also take place.

A full project description is presented in Chapter 4 of this EIAR.

15.4 THE RECEIVING ENVIRONMENT

Archaeology is considered here to include all recorded monuments listed in the Record of Monuments and Places (RMP) and in the Sites and Monuments Record (SMR), National Monuments (i.e. those in the ownership/guardianship of the state), previously unrecorded sites, sites reported in the Excavations Database if not included in the RMP and find spots or sites listed in the Topographical Files.

15.4.1 NATIONAL MONUMENTS

The term 'National Monument' is defined by the National Monuments Act (1930) as being 'a monument or the remains of a monument the preservation of which is a matter of national importance by reason of the historical, architectural, traditional, artistic, or archaeological interest attaching thereto'. The aforementioned Act states that the consent of the Minister is required for archaeological works at or near a national monument in the ownership or guardianship of the Minister or a local authority or to which a preservation order applies. The Minister is required to consult with the Director of the National Museum of Ireland in relation to such an application for consent.

No National Monuments are located on or within close proximity to the proposed development site. Dunsoghly Castle (DU014-005001-) is a National Monument No. 230 in state ownership that is located c. 0.9 kilometres (km) to the northeast.

15.4.2 RECORDED MONUMENTS

There are no monuments as listed in the Record of Monuments and Places nor in the Sites and Monuments Record located within the site boundary. There are three monuments located within a field to the south of the site; these consist of Church DU014-012001- with associated Burial ground DU014-012002- and Ritual site – holy well DU014-012003-, however these are not scheduled for inclusion in the next revision of the Record of Monuments and Places, are located within an area that was extensively quarried and a part of the Huntstown Quarry. Furthermore, the monuments are not visible on ground level and monitoring of the water-mains infrastructure of an area adjacent to and south of the current site (21E0090) did not identify any features of archaeological interest. The nearest monument to the site, scheduled for inclusion in the next revision of the Record of Monuments and Places is an enclosure DU014-093---- located c. 140m to the north. These are one of

the most common field monuments in Ireland. This type of monument is defined by an enclosing element such as a bank, wall, fosse, scarp. Some enclosures have no surface expression, the upstanding elements were usually removed in the past as a result of land reclamation/farming; some can be indicated on cartographical sources or manifest as a cropmark on aerial imagery, while others remain unknown; such as the monument located within the current site. These are identified as a result of archaeological investigations. The enclosures can be of various shapes and sizes and date from prehistory onwards. Enclosure DU014-093---- was identified during investigations (03E1359) in advance of the N2 Finglas-Ashbourne Road Scheme in 2004. The enclosure was dated to the Neolithic period, with later activity dating to Bronze Age and expressed in a series of deposits and features, including hearth and cremation pits. The enclosure consisted of an irregular ditch measuring between 1.9m to 3.8m was recorded surrounding an egg shaped area measuring 38.5m by 27.5m.

The following is a list of 18 monuments (Table 15.1) located within a 1km radius of the site (Figure 15.1). The entry below is derived from the National Monuments Service Archaeological Survey Database

Table 15.1 Recorded monuments within 1 km of the centre of the development site

RMP/SMR	Classification	Townland	ITM E	ITM N
DU014-001----	Castle - motte	KILSHANE	710410	743822
DU014-005001-	Castle - tower house	DUNSOGHLY	711764	743185
DU014-005002-	Chapel	DUNSOGHLY	711765	743172
DU014-005003-	Castle - motte and bailey	DUNSOGHLY	711656	743051
DU014-005004-	House - indeterminate date	DUNSOGHLY	711806	743202
DU014-005005-	Crucifixion plaque	DUNSOGHLY	711762	743175
DU014-005006-	House - 16th/17th century	DUNSOGHLY	711748	743211
DU014-006001-	Ringfort - unclassified	NEWTOWN (Coolock By., Finglas ED)	711962	742457
DU014-006002-	Ringfort - unclassified	NEWTOWN (Coolock By., Finglas ED)	711827	742447
DU014-012001-	Church	KILSHANE	710876	742260
DU014-012002-	Burial ground	KILSHANE	710975	742277
DU014-012003-	Ritual site - holy well	KILSHANE	710869	742258
DU014-013----	Castle - motte and bailey	NEWTOWN (Coolock By., Finglas ED)	711319	742325
DU014-048----	Burial ground	KILSHANE	710300	742841
DU014-093----	Enclosure	KILSHANE	710927	742924
DU014-100----	Ring-ditch	NEWTOWN (Coolock By., Finglas ED)	711913	742603
DU014-134----	Ring-ditch	NEWTOWN (Coolock By., Finglas ED)	711929	742619
DU014-135----	Ring-ditch	NEWTOWN (Coolock By., Finglas ED)	711916	742790

15.4.3 PREVIOUSLY UNRECORDED SITES

An irregular-shaped enclosure with an outer ditch delimiting an area measuring 88m by 66m and a number of responses suggesting habitation activity were identified during the geophysical survey (22R0092) of the site. The enclosure had no surface expression and was not visible on any examined cartographic or aerial sources. Subsequent test trenching (22E0348) confirmed the presence of an enclosure complex with associated internal and external features, provisionally dated to the Medieval Period. In addition, a pit with charcoal and pyrolithic material was identified during test trenching. These features are currently being preserved by record through full archaeological excavation under licence from the National Monuments Service.

15.4.4 PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS

The site was subject to archaeological assessments on two occasions in the first half of 2022. One of the fields within the site was subject to a geophysical survey under licence no. 22R0092^{xxiv} and was a part of a bigger area subject to survey. This identified the presence of archaeological remains on site in the form of an enclosure and other archaeological activity (see 15.4.4.1 for details). Subsequent, test trenching of the current site was undertaken under licence no. 22E0348^{xxv}, confirming the presence of the enclosure and additional features of archaeological significance (see 15.4.4.2 for details).

Furthermore, the area adjacent to and south of the site was subject to investigations in 2021. This was in relation to an upgrading of the water-mains infrastructure between Ballycoolen and Kingstown townlands (21E0090). No features were exposed during the monitoring.

