

Comhairle Chontae an Longfoirt
Longford County Council



N63LD 001.9 Major's Well Road

Part 8 Report

December 2018

 The logo for Barry Transportation, featuring a stylized blue 'B' with a green and blue circle to its left, followed by the text 'BARRY' in a large, blue, serif font and 'TRANSPORTATION' in a smaller, blue, sans-serif font below it.	<p>Halcrow Barry is now Barry Transportation</p> <p>Still the same excellent people providing our Clients with exceptional service</p>
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SECTION 1: Executive Summary

The N63 forms part of the National Secondary Road Network and crosses through Longford in a south west to north east direction. The N63 distributes traffic entering Longford town from the N5 (West) and N4 Longford By-pass (East). The route is predominately residential with facilities such as St. Mel's College and Scoil Eimear. A section of the N63 Major's Well Road has been identified as a HD15 high collision location by Transport Infrastructure Ireland (TII). The TII HD15 Collision Rate analysis for January 2014 to September 2016 indicated that the 1km section of the Ballinalee Road west of the Major's Well Junction had a collision rate above the national average rate. Along the N63, a ghost island junction with a left/right stagger is located to serve residential areas at Ard Michael and Templemichael Terrace.

The pedestrian facilities at the exiting Ballinalee Road are not sufficient to cater to the number of pedestrians that use the route to access the town and schools in the area. Currently, many safety related concerns can be found along this section, including: poor pedestrian crossing locations, poor road surface and poor road markings.

The N63 Major's Well Junction is one of the main desire lines to and from Scoil Eimear. Although this junction has a pedestrian refuge island, the junction is wide and open with effectively four lanes and as a result, is unfriendly to pedestrians and the mobility impaired. In addition, the Templemichael Junction and the Ard Michael Estate Junction are not pedestrian friendly with either a lack of dropped kerbing/tactile paving or both. Finally, the road surface from the N63 Major's Well Junction to the Ardnacassa Avenue Junction is in poor condition and in need surface treatment.

As part of the scheme it is proposed to reconstruct the N63 Major's Well Road from Junction at Ardnacassa Avenue to Junction with Local Road L-3003 at Templemichael Terrace, as part of Phase 1, including: pavement reconstruction, footpath repair and provision of cycle lanes.

Additionally, to realign the junction of N63 with local roads L-3003 (Templemichael Terrace) and L-7015 (Ard Michael) as part of Phase 2, including pavement realignment and inclusion of pedestrian and cycle facilities at the junction.

The proposal is to improve pedestrian and cyclist facilities, and it conforms to the policies and objectives of the Longford Town Local Area Plan and will encourage a modal shift away from private transport to cycling and walking in line with the Government's Smarter Travel – A Sustainable Transport Future.

The design focused on developing a secure, attractive and accessible pedestrian and cyclist facilities where possible. Therefore, prioritising NMUs and applying a more integrated model to promote more equitable interaction between users in a safe and traffic calmed environment will be the aim of the design.

The main constraints that were identified were existing mature trees along the Ballinalee Rd and a number of private commercial/ residential accesses. It is proposed to replace twenty-two existing trees with twenty-nine semi mature trees therefore reducing the existing verge through the use of tree pits allows room for segregated footpaths and segregated cycle lanes in both directions.

It is recommended to proceed with this proposal to Part 8 Planning as it is an important strategic piece of cycling and pedestrian infrastructure for Longford Town.

SECTION 2: Introduction

2.1 Purpose of this Report

Longford County Council is seeking Part 8 planning approval to carry out the reconstruction of the N63 Major's Well Road from Junction at Ardnacassa Avenue to Junction with Local Road L-3003 at Templemichael Terrace and the realignment the junction of N63 with local roads L-3003 (Templemichael Terrace) and L-7015 (Ard Michael), including pavement improvements and pedestrian and cycle facilities along the scheme. This document has been prepared in accordance with Part 8 of the Planning and Development Regulations, 2001, as amended. The report should be read in conjunction with the Part 8 Planning Drawings in Appendix 1. The background to the scheme, the existing route, including the key features, and the proposal are described in this report.

