

**REGIONAL AND LOCAL ROAD BRIDGE REHABILITATION  
WORKS 2012,  
CO. LONGFORD**

**DERRYCOLUMB BRIDGE**

**PART 8 PLANNING APPLICATION**



Project & Document No	Revision	Prepared By	Checked By	Approved By	Status	Date
14450/6012	B	M Murphy	B Sayers	P O'Donnell	Revised Draft	19.04.12

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## 1 INTRODUCTION

Longford County Council have identified the need replace the existing Derrycolumb masonry arch bridge. The bridge is located on the local road LP1139 that passes over a tributary of the Bilberry River. The works will require removing the existing bridge in its entirety and replacing it a reinforced concrete deck supported on piles. 10m long masonry parapets are also to be provided. The road will be resurfaced with footpaths installed on both sides. Approach and departure barriers will be provided on both sides of the bridge.

The structure is not listed in both the Longford County Council Record of Protected Structures, and is not in the survey of bridges in Co. Longford by Lotts Architecture and Urbanism, November 2007. However, in accordance with Article 80 (1) of the Planning and Development Regulations 2001 a Part 8 procedure is required for the demolition and replacement of the existing masonry arch structure.

## 2 EXISTING ENVIRONMENT

### 2.1 Site location

The location of Mullagh Bridge is as shown on Figure 1 in Appendix A. It is located on the LP 1139 crossing a tributary of the Bilberry River in the townlands of Derrycolumb/Ledwithstown at Ballymahon.

The Irish Grid Reference for the structure is 209,942 E, 259,119 N

### 2.2 Road Network

The AADT for the LP 1139 between Derrycolumb and Ledwithstown is unknown. The speed limit on this section of road is 80 km/hr.

There are no junctions within close proximity to the bridge.

### 2.3 Site Description and Topography

The land use in the area of the bridge is primarily agricultural.



*View overlooking bridge from west*

#### 2.3.1 Existing Bridge

The existing bridge is a single span masonry arch slab structure that is more than 150 years old.

The bridge has a span between abutments of 2.8m and a rise to crown of 0.735m.

During site visits on the 17<sup>th</sup> January and 21<sup>st</sup> February 2012 the following was noted:

- Parapets are 400mm wide. The minimum height of this wall is 720mm.
- Water depth on the day of inspection was 2.45m and river level was an average of 125mm below springing point.
- No services were identified passing the bridge.
- Severe deformation of the masonry arch has occurred. The crown has started to snap-through and this has resulted in an opening up of the voussoirs at springing point.
- The spandrel wall/voussoirs have pulled away from the arch barrel, forming a circumferential crack, and this has resulted in settlement and outward movement of the parapet wall on both sides.
- Mortar loss is prevalent in the arch barrel and this has led to loss of some stones from the barrel.
- No approach/departure parapets exist. The drop into adjacent land is greater than the 0.5m maximum allowed (approaching 2m in places).



*View of downstream elevation*

## **2.4 Archaeology and Ecology**

The structure is not listed in both the Longford County Council Record of Protected Structures, and is not in the survey of bridges in Co. Longford by Lotts Architecture and Urbanism, November 2007.

This bridge is not located within a Special Area of Conservation, Special Protection Area or Natural Heritage Area. It is however located within 1 km of the Lough Ree SPA and 0.5 km of the Lough Ree SAC (Code 004064 and 000440 respectively). It is also located within 2.5 km of the Forthill Bog NHA (Code 001448).

### 3 PROPOSALS

#### 3.1 Proposed Road Realignment

It is not proposed to augment the alignment of the existing road on the approaches to or on the bridge itself. Footpaths will be installed on both sides of the bridge and the existing carriageway width will be maintained

#### 3.2 Proposed Cross Section of the Bridge

The proposed cross section of the Derrycolumb Bridge is as described in Table 3.1 below:

Cross Section	Width (m)
Northern Parapet	0.45
Northern Footway	1.25
Carriageway	4.4
Southern Footway	1.25
Southern Parapet	0.45
<b>TOTAL</b>	<b>7.8</b>

#### 3.3 Proposed Works to Structure

##### 3.3.1 General

The full list of proposed works to Derrycolumb Bridge are as follows:

- Remove the bridge in its entirety.
- Provide 5 No. 300mm dia. piles at both river banks to transfer loads to the stiff clay bearing stratum present at a depth of 5.5m. These piles will penetrate this clay layer to a depth of 6.5m.
- Construct a 500mm x 500mm diaphragm beam across the pile heads.
- Provide a ballast wall (with flying wing walls) integral with the piles to retain backfilled material.
- The existing masonry arch will be replaced with a new 300mm thick reinforced concrete deck slab spanning from diaphragm to diaphragm.
- Provide new 450mm thick stone masonry parapets (10m long). Concrete strip foundation required off bridge.
- Resurfacing with tar and chip on 2 layers of a dense bitumen macadam (DBM) on a DBM regulating course on a 30mm red sand asphalt (or on an indicator mesh on a 30mm DBM layer) on a spray-on waterproofing on the structural deck.