The area is rich in previously unknown monuments that were identified as a result of archaeological investigations. These include enclosure DU014-093 (03E1359); unenclosed cemetery, now Burial Ground DU014-048---(99E0220); investigations of Castle - motte and bailey DU014-013---- that identified additional features (01E1214, 04E0807); excavation of a burnt spread (03E1450), and a number of enclosures identified via geophysical survey 21R0134 and subsequently subject to investigations (21E0398, 21E0580, and 22E0045).

The details of these investigations (Table 15.2; see Figure 15.1), where available, are derived from the Summary Accounts of Archaeological Excavations in Ireland (www.excavations.ie).

Table 15.2 Previous excavations carried out

Excavations.ie reference	Licence No.	Site Type	Investigation Type
2021:237 - Ballycoolen/Cloghran/Grange/Huntstown/Kilshane/Newtown/St. Margaret's/Millhead/Kingstown, Dublin			
21E0090	Small pit	Monitoring	
2004:0612 - KILSHANE, Dublin	03E1359	Neolithic segmented enclosure, Early Bronze Age activity	Excavation
1999:253 - KILSHANE, Dublin	99E0220	Unenclosed cemetery	Monitoring
2001:456 - Newtown, Dublin			
2002:0636 - Newtown, Dublin	01E1214	Site of motte and bailey	Test trenching

No features were exposed during the monitoring in 2021 (21E0090) of an area adjacent to and south of the site; however, a single sherd of medieval Leinster Cooking Ware was recovered from topsoil.

A Prehistoric enclosure DU014-093---- located c. 140m to the north of the site, was identified and partially excavated (03E1359) in advance of the N2 road scheme. The site was identified as a neolithic segmented enclosure and included cremation pits and a single crouched inhumation in the centre of the enclosure as well as Early Bronze Age activity.

An unenclosed cemetery, now Burial Ground DU014-048, was identified during gas pipeline monitoring in 1988. The site is located c. 360m northwest of the current site. The area to be impacted upon by the pipeline was excavated, revealing the remains of 123 individuals. Subsequent test trenching was carried out under licence 99E0220, suggesting the burials did not extend eastwards.

Investigations of the Castle - motte and bailey DU014-013---- located c. 325m to the southeast of the site included archaeological monitoring of engineering test pits and boreholes (01E1214). Subsequently, the site was subject to a geophysical survey, and test trenching (04E0807) was carried out in order to define an appropriate buffer zone. Archaeological deposits associated with enclosing

elements of the motte were identified (ditches C3, C4 and C5) as well as a burnt mound (C15). Preservation in situ was recommended.

A Burnt spread was excavated as a part of the N2 road scheme, c. 0.5km to the east of the site. Two areas were excavated, a spread measuring 3.5m by 10m, two pits and a sub-circular trough were preserved by record (excavated).

A large area measuring 12 hectares located c. 430m to the west of the site was subject to a geophysical survey (21R0134); indications of several enclosures were recorded. The area was subject to subsequent investigations (21E0398, 21E0580, and 22E0045), confirming the presence of features of archaeological significance. Test trenching under licence 21E0398 confirmed the presence of a rectilinear enclosure (Site A), a D shaped enclosure, a sub-circular enclosure (Site B), a second larger rectilinear enclosure (Site C), two additional sites; a ditch with charcoal-rich fill, burnt pit and former field system, a linear ditch, two possible curvilinear ditches, a pit and a post-hole (Site E). Sites C, D and E were excavated under licence 21E0580. The enclosure in Site C measured 44m by 37m, with a ditch ranging from 2.5 to 4m in width and 0.8 to 2.4m in depth. The entrance was recorded at the southern side. The ditch at its deepest was just to the west of the entrance; it was suggested that this area also functioned as well. Pits, gullies and disturbed areas of burning were also preserved by record. Finds included a fragment of lignite bracelet, a fragment of a polished stone axe and several flint artefacts. The site was provisionally dated to the Early Medieval Period, and is awaiting a radiocarbon date. Site D comprised of two pits, a shallow ditch and a large and deep pit. The pit was interpreted as a waterhole and measured 6.05 by 7.62m and was 1.68m deep. Both smaller pits contained charred cereal, one interpreted as a cereal drying kiln. These were provisionally dated to the later Iron Age/Early Medieval Period. Site E was relatively modern in date and consisted of linear ditches, gullies and drains forming part of a field system. The remaining sites are being excavated under a separate licence (22E0045).

15.4.4.1 Geophysical Survey (22R0092)

The geophysical survey of the present site was conducted April/May 2022 by Joanna Leigh of J.M. Leigh Surveys Ltd. under licence 22R0092^{xxvi} issued by the Department of Housing, Local Government and Heritage. A detailed gradiometer survey was undertaken of an area measuring c. 18 hectares. One of the fields subject to survey is a part of the current site while the northeast and northwest fields were found not to be suitable for the survey. The survey was undertaken using a Bartington GRAD 601-2 instrument.

Anomalies recorded within the site consist of Anomalies 1-11 (Figure 15.7). See the extract below from the survey report:

Area A

5.1 *In the north there are a series of responses and trends (1) which form an irregular oval pattern. These are indicative of an archaeological enclosure. The probable enclosure measures 86m x 66m and comprises of numerous linear responses, indicative of activity. A curvilinear response (2) within the enclosure may represent an internal sub-circular enclosure, measuring c. 17m in diameter.*

5.2 *To the east of the enclosure (1) there is an area of increased response (3) which comprises of isolated responses. Although it is possible that this results from more recent ground disturbance, an archaeological interpretation must be considered. It is possible that a spread of burnt material and isolated pit-type features is represented here.*

5.3 *Linear trends and responses (4) appear to extend from the enclosure (1). These may represent associated ditched features. Linear trends (5) appear to extend from the enclosure to the east and lead to a series of responses (6) of interest.*

5.4 *Along the eastern extent of the area surveyed, a parallel series of responses (6) are indicative of ditched features. It is likely that these continue to the east, and perhaps represent the western extent of a double ditched enclosure feature. This is speculative but must be considered.*

5.5 *The responses (6) appear to continue to the south as faint linear trends (7). This may suggest some plough damage may have occurred.*

5.6 A linear response (8) extends north to south, through the southern half of the survey area. The association of this with the enclosure is unclear, and it may represent a separate phase of activity.