2.2 Purpose of the Scheme

The over-riding purpose of the scheme is to provide a high quality, continuous and consistent cycle route along the N63 and at the Major's Well Junction, also improving and providing pedestrian facilities. The scheme further includes the following:

- Phase 1: Reconstruction of the N63 Major's Well Road from Junction at Ardnacassa Avenue to Junction with Local Road L-3003 at Templemichael Terrace, including:
 - Pavement reconstruction for a 500m section of N63 Major's Well Road (Ballinalee Rd);
 - Footpath repair of 500m section of N63 Major's Well Rd (Ballinalee Rd); and
 - Provision of cycle lanes.
- Phase 2: Realignment of the junction of N63 with local roads L-3003 (Temple Michael Terrace) and L-7015 (Ard Michael), including:
 - Pavement realignment as per designs.
 - Inclusion of pedestrian and cycle facilities at the Junction.

– **Figure 2.1: N63 Majors Wells Scheme**



2.3 Aims and Objectives

2.3.1 Proposal Aims and Objectives

The main aims and objectives of the proposal include:

- The provision of a road designed to DMURS and NCM will help to ensure a safer transportation route for cyclist base on a high quality, continuous and consistent cycling facilities.
- To provide a safe and attractive route for commuter and recreational cycling.
- A safer transportation route for the existing traffic, improving lanes and pavement reconstruction.
- To provide adequate public space improvements, street furniture, materials and public lighting.
- To provide adequate public space and public realm improvements, street furniture, materials, public lighting.
- To improve the existing traffic lanes and pavement reconstruction.
- To meet Longford County Council, Transport Infrastructure Ireland and other stakeholder requirements.
- To identify and meet environmental, planning and statutory requirements.

2.3.2 Constraints

A number of particular constraints were identified and the main constraints of the proposal include:

- Existing mature trees along the N63 Ballinalee Road
- Existing private commercial/residential accesses.
- Existing Road Network and associated high traffic demand, including Secondary Routes and access to dwellings.
- High Good Vehicles and associated design to allow their manoeuvrability.
- Existing pinch points with regards to existing road cross section
- Existing junctions and layouts
- Existing utilities
- Localised drainage facilities and issues;

SECTION 3: Site Context

3.1 Location and Existing Junction Configuration

The N63 forms part of the National Secondary Road Network and crosses through Longford in a south west to north east direction. Along the N63, a ghost island junction with a left/right stagger is located to serve residential areas at Ard Michael and Templemichael Terrace.

The N63 Major's Well Junction is one of the main desire lines to and from Scoil Eimear. Although this junction has a pedestrian refuge island, the junction is wide and open with effectively four lanes and as a result, is unfriendly to pedestrians and the mobility impaired. In addition, the Templemichael Junction and the Ard Michael Estate Junction are pedestrian unfriendly with either a lack of dropped kerbing/tactile paving or both. The existing junction arrangement is presented in **Figure 3.1**.



Figure 3.1: Exiting N63 Major's Well Junction

Across the 12-hour period more than 3,377 PCUs approach the town from the N63 and two minor arms, whilst 4,118 PCUs travel east towards the N4. The AM peak hour flow was between 9:00 - 10:00 with 1004 PCUs, 46 pedestrians and 7 cyclists passing through the junction, while the PM peak hour flow was between 16:00 - 17:00 with 954 PCUs, 52 pedestrians and 5 cyclists passing through the junction.

Currently, there are no cycling facilities on the N63 Major's Well Road although the traffic counts show that 66 cyclists pass through the N63 Major's Well Junction and 45 of them cycled along the Ballinalee Rd on a daily basis. Pedestrian facilities on the exiting Ballinalee Road are continuous and vary in width from 1.8m to 2.5m and provide access to the town centre and schools in the area.

The Local Road Links in this area are:

- L-3003 (Templemichael Terrace): This is a single carriageway with a single lane in both directions, which connects the N63 with the N5 (West).
- L-7015 (Ard Michael): this is a single carriageway with no line marking provided. It is a narrow and residential road.
- N63 (Ballinalee Road): This is a single carriageway road with a 1.90 median. The N63 runs between the N4 Longford By-pass (East) to the N5 (West), distributing traffic entering Longford Town.

