AtkinsRéalis

Westmeath County Council

Westmeath County Council

October 2024

0086409DG0022

MULLINGAR ACTIVE TRAVEL BUNDLE

AtkinsRéalis - Sensitive / Sensible (FR)

Notice

This document and its contents have been prepared and are intended solely as information for Westmeath County Council and use in relation to Mullingar Active Travel Bundle.

WS Atkins Ireland Limited assumes no responsibility to any other party in respect of or arising out of or in connection with this document and/or its contents.

This document has 123 pages including the cover.

Document history

Revision	Purpose description	Originated	Checked	Reviewed	Authorised	Date
Rev 0	Draft	TC	TC	SW	SW	15/07/2024
Rev 1	Addressing WCC Comments	TC	TC	SW	SW	26/09/2024
Rev 2	Addressing WCC Comments	TC	TC	SW	SW	11/10/2024

Client signoff

Client	Westmeath County Council
Project	MULLINGAR ACTIVE TRAVEL BUNDLE
Job number	0086409

Client signature / date

Contents

1. Introduction 11

1.1 Overview 11

1.2 Purpose of the Report 12

1.3 Project Objectives and Expected Benefits 12

2. Policy and Design Guidance 14

2.1 Policy Overview 14

2.2 National Policy Level 14

2.2.1 Project Ireland 2040 14

2.2.2 National Planning Framework 15

2.2.3 National Development Plan, 2021 – 2030 15

2.2.4 National Investment Framework for Transport in Ireland (NIFTI) 15

2.2.5 National Sustainable Mobility Policy 16

2.2.6 Climate Action Plan, 2024 17

2.2.7 Healthy Ireland Strategic Action Plan, 2021 – 2025 18

2.2.8 NTA CycleConnects 18

2.2.9 Connecting Ireland – Rural Mobility Plan 19

2.3 Regional Policy Level 20

2.3.1 Eastern and Midland Regional Spatial and Economic Strategy (RSES), 2019 – 2031 20

2.3.2 Westmeath County Council Development Plan, 2021 – 2027 21

2.3.3 Westmeath Climate Change Adaptation Strategy, 2019 – 2024 21

2.3.4 Westmeath Climate Action Plan 2024 – 2029 22

2.4 Local Level Policy 22

2.4.1 Mullingar Local Area Plan, 2014 – 2020 (Extended) 22

2.4.2 Draft Mullingar Local Area Plan 2024 – 2030 23

2.5 Design Guidance 23

2.5.1 Design Manual for Urban Roads and Streets 23

2.5.2 Cycle Design Manual 24

2.5.3 Rapid Build Guidance 24

2.5.4 Other Relevant Design Guidelines 25

3. Constraints Study 26

3.1 Natural Constraints 26

3.2 Artificial Constraints 26

3.2.1 Existing Road Network 27

3.2.2 Cross Section Width Analysis 36

3.2.3 Planned Developments 38

3.2.4 Pavement Condition Survey 39

3.2.5 Road Collision Data 41

3.2.6 Traffic Data Survey 41

3.2.7 Utilities 44

3.2.8 Public Transport 45

3.2.9 Land Use Zoning 47

3.3 Disability Audit 48
3.3.1 Mount Street / Jail Hill Roundabout 48
3.3.2 Jail Hill / Southern Access to County Offices Priority Junction 49
3.3.3 Jail Hill / Lynn Road / Sunday's Well Road Priority Yield Junction 50
3.3.4 Auburn Road / Millmount Road Priority Junction 51
3.3.5 Ballinderry Road Roundabout 52
3.3.6 Ballinderry Road / Ardmore Road Roundabout 53
3.4 External Parameters 53
3.4.1 Other Projects 53
3.4.2 Funding 57
3.4.3 Construction Phasing 57
3.4.4 Technical Standards 57
3.4.5 Procedural and Legal Requirements 58
3.5 Summary of Constraints 58
4. Option Selection Methodology 60
4.1 Overall Approach 60
4.2 Detailed Option Assessment Methodology 60
4.2.1 Detailed Option Assessment at Pinch Points and Major Junctions 62
4.2.2 Scoring System 64
5. Design Principles 65
5.1 Cycle Flows 65
5.2 Design Principles and Approaches 66
5.3 Link Type Options 67
5.3.1 Standard Cycle Track 68
5.3.2 Stepped Cycle Tracks 69
5.3.3 Protected Cycle Lanes 70
5.3.4 Mandatory Cycle Lanes 70
5.3.5 Shared Active Travel Facilities 71
5.3.6 Cycling in Mixed Traffic 72
5.4 Other Design Principles Applied 72
6. Detailed Option Assessment Appraisal 76
6.1 Link Type Appraisal 76
6.1.1 Segments 01 and 02: Mount Street and Mount Street Gardens 76
6.1.2 Segment 03: Jail Hill and Lynn Road 78
6.1.3 Segment 04: Sunday's Well Road and Auburn Road 82
6.1.4 Segment 05: Millmount Road, from the Access to Town Park to Auburn Road 86
6.1.5 Segment 06: Millmount Road, from Auburn Road to the Railway Bridge 90
6.1.6 Segment 07: Millmount Road and Ballinderry Road, from Railway Bridge to the junction with Ardmore Road 94
6.2 Route Corridor Recommended Cross Section 98
6.3 Pinch Point and Junctions Appraisal 99
6.3.1 Section Under Railway Bridge 100
6.3.2 Junction 01: Mount Street / Jail Hill Roundabout 103
6.3.3 Junction 02: Jail Hill / Lynn Road / Sunday's Well Road Priority Junction 106

6.3.4 Junction 03: Auburn Road / Millmount Road Priority Yield Junction 108
6.3.5 Junction 04: Ballinderry Road Roundabout 110
7. Summary of Emerging Preferred Options and Appraisal 113
7.1 Summary of Emerging Preferred Options 113
7.2 Feasibility Working Costs 114
7.3 Statutory Process 114
7.4 Indicative Procurement Strategy 114
7.5 Conclusions and Recommendations 114
Appendix A. Environmental Constraints Study 117
Appendix B. Pavement Condition Survey 118
Appendix C. Utility Maps 119
Appendix D. Multi-Criteria Analysis 120
Appendix E. Emerging Preferred Option Drawings 121
Appendix F. Feasibility Working Costs 122

Tables

Table 3-1 - Pinch Points 36
Table 3-2 - List of Approved Planning Applications 38
Table 3-3 - Traffic Survey Durations and Collection Types 42
Table 3-4 - Typical Speeds 44
Table 3-5 - Existing Utilities in Mullingar town 44
Table 4-1 - Detailed Option Assessment Criteria and Key Impacts 61
Table 4-2 – Detailed Option Assessment for Pinch Points and Major Junctions Criteria and Considerations 63
Table 4-3 - Detailed Option Assessment Scoring Scale 64
Table 5-1 - Cycle Flows calculations 66
Table 6-1 - Detailed Option Assessment Scoring Scale 76
Table 6-2 - Segment 03 Options 79
Table 6-3 - Segment 03 MCA Analysis 81
Table 6-4 - Segment 04 Options 83
Table 6-5 - Segment 04 MCA Analysis 85
Table 6-6 - Segment 05 Options 87

Table 6-7 - Segment 05 MCA Analysis 89
Table 6-8 - Segment 06 Options 91
Table 6-9 - Segment 06 MCA Analysis 93
Table 6-10 - Segment 07 Options 95
Table 6-11 - Segment 07 MCA Analysis 97
Table 6-12 – Route Corridor Preferred Cross Section 98
Table 6-13 – Railway Bridge MCA Analysis 102
Table 6-14 - Junction 1 Options 104
Table 6-15 – Junction 1 MCA Analysis 105
Table 6-16 - Junction 2 Options 106
Table 6-17 – Junction 2 MCA Analysis 107
Table 6-18 - Junction 3 Options 108
Table 6-19 – Junction 3 MCA Analysis 109
Table 6-20 - Junction 4 Options 110
Table 6-21 – Junction 4 MCA Analysis 111
Table 7-1 – Project 1 Preferred Option 113

Figures

Figure 1-1 – Mullingar Active Travel Bundle Routes 11
Figure 1-2 – Project 3 Extents 12
Figure 2-1 – Ten Strategic Outcomes of Project Ireland 2040 14
Figure 2-2 - NIFTI Four Investment Priorities *(source: gov.ie/transport)* 16
Figure 2-3 - NIFTI Modal and Intervention Hierarchies (*source: gov.ie/transport)* 16
Figure 2-4 - Benefits of Sustainable Mobility 17
Figure 2-5 – NTA CycleConnects Routes in Mullingar 19
Figure 2-6 – Westmeath Proposed Public Transport Network 20

Figure 3-1 – Project 1 Segments 27
Figure 3-2 – Segment 01 Overview 28
Figure 3-3 – Segment 01 Typical Cross Section 29
Figure 3-4 – Segment 02 Overview 29
Figure 3-5 – Segment 02 Typical Cross Section 30
Figure 3-6 – Segment 03 Overview 30
Figure 3-7 – Segment 03 Typical Cross Section 31
Figure 3-8 – Segment 04 Overview 31
Figure 3-9 – Segment 04 Typical Cross Section 32
Figure 3-10 – Segment 05 Overview 32
Figure 3-11 – Segment 05 Typical Cross Section 33
Figure 3-12 – Segment 06 Overview 34
Figure 3-13 – Segment 06 Typical Cross Section 34
Figure 3-14 – Segment 07 Overview 35
Figure 3-15 – Segment 07 Typical Cross Section 36
Figure 3-16 – Pinch Point Areas 37
Figure 3-17 – Relevant Planning Applications 39
Figure 3-18 - Pavement Surface Conditions Index (PSCI) 40
Figure 3-19 – Pavement Condition Index 41
Figure 3-20 – Traffic Survey Location 42
Figure 3-21 – Vehicle Volumes by Classification 43
Figure 3-22 – Average Weekday Volumes 43
Figure 3-23 – Bus Services in Mullingar 46
Figure 3-24 – Proposed Local Bus Services in Mullingar 47
Figure 3-25 – Mullingar Land Use Zoning Map 48
Figure 3-26 – Zebra Crossing at Mount Street / Jail Hill Roundabout 49
Figure 3-27 – Jail Hill / Southern Access to County Offices Priority Junction (Source: Google Street View) 50

Figure 3-28 – Jail Hill / Lynn Road / Sunday's Well Priority Junction 51
Figure 3-29 – Auburn Road / Millmount Road Priority Junction 52
Figure 3-30 – Ballinderry Road Roundabout 52
Figure 3-31 – Ballinderry Road / Ardmore Road Roundabout 53
Figure 3-32 – Proposed Local Bus Services in Mullingar 55
Figure 3-33 – Site Location of the Footpath and Cycle Path Works at Ardmore Road (Phase 3) 56
Figure 3-34 – Proposed Saunders Bridge Pedestrian Cycle Bridge 57
Figure 4-1 – Option Selection Methodology 60
Figure 5-1 – Cycle Propensity Scenario Tool at Segment 07 66
Figure 5-2 – Elements of a Cycle Facility 68
Figure 5-3 – One-Way Cycle Tracks 68
Figure 5-4 – Two-Way Cycle Tracks 69
Figure 5-5 – Stepped Cycle Tracks 69
Figure 5-6 - Types of Protected Cycle Lanes 70
Figure 5-7 - Types of Mandatory Cycle Lanes 71
Figure 5-8 - Types of Shared Active Travel Facilities Provision 71
Figure 5-9 - Types of Mixed Traffic Provision 72
Figure 5-10 - Example of One-Way Cycle Track Priority Junction Treatment 73
Figure 5-11 - Example of Two-Way Cycle Track Priority Junction Treatment 73
Figure 5-12 - Example of Toucan Crossing Design 74
Figure 5-13 - Examples of Island Bus Stop (Source: CDM) 74
Figure 5-14 – Example of Shared Bus Stop Landing Zone (Source: CDM) 75
Figure 6-1 – Segments 01 and 02 77
Figure 6-2 – Existing Pedestrian Enhancement along Mount Street 78
Figure 6-3 – Segment 03 79
Figure 6-4 – Segment 04 83
Figure 6-5 – Segment 05 87

Figure 6-6 – Segment 06 91

Figure 6-7 – Segment 07 95

Figure 6-8 – Pinch Points and Junctions Locations 100

Figure 6-9 – Railway Bridge Option 1 101

Figure 6-10 – Railway Bridge Option 2 101

Figure 6-11 – Railway Bridge Option 3 102

1. Introduction

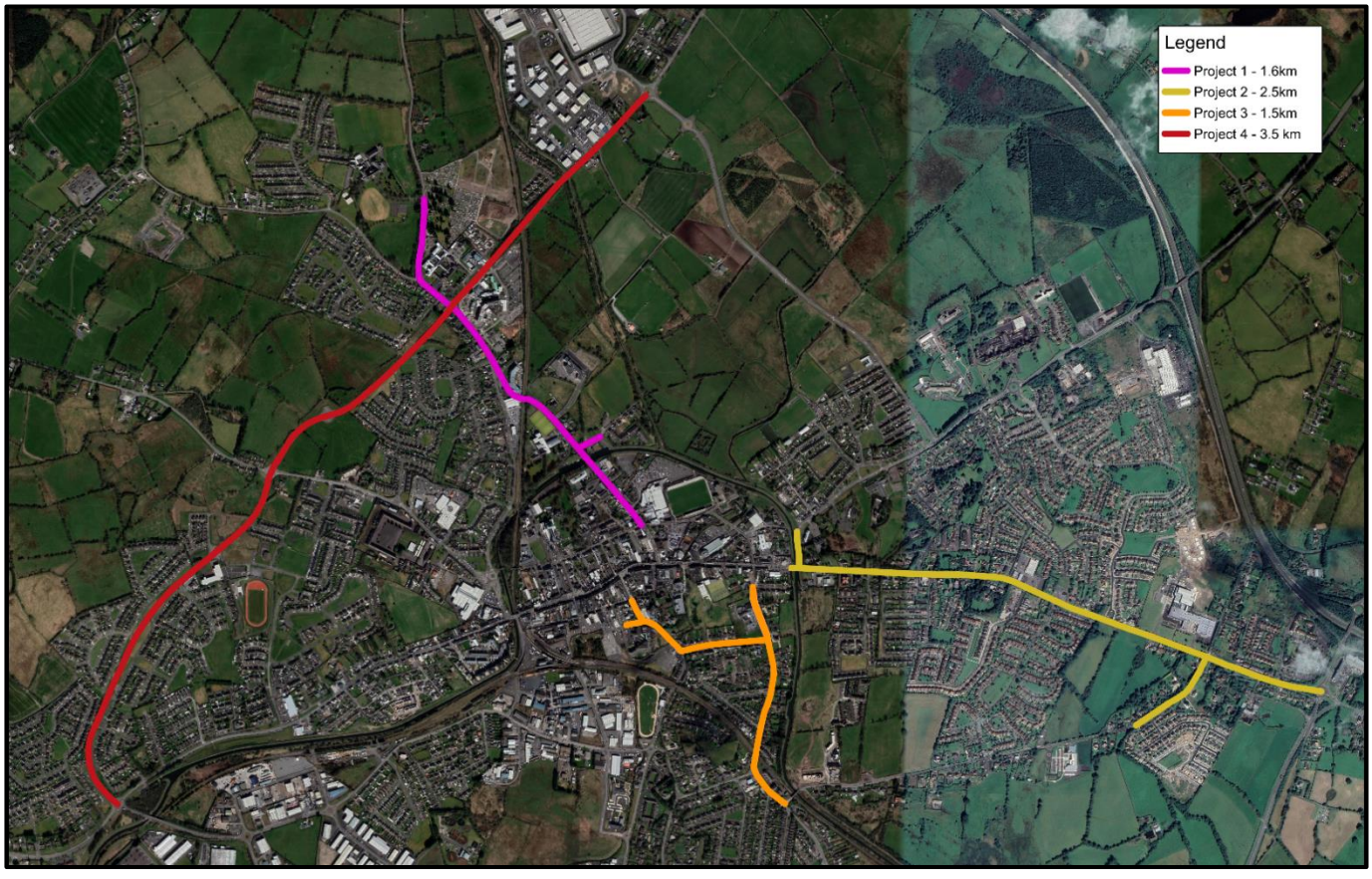
1.1 Overview

Westmeath County Council (WCC) have appointed AtkinsRéalis to provide engineering services to develop the Mullingar Active Travel Bundle, which comprise of a number of Active Travel schemes along a series of roads within the town of Mullingar, Co. Westmeath.