5.7 Further linear responses and trends (9) appear to be parallel and perpendicular with (8), suggesting they may be associated. The responses (9) are somewhat overshadowed by magnetic disturbance from an electricity pylon, and interpretation is hindered. However, the responses form clear rectilinear patterns and are indicative of archaeological ditched features. These may represent former field divisions of archaeological interest.

5.8 Distinct small areas of increased response (10) are recorded in the south of the survey area. Interpretation is tentative as these may result from more recent ground disturbance. However, it is possible that broad pit-type features are represented here.

5.9 Numerous isolated responses are located throughout the area. Although some of these may represent more deeply buried ferrous debris, they may equally represent archaeological isolated pit-type features. The responses (11) are considered to be of clear archaeological potential.

15.4.4.2 Test Trenching (22E0348)

Following the geophysical survey (22R0092), the site was subject to a programme of archaeological testing (22E0348^{xxvii}). The area tested included the northwest and northeast field that were not subject to the geophysical survey. Test trenching confirmed the presence of the enclosure complex with associated features and additional deposits (Figure 15.7, Figure 15.9). Preservation by record of features identified and monitoring was recommended and agreed upon with the Department of Housing, Local Government & Heritage; the excavation is ongoing. Monitoring will be carried out in due course.

See the extract below detailing the findings taken from the testing report:

A total of 33 test trenches were excavated across the site. The majority of trenches, trenches 1-14, 22-24 and 26-33, did not contain archaeology. Where these trenches overlay potential features identified in the geophysical survey they were revealed to be modern drains, plough furrows, farming "tramlines" or were simply not present. The remaining Trenches 15-21 produced features which corresponded with the enclosure complex recorded in the Geophysical Survey. The exception was trench 25 which contained a shallow pit [3] filled with charcoal and pyroclitic material which does not correspond to any geophysical anomaly. A probable Palaeochannel was present in trenches 15, 17, 22 and 23. The enclosure ditch [7] was cut into this geological feature. At the eastern extent of trench 17 a curvilinear gully [58], which lay outside the enclosure, also does not correspond to any geophysical anomaly.

The enclosure ditch [7] was uncovered in trenches 15-21. Four box sections were put into the ditch to confirm its north, south, east, and west extent. These sections revealed that the ditch generally had an inconsistent width of 1.22m (box 1 trench 16) to 2.5m (box 4 trench 20) and depth of 0.25m (box 1 trench 16) to 0.9m (box 4 trench 20). The ditch seems to be wider and correspondingly deeper at its southern and eastern extent. However, each feature generally had consistent fills, a top fill of a compact grey, brown sandy clay [8] and a basal fill of a compact grey sticky clay [28]. Box 3 in trench 17 had a different top fill [44] which was a compact dark grey clay with frequent charcoal inclusions. The middle fill varied in each section. It was not present in box 1 trench 16, in box 2 trench 15 the middle fill was [77], a grey clay with frequent stones representing a wall, in trench 17 box 3 the middle fill was [45] a light grey silty clay with frequent charcoal inclusions and in box 4 trench 20 the middle fill was [27] a mottled grey, brown clay. All four of the sections reveal that the base of the ditch contains a channel or groove, flanked either side by a row of postholes. The ditch may have represented the foundations of a wall or stockade, which would explain the variable width and depth of the feature and the large number of postholes contained within it. Animal bone inclusions were uncovered from all box sections through the feature.

The interior of the enclosure contained a number of features. Trench 15 contained an oval pit [93] with a width of 0.85m and a depth of 0.23m, extending beyond the limits of excavation to the south. Its fill [94] was a dark brown clay with occasional flat stone inclusions. Bone was recovered from the

feature. Feature [78], also in trench 15, was a linear sub-oval feature that extends north-east beyond the limits of the trench. It had a width of 0.66m and a depth of 0.31m. Its top fill [79] was a light orange, brown clay, its basal fill [80] was a lens of charcoal and burnt clay. This feature may have been a kiln. Trench 17 contained a curvilinear slot trench [29], probably representing a structure. It had a width of 0.64m and a depth of 0.35m. It had an internal diameter of 5m. It contained two fills, the top fill [30] was a brown sticky clay with occasional charcoal inclusions. The basal fill [31] was a loose grey silty clay. Two postholes had been cut into the base of the slot trench, [32] and [34]. Both had a diameter and depth of 0.1m. No features were identified within the structure, but animal bone was recovered from the surface of the interior. 1.1m to the west of [29] was a posthole or shallow pit [36]. It had a diameter of 0.23m and a depth of 0.17m and a single fill [37] which was a brown sandy clay. A second curvilinear slot trench, [72] was then present within the trench 3.35m to the west of [36]. It had a width of 0.12m and a depth of 0.1m and had an internal diameter of 5.6m. Its single fill [73] was a brown, grey clay with occasional stone inclusions. The interior of [72] contained a number of small shallow pits [66], [68], [70] and postholes [38], [40] and [42]. All six features had a similar fill of a brown, grey clay. A potential metallised surface was present in both trenches 15 and 17. In trench 15 it had a width of 13m and in trench 17 16m.

Outside the enclosure a further 4 features were identified. In trench 15 a shallow pit [74] was uncovered at its north-western end which may have formed part of anomaly 14 from the geophysical report. The pit extends beyond the trench to the north and has a width of 1.55m and a depth of 0.23m. Its top fill [76] was a brown clay, its basal fill [75] was a dark grey charcoal rich clay. Animal bone was recovered from [75]. Trench 17 a curvilinear slot trench [58] is present 10.5m to the southeast of the enclosure ditch [7]. It extends to the northeast for 5m beyond the limit of excavation. It had a width of 0.5m and a depth of 0.2m. It contained a single fill [59] which was a brown sandy clay. At the excavated terminus of [58] three stakeholes were uncovered, [60], [62] and [64]. [58] may represent a windbreak for activity beyond trench 17 to the north. In trenches 19 and 20 a linear gully [5] extending northwest to southeast through both trenches was uncovered. It did not appear in trenches 18 or 20. A box section was inserted into it in trench 20. This showed the gully had a width of 0.62m and a depth of 0.21m. It contained a single fill [6] which was a grey, brown sandy clay with frequent charcoal inclusions. Animal bone was uncovered from this feature. Feature [3] was uncovered in trench 25, 4.4m from the north end of the trench. It was sub-oval in shape with a length of 1.5m, a width of 0.7m and a depth of 0.08m. It contained a single fill [4] which was a compact dark grey clay with frequent charcoal inclusions and small burnt stones.

