BRIDGES OF OFFALY COUNTY:
AN INDUSTRIAL HERITAGE REVIEW

Fred Hamond

for

Offaly County Council

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LE CUIDIÚ AN CHOMHAIRLE OIDHREACHTA

Cover Approach to Derrygarran Bridge over Figile River, Coolygagan Td.

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PREFACE

This report, commissioned by Offaly County Council, presents the results of a survey of over 400 bridges of every type throughout the county. The objective of this work was two-fold: (1) to make a comprehensive record of all identified bridges, and (2) to highlight those bridges of special heritage significance which merit statutory protection.

This project was instigated by Offaly Heritage Forum as an action of its 2002-06 Heritage Plan and jointly funded by the Heritage Council and Offaly CC. It was directed by a steering committee comprising Amanda Pedlow (Heritage Officer, Offaly CC), Stephen McNeill (Offaly Archaeological & Historical Society), Louis Byrne (Waterways Ireland) and Caimin O'Brien (Archaeological Survey of Ireland). I am extremely grateful to them all for their enthusiasm, advice and support.

I should also like to thank Mark Flanagan, Charles McCarthy, Paul McDonald, Michael Mullarkey and Thomas Ryan of the Roads Division of Offaly CC for access to their bridge records and useful discussions. Gerry Bruton and Una Heerey (Offaly CC Information Technology Division) advised on digital mapping and supplied both digital maps and aerial photographs. The staff of the Local Studies Section of Offaly County Library also kindly facilitated my researches.

My thanks also go to Mildred Dunne and Willie Cummings of the National Inventory of Architectural Heritage for fruitful discussions on the statutory protection of bridges. Vincent Brady (Iarnród Éireann) generously provided details of operational railway bridges in Co Offaly. Alex Copland (BirdWatch Ireland) drew my attention to literature on the ecological dimension of bridges. Finally, but by no means least, the unfailing assistance of Paul Ferguson, curator of maps at Trinity College Map Library, is gratefully acknowledged.

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SUMMARY

1. Introduction

1.1 This report was commissioned by Offaly County Council at the behest of Offaly Heritage Forum as part of its 2002-06 Heritage Plan. The objective of the project was to identify and record a wide range of bridges throughout the county and highlight those of special heritage significance which merited statutory protection. All the data were also to be recorded on a Microsoft *Access* database and digitally mapped using *MapInfo*.

1.2 For the purposes of this study, a bridge is defined as a structure built to carry a line of communication (e.g. road or railway) over an impediment along its way (e.g. canal, river or railway).

2. Sources

2.1 A range of documentary sources was used to identify bridge sites, notably Ordnance Survey maps, the Record of Monuments & Places, National Inventory of Architectural Heritage, and Record of Protected Structures. Most of this information was already held on the Offaly Industrial Archaeology Record (OFIAR).

2.2 As a result of this paper survey, 407 locations were identified where bridges currently or once stood. A total of 505 actual bridges were highlighted at these sites, including those which have been replaced or bypassed with new ones.

2.3 Over the summer of 2004, the author visited all the bridge locations highlighted in the paper survey. Using a standardised form, descriptions were made of all upstanding structures and photographs taken. The data thus collected was transferred to the OFIAR database and also digitally mapped.

3. Bridge types and forms

3.1 The design of bridges reflects their function, technology of the day, and resources available to their builders.

3.2 The majority of identified bridges carry roads over rivers, canals and railways. Aqueducts along the Grand Canal, railway bridges and footbridges were also examined.

3.3 Over half of all bridges whose form could be established were of masonry arch construction and were built in the 18th and 19th centuries. One-third were of beam construction (generally metal and/or reinforced concrete) and were of 20th century date. Several suspension bridges were also noted.

4. Bridge builders

4.1 From the early 1600s until the late 1800s, the Grand Jury financed most of Offaly's road bridges. In 1898, responsibility was transferred to Offaly County Council. In the more recent past, the National Roads Authority has assumed responsibility for bridges along the national primary routes.

4.2 In the late 1700s and early 1800s, the Grand Canal Company erected numerous bridges in connection with the cutting of a canal from Dublin to Shannon Harbour via Tullamore. Bridges are also associated with the Edenderry and Kilbeggan branches of the Grand Canal. The Shannon Commissioners also erected a number of bridges during improvements to the navigability of the River Shannon in the 1830s.

4.3 In the 1850s, major drainage schemes throughout the county led to the construction of many bridges by the Board of Public Works. A second phase of drainage and bridge construction was undertaken by the Office of Public Works in the 1950s.

4.4 Various railway companies also erected bridges in the later 1800s, notably the Great Southern & Western Railway with lines from Portarlington to Athlone (1854-59), from Ballybrophy to Limerick (1863), and a branch to Banagher (1884). The Midland Great Western Railway opened a branch to Clara in 1863 and to Edenderry in 1877. There were also two minor companies: the Roscrea & Parsonstown Railway (1858) and Parsonstown & Portumna Bridge Railway (1868). Iarnród Éireann is now responsible for all railway bridges along the lines still in use and has recently been engaged in the replacement of level crossings with bridges.

4.5 Since the 1950s, Bord na Mona has been extracting peat from bogs in the northern half of the county. This necessitated the construction of mineral railways for the transfer to the peat to power stations and briquette factories, and the erection of bridges over rivers and under roads.

4.6 Several of Offaly's many demesnes also have significant bridges, notably at Birr, Kinnitty Castle and Charleville. Birr boasts the earliest surviving wire suspension bridge in Ireland (c.1825). Ardara Bridge, near Cadamstown, is the oldest surviving bridge in the county and possibly dates from the 15th century.

5. Heritage assessment and protection

5.1 The criteria devised by the National Inventory of Architectural Heritage (NIAH) were used to assess the heritage significance of all the bridges identified in this survey. These relate to their architectural, archaeological, historical and technical merit. Group value, setting and rarity were also taken into account. Each site was also rated according to its local, regional, national and international importance.

5.2 Ninety-two bridge locations were evaluated as being of local significance, 89 of regional interest, six of national importance and one of international significance. All such bridges are summarised in an appendix to this report.

5.3 There are currently 21 bridges in the Record of Protected Structures (RPS) and four in the Record of Monuments & Places (RMP).

5.4 Of the sites which have been evaluated here as being of regional significance and above, 77 are recommended for statutory protection – 76 in the RPS and one in the RMP.

6. Issues

6.1 Bridge upgrading through road widening, deck strengthening and road realignment can diminish a bridge's heritage merit. It is recommended that heritage value be taken into consideration when devising such work and that every effort made to retain the character of significant bridges.

6.2 Unsympathetic repairs and maintenance can also pose a threat to significant bridges. Vegetation overgrowth should be kept under control and appropriate materials used for repairs. The various organisations responsible for the upkeep of bridges should be made aware of the need for a co-ordinated policy to ensure that significant bridges are dealt with in an appropriate manner.

6.3 Attachments to bridges (e.g. water pipes) can detract from their visual character and it is recommended that, where possible, all new pipes and cables be buried in the carriageway.

6.4 The maintenance of disused bridges can be financially problematic. Every effort should be made to find new uses for defunct bridges, particularly those owned by Bord na Mona.

6.5 Aside from their industrial dimension, bridges are also valuable ecological habitats for wildlife. Particular account should be taken of bats and birds when carrying out maintenance and repairs, and provision made for nesting.

6.6 The analysis of bridge names may be a fruitful topic for future research. Work is also required on the integration of the bridges identified in this study with the bridge database maintained by the Roads Division of Offaly CC.

1. METHODOLOGY

1.1 Project brief

The objective of this project was to identify and survey upwards of 400 bridges contained in a database of sites of industrial heritage interest in Co Offaly. The following data were to be noted: history, description, condition, evaluation of heritage significance, and photographs. Those of special heritage significance were to be highlighted for possible statutory protection. All the data were also to be recorded on a Microsoft *Access* database and digitally mapped using *MapInfo*.

1.2 Definition of terms

A bridge is a structure built to carry a line of communication (e.g. road or railway) over an impediment along its way (e.g. river or railway).[1]

For the purposes of this project, bridges have been classified by type according to what they carry. Thus, a road bridge is one which carries a road, a railway bridge a railway, and a canal bridge a canal over the obstruction.[2] These can be further sub-divided according to what is crossed, e.g. a river (this term is taken to also include streams, drains and mill races), railway or canal. Thus, a bridge (road/rail) is a road-over-railway bridge, whereas a bridge (rail/road) carries a railway over a road.

1.3 Bridge identification and selection

During 2003, the author was engaged in the compilation of the Offaly Industrial Archaeology Record (OFIAR). This database, in MS *Access 2000* format, contains records of over 1000 sites throughout the county which are of industrial heritage interest. Many are bridges, most of which are depicted on the 47 Ordnance Survey six-inch (1:10,560) maps published for the entire county in the 1830s, 1880s and 1910s.

Because there are many hundreds of bridges in the county, the following sampling strategy was employed to select those for further investigation:

Road bridges	All named bridges carrying roads over rivers, canals and railways. Also a selection of unnamed ones over railways, canals and the principal rivers. Most bridges in private demesnes were also noted. Bridges less than 2m wide are generally known as culverts.[3]
Foot bridges	These give pedestrians access over rivers, canals and railways. Those highlighted as 'F.B.' on the OS maps were selected.
Canal bridges	All bridges (whether named or not) carrying canals over roads and watercourses. Such bridges are generally referred to as aqueducts and tunnels (long and narrow under-bridges).
Railway bridges	All bridges (whether named or not) carrying railways over roads, significant water-courses, canals and industrial railways.

[1] Although gate arches etc have the same structural form as arch bridges, they are excluded from survey has they do not carry lines of communication.

[2] These types should not be confused with the bridges' builders, e.g. whilst a railway company built bridges carrying roads over railways, and railways over rivers, the former are denoted here as 'road' bridges and the latter as 'railway' bridge. Similarly, road bridges over canals are termed 'road' rather than 'canal' bridges.

Publications and databases held by various organisations also provided supplementary information on specific bridges and also highlighted additional bridges which merited further study but which had not yet been included in OFIAR.

Offaly County Library and the Offaly Archaeological & Historical Society Research Centre were systematically trawled for references to bridges in local history publications, journals and newspaper articles. Unfortunately, specific references to bridges in Offaly proved to be rare, even in thematic works such as P.J. O'Keefe and T. Symington's *Irish Stone Bridges: History and Heritage* (Irish Academic Press, Dublin, 1991) and R. Cox and M. Gould's *Ireland's Bridges* (Wolfhound Press, Dublin, 2003). Nevertheless, sufficient was culled to make this a worthwhile exercise.

Existing databases also proved useful, notably the Dúchas Sites & Monuments Record and Record of Monuments & Places, National Inventory of Architectural Heritage for Tullamore, Record of Protected Structures maintained by Offaly County Council, and bridge records held by Iarnród Éireann and Offaly CC.

Whilst the OS six-inch maps provide a systematic and comprehensive overview of the entire county between the 1830s and 1910s, bridges subsequently erected on new sites were obviously missing from the database. In order to pick these up, the 1:50,000 *Discovery Series* maps, published by the Ordnance Survey of Ireland in the 1990s, proved invaluable. In particular, these maps revealed a significant number of bridges built by Bord na Mona since the 1950s, all of which were readily identifiable where peat extraction railways crossed roads and rivers; the fieldwork then confirmed whether they were level crossings or bridges.

Some additions which had been overlooked during map sampling were also made to the database during fieldwork. Any which were found to have commemorative plaques were also recorded. A significant number of rebuilt bridges were also noted during the fieldwork.

1.4 Numbering

Using the above sources and selection criteria, a total of 407 sites were ultimately identified where bridges currently or previously existed. To distinguish one site from another and to keep track of them in the database, each was given a unique number based on three identifiers: (1) the county and (2) OS six-inch map sheet wherein the site is located, and (3) sequential number accorded to that site within its particular sheet, e.g. OFIAR-035-022 is site 22 on Co Offaly six-inch map sheet 35, whereas OFIAR-036-022 is site 22 on sheet 36.[4]

Fieldwork and subsequent historical research indicated that a significant number of sites encompassed more than one bridge. In most instances, this amounted to one bridge replacing another on the same footprint. Each replacement bridge is regarded as a *component* of that site and accorded its own sub-number under its overall site number; e.g. 002-009.2 is a replacement of bridge 002-009.1 at site 002-009.

In several instances, a bridge has been divided into several components in order to distinguish particular structural elements; these may be of different date and/or constructional form. It is thus possible to distinguish rebuilt sections (e.g. where a river was redirected and a new arch built), and different types of construction (e.g. a masonry bridge over a road which continues as a metal girder span over a river) within the overall structure.

Fuller details of the component numbering rules are given in appendix 1.

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[3] Prior to metrication, culverts were defined as bridges with spans less than 6ft (1.83m).

[4] Where bridges are referenced in this report, the OFIAR- prefix has been omitted for brevity.

1.5 Paper survey

During the OS map research a bridge's presence or absence on each edition of its particular map sheet was noted, together with its name, where given. Its location by townland, six-inch map and *Discovery* map sheet was also noted. Its specific function was noted, this being readily apparent from the maps, e.g. road-over-river or rail-over-road. Links to other databases and the bridge's statutory protection status were also noted.

The location of each bridge was also marked up on a photocopy of its respective 1909-11 OS six-inch map. Each site and component (where applicable) was then electronically mapped using *MapInfo* to determine its National Grid co-ordinate to the nearest meter (i.e. 12 figures).

All published material was also photocopied and placed in hard-copy files indexed by Site Number. As this photocopied material has not been electronically scanned, it forms an essential element of OFIAR.

1.6 Field survey

Over the summer of 2004, the author visited 400 bridge sites throughout the county.[5] Using a standardised form, various attributes were recorded for each bridge, including type, survival, condition, and present use. Detailed descriptions were also made of each bridge's component parts – abutments, piers, spans, and parapets (fig 1.1). Materials (stone, brick and metal), embellishments, and the presence of plaques and datestones were also noted. Alterations (e.g. span or parapet replacement), additions (e.g. underpinning and widening) and the presence of pipes (water and sewage) were also recorded (appendix 2). Both faces of each bridge and the arch soffits were also inspected to determine whether they had been widened or otherwise altered (e.g. deck replacement).

Where possible, the dimensions of each bridge were recorded using a Leica *Disto Lite*. This is a hand-held battery-powered laser device which can measure to 1mm precision. Clear spans were measured at right angles between the abutments/piers, as was the distance between the parapets (road face to road face) in order to gauge the bridge's size. In most cases it was possible to wade the river and thus measure the spans directly. Where this proved impossible (e.g. deep water), the spans were determined by using a plumb bob dropped from the deck and held against the quoins of each abutment or pier. Where parapet distances were indeterminate (e.g. where no wall existed or were heavily overgrown), the depth of the abutments was measured instead.

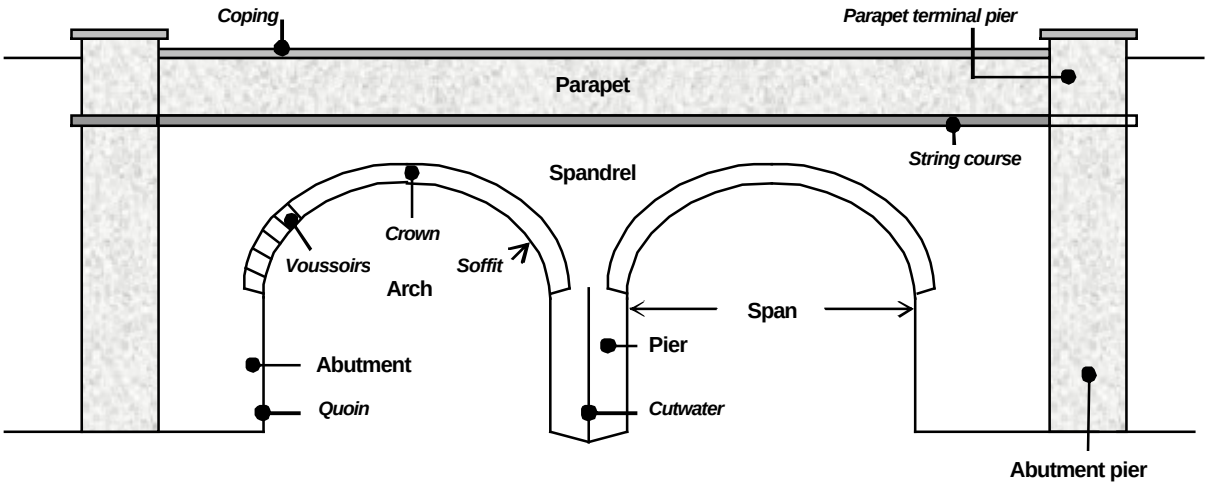


Fig 1.1 Principal elements of a typical masonry arch bridge carrying a road or railway over a river.

[5] Seven of the 407 sites were not visited due to access and time constraints on the survey days in question. These particular bridges carry Bord na Mona peat railways over minor watercourses and, being relatively modern, are unlikely to be of special heritage significance.

At least one photograph was taken using a Canon EOS 500 camera and 20-35mm lens. Fuji Colour 400ASA colour film was used to produce 15cm x 10cm gloss prints. During film processing, the negatives were scanned and digitised. These images where then edited using Adobe *Photoshop Elements* and saved as jpeg files, each identified according to the photograph sequence for that particular bridge site; e.g. 035-022_02 is image 2 for site 035-022.

1.7 Computer database

All the recorded paper and field data were transferred to the OFIAR database. Each site record within the database contains a summary of the key features of its component bridges, and details of their location, history and present state, together with an evaluation of their heritage significance, photographs and references.

The location of every identified bridge component has also been digitally mapped using *MapInfo*. Each feature is represented by a small circle and flagged by its OFIAR site number. By clicking on a particular circle, summary details of that component can be viewed (site and component numbers, name, type, function, context and level of statutory protection). Sites matching specific criteria (e.g. all road-over-canal bridges) can also be selected using the *MapInfo* query facility and the resultant distribution map viewed at various map scales.

As not everyone will have access to OFIAR, key data for every bridge are also reproduced in hard-copy form in Part 2 of this report. These site print-outs are arranged by OFIAR number and include information on the site's name, location, history, description of its bridge components, evaluation, references and photographs. Indexes arranged by name, type and location are provided to facilitate the identification of sites of specific interest to the researcher.

These site-specific reports are also reproduced in PDF format on the CD accompanying this report. Also included on this CD are the texts of parts 1 and 2 of this report (also in PDF format), and also a *MapInfo* table of all bridge sites. Photographs, in JPEG format, are also included, along with captions.

1.8 Sample representation

A total of 505 bridges were identified at 407 locations (fig 1.2). It should be noted that these are but a sample of all bridges in the county and are not an exhaustive listing. The inclusion of unnamed bridges and culverts over minor watercourses would easily more than double this number. However, perusal of the bridge records held by Offaly CC, Iarnród Éireann and National Inventory of Architectural Heritage suggests that very few, if any, bridges of significant heritage merit are likely to have been omitted from this survey.

To conclude, the sites identified using the above methodology are probably a representative sample of county's entire stock of bridges in terms of their type, function, distribution and date.

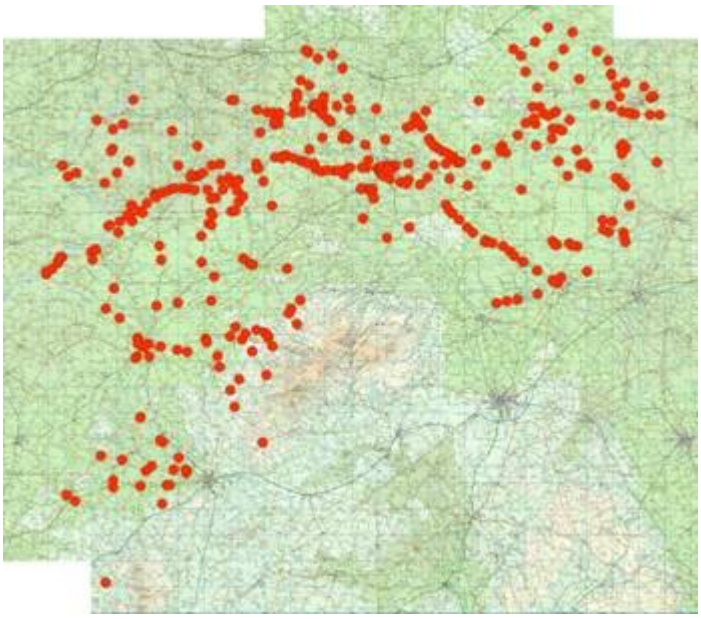


Fig 1.2 Distribution map of bridges identified in this project.

2. BRIDGE TECHNOLOGY

As already noted, the purpose of a bridge is simply to facilitate the movement of traffic over an obstacle such as a river, canal or railway. Paradoxically, the more successful it is in achieving this goal, the less obvious it will be to the person crossing it. However, even a cursory examination of the underside of any bridge will indicate the wide variety of ways in which such obstructions have been overcome, whether by a simple masonry arch, metal girder or reinforced-concrete beam.

The design of a particular bridge is the outcome of the interplay of at least five factors (1) what it has to carry, (2) what it crosses, (3) the technology of the day, (4) the materials available with which to build it, and (5) the intent of its constructor. Clearly, the requirements of 19th century traffic were very different to what they are today, as is the technology available to the bridge builder (fig 2.1). An analysis of a representative sample of Offaly's bridges, the selection of which has been described in chapter 1, therefore provides a means not only of documenting the county's bridge stock for its own sake, but also of highlighting the changing nature of the factors which caused them to be erected.

Fig 2.1a *(left):* Belmont Bridge, an 18th century five-arch masonry road bridge over the River Brosna (014-005).

Fig 2.1b *(right):* Triple-span reinforced concrete road bridge of c.1951 over the Brosna near Pollagh (015-047).

This section presents a general overview of the 505 bridges surveyed in Co Offaly in terms of their types, forms and materials. A fuller discussion of specific categories of bridge follows in section 3.

2.1 Bridge types

By cross-tabulating what a bridge carries against what it crosses, it is possible to determine the relative frequencies of specific bridge types. This is illustrated in the following table and graphical representation thereof (fig 2.2):

		Over					
Under		Road	Canal	Rail	Ind rail	Foot	*Total*
	River	262	42	18	26	17	*365*
	Canal	53		2	3	5	*63*
	Rail	41				2	*43*
	Road		1	16			*17*
	Ind rail	15		2			*17*
	Footpath	4					*4*
	Total	*375*	*43*	*38*	*29*	*23*	*509*

Rail = railway; Ind rail = industrial railway.

The total is 509 as four bridges have two functions encompassed within the one structure.

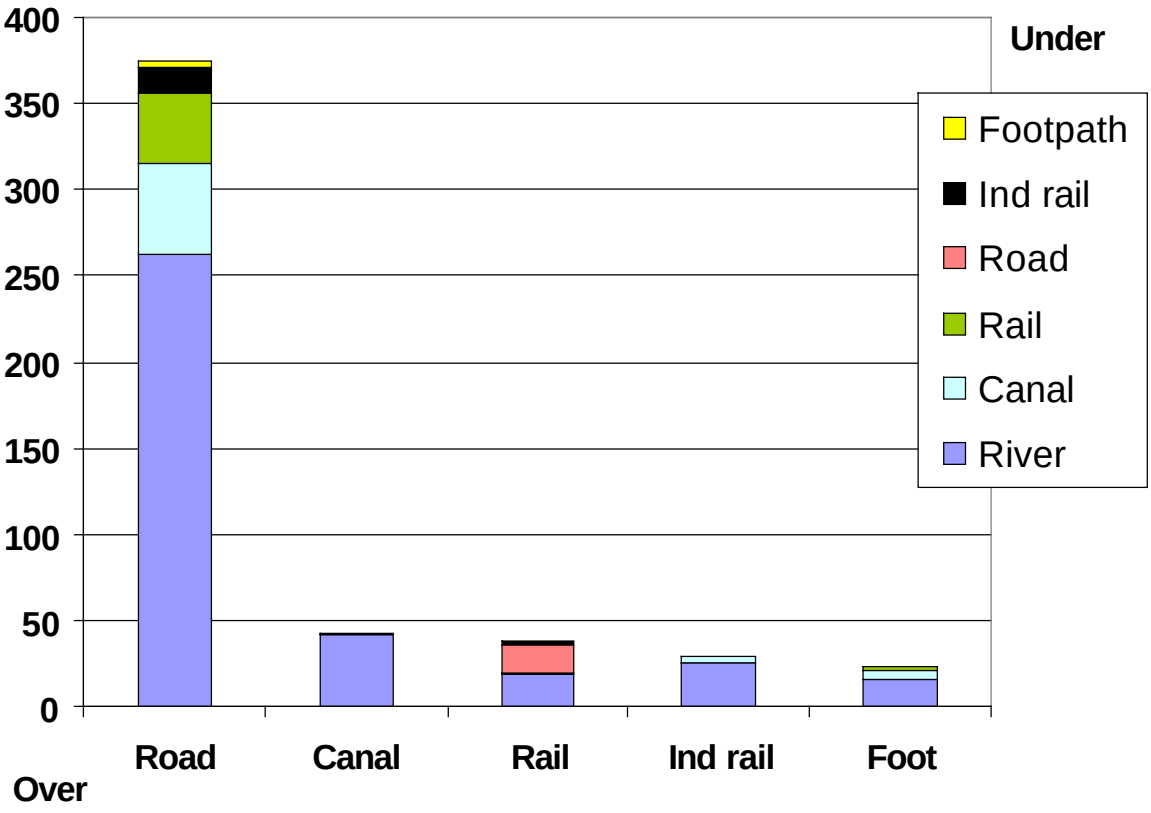


Fig 2.2 Graphical tabulation of bridge types and functions.

As expected, the vast majority of bridges are road bridges (74%). Rivers (including streams, drains and mill races) are most frequently crossed obstacle (72%). This reflects the sampling strategy used to compile the database, many road-over-river bridges being explicitly named on the OS maps. However, given Offaly's highly developed road infrastructure and multitude of watercourses, this is undoubtedly a valid observation for the county's bridges as a whole.

Whilst most road bridges span rivers (fig 2.3a), a significant number cross canals and railways. Canal bridges (i.e. aqueducts) make up the next most frequent category (8%), all but one being over watercourses. Railway bridges comprise the third most frequent category (7%), closely followed by industrial railway bridges (6%), most of which are over rivers. Foot bridges make up the smallest category of bridge type (5%) and are also mostly over watercourses.

The above tabulation also highlights rare bridge types. Four road bridges are noted as crossing footpaths. In reality, these are pedestrian underpasses, built to facilitate movement within Charleville and Kinnitty demesnes (016-029, 016-052, 017-112 and 036-024). In two instances, mainline railways cross industrial railways (007-023 and 033-010). The Blundell Aqueduct, near Edenderry (012-019) is unique within the county in being the only example of a canal-over-road crossing (fig 2.3b).

Fig 2.3a *(left):* Kinnafad Bridge (004-004). This road-over-river combination is the most frequent bridge type in Offaly.

Fig 2.3b *(right):* Road view of Blundell Aqueduct (012-019).

2.2 Span forms

The three main structural forms to be found in bridges are the arch, beam and suspension, all of which are found in Co Offaly. In the arch form, the downward loading on the deck is transferred around the arch ring to the abutments, from where it is carried downwards and outwards; these forces are resisted by the mass of the abutments and matrix into which they are set (fig 2.4a). With beam bridges, the load is counteracted by the beam's ability to resist bending, i.e. its stiffness (fig 2.4b). With suspension bridges, the load is transferred from the deck through hangers to the catenaries and so to the portals at either end. The tops of the portals are braced and anchored to the ground to resist the pull of the catenaries (fig 2.4c). Pipe bridges are a modern variant of the arch form and will be dealt with separately.

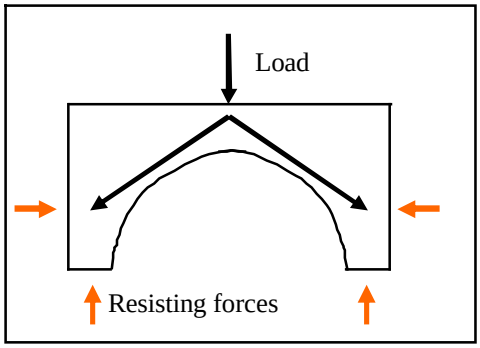
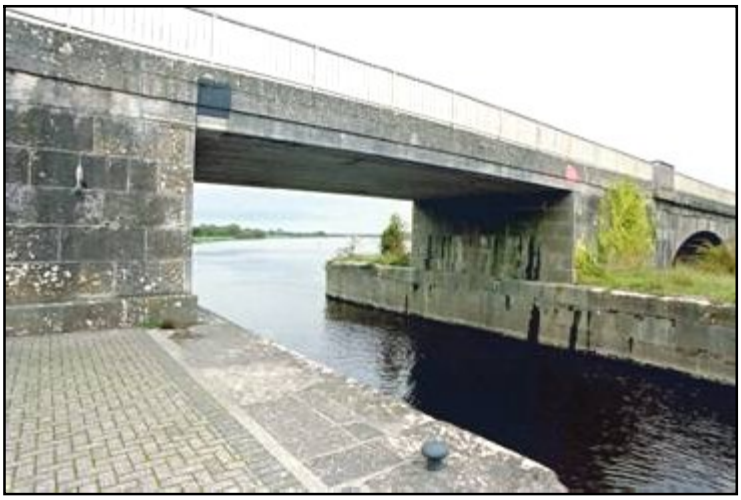


Fig 2.4a Arch bridges: masonry arch road bridge over railway, Clonlisk Td (045-003).



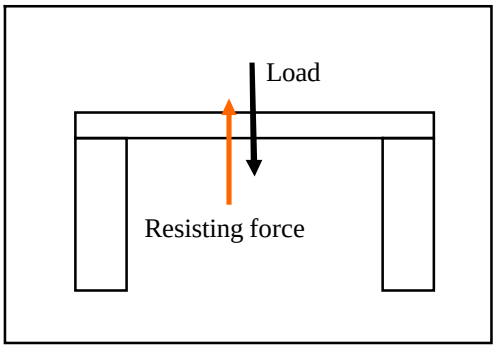


Fig 2.4b Beam bridges: reinforced-concrete span over Shannon Navigation at Banagher (021-006).

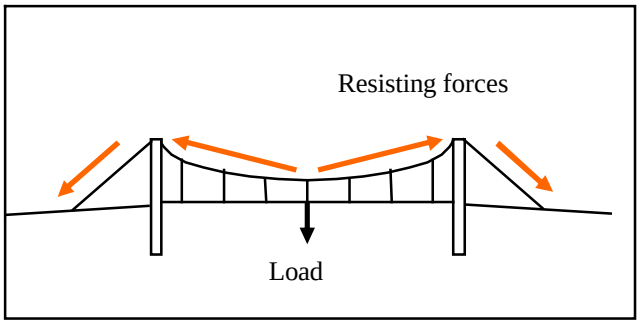


Fig 2.4c Suspension bridges: suspended footbridge over Camcor River in Birr Castle Demesne (035-030)

2.3 Arch bridges

Of the 386 recorded bridges whose span form and materials are known, the arch form is the commonest, accounting for 215 (56%) of this total. Of these, 205 are stone arches, three are brick, and the remaining seven are of concrete.

Masonry arches

The stone arch is the most frequently encountered bridge form in Co Offaly and the earliest surviving bridge in the county – the medieval Adara Bridge near Cadamstown (032-006) - is of this type. Its predominance reflects the fact that such bridges were the norm after c.1700. The reasons for this are not difficult to fathom. The structural stability of the arch has been known since Roman times. Stone is also readily available, so the cost of transporting it to site was generally minimal. It is extremely resistant to compressive forces and therefore eminently suited for use in soffits and abutments. Moreover, once built, such bridges require minimal maintenance. The stone arch's suitability for purpose is reflected in the fact that they are still capable of carrying heavier and more dynamic loads than ever envisaged by their builders.

As can be seen from the table and graph (fig 2.5), the vast majority of arch bridges (69%) carry roads over rivers. A significant number also span canals and railways. The arched canal bridges (aqueducts) are all over watercourses, with the exception of the Blundell aqueduct (over a road).

		Over				
		Road	Canal	Rail	Foot	*Total*
Under	River	114	14	4		*132*
	Canal	41			1	*42*
	Rail	22				*22*
	Road		1	4		*5*
	Footpath	4				*4*
	Total	*181*	*15*	*8*	*1*	*205*

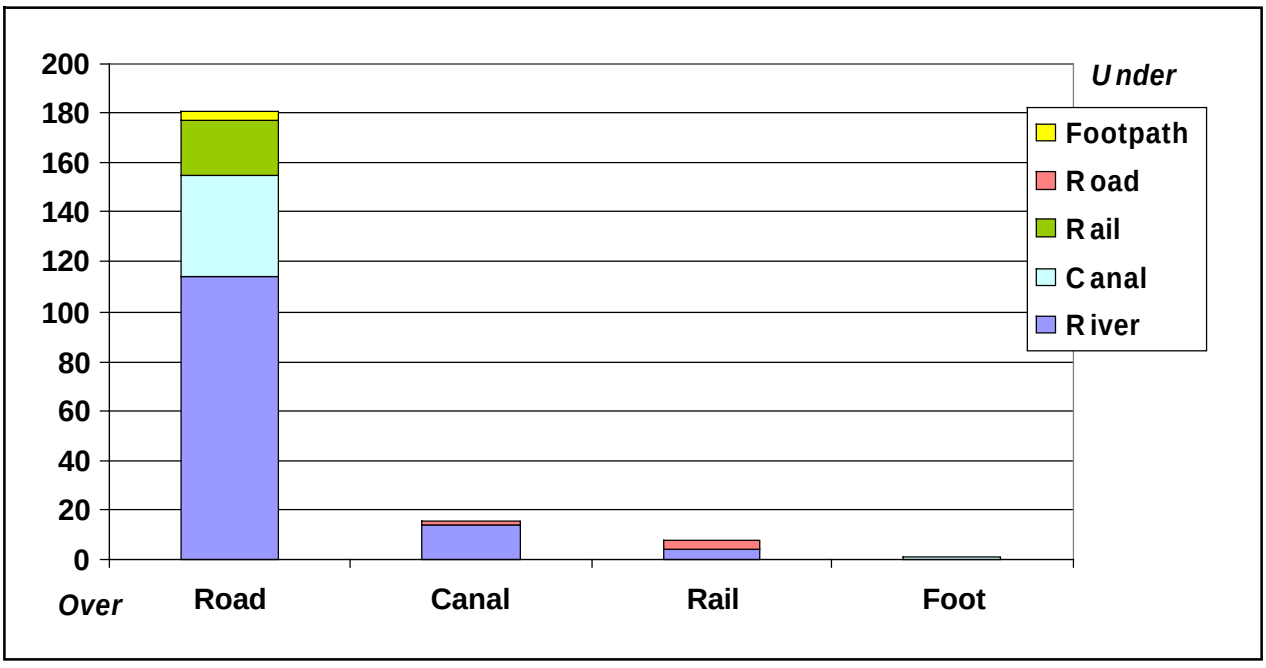


Fig 2.5 Graphical tabulation of functions of stone arch bridges.