- Provide approach and departure barriers for 30m and 15m respectively on both sides of the bridge.
- Install footpaths at both sides of the bridge. The existing lane width will be maintained (4.4m).

### **3.3.2 Lighting**

Due to the rural location of the bridge no lighting is proposed on this structure.

### **3.4 Traffic Management During Construction**

The bridge will be closed for a period of 8 weeks during the works.

All traffic management required during construction will be in accordance with Chapter 8 of the Traffic Signs Manual.

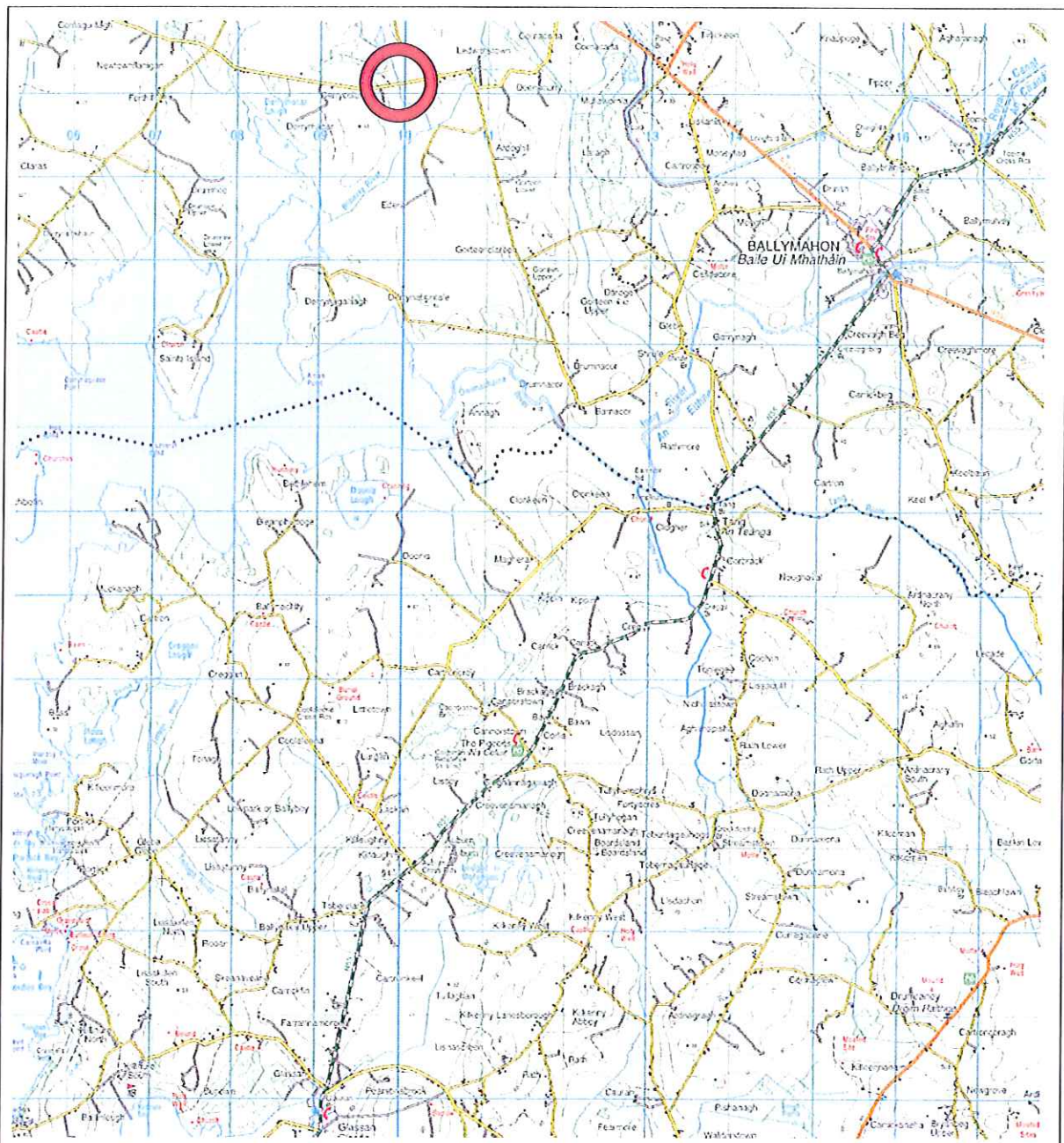
It is not expected that the construction traffic will add significantly to the existing daily traffic on the road in the area. Some heavy transports to the site are anticipated during the installation of site plant and delivery of the bridge elements. However, these transports are likely to be only over a limited period of time.