3.2 Existing Road Network Issues

There are a number of issues in relation to the current road network operation along the N63 Ballinalee Road and at the Major's Well Junction, including:

- Poor provision for pedestrian and cyclist crossing along Ballinalee Road and at the Major's Well Junction.
- Poor formal crossing points for pedestrians at the junction.
- Unfriendly junction to pedestrians and the mobility impaired, although the it has a refuge island, it is open and 16m wide with effectively four lanes.
- The nearest pedestrian crossings are along the N63 Ballinalee Road, 60m East and West from the junction.
- There are no formal cycle facilities.
- The footpaths are narrow and in poor condition. They are not sufficient to cater to the number of pedestrians that use the route to access the town and schools in the area
- Poor road surface and road markings.
- Templemichael Junction and the Ard Michael Estate Junction are pedestrian unfriendly with either a lack of dropped kerbing/tactile paving or both.

3.3 Existing Traffic Movements

Traffic counts were carried out at the N63 Major's Well Junction, including movements at N63 Ballinalee Road East, Ard Michael, N63 Ballinalee Road West and Templemichael Terrace.

Across the 12-hour period more than 3,377 PCUs (from movements numbers 3,7 and 11) approach the town from the N63 and two minor arms, whilst 4,118 PCUs (from movements numbers 1,5 and 9) travel east towards the N4. The AM peak hour flow was between 9:00 - 10:00 with 1004 PCUs, 46 pedestrians and 7 cyclists passing through the junction, while the PM peak hour flow was between 16:00 - 17:00 with 954 PCUs, 52 pedestrians and 5 cyclists passing through the junction. The breakdown of the turning movements in the AM and PM peak is shown in **Figure 2** below:

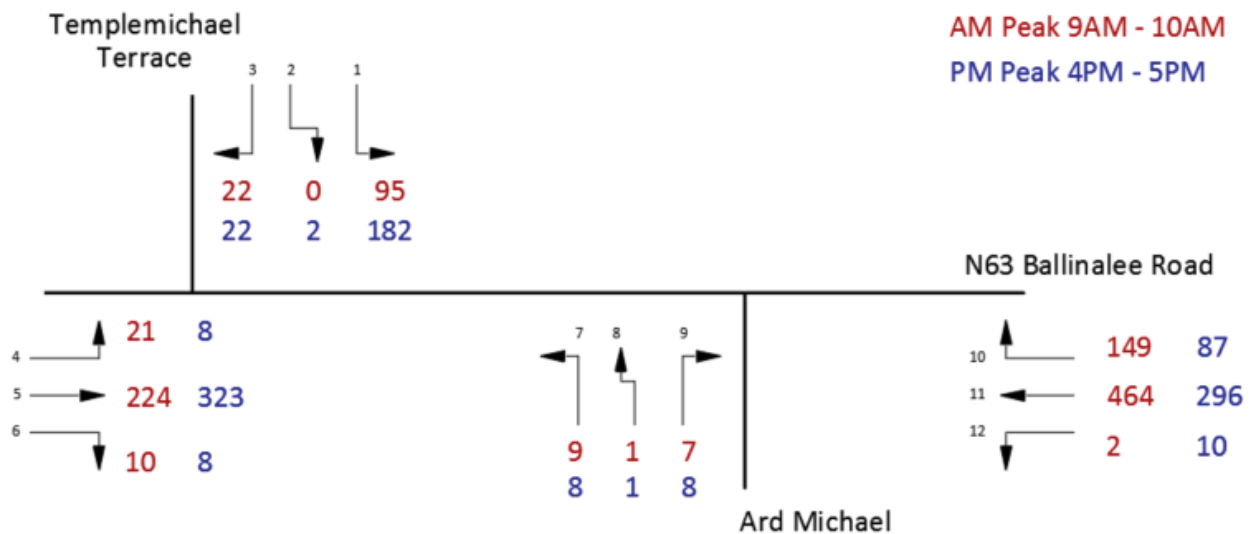


Figure 2: Peak Hour Turning Movements

3.4 Emerging Preferred Option

An Options Assessment Report was prepared in February 2018. The report reviewed three options developed as part of the concept design for the N63 Majors Well Junction. This included the following

- Option 1 – A Staggered Signalised Junction
- Option 2 – A Staggered Priority Junction
- Option 3 – A 3 Arm Compact roundabout

The benefits and disbenefits of each option was considered an analysis of traffic capacity of each option was undertaken. It was found that Option 1 created a potential conflict for motorists wishing to access/ egress to and from three private entrances opposite Templemichael Terrace during the various signal phases. It was also noted that a left right stagger for signalised junction was not recommended due to the combination of turning movements from each individual traffic lane which may cause junction blocking where insufficient queue length was provided, thereby reducing junction safety for all road users.