Of the railway bridges, the most significant is that carrying the main Dublin-Galway line over the Tullamore River at Tullamore (fig 2.6a). Given the relative flatness of much of Co Offaly, it is perhaps not surprising to find so few of them *over* roads (most lines pass under roads). Undoubtedly the most impressive of these rail-over-road bridges is the one at Clara, carrying the now-disused Clara Branch of Midland Great Western Railway (fig 2.6b).

The sole masonry arch footbridge carries the Grand Canal towpath over the entrance to the Edenderry branch of the Grand Canal.


Fig 2.6a *(left):* Railway bridge over Tullamore River (017-003). Fig 2.6b *(right):* Disused railway bridge over road at east end of Clara (008-008).

Masonry arch bridges exhibit considerable variations in scale. As the table below shows, in those 198 instances where the number of arches was known, the vast majority (73%) have only a single span, whereas only 11 (6%) have more than three spans.

Number of arches								
1	2	3	4	5	6	8	16	17
144	21	22	2	5	1	1	1	1

As expected, the multi-arched bridges cross the wider rivers, notably the Barrow, Brosna, Camcor, Figile, Little Brosna, and Shannon. This last river is the widest in the county and boasts the two bridges with the greatest number of arches – the 16-arch example at Shannonbridge (fig 2.7), and the now-demolished 17-arched Sarsfield's Bridge at Banagher (021-006).

Fig 2.7 The 16-arch bridge at Shannonbridge (013-001).

Of the 193 masonry arch bridges whose spans could be determined, all but four had maximum spans of less than 10m (see table below). Most (39) were in the 3-4m range (10-13ft). Banagher Bridge boasts the widest spans, averaging 17.88m. Interestingly, although about the same length as Shannon Bridge, it achieves the crossing in only six spans (as opposed to 16). Ballycumber Bridge (007-009) over the Brosna, is the next widest span at 12.90m, followed by the 10.61m wide Clara railway bridge, and a 10.36m one on the Camcor near Kinnitty (036-025).

Span (metres)				
<2	2 - <5	5 - <10	10 - < 15	15 - <20
28	84	77	3	1

Interestingly, all these wide-span bridges are, without exception, of mid 19th century date. By contrast, all the spans which can be definitely ascribed to the 18th century are less than 5m. The only exceptions to this rule are those road bridges over the Grand Canal which were constructed in the 1790s and are c.8.6m wide. This progressive increase in span width during the first half of the 19th century reflects a greater understanding of arch design and improved construction methods, a topic which will be discussed more fully below.

Brick arches

Brick was also used to construct arch soffits. Unlike stone, it does not require any dressing and was easy to handle and lay, particularly in the case of highly skewed arches.

Somewhat surprisingly, however, only three brick arched bridges are recorded in the county. One is a privately-built one in the grounds of Birr Castle (035-061). The other two were built by railway companies in the second half of the 19th century. One carries a road over the now-defunct Birr-Roscrea railway (038-002), and the other the disused Banagher Branch of Great Southern and Western Railway over the Brosna south-east of Ferbane (fig 2.8).

Brick was also deployed in two instances where widening of the carriageway was necessary. The best example of its use in this respect is the bridge over the Camcor at Bridge Street, Birr (035-008), where two of its four widenings are of brick.

It is puzzling that there are not more rail-related brick bridges. Not only are these quite common elsewhere, but there was also a major brick manufacturing industry in the Pollagh district during the 1800s. Why brick arches are so under-represented must await future investigation.

Concrete arches

Only seven concrete arched bridges were recorded in Co Offaly.[6] The earliest example is Kilbeggan Bridge, a reinforced-concrete arch carrying a main road over the Grand Canal at Tullamore (fig 2.9a). It dates to 1930 and replaced an earlier hump-backed masonry bridge. A further two are of similar construction but date to the late 1900s/ early 2000s, as do two which utilized pre-cast arch sections (fig 2.9b). The latter have the advantage over cast-in-situ arches in being much quicker to erect.

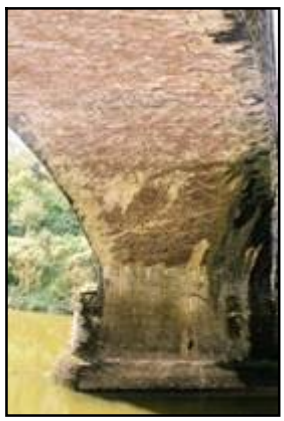


Fig 2.8 Railway bridge over Brosna near Ferbane(014-018).

Skew brick soffit detail above.

[6] This figure excludes instances where concrete arches were constructed in order to widen existing bridges.

Blackwater Bridge, on the Shannonbridge-Cloghan road, is unusual in that its arch soffit is of (pre-cast) concrete blocks (fig 2.9c). It dates from the 1920s and replaced a masonry arch destroyed during the Civil War. Particular care was taken with the voussoirs to mimic dressed stone. This bridge appears to demonstrate an interesting transitional phase between the use of squared masonry soffit blocks and cast-in-situ mass concrete. Breaghmore Bridge (036-015), over a tributary of the Camcor, is another example of the use of concrete blocks, in this case as a replacement middle arch of a triple masonry span.



Fig 2.9a *(left):* Kilbeggan Bridge over the Grand Canal in Tullamore (017-016). Fig 2.9b *(middle):* Pre-cast concrete arch road bridge over Bord na Mona railway, Corbane Td (014-044). Fig 2.9c *(right):* Blackwater Bridge with concrete block voussoirs (013-005).

Concrete arches were also deployed in three recorded instances to widen existing masonry arched bridges (fig 2.10). In all cases, the widths and heights of the original arches were respected.

The paucity of concrete arches can be attributed largely to the fact that this material is more suited to an alternative type of construction, namely the reinforced-concrete beam. This latter form was in widespread use during the 20th century and lends itself to longer spans and faster construction, all at lesser cost, than concrete arches.


Fig 2.10 Mucklagh Bridge (016-029), over the Clodiagh River at Charleville, was widened on its upstream side with mass concrete arches.

2.4 Beam bridges

Of the 386 recorded bridges whose span form and materials are known, the beam form accounts for 140 (36%) of the total. Four materials are to be found, the commonest being the concrete beam (79 examples), followed by metal (46), timber (9) and stone (6). In chronological terms, the timber and stone beam forms are the earliest, followed by metal, and then concrete; they will be considered in this order.

Timber beams

Timber is the earliest and most basic form of bridge material, being locally abundant and cheap to fabricate. In such bridges, long timber baulks were laid across the abutments and the deck laid over. Unfortunately, the seven timber bridges recorded in Co Offaly have all disappeared; our awareness of them derives largely from them being captioned as ‘Wooden Bridge’ on the OS

maps. There were doubtless many unrecorded examples, some of which have gone without trace, and others which were replaced with masonry, metal and concrete structures.

Co Offaly shares with Co Roscommon the distinction of having the earliest dated timber bridge in Ireland. This was a timber causeway across the Shannon at Clonmacnoise and has been tree-ring dated to c.804 AD (005-002).

Nearer to the present, the Grand Canal Company erected two long timber footbridges across the Shannon in the 1820s to facilitate the movement of tracer horses between the main canal and the Ballinasloe Branch on the Galway side. These were removed when the river was dredged by the Shannon Commissioners in the 1840s.

Masonry beams

Although strong in compression, stone has a tendency to break when a bending force is applied. Beams constructed of this material are therefore limited to narrow spans and consequently only found widespread use in culverts where drains and small streams required bridging.

In six instances in Co Offaly, stone lintels have been recorded. All carry the Grand Canal and its Kilbeggan branch over minor watercourses (fig 2.11). None exceeds one metre in span. Whilst those on the canals are captioned as 'aqueducts' on the OS maps, there are undoubtedly numerous unrecorded examples associated with roads. However, their small size and invisibility precluded them being named in most instances, so they are under-represented in this analysis.

Fig 2.11 Stone drainage culvert under Kilbeggan Canal, Ballyteige Little Td (017-030)

Metal beams

Cast iron began to be used in bridge construction during the late 18th century. However, it is not particularly well suited to this purpose (stone was cheaper and locally procurable) and it was only when wrought-iron plate and steel became widely available in the 19th and 20th centuries respectively that metal began to be adopted as a structural element of bridges. In Offaly, metal has been used in five forms– the simply-supported girder, the truss girder, girder and jack arch, girder and troughing, and girder and concrete slab.

Metal girders

The most basic design was two or more parallel I-section girders with timber deck over; this form is recorded in 22 cases. Iron girders (probably made up from riveted wrought-iron plates) were widely used by the Board of Public Works in the mid 1800s to construct field access bridges over minor watercourses during the many river drainage schemes then in progress. None of these were picked up here save for one at Ballycumber Demesne (007-024); however it was rebuilt in the mid 1900s and nothing of the original span remains.

The earliest surviving examples of the basic metal girder and timber bridge are the three multiple spans over a meander of the Shannon, all dating from the mid 1900s (fig 2.12a). Most surviving examples of this bridge form – 16 in all are recorded here – were built in the later 1900s by Bord na Mona to carry narrow-gauge industrial railways over watercourses. These are very rudimentary, comprising rolled steel joists (RSJs) supported on piled concrete abutments. The railway tracks were then mounted on steel transoms laid across the principal girders (fig 2.12b).

Fig 2.12a *(left):* Metal beam road bridge over Shannon Navigation, Clonahenoge Td (029-019).

Fig 2.12b *(right):* Bord na Mona rail bridge over Brosna, Turraun Td (015-049).

Girder trusses

Where long uninterrupted spans were required to carry heavy loads over canals and wide rivers, it was necessary to fabricate deeper webs in order to resist bending. This was achieved by utilising two beams with deep web stiffeners between them. These webs comprised diagonally-set bars (lattices), vertical/diagonal joists (in NNN formation and known as Warren trusses), or solid plates which also doubled as parapets. Eleven truss girders are recorded in Offaly – five carry footpaths, five railways, and one a road.

The longest example was the six-span viaduct carrying the Parsonstown-Portumna Railway over the Little Brosna floodplain south of Riverstown (035-058), opened in 1868. Absolutely nothing of it survives but one of similar form, albeit only a single span, survives on the Parsonstown-Roscrea line, opened in 1858 (fig 2.13a). The only other major railway truss girder to survive intact is the Metal Bridge of 1908 carrying the Dublin-Galway railway over the Grand Canal at Tullamore (fig 2.13b). In both cases, the girders' components are of riveted steel section and bar.

Examples of smaller lattice and N-truss footbridges are also to be found in Tullamore, across the railway and Grand Canal respectively (figs 2.13c and 13d). These lightweight bridges were obviously more appropriate to their situation than masonry arch footbridges.

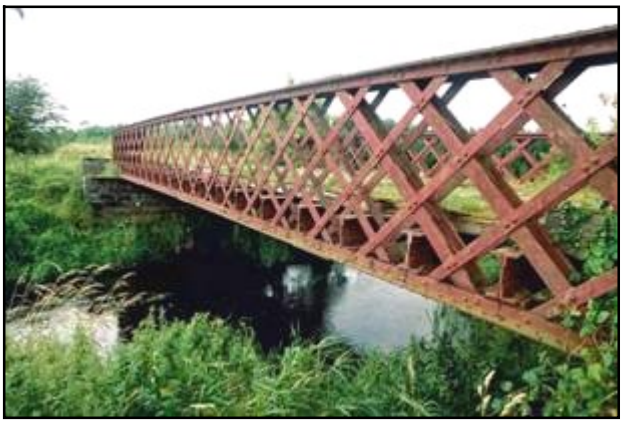


Fig 2.13a *(top left):* Lattice girder bridge, Glasderry More Td (042-003). Fig 2.13b *(top right):* Metal Bridge, Tullamore (017-002). Fig 2.13c *(bottom left):* Lattice girder footbridge, Tullamore Station (017-004). Fig 2.13d *(bottom right):* Warren truss footbridge of 1934 over Grand Canal, Tullamore (017-093).

Girder and jack arches/ troughing

Other variants of the metal beam bridge are the girder and jack arch, and girder and trough. In the former, mini arches are set either between the principal girders or between cross girders running at right angles between the main girders. With the latter, pressed-metal troughing of U profile is set between the main girders, either longitudinally or at right angles. The gaps between the girders were thus filled, enabling the deck to be laid.

Three jack-arch and three trough girder bridges are recorded in Offaly. There may well have been more but their decks have since been replaced with reinforced concrete. A good example of a brick jack arch lies just south of Shannon Harbour. It was built in the 1880s by the Great Southern & Western Railway Co to carry a public road over the (now-disused) Banagher branch line (fig 2.14a). Almost one hundred years later, the concrete jack-arch Coneyburrow road bridge was erected over the Camcor east of Kinnitty (fig 2.14b). A fine longitudinally-troughed metal span of c.1900 carries the road over the railway at Clonygowan (fig 2.14c).

Fig 2.14a *(above left):* Late 19th century metal girder and brick jack arch road bridge near Shannon Harbour (022-013). Note the multiple parallel metal joists, tied together with metal rods which are just visible under the jack-arch soffits.

Fig 2.14b *(above right):* Coneyburrow Bridge (036-012), a mid 20th century replacement road bridge. The corrugated metal formwork, on which the concrete was poured, was left in place.

Fig 2.14c *(left):* Troughed road-over-rail span, Clony-gowan (026-012). This bridge replaced a level crossing, but had it been built at the same time as the railway, it would undoubtedly have been a standard masonry arch span.

Girders and concrete slabs

The final variant of the metal beam bridge is the girder and concrete slab, recorded in seven instances. This is basically a simply supported girder over which is laid a reinforced-concrete slab deck. The earliest example in Offaly (and possibly one of the earliest in Ireland) is an accommodation bridge of 1911 in Birr Castle demesne (fig 2.15a). Although concrete beams were the norm by the mid 1900s, girder and slab combinations were occasionally built, as at Derrygarran Bridge, over the Figile River on the border with Co Kildare (fig 2.15b).

Fig 2.15a *(far left):* Accommodation bridge of 1911 over the Camcor River in Birr Castle demesne (035-036).

Fig 2.15b *(left):* Derrygarran Bridge (028-002).

Of the 44 metal beam bridges whose spans could be determined, the longest was the Metal Bridge carrying the railway over the Grand Canal at Tullamore (fig 2.13b). The next longest, at 19.0m was the N-truss girder footbridge, also over the canal at Tullamore (017-093; fig 2.13d). The third longest was the railway bridge over the Brosna at Clara (008-008), the 16.6m girder span of which was removed when the line closed. As the following table shows, almost one third of the measured metal beam bridges are between 5-10m, but over half exceed 10m. There are no recorded culverts of this form.

Span (metres)					
<2	2 - <5	5 - <10	10 - < 15	15 - <20	20 - <25
0	3	16	20	4	1

Concrete beams

After masonry arches, the reinforced-concrete beam is the commonest bridge form recorded in Co Offaly (79). These comprise mild steel bars set in a sand/cement/aggregate matrix; the steel resists the tendency for the beam to be pulled apart by the load, whilst the concrete resists the compressive forces. Forty-eight of the recorded concrete beam bridges in Offaly are reinforced-concrete slab decks simply supported on abutments and/or piers (fig 2.16a). The remaining 31 are additionally strengthened with reinforced-concrete beams underneath the deck (fig 2.16b).

Fig 2.16a *(far left):* Lumcloon Bridge, on the Silver River, is a twin-span slab road bridge of 1949 (023-006).

Fig 2.16b *(left):* Ferbane Bridge is a triple-span concrete beam and slab road bridge of 1932 (014-030).

The earliest recorded all-concrete bridges within the county are two built by Offaly County Council at Ferbane (fig 2.16b) and Clonbulloge (019-008). They are of the beam and slab variety and were built in 1932 to a design by T.S. Duggan, the County Surveyor. Both are replacements of masonry arch bridges.

Most concrete road-over-river bridges now existing in the county are, in fact, replacements of previous bridges. Although most were built by Offaly CC, a not insignificant number were erected by the Office of Public Works around 1950 during the course of a major drainage scheme in the Brosna catchment (fig 2.16a).

Turning to railways, Córas Iompair Éireann (CIE) has replaced a number of metal girder spans with reinforced-concrete slab decks (fig 2.17a). Bord na Mona also built many concrete bridges in the 1950s and '60s in order to carry public roads over the numerous narrow-gauge railways then being laid to supply ESB's power stations with peat (fig 2.17b).

Fig 2.17a *(far left):* Replacement concrete slab deck on masonry abutments of rail/road bridge, Srah Td (017-098);

Fig 2.17b *(left):* Bord na Mona road/rail bridge of 1960, Esker Beg Td (018-038).

The use of reinforced-concrete beams under the slab deck enables wider gaps to be spanned and/or heavier loads to be carried. Pre-cast beams, fabricated off site and craned into position, are now used extensively to speed up construction and minimise traffic disruption. Their earliest attested use in Co Offaly is c.1951 at Kilcolgan Bridge, over the Brosna, by the Office of Public Works (fig 2.18a). Here the risk of flooding precluded the fabrication of the formwork in situ, so the beams were cast on the bank and then moved into position.

Pre-cast beams also give the opportunity for them to be tensioned during or after fabrication (pre- and post-tensioning) so that they are capable of withstanding even heavier loads than if they left untensioned. Pre-stressed beams have been used for many bridges since the 1980s (fig 2.18b). In a few cases, pre-cast concrete box units have been used (figs 2.18c and 18d).

Fig 2.18a *(top left):* Kilcolgan Bridge, a beam and slab structure of c.1951 over Brosna (015-006). Fig 2.18b *(top right):* Pre-cast beam and slab bridge of 2002 over Dublin-Galway railway, Cloncoher Td (025-016). Figs 2.19c and 19d *(bottom):* This pre-cast concrete box-section bridge of 1999 carries the Daingean-Tullamore road over a Bord na Mona railway (018-041). The individual units are tied together with metal rods.

The structural advantages of beams under slab decks is illustrated in the following table. In those 76 instances where the spans could be measured, most slab decks were found to be less than 5m long, whereas most of those with additional cast in situ beams are 5-10m long. By contrast, the majority of pre-cast beam spans are more than 10m long and three exceed 20m. The longest is Garryduff Bridge with maximum spans of 24.4m; it was by Bord na Mona in 1969 to carry a peat railway over the Shannon at Shannonbridge (013-018).

	<2m	2 - <5m	5 - <10m	10 - <15m	15 - <20m	20 - <25m	*Total*
Slab	4	32	9	2			*47*
Beam + slab		1	5	1			*7*
Pre-cast beam + slab			9	9	1	3	*22*

The concrete beam form has also been used extensively in the later 1900s to widen existing bridges in order to cope with increased vehicular and pedestrian traffic (fig 2.19).

Fig 2.19 Concrete beam and slab extension to skew masonry arch road bridge over Dublin-Galway railway at Spol - lanstown (017-007).

It is instructive to note the frequency of each bridge form against its span category, as shown in the following table and graph (fig 2.20). The majority of bridges have maximum spans of less than 10m. Of those under 5m, most are stone arches, although there are also an appreciable number of concrete slab bridges. The same is true of the 5-10m category, but we also find the appearance of metal and concrete beam bridges. Beyond 10m, metal and concrete beam bridges come into their own. Only pre-cast concrete beam bridges are encountered in spans over 20m.

	Span (meters)					
	<2	2 - <5	5 - <10	10 - <15	15 - <20	20 - <25
Masonry arch	28	84	77	3	1	
Metal beam		3	16	20	4	
Concrete slab	4	32	9	2		
Concrete beam + slab		1	14	10	1	3
Total	*32*	*120*	*116*	*35*	*6*	*3*

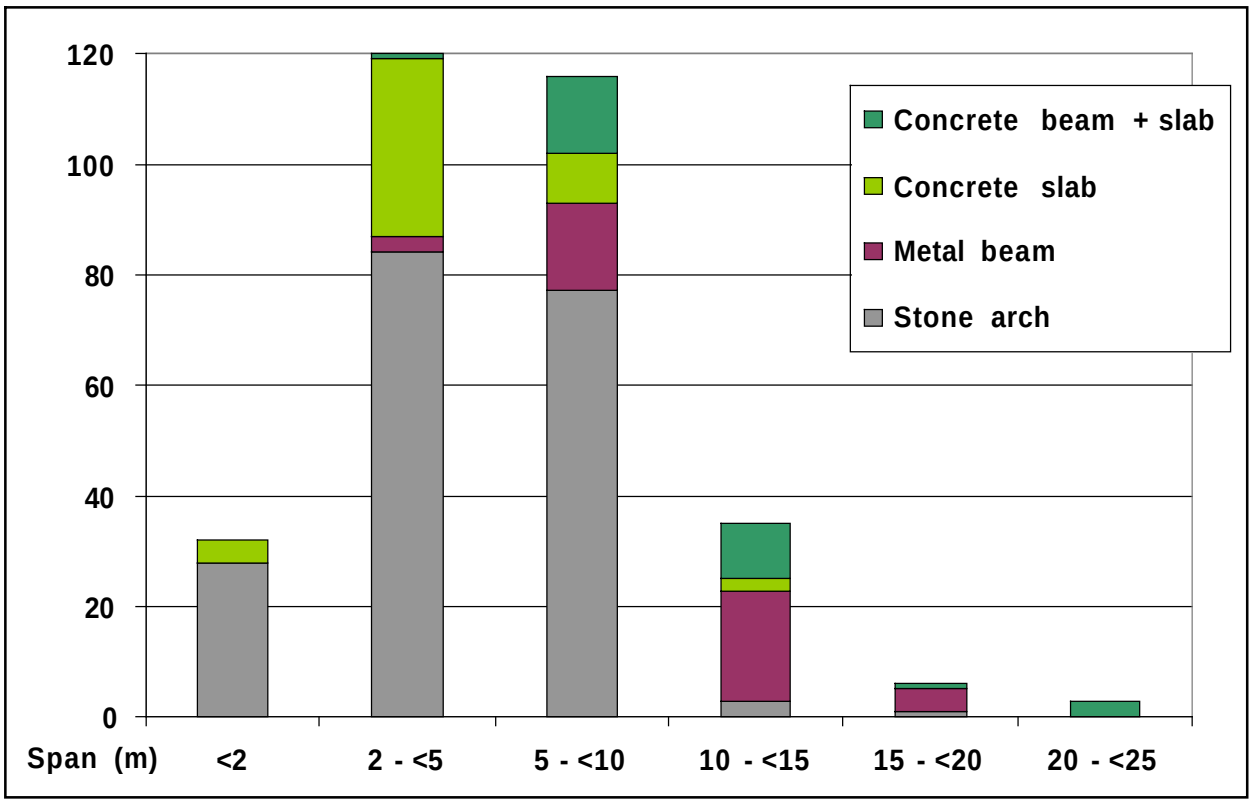


Fig 2.20 Frequency of bridge form against span category.

2.5 Suspension bridges

This form is the least common of the three structural forms. Although in use since the early 1800s, it was not widely used because the arch and beam forms generally served their intended purposes satisfactorily.

Only two suspension bridges are known in Co Offaly - at Birr Castle (fig 2.21) and Kinnitty Castle. It is no coincidence that both are in estate contexts and were restricted to private pedestrian use. Both pre-date 1850, and the novelty of their technology and graceful aesthetics were doubtless contributory factors in their construction. They are of special technical interest due to the fact that their catenaries comprise lengths of parallel iron wires rather than the forged chain link or twisted steel cables more usually found in surviving examples elsewhere.

Fig 2.21 Suspension bridge over Camcor River, Birr Castle Demesne (035-030).

2.6 Pipe bridges

Concrete pipes have been frequently employed in recent decades for replacements and widenings of masonry culverts during the upgrading of roads. The most basic form is the simple concrete pipe, of which 18 examples are recorded (fig 2.22a). These range from 0.60m to 2.1m in diameter (2-7ft) and were joined together to give the required length. Their advantage is that they can be bought off the peg in standard sizes and do not have to be specially made.

Where larger sizes are required, the Armco pipe is generally used (fig 2.22b). Eleven examples were noted in the course of this survey. 'Armco' is a proprietary name given to a type of construction whereby corrugated steel is bent into the form of a cylinder which is laid horizontally in the bed of the river and packed all around with concrete, rock and earth. The tube thus acts as the formwork for what is essentially a concrete pipe.

Fig 2.22a *(left):* This concrete pipe carries a drain under a road in Cloncollog Td (017-043). Fig 2.22b *(right):* Twin-span Armco footbridge of c.1970 over the Tullamore River, O'Molloy St, Tullamore (017-094).

To summarise this section, stone arch bridges were the norm until the 20th century and are the commonest type of bridge in Co Offaly. Metal and concrete beam bridges were used extensively in the 20th century as they are capable of spanning wider gaps and are generally cheaper and quicker to construct. Today, the pre-cast reinforced concrete beam-and-slab bridges are the norm.

3. BRIDGE BUILDERS

Although the form of a bridge was determined largely by its function, materials and period of construction, its style was heavily influenced by whoever was responsible for its construction. Analysis of the county's bridges shows that many different bodies were responsible for their construction – local and central government, private individuals and commercial companies. This chapter highlights the endeavours of these various bridge builders in chronological order.

3.1 Grand Jury bridges

Until the 1600s, bridge construction in Ireland was the responsibility of town corporations and the Crown. However, projects were piecemeal and uncoordinated, and fords and ferries were the norm. It was only at those river crossings where there was greatest inconvenience to the most people that bridges were built. In practice, they were confined to the larger river crossings in or near towns. Because of the expense of stone, timber bridges were the norm at this time.

In 1615, responsibility for the construction and upkeep of roads was transferred from the British to Irish parliament. Implementation was delegated to parish vestries and parishioners were obliged to give six days of unpaid labour towards this work. This work remained the preserve of parishes until the county grand juries took over in 1765.

Since 1634, these grand juries had also been responsible for the erection and maintenance of bridges, fords and causeways in their respective counties. The juries were made up of land-owners appointed by the county sheriff (himself an appointee of the Crown). They operated under the Presentment System whereby anyone wishing to undertake road and bridge works could apply to the jury for their costs. If approved, the presenter was reimbursed when the job was finished. The juries raised the necessary finance by imposing a tax on the inhabitants of the barony where the structure in question was located. In the case of major projects, money was also raised at county level. Costs were also split between juries where a bridge crossed a county boundary.

The grand jury presentment system proved very effective and resulted in Ireland having a highly developed road network by the early 1800s. It remained in force until the reorganisation of local government in 1898.

The vast majority of known bridge sites in Co Offaly are depicted as such on the 1838 OS maps. Most of the bridges at these sites cannot be dated precisely so it is particularly unfortunate that almost all the county's presentment books were destroyed in 1922 during a fire at the Four Courts, Dublin; these covered the years 1757-98, 1805-17, and 1819-87.[7]

Only three bridges bear 18th century plaques with dates and the name of the person in charge of construction: Rahan Bridge – 1736 (016-008), Charleston Bridge, Clara – 1774 (008-040), and Gorteen Bridge – 1779 (fig 3.1).

Fig 3.1 Gorteen Bridge (025-006): This bridge [laid?]/ 1779/ Randall Poole Esq/ Overseer".

[7] O'Keefe and Symington, *Irish Stone Bridges*, p.43.

Some bridges are documented as having been built during the 1700s, notably Shannon Bridge in the 1750s. River crossings along the main roads are sometimes depicted on pre Ordnance Survey maps, notably Herman Moll's 1714 *New Map of Ireland*. This shows crossings at Tullamore and Birr, but their structural status is uncertain (they may have been timber or stone bridges, or fords). Only one bridge is explicitly cited (Milltown Bridge), across the Camcor north-east of Fortel; this could be a predecessor of the present Killyon Bridge (036-002). A few bridges are also located on roads shown on the 1880s OS maps but not the 1830s ones, and can therefore be tied down to the mid 19th century.

Some bridges exhibit one or more characteristics of the bridges of that period – undressed random rubble stonework, absence of embellishment, wide cutwaters, narrow carriageways (under 5m) and pedestrian refuges over the cutwaters (fig 3.2).

Fig 3.2 Ballynacarrig Bridge, over the Silver River has wide piers and narrow deck (032-001).

During the first half of the 19th century, bridges took on a higher quality of construction and embellishment. The appointment of County Surveyors by the grand juries from the 1830s onwards doubtless did much to improve standards of design and workmanship.

Good examples of the workmanship of this period are Oxmantown Bridge, Birr (fig 3.3). This is an 1855 rebuild of an earlier road bridge and is characterised by shallow segmental arches, extensive use of dressed stonework and a high degree of embellishment as employed in the voussoirs, string course and parapet copings. Derrinsallow Bridge (035-002), also of mid 19th century date, is of similar style.

As will be illustrated later, this high standard of architectural engineering is also apparent in bridges built by other organisations at this time.

Fig 3.3 Dressed stone-work on Oxmantown Bridge, Birr (035-011).

3.2 Canal bridges

The Grand Canal is the main canal within Co Offaly and links Dublin with the River Shannon. It crosses the Kildare border near Edenderry and runs west through Tullamore to Shannon Harbour on the River Shannon. It was built by the Grand Canal Company in two stages - as far as Tullamore in 1798 and then on to Shannon in 1804. There is also a short spur to Tullamore Harbour, its terminus from 1798 and 1804, and branch lines to Edenderry and Kilbeggan, both opened by the same company in 1802 and 1835 respectively. The cutting of these canals resulted in a flurry of bridge building activity in the 1790s and early 1800s (fig 3.4).

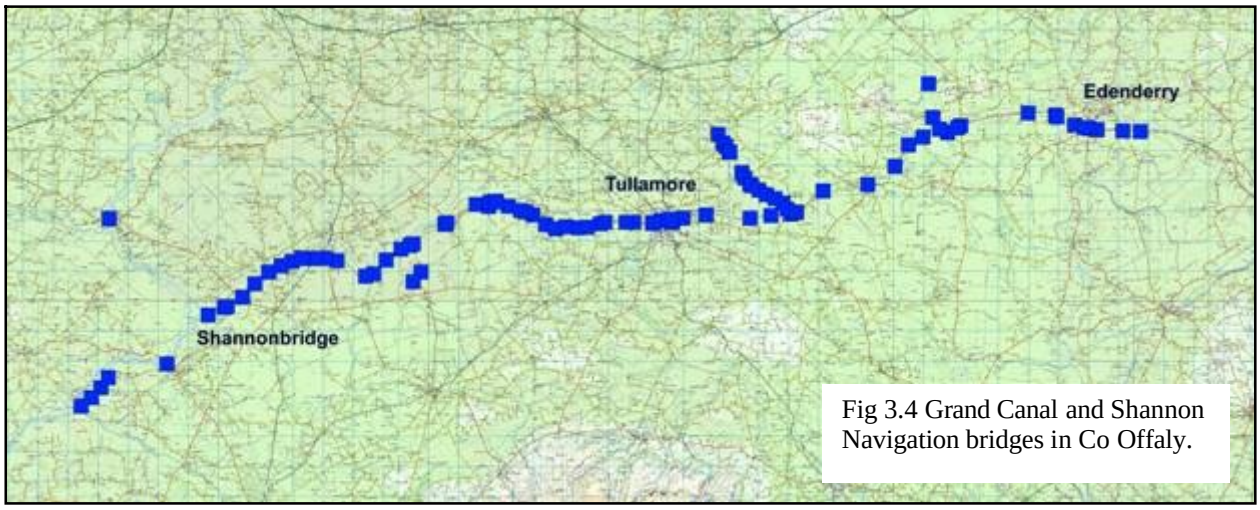


Fig 3.4 Grand Canal and Shannon Navigation bridges in Co Offaly.

Grand Canal

Sixty-five bridges are associated with the Grand Canal and its feeders; of these 36 carry pedestrian and vehicular traffic and 29 are aqueducts.

Road bridges

Thirty bridges carry roads (both public and accommodation) over the canal proper, of which 28 survive (the remaining two were replaced with concrete bridges). They are of two distinct styles, depending on whether or not they are located at locks. Other than that, there were no observable differences between the bridges on the Tullamore and Shannon Harbour sections.

Nineteen bridges are freestanding and not associated with locks. They are of random rubble construction, have semi-elliptical spans, and are embellished with string courses and terminal piers; they generally also have hump-backed decks and ramped approaches (fig 3.5a). Their spans average 8.57m (plus or minus 6cm). This is very close to a theoretical design span of 8.54m (28ft), i.e. 4.88m (16ft) for the canal and 1.83m (6ft) for the towpath along either side. The bridges vary from 3m to 8m in width between parapets depending on the grade of road. The bridge at Daingean (018-010) is the widest unaltered bridge at 7.95m; it is also atypical in having no pronounced hump and in being slightly skew (factors which have contributed to its survival).

