

Chapter 15
Archaeological &
Cultural Heritage

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15. Archaeological & Cultural Heritage

15.1 Introduction

This Chapter of the Environmental Impact Assessment Report (EIAR) has considered the potential archaeological and cultural heritage impacts associated with the Construction and Operational Phases of the Tallaght / Clondalkin to City Centre Core Bus Corridor Scheme (hereafter referred to as the Proposed Scheme).

During the Construction Phase, the potential archaeological and cultural heritage impacts associated with the development of the Proposed Scheme have been assessed. This includes impacts on heritage assets, ground disturbance and degradation of the setting and amenity of heritage assets due to construction activities such as utility diversions, road resurfacing and road realignments.

During the Operational Phase, the potential archaeological and cultural heritage impacts have been assessed.

The assessment has been carried out according to best practice and guidelines relating to archaeological heritage assessment, and in the context of similar large-scale infrastructural projects.

The aim of the Proposed Scheme when in operation is to provide enhanced walking, cycling and bus infrastructure on this key access corridor in the Dublin region, which will enable and deliver efficient, safe, and integrated sustainable transport movement along the corridor. The objectives of the Proposed Scheme are described in Chapter 1 (Introduction). The Proposed Scheme which is described in Chapter 4 (Proposed Scheme Description) has been designed to meet these objectives.

The design of the Proposed Scheme has evolved through comprehensive design iteration, with particular emphasis on minimising the potential for environmental impacts, where practicable, whilst ensuring the objectives of the Proposed Scheme are attained. In addition, feedback received from the comprehensive consultation programme undertaken throughout the option selection and design development process have been incorporated, where appropriate.

15.2 Methodology

15.2.1 Introduction

The methodology was designed to provide a full understanding of the potential impact on archaeological and cultural heritage assets and on the character of the historic urban and residential streetscape and landscape. In so doing, it allowed the character of the immediate and wider historic environment to be described and facilitated the identification of individual heritage assets and locations where there is the potential to reveal subsurface archaeological features.

15.2.1.1 Defining Archaeology and Cultural Heritage

For the purpose of this Chapter the following definition from the Department of Arts, Heritage, Gaeltacht and the Islands (DAHGI) (now Department of Housing, Local Government and Heritage (DHLGH)) Framework and Principles for the Protection of the Archaeological Heritage is applied for archaeology (DAHGI 1999):

'the study of past societies through material remains left by those societies and the evidence of their environment. The 'archaeological heritage' consists of such material remains (whether in the form of sites and monuments or artefacts in the sense of moveable objects) and environmental evidence'.

Cultural heritage as set out in the Environmental Protection Agency (EPA) Guidelines on Information to be Contained in Environmental Impact Assessment Reports (hereafter referred to as the EPA Guidelines) (EPA 2022) includes archaeology, architectural heritage, folklore and history. It is a broad term that includes a wide range of tangible and intangible cultural considerations. Cultural heritage can relate to settlements, former designed landscapes, buildings and structures, folklore, townland and place names, and historical events, as well as traditions (e.g. mass paths and pilgrim ways) and traditional practices (e.g. saints' pattern days).

Cultural heritage is part of our cultural identity and contributes to defining a sense of place. The value of a strong sense of place is likely to become more important as the world grows increasingly homogenised. Recognising the unique sense of place in our towns, villages and city, whilst also respecting the individual heritage assets, is critical.

Cultural heritage assets are valued for the important contribution they make to the understanding of the history of a place, an event or people. Sites of cultural heritage interest are often afforded protection either as recorded archaeological monuments (on the Record of Monuments and Places (RMP) / Sites and Monuments Record (SMR)) or as protected structures (on the Record of Protected Structures (RPS) in the relevant City or County Development Plan), or as structures within the National Inventory of Architectural Heritage (NIAH).

Each of these provides a unique cultural record and acts as a carrier of memory, meaning and cultural value. When considered in its wider context, they can form an essential component in the mechanism for analysing the broader cultural character and context of an area. Together, these can assist in mapping the changes that have led to the development of the modern environment. Such analysis provides insight into the communication, trade, transport, growth and associations of past societies.

There are numerous cultural heritage features that contribute to character, identity, and authenticity of Dublin City and its wider environs. These include the street plan, local architectural and archaeological monuments, the form of buildings and spaces, civic buildings within set pieces of urban design, the unique Georgian squares and streets, together with the larger areas of Victorian and Edwardian architecture north and south of the canals, and the industrial buildings and other cultural heritage sites. This unique historic character was identified and recorded throughout the EIAR process by the relevant specialists in the EIAR team (Chapter 16 (Architectural Heritage), Chapter 17 (Landscape (Townscape) & Visual)). By identifying, recording and articulating these sensitive cultural heritage values, they can be considered, respected and protected in the context of change in the future.

Remnants of Dublin's industrial heritage can be found throughout Dublin City and its wider environs (e.g., the canals, tramlines and railways, mill buildings and mill races, breweries and factories of the 18th and 19th centuries), some of it upstanding, the rest possibly surviving below-ground. Many of Dublin's streets and roads also contain historic street furniture, such as limestone and granite kerb stones, cobblestones, cast-iron post boxes, water pumps, milestones, street lighting, statues, water troughs, railings, and protective bollards. These features all contribute to the present-day character and uniqueness of an area by reflecting its historic past and are assessed as part of the historic street scape within Chapter 16 (Architectural Heritage).

15.2.1.2 Approach

Recognising our unique sense of place in our urban and suburban environments, while respecting the individual heritage assets was a key consideration during the development of the EIAR. A historic landscape character (HLC) approach was undertaken where not only individual heritage assets were assessed but also how they present in the landscape, their connectivity and their relationship to other heritage features. These were analysed through mapping, documentary sources and site inspection.

By using different information sources and data sets, an understanding of the historic landscape character that surrounds and is part of the Proposed Scheme has been developed. The modern landscape is a result of numerous modifications over time. Understanding how these processes occur, and how they are represented in today's urban and suburban landscape, is critical in providing an insight into the layering and development of the cultural heritage environment. It also facilitates an appreciation of an area's unique character. The process is concerned with identifying the dominant historic influences which have formed and define the present landscape. By using existing data sets such as the RPS, RMP, NIAH for example, through the use of GIS and CAD, dominant clusters of monuments, buildings and cultural heritage features begin to emerge.

Where sites are designated architectural heritage assets (NIAH / RPS), they are addressed in detail in Chapter 16 (Architectural Heritage). Where such sites are also RMP / SMR sites, they are assessed both in the present chapter and in Chapter 16 (Architectural Heritage).

Upstanding industrial heritage sites and examples of cultural heritage such as historic street furniture are discussed in Chapter 16 (Architectural Heritage). Those sites which may survive below-ground are assessed in the present chapter, as potential archaeological sites.

Where cultural heritage assets are of interest from an archaeological, historical, or cultural interest, as well as from an architectural heritage perspective, these are assessed both in the present chapter and in Chapter 16 (Architectural Heritage).

Appendices associated with this chapter are detailed in Volume 4 of this EIAR and contain the following information:

- Appendix A15.1 – Previous Archaeological Investigations in the Vicinity of the Proposed Scheme;
- Appendix A15.2 – Inventory of Archaeological and Cultural Heritage Sites;
- Appendix A15.3 – Glossary of Impacts and Assessment Methodology;
- Appendix A15.4 – Relevant Extracts from City and County Development Plans; and
- Appendix A15.5 – Archaeological monitoring of GI works (Shanarc Archaeology Ltd. 2021).

15.2.2 Study Area

The area examined for this study includes the full extent of the Proposed Scheme corridor. In order to inform the likely significant impacts from an archaeological and cultural heritage perspective, a study area measuring 50m on either side of the red line boundary for the Proposed Scheme was established (refer to Figure 15.1 in Volume 3 of this EIAR). This approach is tailored to the urban and suburban streetscape and is the accepted best practice for linear infrastructural projects in built-up areas. In the case of the densely built-up urban areas that lie within the designated zone of archaeological potential (ZAP) for the Historic City of Dublin (RMP DU018-020, refer to Figure 15.1 in Volume 3 of this EIAR), the study area was condensed to include only those sites that are within or adjacent to the Proposed Scheme. The study area was assessed in order to identify known and recorded archaeological and cultural heritage assets within it.

In all instances, the study area was wide enough to assess the immediate archaeological and cultural heritage potential of the Proposed Scheme. Professional judgement was used to determine where the assessment study area should be extended to consider archaeological sites / monuments or historic structures that lie beyond its boundaries. As required and where appropriate, the relationship of structures, sites, monuments, and complexes that fall outside this study area were considered and evaluated. The wider landscape or urban streetscape was also considered, to provide an archaeological and historical context for the Proposed Scheme.

For historic towns and villages that have a designated zone of archaeological potential (ZAP) on the published RMP maps (Dúchas The Heritage Service 1998), these areas were considered in addition to the point data from the online Historic Environment Viewer (HEV) provided by the National Monuments Service (NMS) (NMS 2021).

15.2.3 Relevant Guidelines, Policy and Legislation

The study was informed by relevant legislation, guidelines, policy, and advice notes, as listed below and in the references in Section 15.7. Relevant extracts from the Dublin City Development Plan are contained in Appendix A15.3 (Glossary of Impacts and Assessment Methodology) in Volume 4 of this EIAR.

- Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act, 1999;
- Code of Practice for Archaeology agreed between the Minister for Arts, Heritage, Regional, Rural and Gaeltacht Affairs and Transport Infrastructure Ireland, 2017;
- Council of Europe (1985). Convention for the Protection of the Architectural Heritage of Europe (ratified by Ireland 1997), 'Granada Convention';
- Council of Europe (1992). European Convention on the Protection of the Archaeological Heritage (ratified by Ireland 1992), 'Valetta Convention';
- Council of Europe (2005). Framework Convention on the Value of Cultural Heritage for Society, 'Faro Convention';
- Department of Arts, Heritage, Gaeltacht and the Islands (DAHG) (1999). Framework and Principles for the Protection of the Archaeological Heritage;
- Environmental Protection Agency (EPA) (2022). Guidelines on the information to be contained in Environmental Impact Assessment Reports. May 2022;
- European Commission (2017). Environmental Impact Assessment of Projects – Guidance on the Preparation of the Environmental Impact Assessment Report;
- Heritage Act, 1995 (as amended);
- Historic England (2017). The Setting of Heritage Assets, Historic Environment Good Practice Advice in Planning Note 3 (Second Edition);
- ICOMOS (2011). Guidance on Heritage Impact Assessments for Cultural World Heritage Properties;
- ICOMOS Xi'an Declaration on the Conservation of the Setting of Heritage Structures, Sites and Areas, 2005;
- National Monuments Act, 1930 to 2014;
- National Roads Authority (NRA) (2005). Guidelines for the Assessment of Archaeological Heritage Impact of National Road Schemes;
- Planning and Development Act 2000 (as amended);
- The Heritage Council (2013). Historic Landscape Characterisation in Ireland: Best Practice Guidance;
- The UNESCO World Heritage Convention, 1972; and
- The Heritage Ireland 2030 (Plan) (Government of Ireland 2022).

15.2.4 Data Collection and Collation

A detailed evaluation of the archaeological and cultural heritage resource took place, comprising a desk study of published and unpublished documentary and cartographic sources, supported by a field survey.

15.2.4.1 Desk Study

The desk study availed of the following sources:

- The National Monuments, Preservation Orders and Register of Historic Monuments lists, sourced directly from the DHLGH;
- RMP and SMR: The SMR, as revised in the light of fieldwork, formed the basis for the establishment of the statutory RMP in 1994 (RMP; pursuant to Section 12 of the National Monuments (Amendment) Act, as amended in 1994). The RMP records known upstanding archaeological monuments, their original location (in cases of destroyed monuments) and the position of possible sites identified as cropmarks on vertical aerial photographs. The information held in the RMP files is read in conjunction with published constraint maps (Dúchas The Heritage Service 1998). Archaeological sites identified since 1994 have been added to the non-statutory SMR database of the Archaeological Survey of Ireland (NMS, DHLGH), which is available online (NMS 2021) and includes both RMP and SMR sites. Those sites designated as SMR sites have not yet been added to the statutory record, but are scheduled for inclusion in the next revision of the RMP;
- The topographical files of the National Museum of Ireland (NMI) (NMI 2021);

- Cartographic sources, comprising pre-19th century historic maps and various editions of the Ordnance Survey (OS) six-inch maps, 25-inch maps and five-foot plans;
- Excavations Bulletins and Excavations Database (Excavations 1970 to 2020);
- Dublin County Archaeology GIS (The Heritage Council 2015);
- Dublin City Council's (DCC) Development Plan 2022 - 2028 (DCC 2021);
- Conservation Plan Dublin City Walls and Defences (DCC 2004);
- South Dublin County Council's (SDCC) Development Plan 2022 - 2028 (SDCC 2022);
- NIAH Building Survey and Garden Survey, DHLGH (NIAH 2020);
- Dublin City Industrial Heritage Record (DCIHR) (DCC 2003 to 2009);
- Placenames Database of Ireland (Logainm 2020);
- Aerial imagery online (Google Earth Pro 2001 to 2018, Bing 2013 (Bing 2020) and Ordnance Survey Ireland (OSI) 1995; 2000; 2005 to 2012); and
- Other documentary sources (as listed in the references, Section 15.7).

15.2.4.2 Field Survey

A walkover survey was undertaken along the extent of the Proposed Scheme on 5 March 2020. Recorded archaeological sites or monuments within the assessment study area (and relevant monuments based on professional judgement outside of it) were inspected. The survey also took cognisance of upstanding industrial heritage sites listed in the DCIHR (DCC 2003 to 2009) that are situated within or adjacent to the Proposed Scheme. It also sought to identify any potential archaeological sites, as well as features of industrial or cultural heritage interest within the study area for the Proposed Scheme that contribute to the historic character of the area.

15.2.4.3 Mapping

The locations for all archaeological and cultural heritage assets identified in the course of the assessment have been mapped and are shown on Figure 15.1 in Volume 3 of this EIAR. The coordinates for each asset are provided in Irish Transverse Mercator (ITM) in the inventory of archaeological and cultural heritage sites in Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR.

15.2.5 Appraisal Method for the Assessment of Impacts

Archaeological and cultural heritage sites are considered to be a non-renewable resource and cultural heritage material assets are generally considered to be location sensitive. In this context, any change to their environment, such as construction activity and ground disturbance works, could adversely affect these sites. The likely significance of all effects is determined in consideration of the magnitude of the impact and the baseline rating upon which the impact has an effect (i.e., the sensitivity or value of the cultural heritage asset). Having assessed the potential magnitude of impact with respect to the sensitivity / value of the asset (Table 15.1, Table 15.2 and Image 15.1), the overall significance of the effect is then classified as not significant, imperceptible, slight, moderate, significant, very significant, or profound (Table 15.3).

A glossary of impact assessment terms, including the criteria for the assessment of effect significance, is contained in Appendix A15.3 (Glossary of Impacts and Assessment Methodology) in Volume 4 of this EIAR.

Table 15.1: Significance / Sensitivity Criteria

Sensitivity / Significance	Criteria
High	Sites of international significance: World Heritage Sites. National Monuments. Protected Structures (assessed by the NIAH to be of international and national importance), where these are also National Monuments. Undesignated archaeological and cultural heritage sites.
Medium	Recorded Monuments (RMP sites & SMR sites scheduled for inclusion in the next revision of the RMP) Protected Structures / NIAH sites (assessed by the NIAH to be of regional importance), where these are also Recorded Monuments. Newly identified archaeological sites, confirmed through archaeological investigation, to be added to the SMR.

Sensitivity / Significance	Criteria
	Undesignated archaeological and cultural heritage sites.
Low	Sites listed in the Dublin City Industrial Heritage Record (DCIHR) and National Inventory of Architectural Heritage (NIAH) Building for which there are no upstanding remains. Undisturbed greenfield areas and riverine environs, which have an inherent archaeological potential. Undesignated archaeological and cultural heritage sites.
Negligible	Assets with very little or no surviving archaeological and / or cultural heritage interest.

Table 15.2: Magnitude of Impact Criteria

Impact Magnitude	Criteria
High	These impacts arise where an archaeological / cultural heritage asset is completely and irreversibly destroyed by a proposed development. A change such that the value of the asset is totally altered or destroyed, leading to a complete loss of character, integrity and data about the site.
Medium	An impact which, by its magnitude, duration or intensity alters an important / significant aspect of the environment. An impact like this would be where an archaeological / cultural heritage asset would be impacted upon leading to a significant loss of character, integrity and data about the site. Or an impact which by its magnitude results in the partial loss of a historic structure (including fabric loss or alteration) or grounds including the part removal of buildings or features or part removal of demesne land (e.g., severance, visual intrusion or degradation of setting and amenity). A permanent positive impact that enhances or restores the character and / or setting of a cultural heritage site or upstanding archaeological heritage site in a clearly noticeable manner.
Low	A low impact arises where a change to the site is proposed which though noticeable is not such that the archaeological / cultural heritage character / integrity of the site is significantly compromised, and where there is no significant loss of data about the site. A positive impact that results in partial enhancement of the character and / or setting of a cultural heritage site or upstanding archaeological heritage site in the medium to long-term.
Negligible	An impact which causes very minor changes in the character of the environment and does not directly impact an archaeological / cultural heritage asset or affect the appreciation or significance of the asset. There would be very minor changes to the character and integrity of the asset and no loss of data about the site.

Table 15.3: Defining Significance of Impacts

Impact	Definition
Imperceptible	An impact capable of measurement but without noticeable consequences.
Not Significant	An impact which causes noticeable changes in the character of the environment but without significant consequences.
Slight	An impact which causes minor changes in the character of the environment and does not affect an archaeological / cultural heritage asset in a moderate or significant manner.
Moderate	A moderate impact arises where a change to the site is proposed which though noticeable, does not lead to a significant loss of character, integrity and data about the archaeological / cultural heritage asset.
Significant	An impact which, by its magnitude, duration or intensity, alters an important aspect of the environment. An impact like this would be where part or all of a site would be permanently impacted upon, leading to a significant loss of character, integrity and data about the archaeological / cultural heritage asset.
Very Significant	An impact which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment.
Profound	Applies where mitigation would be unlikely to remove adverse impacts. Reserved for adverse, negative impacts only. These impacts arise where an archaeological / cultural heritage asset is completely and irreversibly destroyed by a proposed development.

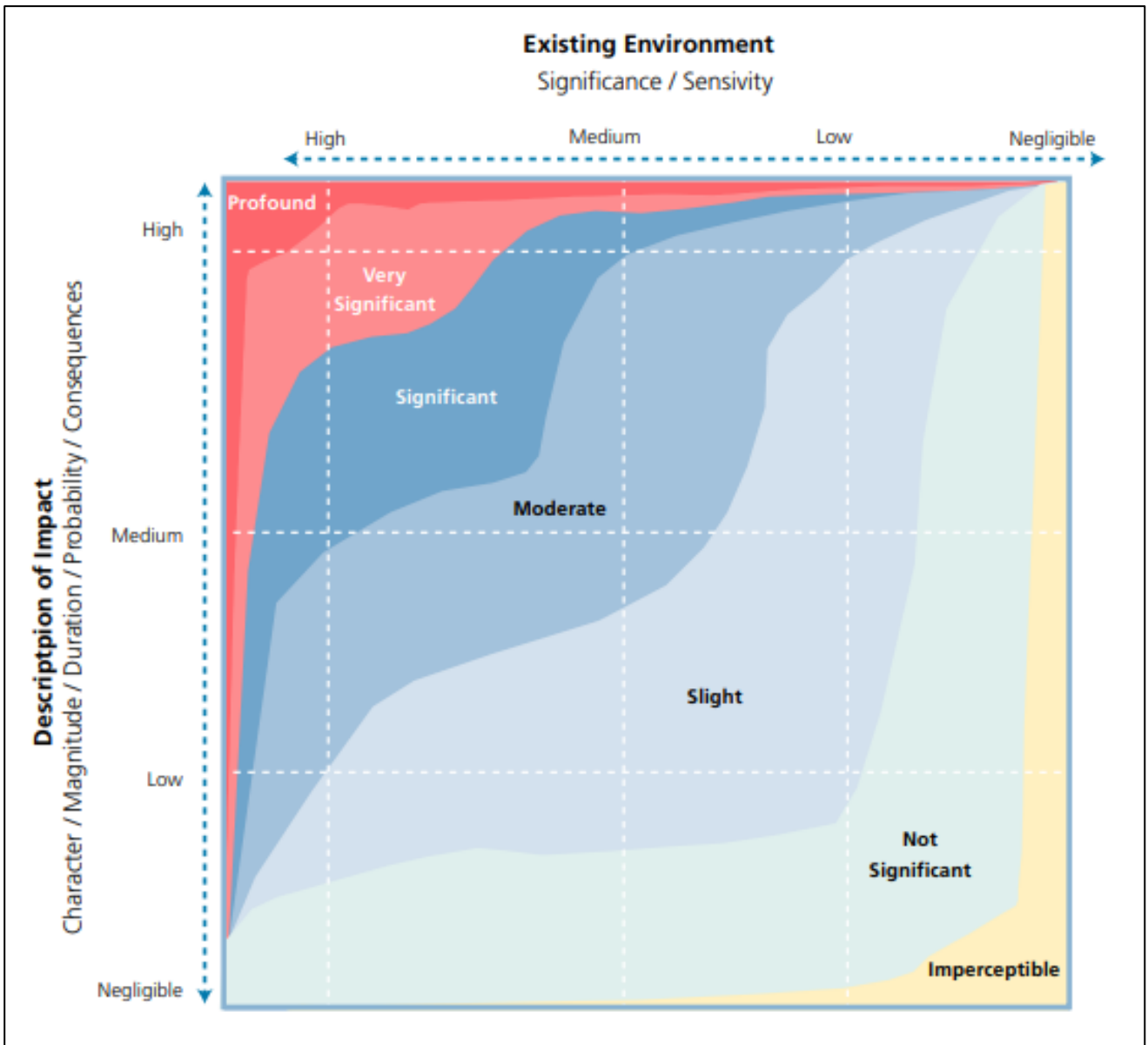


Image 15.1: Description of Impacts from Figure 3.4 of the EPA Guidelines on Information to be Contained in Environmental Impact Assessment Reports (EPA 2022)

15.3 Baseline Environment

15.3.1 Archaeological and Historical Background

15.3.1.1 Introduction

The Proposed Scheme will travel along existing roads, through a heavily developed suburban and urban landscape. The Tallaght to Ballymount section will pass through the ZAP associated with the historic village of Tallaght (RMP DU021-037). Tallaght was a significant ecclesiastical settlement founded in the early medieval period. From this point, the Proposed Scheme will follow existing roads through the dense suburbs of Greenhills, Kilnamanagh, Walkinstown and Crumlin. After crossing the canal, it continues along the line of existing streets through the ZAP for Dublin's historic core (RMP DU018-020). The Clondalkin to Drimnagh section commences c. 585m north-east of Clondalkin village ZAP (RMP DU017-041), which has its origins as an important early medieval ecclesiastical settlement. The Proposed Scheme will follow the New Nangor Road, which was constructed in the late 20th century, running parallel to the Grand Canal before crossing the M50 Motorway and heading south-eastwards to Drimnagh, where it passes the medieval Drimnagh Castle.

The landscape within the much of the study area for the Proposed Scheme was significantly altered in the 18th century with the construction of the Grand Canal and the associated industries that sprang up along its length (such as mills and factories). Nonetheless, it remained predominantly rural until the 20th century, forming part of the agricultural lands surrounding the city, populated by small villages (such as Tallaght and Clondalkin) and farmsteads, with the occasional country villa or small estate. Milling predominated along the Camac River, as well as the River Poddle and City Watercourse. The Dublin to Naas Road (N7), which runs through the study area, has long been one of the principal routeways out of Dublin City.

The large-scale suburban development evident today is, for the most part, a product of the 20th century. There was some nascent residential growth in the earlier 20th century, with some small terraces established south of Clondalkin and along the Dublin to Naas Road. The most significant growth was at Drimnagh and Crumlin in the 1930s, however, when new housing estates were constructed as part of Dublin Corporation's ambitious plans for Dublin's new suburbs. This pattern continued with large areas of housing created in Walkinstown in the 1940s and 1950s and around Tallaght, Greenhills and Clondalkin in the later 20th century.

15.3.1.2 South and West of the Grand Canal

15.3.1.2.1 Prehistoric Activity

The earliest evidence for human activity in West Dublin was found at Newlands Cross, where a Mesolithic flint was retrieved from tufa (calcium carbonate) in which the remains of freshwater molluscs were deposited, dated to 7750 years before present (Mitchell and Ryan 1990).

No standing monuments of Neolithic date (c. 4000BC to 2500BC) occur in the study area; however, a burial of Neolithic date is recorded in Walkinstown (RMP DU018-037). The site is recorded in Walkinstown Park, approximately 305m south of the Long Mile Road and approximately 645m north of Greenhills Road and was excavated in the 1930s. It comprised a Linkardstown-type burial, with a cist containing a single inhumation covered by a cairn and a sod mound. Earlier Bronze Age cremation burials were subsequently placed in the top of the mound, which was enlarged and surrounded by a ditch, with more inhumations orientated east / west then inserted in the mound (Kilbride-Jones 1939).

The Neolithic period (approximately 4000BC to 2500BC) saw the arrival of the first farmers to Ireland and the adoption of a farming economy. This period also saw new developments in ritual activity, and the first permanent monuments were built in the Irish landscape. The foothills of the Dublin Mountains, to the south-west of the Proposed Scheme, contain a wealth of prehistoric monuments, including Neolithic passage tombs on Montpelier Hill and Saggart Hill, and later monuments like the standing stones at Boherboy (near Saggart) and the tumuli and barrows at Crooksling, Mountseskin, Slievethoul and Verschoyle's Hill. These demonstrate prehistoric activity in the wider landscape. Stray finds recorded in the topographical files of the NMI also attest to activity in the area during this period. A hollow-based flint arrowhead (NMI 1976), dated to the Neolithic period, was discovered in the surface soil of garden 15 Monastery Drive, Clondalkin.

The lower foothills around Tallaght itself are particularly rich in Early Bronze Age remains. This includes a substantial Early Bronze Age cemetery in Greenhills (RMP DU022-002), which was one of two discovered in the

19th century (the second is thought to have been located approximately 3km south-west of Tallaght village) (Waddell 1990). The site on Greenhills Road is a Bronze Age flat cemetery, which is marked as the site of urn burials on the historic OS six-inch map editions. Ball (1906) mentions this site, recording the discovery of '*many cists or sepulchres of prehistoric times*' in the vicinity of Greenhills. Price (1940) also refers to Greenhills and states '*...the place which has given us more Bronze Age urns than any other locality in Co. Dublin is Greenhills...*'. The urn burials were discovered during the course of quarrying a sand pit, which produced five cinerary urns, one bowl vessel containing burnt bone, three bowl food vessels (one of which was accompanied by an inhumation), two vase food vessels and one pygmy cup (NMI 1898:20A–B; 1898:18A–C; 1898:19; 1898:18c; 1898:19; 1904:24; 1945:373). Three stone graves containing cremations were also found, one of which was exceptional and the remaining two normal cists. Two unprotected inhumed burials were recovered. These were associated with bowl food vessels which contained no cremated bone.