The overall commission includes six different areas within Mullingar town which will be divided into four different projects, as outlined below and in Figure 1-1:

- Project 1: St. Finian's to Harbour Street Footpath and Cycleway
- Project 2: Dublin Road Footpath and Cycleway and National Science Park Junction Improvements
- Project 3: Sundays Well Road - Lynn Road/Auburn Road - Millmount Junction Improvements and Mount Street Pedestrian Interventions
- Project 4: Grange South to Orbital C-Link Segregated Cycling Scheme.

Figure 1-1 – Mullingar Active Travel Bundle Routes



Each project within the Mullingar Active Travel Bundle will be delivered independently from one another, as a stand-alone scheme complete with a full set of project appraisal and approval documentation. However, the schemes will be delivered with full consideration to provide integrated and consistent pedestrian and cycle facilities within Mullingar town. Projects 1 and 2 are included in the Pathfinder Programme launched in October 2022 by the Minister for

Transport, listed as project 8 ‘Mullingar Cycle Corridor with links to Dublin-Galway Greenway’ and were developed first. Projects 3 and 4 are being progressed after the conclusion of Options Selection stage of Projects 1 and 2.

This report outlines the core elements of Project 3, located along the lower section of Mount Street until Jail Hill, Mount Street Gardens, the upper section of Lynn Road, Sundays Well Road, Auburn Road, Millmount Road from the junction with Millmount Avenue to the lower end and Ballinderry Road until the roundabout with Ardmore Road at Saunder’s Bridge. The total length of Project 3 is just over 1.5km and its extent is shown in Figure 1-2. The section along Mount Street is to provide a continuation of the existing pedestrian enhancement facilities located at the upper section of the road while the remainder of the scheme aims to provide new high-quality pedestrian and cyclist provision along the route.

Figure 1-2 – Project 3 Extents



1.2 Purpose of the Report

The purpose of this report is to present the feasibility study for the proposed scheme, the options proposed and the assessment for the options. The report also comprises of the identification and evaluation of constraints following the methodology set out in the National Transport Authority’s (NTA) 2024 Project Approval Guidelines (PAG).

1.3 Project Objectives and Expected Benefits

The overall purpose of the Mullingar Active Travel is to provide upgraded pedestrian and cycling facilities in addition to facilitating any necessary infrastructure provisions to cater for future public transport upgrades.

The main aims of this project are:

- To design new/upgrade existing cycleways/pedestrian footpaths in accordance with the Cycle Design Manual, in order to reduce public dependence on private vehicles as a primary mode of travel, using best practice standards and complementing the surrounding environment
- To consider WCC and stakeholder requirements
- To meet planning, statutory and procurement requirements.

The Project Objectives are:

- Reduced public dependence on private vehicles as a primary mode of travel.
- Integration of safe and convenient alternatives.
- Enhance the area and contribute to a more attractive place.
- Provide safe pedestrian and cyclist facilities for school children and students to travel to and from school.
- Create opportunities to be physically active and reduce the negative consequences of car-based commuting.
- Provide sustainable travel options.
- Enhance the safety of Vulnerable Road Users.

The objectives for the scheme are based on local, regional and national policies for the introduction of active travel measures as outlined in the following section as well as the criteria set out in the Department of Transport's *Transport Appraisal Framework (June 2023)'* (TAF). These-criteria headings are as follows:

- **Transport User Benefits and Other Economic Impacts:** To improve economic welfare of transport network users measuring the connectivity with existing and proposed public transport facilities as well as other economic impacts related to costs of construction and maintenance.
- **Accessibility Impacts:** To improve accessibility to key services, such as retails, healthcare and educational facilities, employment areas, etc for all road users and bring social inclusion benefits to those for whom non-motorised means are the predominate form of transit. This criterion will also assess four of the five main requirements for cycle-friendly infrastructure according to the Cycle Design Manual, which are: coherence, directness, comfort and attractiveness.
- **Social Impacts:** To improve accessibility for the socially, economically and physically disadvantaged groups; to provide increased health benefits by raising activity levels and to ensure gender impacts are addressed.
- **Land Use Impacts:** To integrate the scheme into strategic land use planning / strategies as set out in national and regional policies and guidelines.
- **Safety Impacts:** To reduce the potential for conflict between all road users along the routes through the provision of a facility which is in line with the current standards. The Scheme will seek to:
  - Improve safety and provide a better environment for vulnerable road users within the study area
  - Improve security by providing adequate lighting and visibility to deter anti-social behaviour.
- **Climate Change Impacts:** To reduce emissions in the transport sector by encouraging active travel through improved infrastructure and also to improve the robustness of infrastructure to be able to resist effects of climate change (extreme weather events).
- **Local Environmental Impacts:** To minimize impacts on the receiving environment, considering air quality, noise and vibration, biodiversity, water resources and soil quality, landscape and visual quality and cultural and heritage impacts.

2. Policy and Design Guidance

2.1 Policy Overview

This chapter outlines the review of the relevant transport policies, guidance, and studies for the development of the Mullingar Active Travel Bundle. The breakdown of the policies reviewed and detailed in this section are listed in the following order:

- National Level Policy;
- Regional Level Policy; and
- Local Level Policy.

2.2 National Policy Level

2.2.1 Project Ireland 2040

The Project Ireland 2040 document, published in 2018, is the government's long-term strategy to build a more resilient and sustainable future, in order to provide an improved country for all. The policy vision is to provide a comprehensive social, economic and cultural infrastructure for all people with the aims to achieve ten strategic outcomes around the main themes of wellbeing, equality and opportunity, outlined in Figure 2-1.

The National Planning Framework and the National Development Plan 2021 – 2030, mentioned in the following sections, combine to form part in the Project Ireland 2040.

Figure 2-1 – Ten Strategic Outcomes of Project Ireland 2040



2.2.2 National Planning Framework

Project Ireland 2040 – National Planning Framework (NPF) provides a high-level strategic planning framework to guide development and investment. Mullingar is located in the Midland Region, which, alongside the Eastern region, has experienced population growth at more than twice the national rate. A population of 2.85 million is forecast by 2040 in the Eastern and Midland Region, representing an increase of 500,000 people.

The following policy objectives are relevant to the Mullingar Active Travel Bundle:

- **National Policy Objective 27**: Ensure the integration of safe and convenient alternatives to the car into the design of our communities, by prioritising walking and cycling accessibility to both existing and proposed developments and integrating physical activity facilities for all ages
- **National Policy Objective 64**: Improve air quality and help prevent people being exposed to unacceptable levels of pollution in our urban and rural areas through integrated land use and spatial planning that supports public transport, walking and cycling as more favourable modes of transport to the private car, the promotion of energy efficient buildings and homes, heating systems with zero local emissions, green infrastructure planning and innovative design solutions.

2.2.3 National Development Plan, 2021 – 2030

The National Development Plan 2021-2030 (NDP) sets out the investment priorities that will underpin the successful implementation of the NPF. The NDP steers planning policy and guides investment decisions at a national, regional, and local level. Relevant priorities identified in the NDP are summarized below.

- **NSO 2 Enhanced Regional Connectivity:** The NDP lists the strategic investment priorities with active travel being the most important, followed by public transport, and finally national roads. In line with this prioritisation, the plan highlights the need to deliver high-quality greenways and additional walking and cycling infrastructure across Ireland to support the shift to active travel modes
- **NSO 4 Sustainable Mobility**: The NDP puts the highest priority for mobility investment on active travel. It notes that increasing modal share of walking and cycling is critical in ensuring Ireland meets its climate action goals
- **NSO 8 Transitioning to a Climate-Neutral and Climate-Resilient Society**: The NDP commits to encouraging a significant modal shift away from fossil-fuel based transport. A key part of this is the provision of cycling and walking routes to provide sustainable transport options.

2.2.4 National Investment Framework for Transport in Ireland (NIFTI)

The National Investment Framework for Transport in Ireland (NIFTI) defines the Department of Transport's priorities for the future investment in the transport network to support the implementation of the National Development Plan. NIFTI defines the investment priorities for transportation in Ireland as:

- Mobility of people and goods in urban areas
- Protection and renewal
- Enhanced regional and rural connectivity
- Decarbonisation.

Figure 2-2 - NIFTI Four Investment Priorities *(source: gov.ie/transport)*

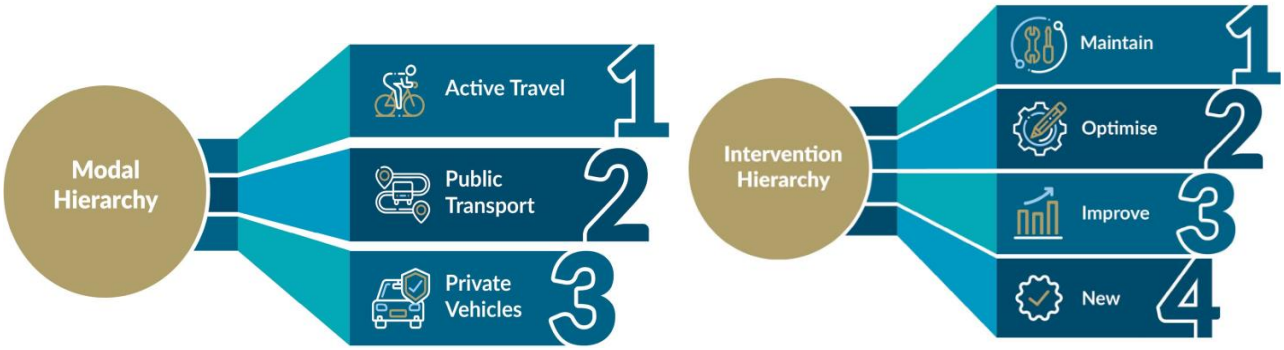


To achieve these goals, NIFTI defines the modal hierarchy and transportation investment priorities. NIFTI gives the highest modal priority to active travel followed by public transport and finally private vehicles. This means that, when possible, active transport options should be considered first when attempting to achieve the stated investment priorities.

In addition to modal priority, NIFTI also defines an intervention hierarchy. This hierarchy states that investments should be made in the following order:

1. Maintenance of existing infrastructures and assets
2. Optimisation of the existing network and infrastructure
3. Improvements to the existing infrastructure
4. Construction of new infrastructure.

Figure 2-3 - NIFTI Modal and Intervention Hierarchies (*source: gov.ie/transport)*



2.2.5 National Sustainable Mobility Policy

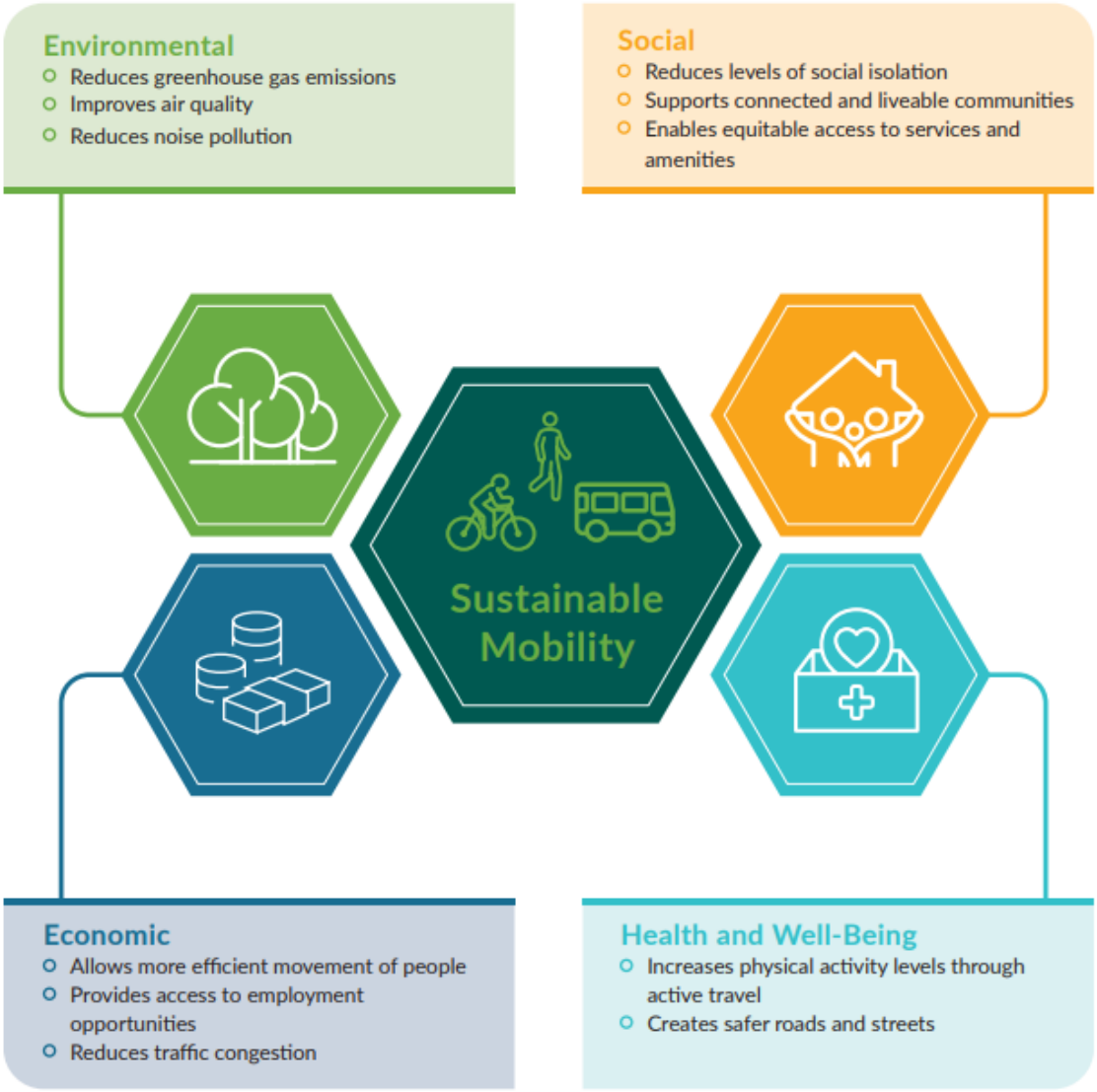
The Department of Transport published the National Sustainable Mobility Policy in April 2022. The Policy sets out the policy framework for active travel and public transport to support Ireland's overall requirement to achieve a 51% reduction in greenhouse gas emissions by 2030. The new policy primarily focuses on measures to promote and facilitate active travel and public transport for all, thereby encouraging less private car usage nationally to support the Government's climate commitment.

The policy outlines a set of actions to increase active travel infrastructure provision and improve public transport capacity and services across the country. These will be supported by behavioural change and demand management measures to make sustainable modes the preferred choice for as many people as possible. The Climate Action Plan sets out additional measures to promote other complementary transport mitigation measures such as the switch over

to electric car usage and greater use of renewable fuels for transport. The Mullingar Active Travel Bundle is in alignment with this plan and would contribute to the implementation of several key actions identified in the plan.

Figure 2-4 below illustrates the benefits of sustainable mobility which will be achieved by delivering the Mullingar Active Travel Bundle.

Figure 2-4 - Benefits of Sustainable Mobility



2.2.6 Climate Action Plan, 2024

The Climate Action Plan sets out a course of action over the coming years to address climate disruption, which is acknowledged as having diverse and wide-ranging impacts. The document outlines the aims for each sector of industry in Ireland. Electricity, Transport, Built Environment, Industry, Agriculture and Land Use have all been assessed in the document with a roadmap laid out to deliver a reduction of emissions in each of these sectors between 2021 and 2030, and to reach net zero nationally by no later than 2050.

As part of the plans for a significant cut in transport emissions, the CAP24 states an objective of 125,000 extra walking, cycling and public transport journeys per day by 2030.