The remaining nine bridges cross locks and use the sides of the chambers as abutments. These bridges are generally built to a higher standard of design than the freestanding ones, with dressed limestone block abutments and spandrels; only their parapets are of random rubble. Their spans are of shallow segmental profile and average 4.57m (15ft) across; all but one are within 6cm of this norm. The span at Belmont is slightly wider, at 4.72m (15ft 6in), possibly because this is a double lock and may have been slightly more difficult to negotiate (fig 3.5b).

At five bridges, socket holes were observed in the abutments at arch spring level. These housed timber falsework over which the arch was formed. Once completed, the timber was removed and the holes infilled with Pollagh brick.

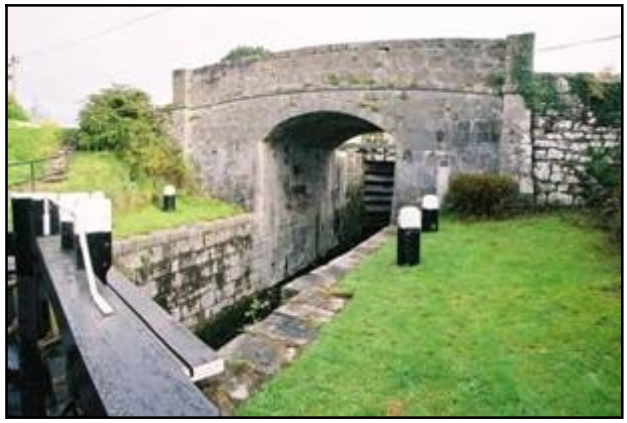


Fig 3.5a *(left):* Rathmore Bridge, a typical free-standing Grand Canal bridge (011-009). Fig 3.5b *(right):* Road bridge across the lower chamber of 33rd lock, Belmont (014-032).

Aqueducts

Most of the identified aqueducts could be located on the ground (some are now disused and buried) and the majority of them were culverts (i.e. less than 2m span), conveying minor watercourses under the canal. Where the level of the watercourse was higher than the bed of the canal, it was necessary to build these culverts as siphons, i.e. dipping under the canal and rising up on the other side (fig 3.6a). As long as the culvert's exit point was lower than its entry point, the water would flow irrespective of its actual level under the canal. A particularly good example of such a siphon is the Little Tunnel near Edenderry (fig 3.6b).

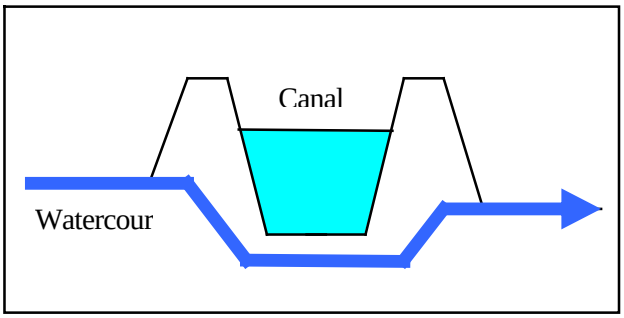


Fig 3.6a *(above):* principle of siphon.

Fig 3.6b *(right):* Little Tunnel, Edenderry (012-017).

There are three major aqueducts along the canal, all over relatively major rivers – Macartney's Aqueduct over the Silver River (fig 3.7), Huband Aqueduct over the Tullamore River (016-021), and Charleville Aqueduct over the Clodiagh River (016-020). All are triple segmental spans of high quality construction and two bear 1803 datestones. Interestingly, the soffits of the Charleville Aqueduct dip slightly as they pass under the bed of the canal (although the bed of the river remains horizontal).

As noted earlier, the Blundell Aqueduct is the only instance where the canal is carried over a road (fig 2.3b).

Fig 3.7 Macartney's Aqueduct over the Silver River (023-003).

Miscellaneous features

Several canal-related features are also worth mentioning. The two branches of the Shannon were formerly spanned by timber footbridges in order to take the tracer horses between the towpaths on the Grand Canal and Ballinasloe Branch, opened by the Grand Canal Co in 1828 (021-001 and -021-013). Neither survives, having been removed when the channels were dredged by the Shannon Commissioners in the 1840s; that over the main river was replaced by a ferry.

Another unusual feature is the small bridge carrying the towpath (here the width of a road) over a 1.6m wide canal overflow at Ballycommon (fig 3.8)

Fig 3.8 Towpath bridge over overflow, Ballycommon (018-039).

Commemorative plaques and dates

A high proportion of the road bridges over the Grand Canal are named. Those commemorated include officials of the Grand Canal Company (e.g. Joseph Huband and John Macartney, director and chairman respectively of the Board of the Grand Canal Company at that time), and local landowners (e.g. Lord Downshire).

Thirteen of these bridges also carry their dates of completion (fig 3.9). Goring from east to west (i.e. following the course of the canal as it was cut), these are as follows:

Fig 3.9 Plunkett's Bridge is dated 1809 (015-015).

Site no	Over	Under	Name	Date on bridge	Date canal opened
OFIAR-012-019	Canal	Road	Blundell Aqueduct	1793	1798
OFIAR-011-007	Road	Canal	Cartland Bridge	1793	1798
OFIAR-011-010	Road	Canal	Trimblestown Bridge	1797	1798
OFIAR-018-010	Road	Canal	Molesworth Bridge	1796	1798
OFIAR-017-022	Road	Canal	Digby Bridge	1797	1798
OFIAR-017-017	Road	Canal	Bury Bridge	1799	1798
OFIAR-017-015	Road	Canal	Cox's Bridge	1809	1804
OFIAR-016-021	Canal	River	Huband's Aqueduct	1803	1804
OFIAR-015-015	Road	Canal	Plunkett Bridge	1809	1804
OFIAR-023-003	Canal	River	Macartney's Aqueduct	1803	1804
OFIAR-014-026	Road	Canal	Sam Judge's Bridge	1803	1804
OFIAR-022-010	Road	Canal	L'Estrange Bridge	1800	1804
OFIAR-022-006	Road	Canal	Griffith Bridge	1803	1804

Most were built before their respective stretches of canal opened, but three were not completed until afterwards – five years in the case of Cox's Bridge and Plunkett Bridge.

Edenderry Branch

The short Edenderry branch line runs north-east from the Grand Canal to the town. It was financed by Lord Downshire (the local landowner) and opened in 1802. There is only one feature along it - Downshire Bridge, a hump-backed footbridge carrying the Grand Canal towpath over its entrance (fig 3.10). It is the narrowest of all the canal bridges in Co Offaly, being only 1.26m between its parapets. This was because it was for use only by tracer horses. No towpath runs under it, so it is the same width as the actual branch canal (4.80m). It is also of similar style to those bridges over the lock chambers along the Grand Canal.

Fig 3.10 Downshire Bridge (012-013). The main line of the Grand Canal is on the right, with the Edenderry branch passing under the bridge at left.

Kilbeggan Branch

This line branches off the Grand Canal just east of the 21st lock and runs in a north-westerly direction to Kilbeggan. It opened in 1835 and is still intact, albeit dewatered and overgrown.

Fifteen bridges were recorded along the Co Offaly section of this branch, of which eight are aqueducts, all over watercourses. The most impressive of these is the aqueduct over the Silver River on the county boundary (fig 3.11a). The remainder are small culverts; from what can be seen above the silt, these appear to have stone lintels with the exception of one which had two finely dressed stone arches (fig 3.11b). Timber lining was found in another example (fig 3.11c).

Fig 3.11a (*left):* Aqueduct over Silver River (009-009). Fig 3.11b *(top right):* Small twin-arch aqueduct over tributary of Silver River, Bracklin Little Td (009-011). Fig 3.11c *(bottom right):* Timber-lined culvert, Wood of O Td (009-014).

Seven bridges cross the canal and all are of identical dressed limestone construction with semicircular arches (with towpath through), advanced parapets and terminal piers; most also have humped decks and some also have stop plank grooves up the sides of the canal underneath the arch to enable sections between bridges to be drained for repairs (fig 3.12).

Their spans are remarkably consistent, at 6.71m (22ft), plus or minus 6cm; indeed four spans are within 2cm of this average. They are also of similar widths, their parapets being spaced at 2.85m plus or minus 3cm. The only exception is Wood of O Bridge (17-028), which is 6.47m between its parapets on account of the fact that it carries the only (relatively) main road over this branch.

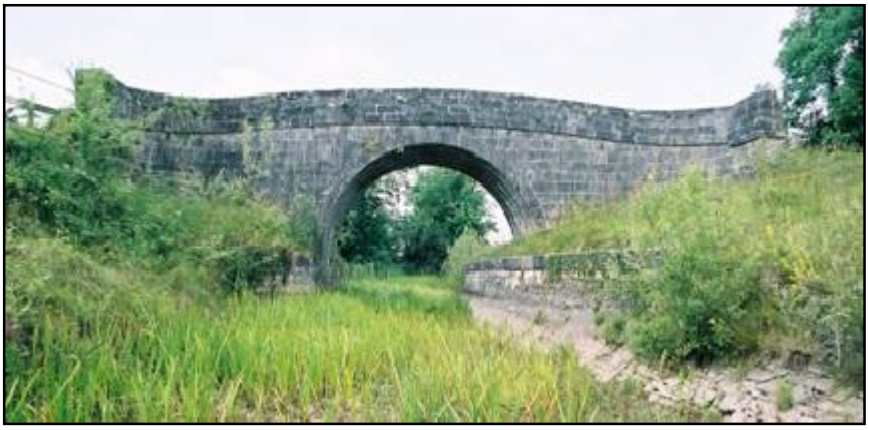


Fig 3.12 Tony's bridge carries an accommodation track over the Kilbeggan Canal, Wood of O Td (017-029).

Shannon Navigation

In 1755, the Commissioners of Inland Navigation began a major programme of works to improve the navigability of the River Shannon upstream of Limerick. Part of this work entailed the construction of a canal along the east bank of the river in order to by-pass rapids south of Banagher. The work on this stretch was carried out in the later 1750s by Thomas Omer. Three accommodation bridges appear to have been built over the channel, probably at the same time (029-002, -003 and -022). Only their masonry abutments survive, their decks having been replaced with concrete slabs in the relatively recent past.

3.3 Government bridges

Central Government, in the form of the Shannon Commissioners and Board of Public Works, was responsible for the erection of a substantial number of bridges in the mid 1800s in connection with navigational improvements to the Shannon and land drainage projects (fig 3.4).

Shannon Commissioners

In 1835, the Government placed the entire Shannon Navigation under the control of the Shannon Commissioners. In 1839, they embarked on an ambitious scheme to upgrade it so that it could be used by steam boats. Over the next 11 years, extensive dredging and construction work took place under the direction of Thomas Rhodes.

At Shannonbridge, the later 18th century multi-arch bridge was sound enough to require no work beyond the insertion of a cast-iron swing bridge over the navigable section at its east end (fig 3.13).

Fig 3.13 Repositioned swing bridge on Shannonbridge (013-001).

At Banagher, the multi-arched Sarsfield's bridge of c.1690 was replaced with a six-span bridge. As already noted, these are the widest masonry spans in the county and their structural integrity relies on the careful workmanship of its dressed stone soffits and spayed voussoirs (fig 3.14).

When the upgrading of the navigation was completed in 1850, responsibility for its subsequent upkeep passed from the Shannon Commissioners to the Board of Public Works.

Fig 3.14 *Left:* Ashlar stonework on Banagher Bridge (021-006). *Above:* Plaque recording the bridge's construction between 1841 and 1843.

Board of Public Works

Between 1847 and 1860, the Board of Public Works undertook a number of river drainage projects throughout the lowlands of Co Offaly in order to alleviate flooding, improve agricultural productivity and create employment.[8] The county was divided into drainage districts and the major watercourses therein dredged and straightened to lower the water table and increase the rivers' discharge capacities. A consequence of this was the need to replace some existing bridges and underpin others. This resulted in the most intensive bridge building programme in the history of the county, financed through government loans and the Grand Jury presentments.

Twenty-four of the Board's bridges have been identified in Offaly. An excellent example is Ballycumber Bridge over the Brosna (fig 3.15). This replaced a multiple arch bridge and the detailing of its stonework typifies the Board's work - the extensive use of dressed stone and voussoir rustication. Excepting Banagher Bridge, this is also the widest single masonry arch span in the county at 12.9m. An almost identically detailed example is Carrig Bridge on the Camcor River near Kinnitty (036-006), one of three built by the same contractor hereabouts in 1852 (the others are 036-002 and 036-025).

Fig 3.15 Ballycumber Bridge (007-009).

[8] Details of these works are given in the Board's reports which were published annually in the *Proceedings of the House of Commons.*

At Baltinoran Bridge (fig 3.16) and Rahan Bridge (016-008), part of the earlier bridge was retained. At both these bridges, one can contrast the rudimentary 18th century semicircular spans (2-3m wide) with the much higher quality mid 19th century segmental spans (5-9m wide).

Fig 3.16 At Baltinoran Bridge (004-001), the Mongagh River was straightened (*left*) and the former rubble stone causeway bridge (*top right*) extended with a new dressed stone bridge (*bottom right*).

3.4 Railway company bridges

During the second half of the 19th century Co Offaly, along with the rest of the country, experienced an unprecedented flurry of activity associated with the construction of railways. Two mainline and five branch railways are recorded: the Great Southern & Western Railway from Portarlington to Athlone (1854-59), the Roscrea & Parsonstown Railway (1858), the Clara branch line of the Midland Great Western Railway (1863), the GSWR's line from Ballybrophy to Limerick (1863), Parsonstown & Portumna Bridge Railway (1868), Edenderry branch of the MGWR (1877), and the Banagher branch of the GSWR (1884).

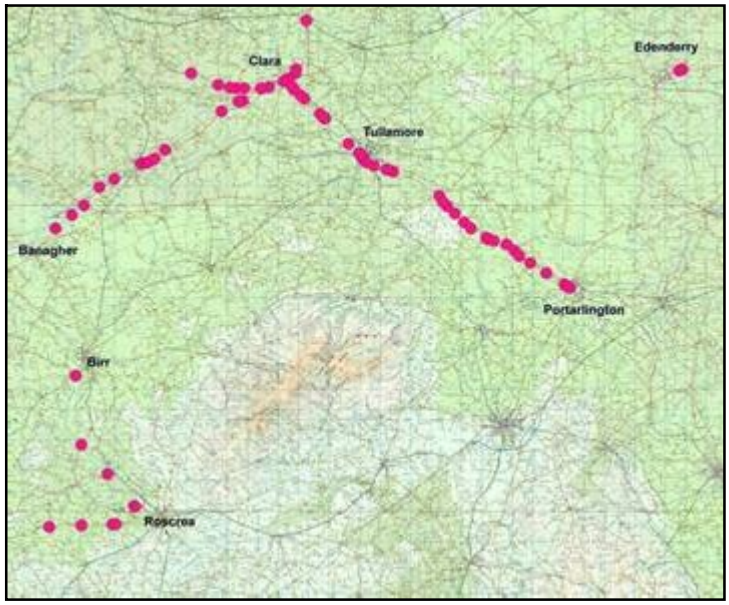


Fig 3.17 Mainline railway bridges in Co Offaly.

GSWR Portarlington-Athlone line (1854-59)

The earliest railway in the county was that from Dublin, via Portarlington to Athlone. Built by the Great Southern & Western Railway Company, it arrived in Tullamore in 1854 and Athlone in 1859; it is still in use as part of the Dublin-Galway line.

A total of 42 bridges built by the GSWR have been identified in this survey. Most (24) carry roads over the railway, and 15 the railway over roads or rivers. Although some of both types have had their original spans replaced with concrete, half of the identified total (21) retain their masonry arch spans.

All the masonry bridges are all of a quality equal to the Board of Works' bridges over rivers, with the use of dressed stone to all components (including the soffits) and rustication to the abutment quoins and voussoirs. Ten of these bridges have skew arches; although more costly to erect than conventional orthogonal spans, they do away with the need for dogleg approaches.

Interestingly, the road over-bridges between Portarlington and Tullamore have semi-elliptical profiles (fig 3.18a), whereas the slightly later ones from Tullamore onwards have segmental spans and string courses around the arch ends and across the parapets (figs 3.18b and 18c). Moreover, the orthogonal spans of the former are within inches of 30ft (9.14m), whereas those on the later section are only 28ft (8.53m). However, this difference in arch span and profile seems to apply only to the over-bridges, as at least one under-bridge on the earlier section of line has a segmental span (025-002).

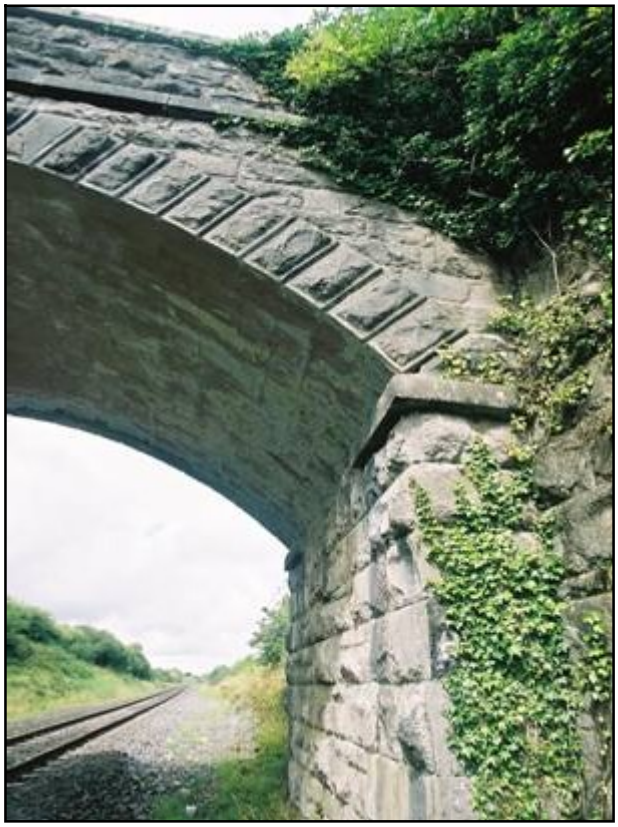


Fig 3.18a *(top left):* Skew semi-elliptical GSWR road bridge at Clonygowan (033-002). Fig 3.18b *(below left):* Orthogonal GSWR accommodation bridge at Erry (008-023). Fig 3.18c *(right):* Detailing on bridge at Erry.

There are several metal girder bridges of note along this line: the 23m long Metal Bridge over the Grand Canal at Tullamore (an 1908 replacement of the original span, fig 2.13b), and the 12.5m lattice girder footbridge at Tullamore Station (fig 2.13c); the latter was imported in the relatively recent past from Roscrea Station on the Ballybrophy-Limerick line.

Roscrea & Parsonstown Railway (1858)

Four bridges are recorded on this line (closed in 1963), of which two still retain their spans. The lattice girder truss over the Little Brosna at Glasderry More has already been noted (fig 2.13a). The other bridge of interest is the skew brick arch road bridge over the railway at Sharavogue, one of only three arched bridges in the county to use this material (fig 3.19).

Fig 3.19 Skew brick road/rail bridge at Sharavogue (038-002).

MGWR Clara branch (1863)

This line connected Clara with the MGWR's Dublin-Galway line at Streamstown, Co Westmeath; like the Birr-Roscrea line, it closed in 1965.

Six bridges are recorded along this line, of which four survive. Three are masonry arch spans, and all are identically detailed, with segmental arches, dressed stonework and rusticated voussoirs. The rail over road bridge at Clara is the most impressive example (fig 2.6b) and originally continued as a metal girder span over the river

GSWR Ballybrophy- Limerick line (1863)

This line ran from Ballybrophy (Co Laois), on the GSWR's Dublin-Cork line, to Limerick via Roscrea; it is still in use. Four bridges are recorded within Offaly, all of them road over rail bridges. All are similarly detailed, with segmental spans, dressed stonework, rusticated quoins and voussoirs and string course over the crown (fig 3.20).

A lattice girder footbridge from Roscrea Station has been moved to Tullamore Station (017-004), and an identical one has been relocated from Emly, on the Dublin-Cork line, to a public park in Birr (035-063).

Fig 3.20 GSWR road bridge, Clyduff Td (045-010).

GSWR Banagher branch (1884)

This branch line linked Clara and Banagher and was operated by the GSWR between 1884 and 1963. There are 15 identified bridges, of which eight carried the railway over roads and rivers, and six conveyed roads over it. Nine no longer survive or have had their spans removed.

There is a considerable variety of forms along this route. The only surviving masonry arch road bridge (015-004) is similar to the Clara bridges in style. A small, somewhat plainer stone bridge carries the line over a mill race east of Ferbane (014-017). The substantial twin-arched brick arched bridge over the Brosna, also at Ferbane, has already been noted (fig 2.8), as has the brick jack-arch road bridge near Shannon Harbour (fig 2.14a).

The most incongruous bridge is surely the triple concrete span over the Little River (fig 3.21). This survives in splendid isolation, the embankment having been removed from around it. It is undoubtedly a mid 20th century replacement of an earlier bridge and was probably rebuilt during a drainage scheme in this area.

Fig 3.21 Concrete railway bridge at Clonony Beg (022-014).

Other lines

The only bridge within Co Offaly on the Parsonstown & Portumna Bridge Railway (1868-78) was the Riverstown Viaduct over the Little Brosna, of which no traces remain.

The Edenderry Branch of the MGWR connected the town with Enfield, Co Kildare and operated from 1877 to 1963. There were two bridges within Offaly just east of Edenderry, both of which have been demolished without trace.

3.5 Private bridges

Three private estates in Co Offaly have interesting bridges. Birr Demesne is of special significance as it contains the earliest surviving suspension bridge in Ireland (if not Europe) – an 1820s wire footbridge over the Camcor (figs 2.4c and 2.21). Close by is a metal girder and concrete bridge of 1911 – an early Irish example of such construction (fig 2.15a). Just downstream is a triple-span brick bridge, built in two phases and with a plaque of 1647 brought from elsewhere (fig 3.22).

Fig 3.22 Accommodation bridge over Camcor River in grounds of Birr Castle (035-061).

A similar wire suspension footbridge is also to be found in the grounds of Kinnitty Castle (036-023). Some 20 years later than the Birr example, it was made at the Hibernian Foundry, Mountmellick, Co Laois. Near it is a mid 20th lattice girder footbridge (fig 3.23). Upstream from it is a masonry accommodation bridge with pedestrian underpass at one end (036-024).

Fig 3.23 Footbridge over Camcor in grounds of Kinnitty Castle (036-026.

Three such underpasses are also to be found at Charleville Demesne, all under the main Tullamore-Birr road (fig 3.24; also 016-029 and 016-052).

Ardara Bridge, near Cadamstown, is probably the oldest surviving bridge in Co Offaly, and was conceivably erected by the local landowner in the 15th century, if not before, to facilitate access to Ballymacadam Castle. Its construction is somewhat unusual in that the lower part of the span is corbelled inwards before the voussoir begins (fig 3.25).

Fig 3.24 Pedestrian underpass, Charleville Demesne (017-112).

A more modest access bridge in the grounds of Fortel House may possibly date from the 17th century (035-049).

Fig 3.25 Ardara Bridge (032-006).

3.6 Offaly CC bridges

Under the Local Government Act of 1898, most of the responsibilities of the Grand Juries were transferred to locally-elected county councils. The first quarter of the 20th century saw several developments which were to have bearing on bridge building, notably the growing volume of motorised traffic, and the creation of the Irish Free State in 1925.

The attention of Offaly CC was focused mainly on repairing bridges damaged during the Civil War and upgrading others using the new technology of metal and concrete. A good example of the former is Blackwater Bridge near Shannonbridge, where the masonry arch was entirely rebuilt with concrete blocks (fig 2.9c). An early example of an Offaly CC bridge replacement is Kilbeggan Bridge, over the Grand Canal at Tullamore, where the late 18th century hump-backed bridge was replaced in 1930 by a concrete arch span (fig 2.9a). Two further examples, dating to 1932, are to be found at Ferbane (fig 2.16b) and Clonbulloge (fig 3.26). Both were designed by T.S. Duggan and are of reinforced-concrete beam and slab construction.

Fig 3.26 St Patrick's Bridge, Clonbulloge (019-008)

Recent road construction has sometimes necessitated the erection of completely new bridges along their routes. On the Western Bypass around Tullamore, for example, new bridges were built in 1984 over the Tullamore River and Grand Canal. The latter is a good example of a now typical construction method – pre-cast reinforced-concrete T beams on concrete abutments, and finished with metal railings (fig 3.27a). A bridge of similar construction, but smaller in scale, is Cushina Bridge, a 2003 replacement of a triple arch masonry bridge (fig 3.27b).

Fig 3.27a *(left):* Bridge over Grand Canal on Western Bypass, Tullamore (017-087). Fig 3.27b *(right):* Cushina Bridge over Cushina River (027-009).

Cushina Bridge is one of a number of recent rebuilds which have taken place as a result of road upgrading by Offaly CC. Unlike this example, which makes extensive use of rubble stone facings on the abutments, wing walls and parapet terminal piers, many modern replacements are architecturally undistinguished compared with their 19th century predecessors. Concrete beams, Armco pipes, concrete pipes and pre-cast box culverts are all now employed both to widen and replace some of the smaller bridges (as discussed in chapter 2).

In only a few instances has the original bridge been retained by building a new one beside it. Kishawanny Bridge over the Boyne at Edenderry is a particularly striking example. Here, the 1850s Board of Works bridge was bypassed by a modern pre-cast concrete arch bridge along a realigned stretch of road (fig 3.28).

Fig 3.28a *(left):* The c.1850 bridge built by the Board of Public Works (012-004).

Fig 3.28b (r*ight):* The replace-ment bridge built by the National Roads Authority on behalf of Offaly CC in 2003 (012-035).

Offaly CC has also constructed several footbridges, notably one across the Brosna at Clara (fig 3.29a). In 1979, Birr Urban District Council brought a defunct lattice girder footbridge from Emly Station, Co Tipperary, to a public park in Birr to facilitate access across the Camcor River (fig 3.29b). It was named Bagnall's Bridge, after a local benefactor.

Fig 3.29a *(left):* Footbridge over River Brosna at Clara (008-061).

Fig 3.29b *(right):* Bagnall's Bridge, Birr (035-063).

3.7 National Roads Authority

Bridges along the National Primary Roads are the responsibility of the National Roads Authority (NRA). There are two such roads in Co Offaly – the N4 and N7 which clip the north and southern edges of the county respectively. Given that only relatively short stretches of these roads lie within the county, it is not surprising to find only one bridge site identified here – New Bridge (002-002) on the N4. Here, the original mid 19th century bridge has been bypassed by a reinforced-concrete bridge erected by the NRA in the later 1900s.

3.8 Office of Public Works bridges

A century after the first drainage scheme in the Brosna River catchment, the Office of Public Works undertook a second dredging scheme between 1948 and 1954.[9] Under the 1945 Drainage

[9] For a general overview of these works, see V.M. O'Reilly (1955), 'Brosna drainage works: general description of the works', in *Transactions of the Institution of Civil Engineers of Ireland*, vol.81 (1954-55), pp 141-181.

Act, this body had assumed responsibility for arterial drainage throughout the Republic. As before, the objective was to alleviate flooding and improve agricultural productivity.

This work necessitated the rebuilding of a number of public road bridges and countless field accommodation bridges. Underpinning of the existing bridges was also required to minimise scouring arising from the increased flow brought about by the dredging.

The triple span reinforced concrete beam and slab bridge over the Brosna near Pollagh has already been noted (fig 2.1b), as has Kilcolgan Bridge, the next bridge downstream from it and an early example of the use of pre-cast concrete beams (fig 2.18a). A replacement accommodation bridge was also built across the Brosna in Ballycumber Demesne, upstream of the main road bridge (fig 3.30a). A number of simple reinforced concrete slab bridges were also built (fig 3.30b).

Four bridges with commemorative plaques dating from 1948-50 and written in Irish and English were identified in the Brosna during the course of this survey: Crancreagh Bridge over the Little River (022-018), another on an unnamed tributary of the Brosna (figs 3.30c and 30d), and at Lumcloon Bridge (023-006) and Barnaboy Bridge (031-002), both on the Silver River.

It was also necessary to build two new culverts under the Grand Canal – the Boora Culvert conveyed the Boora River (015-013), whilst the Pollagh Culvert carried the Oughter Brook (015-014). In both cases, 1.52m (5ft) diameter concrete pipe culverts bypassed the nearby cast-iron pipes of the original culverts.

Fig 3.30a *(top left):* Accommodation bridge over River Brosna, Ballycumber (007-024). Fig 3.30b *(top right):* Barnaboy Bridge over Silver River, Kilnagall Td (031-002). Fig 3.30c *(bottom left)* Road bridge over tributary of Brosna, Clonony Beg Td (022-030). Fig 3.30d *(bottom right):* 1948 datestone on Clonony Beg bridge.

3.9 Bord na Mona bridges

Forty-eight of the bridges identified in this project were by Bord na Mona in connection with the supply of peat to power stations and briquette factories (fig 3.31). Most of these (29) carry narrow-gauge peat railways over watercourses and 15 take public roads over the railways. In two instances, the Dublin-Galway railway crosses Bord na Mona's line.

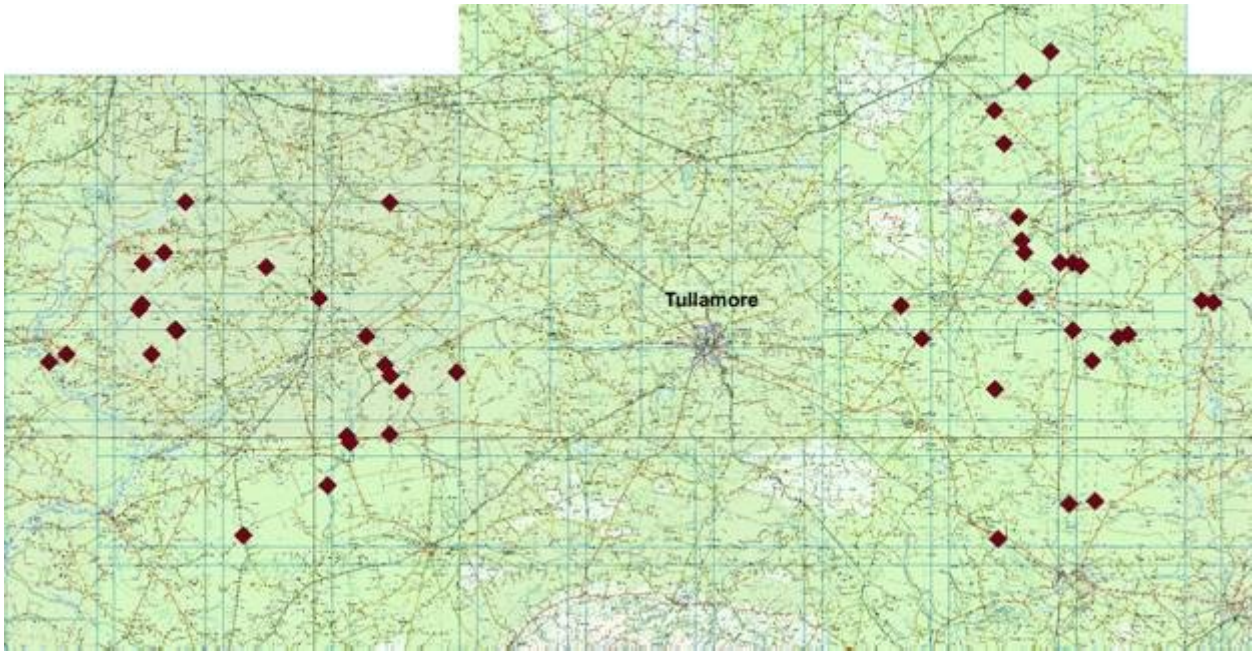


Fig 3.31 Bord na Mona rail-related bridges in Co Offaly.

Most of the bridges over watercourses are simple metal girder spans supported on piled reinforced-concrete abutments, with the line laid directly over the beams (fig 3.32a). One significant exception is Garryduff Bridge, a multiple-span reinforced-concrete beam bridge of 1969 over the River Shannon west of Shannonbridge Power Station (fig 3.32b).

Fig 3.32a *(left):* A simple metal girder Bord na Mona railway bridge over Silver River, Stonestown Td (023-021).
Fig 3.32b *(right):* Garryduff Bridge, a multi-beam concrete bridge over the Shannon at Shannonbridge (013-018).

The three bridges taking the peat railways over the Grand Canal are of note because of the peculiarities of their construction. That carrying the line to the briquette factory at Esker Beg, north-east of Daingean, was built in the 1960s and is a rare example of a lifting bridge (fig 3.33a). In contrast, the one at Turraun, south-west of Pollagh, is a swing bridge of 1987 (fig 3.33b). Whereas these two are hydraulically operated metal girder bridges, the third, at

Knockballyboy, west of Daingean, is a triple-span concrete arch bridge built in 2000 and faced with masonry to enhance its appearance (fig 3.33c).



Fig 3.33a *(left)* Lifting bridge, Coole Td (010-018). Fig 3.33b *(middle):* Swing bridge, Turraun Td (015-048). Fig 3.33c *(right):* Concrete arch bridge, Knockballyboy Td (018-040).

Where peat railways crossed minor public roads, level crossings and warning signs generally sufficed. However, busier roads, particularly those close to power stations and briquette factories where rail traffic was heaviest, necessitated the erection of over-bridges.