Two artefacts of Bronze Age (approximately 2500BC to 500BC) antiquity are also recorded in the NMI topographical files. Both are axeheads, one of which is flanged and so mid-Bronze Age in date, provenanced to the Clondalkin area (NMI 1911:242 and 1963:65).

15.3.1.2.2 The ecclesiastical settlements of Clondalkin, Tallaght and Kilnamanagh

Early medieval activity along or in the vicinity of the Proposed Scheme, in the area outside of the canal (to the west / south-west), is largely focused around three former ecclesiastical sites: Clondalkin (RMP DU017-041), Tallaght (RMP DU021-037) and Kilnamanagh (RMP DU022-005).

Settlement in Clondalkin, originated during the 7th century AD when a monastery dedicated to St Mochua, also known as Cronan, was established (RMP DU017-04). The ZAP is approximately 585m south-west of the Woodford Walk to Naas Road - Nangor Road Section of the Proposed Scheme (Gwynn and Hadcock 1988). The monastery, of which the round tower still stands, was sufficiently important to be plundered by the Vikings in AD 833 and shortly afterwards it became a base for Viking activities in the area. It is recorded only once in the annals, when it was attacked and captured in AD 867 by two Leinster chieftains:

'Amlaib's fort at Cluain Dolcáin was burned by Gaithine's son [Cennetig] and Mael Ciaráin, son of Rónán, and the aforesaid commanders caused a slaughter of a hundred of the leaders [duces] of the foreigners in the vicinity of Cluain Dolcáin on the same day'(Corpus of Electronic Texts (CELT) 2020).

The exact whereabouts of '*Amlaib's fort*' is unknown. Vikings may have taken over the early monastery and fortified it, as happened at St Mullin's monastery in County Carlow, or it is possible the Viking base was located outside the monastery (Ua Broin 1944). The nearby place-name Raheen, located on the north bank of the Camac river, may be significant in this regard, as it derives from the Irish *ráithín*, meaning 'small fort' (Ibid.). Unfortunately, the reference remains enigmatic, and it is unknown whether the Vikings returned to settle here in the 10th century or not.

The monastery was burned in 1071 and six years later a struggle between rival factions for control of the abbacy resulted in the granting of the church to the Céli Dé, a monastic order (Gwynn and Hadcock 1988). Like the other Céli Dé monasteries of Tallaght and Finglas, the lands eventually became part of the diocese of Dublin. This happened before the Anglo-Norman invasion, and it presumably reflects the diocesan reorganisation that occurred after the Synod of Rath Bressail (in 1111) and Kells (in 1152).

The area that now forms County Dublin, south of the River Liffey, remained under the control of Leinster rulers until the arrival of the Anglo-Normans in the late 12th century. Early dynasties of the Laigin were well represented in the region. Dál Messin Corb was originally based at Naas (Byrne 1973) and had ecclesiastical interests in Newcastle and Uppercross, as indeed had Uí Bairrche. Lineages of both dynasties were represented at Clondalkin, Saggart and Kilnamanagh (MacShamhráin 1996).

Under the Norman archbishops Clondalkin became the centre of one of the largest manors belonging to the Dublin bishopric. After the foundation of St Patrick's Cathedral, it was attached by Archbishop Henry of London to the dean of the Cathedral (Mason 1820). Its existence is first indicated by a mention in an extent of the manor of Clondalkin in 1326, but it is likely that it was already established in the 13th century. It is noted that the burgesses of Clondalkin held 32 and two-third burgages (McNeill 1950). The borough was ruled by a corporation and bailiff, an office held in 1276 by Robert Beg (Ball 1906). By the close of the 14th century there were at least five streets in the borough, as indicated in an inquisition about property assigned in 1393 to the church of Clondalkin by John Shillingford (Ibid.). Taking the surviving fortified house at Clondalkin as an indicator, much of the medieval borough was probably situated along the axis of Monastery Road, to the east of the church site. Monastery Road once

The first proper surviving extent of the manor of Tallaght was compiled in 1326, by which time the manor was already in decline. Though the lands were assessed at a considerable rent in times of peace, it was stated that they were worth '*nothing in war, because it was close to the Irish*' (Bradley 1998). The repeated incursions by the Irish tribes, the O'Tooles and O'Byrnes, meant that the lands decreased considerably in value. Tallaght was located along the line of the Pale boundary, the earthwork constructed to prevent the native Irish carrying out raids on the lands adjacent to Dublin, which was under English control. By the mid-14th century, the lands were in a pitiable state and only four of the tenants remained (Handcock 1899).

An earthwork in Kiltalown (RMP DU021-081) to the south-west belongs to the late-medieval tradition of protective enclosures which reached its peak in the attempted enclosure of the English Pale in 1494 to 95 and has been identified as part of the Pale (O'Keeffe 2000). The area around Tallaght suffered much from the resurgent activity of the Irish in Wicklow, and by the 15th century the area was very much on the frontiers of the Pale, subject to hostile assault and yielding no profit to the Crown. As a result, much of the formerly royal land was leased out to powerful local landholders who were able, by their presence on the ground, to maintain some level of governmental control.

The townland name, Tallaght, is derived from the Irish *támh leacht*, meaning a plague burial. This name may refer to a tradition of medieval burials or to the many prehistoric burials that have been found in the vicinity (Bradley 1998).

In contrast, little is known of the foundation at Kilnarnagh, which is thought to be the site of the early monastery of *Cell Manach Eascrach* (Ua Broin 1944 and Ball 1905). Gwynn and Hadcock (1988) name the foundation *Cella Monachrom* and ascribe it to Eogain of Ardstraw. They also note that St Kevin of Glendalough was trained here, which would make this a 6th century foundation and therefore earlier than the monasteries at Tallaght and Clondalkin (Ibid.). The OS Letters describe the remains of a church which was formerly accessible from Kilnarnagh Castle (DU022-050001) (Herity 2002). This church was associated with a disused graveyard (DU022-005003) which, according to the OS Letters, was enclosed by a wide and deep fosse which had a drawbridge (Ibid.). The eastern side of this enclosure is indicated on the contemporary Ordnance Survey six-inch map of 1843 and presumably represents the line of the ecclesiastical enclosure associated with the monastery.

The sites of two wells are also recorded, one of which is designated a holy well (DU022-005004) and the other a possible holy well (DU022-006). The former lies within the line of the ecclesiastical enclosure, while the latter is located outside it to the south at Birchview Lawn. The graveyard was described as containing disturbed headstones and human remains which had been uncovered in the late 18th century. Further human remains were exposed in the early 1940s (Ua Broin 1944). Similarly, little is known about the medieval 'Kilnarnagh Castle', which appears to have been built on the site of the earlier monastery. A brief description survives from an inspection in 1975, which records the bottom two storeys of a tower house incorporated into a farm building (RMP DU022-005001, NMS 2021). There are no visible remains above-ground of any of the early medieval sites, nor of the later castle, the entire area having been developed in the 1970s.

15.3.1.2.3 Secular medieval activity in Drimnagh and Crumlin

The place-name Drimnagh originates from the Irish *Druimneach*, meaning the ridged lands. The parish in the 17th century consisted of Bluebell, Drimnagh, Jamestown, and Robinhood (Joyce 1912). The Civil Survey undertaken in 1654 recorded that '*there stands at Drimnagh a mill, the ruins of an old chapel, and an old castle made habitable*' (Simington 1945).

According to the historian Joyce (1912), Drimnagh Castle stood:

'in a picturesque position at the head of the winding Lansdowne Valley, through which the Cammock River threads its devious course, the castle commands an unbroken view of the mountains and of the fertile country extending to their bases.'

In 1215, King John granted Drimnagh and its lands to the Barnewalls, an Anglo-Norman family who had arrived in Ireland with Strongbow in 1167. Drimnagh Castle (RMP DU018-036) was for many centuries one of the principal seats of the Barnewall family, who became ennobled in Ireland under the titles of Trimlestown and Kingsland. The owners of its lands can be traced in almost unbroken succession from the beginning of the 13th century for approximately 200 years.

The earliest owner of Drimnagh, recorded in the State papers relating to Ireland for 1216, was Hugh de Barnewall (Ball 1906). The erection of the castle in this location in the early 13th century was part of the attempt to defend

the western approaches to the city from the O'Tooles and O'Byrne families. It is the only Irish castle still to be surrounded by a flooded moat, described in 1780 as a '*very deep ditch of water supplied from the Green Hills*' (Johnson 1985). Drimnagh would have been one of a series of moated castles that were built to the south and west of Dublin City during the 13th century. These castles strengthened the earlier Anglo-Norman defences around the wider Dublin area, which were characterised by the motte and bailey castles built in the 12th century (Ibid.).

By the 15th century, Drimnagh Castle (RMP DU018-036) was one of the principal castles in the county, with a mill and millrace (RMP DU018-035), which were accounted important possessions. At that time, it was leased to Sir Adam Loftus, nephew of Archbishop Loftus. It remained in the ownership of the Barnewall family and when Robert Barnewall died in 1535, he owned no less than three manors: Drimnagh and Balrothery in County Dublin, and Ardee in County Louth. In the 16th century the present tower at the south end of the Great Hall was added, possibly as part of a drawbridge structure over the moat (Johnson 1985).

During the Commonwealth period Drimnagh Castle was described as an old castle made habitable (Simington 1945). In the Hearth money roll for 1664, the castle was rated as containing three chimneys, but the occupant is not named. In an entry dated 1667, the castle was rated as containing six chimneys and Lieutenant-Colonel Philip-Ferneley is stated to have been the occupant. The lease under which Ferneley held the castle expired before his death in 1677 and the castle and lands reverted to the Barnewells of Bremore. The male line of that family ended early in the 18th century and the Drimnagh and Bremore estates were sold in 1727 by Walter Bagenal, who married the heiress of the house of Bremore. The estates were bought by Henry Earl of Shelburne, whose representative, the Marquis of Lansdowne, took up residence in Drimnagh (Ball 1906).

Reference is made to the castle in 1761 by a French tourist, who remarks that it is built in the style of some of the castles in his own country (Ledwich 1790). In 1780 it was visited by Austin Cooper, who mentions its narrow stairs, thick walls and irregular wainscoted rooms, particularly a small dark room near the gateway, with a large staple and enormous ring in the wall (Ibid.). Dix (1897) describes it as an oblong castle of the Anglo-Norman period with a battlement roof, with three storeys and a high archway through which a laden cart could pass. He also identifies several '*ancien*' outbuildings and the ruins of a small, square tower on the north side of the castle that was visible from nearby Lansdowne Valley (Ibid.).

The Kavanagh family took up residence in the castle in the earlier part of the 19th century and it was subsequently sold to Louis Hatch in 1904. Up until his death in 1953, Drimnagh Castle was one of the oldest continually inhabited castles in Ireland and is an outstanding example of an old feudal stronghold. Mr Hatch bequeathed the castle and surrounding lands to the Christian Brothers, in whose ownership they have remained up to the present day. By the mid-1980s the castle was in ruin and in 1986 a conservation and restoration programme was set up, which has overseen the conservation and restoration of the castle.

Prior to being called Lansdowne Valley the area was originally known as *Cruimghlinn* (Crumlin), meaning 'crooked glen' (Joyce 1996). The earliest reference to Crumlin after the Anglo-Norman conquest indicates that the lands were held for a time by a family from Harptree in Somersetshire. However, before the close of King John's reign they had been constituted a royal manor. The system of tenure here was different from that on the other royal manors, as the tenants themselves took the place of a middleman and held the demesne lands in addition to their own farms (Ball 1906).

Towards the end of the 13th century, the manor of Crumlin was leased to Henry de Compton, an ecclesiastic who was also recorded as lessee of the profits of the manor courts in Saggart and Newcastle Lyons and who had rendered valuable service to the Crown in the Irish Chancery (Ball 1906).

During the 14th century and 15th century the Abbey of St Thomas, the Priory of the Holy Trinity and the Guild of St Anne in St Audoen's Church all appear as owners of property at Crumlin, and amongst the local families there occur the names of Stephens, Whitbred, Gallane, Stafford, Hay, Arthur, and Says. Ball (1906) further notes that several other religious houses were also in possession of land at Crumlin at the time of their dissolution in the mid-16th century, such as the Convent of St Mary de Hogges, the Cathedral of St Patrick, and the Abbey of St Mary. Their holdings were afterwards known under various names, including Cromwell's land, Mastocke's land, Giffard's grove and Kevin's farm.

At the end of the 16th century, the Purcell family had their principal residence at Crumlin and in 1609 Edmund Purcell leased land then belonging to the church. Other figures known to have connections with Crumlin – or residences in the area – include John Brice, who was mayor of Dublin in 1605, the Brereton family, and Sir Patrick Fox (Ball 1906). The latter was the Clerk of the Council in Dublin City and had acquired much property in Crumlin, occupying what was known as the manor house in the early 17th century (Ibid.). In the latter half of the 17th century

the greater portion of the Crumlin lands came into the possession of Major Joseph Deane, who also owned the manor house in Terenure (Ibid.).

15.3.1.2.4 Milling Activity

The River Camac runs through Inchicore down by Kilmainham and flows into the River Liffey at Heuston Station, though for the majority of its course it now flows underground. During the 17th century textile industries developed along the River Camac, which at the time was characterised by industrial archaeological features such as water mills, water wheels and weirs (for example, two mills were located alongside the river in Clondalkin village).

The site of a watermill (RMP DU018-035) is recorded to the north of Drimnagh castle, on the River Camac in Lansdowne Valley. The low elevation of the site and the steep gradient of the valley on either side made it a perfect site to power water mills. Given the level of occupation in the environs during the medieval period it is possible that the mill may have been in use from that time. A mill and millrace were accounted among the possessions of the castle in the 15th century (Ball 1906) and a mill at Drimnagh is both recorded in the Civil Survey of 1654 and is depicted on the Down Survey map of 1656. The Drimnagh paper mill that is marked on the OS six-inch maps of 1843, 1876 and 1912 probably occupies the site of the earlier mill.

Although well defined in the historic mapping, the exact location of the mill is unclear. The site recorded for the mill has been the subject of an archaeological excavation, but no remains of the mill were identified there (Licence 04E1673) and the ground had been somewhat truncated by modern development works (Excavations 2006). There is a possibility that the site recorded as the location of the mill was not entirely accurate, in which case there is the potential that some of the remains of the former mill may still exist elsewhere within Lansdowne Valley.

15.3.1.2.5 The Grand Canal

The construction of the Grand Canal in 1756 defined the southern limits of Dublin's industrial suburbs and formed a crucial role in the industrial development of the rural landscape of the county. The eastern side of the country was one of a number of areas that experienced an unprecedented period of prosperity from the mid-18th century onwards. Population growth, increased income from rentals, an upsurge in economic activity, and better prices for the agricultural sector, all contributed to this new wealth. The canal began construction following the passing of an Act in 1715, proposing a link between Dublin and the Rivers Shannon and Barrow. Interest waned, until 1755, when the engineer Thomas Omer was appointed to the project.

The initial twelve-mile stretch began at Clondalkin and was completed in 1773. The building of the canal caused a major change to the landscape as the canal required locks, lock keeper's houses, curved quays, and bridges, built at intervals along its length. The construction of the canal also precipitated the building of associated industrial structures such as flour mills, water mills, millraces, and warehouses, as industries took advantage of the direct link with Dublin and the midlands.

The construction of the Grand Canal had a profound cultural effect through the industrialisation of a previously rural landscape and was a major factor in the period of prosperity which existed in the east of Ireland in the mid-18th century. It effectively created a new industrial suburb on the outskirts of the city which was bound by the Grand Canal. The areas of Drimnagh, Crumlin and Clondalkin were situated just outside this manmade boundary and cartographic analysis shows that they remained predominantly agricultural, in contrast to villages like Kilmainham and Inchicore which lay inside the line of the canal. The physical requirements of the canal system did, however, change the character of the region, with the addition of its locks, lock keeper's houses, and bridges, some of which remain to this day. The resulting traffic and commercial activity would have also changed the atmosphere of these areas, with the new transport link bringing a vibrant urban element into the agricultural region.

15.3.1.2.6 Early Modern Development

Most of the study area remained as agricultural land for tillage and grazing in the early 20th century and beyond, in contrast to the more developed land north and east of the Grand Canal. The gradual development of Clondalkin and its environs in the post-medieval and early modern period supported an industrial expansion along one of the main routeways serving access and egress to and from Dublin City, the present N7 Naas Road. Clondalkin village had two mills located alongside the River Camac and the growth of quarries and extractive sites in this area is evidenced throughout the OS historic mapping. In addition to the great southern turnpike road (the N7), the presence of the Grand Canal is likely to have been of key infrastructural importance in supporting the extractive industries. Lewis (1837) notes in his account of the environs of Clondalkin, that

'the greater portion of the land is arable land; the soil is fertile... There are quarries of good limestone, which is raised in abundance for agricultural and other uses'.

The expansion of the city in the 18th century and 19th century necessitated the increased production of building materials and the clays to the south of the old city were found to be an excellent source of brick-making material. While these clays were being extracted slightly further to the west, it was discovered that limestone occurred quite close to the surface to the east of Dark Lane (now Sundrive Road) in Crumlin. The quarry appears on William Duncan's Map of the county of Dublin in 1821 and on subsequent editions of the Ordnance Survey.

The most dramatic change to the landscape was the large-scale residential developments of the 20th century. A priority of the new Irish State was the provision of housing to relieve the congested inner city. The Crumlin estate began construction in 1925, when 702 houses were built by Dublin Corporation. In 1935, the Corporation was given wider powers of compulsory acquisition, which resulted in a further 2,915 houses being built. By this time, the Crumlin brick-fields had ceased production and, along with the quarries, had become the city's rubbish tips. The new estates were constructed on the filled-in quarries and Brickfields Park was established over the central portion of the old works. The limestone quarries to the east of Sundrive Road appear to have been in use as a tip head at least until the 1930s.

From the 1920s onwards Drimnagh also began to see an increase in settlement and during the mid-to-late 1930s, Dublin Corporation undertook a massive housing programme in what was then called the 'North Crumlin Area' of Dublin. As with the housing in neighbouring Crumlin, this programme was designed to help alleviate the overcrowding and bad housing conditions in Dublin's Inner City. Several schools were constructed in the early 1950s as the area became more populous, including those founded by the Christian Brothers at Drimnagh Castle, on the Long Mile Road.

Walkinstown was also developed around this time, with the majority of the housing built in the period after the World War Two. Intensive development beyond these areas, in Clondalkin, Greenhills and Tallaght, began in the 1970s with the large-scale construction of housing estates and continued into the ensuing decades.

15.3.1.3 East of Grand Canal: Dolphin's Barn to Dean Street

15.3.1.3.1 Prehistoric Activity

While it is well established that there was prehistoric activity in and around Dublin City, there is little direct evidence for it along the Proposed Scheme where it will run east of the canal. The sole indicator is a stone axehead found just south of Clogher Road in 1934 (NMI 1934:82), which is indicative of activity during the Neolithic period (approximately 4000BC to 2500BC).

15.3.1.3.2 Medieval landscape of Dolphin's Barn and The Coombe

The ancient *Slige Dala*, one of the five principal highways mentioned in the Annals of the Four Masters in the 1st century AD, entered Dublin City by way of Dolphin's Barn, via Cork Street and the Coombe (it originated in Limerick and its course is roughly followed by the old N7 road). The route ran parallel to the Commons Water (DU018-020575), a tributary of the River Poddle, running in an easterly direction along a well-defined valley, from which the name 'The Coombe' is derived (Simms *et al* 1995).

Dolphin's Barn once formed part of the lands belonging to the priory of the Hospitallers of St John of Jerusalem at Kilmainham and in early sources was referred to as *Karnanclonegune* (Ball 1906). It was renamed Dolphin's Barn after the Dolphin (Dolfyn) family who are mentioned in 13th century and 14th century deeds relating to Dublin (Ibid.). Further north-east, lands around the Coombe lay within the Liberty of Donore, which had been held by the Abbey of St Thomas from the 12th century. After Henry VIII's dissolution of the monasteries in the mid-16th century, the lands were acquired by William Brabazon, ancestor of the Earls of Meath. This granted the Abbey, and then the Brabazons, unusual access and rights to water, the use of which was defended by both up until the abolition of the latter's manor courts in 1859.

The canons of St Thomas instigated extensive engineering works to route water up to and through the abbey lands in order to supply their mills. From as early as 1185, they may have been responsible for the diversion of water from the River Dodder to Kimmage, where it joined that of the River Poddle. Dolphin's Barn became quite affluent in the late medieval period through the erection of a number of mills and tanneries, which were powered by the City Watercourse (RMP DU018-020575 and DU018-020626). Off Fumbally Lane and New Street, and further west on the Coombe, archaeological investigations have unearthed evidence for medieval leather tanning,

revealing the wood-lined soaking pits and elaborate ditch systems that supplied water to them (e.g., Excavations 2004). Later tanning activity was also identified at the junction of Ardee Street and Cork Street. At the corner of Ardee Street and the Coombe Bypass, the medieval millpond on the Commons Water was unearthed, but the pond had mostly silted up by the 17th century (Excavations 2003).

The City Watercourse was initially constructed in the 13th century and altered and developed as the needs and the population of Dublin grew. Originally the earliest inhabitants of Dublin had relied on water diverted from the River Liffey, but this proved an unstable source and was often polluted with salt water. Its tributary the River Poddle, was subsequently used as the main source of water but became insufficient for the rapidly expanding city.

The construction of the City Watercourse between the River Poddle and the River Dodder in 1244 greatly supplemented the water supply for Dublin. This watercourse runs from Firhouse to the River Poddle at Whitehall Cross, from which point both streams run to 'The Tongue' weir at Kimmage (Joyce 1912). At this location, the waters were divided in two, one portion supplying the city, the other to Dolphin's Barn. At the latter, an elevated rampart known as 'The Back of the Pipes' feeds the water to the City Basin near James's Street (Ibid.).

It is probable that the original watercourse, when constructed in 1244, was in the form of an earthen ditch and bank, which may have been held in place by a revetment and was presumably open to the elements. This led to the pollution of the water source due to repeated casting-in of rubbish, a situation that was accentuated by pollution from mills, tanneries, and bleach yards (Simpson 1997). Further problems were caused by the illegal draining off of water for both domestic and industrial use with the inhabitants of James's Street in particular supplying themselves with water. As an entry in the Calendar of Ancient Records of Dublin (Gilbert 1888-1944) tells us, this was done by making

'holes in the bank, which is easily done with a stick or any small thing; nay some of them let out as much as would turn a mill' (CARD VI, 248, Ibid.).

The bad state of repair of the watercourse is also highlighted by multiple entries in the records. In 1605 it was noted that the watercourse was much decayed *'by reason that the head of the water is not substantially done or defended against the force of the water'* (CARD II, 447, Ibid.). The repair of the watercourse using *'tymber, stone, lyme and workmanship of carpenters and masons'* was therefore ordered by the authorities (Ibid.).

The records of 1736 speak of the wastage of water and of numerous breaches in the watercourse through which water is stolen whenever needed. In addition, these same records tell how the water at Dolphin's Barn

'is greatly wasted and soiled....by the inhabitants washing all manner of things in the channel and throwing quantities of dirt into the same which is of great prejudice to the water, and in all probability occasion the pipes being so often choked' (CARD VIII, 205, Ibid.).

In this entry it was proposed that a *'wall well backed, be built along the channel, the side the ditch is on to contain in length 437 feet 6 inches'* (Ibid.). It is known that this wall was built, for in 1754 the CARD (X, 157, Ibid.) notes a breach in the wall *'leading from Dolphin's Barn to the bason....about 15 or 16 perches in length of the said wall were fallen down'*. Records from 1762 tell of the commission to rebuild the City Watercourse at the south end of the basin where the walls were *'to be of brick and fourteen inches thick, and the bottom of the course to be flagged'* (CARD XI, 104, Ibid.). It is these remnants of the City Watercourse walls commissioned in 1736 and repeatedly repaired that are recorded on the first edition Ordnance Survey maps of 1843, with one running parallel to and north-west of Dolphin's Barn Street.

Evidence for Hiberno-Norse settlement was uncovered during two adjacent excavations on The Coombe / Dean Street, at the site of the present Hyatt Hotel (Licences 08E0150 and 16E0080, as described in Section 15.3.4.4). This part of Dublin lay outside the walled city and beyond the precinct of St Patrick's Cathedral, in an area previously presumed to have been mostly agricultural until the large residential development of the 17th century and 18th century. The discovery is a significant one, providing evidence for the expansion of the late Hiberno-Norse town far south of its original boundaries. The formation of a suburb at this location does not appear to have been an ad-hoc endeavour. The methodical infilling of an earlier ditch, relocation of the road further north, and the laying out of plots averaging 5m in width (which was the town standard) all point to the efficient action of a municipal authority (Walsh 2012). The location itself indicates residents low down the social scale (as this was marginal land, reclaimed from the stream), as does the dearth of material goods from the occupation levels (Ibid.). The conformity of the house plan to the type commonly found in the town suggests that the builders and occupants were Dubliners (Ibid.).

15.3.1.3.3 17th century and 18th century development in the Liberties

Away from the street frontages, the area had remained predominantly rural until the late 1600s, but from this point onwards, improvement-minded landlords and investors began to launch new development ventures across the city. The population of the capital expanded hugely in this era, and continued to do so into the 18th century, with many new immigrants settling in the Liberties. There were several reasons that the Liberties appealed to the new breed of entrepreneur: the availability of undeveloped land and agricultural raw materials; proximity to the city, without Corporation regulations; and a plentiful supply of water. The extraordinary water rights enjoyed since the medieval period by the Abbey of St Thomas, and subsequently the Brabazons, were perhaps the most important factor in the growth of industry in the Liberties of Donore and St Thomas. Those trades that gained a foothold required access to water, or were closely related to those that did, i.e. milling, malting, brewing, distilling, tanning, textile production and cloth dyeing.