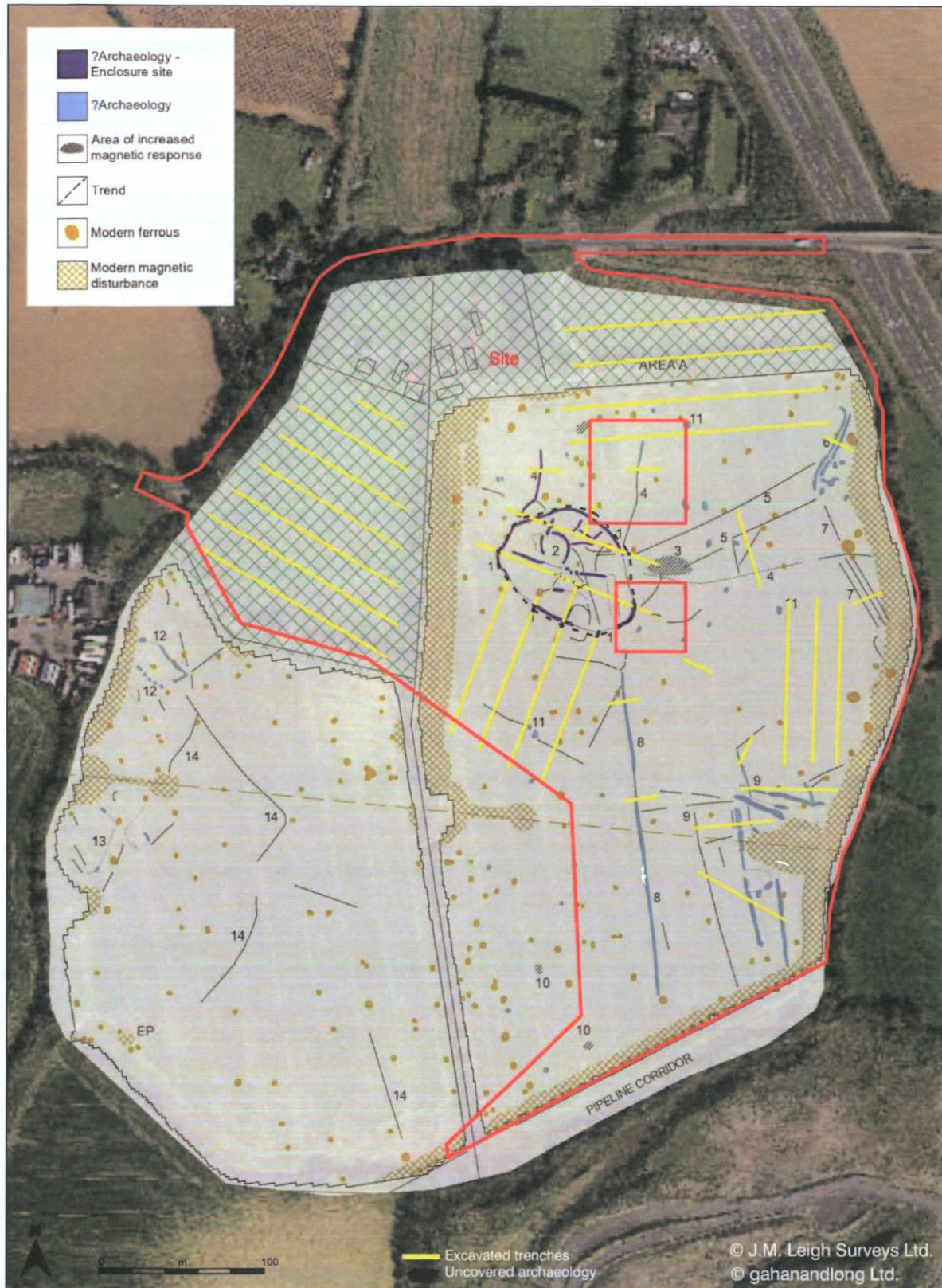


Figure 15.7 Showing interpretation of geophysical survey results (22R0092) and excavated test trenches (22E0348)



Figure 15.8 Enclosure ditch C7; to the left, southeast facing section in Trench 20; to the right, southwest facing section in Trench 15



Figure 15.9 Sub-oval pit C3 in Trench 25

15.4.5 SITES REPORTED IN THE EXCAVATIONS DATABASE

Several sites were reported in the excavations database, including enclosure DU014-093 (03E1359); cemetery, now Burial Ground DU014-048----(99E0220); investigations of Castle - motte and bailey DU014-013---- that identified additional features (01E1214, 04E0807); burnt spread (03E1450), and a number of enclosures identified via geophysical survey 21R0134 and subsequently subject to investigations (21E0398, 21E0580, and 22E0045).

15.4.6 TOPOGRAPHICAL FILES

The topographical files of the National Museum of Ireland were consulted. No find spots are recorded in the files for Kilshane townland.

15.4.7 PLACENAME EVIDENCE

The database of Irish placenames, www.logainm.ie was consulted for the meaning of the placenames within and surrounding the proposed development site.

The site is fully located within the townland of Kilshane. Kilshane townland is located in the parish of Finglas in the barony of Castleknock. The townland name *Cill Sheáin* means 'John's Church'. The townland is referred to as 'Kilshaane' in 1326 in a Calendar of Archbishop Alen's Register (ed. McNeill,

1950). The townlands with a name containing Cill suggest a church located within the townland boundaries. To the south of the site, on the 1836 map, an area depicted as '*Old Burying Ground*' and *Church Well*, representing monuments recorded as church DU014-012001-; Burial ground DU014-012002- and Ritual site - holy well DU014-012003-. At present, no surface remains of the ecclesiastical complex are present, as the site is located within the Hunstown Quarry.

15.4.8 RECORD OF PROTECTED STRUCTURES

The Fingal County Development Plan 2017-2023 was consulted to determine if any protected structures were present within the proposed development site. No such structures were listed within the site boundary.

