

15 ARCHAEOLOGY, ARCHITECTURE & CULTURAL HERITAGE

15.1 Introduction

This section has been prepared to outline the existing environment and assess and define the impact, if any, on the archaeological, architectural and cultural heritage resource of the proposed development. The report includes mitigation measures designed to avoid, reduce or offset any potential adverse impacts.

15.2 Study Area

There is no professional standard for defining the extent of a study area when assessing potential impacts on the archaeological, architectural or cultural heritage resource. An archaeological study area of 750 m has been imposed around the proposed pipeline corridor to assess the presence of statutorily protected archaeological remains (Figure 15.2 of Appendix 15.1 of Volume 3 of the EIS). This involved mapping all recorded monuments within 750 m of the proposed pipeline corridor and assessing their potential to be impacted on as a result of the proposed development.

In addition, a study area of 50 m has been imposed around the proposed pipeline corridor to record the presence of Protected Structures or any additional statutorily protected archaeological, architectural or cultural heritage features recorded in the Dublin City and Fingal Development Plans and the National Inventory of Architectural Heritage. A study area of 50 m has also been imposed around any features recorded on the Dublin City Industrial Heritage Record. The proposed pipeline corridor is defined as follows:

- Road, footpaths and verges where the pipeline is located in public roadway
- An 8 m wide strip where the route passes through green areas and private amenity areas.

The key objectives of this report are to assess, as far as is reasonably possible from existing records, the impacts of the proposed development on the archaeological, architectural and cultural heritage resource. The following key issues are addressed:

- Direct and indirect impacts of construction activities on recorded and unrecorded archaeological, architectural and cultural heritage features.
- Direct and indirect impacts of the operation of the proposed development on recorded and unrecorded archaeological, architectural and cultural heritage features.
- Residual impacts of the proposed development on recorded and unrecorded archaeological, architectural and cultural heritage features.
- Cumulative impacts of the proposed development on recorded and unrecorded archaeological, architectural and cultural heritage features.

15.3 Methodology

The study involved detailed interrogation of the archaeological and historical background of the proposed route corridor. This includes information from the:

- Record of Monuments and Places (RMP) of County Dublin
- Topographical Files of the National Museum of Ireland
- Dublin City Council's "Dublin City Development Plan 2011 – 2017"
- Fingal County Council's "Fingal Development Plan 2011 – 2017"
- National Inventory of Architectural Heritage, cartographic and documentary records and aerial photographs
- Dublin City Council's "Dublin City Industrial Heritage Record"

- Dublin City Council's "*Dublin City Heritage Plan 2002 - 2006*"
- Fingal County Council's "*Fingal Heritage Plan 2011 – 2017*"
- Environmental Protection Agency's "*Guidelines on the Information to be Contained in Environmental Impact Statements*" (2002).

An impact assessment and mitigation strategy has been prepared. The impact assessment is undertaken to outline potential adverse impacts that the proposed development may have on the archaeological, architectural or cultural heritage resource, while the mitigation strategy is designed to avoid, reduce or offset such adverse impacts.

Research has been undertaken in two phases. The first phase comprised a paper and digital survey of archaeological, historical and cartographic sources. The second phase involved a field inspection of the proposed development area.

15.3.1 Data Sources

The following sources were examined and a list of sites and areas of archaeological, architectural and cultural heritage potential was compiled:

Record of Monuments and Places of County Dublin - This is a list of archaeological sites known to the National Monuments Service. Back-up files of the Sites and Monuments Record (SMR) provide details of documentary sources and field inspections where these have taken place. There are 34 sites recorded on the RMP within the 750 m study area surrounding the proposed pipeline corridor.

Topographical Files of the National Museum of Ireland - This is the archive of all known finds recorded by the National Museum. This archive relates primarily to artefacts, but also includes references to monuments and unique records of previous excavations. The find spots of artefacts are important sources of information in the discovery of sites of archaeological significance.

The **Dublin City Development Plan** (2011 - 2017) and the **Fingal Development Plan** (2011 - 2017) contain catalogues of protected sites and structures within their respective administrative areas. They were consulted to obtain information on sites within 50 m of the proposed pipeline corridor.

National Inventory of Architectural Heritage (NIAH) - This is a section within the Department of Arts, Heritage and the Gaeltacht (DoAHG). The work of NIAH involves identifying and recording the architectural heritage of Ireland from 1700 to the present day. The NIAH website also contains a non-statutory register of historic gardens and designed landscapes, and this was assessed to look for the presence of any such features within 50 m of the proposed pipeline corridor.

Cartographic sources - These are important in tracing land-use development within the proposed route corridor, as well as providing important topographical information on sites and areas of archaeological potential. Cartographic analysis of relevant maps has been made to identify any topographical anomalies that may no longer remain within the landscape.

Documentary sources were consulted to gain background information on the historical and archaeological landscape surrounding the proposed pipeline corridor.

Aerial photographs of Ordnance Survey Ireland and Bing aerial photography - This coverage is an important source of information regarding the precise location of sites and their extent. It also provides initial information on the terrain and its potential to contain previously unidentified archaeological remains.

Dublin City Council's "*Dublin City Industrial Heritage Record*" is intended to make recommendations for sites to be added to the Record of Protected Structures. As such these sites receive no statutory protection within the planning process.

Dublin City Council's "*Dublin City Heritage Plan 2002 - 2006*" is the most up-to-date Heritage Plan for Dublin and confirms the importance of heritage as an integral part of the city's development. It is concerned with the heritage issues of archaeology, architecture and the natural environment.

Fingal County Council's "Fingal Heritage Plan 2011 – 2017" notes that Fingal's cultural heritage reaches back almost 10,000 years. The Plan sets out "Themes" and "Actions" to raise awareness of Fingal's heritage and to provide better information and management relating to the built and natural environment.

Environment Protection Agency's "Guidelines on the Information to be Contained in Environmental Impact Statements" provides a standard definition for potential impacts on archaeological, architectural and cultural heritage remains.

