

**SHANNON-ERNE BLUEWAY
ARCHAEOLOGICAL ASSESSMENT
LEITRIM VILLAGE TO KILCLARE**

THE ARCHAEOLOGICAL DIVING COMPANY LTD.

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ARCHAEOLOGICAL ASSESSMENT
LEITRIM VILLAGE TO KILCLARE**

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THE ARCHAEOLOGICAL DIVING COMPANY LTD.

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LIST OF ABBREVIATIONS

ADCO	The Archaeological Diving Company Ltd
DAHG	Department of Arts, Heritage and the Gaeltacht
E	Easting
N	Northing
NGR	National Grid Reference
OPW	Office of Public Works
RMP	Record of Monuments and Places
RPS	Record of Protected Structures
WI	Waterways Ireland

EXECUTIVE SUMMARY

The Archaeological Diving Company Ltd (ADCO) was appointed by Waterways Ireland to undertake an archaeological assessment for the proposed upgrade of canal banks to Blueway status, between Lock 16 Killarcan and Kilclare.

The path will consist of a 4m-wide compacted stone roadway with unbound dust surface measuring approximately 4.9km in length.

Architectural assessment of the canal area was carried out in 2007, and identified a series of sites of archaeological interest within the area of current development. The sites refer to features associated with the canal construction and use.

Archaeological assessment for the proposed Blueway upgrade was carried out on 18th August 2015. The assessment consisted of field inspection along the full length of the proposed Blueway upgrade, commencing at Lock 16 Killarcan, and concluding in Kilclare to the east, at Lock 9 Kilclare. The inspection confirmed the presence of the known architectural features. The inspection did not identify any new features. The proposed works will upgrade existing towpaths where the current surface is mown grass. The proposed works will retain existing towpath surfaces where it is made from a stone/pebbled surface.

There is no archaeological reason why the proposed works should not proceed.

There are to be impacts at four known sites architectural/industrial heritage interest. These comprise three towpaths (references WI1015, WI1016, WI1028), and one bridge (WI1025). The impacts proposed are direct but are small in scale.

There is one location where the proposed works will run close to the remnant of an existing structure. The location is immediately beside a former watermill at Kilclare (WI1031). It is recommended that the proposed works close to WI1031 avoid any and all direct impacts with the mill structure, by establishing an exclusion zone of 5m from the standing remains. It is recommended that fencing be erected during construction works to ensure that the mill structure is protected against any and all impacts.

Provided such measures are carried out, there should be no further archaeological requirement associated with this project.

Recommendations are subject to the approval of the National Monuments Section at the Department of Arts, Heritage and the Gaeltacht.

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1.0 INTRODUCTION

The Archaeological Diving Company Ltd (ADCO) was appointed by Waterways Ireland to undertake an archaeological assessment for the proposed upgrade of canal banks to Blueway status, between Leitrim village and Kilclare, Co. Leitrim (Figure 1).

Blueway status establishes a multi-recreational-use footpath. The path will consist of a 4m-wide compacted stone roadway with unbound dust surface, and will extend for approximately 4.9km in length. The path route will partly use the existing towpaths of the canal, and will also use lands on the north side of the canal where necessary.

Architectural assessment was carried out in 2007, and that study established a baseline of information from a combination of detailed desktop study and field inspection.¹

The current archaeological assessment was based on a new field inspection by the report author, which took place on 18th August 2015. The inspection covered the full route of the proposed development. No in-water work was carried out. The inspection did not require an archaeological licence.

The current report presents the archaeological observations. It includes an impact assessment of the proposed works, and a set of archaeological mitigation proposals that would apply during the construction phase.

2.0 THE PROPOSED DEVELOPMENT²

The multi-recreational-use path will up-grade access alongside the canal, using existing towpaths on the south side of the canal, and using existing verge on the north side of the canal when necessary. The current surfaces of the towpaths comprise extents of grass. The verge on the north side includes extents of stone-and-grit. The upgrade works will create a more uniform surface along the routeway. The works will excavate the existing surface tracks to depths not exceeding 50mm, which will create the foundation for the new 4m-wide surface (Figure 2). A geotextile membrane will be laid at the base of the excavation, and a granular compacted clay will be placed on top of the membrane. A choice of two finished surfaces will be laid on top of the compacted clay, depending on the particular requirements of the location. Over much

¹ Brian Mac Domhnaill, Anne Golden, Jean Price, The Shannon-Erne Waterway Architectural, Engineering and Industrial Heritage Assessment 2007. Unpublished report by Headland Archaeology for Waterways Ireland, 2007.