All 15 Bord na Mona bridges carrying public roads over peat railways are of reinforced-concrete and most carry date plaques embedded in their parapets. The earliest recorded plaque dates from 1954 and is on a skew bridge carrying the Rochfortbridge-Rhode road over a line serving the Derrygrennagh group of bogs (fig 3.34).


Fig 3.34 ‘Bord na Mona 1954’ on road bridge near Rochfortbridge (003-006).

Although the format of the inscription is the same on all bridges (builder and date), the typographical design appears to vary from decade to decade (fig 3.35).

Fig 3.35a *(left):* 1963 plaque, Newtown Td (011-038). Fig 3.35b *(middle):* 1981 plaque, Clonfinlough Td (006-007). Fig 3.35c *(right):* 1998 plaque, Ballykilleen Td (019-022).

In two instances, the main Dublin-Galway railway is carried over peat extraction lines. The one at Clonyquin was built in the 1950s and comprises a conventional triple span cast-in-situ reinforced concrete deck (033-010). The other is at Bellair and was erected in the late 1980s by Iarnród Éireann on behalf of Bord na Mona to give access to Bellair Bog. For speed of erection, the abutments were built as sheet metal piles backed with mass concrete, over which were set two pre-cast reinforced-concrete L-profile beams (fig 3.36). Metal footplates are supported on RSJs along each side.

Fig 3.36 Mainline railway bridge over peat railway at Bellair (007-023).

3.10 Iarnród Éireann bridges

Since 2000, Iarnród Éireann has been engaged in the upgrading of the Dublin-Galway line in order to achieve faster running times and improved safety. As part of this programme, a number of bridges have been upgraded and new ones erected in place of level crossings.

Upgrading, where it has occurred, usually entails a new deck on the original abutments. Pre-cast reinforced-concrete beams are used for ease and speed of construction (fig 3.37).

Fig 3.37 Replacement inverted U-beam deck on road bridge, Ard Td (026-005).

The construction of a level crossing in order to carry a road over a railway is obviously much cheaper than erecting a bridge. Because of the danger of collision with vehicles, bridges were employed on public roads and level crossings generally limited to farm accommodation tracks. However, because of the increase in speed and frequency of inter-city trains in recent years, the risk of collision at level crossings has increased to such an extent that they are now being replaced with over-bridges.[10]

Three such bridges were identified in this survey, all on the main Dublin-Galway line. To ensure minimal interruption to services, all used pre-cast components for speed of erection – pre-stressed concrete beams for the deck and polygonal retaining panels on the side walls (fig 3.38).

Fig 3.38a *(left):* Accommodation bridge at Clonyquin Td; note pre-cast concrete units on abutments and side walls (033-015). Fig 3.38b *(right):* Rail-over-road bridge west of Clara (008-062).

4. BRIDGES OF HERITAGE SIGNIFICANCE

[10] An early example of a bridge replacing a level crossing occurred at Clonygowan (026-012) circa 1900 (fig 2.14c).

On the basis of the field and documentary evidence, it has been possible to assess the heritage significance of each surveyed bridge using criteria devised by the National Inventory of Architectural Heritage. Those of special significance can thus be highlighted and recommended to the planning authorities for statutory protection in order to preserve those features which make them of interest.

4.1 Evaluation criteria

The criteria used by the NIAH to assess the heritage significance of structures and buildings are: Architectural, Historical, Archaeological, Artistic, Cultural, Scientific, Technical and Social.[11] For bridges, the four most pertinent criteria are Architectural, Archaeological, Historical, and Technical. Three supplementary criteria which can enhance a site's heritage merit have also been used in evaluating Offaly's bridges: Group value, Setting and Uniqueness/Rarity.[12]

Architectural interest can arise from many factors such as mass, scale and composition (e.g. regularity of the arches or becoming wider and higher towards centre), the use and treatment of materials (e.g. masonry of contrasting colours, coursing and surface finish), and the presence of decorative elements (e.g. rusticated voussoirs and string courses, fig 4.1a). Where alterations or additions have been made, they should not detract from the bridge's original character.

Archaeological interest arises if a bridge was erected before 1700, or is of later date but incorporates earlier material (fig 4.1b).

Historical interest derives from what a bridge may tell us about the past. It may reflect the style and construction materials of the period (e.g. contrast the plainness of 18th century bridges with more elaborate 19th century ones), or illustrate a phase in the development of that bridge form, whether it be an early example or its most evolved state. Such interest may be enhanced by the presence of alterations (e.g. widening reflects growing traffic levels; fig 4.1c), an association with a particular builder (e.g. Grand Jury, canal and railway bridges) and by the presence of a plaque bearing its builder's name and date. Bridges illustrative of major drainage schemes are also of note (e.g. on the Brosna in 1850s and 1950s).

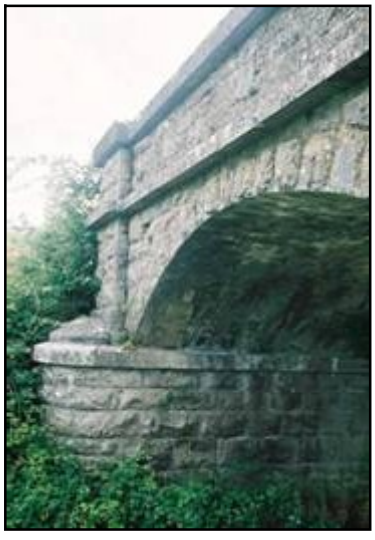


Fig 4.1a *(far left):* Architectural finesse on bridge at Kinnafad Td (004-004).
Fig 4.1b *(middle):* 1649 plaque in later bridge at Birr Demesne (035-061).
Fig 4.1c *(above):* Soffit breaks illustrate the progressive widening of this road bridge at Birr (035-061).

[11] NIAH, 2004. *Architectural Heritage Protection: Guidelines for Planning Authorities*, p.24 (Dublin: Department of the Environment, Heritage and Local Government).

[12] Under NIAH guidelines, Group value and Setting fall within the Architectural category, and Uniqueness/Rarity under Historical. For the purposes of this evaluation, they have been kept separate.

Technical merit may stem from a bridge being an exemplar of the engineering practice of its day, from the presence of a particular structural feature (e.g. skew arch with masonry soffit blockwork), and from the use of specific materials in its construction (e.g. wrought-iron, brick, composite beam-and-concrete decks).

Group value: a bridge's interest may be enhanced by proximity to other built forms to such an extent that the group's heritage interest is greater than that of its component elements (fig 4.2a).

Setting: a bridge can make a positive contribution to its surroundings, whether it be a landscape in a rural area or a streetscape in an urban area (fig 4.2b).

Uniqueness and Rarity are relevant in those cases where few examples of the once typical now survive and also where very few examples were built in the first place (fig 4.2c).



Fig 4.2a *(left):* This store, bridge and quay form a pleasing combination at the 33rd lock on the Grand Canal, Ballingowan Glebe Td (014-032). Fig 4.2b *(middle):* Millbrook Bridge is a striking landscape feature over the Figile River (027-003). Fig 4.2c *(right):* Road bridge over Blackwater at Clonever Td – a rare example of a concrete block arch, in this case a 1920s rebuild (013-015).

In practice, many bridges will exhibit a combination of such attributes. For example, the suspension bridges in Birr and Kinnitty Demesnes are of architectural, historical, technical, group, landscape, and uniqueness/rarity interest (035-030, 036-023 respectively).

4.2 Rating

Levels of significance can range from Record Only (i.e. not significant), through Local, Regional and National, to International. On the basis of heritage merit, recommendations can then be made regarding the statutory protection of significant examples

Where only a few criteria are met, ***local*** rating is generally most appropriate. It is arguable whether such structures should be afforded statutory protection. NIAH policy is to protect structures only if they have a regional rating and above. However, local authorities are at liberty to protect such structures and in many cases have done so. For the purposes of this report, locally rated bridges are not recommended for protection. However, any development applications relating to such bridges should be mindful that they have some feature (or features) which place them above the ordinary.

Where a number of criteria are met, or there is something very special about a structure, then a ***regional*** rating is appropriate. ***National*** and ***International*** ratings are more problematic in that there is, as yet, no extensive body of comparative material. Some regional bridges may in fact be national. However, even if incorrectly rated, they must be accorded the same level of protection and planning control enforcement.

The rating of rail- and canal-related bridges raises the issue of which ones to choose for protection. Along any particular railway line, most bridges are of identical design and may also be seen in contiguous counties through which the line passes. Only bridges which are particularly special have therefore been rated here as regionally significant. Although they may be architecturally identical to ones of local significance, their interest is enhanced because of

group value arising from their spatial proximity to a station and/or because they are strong landscape features.

Most road-over-canal bridges were also found to be virtually identical. Unlike railway bridges, however, such bridges are rare at a national level and also earlier, so they have all been given a regional rating. Only where their character has been diminished, e.g. due to the removal of the original parapets, have they been downgraded to local significance.

4.3 Statutory protection

Sites of special heritage significance may be accorded statutory protection against unauthorised development under the Planning & Development Act 2000, and under Section 12 of the National Monuments (Amendment) Act 1994.

Record of Protected Structures

The Planning Act generally relates to sites which are still in use or which it would be beneficial to adaptively reuse. Such sites are listed in the Record of Protected Structures (RPS) which is maintained by each local authority, in this case Offaly CC, Birr UDC and Tullamore UDC. There are currently 21 bridges in their respective Records:

OFIAR number	RPS number	OFIAR number	RPS number
008-008	Offaly 083	032-006	Offaly 043
008-040	Offaly 078	035-008	Birr 002
013-001	Offaly 330	035-011	Birr 237
014-005	Offaly 037	035-030	Birr 216 *
016-008	Offaly 312	035-036	Birr 216 *
017-004	Tullamore 128	035-061	Birr 216 *
017-015	Tullamore 127	036-023	Offaly 271 *
017-017	Tullamore 055	036-024	Offaly 271 *
017-041	Tullamore 016	036-026	Offaly 271 *
017-078	Tullamore 136	042-014	Birr 357
018-010	Offaly 127		

Bridges marked with an asterisk are theoretically protected as they lie within the grounds of Protected Structures.

Record of Monuments and Places

The National Monuments Act is usually applied to disused monuments of pre-1700 date which merit preservation in their existing state and are probably not reusable. Such sites are listed in the Record of Monuments & Places (RMP) which is maintained by the Department of Environment, Heritage and Local Government. There are currently four bridges in the Co Offaly RMP.

OFIAR number	RMP number	OFIAR number	RMP number
008-013	OF008-013---	032-006	OF032-026---
032-001	OF032-00702-	035-049	OF035-035---

4.4 Recommendations for statutory protection

Local significance

A total of 92 sites have been evaluated as being of local heritage significance (appendix 3.1). Five of these are currently included in the RPS or RMP. Although there is no reason why they should not remain protected, it is suggested that their current status be re-evaluated in the light of this evaluation. These five sites are:

OFIAR number	RPS number	OFIAR number	RMP number
017-041	Tullamore 016	032-001	OF032-00702-
017-078	Tullamore 136	035-049	OF035-035---
042-014	Birr 357		

Regional significance

A total of 89 bridges have been evaluated here as falling within this category (appendix 3.2). Of these, 14 are currently in the RPS (10 explicitly and four because they are within the curtilages of Protected Structures), and one is in the RMP. The following 78 sites are recommended for consideration as additions to the RPS. They include the four bridges which are theoretically protected due to their geographical relationship to Protected Structures. Unfortunately, misunderstandings can sometimes arise regarding a structure's protected status where it is not explicitly cited in the listing schedule. It is therefore recommended that such bridges be listed explicitly to underscore their heritage worth.

004-001	011-013	016-012	017-029	031-003
004-004	011-015	016-013	017-032	033-005
007-004	012-013	016-020	017-034	033-006
007-009	012-019	016-021	017-112	035-002
008-014	012-020	016-022	018-002	035-028
008-027	013-005	016-023	018-005	035-036
008-033	013-018	016-029	019-003	035-061
009-009	014-018	016-052	019-008	036-006
009-010	014-022	016-054	022-006	036-024
009-011	014-024	017-002	022-008	036-025
009-012	014-026	017-003	022-010	036-026
010-009	014-030	017-005	022-013	038-002
010-019	014-032	017-016	025-006	038-003
011-007	015-012	017-022	027-003	042-003
011-009	015-047	017-026	029-005	
011-010	016-011	017-028	029-013	

The majority of these bridges are canal related (mostly road-over-canal). Significant ones of this type include Blundell's Aqueduct (012-019, fig 2.3b), the Silver River aqueduct on the Kilbeggan Canal (009-009, fig 11a), and Charleville and Huband's aqueducts (016-020, 016-021) on the Grand Canal. Several mid 19th century railway bridges are also highlighted where they are in proximity to railway stations. Architecturally impressive mid 19th century bridges are included, such as Ballycumber Bridge (007-009, fig 3.15) and the shallow skew Carrig Bridge

Fig 4.3 Carrig Bridge (036-006), a shallow skew span Board of Works construction of 1852 over the Camcor River.

(fig 4.3). The list also includes good examples of mid 20th century bridges such as the one at Ferbane (014-030, fig 2.16b) and its contemporary at Clonbulloge (019-008, fig 3.26). Unusual structures are also noted, such as the metal girder railway bridges over the Little Brosna (042-003, fig 2.13a) and the Brosna at Tullamore (017-002, fig 2.13b), and Garryduff Bridge over the Shannon near Shannonbridge (013-018, fig 3.32b).

National significance

Six sites have been identified as being of national significance (appendix 3.3); only three are currently in the RPS or RMP. The prehistoric causeway across the Shannon at Clonmacnoise (005-003) is recommended for inclusion in the RMP. Banagher Bridge over the Shannon (021-006; fig 4.4a) and Macartney's Aqueduct over the Silver River (023-003; fig 3.7) merit inclusion in the RPS. In addition, the wire suspension bridge over the Camcor at Kinnitty Castle (036-023; fig 4.4b) merits explicit listing in the RPS even though it lies within the curtilege of the castle, a Protected Structure.

Fig 4.4a *(left):* Banagher Bridge, over the Shannon (021-006). Fig 4.4b *(right):* Suspension footbridge at Kinnitty Castle (036-023).

International significance

Only one internationally significant bridge has been identified – the wrought-iron suspension footbridge over the Camcor in the grounds of Birr Castle (035-030; fig 2.4c). In theory, it is a Protected Structure as it lies within the curtilege of the protected castle. However, to ensure full awareness of its protected status, explicit inclusion in the RPS is recommended.

5. ISSUES

The upgrading, maintenance and repair of a bridge can greatly influence the retention, or otherwise, of its intrinsic heritage character. Its continuing usefulness will also have a bearing on long-term survival. The ecological dimension of bridges is another pertinent issue, especially in relation to bird and bat conservation. These issues are considered in this chapter, each section being followed by suggestions for retaining the special character of bridges of heritage merit.

5.1 Bridge upgrading

The rapid growth in traffic since the second half of the 20th century has necessitated the upgrading of many bridges by widening, strengthening and straightening.

Bridge widening

The wider the bridge, the greater the volume of traffic which it can carry. Widening usually entails the extension of the entire bridge either up- or downstream, or the addition of cantilevered footpaths so that the original deck can be dedicated exclusively to vehicles.

Nineteenth century widenings were usually masonry replications of the existing arches, both in number and profile. Unusually, concrete arch extensions have also been used in several instances, e.g. Mucklagh Bridge, Charleville (fig 2.10).

As with bridge replacements, flat reinforced-concrete slabs and beam-and-slabs have become the norm since the mid 1900s. On small streams, concrete pipes have replaced stone culverts and Armco pipes have been used on larger watercourses (fig 5.1).

Fig 5.1a *(left):* Corrugated metal sheeting was used as falsework for this concrete slab extension to Gormagh Bridge over the Silver River (009-004). Fig 5.1b *(middle):* Pre-cast concrete beams were added along both sides of the existing concrete slab deck of this road bridge over the former Shannon Navigation at Clonahenoge Td (029-003). Fig 5.1c *(right):* The slab deck of Little Bridge, Kilmaine Td, was widened with a concrete pipe (036-003).

Cantilevered footpaths have been added to two canal bridges and at Barrow Bridge, Portarlington, cantilevering and widening have both been employed to cope with the growing volumes of pedestrian and vehicular traffic (fig 5.2).

Fig 5.2a (l*eft):* Plunkett Bridge with its cantilevered footpaths and replacement railings (015-015). Fig 5.2b *(right):* Cantilevered concrete footpath, Barrow Bridge (034-005)

A consequence of such widening is that part or all of one face of the existing bridge will be hidden once the addition is made. If this face is different from the one which remains visible, as is often the case with multi-phase bridges, then vital historical information regarding the bridge's development will be lost, particularly if the soffits has also been gunited (see below). The result is often a diminution of heritage significance.

Unaltered bridges of regional heritage merit which are narrow and lie on main roads are especially vulnerable to future widening and potential loss of character.[13] Three such bridges have been identified in this survey:

- Kilcumber Bridge (019-003): a twin-arch bridge of regional heritage merit which carries the Edenderry-Clonbulloge regional road over Figile River but is only 4.72m wide (fig 5.3a).
- New Bridge (029-013): a five-arch bridge of regional merit which carries the regional road between Borrisokane and Cloghan over the Little Brosna at the county boundary. It is 5.20m wide between its parapets (fig 5.3b).
- Riverstown Bridge (035-028): a five-arch bridge of regional significance which carries the national secondary road between Borrisokane and Birr over the Little Brosna at the county boundary. It is only 5.15m between its parapets and is usually negotiated turn about by the traffic approaching from either end, i.e. a self-regulating single-lane bridge (fig 5.3c).



Fig 5.3a *(left):* Kilcumber Bridge. Fig 5.3b *(middle):* New Bridge. Fig 5.3c *(right):* Traffic stand-off at Riverstown.

One solution to the problem of narrow bridges is to be found at the bridge at Shannonbridge which is just 5.17m between its parapets (fig 5.45a). Here, the traffic flow rather than the bridge has been changed by the simple expedient of traffic lights at both ends, thus reducing it to a single carriageway. An alternative is to realign the road and bypass the existing bridge completely. This has happened in three instances - New Bridge, Newtown Td (002-002), Kishawanny Bridge, Edenderry (012-004), and Mucklagh Bridge (fig 5.4b).


Fig 5.4a *(left):* Single file traffic on Shannon Bridge (013-001). Note also the pedestrian refuges along one side.
Fig 5.4b *(right):* The new Mucklagh Bridge (016-053) on a realigned section of the Tullamore-Birr road just upstream from the old bridge (016-029).

[13] For the purposes of this analysis, a main road is defined as a national primary road, national secondary road, or regional road (i.e. those coloured green, green-and-white, and red respectively on the OS *Discovery* series maps). Third-class roads (coloured yellow on the maps) and unclassified one are regarded as minor roads.

Deck strengthening

It is testimony to the masonry arch that so many continue to fulfil their role today despite the imposition of ever increasing dynamic loads resulting from faster and heavier vehicles.

In some instances, deck replacement has been necessary. Mid 20th century replacements are generally composites of metal girder/ concrete slab composites, whereas later ones are invariably reinforced-concrete slabs, usually over pre-cast beams.

Guniting, which is the spraying of masonry arches with concrete, is another common strengthening technique, particularly where the soffit is of split stone rubble as opposed to dressed blocks. Unfortunately, any soffit breaks indicative of earlier widening are completely obscured as a result (fig 5.5). Any unaltered masonry bridge along a major road is vulnerable in this respect.

Fig 5.5 Gunited arch soffit, Riverstown Bridge (035-028).

Road straightening

Because of the relatively high cost of bridges in relation to their associated roads, orthogonal spans (i.e. which cross an obstruction at right angles) are much more common that skew ones (which cross at an angle). This is especially so with road bridges over canals and railways, necessitating doglegs on their approaches. Bridges over canals also tend to be strongly humped.

Of the eight cases where main roads cross the Grand Canal, three of the original bridges have been completely replaced. Kilbeggan Bridge, Tullamore (017-016) was the first to go, in 1930, undoubtedly because of the high volume of traffic in the town (fig 2.9a). The other two replacements – George's Bridge (012-021) and Noggus Bridge (fig 5.6) - are much later and employ flat concrete spans, skewed to the canal so that the road remains straight. A fourth bridge – Cox's (017-015) - has had cantilevered footpaths added and its parapets replaced with railings.

By contrast, in only one of the 24 instances where minor and unclassified roads cross the canal has a replacement been erected (Becan's Bridge, 016-014). Moreover, only in the case of Plunkett Bridge has cantilevered footpaths and railings been added (fig 5.2a).

These statistics indicate that the four remaining unaltered canal-related bridges along main roads - Rhode Bridge (011-013), Colgans Bridge (012-020), Gallen Bridge (014-022), and L'Estrange

Fig 5.6 Noggus Bridge, a late 1900s replacement skew road bridge over the Grand Canal (014-023).

Bridge (022-010) – are extremely vulnerable to future alteration or replacement.

Turning to rail-related bridges, once a railway line is closed, the bridges along it are vulnerable to removal due to road widening and straightening schemes. Of a total of 17 rail-over-road and road-over-rail bridges on the defunct Banagher, Clara, Edenderry and Parsonstown lines, eight have been completely demolished and a further three have had their decks removed (fig 5.7). Only six original bridges are therefore unscathed, a survival rate of 35%.

Fig 5.7 Only the abutments of this girder span survive on the Banagher line at Ballingowan Glebe (014-010).

By contrast, of the 40 bridges on the operational Athlone and Limerick lines, none has been demolished, 11 have had their decks replaced, and two have had their decks removed. The survival rate of intact original bridges is thus 73%, more than twice that of those on defunct lines.

Although rail-related bridges on defunct lines are more at risk of removal, the likelihood of this happening is lessened by the fact that all but two lie on minor roads. The level of traffic may not therefore justify their demolition.

The two survivals on main roads are at Clara and Sharavogue. At Clara (008-008), the regionally significant bridge spans the road as a single arch. Fortunately, it is sufficiently wide, at 8.86m, to cause no obstruction. At Sharavogue (038-002), the regionally significant skew arch bridge carries the regional-class Shinrone-Birr road over the disused Roscrea-Birr railway. However, it is unlikely to be removed as it is a continuation of a perfectly functional road-over-river bridge.

Recommendations

- Due regard should be given to bridge's heritage value when contemplating upgrading works. Diminution of heritage character should be weighted against development gain and alternative options considered which will alleviate any negative impacts (e.g. traffic regulation, erection of separate pedestrian footbridges, or complete bypassing).
- Because of the possibility of loss of special character when a bridge is upgraded, it is recommended that a record of the existing structure be made before any alterations are made. At the very least, this record should include a photographic survey (with scale poles where possible). Ideally, measured drawings should also be made (elevations of both faces, plan and cross section. Any notable feature, such as embellishments and soffit breaks, should also be recorded.
- Where plaques are present, these should be retained in the new work as a historical reminder of what existed previously.
- Any substantial additions or rebuilds should be accompanied by a commemorative plaque. This will add historical value to the bridge when reassessed by future generations.

5.2 Repairs and maintenance

Bridges with any metal content in their structural elements, whether metal girders or reinforcing bars in concrete, are prone to rusting. The former can be protected by painting and galvanising. More problematic is concrete spawling on the latter caused by water penetrating the skin of the concrete and causing the reinforcing bars to rust and expand. Fortunately, however, this is not yet a major problem with the county's reinforced-concrete bridges.

Bridge parapets are particularly vulnerable to damage through vehicle impact (fig 5.8). Where this has occurred on masonry parapets, the resultant gap is often been unsympathetically infilled with concrete blocks.

Minor impacts are especially frequent in the case of road bridges over canals. Accommodation bridges are especially narrow and difficult to negotiate by agricultural machinery. The problem is exacerbated when heavy goods vehicles are forced to break in order to take dogleg turns. Not surprisingly, Waterways Ireland have long been preoccupied with rebuilding dislodged parapet terminal piers and tumbled copings.

Fig 5.8 Damaged parapet at Derrygolan Bridge (009-007).

Rampant vegetation overgrowth can be an issue at some bridges (fig 5.9a). Although a mantle of ivy provides shelter for birds and insects (section 5.5), unchecked growth can lead to the appearance of shrubs and trees, the roots of which can dislodge stones (fig 5.9b).

Fig 5.9a *(left):* Ballyboughlin Bridge (008-003) is almost totally obscured by ivy, making any structural or architectural appraisal virtually impossible. Fig 5.9b *(right):* Dislodged masonry at Lehinch Bridge (008-011).

Although masonry bridges were originally built using lime mortar, their repair and repointing is usually carried out using a cement-sand mix. This can significantly diminish the bridge's visual character, particularly where it is applied in a slapdash and heavy-handed manner. Moreover, the coursing of any introduced stonework often does not accord with the original layering which was often done in 45-60cm stages. This is particularly so with modern rubble stonework which is usually laid entirely at random.

Recommendations

- Vegetation overgrowth should be monitored and not allowed to progress to the growth of shrubs and trees. Where the latter has already occurred, the plant should be carefully removed by its roots and any dislodged stonework rebedded.
- All repair materials should be similar to the original in size, colour, dress and coursing.
- Mortars based on natural hydraulic limes (e.g. NHL 3.5) are increasingly being used in modern conservation, with no admixture whatsoever of cement. Serious consideration should be given to employing this material when repairing masonry and brick bridges, particularly those of heritage significance. Not only is it more in keeping with the original mortar, it also allows the structure to breath, expand and contract without hairline cracking along joints.

- Given that so many different organisations are responsible for bridges – Bord na Mona, Iarnród Éireann, National Roads Authority, Offaly CC, Office of Public Works, and Waterways Ireland - it is important that a coordinated policy be adopted by all parties in the repair and maintenance of bridges of heritage significance.

5.3 Attachments to bridges

A significant number of road bridges encountered in this survey have water pipes attached to their outer faces. These are usually carried on brackets affixed to the spandrels and parapets, or supported on the tops of the piers. In those cases where roads cross rivers, such additions will usually go unnoticed by the road user. With canal bridges, however, they are a very obvious disfigurement to those using the waterway and its towpath (fig 5.10).

Fig 5.10 Water pipe affixed to Rhode Bridge on the Grand Canal (011-013).

Recommendations

- Waterways Ireland's policy is to bury service pipes under the road when the opportunity arises to relay them and it is feasible to do so. A similar policy should also be considered by Offaly CC in the case of bridges of heritage merit.
- Where, feasible, no new attachments should be made to the faces of bridges of heritage significance. In cases where there is insufficient depth between the road and extrados of the span (i.e. its upper, hidden surface), but sufficient width between the parapets, it may be possible to bury the pipe in a raised footpath.

5.4 The reuse of defunct bridges

Twenty substantially complete but disused bridges have been identified during the course of this survey. Just over half of them are railway-over-river bridges on disused mainline and Bord na Mona railways. Some are in, or have reverted to private ownership and the resources needed for their upkeep may not be available, particularly with metal bridges which require regular maintenance. Because they no longer fulfil their original role, their long term survival is by no means assured. This is a particularly problematic in the case of those defunct bridges which are of heritage significance.

There are three significant bridges along the Kilbeggan Canal, notably the aqueduct over the Silver River (009-009; fig 3.11a). Although the canal is now dry, the towpath is still used as a recreational amenity. State ownership, in the form of Waterways Ireland, suggests that the future of these bridges is secure, particularly if the canal is ever rewatered.

More problematic are those bridges owned by Bord na Mona, some of which are identified in this survey (fig 5.11). Although the majority are of no special heritage significance, all are an integral part of the railway network which is now the only feasible means of accessing many of these remote bogs. Although the future of these bogs after the peat has been exhausted is outside the scope of this report, the bridges should be a material consideration with regard to future public access.

Fig 5.11 Defunct bridge carrying peat railway over Yellow River at Derrygreenagh (003-005).

Several significant bridges are privately owned, notably the suspension footbridges in the grounds of Birr and Kinnitty castles (035-030 and 036-023). Because of the nature of their construction, in particular the wrought-iron catenaries, both will be very expensive to conserve and maintain.

Both these bridges are at a reasonably manageable scale, unlike Ardara Bridge, in the grounds of Cadamstown House (032-006; fig 3.25). Here the medieval bridge over the Silver River is essentially complete, but structurally highly unstable due to extensive damage by tree roots. Public finance is certain to be a necessary prerequisite for any conservation work.

There are two defunct railway bridges of regional heritage merit – the twin brick arch span over the Brosna near Ferbane (014-018; fig 2.8), and the metal lattice span which carried the Roscrea & Parsonstown Railway over the Little Brosna at Glasderry More (042-003; fig 2.13a). Both are worth retaining in their own right, and also have value in any future development of public footpath networks in these areas.

Recommendations

- All peat railway bridges owned by Bord na Mona should be afforded material consideration in any studies regarding the future use of abandoned bogland.
- Every effort should be made to find new uses for defunct bridges.
- Private individuals should be encouraged to maintain bridges of heritage merit and given practical support in the form of conservation advice and finance.

5.5 Bridge ecology

A 12-year long ecological study in counties Cork and Waterford by Patrick Smiddy and John O'Halloran clearly demonstrated the vital role of bridges in conserving wildlife. They were found to be important nesting and roosting sites for dippers and grey wagtails. Where ivy was present, wrens were often observed as well. Bridges were also a vital roosting habitat for bats and facilitated access across wide stretches of water for small mammals such as voles and squirrels.

Masonry bridges were found to be more appealing to wildlife than modern ones because of the higher frequency of ledges, holes and crevices, and more varied vegetation which provided both shelter and food.

Recommendations

Smiddy and O'Halloran's report concluded with general and specific recommendations, all of which merit reproduction here:

General

- Local authorities should liaise with National Parks and Wildlife Conservation Rangers before bridges are due for refurbishment and maintenance works.
- Bridges located within Natural Heritage Areas or Special Areas of Conservation should be surveyed for bats and included in management plans for such areas.

Bats

- All masonry arch bridges should be surveyed both by day (torch and optical equipment) and night (bat detector) to determine whether bats are present.

- Bridges should be surveyed for bats before any maintenance work is carried out, even if a previous survey showed no bats to be present.
- Efforts should be made to retain crevices being used as nursery sites by bats, and no maintenance or repair works should be carried out at such sites during the breeding season (June and July).
- Artificial bat roost units should be fitted to masonry arch bridges that have been gunited in the past, as well as to bridges due for pressure grouting in the future. Artificial roost units should also be fitted to all new concrete bridges in order to assist the future conservation of bats.
- Broad-leaved trees should be maintained and/or planted in the vicinity of bridges (where possible) in order to enhance feeding areas for bats.
- Information leaflets should be made available to local authorities and others with responsibility for bridge maintenance to inform them of the legal protection afforded bats and to outline guidelines and recommendations in relation to bridge maintenance.
- Training seminars should be held to inform bridge engineers on bat conservation methodology, and to inform wildlife personnel on the need to establish a uniform system of surveying and recording throughout the country.

Birds

- Holes and open ledges on bridges suitable as nesting sites for dippers and grey wagtails should be retained in so far as possible during bridge maintenance.
- Nest boxes for dippers (open-fronted design, 300 mm square) should be fitted to bridges with no suitable holes or ledges, but only on watercourses with flowing water and rock substrates.
- Wooden platforms about 200 mm wide should be fitted to bridges as nest sites for grey wagtails.
- Vegetation, especially ivy, should be retained on bridges in so far as possible without compromising the safety of the bridge.

6. CONCLUSIONS

Although this project has focused primarily on the identification of bridges of industrial heritage merit, there are several aspects which would be worthy of additional work. These relate to (1) the significance of bridge names, and (2) the integration of the data gathered during the course of this project into the bridge database held by Offaly CC.

Bridge names

A total of 229 bridge names were recorded at 217 sites (some bridges have more than one name). These names could be grouped as follows (with examples):

- Administrative Barony Bridge
- Age New Bridge; Old Bridge
- Local feature New Mill Bridge; Pound Bridge; Weir Bridge
- Materials Metal Bridge; Wooden Bridge
- Other Sheep Bridge; All Saint's Bridge
- Personal Blundell Aqueduct; Whelan's Bridge
- Place Aghagurty Bridge; Clara Bridge
- River Brosna Bridge; Shannon Bridge
- Type Chain Bridge; Draw Bridge
- Size Little Bridge
- Unknown Glash Bridge; Rebel Bridge

These names are listed by category in Appendix 4. Place names (generally townlands) make up 48% of the total and personal names 21%. Of particular interest and deserving of further research are those bridges named after people and ones which have changed name. Those names which have not yet been categorised would also merit further analysis.

Integration of survey with Offaly CC bridge database

Cross referencing of the OFIAR database with the bridge database held by Offaly CC indicates that there are a number of bridges in the former which do not appear to be in the latter – in the case of road-over-river bridges, for example, 55 could not be identified in the Offaly database. A review and updating of the latter should therefore be considered in order to make it more comprehensive and also to ensure that any bridges of heritage merit are included.

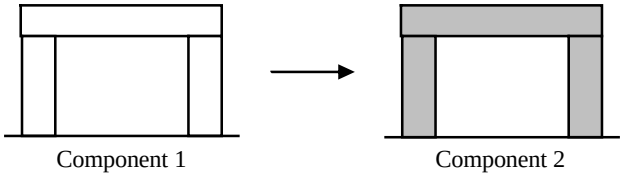
In conclusion, this report presents the results of the first comprehensive industrial archaeological survey of Irish bridges at a county level. Although the majority were found to be 18th and 19th century road bridges, a significant number of other types of bridge were also found, notably those related to canals and railways. Comprehensive identification and fieldwork strategies have ensured that the sites included in this survey are a representative sample of Co Offaly's bridge stock. Because a wide range of attributes have been recorded systematically for each bridge, it has been possible to compare and contrast various types of bridge and gauge their chronological development, and the reasons behind this.

