

JOHN CRONIN & ASSOCIATES

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Pedestrian and Cycle Bridge, Celbridge, Co. Kildare **Archaeological and Built Heritage Assessment**



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1. Introduction

The National Transport Authority (NTA) proposes to construct a pedestrian and cycle bridge (hereafter referred to as a pedestrian and cycle bridge) over the River Liffey in Celbridge County Kildare. Celbridge is an historic town located approximately 23km west of Dublin City and is bisected by the River Liffey which flows from southwest to northeast. The location of the proposed cycle/footbridge is within the centre of the town of Celbridge. The pedestrian and cycle bridge will span the river from the townland of Celbridge (the western bank of the river) to Donaghcumper (on the eastern bank of the river).

John Cronin & Associates have been commissioned by **RPS Group Limited** to assess potential and likely archaeological and built heritage issues associated with the pedestrian and cycle bridge.

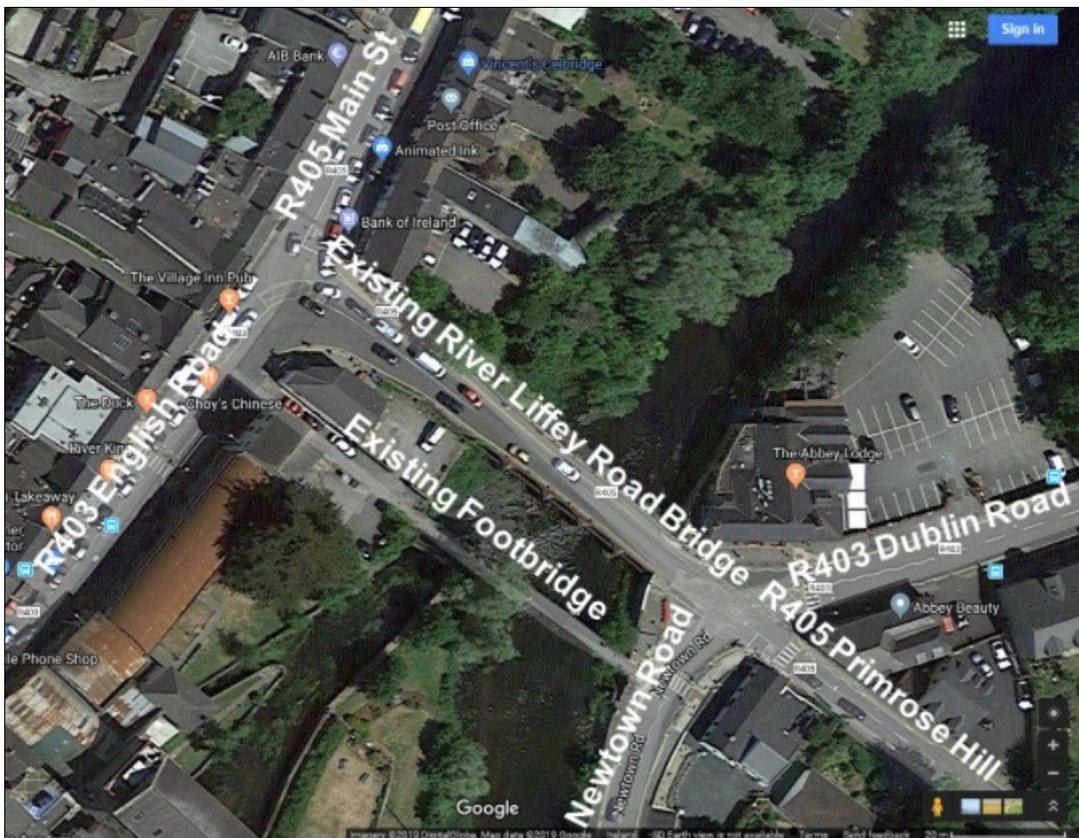


Figure 1: Aerial Photograph of existing bridges and road network in Celbridge (Google ©)

This report presents summary details on the locations of recorded elements of the archaeological and built heritage resource within the environs of the subject site and aims to identify any archaeological or built heritage constraints. The study area for this assessment comprised the internal area of the proposed development site combined with the lands extending for c.500m from the bridge.

This report should be read in conjunction with the scheme drawings, the *Pedestrian and Cycle Bridge, Celbridge, Co. Kildare - Landscape and Visual Impact Assessment Report* (prepared by RPS

Group (December 2021)) and the *Stage 2A: Bridge Report* (prepared by the bridge designers, DBH Architects (December 2021)).

2. Methodology

This report is based on a programme of desktop research and site inspection.

Desktop study

A desktop study assessment was carried out in order to identify all known archaeological sites, designated architectural heritage structures and other undesignated cultural heritage assets within the study area. The principal sources reviewed for this assessment of the known archaeological resource are the Sites and Monuments Record (SMR) and the Record of Monuments and Places (RMP). Between 1984 and 1992, the Archaeological Survey of Ireland (ASI) issued a series of county SMRs which lists known archaeological sites and places and this record formed the basis for the statutory RMP established under Section 12 of the National Monuments (Amendment) Act 1994. Similar in format to the SMRs (comprising a list and set of maps), the RMPs were issued for each county in the State between 1995 and 1998. Archaeological monuments included in the statutory RMP are legally protected and are generally referred to as 'Recorded Monuments'.

The ASI has continued to record and add entries to the SMR and has developed an online database and web viewer known as 'Historic Environment Viewer'. This has been developed to enhance the user's experience by facilitating access to the database of the National Monuments Service's Sites and Monuments Record (SMR) and the National Inventory of Architectural Heritage (NIAH) in a seamless one stop point of access for both data resources (Source: www.archaeology.ie).

In addition, the following sources were consulted as part of the desktop study:

- *Cartographic Sources* - The detail on cartographic sources can indicate past settlement and land use patterns in recent centuries and can also highlight the impact of modern developments and agricultural practices. This information can aid in the identification of the location and extent of unrecorded, or partially levelled, features of archaeological or architectural heritage interest. The cartographic sources examined for the study areas include the Down Survey (1650s), the 1st edition of the 6-inch Ordnance Survey (OS) maps (surveyed and published in the 1830s-40s) and the 25-inch OS maps (surveyed and published 1887-1913).
- *Aerial photography* - In parallel with the cartographic study, a review of publicly-accessible aerial photographic sources from the Ordnance Survey, Google and Bing Maps was undertaken.
- *Development Plans* - The local authority development plan relevant to the study area was consulted as part of this assessment. These plans outline the local authorities' policies for the conservation of the archaeological and architectural heritage resource and include the Record of Protected Structures (RPS) and any designated Architectural Conservation Areas (ACAs). The relevant development plan for the study area is the *Kildare County Development Plan 2017-2023*.
- *Database of Irish Excavation Reports* - The Database of Irish Excavation Reports contains summary accounts of all archaeological excavations carried out in Ireland from the 1960s to present.