² Details provided by Waterways Ireland.

of the footpath the finished surface will be a compacted limestone dust. In places where firmer grip is required, the surface will be a 60mm sheet of macadam. The soils removed from the surface excavations will be used where possible to form a low safety bund between the path and the canal. Where required, a land drain will be sunk on the other edge of the footpath, to assist with surface run-off.

3.0 THE RECEIVING ENVIRONMENT

The existing archaeological environment has been considered in detail in 2007.³ That work was based on comprehensive desktop review of the Topographical Files in the National Museum of Ireland; the Sites and Monuments Record files of the National Monuments Section, Department of Arts, Heritage and the Gaeltacht; the National Inventory of Architectural Heritage; and selected relevant publications. It also included a walkover survey that highlighted features and structures along the canal route that had not been listed previously as sites of possible archaeological interest. This included the various canal locks, bridges, towpaths and associated features that combine to create the landscape of the canal.

The 2007 study considered the full extent of the Shannon-Erne canal, which runs for 63km across counties Leitrim, Cavan and Fermanagh. The section of canal that is the subject of the present work began with the Arterial Drainage Acts 5 and 6 of 1842, when drainage associated with the Ballinamore-Ballyconnell navigation was started, by improving drainage between the lock at Corraquill, Co. Cavan, and Leitrim village. By 1859, the canal was completed. The larger length of canal proved challenging, crossing a landscape of low hills and small lakes. It was never truly successful economically. It has only been since the 1960s that the canal has been revitalized as a tourist and recreational facility and this has proved to be successful.

There are no archaeological monuments registered as part of the Sites and Monuments Record on the route of the proposed development (Figures 3-5). Several sites occur in the fields to either side of the canal, but none of these will be impacted by the proposed works. The closest site is a ringfort enclosure, which lies 55m north of the canal in Drumruekill townland, north of Kilclare (LE027-135, Figure 5).

There is a series of features within the development area that are of archaeological interest, and were recorded during the fieldwork associated with the 2007 assessment. The features are mostly structures that are part of the canal landscape, and include bridges, locks, and towpaths. The 2007 assessment assigned a unique

³ See footnote 1.

reference code, prefixed with WI (for Waterways Ireland) followed by a number. The features located within the present survey area are mapped on Figures 3-5.

4.0 2015 INSPECTION

A visual non-disturbance walkover survey was completed, from Lock 16 Killarcan to Kilclare on the proposed Blueway, and returning on the same route. The weather was good and no constraints to access were encountered. Notes and observations were recorded in writing and a photographic log was maintained.

The Blueway will traverse existing footpaths and public access points (Plates 1-19). There will be no new ground opened to facilitate this work. The Blueway is to commence Lock 16 Killarcan to the east of Leitrim village (Plates 1-2). As the Blueway proceeds east along the canal, it will cross alongside the canal locks and associated features. The area is fully accessible. The new path is carefully aligned to minimize impact with the existing structures and features of interest. The new path will run on the south side of the canal, on top of the existing towpath (WI1015, WI1016), which is preserved under grass, and is currently mown and well-maintained (Plates 5-6). The Blueway will cross over to the north side of the canal at Bridge 3 (WI1017), where it leaves the towpath and follows an existing footpath that is variously grassed or surfaced in a compact dust (Plates 8-10). The Blueway will cross back to the south side of the canal at Bridge 6 (WI1025), where it will again follow the towpath (WI 1028) that runs on the south side of the canal (Plates 11-13). The details of the canal features identified in 2007 are presented in Table 1, which includes an indication of impacts arising from the Blueway project.