Three such sites are located in the environs of the site, including:

- Motte and Bailey (RPS 865; DU014-005003-); Dunsoghly, St. Margaret's, Co. Dublin' Archaeological site of man-made mound, forming part of an Anglo-Norman defended residence known as a motte and bailey castle (excludes modern house and outbuildings on the motte).
- Dunsoghly Castle (RPS No. 623; DU014-005001-; National Monument No. 230 (State Ownership)); Dunsoghly, St. Margaret's, Co. Dublin' Intact four-storey 15th century square Tower House with large square corner towers. It has retained a substantial amount of its original roof timbers. Adjoining the tower house is a small single-storey chapel with inscribed stone with 1573 date.
- Cloghran Church (in ruins) & Graveyard (RPS 674, DU013-008002-; DU013-008001-); Cloghran Church (in ruins) Blanchardstown Corporate Park 2, Cloghran, Blanchardstown, Dublin 15. Remains of footings of medieval church in ruins within square graveyard that is now sited on the edge of a Business Park.

15.4.9 NATIONAL INVENTORY OF ARCHITECTURAL HERITAGE SITES

In addition, the database of the National Inventory of Architectural Heritage was also consulted. The nearest site listed is Gate Lodge (NIAH Reg. No. 11347003), located c. 2.44km to the northwest. It is associated with Hollywoodrath House (NIAH Reg. No. 11347001), located c. 2.42km to the northwest.

15.4.10 CARTOGRAPHICAL SOURCES & AERIAL IMAGERY

Cartographical sources and aerial imagery were examined.

Potential archaeological or cultural heritage features are marked on maps and provide a useful resource in identifying sites particularly if they no longer have any above-ground remains.

A review of the available aerial photography for the area was also undertaken as part of this assessment. Unrecorded archaeological sites can often be identified in aerial photographs as cropmarks or differential growth in a field.

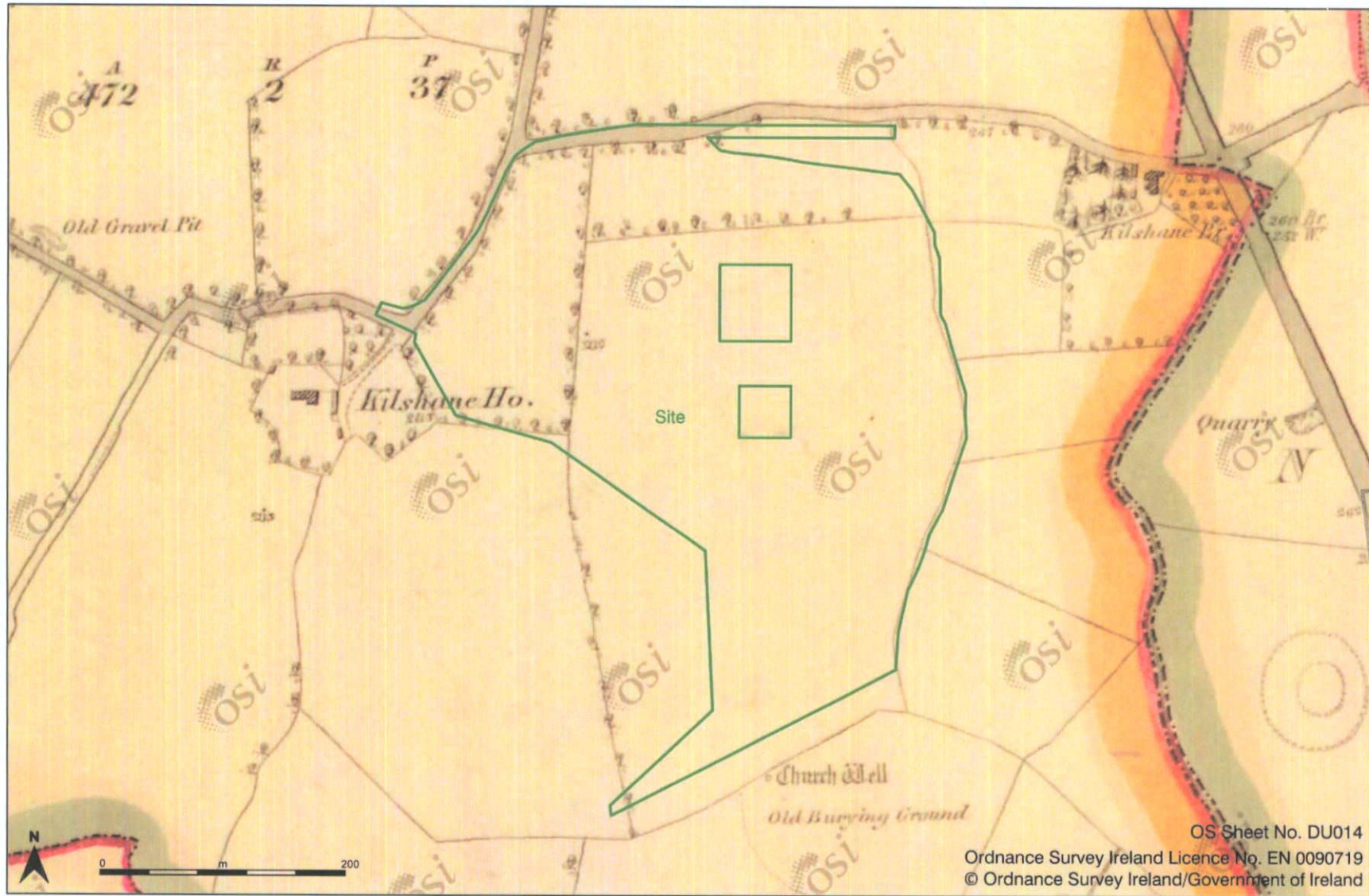
15.4.10.1 Cartographical Sources

A review of available historic mapping for the area was carried out to include the 6-inch 1836 (Figure 15.11) and the 25-inch 1906 (Figure 15.12) and Cassini 6-inch 1935-38 (Figure 15.13) editions of the Ordnance Survey maps, in addition to *An actual survey of the county of Dublin* of 1760 by John Rocque - southwest sheet (Figure 15.10).

The 1760 map shows the site as pasture land consisting of two fields to the south of the road that runs within the footprint of the current Kilshane Rd. Two settlements are depicted to the south of the site; HuntsTown and Newtown. There is no indication of the ecclesiastical enclosure. The Ordnance Survey maps of 1836 and 1906 do not depict any buildings within the site. The 1836 map shows the site within three fields, located adjacent and to the south of the east to west aligned road in the southeast portion of the townland. The boundaries are depicted as lined with trees, and to the west stands *Kilshane House*.