- *Placenames Database of Ireland* - The Placenames Branch (Department of Culture, Heritage and the Gaeltacht) provides a comprehensive management system for data, archival records and place name research conducted by the State. Its primary function is to undertake research in order to establish the correct Irish language forms of the place names of Ireland and to publish them on a public website (www.logainm.ie).
- *National Inventory of Architectural Heritage* - The function of the National Inventory of Architectural Heritage ('NIAH') is to record built heritage structures within the Republic of Ireland and to advise local authorities in relation to structures of interest within their areas. The NIAH commissions surveys of sites of architectural significance to assist in evaluating structures to be included in the RPS. Listing on the NIAH does not necessarily carry any statutory protection but does highlight the culturally significant aspects of the structure which ought to be conserved.

Field survey

The existing bridge and adjoining areas were inspected by John Cronin and Eamonn Hunter on 27th of May 2020. The study area was assessed in terms of historic landscape, land use, vegetation cover, presence, and potential for undetected archaeological and architectural heritage sites/features. No difficulties were encountered during topographical survey. Extracts from the photographic record are presented below (see **Appendix**).

Consultation

During the course of the design process and option assessment, there was engagement between the design team and the Consultant Conservation Architect to Kildare County Council, Mr Michael O'Boyle MRIAI. The bridge designers, DBH Architects, have summarised their response to the observations made on the various options reviewed by Mr O'Boyle in their Stage 2A: Bridge Report. In particular, the selected design has sought to minimise the overall height or depth of the proposed pedestrian and cycle bridge structure to minimise landscape and visual effects, in particular, along the River Liffey and the protected structure.

In correspondence dated 2nd of December 2021, the Development Applications Unit (DAU) of the Department of Housing, Local Government and Heritage have made observations in respect to archaeological implications of the proposed development. In their letter, the DAU state the following:

Given the location of the proposed development, it is possible that hitherto previously unknown archaeological features/deposits, including elements of the pre c. 1800 bridge-crossing and pre-reclamation riverbed, may be impacted upon during the course of groundworks required for the development on each of the riverbanks.

The DAU recommend that prior to any construction commencing the applicant shall undertake an archaeological impact assessment that should include archaeological test excavation "at the locations for the piled foundations for the proposed pedestrian/cycle bridge and at any other locations where groundworks will be required, including service-trenches and access routes." Under Point 1d of the DAU letter, it is recommended that:

No construction works should commence until after the report on Archaeological Test Excavation has been submitted and reviewed.

Unfortunately, due to access restrictions, established land uses and the presence of standing structures, the DAU's recommendation to undertake pre-construction archaeological testing is not feasible or achievable. Alternative archaeological mitigation measures are outlined later in this assessment.

3. Context

Celbridge was established beside the River Liffey and has grown around a crossing point on the river. The town has early Christian origins and may have existed as a monastic site from the 5th century. It later became an Anglo Norman borough. The existing bridge crossing of the River Liffey dates from between 1780 and 1820 and is a Protected Structure (Kildare County Council RPS no. B11-103). Taylor's map of 1783 shows a bridge crossing the River Liffey at the same location to where the existing road bridge is today. The bridge consists of a six segmental arch rubble stone road bridge with triangular cut-waters and cut-stone voussoirs. The bridge was renovated and repointed about 1985.

Celbridge, or Kildrought as it was known up until the seventeenth century, has historically been defined by its position on the River Liffey and its proximity to major routes out of Dublin. The name Kildrought is derived from the Irish place name Cill Droichead, meaning 'the church of the bridge'. In early medieval times, a highway known as An Slí Mhór extended from Dublin Bay to Galway Bay and forded the River Liffey at Celbridge. A monastic site associated with St. Mochua was established here during the early Christian period and was most likely located on the site of the graveyard at Tea Lane.

Following the Anglo-Norman invasion of 1169, the lands at Celbridge were granted by Strongbow to Adam de Hereford. During the centuries that followed a medieval borough was established which included a parish church, a mill and a number of houses fronting onto a linear street. There is also archaeological evidence for a tower house located to the northeast of the borough in the townland of Castletown. To the east, a church at Donaghcumper and St. Wolstan's Abbey indicate a strong ecclesiastical presence in the area.

Celbridge underwent significant change in the early eighteenth century when the House of Commons speaker, William Conolly, acquired the Dongan estate. During this time, Conolly built a Palladian styled mansion on a 550 acre demesne to the north east of the town (c.1.2km from the bridge) whilst encouraging the development of several fine houses on Main Street. The design of the landscape, which framed and enhanced one of Ireland's finest Georgian mansion, is likely to be the work of Galilei, Moleworth and Switzer and most of the landscaping features derive their orientation from the River Liffey. It was Speaker Conolly and his wife Katherine who planted the formal axial approach avenues including the Celbridge avenue which they re-planted with limes. On his death in 1729, Speaker Conolly's grandnephew Thomas Conolly inherited the estate and in 1801, acquired the neighbouring demesne of Donaghcumper. Thomas's wife, Lady Louisa Lennox made major contributions to the Castletown landscape including the construction of the obelisk (c.3.7km to the northwest of the town). She also rebuilt the protestant church with a monument therein to her late husband's memory at the Celbridge gate (O'Kane 2004). A town hall and a number of religious and educational buildings were also provided to serve the needs of the locality. Smaller demesnes developed on the outskirts of the town including Celbridge Abbey, Oakley Park, Donaghcumper and St. Wolstans.

The industrial heritage of Celbridge includes the Celbridge Mill complex (c.80m to the southwest of the road bridge) on Main Street and the Temple Mills (c.1km to the south) further west along the River Liffey. These industries were important sources of local employment and contributed to the commercial development of the main street.



Figure 2: Northeast elevation of the bridge c. 1880 <http://catalogue.nli.ie/Record/vtls000333607>



Figure 3: South-west elevation of the bridge, November 1956
<http://catalogue.nli.ie/Record/vtls000737703>

In the latter half of the twentieth century Celbridge experienced significant population growth due to its proximity to Dublin and improvements in the strategic road network. Large housing estates were developed on the north and south side of the River Liffey. These estates and the associated retail and commercial services they attracted characterise the outskirts of the town as we know it today.

The Excavations Database

The Database of Irish Excavation Reports (www.excavations.ie) contains summary accounts of all the archaeological excavations carried out in Ireland (North and South) from 1969 to present. As of December 2021, 36 archaeological investigations are recorded within the town and environs of Celbridge. Eight such investigations in the form of archaeological testing and/or monitoring have been undertaken in the vicinity of the proposed development. Generally, very little evidence for medieval activity was discovered and, where it was, such evidence was within disturbed or redeposited fills/soils (see **Table 1**).

Table 1: List of recorded archaeological excavations within the immediate environs of the subject site.