Each bridge recommended for statutory protection, or which is already protected, clearly has its own intrinsic heritage value. Taken together, such bridges also provide reference points which not only illustrate general advances in bridge construction and design, but also reflect the evolution of Co Offaly's transport network and changes in its man-made landscape.

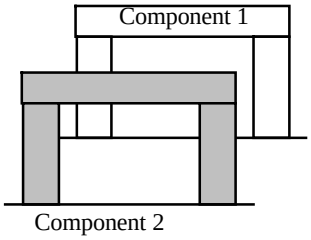
APPENDIX 1: BRIDGE COMPONENT NUMBERING

In some instances it was advantageous to differentiate structural elements within a bridge site by their component number. The way in which these numbers were allocated are as follows:

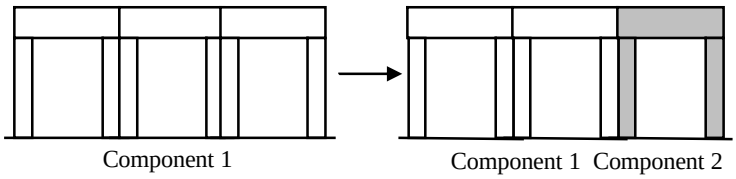
1. The bridge has been replaced in its entirety.



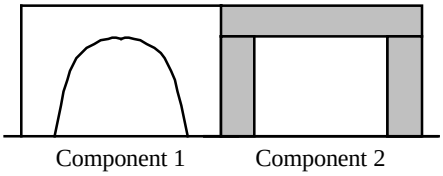
2. The bridge has been bypassed by one built alongside it.



3. One wishes to differentiate a section within a bridge which has been completely rebuilt or newly added, e.g. where a river has been redirected and an additional arch erected over its new course.

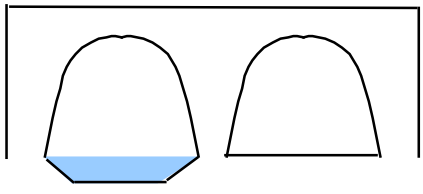


4. One wishes to differentiate a different structural form within the same bridge, e.g. a masonry road bridge which continues as a metal girder span over a river.

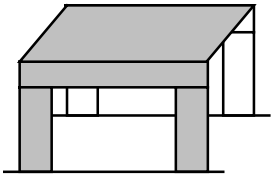


In general, the following bridge forms have the *same* component number:

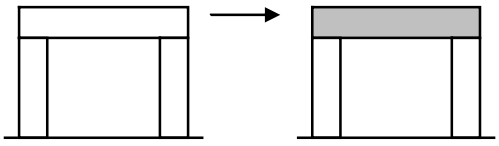
1. It serves more than one function but is of the same basic structural form, e.g. a single arch railway over a stream *and* footpath, or a multi-arched road bridge over a river *and* footpath.



2. It has been widened.



3. The deck has been replaced and has been rebuilt on the existing abutments.



APPENDIX 2: EXAMPLE OF BRIDGE RECORD SHEET

Site No OFIAR- 026-007 **Survey date** 29/7/2004

Type	Arch ✓	Beam	Suspension	Other	
Survival	Complete ✓	Sub remains	Some remains	Traces	Site
Condition	Excellent	Good ✓	Fair	Poor	N/A
	Note vegetation/ traffic damage etc: ivy				

Original function	Road ✓	Foot	Rail	Canal	River	***over***	Road	Rail ✓	Canal	River		
Present function	Road ✓	Foot	Rail	Canal	River	***over***	Road	Rail ✓	Canal	River	Disused	N/A

Plan	Straight ✓	Curved	Dogleg approach	Skew crossing ✓		
Elevation	Flat	Angled	Slight curve	Curve ✓	Humped	Ramped approaches ✓

Arches	***Number***	Normal use 1	Flood arches	Mill arches			
	Height	Regular	Irregular	Rising to centre			
	Span	Regular	Irregular	Wider to centre			
	Shape	Semicircular	Segmental	Gothic (2-centre)	Semi-elliptical ✓		
	Soffit	Stone - rubble	Stone blocks ✓ dressed	Brick	Orthogonal	Skew ✓	Gunited
	Other	Falsework holes	Falsework projects	Soffit breaks			

Materials: random rubble, squared blocks, finely dressed blocks, ashlar
Dressing: blank = none, roughly dressed, dressed, finely dressed, ashlar, rusticated ***Coursing:*** random, coursed, brought to courses
Embellishment: margined edges to each stone, margined edge to component, vee joining, voussoir stepping

	Y/N	Material	Dressing	Coursing	Embellishment
Abutments	Y	L'stone blocks	Roughly faced	Regular	Rusticated quoins/ margined edges
Piers	N				
Cutwaters - upstream	N				Profile/caps
Cutwaters - downstream	N				Profile/caps
Buttresses to abutments	N				
String course - arch	N				
Arch ring	Y	Ditto	Rusticated/margined edge		Keystone?
Spandrels	Y	Ditto	As abutments		
Parapet	Y	Ditto	Roughly dressed	Irregular	
Parapet coping	Y	Ditto	Finely dressed	Irregular	
String course - parapet	N				
Parapet terminal piers	N				
Wing walls	Y	Squared l'stone rubble		Irregular	Parallel, (angled) curved, 90°
Wing wall coping	Y	L'stone flags			
Wing wall terminal piers	N				

Other contemporary features, e.g. pedestrian cutwaters, lamps, plaques, datestone, facings to banks, paving to bed, downstream weir

New features, e.g. pipes, cantilevered sides, repairs, cutwater footings, facing to banks, bats

Dimensions (m): Span(s) 9.21m (orthogonally) Between parapets 6.45m

Interest categories	Architecture ✓	Technical	Landscape	History

bridge survey form (14 June 2004)

APPENDIX 3: HERITAGE EVALUATIONS

These data are grouped by significance rating (local, regional, national and international), and by OFIAR number within each site. Under each site the following data are recorded:

- Name (if any)
- County
- Townland(s)
- Town (if any)
- Component number, type, function, industrial category, and context
- National Grid
- Summary description of site
- Appraisal
- Rating
- Representative photograph

Appendix 3.1

Local heritage significance

OFIAR-003-005

County	Offaly							
Townland	Derrygreenagh							
Component	1	Bridge (rail/river)	Railway	Fuel & power production	Industry	Grid	249971	236260
Summary	Later 20th century triple-span skew metal beam bridge carries Bord na Mona peat railway over Yellow River. Serviced Derrygreenagh Group of Bogs.							
Appraisal	Although relatively modern, this is the most substantial of Bord na Mona's rail-over-river bridges in Co Offaly (excepting Garryduff Bridge, over the Shannon). It is a historical reminder of the once extensive peat working in this area. Of local heritage interest.							
Rating	Local							

OFIAR-003-006

County	Offaly							
Townland	Derrygreenagh							
Component	1	Bridge (road/rail)	Railway	Fuel & power production	Industry	Grid	249446	238084
Summary	Skew concrete road bridge of 1954 erected over peat railway by Bord na Mona. The latter services Derrygreenagh Group of Bogs.							
Appraisal	This bridge is typical of the style of Bord na Mona road bridges of this period. Also of local historical interest as the earliest attested Bord na Mona bridge in Co Offaly (of those with datestones). Local heritage significance.							
Rating	Local							

OFIAR-004-003 **Sheep Bridge**

County	Offaly; Meath							
Townland	Clonmore (Warrenstown Bar); Killowen; Co Meath							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	258179	238618
Component	2	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	258179	238617
Summary	Site of 18th/early 19th century road bridge road bridge over Yellow River at county boundary. The present bridge is a c.1850 replacement by the Board of Public Works as part of Boyne drainage scheme.							
Appraisal	Although of modest scale, the architectural quality of this bridge and its historical association with the Board of Public Works and Boyne drainage scheme makes it of local heritage significance.							
Rating	Local							

OFIAR-007-002 **Moorock Bridge**

County	Offaly							
Townland	Moorock							
Component	1	Bridge (road/rail)	Railway	Transport	Infrastructure	Grid	219090	231853
Summary	Masonry arch road bridge over Portarlington-Athlone railway. This section, between Tullamore and Athlone, opened 1859 by Great Southern & Western Railway Co.							
Appraisal	An unaltered mid 19th century masonry road-over-railway bridge of some architectural merit and historical interest. One of 17 recorded intact masonry arch bridges along this line (13 of which are road over rail). Local heritage significance.							
Rating	Local							

OFIAR-007-023

County	Offaly							
Townland	Bellair or Ballyard							
Component	1	Bridge (rail/rail)	Railway	Fuel & power production	Industry	Grid	216114	232983
Summary	Reinforced-concrete railway bridge carries Portarlington-Athlone line over Bord na Mona peat railway. Built by Iarnród Éireann on behalf of Bord na Mona c.1988 to service Bellair Bog.							
Appraisal	Of some technical interest due to its unusual method of construction. Also of historical interest due to association with Bord na Mona peat extraction activities. One of two such rail-over-rail bridges in Co Offaly (the other is OFIAR-033-010). Of local heritage merit.							
Rating	Local							

OFIAR-007-031

County	Offaly							
Townland	Bellaire or Ballyard							
Component	1	Bridge (rail/road)	Railway	Transport	Infrastructure	Grid	216448	232996
Summary	Metal girder railway bridge with transverse pressed-steel troughing carries Portarlington-Athlone line over accommodation track. This section, between Tullamore and Portarlington, opened 1859 by Great Southern & Western Railway Co. Deck rebuilt by Iarnród Éireann in late 1900s.							
Appraisal	Of technical interest as an example of a troughed metal span. Although this type of construction is not particularly rare in a national context, it one of only three examples surviving in the county (the others are OFIAR-008-035 and OFIAR-026-012). Historical association with Great Southern & Western Railway. Local heritage significance.							
Rating	Local							

OFIAR-008-006 **Kilbride Bridge**

County	Offaly							
Townland	Lissanisky							
Component	1	Bridge (road/rail)	Railway	Transport	Infrastructure	Grid	226764	233404
Summary	Skew masonry arch road bridge over disused Clara Branch of Midland Great Western Railway; line opened 1863.							
Appraisal	Of some architectural interest on account of quality of construction. Also of historical interest on account of association with Midland Great Western Railway. One of three surviving bridges erected by this company in Co Offaly. Of local heritage significance.							
Rating	Local							

OFIAR-008-007 **Kilcoursey Bridge**

County	Offaly							
Townland	Kilcoursey							
Component	1	Bridge (road/rail)	Railway	Transport	Infrastructure	Grid	226673	232992
Summary	Skew masonry arch road bridge over disused Clara Branch of Midland Great Western Railway; line opened 1863.							
Appraisal	Of some architectural interest on account of quality of construction, but slightly disfigured by quality of repairs to parapet coping. Historical interest on account of association with Midland Great Western Railway. One of three surviving bridges erected by this company in Co Offaly. Of local heritage significance.							
Rating	Local							

OFIAR-008-011 **Lehinch Bridge**

County	Offaly							
Townland	Kilmucklin; Kilnacarra; Lehinch							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	228298	232297
Summary	18th/early 19th century triple-span masonry arch road bridge over River Brosna.							
Appraisal	This is a good example of late 18th/early 19th century bridge architecture, enhanced by its scale and setting. Of local heritage significance.							
Rating	Local							

OFIAR-008-020 **Coolnahely Bridge**

County	Offaly							
Townland	Coolnahely							
Component	1	Bridge (road/rail)	Railway	Transport	Infrastructure	Grid	229084	229022
Summary	Skew masonry arch road bridge over Portarlington-Athlone railway. This section, between Tullamore and Athlone, opened 1859 by Great Southern & Western Railway Co.							
Appraisal	A relatively unaltered mid 19th century masonry road-over-railway bridge of some architectural merit and historical interest. Skewly-laid soffit blocks are of technical note. One of 17 masonry arch bridges recorded on this line (of which 15 are road over railway).							
Rating	Local							

OFIAR-008-023

County	Offaly							
Townland	Erry (Maryborough)							
Component	1	Bridge (road/rail)	Railway	Transport	Infrastructure	Grid	227198	230818
Summary	Masonry arch accommodation bridge over Portarlington-Athlone railway. This section, between Tullamore and Athlone, opened 1859 by Great Southern & Western Railway Co.							
Appraisal	An unaltered mid 19th century masonry road-over-railway bridge of some architectural merit and historical interest. One of 17 intact masonry arch bridges recorded on this line, 13 of which are road over railway. Local heritage interest.							
Rating	Local							

OFIAR-009-013

County	Offaly							
Townland	Bracklin Big							
Component	1	Bridge (canal/river)	Inland waterway	Transport	Infrastructure	Grid	238084	229869
Summary	Masonry culvert carries Kilbeggan Branch of Grand Canal over minor tributary of Silver River. The canal opened 1835.							
Appraisal	Primarily of historical note due to association with Grand Canal. Local heritage significance.							
Rating	Local							

OFIAR-009-014

County	Offaly							
Townland	Wood of O							
Component	1	Bridge (canal/river)	Inland waterway	Transport	Infrastructure	Grid	238872	228536
Summary	Timber-lined masonry culvert carries Kilbeggan Branch of Grand Canal over minor tributary of Silver River. The canal opened 1835.							
Appraisal	Of technical interest in terms of its timber lining, and also of historical note due to association with Grand Canal. Local heritage significance.							
Rating	Local							

OFIAR-010-007

County	Offaly							
Townland	Coole (Lower Philipstown Bar); Down (Lower Philipstown Bar)							
Component	1	Bridge (canal/river)	Inland waterway	Transport	Infrastructure	Grid	249979	230354
Summary	Arched masonry bridge carries Grand Canal over Esker Stream. The canal opened in 1797.							
Appraisal	This is one of the larger aqueducts associated with the Grand Canal in Co Offaly, most being much smaller culverts. Somewhat marred by guniting of abutments and soffit. It is of historical interest and local heritage significance.							
Rating	Local							

OFIAR-010-018

County	Offaly							
Townland	Coole (Lower Philipstown Bar)							
Component	1	Bridge (rail/canal)	Railway	Fuel & power production	Industry	Grid	250952	230892
Summary	Early 1960s metal beam lifting bridge carries Bord na Mona peat railway over Grand Canal. Early example of hydraulic operation. Associated with Derrygreenagh Group of Bogs.							
Appraisal	Historical association with Bord na Mona. Also of technical interest, being the only one of its type in Co Offaly and an early example of a hydraulically operated lift (as opposed to the tradition pulley winch operation). It is also a very visible local landmark. Although of local heritage interest, it is not sufficiently special to warrant statutory protection.							
Rating	Local							

OFIAR-011-033

County	Offaly							
Townland	Toberdaly							
Component	1	Bridge (canal/river)	Inland waterway	Transport	Infrastructure	Grid	252050	231417
Summary	Arched masonry tunnel carries Grand Canal over minor tributary of Esker Stream. Canal opened in 1797.							
Appraisal	Of historical interest in the context of the Grand Canal. Local heritage significance.							
Rating	Local							

OFIAR-011-034

County	Offaly							
Townland	Toberdaly							
Component	1	Bridge (canal/river)	Inland waterway	Transport	Infrastructure	Grid	253245	231516
Summary	Arched masonry culvert carries Grand Canal over tributary of Esker Stream. The canal opened in 1797.							
Appraisal	The architectural integrity of this culvert is marred by the concrete replacement parapet. It is primarily of historical interest in the context of the canal. Of local heritage significance.							
Rating	Local							

OFIAR-012-003 **Boyne Bridge**

County	Offaly; Kildare							
Townland	Edenderry; Co Kildare							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	263609	234528
Summary	Site of 18th/ early 19th century road bridge over Boyne River at county boundary. Replaced in 1849 by masonry arch bridge, built by Board of Public Works in connection with Boyne drainage scheme.							
Appraisal	This bridge is architectural interest and also of historical merit due to its association with the Board of Public Works and Boyne drainage scheme. It is also technical interest on account of its skewed span. Of local heritage significance.							
Rating	Local							

OFIAR-012-004 **Kishawanny Bridge**

County	Offaly; Kildare							
Townland	Edenderry; Co Kildare							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	264571	233456
Component	2	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	264571	233456
Summary	Site of 18th/ early 19th century road bridge over Boyne River at county boundary. Replaced c.1850 by masonry arch bridge, built by Board of Public Works in connection with Boyne drainage scheme. By-passed to south by new bridge (OFIAR-012-035) since 2003 and now used only by pedestrians.							
Appraisal	A good example of a mid 19th century road bridge and an interesting contrast with the modern concrete bridge which now bypasses it. Architectural character somewhat marred by heavy underpinning. Historical interest due to association with Board of Public Works and Boyne drainage scheme. Of local heritage merit.							
Rating	Local							

OFIAR-012-017 **Little Tunnel**

County	Offaly							
Townland	Cloncanon; Edenderry							
Component	1	Bridge (canal/river)	Inland waterway	Transport	Infrastructure	Grid	265428	231267
Summary	Arched masonry culvert carries Grand Canal over tributary of Figile River; this section opened in 1797. Siphon pipe inserted in 1960s due to lowering of water table caused by Bord na Mona peat extraction.							
Appraisal	Although not obvious from the canal, this is a substantial structure which still serves an important function in draining the adjoining land. It is of historical merit in terms of its association with the Grand Canal Company, and also of technical interest on account of the siphon. Local heritage significance.							
Rating	Local							

OFIAR-013-014

County	Offaly							
Townland	Cloniffeen					Town	Shannonbridge	
Component	1	Bridge (road/rail)	Railway	Fuel & power production	Industry	Grid	198309	224627
Summary	Skew concrete road bridge of 1963 over Bord na Mona peat railway. Associated with Blackwater Group of Bogs.							
Appraisal	Of technical interest due to early use of pre-cast concrete beams in Bord na Mona context. Also of historical interest due to attested date and link with Bord na Mona. Local heritage merit.							
Rating	Local							

OFIAR-014-017

County	Offaly							
Townland	Gallen							
Component	1	Bridge (rail/river)	Railway	Transport	Infrastructure	Grid	212003	224212
Summary	Masonry arch bridge carries disused Banagher Branch of Great Southern and Western Railway over mill race (to mill OFIAR-014-035); line opened 1884.							
Appraisal	Although of modest scale, a well executed and subtly detailed bridge. Historical link with Great Southern & Western Railway Co. Of local heritage interest.							
Rating	Local							

OFIAR-014-025

County	Offaly							
Townland	Glyn							
Component	1	Bridge (canal/river)	Inland waterway	Transport	Infrastructure	Grid	209546	222811
Summary	Arched masonry culvert siphon carries Grand Canal over minor tributary of River Brosna. This section of canal opened 1804.							
Appraisal	Primarily of historical interest due to association with Grand Canal.							
Rating	Local							

OFIAR-015-004

County	Offaly							
Townland	Derrica Beg							
Component	1	Bridge (road/rail)	Railway	Transport	Infrastructure	Grid	213891	225491
Summary	Masonry arch road bridge over disused Banagher Branch of Great Southern and Western Railway, opened 1884.							
Appraisal	A well constructed bridge with a degree of embellishment. Historical association with railway. Of local heritage interest.							
Rating	Local							

OFIAR-015-007 **Coole Bridge**

County	Offaly							
Townland	Coole (Garrycastle Bar)							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	213401	222696
Component	2	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	213401	222696
Component	3	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	213401	222696

Summary: Site of 18th/early 19th century timber accommodation bridge over River Brosna. Replaced in 1851 by Board of Public Works with twin-span beam bridge during Brosna drainage works. This bridge was, in turn, replaced by Office of Public Works in 1987 with present twin-span reinforced-concrete beam and slab deck on earlier abutments.

Appraisal: This bridge is primarily of historical interest. Its original name - Wooden Br - reflects its original construction, whilst the two plaques denote its rebuilding in the 1850s as part of the drainage of the Brosna catchment), and again in 1987. It is also a prominent feature of the riverscape hereabouts. The bridge is certainly of local heritage significance in these respects. However, the absence of earlier structural material (apart from the pier) makes it of local heritage significance only.

Rating: Local

OFIAR-015-015 **Plunkett Bridge**

County	Offaly							
Townland	Pollagh							
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	219222	225179

Summary: Masonry arch road bridge over Grand Canal. Although this section opened 1804, the bridge was not completed until 1809 (plaque). Original stone parapets replaced with cantilevered metal railing parapets in late 1900s.

Appraisal: The architectural integrity of this bridge is diminished by the later railings. However, it is of historical note due to association with Grand Canal. It is also a prominent landscape feature hereabouts and has group value with the adjoining church. Diminution of architectural character reduces heritage significance from regional to local.

Rating: Local

OFIAR-015-048

County	Offaly							
Townland	Turraun							
Component	1	Bridge (rail/canal)	Railway	Fuel & power production	Industry	Grid	216171	223432

Summary: Metal beam swing bridge of 1987 carries Bord na Mona peat railway over Grand Canal. Associated with Boora Group of Bogs.

Appraisal: Historical link with Bord na Mona. Technically this bridge is of note in being the only example of its kind in Co Offaly and on the entire line of the Grand Canal. It is also rare in a national context, the only other one being on the River Shannon at Portumna. Of local heritage significance.

Rating: Local

OFIAR-015-050

County	Offaly							
Townland	Cornalaur							
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	222094	226567
Summary	Twin-arch masonry bridge of c.1804 carries Grand Canal towpath over feeder. Concrete parapets added to accommodate road traffic along towpath.							
Appraisal	Historical association with Grand Canal and feeder thereto. Of local heritage significance.							
Rating	Local							

OFIAR-016-005 **Ballydrohid Bridge**

County	Offaly							
Townland	Ballydrohid; Ballyduff (Ballycowan Bar)							
Component	1	Bridge (road/rail)	Railway	Transport	Infrastructure	Grid	231887	226092
Summary	Skew masonry arch road bridge over Portarlington-Athlone railway. This section, between Tullamore and Athlone, opened 1859 by Great Southern & Western Railway Co.							
Appraisal	An unaltered mid 19th century masonry road-over-railway bridge of some architectural merit and historical interest. One of 17 intact masonry arch bridges recorded along this line (of which 13 are road over rail). Local heritage significance.							
Rating	Local							

OFIAR-016-015 **Corcoran's Bridge**

County	Offaly							
Townland	Ballindrinan; Rahan Demesne							
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	225807	225060
Summary	Masonry arch road bridge over Grand Canal. This section of canal opened 1804. Named after the owner of the nearby Thatch Pub who acted as an agent for the Grand Canal Company. One parapet replaced with metal railing.							
Appraisal	Architectural integrity is compromised by removal of one of the parapets and by pipe on external face. Historical association with Grand Canal. Also of landscape interest. Because of diminution of character, rated as being of local rather than regional heritage							
Rating	Local							

OFIAR-016-016

County	Offaly							
Townland	Killina; Loughroe							
Component	1	Bridge (canal/river)	Inland waterway	Transport	Infrastructure	Grid	226468	224806
Summary	Masonry lintel culvert carries Grand Canal over minor tributary of Clodiagh River. This section of canal opened 1804.							
Appraisal	Historical association with Grand Canal. Local heritage significance.							
Rating	Local							

OFIAR-016-025 **Annamoe Bridge**

County	Offaly							
Townland	Ballycowan; Lynally Glebe							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	229102	224381
Summary	18th/early 19th century triple-arch masonry road bridge over Clodiagh River.							
Appraisal	A well executed example of a typical triple arch masonry bridge, of local heritage significance.							
Rating	Local							

OFIAR-016-033 **Priest's Bridge**

County	Offaly							
Townland	Killina							
Component	1	Bridge (foot/canal)	Road & pedestrian	Transport	Infrastructure	Grid	227165	224928
Summary	Mass concrete abutments are all that remain of metal girder beam footbridge erected by Rev Michael Conlon over Grand Canal in 1804.							
Appraisal	This bridge is of local historical interest on account of its attested date and association with the nearby Presentation Convent.							
Rating	Local							

OFIAR-017-006 **Spollanstown Bridge**

County	Offaly							
Townland	Spollanstown					Town	Tullamore	
Component	1	Bridge (road/rail)	Railway	Transport	Infrastructure	Grid	233582	224297
Summary	Masonry arch road bridge over Portarlington-Athlone railway. This section, between Tullamore and Athlone, was opened in 1859 by Great Southern & Western Railway Co.							
Appraisal	A well constructed bridge of local architectural interest. Also of historical interest on account of railway association. One of 17 intact masonry arch bridges recorded on this line, 15 of which are road over rail. Local heritage significance.							
Rating	Local							

OFIAR-017-019

County	Offaly							
Townland	Cappancur; Puttaghan (Ballycowan Bar)							
Component	1	Bridge (canal/river)	Inland waterway	Transport	Infrastructure	Grid	234975	225505
Summary	Masonry arch culvert carries Grand Canal over minor tributary of Tullamore River. This section of canal opened in 1798.							
Appraisal	Of historical interest due to its association with the canal and of local heritage significance.							
Rating	Local							

OFIAR-017-024

County	Offaly							
Townland	Cappancur; Clonmore (Geashill Bar)							
Component	1	Bridge (canal/river)	Inland waterway	Transport	Infrastructure	Grid	239419	225501
Summary	Arched masonry culvert carrying Grand Canal over minor tributary of Tullamore River. This section opened 1798.							
Appraisal	Historical association with Grand Canal. Of local heritage significance.							
Rating	Local							

OFIAR-017-030

County	Offaly							
Townland	Ballyteige Little; Wood of O							
Component	1	Bridge (canal/river)	Inland waterway	Transport	Infrastructure	Grid	239535	227665
Summary	Stone lintel culvert carries disused Kilbeggan Branch of Grand Canal over minor tributary of Tullamore River. This branch opened 1835.							
Appraisal	Of historical interest due to its association with the canal and a good example of its type. Local heritage significance.							
Rating	Local							

OFIAR-017-031

County	Offaly							
Townland	Ballyteige Little							
Component	1	Bridge (canal/river)	Inland waterway	Transport	Infrastructure	Grid	240008	227359
Summary	Stone lintel culvert carries disused Kilbeggan Branch of Grand Canal over minor tributary of Tullamore River. This branch opened 1835.							
Appraisal	Of historical interest due to its association with the canal and a good example of its type. Local heritage significance.							
Rating	Local							

OFIAR-017-040 **Pound Bridge**

County	Offaly							
Townland	Tullamore					Town	Tullamore	
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	234236	224938
Component	2	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	234236	224938
Summary	Site of 18th/early 19th century masonry arch road bridge over Tullamore River. Probably replaced c.1857 with the present shallow segmental span bridge by Board of Public Works in connection with Brosna drainage scheme.							
Appraisal	Of architectural merit and probably historically associated with Board of Public Works and Brosna drainage scheme. Local heritage significance.							
Rating	Local							

OFIAR-017-041

County	Offaly							
Townland	Tullamore					Town	Tullamore	
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	233894	225052
Summary	18th century twin-arch masonry road bridge over Tullamore River. Widened in reinforced concrete in 1938 and again c.2003.							
Appraisal	The three phases of this bridge demonstrate the increasing volume of traffic through the town in the 20th century. Undoubtedly of local heritage significance, but its present status as a Protected Structure (which implies regional significance) is questionable.							
Rating	Local							

OFIAR-017-078

County	Offaly							
Townland	Tullamore					Town	Tullamore	
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	233998	224998
Summary	18th/early 19th century twin-arch masonry accommodation bridge over Tullamore River.							
Appraisal	Although disused, this is a substantial bridge which lends interest to the riverscape hereabouts. Whilst of undoubted local heritage significance, its current status as a Protected Structure is debatable.							
Rating	Local							

OFIAR-017-089

County	Offaly							
Townland	Tullamore					Town	Tullamore	
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	233589	224915
Component	2	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	233589	224916
Summary	Site of 18th/early 19th century masonry accommodation bridge over Tullamore River. Present twin-arch structure is an 1857 replacement by Board of Public Works in connection with Brosna drainage scheme.							
Appraisal	Although of modest scale, lends interest to the riverscape hereabouts. Also of historical interest due to association with Board of Public Works and Brosna drainage scheme. Has group value due to proximity to weir and mill. Of local heritage significance.							
Rating	Local							

OFIAR-017-093

County	Offaly							
Townland	Puttaghan (Ballycowan Bar); Tullamore					Town	Tullamore	
Component	1	Bridge (foot/canal)	Road & pedestrian	Transport	Infrastructure	Grid	234150	225395
Summary	Metal girder footbridge of 1934 over Grand Canal. Spans comprise Warren trusses which are slightly curved to allow vessels to pass under.							
Appraisal	Of some technical merit on account of its design and method of fabrication. Although of little aesthetic merit, it is nevertheless a strong landscape feature hereabouts and continues to serve a useful function. Local heritage significance.							
Rating	Local							

OFIAR-017-097

County	Offaly							
Townland	Kilcruttin					Town	Tullamore	
Component	1	Bridge (rail/road)	Railway	Transport	Infrastructure	Grid	233192	224812
Summary	Masonry arch railway bridge carries Portarlington-Athlone line over accommodation track. This section, between Tullamore and Athlone, was opened in 1859 by Great Southern & Western Railway Co.							
Appraisal	This well constructed bridge is of historical interest due to its railway associations. One of 17 intact masonry arch bridges recorded on this line, two of which are rail over road. Local heritage significance.							
Rating	Local							

OFIAR-018-006

County	Offaly							
Townland	Ballycommon							
Component	1	Bridge (canal/river)	Inland waterway	Transport	Infrastructure	Grid	242516	225901
Summary	Masonry arch culvert carries Grand Canal over minor tributary of Tullamore River. This section opened 1798.							
Appraisal	Of historical interest due to its association with the canal. Local heritage significance.							
Rating	Local							

OFIAR-018-015 **Murray's Bridge**

County	Offaly							
Townland	Townparks (Lower Philipstown Bar)					Town	Daingean	
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	247061	227302
Summary	Twin-arch masonry bridge of 1814 carries minor road over tributary of Philipstown River.							
Appraisal	Of historical interest because of its attested date of construction. Of local heritage significance for this reason.							
Rating	Local							

OFIAR-018-022

County	Offaly							
Townland	Ballycommon							
Component	1	Bridge (canal/river)	Inland waterway	Transport	Infrastructure	Grid	241882	226092
Summary	Culvert carries Kilbeggan Branch of Grand Canal over minor tributary of Tullamore River. This branch opened 1835.							
Appraisal	Of historical interest due to its association with the canal. Local heritage significance.							
Rating	Local							

OFIAR-018-038

County	Offaly							
Townland	Esker Beg; Killeen (Coolestown Bar)							
Component	1	Bridge (road/rail)	Railway	Fuel & power production	Industry	Grid	251183	227747
Summary	Twin-span reinforced-concrete road bridge built by Bord na Mona in 1960 over peat railway. Associated with Derrygreenagh Group of Bogs.							
Appraisal	Of local historical interest due to association with Bord na Mona and attested construction date. Almost identical to OFIAR-010-019. Local heritage significance.							
Rating	Local							

OFIAR-018-039

County								
Townland								
Component	2	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid		
Summary	Grand Canal overflow culvert under towpath. This section opened 1798.							
Appraisal	Primarily of historical interest as associated with Grand Canal. Also comparatively rare, being one of the few original masonry bridges over overflows. Local heritage significance.							
Rating	Local							

OFIAR-019-007 **Cloncreen Bridge**

County	Offaly							
Townland	Clonbulloge; Cloncreen							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	260527	224001
Summary	18th century triple masonry arch road bridge over Figile River.							
Appraisal	Architecturally, a good example of its type and period. Enhances riverscape hereabouts. Of local heritage significance.							
Rating	Local							

OFIAR-022-007

County	Offaly							
Townland	Clonony Beg; Clonony More							
Component	1	Bridge (canal/river)	Inland waterway	Transport	Infrastructure	Grid	204391	219551
Summary	Masonry arch bridge carries Grand Canal over Little River. This section opened 1804. Soffit of arch dips to form siphon under canal.							
Appraisal	Historical link with Grand Canal. Also of technical interest due to dipping soffit. Of local heritage significance.							
Rating	Local							

OFIAR-022-014

County	Offaly							
Townland	Clonony Beg; Cush (Garrycastle Bar)							
Component	1	Bridge (rail/river)	Railway	Transport	Infrastructure	Grid	204754	219070
Component	2	Bridge (rail/river)	Railway	Transport	Infrastructure	Grid	204755	219069
Summary	Bridge carries disused Banagher Branch of Great Southern and Western Railway over Little River; line opened 1884 and closed 1963. Original bridge replaced with triple-span reinforced-concrete beam and slab bridge during first half of 20th century.							
Appraisal	Of historical interest on account of link with Great Southern & Western Railway Co. Also a good technical example of a cast-in-situ reinforced-concrete bridge. Unusual landscape feature. Local heritage significance.							
Rating	Local							

OFIAR-022-018 **Crancreagh Bridge**

County	Offaly							
Townland	Crancreagh; Kilcamin							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	207868	216228
Component	2	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	207868	216229
Summary	Site of 18th/early 19th century road bridge over Little River. Replacement skew concrete slab bridge erected by Office of Public Works in 1949 during Brosna drainage scheme.							
Appraisal	A good example of a mid 1900s simply-supported reinforced-concrete slab bridge. Very similar to OFIAR-022-030. Of historical interest due to attested date, association with Office of Public Works and Brosna drainage scheme. Of local heritage significance.							
Rating	Local							

OFIAR-022-029

County	Offaly							
Townland	Ballyloughan; Ballyshane							
Component	1	Bridge (canal/river)	Inland waterway	Transport	Infrastructure	Grid	206424	221133
Summary	Masonry culvert carries Grand Canal over minor tributary of Brosna River. This section opened 1804.							
Appraisal	Of historical interest due to association with Grand Canal. Local heritage significance.							
Rating	Local							