The promotion of walking, cycling and public transport, and a modal shift from the use of private vehicles will all contribute to the achievement of the targets set out in relation to climate action. The CAP24 also mentions the

Pathfinder Programme and how the projects will be delivered meeting key criteria as health, well-being, place-making, permeability and universal design.

Specific actions identified in the plan that relate to the Mullingar Active Travel Bundle are listed below.

- **Action TR/24/11**: Advance roll-out of walking/cycling infrastructure in line with National Cycle Network and CycleConnects plans
- **Action TR/24/08**: Support and promote a modal shift towards healthy active and sustainable mobility and sustainable mobility in the design and delivery of LDA developments. Plan to reduce travel by private car and design to optimise connectivity and access to sustainable and active travel. Promote mobility management planning and e-mobility as well as options for car sharing/clubs.

2.2.7 Healthy Ireland Strategic Action Plan, 2021 – 2025

The vision of the 'Healthy Ireland Strategy 2019-2025' is to create a healthy Ireland, where everyone can enjoy physical and mental health and wellbeing to their full potential, where wellbeing is valued and supported at every level and is everyone's responsibility.

This policy is developed to encourage walking and cycling by developing physical activities into daily life and decreasing dependency on private cars. Replacing these private car trips with cycling and walking will also improve local air quality and overall population health. The document sets out four central goals for improved wellbeing and outlines clear routes and strategies to achieve these goals. These goals are as listed below:

- Increase the proportion of people who are healthy at all stages of life;
- Reduce health inequalities;
- Protect the public from threats to health and wellbeing; and
- Create an environment where every individual and sector of society can play their part in achieving a healthy Ireland.

2.2.8 NTA CycleConnects

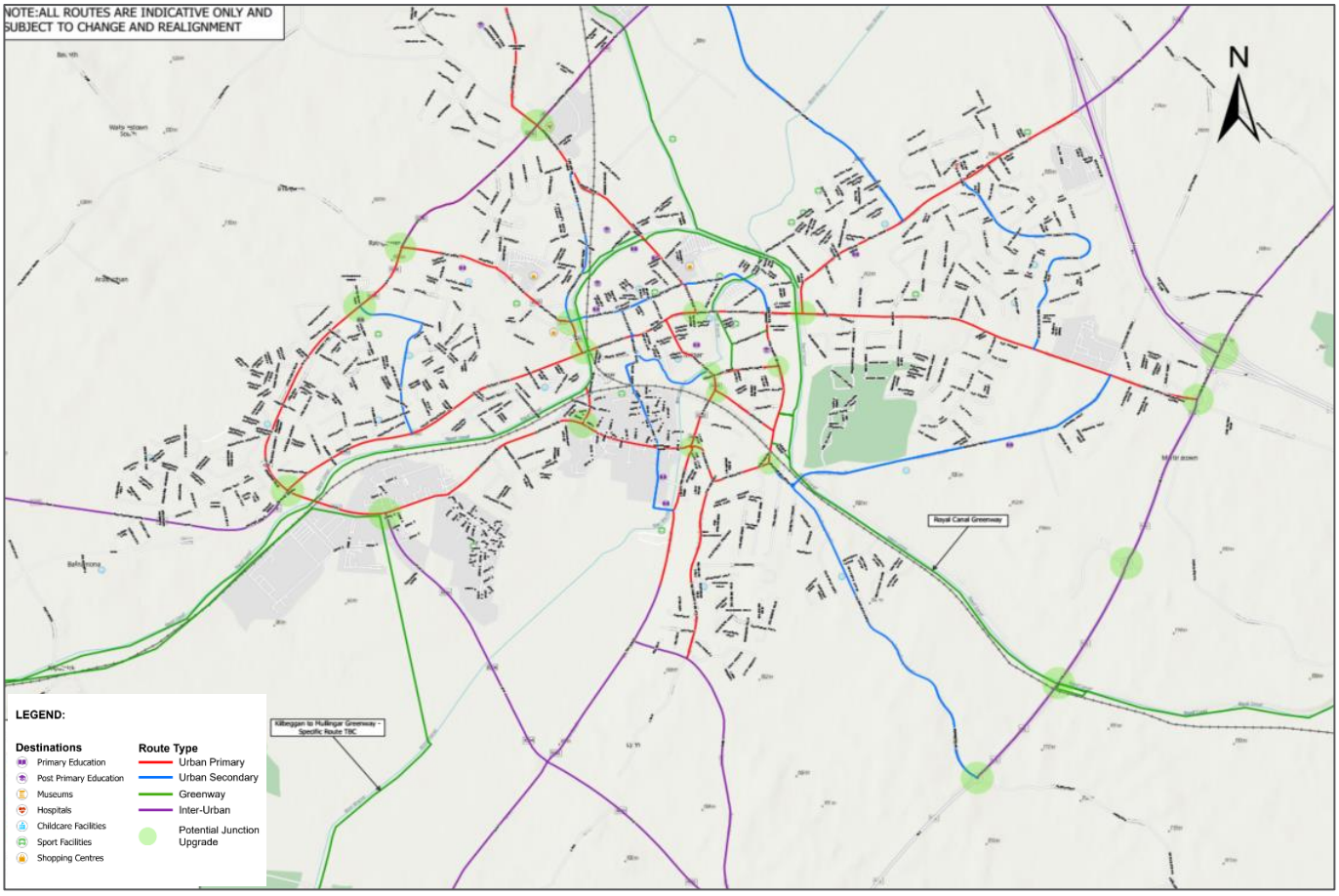
The National Transport Authority (NTA) proposed to develop new cycle networks across 22 counties, forming part of the CycleConnects: Ireland's Cycle Network programme. This includes an urban cycle network in Mullingar and a county network in the rest of Westmeath.

The proposals envisage an extensive cycling network across the 22 counties, complementing the cycling plans already developed for the Greater Dublin Area (Meath, Kildare, Wicklow and Dublin). Together these plans will create an overall comprehensive cycle network for Ireland. These proposals are in line with Action 28 of the Government's "National Sustainable Mobility Action Plan 2022-2025". They were developed following consultation with all local authorities and align with Transport Infrastructure Ireland's (TII) proposed National Cycle Network.

The Mullingar network includes existing greenways, along with proposed urban primary and secondary routes. Primary urban routes are high-quality cycle routes able to accommodate high volume of cyclists, typically located in urban areas and on major desire lines in town centres and form radial and orbital cycle routes in the major towns and cities.

The Mullingar Active Travel bundle extents form part of the following links as identified within the NTA's "Proposed Mullingar Urban Cycle Network", as shown in Figure 2-5. All the routes of the Mullingar Active Travel Bundle are listed in the NTA CycleConnects network, and they are Primary Urban, Secondary Urban and Inter-Urban Routes, that will provide enhance connection to several locations across town. The main junctions listed in the CycleConnects are also being proposed upgrade as part of the Mullingar Bundle to enhance safety to all road users.

Figure 2-5 – NTA CycleConnects Routes in Mullingar



2.2.9 Connecting Ireland – Rural Mobility Plan

The Connecting Ireland – Rural Mobility Plan, issued in 2021, is a major national public transport initiative developed by the National Transport Authority with the aim to increase connectivity for people living outside of major cities and towns of Ireland. The Rural Mobility Plan proposes several changes to the transport network in Mullingar both in regional and local corridors discussed below and illustrated in Figure 2-6.

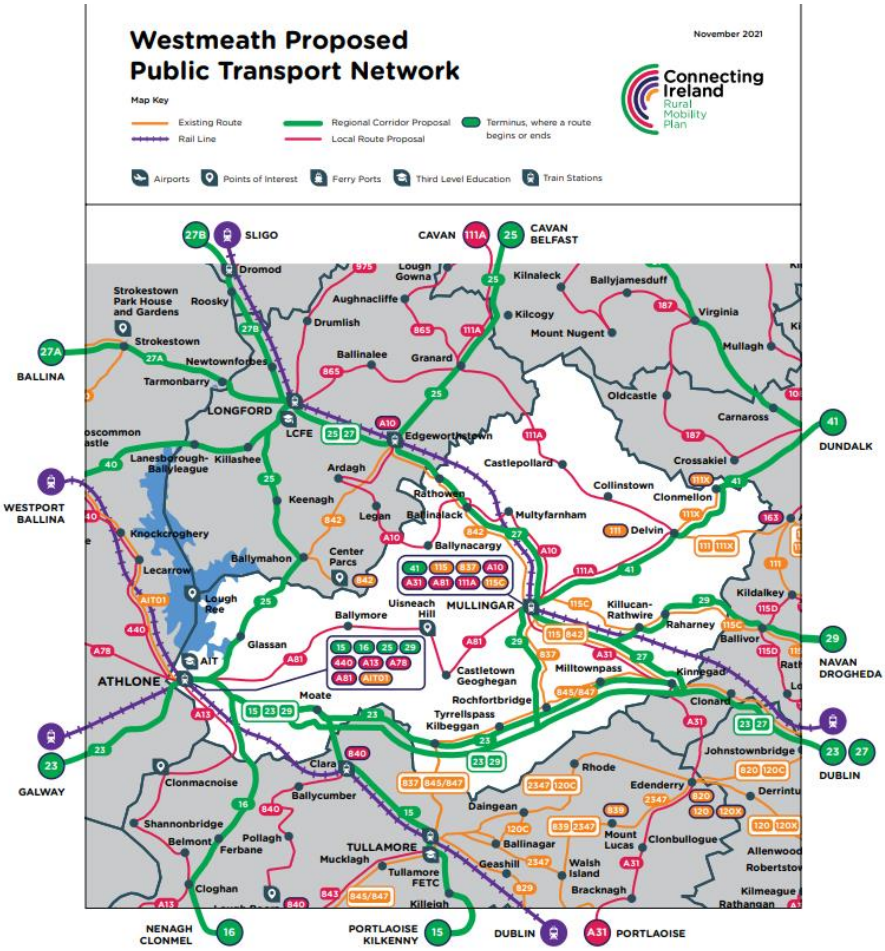
Regional Corridor Proposals:

- Routes 27A and 27B, upgrades of the existing 22 and 23 routes, are proposed to connect Ballina and Sligo to Dublin, also connecting to Mullingar. The upgraded services are to provide more frequent services and better integration along the corridor. A minimum service frequency of 2 hours is proposed between Ballina and Sligo to Dublin and a minimum frequency of once an hour is expected from Longford and Dublin for both routes.
- The 29 is proposed to connect Athlone to Drogheda, which would serve Mullingar. This would be a new corridor as only parts of the corridor are currently served by the 70 and 190 routes. Better integration of these routes is proposed, and a minimum service frequency proposed at an hour interval.
- Route 41 is proposed to link Mullingar and Dundalk. This would be a new corridor making use of the existing corridor used by the 167 route. This service would also provide better integration and connectivity between the two towns with a service proposed every 2 hours.

Local Route Proposals:

- The 111A is proposed to connect Mullingar and Cavan. This is proposed to extend the existing 111A which connects Mullingar to Delvin. The minimum service frequency of 4 daily return trips on weekdays and 3 daily return trips on weekends is proposed.
- The A31 is proposed to connect Mullingar and Portlaoise, which is a new route that would also serve Portarlington, Edenderry and Kinnegad with a minimum service frequency of 3 return trips daily.

Figure 2-6 – Westmeath Proposed Public Transport Network



2.3 Regional Policy Level

2.3.1 Eastern and Midland Regional Spatial and Economic Strategy (RSES), 2019 – 2031

The Regional Spatial and Economic Strategy is a strategic plan and investment framework to shape and manage growth in the Eastern and Midland Region. The RSES provides a roadmap for effective regional development identifying key strategic assets, opportunities and challenges and sets out policy responses to ensure the people's needs are met.

The document delivers a combination of response, design, and innovation in how the Eastern & Midlands Region does business, delivers homes, builds communities and values land-use – creating healthy places and promoting sustainable communities. The RSES introduces the concept of a Growth Framework to achieve this integration as it is considered that regional growth cannot be achieved in linear steps.

The RSES includes methods for delivering land use and transport planning objectives, whereby a range of community facilities and services are accessible in short walking and cycling timeframes from homes or are accessible by high quality public transport to services in larger settlements.

The Regional Spatial and Economic Strategy also states that the transition to a low carbon society is a key challenge facing the region. Several primary areas are at the core of the transition strategy, in particular relevance to the Mullingar Active Travel Bundle are the following areas:

- Sustainable development patterns which promote compact growth, reduce transport demand and encourage low carbon transport modes
- Sustainable transport systems (people and freight).

2.3.2 Westmeath County Council Development Plan, 2021 – 2027

The Westmeath County Development Plan, 2021-2027 states as an aim to "*achieve a sustainable, integrated and low carbon transport system with excellent connectivity within and to Westmeath*" which will be achieved by improving existing transport infrastructure in the county. The delivery and maintenance of a multi-modal transport network is essential to improve life quality and social cohesion, according to the plan.

According with the 2022 census, approximately 70% of residents of Westmeath drive or are driven to work and only around 3% make use of public transport. Regarding active travel, around 7% walk and 1% cycle to work regularly. In order to promote a modal shift into more sustainable transport modes, WCC is aiming to achieve a balanced and sustainable pattern of movement. The plan also highlights that walking and cycling are the most sustainable modes of transport and key components to movement and accessibility.

The following policies and objectives have relevance in relation to the Mullingar Active Travel bundle scheme:

- **CPO 10.1**: Promote and deliver a sustainable, integrated and low carbon transport system by enhancing the existing transport infrastructure such as cycling and pedestrian facilities.
- **CPO 10.2**: Continuation of the promotion of a modal shift away from private cars towards more sustainable forms of transport.
- **CPO 10.11**: Promote walking and cycling as efficient, healthy and environmentally friendly modes of transport by securing a direct, comfortable, convenient and safe network of cycle routes and footpaths.
- **CPO 10.15**: Improve the streetscape environment for pedestrians, cyclists and users with mobility needs by providing facilities that enhance safety and convenience and provide separation from vehicular traffic.

2.3.3 Westmeath Climate Change Adaptation Strategy, 2019 – 2024

The strategy forms part of the National Adaptation Framework (NAF) published in 2018 in response to the provisions of the Climate Action and Low Carbon Development Act, 2015. The document aims to make adjustments to minimise or avoid the existing and anticipated impacts from climate change and to build climate resilient communities and to protect people, ecosystems, infrastructure, buildings and business from the negative impacts of climate change.

The document sets out goals, objectives and actions which are divided in six different themes:

- Theme 1: Local Adaptation Governance and Business Operations
- Theme 2: Infrastructure and Build Environment
- Theme 3: Land use and development
- Theme 4: Drainage and Flood Management
- Theme 5: Natural Resources and Cultural Infrastructure
- Theme 6: Community Health and Wellbeing.

Several actions within the document are aligned with the proposed Mullingar Active Travel Bundle.

- Under Theme 2, Action number 6, the document states the intention to develop public realm infrastructure in the county to develop enhanced sustainable transport solutions.
- Under Theme 3 action number 8, the documents refer to sustainable transport solutions to encourage less use of cars and;
- Under Theme 6 action 7, the council outlines their intentions to further promote the use of active travel facilities such as cycling routes and walking trails.

2.3.4 Westmeath Climate Action Plan 2024 – 2029

The Westmeath Climate Action Plan 2024 – 2029 has been developed as part of Ireland's Climate Action and Low Carbon Development (Amendment) Act 2021 to create a low carbon and climate resilient county. The action plan aims to reduce emissions by 51% and increase energy efficiency from 33% to 50% by 2030. The plan aims to reach its goals by increasing climate literacy, implementing green public procurement and retrofitting public sector buildings.

The plan focusses on five themes:

- Theme 1: Governance and leadership
- Theme 2: Build environment and transport
- Theme 3: Natural environment and green infrastructure
- Theme 4: Communities: resilience and transition
- Theme 5: Sustainability and resource management.

Regarding transportation, the plan states that the primary source of the transport sector emissions come from burning fuel in combustion engines. One of the actions within Theme 2 is to continue the plans to guide the county in a sustainable modal shift and to integrate climate considerations into the design, planning and construction of new roads, bridges and active travel infrastructure.