15.3.2: Consultations

A meeting took place with Dr. Ruth Johnson, Dublin City Archaeologist, on 14 January 2011 when Dr. Johnson was apprised of the methodologies and approach proposed to assess the archaeological aspect of the project. This related to the proposed pipeline corridor at that time which ran from Dublin Port, Tolka Quay, East Wall Road, Tolka River, Fairview Park, Malahide Road/Clontarf Road Junction, Kilmore Road Junction, Oscar Traynor Road, Clonsaugh Road, Malahide Road (N32), Athletic Union League (AUL) Sports Complex, M1 motorway to Long term Airport car park (Red), Swords Road, Dublin Airport.

A subsequent discussion took place with the City Archaeologist on 9 May 2014 following the issuing of the scoping report for the route which is the subject of this EIS. Dr. Johnson confirmed that the same approach as was applied to the previous report should be applied to the current pipeline project. Recommendations were made by Dr. Johnson at the time of the January 2011 meeting regarding archaeological mitigation, and these recommendations have been fully integrated into Section 15.6 Mitigation Measures of this report.

The scoping report for the proposed pipeline corridor was issued to National Monuments Service of the Department of Arts, Heritage and the Gaeltacht, Dublin City Council Conservation Officer, Dublin City Council Heritage Officer and Fingal County Council Heritage Officer. No responses were received from Dublin City Council Heritage Officer or Fingal County Council Heritage Officer.

A letter, dated 28 May 2014, was received from DoAHG regarding the approach to be adopted in managing the archaeological resource. The letter stated that the services of a suitably qualified archaeologist should be engaged to carry out an assessment of the proposed pipeline corridor and that the archaeologist should consult with all appropriate authorities, in particular the Dublin City Archaeologist.

Emails providing detailed information on the 2011 proposed route and its proposed methods of construction were forwarded to DoAHG. A letter, dated 20th January 2011, was received from DoAHG regarding the approach to be adopted in the preparation of the report and the archaeological mitigation measures to be applied. All such mitigation recommendations from the previous proposed development have been fully integrated in to Section 15.6 Mitigation Measures of this report.

Two emails were received from Dublin City Council Conservation Officer on 19th May 2014, in response to emails outlining the approach being adopted in the preparation of this chapter of the report. The Dublin City Council Conservation Officer noted that should previously unrecorded architectural features exist within the proposed pipeline corridor, then mitigation measures should include the professional recording, handling and reinstatement of such features. In addition, the Conservation Officer noted that a Grade 1 Conservation Architect with urban design skills should be appointed during construction to guide best practice regarding the reinstatement of any previously unrecorded architectural features. These recommendations have been included in Section 15.6 Mitigation Measures of this report.

15.3.3 Field Inspection

Field inspection is necessary to determine the extent, character and condition of archaeological, architectural and cultural heritage features, and can also lead to the identification of previously unrecorded or suspected sites and portable finds through topographical observation and local information. The site visits conducted as part of the 2011 route (16th and 23rd September 2011) included a number of areas which are common to the route which is now the subject of this EIS. These include:

- Tolka Quay
- East Wall Road
- Clonsaugh Road
- Malahide Road (N32)

- Athletic Union League (AUL) Sports Complex
- M1 motorway to Long term Airport Car Park (Red)
- Dublin Airport.

These areas were re-visited as part of this assessment (along with the new sections) on 9th May 2014 when all areas of the proposed pipeline corridor were examined and visually assessed.

15.4 Existing Environment

15.4.1 Archaeological and Historical Background

This section should be read in conjunction with the figures and plates included in Appendix 15.1 and 15.2 of Volume 3 of the EIS.

There is one Recorded Monument (DU018:006, bridge site) within the proposed pipeline corridor, located north of Collins Avenue on Malahide Road (R107). This feature no longer survives above-ground. This site has a Zone of Archaeological Interest recorded in the Dublin City Development Plan (Map B), which is within the proposed pipeline corridor.

RMP DU015:074 (Mound) is located, at its nearest point, approximately 65 m west of the proposed pipeline corridor between Oscar Traynor Road and Greencastle Road and to the west of Malahide Road (R107). This site has a Zone of Archaeological Interest recorded in the Dublin City Development Plan (Map B), which is partially within the proposed pipeline corridor.

There are an additional three Zones of Archaeological Interest recorded in the Dublin City Development Plan (Maps B, E and F) immediately beside the proposed pipeline corridor.

RMP DU018-067 (Burial) is located, at its nearest point, approximately 50 m west of the proposed pipeline corridor and is to the south of Marino Crescent. This feature no longer survives above-ground. This site has a Zone of Archaeological Interest recorded in the Dublin City Development Plan (Maps E and F), which is located immediately west of the proposed pipeline corridor.

RMP DU015:084 (Chapel) is located, at its nearest point, approximately 70 m west of the proposed pipeline corridor and is in Coolock village. This feature no longer survives above-ground. This site has a Zone of Archaeological Interest recorded in the Dublin City Development Plan (Map B), which is located immediately west of the proposed pipeline corridor.

RMP DU014:056 (16th/17th century house) is located, at its nearest point, 70 m south of the proposed pipeline corridor and is situated to the south of the R139. This site has a Zone of Archaeological Interest recorded in the Dublin City Development Plan (Map B), which is located immediately south of the proposed pipeline corridor.

There are two non-statutory Dublin City Industrial Heritage Record sites within the proposed pipeline corridor. Industrial Heritage Record site 1804010 is a road bridge which no longer survives above-ground. This site is also recorded as RMP DU018:006.

Industrial Heritage Record site 1513009 is a bridge, the bulk of which was replaced during road widening.

There are an additional eight Industrial Heritage Record sites within 50 m of the proposed pipeline corridor.

Reference to Summary Accounts of Archaeological Excavations in Ireland has shown that no fieldwork has been carried out within the proposed pipeline corridor. Various fieldwork projects carried out within the general vicinity of the proposed development have revealed archaeological features and artefacts dating from the prehistoric period to the Post-Medieval, although the majority of features date to the Medieval, Post-Medieval and modern periods.

Information on artefact finds and excavations from County Dublin is recorded by the National Museum of Ireland. There was no record of any finds from within the proposed pipeline corridor recorded in the Topographical Files. Finds recorded from townlands in the general vicinity of the proposed development include human remains and prehistoric, Medieval and Post-Medieval artefacts.