Excavation Licence Number	Address	Results	ITM Reference
97E0122	Main Street, Celbridge	No Archaeological Significance	697329, 733177
98E0568	New Medical Complex, Main Street, Celbridge	No Archaeological Significance	697329, 733176
99E0557	7 and 18 Main Street, Celbridge	No Archaeological Significance	697338, 733191
03E1829	Main Street, Celbridge	In general, testing revealed much evidence for relatively recent activity/disturbance below ground level. However, some of the cuttings showed that the remains of isolated negative features of medieval and post-medieval date were present	697294, 733070
03E1829 ext.	Main Street, Celbridge	Monitoring confirmed the main findings of the test-trenching investigation. No in situ layers of medieval date survived on the surface of the subsoil; all material deposited on the subsoil was bulk fill relating to construction activity of 18th- or 19th-century date. However, the remains of scattered negative features (i.e. pits or linear features cut into subsoil) did survive on the site, some of which were picked up by the test cuttings (Excavations 2003) and others by the foundation trenches.	697294, 733070
95E0284	Main Street, Celbridge	No Archaeological Significance	697329, 733177
96E0154	Main Street, Celbridge	No Archaeological Significance	697329, 733176
96E0329	Main Street, Celbridge	Four sherds of medieval pottery were recovered from a loose 'garden-soil'/topsoil which was sealed by a skim of concrete.	697329, 733176

Cartographic review

The detail on historic cartographic sources demonstrates the nature of past settlements and land use patterns in recent centuries and can also highlight the impacts of modern developments and agricultural practices. This information can aid in the identification of the location and extent of unrecorded or partially levelled features of archaeological or architectural heritage interest.

The first edition Ordnance Survey map depicts the bridge in the mid-nineteenth century (see **Figure 4** below). The 1:2500 OS map (see **Figure 5**) shows limited change to the bridge structure.



Figure 4: Extract from the 1st edition 1:10,560 (or “six-inch”) OS map showing the approximate location of the subject site (Reproduced under Ordnance Survey Ireland Licence No. SU 0003321 (© Ordnance Survey Ireland/Government of Ireland))

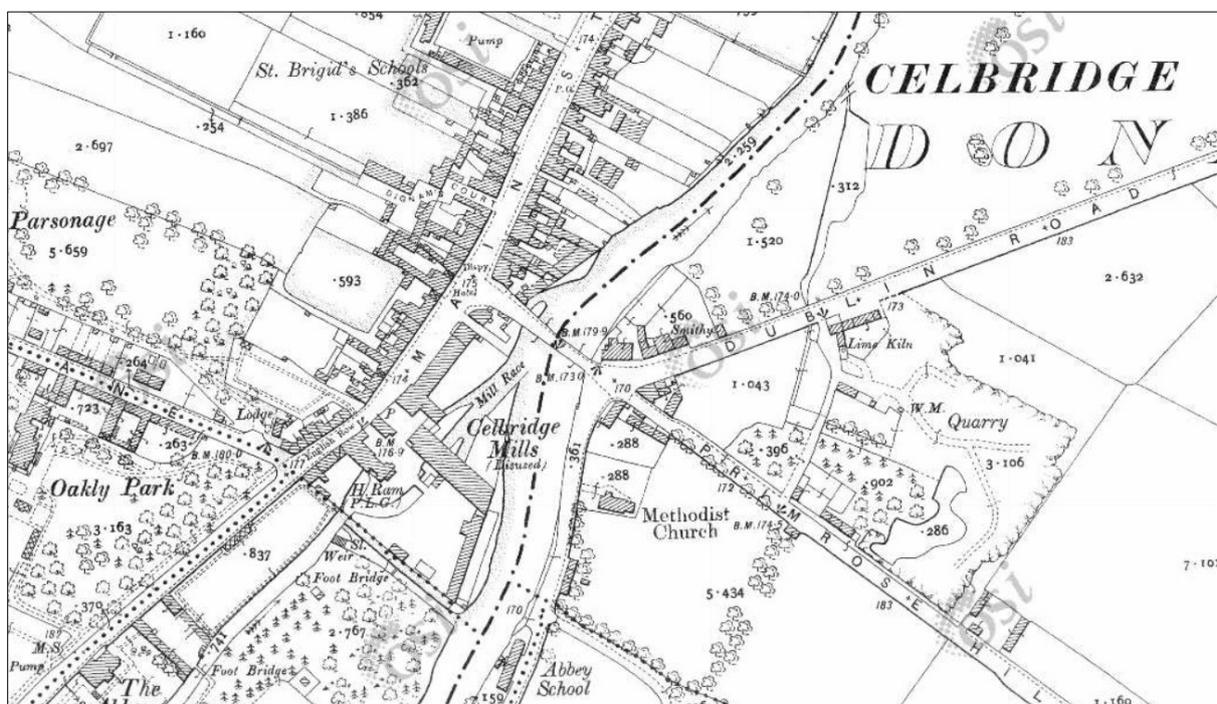


Figure 5: Extract from the 1:2500 (or “25-inch”) OS map showing the approximate location of the subject site (Reproduced under Ordnance Survey Ireland Licence No. SU 0003321 (© Ordnance Survey Ireland/Government of Ireland))

Placenames

The subject site is located within the townland of Celbridge. Townlands are the smallest unit of land division in the Irish landscape and many preserve early Gaelic territorial boundaries that pre-date the Anglo-Norman conquest. The layout and nomenclature of Irish townlands was recorded and standardised by the work of the Ordnance Survey in the 19th century. The Irish translations of the townlands names often refer to natural topographical features but name elements may also give an indication of the presence of past human activity within the townland, e.g. dun, lios or rath indicate the presence of a ringfort while temple, saggart, termon or kill record an association with a church site. The townland name of Celbridge is a relatively recent anglicization of the Irish *Kildrought*, derived from *cill* - church and *droichead* – bridge.

The Placenames Database has published the following explanatory note regarding Celbridge/Kildrought:

There are many references to the latter name in Medieval documents, such as Kildroicht in 'Crede Mihi' (1280 circa), Kildroicht, Kyldroght in the Ecclesiastical (or 'Papal') Taxation (1302-1306 circa), Kildroght 'Repertorium Viride' of John Alen (1533). These are transliterations of the underlying Irish name Cill Droichid, whereas Celbridge is a part translation of the same name. The translation of droichead to 'bridge' in the name Celbridge is not very old. In The Civil Survey, Co. Kildare (which was initiated in 1654) the earlier transliterated form only is used, Kildrought(t). There is also an interesting reference in the same source to 'one bridge over the River Liffie...in Kildrought'. In An Atlas of the Roads of Ireland by George Taylor and Andrew Skinner, which was printed in 1778, Celbridge is used throughout. The change from Kildrought to Celbridge is referred to in the Ordnance Survey Letters, Co. Kildare (1837): 'Kildrought Parish is now commonly called Celbridge Parish, which appears to be a translation of Kildrought into English.'

Legal & Policy Framework

The management and protection of cultural heritage in Ireland is achieved through a framework of national laws and policies which are in accordance with the provisions of the Valetta Treaty (1995) (formally the *European Convention on the Protection of the Archaeological Heritage, 1992*) ratified by Ireland in 1997; the *European Convention on the Protection of Architectural Heritage* (Granada Convention, 1985), ratified by Ireland in 1997; and the *UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage, 2003*, ratified by Ireland in 2015.

