

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

**AUGHNACLIFF BRIDGE**

**PART 8 PLANNING APPLICATION**



Project & Document No	Revision	Prepared By	Checked By	Approved By	Status	Date
14450/6013	C	M Murphy	B Sayers	P O'Donnell	Revised Draft	24.04.12

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## 1 INTRODUCTION

Longford County Council have identified the need to carry out refurbishment and upgrading works to Aughnacliff Bridge, located on the road LP 1044 that passes through the village of Aughnacliff. The works will require modification to the existing structure including the demolition of the existing deck and parapets and replacement with a new reinforced concrete deck of adequate carrying capacity.

On top of the deck it is proposed to install new masonry parapets, a footway and a rubbing strip along with a 6.6m wide carriageway. Existing services including a sewers and water main within the fill on the deck will need to be retained on the new structure beneath footway or rubbing strip or carriageway. The new stone masonry parapets will extend a distance beyond the extents of the bridge.

The refurbishment works required include the removal of vegetation from the structure, the carrying out of patch repairs to the existing abutments, attending to areas of scour damage to western end of both abutments by underpinning, install rock armour along the riverbanks for a distance to the west of each abutment, drilling of holes in the southern abutment to facilitate the movement of water from behind to the watercourse.

The structure is not listed in the Longford County Council Record of Protected Structures. It is however listed in the survey of bridges in Co. Longford by Lotts Architecture and Urbanism, November 2007, but this report does not recommend it for inclusion in the Record of Protected Structures.

## 2 EXISTING ENVIRONMENT

### 2.1 Site location

The location of Aughnacliff Bridge is as shown on Figure 1 in Appendix A. It is located on the LP 1044 crossing a tributary of Lough Gowna in the village of Aughnacliff in the east of County Longford.

The Irish Grid Reference for the structure is 226,088 E, 288,877 N

### 2.2 Road Network

The AADT for the LP 1044 through Aughnacliff is unknown. The speed limit on this section of road is 50 km/hr but vehicle speeds at the bridge may be higher than that due to the wide width of the carriageway over the structure.

The horizontal alignment of the road on both approaches to the bridge is quite straight. The bridge is located at a low point on the road so there is a gentle upward gradient as one travels from the bridge in both directions.

There are no junctions within close proximity to the bridge. However, there are entrances to private properties and to agricultural facilities within 40m on both sides of the bridge.

### 2.3 Site Description and Topography

The land use in the area of the bridge is mixed but primarily residential due to its location in the village of Aughnacliff.



*View overlooking bridge from south*



View overlooking bridge from north

### 2.3.1 Existing Bridge

Aughnacliff Bridge is a single span, reinforced concrete slab structure that is approximately 50 years old. Information recorded at the bridge was as follows:

- Single span of 3.8m between faces of abutments. Skew angle is 25°. The deck slab is integral with the abutments. No deck joints are present.
- Deck slab is 9.75m wide x 280mm deep. The slab is in a reasonable condition but with areas of spalling of reinforcement on the deck soffit and deck edge, indicating a widespread lack of concrete cover.
- Parapets consist of a mixture of 300mm wide concrete sections, 150mm concrete masonry sections, and steel replacement railings. The minimum height of the parapet is 740mm and it is leaning outward considerably after an impact at the south eastern side. A crack exists in the north eastern end of the parapet wall. This is cosmetic in nature.
- A manhole present adjacent to the southern abutment to the east suggest a sewer pipe crosses the eastern carriageway of the bridge within the road build-up. It is likely that street lighting ductwork crosses the bridge in the western soft verge. A drainage gully is located on the eastern carriageway and appears to discharge through the southern abutment of the bridge.
- The abutments appear to be in mass concrete and are of variable quality. Scour of the abutment wall on the northern face at bed level has occurred, most likely due to the poor quality of the concrete. This scour is approximately 250mm deep x 1m long. A hole in the southern abutment along a construction joint is allowing water ingress through the abutment. This water is above river level so is likely to come from a porous layer of fill behind the abutment. Honeycombing of the concrete exists in the lower 300mm of the northern abutment wall in particular.
- A serious scour problem exists at the western ends of both abutments. Ranging rods penetrated under the abutment up to 1m at both locations.

Erosion of the embankment immediately to the west of the abutments is leading to this scour.

- A number of rocks and concrete pieces line the riverbed and impede flows.
- The abutments appear to be founded on rock or a stiff glacial till.
- Extensive vegetation occurs around the western parapet, and at the southern end in particular. This consists of ivy growth and moss on concrete elements.
- A longitudinal crack exists in the deck soffit and both abutments. This appears to be a construction joint and is not leading to any problems.
- No departure parapet exists to the north west.