Reference to cartographic sources failed to identify any previously unrecorded archaeological or architectural features within the proposed pipeline corridor. The proposed pipeline will traverse the line of, or is located immediately beside, 25 townland boundaries and six parish boundaries as recorded on the First Edition Ordnance Survey maps. Historic houses and structures such as bridges, churches and industrial features are recorded in the general vicinity of the proposed pipeline corridor on the cartographic sources.

There was no evidence of any previously unidentified archaeological, architectural or cultural heritage features recorded on aerial photographs within the proposed pipeline corridor.

No previously unidentified archaeological, architectural or cultural heritage features were revealed within the proposed pipeline corridor during the walkover surveys.

Detailed information on the archaeological and historical background of the landscape surrounding the proposed pipeline corridor is provided in Appendix 15.3 of Volume 3 of the EIS.

15.4.2 Record of Monuments and Places (RMP)

There is one Recorded Monument (RMP DU018:006, bridge site) within the proposed pipeline corridor. This feature no longer survives above-ground.

There are an additional 33 Recorded Monuments within the 750 m study area as shown on Figure 15.2 of Appendix 15.1 of Volume 3 of the EIS. These are listed in Table 15.1.

Table 15.1: RMP Sites within the 750 m Study Area

RMP No.:	DU014:011
Location:	Corballis
Classification:	Castle- site of
Distance from proposed pipeline corridor:	c. 400 m
Description:	No longer survives. This site is marked " <i>Corballis castle in ruins</i> " on the 1837 OS map and " <i>Castle site of</i> " on the 1936 edition.
Reference:	www.archaeology.ie
RMP No.:	DU014:023
Location:	Toberbunny
Classification:	Holy well
Distance from proposed pipeline corridor:	c. 330 m
Description:	This is an unenclosed pool close to Cuckoo Stream which has been incorporated in to a golf course. It is not venerated.
Reference:	www.archaeology.ie
RMP No.:	DU014:056
Location:	Clonshagh
Classification:	Dwelling possible
Distance from proposed pipeline corridor:	c. 70 m
Description:	16 th /17 th century house. The present house, known as Woodlands, was built in the early 18 th century. Prior to 1837, its name was Clinshogh. The Hearth Money Roll for County Dublin 1664 mentions a dwelling with seven hearths held by Richard Foster, Great Clanshagh. It is possible that "Woodlands" may have incorporated this earlier building.

	Today it is a square brick two storey building with a high basement and a pyramidal roof, from the centre of which rises a gazebo.
Reference:	www.archaeology.ie
RMP No.:	DU014:073001 and 073002
Location:	Artaine South
Classification:	Church and graveyard
Distance from proposed pipeline corridor:	c. 220 m
Description:	<p>Church in ruins. In 1225 the Crede Mihi noted that the chapel at Artaine was one of three attached to the Church of Finglas. Archbishop Alen's Reporotorium viride of 1532 refers to a chapel dedicated to St. Nicholas. The Civil Survey 1654-56 also mentions the chapel at Artaine.</p> <p>Today the remains comprise a rectangular building (internal dimensions L: 11 m, W: 5.36 m, wall T: 0.75 m) on a raised site in a small public park. Built of roughly coursed calp limestone rubble. The east and west gables are partly standing. There were opposed doorways in both walls east of the west gable. Burial has taken place in the interior. Internally, a flat masonry arch spans the west ope which is blocked and a pointed arch spans the east ope. Investigations in 1982 revealed opposed doorways in west and south walls incorporating sandstone jambs of 13th to 14th century date. Fragments of 16th century tiles were found in the interior. Memorials, which date from 1711 – 1827, have been found attached to the exterior of the church.</p> <p>Limited fieldwork in 1982 demonstrated that <i>"the site of Artane Church is significant in the context of Medieval growth in the vicinity of the walled town. . . Its importance as a centre of congregation and its early foundation, gave it particular influence in determining subsequent development. Sufficient evidence was revealed to indicate a typical 13th/14th century parish church with 16th century alterations. . . Further investigations into the surrounding ditch features may reveal evidence for an earlier foundation"</i>.</p> <p>The date of the foundation of Artane church is unknown, however there is a reference between 1181 and 1212 to monies being paid to the mother church at Finglas- indicating a "daughter" church at Artane. Also a chapel at Artane is listed in the Crede Mihi, which is the oldest existing record of the state of parishes in the Diocese of Dublin. These references would suggest a foundation date prior to the 13th century. The church probably fell in to ruin about 1640, with memorials indicating that burials continued in and around the church up to 1874.</p> <p>Graveyard: The construction c. 1972 of a modern road north east of the site, and a housing estate to the south, disturbed the graveyard boundaries. However boundaries at the south east and north west appear to be relatively intact. The inscriptions of 47 memorials were recorded, with dates ranging from 1711 to 1827. However two further memorials date to 1873 and 1874. <i>"There is almost a complete absence of burials to the north of the church, indicating a typical Medieval practice"</i>, although several burials are recorded east of the church (i.e. towards Kilmore Road).</p>
Reference:	www.archaeology.ie
RMP No.:	DU014:073003
Location:	Artaine South
Classification:	Castle- unclassified
Distance from proposed pipeline corridor:	c. 300 m
Description:	The First Edition OS map shows the site of Artaine Castle. It is mentioned in the Civil Survey of 1564 in the possession of Nicholas Hollywood of Artaine. It remained in the hands of that family until the 19 th century when it was levelled in 1825 and the stones used to build a new house.