The locations of World Heritage Sites (Ireland) and the Tentative List of World Heritage Sites submitted by the Irish State to UNESCO were reviewed. The proposed works will not impact any such sites.

The national legal statutes and guidelines relevant to this assessment include:

- National Monuments Act (1930) (and amendments in 1954, 1987, 1994 and 2004);
- Heritage Act (1995);
- National Cultural Institutions Act (1997);
- Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act (1999);

- Planning and Development Act (2000);
- *Architectural Heritage Protection: Guidelines for Planning Authorities*, Department of Arts, Heritage, and the Gaeltacht (2011); and
- *Framework and Principles for the Protection of the Archaeological Heritage*, Department of Arts, Heritage, Gaeltacht and the Islands, (1999).

Archaeological Heritage

The administration of national policy in relation to archaeological heritage management is the responsibility of the National Monuments Service (NMS) which is currently based in the Department of Culture, Heritage and the Gaeltacht. The National Monuments Act of 1930, and its Amendments, are the primary means of ensuring the satisfactory protection of the archaeological resource. They include a number of provisions that are applied to secure the protection of archaeological monuments. These include the designations of nationally significant sites as National Monuments, the Register of Historic Monuments (RHM), the Record of Monuments and Places (RMP), the Sites and Monuments Record (SMR), and the placing of Preservation Orders and Temporary Preservation Orders on endangered sites.

Section 2 of the National Monuments Act, 1930 defines a National Monument as ‘*a monument or the remains of a monument, the preservation of which is a matter of national importance*’. The State may acquire or assume guardianship of examples through agreement with landowners or under compulsory orders. Archaeological sites within the ownership of local authorities are also deemed to be National Monuments. There are **no** National Monuments located within the environs of the proposed works.

The National Monuments (Amendment) Act, 1994 made provision for the establishment of the RMP, which comprises the known archaeological sites within the State. The RMP, which is based on the earlier Register of Historic Monuments (RHM) and Sites and Monuments Record (SMR), provides county-based lists of all recorded archaeological sites with accompanying maps. All RMP sites receive statutory protection under the National Monuments Act 1994 and the NMS must be given two months’ notice in advance of any work proposed at their locations. The existing road bridge itself is not a recorded archaeological monument, however, it is located within the *Zone of Notification* for the historic town of Celbridge. The historic town is included in the Record of Monuments and Places (RMP) for County Kildare (RMP no. KD011-012001-). Evidence for pre-Norman settlement including a bridge within the town consists of the placename Cill Droiched (‘the church of the bridge’), traditional associations with St Mochua, and traces of a possible early ecclesiastical enclosure (RMP no. KD011-012004-) likely dating to the Early Medieval period are recorded c.500m to the west. In The Civil Survey of County Kildare (which was initiated in 1654) there is a reference to ‘one bridge over the River Liffie...in Kildrought’.

Architectural Heritage

Protection of architectural heritage is provided for through a range of legal instruments that include the Heritage Act (1995), the Architectural Heritage (National Inventory) & National Monuments (Misc. Provisions) Act (1999), and the Planning and Development Act (2000).

The Heritage Act (1995) (as amended) defines architectural heritage as including: *all structures, buildings, traditional and designed, and groups of buildings including streetscapes and urban vistas,*

which are of historical, archaeological, artistic, engineering, scientific, social or technical interest, together with their setting, attendant grounds, fixtures, fittings and contents.

The National Inventory of Architectural Heritage (NIAH) was established under the Architectural Heritage Act (1999), to record architectural heritage structures within the State and to advise local authorities in relation to structures of architectural heritage significance within their administrative areas. The conservation principles of care and protection of architectural heritage and the facilitation of the listing of significant buildings of architectural merit are set out in Part IV of the Planning and Development Act (2000). This requires Local Authorities to maintain a Record of Protected Structures (RPS) of structures with special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest, to be included in City/County Development Plans. In addition, Local Authorities must provide for the preservation of townscapes etc. through designation of Architectural Conservation Areas (ACAs). Any changes that materially affect the character of a protected structure require planning permission.

The bridge is both a Protected Structure (**RPS no. B11-103**) and is included on the NIAH (**NIAH Ref. no. 11805054**). The 18th century building directly to the north of the west end of the bridge, currently occupied by the former Bank of Ireland, is included on the NIAH (NIAH Ref. no. 11805041) but is not a protected structure. The Abbey Lodge building, located at the east end of the bridge, is not listed on the NIAH or as a protected structure but is within the Celbridge Architectural Conservation Area. The bridge is included in the Celbridge Architectural Conservation Area (ACA) in the current Celbridge Local Area Plan 2017-2023.

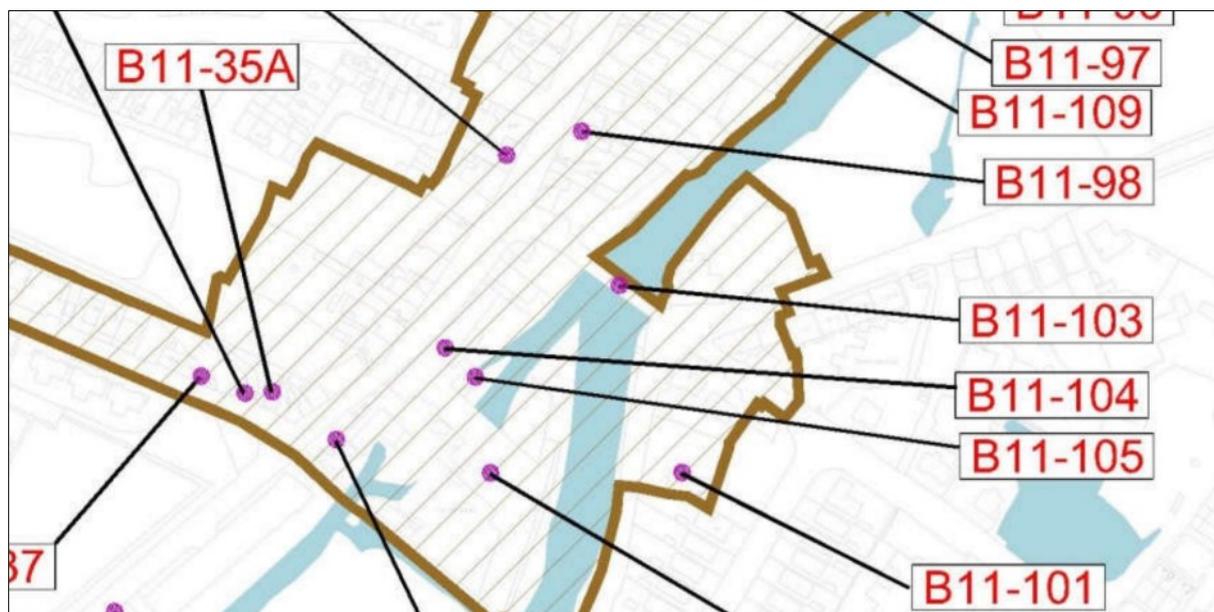


Figure 6: Brown line indicates extents of proposed architectural conservation area (ACA) which includes bridge and surrounds. Purple dots indicate protected structures of which bridge (B11-103) is one.