Image 15.3: De Gomme's Map of Dublin 1673, Showing the Watercourses Entering the City (Lennon 2008)

Most of the surviving streets and property plots south of the Coombe were conceived and laid out in the late 1600s and early 1700s. The surviving street names reflect this, with Earl Street, Meath Street, Brabazon Row and Chamber Street all names referring to the Brabazons. Nonetheless, there are some that relate to the now-culverted watercourses, such as Mill Street, Marrowbone Lane and Pimlico / Ardee Street, which seem to have originated as rights-of-way along the engineered waterworks and plough headlands of the abbey's old precincts. For example, De Gomme's map of 1673 shows the watercourses prior to being culverted, flowing along Mill Street, Ardee Street, Pimlico and the Coombe, and names Red Mills at Mill Street (Image 15.3). In another example, the presence of a millpond fed by the Commons Water, in boggy ground alongside the *Slige Dala* may help explain the dogleg of Cork Street–Ardee Street–Upper Coombe in that ancient route.

15.3.1.4 Patrick Street to Merchant's Quay

15.3.1.4.1 The Development of Viking and Medieval Dublin

Prior to the settlement of Dublin by the Vikings in approximately AD 841, the main settlement was a monastery situated close to a large natural black pool to the south of where Dublin castle stands today, which was known in the surviving documentary sources as *Dubhlinn*, meaning black pool (Image 15.4). The area was a dominant

topographical feature throughout the medieval period as the entire area became known as 'le pole'. The exact location of the monastery is unknown but there are two suggestions. Recent excavations at the church site of St Michael le Pole identified an early Christian cemetery in this location (Gowen 2001). A second possibility for the site of the monastery is the curving street pattern of Stephen Street Lower, Peter's Row and Whitefriar Street on the south-eastern side of the pool (Simpson 2006). This may preserve the outline of a large monastic enclosure, which survives because the original roads curved around the monastery and, when the enclosure eventually disappeared, these roads were all that survived.

A second pre-Viking settlement appears to have existed at *Áth Cliath* meaning 'the ford of the hurdles' (Image 15.4). This site can be roughly identified in the modern landscape as it was subsequently replaced by the medieval bridge. This site is now occupied by Father Mathew Bridge, located just north of Bridge Street. It is believed the ford was just slightly upstream from the bridge and its possible that whenever *Áth Cliath* came into existence it functioned as a farming and fishing community (Clarke 2002).

The Vikings arrived in Ireland in the 9th century and it is most likely that they seized the monastery at *Dubhlinn* and set up their *longphort* here. The Annals of Ulster in AD 841 record that the Vikings had set up a 'ship camp' at *Dubhlinn*. Archaeological excavations on the southern banks of the pool at South Great Georges Street revealed traces of habitation in the form of houses, pits, and hearths, which suggests this as the location of the first Viking *longphort* in Dublin (Simpson 2005). References in the annals between AD 842 and AD 902 refer to the '*foreigners of Áth Cliath*', implying that a second *longphort* had been established. Clarke (2002) suggests that the Vikings may have taken advantage of an Island in the River Liffey called Usher's Island, as it was naturally defensive and it had direct control of the strategic river crossing.

Following an enforced exile between AD 902 and AD 917 the Vikings recaptured Dublin and a new nucleus of settlement appears to have been located towards the shoreline of the Liffey, in the Christchurch Place / Fishamble Street area (Wallace 1990). The new Viking settlement was called *Dyflinn* (Simms 2001). This site was again naturally defensive as it fronted onto the River Liffey and was bordered on the east side by the River Poddle.

By the mid-10th century, this new settlement was encircled and fortified by a series of earthen banks. This was entirely necessary as there was continuous conflict, with various groups laying siege to the town at this time. The annals pinpoint two major destructions of the settlement in AD 944 and AD 1000 (Clarke 2002). Archaeological excavation has revealed the sequence of at least three substantial earthen banks at Fishamble Street, Winetavern Street, Dublin Castle, Parliament Street, Ross Road, and Werburgh Street and these dated from the mid-to-late 10th century to the early 12th century (Simpson 2006). The banks encircled an area measuring roughly 240m north-south by a similar width and straddled the high ground or ridge where Christ Church Cathedral stands today. Most importantly, it included the all-important Liffey frontage, along Wood Quay and Cook Street, which gave direct access to the river and ultimately the sea (Ibid.) (Image 15.4). The Book of Leinster describes the *dún* or stronghold of Dublin as one of the seven wonders of Ireland (Clarke 2002).

Archaeological excavation has also revealed details of everyday Viking life which contrasts with the violent picture portrayed in the documentary sources. Their houses were built of post-and-wattle walls with straw and sod roofs. They were often set less than 0.30m apart and were huddled together in groups and set within fenced property plots or gardens. Small animals such as goats and pigs were kept in the gardens or plots. All the household rubbish and the latrines were located in pits at the rear of the house (Simpson 2006).

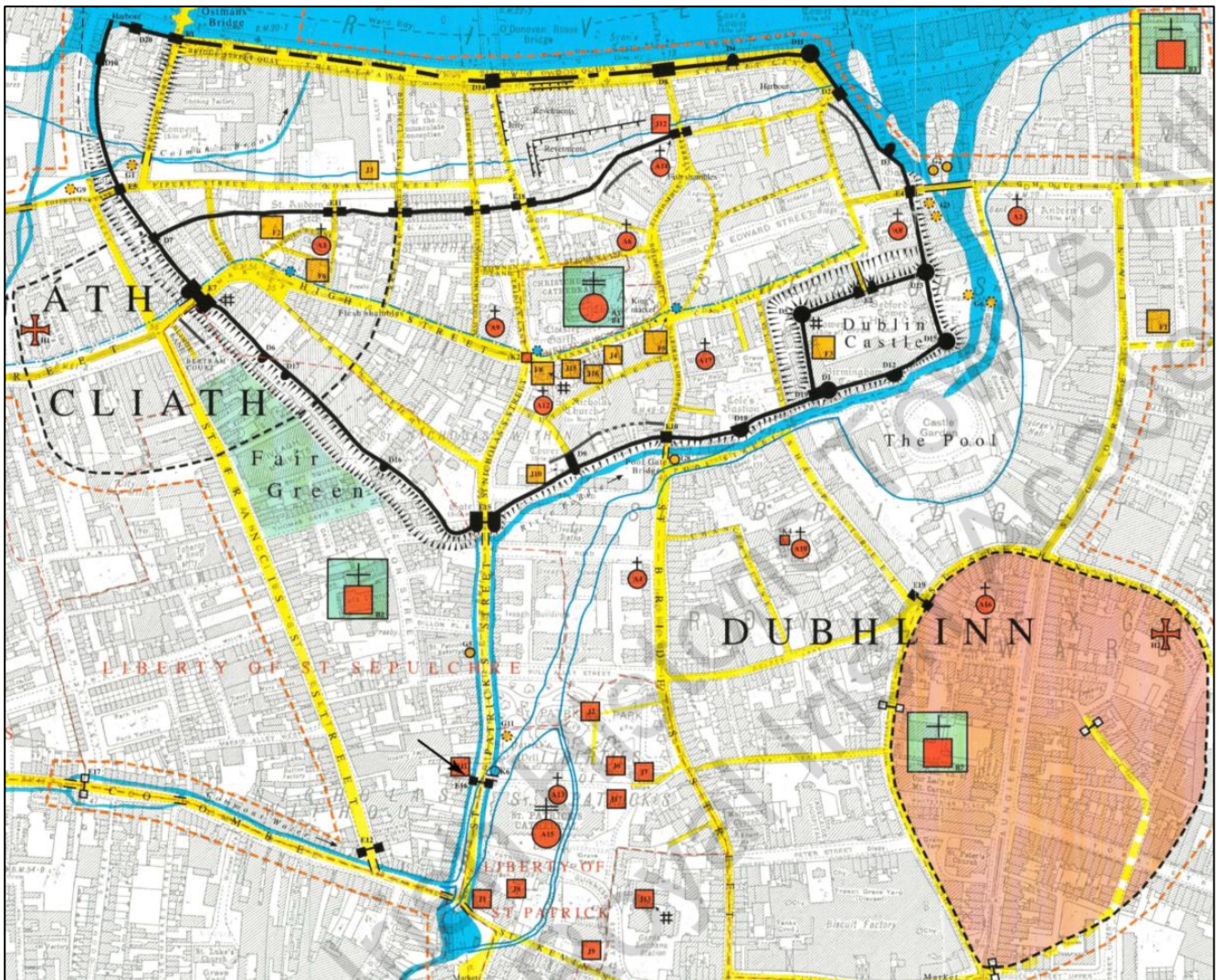


Image 15.4: Map Showing the Walled City and the Locations of the Pre-Viking Settlements at *Áth Cliath* and *Dubhlinn* (Clarke 2002)

In the famous battle of Clontarf (AD 1014) Brian Bóruma, although victorious over the Vikings, was killed and there followed a series of succession disputes. Eventually in 1075 Brian Bóruma's great grandson Muirchertach took power of Dublin and was to rule for forty years. It appears that Muirchertach understood his position was not entirely secure and it is likely that due to a fear of invasion he set about replacing the earlier earthen defences with stone defences (Duffy 1996). Archaeological excavation suggests these walls were built between AD 1100 and AD 1125, and that during Muirchertach's rule the settlement of Dublin thrived and swiftly expanded westwards along High Street (Simpson 2006). A number of domestic houses and yards found could be dated to the late 11th century and early 12th century (Ibid.). The new defensive line can be traced in some of the modern streets: Cook Street and Essex Street West mark the northern limit of the walls, while Ship Street Little and Lamb Alley mark part of the southern and western line respectively (Image 15.4). There were at least three main gates, which were protected by stone towers and the quay was on the northern side, where there must have been access to the River Liffey. Documentary sources suggest that there was also some sort of castle at Dublin, which pre-dated the construction of the great Anglo-Norman castle in the 13th century (Ibid.). A number of sections of the first city wall have been found at Winetavern Street, Werburgh Street, Nicholas Street, Parliament Street, City Hall and Ross Road.

The Anglo-Norman attack on Dublin in 1170 was a pivotal event in Irish history. The people of Dublin acquired a foreign overlord in the form of Henry II, King of England. The new foreigners, realising their military vulnerability, began work immediately to improve and strengthen the existing stone walls encircling the town. Surviving sections of this Anglo-Norman wall were found through archaeological excavation at Ship Street Lower, linking Dublin Castle with Werburgh Street, another stretch was located at Lamb Alley, and at Ross Road where there is evidence that a section of the Viking wall was demolished and replaced in the late 12th century (Walsh 2001). The

documentary sources also record that Newgate, the western city gate, had been rebuilt and renamed in 1177 (Simpson 2000). The defensive function of the walls was increased by the addition of substantial stone towers at intervals along the walls. Although primarily defensive these towers also acted as prisons, valuable real estate and various guild headquarters (Simpson 2006). A stone castle, Dublin Castle, was also built, forming a stronghold within the walled city and becoming the symbol of Royal power not only in Dublin but in the whole of Ireland. In addition to the construction of the city walls and Dublin Castle, an extensive moat was created. An excavation along Patrick Street, on the south side of the city, revealed that the River Poddle had been re-channelled to flow into the city ditch, thus creating a water filled moat (Walsh 1997). Excavations revealed that the ditch at Nicholas Street was particularly impressive (Simpson 2000).

The success of the port of Dublin at this time is reflected in the rapid expansion of the population outside the city walls. The most dramatic and large-scale development was a programme of land reclamation along the River Liffey at Wood Quay. The River Liffey channel naturally silted up with deep deposits of silt and gravel along its southern banks, effectively reclaiming land along this stretch, and it was decided to expand the city walls and encompass this newly reclaimed area within new city walls. It is likely that work had begun on the new wall by 1242 / 1243 as documentary sources from that period refer to the '*old city wall*' (Simpson 2006). The new wall was simply added on to the old one, leaving the earlier wall intact and acting as a second line of defence. In order to give access in both directions, gateways were cut through the existing north wall. An example of this still survives in the form of St Audoen's Arch at Cook Street. The line of the new wall can still be traced in the modern streetscape. The curving line of Augustine Street, on the north-western side of the city, marks the western limit, while a corresponding curve on the eastern side, at Lower Exchange Street, marks the eastern limit.

The over-spilling of population outside the city walls continued into the early 13th century, resulting in four separate suburbs. The most heavily populated was located to the south and incorporated the ancient site of *Dubhlinn*. Names in the vicinity reflect proximity to the pool: the Pool Gate, leading to Pülle Street (Ship Street Little), the Pool Mill and, the church of St Michael le Pole. Just to the east of this was St Stephen's Green, a vast public space used as common pasture for citizens living on the south side of the River Liffey (Clarke 2002). The western suburb focused on St Thomas's Street and its continuation St James's Street. Another suburb was located on the north-side of the River Liffey at Ostmanstown. Its name reflects a Norse ethnic component. The fourth suburb lay to the east where much of it was taken up by public spaces called Hoggen Green and the Steine, areas that had been in use since Viking times.

From the late 13th century the city was constantly under attack. The biggest military threat occurred in 1317 when the Scots, reputed for their destructiveness, and led by Robert the Bruce, set up camp in Castleknock, not far from the city. The mayor, Robert de Nottingham issued instructions that the western quarter of the city be set on fire prior to the approach of the enemy army. The fire, however, appears to have spread further than was anticipated and spread into the city damaging parts of Christchurch Cathedral. Although the extent of the devastation was immense the people of Dublin succeeded in deterring the enemy as the Scots turned away and never returned (Lydon 2003). There followed a period of economic decline from which the late medieval city never really recovered. Throughout the 15th century and 16th century various groups continued to attack the city and its hinterland. Although the city walls were continuously in a state of disrepair and its defensive ditch was silted up, Dublin managed to withstand the assault on its walls by Silken Thomas in 1534.

15.3.1.4.2 Patrick Street and Nicholas Street

Originally the area around St Patrick's Cathedral (RMP DU018-020269) was located on island estuary of the River Liffey, defined in the south and east by the Poddle river (Image 15.5). This was a tidal, marshy area, with a large pool or pond just south-west of St Patrick's cathedral precinct. This location marked the crossing point of two of the four *slighte*, the *Slige Dala* and the *Slige Chualann* routeways, entering Dublin from Limerick and Waterford respectfully. Both *slighte* entered Dublin via a crossing point on the River Poddle, a factor which was later remembered when in the 17th century houses in this area were called 'Cross Poddle' (Pearson 2000).

St Patricks Cathedral was built in the 13th century and was the largest church in medieval Ireland. It occupied the site of a pre-Norman church known as 'St Patrick in insula', which is mentioned approximately 1121 and in the earliest lists of Dublin City Parishes. Archbishop Henry of London commenced the building of the new cathedral in approximately 1225. It became the first University of Ireland (1320 to 1520), but by the 16th century it was in ruinous condition. It was restored to its present state in the 19th century. The 13th century church was of cruciform plan, with a choir, aisled transepts and nave. The Lady Chapel was added to the east end in the 13th century and a 14th century tower adjoins the west end. The cathedral was originally entered from the west gable, with the south porch being a 19th century addition.



Image 15.5: Map of Medieval Dublin Overlaid onto Modern OS Mapping (Clarke 2002)

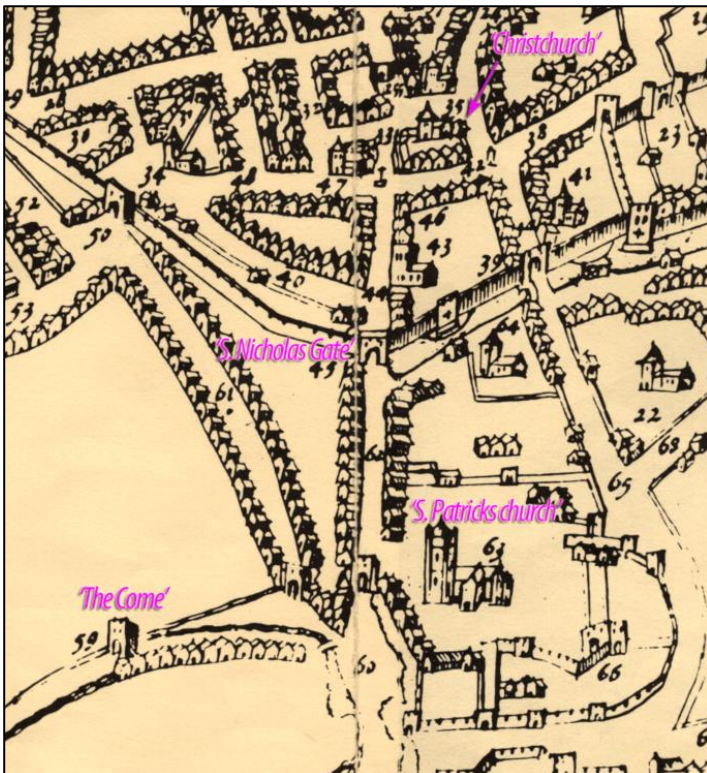


Image 15.6: Speed's Map of Dublin, 1610 (Lennon 2008)

The lands surrounding the cathedral were initially used for monastic purposes and held the first university of Ireland from 1320–1520 (Bennett 2005). A choir school was established in 1432 and Marsh's Library was opened in 1701. As the city expanded, the flood plains of the River Liffey were subject to reclamation activity to provide further land for accommodation and industry. The cathedral lands were gradually encroached upon by inhabitants seeking accommodation close to the protective structure of the city walls. Evidence of this can be seen on Speed's map of Dublin in 1610, which is the earliest cartographic source for the city (Image 15.6). Patrick Street is shown

as a narrow road leading to St Nicholas' Gate (RMP DU018-020001) (named in Speed's legend as 'S. Nicholas Gate'). It is defined on either side by a row of houses, as is the south-western boundary to the cathedral precinct. The City Watercourse and the River Poddle can be seen on the map, which also shows houses lining the south side of the Coombe ('The Come' on Speed's legend), leading up to an extra-mural gate, known as Washam Gate. This gate may have been part of the defences of Thomas Court (NMS 2021).

Rocque's map of 1760 (Image 15.7) demonstrates the intensive development that took place outside the city walls over the course of the late 17th century and 18th century. Much of the former cathedral precinct had been colonised by new streets and houses. A row of terraced houses known as Cross Poddle (named for the nearby bridge that crossed the River Poddle) stood to the south-west of the cathedral, in roughly the same place as those shown on Speed's map over a century earlier. The northern end of the terrace originally abutted St Patrick's Gate (RMP DU018-020001), which had been removed along with most of the city gates and walls. One of the houses, at the northern end of the row, can be seen in a drawing by Malton from 1795 (Image 15.8). The row formed the eastern side of a much narrower Patrick Street that exists today. They were acquired by the Wide Streets Commission in 1813 and demolished to accommodate a realignment and widening of the street (their site lies beneath the present street).

A narrowing of the 18th century street where it met Nicholas Street is evident on Rocque's map (Image 15.7) and is caused by several buildings on either side protruding out further than their neighbours, marking the site of the former gate into the walled city. As with the houses in Cross Poddle, these were demolished by the Commission to make a clear passage along Patrick and Nicholas Street. As part of the Commission's policy the land fronting on to the two newly widened streets was redeveloped for housing, which was to be constructed as standardised three-storey over basement dwellings. Both streets were significantly widened again in the later 20th century, which led to the removal of the 19th century houses along the west side of the streets. Along the east side of Patrick Street and Nicholas Street, c. 1900, the houses were replaced by the red-brick and terracotta Iveagh Trust Flats and Nicholas Street Flats respectively.

St Nicholas' Gate and Nicholas Street were named for the medieval parish Church of St Nicholas Within (RMP DU018-020085). The church was rebuilt in 1707 and the remains stand at the corner of Nicholas Street and Christchurch Place. St Nicholas' Gate was the main southern gate into the medieval walled city, originally separating Nicholas Street and Patrick Street. It was approached by Patrick Street, which was itself guarded by an extra-mural gate, St Patrick's Gate (Image 15.5, Image 15.6). Patrick Street and Nicholas Street formed the primary route into the medieval city from the south, leading to the Viking and medieval High Street inside the walls. They provided access to St Patrick's Cathedral and the area of intensive milling and related activity adjacent to it. Nicholas Street was well-developed by the mid-13th century and by the 17th century it had become quite fashionable. For example, in 1698 Dr John Whalley, publisher of prophetic almanacks on the stars, moved to a house next to the Fleece Tavern (Bennett 2005).

By the 19th century the area contained one of the worst slums in the city. The Guinness Trust (renamed the Iveagh Trust in 1903) was founded by Sir Arthur Guinness in 1890 and was responsible for the clearance of seven acres of slums. The new developments funded by the Iveagh Trust Scheme constitute the most significant urban renewal scheme undertaken in Dublin in the late 19th century and early 20th century. They were designed to improve the living accommodation available for Dublin's working class and include the Patrick Street flats, the Iveagh Baths, and the Iveagh Hostel (the latter two standing opposite each other on Bride Road).



Image 15.7: Rocque's Map of Dublin, 1760, Showing Patrick Street and Nicholas Street (Ferguson 1998)



Image 15.8: Malton's View of St Patrick's Cathedral in 1795 (Pearson 2000)

15.3.1.4.3 Christchurch Place and Christ Church Cathedral

Christ Church Cathedral (RMP DU018-020270) is traditionally cited as having been founded between c. 1028 and 1036 by Sitric Silkbeard, King of Dublin, and Dúnán, Bishop of Dublin. This early church was sited on a high ridge overlooking the River Liffey in an area that was at the heart of the Hiberno-Norse town (Casey 2005). After the

Anglo-Norman invasion in 1169 the original church was demolished and work began on a new cathedral complex under the guidance of Archbishop O'Toole and the new Anglo-Norman rulers, Strongbow and Raymond le Gros. By 1278 the cathedral precinct was defined and protected by a stone wall and two gatehouses. The greatest impact on the cathedral and the precinct was to occur in the late 19th century when Henry Roe commissioned Sir George Edmund Street to repair and restore the cathedral. This was a massive programme of rebuilding undertaken between 1871 and 1878, which involved the removal of the medieval choir in an attempt to reinstate the original building.

In Speed's somewhat stylistic map, dated 1610, Christ Church occupies a central position within the medieval walled town (Image 15.6). The cathedral is depicted along with several smaller dwellings along Skinners' Row (now Christchurch Place) but is shown as a quadrangle, as are other major ecclesiastical buildings. The market cross at the junction of Skinners' Row and Nicholas Street is also depicted. The chapel of St Michael (RMP DU018-020081) can also be seen, with its burial ground to the north, on the east side of 'Christ Church Lane'. It was founded by Donatus, first Bishop of Dublin, approximately 1038 on land given by Sitric Silkbeard and became a parochial church in the 15th century. In 1630 it was described to be in a very good condition but by the 1670s it was in need of repair. Although repairs were subsequently made, the church was rebuilt in 1815 and its churchyard to the north was occupied by parochial schools. It was demolished by the end of the 19th century and the present Synod Hall built on its site. The 17th century tower survives as part of the Synod Hall complex (Bradley and King 1987).

Christ Church was an urban cathedral comprising a cloister courtyard that was surrounded by a compact network of overcrowded streets and densely packed secular buildings, workshops, property boundaries and narrow laneways. It was bounded by Skinner's Row to the south, Fishamble Street to the east, John's Lane to the north and Christ Church Lane to the west (as depicted on Rocque's map of 1760, Image 15.9). Skinners' Row was an important medieval street that was part of an east-west axis connecting Dublin Castle to Christ Church Cathedral and High Street (Pearson 2000). Archaeological evidence has demonstrated that these streets were densely settled by the 10th century and that Skinner's Row was one of the main thoroughfares of medieval Dublin (Simpson 2000). Skinners' Row was, as the name suggests, the street of the carriers, where hides and leather were traded from Dublin to the Continent prior to the Anglo-Norman invasion (Bennet 2005). The street it was also referred to 'Bothe Street' and continued north as far as Fishamble Street (Ibid.).

The monastery of Christ Church, along with all the other monastic establishments in Ireland, was dissolved during the Reformation, but Christ Church survived and became a secular cathedral. The monastic buildings, however, were redundant and in 1608 the Dean's house and the former cloisters were appropriated for the Law Courts (named as the Four Courts on Rocque's map, Image 15.9). These were used consistently until the construction of the new Four Courts at Inns Quay in 1798 (Casey 2005). In 1695 the Chapter House was leased to the Lord Mayor and Trinity chapel was then converted into a Chapter House (Milne 2000). The cathedral precinct was dominated by secular activity as demonstrated by the public order notice issued in 1633 stating that:

'noe cellar or vault under the said church, nor any house adjoining or contiguous to the said church or part thereof should be imploid as a tavernne, tippling house, or tobacco shop'. (Ibid.)

There are also complaints of houses built up against the Cathedral:

'all such buildings as have been erected.....against the walls of the said church, which doe either stop the light, disgrace and darken the same endanger the fabrique, or in anyway annoy the said church....are by order of this Boarde, to be removed'. (Ibid.)

In 1821, as part of the Wide Streets Commission's (WSC) programme of work, the northern side of Skinners' Row was widened to create Christchurch Place (Image 15.10). By this time, it had become a fashionable street, lined with booksellers, jewellers and goldsmiths' shops, as well as The Tholsel or city hall (Bennett 2005). The WSC cleared the northern part of the street and the structures that were built up against the Cathedral on all sides were demolished leaving an open space. According to Craig (2006) the original width of Skinner's Row was approximately 6m, leaving approximately 30m between the northern boundary of the road and the transept gable of Christchurch, which was densely built up. The structures that were removed included several dwellings along Skinner's Row and smaller dwellings within precinct of the Cathedral. From the information recovered from Drew's excavations (see Drew 1892), which were undertaken in the 1880s, it appears that the southern part of the Calefactory – the range of buildings to the south of the cloister garth which housed the Refectory and part of the precinct wall of the cathedral – was probably also removed by the new road. The widening of the road had a huge impact on the visual setting of the cathedral. For the first time there was an unhindered view of the complex and

a railing was erected defining its new limits (Craig 2006). By the late 19th century the houses to the east of the cathedral had been removed, opening up that end of the complex.