*Upstream elevation of bridge*



*Downstream elevation of bridge*

#### **2.4 Archaeology and Ecology**

The structure is not listed in the Longford County Council Record of Protected Structures. It is however noted in the survey of bridges in Co. Longford by Lotts Architecture and Urbanism, November 2007 but is not recommended for inclusion in the Longford County Council Record of Protected Structures therein.

This bridge is located within 1 km of the Lough Gowna NHA (Code 000992). It is not located within 24 km of any SPA or SAC.

It will be specified that during the construction process all works shall be carried out in accordance with best practice for the protection of flora, fauna, and marine life in the vicinity of the bridge. This will take cognisance of the sites of environmental significance within or in proximity to the site and will recommend the carrying out of works in accordance with relevant guidelines including the habitats directive, natural habitats regulations, Inland Fisheries Ireland guidelines and National Parks and Wildlife Service recommendations.

### 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. It is proposed to provide a carriageway with two number lanes of minimum width of 3.0m between the new footway and rubbing strip on the new deck. The vertical alignment of the carriageway is to tie in with the existing levels and falls

#### 3.2 Proposed Cross Section of the Bridge

The proposed cross section of the new deck on Aughnacliff bridge is as described in the following table:

Cross Section	Width (m)
Western Parapet	0.45
Rubbing Strip	0.25
Carriageway	3.0m min x 2
Footway	1.25
Eastern Parapet	0.45
<b>TOTAL</b>	<b>8.4</b>

#### 3.3 Proposed Works to Structure

##### 3.3.1 General

The following deck upgrading works to be carried out:

- The entire existing deck will be removed and replaced with a new 325mm thick R.C. deck slab.
- Rebuild spandrel wall in reinforced concrete up to footpath/rubbing strip level. Note that existing services, a sewer in particular, must be accommodated within the road build-up.
- Backfill and resurface up to existing road level.
- Provide a temporary crash deck under the bridge during deck replacement operations to prevent concrete and fines entering the watercourse.
- The face of the abutments at low level to be repaired. Break back to sound concrete and carry out a patch repairs using cementitious repair mortar.
- Underpin the western ends of both abutments to address the scour damage that has occurred.
- Rock armour is to be placed at the western ends of both abutments to form a more natural funnelling of the river into the bridge and to reduce the risk of further scour.

- Remove the existing soft verge and replace with a 1.25m footpath on the western side and a 250mm rubbing strip on the eastern side. The surfacing should extend to both. This will provide a lane width of between 3m and 3.25m. Existing lighting standard to be moved.
- Existing parapets to be removed and replaced with a 450mm wide stone masonry parapet that will fit in aesthetically with the surroundings. This parapet will tie into the existing stone wall on the north east side of the bridge and extend for 20m approximately to the south to replace the concrete masonry wall that has suffered impact damage. The wall on the western elevation will be removed also and a stone masonry wall will replace it. It will extend 15m beyond the bridge on the northern side and tie into the concrete masonry pillar located 4m approximately from the bridge to the south. Parapet to be supported by new a new concrete rubbing strip off the bridge.
- Remove debris lining the riverbed that is impeding flows.
- Drill through the southern abutment where water is ingressing and introduce a perforated pipe to a depth of 1m to facilitate water movement through the abutment.
- Relocate services to ducts within footpath and rubbing strip.

### **3.3.2 Lighting**

The existing public lighting on the bridge will be maintained. An existing public lighting column may need to be moved to facilitate the installation of the new footway.

## **3.4 Traffic Management During Construction**

The works should have a duration of about 8 weeks and half the width of the bridge will be closed during that time with stop/go traffic under lights in operation. It may be necessary to provide a temporary pedestrian bridge to allow pedestrians to cross the watercourse.

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.

If it is anticipated that a full road closure is required during the construction process, then a detailed road closure traffic management plan shall be developed, notified and advertised for public viewing in accordance with the statutory requirements, prior to that closure being approved and put in place.