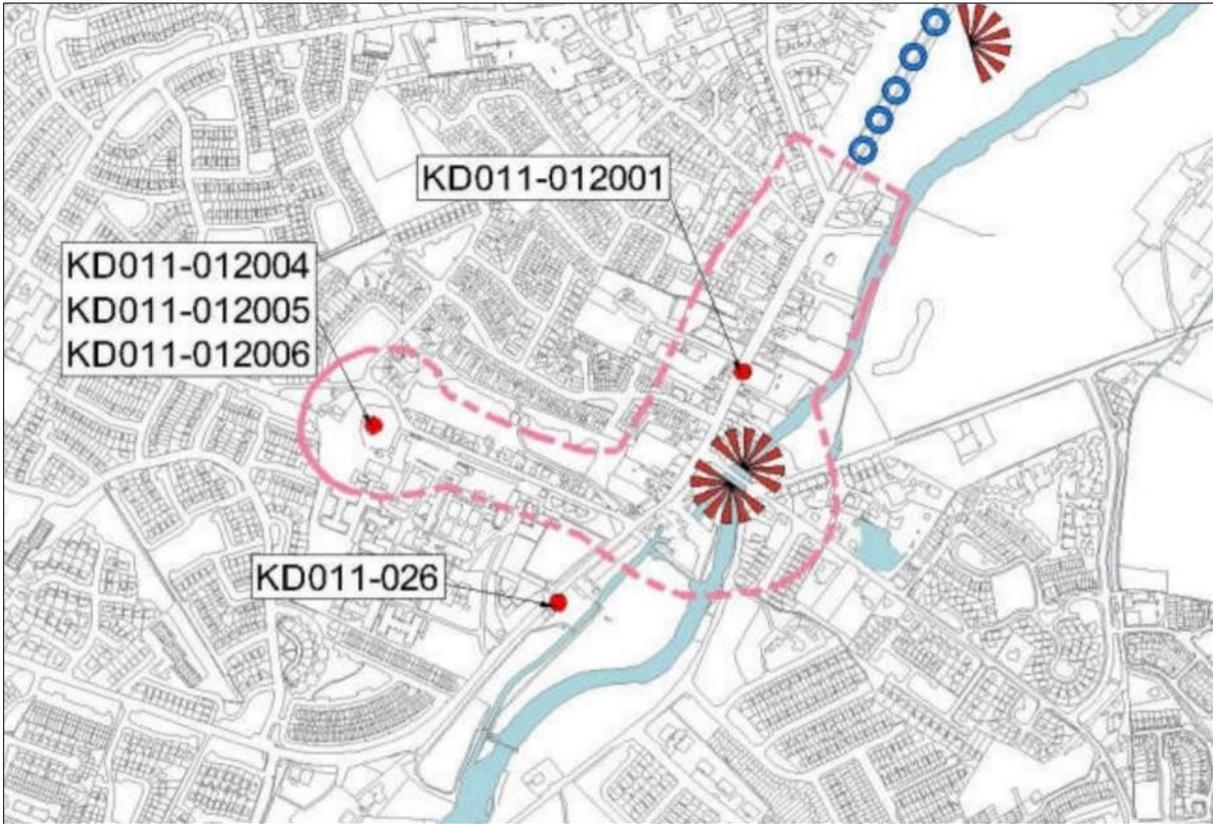


Figure 7: Views up and downstream from bridge proposed to be preserved within Celbridge LAP. Bridge located within zone of archaeological notification for historic town of Celbridge (National Monuments Service reference KD011-012001-)

4. The receiving environment

The existing road bridge within Celbridge town forms part of the R405 regional road and facilitates vehicles to cross the River Liffey in a northwest/southeast direction. The bridge is accorded the following EIRSPAN reference number: **KE-R403-004.00**.

This is a six-arch rubble stone road bridge over the river dating from the 1800s. An earlier (eighteenth-century) bridge in Celbridge was rebuilt following its destruction in a flood in December 1802. The existing bridge was badly damaged during the War of Independence in 1921.

The proposed pedestrian and cycle bridge is to be constructed to the northeast (downstream) of the existing road bridge. The proposed location of the pedestrian and cycle bridge stretches from bank to bank of the River Liffey and includes landing areas for the bridge in the former Bank of Ireland car park (north side) and adjacent to the Abbey Lodge public house and hotel (south side).

The existing masonry bridge at Celbridge was recorded in 2003/4 by the National Inventory of Architectural Heritage (NIAH) and is accorded the following NIAH registration number: **11805054**. The NIAH describe the bridge as follows:

Six-arch rubble stone road bridge over river, c.1800, with triangular cut-waters and cut-stone voussoirs. Renovated, c.1985. Random rubble stone walls. Repointed, c.1985. Random rubble stone triangular cut-waters to piers. Rubble stone parapet walls with rendered coping. Six segmental arches. Cut-stone voussoirs. Rendered soffits. Sited spanning River Liffey with grass banks to river.

The NIAH appraised the significance of the bridge as follows:

Celbridge Bridge is a fine stone bridge that forms an imposing feature on the River Liffey and is one of a group of bridges on the section of that river that passes through County Kildare. The construction of the arches that have retained their original shape is of technical and engineering merit. The bridge exhibits good quality stone masonry, although the modern repointing is too prominent and has obscured the joints. The bridge is of considerable historical and social significance as a reminder of the road network development in Ireland in the late eighteenth/early nineteenth centuries.

During the site inspection for this assessment, the following observations were made (the photographic record within the **Appendix** of this report illustrates these points):

- Historic early nineteenth-century stone-arch bridge with major repairs last completed in mid-1980s. Structure has no notably significant architectural features or decorative embellishment but rather is a robust, naturalised and well-proportioned crossing built of locally-sourced materials. Its character is in keeping with other road-bridges over rivers in the vicinity.
- Significant issues with tree-growth rooted in piers and masonry on north-east elevation as well as variable ivy growth here and elsewhere.