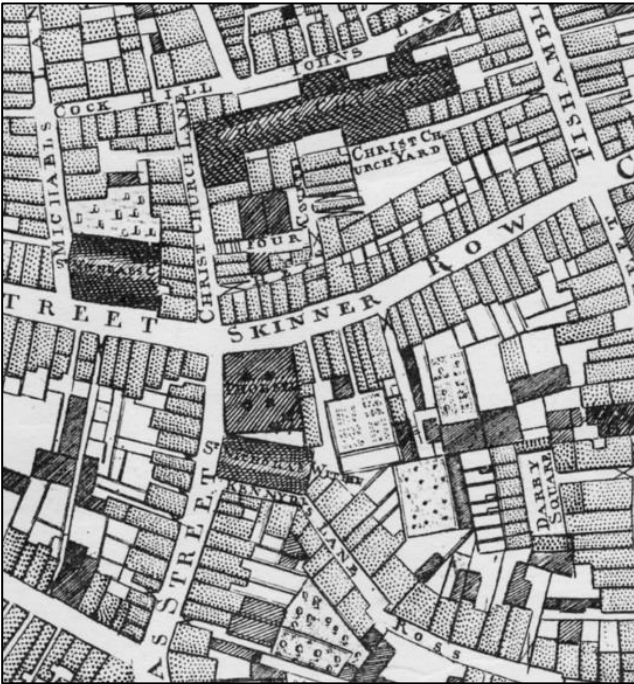


Image 15.9: Rocque's Map of Dublin, 1760, Showing Nicholas Street / Christchurch Place (Skinners' Row) (Ferguson 1998)

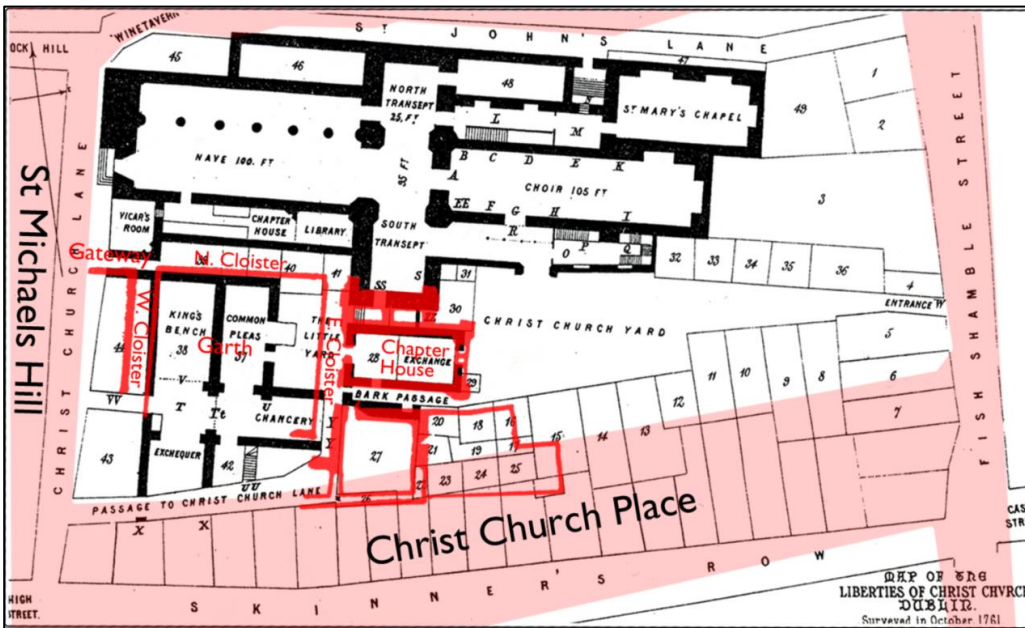


Image 15.10: Map Showing 19th Century Widening of Christchurch Place (in Pink), Overlaid onto Map of the Liberty of Christ Church (Thomas Reading, 1761, Redrawn 1869; After Clarke 2002)

15.3.1.4.4 Winetavern Street and the Wood Quay Excavations

Winetavern Street is recorded in the documentary sources as '*Vicus tabernariorum vini*', referring to the street of taverns / public houses. It runs through one of the oldest sectors of medieval Dublin, where extensive archaeological excavations were conducted by the NMI in the 1970s (Wallace 1981 and Wallace 1990). The focus of the excavations was to investigate a very large site proposed for the development of the Civic Offices. Phased excavations over a ten-year period included: John Street / Winetavern Street (1969); Wood Quay (1972 to 1976); and an area on the eastern side of the site adjacent to Fishamble Street, which concluded in 1980.

The excavations revealed the well-preserved remains of the city wall (dated to approximately 1100) crossing the centre of the site from east to west. To the south were the uniquely well-preserved remains of the early Viking town. To the north were deep sequences of dumped reclamation deposits pushing northwards towards the river, three major wooden quay-front revetments and eventually the Anglo-Norman city wall. These, and the other remains on the site, were revealed beneath the often deep basement floor levels of demolished Georgian buildings and an assortment of other structures cleared prior to development.

The northern portion of the Civic Offices site was more completely excavated than its southern side and the site was also significantly levelled by bulldozing after the excavations were concluded. While most of the Wood Quay site was comprehensively excavated, it is clear from photographs contemporary with the excavations, that residual 'baulks' of archaeological material between the cuttings opened for archaeological excavations survived even after levelling by bulldozers. Other peripheral material around the edges of the site has also survived undisturbed, as the later excavation alongside Winetavern Street by Halpin in 1993 has shown (Halpin 2000). Archaeological excavations for the proposed DART underground project in 2009 revealed an additional 7m in length of the city wall. The significant stretch has been preserved in situ both within the basement space and externally, on the western side (Simpson 2010b).

Dublin's earthen defences were replaced by the stone wall which crosses through the Civic Offices site at Wood Quay and which excavations suggest was built in approximately 1100 (Duffy 1996). The line of the new wall can be traced in the modern streetscape and the curving line of Lower Exchange Street mirrors the line of the wall, as does Bridge Street on the western side. The wall was generally substantial in size, originally measuring at least 5m in height. A large stretch of the new extension wall was exposed during the excavations at Wood Quay in the 1970s, where it survived 2.75m in width and 1.75m in height and had a plinth at foundation level (Simpson 2000). It extended along the northern frontage of the Civic Office site (now beneath the Civic Offices building), founded directly on gravel and sand (Wallace 1981). It is now exposed in the underground basement of the Dublin Civic Offices and extends intact, below-ground, towards Winetavern Street. The wall runs parallel to the river but has a distinctive kink at the eastern end, thought to follow the line of underlying bedrock.

15.3.2 Archaeological Heritage: Tallaght to Ballymount

15.3.2.1 National Monuments

There are no national monuments or sites under preservation order within or in the vicinity of this section of the Proposed Scheme.

15.3.2.2 Recorded Archaeological Monuments (RMP / SMR Sites)

This section of the Proposed Scheme will run through the ZAP associated with the historic village (RMP DU021-037 and DU022-018) (Image 15.11 and Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR; Sheets 2 and 3 of 27, Figure 15.1 in Volume 3 of this EIAR), which has its origins as an important early medieval ecclesiastical settlement. There are 14 individual RMP sites recorded within the historic town, associated with the early medieval and medieval history of the village, of which nine are located within c. 50m of the Proposed Scheme (Table 15.5 and Table 15.6):

- Eight sites are clustered in St. Maelruain's Church grounds, bounded by Blessington Road to the north and east (along which the Proposed Scheme will travel), comprising the church, graveyard, an ecclesiastical enclosure, several fonts and tombs, and a cross (RMP DU021-037002 to 006, DU021-037009, DU021-037018, DU021-037019) (Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR and Sheet 2 of 27, Figure 15.1 in Volume 3 of this EIAR). The ecclesiastical enclosure has been identified through archaeological excavation to the west and south-west of the churchyard, confirming that the line of the graveyard boundary on this side was almost certainly the inner enclosure of the monastic complex. Excavation to the north-east indicates that the enclosure once extended across the Blessington Road, which appears to have been a later intrusion; and
- An unclassified mill site (RMP DU021-037007) (Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR and Sheet 2 of 27, Figure 15.1 in Volume 3 of this EIAR). There is documented evidence of a mill at the monastic site (NMS 2021) and it is possible that the millrace depicted on the first edition OS six-inch map (1843) may follow the course of the earlier millrace. It runs east-west to the south of the churchyard, continuing within the grounds of the Dominican Priory, north of the Proposed Scheme where it will run along Main Road. It is culverted beneath Blessington Road and Old Greenhills Road, where a bridge parapet wall survives on the east side.

An additional three sites are located over 50m north of the Proposed Scheme in the Dominican Priory grounds, a gatehouse, castle site, and holy tree traditionally associated with St. Maelruain (RMP DU021-037020, DU021-037010 and DU021-037012). The gatehouse is incorporated into the present Priory and is all that survives of the later medieval Archbishop's palace. The original castle complex appears to have been extensive, with an enclosing fosse (Bradley and King 1987; NMS 2021; Handcock 1899). As Main Road functioned as the route from Dublin and appears on the historic mapping from as early as the mid-17th century, it is unlikely that the castle complex ever extended southwards beyond it. A medieval tower house site (RMP DU022-018001) is also recorded on the west side of the village beneath the present R819 Greenhills Road, the remains of which stood until the 1950s, approximately 60m west of the Proposed Scheme. Descriptions for these four sites are contained in the entry RMP DU021-037 and DU022-018 in Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR.

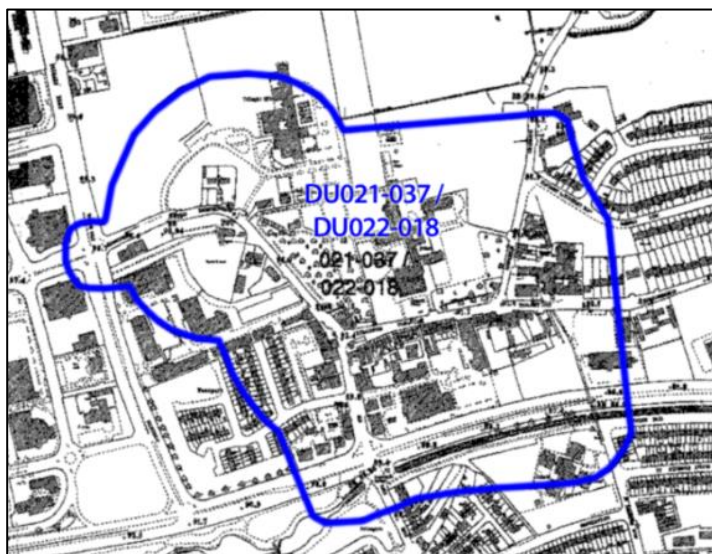


Image 15.11: Published RMP Map (Dúchas The Heritage Service 1998) Showing the ZAP for Tallaght Village (RMP DU021-037 / DU022-018)

This section of the Proposed Scheme will also traverse the ZAP of the ecclesiastical enclosure (RMP DU022-005005) (Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR; Sheet 5 of 27, Figure 15.1 in Volume 3 of this EIAR) associated with the early medieval foundation at Kilnarnagh, where it is proposed to realign the Greenhills Road through a strip of greenfield at Birchview Avenue and Treepark Road. The ecclesiastical remains and the medieval Kilnarnagh Castle (DU022-005001 to -005004, DU022-005008 and -005009) were situated within the enclosure. The site of a holy well dedicated to St Kevin (DU022-005004) is recorded beside the castle site. It is not certain that the well was associated with the ecclesiastical foundation and there is no religious tradition attached to it. There is no surface trace of any of the sites, with all surviving above-ground remains destroyed in advance of the large-scale housing development here in the 1970s.

The line of the enclosure appears to be partly formed by the curving Kilnarnagh / Tymon North townland boundary, which is characteristic of early ecclesiastical sites. An unusual kink in the boundary on the south side may indicate the presence of sub-rectangular annexe to the enclosure. Documentary evidence suggests that the line of the enclosure formed the boundary to the graveyard, therefore it is possible that burials once extended partly into this area (just inside the Proposed Scheme). The line of the enclosure and possible annexe lie partly within the Proposed Scheme. Archaeological monitoring of works relating to the ESB Networks 110kV Cable Development between Airton Road and Inchicore, the route of which crossed the curving townland boundary, found nothing of archaeological interest (see also Section 15.3.3.4). More recently, archaeological monitoring of ground investigation (GI) works for the Proposed Scheme included one trial pit within the ZAP of the ecclesiastical enclosure (see also Section 15.3.3.4), in which nothing of an archaeological nature was identified (Shanarc Archaeology Ltd. 2021). It also indicated significant build-up using dumped construction material within this area.



Image 15.12: RMP Sites at Kilnamanagh (ASI Historic Environment Viewer; NMS 2021)

Table 15.4: RMP / SMR Sites Within the Proposed Scheme (Tallaght to Ballymount Section)

ID No.	Name / Type	Townland / Street Address	ITM_E	ITM_N
DU021-037	Historic Town	Tallaght	709008	727758
DU022-005005	Ecclesiastical enclosure	Kilnamanagh (Elmcastle estate)	709756	729234

Table 15.5: RMP / SMR Sites Within c. 50m of the Proposed Scheme (Tallaght to Ballymount Section)

ID No.	Name / Type	Townland / Street Address	ITM_E	ITM_N
DU021-037002-	Ecclesiastical enclosure	Tallaght (Blessington Road)	709008	727758
DU021-037003-	Church	Tallaght (Blessington Road)	709024	727797
DU021-037004-	Graveyard	Tallaght (Blessington Road)	709006	727756
DU021-037005-	Tomb - unclassified (present location)	Tallaght (Blessington Road)	709008	727756
DU021-037006-	Cross	Tallaght (Blessington Road)	709010	727757
DU021-037009-	Font	Tallaght (Blessington Road)	709026	727797
DU021-037018-	Tomb - chest tomb	Tallaght (Blessington Road)	709026	727797
DU021-037019-	Tomb - unclassified	Tallaght (Blessington Road)	709026	727797
DU022-005001	Castle - tower house	Kilnamanagh (Elmcastle estate)	709663	729293
DU022-005002	Church	Kilnamanagh (Elmcastle estate)	709686	729280
DU022-005003	Graveyard	Kilnamanagh (Elmcastle estate)	709647	729305
DU022-005004	Ritual site - holy well	Kilnamanagh (Elmcastle estate)	709643	729316
DU022-005008	Bawn	Kilnamanagh (Elmcastle estate)	709658	729271
DU022-005009	Earthwork	Kilnamanagh (Elmcastle estate)	709668	729246

Table 15.6: RMP / SMR Sites in the Vicinity of the Proposed Scheme (Tallaght to Ballymount Section), Where Associated Features May Extend into the Proposed Scheme

ID No.	Name / Type	Townland / Street Address	ITM_E	ITM_N
DU021-037007-	Mill - unclassified	Tallaght (Blessington Road, Priory Grounds, Old Greenhills Road)	708990	727600

15.3.2.3 Topographical Files, NMI

A large number of post-medieval finds were recovered from an old watercourse in a garden in Tallaght, including pottery sherds, slate, and fragments of glass bottles and clay pipes (NMI 1976:94 to 146). A polished stone axehead is recorded to the townland of Tallaght, though with no specific findplace (NMI 1934:66), as are four copper axeheads recovered from a sand pit in 1955 (NMI IA/162/1955). A bronze palstave and copper alloy object are both located to the Bancroft Estate in Tallaght, the first found one foot deep in surface soil and the second found in the bed of an old stream (NMI 1973:213, 214).

Post-medieval pottery sherds, glass fragments and a copper alloy ring are known to have been found around the Kilnamanagh / Greenhills area, though specific find locations are not recorded (NMI 2013:490 to 2013:500, 2013:456 and 2013:458 to 2013:463).

15.3.2.4 Previous Archaeological Investigations

A number of previous archaeological investigations have been carried out in the historic core of Tallaght village (RMP DU021-037/ DU022-018), where they uncovered evidence for the early medieval ecclesiastical settlement and later occupation dating from the 13th century to 15th century (Table 1, Appendix A15.1 (Previous Archaeological Investigations in the Vicinity of the Proposed Scheme) in Volume 4 of this EIAR).

Of particular interest are the sections of ecclesiastical enclosure (RMP DU021-037002) identified to the west and south-west of St. Maelruain's churchyard (Licences 91E0027, 95E0155, 94E0135, 96E0188, 96E0054). Two ditches were also uncovered on the opposite side of Blessington Road during the archaeological monitoring of service trenches within the TU Campus, to the north-east of the churchyard (Licence E000536). These may represent part of the inner enclosure associated with the early monastic site to the south. They were in-filled in the 13th century / 14th century and were similar to the concentric ditches identified to the south-west of the present church boundary (Gowen 1991). This would indicate the potential for the discovery of the enclosure where it continued beneath Blessington Road, both to the north and south.

In addition, archaeological testing at the site of the Old School House that once stood on the west side of the Blessington Road, identified both intact and disturbed burials to the south of the present church (Licence 95E0031). These were identified in the south-western corner of the site, farthest from the roadside. No archaeological features were found elsewhere within the site. This suggests that the burial ground associated with the early medieval church located in the south-western quadrant of the ecclesiastical enclosure.

A large curvilinear enclosure (RMP DU021-037013) was excavated to the south of Main Road. It was located to the south-east of the monastic site and a radiocarbon date of AD 680 to AD 890 shows it to be broadly contemporary. The presence of animal bone, cereals and iron slag indicate domestic activity, with the diversity of plant species pointing to fairly intensive activity.

Elements associated with the medieval borough were identified to the rear of the existing properties lining the south side of Main Road, including a large ditch that may represent the borough boundary and the remains of a possible medieval house (Licences E000555, 90E0009, 00E0161).

Archaeological monitoring of works relating to the ESB Networks 110kV Cable Development between Airton Road and Inchicore included the area containing the probable line of the ecclesiastical enclosure at Kilnamanagh (RMP DU022-005005). The cable route crossed the curving townland boundary. No soils, features or finds of archaeological significance were uncovered or impacted upon during the works (Licence 17E0488, Excavations 2018a).

Archaeological monitoring of GI works for the Proposed Scheme (Causeway Geotech Ltd. 2020) took place in September and October 2020 (refer to Appendix A14.2 in Volume 4 of this EIAR). The work was carried out by Shanarc Archaeology Ltd under Licence No. 20E0622 and focused on locations that were in the general vicinity of recorded archaeological sites or areas identified as being of archaeological potential. Ground / geotechnical investigations comprised a combination of trial pits (TP), cable percussion cores (CP), slit trenches (SLT), and window samples (WS).

A total of 20 GI locations along the Proposed Scheme were archaeologically monitored. Only one of these was located in proximity to a recorded archaeological site: trial pit R9-TP05 within the ZAP for ecclesiastical enclosure RMP DU022-005005 at Kilnamanagh. Four others were located in the wider vicinity of the ecclesiastical complex (R9-CP03, R9-TP04, R9-CP04, R9-TP06). Nothing of an archaeological nature was identified at these locations,

nor at any of the other GI locations monitored along the Proposed Scheme (refer to Appendix A15.5 (Archaeological monitoring of GI works (Shanarc Archaeology Ltd. 2021)) in Volume 4 of this EIAR). The trial pit within the ZAP of the ecclesiastical enclosure indicates that this residential green space, the level of which is higher than the surrounding roads, was built up with dumped construction material to a depth of c. 1.8m before being grassed over.

15.3.2.5 Industrial Heritage

There are no below-ground industrial heritage sites along this section of the Proposed Scheme. Upstanding industrial heritage sites are discussed in Chapter 16 (Architectural Heritage).

15.3.2.6 Cultural Heritage

Only one site of cultural heritage interest was identified within this section of the Proposed Scheme, a memorial to local literary figure Katharine Tynan in Tallaght village centre (CBC0809CH001) (Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR; Sheet 3 of 27, Figure 15.1 in Volume 3 of this EIAR). In addition to this, there are some less tangible elements of cultural heritage recorded through wall plaques, none of which will be affected by the Proposed Scheme. One such plaque on Trustus House (No.2 Main Road) is dedicated to the memory of Fr Paul Hynes who created the Tallaght Welfare Society in 1969, while another was erected in 1967 to the memory of 'The bold Fenian men who fought the Battle of Tallaght, March 1867' (Image 15.13).

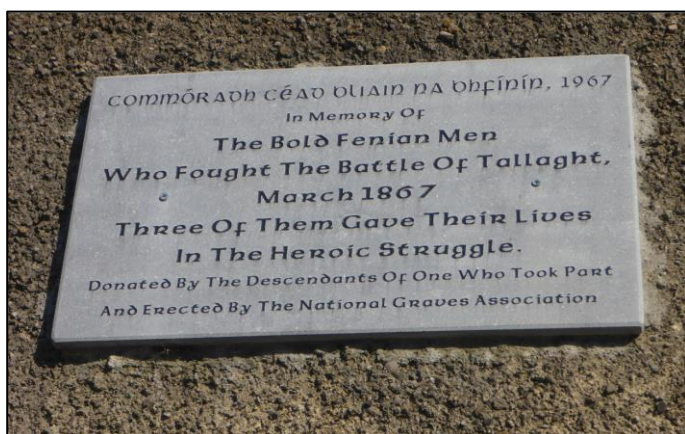


Image 15.13: Plaque on Wall Bounding the Dominican Priory Grounds, Main Road, Tallaght

15.3.2.7 Field survey

A field survey was undertaken on 5 March 2020. Archaeological and cultural heritage sites identified along the Proposed Scheme are detailed in an inventory contained in Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR. The field survey was informed by the desk study undertaken for this assessment. This section summarises the historic character and archaeological potential of this section of the Proposed Scheme, based on observations made during the field survey. Details of all relevant sites are contained in the inventory.

15.3.2.7.1 Physical and Cultural Environment

This section of the Proposed Scheme will travel mainly along existing roads. It is dominated by the large-scale modern development on the west side of Belgard Road (R113) dual-carriageway, where the Square Shopping Centre, Tallaght Hospital and various commercial and residential buildings are clustered. There are also commercial enterprises to the east of Belgard Road (R113) between Blessington Road and High Street, to the rear of St. Maelruain's Church. The majority of the buildings associated with Tallaght IT are screened from view.

Tallaght village, despite being a historic centre, is somewhat overwhelmed by the large-scale modern development that has grown up around it. Nonetheless elements of its past have survived, including St. Maelruain's Church and churchyard, the Dominican Priory and a variety of 19th century shops, pubs, and houses. These provide a historic character to the village centre, despite modern intrusions.

The Proposed Scheme will leave the existing road at Kilnamanagh, where it is proposed to provide a new bus only link road through a strip of greenfield at Birchview Avenue and Treepark Road. This is a narrow landscaped green area that mostly forms a buffer between Greenhills Road and the Birchview and Elmcastle estates.

15.3.2.7.2 Archaeological Potential and Non-Designated Archaeological Sites

The archaeological potential of this section of the Proposed Scheme is largely concentrated in Tallaght village, which is a designated ZAP (RMP DU021-037 / DU022-018). Little survives above-ground, though the site of the early monastic foundation is marked by the present St. Maelruain's Church and churchyard. Evidence from archaeological investigations indicates the potential for the discovery of the ecclesiastical enclosure (RMP DU021-037002) where it continued beneath Blessington Road, both to the north-east and east of the church.

Within the grounds of the Dominican Priory there is a surviving section of millrace that is depicted on the first edition OS six-inch map (1843) (RMP DU021-037007). Now dry, it remains open, and may follow the course of an earlier millrace associated with the monastic site. The course of the millrace crosses Blessington Road and Old Greenhills Road and it is possible that remains survive below-ground at these locations.

One non-designated archaeological site was identified at the boundary to the Proposed Scheme on Old Greenhills Road (CBC0809AH001, Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR; Sheet 3 of 27, Figure 15.1 in Volume 3 of this EIAR). A stretch of wall runs along the east side of the Dominican Priory grounds, to the north of the gate on Old Greenhills Road. The stone wall has a distinct batter to its base and was noted during the field survey. It is not clear whether the batter represents additional support applied to a later boundary wall or if the unusual construction indicates an earlier date and possible association with the original boundary to the Archbishop's palace complex along its eastern side. The wall will not be affected by the Proposed Scheme.

This section of the Proposed Scheme will also traverse the ZAP of the ecclesiastical enclosure (RMP DU022-005005) associated with the early medieval foundation at Kilnamanagh, where it is proposed to realign Greenhills Road through the greenfield area at Birchview Avenue and Treepark Road. A section of the probable enclosure at its south-eastern side and part of the possible annexe lie within the Proposed Scheme. Documentary evidence suggests that the line of the enclosure formed the boundary to the graveyard, therefore it is possible that burials once extended partly into this area (just inside the Proposed Scheme). The field survey identified no above-ground traces of the enclosure or any other archaeological features within the greenfield area. It is crossed by several tarmac-surfaced paths and there is evidence in places of services / utilities, though the extent of any disturbance is unknown. As recently as 2017, however, a new ESB cable was routed through this area and monitoring of these works revealed nothing of archaeological interest (Excavations 2018a). Similarly, the recent archaeological monitoring of GI works for the Proposed Scheme found nothing of archaeological interest. It is highly likely that any remains that do survive will be truncated or otherwise disturbed. While the archaeological potential of this area has been reduced by modern construction activities, there is, nonetheless, the potential that remains of the ecclesiastical enclosure, or other features associated with the monastic site, may survive below-ground in this area.

15.3.3 Archaeological Heritage: Ballymount to Crumlin

15.3.3.1 National Monuments

There are no national monuments or sites under preservation order within or in the vicinity of this section of the Proposed Scheme.

15.3.3.2 Recorded Archaeological Monuments (RMP / SMR Sites)

There are no recorded archaeological monuments within the section of the Proposed Scheme.

Along Greenhills Road on its approach to the Walkinstown Roundabout, the Proposed Scheme will pass c. 13m north-west of the ZAP for a flat cemetery (RMP DU022-002) (Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR; Sheet 8 of 27, Figure 15.1 in Volume 3 of this EIAR), which was uncovered in 1892 during the quarrying of a sand and gravel ridge.

Table 15.7: RMP / SMR Sites Within c. 50m of the Proposed Scheme (Ballymount to Crumlin Section)

ID No.	Name / Type	Townland / Street Address	ITM_E	ITM_N
DU022-002	Flat cemetery	Greenhills Road (East end)	711060	730739

15.3.3.3 Topographical Files, NMI

Post-medieval pottery sherds, glass fragments and a copper alloy ring are known to have been found around the Greenhills / Kilnamanagh area, though specific find locations are not recorded (NMI 2013:490 to 2013:500, 2013:456 and 2013:458 to 2013:463). A number of other finds, all located in Greenhills, relate to the flat cemetery recorded there (RMP DU022-002; NMI 1945:373, 1898:20a, b, IA/48/65) .

15.3.3.4 Previous Archaeological Investigations

No archaeological investigations have been undertaken along this section of the Proposed Scheme or in its vicinity.

15.3.3.5 Industrial Heritage

There are no below-ground industrial heritage sites along this section of the Proposed Scheme. Upstanding industrial heritage sites are discussed in Chapter 16 (Architectural Heritage).

15.3.3.6 Cultural Heritage

No sites of cultural heritage interest were identified along this section of the Proposed Scheme. Historic street furniture and cultural heritage sites of architectural interest are discussed in Chapter 16 (Architectural Heritage).

15.3.3.7 Field survey

A field survey was undertaken on 5 March 2020. Archaeological and cultural heritage sites identified along the Proposed Scheme are detailed in an inventory contained in Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR. The field survey was informed by the desk study undertaken for this assessment. This section summarises the historic character and archaeological potential of this section of the Proposed Scheme, based on observations made during the field survey. Details of all relevant sites are contained in the inventory.