Reference	Other code	Easting	Northing	Type	Distance to Blueway	Impact from Blueway
WI1001	NIAH3081003	195777	304565	Footbridge	within	none
WI1002	NIAH30810004	195753	304544	Quays	20m	none
WI1003		195761	304561	Other Navigation	10m	none
WI1004		195778	304604	House	10m	none
WI1005		195845	304552	Basin and Bridges	30m	none
WI1006		195837	304626	Quays	100m	none
WI1007		195906	304803	Basin and Bridges	10m	none
WI1008	RPS30903709	196303	304877	Locks	5m	none
WI1009		196227	304872	Quays	40m	none
WI1010		196150	304777	Basin and Bridges	150m	none
WI1011		196373	304882	Weirs	underneath	none
WI1012		196263	304956	Domestic	70m	none
WI1013		196993	304987	Basin and Bridges	10m	none
WI1014		197089	305085	Locks	5m	none
WI1015		196627	304871	Towpaths	within	direct
WI1016		197267	305110	Towpaths	within	direct
WI1017		197547	305188	Bridge 3	10m	none
WI1018		198376	305856	Bridge 4	10m	none
WI1019		198389	305874	Lock 14	5m	none
WI1020		198587	305926	Bridge 5	20m	none
WI1021		198712	306046	Lock 13	5m	none
WI1022		198494	305903	Towpaths	20m	none
WI1023		198758	306048	Quarry?	30m	none
WI1024		198237	305772	Towpaths	20m	none
WI1025		198986	306508	Bridge 6	within	direct
WI1026		198976	306526	Lock 12	3m	none
WI1027		198994	396281	Towpaths	25m	none
WI1028		199132	306755	Towpaths	within	direct
WI1029		199522	306877	Towpaths	within	direct
WI1030		199616	306864	Quays	5m	none
WI1031		199669	306860	Mill ruins	2-5m	indirect
WI1032		199682	306886	Basin and Bridges	5m	none
WI1033		199653	306826	Schoolhouse	35m	none
WI1034		199722	306883	Lock 10	10m	none
WI1035		199819	306885	Mooring	25m	none
WI1036		199727	306862	Office	10m	none
WI1037		199907	306905	Lock 9	99m	none
WI1038		199897	306909	Basin and Bridges	100m	none

Table 1: Features of archaeological interest on the Shannon-Erne canal between Leitrim village and Kilclare

Source: 2007 architectural assessment. Notes: Sites where impacts are proposed are highlighted in yellow. NIAH refers to the National Inventory of Architectural Heritage; RPS refers to the Record of Protected Structures.

5.0 IMPACT ASSESSMENT

In general, the Blueway will have no impact on the features associated with the canal. The exceptions include those locations of existing towpaths where the Blueway will be directed over. There is also one instance where the new works are aligned close to remnants of a mill building (WI1031).

There are to be impacts at four known sites of archaeological interest. These comprise three towpaths (WI1015, WI1016, WI1028), and one bridge (WI1025). The impacts proposed are direct but are small in scale. The impacts on the towpaths will create a new surface by excavating a strip 4m wide and 50mm in maximum depth; by using the excavated soil where possible to create a low safety bund next to the canal bank, and by excavating a drain on the other side of the towpath if one is needed to alleviate surface run-off.

The work on the bridge site (WI1025) proposes to insert a clear-span bridge on the north side of the existing bridge, to run above and across the canal (Plate 15). The new bridge will be 2.5m wide and will carry pedestrian/Blueway traffic away from the existing road bridge.

There is one location where the proposed works will run close to the remnant of an existing structure. The location is beside a former watermill at Kilclare (WI1031) (Plates 17-18). The mill survives as a standing remnant, consisting of two wall fragments with the spindle and two gear wheels between the walls. A mill race runs to the south, parallel with the canal. The proposed works close to WI1031 are to avoid impacts with the mill structure.

6.0 MITIGATION PROPOSALS

AVOIDANCE. It is recommended that the proposed works close to WI1031 avoid any and all direct and indirect impacts with the mill structure by establishing an exclusion zone of 5m from the standing remains. It is recommended that fencing be erected during construction works to ensure that the mill structure is protected against any and all impacts.

If avoidance is not possible, a case would need to be made to the National Monuments Section at the Department of Arts, Heritage and the Gaeltacht (DAHG) as to why impact avoidance is not possible. Should the DAHG consent to such works,

archaeological mitigation will include detailed archaeological survey of the mill prior to site works, and archaeological excavation of any areas of proposed ground disturbance works against or at the mill site. Such work would be licensed by the DAHG. Licences take a minimum of three working weeks to be processed by the Department, and it can be expected that the Department would require submission and review of any archaeological report prior to permitting construction works to proceed. The construction schedules would need to take these matters into account.