The plan states that Mullingar has been designated as a Decarbonization Zone, and it is envisioned that the town will undergo several climate change mitigation measures to contribute to national climate action targets. Mullingar will act as a test bed to showcase that is feasible for decarbonization and climate action in a local and community level. The transport related carbon emissions in the town correspond to 27% of the total emissions. In order to reduce the emissions related to transport, the council will focus on sustainable mobility options and active travel, as well as installation of additional EV charging provisions. The proposed Mullingar Active Travel project is in line with the Westmeath Climate Action Plan actions.

2.4 Local Level Policy

2.4.1 Mullingar Local Area Plan, 2014 – 2020 (Extended)

The Mullingar Local Area Plan 2014 - 2020 (extended) sets out a strategy for proper planning and sustainable development of Mullingar. It builds upon the previous Mullingar Town Plan, 2008 – 2014. The plan outlines policies and objectives for the future development of the town and its environs.

Some objectives and policies from the MLAP that are relevant to the Mullingar Active Travel Bundle can be seen below:

- **Policy-EC10**: To continue to improve access to major areas of employment through sustainable transport modes.

- **Policy-AC2**: To create an environment in the Town Centre in which vehicles, cyclists and pedestrians can safely co-exist and share public space.
- **Policy-AC4**: To secure the creation of a safe walking and cycling environment in the Town Centre and to limit the impact of vehicular traffic on the Town Centre environment.
- **Policy-TM5**: To promote the development of walking and cycling in the Mullingar area. Cycling and walking are environmentally friendly, fuel-efficient and healthy modes of transport, and their development is in line with the principles of sustainability.
- **Policy-TM6**: To ensure that the safety of road users, including motorists, cyclists and pedestrians, will be a primary consideration in the design and/or improvement of roads and in the assessment of planning applications for new developments. Cyclists and pedestrians are especially vulnerable in road accidents and new design must pay particular attention to securing their safety.
- **Policy-TM12**: To further the development of an integrated cycle network in Mullingar.
- **Policy-FP13**: To provide a network of efficient, attractive and safe walking routes that are integrated with other movement networks.
- **Policy FP14**: To encourage the use of cycles through provision of dedicated cycle lanes on main routes, while also providing for attractive and safe cycling on secondary routes.
- **Objective-PS1**: To provide a network of interconnected pedestrian routes and alleyways through the Town Centre which link the town core, Cathedral, Town Park, Railway Station and primary public spaces.
- **Objective-AC3**: To provide enhanced pedestrian spaces and connectivity in the Town Centre including widened footpaths and well-designed crossings and public spaces.
- **Objective-TM10**: To develop a network of interlinked pedestrian routeways throughout the town.
- **Objective FP5**: To promote public transport provision to serve these Framework Plan areas and to give priority to pedestrians and cyclists in the design of movement networks.

2.4.2 Draft Mullingar Local Area Plan 2024 – 2030

The Draft Mullingar Local Area Plan, 2024-2030 will set out an overarching land use framework which will form the basis for deciding the appropriate locations for different types of future development of the area. Whilst the plan will be strategic in outlook and focus on key economic, social and environmental issues affecting Mullingar, it will also include tailored and site-specific objectives and actions to enable the town to fulfil its full development potential.

A Pre-Draft 'Strategic Issues Paper' has been prepared to give an overview of the main issues affecting Mullingar and sets out some of the key issues that need to be addressed by the new Plan. A few key relevant challenges discussed in the report are highlighted below:

- Mullingar has been designated a Decarbonisation Zone, meaning improving active travel in Mullingar is an important area of action for Westmeath County Council to achieve this goal.
- Shifting towards sustainable transport modes is also a key consideration within the Issues Paper, to support the economic competitiveness of Mullingar, reduce the cost of congestion and to improve the attractiveness of the town.

2.5 Design Guidance

2.5.1 Design Manual for Urban Roads and Streets

The Design Manual for Urban Road and Streets (DMURS) was updated in 2019 by the Department of Transport, Tourism and Sport. This document provides guidance regarding the integrated design approach for urban roads and streets focused on balancing the needs of all users and creating places that people want to live and spend time.

DMURS seeks to put well-designed streets at the heart of sustainable communities and supports boarder government policies on the environment, planning and transportation. DMURS provides the practical measures to achieve:

- Highly connected street which allow people to walk and cycle to key destinations in a direct and easy-to find manner.
- A safe and comfortable street environment for pedestrians and cyclists of all ages.
- Streets that contribute to the creation of attractive and lively communities.
- Streets that calm traffic via a range of design measures that make drivers more aware of their environment.

DMURS also supports Government policies on climate change by facilitating more sustainable forms of transportation such as walking, cycling and public transport so the need for car-borne trips is minimised in order to reduce greenhouse gas emissions and promote healthier lifestyles.

2.5.2 Cycle Design Manual

The Cycle Design Manual (CDM) was published by the National Transport Authority (NTA) in 2023 and provides guidance on the design of both on-road and off-road cycle facilities for both urban and rural locations. The CDM is to be used for the design of all new or improved cycle facilities in Ireland unless otherwise agreed with the relevant oversight body (e.g. NTA, TII, DoT, Local Authority).

The CDM outlines the context of designing cycle facilities in Ireland and the increased emphasis on segregation of facilities from motor traffic and provides information on what designers need to be aware of in regard to every aspect of cycle infrastructure design.

The CDM outlines the five main requirements for a cycle-friendly infrastructure, which are: safety, coherence, directness, comfort and attractiveness. These requirements shall be followed to attract new users and to fulfil the needs of existing cyclists.

2.5.3 Rapid Build Guidance

In February 2023, the NTA published the advice note ‘Rapid Build Active Travel Facilities’ to provide guidance on cost-effective measures to provide high-quality walking and cycling infrastructure using rapid-build methods. Since the publication of the note, all active travel schemes are required to include rapid build options in their options selection process.

Rapid build options are typically faster to implement on the ground than traditional construction methods and do not typically involve major construction works, mostly being accommodated within kerb-to-kerb boundary of the existing roadway, with limited effect on existing drainage. These options may include road marking, traffic restrictions, narrowing the carriageway, conversion of on-street parking into active travel facilities, among others.

The proposal to use rapid build options rather than traditional construction methods has been proposed in order to increase the rollout of active travel schemes in a cost-effective manner in conjunction with goals set under the Climate Action Plan and the National Investment Framework for Transport in Ireland (NIFTI). There are five principles that guide the rapid build process:

- **Network Approach**: a focus to develop an interconnected walking and cycling network;
- **Segregation**: provide fully segregated walking and cycling facility to attract more users into active travel;
- **Everyday Mobility**: provide infrastructure suitable for everyday activities;
- **Inclusive Mobility**: design that is suitable for all users of different ages and abilities;
- **Place Making and Biodiversity**: provide facilities that protect the biodiversity and enhance the public realm.

The rapid build options process should include as a minimum:

1. The implementation of traffic calming measures, e.g., chicanes, build-outs, ramps, raised tables, etc, to reduce traffic speeds and volumes in order to accommodate pedestrians and increase safety for cyclists in mixed traffic with motorised vehicles;
2. The reduction of the carriageway width for vehicle traffic to introduce one-way or two-way protected cycle lanes;
3. The rebalance of the road space, e.g., removal of on-street parking, introduction of a one-way system, etc, to improve safety for pedestrian and cyclists and introduce dedicated cycle lanes.

2.5.4 Other Relevant Design Guidelines

In addition to guidelines from above mentioned documents, the following documents were also referred for the analysis:

- Traffic Sign Manual by Department of Transport
- Traffic Management Guidelines by Department of Transport
- Part M of the Building regulations by Department of Housing, Local Government and Heritage
- Rapid Build Active Travel Facilities by NTA
- Rapid Build SRTS Front of School Improvements Advice Note by NTA
- Roundabout Retrofit – Including Rapid Build Options by NTA
- Traffic Signs Advice Note: Zebra Pedestrian Crossings by Department of Transport
- Greening and Nature-based SuDS for Active Travel Schemes by NTA
- Draft Protected Cycle Lanes by NTA
- TII Standards Publications
- Safe Route to School Design Guide by NTA
- Permeability Best Practice by NTA
- Building for Everyone by the National Disability Authority
- UK DETR Guidance on the use of Tactile Paving Surfaces.

3. Constraints Study

This identification and evaluation of constraints was carried out following the methodology and requirements set forth in the National Transport Authority's (NTA's) 2024 Project Approval Guidelines (PAG). For organisational purposes, the discussion of constraints within this report is divided into three principal categories including:

- **Natural constraints**, which include naturally occurring landscapes and features;
- **Artificial constraints**, which include features forming part of the built environment; and
- **External parameters**, which include design standards, policy, procedural, financial, and legal considerations.

3.1 Natural Constraints

An Environmental Constraints Study have been prepared and is included in Appendix A. The Environmental Constraints Study identifies the key environmental constraints within the study area and its vicinity, as follows:

- Topography;
- Land, Soils and Geology;
- Hydrology and Hydrogeology (including Flood Risk);
- Biodiversity;
- Archaeology, Architecture and Cultural Heritage;
- Air and Climate;
- Noise and Vibration;
- Licenced Facilities;
- Radon; and,
- Landscape & Visual.

3.2 Artificial Constraints

Artificial constraints are human constructed features which may impact on or may be impacted by potential changes to the study area. The list provided below shows the general artificial constraints within Project 3 of the Mullingar Active Travel bundle that have been considered.

- Bus services
- Traffic conditions
- Road widths and pinch points
- Land-use, zoning and planned developments
- Utilities
- Archaeology, architecture and cultural heritage
- Junctions
- Traffic collisions
- Pavement condition
- Existing infrastructure deficiencies.

3.2.1 Existing Road Network

Project 3 extends from the southern end of Mount Street, Mount Street Gardens, the northern section of Lynn Road – Jail Hill –, Sunday's Well Road, Auburn Road, Millmount Road and Ballinderry Road, as indicated in Figure 3-1. The total length of the corridor is 1.5km. Due to changes in the characteristics of the corridor, such as road widths, presence of parking bays and the presence of existing active travel facilities, the corridor has been divided into seven segments also outlined in Figure 3-1. The following sections discuss the artificial constraints along each segment within the corridor.

Figure 3-1 – Project 1 Segments



To provide a baseline of the existing corridor, the general road arrangement was reviewed. This review included documenting key features including the general corridor width and cross section, the location and types of junctions and the location of bus stops, on-street parking and loading areas. For organisational purposes, this discussion is presented by segment as defined in Figure 3-1 above.

3.2.1.1 Segment 01: Mount Street

Segment 01 is located at Mount Street, from the junction with Church Lane to the north to the roundabout with Jail Hill and Mount Street Gardens and is approximately 102m in length. The northern end of Mount Street has been re-purposed to provide a one-way street south to north with wider footpaths to improve public realm while the southern end of the street still provides a two-way system to accommodate vehicles travelling from Church Lane and the Court Office to the south. However, it was noted from the traffic survey carried out in December 2023 that no vehicles have been recorded travelling south and the road is effectively already used as a one-way street. Footpaths are provided on both sides of the road and measure from 1.7-2.0m. There are no cycle facilities along the segment.

On the western side of the road, there are nine paid parking bays and a loading bay, which extend for the entire length of the segment. In front of The Chambers Bar, the parking area was converted into an external seating area which is fenced and protected from vehicular traffic. On the eastern side, despite the double yellow line, vehicles tend to park informally within the carriageway as the lane going south is not used. The bus route 837 travels along the segment but there are no bus stops provided.

The segment has two junctions, as indicated in Figure 3-2. The first junction is a priority crossroads that connects Mount Street to Church Lane and Blackhall Street. The other junction is a 3-arm roundabout which connects to Jail Hill and Mount Street Gardens. The roundabout only provides one dedicated crossing point, a zebra crossing on the northern arm of the junction and the remaining arms do not provide any form of crossing. There are seven protected structures along the segment, mainly residential and commercial units, as well as the Mullingar Court Office, according to the National Inventory of Architectural Heritage (NIAH) website.

The speed limit is 50km/h and vehicles with over five axles cannot travel along the segment. The typical width between boundaries is 11.4m.

Figure 3-2 provides an overview of the segment and Figure 3-3 shows the typical cross section.

Figure 3-2 – Segment 01 Overview

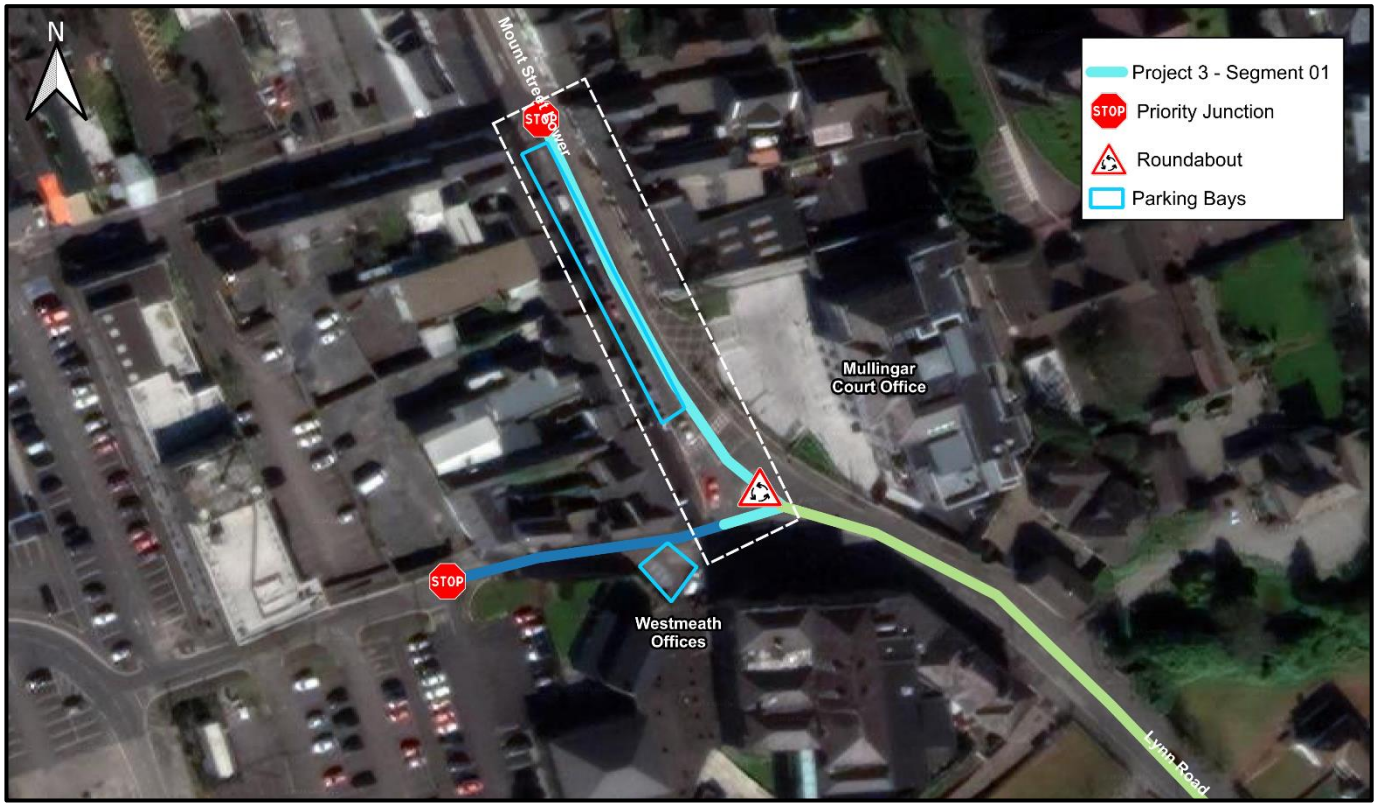
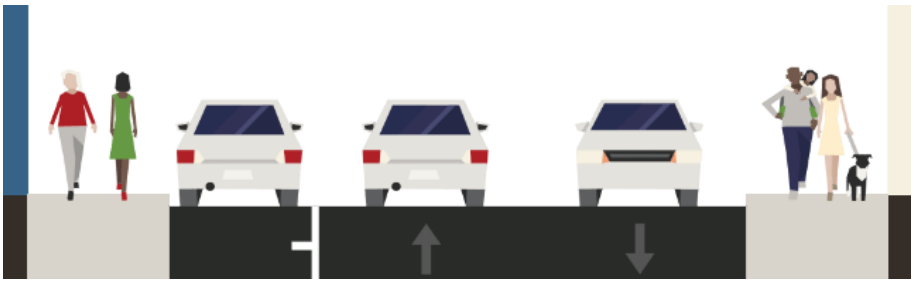


Figure 3-3 – Segment 01 Typical Cross Section



3.2.1.2 Segment 02: Mount Street Gardens

Segment 02 is a small stretch of the road, named Mount Street Gardens, that connects Mount Street to the car park adjacent to the County Office Buildings, approximately 57m in length. The segment is a one-way street west to east and there are footpaths provided continuously on the northern side, measuring around 2m in width, while on the southern side there is a small section of footpath that gets incrementally narrower towards the western end of the segment.