15.3.3.7.1 Physical and Cultural Environment

The creation of extensive residential estates during the second half of the 20th century and the ensuing commercial, industrial, and road development, has resulted in dramatic changes in the landscape, leaving it devoid of historic character. This section of the Proposed Scheme will travel along existing roads.

15.3.3.7.2 Archaeological Potential and Non-Designated Archaeological Sites

There is no visible surface trace of any archaeological features in the vicinity of the flat cemetery recorded on the south-east side of the Greenhills Road, near Walkinstown Roundabout (RMP DU022-002). There is extensive development on the site, which lies within the Greenhills Industrial Estate. It is possible, however, that associated features may survive beneath the existing road, within the Proposed Scheme, despite modern disturbances.

No non-designated archaeological sites were identified along this section of the Proposed Scheme.

15.3.4 Archaeological Heritage: Crumlin to Grand Canal

15.3.4.1 National Monuments

There are no national monuments or sites under preservation order within or in the vicinity of this section of the Proposed Scheme.

15.3.4.2 Recorded Archaeological Monuments (RMP / SMR Sites)

Two RMP sites, a water mill (unclassified) and watercourse (the City Watercourse), are located on the Proposed Scheme cycle way on Clogher Road, at its junction with Rutland Avenue (DU018-044 and DU018-043002) (Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR; Image 15.14; and Sheet 14 of 27 Figure 15.1 in Volume 3 of this EIAR). There are no above-ground traces.

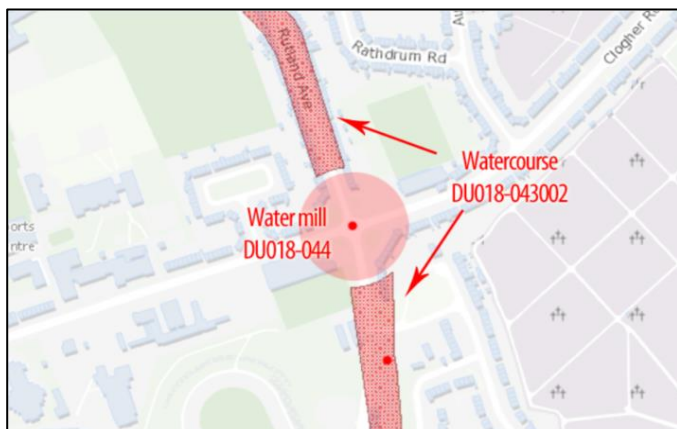


Image 15.14: Map Showing RMP Sites at Clogher Road, a Water Mill (DU018-044) and Watercourse (DU018-043002) (The Heritage Council 2020)

A small cluster of sites is also recorded in Crumlin, where the Proposed Scheme cycle way is routed along Bunting Road and St Mary's Road. At this point it passes through the ZAP for an ecclesiastical site centred on the medieval St Mary's Church (RMP DU018-038001 to DU018-038003) (Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR and Sheet 10 of 27, Figure 15.1 in Volume 3 of this EIAR). Part of the probable outer ecclesiastical enclosure was revealed during archaeological testing on the south-east side of the graveyard (Section 15.3.4.4). The projected line of this enclosing ditch would continue across Bunting Road and St Mary's Road to the south-west and north-east of the church. It also traverses the ZAP of a nearby mound site (RMP DU018-038004, Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR and Sheet 10 of 27, Figure 15.1 in Volume 3 of this EIAR), which lies beneath the present St Mary's Church of Ireland.

Table 15.8: RMP / SMR Sites Within c. 50m of the Proposed Scheme (Crumlin to Grand Canal Section)

ID No.	Name / Type	Townland / Street Address	ITM_E	ITM_N
DU018-038001-	Church	Crumlin (St Mary's Road)	711964	731600
DU018-038002-	Graveyard	Crumlin (St Mary's Road)	711960	731587
DU018-038003-	Ecclesiastical enclosure	Crumlin (St Mary's Road)	711945	731613
DU018-038004-	Mound	Crumlin (St Mary's Road)	712019	731636
DU018-044----	Water mill - unclassified	Crumlin (Clogher Road)	713897	732108
DU018-043002	Watercourse	Crumlin (Clogher Rd / Rutland Ave)	713935	731957

15.3.4.3 Topographical Files, NMI

Floor tiles, or fragments thereof, dating to the medieval and post-medieval periods, were found during a graveyard clearance scheme that was undertaken at St Mary's Church in Crumlin in 2009 (RMP DU018-038; NMI 2009:34 to NMI 2009-43 and 1000:2496). A holy water stoup was also recovered from the St Mary's graveyard in 1941 (NMI 1941:24).

The files also record the discovery in 1912 of a possible cremation burial, comprising a necked bipartite bowl with burnt bone fragment, found in Crumlin townland 'in a quarry buried in the sand in the spring' (NMI RIA1912:65:1 and 2). A cinerary urn may have also been found in Greenhills (NMI RIA1909:25). An apothecary's stone mortar, broken in two, is also recorded to Crumlin townland, as is a bronze pin found in a sand pit (NMI 1944:198 and NMI 1930:1).

15.3.4.4 Previous Archaeological Investigations

A small number of archaeological investigations have taken place in on Greenhills Road and in Crumlin, most of which revealed nothing of archaeological interest. The exception are the two investigations that occurred within the ZAP for St Mary's medieval parish church (RMP DU018-038) on St Mary's Road / St Agnes Road, revealing an enclosing ditch associated with the church (RMP DU018-038003) (Licences 99E0305, 98E0362, Table 2 in Appendix A15.1 (Previous Archaeological Investigations in the Vicinity of the Proposed Scheme) in Volume 4 of this EIAR). The projected line of the ditch intersects with Bunting Road / St Mary's Road (Image 15.15).



Image 15.15: Figure 3 in Murphy 2000 Showing Projected Line of Enclosing Ditch, Overlaid onto Modern OS with the Line Projected Further to its Possible Intersection with Bunting Road / St Mary's Road

15.3.4.5 Industrial Heritage

There are two industrial heritage sites recorded in the DCIHR on this section of the Proposed Scheme (Table 15.9), neither of which has any upstanding remains: the site of an early 20th century Market Gardens at Bunting Road (DCIHR 18-13-035, Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR; Sheet 10 of 27, Figure 15.1 in Volume 3 of this EIAR) and an 18th century / 19th century mill site on the junction of Clogher Road and Rutland Avenue junction (the Rutland Mills; DCIHR 18-14-023, Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR). The site of Rutland Mills occupies the sites of earlier mills, including one depicted on the mid-17th century Down Survey map (RMP DU018-044, Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR; Sheet 19 of 27, Figure 15.1 in Volume 3 of this EIAR).

An additional four sites are recorded adjacent to this section of the Proposed Scheme that have no above-ground presence and will not be affected by the Proposed Scheme (Table 15.10). Upstanding industrial heritage sites are discussed in Chapter 16 (Architectural Heritage).

Table 15.9: Industrial Heritage Sites Within the Proposed Scheme (Crumlin to Grand Canal Section)

ID No.	Name / Type	Townland / Street Address	ITM
DCIHR 18-13-035	Market Gardens (site of)	Bunting Road, Crumlin	711769, 731473
RMP DU018-044	Rutland Mills (site of), DCIHR 18-14-023	Clogher Rd / Rutland Ave	713902, 732107

Table 15.10: Industrial Heritage Sites Adjacent to the Proposed Scheme (Crumlin to Grand Canal Section)

ID No.	Name / Type	Townland / Street Address	ITM
DCIHR 18-14-034	Quarry (site of)	Crumlin Road	712088, 731859
DCIHR 18-14-033	Smithy (site of)	Crumlin Road	712162, 731900
DCIHR 18-14-030	Moracrete Works (site of)	Crumlin Road	713468, 732467
DCIHR 18-14-029	Brick Works (site of)	Crumlin Road	712979, 732432

15.3.4.6 Cultural Heritage

This section of the Proposed Scheme has relatively few sites of cultural heritage interest given its length. A commemorative modern stone cross marks the reputed location of the Crumlin market cross (CBC0809CH002 in Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR) (Sheet 11 of 27, Figure 15.1 in Volume 3 of this EIAR). Historic street furniture and cultural heritage sites of architectural interest are discussed in Chapter 16 (Architectural Heritage).

15.3.4.7 Field survey

A field survey was undertaken on 5 March 2020. Archaeological and cultural heritage sites identified along the Proposed Scheme are detailed in an inventory contained in Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR. The field survey was informed by the desk study undertaken for this assessment. This section summarises the historic character and archaeological potential of this section of the Proposed Scheme, based on observations made during the field survey. Details of all relevant sites are contained in the inventory.

15.3.4.7.1 Physical and Cultural Environment

This section of the Proposed Scheme will travel along existing roads through a densely urban and suburban landscape. The early to mid-20th century housing and shops provide much of the character along this section, but this is interrupted by later developments like Our Lady's Children's Hospital and the neglected Crumlin Shopping Centre. The medieval parish Church of St Mary at St Mary's Road / Bunting Road stands adjacent to the proposed cycleway and is the sole remnant of earlier historic character on this section of the Proposed Scheme.

15.3.4.7.2 Archaeological Potential and Non-Designated Archaeological Sites

Two areas of archaeological potential were identified on this section of the Proposed Scheme. The first is where the proposed cycleway will travel through the ZAP for St Mary's medieval parish church (RMP DU018-038001, Sheet 10 of 27, Figure 15.1 in Volume 3 of this EIAR) on St Mary's Road / Bunting Road. An enclosing ditch (RMP DU018-038003) associated with the medieval church was identified during archaeological investigations on the south-east side of the churchyard and the projected line of the enclosure intersects with Bunting Road / St Mary's Road.

The second comprises the location of two RMP sites, a water mill (unclassified) and watercourse (the City Watercourse), on the Proposed Scheme cycle way on Clogher Road, at its junction with Rutland Avenue (DU018-044 and DU018-043002) (Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR; Image 15.14; and Sheet 20 of 27, Figure 15.1 in Volume 3 of this EIAR). This is also the site of a 18th century / 19th century mill (the Rutland Mills; DCIHR 18-14-023, Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR). There are no above-ground traces of any of the sites.

A second non-designated archaeological site was identified within this section of the Proposed Scheme, the site of an early 20th century Market Gardens at Bunting Road (DCIHR 18-13-035, Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR and Sheet 10 of 27, Figure 15.1 in Volume 3 of this EIAR). Given the nature of the feature, however, it is unlikely to have left much trace in the archaeological

record and such ephemeral traces were probably destroyed during the construction of Bunting Road and the new housing along it in the mid-20th century. It is considered likely that nothing survives of archaeological interest in this location.

15.3.5 Archaeological Heritage: Grand Canal to Christchurch

15.3.5.1 National Monuments

There are no national monuments or sites under preservation order within this section of the Proposed Scheme, however, it passes alongside St Patrick's Cathedral (RMP DU018-020269, and Sheet 16 of 27, Figure 15.1 in Volume 3 of this EIAR) on Patrick Street and terminates at Christchurch Place, on the south side of Christ Church Cathedral (RMP DU018-020270, and Sheet 17 of 27, Figure 15.1 in Volume 3 of this EIAR). Both cathedrals are considered to be of national importance and should be treated as national monuments.

The walls, towers and gates of the Viking and medieval city defences are considered a national monument and are recorded under a single RMP file number, DU018-020001 (Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR; Sheets 16 and 17 of 27, Figure 15.1 in Volume 3 of this EIAR). Two sections of the city defences (the sites of gates) lie within this section of the Proposed Scheme (Table 15.11), neither of which have any above-ground trace:

- City Defences (St Nicholas' Gate) on Nicholas Street; and
- City Defences (St Patrick's Gate) on Patrick Street.

Although their precise location is uncertain, there is a high potential that elements of these gates survive beneath the existing ground surface, as demonstrated by the archaeological investigations undertaken in 1990 along the west side of Patrick Street and Nicholas Street, to the west of the Proposed Scheme (Section 15.3.5.4). The investigations identified and excavated sections of the city wall and ditch at Nicholas Street / Nicholas Place, Patrick Street / St Nicholas Place and Patrick Street / Nicholas Street (Table 15.12). These are also included under RMP number DU018-020001 and are considered to be part of the national monument (Sheets 16 and 17 of 27, Figure 15.1 in Volume 3 of this EIAR).

15.3.5.2 Recorded Archaeological Monuments (RMP / SMR Sites)

This section of the Proposed Scheme will travel within the ZAP for Dublin Historic City (RMP DU018-020, Sheets 14 to 17 of 27, Figure 15.1 in Volume 3 of this EIAR). There are also 22 RMP / SMR sites located within this section of the Proposed Scheme and a further 62 within c. 50m of it, 32 of which are located alongside the Proposed Scheme. These include the national monuments previously discussed, which are listed according to their designated RMP number in Table 15.11 and Table 15.12 (see also Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR).

Most of these sites have no surface expression and relate to Dublin's medieval and post-medieval suburban development, as well as Viking and medieval settlement within the walls. These include the sites of houses of various or unknown dates, watercourses, mills, bridges, tanneries, a guild hall and a 17th century Quaker graveyard, as well as the sites of gates and a mural tower that formed part of the city defences (as noted in Section 15.3.5.1). The Proposed Scheme will also cross sections of the City Watercourse / River Poddle, which was important for the supply of water to the medieval city, as well as mills associated with it (e.g. in Patrick Street and Cork Street). The River Poddle has long been culverted and now flows underground. In recent years, archaeological excavation in areas adjoining the River Poddle in the vicinity of the Kevin Street / Patrick Street junction have produced archaeological remains dating from the 12th century / 13th century to the 18th century / 19th century.

A watercourse recorded at Christchurch Place, running from High Street and down Castle Street (through the Proposed Scheme), once also formed part of the medieval water supply for the city (DU018-020987, Sheet 17 of 27, Figure 15.1 in Volume 3 of this EIAR). The location of this site on the HEV (NMS 2021) is just outside the 50m study area, however, as depicted on the Friends of Medieval Dublin map (Clarke 2002) its course extends through the Proposed Scheme (see DU018-020987 in Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR).

Table 15.12 lists those RMP / SMR sites located within c. 50m of this section of the Proposed Scheme. It includes excavated sections of the City Defences, Christ Church Cathedral and St Patrick's Cathedral (RMP DU018-020270 and DU018-020269), which, as noted in Section 15.3.4.1, should be treated as national monuments.

Entries relating to the RMP / SMR sites in Table 15.11 and Table 15.12 are contained in Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR.

Table 15.11: RMP / SMR Sites within the Proposed Scheme (Grand Canal to Christchurch Section)

ID No.	Name / Type	Townland / St Address	ITM_E	ITM_N
DU018-020	Historic Town	Dublin City	715076	733907
DU018-020001	City Defences (St Nicholas' Gate)	Nicholas Street	715053	733777
DU018-020001	City Defences (St Patrick's Gate)	Patrick Street	715057	733571
DU018-020576-	Watercourse (part of DU018-043001)	Dolphin's Barn St / Reuben St junction	713851	732939
DU018-020575-	Watercourse	Cork Street	714568	733419
DU018-020331-	Bridge	Cork Street	714579	733411
DU018-121----	Mill - unclassified	Cork Street	714576	733426
DU018-122----	Tannery	Cork Street	714576	733426
DU018-020205-	Bridge	Dean Street	714970	733496
DU018-020399	Mill	New Street South / Kevin Street Upper	715049	733439
DU018-020041-	Bridge	Patrick St / Kevin St Upper	715046	733460
DU018-020197-	Bridge	Patrick Street	715031	733472
DU018-020059-	Ritual site - holy well	Patrick Street	715065	733571
DU018-020196-	Bridge	Patrick Street	715064	733565
DU018-020058-	House - 18th/19th century	Patrick Street	715065	733586
DU018-020198-	Bridge	Patrick Street	715068	733596
DU018-020390-	Bridge	Patrick Street	715062	733660
DU018-020735-	Mill - unclassified	Patrick Street	715044	733670
DU018-020873	Habitation Site	High Street	715052	733907
DU018-020126	Cross	Christchurch Place	715087	733915
DU018-020145	Building	Christchurch Place	715093	733905
DU018-020987-	Watercourse	Christchurch Place	715145	733957
DU018-142	Field system	St Luke's Avenue	714813	733447

Table 15.12: RMP / SMR Sites within c. 50m of the Proposed Scheme (Grand Canal to Christchurch Section)

ID No.	Name / Type	Townland / St Address	ITM_E	ITM_N
DU018-020503-	Graveyard	Cork Street	714223	733343
DU018-020679-	Hospital	Cork Street	714561	733382
DU018-020332-	Hospital	Cork Street	714559	733363
DU018-020330-	Mill - unclassified	Pimlico	714543	733472
DU018-020352-	Church	St Luke's Avenue	714845	733422
DU018-020402-	Guildhall	Dean Street	714899	733527
DU018-020558-	House - indeterminate date	Dean Street	714937	733492
DU018-020559-	House - indeterminate date	Dean Street	714941	733491
DU018-020560-	House - indeterminate date	Dean Street	714948	733489
DU018-020561-	House - indeterminate date	Dean Street	714954	733486
DU018-020562-	House - indeterminate date	Dean Street	714961	733484
DU018-020985-	Kiln	Francis Street	714939	733559
DU018-020109-	House - medieval	Kevin Street Upper	715150	733393
DU018-020113-	Ecclesiastical residence	Kevin Street Upper	715144	733445
DU018-020123-	Pillory	Kevin Street Upper	715205	733419
DU018-020405-	House - indeterminate date	Kevin Street Upper	715084	733456
DU018-020625-	Redundant Record	New Street South	715017	733433

ID No.	Name / Type	Townland / St Address	ITM_E	ITM_N
DU018-020199-	House - medieval	New Street South	715076	733381
DU018-020101-	Building	Patrick Street	715059	733498
DU018-020108-	Castle - unclassified	Patrick Street	715054	733471
DU018-020602-	Industrial site	Patrick Street	715015	733515
DU018-020603-	Tannery	Patrick Street	715015	733506
DU018-020800-	College	Patrick Street	715057	733492
DU018-020626-	Watercourse	Patrick Street	715031	733562
DU018-020628-	Riverine revetment	Patrick Street	715030	733640
DU018-020629-	Water mill - unclassified	Patrick Street	715033	733674
DU018-020630-	Kiln – lime	Patrick Street	715030	733737
DU018-020631-	Riverine revetment	Patrick Street	715030	733736
DU018-020634-	Building	Patrick Street	715032	733764
DU018-020942-	House – medieval	Patrick Street	715075	733670
DU018-020269-	Cathedral (national monument)	Patrick Street	715119	733531
DU018-020116-	Castle - unclassified	Patrick Street	715113	733590
DU018-020001	City Defences (Ditch) (national monument)	Patrick Street / Nicholas Street	715035	733736
DU018-020001	City Defences (Ditch) (national monument)	Patrick Street / St Nicholas Place	715035	733766
DU018-020054-	School	St Patrick's Close	715090	733517
DU018-020086-	Church	St Patrick's Close	715104	733537
DU018-020111-	College	St Patrick's Close	715092	733488
DU018-020118-	House - medieval	St Patrick's Close	715188	733465
DU018-020369-	House - 18th/19th century	St Patrick's Close	715117	733486
DU018-020085-	Church	Nicholas St / Christchurch Place	715098	733875
DU018-020115-	Inn	Nicholas Street	715099	733833
DU018-020723-	Earthwork	Nicholas Street	715104	733846
DU018-020001	Earthwork	Nicholas Street / St Nicholas Place	715025	733776
DU018-020270-	Cathedral (national monument)	Christchurch Place	715123	733975
DU018-020081-	Church	Christchurch Place	715062	733940
DU018-020106-	House - 16th/17th century	Christchurch Place	715113	733907
DU018-020767-	Building	Christchurch Place	715106	733902
DU018-020873-	Habitation site	Christchurch Place	715052	733907
DU018-020220-	House - medieval	Christchurch Place	715109	733949
DU018-020457-	Courthouse	Christchurch Place	715110	733948
DU018-020836-	House - medieval	Christchurch Place	715142	733904
DU018-020215-	House - indeterminate date	High Street	715015	733974
DU018-020216-	House - medieval	High Street	715016	733948
DU018-020217-	House - medieval	High Street	714990	733956
DU018-020584-	Habitation site	High Street	715029	733944
DU018-020585-	Habitation site	High Street	715030	733938
DU018-020586-	House - 16th/17th century	High Street	715011	733944
DU018-020587-	Habitation site	High Street	715006	733948
DU018-020870-	Building	High Street	715032	733975
DU018-020871-	Building	High Street	714985	733974
DU018-020874-	Habitation site	High Street	715016	733944
DU018-020936-	House - medieval	High Street	715036	733939

15.3.5.3 Topographical Files, NMI

The majority of the stray finds along or in the vicinity of this section of the Proposed Scheme are clustered around Patrick Street, Nicholas Street and Christchurch Place, where there are almost 800 finds recorded in the NMI topographical files. These date from the main periods of occupation of the city, from its inception as a Viking town, its time as a medieval walled city, and into the post-medieval period of urban renewal and expansion. They include numerous decorative tiles (glazed, encaustic, and line-impressed) recorded from both St Patrick's Cathedral and Christ Church Cathedral, bone combs, pins, needles and other worked bone objects (including a spindle whorl), wooden weavers' swords and iron weavers' shears, beads (of amber, stone and ceramic), iron arrowheads, knife blades, keys, padlocks, nails and various tools, clay pipes, crucibles and wig-curlers, and hundreds of pottery sherds and glass fragments. Some of the more interesting objects include four iron Jew's harps found around Christ Church Cathedral / Fishamble Street (NMI 7448:W68, 7447:W186, 0998:Wk027 and 1034:Wk027) and two wooden figures, one of a satyr and the other of a boy found at Christ Church Cathedral (NMI RIA1917:88 and RIA1917:89).

Among the finds recovered beyond the old City Centre, there 22 were found in the River Poddle, with eight of these located specifically to the River Poddle near St Patrick's Cathedral. As might be expected, the river finds were small and varied, including several spoons (one copper alloy and the others pewter), a metal shoe buckle, coins, weights, and a copper alloy trader's token (NMI 1874:17 to 1874:25). One of the pewter spoons is described as being found in '*sinking the Poddle*' in 1881 (no exact location specified), presumably a reference to the culverting of the watercourse. The objects found in the river near to the cathedral were recovered during an excavation in 1901, comprising two bronze stick pins, and a number of copper alloy pins, stick pins and needles (NMI RIA 1902:4 to 1902:10 and 1902:13).

15.3.5.4 Previous Archaeological Investigations

This section of the Proposed Scheme will lie within the ZAP for Dublin City (RMP DU018-020) and, as such, there has been a considerably higher number of investigations along its length (Table 3 in Appendix A15.1 (Previous Archaeological Investigations in the Vicinity of the Proposed Scheme) in Volume 4 of this EIAR).

Many of the investigations along Dolphin's Barn Street and the western half of Cork Street uncovered nothing of archaeological interest, though monitoring of works for the road widening at Dolphin's Barn identified late medieval water channels, a large pond and possible roadway, as well as an extensive 18th century tannery. Further east around the Cork Street / Ardee Street junction, investigations uncovered a medieval Abbey Stream and mill pond, which were associated with the Abbey of St Thomas. The Abbey Stream was a section of the River Poddle that had been diverted by the abbey between 1190 and 1212. With the exception of the medieval water engineering works encountered along these streets, there were only ephemeral remains from this period, indicating that the area remained predominantly agricultural until the extensive development that occurred from the 18th century onwards.

Evidence for Hiberno-Norse settlement was uncovered during two adjacent excavations on The Coombe / Dean Street, at the site of the present Hyatt Hotel (Licences 08E0150 and 16E0080). On the south bank of the Coombe stream a possible section of the Slige Dála road was found to be overlain by pre-Anglo-Norman houses. These survived thanks to the lack of cellars / basements in the later 18th century and 19th century housing at this location. The roadway was 4m wide, the widest yet uncovered in the vicinity of the medieval town, and ran south of, but parallel to, the line of the present Dean Street / The Coombe, along which the Coombe stream once flowed (Walsh 2012). Seven adjacent plots of varying widths were created in the late 11th century / early 12th century on the site of the earlier road, which was moved further north towards the edge of the Coombe stream (Ibid.). The houses contained within the plots were similar in size, materials, and internal layout, suggesting that they shared the same builders (Ibid.).

In 2016, archaeological excavation on the adjacent site to the east / south-east, identified four Hiberno-Norse property plots in the earliest level (dating from approximately AD 980 to AD 1170). These fronted onto The Coombe and contained the remains of nine post-and-wattle structures. The preservation of the organic material was excellent with lots of 12th century leather shoes, a wooden spoon, a wooden bowl, a copper alloy decorated stick pin, an approximately 12th century copper alloy key and worked bone objects. There was also a lot of pottery sherds found including an almost complete jug. The most significant find was a rare example of graffiti art carved onto a piece of slate depicting a figure on a horse with a shield, sword and two birds present. The slate was found to the rear of one of the post wattle houses. This level of archaeology was found at a depth of 2.5m below the present street level of The Coombe (Excavations 2018b). After the post-and-wattle house plots had gone out of

use they were replaced by new property plots dating to the 13th century / 14th century, with evidence for agricultural and industrial activity (Ibid.).

Closer to the old walled city, investigations confirmed the extent of medieval activity along Patrick Street and Nicholas Street. The excavations undertaken in 1990 during the widening of these two streets identified the earliest earthen defences and later stone walls at Nicholas Street, but also demonstrated the richness of the archaeological deposits connected with the River Poddle. The river had been diverted to flow along the west side of the two streets (probably the east side too) in the later 12th century, emptying into the town ditch at the top of Nicholas Street. The diverted river was used as a power source to drive mills and also acted as a medium for removing sewerage and waste material from the area. The excavations revealed wooden revetments lining the river, a mill, and a number of stone- and wood-lined sewers emptying into the River Poddle. This shows that by the early 13th century, industrial activity, and possibly also settlement, was occurring in this area in the shadow of the town defences. Other interesting discoveries included the remains of a possible bowling green to the north of St Patrick's Cathedral and the remains of a late medieval / post-medieval wall. The latter was probably an architectural fragment of a rear building associated with the houses that formerly stood to the south-west of the cathedral, in the area known as Cross Poddle.