	John Allen, Archbishop of Dublin, was murdered at the castle on 28 th July 1534. Purchased by the Christian Brothers in 1871, it became an orphanage developing a trade school which was active for much of the 20 th century. There is no visible surface trace of the castle.
Reference:	www.archaeology.ie
RMP No.:	DU014:111
Location:	Stockhole
Classification:	Enclosure
Distance from proposed pipeline corridor:	c. 280 m
Description:	An irregular shaped enclosure visible as a crop mark on an aerial photograph, together with other features that could indicate a possible field system.
Reference:	www.archaeology.ie
RMP No.:	DU014:112
Location:	Stockhole
Classification:	Field system
Distance from proposed pipeline corridor:	c. 250 m
Description:	A possible field system visible as a crop mark on an aerial photograph, together with an irregular shaped enclosure in the same field as DU014-111.
Reference:	www.archaeology.ie
RMP No.:	DU015:008
Location:	Middletown
Classification:	Enclosure
Distance from proposed pipeline corridor:	c. 700 m
Description:	The site is in a field of pasture north of Middletown House. Marked on the 1937 6" map as circular in plan (diameter c. 35 m). Not visible at ground level.
Reference:	www.archaeology.ie
RMP No.:	DU015:033
Location:	Belcamp
Classification:	Ringfort
Distance from proposed pipeline corridor:	c. 350 m
Description:	Situated on one of the college's football pitches just north of a steep scarp which descends to a stream known as Belcamp River. There is a tradition of a ringfort on the grounds of the Oblate College at Belcamp Hall. It appears as a cropmark on an aerial photograph (OS 5092) and is almost circular in plan (diameter c. 25 m). It is not visible at ground level.
Reference:	www.archaeology.ie
RMP No.:	DU015:061
Location:	Belcamp
Classification:	16 th /17 th century house
Distance from proposed pipeline corridor:	c. 150 m

Description:	Belcamp Park was built in 1681 for Sir Humphrey Jervis, the Lord Mayor of Dublin. It was leased by Countess Markievicz in 1909 for <i>Fianna Éireann</i> . Formerly a two storey three bay house with central break front pedimented doorcase and massive store cornice. The house and grounds were taken over by Dublin Corporation in 1967. It was burned down in 1977 leaving no visible trace.
Reference:	www.archaeology.ie
RMP No.:	DU015:065001
Location:	Darndale
Classification:	18 th /19 th century house
Distance from proposed pipeline corridor:	c. 630 m
Description:	Civil survey (1654-6) describes an old thatched house at Darndale. The present "Darndale House", an 18 th century mansion, probably occupies the site.
Reference:	www.archaeology.ie
RMP No.:	DU015:066
Location:	Darndale
Classification:	Earthwork
Distance from proposed pipeline corridor:	c. 500 m
Description:	On a low summit in what is a housing scheme. Named as "moat" on the 1843 and 1937 editions of the OS 6 inch map. It is not visible at ground level.
Reference:	www.archaeology.ie
RMP No.:	DU015:067
Location:	Newtown
Classification:	16 th /17 th century house
Distance from proposed pipeline corridor:	c. 140 m
Description:	The Down Survey (1655-6) map shows a gabled house at the location shown as "Cappa House" on the 1937 OS 6 inch map. Described in the Civil survey (1654-6) as a thatched house. This area forms part of Darndale housing estate. It is not visible at ground level.
Reference:	www.archaeology.ie
RMP No.:	DU015:074
Location:	Coolock
Classification:	Mound
Distance from proposed pipeline corridor:	c. 65 m
Description:	Comprises a round-topped mound beside a stream in a low-lying location in the grounds of Cadbury's factory. The top has been planted with trees (diameter 19.20 m, height 4.80 m).
Reference:	www.archaeology.ie
RMP No.:	DU015:075
Location:	Brookville
Classification:	Ritual site- holy well
Distance from proposed pipeline corridor:	c. 150 m

Description:	This natural spring well is marked by a lone bush on the west bank of a stream. It is dedicated to St. Brendan. In 1934 there was a low stone arch over the well which has since been removed. There is no indication of devotion.
Reference:	www.archaeology.ie
RMP No.:	DU015:076001-076005
Location:	Tonlegee
Classification:	Church, graveyard, ecclesiastical enclosure, unclassified mill, cross
Distance from proposed pipeline corridor:	c. 200 m
Description:	<p>The present mid-18th century church of St. John the Evangelist occupies an early ecclesiastical site associated with St. Brendan of Clonfert. A roughly rectangular graveyard is enclosed by a wall. There are 18th and 19th century memorials within the graveyard.</p> <p>Excavations in 1990 exposed a portion of an earlier wall and a section of an outer fosse and inner bank. Finds included a bronze penannular brooch, a small lead ingot and worked antler. Other elements of the early ecclesiastical site include a plain granite cross and a millstone of a horizontal watermill found in the grounds of the churchyard.</p>
Reference:	www.archaeology.ie
RMP No.:	DU015:077
Location:	Tonlegee
Classification:	Ring-ditch
Distance from proposed pipeline corridor:	c. 300 m
Description:	Located in low-lying ground on the north bank of the Ward River. A cropmark of a levelled, roughly circular feature is visible on an aerial photograph taken in 1965. A housing estate occupies the site and it is not visible at ground level.
Reference:	www.archaeology.ie
RMP No.:	DU015:084
Location:	Coolock
Classification:	Chapel
Distance from proposed pipeline corridor:	c. 70 m
Description:	Appleyard (1985, 84) mentions a chapel in Coolock village c. 1710 on the site of St. Brendan's Church. The green triangular patch at the junction of Oldtown Lane with Coolock Lane (where Beechpark Avenue joins Oscar Traynor Road) was known as "The Chapel Bank".
Reference:	www.archaeology.ie
RMP No.:	DU015:116
Location:	Belcamp
Classification:	Ring-ditch
Distance from proposed pipeline corridor:	c. 300 m
Description:	A circular ring-ditch is visible as a crop mark on an aerial photograph.
Reference:	www.archaeology.ie
RMP No.:	DU015:120
Location:	Baskin
Classification:	Enclosure