Figure 15.10 Extract from an actual survey of the county of Dublin by John Rocque - southwest sheet (1760), showing approximate location of site



ADDITIONAL INFORMATION
REGISTRY
FINGAL COUNTY COUNCIL
PLANNING DEPARTMENT
EUSA010204/1A1
11 JAN 2023

Figure 15.11 Extract from first Edition OS 6 inch map (1836), showing location of site

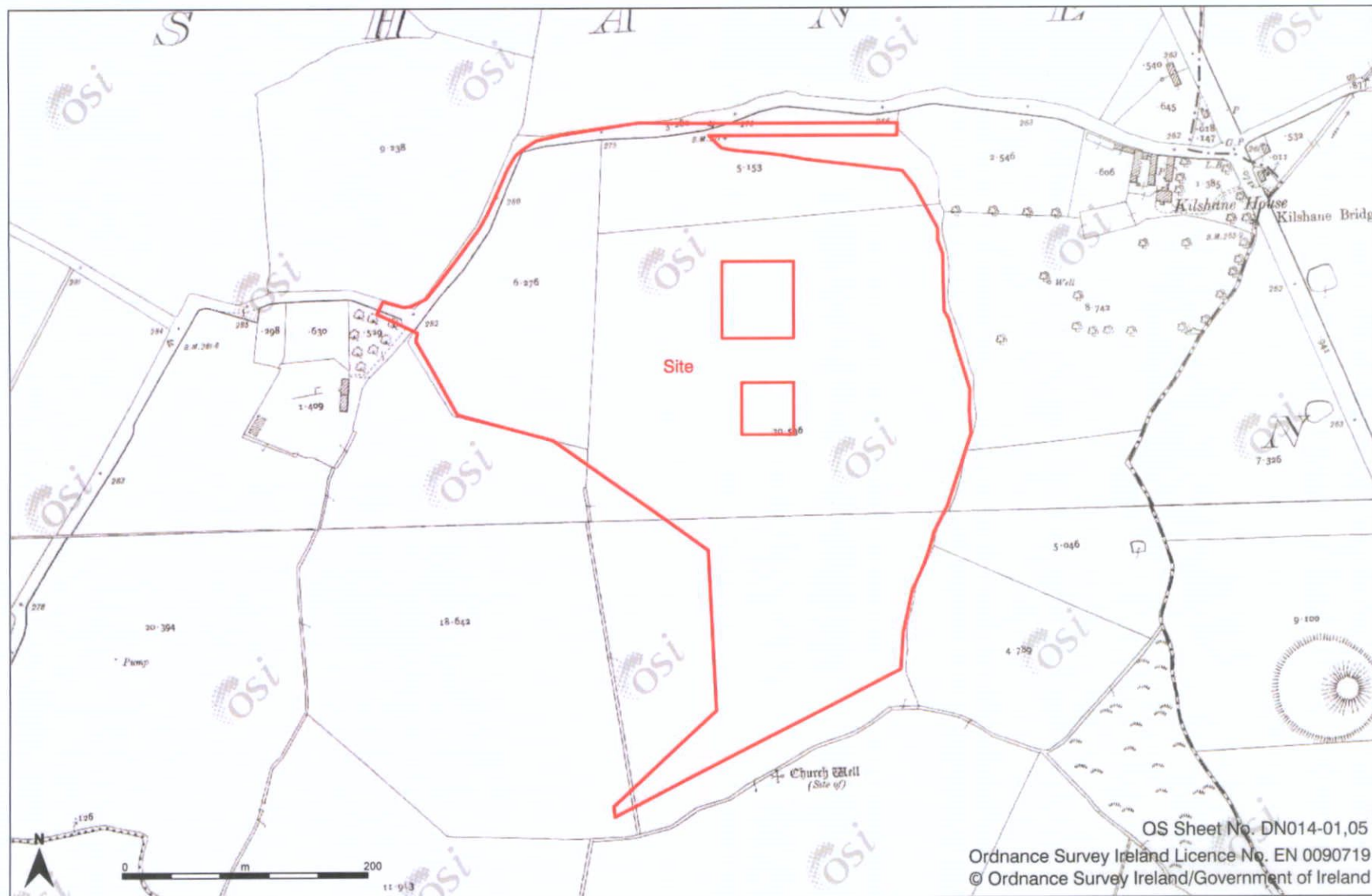


Figure 15.12 Extract from 25-inch map (1906), showing location of site

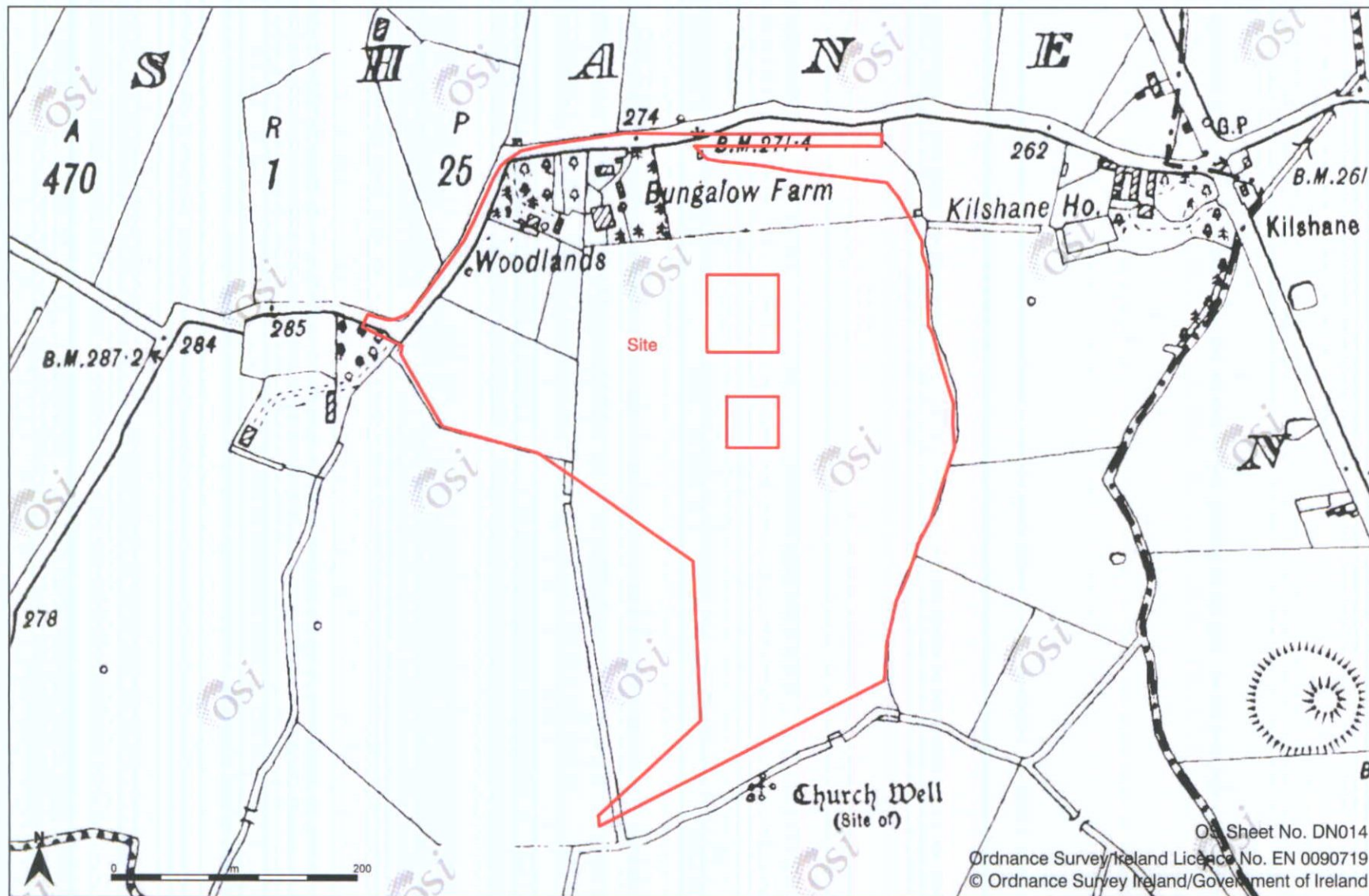


Figure 15.13 Extract from Cassini edition Ordnance Survey (OS) 6-inch map (1935-38), showing location of site