## 4 AUTHORITIES TO BE CONSULTED

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

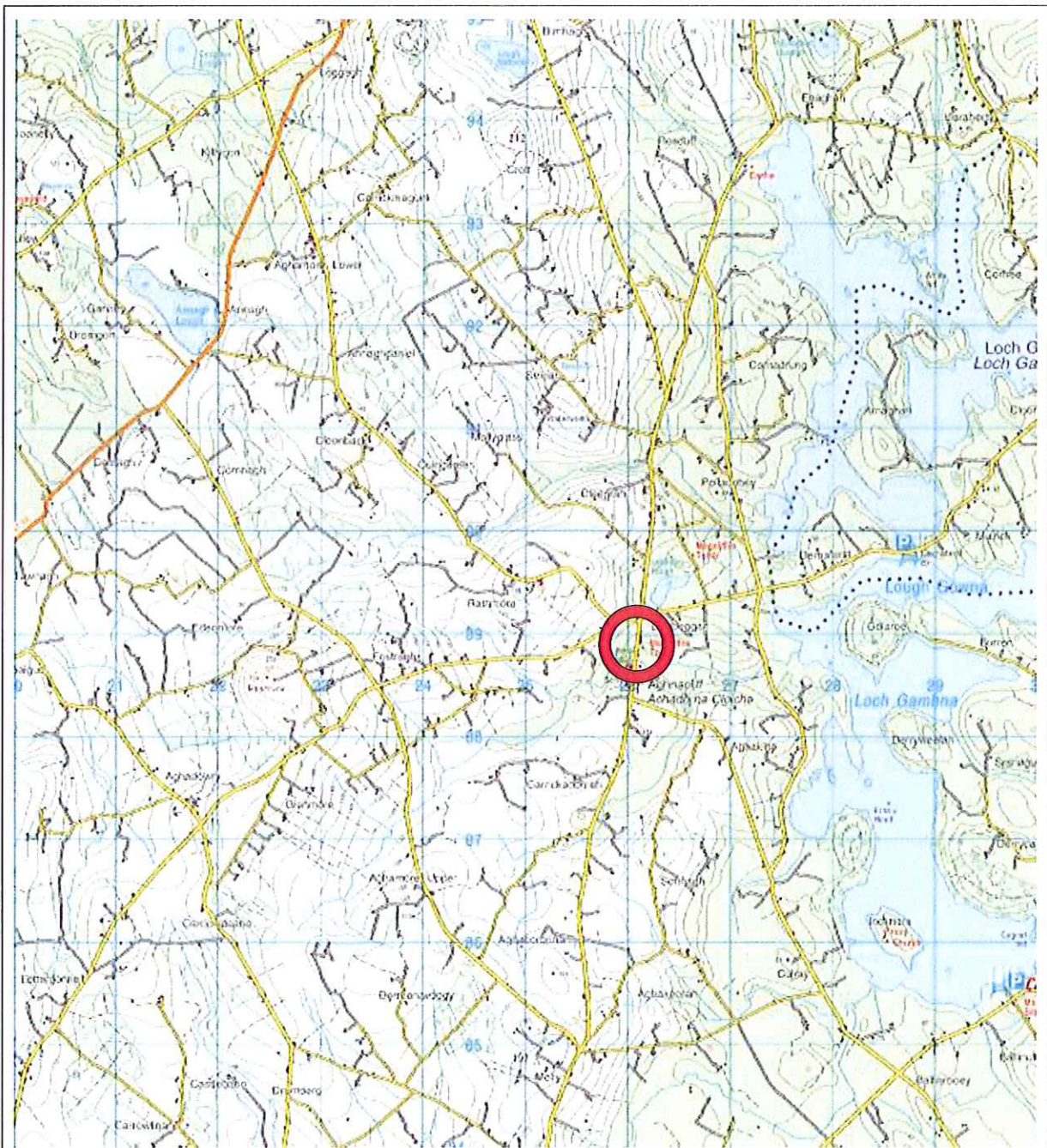
- The Minister for Arts, Heritage and the Gaeltacht
- The Heritage Council;
- An Taisce – The National Trust for Ireland
- An Chomhairle Ealaíon – The Arts Council of Ireland
- Fáilte Ireland
- Inland Fisheries Ireland
- Waterways Ireland
- The Office of Public Works
- Department of the Environment, Community and Local Government
- Midlands Regional Authority