Distance from proposed pipeline corridor:	c. 200 m
Description:	A circular enclosure is visible as a crop mark on an aerial photograph.
Reference:	www.archaeology.ie
RMP No.:	DU018:006
Location:	Donnycarney Bridge
Classification:	Bridge site
Distance from proposed pipeline corridor:	Within pipeline corridor
Description:	The small red brick Donnycarney Bridge, which was built in 1896 and stands just beyond the Collins Avenue and Malahide Road junction, replaced an ancient stone structure called Scurlogue's Bridge.
Reference:	www.archaeology.ie
RMP No.:	DU018:022001 and 022002
Location:	Dublin North City
Classification:	022001 = bridge (Ballybough Bridge). 022002 = fish weir
Distance from proposed pipeline corridor:	c. 700 m
Description:	022001. The present bridge occupies the site of an earlier one constructed over the River Tolka at Ballybough in the beginning of the 14 th century. It was later carried away by a flood. At the end of the 15 th century the City Fathers rode the Franchises of Dublin and crossed Ballybough Bridge. The Civil Survey of 1654-56 also mentions a bridge at Ballybough. D'Alton describes an ancient bridge of five rude, unornamented arches where the river empties to the sea (D'Alton 1976, 28 2 nd ed.). The present bridge is of modern construction. 022002. There is a tradition that the Battle of Clontarf or the "Battle of the Fishing Weir of Clontarf" took place at a fishing weir approximately on the site of Ballybough Bridge. It was reputedly fashioned from stakes and wattle. There is no visible surface trace.
Reference:	www.archaeology.ie
RMP No.:	DU018:040
Location:	Dublin City North
Classification:	Burial ground
Distance from proposed pipeline corridor:	c. 700 m
Description:	This is a Jewish cemetery founded in 1718. There was a house built at the entrance in 1857 to protect it from grave robbers. It was the first Jewish burial ground in Ireland.
Reference:	www.archaeology.ie
RMP No.:	DU018:067
Location:	Dublin North City
Classification:	Human burial
Distance from proposed pipeline corridor:	c. 50 m
Description:	Human burials were unearthed during the construction of Georgian houses at Marino Crescent.
Reference:	www.archaeology.ie

RMP No.:	DU018:144
Location:	Marino
Classification:	Building (18 th century)
Distance from proposed pipeline corridor:	c. 180 m
Description:	<p>Casino at Marino, designed by Scottish architect Sir William Chambers for James Caulfeild, the 1st Earl of Charlemont, starting in the 1750s and finishing around 1775. It is a small and perfect example of Neo-Classical architecture, situated in the gardens of Marino House.</p> <p>The name (Casino Marino) is derived from Italian which literally translates as "<i>The small house by the small sea</i>". Widely regarded as the most important Neo-Classical building in Ireland, the Casino is actually quite small measuring only 50 feet square to the outer columns. In plan, it takes the form of a Greek cross with a pair of columns framing each projecting elevation. Seen from the outside, the building has the appearance of a single roomed structure, with a large panelled door on the north elevation and a single large window on each of the other elevations. This is an illusion however as it actually contains 16 rooms on three floors. Only two of the panels in the doors open to allow an entrance, and the panes in the windows are subtly curved, disguising the partitioning which allows what looks like a single window to serve several rooms. The interior includes a basement with a kitchen and associated rooms, a main floor with reception rooms and a top storey with servant rooms and a State Bedroom. It contains some very fine plasterwork ceilings and some elaborate hardwood parquet floors. Originally the Casino was linked to Marino House by a tunnel, although this has more recently been blocked off due to buildings works in the area.</p>
Reference:	www.archaeology.ie
RMP No.:	DU019:010001 and 010002
Location:	Killester North
Classification:	Church and graveyard
Distance from proposed pipeline corridor:	c. 550 m
Description:	<p>On the north side of Killester Avenue, surrounded on three sides by housing estates. Very overgrown.</p> <p>This is a walled-in graveyard surrounded on all sides by housing estates. The graveyard is considerably raised above surrounding street levels. Foundations of a building can be traced within the graveyard- a sector of wall c. 14.10 m in length with a second wall running at a right angle for a distance of 6.40 m. An 1887 reference records the church as being oblong in plan, measuring c. 40' in length x 18' wide. The earliest identified memorial in the graveyard is dated to 1741. The church was dedicated to St. Brigid and would have been attached to the church at Swords. The Civil Survey of 1654 mentioned a decayed chapel at Killester.</p>
Reference:	www.archaeology.ie
RMP No.:	DU019:011003
Location:	Killester North
Classification:	Building(s) fortified
Distance from proposed pipeline corridor:	Not recorded
Description:	The Civil Survey (1654) mentions a slated stone house with several houses and a stone bawn. This is likely to have been on the site of Killester House, a single storey early 18 th century house which stood to the south of Killester village. This house was demolished early in the 20 th century. No visible trace survives.
Reference:	www.archaeology.ie

The closest RMP site (with the exception of the above-mentioned bridge site RMP DU018:006) is RMP DU018:067 (burial) which is recorded approximately 50 m west of the proposed pipeline corridor. The precise location of the human burial(s) is not known, and as such the location on the RMP map is an approximation only. This site has a Zone of Archaeological Interest recorded in the Dublin City Development Plan, which is located immediately west of the proposed pipeline corridor. (A Zone of Archaeological Interest is a defined area around a Recorded Monument which is considered to be of archaeological potential and which receives protection within the planning process).

There are no Recorded Monuments within or in close proximity to the proposed pipeline corridor recorded in the Fingal Development Plan.

15.4.3 Dublin City Industrial Heritage Record

DCC maintains a non-statutory paper and map based archive of Industrial Heritage Record features. There are two sites recorded in the Industrial Heritage Record within the proposed pipeline corridor, with the findings presented in Table 15.2. In addition, there are eight sites within 50 m of the proposed pipeline corridor, and these are presented in Table 15.3.

Table 15.2: Industrial Heritage Record Sites within the Proposed Pipeline Corridor

DCIHR Ref. No.	Location	Site type	Description
15 13 009	Malahide Road	Bridge	The bulk of this bridge was replaced during widening of the road with only the west elevation appearing to survive.
18 04 010	Malahide Road	Bridge	Road bridge built in 1896 to replace an earlier bridge carrying Malahide Road over the river. Only the northern parapet wall survives.

Table 15.3: Industrial Heritage Record Sites within 50 m of the Proposed Pipeline Corridor

DCIHR Ref. No.	Location	Site type	Description
18 04 004	Clontarf Road	Roadway	Road resurfaced. No visible trace of tramway.
18 04 005	South of Clontarf Road	Former pumping station	Derelict. Detached single-storey former pumping station built c. 1910 as part of the Clontarf Main Drainage Scheme.
18 08 026	Railway line	Railway	Section of railway built c. 1844 as part of the Dublin and Drogheda Railway. Tracks now largely replaced.
18 08 029	Railway line	Railway depot	Restricted access as site lies within railway property. There is the possibility that some remains may survive beneath the surface.
18 08 073	South of East Wall Road	Derelict	Former printing works built c. 1920 on the site of a former glass works.
18 08 075	South of East Wall Road	Former candle factory	Former candle factory built c. 1925. Site now functioning as a storage depot with only the north elevation surviving as the site boundary.
18 08 078	South of Tolka Quay Road	Former chemical manure	Former chemical manure works built c. 1880. Site now functions as a coal yard.