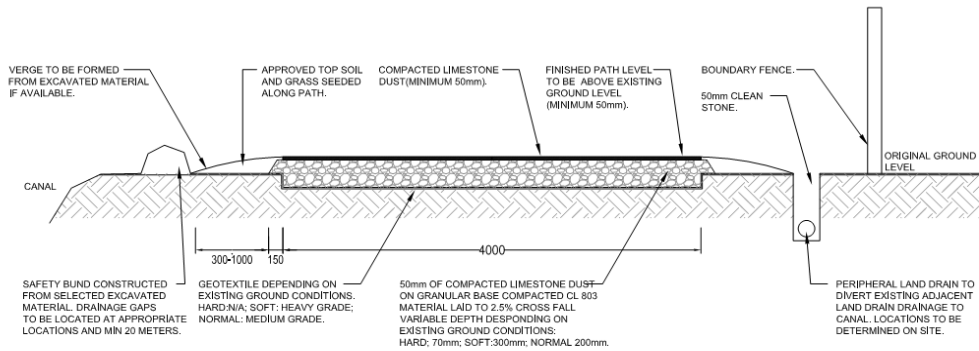
Provided such measures are carried out, there should be no further archaeological requirement associated with this project.

PLEASE NOTE: All of the above observations and conclusions are based on the archaeological information and information supplied for the Shannon-Erne Leitrim village to Kilclare Blueway scheme. Should any alteration occur, further assessment would be required.

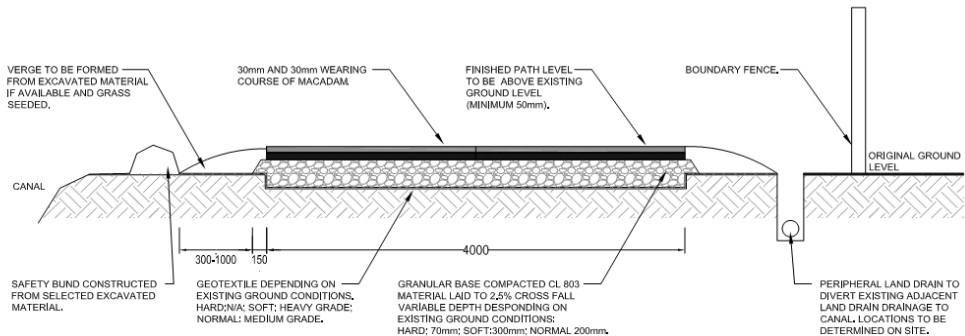
PLEASE NOTE: Recommendations are subject to approval by the National Monuments Section at the Department of Arts, Heritage and the Gaeltacht.



Figure1: Project Area, based on OS 1:50,000 mapping



**TYPICAL CROSS SECTION OF 4M WIDE
MULTIPURPOSE PATH
TYPE 1 UNBOUND FINISH**
NOT TO SCALE



**TYPICAL CROSS SECTION OF 4M WIDE
MULTIPURPOSE PATH
TYPE 2 BOUND FINISH**
NOT TO SCALE

Figure 2: Details from Project drawings showing details of the proposed development.