OFIAR-022-030

County	Offaly							
Townland	Clonony Beg; Clonony More							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	204190	219803
Component	2	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	204189	219802
Summary	Site of 18th/early 19th century road bridge over tributary of River Brosna. Replaced by Office of Public Works in 1948 with reinforced-concrete slab bridge as part of Brosna drainage scheme.							
Appraisal	A good example of a mid 1900s simply-supported reinforced-concrete slab bridge. Very similar to OFIAR-022-018. Of historical interest due to attested date, association with Office of Public Works and Brosna drainage scheme. Of local heritage significance.							
Rating	Local							

OFIAR-023-006 **Lumcloon Bridge**

County	Offaly							
Townland	Lumcloon							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	213926	219766
Component	2	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	213925	219765
Summary	Site of 18th/early 19th century road bridge over Silver River. Rebuilt as a skew twin-span concrete bridge by Office of Public Works in 1949 as part of Brosna drainage scheme.							
Appraisal	A good example of its type and of historical association due to attested date and link with Brosna drainage scheme. Of local heritage significance.							
Rating	Local							

OFIAR-023-020

County	Offaly							
Townland	Lumcloon							
Component	1	Bridge (rail/river)	Railway	Fuel & power production	Industry	Grid	213945	219741
Summary	Disused skew triple-span metal girder bridge of c.1958 formerly carried Bord na Mona peat railway over Silver River in grounds of Ferbane Power Station. Associated with Boora Group of Bogs.							
Appraisal	Of some historical interest due to association with Ferbane Power station and Bord na Mona. Also has group value in context of site of adjoining power station. Local heritage significance.							
Rating	Local							

OFIAR-024-005 **Clonad Bridge**

County	Offaly							
Townland	Clonad (Geashill Bar); Killurin							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	231278	219376
Component	2	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	231278	219376
Summary	Site of 18th/early 19th century road bridge over Clodiagh River. Probably replaced in earlier 1900s by the present two-span bridge comprising a masonry arch span and a reinforced-concrete span.							
Appraisal	This is an interesting technical juxtaposition of two span forms - a segmental arch, typical of the 19th century, and a horizontal concrete span, typically 20th century. It is the only such example in the county (excluding widening additions). For this reason, the bridge is of local heritage interest.							
Rating	Local							

OFIAR-025-002

County	Offaly							
Townland	Ballycollin (Geashill Bar)							
Component	1	Bridge (rail/road)	Railway	Transport	Infrastructure	Grid	240797	220971
Summary	Masonry arch railway bridge carries Portarlington-Athlone railway over minor road. This section, between Portarlington and Tullamore, was opened in 1854 by Great Southern & Western Railway Co.							
Appraisal	The high degree of rustication on the abutments is of some note. It is one of only four surviving masonry arch rail-over-road bridges in the county. Unfortunately its original character is marred by the concrete parapet which detracts from its appearance. Historical association with GSWR. One of 17 intact masonry arch bridges recorded on this line, two of which are rail over road. Of local heritage significance.							
Rating	Local							

OFIAR-026-007

County	Offaly							
Townland	Ard							
Component	1	Bridge (road/rail)	Railway	Transport	Infrastructure	Grid	243902	217758
Summary	Skew masonry arch road bridge over Portarlington-Athlone railway. This section, between Portarlington and Tullamore, opened in 1854 by Great Southern & Western Railway Co.							
Appraisal	Of architectural merit on account of its quality of construction and subtle detailing, all unmarred by later alterations. Historical association with GSWR. One of 17 intact masonry arch bridges recorded on this line, 15 of which are road over rail. Of local heritage significance.							
Rating	Local							

OFIAR-026-008

County	Offaly							
Townland	Gorteenard							
Component	1	Bridge (road/rail)	Railway	Transport	Infrastructure	Grid	245390	216839
Summary	Masonry arch road bridge over Portarlington-Athlone railway. This section, between Portarlington and Tullamore, opened in 1854 by Great Southern & Western Railway Co.							
Appraisal	Of architectural merit on account of its quality of construction and subtle detailing, albeit somewhat disfigured by the pipe across the base of the parapet. Historical association with GSWR. One of 17 intact masonry arch bridges recorded on this line, 15 of which are road over rail. Of local heritage significance.							
Rating	Local							

OFIAR-026-012

County	Offaly							
Townland	Clonygowan							
Component	1	Bridge (road/rail)	Railway	Transport	Infrastructure	Grid	248170	215591
Summary	Metal girder road bridge with longitudinal pressed-steel troughing c.1900 over Portarlington-Athlone railway. This section, between Portarlington and Tullamore, opened in 1854 by Great Southern & Western Railway Co. This bridge superseded a level crossing to north (OFIAR-026-018) in late 1800s/early 1900s. Refurbished in 1990s.							
Appraisal	Although the deck has been renewed, it is in keeping with the original and retains the bridge's original architectural and historical integrity. The fact that a girder rather than arch span is utilized reflects its relatively late construction date. Although the troughed metal span is a common type of railway construction, this particular example is one of only three surviving in the county (the others are OFIAR-007-031and OFIAR-008-035). Of local heritage interest.							
Rating	Local							

OFIAR-028-002 **Derrygarran Bridge**

County	Offaly							
Townland	Coolygagan; Derrygarran							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	261937	220884
Component	2	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	261938	220885
Summary	Site of 18th/early 19th century road bridge over Figile River. Replaced in mid 1900s by twin-span steel beam and concrete slab							
Appraisal	A good example of a composite metal beam and concrete slab bridge. Virtually identical to a nearby example over the Slate River (OFIAR-028-005). A significant feature of the riverscape. Of local heritage interest.							
Rating	Local							

OFIAR-028-005 **River Bridge**

County	Offaly							
Townland	Ballinowlart South; Clonbrin							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	261460	216687
Component	2	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	261460	216687
Summary	Site of 18th/early 19th century road bridge over Slate River. Replaced in mid 1900s with present two-span metal beam and concrete slab deck bridge.							
Appraisal	A good example of a composite metal beam and concrete slab bridge. Virtually identical to a nearby example over the Figile River (OFIAR-028-002). A significant feature of the riverscape. Of local heritage interest.							
Rating	Local							

OFIAR-029-019

County	Offaly							
Townland	Clonahenoge							
Component	1	Bridge (foot/river)	Road & pedestrian	Transport	Infrastructure	Grid	194855	213245
Component	2	Bridge (foot/river)	Road & pedestrian	Transport	Infrastructure	Grid	194854	213245
Summary	Site of late 19th/early 20th century accommodation footbridge over Shannon Navigation. Replaced by Office of Public Works in mid 1900s with four-span metal beam and timber deck footbridge.							
Appraisal	Primary interest is as a landscape feature. Of local heritage interest of this reason.							
Rating	Local							

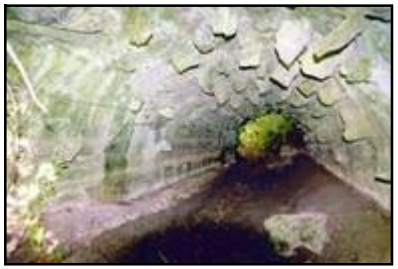
OFIAR-031-001 **Wooden Bridge**

County	Offaly							
Townland	Aghagoogy; Broughal							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	212728	214346
Component	2	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	212727	214347
Summary	Site of 18th/early 19th century timber road bridge over Silver River. Replaced with present twin-arch masonry road bridge by Board of Public Works c.1859 during Brosna drainage scheme.							
Appraisal	A well executed example of a typical mid 19th century road bridge. Historical association with Board of Public Works and Brosna drainage scheme. Name is that of previous bridge on this site. Of local heritage significance.							
Rating	Local							

OFIAR-031-002 **Barnaboy Bridge**

County	Offaly							
Townland	Kilnagall							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	217507	214791
Component	2	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	217508	214790
Summary	Site of 18th/early 19th century road bridge over Silver River. Replaced with skew concrete beam and slab bridge in 1950 by Office of Public Works during Brosna drainage scheme (datestone).							
Appraisal	Of some historical interest due to attested date and link with Brosna drainage scheme. Local heritage significance.							
Rating	Local							

OFIAR-031-010 **Rock Bridge**



County	Offaly							
Townland	Thomastown Demesne							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Settlement	Grid	213816	209924
Summary	18th/early 19th century skew masonry arch culvert carries accommodation road over minor tributary of Rapemills River in grounds of Thomastown Park.							
Appraisal	Of architectural interest because of unusual 'rustication' to arch soffit. Local heritage significance.							
Rating	Local							

OFIAR-032-001 **Ballynacarrig Bridge**

County	Offaly							
Townland	Ballynacarrig; Cappagowlan							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	222561	213627
Summary	18th century triple-arch masonry road bridge over Silver River.							
Appraisal	The relatively wide piers on this bridge and lack of downstream cutwaters are reminiscent of pre 1800 construction. Also of some landscape value. Local heritage significance.							
Rating	Local							

OFIAR-033-002

County	Offaly							
Townland	Clonygowan							
Component	1	Bridge (road/rail)	Railway	Transport	Infrastructure	Grid	248646	215052
Summary	Skew masonry arch road bridge over Portarlington-Athlone railway. This section of line, between Portarlington and Tullamore, opened 1854 by Great Southern & Western Railway Co.							
Appraisal	Of some architectural interest on account of the quality of its construction. Historical association with GSWR. Technical interest on account of skewly laid arch soffit. One of 17 intact masonry arch bridges recorded on this line, 15 of which are road over rail. Overall, of local heritage significance.							
Rating	Local							

OFIAR-033-010

County	Offaly							
Townland	Clonyquin							
Component	1	Bridge (rail/rail)	Railway	Fuel & power production	Industry	Grid	249647	214426
Summary	Skew triple-span slab-concrete bridge carries the Portarlington-Athlone railway over a disused Bord na Mona peat railway. The latter dates from 1953 and was associated with the Clonsast Group of bogs (OFIAR-033-011).							
Appraisal	A tangible historical reminder of the former Bord na Mona peat extraction activities in this locality. One of two such rail-over-rail bridges in Co Offaly (the other is OFIAR-007-023). Local heritage significance.							
Rating	Local							

OFIAR-034-003

County	Offaly							
Townland	Kilmalogue					Town	Portarlington	
Component	1	Bridge (road/rail)	Railway	Transport	Infrastructure	Grid	253081	212276
Summary	Masonry arch road bridge over Portarlington-Athlone railway line. This section of line, between Portarlington and Tullamore, opened 1854 by Great Southern & Western Railway Co.							
Appraisal	This unaltered bridge is a good example of its type and has historical associations with the Great Southern & Western Railway Co. One of 17 intact masonry arch bridges recorded on this line, 15 of which are road over rail. Local heritage significance.							
Rating	Local							

OFIAR-034-005 **Barrow Bridge**

County	Offaly; Laois							
Townland	Kilmalogue; Co Laois					Town	Portarlington	
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	254024	212650
Summary	Pre-1800 eight-arch masonry road bridge over River Barrow at county boundary. Widened on upstream side in 19th century. Cantilevered footpaths and metal railings added in later 20th century.							
Appraisal	This bridge is of historical interest in demonstrating the growing of road traffic from the 1700s onwards. It is the only eight-arch masonry bridge in the county. Although the soffits are gunited, the style of the cutwaters and arch rings indicate that the bridge was widened on its upstream side, probably in the 1800s. It was widened yet again in the later 1900s to accommodate footpaths on both sides. It is also a significant landscape feature in the town. Unfortunately, its visual disfigurement by concrete underpinning, guniting and cantilevered footpaths has greatly diminished its architectural character and it is now of local rather than regional heritage significance.							
Rating	Local							

OFIAR-034-012

County	Offaly; Laois							
Townland	Kilmalogue; Co Laois							
Component	1	Bridge (rail/river)	Railway	Transport	Infrastructure	Grid	253621	211936
Summary	Skew triple-span pre-cast reinforced-concrete beam bridge carries Portarlington-Athlone railway line over River Barrow at county boundary. This section of line, between Portarlington and Tullamore, opened 1854 by Great Southern & Western Railway Co. The deck is a 1984 replacement of a previous one; still retains its masonry abutments.							
Appraisal	This is a relatively substantial bridge, and a significant feature of the riverscape. Its architectural integrity is diminished by the deck's replacement, but its historical association with the Great Southern & Western Railway remains. It is of local heritage interest.							
Rating	Local							

OFIAR-035-012 **Newbridge Street**

County	Offaly							
Townland	Clonoghil Upper; Townparks (Ballybritt Bar)					Town	Birr	
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	206661	204946
Summary	18th century triple-arch masonry road bridge over Camcor River.							
Appraisal	A typical example of a three-arch random rubble bridge. Any historical evidence is now hidden under guniting. Overall, of local significance.							
Rating	Local							

OFIAR-035-049

County	Offaly							
Townland	Fortel							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Settlement	Grid	211055	204059
Summary	Arched masonry accommodation road culvert over minor tributary of Camcor River in grounds of Fortel House. Probably of 18th or early 19th century date, but may incorporate late 17th century bridge.							
Appraisal	The heritage significance of this bridge appears to rest on its close proximity to the nearby castle and the fact that it is on the approach road thereto. A fuller inspection is required in order to establish whether it is a two-phase bridge. It is provisionally of archaeological interest and local significance.							
Rating	Local							

OFIAR-035-063 **Bagnall's Bridge**

County	Offaly							
Townland	Townparks (Ballybritt Bar)					Town	Birr	
Component	1	Bridge (foot/river)	Road & pedestrian	Transport	Infrastructure	Grid	206113	204593
Summary	20th century cast-iron accommodation footbridge over Camcor River in public park; relocated here 1979 from Emly Station, Co Tipperary.							
Appraisal	A good example of a lattice girder bridge, typical of those found at railway stations (albeit no longer in this context). One of only two examples in the county (the other is at Tullamore Station, OFIAR-017-004, and has also been brought from outside the county). Also enhances the landscape. Local heritage interest.							
Rating	Local							

OFIAR-036-005 **Pass Bridge**

County	Offaly							
Townland	Droughtville; Knockbarron; Pass							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	216578	206905
Component	2	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	216578	206905
Summary	Site of 18th/early 19th century masonry arch road bridge over tributary of Camcor River. The present bridge is an 1852 replacement, erected by Board of Public Works as part of Camcor drainage scheme.							
Appraisal	A well executed bridge of architectural merit. Also has historical interest due to association with Board of Public Works and Brosna drainage scheme. Of local heritage significance.							
Rating	Local							

OFIAR-036-008 **Drumcullen Bridge**

County	Offaly							
Townland	Knockbarron							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	217736	206143
Summary	18th/early 19th century triple arch masonry road bridge over Camcor River.							
Appraisal	This bridge is of some architectural interest because of the different profiles to its three arches; heavy underpinning detracts from its character. Local heritage merit.							
Rating	Local							

OFIAR-036-010 **Castletown Bridge**

County	Offaly							
Townland	Castletown and Glinsk; Moneyguyneen; The Walk							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	220002	206250
Summary	18th/early 19th century triple-arch masonry road bridge over Camcor River.							
Appraisal	A substantial bridge, the quality of construction of which is probably due to proximity to Kinnitty Castle (formerly Castle Bernard). Of local heritage significance.							
Rating	Local							

OFIAR-036-012 **Coneyburrow Bridge**

County	Offaly							
Townland	Castletown and Glinsk							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	220861	204706
Component	2	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	220861	204706
Summary	Site of 18th/early 19th century road bridge over Camcor River. Replaced in later 1900s with present metal beam and concrete jack arch bridge.							
Appraisal	Although comparatively recent, this bridge is of technical interest due to the combination of I beams and jack arches under the slab deck. Probably of identical construction to OFIAR-036-009. There are only thee jack-arch bridges in the county (the third has brick jack arches, OFIAR-022-013). Of local heritage significance.							
Rating	Local							

OFIAR-036-015 **Breaghmore Bridge**

County	Offaly							
Townland	Bellhill; Breaghmore							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	214535	203564
Summary	18th/early 19th century triple-arch masonry road bridge over tributary of Camcor River. Middle arch rebuilt with concrete blocks.							
Appraisal	Of architectural interest as a small-scale random rubble triple arch span. The careful replacement of the middle arch soffit and rings with concrete blocks is of note. This is one of only two bridges in the county to demonstrate this construction technique (the other is OFIAR-013-005). Local heritage merit.							
Rating	Local							

OFIAR-039-006 **Aghagurty Bridge**

County	Offaly							
Townland	Aghagurty; Newtown (Ballybritt Bar)							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	217041	200892
Summary	18th/early 19th century masonry arch road bridge over tributary of Camcor River.							
Appraisal	Quite a substantial bridge, well executed and detailed. Of local heritage significance.							
Rating	Local							

OFIAR-042-014 **Weir Bridge**

County	Offaly							
Townland	Clucka North; Druminduff; Shinrone							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	203590	191629
Summary	18th/early 19th century triple-arch masonry road bridge over Little Brosna River.							
Appraisal	A modest example of a triple-arch masonry bridge, of local heritage significance.							
Rating	Local							

OFIAR-042-021

County	Offaly							
Townland	Lisnageeragh; Mountheaton							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Settlement	Grid	209512	190537
Summary	Masonry arch accommodation bridge of 1811 over Little Brosna River in grounds of Mount St Joseph. Widened in concrete on upstream side in 1930s and concrete supporting pier inserted under arch.							
Appraisal	Of some historical interest on account of attested date of construction and estate connections. Of local heritage significance.							
Rating	Local							

OFIAR-042-024

County	Offaly							
Townland	Drumakeenan (Clonlisk Bar, Roscrea Par); Lisnageeragh							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	210869	190473
Component	2	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	210869	190472
Summary	18th/early 19th century masonry arch road bridge over Little Brosna River. The present skew bridge is probably a c.1850 replacement by Board of Public Works in connection with Little Brosna drainage scheme. Soffit blocks also laid to the skew.							
Appraisal	A well constructed bridge of architectural merit and of some technical interest because of its shallow arch. Skew soffit blocks and stepped/numbered voussoirs. Historical interest on account of probable association with Board of Public Works and Little Brosna drainage scheme. Of regional heritage significance, meriting inclusion in Record of Protected Structures.							
Rating	Local							

OFIAR-042-031 **Brosna Bridge**

County	Offaly							
Townland	Brosna; Glasderry More							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	207957	193908
Component	2	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	207958	193908
Summary	18th/early 19th century masonry road bridge over Little Brosna River. Present bridge is possibly a mid 19th century replacement by Board of Public Works in connection with drainage scheme.							
Appraisal	A simple, yet well constructed bridge, somewhat marred by guniting. Probable historical association with Board of Public Works and Little Brosna drainage scheme. Of local heritage significance.							
Rating	Local							

OFIAR-043-003 **Nealstown Bridge**

County	Offaly; Laois							
Townland	Gorteen (Ballybritt Bar, Roscrea Par); Co Laois							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	219716	193629
Summary	18th/early19th century arched masonry road bridge over unnamed river at county boundary.							
Appraisal	A good example of a single arch rubble masonry bridge. Location beside picnic area ensures high visibility. Of local heritage significance.							
Rating	Local							

OFIAR-044-003

County	Offaly							
Townland	Aghnagross; Corraclevin							
Component	1	Bridge (road/rail)	Railway	Transport	Infrastructure	Grid	202529	188464
Summary	Arched masonry road bridge over railway line from Ballybrophy to Limerick. This section, from Roscrea to Nenagh opened 1863 by Great Southern & Western Railway Co.							
Appraisal	A well constructed bridge, finished to a high standard. Also of historical interest due to railway associations. One of four built for this line by the GSWR in Co Offaly. Local heritage significance.							
Rating	Local							

OFIAR-045-003 **Clonlisk Bridge**

County	Offaly							
Townland	Clonlisk							
Component	1	Bridge (road/rail)	Railway	Transport	Infrastructure	Grid	205679	188627
Summary	Masonry arch road bridge over railway line from Ballybrophy to Limerick. This section, from Roscrea to Nenagh opened 1863 by Great Southern & Western Railway Co.							
Appraisal	A well constructed bridge, finished to a high standard. Also of historical interest due to railway associations. One of four built for this line by the GSWR in Co Offaly. Local heritage significance.							
Rating	Local							

OFIAR-045-010

County	Offaly							
Townland	Clyduff (Clonlisk Bar)							
Component	1	Bridge (road/rail)	Railway	Transport	Infrastructure	Grid	208725	188724
Summary	Masonry arch road bridge over railway line from Ballybrophy to Limerick. This section, from Roscrea to Nenagh opened 1863 by Great Southern & Western Railway Co.							
Appraisal	A well constructed bridge, finished to a high standard. Also of historical interest due to railway associations. One of four built for this line by the GSWR in Co Offaly. Local heritage significance.							
Rating	Local							

OFIAR-045-011

County	Offaly							
Townland	Clyduff (Clonlisk Bar)							
Component	1	Bridge (road/rail)	Railway	Transport	Infrastructure	Grid	209049	188738
Summary	Skew masonry arch road bridge over railway line from Ballybrophy to Limerick. This section, from Roscrea to Nenagh opened 1863 by Great Southern & Western Railway Co.							
Appraisal	A well constructed bridge, finished to a high standard. Also of historical interest due to railway associations. One of four built for this line by the GSWR in Co Offaly. Local heritage significance.							
Rating	Local							

Appendix 3.2

Regional heritage significance

OFIAR-004-001 **Baltinoran Bridge**

County	Offaly; Meath							
Townland	Carrick (Warrenstown Bar); Co Meath							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	255376	240795
Component	2	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	255376	240795

Summary Causeway road bridge over Mongagh River at county boundary. Comprises a single masonry arch over the river and three smaller arches. The river originally ran through the three smaller arches which are probably of 18th century date. The river was redirected through the present arch, completed in 1849 by the Board of Public Works in connection with the Boyne drainage scheme.

Appraisal Three of the arches on this bridge appear to be of 18th century date, whereas the main arch dates from 1849. This is one of the few examples in Co Offaly where arches of different centuries co-exist in the same structure and is of technical interest for that reason. Also of historical merit due to association with Board of Public Works and Boyne drainage scheme. Of regional heritage significance, meriting inclusion in the Record of Protected Structures.

Rating Regional

OFIAR-004-004 **Kinnafad Bridge**

County	Offaly; Meath							
Townland	Kinnafad; Co Meath							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	261434	234999
Component	2	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	261434	234999

Summary Site of 18th/ early 19th century road bridge over River Boyne at county boundary. Replaced in 1849 with present masonry arch bridge by Board of Public Works in connection with Boyne drainage scheme.

Appraisal This bridge is of high architectural quality as evidenced by its contrasting finishes and embellishment. It is also of historical interest, being associated with the Boyne drainage scheme undertaken by the Board of Public Works. It is the most impressive of the attested Board of Works bridges recorded in the Boyne catchment within Co Offaly. Of regional heritage significance, meriting inclusion in the Record of Protected Structures.

Rating Regional

OFIAR-007-004 **Prospect Bridge**

County	Offaly							
Townland	Cranasallagh							
Component	1	Bridge (road/rail)	Railway	Transport	Infrastructure	Grid	220260	231595

Summary Skew masonry arch road bridge over Portarlington-Athlone railway. This section, between Tullamore and Athlone, opened 1859 by Great Southern & Western Railway Co.

Appraisal An unaltered mid 19th century masonry road-over-railway bridge of architectural merit and of technical interest as a good example of a masonry skew arch. It also has historical interest due to association with Great Southern & Western Railway. One of a number of such bridges along this line. Group value in context of adjoining Ballycumber Station. Regional heritage significance. Merits inclusion in Record of Protected Structures.

Rating Regional

OFIAR-007-009 **Ballycumber Bridge**

County	Offaly							
Townland	Ballybruncullin; Ballycumber; Bohernagrisna					Town	Ballycumber	
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	221104	230606
Component	2	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	221103	230606
Summary	Site of 18th/early 19th century road bridge over River Brosna. Replaced with present shallow segmental masonry arch span in 1850s by Board of Public Works during Brosna drainage scheme.							
Appraisal	A fine architectural example of mid 19th century bridge construction and of added historical interest on account of association with Board of Works and Brosna drainage scheme. Excepting Banagher Bridge (OFIAR-021-006) over the Shannon, this is the widest masonry arch span in the entire county, at 12.90m, and is of technical interest for that reason. Also of landscape interest. Regional heritage significance. Merits inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-008-008

County	Offaly							
Townland	Clara; Erry (Maryborough)					Town	Clara	
Component	1	Bridge (rail/road)	Railway	Transport	Infrastructure	Grid	225930	232403
Component	2	Bridge (rail/river)	Railway	Transport	Infrastructure	Grid	225922	232383
Summary	Bridge carries disused Clara Branch of Midland Great Western Railway over road and River Brosna; line opened 1863 and closed in 1965. The road section is a single-arch masonry bridge. The river crossing was a metal girder span, now removed.							
Appraisal	Although incomplete, this is the most substantial Midland Great Western bridge in Co Offaly and also one of the few rail-over-road bridges in the county. It has the third widest masonry arch span in the county (10.61m). It is of architectural merit on account of its quality of construction and detailing. It is also of historical interest on account of its railway associations. It is a significant landmark feature in the town and forms a visual 'stop' at this end of the street. It is of regional heritage significance and merits its present inclusion in the Record of Monuments and Places.							
Rating	Regional							

OFIAR-008-013 **Lismoyny Bridge**

County	Offaly; Westmeath							
Townland	Kilclare; Co Westmeath							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	229556	233193
Component	2	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	229555	233187
Summary	18th century masonry arch road bridge over River Brosna at county boundary. River channel recut and new span built over by Board of Public Works in 1850s in connection with Brosna drainage scheme. Two masonry arches associated with the earlier bridge also survive, both widened (probably when new arch built).							
Appraisal	This bridge is of architectural merit in demonstrating mid 19th century bridge construction and contrasting with its 18th century predecessor. It is also of historical interest in demonstrating several phases of construction and in being associated with the Brosna drainage scheme. This bridge is already included in the Record of Monuments and Places. The fact that it is still in use and is of regional significance also justifies its inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-008-014 **Kilmacarra Bridge**

County	Offaly							
Townland	Kilclare; Kilnacarra							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	229805	231875
Component	2	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	229805	231875
Summary	Site of 18th/early 19th century road bridge over River Brosna. Rebuilt as a segmental masonry arch bridge in 1850s by Board of Public Works during Brosna drainage scheme.							
Appraisal	A fine example of mid 19th century bridge construction and also of historical interest due to association with Board of Public Works and Brosna drainage scheme. Of regional significance. Merits inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-008-027

County	Offaly							
Townland	Erry (Armstrong); Erry (Maryborough)					Town	Clara	
Component	1	Bridge (road/rail)	Railway	Transport	Infrastructure	Grid	225540	232192
Summary	Skew masonry arch road bridge over Portarlington-Athlone railway immediately west of Clara Station. This section, between Tullamore and Athlone, opened 1859 by Great Southern & Western Railway Co.							
Appraisal	This bridge is of some architectural interest due to its detailing and quality of construction. It is also of historical interest due to its railway associations. It is a highly visible streetscape feature, particularly as one approaches the town from the south. The bridge also has group value with the adjacent station. It is also of technical interest in being a good example of a skew masonry span, with its soffit blocks also laid skewly. Overall, the bridge is of regional heritage significance and merits inclusion in the Record of Protected Structures.							
Rating	Regional							

OFIAR-008-033 **The Barony Bridge**

County	Offaly							
Townland	Erry (Armstrong)							
Component	1	Bridge (road/rail)	Railway	Transport	Infrastructure	Grid	223344	231518
Summary	Skew masonry arch road bridge over Portarlington-Athlone railway line. This section, between Tullamore and Athlone, opened in 1859 by Great Southern & Western Railway Co.							
Appraisal	Of architectural merit due to quality of construction and embellishment. Technical merit on account of skew arch and skewly laid soffit blocks. Historical association with Great Southern & Western Railway Co. A significant feature of the landscape hereabouts, emphasised by the dogleg road approaches. Of regional heritage significance, meriting inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-008-040 **Charlestown Bridge**

County	Offaly							
Townland	Erry (Maryborough); Kilcoursey					Town	Clara	
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	226070	232213
Summary	1774 five-arch masonry road bridge over River Brosna.							
Appraisal	This unaltered bridge is typical of 18th and early 19th century construction (random rubble, relatively small spans). One of five five-arched bridges in the county. Its historical interest is enhanced by its attested date. It also adds interest to the riverscape at this end of Clara. Its regional significance justifies its inclusion in the Record of Protected Structures.							
Rating	Regional							

OFIAR-009-009

County	Offaly; Westmeath							
Townland	Bracklin Little; Co Westmeath							
Component	1	Bridge (canal/river)	Inland waterway	Transport	Infrastructure	Grid	237286	231068
Summary	Substantial arched masonry bridge carries Kilbeggan Branch of Grand Canal over Silver River at county boundary. The canal opened in 1835.							
Appraisal	This aqueduct is the most substantial structure along the Co Offaly stretch of the Kilbeggan Canal. It is of high architectural quality, a significant landscape feature and of historical interest. Regional heritage significance. Merits inclusion in the Record of Protected							
Rating	Regional							

OFIAR-009-010 **Murphy's Bridge**

County	Offaly							
Townland	Bracklin Little							
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	237606	230505
Summary	Masonry arch road bridge over Kilbeggan Branch of Grand Canal. The canal opened 1835.							
Appraisal	This bridge is of architectural interest on account of its quality of construction, to a higher standard than the 1790s' bridges along the main canal. It also has historical interest due to its association with the canal and is of landscape value. Regional heritage significance. Merits inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-009-011

County	Offaly							
Townland	Bracklin Little							
Component	1	Bridge (canal/river)	Inland waterway	Transport	Infrastructure	Grid	237814	230286
Summary	Twin-arch masonry culvert carries Kilbeggan Branch of Grand Canal over minor tributary of Silver River. The canal opened 1835.							
Appraisal	This culvert is of surprisingly high quality construction considering its relatively small scale and is of architectural merit for this reason. It is also of historical interest due to its canal associations. Regional heritage significance. Merits inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-009-012 **Whelan's Bridge**

County	Offaly							
Townland	Bracklin Big							
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	238013	229914
Summary	Masonry arch accommodation bridge over Kilbeggan Branch of Grand Canal. The canal opened 1835.							
Appraisal	This bridge is of architectural interest on account of its quality of construction, to a higher standard than the 1790s' bridges along the main canal. It also has historical interest due to its association with the canal and is of landscape value. Regional heritage significance. Merits inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-010-009 **Killeen Bridge**

County	Offaly							
Townland	Castlebarnagh Little; Mullalough or Cavemount							
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	249071	228952
Summary	Arched masonry road bridge over Grand Canal. The canal opened in 1797.							
Appraisal	An intact late 18th century canal bridge associated with the Grand Canal Company. Of architectural, historical and landscape interest. It is of regional heritage significance and merits its inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-010-019

County	Offaly							
Townland	Togher (Lower Philipstown Bar)							
Component	1	Bridge (road/rail)	Railway	Fuel & power production	Industry	Grid	250758	232216
Summary	Skew twin-span concrete road bridge of 1959 over Bord na Mona peat railway. Associated with Derrygreenagh Group of Bogs.							
Appraisal	A substantial Bord na Mona bridge of typical style and relatively early date. Although virtually identical to OFIAR-018-038 in these respects, and similar in style to other Bord na Mona bridges of this period in Co Offaly, it could be considered sufficiently representative of the region's Bord na Mona bridges to merit regional heritage significance and therefore inclusion in the Record of Protected Structures.							
Rating	Regional							

OFIAR-011-007 **Cartland Bridge**

County	Offaly							
Townland	Monasteroris							
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	259764	232353
Summary	Masonry arch masonry road bridge over Grand Canal. Although this section opened in 1797, the bridge bears 1793 datestone.							
Appraisal	An intact late 18th century canal bridge associated with the Grand Canal Company. Of architectural, historical and landscape interest. It is of regional heritage significance and merits its inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-011-009 **Rathmore Bridge**

County	Offaly							
Townland	Rathmore (Coolestown Bar)							
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	261049	231691
Summary	Masonry arched accommodation bridge over Grand Canal. The canal opened in 1797.							
Appraisal	An intact late 18th century canal bridge associated with the Grand Canal Company. Of architectural, historical and landscape interest. It is of regional heritage significance and merits its inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-011-010 **Trimblestown Bridge**

County	Offaly							
Townland	Ballinla; Rogerstown							
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	257962	232479
Summary	Masonry arch road bridge over Grand Canal. The canal opened in 1797 and the bridge bears this date.							
Appraisal	An intact late 18th century canal bridge associated with the Grand Canal Company. Of architectural, historical and landscape interest. It is of regional heritage significance and merits its inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-011-013 **Rhode Bridge**

County	Offaly							
Townland	Rathcobican							
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	253464	231640
Summary	Masonry arch road bridge over Grand Canal. The canal opened in 1797.							
Appraisal	An intact late 18th century canal bridge associated with the Grand Canal Company, albeit marred by the pipe across its west face. Of architectural, historical and landscape interest. It is of regional heritage significance and merits its inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-011-015 **Toberdaly Bridge**

County	Offaly							
Townland	Toberdaly							
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	252582	231186
Summary	Masonry arch road bridge over Grand Canal. The canal opened in 1797.							
Appraisal	A virtually intact late 18th century canal bridge associated with the Grand Canal Company. Of architectural, historical and landscape interest. It is of regional heritage significance and merits its inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-012-013 **Downshire Bridge**

County	Offaly							
Townland	Edenderry							
Component	1	Bridge (foot/canal)	Inland waterway	Transport	Infrastructure	Grid	262542	231374
Summary	Masonry arch bridge of c.1800 carrying Grand Canal towpath over Edenderry branch line. Named after Lord Downshire who financed construction of the branch.							
Appraisal	A virtually intact c.1800 canal bridge associated with the Grand Canal Company. The only such bridge on the Edenderry line. Also strong landscape feature, this bridge is of regional heritage significance and merits inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-012-019 **Blundell Aqueduct**

County	Offaly							
Townland	Cloncanon; Drumcooly; Edenderry							
Component	1	Bridge (canal/road)	Inland waterway	Transport	Infrastructure	Grid	264265	231300
Summary	Arched masonry aqueduct carries Grand Canal over Edenderry-Rathangan road. Although this structure was built in 1793, the canal did not open until 1797.							
Appraisal	This substantial structure is unique in Co Offaly, being its only canal-over-road bridge. It is of historical interest in being associated with the Grand Canal, and a well-known feature of the landscape hereabouts. It is of regional heritage significance and merits inclusion in the Record of Protected Structures.							
Rating	Regional							

OFIAR-012-020 **Colgans Bridge**

County	Offaly							
Townland	Drumcooly; Edenderry							
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	262035	231449
Summary	Arched masonry road bridge over Grand Canal. The canal opened in 1797.							
Appraisal	A virtually intact late 18th century canal bridge associated with the Grand Canal Company. Also enhances the landscape. Of regional heritage significance, meriting inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-013-005 **Blackwater Bridge**

County	Offaly							
Townland	Clonever; Cloghal Beg							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	201584	223450
Summary	Late 18th/early 19th century arched road bridge over River Blackwater. The masonry arch was rebuilt with concrete blocks in 1920s.							
Appraisal	Primarily of technical interest due to fact that arch is of concrete blocks throughout. This is one of only two bridges in the county to demonstrate this construction technique (the other is OFIAR-036-015). Dating from the 1920s, this example demonstrates the transition between the use of squared stone soffit blocks and mass concrete and is possibly of regional significance for this reason. Possibly merits inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-013-018 **Garryduff Bridge**

County	Offaly; Roscommon							
Townland	Clonifeen; Co Galway					Town	Shannonbridge	
Component	1	Bridge (rail/river)	Railway	Fuel & power production	Industry	Grid	197347	224194

Summary Seven-span reinforced-concrete beam and slab Bord na Mona peat railway bridge of 1969 over River Shannon at county boundary. Conveys peat to Shannonbridge Power Station (OFIAR-013-013) from bogs in counties Galway and Roscommon. 180m long.