## 4 AUTHORITIES TO BE CONSULTED

On behalf of Longford County Council, this Part 8 Report will be sent to the following bodies for consultation:

- The Minister for Arts, Heritage and the Gaeltacht
- The Heritage Council;
- An Taisce – The National Trust for Ireland
- An Chomhairle Ealaíon – The Arts Council of Ireland
- Fáilte Ireland
- Inland Fisheries Ireland
- Waterways Ireland

## Appendix A Drawings



<p><b>Project:</b>                  Longford Regional &amp; Local Bridge                  Rehabilitations</p>	<p><b>Ordnance Survey Ireland Licence No. EN 0015712</b>                  © Ordnance Survey Ireland/Government of Ireland</p>
<p><b>Figure:</b>                  Figure 1</p>	<div data-bbox="798 1736 933 1937" data-label="Image"> </div> <p><b>Malachy Walsh and Partners</b>                  Consulting Engineers                  Park House, Mahon Technology Park,                  Bessboro Road, Blackrock, Cork                  Tel: 021-4536400 Fax: 021-4536450  <a href="http://www.mwp.ie">http://www.mwp.ie</a></p>
<p><b>Title:</b>                  Site Location Map</p>	
<p><b>Structure Name:</b>                  Derrycolumb Bridge</p>	

## Appendix B      Site Notice



## LONGFORD COUNTY COUNCIL SITE NOTICE

### NOTICE UNDER SECTION 179 OF THE PLANNING & DEVELOPMENT ACT 2000 & PART 8, ARTICLE 81 AND ARTICLE 83 OF THE PLANNING & DEVELOPMENT REGULATIONS 2001 (AS AMENDED BY ARTICLES 17 AND 19 OF THE PLANNING & DEVELOPMENT REGULATIONS 2006)

Pursuant to the requirement of Part 8 of the Planning & Development Regulations 2001 (as amended by Articles 17 and 19 of the Planning and Development Regulations 2006), notice is hereby given that Longford County Council proposes to carry out development, particulars of which are set out in the Schedule hereunder.

Location	Nature & Extent of Development
Derrycolumb Bridge, Co. Longford	<ul style="list-style-type: none"><li>• Removing the existing masonry arch structure in its entirety and replace it with a 300mm thick reinforced concrete slab spanning from diaphragm to diaphragm supported on piles.</li><li>• Providing a ballast wall with flying wingwalls integral with the piles</li><li>• Providing new 6m long masonry parapets, installing footpaths on both sides of the bridge and resurfacing the bridge.</li></ul>

Plans and particulars of the proposed development will be available for inspection at the Planning Department, Longford County Council, Aras an Chontae,, Great Water Street, Longford during the hours of 9:00am to 1:00pm, and 2:00pm to 5:00pm Monday to Friday excluding Bank Holidays for a period from Thursday May 31<sup>st</sup> 2012 to Friday July 13<sup>th</sup> 2012 inclusive.

Plans and Particulars may be obtained free of charge at the Planning Department, Longford County Council and are also available online at [www.longfordcoco.ie](http://www.longfordcoco.ie).

**Submissions and observations with respect to the proposed development dealing with the proper planning and sustainable development of the area in which the development would be situated may be made in writing to Mr Frank Sheridan, Director of Services, Planning & Building Control Directorate, Longford County Council, Great Water Street, Longford on or before 4:00pm on Friday 27<sup>th</sup> July 2012**

Mr Frank Sheridan

Director of Services

Planning & Building Control

## **Appendix C      Newspaper Display Notice**

**LONGFORD COUNTY COUNCIL**

**Planning and Development Acts 2000-2010**

**Planning and Development Regulations 2001-2010**

**Notice pursuant to Part 8 Planning relating to Proposed Developments by  
Longford County Council**

Pursuant to the requirement of Part 8 of the Planning & Development Regulations 2001 (as amended by Articles 17 and 19 of the Planning and Development Regulations 2006), notice is hereby given that Longford County Council proposes to carry out developments, particulars of which are set out in the Schedules hereunder

**Derrycolumb Bridge, Ballymahon, Co Longford**

**Nature and Extent of Development**

- Removing the existing masonry arch structure in its entirety and replace it with a 300mm thick reinforced concrete slab spanning from diaphragm to diaphragm supported on piles
- Providing a ballast wall with flying wingwalls integral with the piles
- Providing new 6m long masonry parapets installing footpaths on both sides of the Bridge and resurfacing the Bridge.

Plans and particulars of the proposed development will be available for inspection at the Planning Department, Longford County Council, Aras an Chontae, Great Water Street, Longford during the hours of 9:00am to 1:00pm, and 2:00pm to 5:00pm Monday to Friday excluding Bank Holidays for a period from Thursday May 31<sup>st</sup> 2012 to Friday July 13<sup>th</sup> 2012 inclusive.

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Mr Frank Sheridan  
Director of Services  
Planning & Building Control  
Longford County Council