There are two accessible parking bays located to the eastern end of the segment, which link to the pedestrian access to the county buildings. There are no cycle facilities on this segment. There is also no bus service or stop at the segment. There is one priority junction, as indicated in Figure 3-4, which is one of the accesses to the car park.

The speed limit is 50km/h and the typical width between boundaries is 6.5m.

Figure 3-4 provides an overview of the segment and Figure 3-5 shows the typical cross section.

Figure 3-4 – Segment 02 Overview

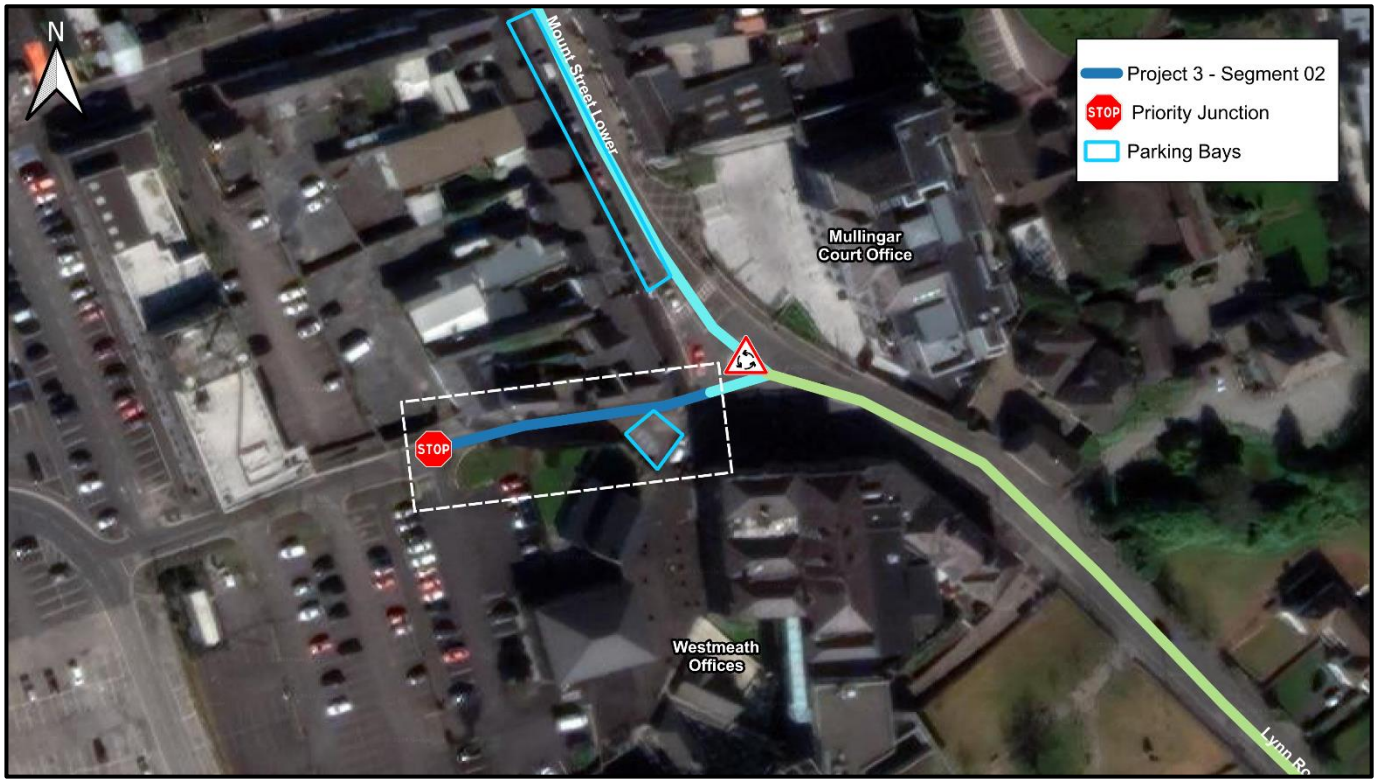
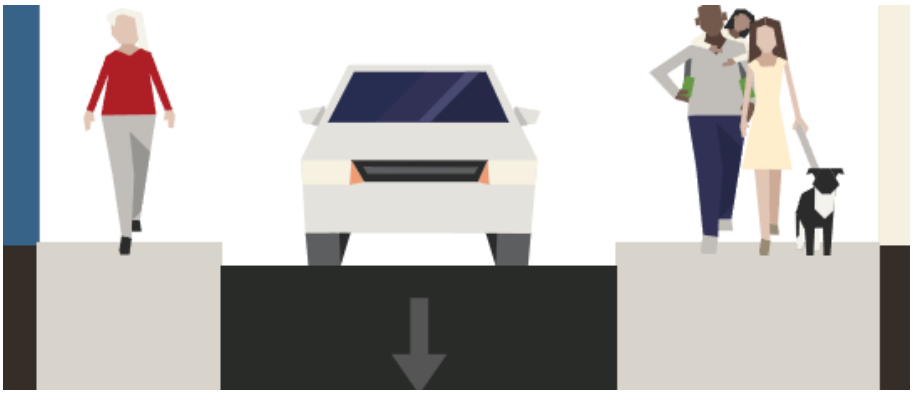


Figure 3-5 – Segment 02 Typical Cross Section



3.2.1.3 Segment 03: Jail Hill and Lynn Road

Segment 03 extends along Jail Hill and the northern end of Lynn Road from the roundabout with Mount Street to the junction with Sunday's Well Road, around 178m in length. The segment has one vehicular lane in each direction as well as footpaths provided continuously on both sides of the road that measure for the most part over 2.0m wide. There is a mandatory on road cycle lane provided on the south bound lane, which measures approximately 1.45m in width. The cycle lane does not connect to any other cycle network in the town as it is only provided along the segment.

There are two priority junctions at the segment, the first one connects the northern end of Lynn Road to the road around the Westmeath Offices and the second connects Lynn Road to Sunday's Well Road. There are no parking bays along the segment. There are also no bus stops, however, bus service 837 runs along the segment. There is one protected structured in the segment, a post box listed in the Westmeath County Development Plan 2021-2027, there is also one area listed on the National Monuments Record, a ford, located along this segment.

The speed limit along the segment is 50km/h and the typical width is 12.6m. Figure 3-6 provides an overview of the segment and Figure 3-7 shows the typical cross section.

Figure 3-6 – Segment 03 Overview

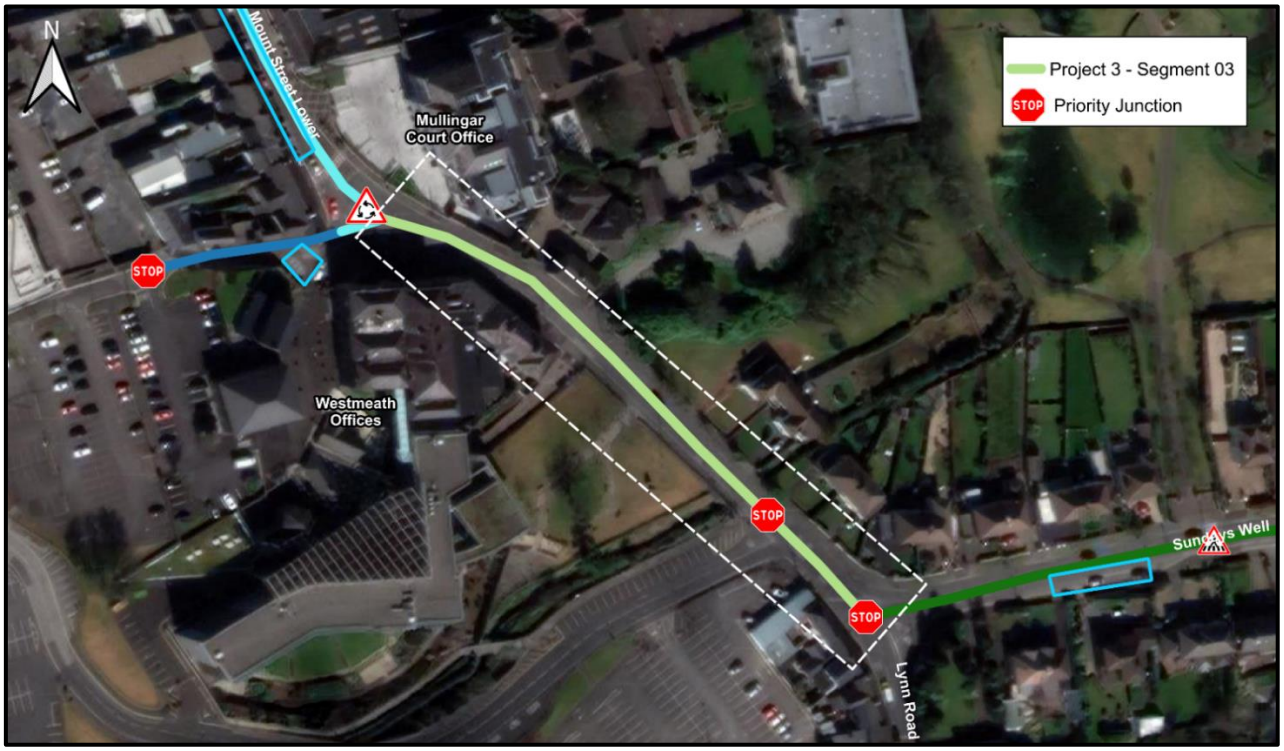
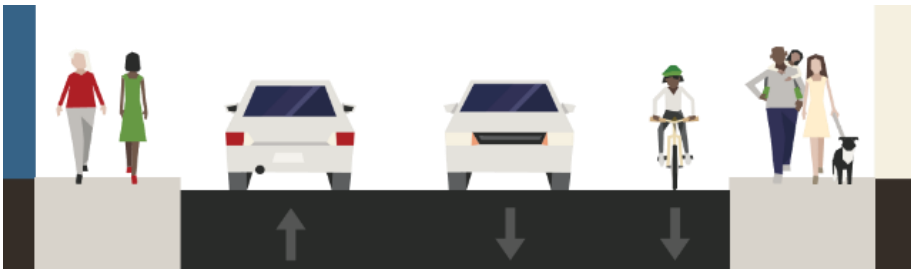


Figure 3-7 – Segment 03 Typical Cross Section



3.2.1.4 Segment 04: Sunday's Well Road and Auburn Road

Segment 04 is located at Sunday's Well Road and Auburn Road, approximately 324m long. The segment has one vehicular lane in each direction and there are four parking areas located on the western bound of the road, which cater for approximately 28 cars. On the approach to the junction with Lynn Road, the road widens to provide an additional lane to segregate vehicles proceeding in each direction. On the Millmount Road junction approach, Auburn Road still only has one vehicular lane in each direction, however, the junction radius is excessively wide, and drivers tend to form two separate lanes to proceed into Millmount Road.

There are footpaths on both sides of the road. On the northern side of the road, the footpath is segregated from the carriageway by a grass verge and measures approximately 1.3m wide. On the southern side, the footpaths vary in width, from 1.3m to 2.6m. There is one zebra crossing at the segment, which is located at the Town Park access point. The segment also has a protected structure, a well, located to the southwest of the zebra crossing.

There is one priority junction at the segment, which links to a cul-de-sac named Auburn Avenue. No bus route makes use of the segment, thus, there are no bus stops. As well as that, there are no cycle facilities at the segment. The speed limit along the segment is also 50km/h and the typical width between boundaries is 13.8m.

Figure 3-8 provides an overview of the segment and Figure 3-9 shows the typical cross section.

Figure 3-8 – Segment 04 Overview

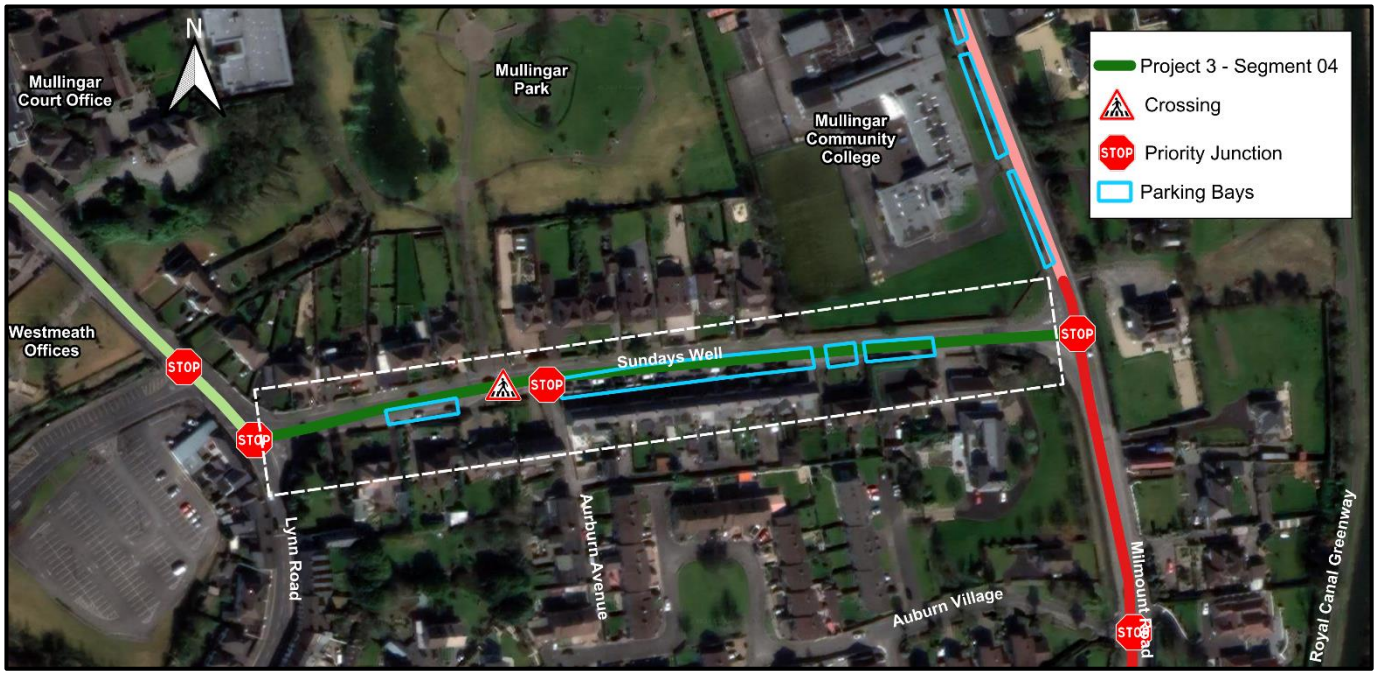
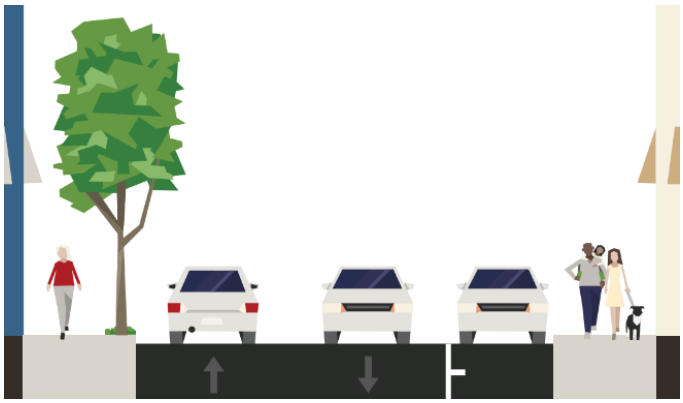


Figure 3-9 – Segment 04 Typical Cross Section



3.2.1.5 Segment 05: Millmount Road, from the access to the Town Park to Auburn Road

Segment 05 comprises of Millmount Road from the access to the Town Park to the north to the junction with Auburn Road, approximately 165m in length. The segment has one vehicular lane in each direction and five pay-and-display parking bay areas along the segment that can cater for approximately 27 vehicles. The footpaths are continuous on both sides of the road. On the western side, the footpath is segregated from the carriageway by a grass verge and measures approximately 1.5m whereas on the eastern side the footpath measures around 2m wide and is adjacent to the road. The segment also connects to the Town Park, however, there is no appropriate crossing point at the segment to connect to the park.