It was found that Option 2 would operate more efficiently than the other two options and that formal crossing points and raised tables would improve pedestrian priority. From a review of option 3, it was found that although the roundabout provided crossing points on all arms, it also required the closing of existing dwelling entrance and landtake from third parties.

Following consultation with Longford County Council it was agreed that the priority junction best met the scheme's objectives.

The Options Assessment Report also considered two cross section options for the N63 Ballinalee Road. The ideal and achievable cross sections along the route were examined. The options assessment considered the scheme objectives and the impacts on the existing environment and recommended an emerging preferred option which included the provision of segregated cycling provision. In redefining the existing road space there are inevitable impacts upon the corridor, be it loss of trees, reduction in effective footpath, relocation of street furniture, public lighting and possible utility diversions. To lessen the impact, the design proposed alternative landscaping, diversion of overhead utilities underground and improved public lighting.

SECTION 4: Scheme Proposals

4.1 Scheme Objectives and Criteria

The following is a list of the Scheme objectives which guided the preliminary design. The design should:

- Be compatible with the existing road network operation;
- Facilitate existing traffic patterns;
- Facilitate non-motorised users demand (desire) lines by providing safe crossings;
- Be compatible with future development plans;
- Facilitate greater connectivity between the N4 and the N5 along the N63 Ballinalee Road.
- Minimise impacts on the existing infrastructure and underground services;
- Provide a friendlier junction for non-motorised users.
- Provide surface treatment and pedestrian friendly infrastructure.

Taking into account the main scheme objectives and criteria, it was deemed that the proposal should include:

- Provision of formal pedestrian/cyclist crossing facilities.
- Provision of formal cycle lanes along the N63 Ballinalee Road.
- Accommodation of HGV movements at the Major's Well Junction.
- Provision of surface treatment and pedestrian friendly infrastructure.

The main features of the proposed scheme are listed below:

- Provision of a new 3-arm staggered priority junction
- Provision of dedicated crossing facilities for pedestrians and cyclist at the new priority junction.
- Provision of formal cycle lane along the N63 Ballinalee Road.
- Provision of upgraded Public Lighting
- Diversion of overhead ESB Line underground
- Upgrade and provision of new pedestrian facilities along the N63 Ballinalee Road.
- A narrowed verge on the northern side of the N63 and replacement of tree with a semi mature variety

The following engineering drawings are attached to this report:

- 460242-HB-HGN-Z_MJZZZ-DR-CH-0015 – Site Location Map
- 460242-HB-HGN-Z_MJZZZ-DR-CH-0017 – General Arrangement (Existing Layout) Sheet 1 of 2
- 460242-HB-HGN-Z_MJZZZ-DR-CH-0018 – General Arrangement (Existing Layout) Sheet 2 of 2
- 460242-HB-HGN-Z_MJZZZ-DR-CH-0011 – General Arrangement (Proposed Layout) Sheet 1 of 2
- 460242-HB-HGN-Z_MJZZZ-DR-CH-0012 – General Arrangement (Proposed Layout) Sheet 2 of 2
- 460242-HB-HGN-Z_MJZZZ-DR-CH-0013 – Typical Sections
- 460242-HB-HGN-Z_MJZZZ-DR-CH-0014 – Typical Details

4.2 Traffic Assessment

To assess the likely impact of the proposal, a traffic model of the Major's Well Junction was developed. The modelling used the existing traffic flows for the 2017 morning and evening peak hour periods. As both Major Wells Road East and Major Wells Road West have a right pocket turn which experience different queuing/delays than the straight ahead, the analysis was given separately for left turn/straight ahead (LS) and the right turn (R). A comparison of the queue lengths on the junction arms for the 'existing' and 'proposed' layouts is presented in **Table 1**.

Table 1: Peak Hour Traffic Modelling Results

Approach	Average Queue Lengths (Vehs) AM Peak		Average Queue Lengths (Vehs) PM Peak	
	Existing	Proposed	Existing	Proposed
N63 Ballinalee Road East	0.5 (LS) 0.6 (R)	0.5 (LS) 0.6 (R)	0.3 (LS) 0.3 (R)	0.3 (LS) 0.3 (R)
Ard Michael	0	0	0	0
N63 Ballinalee Road West	0.2 (LS) 0.2 (R)	0.2 (LS) 0.2 (R)	0.2 (LS) 0.2 (R)	0.2 (LS) 0.2 (R)
Templemichael Terrace	0.2	0.2	0.4	0.4

The results show that the proposed junction upgrade will operate within the normal design threshold during the morning and evening peak hour. It is estimated that there will not be an increase in queuing length along these approaches.