Figure 15.14 LiDAR (multi hillshading), showing location of site

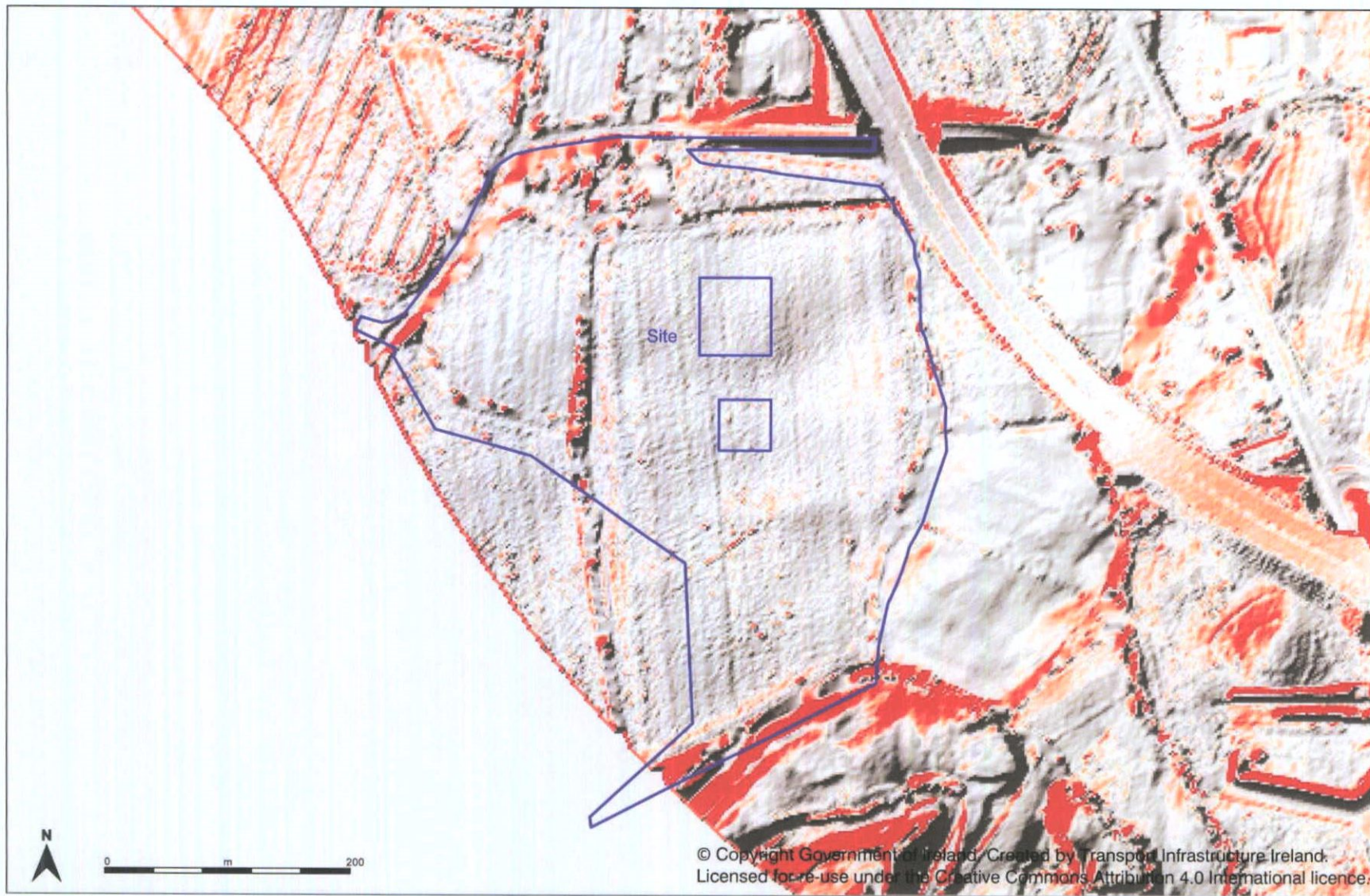


Figure 15.15 LiDAR (Principal component analysis of hillshading), showing location of site



Figure 15.16 Details of proposed development site showing the location of the enclosure

An area to the south of the site is labelled as *Church Field*, with *Church Well*, and *Old Burying Ground*. To the southeast, a monument representing a Moat is shown and labelled in the adjacent townland of Newtown. In the townland of Huntstown, further south, Huntstown House is shown and labelled.