DCIHR Ref. No.	Location	Site type	Description
		works	
15 09 001	Coolock	Former bridge	No trace of bridge now survives above-ground, although it is possible that some traces survive beneath the ground surface.

15.4.4 National Monuments

The Department of Arts, Heritage and the Gaeltacht maintains a database on a county basis of National Monuments in State Care. The term National Monument is defined in Section 2 of the National Monuments Act (1930) as 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" (National Monuments Act, Section 2. 1930).

Appendix 15 of the Dublin City Development Plan contains a "List of National Monuments in Dublin City". There are no National Monuments within the proposed pipeline corridor.

The nearest National Monument (National Monument no. 302, RMP DU018:144) is located approximately 180 m to the west of the proposed pipeline corridor details of which are provided in Table 15.4.

Table 15.4: National Monuments in the Wider Environment of the Proposed Pipeline Corridor

National Monument No.	RMP No.	Name	Distance from proposed pipeline corridor
302	DU018:144	The Casino, Marino	c. 180 m west

15.4.5 Protected Structures

There are no Protected Structures within the proposed pipeline corridor.

There are seven Protected Structures recorded in the Dublin City Development Plan (Maps B, E and F) within 50 m of the proposed pipeline corridor.

Table 15.5: Protected Structures within 50 m of the Proposed Pipeline Corridor (Dublin City Development Plan)

Ref.	Number	Address	Description	Distance from proposed pipeline corridor
880	n/a	Bridges: Railway, Dublin 3	Clontarf Road: twin-arch cut-stone railway bridge inclusive of stone embankment walls	Proposed development passes under the Protected Structure
1921	n/a	Clontarf Road, Dublin 3	Presbyterian church at junction of Clontarf Road and Howth Road	c. 10 m north and east of the proposed pipeline corridor
3957	n/a	Howth Road, Dublin 3	Granite milestone with cast-iron plaque outside Nos. 50/52	On left-hand side of footpath, immediately west of the proposed pipeline corridor

Ref.	Number	Address	Description	Distance from proposed pipeline corridor
4854	n/a	Malahide Road, Dublin 3	Granite milestone with cast-iron plaque outside Marino Health Centre at junction with Griffith Avenue	c. 40 m south of the proposed pipeline corridor
4856	n/a	Malahide Road, Dublin 3	Mount Temple Gate Lodge	Immediately east of the proposed pipeline corridor
4859	n/a	Malahide Road, Dublin 5	Granite milestone with cast-iron plaque outside St. David's Estate	On left-hand side of footpath, immediately west of the proposed pipeline corridor
4862	n/a	Malahide Road, Dublin 17	Granite milestone with cast-iron plaque to north of junction with Belcamp Lane	On left-hand side of footpath, immediately west of the proposed pipeline corridor

15.4.6 Architectural and Cultural Heritage

Architectural Conservation Areas

An Architectural Conservation Area (ACA) is located immediately west of the proposed pipeline corridor along the western side of Malahide Road (Maps B, E and F) (the Conservation Area extends northwards from Griffith Avenue to Casino Park, but does not include the area containing Nazareth House or that part to the north of it). There are currently 14 ACAs within Dublin City (www.dublincity.ie/planning/heritageconservation).

Table 15.6: Architectural Conservation Areas within 50 m of the Proposed Pipeline Corridor (Dublin City Development Plan)

<i>Description</i>	<i>Distance from proposed development area</i>
Marino Casino	Immediately west of proposed pipeline corridor, partially along the western side of Malahide Road

Appendix 11 of the Dublin City Development Plan contains a list of "Proposed Architectural Conservation Areas". There are no Proposed Architectural Conservation Areas within the proposed pipeline corridor or its immediate environment.

There are also no ACAs within the proposed pipeline corridor or its immediate environment recorded in the Fingal Development Plan.

Appendix 12 of the Dublin City Development Plan contains a list of "Stone Setts to be Retained, Restored or Introduced". There are no such features within the proposed pipeline corridor or its immediate environment.

Appendix 13 of the Dublin City Development Plan contains a list of "Paved Areas" and "Paved Areas and Streets with Granite Kerbing". There are no such features within the proposed pipeline corridor or its immediate environment.

15.4.7 National Inventory of Architectural Heritage (NIAH)

NIAH (www.buildingsofireland.ie) maintains a non-statutory register of buildings, structures *etc.* recorded on a county basis. The inventory has not yet been published for Dublin City.

The register for Fingal was reviewed, with no structures recorded within the proposed pipeline corridor. The closest structure is located approximately 130 m to the north (Belcamp House, situated to the north of the R139).

NIAH also maintains a non-statutory register of historic gardens and designed landscapes recorded on a county basis. The register was assessed against each townland within the proposed pipeline corridor with the finding presented in Table 15.7. In addition, sites within 50 m of the proposed pipeline corridor are presented in Table 15.8.