There are no junctions along the segment and no cycle facilities. The bus route 190 travels along the segment, however, there are no bus stops. The speed limit is 50km/h along the segment and the width between boundaries is an average of 12.8m due to the presence of the on-street parking bays.

Figure 3-10 provides an overview of the segment and Figure 3-11 shows the typical cross section.

Figure 3-10 – Segment 05 Overview

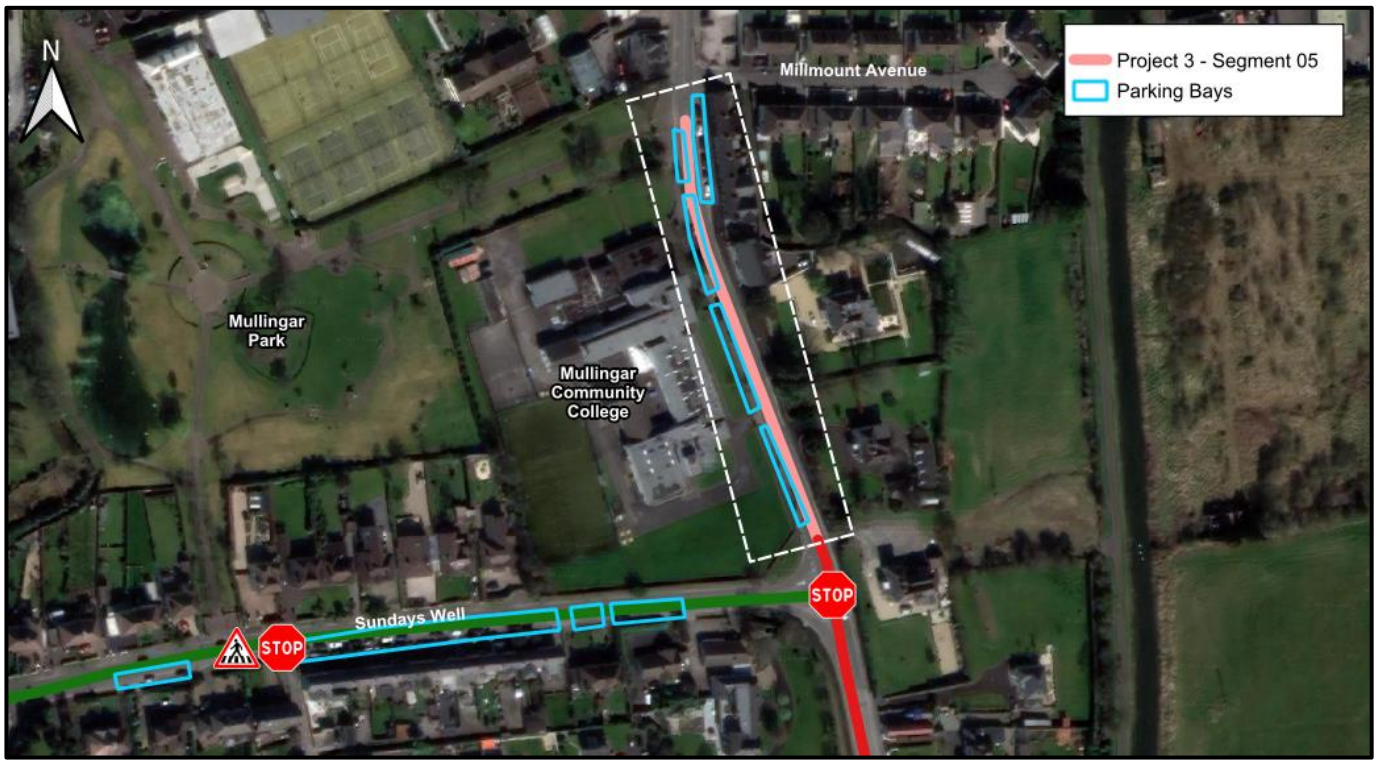
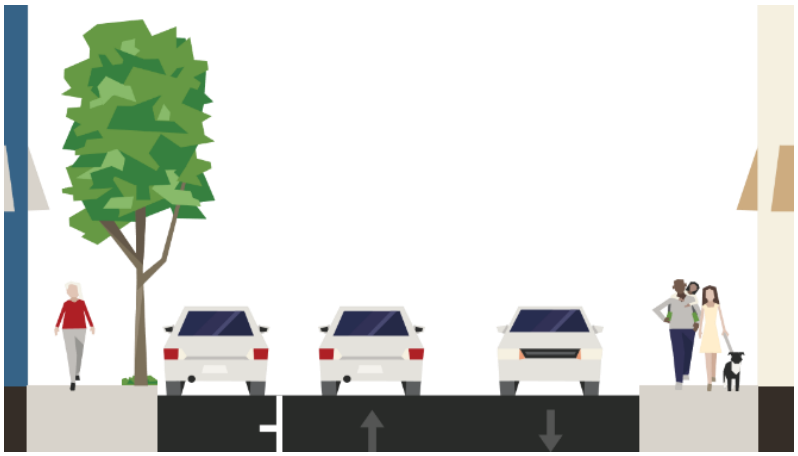


Figure 3-11 – Segment 05 Typical Cross Section



3.2.1.6 Segment 06: Millmount Road, from Auburn Road to the Railway Bridge

Segment 06 runs along Millmount Road from the junction with Auburn Road to the north until the approach to the Railway Bridge, approximately 430m. The segment also has one vehicular lane in each direction and two free car park areas with space for approximately 10 vehicles. The footpaths are continuous on both sides of the road and are similar to Segment 05. The eastern side of the road is for the most part segregated from the footpath by a grassed verge. On the western side of the road, the footpaths vary in width from as low as 0.9m to 2.3m. There are one-way mandatory cycle lanes on both sides of the road from the junction with Auburn Road to the southern Newlands junction that measure approximately 1.2m width.

There are four junctions along the segment, as indicated in Figure 3-12, which are all priority junctions. The junction between Auburn Road and Millmount Road is a major junction in the town and provides a large radius without appropriate crossing facilities for pedestrians crossing the road at the junction, allowing vehicles to enter and exit the junction at speed. The other three junctions serve the Newlands and the Auburn Village estate and also provide large radii and excessive width with no appropriate crossing points according to standards.

There are no bus stops along the segment but bus route 190 runs along the segment. The speed limit is 50km/h and the typical width between boundaries is 14.2m.

Figure 3-12 provides an overview of the segment and Figure 3-13 shows the typical cross section.

Figure 3-12 – Segment 06 Overview

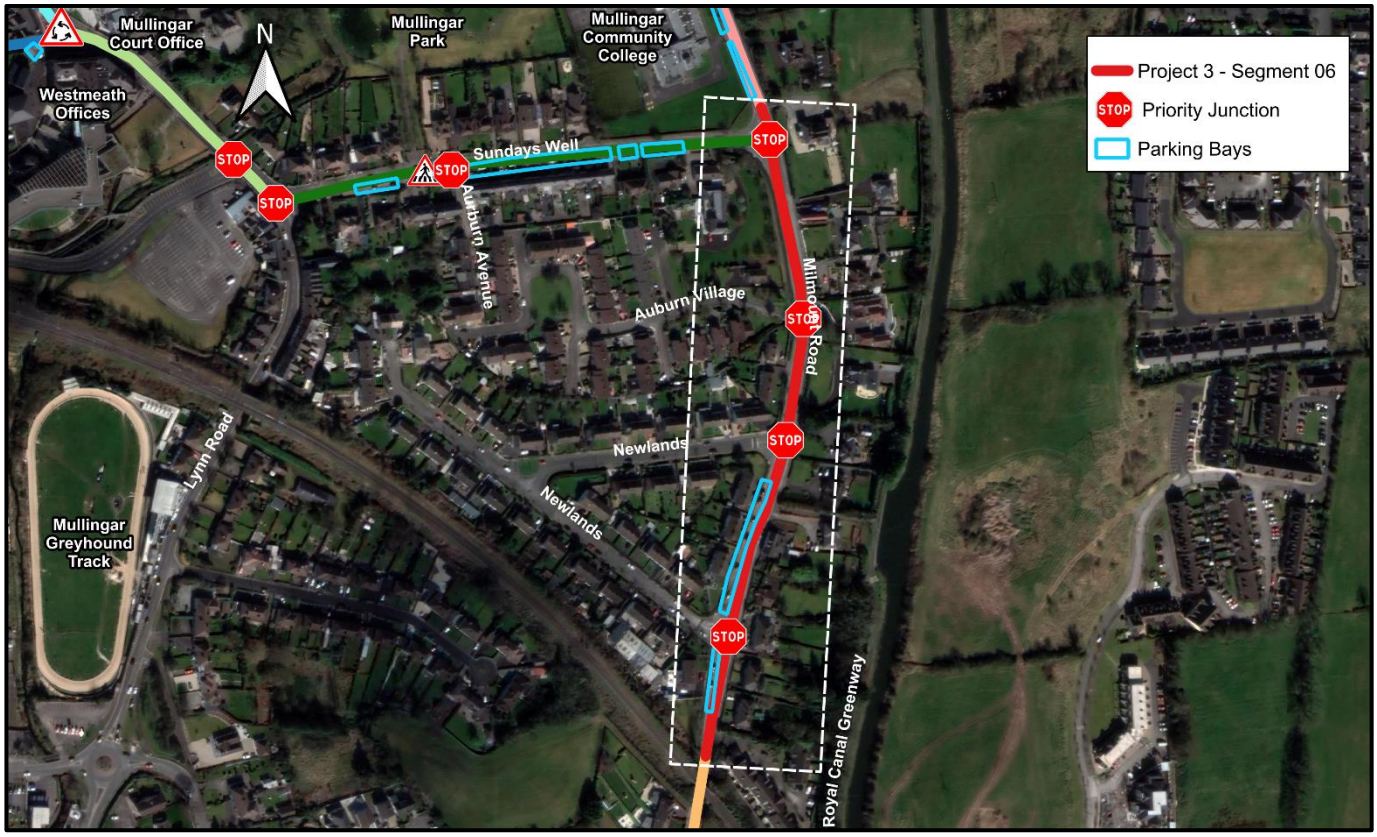
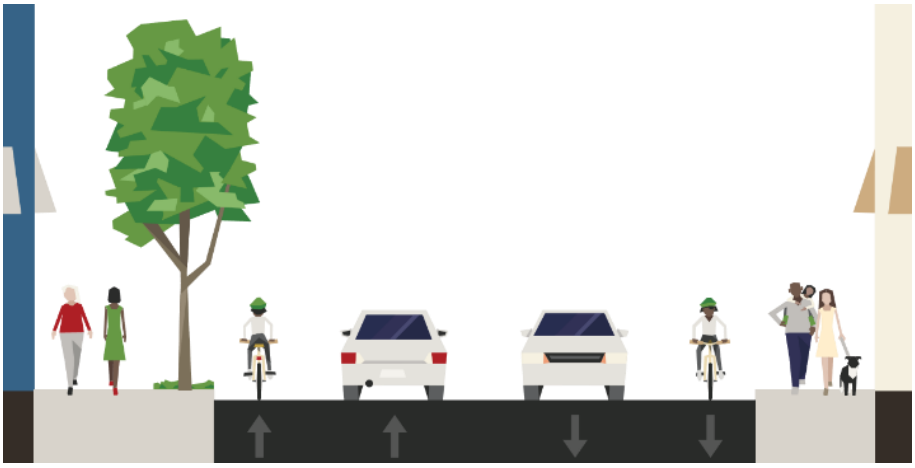


Figure 3-13 – Segment 06 Typical Cross Section



3.2.1.7 Segment 07: Millmount Road and Ballinderry Road, from Railway Bridge to the junction with Ardmore Road

The final segment of Project 3, Segment 07, extends from the approach to the Railway Bridge to the Ballinderry Road/Ardmore Road roundabout, approximately 250m in length. Under the railway bridge, the width is constrained, and a give and take yield system is in place to allow for only one direction of traffic at a time, with traffic travelling north nominally having priority over southbound traffic. The section under the railway bridge is a critical location due to width constraints and due to the bridge being a protected structure. The remainder of the carriageway has one vehicular lane in each direction.

Footpaths are provided continuously on both sides of the road and are generally over 2.0m wide. There are no cycle facilities along the segment. The bus route 190 travels along the segment but there are no bus stops located within this section. There are also no parking bays along the segment.

There are three junctions along the segment, as indicated in Figure 3-14. The first is a 4-arm roundabout that links Ballinderry Road, Millmount Road and the residential estate Saunders Court. There are no dedicated crossing points at this junction, however, there is a raised zebra crossing approximately 30m west of the junction along the western Ballinderry Road that has been recently upgraded to be according to safety standards and can cater for movement of pedestrians travelling north-west along the segment. The second is a priority junction that connects to Millmount residential cul-de-sac, and the final junction is a 3-arm roundabout that links Ballinderry Road to Ardmore Road. None of these junctions provide dedicated crossing facilities for vulnerable road users.

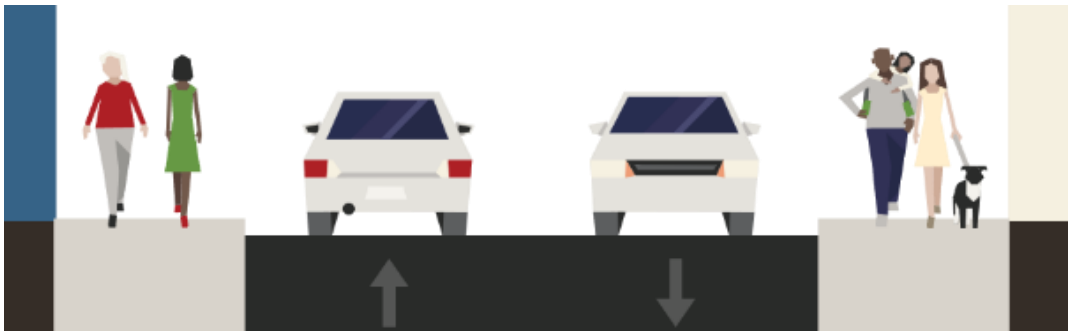
The speed limit along the segment is also 50km/h and the typical width between boundaries is 11.8m.

Figure 3-14 provides an overview of the segment and Figure 3-15 shows the typical cross section.

Figure 3-14 – Segment 07 Overview



Figure 3-15 – Segment 07 Typical Cross Section



3.2.2 Cross Section Width Analysis

One of the most significant challenges to providing cycling infrastructure within an urban environment is the availability of space. To understand the space available along the existing corridors, a width analysis was completed using Geographic Information Systems (GIS) software and topographical survey data. This analysis consisted of taking cross-section measurements from boundary-to-boundary of the available road space at approximately one metre intervals along the corridor.

The results indicate the "typical" width of each segment of the corridor. This typical width was qualitatively determined based on engineering judgement and was taken to be the predominant width of the particular segment. In some cases, there were portions of a segment that had a significantly narrower width than the typical, which are referred to as pinch points and represent the most width-constrained areas. Figure 3-16 shows the cross-section width analysis for Project 3.