- No significant structural deterioration noted during course of cursory survey except c.13m section of north-west end of north-east parapet wall which may need to be taken down and re-built from road level.
- No existing views of bridge from north-east possible due to tree-growth and access.
- Views of south-west elevation partially obscured by existing late twentieth-century concrete pedestrian bridge and marred somewhat by steel water main which spans between large triangular upstream cutwaters.
- Limited bridge deck width, complicated crossings and junctions at each end and high traffic volume make pedestrian experience on single, narrow foot-path on north-east side of road negative.
- Parapets appear to be of adequate height but bolted fixing of flower boxes to parapet capping stones does not follow conservation best practice. Parapet capping is mixture of horizontally bedded limestone caps, vertical-bedded limestone coping and cast-concrete capping. The use of large stones to bond wall-tops together and reduce moisture ingress traditionally helped to maximise longevity of such exposed masonry structures.
- Apparent loss of pointing mortar from lower courses of pier masonry could indicate scour erosion, particularly on downstream side of piers closer to south-east bank where river depth and velocity appears to be greater.
- Cementitious pointing to all surfaces of bridge is inappropriate visually and structurally but further investigation is required to assess if deterioration of the structure is being accelerated by cement-use which may need to be removed and replaced with appropriate lime mortar. Any new works should make use of suitable lime mortars **only**. Impermeable cement pointing mortar tends to prevent escape of water from masonry structure which accelerates deterioration of mortar within wall core and bedding as well as forcing cement pointing to pop off as can be seen on interior of south-west parapet wall.
- Concrete-guniting arch soffits are leaching calcite and may be disguising more extensive erosion of core material from arch barrels.
- Section of wing wall to south-east corner of bridge structure re-built prior to vehicular accident in 2016 displays reasonable standard of stone masonry but bonding of stones should avoid running vertical joints over more than two stones.

5. Assessment of impact

The proposed development comprises a pedestrian and cycle bridge from the footpath adjacent to the former Bank of Ireland car park in Celbridge to the footpath outside the Abbey Lodge public house. The bridge will span over the River Liffey for approximately 50m. It will be constructed directly adjacent to the existing road bridge.

The design and construction comprise a single-span, inclined, open-web truss bridge structure with a modular deck and glass guarding, for pedestrian and cycle crossings. The deck will be a minimum of 3.5m in width and will also function as a viewing platform and public space. The structure will bear on landings on each bank and will have no structural incidence on the existing road bridge (i.e. there is no requirement for structures or construction works in the River Liffey). The supports at the ends of the proposed pedestrian and cycle bridge, located at the former Bank of Ireland (north bank of River Liffey) and Abbey Lodge (south bank of River Liffey), will require piled abutments (again, these structures are not located in the River Liffey).

The riverbed will not be impacted by the foundations. The works to the riverbank will be the modification of the top of the retaining walls to tie both ends of the bridge in and the construction of the abutments. No excavation within the riverbed or instream works are required as the bridge will be a clear span structure over the river channel.

On the downstream façade of the existing road bridge localised maintenance works will consist of the removal of vegetation, repointing of stonework where vegetation has been removed, and repointing of the parapet wall as required by the introduction of two new openings in the parapet wall. As part of an advance contract, the existing road bridge will require localised advance maintenance works. These works will include the clearance of growth from the bridge piers and arches on the downstream façade and repointing of the stonework where required by the removal of vegetation.

(A detailed description of work has been prepared by RPS Group and accompanies the scheme proposals.)

The existing road bridge itself is not a recorded archaeological monument, however, it is located within the *Zone of Notification* for the historic town of Celbridge. The historic town is included in the Record of Monuments and Places (RMP) for County Kildare (RMP no. KD011-012001-). Evidence for pre-Norman settlement including a bridge within the town consists of the placename Cill Droiched ('the church of the bridge'), traditional associations with St Mochua, and traces of a possible early ecclesiastical enclosure (RMP no. KD011-012004-) likely dating to the Early Medieval period are recorded c.500m to the west. In The Civil Survey of County Kildare (which was initiated in 1654) there is a reference to 'one bridge over the River Liffie...in Kildrought'.

The bridge is both a Protected Structure (RPS no. B11-103) and is included on the NIAH (NIAH Ref. no. 11805054). The 18th century building directly to the north of the west end of the bridge, currently occupied by the former Bank of Ireland, is included on the NIAH (NIAH Ref. no. 11805041) but is not a protected structure. The Abbey Lodge building, located at the east end of the bridge, is not listed on the NIAH or as a protected structure but is within the Celbridge Architectural Conservation Area. The bridge is included in the proposed Celbridge Architectural Conservation Area (ACA) in the current Celbridge Local Area Plan 2017-2023.

The existing road bridge has a narrow footpath and a second pedestrian bridge, also used by cyclists, is located to the southwest of the vehicular bridge. These limited crossing points are a significant constraint to the efficient movement of private and commercial road users, and public transport, within the town. The town suffers from significant traffic congestion, particularly during peak travel periods, associated, to a significant degree, with the fact that the town has only this single bridge. This bridge is a multi-arch stone bridge with two narrow traffic lanes and a footpath of limited width on one side only. Delays to vehicles accessing the bridge crossing is a regular occurrence in Celbridge.

During the design option stage, the design team had extensive consultation with planning and heritage personnel within Kildare County Council. The designers have sought to keep a respectful distance from the historic fabric of the protected structure. From a design and conservation perspective, the proposed new structure's proximity to the protected structure is considered by the designers to be "a mark of its dependence on its historic presence and to its quality as a 'servant' space to the existing bridge's 'served' status". By figuratively "nestling" the new footbridge within the setting of the existing masonry bridge, the latter's primacy is maintained, and its importance enhanced.

The new bridge will be supported on each bank, with no intermediate support. The supports at the ends of the pedestrian and cycle bridge, however, will be significant (at Abbey Lodge and former Bank of Ireland). The depth of the structure has been kept as shallow as possible to avoid obstructing the arches of the road bridge in the event of a flood. The handrail (glass guarding) is fixed on the top of the deck. Benches are placed where the bridge is the widest so that circulation spaces are not obstructed. The structure is symmetrical, but the deck is asymmetrical. This selected design solution seeks to have the least-possible visual impact on the strong identity of the existing masonry bridge.

The springing points for the new bridge are contiguous to the bridge and are within (a) the former Bank of Ireland car park and (b) a narrow strip between the footpath/bridge boundary wall and the Abbey Lodge pub. While some adjustment of the arrival point is possible on the northern bank because of the width of the car park area, there is no such leeway on the opposite side, and the continuous presence of the Abbey Lodge along the southern bank rules out any further landing opportunities on this side for some considerable distance downstream.

Construction impacts

The existing bridge is a protected structure and is considered as being of regional importance by the National Inventory of Architectural Heritage (NIAH Reference: 11805054). The proposed development will have a **negative slight direct impact** on the existing bridge and its setting. However, this is balanced by planned improvements works to the existing bridge (through the removal of the narrow footpath, the rerouting of telecoms services and the addition of a rubbing strip kerb in lieu of the footpath) along with the planned programme of maintenance to the bridge itself are considered to be a **positive, moderate, direct impact**.

The new bridge will be supported on each bank of the River Liffey, with no intermediate support. The supports at the ends of the pedestrian bridge, however, will be significant: located at the former Bank of Ireland (north-western bank) and Abbey Lodge (south-eastern bank). There is potential for impact on subsurface archaeological deposits at these riverside locations. However,

no instream works or land take from within the river is required and no excavation is required from within the riverbed. The potential for subsurface archaeological deposits is considered moderate. Therefore, ground works required for construction will have the likely potential to result in negative, direct impacts of unknown significance on any sub-surface archaeological features that may exist within the footprint of the proposed development. It is recommended that a programme of **licenced archaeological monitoring** take place during the ground reduction works for the development, so any archaeological deposits are recorded and assessed.