There were no major changes to the field system within the site by the time of the 1906 map; a minor portion of the west boundary of the southern field is now shown as a wet ditch. It appears that Kilshane House was moved to the east and is depicted on a plot adjacent to the junction with a turnpike road connecting Finglas to Ashbourne. The area of the former Kilshane House is now shown with only two rectangular buildings and what appears to be the foundations of the former house. This suggests the house was perhaps destroyed and moved to the east of the site.

The Cassini map of 1935-38 shows the site divided into seven fields, with the northwest portion occupied by buildings labelled as Woodlands and Bungalow Farm with associated accesses and ancillary structures. Furthermore, what appears to be wells, modern in origin, are depicted within the northeast and northwest field.

15.4.10.2 Aerial Imagery

Aerial photographs dating between 1995 and 2013 from the Ordnance Survey of Ireland and in addition, Google Earth imagery dating between 2008 and 2022 were also reviewed.

The site has remained unchanged since the 1935-38 map with the field boundary layout as on the 1836 map. The area to the south of the site is shown as a large, well-established quarry by 1995. A minor north portion of the northwest field appears to be used as a paddock or perhaps vegetable garden. By 2008 the M2 motorway to Ashbourne, located to the east of the site, and road improvements associated with Kilshane Rd. adjacent and to the north of the site were complete. The northern field is occupied by a house and ancillary structures associated with the farmyard.

In 2021 earthworks from a linear scheme can be seen running roughly northeast-southwest, outside and along the south boundary of the field. These were associated with the upgrading of the water mains, were archaeologically monitored, and no features were identified. Furthermore, LiDAR imagery, including multihillshade (Figure 15.14) and PCA (Figure 15.15), were examined. The anomalies visible appear ephemeral, and as the site was since subject to archaeological assessment, these are not of archaeological significance.

15.4.11 TANGIBLE CULTURAL HERITAGE ASSETS

Ordnance Survey maps of the area were examined, and a walk-over survey was carried out in order to identify any features of cultural heritage and any features of interest. A Tangible Cultural Heritage Area might include boundaries/field divisions, any structures, buildings, features of archaeological, cultural or heritage significance.

It appears that the north to south aligned boundary between the south and northwest field was depicted since the 1760 map. However, this portion of the boundary appears to be already compromised during drainage works and is shown as a wet ditch by the time of the 1907 map.

15.5 PREDICTED IMPACTS

15.5.1 DIRECT IMPACTS ON RECORDED ARCHAEOLOGICAL MONUMENTS

There will be no effects, indirect or otherwise, on recorded archaeological monuments as no recorded monuments are located within the proposed development site. There are three monuments located within a field to the south of the site; these consist of Church DU014-012001- with associated Burial ground DU014-012002- and Ritual site – holy well DU014-012003-. These are located within an area that was extensively quarried and a part of the Huntstown Quarry, not visible on ground level and monitoring of the water-mains (21E0090) did not identify any features of archaeological interest. Furthermore, these are not scheduled for inclusion in the next revision of the Record of Monuments

and Places. The nearest monument to the site scheduled for inclusion in the next revision of the Record of Monuments and Places for County Dublin is enclosure DU014-093---- located c. 140m to the north. The site was identified in advance of the N2 Finglas-Ashbourne Road Scheme in 2004, and was subject to investigations (03E1359).

15.5.2 EFFECTS ON KNOWN AND POTENTIAL ARCHAEOLOGICAL FEATURES

The proposed development will have a negative, permanent, profound effect on known archaeological features identified as a result of geophysical survey and test trenching consisting of an enclosure complex and associated features and pit. A potential effect on the archaeological resource that may be located between excavated test trenches lies in the uncovering of sub-surface archaeological features during groundworks associated with the construction of the proposed buildings, associated infrastructure and landscaping within the site. Should any additional, at present unknown archaeological features be present within the site, the proposed development will have a negative permanent and profound effect on such remains.

15.5.3 EFFECTS ON PROTECTED STRUCTURES & ARCHITECTURAL HERITAGE SITES

There will be no effects on architectural heritage as no Protected Structures or sites listed within the National Inventory of Architectural Heritage (NIAH) are located within the proposed development site. The upstanding buildings proposed for demolition are modern and have no architectural or cultural heritage merit.

15.5.4 INDIRECT EFFECTS

Indirect effects are those which the proposed development may have a negative (or positive) effect on the wider archaeological landscape or surrounding architectural heritage. Indirect effects may include a visual impact on the surrounding archaeological landscape.

The introduction of the proposed development to the area will not result in a change to the general setting of any of the monuments or protected structures, as none are present within or in the immediate environs of the site. Furthermore, the site is well screened by mature hedges and trees that will be retained. The proposed development will therefore have no indirect effects either temporary or permanent, on the wider cultural heritage of the area.

15.6 MITIGATION MEASURES

The predicted effect on known and unknown archaeological monuments and features is regarded as negative, permanent, and profound. The predicted effects on recorded archaeological and architectural heritage are regarded as being none. No effects on the recorded archaeological resource (RMPs) were identified, and no indirect or visual effects on the nearest recorded monument outside the proposed development site boundary were noted.

The following mitigation measures will be carried out subject to the approval of the National Monuments Service (NMS) of the Department of Housing, Local Government and Heritage (DHLGH), and further mitigation may be sought by the NMS.

- A previously unknown monument; an enclosure and features of archaeological significance were exposed as a result of pre-construction assessments (22R0092²⁸; 22E0348²⁹) within the site. Following consultation with the National Monuments Service it was decided that the features identified and any associated features exposed will be preserved by record through full archaeological excavation; these archaeological investigations were undertaken by Gahan and Long, with on-site works completed in late 2022.
- Monitoring of all groundworks associated with the proposed development will be carried out, should additional features or deposits of archaeological significance be exposed during