4.3 Tree Survey

A tree survey was undertaken by Arbor Care in May 2018, a qualified Arborist. The inspection of tree involved a visual assessment from the ground level only and each tree was marked with a small tag. The survey data was in accordance with the BS 5827:2012 Trees in relation to Design, Demolition and Construction. The trees were categorised and scheduled to establish the main features and condition of existing trees along the route. The Tree Survey Report is included in Appendix 2. The tree survey indicated that of the twenty-two trees proposed to be replaced, two trees were dead, one was in a poor condition, two were in a fair condition and the remainder were in a good condition. As part of the scheme, it is proposed to install twenty-nine semi mature native mountain ash trees (*Sorbus Aucuparia - Fastigiata*) within tree pits to provide root management, aeration and irrigation.



Figure A4.1 –
Left – Semi Mature Mountain Ash Tree at installation - 20 to 25cm girth
Right -Mature Mountain Ash Tree - 6 to 8 m Ultimate Height

4.4 Environmental Assessment

Barry Transport have prepared a Habitat Directive Screening Report for the proposed N63 Major's Well Project on behalf of Longford County Council. The Report has been prepared in accordance with the requirements of Article 6 of the Habitats Directive, as transposed into Irish legislation by the European Communities (Birds and Natural Habitats) Regulations 2011 S.I. No. 477 of 2011.

The purpose of the Screening Report is to assist Longford County Council in determining whether the implementation of the project could result in likely significant effects on designated Special Areas of Conservation, and Special Protection Areas (known as European Sites). The Screening Report considers the type, nature and scale of the proposed works, the location of the proposed works with respect to European sites and examines the potential impacts may arise and determines the potential for effects on the qualifying interests of European sites. The Screening Report concludes that the proposed Project and works will not result in significant effects on European sites, either alone or in combination with other plans and projects. The Habitat Directive Screening Report is included in Appendix 3

4.5 Public Realm Proposals

Accessibility

In general footway widths are to be retained, where possible. Where necessary to facilitate the scheme, footway widths may be reduced to a recommended minimum of 1.5m.

Surface Treatments

The report recommends the use of concrete footpath and insitu or precast concrete kerbs. The cycle lanes would consist of asphaltic concrete finish to differentiate in colour between the two surfaces.

Street Furniture and Signage

The orientation of all street furniture should be considered in order to improve pedestrian movement. Street furniture type should be consistent in character. Additional measures, such as the removal of all non-essential signage is also recommended.

Public Lighting Strategy

The existing lighting provision along the N63, consists of Public Lighting Lanterns on top of existing ESB overhead lines on the northern side of the carriageway. In accordance with best practice, it is proposed to upgrade the public lighting on separate columns.

Tree Strategy

Existing trees are recommended to be retained, where possible. Tree grilles, standardised tree surrounds, root barriers, underground guying and the introduction of a maintenance regime are also recommended.

SECTION 5: Summary and Conclusion

This Part 8 report has been prepared in accordance with Part 8 of the Planning and Development Regulations, 2001 as amended. It sets out the existing situation in terms of traffic management and pedestrian and cycle facilities at the Major's Well Junction and along the N63 Ballinalee Road.

The Major's Well Junction improvement has been designed to provide a safer and improved junction as well as providing a new cycle and pedestrian facilities.

The preliminary design for the scheme is a Staggered Priority junction with Ghost Island with an available reservoir length of 20m. The scheme provides formal crossing locations for cyclist and pedestrians via toucan crossings with an uncontrolled pedestrian crossing on Templemichael Terrace; the use of raised tables on Ard Michael provide increased pedestrian priority.

Along the N63 Ballinalee Road, the scheme provides formal crossing location for cyclist and pedestrians via uncontrolled crossings, the use of raised tables on Ardnacassa Avenue and Templemichael Glebe. The scheme also provides road surface treatment and better pedestrian facilities along the N63 Ballinalee Road.

Traffic modelling shows that there there will not be an increase in queuing length along these approaches and the proposed junction upgrade will operate within the normal design threshold during the morning and evening peak hour.

Appendix 1: Part 8 Drawings