Appraisal Of architectural interest because of its scale. Historical link with Bord na Mona peat extraction and group value with adjoining power station. A significant landscape feature. Of regional heritage interest. Merits inclusion in Record of Protected Structures.

Rating Regional

OFIAR-014-005 **Belmont Bridge**

County	Offaly							
Townland	Ballingowan Glebe; Bellmount or Lisderg							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	207309	222192

Summary 18th century five-arch masonry road bridge over River Brosna, with pedestrian refuges and wide piers. At right bank end are two small millrace arches.

Appraisal Of architectural interest on account of scale and 18th century construction style (thick piers and pedestrian refuges). Escaped demolition during mid 1800s Brosna drainage scheme. A prominent landscape feature, enhanced by proximity to weir. One of five five-arched bridges in the county. Of regional heritage significance. Existing status as a Protected Structure merited.

Rating Regional

OFIAR-014-018

County	Offaly							
Townland	Aghaboy; Gallen							
Component	1	Bridge (rail/river)	Railway	Transport	Infrastructure	Grid	212186	224253

Summary Skew twin-arch masonry and brick bridge carries disused Banagher Branch of Great Southern and Western Railway over River Brosna; line opened 1884.

Appraisal Of architectural merit on account of proportion, scale and quality of construction. Historical association with Great Southern and Western Railway Co. The highly skewed brick soffits are of technical interest. This is one of only three brick arch bridges in the county (the others are OFIAR-035-061 and 038-002). A prominent landscape feature hereabouts. Of regional heritage significance. Merits inclusion in Record of Protected Structures.

Rating Regional

OFIAR-014-022 **Gallen Bridge or Armstrong Bridge**

County	Offaly							
Townland	Gallen; Noggusduff							
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	211115	222823
Summary	Masonry arch road bridge over Grand Canal. This section of canal opened 1804. Associated early 19th century quay, house and goods shed.							
Appraisal	Of architectural character as a typical Grand Canal bridge, albeit diminished due to guniting. Of historical interest due to association with Grand Canal Co. Prominent landscape feature. Of regional heritage significance. Merits inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-014-024 **Glyn Bridge; 32nd lock**

County	Offaly							
Townland	Glyn; Noggusboy							
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	209632	222838
Summary	Lock and lock keeper's house on Grand Canal. Masonry arch road bridge at west end of lock chamber. This section of canal opened							
Appraisal	Of architectural character as a typical Grand Canal bridge. Of historical interest due to association with Grand Canal Co. Prominent landscape feature and of group value in the context of the lock complex. Of regional heritage significance. Merits inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-014-026 **Samuel Judge's Bridge**

County	Offaly							
Townland	Ballysheil							
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	208178	222330
Summary	Masonry arch accommodation bridge over Grand Canal. Bridge dated 1803. This section of canal opened 1804. Named after local landowner.							
Appraisal	Of architectural character as a typical Grand Canal bridge. Of historical interest due to association with Grand Canal Co, attested date and name (that of adjoining land owner). Prominent landscape feature. Of regional heritage significance. Merits inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-014-030 **Ferbane Bridge**

County	Offaly							
Townland	Ferbane; Gallen					Town	Ferbane	
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	211540	224394
Component	2	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	211537	224395
Component	3	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	211539	224395

Summary: Site of 18th/early 19th century road bridge over River Brosna. Rebuilt in 1856 in connection with Brosna Drainage Scheme, and again in 1932 as a triple-arch reinforced-concrete beam and slab bridge.

Appraisal: A good example of a mid 20th century reinforced-concrete beam and slab bridge. It of similar design and style to T.S. Duggan's bridge at Clonbulloge (OFIAR-019-008). Historical interest due to attested date. Also enhances the landscape and a prominent feature at the south approach to Ferbane. Of regional heritage significance. Merits inclusion in Record of Protected Structures.

Rating: Regional

OFIAR-014-032 **33rd lock**

County	Offaly							
Townland	Ballingowan Glebe							
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	207355	221925

Summary: Double lock and lock keeper's house on Grand Canal. Also masonry arch road bridge over west lock chamber. This section of canal opened 1804.

Appraisal: Of architectural character as a typical Grand Canal bridge. Of historical interest due to association with Grand Canal Co. Prominent landscape feature, enhanced by proximity to double-lock complex. Of regional heritage significance. Merits inclusion in Record of Protected Structures.

Rating: Regional

OFIAR-015-012 **Derry Bridge**

County	Offaly							
Townland	Derries (Garrycastle Bar)							
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	215172	222710

Summary: Masonry arch accommodation bridge over Grand Canal; this section opened 1804.

Appraisal: Retains original architectural character. Historical link with Grand Canal and a landmark structure hereabouts. Of regional heritage significance, meriting inclusion in Record of Protected Structures.

Rating: Regional

OFIAR-015-047

County	Offaly							
Townland	Lemanaghan; Pollagh							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	219007	225694

Summary: Triple-span concrete beam and slab road bridge of c.1951 over Brosna River, erected by Office of Public Works in connection with second Brosna drainage scheme.

Appraisal: A good example of its type and of historical note due to association with Office of Public Works and second Brosna drainage scheme. Also a significant landscape feature hereabouts. Of regional heritage interest. Merits inclusion in Record of Protected Structures.

Rating: Regional

OFIAR-016-008 **Rahan Bridge**

County	Offaly							
Townland	Rahan Demesne; Tullybeg							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	225655	225633
Component	2	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	225668	225642

Summary: Multiple masonry arch road bridge of 1736 over Clodiagh River. Widened and new skew masonry span built over redirected river by Board of Public Works in 1850 during Brosna drainage scheme.

Appraisal: This bridge is of architectural interest in demonstrating the contrasting construction styles of the mid 18th and mid 19th centuries. It is also of historical interest in having date plaques from each period, and also because of its association with the Board of Public Works and the Brosna drainage scheme. It is also a significant landscape feature hereabouts. It is of regional heritage significance and its current status as a Protected Structure is justified.

Rating: Regional

OFIAR-016-011 **Cornalaur Bridge; 31st lock**

County	Offaly							
Townland	Cornalaur							
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	222438	226634

Summary: Masonry arch road bridge over Grand Canal at west end of 31st lock. Complex also includes lock and lock-keeper's house. This section of canal opened 1804.

Appraisal: Retains original architectural character. Historical association with Grand Canal and an interesting feature of the landscape. Also of group value in the context of the lock complex. Of regional heritage significance, meriting inclusion in Record of Protected Structures.

Rating: Regional

OFIAR-016-012 **Ballincloghan Bridge; 30th lock**

County	Offaly							
Townland	Ballincloghan (Ballycowan Bar)							
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	223311	226296

Summary: Masonry arch accommodation bridge over Grand Canal at west end of 30th lock. Complex also includes lock and lock-keeper's house. This section of canal opened 1804.

Appraisal: Retains original character. Historical association with Grand Canal and an interesting feature of the landscape. Group value in context of lock complex. Of regional heritage significance, meriting inclusion in Record of Protected Structures.

Rating: Regional

OFIAR-016-013 **Henesy's Bridge**

County	Offaly							
Townland	Goldsmithslot							
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	224124	226007

Summary: Masonry arch accommodation bridge over Grand Canal. This section of canal opened 1804.

Appraisal: Retains most of its original character. Historical association with Grand Canal and an interesting feature of the landscape. Of regional heritage significance, meriting inclusion in Record of Protected Structures.

Rating: Regional

OFIAR-016-020 **Charleville Aqueduct**

County	Offaly							
Townland	Kilgortin							
Component	1	Bridge (canal/river)	Inland waterway	Transport	Infrastructure	Grid	228570	224893
Summary	Triple-arch masonry aqueduct carries Grand Canal over Clodiagh River. This section of canal opened 1804.							
Appraisal	A substantial structure executed to a very high standard and a significant feature of the riverscape hereabouts. One of three such aqueducts along the Co Offaly stretch of the Grand Canal. Also of historical interest in terms of its association with the Grand Canal. Of regional significance. Merits inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-016-021 **Huband's Aqueduct**

County	Offaly							
Townland	Ballycowan							
Component	1	Bridge (canal/river)	Inland waterway	Transport	Infrastructure	Grid	229447	225123
Summary	Triple-arch masonry aqueduct carries Grand Canal over Tullamore River. Datestone attests to construction in 1803 (canal opened 1804). Named after Joseph Huband, a director in the Grand Company in period around 1800.							
Appraisal	A substantial structure executed to a very high standard and a significant feature of the riverscape hereabouts. One of three such aqueducts along the Co Offaly stretch of the Grand Canal. Also of historical interest in terms of its association with the Grand Canal. Of regional significance. Merits inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-016-022 **Ballycowan Bridge; 29th lock**

County	Offaly							
Townland	Ballycowan							
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	229766	225233
Summary	Masonry arch road bridge over Grand Canal at west end of lock. Also lock and lock keeper's house. This section of canal opened 1804.							
Appraisal	A well executed and unaltered canal bridge, of historical interest due to Grand Canal association. Adds interest to the local landscape. Group value in context of lock complex. Of regional heritage significance, meriting inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-016-023 **Srah Bridge**

County	Offaly							
Townland	Ballydrohid							
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	231675	225232
Summary	Masonry arch accommodation bridge over Grand Canal. This section of canal opened 1804.							
Appraisal	A well executed and unaltered canal bridge, of historical interest due to Grand Canal association. Adds interest to the local landscape. Of regional heritage significance, meriting inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-016-029 **Mucklagh Bridge**

County	Offaly							
Townland	Charleville Demesne							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	231058	222843
Component	1	Bridge (road/foot)	Road & pedestrian	Transport	Settlement	Grid	231058	222843
Component	2	Bridge (foot/river)	Road & pedestrian	Transport	Settlement	Grid	231059	222846

Summary 18th century triple masonry arch road bridge over Clodiagh River, widened on upstream side in later 1900s. At east end is an 18th century underpass connecting north and south parts of Charleville Demesne. There was also a private timber footbridge on its downstream side in the earlier 19th century, serving the demesne. This section of road was bypassed to the south in the 1970s or '80s by a new bridge (OFIAR-016-053).

Appraisal The original part of this bridge is of typical 18th century construction. Its interest is enhanced by the pedestrian underpass at its east end. It also has a historical association with an earlier road and the Charleville Estate. The upstream extension, although detracting somewhat from the masonry bridge, illustrates the growing volume of traffic in the later 1900s. The structure also has a landscape interest which is enhanced by the fact that it is now clearly visible from the new upstream bridge. Also has group value in the context of Charleville Estate. Overall, of regional heritage significance, meriting inclusion in Record of Protected Structures.

Rating Regional

OFIAR-016-052

County	Offaly							
Townland	Charleville Demesne							
Component	1	Bridge (road/foot)	Road & pedestrian	Transport	Settlement	Grid	231107	222825

Summary 18th century pedestrian underpass under main road; connects north and south sections of Charleville Demesne.

Appraisal Primarily of historical interest due to association with Charleville Estate. Also has group value within the context of the overall estate. Of regional significance, meriting inclusion in Record of Protected Structures.

Rating Regional

OFIAR-016-054

County	Offaly							
Townland	Charleville Demesne							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	231746	222740

Summary Mid 19th century masonry arch culvert carries road over disused mill race.

Appraisal Primarily of historical interest due to association with Charleville Estate. Also has group value within the context of the overall estate. Of regional significance, meriting inclusion in Record of Protected Structures.

Rating Regional

OFIAR-017-002 **Metal Bridge**

County	Offaly							
Townland	Srah (Ballycowan Bar)					Town	Tullamore	
Component	1	Bridge (rail/canal)	Railway	Transport	Infrastructure	Grid	232926	225156

Summary: Skew metal Warren truss girder railway bridge carries Portarlington-Athlone line over Grand Canal. This section, between Tullamore and Athlone, was opened in 1859 by Great Southern & Western Railway Co. Original masonry abutments survive. The present span is a 1908 replacement.

Appraisal: Although the original span has been replaced, this is still a good example of a metal truss girder bridge and is now one of only two surviving examples of this type in Co Offaly (the other is on the disused Birr-Roscrea line, OFIAR-042-003). It has historical interest due to its railway association and is a very prominent feature of the landscape hereabouts. It is of regional heritage significance and merits statutory protection.

Rating: Regional

OFIAR-017-003

County	Offaly							
Townland	Kilcruttin; Srah (Warrenstown Bar)					Town	Tullamore	
Component	1	Bridge (rail/river)	Railway	Transport	Infrastructure	Grid	233123	224902

Summary: Skew masonry arch railway bridge carries Portarlington-Athlone line over Tullamore River. This section, between Tullamore and Athlone, was opened in 1859 by Great Southern & Western Railway Co.

Appraisal: A well constructed bridge, with a longer span than the other masonry arch bridges along the Offaly section of this line. Also of technical interest as a good example of a skew span. It is the most striking and complete of all the railway-over-river masonry arch bridges on this line. Also of historical interest due to railway associations and a local landscape feature. Of regional significance, meriting inclusion in Record of Protected Structures.

Rating: Regional

OFIAR-017-004 **Tullamore Station**

County	Offaly							
Townland	Kilcruttin					Town	Tullamore	
Component	4	Bridge (foot/rail)	Railway	Transport	Infrastructure	Grid	233387	224546

Summary: Station on Athlone branch of Great Southern & Western Railway; now on the Dublin-Galway line. Opened 1865 and still in use. Site incorporates station, goods shed, signal box and metal girder footbridge. The footbridge (relocated from Roscrea) is a single lattice metal girder span fabricated in first half of 20th century by Manisty's Foundry, Dundalk, and is still in use.

Appraisal: Even though not original to this site, this well preserved later 19th century lattice girder footbridge enhances the character of station and adds to the heritage value of the grouping. It is one of the few bridges of this type to be found in the county (the other is in Birr, OFIAR-035-063, also imported from outside the county)). Also of historical interest due to association with Dundalk foundry. This complex retains much of its original character and is of regional heritage significance and merits its present status as a Protected Structure.

Rating: Regional

OFIAR-017-005 **Gaol Bridge**

County	Offaly							
Townland	Kilcruttin; Spollanstown					Town	Tullamore	
Component	1	Bridge (road/rail)	Railway	Transport	Infrastructure	Grid	233451	224470
Summary	Masonry arch road bridge over Portarlington-Athlone railway at south end of Tullamore Station. This section, between Tullamore and Athlone, was opened 1859 by Great Southern & Western Railway Co.							
Appraisal	A well constructed bridge of architectural interest. Also has historical interest on account of railway association, and group value owing to proximity to station. Regional heritage significance. Merits inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-017-015 **Cox's Bridge; 27th lock**

County	Offaly							
Townland	Puttaghan (Ballycowan Bar); Tullamore					Town	Tullamore	
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	233510	225340
Summary	Masonry arch road bridge over Grand Canal at west end of lock. This section opened 1804, but bridge dates to 1809 (datestone). Adjacent to 27th lock and lock keeper's house. Cantilevered footpath and railings in place of original parapets.							
Appraisal	Of architectural interest in terms of the quality of its construction, but its integrity is compromised by the footpath additions. Also of historical interest in terms of its association with the Grand Canal. The combination of bridge, lock and lock house also has group value. All criteria considered, it is of regional heritage merit and its status as a Protected Structure (Tullamore 127) is merited.							
Rating	Regional							

OFIAR-017-016 **Kilbeggan Bridge**

County	Offaly							
Townland	Tullamore					Town	Tullamore	
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	233984	225372
Component	2	Bridge (road/canal)	Road & pedestrian	Transport	Infrastructure	Grid	233984	225372
Summary	Site of humped masonry arch road bridge over Grand Canal. This section of canal opened 1804. Replaced with a reinforced-concrete arch span in 1930.							
Appraisal	Of some architectural interest in terms of its architectural detailing and landscape presence. It is also of technical interest in being the earliest recorded concrete arch bridge in the county. Indeed, it is one of only three concrete arch bridges in the county (excluding widened sections); the others are OFIAR-018-040 and OFIAR-031-021 (concrete bridges of this period are generally flat slabs). Overall, of regional significance, meriting inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-017-017 **Bury Bridge**

County	Offaly							
Townland	Puttaghan (Ballycowan Bar)					Town	Tullamore	
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	234273	225380
Summary	Masonry arch road bridge over spur of Grand Canal leading to Tullamore Harbour. The bridge is dated 1799, although this spur opened the previous year.							
Appraisal	This unaltered bridge has considerable architectural merit and is of historical importance in its canal association. It is also a strong landscape feature. Regional heritage significance. Its status as a Protected Structure (Tullamore 055) is merited.							
Rating	Regional							

OFIAR-017-022 **Digby Bridge; 25th lock**

County	Offaly							
Townland	Cappancur							
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	236514	225715
Summary	Masonry arch accommodation bridge of 1797 over Grand Canal at west end of lock. This section opened 1798. Adjacent to lock and lock keeper's house.							
Appraisal	Of architectural and landscape interest, enhanced by juxtaposition of lock. Also of historical note due to associations with Grand Canal. Group value in context of lock complex. Regional heritage significance. Merits inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-017-026 **22nd lock**

County	Offaly							
Townland	Cappyroe							
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	240798	225678
Summary	Masonry arch accommodation bridge 1797 over Grand Canal at west end of lock. This section opened 1798. Adjacent to lock and lock keeper's house.							
Appraisal	Of architectural and landscape interest, enhanced by juxtaposition of lock. Also of historical note due to associations with Grand Canal. Group value in context of lock complex. Regional heritage significance. Merits inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-017-028 **Wood of O Bridge**

County	Offaly							
Townland	Wood of O							
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	239076	228163
Summary	Masonry arch road bridge over Kilbeggan Branch of Grand Canal; this section opened 1835.							
Appraisal	This bridge is of architectural interest on account of its quality of construction, to a higher standard than the 1790s' bridges along the main canal. This is the widest of all the road brides over the Kilbeggan Canal within Co Offaly, undoubtedly because it carries the busiest public road. It also has historical interest due to its association with the canal and is of landscape value. Regional heritage significance. Merits inclusion in the Record of Protected Structures.							
Rating	Regional							

OFIAR-017-029 **Tong's Bridge**

County	Offaly							
Townland	Wood of O							
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	239396	227754
Summary	Masonry arch accommodation bridge over Kilbeggan Branch of Grand Canal; this section opened 1835.							
Appraisal	This bridge is of architectural interest on account of its quality of construction, to a higher standard than the 1790s' bridges along the main canal. It also has historical interest due to its association with the canal and is of landscape value. Regional heritage significance. Merits inclusion in the Record of Protected Structures.							
Rating	Regional							

OFIAR-017-032 **Odlum's Bridge**

County	Offaly							
Townland	Ballyteige Big							
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	240510	227062
Summary	Masonry arch road bridge over disused Kilbeggan Branch of Grand Canal; this section opened 1835.							
Appraisal	This bridge is of architectural interest on account of its quality of construction, to a higher standard than the 1790s' bridges along the main canal. It also has historical interest due to its association with the canal and is of landscape value. Regional heritage significance. Merits inclusion in the Record of Protected Structures.							
Rating	Regional							

OFIAR-017-034 **Brook's Bridge**

County	Offaly							
Townland	Ballycommon							
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	241606	226497
Summary	Masonry arch accommodation bridge over disused Kilbeggan Branch of Grand Canal; this section opened 1835.							
Appraisal	This bridge is of architectural interest on account of its quality of construction, to a higher standard than the 1790s' bridges along the main canal. It also has historical interest due to its association with the canal and is of landscape value. Regional heritage significance. Merits inclusion in the Record of Protected Structures.							
Rating	Regional							

OFIAR-017-112

County	Offaly							
Townland	Charleville Demesne							
Component	1	Bridge (road/foot)	Road & pedestrian	Transport	Settlement	Grid	232372	222806
Summary	Mid 19th century pedestrian underpass under road; connects north and south sections of Charleville Demesne.							
Appraisal	Primarily of historical interest due to association with Charleville Estate. Also has group value in the context of the estate as a whole. Of regional heritage significance. Merits inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-018-002 **Campbell Bridge**

County	Offaly							
Townland	Ballycommon							
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	242134	225775
Summary	Masonry arch towpath bridge over Kilbeggan Branch of Grand Canal. This branch opened 1835.							
Appraisal	This bridge is of architectural interest on account of its quality of construction, to a higher standard than the 1790s' bridges along the main canal. It also has historical interest due to its association with the canal and is of landscape value. Regional heritage significance. Merits inclusion in the Record of Protected Structures.							
Rating	Regional							

OFIAR-018-005 **Ballycommon Bridge or Chenevix Bridge**

County	Offaly							
Townland	Ballycommon							
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	242439	225868
Summary	Masonry arch road bridge over Grand Canal. This section opened 1798. Store adjoins at north-west.							
Appraisal	Of architectural, historical and landscape interest. Group value due to proximity to warehouse. Regional heritage significance. Merits inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-018-010 **Molesworth Bridge**

County	Offaly							
Townland	Townparks (Lower Philipstown Bar)					Town	Daingean	
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	247266	227736
Summary	Skew masonry arch road bridge of 1796 over Grand Canal. This section opened 1798.							
Appraisal	Of architectural, historical and landscape interest. This is the widest of the original masonry canal bridges in Co Offaly and the only skew one in Co Offaly. Regional heritage significance. Current inclusion in Record of Protected Structures entirely merited.							
Rating	Regional							

OFIAR-019-003 **Kilcumber Bridge**

County	Offaly							
Townland	Ballinowlart North; Ballykilleen (Coolestown Bar); Kilcumber							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	261067	226810
Component	2	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	261067	226810
Summary	18th/early 19th century twin-arch masonry road bridge over Figile River. The style of the present bridge suggests a mid 19th century replacement by the Board of Public Works as part of a Barrow drainage scheme.							
Appraisal	A well constructed and embellished bridge, the architectural quality of which has, unfortunately, been diminished by later concrete repairs. However, it is of high historical interest as it is the only recorded surviving example on the Figile River (and indeed in the entire Barrow catchment within Co Offaly) which has a (probable) association with the Board of Public Works and Barrow drainage scheme. Overall, of regional heritage significance, meriting inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-019-008 **St Patrick's Bridge**

County	Offaly							
Townland	Clonbulloge					Town	Clonbulloge	
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	260976	223493
Component	2	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	260976	223493
Summary	18th/early 19th century five-arch masonry road bridge over Figile River. Rebuilt as a twin-span reinforced-concrete beam and slab deck bridge by Offaly CC in 1932.							
Appraisal	This bridge is of architectural interest on account of its parapet embellishment and scale. It of similar design and style to T.S. Duggan's bridge at Ferbane (OFIAR-014-030). Technically, it is also a good example of 1930s concrete beam and slab bridge construction. It has historical interest on account of its attested construction date. It is also of landscape interest on the southern approach to the village. Overall, it is of regional heritage significance and merits inclusion in the Record of Protected Structures.							
Rating	Regional							

OFIAR-022-006 **Griffith Bridge**

County	Offaly							
Townland	Clonony Beg					Town	Shannon Harbour	
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	203316	219051
Summary	Masonry arch road bridge over Grand Canal. The bridge is dated 1803 and the canal opened the following year.							
Appraisal	Architectural interest as unaltered example of canal bridge. Historical interest due to attested date and link with Grand Canal Company. A highly visible landscape features. Of regional heritage significance, meriting inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-022-008 **Clonony Bridge; 34th lock**

County	Offaly							
Townland	Clonony More							
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	204575	219623
Summary	Masonry arch accommodation bridge over Grand Canal at west end of lock. Also adjoining lock and lock house. This section opened							
Appraisal	Unaltered bridge typical of Grand Canal Company. A significant landscape feature and of group value in lock complex. Regional heritage significance. Merits inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-022-010 **L'Estrange Bridge**

County	Offaly							
Townland	Clonony More							
Component	1	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	205618	220235
Summary	Masonry arch road bridge of 1800 over Grand Canal. This section of canal opened 1804.							
Appraisal	Unaltered canal bridge with historical link to Grand Canal. Also a landscape feature. Of regional heritage significance, meriting inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-022-013

County	Offaly							
Townland	Park (Garrycastle Bar)							
Component	1	Bridge (road/rail)	Railway	Transport	Infrastructure	Grid	203141	217787
Summary	Metal beam and brick jack arch road bridge over disused Banagher Branch of Great Southern and Western Railway; line opened 1884.							
Appraisal	An unaltered and well executed composite bridge (stone, metal, brick). Historical link with Great Southern & Western Railway Company. Technical interest on account of metal beams and brick jack arches. It is the only surviving definite example of a brick jack arch bridge in the county. Ramped approaches enhance its landscape impact. Of regional heritage significance. Merits inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-025-006 **Gorteen Bridge**

County	Offaly							
Townland	Gorteen (Geashill Bar)							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	234030	217145
Summary	Triple-arch random rubble road bridge of 1779 over Clodiagh River.							
Appraisal	This is one of the few 18th century road bridges in Co Offaly to have both an attested date and the name of its builder. Its style (rubble stonework and semicircular arches) is typical of the period. It survives largely intact, albeit marred by the pipes across either side. It is of regional heritage significance and merits statutory protection.							
Rating	Regional							

OFIAR-027-003 **Millgrove Bridge**

County	Offaly							
Townland	Mill Grove; Nahana							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	259957	219014
Summary	18th century five-arch masonry road bridge over Figile River.							
Appraisal	A well proportioned bridge typical of 18th century construction, albeit somewhat marred by later heavy underpinning. One of five five-arched masonry spans in the county and the only significant masonry bridge over the Figile River. Also of landscape interest. Of regional heritage significance, meriting inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-029-005 **Marlborough Bridge**

County	Offaly							
Townland	Corclogh; Incherky							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	196168	214415
Component	2	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	196166	214416
Summary	Site of mid 19th century accommodation bridge over branch of River Shannon. Superseded by present six-span metal beam and timber deck bridge erected by Office Public Works in later 1900s. Sluice gates on upstream side.							
Appraisal	A good example of a mid 20th century metal beam bridge. Sluice gates enhance architectural and technical interest. A significant landscape feature of regional heritage significance. Merits inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-029-013 **New Bridge**

County	Offaly; Tipperary							
Townland	Clonrah and Glaster; Co Tipperary							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	201698	209008
Summary	Late 18th/early 19th century five-arch masonry road bridge over Little Brosna River at county boundary.							
Appraisal	A good example of a c.1800 masonry arch bridge, given added interest by the wider/higher arches towards the middle. It is one of five five-arch masonry spans in the county. Of regional heritage significance. Merits inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-031-003

County	Offaly							
Townland	Frankford; Kilnagall					Town	Kilcormac	
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	218290	214180
Component	2	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	218291	214179
Summary	Site of 18th/early 19th century masonry road bridge over Silver River. Replaced with present twin-arch masonry bridge in 1854 (datestone).							
Appraisal	Architecturally, this bridge is slightly unusual on account of its relatively wide pier, a feature more usually found on pre-1800 bridges. The datestone and constructor's name add historical interest. The bridge is also an interesting feature of the riverscape hereabouts. Of regional heritage significance, meriting inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-033-005 **Portnahinch Bridge**

County	Offaly; Laois							
Townland	Garryhinch; Co Laois							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	249057	210044
Summary	18th century triple-arch road bridge over River Barrow at county boundary.							
Appraisal	Architecturally, this bridge is of interest in terms of its scale, modest embellishments and style (string course, blind panels), all reminiscent of an 18th century Grand Jury construction. It also enhances the riverscape. It is of regional heritage significance and merits inclusion in the Record of Protected Structures.							
Rating	Regional							

OFIAR-033-006 **Kilnahown Bridge**

County	Offaly; Laois							
Townland	Annamoe; Garryhinch; Co Laois							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	251345	210692
Summary	18th century four-arch masonry road bridge over River Barrow at county boundary.							
Appraisal	Architecturally, this bridge is of interest in terms of its scale, unadorned style typical of an 18th century Grand Jury construction. It also enhances the riverscape hereabouts. It is one of only two four-arched masonry spans in the county (the other is OFIAR-035-008). It is of regional heritage significance and merits inclusion in the Record of Protected Structures.							
Rating	Regional							

OFIAR-035-002 **Derrinsallow Bridge**

County	Offaly; Tipperary							
Townland	Bunrevan; Co Tipperary							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	203274	207926
Summary	Mid 19th century triple-arch masonry road bridge over Little Brosna River at county boundary.							
Appraisal	A well proportioned bridge with wide shallow segmental arches. A good example of a mid 19th century Grand Jury presentment bridge, not dissimilar to Oxmanstown Bridge (OFIAR-035-011). Of regional heritage significance.							
Rating	Regional							

OFIAR-035-008

County	Offaly							
Townland	Townparks (Ballybritt Bar)					Town	Birr	
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	205859	204676
Summary	Pre-1800 four-arch masonry road bridge over Camcor River. Soffits exhibit five construction phases (some with brick soffits). Houses formerly stood over the arches (demolished in 1970s).							
Appraisal	This bridge may well be 17th century in origin. It was the only bridge in Co Offaly on which houses were built, and one of only two four-arched masonry spans in the county (the other is OFIAR-033-006). Its evolution is clearly exhibited in its soffits, all of which would repay closer investigation. Regional heritage significance. It is already a Protected Structure.							
Rating	Regional							

OFIAR-035-011 **Oxmantown Bridge**

County	Offaly							
Townland	Townparks (Ballybritt Bar)					Town	Birr	
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	206209	204726
Component	2	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	206209	204726
Summary	Site of masonry arch road bridge of 1817 over Camcor River. Named after Baron Oxmantown (Earl of Rosse). Rebuilt in present triple segmental arch form by Offaly Grand Jury in 1855 (datestone).							
Appraisal	A well proportioned and executed bridge, typical of mid 19th century design. Of historical note on account of attested date. Also a highly visible landscape feature. Of regional merit, justifying its present inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-035-028 **Riverstown Bridge**

County	Offaly; Tipperary							
Townland	Ballindarra; Co Tipperary							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	205270	203540
Summary	18th century five-span road bridge over Little Brosna River on county boundary. Pedestrian cutwaters to parapets on upstream side.							
Appraisal	A good example of pre 1800 bridge design, typified by the random rubble stonework, multiple arches, thick piers and pedestrian refuges. It is one of five five-arched masonry spans in the county. Historical interest unfortunately diminished by guniting. Adds interest to the local landscape. Of regional significance, meriting inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-035-036

County	Offaly							
Townland	Townparks (Ballybritt Bar)					Town	Birr	
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Settlement	Grid	205408	204929
Component	2	Bridge (road/river)	Road & pedestrian	Transport	Settlement	Grid	205408	204929

Summary: Site of mid 19th century bridge over Camcor River in grounds of Birr Castle. Replaced by single-span metal beam and concrete slab accommodation bridge in 1911. Rosse coronet, monogram and date on parapets.

Appraisal: Although unprepossessing in architectural terms, this bridge is of technical significance in being an early Irish example of a composite metal beam and concrete slab bridge. It has a historical association with the innovative Parsons family. It also lends interest to the riverscape. Group value in context of Birr demesne. Regional heritage significance. In theory, this bridge is a Protected Structure by virtue of the fact that it lies within the curtilege of Birr Castle, itself a Protected Structure. However, to ensure an awareness of its protected status, explicit inclusion in the Record is recommended.

Rating: Regional

OFIAR-035-061

County	Offaly; Tipperary							
Townland	Townparks (Ballybritt Bar); Co Tipperary					Town	Birr	
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Settlement	Grid	205332	205476

Summary: Triple-arch brick and masonry accommodation bridge over Little Brosna River in grounds of Birr Castle (on county boundary). Probably 18th or early 19th century. Incorporates datestone of 1647, undoubtedly from another structure elsewhere (possibly in the locality). Widened on upstream side in later 1800s.