Christchurch Place, formerly Skinner's Row, was in the heart of the Viking town and later medieval city, as confirmed by archaeological investigations in this area. Evidence for Viking and medieval urban settlement and town defences has been documented by archaeological excavations that have taken place at, and south of, Christchurch Place and along the north end of Werburgh Street. The earliest of these were undertaken at Christchurch Place in the early to mid-1970s by the NMI, revealing multiple occupation layers spanning the mid-10th century to early 12th century. Finds recovered from the houses – all but one of which were post-and-wattle construction – included Viking and Anglo-Saxon coins, carved bone trial pieces, crucibles, and a 10th century decorated wooden box (Excavations 1975). A series of excavations also took place in the 1990s at the large site in Christchurch Place / Werburgh Street now occupied by Jury's Hotel and car park. The findings echoed those of the 1970s, revealing a density of Viking and medieval houses in multiple layers, with some of the houses superimposed, ancillary buildings, and paths (Excavations 1994). The excavations also uncovered sections of the Viking earthen embankment and Anglo-Norman stone walls (e.g., at Werburgh Street) (Ibid.).

Limited excavation took place in 2010 in the green space to the front of Christ Church Cathedral, immediately north of Christchurch Place (formerly called Skinner's Row). Although now quite close to the road at Christchurch Place, it was originally set well back from it to the rear of houses that lined Skinner's Row. This was the former 'cloister garth' that was converted into the Four Courts in 1608 and evidence for both was uncovered during the excavation. It also identified the possible remains of the western bank of a defensive earthwork, extending through the western side of the green, orientated north-south and possibly revetted in stone on the western side. This may be part of the enclosing defensive ramparts, known to have encircled Dublin from the 10th century to the 12th century. An impressive section was exposed in the 1970s at Wood Quay, along the river shoreline, but the western extent has remained elusive, although the site director, Dr Patrick Wallace, did suggest that it curved southwards, through the precinct at Christ Church (Simpson 2010a).

The large site now occupied by the Civic Offices at Winetavern Street / Wood Quay, to the north of the Proposed Scheme, was excavated in 1973 to 1985 during the initial phase of construction, with a second phase of archaeological excavation in 1993. The excavations, along with several undertaken on the west side of Winetavern Street, revealed significant deposits associated with the Viking and medieval town, its defences and the late 12th century / 13th century reclamation of land from the River Liffey (e.g. Wallace 2015 and Licences E000485, E000081, 09E0331, 93E0024 in Appendix A15.1 (Previous Archaeological Investigations in the Vicinity of the Proposed Scheme) in Volume 4 of this EIAR). The Wood Quay excavations undertaken in the 1970s and 1980s were of particular importance, yielding an unprecedented level of information about town layout in Viking and Anglo-Norman Dublin (Wallace 2015). The excavations uncovered building foundations, fences, yards, quaysides, and countless artefacts (Ibid.). Subsequent archaeological excavations for the proposed DART underground project in 2009 revealed an additional 7m in length of the city wall. The significant stretch has been preserved in situ both within the basement space and externally, on the western side (Simpson 2010b).

15.3.5.5 Industrial Heritage

There is one industrial heritage site recorded within this section of the Proposed Scheme, a bridge site at Dolphin's Barn Street (Spring Bridge; DCIHR 18-10-084; Sheet 15 of 27, Figure 15.1 in Volume 3 of this EIAR), of which there is no visible surface trace. Archaeological excavations at this location in the 1990s identified a modern concrete culvert and no trace of an earlier structure surviving (DCIHR 18-10-084 in Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR).

Eight additional sites are recorded adjacent to this section of the Proposed Scheme which have no above-ground remains and will not be affected by the Proposed Scheme (Table 15.14). Upstanding industrial heritage sites are discussed in Chapter 16 (Architectural Heritage).

Table 15.13: Industrial Heritage Sites Within the Proposed Scheme (Grand Canal to Christchurch Section)

ID No.	Name / Type	Townland / Street Address	ITM
DCIHR 18-10-084	Spring Bridge (site of)	Dolphin's Barn St	713924, 733061

Table 15.14: Industrial Heritage Sites Adjacent to the Proposed Scheme (Grand Canal to Christchurch Section)

ID No.	Name / Type	Townland / Street Address	ITM
DCIHR 18-14-005	Canal Harbour (site of)	Dolphin's Barn St	713727, 732694
DCIHR 18-10-106	Chemical Works (site of)	Dolphin's Barn St	713974, 733132
DCIHR 18-10-081	Botany Weaving Mills (City Woollen Mills) (site of)	Cork Street	713929, 733109
DCIHR 18-10-079	Hosiery Factory (site of)	Cork Street	714051, 733199
DCIHR 18-11-080	Confectionery Factory (site of)	St Luke's Avenue	714722, 733446
DCIHR 18-11-111	Weavers Hall (site of)	The Coombe / Dean St	714901, 733522
DCIHR 18-11-082	St Patrick's Bakery (site of)	Patrick Street	715030, 733674
DCIHR 18-11-217	Market (site of)	Patrick Street	715069, 733694

15.3.5.6 Cultural Heritage

There are a number of prominent historic buildings at the northern end of the Proposed Scheme which are of cultural heritage interest, namely the former St Luke's Church, St Patrick's Cathedral, Christ Church Cathedral and Synod Hall. These are also recorded archaeological sites and are described in Section 1.2.6 of Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR.

This northern end, from Patrick Street / Kevin Street Upper northwards, also contains the majority of the historic street furniture. There is also a small marker set against a house on Nicholas Street, one of a number dotted around the City Centre to mark the location of the medieval city walls. Historic street furniture and cultural heritage sites of architectural interest are discussed in Chapter 16 (Architectural Heritage).

15.3.5.7 Field survey

A field survey was undertaken on 5 March 2020. Archaeological and cultural heritage sites identified along the Proposed Scheme are detailed in an inventory contained in Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR. The field survey was informed by the desk study undertaken for this assessment. This section summarises the historic character and archaeological potential of this section of the Proposed Scheme, based on observations made during the field survey. Details of all relevant sites are contained in the inventory.

15.3.5.7.1 Physical and Cultural Environment

This section of the Proposed Scheme will travel along existing roads, through a densely urban area. The historic character of this section is most evident at the northern end of the section, where a number of sites of archaeological, historical and cultural heritage interest are clustered, most notably the former St Luke's Church, St Patrick's Cathedral and Christ Church Cathedral. At the opposite end of this section, the bridge over the Grand Canal at Dolphin's Barn was significantly widened in the late 20th century and its new proportions greatly detract from the historic character of the surviving parapet wall. The environment throughout is predominantly one of a modern urban streetscape.

15.3.5.7.2 Archaeological Potential and Non-Designated Archaeological Sites

The majority of this section of the Proposed Scheme will lie within the designated RMP ZAP for the Historic City of Dublin (DU018-020). Archaeological investigations took place at the time of the road widening and realignment from Dolphin's Barn to The Coombe in the late 20th century, which identified surviving archaeology along this part of the Proposed Scheme section. Where remains were encountered, they were excavated. With the exception of

the medieval water engineering works encountered along these streets, there were only ephemeral remains from this period, indicating that the area remained predominantly agricultural until the extensive development that occurred from the 18th century onwards.

In contrast, there remains a high level of archaeological potential in the northern half of this Proposed Scheme section, from Dean Street to Christ Church Place. In addition, both cathedrals and the city defences (above or below ground) are considered national monuments. At the site of the Hyatt Hotel on Dean Street, excavations identified the remains of Hiberno-Norse and later medieval plots and houses, as well as a section of an early medieval roadway (CBC0809AH003, Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR; Sheet 16 of 27, Figure 15.1 in Volume 3 of this EIAR). This is a significant find, indicating settlement in this area from the 10th century, in an area previously not thought to have had any suburban activity prior to the post-medieval period.

Closer to the old walled city, investigations have confirmed the extent of medieval activity along Patrick Street and Nicholas Street. The excavations undertaken in 1990 during the widening of these two streets identified the earliest earthen defences and later stone walls at Nicholas Street, but also demonstrated the richness of the archaeological deposits connected with the River Poddle. Around Christchurch Place and its junction with Winetavern Street and High Street, evidence for Viking and medieval urban settlement and town defences has been documented by numerous archaeological excavations from the late 1960s onwards.

There is the potential that archaeological deposits survive beneath the existing road surfaces along this section of the Proposed Scheme, despite modern disturbances.

There are no visible above-ground traces of the other non-designated archaeological site, a bridge site (Spring Bridge; DCIHR 18-10-084) at Dolphin's Barn Street. Archaeological excavations at this location in the 1990s identified a modern concrete culvert that had replaced the earlier bridge structure (DCIHR 18-10-084, Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR).

15.3.6 Archaeological Heritage: Woodford Walk (R113) / New Nangor Road (R134) to Long Mile Road (R110) / Naas Road (R810) / New Nangor Road (R134) junction

15.3.6.1 National Monuments

There are no national monuments or sites under preservation order within or in the vicinity of this section of the Proposed Scheme.

15.3.6.2 Recorded Archaeological Monuments (RMP / SMR Sites)

There are no RMP / SMR sites within 50m of this section of the Proposed Scheme.

15.3.6.3 Topographical Files, NMI

Records of stray finds in the area around Clondalkin indicate prehistoric activity in the general vicinity of this section of the Proposed Scheme. A hollow-based flint arrowhead (NMI 1976:24), dated to the Neolithic period, was discovered in the surface soil of the garden of 15 Monastery Drive, Clondalkin. In addition, two Bronze Age axeheads are also recorded in the NMI topographical files, both provenanced to the Clondalkin area (NMI 1911:242, 1963:65).

15.3.6.4 Previous Archaeological Investigations

There have been no previous archaeological investigations undertaken along this section of the Proposed Scheme or in its vicinity.

15.3.6.5 Industrial Heritage

There are no below-ground industrial heritage sites along this section of the Proposed Scheme. Upstanding industrial heritage sites are discussed in Chapter 16 (Architectural Heritage).

15.3.6.6 Cultural Heritage

No sites of cultural heritage interest were identified along this section of the Proposed Scheme. Historic street furniture and cultural heritage sites of architectural interest are discussed in Chapter 16 (Architectural Heritage).

15.3.6.7 Field survey

A field survey was undertaken on 23 February 2020. Archaeological and cultural heritage sites identified along the Proposed Scheme are detailed in an inventory contained in Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR. The field survey was informed by the desk study undertaken for this assessment. This Section summarises the historic character and archaeological potential of this section of the Proposed Scheme, based on observations made during the field survey. Details of all relevant sites are contained in the inventory.

15.3.6.7.1 Physical and Cultural Environment

This section of the Proposed Scheme will travel along existing roads, one of which (R134 New Nangor Road) was only constructed in the late 20th century. Other older roads (e.g. N7 / R810 Naas Road) have been significantly widened and altered, leaving them devoid of character. The Proposed Scheme will pass through a heavily developed suburban and urban landscape, with much of the land alongside occupied by modern industrial and commercial development.

15.3.6.7.2 Archaeological Potential and Non-Designated Archaeological Sites

No areas of archaeological potential or non-designated archaeological sites were identified along this section of the Proposed Scheme.

15.3.7 Archaeological Heritage: Long Mile Road (R110) / Naas Road (R810) / New Nangor Road (R134) junction to Drimnagh

15.3.7.1 National Monuments

There are no national monuments or sites under preservation order within or in the vicinity of this section of the Proposed Scheme.

15.3.7.2 Recorded Archaeological Monuments (RMP / SMR Sites)

There is one recorded archaeological site within 50m of the Proposed Scheme, Drimnagh Castle (RMP DU018-036) (Sheet 27 of 27, Figure 15.1 in Volume 3 of this EIAR). The ZAP for the monument lies approximately 25m to the north, with the bawn approximately 80m to the north. A castle was first recorded on the site in the early 13th century. In its present form the castle dates from Jacobean or later times, but the Great Hall dates from the 14th century or 15th century. The castle, gardens and bawn or courtyard occupy a rectangular area (approximately 70m by 65m) enclosed by a curtain wall and surrounded by a moat. The moat is fed by a small stream, called the Bluebell, and drains into the Lansdowne Valley of the River Camac. It is crossed on the eastern side by an arched stone bridge which was built in 1780. The site of a water mill is recorded north of the castle (RMP DU018-035). Drimnagh is the only castle in the country which retains its flooded moat.

Table 15.15: RMP / SMR Sites Within c. 50m of the Proposed Scheme (Long Mile Road (R110) / Naas Road (R810) / New Nangor Road (R134) junction to Drimnagh Section)

ID No.	Name / Type	Townland / St Address	ITM_E	ITM_N
DU018-036	Castle – Anglo-Norman masonry castle	Long Mile Road	711055	731833

The castle stands to the rear of a national school and secondary school, visible from the roadside entrance. A large industrial complex is located immediately to the west / south-west of the monument. A programme of conservation and restoration was set up under FÁS in 1986 and the castle was opened to the public. A number of archaeological investigations have been undertaken in and around the castle, with various aspects of the medieval and post-medieval activity related to the castle's inhabitants identified in the area immediately adjacent to it (see Section 15.3.3.4). Closer to Long Mile Road, investigations within the industrial complex to the south-west (and to the north at the water mill site) found nothing of archaeological significance, likely the result of heavy truncation in the modern period.

15.3.7.3 Topographical Files, NMI

There are no stray finds recorded in the vicinity of this section of the Proposed Scheme.

15.3.7.4 Previous Archaeological Investigations

There have been no previous archaeological investigations along this section of the Proposed Scheme and relatively few immediately adjacent to it, all of which are clustered at and around Drimnagh Castle, on the north side of Long Mile Road. Several of these investigations revealed various aspects of medieval and post-medieval activity related to the castle's inhabitants, notably in the areas nearest the castle (e.g., Licences 92E0114 and 93E0183) (Table 15.16). Closer to Long Mile Road, investigations within the industrial complex to the south-west found nothing of archaeological significance, likely the result of heavy truncation in the modern period. A similar pattern of modern disturbance and absence of archaeological deposits was found at the recorded water mill site to the north of the castle, the location of a former industrial estate (Licence 04E167) (Table 15.16).

Table 15.16: Previous Archaeological Investigations in the Vicinity of the Proposed Scheme (Long Mile Road (R110) / Naas Road (R810) / New Nangor Road (R134) junction to Drimnagh Section)

Licence No.	Excavations Bulletin Ref.	Location	Type of investigation	Results
04E1673	2006:595	Former Drimnagh Industrial Estate. Watermill site (RMP DU018-035), North of Drimnagh Castle (DU018-035) (Lansdowne Gate / Lansdowne Valley)	Testing	Modern disturbance. Nothing of archaeological interest.
05E0629	2006:596	Aldi, Long Mile Road. South-west of Drimnagh Castle (DU018-035)	Monitoring	Modern disturbance. Nothing of archaeological interest.
01E0028	2001:352	GM Motors, Long Mile Road. West of Drimnagh Castle (DU018-035)	Testing	Modern disturbance. Nothing of archaeological interest.
98E0183	1998:134	Drimnagh Castle Secondary School. South-west of Drimnagh Castle (DU018-035)	Testing	Nothing of archaeological significance. Evidence for post-medieval ploughing and 17 th century to 18 th century trackway.
03E1004	2003:488	CBS Drimnagh, south-east of Drimnagh Castle (DU018-035).	Monitoring	Nothing of archaeological interest.
92E0114, 92E0114ext.	1993:048	Drimnagh Castle (DU018-035), excavation of an area between the castle and moat.	Research excavation	Several layers containing medieval pottery (13 th century to 15 th century), three sherds of 17 th century sgraffito and a possible soakage sump, the fill of which included a drilled roof tile and two sherds of 13 th century to 15 th century pottery.
93E0183, 93E0183ext.	1994:050	Drimnagh Castle (DU018-035). Works in advance of proposed washroom construction on the north side of the ballroom building at Drimnagh Castle.	Testing	Evidence of post-medieval disturbance, with layers containing medieval pottery as well as later finds (e.g. clay pipes, brick, mortar, glass). Possible pathway and drain identified in the trench are likely to date to the late 1700s, presumably constructed to facilitate work within the stables (from which they lead).

15.3.7.5 Industrial Heritage

There are no below-ground industrial heritage sites along this section of the Proposed Scheme. Upstanding industrial heritage sites are discussed in Chapter 16 (Architectural Heritage).

15.3.7.6 Cultural Heritage

Drimnagh Castle is an important archaeological and historical monument and as such, has considerable cultural heritage value (RMP DU018-036) (Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR and Sheet 27 of 27, Figure 15.1 in Volume 3 of this EIAR). No additional cultural heritage sites were identified along this section of the Proposed Scheme. Historic street furniture and cultural heritage sites of architectural interest are discussed in Chapter 16 (Architectural Heritage).

15.3.7.7 Field survey

A field survey was undertaken on 23 February 2020. Archaeological and cultural heritage sites identified along the Proposed Scheme are detailed in an inventory contained in Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR. The field survey was informed by the desk study undertaken for this assessment. This section summarises the historic character and archaeological potential of this section of

the Proposed Scheme, based on observations made during the field survey. Details of all relevant sites are contained in the inventory.

15.3.7.7.1 Physical and Cultural Environment

This section of the Proposed Scheme will travel along existing roads, some of which (e.g., around Walkinstown) were only constructed in the 20th century. Other older roads (e.g., R110 Long Mile Road and N7 / R810 Naas Road) have been significantly widened and altered, leaving them devoid of character. The Proposed Scheme will pass through a heavily developed suburban and urban landscape, with much of the adjacent land occupied by modern industrial and commercial development.

Drimnagh Castle (RMP DU018-036) (Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR) on Long Mile Road is a significant archaeological and historical site. It is open to the public, with signage at the entrance to the school grounds, within which it sits. The castle is partly visible from the entrance gates, though it is set well back from this point.

15.3.7.7.2 Archaeological Potential and Non-Designated Archaeological Sites

The only area of archaeological potential identified on this section is where the Proposed Scheme will pass Drimnagh Castle (RMP DU018-036). There is the potential that associated features may survive beneath the existing road surface.

No non-designated archaeological sites were identified within this section of the Proposed Scheme.

15.3.8 Proposed Construction Compounds

15.3.8.1 Proposed Construction Compounds

15.3.8.1.1 Construction Compound TC1

A Construction Compound is proposed at the western end of Old Blessington Road, adjacent to the junction with the N81 Tallaght bypass. No features of interest are depicted within this site on the historic mapping, at which time the site formed part of a large agricultural field. Aerial imagery from 1995 and 2004 to 2006 (OSI 2020) indicates that the area was subjected to some disturbance during this time period, when the adjacent residential development was being completed. As the extent of previous disturbance is uncertain, it is possible that previously unknown archaeological features or deposits may be present below ground.

15.3.8.1.2 Construction Compound TC2

A Construction Compound is proposed at a landscaped green space R819 Greenhills Road, immediately south of the junction of Bancroft Park and R819 Greenhills Road. No features of interest are depicted within this site on the historic mapping, at which time the site formed part of a large agricultural field, nor on aerial imagery. Although no specific archaeological potential was identified, it is possible that previously unknown archaeological features or deposits may be present below ground.

15.3.8.1.3 Construction Compound TC3

A Construction Compound is proposed at a landscaped green space on R819 Greenhills Road, between Birchview Avenue and R819 Greenhills Road. A review of aerial imagery and historic OS mapping revealed no features of interest. TC3 is located c. 30m east of RMP site DU022-006, however the site (formerly recorded as a well) was reclassified as a redundant record in 2020 and is not scheduled for inclusion in the next revision of the RMP. Given its placement amidst large-scale 1970s residential housing estates, it is likely that some ground disturbance occurred at the proposed compound site at the time of construction, though the extent of any such disturbance is unknown. While no specific archaeological potential was identified, it is possible that previously unknown archaeological features or deposits may be present below ground.

15.3.8.1.4 Construction Compound TC4

A Construction Compound is proposed on the west side of R819 Greenhills Road, in a landscaped green space associated with the 1970s / 1980s residential development at Parkview and Elmcastle, either side of Treepark

Road. No structures or features of cultural heritage interest are shown within the site on the historic OS mapping; the site is shown on the first edition OS six-inch map as a tree-enclosed agricultural field associated with a building aligned with the old Greenhills Road (not within the compound site). Site TC3 lies in the vicinity of the ZAP for the early medieval ecclesiastical site and medieval castle site at Kilnamanagh (RMP DU022-005001 to -005005; Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR; Sheet 5 of 27, Figure 15.1 in Volume 3 of this EIAR). There is no surface trace of any of the sites, with all surviving above-ground remains destroyed in advance of the large-scale housing development here in the 1970s. As detailed in section 15.3.2.2, archaeological investigations undertaken to date in the vicinity of the site (and within its ZAP) have found nothing of archaeological significance and indicate significant build-up using dumped construction material within this area. Nonetheless, there remains a slight possibility that previously unknown archaeological features or deposits may survive below ground within TC3.

15.3.8.1.5 Construction Compound TC5

A Construction Compound is proposed on the east side of R819 Greenhills Road, north of Tymon Lane and The Cuckoo's Nest public house. This is a small greenfield site, part of a former arable field that is now partly occupied by houses built in the early 2000s. A review of historic OS mapping revealed that the field was under tree plantation at the time of the first edition OS six-inch map (1843), with gravel pits depicted in the northern half on the revised edition OS six-inch map of 1935-38 (OSI 2020) (Image 15.16). Whether or not the quarrying subsequently extended further into the field is not known. Although no specific potential was identified, and as the extent of previous disturbance is uncertain, it is possible that previously unknown archaeological features or deposits may be present below ground.



Image 15.16: First Edition OS Six-Inch Map of 1843 (Left) and Revised Edition OS Six-Inch Map of 1935-38 (Right) Overlaid on to Modern Aerial Imagery (OSI 2020), showing gravel pits at Construction Compound TC5

15.3.8.1.6 Construction Compound TC6

A Construction Compound is proposed at a green space along R819 Greenhills Road, outside Tallaght Truck Dismantlers, north-east of the M50 Motorway. A review of historic OS mapping revealed that the western edge of the old Greenhills Road once ran through this site, as evident on the first edition OS six-inch map (1843) (Image 15.17). No other features of interest are depicted within the proposed compound site. Previously unknown archaeological features or deposits may survive below the present surface.



Image 15.17: First Edition OS Six-Inch Map of 1843 Overlaid on to Modern Aerial Imagery (OSI 2020), showing old Greenhills Road at Construction Compound TC6

15.3.8.1.7 Construction Compound TC7

A Construction Compound is proposed on the R819 Greenhills Road, between Ballymount Avenue and R819 Greenhills Road. Although currently under grass and scrub, this site was at least partly disturbed during advance construction works for the New Ballymount Avenue Road, an extension connecting Ballymount Avenue with Greenhills Road that is as yet unfinished. A review of historic OS mapping revealed that the southern half of the site was part of a small orchard associated with a farm property located at the roadside. The property contained two building ranges at the time of the first edition OS six-inch map of 1843, comprising a house (possibly with attached outbuildings) to the south and separate outbuilding to the north. The southernmost building range had been replaced by a smaller house by the time of the 25-inch map of 1905-07 and a single-storey house survives today at the same location, though the northern outbuilding is no longer present (both lie outside the compound site to the north) (Image 15.18). The now demolished building to the south of the existing house is located within the area previously disturbed, however, whether the disturbance extended beyond a topsoil strip is unknown and it is possible that subsurface remains survive (CBC0809AH005, Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR; Sheet 6 of 27, Figure 15.1 in Volume 3 of this EIAR). It is also possible that previously unknown archaeological features or deposits may be present below ground.



Image 15.18: First Edition OS Six-Inch Map of 1843 (Left) and OS 25-Inch Map of 1905-07 (Centre) Overlaid on to Modern Aerial Imagery (OSI 2020), and Aerial Imagery 2018 (Right), showing farmstead at Construction Compound TC7

15.3.8.1.8 Construction Compound TC8

A Construction Compound is proposed at Bunting Park, on the south-east side of Bunting Road. A review of historic OS mapping shows that this small park has remained an undeveloped green space within the residential development that grew up around it. It originally formed part of an agricultural field in the 19th century. No features of interest were identified on aerial imagery. Although no specific archaeological potential was identified within the Construction Compound site, it is nonetheless possible that previously unknown archaeological features or deposits may be present below ground.

15.3.8.1.9 Construction Compound TC9

A Construction Compound is proposed on the north side of R110 Crumlin Road, immediately west of the junction of Rafter's Road and the R110 Crumlin Road. A small greenfield site, which was agricultural land prior to the development of this area in the later 20th century. A review of aerial imagery and historic OS mapping revealed no features of interest, with the exception of a small cottage and outbuilding in the south-west corner at the roadside (Image 15.20) (CBC0809AH006, Appendix A15.2 in Volume 4 of this EIAR; Sheet 12 of 27). Although no specific potential was identified, it is possible that previously unknown archaeological features or deposits may be present below ground.



Image 15.20: OS 25-Inch Map of 1905-07 Overlaid on to Modern Aerial Imagery (OSI 2020), showing CBC0809AH006

15.3.8.1.10 Construction Compound TC10

A Construction Compound is proposed on R110 Crumlin Road, immediately east of the junction of Rutland Avenue and the R110 Crumlin Road, in a hard surface area adjacent a small green space. A review of historic OS mapping indicates that a row of terraced houses with gardens to the rear occupied the present green area, at what was then called Camac Place, extending slightly into the proposed compound location (Image 15.19) (CBC0809AH007, Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR; Sheet 14 of 27, Figure 15.1 in Volume 3 of this EIAR). The houses, which first appear on the 25-inch OS map of 1905-07, had been cleared by the time of the revised edition OS six-inch map of 1935-38. Aerial imagery shows no subsequent changes to the site. It is likely that the 19th century house building – one of which lies within the compound site – and the construction of the 18th century canal to the north, would have resulted in considerable ground disturbance within the site, which would have reduced the general archaeological potential here. Nonetheless, it is possible that foundations of the house may survive subsurface.



Image 15.19 OS 25-Inch Map of 1905-07 Overlaid on to Modern Aerial Imagery (OSI 2020), showing houses at Camac Place

15.3.8.1.11 Construction Compound TC11

A Construction Compound is proposed at Dean Street / R137 Patrick Street and will comprise a site office. The archaeological potential of this area is detailed in section 15.3.5. In summary, it lies within the designated RMP ZAP for the Historic City of Dublin (DU018-020) and is located within an area known to have been occupied during the Hiberno-Norse and medieval periods (CBC0809AH003, Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR; Sheet 16 of 27, Figure 15.1 in Volume 3 of this EIAR).

15.3.8.1.12 Construction Compound TC12

A Construction Compound in the form of a greenfield vacant lot is proposed between R134 New Nangor Road and Killeen Road. A review of historic OS mapping indicates that this once formed part of the grounds associated with Drimnagh Lodge, which appears on the first edition OS six-inch map (1843) and revised editions up to the mid-20th century (OSI 2020). The house and outbuildings (CBC0809AH004, Appendix A15.2 (Inventory of Archaeological and Cultural Heritage Sites) in Volume 4 of this EIAR; Sheet 24 of 27, Figure 15.1 in Volume 3 of this EIAR) extended partly into the eastern corner of the field (Image 15.20). It is also possible that previously unknown archaeological features or deposits may be present below ground.