There will be the removal of approx. 6 m length x 1.1 – 1.5m high of wall at the road edge (comprising 5m of bridge parapet wall and 6m of wall within Abbey Lodge yard) wall and 2.2m return in rubble stonework (outside the Abbey Lodge) in order to allow access to the bridge on the southern side. This will represent a **negative, moderate direct impact**.

Additionally, the 4.2m wide front wall and a 1m return of a side extension to the Abbey Lodge will be removed to facilitate access to the bridge; the extension is modern and of no cultural heritage significance; **no archaeological or built heritage impact** arises from the planned demolition works at Abbey Lodge.

In relation to the Architectural Conservation Area (ACA), a small magnitude of impact is considered to arise. The introduction of the proposed pedestrian and cycle bridge comprises a new element which would be partially apparent as a small but noticeable element from the surrounding urban landscape in the study area. However, the existing road bridge will continue to be a more dominant focal point. The change would not necessarily be substantially uncharacteristic with the attributes of the receiving environment. On balance, the new pedestrian and cycle bridge and associated minor road works (including the realignment of kerbs at the bridge ends and the installation of a zebra crossing with beacons and flashing amber signals to Main Street) will have a **neutral impact** on the ACA.

Operational impacts

The new pedestrian bridge will be placed close to the downstream elevation of the bridge but will not have any physical connection to the protected structure and therefore no negative direct impacts on the protected structure are anticipated during the operational phase. By not having physical connection with the masonry of the protected bridge, the structure is ultimately reversible (capable of removal without a negative impact on the protected structure). In terms of setting, the new bridge is of a contemporary design and of metal construction and will contrast with the rubble masonry of the existing bridge, a protected structure. The proposed handrail is transparent and angled so as not to block the view from the existing road bridge. Therefore, the new pedestrian and cycle bridge will alter the contextual setting of the protected structure, this is considered to be a negative, slight impact. However, the new structure is a relatively discreet intervention within the context of the ACA and will be legible as contemporary intervention; the operational impact of the new pedestrian bridge on the ACA is considered to be **neutral**.

Improvements works to the existing bridge (through the removal of the narrow footpath, the rerouting of telecoms services and the addition of a rubbing strip kerb in lieu of the footpath) along with the planned programme of maintenance to the bridge itself are considered to be **positive, moderate impact**.

Residual impacts

Residual effects on archaeology and built heritage are concerned with the effects of a proposed development with mitigation measures in place. In the case of the proposed pedestrian and cycle bridge, the mitigation measures are inherent in the design of the bridge. Thus, the residual effects of the pedestrian bridge are the same as that reported under operational effects above.

6. Mitigation measures

Archaeology

The proposed development area is within the Zone of Archaeological Protection KD011-012001- for the historic town of Celbridge and more specifically the Zone of Notification for KD011-012007- bridge. Given the archaeological potential of the area, it is proposed that archaeological monitoring of all ground excavation works be carried out during the construction (including site investigation). No groundworks of any type (including any enabling works or advance site investigations) are to take place in the absence of the archaeologist without his/her express consent.

The archaeological monitoring programme must be carried out under licence from National Monuments Service and in accordance with an agreed method statement. Archaeological monitoring of the sections of the bridge parapet to be demolished will also be undertaken. It is recommended that all phases of archaeological investigations should be augmented by the use of a metal-detector (under licence by the NMS) to assist in the recovery of archaeological artefacts. In the event that any archaeological features and/or artefacts are uncovered during any phase of site investigations or construction, the NMS should be notified and consulted to determine appropriate further mitigation measures.

Should archaeological material be found during the course of the archaeological monitoring, the archaeologist shall stop work on the affected part of the site pending a decision as to how best to deal with the archaeology.

The Department of Housing, Local Government and Heritage and Kildare County Council shall be furnished with a report describing the results of the monitoring.

Built heritage

The existing bridge is a protected structure and is considered as being of regional importance by the National Inventory of Architectural Heritage (NIAH Reference: 11805054). The proposed development will have a **negative slight direct impact** on the existing bridge and its setting. However, this is balanced by planned improvements works to the existing bridge (through the removal of the narrow footpath, the rerouting of telecoms services and the addition of a rubbing strip kerb in lieu of the footpath) along with the planned programme of maintenance to the bridge itself are considered to be a **positive, moderate, direct impact**.

The following mitigation measures will be adopted:

- Prior to commencement of works and following removal of vegetation at the areas where the new pedestrian bridge is to connect with existing pavements, a full record of the sections of walling to be removed will be undertaken by a suitably qualified built heritage specialist. The record will include full description (i.e. construction, composition and style, etc.) and interpretation of any distinctive phases evident in the walling. This record shall include annotated drawings to be produced from photogrammetry or laser scanner survey.

- Prior to commencement of works, a conservation method statement shall be prepared by a suitably qualified conservation consultant/architect to specify (a) works for the planned interventions to the parapet walls and (b) a programme of general repairs to the existing bridge. This is to ensure that the works conform with conservation best practice.
- Any proposed conservation or repair works will be (a) undertaken by a contractor with proven experience of the conservation and repair of historic masonry structures and (b) under supervision of a suitably qualified conservation consultant/architect. The appointed conservation consultant/architect shall carry out periodic inspections and will approve workmanship. At the discretion of the conservation consultant/architect, the contractor may be directed to prepare sample work for approval (such as repointing and sample masonry panels).
- All masonry removed during the course of works shall be retained by the contractor for the duration of works. The retained material will be reused, where practicable, for any planned repairs.

The application of the aforementioned mitigation measures will reduce impacts on archaeological and built heritage resources. In addition, the new pedestrian and cycle bridge has been designed to avoid any significant direct impacts on the fabric and architectural form of the existing protected bridge and the built heritage significance of Celbridge. The new pedestrian and cycle bridge is of a high-quality contemporary form and will be clearly legible as a modern intervention.

7. References

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- O'Keeffe, P. & Simington, T. with Goodbody, R. (ed.) (2016) *Irish Stone Bridges: History and Heritage*. Irish Academic Press

Internet resources

- Database of Irish Archaeological Excavations (accessed 08/12/21): <http://www.excavations.ie/> (accessed 08/12/21)
- Department of Culture, Heritage and the Gaeltacht's Historic Environment Viewer, (accessed 08/12/21): <http://webgis.archaeology.ie/historicenvironment/>
- Heritage maps: www.heritagemaps.ie (accessed 08/12/21)
- Kildare County Development Plan 2017-2023 (accessed 08/12/21): <http://www.kildare.ie/CountyCouncil/Planning/DevelopmentPlans/KildareCountyDevelopmentPlan2017-2023/Variation1-KildareCountyDevelopmentPlan2017-2023/>
- National Inventory of Architectural Heritage (NIAH), (accessed 08/12/21); <http://www.buildingsofireland.ie/Surveys/Buildings/>
- Placenames Database of Ireland, (accessed 08/12/21): <https://www.logainm.ie/en/>
- Record of Protected Structures within the Kildare County Development Plan 2017-2023 (accessed 08/12/21): <http://www.kildare.ie/CountyCouncil/Planning/ProtectedStructures/Appendix%20%20Record%20of%20Protected%20Structures%20CDP%202017%20%202023.pdf>
- The Down Survey of Ireland (accessed 08/12/21): <http://downsurvey.tcd.ie/down-survey-maps.php#bm=Salt+and+Straffan&c=Kildare>

Appendix: Photographic record



Plate 1: South-west elevation from west. Cement strap pointing and steel ducts interfere with visual integrity and pointing is likely to accelerate deterioration of masonry structure.