Appraisal: This bridge is of architectural interest because of the use of masonry and brick. It is one of only three brick-arched bridges in the county (the others are OFIAR-014-018 and 038-002). It is archaeological interest because of its datestone, of some historical note on account of its two phases of construction and has group value within the context of the demesne. It is also a significant landscape feature. Regional heritage significance. In theory, this bridge is a Protected Structure by virtue of the fact that it lies within the curtilege of Birr Castle, itself a Protected Structure. However, to ensure an awareness of its protected status, explicit inclusion in the Record is recommended.

Rating: Regional

OFIAR-036-006 **Carrig Bridge**

County	Offaly							
Townland	Droughtville; Kyle							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	215996	205813
Component	2	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	215995	205813

Summary: 18th/early 19th century masonry road bridge over Camcor River. The present bridge is an 1852 replacement, erected by Board of Public Works as part of Camcor drainage scheme. Very shallow skew span.

Appraisal: Of architectural and technical interest because of the quality of its execution and highly skewed shallow segmental arch. Also of historical interest due to association with Board of Public Works and Camcor drainage scheme. Of regional heritage significance, meriting inclusion in Record of Protected Structures.

Rating: Regional

OFIAR-036-024

County	Offaly							
Townland	Castletown and Glinsk							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Settlement	Grid	220348	205653
Component	1	Bridge (road/foot)	Road & pedestrian	Transport	Settlement	Grid	220348	205653
Summary	18th/early 19th century accommodation road bridge over Camcor River in grounds of Kinnitty Castle (formerly Castle Bernard). Also incorporates narrow pedestrian underpass on left bank.							
Appraisal	Although relatively plain, the architectural interest of this bridge is enhanced by the pedestrian underpass. It has a historical connection with Castle Bernard (as Kinnitty Castle was previously called) and enhances the local landscape. Group value in context of the estate. Regional heritage significance. In theory, this bridge is a Protected Structure by virtue of the fact that it lies within the curtilege of Kinnitty Castle, itself a Protected Structure. However, to ensure an awareness of its protected status, explicit inclusion in the Record is recommended.							
Rating	Regional							

OFIAR-036-025

County	Offaly							
Townland	Killinure; Kilmaine							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	213216	205406
Summary	Skew masonry arch road bridge of 1852 over Camcor River built by Board of Public Works as part of Camcor drainage scheme.							
Appraisal	A good example of a skew single-arch masonry bridge, historically linked to the Board of Public Works and the Camcor drainage scheme. It has the fourth widest masonry arch span in the county. Of regional heritage significance, meriting inclusion in Record of Protected Structures.							
Rating	Regional							

OFIAR-036-026

County	Offaly							
Townland	Castletown and Glinsk							
Component	1	Bridge (foot/river)	Road & pedestrian	Transport	Settlement	Grid	220247	206012
Component	2	Bridge (foot/river)	Road & pedestrian	Transport	Infrastructure	Grid	220247	206012
Summary	20th century lattice girder footbridge over Camcor River in grounds of Kinnitty Castle (formerly Castle Bernard). Replaced earlier footbridge erected in mid 1800s.							
Appraisal	This bridge is one of several footbridges over the river in the grounds of Kinnitty Castle. It is of technical interest owing to its lattice girder construction, all seemingly original, and is an interesting contrast to the suspension bridge just upstream. Group value in context of Kinnitty Castle estate. Regional heritage significance. In theory, this bridge is a Protected Structure by virtue of the fact that it lies within the curtilege of Kinnitty Castle, itself a Protected Structure. However, to ensure an awareness of its protected status, explicit inclusion in the Record is recommended.							
Rating	Regional							

OFIAR-038-002

County	Offaly							
Townland	Sharavogue							
Component	1	Bridge (road/rail)	Railway	Transport	Infrastructure	Grid	205695	196526

Summary: Skew arch road bridge over disused railway from Roscrea to Birr, opened by Roscrea & Parsonstown Railway Company in 1858. Abutments are of sandstone blocks and skew arch soffit is of brick.

Appraisal: A well preserved bridge of architectural quality. Also of technical interest on account of the skew brick soffit - this one of only three brick arch spans in the county (the others are OFIAR-014-018 and 035-061). Historical association with former Roscrea & Parsonstown Railway Company and one of only two intact bridges built by this company now surviving in Co Offaly (the other is OFIAR-042-003). Has group value with a nearby road-over-river bridge (OFIAR-038-003). Regional heritage significance. Merits inclusion in Record of Protected Structures.

Rating: Regional

OFIAR-038-003 **Sharavogue Bridge**

County	Offaly							
Townland	Ballincor Demesne; Sharavogue							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	205662	196470
Component	2	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	205661	196470

Summary: Site of 18th/early 19th century masonry arch bridge over Little Brosna River. Replaced c.1850 by Board of Public Works during drainage scheme.

Appraisal: A substantial well constructed bridge of architectural quality. Probable association with Board of Public Works and Little Brosna drainage scheme is of historical interest. Also enhances riverscape hereabouts. Of group value with the adjoining railway bridge (OFIAR-038-002). Regional heritage significance. Merits inclusion in Record of Protected Structures.

Rating: Regional

OFIAR-042-003

County	Offaly							
Townland	Ballylonnan (Clonlisk Bar); Glasderry More							
Component	1	Bridge (rail/river)	Railway	Transport	Infrastructure	Grid	208252	193667

Summary: Metal lattice girder bridge carries disused Roscrea & Parsonstown Railway over Little Brosna River. Line opened 1858. The present span could be an early 20th replacement of the original, but more research is required. Line closed 1963.

Appraisal: This bridge is primarily of technical interest in being one of two surviving lattice girder bridges in Co Offaly and the only one on the Roscrea-Birr line (the other is on the on the Portarlington-Athlone line over the Grand Canal at Tullamore, OFIAR-017-002). Historical association with former Roscrea & Parsonstown Railway Company and one of only two intact bridges built by this company now surviving in Co Offaly (the other is a masonry arch bridge, OFIAR-038-002). Also adds interest to the landscape hereabouts. Regional heritage significance. Merits inclusion in Record of Protected Structures.

Rating: Regional

Appendix 3.3

National heritage significance

OFIAR-005-002

County	Offaly; Roscommon							
Townland	Clonmacnoise; Co Roscommon							
Component	1	Bridge (foot/river)	Road & pedestrian	Transport	Infrastructure	Grid	200684	230681
Summary	Site of timber footbridge across River Shannon at county boundary. This is the oldest identifiable bridge in Ireland, having been excavated and dendrochronologically dated to c.804.							
Appraisal	This is the oldest identifiable bridge in Ireland, having been excavated and dendrochronologically dated to c.804. Merits inclusion in Record of Monuments & Places							
Rating	National							

OFIAR-013-001 **Shannon Bridge**

County	Offaly; Roscommon							
Townland	Cloniffeen; Raghra; Co Roscommon					Town	Shannonbridge	
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	196658	225453
Component	2	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	196725	225452
Summary	Sixteen-arch masonry road bridge c.1757 over River Shannon at county boundary. Also two arches at east end for navigable channel and towpath. The latter were replaced by a single-span cast-iron swivel bridge in 1843. A bailey bridge span was erected over the cast-iron bridge in 1962. Both were replaced by a reinforced-concrete fixed span in 1984 (using the original abutments). The original cast-iron swing section is preserved on the quayside just downstream from east end.							
Appraisal	Of high architectural merit on account of scale and typical pre-1800 construction style, complete with semicircular arches and pedestrian cutwaters. Along with Banagher (OFIAR-021-006), it is by far the longest bridge in the county (over 100m) and has the greatest number of arches (16). Evolution of navigation span also of historical interest. Also a significant landscape feature. Of national heritage significance. Current status as a Protected Structure merited.							
Rating	National							

OFIAR-021-006 **Banagher Bridge**

County	Offaly; Galway							
Townland	Curraghavarna and Portavolla; Kylebeg or Banagher; Co Galway					Town	Banagher	
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	200531	215855
Component	2	Bridge (road/river)	Road & pedestrian	Transport	Infrastructure	Grid	200526	215863
Component	3	Bridge (road/canal)	Inland waterway	Transport	Infrastructure	Grid	200568	215802
Summary	Six-arch masonry road bridge of 1843 over River Shannon at county boundary, replacing an earlier 17-arch bridge of c.1690. A seventh opening at its east end had a cast-iron swing bridge, replaced in 1971 with a fixed reinforced-concrete span. The original stone parapets were also replaced with metal railings at this time.							
Appraisal	Of high architectural merit and demonstrative of mid 19th century construction work by a government body (Shannon Commissioners). This is the only six-arch masonry span in the county. It is an interesting contrast with the 1750s bridge as Shannonbridge (OFIAR-013-001). Although both are approximately the same length, Banagher Bridge achieves the crossing with fewer spans (six as opposed to 16). It also has the longest masonry arch spans of all the county's bridges, averaging 17.88m (Ballycumber, OFIAR-007-009, has the next widest arch span at 12.90m). Of historical interest due to link with Shannon Navigation scheme. Also a highly visible landscape feature and of group value due to proximity to maltings and Napoleonic fort. National heritage significance.							
Rating	National							

OFIAR-023-003 **Macartney's Aqueduct**

County	Offaly							
Townland	Derrycarney; Falsk							
Component	1	Bridge (canal/river)	Inland waterway	Transport	Infrastructure	Grid	213818	221643
Summary	Triple-arch masonry aqueduct carries Grand Canal over Silver River. This section opened 1804. Commemorative plaque on bridge bears 1803 date and John Macartney's name (Chairman of the Board of the Grand Canal Company at that time). Refurbished by Waterways Ireland 2001.							
Appraisal	This is the largest aqueduct on the Grand Canal in Co Offaly and second only to the Leinster Aqueduct (Co Kildare) in size on this canal. It is of high quality construction and has been sympathetically refurbished. It is of historical interest due to attested date and link with Grand Canal Co. Also a substantial landscape feature hereabouts. Of national heritage significance, meriting inclusion in Record of Protected Structures.							
Rating	National							

OFIAR-032-006 **Ardara Bridge**

County	Offaly							
Townland	Castlefield							
Component	1	Bridge (road/river)	Road & pedestrian	Transport	Settlement	Grid	223018	209010
Summary	Arched masonry accommodation bridge over Silver River, in grounds of Cadamstown House. Of medieval date and originally associated with Ballymacadam Castle.							
Appraisal	This bridge is of architectural interest in being a good example of medieval bridge construction (rubble masonry, corbelling and two-centred profile). It is of archaeological and historical interest in probably being one of the earliest surviving bridges in Co Offaly and because of its likely association with Ballymacadam Castle. It is also an impressive landscape feature hereabouts and a rare survival in a national context. National heritage significance. It merits its current inclusion in the Record of Protected Structures (Offaly 043) and Record of Monuments & Places (OF032-026---). In order to prevent further tree damage, all trees should be cut back. The feasibility of stabilising this bridge should also be investigated.							
Rating	National							

OFIAR-036-023

County	Offaly							
Townland	Castletown and Glinsk							
Component	1	Bridge (foot/river)	Road & pedestrian	Transport	Settlement	Grid	220383	205779
Summary	Mid 19th century wire suspension footbridge over Camcor River in grounds of Kinnitty Castle (formerly Castle Bernard). Manufactured at the Hibernian Foundry, Mountmellick, Co Laois.							
Appraisal	This is one of several footbridges over the river in the grounds of Kinnitty Castle. The graceful lines of this suspension bridge make it of architectural merit and is one of only two such bridges in Co Offaly (the other is in Birr Demesne, OFIAR-035-030). It is also of technical interest as a rare surviving example of a multiple-wire suspension bridge. Although not as old as the Birr bridge (of c.1826), it is of historical interest as an example of early suspension bridge construction and also on account of its association with the Mountmellick Foundry. It also lends interest to the riverscape hereabouts. Group value in context of Kinnitty Castle estate. National heritage significance. In theory, this bridge is a Protected Structure by virtue of the fact that it lies within the curtilege of Kinnitty Castle, itself a Protected Structure. However, to ensure an awareness of its protected status, explicit inclusion in the Record is recommended.							
Rating	National							

Appendix 3.4

International heritage significance

OFIAR-035-030 **Chain Bridge**

County	Offaly								
Townland	Townparks (Ballybritt Bar)					Town	Birr		
Component	1	Bridge (foot/river)	Road & pedestrian	Transport	Settlement	Grid	205672	204930	
Summary	Wrought-iron suspension footbridge over Camcor River in grounds of Birr Castle. Probably dates to mid 1820s; said to be the oldest surviving wire suspension bridge in Europe.								
Appraisal	This bridge is of architectural merit in being one of only two suspension bridges in Co Offaly (the other is in at Kinnitty Castle, OFIAR-036-023). It is of technical interest as a rare surviving example of a multiple-wire cable suspension bridge, possibly the earliest survival in Europe. Historical association with the innovative Parsons family. Also lends interest to the riverscape hereabouts and has group value in context of Birr demesne. International heritage significance. In theory, this bridge is a Protected Structure by virtue of the fact that it lies within the curtilege of Birr Castle, itself a Protected Structure. However, to ensure an awareness of its protected status, explicit inclusion in the Record is recommended.								
Rating	International								

APPENDIX 4: BRIDGE NAMES

Name type	Name	Site no	Townland
Admin	Barony Bridge	OFIAR-017-043	Cloncollog; Meelaghans
Admin	Barony Bridge	OFIAR-023-012	Lea More; Oughter
Admin	The Barony Bridge	OFIAR-008-033	Erry (Armstrong)
Age	New Bridge	OFIAR-002-002	Faheeran; Newtown (Kilcoursey Barony)
Age	New Bridge	OFIAR-016-001	Derryesker
Age	New Bridge	OFIAR-029-013	Clonrah and Glaster; Co Tipperary
Age	Old Bridge	OFIAR-002-013	Faheeran; Newtown (Kilcoursey Barony)
Age	Old Bridge	OFIAR-022-019	Clonony More
Local	Derrykillane Bridge	OFIAR-026-011	Clonygowan; Stanure
Local	Gaol Bridge	OFIAR-017-005	Kilcruttin; Spollanstown
Local	Millbrook Bridge	OFIAR-023-008	Lumcloon
Local	Millbrook Bridge	OFIAR-035-022	Clonoghil Upper; Crinkill; Seefin
Local	New Mill Bridge	OFIAR-009-017	Bracklin Little; Co Westmeath
Local	Pound Bridge	OFIAR-017-016	Tullamore
Local	Pound Bridge	OFIAR-017-040	Tullamore
Local	Prospect Bridge	OFIAR-007-004	Cranasallagh
Local	Tougher Bridge	OFIAR-002-009	Ballynakill Little; Co Westmeath
Local	Weir Bridge	OFIAR-042-014	Clucka North; Druminduff; Shinrone
Materials	Metal Bridge	OFIAR-012-006	Edenderry; Co Kildare
Materials	Metal Bridge	OFIAR-017-002	Srah (Ballycowan Barony)
Materials	O'Hara's Wooden Br.	OFIAR-025-010	Clonagh East
Materials	Rock Bridge	OFIAR-031-010	Thomastown Demesne
Materials	Wooden Bridge	OFIAR-008-035	Aghnananagh; Derries; Derrynanagh; Doory
Materials	Wooden Bridge	OFIAR-009-020	Bracklin Little; Co Westmeath
Materials	Wooden Bridge	OFIAR-015-007	Coole (Garrycastle Barony)
Materials	Wooden Bridge	OFIAR-017-068	Tullamore
Materials	Wooden Bridge	OFIAR-019-011	Clongarret
Materials	Wooden Bridge	OFIAR-031-001	Aghagoogy; Broughal
Materials	Wooden Bridge (east)	OFIAR-021-013	Clonony Beg; Minus Island
Materials	Wooden Bridge (west)	OFIAR-021-001	Minus Island; Co Galway
Other	All Saint's Bridge	OFIAR-029-012	Garrycastle; Kilnaglinny
Other	Sheep Bridge	OFIAR-004-003	Clonmore (Warrenstown Barony); Killowen; Co Meath
Other	Tinkers Bridge	OFIAR-010-001	Clonagh; Kilduff
Personal	Armstrong Bridge	OFIAR-014-022	Gallen; Noggusduff
Personal	Bagnall's Bridge	OFIAR-035-063	Townparks (Ballybritt Barony)
Personal	Becan's Bridge	OFIAR-016-014	Newtown (Ballycowan Barony)
Personal	Blundell Aqueduct	OFIAR-012-019	Cloncanon; Drumcooly; Edenderry
Personal	Boland's Bridge	OFIAR-031-009	Ballynacard; Curraghmore; Davistown; Dovehill
Personal	Bury Bridge	OFIAR-017-017	Puttaghan (Ballycowan Barony)
Personal	Cage's Bridge	OFIAR-014-002	Creggan
Personal	Campbell Bridge	OFIAR-018-002	Ballycommon
Personal	Cartland Bridge	OFIAR-011-007	Monasteroris
Personal	Charleville Aqueduct	OFIAR-016-020	Kilgortin

Personal	Chenevix Bridge	OFIAR-018-005	Ballycommon
Personal	Colgans Bridge	OFIAR-012-020	Drumcooly; Edenderry
Personal	Corcoran's Bridge	OFIAR-016-015	Ballindrinan; Rahan Demesne
Personal	Cottoner's Bridge	OFIAR-033-007	Barranaghs; Co Laois
Personal	Cox's Bridge	OFIAR-017-015	Puttaghan (Ballycowan Barony); Tullamore
Personal	Digby Bridge	OFIAR-017-022	Cappancur
Personal	Downshire Bridge	OFIAR-012-013	Edenderry
Personal	Dreenan's Bridge	OFIAR-034-006	Trascan
Personal	Ffloyd's Bridge	OFIAR-041-001	Derrinclare; Toora
Personal	Georges Bridge	OFIAR-012-021	Drumcooly; Edenderry; Rathmore
Personal	Griffith Bridge	OFIAR-022-006	Clonony Beg
Personal	Henesy's Bridge	OFIAR-016-013	Goldsmithslot
Personal	Hickey's Bridge	OFIAR-004-006	Clonmore (Warrenstown Barony)
Personal	Huband's Aqueduct	OFIAR-016-021	Ballycowan
Personal	Kelly's Bridge	OFIAR-027-010	Cushina (Upper Philipstown Barony); Moanvane
Personal	Key's Bridge	OFIAR-027-002	Clonsast Upper; Nahana
Personal	L'Estrange Bridge	OFIAR-022-010	Clonony More
Personal	Loftus Bridge	OFIAR-039-001	Bellhill; Longford Big
Personal	Lord's Bridge	OFIAR-027-011	Enaghan; Moanvane
Personal	Macartney's Aqueduct	OFIAR-023-003	Derrycarney; Falsk
Personal	Meara's Bridge	OFIAR-011-004	Jonestown; Lenamarran; Roosk
Personal	Molesworth Bridge	OFIAR-018-010	Townparks (Lower Philipstown Barony)
Personal	Murphy's Bridge	OFIAR-009-010	Bracklin Little
Personal	Murray's Bridge	OFIAR-018-015	Townparks (Lower Philipstown Barony)
Personal	Odlum's Bridge	OFIAR-017-032	Ballyteige Big
Personal	O'Hara's Wooden Br.	OFIAR-025-010	Clonagh East
Personal	Oxmantown Bridge	OFIAR-035-011	Townparks (Ballybritt Barony)
Personal	Paddy's Bridge	OFIAR-017-044	Meelaghans
Personal	Plunkett Bridge	OFIAR-015-015	Pollagh
Personal	Poney's Bridge	OFIAR-042-018	Keeloge; Milltown; Rutland
Personal	Priest's Bridge	OFIAR-016-033	Killina
Personal	Russel's Bridge	OFIAR-004-005	Clonmore (Warrenstown Barony); Co Meath
Personal	Samuel Judge's Bridge	OFIAR-014-026	Ballysheil
Personal	Sarsfield's Bridge	OFIAR-021-006	Curraghavarna & Portavolla; Banagher; Co Galway
Personal	Tony's Bridge	OFIAR-017-029	Wood of O
Personal	Warburton's Bridge	OFIAR-028-004	Ballinowlart South; Bracknagh
Personal	Whelan's Bridge	OFIAR-009-012	Bracklin Big
Place	Aghagurty Bridge	OFIAR-039-006	Aghagurty; Newtown (Ballybritt Barony)
Place	Aghnameadle Bridge	OFIAR-046-006	Barnagrotty; Co Tipperary
Place	Ardara Bridge	OFIAR-032-006	Castlefield
Place	Ardra Bridge	OFIAR-027-006	Ardra; Bracknagh
Place	Ballincloghan Bridge	OFIAR-016-012	Ballincloghan (Ballycowan Barony)
Place	Ballyboughlin Bridge	OFIAR-008-003	Ballyboughlin; Kilmanaghan
Place	Ballybought Bridge	OFIAR-009-019	Ballybought
Place	Ballycommon Bridge	OFIAR-018-005	Ballycommon
Place	Ballycowan Bridge	OFIAR-016-022	Ballycowan
Place	Ballycumber Bridge	OFIAR-007-009	Ballybruncullin; Ballycumber; Bohernagrisna
Place	Ballydrohid Bridge	OFIAR-016-005	Ballydrohid; Ballyduff (Ballycowan Barony)
Place	Ballyduff Bridge	OFIAR-016-003	Ballyduff; Kildangan
Place	Ballyheashill Bridge	OFIAR-004-010	Ballyheashill; Tooreen (Warrenstown Barony)
Place	Ballynacarrig Bridge	OFIAR-032-001	Ballynacarrig; Cappagowlan
Place	Ballyshane Bridge	OFIAR-036-014	Ballyshane (Ballybritt Barony)

Place	Baltinoran Bridge	OFIAR-004-001	Carrick (Warrenstown Barony); Co Meath
Place	Banagher Bridge	OFIAR-021-006	Curraghavarna & Portavolla; Banagher; Co Galway
Place	Barnaboy Bridge	OFIAR-031-002	Kilnagall
Place	Bellmont Bridge	OFIAR-014-005	Ballingowan Glebe; Bellmount or Lisderg
Place	Bellmount Bridge	OFIAR-014-005	Ballingowan Glebe; Bellmount or Lisderg
Place	Bolart Bridge	OFIAR-008-036	Bolart South; Erry (Armstrong)
Place	Bolart Bridge	OFIAR-008-043	Ballyboughlin; Bolart South; Clara; Kilmanaghan
Place	Boolinarig Bridge	OFIAR-030-005	Boolinarig Big; Cush (Eglish Barony)
Place	Breaghmore Bridge	OFIAR-036-015	Bellhill; Breaghmore
Place	Brosna Bridge	OFIAR-042-031	Brosna; Glasderry More
Place	Castletown Bridge	OFIAR-036-010	Castletown and Glinsk; Moneyguyneen; The Walk
Place	Charlestown Bridge	OFIAR-008-040	Erry (Maryborough); Kilcoursey
Place	Clara Bridge	OFIAR-008-039	Clara; Erry (Maryborough)
Place	Clonad Bridge	OFIAR-024-005	Clonad (Geashill Barony); Killurin
Place	Clonbulloge Bridge	OFIAR-019-008	Clonbulloge
Place	Cloncreen Bridge	OFIAR-019-007	Clonbulloge; Cloncreen
Place	Clongall Bridge	OFIAR-004-005	Clonmore (Warrenstown Barony); Co Meath
Place	Clonlack Bridge	OFIAR-011-023	Clonlack; Clonmeen; Leitrim
Place	Clonlisk Bridge	OFIAR-045-003	Clonlisk
Place	Clonony Bridge	OFIAR-022-008	Clonony More
Place	Coneyburrow Bridge	OFIAR-012-007	Edenderry
Place	Coole Bridge	OFIAR-015-007	Coole (Garrycastle Barony)
Place	Coolnahely Bridge	OFIAR-008-020	Coolnahely
Place	Coolroe Bridge	OFIAR-044-004	Coldblow; Coolroe
Place	Corbetstown Bridge	OFIAR-004-002	Corbetstown
Place	Cornalaur Bridge	OFIAR-016-011	Cornalaur
Place	Crancreagh Bridge	OFIAR-022-018	Crancreagh; Kilcamin
Place	Croghan Bridge	OFIAR-035-006	Townparks (Ballybritt Barony); Co Tipperary
Place	Cushaling Bridge	OFIAR-020-003	Cushaling; Co Kildare
Place	Cushina Bridge	OFIAR-027-009	Cushina (Upper Philipstown Barony)
Place	Derrinsallow Bridge	OFIAR-035-002	Bunrevan; Co Tipperary
Place	Derry Bridge	OFIAR-015-012	Derries (Garrycastle Barony)
Place	Derrygarran Bridge	OFIAR-028-002	Coolygagan; Derrygarran
Place	Derrygolan Bridge	OFIAR-009-007	Ballynamona (Ballycowan Barony); Bracklin Big
Place	Eglish Bridge	OFIAR-030-006	Ballynaguilsha; Eglish; Shanacloon
Place	Elmgrove Bridge	OFIAR-035-012	Clonoghil Upper; Townparks (Ballybritt Barony)
Place	Esker Bridge	OFIAR-019-002	Esker More
Place	Faheeran Bridge	OFIAR-002-004	Faheeran; Newtown (Kilcoursey Barony)
Place	Fortel Bridge	OFIAR-035-015	Clonbrone (Eglish Barony); Fortel
Place	Gallen Bridge	OFIAR-014-022	Gallen; Noggusduff
Place	Garr Bridge	OFIAR-004-012	Derryiron; Garr; Srah (Warrenstown Barony)
Place	Garryduff Bridge	OFIAR-013-018	Clonifeen; Co Galway
Place	Glenafelly Bridge	OFIAR-039-007	Glenafelly
Place	Glyn Bridge	OFIAR-014-024	Glyn; Noggusboy
Place	Gormagh Bridge	OFIAR-009-004	Ardan; Gormagh
Place	Gortachallow Bridge	OFIAR-029-014	Gortachallow
Place	Gorteen Bridge	OFIAR-002-012	Curraghboy or Woodfield; Gorteen
Place	Gorteen Bridge	OFIAR-025-006	Gorteen (Geashill Barony)
Place	Kilbeggan Bridge	OFIAR-017-016	Tullamore
Place	Kilbride Bridge	OFIAR-008-006	Lissanisky
Place	Kilcolgan Bridge	OFIAR-015-006	Kilcolgan More; Turraun
Place	Kilcoursey Bridge	OFIAR-008-007	Kilcoursey
Place	Kilcoursey Bridge	OFIAR-008-046	Kilcoursey; Kilnabinnia

Place	Kilcumber Bridge	OFIAR-019-003	Ballinowlart North; Ballykillee; Kilcumber
Place	Killeen Bridge	OFIAR-010-009	Castlebarnagh Little; Mullalough or Cavemount
Place	Killeigh Bridge	OFIAR-025-008	Killeigh
Place	Killyon Bridge	OFIAR-036-002	Killyon; Streamstown (Eglish Barony)
Place	Kilmacarra Bridge	OFIAR-008-014	Kilclare; Kilnacarra
Place	Kilmeelchon Bridge	OFIAR-021-010	Kilmeelchon; Kylebeg or Banagher
Place	Kinnafad Bridge	OFIAR-004-004	Kinnafad; Co Meath
Place	Kishawanny Bridge	OFIAR-012-004	Edenderry; Co Kildare
Place	Knockarley Bridge	OFIAR-039-010	Knockarley; Newtown (Ballybritt Barony)
Place	Knockearl Bridge	OFIAR-044-001	Knockearl; Co Tipperary
Place	Lehinch Bridge	OFIAR-008-011	Kilmucklin; Kilnacarra; Lehinch
Place	Lismoyny Bridge	OFIAR-008-013	Kilclare; Co Westmeath
Place	Lumcloon Bridge	OFIAR-023-006	Lumcloon
Place	Lumcloon Bridge	OFIAR-023-014	Lumcloon
Place	Millgrove Bridge	OFIAR-027-003	Mill Grove; Nahana
Place	Milltown Bridge	OFIAR-042-019	Clyduff; Kilballyskea; Milltown
Place	Moorock Bridge	OFIAR-007-002	Moorock
Place	Moystown Bridge	OFIAR-022-002	Clonony More; Huntston; Moystown Demesne
Place	Mucklagh Bridge	OFIAR-016-029	Charleville Demesne
Place	Newbridge Street Br.	OFIAR-035-012	Clonoghil Upper; Townparks (Ballybritt Barony)
Place	Newtown Bridge	OFIAR-011-022	Ballycon; Newtown (Coolestown Barony)
Place	Noggus Bridge	OFIAR-014-023	Noggusduff
Place	Pass Bridge	OFIAR-036-005	Droughtville; Knockbarron; Pass
Place	Portnahinch Bridge	OFIAR-033-005	Garryhinch; Co Laois
Place	Rahan Bridge	OFIAR-016-008	Rahan Demesne; Tullybeg
Place	Rathmore Bridge	OFIAR-011-009	Rathmore (Coolestown Barony)
Place	Rhode Bridge	OFIAR-011-013	Rathcobican
Place	Riverstown Bridge	OFIAR-035-028	Ballindarra; Co Tipperary
Place	Road Bridge	OFIAR-011-013	Rathcobican
Place	Roosk Bridge	OFIAR-004-008	Clonmore (Warrenstown Barony); Lenamarran; Roosk
Place	Roscomroe Bridge	OFIAR-039-012	Roscomroe
Place	Sharavogue Bridge	OFIAR-038-003	Ballincor Demesne; Sharavogue
Place	Spollanstown Bridge	OFIAR-017-006	Spollanstown
Place	Springfield Bridge	OFIAR-017-045	Cappancur; Meelaghans
Place	Springfield Bridge	OFIAR-035-014	Clonoghil Lower; Clonoghil Upper
Place	Srah Bridge	OFIAR-016-023	Ballydrohid
Place	Thomastown Bridge	OFIAR-004-002	Corbetstown
Place	Toberdaly Bridge	OFIAR-011-015	Toberdaly
Place	Townfield Bridge	OFIAR-044-006	Brickanagh; Co Tipperary
Place	Wood of O Bridge	OFIAR-017-028	Wood of O
Place	Woodfield Bridge	OFIAR-002-011	Curraghboy or Woodfield; Raheen (Kilcoursey)
River	Barrow Bridge	OFIAR-034-005	Kilmalogue; Co Laois
River	Blackwater Bridge	OFIAR-013-005	Cloghal Beg; Clonever
River	Boyne Bridge	OFIAR-012-003	Edenderry; Co Kildare
River	Brosna Bridge	OFIAR-007-006	Clonshanny; Cranasallagh
River	Bunow Bridge	OFIAR-042-023	Mountheaton; Co Tipperary
River	Bunowen Bridge	OFIAR-042-023	Mountheaton; Co Tipperary
River	County Bridge	OFIAR-032-003	Coolacrease; Co Laois
River	Gageborough Bridge	OFIAR-002-005	Russagh
River	Island Bridge	OFIAR-018-017	Island; Oldtown; Townparks
River	Mongagh Bridge	OFIAR-003-001	Derrygreenagh; Co Westmeath
River	River Bridge	OFIAR-028-005	Ballinowlart South; Clonbrin
River	Shannon Bridge	OFIAR-013-001	Cloniffeen; Raghra; Co Roscommon

Size	Little Bridge	OFIAR-019-012	Cloncreen
Size	Little Bridge	OFIAR-036-003	Kilmaine
Size	Little Tunnel	OFIAR-012-017	Cloncanon; Edenderry
Type	Chain Bridge	OFIAR-035-030	Townparks (Ballybritt Barony)
Type	Draw Bridge	OFIAR-029-003	Clonahenoge
Unknown	Alley's Bridge	OFIAR-045-005	Ballybrack; Brockernagh; Clonaghannagh
Unknown	Annamoe Bridge	OFIAR-016-025	Ballycowan; Lynally Glebe
Unknown	Brook's Bridge	OFIAR-017-034	Ballycommon
Unknown	Carrig Bridge	OFIAR-036-006	Droughtville; Kyle
Unknown	Clonfosse Bridge	OFIAR-036-007	Ballincur (Ballybritt Barony); Kyle
Unknown	Coneyburrow Bridge	OFIAR-036-012	Castletown and Glinsk
Unknown	Drumcullen Bridge	OFIAR-036-008	Knockbarron
Unknown	Footbarrack Bridge	OFIAR-018-016	Townparks (Lower Philipstown Barony)
Unknown	Glash Bridge	OFIAR-017-046	Ballard; Charleville Demesne
Unknown	Gorteen Bridge	OFIAR-023-009	Lea Beg; Rin
Unknown	Johnville Bridge	OFIAR-028-003	Bracknagh
Unknown	Kilnahown Bridge	OFIAR-033-006	Annamoe; Garryhinch; Co Laois
Unknown	Kilscragh Bridge	OFIAR-029-002	Lavagh
Unknown	Lusmagh Bridge	OFIAR-029-009	Kylebeg or Banagher
Unknown	Maradyke Bridge	OFIAR-026-014	Ballymacrossan; Gorteenard
Unknown	Marlborough Bridge	OFIAR-029-005	Corclogh; Incherky
Unknown	Nealstown Bridge	OFIAR-043-003	Gorteen (Ballybritt Barony; Roscrea Parish)
Unknown	Rebel Bridge	OFIAR-027-007	Ardra; Clonsast Lower
Unknown	Rochfort Bridge	OFIAR-003-001	Derrygreenagh; Co Westmeath
Unknown	Scaul Bridge	OFIAR-007-005	Cranasallagh
Unknown	Skerry Bridge	OFIAR-020-004	Ballygarrett;Clonbulloge
Unknown	Suileen Bridge	OFIAR-020-002	Shean
Unknown	Trimblestown Bridge	OFIAR-011-010	Ballinla; Rogerstown
Unknown	Waterstown Bridge	OFIAR-011-005	Monasteroris