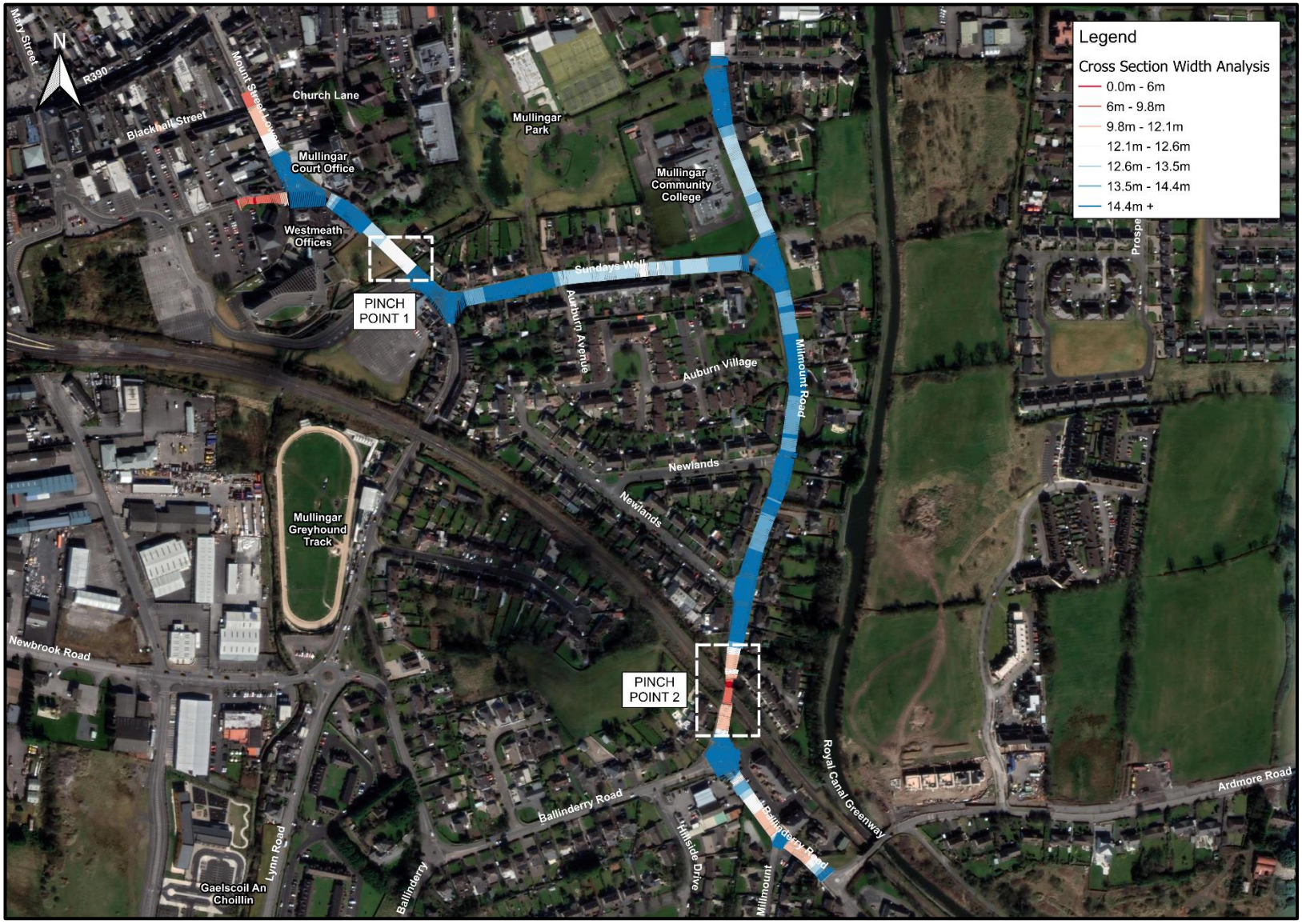
Two pinch points were identified, as listed in Table 3-1. The first pinch point is along Segment 03, at Jail Hill / Lynn Road, which is constrained compared to the remainder of the segment as the River Brosna runs under the segment and there is a bridge structure located in the area. The area is on the National Monuments Record with a class description of Ford. The other pinch point is at Segment 06, where the width reduces to 5.4m and a one-way system is in place, located under the Railway Bridge. The Railway Bridge is listed in the National Inventory of Architectural Heritage (NIAH) and is on the Record of Protected Structures in the Westmeath County Development Plan 2021-2027.

Both Segments 01 and 02 are constrained in nature and were not included as pinch points. At Segment 07, the width averages at 11m throughout and was also not included as a pinch point.

Table 3-1 - Pinch Points

Pinch Point No.	Description	Segment	Narrowest Width (m)
1	Bridge over River Brosna	03	12.3
2	Under Railway Bridge	06	5.4

Figure 3-16 – Pinch Point Areas



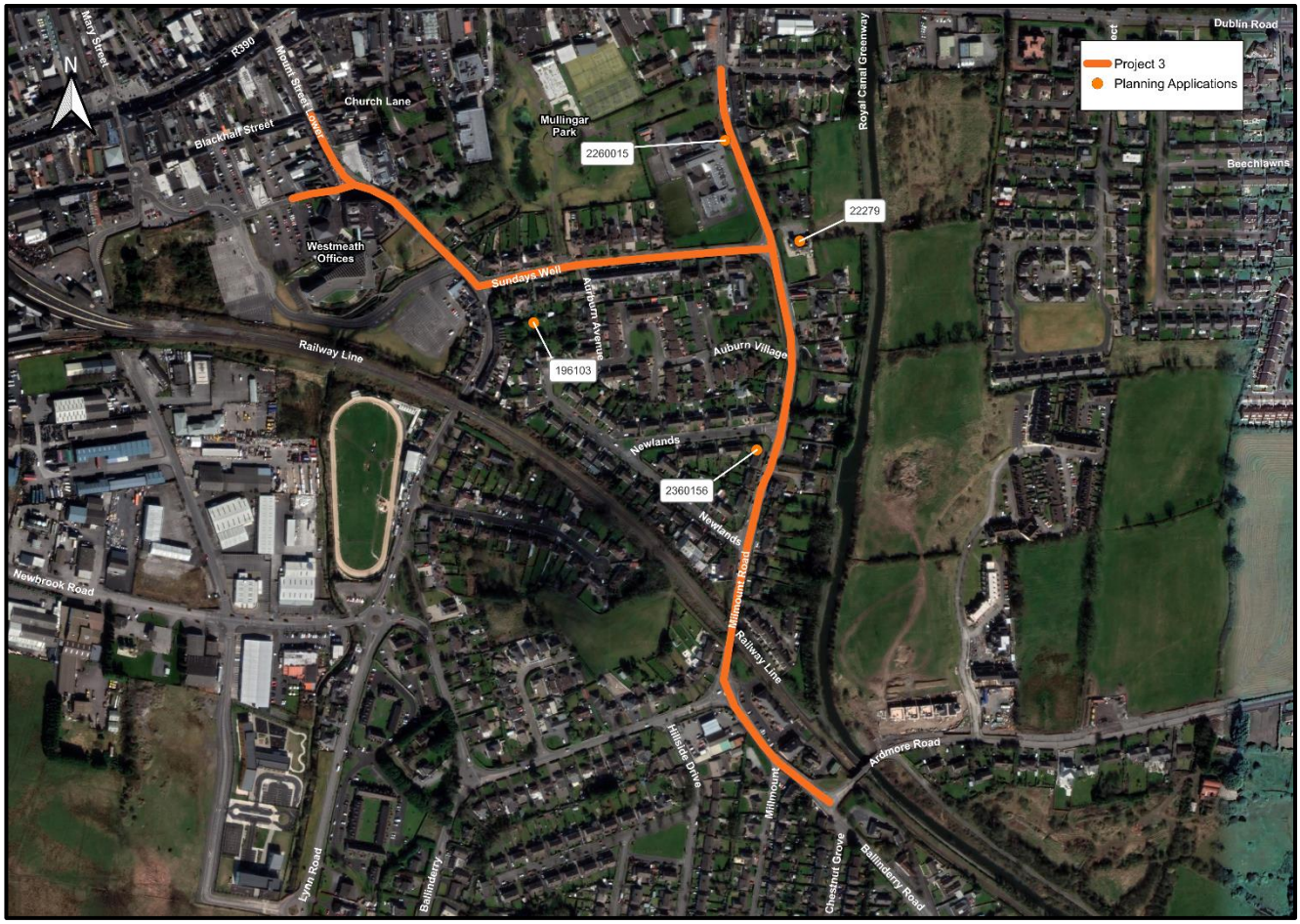
3.2.3 Planned Developments

To understand planned changes to the corridor, existing planning applications were reviewed for a period extending back five years. For the purposes of this study, only significant new developments that are likely to generate a significant number of trips and developments that may encroach nearby to the existing corridor have been documented and are shown in Table 3-2 and outlined in Figure 3-17..

Table 3-2 - List of Approved Planning Applications

Planning Reference Number	Approval Status	Decision Date	Development Description
196103	Conditional	07/06/2019	Construction of a two storey 4 bed detached house with garage, upgrade of existing site entrance by partial demolition of existing boundary wall and piers, partial removal and trimming of existing hedgerows, upgrade of access road to the proposed dwelling house, new boundary wall and fence, a gate and all associated site works.
2260015	Conditional	24/01/2023	Consisting of the removal of 2 no. existing entrance gates and Piers, widening and marginal re-alignment of the entrances, the construction of new gate piers and installation of 2 no. new entrance gates and the provision of 6 no. car parking spaces and set-down area within the existing site curtilage.
2360156	Conditional	27/07/2023	Partial demolition of existing semi-detached dwelling and to construct a new four-bedroom dwelling attached to the north elevation of the existing semi-detached dwelling and all ancillary site services.
22279	Conditional	14/11/2023	The proposed development comprises new access arrangements of piers, gates, railings and boundary walls with a stone capped rendered walls to the return of the existing front boundary wall with railing detail above to match existing and an extended railing boundary treatment on the northern boundary of the domestic property, domestic extensions as comprise a new single storey family room (41sqm) and a linked domestic garage/garden storage building (40.1sqm) integrated with the retained utility building. The proposed development also comprises new landscaping detail to supplement new railing boundary and all other associated above and below ground works. The proposed retention development will comprise; the existing side extension/sunroom (18.65sqm), rear utility room (9.95sqm) and 6m fibreglass sleeved flagpole to front of property.

Figure 3-17 – Relevant Planning Applications



3.2.4 Pavement Condition Survey

Pavement condition can impact the overall quality of service for cyclists and comfort for drivers. To understand the existing pavement condition of the corridor, the carriageway surface was assessed using the Pavement Surface Condition Index (PSCI) rating system as defined in the Urban Flexible Roads Manual (Department of Transport, Tourism and Sport, 2013). The PSCI rating scale ranges from 10 for a pavement in excellent condition, to 1 for a pavement in failed condition. The overall PSCI rating and their corresponding primary and secondary indicators have been illustrated in the Figure 3-18 below.

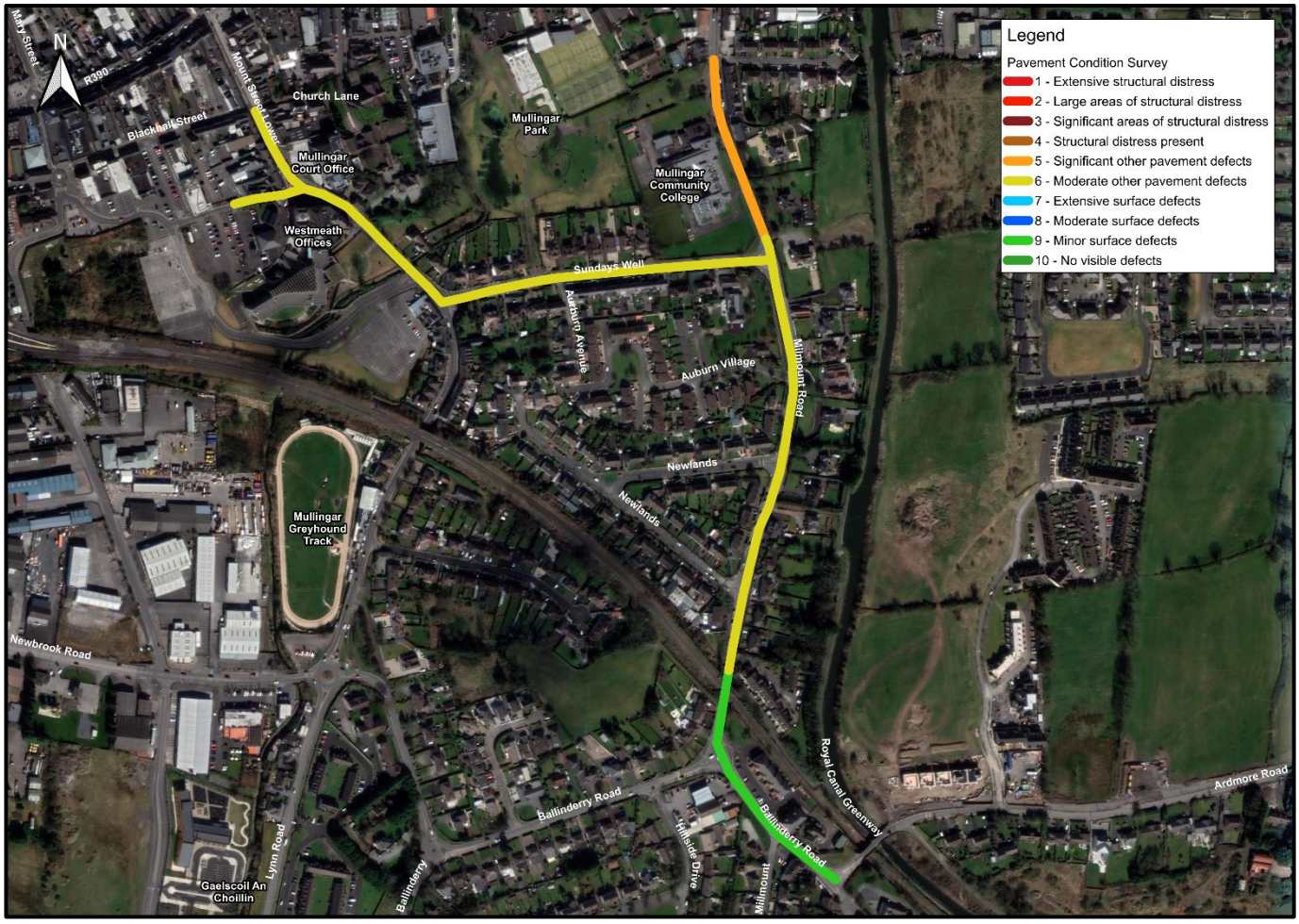
Figure 3-18 - Pavement Surface Conditions Index (PSCI)

Overall PSCI Rating	Primary Rating Indicators*	Secondary Rating Indicators*
10	No Visible Defects.	Road surface in perfect condition.
9	Minor Surface Defects[1]. Ravelling or Bleeding <10%.	Road surface in very good condition. Like new.
8	Moderate Surface Defects[1]. Ravelling or Bleeding 10% to 30%.	Little or No Other defects.
7	Extensive Surface Defects[1]. Ravelling or Bleeding > 30%.	Little or No Other defects.
6	Moderate Other Pavement Defects[2, 3, 4]. Other Cracking[2] < 20%. Sealed Cracks in Good condition. Some narrow Open Cracks[2] (≤ 12 mm). Patching in Good condition[4]. Surface Distortion[3] requiring some reduction in speed.	Surface defects[1] may be present. No structural distress[5].
5	Significant Other Pavement Defects[2, 3, 4]. Other Cracking[2] > 20%. Sealed Cracks in Fair condition. More frequent narrow Open Cracks[2] (≤ 12 mm). Patching in Fair condition[4]. Surface Distortion[3] requiring reduction in speed.	Surface defects[1] may be present. Very localised structural distress[5] (< 5 m² or a few isolated potholes) may be present.
4	Structural Distress[5] Present. Rutting, Alligator Cracking or Poor Patching for 5% to 25%. Wide Open Cracks[2] (> 12 mm) with moderate Spalling. Sealed Cracks in Poor condition. Frequent Potholes. Short lengths of Edge Breakup.	Other defects may be present.
3	Significant Areas of Structural Distress[5]. Rutting, Alligator Cracking or Poor Patching for 25% to 50%. Many Wide Cracks[2] (> 12 mm) with severe Spalling. More frequent Potholes. Continuous lengths with Edge Breakup.	Other defects may be present.
2	Large Areas of Structural Distress[5]. Rutting, Alligator Cracking or Very Poor Patching for > 50%. Severe Rutting (> 50 mm). Extensive Very Poor Patching. Many Potholes.	Pavement badly deteriorated. Very difficult to drive on.
1	Extensive Structural Distress[5]. Severe Deterioration of surface. Pavement Failure. Many large and deep Potholes. Extensive Failed Patching.	Severe Deterioration Virtually undriveable.