Plate 2: South-west elevation of south-easternmost pier (right) showing loss of pointing mortar from lower courses of masonry above water-line and wide open joints just visible to downstream side indicating scour erosion and loss of core material from pier.



Plate 3: Re-built section to south-east wing wall adjoining bridge with poor bonding of stone, ie. long unbroken vertical joints extending over more than two stones. Localised ivy growth should be maintained to prevent deeper penetration by roots.



Plate 4: View of south-western elevation from Newtown Road approach from south



Plate 5: South-west elevation from south



Plate 6: North-east elevation from car-park of pub on Dublin Road to north-east



Plate 7: North-west side of north-east elevation showing extensive ivy and tree growth on structure and possible restriction of water floor through archway to north-west side.

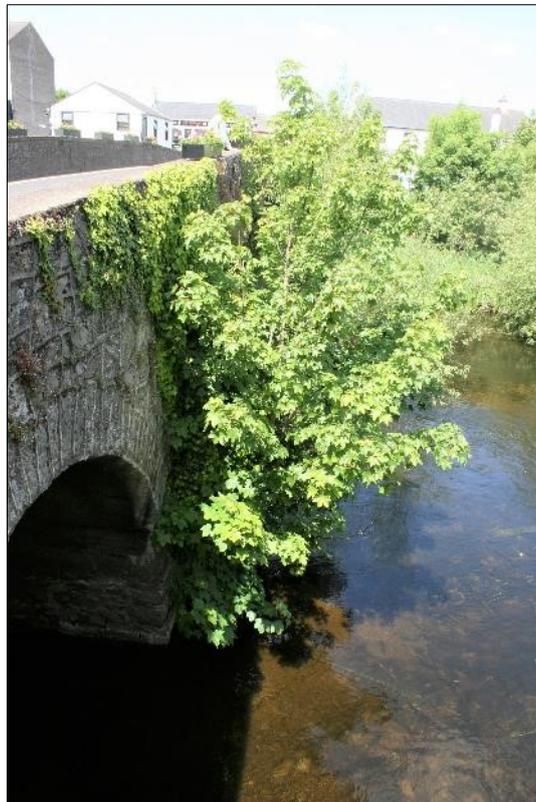


Plate 8: Sycamore tree rooted into pier on north-east elevation looking north-west

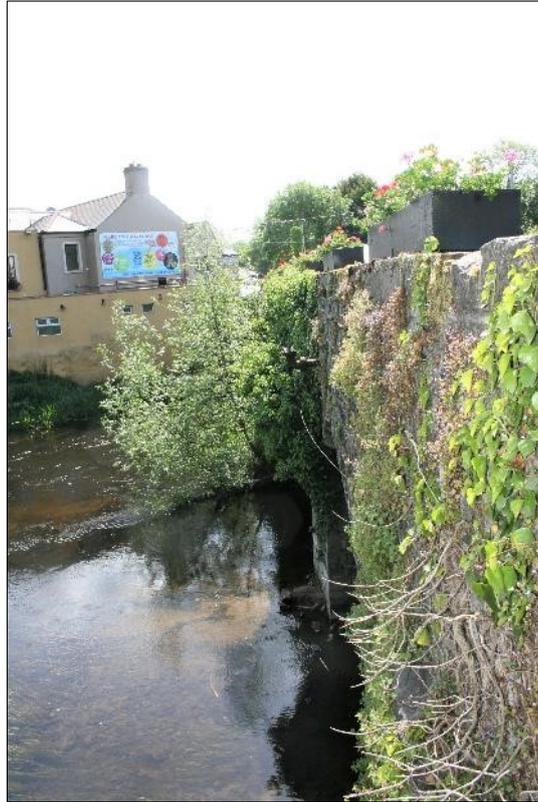


Plate 9: *Tree rooted into pier and extensive heavy ivy growth on north-east elevation looking south-east*

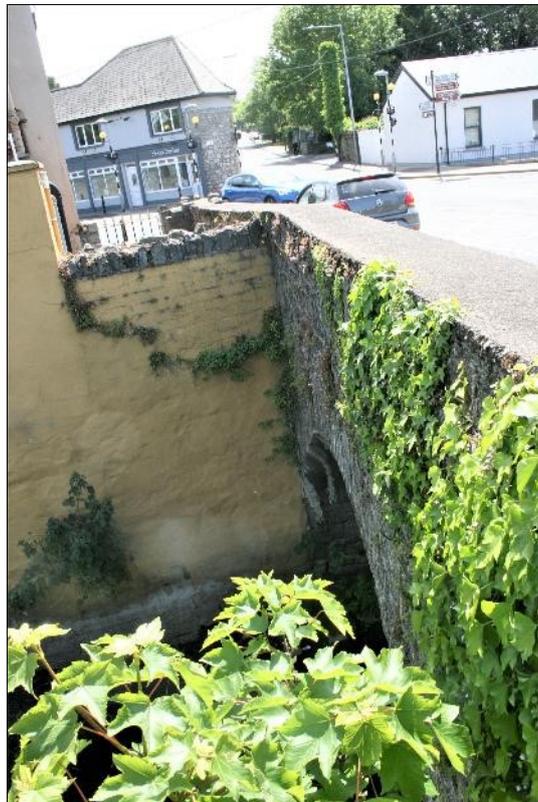


Plate 10: *North-east elevation abutting south-east bank at existing public house*



Plate 11: Roadway from south-east



Plate 12: Loss of bedding mortar and later cement-rich pointing on interior of south-west parapet



Plate 13: Detail of horizontal-bedded heavy limestone capping to south-west parapet



Plate 14: Roadway approaching bridge from north-west



Plate 15: c.13m section of north-east parapet wall with vertically-bedded coping stones which is leaning inward towards road.



Plate 16: Fixings drilled into limestone capping close to edge of stones



Plate 17: View from bridge deck towards R405 to south-east



Plate 18: View from entrance gates to Castletown Demesne south-east along Main Street. No views of bridge or river from here.



Plate 19: View south from 'The Slip' close to former school and church buildings. No views of bridge or vicinity from here.



Plate 20: View to south from car park to rear of Centra on Main Street. No views of bridge visible from here.



Plate 21: View to south-east across north-east elevation of bridge from car park of the former Bank of Ireland on Main Street.