Table 15.7: NIAH Historic Gardens and Designed Landscapes within the Proposed Pipeline Corridor

Name	Townland	Site Status	Location
Belcamp	Belcamp	Main features unrecognisable- peripheral features visible	Proposed pipeline corridor within footprint of the grounds of former parkland
Belcamp House	Belcamp	Main features substantially present- some loss of integrity	Proposed pipeline corridor within grounds of parkland
Belcamp Park	Belcamp	Main features unrecognisable- peripheral features visible	Proposed pipeline corridor within grounds of parkland
Coolock Lodge	Brookville	Virtually no recognisable features	Proposed pipeline corridor within grounds of parkland
Corballis House	Corballis	Virtually no recognisable features. Site completely covered by Dublin Airport	Proposed pipeline corridor within grounds of parkland
Mount Temple	Clontarf West	Main features unrecognisable- peripheral features visible	Proposed pipeline corridor within grounds of parkland

Table 15.8: NIAH Historic Gardens and Designed Landscapes within 50 m of the Proposed Pipeline Corridor

Name	Townland	Site Status	Location
Airfield Lodge	Balgriffin	Virtually no recognisable features	Parkland immediately east of the proposed pipeline corridor
Artaine Castle	Artaine South	Virtually no recognisable features	Parkland immediately west of the proposed pipeline corridor
Claregrove House	Balgriffin	Virtually no recognisable features	Parkland immediately east of the proposed pipeline corridor
Coolock House	Brookville	Virtually no recognisable features	Parkland immediately east of the proposed pipeline corridor
Darndale House	Darndale	Virtually no recognisable features	Parkland immediately west of the proposed pipeline corridor
Donnycarney House	Donnycarney	Main features unrecognisable- peripheral features visible	Parkland immediately east of the proposed pipeline corridor
Gracefield	Artaine East	Main features	Parkland immediately east of the

Name	Townland	Site Status	Location
		unrecognisable- peripheral features visible	proposed pipeline corridor
Marino House	Marino	Main features substantially present- peripheral features unrecognisable. Site now has split usage: area to the south is housing, area to the west contains a new building and garden, area around the temple remains as parkland	Parkland immediately west of the proposed pipeline corridor
School of the Twin Sisters	Marino	Main features unrecognisable- peripheral features visible	Parkland immediately west of the proposed pipeline corridor
Woodlands	Clonshagh	Main features unrecognisable- peripheral features visible	Parkland immediately south of the proposed pipeline corridor

15.5 Summary of Key Possible Impacts

The proposed development will involve the mechanical excavation of trial holes within the consented pipeline corridor to confirm the location of existing services and to determine the proposed pipeline route. Once the exact position of the pipeline has been established it is proposed to saw cut the carriageway, breakout the surface with a mechanical excavator, excavate to the required depth to accommodate the pipeline at approximately 1.2 m of cover, reinstate the trenches and make good the road surface. Trenches will be approximately 0.45 m wide.

As a result of carrying out this assessment, the following potential archaeological, architectural and cultural heritage direct, indirect, operational, residual and cumulative impacts have been assessed:

15.5.1 Direct Construction Impacts

- There is one Recorded Monument (DU018:006, bridge site) within the proposed pipeline corridor. Although this feature no longer survives above-ground, there is a potential imperceptible permanent direct construction impact on possibly associated below-ground remains. There will be no visual or noise construction impact on this RMP site
- There are two Dublin City Industrial Heritage Record sites (1513009 and 1804010) within the proposed pipeline corridor (one of which [1804010] is also registered as RMP DU018:006). Although one of these features no longer survives above-ground (1804010) and the other feature has been largely removed above-ground (1513009), there is a potential imperceptible permanent direct construction impact on possibly associated below-ground remains. There will be no visual or noise construction impact on these industrial heritage features
- There are eight Dublin City Industrial Heritage Record sites within 50 m of the proposed pipeline corridor. As these features are not within the proposed pipeline corridor, there will be no direct construction impact on these industrial heritage features. There will be no visual or noise construction impact on these industrial heritage features
- There are seven Protected Structures within 50 m of the proposed pipeline corridor. As these structures are not within the proposed pipeline corridor, there will be no direct construction impact on these Protected Structures. There is a potential imperceptible short-term visual and noise construction impact on these seven Protected Structures
- There is the potential for impacts to occur on any previously unrecorded archaeological remains that may survive within the proposed pipeline corridor

- There is a potential imperceptible short-term visual and noise construction impact on the additional archaeological resource in the vicinity of the pipeline corridor during the construction phase
- A National Monument (National Monument no. 302, RMP DU018:144) is located approximately 180 m west of the proposed pipeline corridor. As construction activities will be limited to each working area, there will be no direct impact on this National Monument. There will also be no visual or noise construction impact on this National Monument.
- There will be no direct construction impact on the Architectural Conservation Area located along the western side of Malahide Road. There is a potential imperceptible short-term visual and noise construction impact on the ACA
- The proposed pipeline corridor was noted as being within the grounds of six former historic gardens. As these features no longer survive within the proposed pipeline corridor, there will be no direct construction impact on these former landscape features. There will also be no visual or noise construction impact on these former landscape features.

15.5.2 Indirect Construction Impacts

- There is one Recorded Monument (DU018:006, bridge site) within the proposed pipeline corridor. There will be no indirect construction impact on this RMP site
- There are two Dublin City Industrial Heritage Record sites within the proposed pipeline corridor. There will be no indirect construction impact on these industrial heritage features
- There are seven Protected Structures within 50 m of the proposed pipeline corridor. There will be no indirect construction impact on these protected architectural features
- There will be no indirect construction impact on any previously unrecorded archaeological or underwater archaeological remains
- There will be no indirect visual or noise impact on the archaeological or architectural resource during the construction phase
- A National Monument (National Monument no. 302, RMP DU018:144) is located approximately 180 m west of the proposed pipeline corridor. There will be no indirect construction impact on this National Monument
- There will be no indirect construction impact on the Architectural Conservation Area located along the western side of Malahide Road
- The proposed pipeline corridor was noted as being within the grounds of six former historic gardens. As these features no longer survive within the proposed pipeline corridor, there will be no indirect construction impact on these former landscape features.

15.5.3 Operational Impacts

- Due to the proposed pipeline being underground and the area of land take being fully reinstated, there will be no direct or indirect operational impact on the archaeological, architectural or cultural heritage resource
- In the unlikely event that a leak occurs however, and repair to the pipeline is required, all repair works will be within the line of the proposed pipeline corridor. As a result there will be no additional impact on the archaeological, architectural or cultural heritage resource in the unlikely event that a leak occurs.

15.5.1 Decommissioning Impacts

There will be no impacts on archaeological, architectural or cultural heritage resource during the re-commissioning or decommissioning of the pipeline.

15.6 Mitigation Measures

Mitigation measures for archaeology, architectural and cultural heritage for the construction and operation of the proposed development are outlined in this section. All archaeological recommendations have been agreed in advance with the DoAHG, the Dublin City Archaeologist and the Dublin City Conservation Officer.