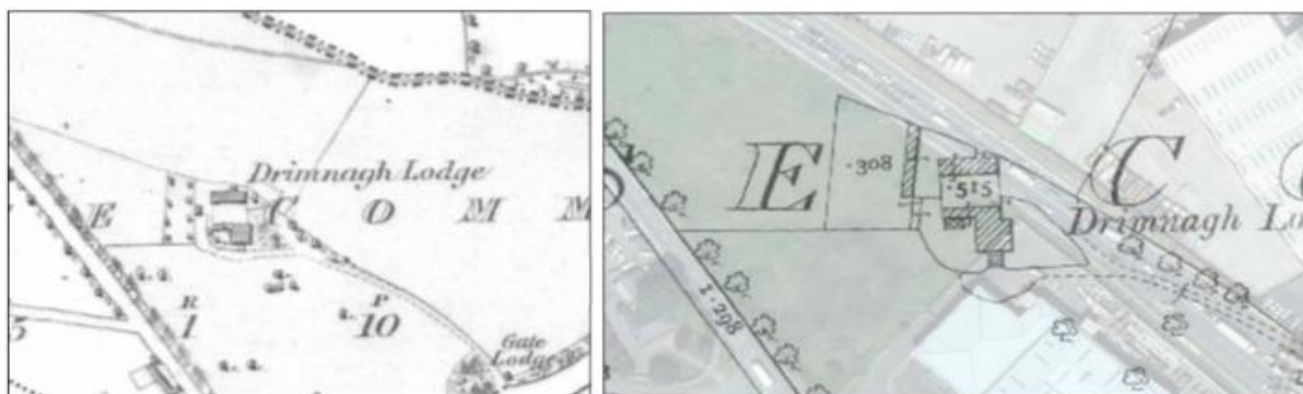


Image 15.20: Drimnagh Lodge (CBC0809AH004) at TC12, Depicted on First Edition OS Six-Inch Map of 1843 (Left) and on OS 25-Inch Map (1905-07) Overlaid on to Modern Aerial Imagery (Right) (OSI 2020)

15.3.8.1.13 Construction Compound TC13

A Construction Compound is proposed on the R110 Long Mile Road, south of the New Nangor Road / Naas Road / Long Mile Road junction. It is a brownfield site, a hard-surface lot currently unoccupied by buildings. A review of aerial imagery and historic OS mapping revealed no features of interest. Given the lack of any buildings on the site but bearing in mind the disturbance resulting from the creation of the hard-surface lot, there is only a slight potential that previously unknown archaeological features or deposits may be present below ground.

15.4 Potential Impacts

15.4.1 Characteristics of the Proposed Scheme

Ground-breaking works required for the construction of the Proposed Scheme may cause impacts to archaeological heritage. From an archaeological perspective, ground-breaking works (for the purpose of the Proposed Scheme) refers to the following activities:

- Pavement construction, repairs and reconstruction works;
- Road resurfacing works;
- Any excavations of soil, including landscaping works; and
- Any ground disturbance for utility works.

15.4.2 'Do Nothing' Scenario

In the 'Do-Nothing' Scenario the Proposed Scheme would not be implemented and there would, therefore, be no adverse impacts to any of the known or as yet undiscovered subsurface archaeological deposits, features or finds, and no adverse impacts on cultural heritage. It is acknowledged that in the absence of the Proposed Scheme, other developments requiring road alteration will take place. These alterations may cause adverse impacts to below ground archaeological heritage assets.

15.4.3 Construction Phase

15.4.3.1 Tallaght to Ballymount

15.4.3.1.1 Archaeological Heritage

15.4.3.1.1.1 National Monuments

No national monuments will be impacted by this section of the Proposed Scheme.

15.4.3.1.1.2 Recorded Archaeological Sites / Monuments (RMP / SMR sites)

This section of the Proposed Scheme runs through the ZAP associated with the historic village of Tallaght (RMP DU021-037 / DU022-018), which has its origins as an important early medieval ecclesiastical settlement. Ground-breaking works within the ZAP will result in an impact on any features that may survive below ground. The proposed works within the ZAP will be limited to some minor utility diversions and / or protections. The RMP ZAP has a medium sensitivity value, and the magnitude of impact is low, therefore the potential impact is Negative, Slight and Permanent.

In addition to the potential for the discovery of previously unknown archaeological features within the ZAP, two of the individual RMP sites recorded within the historic town will be directly impacted by the Proposed Scheme:

- The ecclesiastical enclosure (RMP DU021-037002) associated with St. Maelruain's Church has been identified through archaeological excavation to the west and south-west of the churchyard. Excavation to the north-east indicates that the enclosure once extended across the Blessington Road, which appears to have been a later intrusion. Available evidence suggests that the burial ground of the early medieval ecclesiastical site was located in the south-western quadrant of the inner enclosure (i.e., ecclesiastical enclosure DU021-037002) and there is no indication that burials extend to east / north-east of the existing church. Ground-breaking works along Blessington Road where it curves around the churchyard will impact on any surviving remains of the ecclesiastical enclosure or other associated features that may be present below ground. However, the proposed works within the ZAP will be limited to some minor utility diversions and / or protections. The RMP site has a medium sensitivity value, and the magnitude of impact is low, therefore the potential impact is Negative, Slight and Permanent; and
- A mill race shown on the first edition OS six-inch map (1843) may follow the course of the earlier mill race associated with the recorded mill site (RMP DU021-037007). Ground-breaking works along Blessington Road and Old Greenhills Road, where the mill race has been culverted, will impact on any features that may survive below ground. The proposed works within the ZAP will be limited to

some minor utility diversions and / or protections. The RMP site has a medium sensitivity value, and the magnitude of impact is low, as only a small part of the site may be impacted, therefore the potential impact is Negative, Slight and Permanent.

This section of the Proposed Scheme also traverses the ZAP of the ecclesiastical enclosure (RMP DU022-005005) associated with the early medieval foundation at Kilnamanagh, where it is proposed to provide a new bus only link road through a strip of greenfield at Birchview Avenue and Treepark Road. A section of the probable enclosure at its south-eastern side and part of the possible annexe lies within the Proposed Scheme. However, there appears to have been considerable disturbance of this area during the construction of the residential development in the 1980s and archaeological monitoring of a trial pit excavated in this area during GI works for the Proposed Scheme found that the green space had been built up with dumped construction material to a depth of c. 1.8m before being grassed over. Nothing of an archaeological nature was identified at this location. In addition, archaeological monitoring of works relating to ESB Networks 110kV Cable Development, the route of which crossed the curving townland boundary that is thought to represent the ecclesiastical enclosure, found nothing of archaeological interest (Licence 17E0488).

The results of the investigations within the ZAP to date and the evidence for previous disturbance across the area indicate that there is only a slight potential that archaeological features or deposits survive sub-surface. Ground-breaking works will impact on part of the recorded ecclesiastical enclosure or any associated features, should they survive below ground. Given the trial-pit and other monitoring results, however, it is likely that any remains that do survive will be truncated or otherwise disturbed. The RMP site has a medium sensitivity value, and the magnitude of impact is low, and given the level of disturbance in this area, therefore the potential impact is Negative, Slight and Permanent.

15.4.3.1.1.3 Non-Designated Archaeological Sites

No non-designated archaeological sites will be impacted by this section of the Proposed Scheme. The stone boundary wall identified at Old Greenhills Road (CBC0809AH001) will not be impacted by the proposed works.

15.4.3.1.2 Cultural Heritage

An impact was identified for one site of cultural heritage interest during landscaping works; a memorial statue to local literary figure Katharine Tynan in Tallaght village centre (CBC0809CH001). There will be a temporary impact on the setting of the memorial statue during landscaping works. The memorial statue will require protection from any adverse impacts for the duration of the works and if necessary, it can be temporarily removed to ensure its protection. The memorial statue has a low sensitivity value, and the magnitude of impact is low, therefore the potential impact is Negative, Slight and Temporary.

Upstanding industrial heritage sites, historic street furniture, and cultural heritage sites of architectural interest are assessed in Chapter 16 (Architectural Heritage).

15.4.3.1.3 Summary of Impacts

The impacts are summarised in Table 15.17, which should be read in conjunction with Sheets 2 and 3 of 27, Figure 15.1 in Volume 3 of this EIAR.

Table 15.17: Summary of Potential Construction Phase Impacts (Tallaght to Ballymount Section)

Assessment Topic	Potential Impact
RMP DU021-037, Historic Town (Tallaght)	Negative, Slight, Permanent
RMP DU021-037002, Ecclesiastical enclosure (Tallaght)	Negative, Slight, Permanent
RMP DU021-037007, Mill – unclassified (Tallaght)	Negative, Slight, Permanent
RMP DU022-005005, Ecclesiastical enclosure (Kilnamanagh)	Negative, Slight, Permanent
CBC0809CH001, Katharine Tynan Memorial	Negative, Slight, Temporary

15.4.3.2 Ballymount to Crumlin

15.4.3.2.1 Archaeological Heritage

15.4.3.2.1.1 National Monuments

No national monuments will be impacted by this section of the Proposed Scheme.

15.4.3.2.1.2 Recorded Archaeological Sites / Monuments (RMP / SMR sites)

This section of the Proposed Scheme passes c. 13m northwest of the ZAP for a flat cemetery (RMP DU022-002). Ground-breaking works on Greenhills Road where it runs alongside the ZAP will impact on any additional burials / associated features that may survive below ground. The RMP site has a medium sensitivity value, and the magnitude of impact is medium, and as there is some potential for the discovery of human remains, therefore the potential impact is Negative, Significant and Permanent.

15.4.3.2.1.3 Non-Designated Archaeological Sites

No non-designated archaeological sites will be impacted by this section of the Proposed Scheme.

15.4.3.2.2 Cultural Heritage

No cultural heritage sites were identified for this section of the Proposed Scheme. Upstanding industrial heritage sites, historic street furniture, and cultural heritage sites of architectural interest are assessed in Chapter 16 (Architectural Heritage).

15.4.3.2.3 Summary of Impacts

The impacts are summarised in Table 15.18, which should be read in conjunction with Sheet 8 of 27, Figure 15.1 in Volume 3 of this EIAR.

Table 15.18: Summary of Potential Construction Phase Impacts (Ballymount to Crumlin)

Assessment Topic	Potential Impact
RMP DU022-002, Flat cemetery	Negative, Significant, Permanent

15.4.3.3 Crumlin to Grand Canal

15.4.3.3.1 Archaeological Heritage

15.4.3.3.1.1 National Monuments

No national monuments will be impacted by this section of the Proposed Scheme.

15.4.3.3.1.2 Recorded Archaeological Sites / Monuments (RMP / SMR sites)

There are two recorded archaeological sites within this section of the Proposed Scheme, at the same location: the sites of a water mill (unclassified, RMP DU018-044) and part of a watercourse (the City Water, RMP DU018-043002). Both are located on the Proposed Scheme cycle way on Clogher Road, at its junction with Rutland Avenue. Ground-breaking works at this location will impact on the recorded sites. The RMP sites have a medium sensitivity value, and the magnitude of impact is medium, therefore the potential impact on the mill site is Negative, Moderate and Permanent.

The Proposed Scheme also traverses the ZAP for an ecclesiastical site centred on the medieval St Mary's Church (RMP DU018-038001 to -038003). It also traverses the ZAP of an adjacent mound site (RMP DU018-038004), which will not be affected by the Proposed Scheme. Part of the probable outer ecclesiastical enclosure (DU018-038003) at St Mary's was revealed during archaeological testing on the south-east side of the graveyard. The projected line of this enclosing ditch would continue across Bunting Road and St Mary's Road to the south-west and north-east of the church. Ground-breaking works along these two roads in the vicinity of the church will impact on part of the ecclesiastical enclosure or any associated features (including burials) where they may survive below

ground. The RMP site has a medium sensitivity value, and the magnitude of impact is medium, and as there is the potential for the discovery of burials, therefore the potential impact is Negative, Significant and Permanent.

15.4.3.3.1.3 Non-Designated Archaeological Sites

A non-designated potential archaeological site (CBC0809AH002) was identified within the Proposed Scheme from historic mapping, the site of an 18th / 19th century house at the junction of Bunting Road and St Mary's Road. Ground-breaking works at this location will impact on any remains that survive below ground. The house site has a low sensitivity value, and the magnitude of impact is medium, therefore the potential impact is Negative, Slight and Permanent.

The 18th/19th century mill site on Clogher Road / Rutland Avenue junction (DCIHR 18-14-023) occupies that of earlier mills, including one depicted on the mid-17th century Down Survey map (RMP DU018-044). As this is the same location as the recorded mill site RMP DU018-044, it is assessed under that number in Section 15.4.3.3.1.2.

No potential impact was identified in relation to the site of a Market Gardens at Bunting Road (DCIHR 18-13-035). Although part of the market gardens site lies within the Proposed Scheme, given the nature of the feature, it is unlikely to have left much trace in the archaeological record (garden soils, boundaries, possible stray artefacts). In addition, such ephemeral traces are likely to have been destroyed during the construction of Bunting Road and the new housing along it in the mid-20th century, leaving nothing of archaeological interest at this location.

15.4.3.3.2 Cultural Heritage

An impact was identified for one site of cultural heritage interest during landscaping works, a commemorative modern stone cross marking the reputed location of the Crumlin market cross (CBC0809CH002). There will be a temporary impact on the setting of the cross during landscaping works. The cross will require protection from any adverse impacts for the duration of the works and if necessary, it can be temporarily removed to ensure its protection. The cross has a low sensitivity value, and the magnitude of impact is low, therefore the potential impact is Negative, Slight and Temporary.

Upstanding industrial heritage sites, historic street furniture, and cultural heritage sites of architectural interest are assessed in Chapter 16 (Architectural Heritage).

15.4.3.3.3 Summary of Impacts

The impacts are summarised in Table 15.19, which should be read in conjunction with Sheets 10, 11, 19 and 20 of 27, Figure 15.1 in Volume 3 of this EIAR.

Table 15.19: Summary of Potential Construction Phase Impacts (Crumlin to Grand Canal Section)

Assessment Topic	Potential Impact
RMP DU018-038003, Ecclesiastical enclosure	Negative, Significant, Permanent
RMP DU018-044, Water mill – unclassified & DCIHR 18-14-023, 18 th /19 th century mill	Negative, Moderate, Permanent
RMP DU018-043002, Watercourse	Negative, Moderate, Permanent
CBC0809AH002, 18 th / 19 th century house (site of)	Negative, Slight, Permanent
CBC0809CH002, Commemorative cross	Negative, Slight, Temporary

15.4.3.4 Grand Canal to Christchurch

15.4.3.4.1 Archaeological Heritage

15.4.3.4.1.1 National Monuments

The Proposed Scheme passes alongside St Patrick's Cathedral (RMP DU020-269) on Patrick Street and terminates at Christchurch Place, on the south side of Christ Church Cathedral (RMP DU020-270). Both cathedrals are considered to be of national importance and should be treated as national monuments. There will be a temporary impact on the setting of both monuments during construction works. Both St Patrick's Cathedral and Christ Church Cathedral have a high sensitivity value and the magnitude of impact is medium, therefore the potential impact on both cathedrals is Negative, Significant and Temporary.

The walls, towers and gates of the Viking and medieval city defences are considered a national monument and are recorded under a single RMP file number, DU018-020001. Two sections of the city defences (the sites of gates) lie within the Proposed Scheme, neither of which have any above-ground trace: City Defences (St Nicholas' Gate) on Nicholas Street and City Defences (St Patrick's Gate) on Patrick Street. Although their precise location is uncertain, the potential that elements of these gates survive below ground is high, as demonstrated by the archaeological investigations along the west side of Patrick Street and Nicholas Street, where three excavated sections of the City Defences (wall and ditch) were identified: Patrick Street / Nicholas Street (Ditch and wall); Patrick Street / St Nicholas Place (Ditch) and Nicholas Street / St Nicholas Place (Ditch and wall). Ground-breaking works on Patrick Street and Nicholas Street in the vicinity of the recorded location of the two gates will impact on any surviving below-ground sections of the City Defences (national monument). It is also possible that additional sections of the city wall and ditch previously identified survive below-ground within the Proposed Scheme. Ground-breaking works on Patrick Street and Nicholas Street, between Bride Road and Ross Road, will impact on any surviving below-ground sections of the City Defences wall and ditch (national monument).

The City Defences have a high sensitivity value and the magnitude of impact is medium, therefore the potential impact on the five City Defences sites is Negative, Significant and Permanent.

15.4.3.4.1.2 Recorded Archaeological Sites / Monuments (RMP / SMR sites)

The majority of this section of the Proposed Scheme lies within the designated RMP ZAP for the Historic City of Dublin (DU018-020), with the area of highest potential being in the area from Dean Street to Christ Church Place. Ground-breaking works within the Historic City of Dublin ZAP will impact on any previously unknown archaeological sites or features that survive below ground. The RMP ZAP has a medium sensitivity value, and the magnitude of impact is medium, and as only a small part of the extensive Historic City ZAP is affected, therefore the potential impact is Negative, Moderate and Permanent.

In addition, there are 19 individual RMP / SMR sites located within the Proposed Scheme, not including the two City Defences national monuments discussed in Section 15.4.3.4.1.1. Most of these sites have no surface expression and relate to Dublin's medieval and post-medieval suburban development, as well as Viking and medieval settlement within the walls:

- Five of these are excavated sites and as such will not be affected by the Proposed Scheme: RMP DU018-020576 (watercourse), -020873 (habitation site), DU018-121 (mill), -122 (tannery), -142 (field system);
- At 12 of the remaining RMP / SMR sites within the Proposed Scheme, ground-breaking works at these locations will impact on the recorded archaeological sites where they may survive below ground (RMP sites: bridges DU018-020331, -020205, -020041, -020197, -020196, -020198, -020390, mill DU018-020399, holy well DU018--020059, House - 18th/19th century DU018--020058, cross DU018-020126, building DU018-020145; SMR site DU018-020735, mill). The RMP / SMR sites have a medium sensitivity value, and the magnitude of impact is medium, therefore the potential impact on these sites is Negative, Moderate and Permanent;
- At RMP site DU018-020575 and DU018-020987, only parts of the watercourses lie within the Proposed Scheme. Ground-breaking works at these locations will impact on the recorded archaeological sites where they may survive below ground. The RMP sites have a medium sensitivity value, and the magnitude of impact is medium, therefore the potential impact is Negative, Moderate, Permanent; and
- At DU018-020873, a medieval habitation site was excavated in the 1970s and it is possible that associated features survive beyond the excavated area within the Proposed Scheme. The RMP site has a medium sensitivity value, and the magnitude of impact is medium, therefore the potential impact is Negative, Moderate and Permanent.

In addition to the national monument sites discussed in Section 15.4.3.4.1.1, there are also 58 RMP sites located within c. 50m of the Proposed Scheme (Table 15.12 in Section 15.3.5.2). The majority of these are excavated sites or sites with no above-ground presence, for which there is no potential that they would extend within the Proposed Scheme and will not be affected by it. The possibility that associated features may survive below ground within the Proposed Scheme was identified at six of the sites: DU018-020503, Graveyard; DU018-020679, Hospital, DU018-020631, Riverine revetment; DU018-020085, Church; DU018-020767, Building; and DU018-020106, House 16th/17th century. The RMP sites have a medium sensitivity value, and the magnitude of impact is medium. With regard to DU018-020679, DU018-020631, DU018-020085, DU018-020767 and DU018-020106, therefore the potential impact is Negative, Moderate and Permanent. In the case of DU018-020503, Graveyard,

as the potential is for the discovery of human remains, therefore the potential impact is Negative, Significant and Permanent.

15.4.3.4.1.3 Non-Designated Archaeological Sites

At the site of the Hyatt Hotel on Dean Street, excavations identified the important remains of Hiberno-Norse and later medieval plots and houses, as well as a section of an early medieval roadway (CBC0809AH003). Ground-breaking works in the vicinity of this location along Dean Street will impact on any associated features which may survive below ground. This area of archaeological potential (which also lies within the Historic City of Dublin ZAP) has a medium sensitivity value and the magnitude of impact is medium, therefore the potential impact is Negative, Moderate and Permanent.

15.4.3.4.2 Cultural Heritage

There are a number of prominent historic buildings at the northern end of the Proposed Scheme which are of cultural heritage interest, namely the former St Luke's Church, St Patrick's Cathedral, Christ Church Cathedral and Synod Hall. These are also recorded archaeological sites and are described in Section 15.4.3.4.1.2. No other cultural heritage sites were identified.

Upstanding industrial heritage sites, historic street furniture, and cultural heritage sites of architectural interest are assessed in Chapter 16 (Architectural Heritage).

15.4.3.4.3 Summary of Impacts

The impacts are summarised in Table 15.20, which should be read in conjunction with Sheets 14 to 17 of 27, Figure 15.1 in Volume 3 of this EIAR.

Table 15.20: Summary of Potential Construction Phase Impacts (Grand Canal to Christchurch Section)

Assessment Topic	Potential Impact
RMP DU018-020269, St Patrick's Cathedral (National Monument)	Negative, Significant, Temporary
RMP DU018-020270, Christ Church Cathedral (National Monument)	Negative, Significant, Temporary
RMP DU018-020001, City Defences (St Nicholas' Gate) (National Monument)	Negative, Significant, Permanent
RMP DU018-020001, City Defences (St Patrick's Gate) (National Monument)	Negative, Significant, Permanent
RMP DU018-020001, City Defences (ditch and wall), Patrick St / Nicholas St (National Monument)	Negative, Significant, Permanent
RMP DU018-020001, City Defences (ditch), Patrick Street / St Nicholas Place (National Monument)	Negative, Significant, Permanent
RMP DU018-020001, City Defences (ditch and wall), Nicholas Street / St Nicholas Place (National Monument)	Negative, Significant, Permanent
RMP DU018-020, Historic Town	Negative, Moderate, Permanent
RMP DU018-020575, Watercourse	Negative, Moderate, Permanent
RMP DU018-020679, Hospital	Negative, Moderate, Permanent
RMP DU018-020503, Graveyard	Negative, Significant, Permanent
RMP DU018-020331, Bridge	Negative, Moderate, Permanent
RMP DU018-020205, Bridge	Negative, Moderate, Permanent
RMP DU018-020399, Mill	Negative, Moderate, Permanent
RMP DU018-020041, Bridge	Negative, Moderate, Permanent
RMP DU018-020197, Bridge	Negative, Moderate, Permanent
RMP DU018-020059, Ritual site - holy well	Negative, Moderate, Permanent
RMP DU018-020196, Bridge	Negative, Moderate, Permanent
RMP DU018-020058, House - 18th/19th century	Negative, Moderate, Permanent
RMP DU018-020198, Bridge	Negative, Moderate, Permanent
RMP DU018-020390, Bridge	Negative, Moderate, Permanent

Assessment Topic	Potential Impact
SMR DU018-020735, Mill - unclassified	Negative, Moderate, Permanent
RMP DU018-020126, Cross	Negative, Moderate, Permanent
RMP DU018-020145, Building	Negative, Moderate, Permanent
RMP DU018-020631, Riverine revetment	Negative, Moderate, Permanent
RMP DU018-020085, Church	Negative, Moderate, Permanent
RMP DU018-020767, Building	Negative, Moderate, Permanent
RMP DU018-020873, Habitation site	Negative, Moderate, Permanent
RMP DU018-020106, House - 16th/17th century	Negative, Moderate, Permanent
CBC0809AH003, Hiberno-Norse / Medieval Habitation	Negative, Moderate, Permanent

15.4.3.5 Woodford Walk (R113) / New Nangor Road (R134) to Long Mile Road (R110) / Naas Road (R810) / New Nangor Road (R134) junction

No impacts were identified for this section of the Proposed Scheme.

15.4.3.6 Long Mile Road (R110) / Naas Road (R810) / New Nangor Road (R134) junction to Drimnagh

15.4.3.6.1 Archaeological Heritage

15.4.3.6.1.1 National Monuments

No national monuments will be impacted by this section of the Proposed Scheme.

15.4.3.6.1.2 Recorded Archaeological Sites / Monuments (RMP / SMR sites)

This section of the Proposed Scheme runs c. 25m south of the ZAP for Drimnagh Castle (RMP DU018-036) and c. 80m south of the bawn that encloses the castle. There will be no impact on the setting of the castle and the potential for the discovery of associated features within the Proposed Scheme is considered to be slight. The RMP site has a medium sensitivity value, and the magnitude of impact is negligible, therefore the potential impact is Negative, Not Significant and Permanent.

15.4.3.6.1.3 Non-Designated Archaeological Sites

No non-designated archaeological sites will be impacted by this section of the Proposed Scheme.

15.4.3.6.2 Cultural Heritage

No cultural heritage sites were identified for this section of the Proposed Scheme. Upstanding industrial heritage sites, historic street furniture, and cultural heritage sites of architectural interest are assessed in Chapter 16 (Architectural Heritage).

15.4.3.6.3 Summary of Impacts

The impacts are summarised in Table 15.17, which should be read in conjunction with Sheet 27 of 27, Figure 15.1 in Volume 3 of this EIAR.

Table 15.21: Summary of Potential Construction Phase Impacts (Long Mile Road (R110) / Naas Road (R810) / New Nangor Road (R134) junction to Drimnagh Section)

Assessment Topic	Potential Impact
DU018-036, Drimnagh Castle	Negative, Not Significant, Permanent

15.4.3.7 Proposed Construction Compound Locations

15.4.3.7.1 Archaeological Heritage

15.4.3.7.1.1 National Monuments

No national monuments will be impacted by this section of the Proposed Scheme.

15.4.3.7.1.2 Recorded Archaeological Sites / Monuments (RMP / SMR sites)

Proposed Construction Compound TC4 is located in the vicinity of the ZAP for the early medieval ecclesiastical site and medieval castle site at Kilnarnagh (RMP DU022-005001 to -005005). However, there appears to have been considerable disturbance of this area during the construction of the residential development in the 1980s and archaeological monitoring of a trial pit excavated in this area during GI works for the Proposed Scheme found that the green space between Greenhills Road and Treepark Road had been built up with dumped construction material to a depth of c. 1.8m before being grassed over. Nothing of an archaeological nature was identified at this location. In addition, archaeological monitoring of works relating to ESB Networks 110kV Cable Development, the route of which crossed the curving townland boundary that is thought to represent the ecclesiastical enclosure, found nothing of archaeological interest (Licence 17E0488).

The results of the investigations within the ZAP to date and the evidence for previous disturbance across the area indicate that there is only a slight potential that previously unknown or associated archaeological features or deposits survive sub-surface within the proposed TC4 site. Ground-breaking works will impact on any such features, should they survive below ground. Given the trial-pit and other monitoring results, however, it is likely that any remains that do survive will be truncated or otherwise disturbed. The RMP site has a medium sensitivity value, and the magnitude of impact is low, and given the level of disturbance in this area, therefore the potential impact is Negative, Slight and Permanent.