## Appendix A Drawings

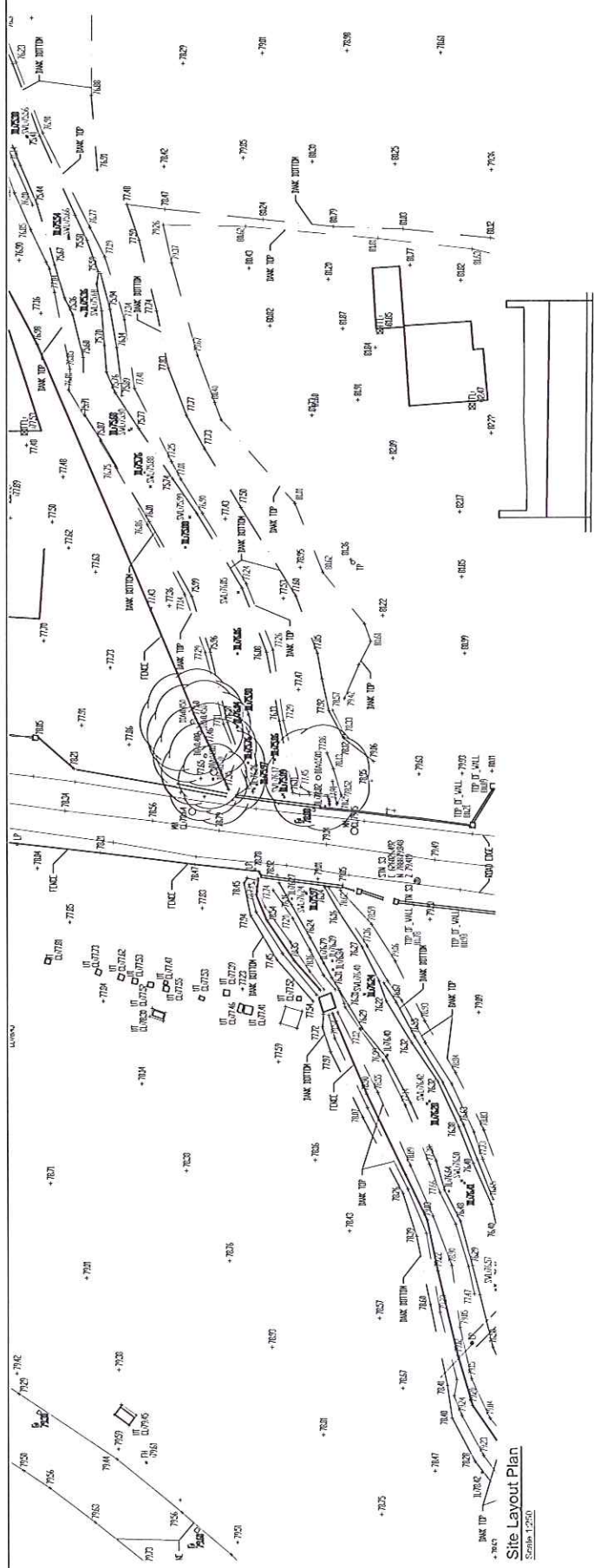
Figure 1 – Site Location Map

Drawing no. 14450-0101-A Aughnacliff Bridge Existing Plan and Sections

Drawing no. 14450-1101-A Aughnacliff Bridge Proposed Works

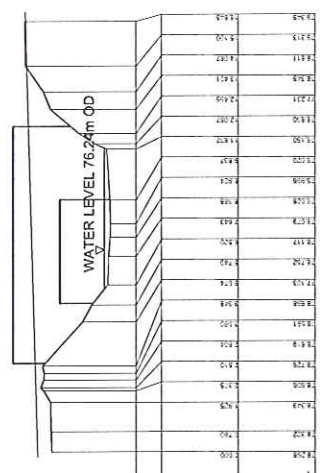


<p>Project:                  Longford Regional &amp; Local Bridge                  Rehabilitations</p>	<p>Ordnance Survey Ireland Licence No. EN 0015712                  © Ordnance Survey Ireland/Government of Ireland</p>
<p>Figure:                  Figure 1</p>	<p> <b>Malachy Walsh and Partners</b>                  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>Title:                  Site Location Map</p>	
<p>Structure Name:                  Aghnacliff Bridge</p>	



Site Layout Plan  
Scale: 1:250

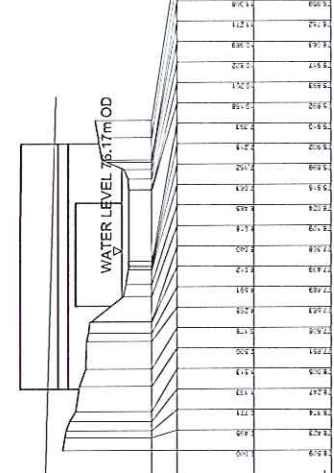
Datum 75.00m  
CROSS SECTION  
SCALE 1:100