15.6.1 Construction Mitigation Measures

- Due to the physical length of the proposed pipeline, along with the presence of an RMP site within the proposed pipeline corridor and an additional 33 Recorded Monuments within the 750 m study area, a geophysical survey of the proposed pipeline corridor will be carried out within areas of archaeological potential. The geophysical survey will be done under Licence to the DoAHG, and in agreement with the Dublin City Archaeologist where appropriate. The survey will be carried out by a specialist archaeological geophysicist and well in advance of any development works.
- Should archaeological remains be uncovered as a result of the geophysical survey, it will be recommended in the first instance that the route of the pipeline be moved within the consented corridor and that the remains be preserved *in situ*. Should it not be possible or preferable to avoid the below-ground archaeological remains, test trenching will be undertaken, to establish the extent, character and condition of the archaeological resource. These works will be carried out under Licence to the DoAHG, and in agreement with the Dublin City Archaeologist where appropriate. On completion of the test trenching, recommendations, which may include full-scale excavation/preservation by record or preservation *in situ*, will be submitted to the DoAHG and the Dublin City Archaeologist where appropriate for agreement.
- Construction works from the southern end of Howth Road to Charlemont Road, centered on RMP DU018:067 (human burial) (figure 15.18), will be monitored on a permanent basis. Monitoring will be carried out under Licence to the DoAHG and in agreement with the Dublin City Archaeologist. Provision will be made for the full excavation and recording of any archaeological features or deposits that may be exposed during monitoring.
- All construction works at the junction of Collins Avenue/Malahide Road (in the vicinity of RMP DU018:006- bridge site) (figure 15.19) will be monitored on a permanent basis. Monitoring will be carried out under Licence to the DoAHG and in agreement with the Dublin City Archaeologist. Provision will be made for the full excavation and recording of any archaeological features or deposits that may be exposed during monitoring. This site is also recorded as Dublin City Industrial Heritage Record site 1804010, and as such monitoring on a permanent basis will be carried out on this Dublin City Industrial Heritage Record feature.
- All construction works from the southern end of Coolock Main Street to Brookville Crescent/Tonligee Road (in the vicinity of RMP DU015:084- chapel) (figure 15.20), will be monitored on a permanent basis. Monitoring will be carried out under Licence to the DoAHG and in agreement with the Dublin City Archaeologist. Provision will be made for the full excavation and recording of any archaeological features or deposits that may be exposed during monitoring.
- All construction works from Brookville Crescent/Tonligee Road to Greencastle Road (in the vicinity of RMP DU015:074- mound) (figure 15.21), will be monitored on a permanent basis. Monitoring will be carried out under Licence to the DoAHG and in agreement with the Dublin City Archaeologist. Provision will be made for the full excavation and recording of any archaeological features or deposits that may be exposed during monitoring.
- Dublin City Industrial Heritage Record site 1513009 is located immediately north east of the above-mentioned RMP DU015:074- mound (figure 15.21). As such, monitoring on a permanent basis will be carried out on this Dublin City Industrial Heritage Record feature.

- All construction works from the northern end of Clonshaugh Road to the R139 roundabout (in the vicinity of RMP DU014:056- 16th/17th century house) (figure 15.22), will be monitored on a permanent basis. Monitoring will be carried out under Licence to the DoAHG and in agreement with the Dublin City Archaeologist. Provision will be made for the full excavation and recording of any archaeological features or deposits that may be exposed during monitoring.
- Intermittent monitoring will be carried out on the remainder of the scheme. The extent of monitoring will be agreed in advance with the DoAHG and the Dublin City Archaeologist where appropriate. Monitoring will be carried out under Licence to DoAHG, and in agreement with the Dublin City Archaeologist where appropriate. Provision will be made for the full excavation and recording of any archaeological features or deposits that may be exposed during monitoring.
- Excavation works at the River Tolka will be located 2 m below the river bed and will have no impact on any part of the river. In addition, the remaining six rivers/streams are all culverted and there will be no impact on any of these rivers/streams. As a result it will not be necessary to carry out underwater surveys of the river/stream crossings
- Construction works associated with the excavation of pits at river/stream crossings will be monitored on a permanent basis. Monitoring will be carried out under Licence to the DoAHG and in agreement with the Dublin City Archaeologist where appropriate. Provision will be made for the full excavation and recording of any archaeological features or deposits that may be exposed during monitoring
- The seven Protected Structures within 50 m of the proposed pipeline corridor will be fenced off during all construction works to ensure there is no construction impact on these features
- Should any architectural remains, such as street furniture, historic kerbs, stone setts etc. be uncovered as a result of the archaeological monitoring, professional recording, handling and reinstatement of all such features will be carried out. A Grade 1 Conservation Architect with urban design skills will be appointed to guide best conservation practice
- There are no mitigation measures available to offset a potential imperceptible short-term visual and noise construction impact on the archaeological resource
- There are no mitigation measures available to offset a potential imperceptible short-term visual and noise construction impact on seven Protected Structures
- There are no mitigation measures available to offset a potential imperceptible short-term visual and noise construction impact on an Architectural Conservation Area.

15.6.2 Operational Mitigation Measures

There will be no operational impact on the archaeological, architectural or cultural heritage resource, given that repairs to any leaks will be within the area previously excavated. As such leaks will not result in any adverse impacts and mitigation is unnecessary.

15.7 Residual Impacts after Mitigation

There will be no residual impact on archaeological, architectural or cultural heritage remains after mitigation measures have taken place.

15.7.1 Cumulative Impacts

Cumulative impacts are defined as:

"The addition of many small impacts to create one larger, more significant, impact" (National Roads Authority 2005, 55).

Due to the absence of additional impacts, either as a result of proposed, present or foreseeable future development in the area, the character of the existing urban environment and the short term nature of the development works, there will be no cumulative impact on either recorded or unrecorded archaeological, architectural or cultural heritage remains.

15.8 Monitoring

With the exception of the mitigation measures recommended in Section 15.6 above, there are no future monitoring requirements.

15.9 Do Nothing Impact

If the proposed development were not to proceed, there would be no impact on the archaeological, architectural or cultural heritage resource.

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