Proposed Construction Compound TC11 is located within the designated RMP ZAP for the Historic City of Dublin (DU018-020) in an area known to have been occupied during the Hiberno-Norse and medieval periods. No ground-breaking works will be required for TC11. Therefore, there will be no impact in relation to the proposed compound.

15.4.3.7.1.3 Non-Designated Archaeological Sites

At the site of the Hyatt Hotel on Dean Street, excavations identified the important remains of Hiberno-Norse and later medieval plots and houses, as well as a section of an early medieval roadway (CBC0809AH003). No ground-breaking works will be required for TC11. Therefore, there will be no impact in relation to the proposed compound.

Four other non-designated archaeological sites were identified within proposed construction compounds TC7 (CBC0809AH005), TC9 (CBC0809AH006), and TC10 (CBC0809AH007), TC12 (CBC0809AH004), all of which represent the sites of 18th / 19th century structures. Ground-breaking works will impact any remains of the structure that survive below ground. There is also a slight potential that ground-breaking works will uncover previously unknown archaeological features or deposits. The non-designated archaeological site has a low sensitivity value, and the magnitude of impact is medium, therefore the potential impact is Negative, Slight and Permanent.

15.4.3.7.1.4 Greenfield Potential

The remaining sites proposed for temporary Construction Compounds are likely to have been subjected to some degree of disturbance by modern agricultural practices, landscaping / introduction of hard-surface, and / or the insertion of utilities (Construction Compounds TC1, 2, 3, 5, 6, 8, and 13). Nonetheless, there is a potential that ground-breaking works will uncover previously unknown archaeological features or deposits. The greenfield (i.e., undeveloped) areas have a low sensitivity value and the magnitude of impact is medium, therefore the potential impact at the Construction Compound locations is Negative, Slight and Permanent.

15.4.3.7.2 Cultural Heritage

No cultural heritage sites were identified within any of the proposed Construction Compound locations. Upstanding industrial heritage sites, historic street furniture, and cultural heritage sites of architectural interest are assessed in Chapter 16 (Architectural Heritage).

15.4.3.7.3 Summary of Impacts

The impacts are summarised in Table 15.22, which should be read in conjunction with Sheets 1, 3, 5, 6, 7, 9, 10, 12, 14, 16, 24 and 25 of 27, Figure 15.1 in Volume 3 of this EIAR.

Table 15.22: Summary of Potential Construction Phase Impacts (Proposed Construction Compound Locations)

Assessment Topic	Potential Impact
Construction Compound TC1	Negative, Slight, Permanent
Construction Compound TC2	Negative, Slight, Permanent
Construction Compound TC3	Negative, Slight, Permanent
Construction Compound TC4	Negative, Slight, Permanent
Construction Compound TC5	Negative, Slight, Permanent
Construction Compound TC6	Negative, Slight, Permanent
Construction Compound TC7 (CBC0809AH005)	Negative, Slight, Permanent
Construction Compound TC8	Negative, Slight, Permanent
Construction Compound TC9 (CBC0809AH006)	Negative, Slight, Permanent
Construction Compound TC10 (CBC0809AH007)	Negative, Slight, Permanent
Construction Compound TC11 (RMP DU018-020, Historic Town and CBC0809AH003)	No Impact
Construction Compound TC12 (CBC0809AH004)	Negative, Slight, Permanent
Construction Compound TC13	Negative, Slight, Permanent

15.4.4 Operational Phase

No operational phase impacts were identified.

15.5 Mitigation and Monitoring Measures

15.5.1 Construction Phase

15.5.1.1 Archaeological Heritage

Archaeological mitigation measures can avoid, prevent, reduce or offset negative effects and these are achieved by preservation in situ, by design and / or by record. The appointed contractor will make provision for archaeological monitoring to be carried out under licence to the DHLGH and the NMI, and will ensure the full recognition of, and the proper excavation and recording of, all archaeological soils, features, finds and deposits which may be disturbed below the ground surface. All archaeological issues will be resolved to the satisfaction of the DHLGH and the NMI. The appointed contractor will ensure that the archaeologist will have the power to inspect all excavation to formation level for the proposed works and to temporarily halt the excavation work, if and as necessary, having conferred with the NTA. They will be given the power to ensure the temporary protection of any features of archaeological importance identified. The archaeologist will be afforded sufficient time and resources to record and remove any such features identified in accordance with the licensing requirements agreed.

Archaeological excavation ensures that the removal of any archaeological soils, features, finds and deposits is systematically and accurately recorded, drawn and photographed, providing a paper and digital archive and adding to the archaeological knowledge of a specified area (i.e., preservation by record). As archaeological excavation involves the removal of the archaeological soils, features, finds and deposits, following this mitigation measure there is no further impact on the archaeological heritage.

In the case of cellars, coal cellars and/or basements, the principle of preservation by record will be enacted and a full geodetic survey and recording of each individual structure that has been identified as subject to impact will be carried out in advance of any construction works.

Ground-breaking works in the environs of national monuments will require archaeological consent from the Minister of Housing, Local Government and Heritage. National monuments on or in the vicinity of the Proposed Scheme are St. Audoen's Church, Christ Church Cathedral, and the sites of the City Defences (St James's Gate) on James's Street / Thomas Street West and City Defences at Cornmarket / Lamb Alley. Mitigation measures, in these instances, will be archaeological monitoring of all ground-breaking, excavation or earth-moving works, under Ministerial Directions from the Minister, under the terms of the National Monuments (Amendment) Act 2004.

The NTA will procure the services of a suitably qualified archaeologist as part of its Employer's Representative team administering and monitoring the works.

The appointed contractor will make provision to allow for archaeological monitoring, inspection and excavation works that may arise on the site during the Construction Phase.

15.5.1.1.1 Archaeological Management

An experienced and competent licence-eligible archaeologist will be employed by the appointed contractor to advise on archaeological and cultural heritage matters during construction, to communicate all findings in a timely manner to the NTA and statutory authorities, to acquire any licenses / consents required to conduct the work, and to supervise and direct the archaeological measures associated with the Proposed Scheme.

Licence applications are made by the licence-eligible archaeologist to the National Monuments Service at the DHLGH. In addition to a detailed method statement, the applications must include a letter from the NTA that confirms the availability of adequate funding. There is a prescribed format for the letter that must be followed. Other consents may include a Detection Device licence to use a metal-detector or to carry out a non-invasive geophysical survey and Ministerial Consent is required when there is ground-breaking works at or in the vicinity of a national monument.

The archaeologist will be provided with information on where and when the various elements and ground disturbance will take place.

As part of the licensing requirements, it is essential for the client to provide sufficient notice to the archaeologist(s) in advance of the construction works commencing. This will allow for prompt arrival on site to undertake additional surveys and to monitor ground disturbances. As often happens, there may down time where no excavation work is taking place during the construction phase. In this case, it will be necessary to inform the archaeologist/s as to when ground-breaking works will recommence.

In the event of archaeological features or material being uncovered during the Construction Phase, all machine work will cease in the immediate area to allow the archaeologist/s time to inspect and record any such material.

Once the presence of archaeologically significant material is established, full archaeological recording of such material is recommended in accordance with the licensing requirements. If it is not possible for the construction works to avoid the material, full excavation of the archaeologically significant material will be recommended. The extent and duration of excavation will be advised by the client's archaeologist and will be a matter for discussion between the NTA and the licensing authorities.

Secure storage for artefacts recovered during the course of the monitoring and related work will be provided by the appointed contractor.

As part of the licensing requirement and in accordance with the funding letter, adequate funds to cover excavation, post-excavation analysis, and any testing or conservation work required will be made available.

During the construction phase, all construction traffic and the management of materials will be restricted, where practicable, by the appointed contractor so as to avoid any newly revealed archaeological or cultural heritage sites and their environs to ensure no damage to a site of archaeological interest.

15.5.1.2 Cultural Heritage

Features of a cultural heritage interest that are required to be removed on a temporary basis or for a short-term period, will be removed under archaeological supervision and in accordance with a method statement in

consultation with the NTA and the relevant statutory authorities. This will protect the heritage asset from any adverse impacts and ensure that it is stored safely at an agreed location prior to its reinstatement.

Mitigation measures for upstanding industrial heritage sites, historic street furniture, and cultural heritage sites of architectural interest are provided in Chapter 16 (Architectural Heritage).

15.5.1.3 Tallaght to Ballymount

15.5.1.3.1 Archaeological Heritage

Archaeological monitoring (as defined in Section 15.5.1.1) under licence will take place, where any preparatory ground-breaking or ground reduction works are required (as defined in Section 15.4.1), at the following locations:

- Within the designated ZAP for the Historic village of Tallaght (RMP DU021-037 / DU022-018), which includes the recorded ecclesiastical enclosure (DU021-037002) and recorded mill site (DU021-037007) (Sheets 2 and 3 of 27, Figure 15.1 in Volume 3 of this EIAR); and
- Within the designated ZAP for the ecclesiastical enclosure (RMP DU022-005005, Sheet 5 of 27, Figure 15.1 in Volume 3 of this EIAR), to include the full extent of land take for the proposed road realignment. The monitoring of topsoil-stripping across this whole area will be carried out as an archaeological exercise.

It is in these areas that there is a possibility to disturb intact archaeological layers and material. Licensed archaeological excavation, in full or in part, of any identified archaeological remains (preservation by record) or preservation in situ will be undertaken.

15.5.1.3.2 Cultural Heritage

The Katharine Tynan memorial statue (CBC0809CH001, Sheet 3 of 27, Figure 15.1 in Volume 3 of this EIAR) will be appropriately protected for the duration of the works. The proximity of the construction works, including the replacement of the ground surfaces on which the street furniture sits, means that there is a potential for damage to the street furniture during construction. The potential pre-mitigation Construction Phase impact is Indirect, Negative, Moderate and Temporary. Mitigation consists of the recording, protection and monitoring prior to and during the Construction Phase. Recording, overseeing of protective measures and monitoring is to be undertaken by an appropriate architectural heritage specialist engaged by the appointed contractor and in accordance with the methodology provided in Appendix A16.3 Methodology for Works Affecting Sensitive and Historic Fabric in Volume 4 of the EIAR, reducing the magnitude of the risk from Medium to Low. The predicted post-mitigation Construction Phase impact is Indirect, Negative, Slight and Temporary (as set out in Chapter 16, Architectural Heritage).

15.5.1.3.3 Summary Table

Table 15.23: Summary of Potential Construction Phase Impacts Following the Implementation of Mitigation and Monitoring Measures

Assessment Topic	Potential Impact (Pre-Mitigation and Monitoring)	Predicted Impact (Post Mitigation and Monitoring)
RMP DU021-037, Historic Town (Tallaght)	Negative, Slight, Permanent	No significant impact
RMP DU021-037002, Ecclesiastical enclosure (Tallaght)	Negative, Slight, Permanent	No significant impact
RMP DU021-037007, Mill – unclassified (Tallaght)	Negative, Slight, Permanent	No significant impact
RMP DU022-005005, Ecclesiastical enclosure (Kilnamanagh)	Negative, Slight, Permanent	No significant impact
CBC0809CH001, Katharine Tynan Memorial	Negative, Slight, Temporary	No significant impact

15.5.1.4 Ballymount to Crumlin

15.5.1.4.1 Archaeological and Cultural Heritage

Archaeological monitoring (as defined in Section 15.5.1.1) under licence will take place, where any preparatory ground-breaking or ground reduction works are required (as defined in Section 15.4.1), at the following location:

- On Greenhills Road where it runs alongside the ZAP for a flat cemetery (RMP DU022-002, Sheet 8 of 27, Figure 15.1 in Volume 3 of this EIAR).

It is in these areas that there is a possibility to disturb intact archaeological layers and material. Licensed archaeological excavation, in full or in part, of any identified archaeological remains (preservation by record) or preservation in situ will be undertaken.

15.5.1.4.2 Cultural Heritage

No impacts were identified and therefore no mitigation is required.

15.5.1.4.3 Summary Table

Table 15.24: Summary of Predicted Construction Phase Impacts Following the Implementation of Mitigation and Monitoring Measures

Assessment Topic	Potential Impact (Pre-Mitigation and Monitoring)	Predicted Impact (Post Mitigation and Monitoring)
RMP DU022-002, Flat cemetery	Negative, Significant, Permanent	No significant impact

15.5.1.5 Crumlin to Grand Canal

15.5.1.5.1 Archaeological Heritage

Archaeological monitoring (as defined in Section 15.5.1.1) under licence will take place, where any preparatory ground-breaking or ground reduction works are required (as defined in Section 15.4.1), at the following locations:

- At the sites of a water mill (unclassified, RMP DU018-044 and 19th century mill site DCIHR 18-13-035) and watercourse (the City Water, RMP DU018-043002) on Clogher Road, at its junction with Rutland Avenue (Sheet 14 of 27, Figure 15.1 in Volume 3 of this EIAR);
- Within the ZAP ecclesiastical enclosure (DU018-038003) at St Mary's Church on Bunting Road and St Mary's Road (Sheet 10 of 27, Figure 15.1 in Volume 3 of this EIAR); and
- At the site of an 18th / 19th century house at the junction of Bunting Road and St Mary's Road (CBC0809AH002, Sheet 10 of 27, Figure 15.1 in Volume 3 of this EIAR).

It is in these areas that there is a possibility to disturb intact archaeological layers and material. Licensed archaeological excavation, in full or in part, of any identified archaeological remains (preservation by record) or preservation in situ will be undertaken.

15.5.1.5.2 Cultural Heritage

The Crumlin market cross (CBC0809CH002, Sheet 11 of 27, Figure 15.1 in Volume 3 of this EIAR) will be protected from any adverse impacts during construction works and if necessary, for its protection, it will be removed under archaeological supervision. This will be undertaken in accordance with a method statement agreed with the statutory authorities. It will be returned to its current setting and as close as possible to its current location following completion of the works.

15.5.1.5.3 Summary Table

Table 15.25: Summary of Predicted Construction Phase Impacts Following the Implementation of Mitigation and Monitoring Measures

Assessment Topic	Potential Impact (Pre-Mitigation and Monitoring)	Predicted Impact (Post Mitigation and Monitoring)
RMP DU018-038003, Ecclesiastical enclosure	Negative, Significant, Permanent	No significant impact
RMP DU018-044, Water mill – unclassified & DCIHR 18-14-023, 18 th /19 th century mill	Negative, Moderate, Permanent	No significant impact
RMP DU018-043002, Watercourse	Negative, Moderate, Permanent	No significant impact
CBC0809AH002, 18 th / 19 th century house (site of)	Negative, Slight, Permanent	No significant impact

Assessment Topic	Potential Impact (Pre-Mitigation and Monitoring)	Predicted Impact (Post Mitigation and Monitoring)
CBC0809CH002, Commemorative cross	Negative, Slight, Temporary	No significant impact

15.5.1.6 Grand Canal to Christchurch

15.5.1.6.1 Archaeological and Cultural Heritage

15.5.1.6.1.1 National Monuments

With regard to ground-breaking works (as defined in Section 15.4.1) in the environs of national monuments (listed below and shown on Sheets 16 and 17 of 27, Figure 15.1 in Volume 3 of this EIAR), archaeological consent is required from the Minister of DHLGH. Archaeological monitoring of the works will require Ministerial Directions from the Minister under the terms of the National Monuments (Amendment) Act 2004:

- At the sites of City Defences (RMP DU018-020001, national monument) on Nicholas Street (St Nicholas' Gate) and on Patrick Street (St Patrick's Gate);
- Adjacent to those sections of the City Defences (RMP DU018-020001, national monument) previously excavated c. 5m east of the Proposed Scheme at Patrick Street / Nicholas Street (Ditch and wall), Patrick Street / St. Nicholas Place (Ditch), and Nicholas Street / St. Nicholas Place (Ditch and wall); and
- In the environs of St Patrick's Cathedral and Christ Church Cathedral (national monuments).

The proposed public realm works (detailed in Chapter 17 (Landscape (Townscape) & Visual)) in the immediate vicinity of the upstanding national monuments (St Patrick's Cathedral and Christ Church Cathedral) will have a positive impact through their enhancement of the setting of the monuments. The national monuments have a very high sensitivity value, and the magnitude of the positive impact is medium, resulting in a significant impact (Appendix 15.3 in Volume 4 of this EIAR). Post-mitigation, the predicted impact will be Positive, Significant and Long-term.

15.5.1.6.1.2 Recorded Archaeological Sites / Monuments (RMP / SMR sites)

Archaeological monitoring (as defined in Section 15.5.1.1) under licence will take place, where any preparatory ground-breaking or ground reduction works are required (as defined in Section 15.4.1), at the following locations:

- Within the designated ZAP for the Historic City of Dublin (DU018-020, Sheets 14 to 17 of 27, Figure 15.1 in Volume 3 of this EIAR);
- At the following RMP / SMR sites which lie within the Proposed Scheme: the sites of watercourses (DU018-020575 and -020987), seven bridges (DU018-020331, -020205, -020041, -020197, -020059, -020058, -020390), a ritual site - holy well (DU018-020196), a house - 18th/19th century (DU018-020198), two mill sites (DU018-020735, -020399), a cross (DU018-020126), a habitation site (DU018-020873), and a building (DU018-020145); and
- At the following RMP sites, where associated features may survive below ground within the Proposed Scheme: Graveyard (DU018-020503), Hospital (DU018-020679), Riverine revetment (DU018-020631), Church (DU018-020085), Building (DU018-020767), a habitation site (DU018-020873) and a 16th/17th century house (DU018-020106).

It is in these areas that there is a possibility to disturb intact archaeological layers and material. Licensed archaeological excavation, in full or in part, of any identified archaeological remains (preservation by record) or preservation in situ will be undertaken.

15.5.1.6.1.3 Non-Designated Archaeological Sites

Archaeological monitoring (as defined in Section 15.5.1.1) under licence will take place, where any preparatory ground-breaking or ground reduction works are required (as defined in Section 15.4.1), at the following locations:

- On Dean Street, in the vicinity of CBC0809AH003, Hiberno-Norse / Medieval Habitation, where additional features may survive below ground within the Proposed Scheme.

It is in this area that there is a possibility to disturb intact archaeological layers and material. Licensed archaeological excavation, in full or in part, of any identified archaeological remains (preservation by record) or preservation in situ will be undertaken.

15.5.1.6.2 Cultural Heritage

No impacts were identified. Therefore, no mitigation is required.

15.5.1.6.3 Summary Table

Table 15.26: Summary of Predicted Construction Phase Impacts Following the Implementation of Mitigation and Monitoring Measures

Assessment Topic	Potential Impact (Pre-Mitigation and Monitoring)	Predicted Impact (Post Mitigation and Monitoring)
RMP DU018-020269, St Patrick's Cathedral (National Monument)	Negative, Significant, Temporary	Positive, Significant, Long-term
RMP DU018-020270, Christ Church Cathedral (National Monument)	Negative, Significant, Temporary	Positive, Significant, Long-term
RMP DU018-020001, City Defences (St Nicholas' Gate) (National Monument)	Negative, Significant, Permanent	No significant impact
RMP DU018-020001, City Defences (St Patrick's Gate) (National Monument)	Negative, Significant, Permanent	No significant impact
RMP DU018-020001, City Defences (ditch and wall), Patrick St / Nicholas St (National Monument)	Negative, Significant, Permanent	No significant impact
RMP DU018-020001, City Defences (ditch), Patrick Street / St Nicholas Place (National Monument)	Negative, Significant, Permanent	No significant impact
RMP DU018-020001, City Defences (ditch and wall), Nicholas Street / St Nicholas Place (National Monument)	Negative, Significant, Permanent	No significant impact
RMP DU018-020, Historic Town	Negative, Moderate, Permanent	No significant impact
RMP DU018-020575, Watercourse	Negative, Moderate, Permanent	No significant impact
RMP DU018-020679, Hospital	Negative, Moderate, Permanent	No significant impact
RMP DU018-020503, Graveyard	Negative, Significant, Permanent	No significant impact
RMP DU018-020331, Bridge	Negative, Moderate, Permanent	No significant impact
RMP DU018-020205, Bridge	Negative, Moderate, Permanent	No significant impact
RMP DU018-020399, Mill	Negative, Moderate, Permanent	No significant impact
RMP DU018-020041, Bridge	Negative, Moderate, Permanent	No significant impact
RMP DU018-020197, Bridge	Negative, Moderate, Permanent	No significant impact
RMP DU018-020059, Ritual site - holy well	Negative, Moderate, Permanent	No significant impact
RMP DU018-020196, Bridge	Negative, Moderate, Permanent	No significant impact
RMP DU018-020058, House - 18th/19th century	Negative, Moderate, Permanent	No significant impact
RMP DU018-020198, Bridge	Negative, Moderate, Permanent	No significant impact
RMP DU018-020390, Bridge	Negative, Moderate, Permanent	No significant impact
SMR DU018-020735, Mill - unclassified	Negative, Moderate, Permanent	No significant impact
RMP DU018-020126, Cross	Negative, Moderate, Permanent	No significant impact
RMP DU018-020145, Building	Negative, Moderate, Permanent	No significant impact
RMP DU018-020631, Riverine revetment	Negative, Moderate, Permanent	No significant impact
RMP DU018-020085, Church	Negative, Moderate, Permanent	No significant impact
RMP DU018-020767, Building	Negative, Moderate, Permanent	No significant impact
RMP DU018-020873, Habitation site	Negative, Moderate, Permanent	No significant impact
RMP DU018-020106, House - 16th/17th century	Negative, Moderate, Permanent	No significant impact
CBC0809AH003, Hiberno-Norse / Medieval Habitation	Negative, Moderate, Permanent	No significant impact

15.5.1.7 Woodford Walk (R113) / New Nangor Road (R134) to Long Mile Road (R110) / Naas Road (R810) / New Nangor Road (R134) junction

No impacts were identified for this section of the Proposed Scheme.

15.5.1.8 Long Mile Road (R110) / Naas Road (R810) / New Nangor Road (R134) junction to Drimnagh

15.5.1.8.1 Archaeological Heritage

Archaeological monitoring (as defined in Section 15.5.1.1) under licence will take place, where any preparatory ground-breaking or ground reduction works are required (as defined in Section 15.4.1) on Long Mile Road where it runs to the south of the ZAP for Drimnagh Castle (RMP DU018-036, Sheet 27 of 27, Figure 15.1 in Volume 3 of this EIAR).

It is in this area that there is a possibility to disturb intact archaeological layers and material. Licensed archaeological excavation, in full or in part, of any identified archaeological remains (preservation by record) or preservation in situ will be undertaken.

15.5.1.8.2 Cultural Heritage

No impacts were identified and therefore no mitigation is required.

15.5.1.8.3 Summary Table

Table 15.27: Summary of Predicted Construction Phase Impacts Following the Implementation of Mitigation and Monitoring Measures

Assessment Topic	Potential Impact (Pre-Mitigation and Monitoring)	Predicted Impact (Post Mitigation and Monitoring)
DU018-036, Drimnagh Castle	Negative, Not Significant, Permanent	No significant impact

15.5.1.9 Proposed Construction Compound Locations

15.5.1.9.1 Archaeological Heritage

Archaeological monitoring (as defined in Section 15.5.1.1) will take place where any preparatory ground-breaking or ground reduction works are required (as defined in Section 15.4.1) for the temporary Construction Compounds identified in Table 15.28. This will be undertaken in order to establish the presence or absence, as well as the nature and extent, of any archaeological deposits, features or sites that may be present in these areas.

15.5.1.9.2 Cultural Heritage

No impacts were identified. Therefore, no mitigation is required.

15.5.1.9.3 Summary Table

Table 15.28: Summary of Predicted Construction Phase Impacts Following the Implementation of Mitigation and Monitoring Measures (Proposed Construction Compound Locations)

Assessment Topic	Potential Impact (Pre-Mitigation and Monitoring)	Predicted Impact (Post Mitigation and Monitoring)
Construction Compound TC1	Negative, Slight, Permanent	No significant impact
Construction Compound TC2	Negative, Slight, Permanent	No significant impact
Construction Compound TC3	Negative, Slight, Permanent	No significant impact
Construction Compound TC4	Negative, Slight, Permanent	No significant impact
Construction Compound TC5	Negative, Slight, Permanent	No significant impact
Construction Compound TC6	Negative, Slight, Permanent	No significant impact
Construction Compound TC7 (CBC0809AH005)	Negative, Slight, Permanent	No significant impact

Assessment Topic	Potential Impact (Pre-Mitigation and Monitoring)	Predicted Impact (Post Mitigation and Monitoring)
Construction Compound TC8	Negative, Slight, Permanent	No significant impact
Construction Compound TC9 (CBC0809AH006)	Negative, Slight, Permanent	No significant impact
Construction Compound TC10 (CBC0809AH007)	Negative, Slight, Permanent	No significant impact
Construction Compound TC11 (RMP DU018-020, Historic Town and CBC0809AH003)	No impact	No impact
Construction Compound TC12 (CBC0809AH004)	Negative, Slight, Permanent	No significant impact
Construction Compound TC13	Negative, Slight, Permanent	No significant impact

15.5.2 Operational Phase

All archaeological and cultural heritage issues will be resolved by mitigation during the pre-construction phase or construction phase, in advance of the operational phase, through one or more of the following:

- Preservation by record (archaeological excavation);
- Preservation in situ;
- Preservation by design; and
- Archaeological monitoring.

No operational phase impacts were identified for the Proposed Scheme.

15.6 Residual Impacts

15.6.1 Construction Phase

No significant negative residual impacts were identified in the Construction Stage of the Proposed Scheme.

Two positive residual impacts were identified in relation to the upstanding national monuments, Christ Church Cathedral and St. Patrick's Cathedral, whose settings will be enhanced through the proposed public realm works. It is considered that once the work is complete this will result in a Positive, Significant, Long-term impact on the setting of monuments.

Table 15.29: Summary of Construction Phase Significant Residual Impacts

Assessment Topic	Potential Impact (Pre-Mitigation and Monitoring)	Predicted Impact (Post Mitigation and Monitoring)
RMP DU018-020269, St. Patrick's Cathedral (National Monument)	Negative, Significant, Temporary	Positive, Significant, Long-term
RMP DU018-020270, Christ Church Cathedral (National Monument)	Negative, Significant, Temporary	Positive, Significant, Long-term

15.6.2 Operational Phase

All archaeological and cultural heritage issues will be resolved by mitigation during the pre-Construction Phase or Construction Phase, in advance of the Operational Phase, therefore no residual negative impacts have been identified.

No significant negative residual impacts have been identified either in the Construction or Operational Stage of the Proposed Scheme, whilst meeting the scheme objectives set out in Chapter 1 (Introduction).

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15.7.1 Relevant Guidelines, Policy and Legislation

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