Datum 75.000m  
No Vertical Excavation

Chainage

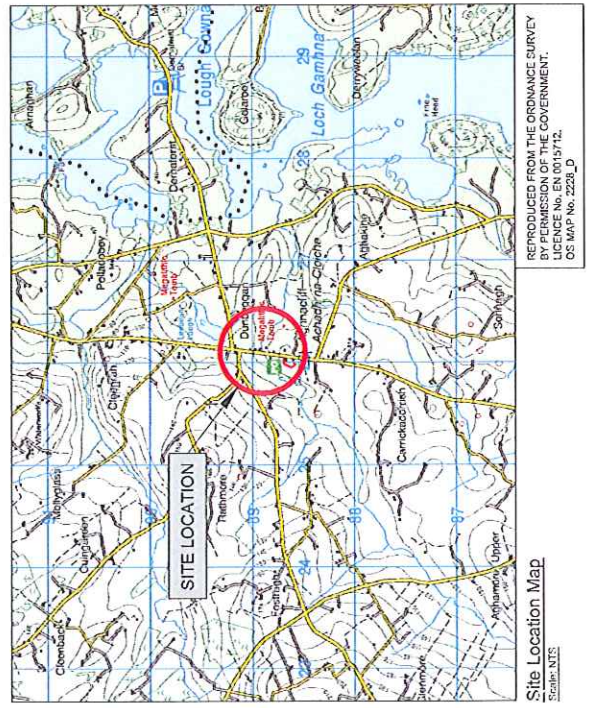
12344 Elevation  
WEST ELEVATION, UPSTREAM  
SCALE 1:100



Datum 75.000m  
No Vertical Excavation

Chainage

12344 Elevation  
EAST ELEVATION, DOWNSTREAM  
SCALE 1:100



Site Location Map  
Scale: 1:250

REPRODUCED FROM THE ORDNANCE SURVEY  
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LICENCE No. EN 0015712.  
OS MAP No. 2228\_1D

No.	Date	Description	Drawn By	Checked By
1	11/02/22	Issue 1 (Design)	MM	MM
2	11/02/22	Issue 2 (Revise)	MM	MM

Project: Loyalist Regional and Local Road Bridge, 2012

File: Alphafile Bridge - Elevation Plan and Sections

Client: Loyalist County Council

Company: Malachy Walsh and Partners Consulting Engineers  
Cork | Tralee | Limerick

Project No: 14450-0101

Scale: A1  
Drawing: DWG  
Scale: 1:100  
Drawing No: 11/02/22  
Drawing Title: 11/02/22  
Drawing Date: 11/02/22  
Drawing Author: MM  
Drawing Checker: MM



## **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
Aughnacliffe Bridge, Co. Longford	<ul style="list-style-type: none"><li>• Remove the existing under-strength bridge deck and replace with a new reinforced concrete bridge deck.</li><li>• Existing services, including a sewer, to be accommodated within the road build-up and footways/rubbing strip.</li><li>• Backfill and resurface up to existing road level.</li><li>• Patch repairs to abutments at low level and underpinning to the western ends of both abutments to address scour damage which has occurred.</li><li>• Place Rock armour along embankments at the western ends of both abutments to reduce the risk of further scour.</li><li>• Remove the existing soft verges and replace with a 1.25m footpath on the western side and a 250mm rubbing strip on the eastern side.</li><li>• Existing parapets to be removed and replaced with 450mm wide stone masonry parapets.</li><li>• Allow for drainage through the southern abutment.</li><li>• Relocate services to ducts within footpath and rubbing strip where possible.</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 26<sup>th</sup> April 2012 to Thursday 7<sup>th</sup> June 2012 inclusive.

Plans and Particulars may be obtained free of charge 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 Jack Kilgallen, Director of Services, Housing and Planning, Longford County Council, Great Water Street, Longford on or before 4:00pm on Thursday 21<sup>st</sup> June 2012

**Mr Jack Kilgallen**  
**Director of Services**  
**Housing and Planning**

## 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

**Aughnacliffe Bridge, Aughnacliffe, Co. Longford**

**Nature and Extent of Development**

- Remove the existing under-strength bridge deck and replace with a new reinforced concrete Bridge deck
- Existing services, including a sewer, to be accommodated within the road build-up and footways/rubbing strip
- Backfill and resurface up to existing road level
- Patch repairs to abutments at low level and underpinning to the western ends of both abutments to address scour damage which has occurred
- Place Rock armour along embankments at the western ends of both abutments to reduce the risk of further scour
- Remove the existing soft verges and replace with a 1.25m footpath on the western side and a 250mm rubbing strip on the eastern side
- Existing parapets to be removed and replaced with 450mm wide stone masonry parapets.
- Allow for drainage through the Southern abutment
- Relocate services to ducts within footpath and rubbing strip where possible.

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 from Thursday April 26<sup>th</sup> 2012 to Thursday 7<sup>th</sup> June 2012 inclusive.

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

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 Jack Kilgallen, Director of Services, Housing & Planning Directorate, Longford County Council, Great Water Street, Longford on or before 4:00pm on Thursday 21<sup>st</sup> June 2012.

**Mr Jack Kilgallen  
Director of Services  
Housing & Planning  
Longford County Council**