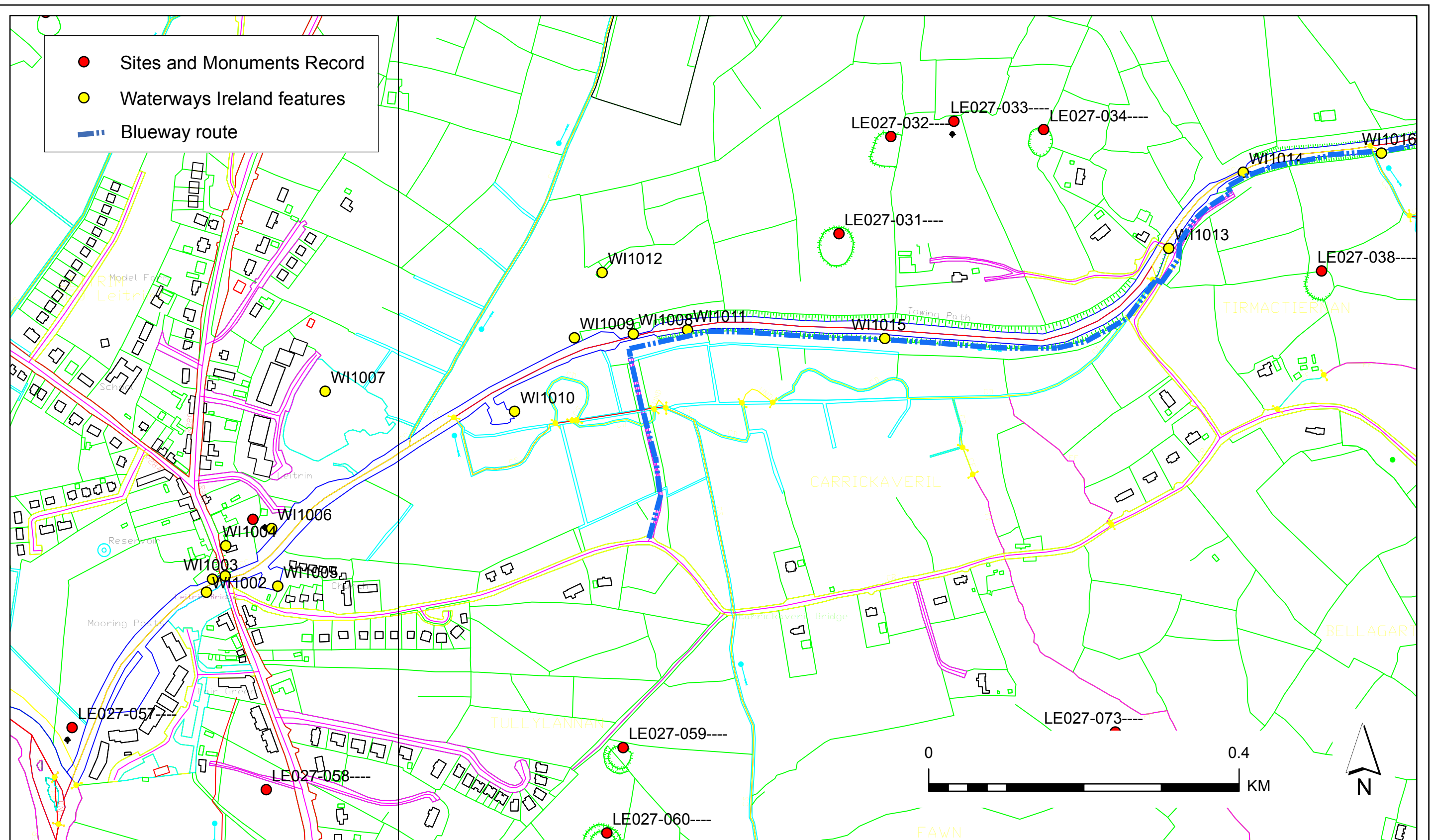


Figure 3: Archaeological Sites and features of interest, western section

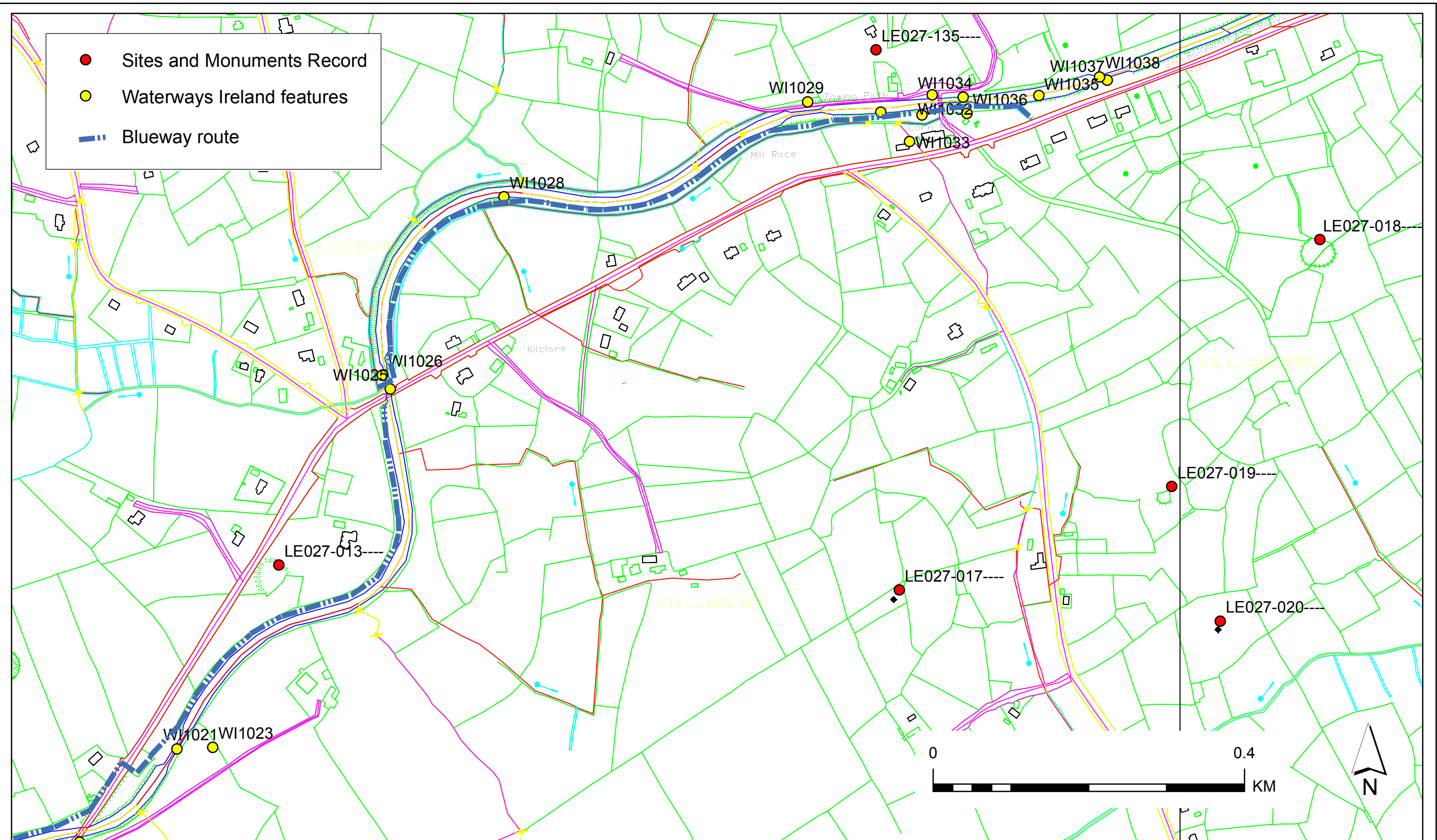


Figure 5: Archaeological Sites and features of interest, eastern section



Plate 1: View looking North across the public road onto the existing track that will provide access to the Blueway at Lock 16.



Plate 2: View looking North along existing track that will provide access to the Blueway at Lock 16.



Plate 3: View looking East at Lock 16 along proposed alignment of Blueway.



Plate 4: View looking East at weir (W11011) below metal footbridge that will carry the Blueway.



Plate 5: View looking East along the towpath WI1015, which is to be upgraded to carry the Blueway.



Plate 6: View looking East along the towpath WI1015, which is to be upgraded to carry the Blueway



Plate 7: View looking North across Bridge 3 (W11017), which is to carry the Blueway



Plate 8: View looking East along verge on north side of canal east Bridge 3 (W11017), showing the mown and maintained strip that is to be upgraded to carry the Blueway.



Plate 9: View looking East along verge on north side of canal west of Lock 14 (W11019), showing the compact dust surface of the existing track that is to be retained and upgraded where necessary to carry the Blueway.



Plate 10: View looking East at Bridge 6 (W11025), showing the approach track on the north side of the canal that will carry the Blueway. A new metal-span bridge will be added to Bridge 6 on its east side to carry Blueway traffic across to the south side of the canal.



Plate 11: View looking North along the towpath WI1028, which is to be upgraded to carry the Blueway.



Plate 12: View looking East along the towpath WI1028, which is to be upgraded to carry the Blueway. The remnant of a mill building (WI1031) is evident on the central right side.



Plate 13: View looking West of the ruined mill building (WI1031), showing the two stubs of standing walls connected by metal spindle and wheel. A mill-race runs to the south, or left side of the picture. The canal lies to the north. The Blueway will run between the mill structure and the canal but the precise route needs to confirm whether there will be any impacts on the mill site.

A D C O

THE ARCHAEOLOGICAL DIVING COMPANY LTD

- Environmental Impact Assessment
- Riverine, Intertidal, Underwater Assessment
- Underwater Investigation and Excavation
- Monitoring of Dredging and Marine Construction projects
- Maritime Heritage Consultancy
- Accords to HSA/HSE Diving at Work Regulations

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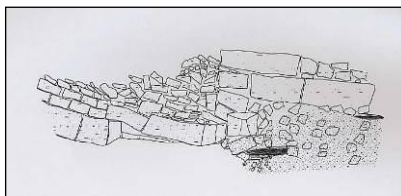
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Recording prehistoric logboat at
Gormanston, Co. Meath
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Interconnector



Underwater elevation of bridge pier collapsed in
1763. River Nore Flood Alleviation Scheme



Iron cannon on site of 17th-century
timber wreck discovered during
dredging programme
Waterford Harbour