The pavement condition analysis was completed via visual inspection of available imagery including photos and videos taken on-site on the 21st of November 2023 and supplemented where necessary with Google Street View. A complete set of findings is provided in Appendix B.

The segments along Project 3 are rated as PSCI 5, 6 and 9, as indicated in Figure 3-19. These defects consist of structural distress such as surface defects, structural distress, surface distortion and surface openings. Segment 05 was classified with a PSCI rate 5 due to the presence pf ravelling, rutting, alligator cracking, edge breakup, depression, bumps and manhole cover defects. Segments 01, 02, 03 and 06 were classified as PSCI rate 6 due to the presence of ravelling, edge breakup, alligator cracking, bumps and manhole cover defects. Segment 07 have been recently resurfaced and have been classified as PSCI rating 9.

Figure 3-19 – Pavement Condition Index



3.2.5 Road Collision Data

At the time of the constraints study being completed, historical collision data, which is provided by the Road Safety Authority (RSA), was not available. Therefore, no collisions analysis has been completed. At this time, the RSA has not indicated when the collision data will be available. Should this data become available during the continued progression of this project, the information will be evaluated, and a supplemental safety assessment addendum will be included as part of a future project-related report.

3.2.6 Traffic Data Survey

Westmeath County Council provided AtkinsReális with Automatic Traffic Counts (ATC), Junction Turning Counts (JTC), queue lengths, pedestrian counts and Origin-Destination data at several locations within the town which were carried out in May 2023. Additional ATC data and on-street parking beat data were requested to Westmeath County Council and were carried out in November 2023. To identify the baseline traffic conditions along the corridor, ATCs, JTCs and pedestrian counts were used. Figure 3-20 indicates the locations of both surveys along the route corridor and Table 3-3 describes the survey types and collection times.

Figure 3-20 – Traffic Survey Location

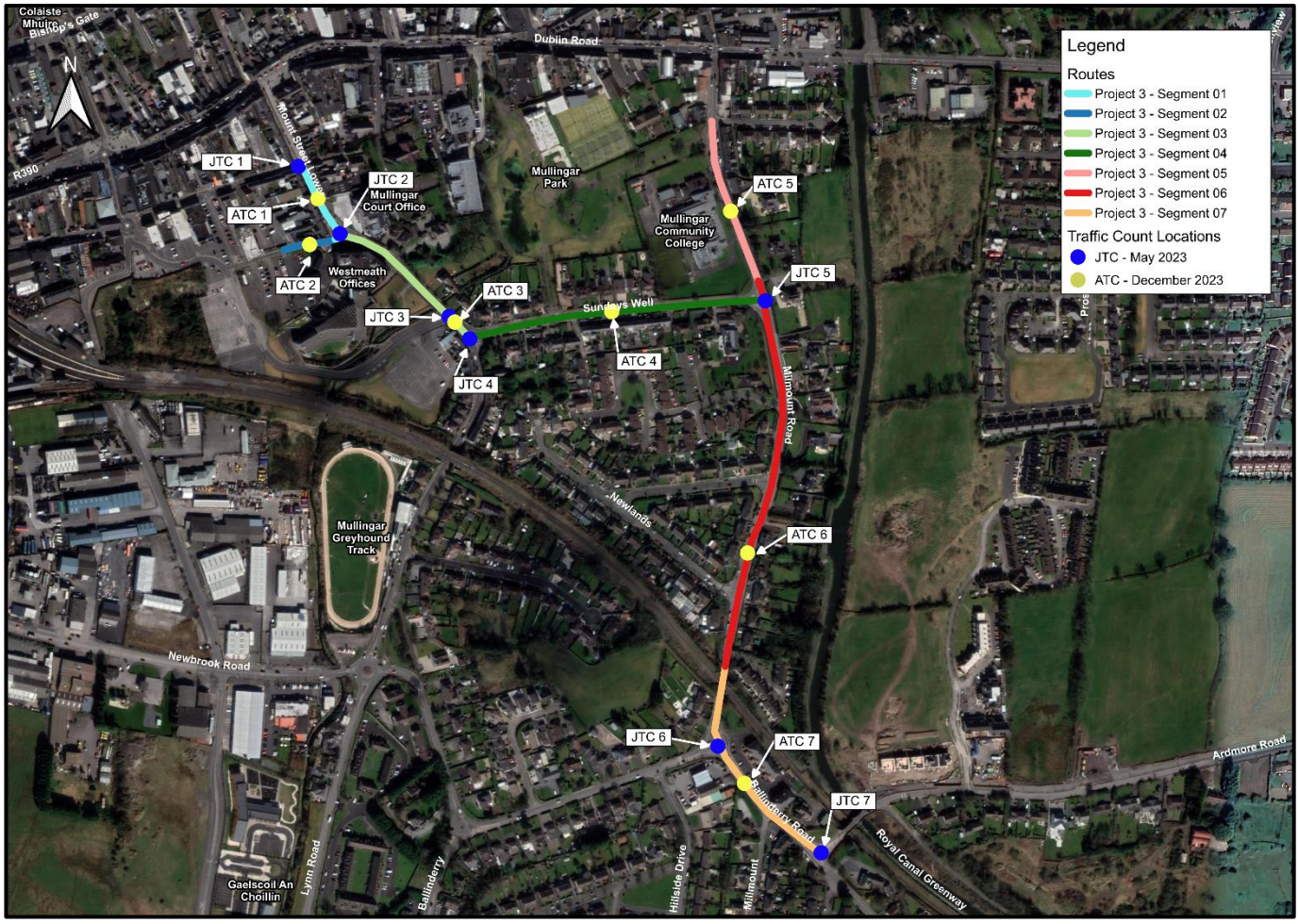


Table 3-3 - Traffic Survey Durations and Collection Types

Count Type	Duration	Data Collected
ATC	7 days, 24 hours a day	▪ Vehicle Volumes ▪ Vehicle Speeds ▪ Vehicle Classifications
JTC	1 day, 12 hours (07:00 to 19:00)	▪ Vehicle turning volumes ▪ Cyclist turning movements
Pedestrian counts	1 day, 12 hours (07:00 to 19:00)	▪ Pedestrian volumes within the designated crossing ▪ Pedestrian volumes passing past the designated crossing but not using

3.2.6.1 Traffic Conditions

Traffic conditions along the route corridor were obtained from the Automatic Traffic Count (ATC) data carried out by IDASO in December 2023, for 24 hours a day for 7 days from Monday the 4th to Sunday the 10th. Data was obtained at the seven locations indicated in Figure 3-20 and are displayed in detail in Figure 3-21 and Figure 3-21.

The Christmas Market took place from the 7th of December to the 10th of December 2023 on Mount Street and affected traffic counts on both Segments 01 and 02. Due to street closure, on these segments, the data presented is only from Monday the 4th to Wednesday the 6th of December. On the remaining of the segments, the data is representative of the average data for the weekdays, Monday – Friday, as it represents a more robust analysis.

From Figure 3-21, it can be noticed that the segment that has more percentage of HGVs per total number of vehicles is Segment 05, as ATC 5 indicates a total of 3.5% of HGVs on the road. The lowest HGV volume is at Segment 06, where only 2.1% of vehicles were categorized as HGVs. The figure also indicates that the segment with more traffic is Segment 07, with an average of over 9,000 vehicles a day, followed close by Segment 05, with approximately 8,200 vehicles a day and the lowest volumes were recorded at Segment 02, with an average of 2,000 vehicles recorded every day.

Figure 3-21 – Vehicle Volumes by Classification

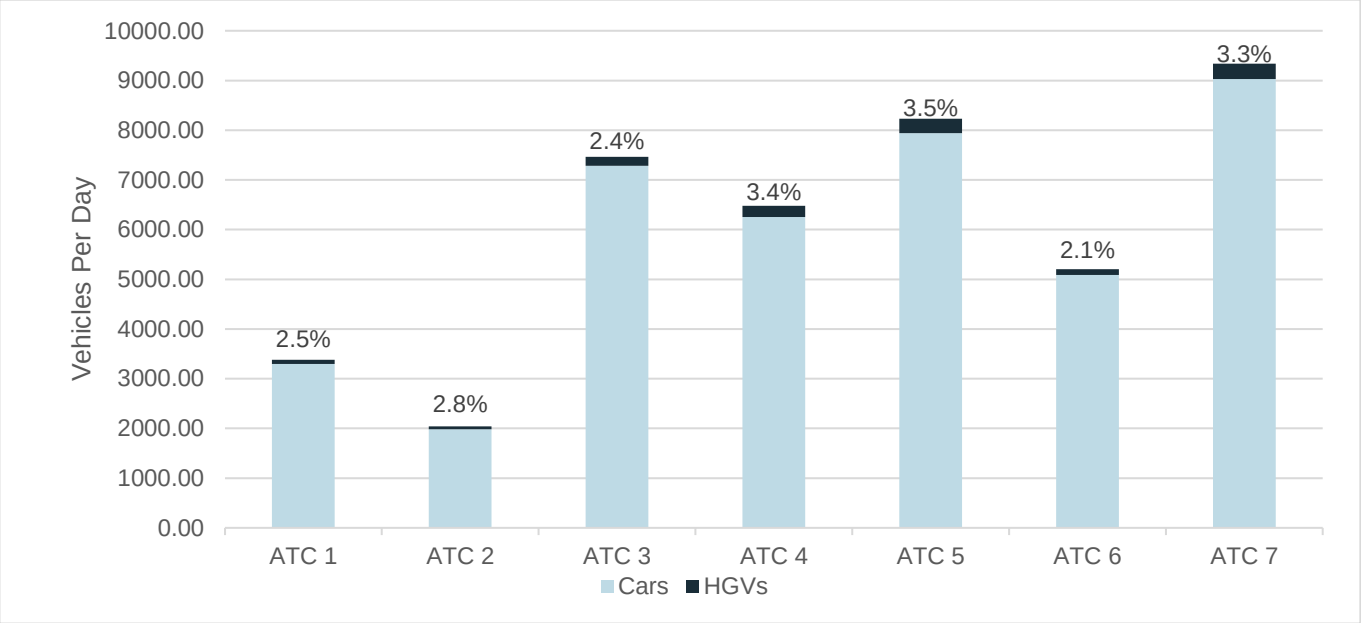


Figure 3-22 shows the traffic volumes at each ATC location along the corridor by direction. Segments 01 and 02 are one-way systems, therefore, the data only shows movements in one direction. At Segment 07, traffic northbound and southbound is at similar levels. At Segments 03 and 05, it is noted a great variance on the directional traffic flows, where in Segment 03 the northbound traffic represents 60% of the total traffic and on Segment 05 the southbound traffic is 59% of the total traffic.

Figure 3-22 – Average Weekday Volumes

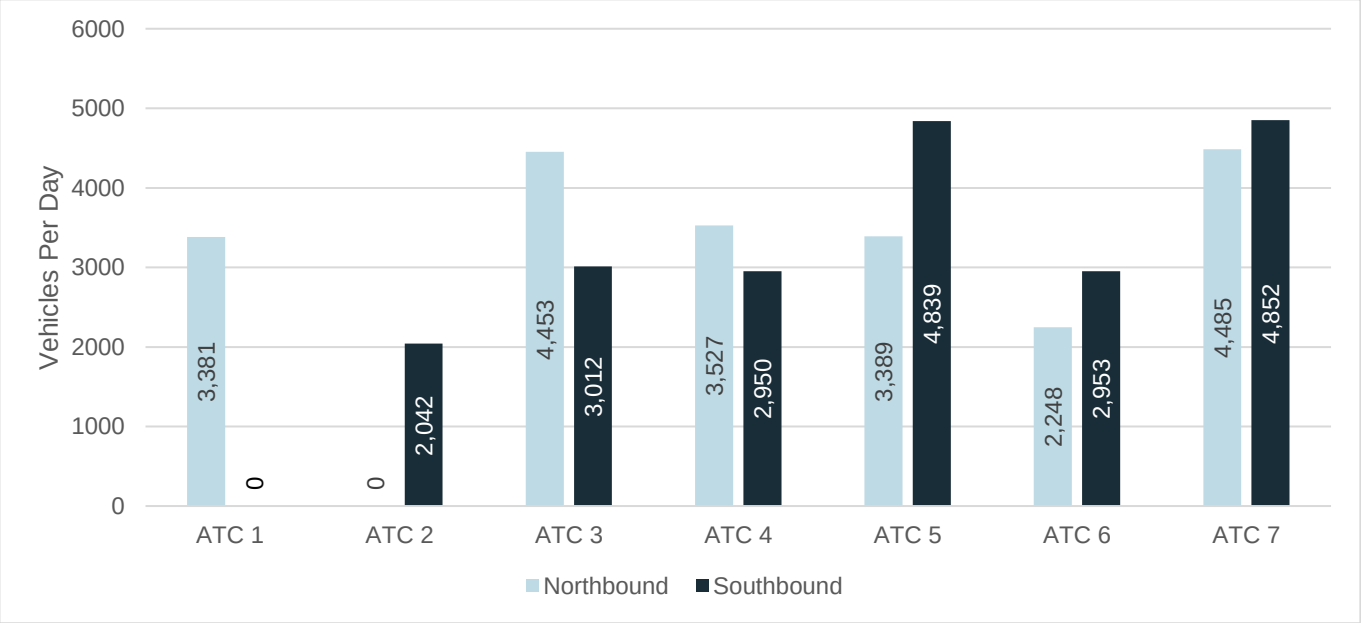


Table 3-4 shows the speed counts along the corridor and it is noted that speeds were similar on both directions of the road. The highest average speed was 45km/h, observed at ATC 07, located at Segment 07 and the lowest speed was recorded at Segment 02, as average of 20km/h.

Table 3-4 - Typical Speeds

Location	Direction	Average Speed (km/h)	85th Percentile Speed (km/h)
ATC 01 – Segment 01	Northbound	23.71	31.12
	Southbound	N/A	N/A
ATC 02 – Segment 02	Westbound	N/A	N/A
	Eastbound	20.52	25.92
ATC 03 – Segment 03	Northbound	25.85	34.29
	Southbound	26.27	33.80
ATC 04 – Segment 04	Westbound	39.42	47.47
	Eastbound	41.83	50.36
ATC 05 – Segment 05	Northbound	33.82	47.02
	Southbound	36.34	44.72
ATC 06 – Segment 06	Northbound	41.83	41.83
	Southbound	39.34	39.34
ATC 07 – Segment 07	Northbound	43.28	43.28
	Southbound	45.18	45.18

3.2.7 Utilities

Existing utility information was collected from relevant providers, shown in Table 3-5. Maps of the available utility information are provided in Appendix C.

Table 3-5 - Existing Utilities in Mullingar town

Utility Provider	Description
Electricity Supply Board (ESB)	Electricity
Eircom Ltd. (EIR)	Telecoms
Gas Networks Ireland	Gas distribution and transmission
Irish Water	Water Main and Wastewater
E-net	Telecoms
Aurora Telecoms	Telecoms
Virgin Media	Telecoms
BT Telecoms	Telecoms
Westmeath County Council	Stormwater
Siro	Telecoms

3.2.8 Public Transport

There are several bus routes operating in Mullingar town, offering connection to Dublin city, Dublin Airport, Sligo, Athlone, Drogheda, Dundalk, among other towns. The services are indicated in Figure 3-23..

The main bus service operating in Mullingar is the 115, operated by Bus Éireann. This bus route connects Mullingar to Dublin City, with stops in Kinnegad, Enfield, Kilcock and Maynooth with services every 30 minutes in the AM and PM peaks and on an hourly basis the rest of the day, with a total of 19 services leaving Mullingar towards Dublin and 20 services from Dublin to Mullingar from Monday to Friday. Route 115C has only 3 services each way throughout the day and connects Mullingar to Kilcock via Longwood, Killucan and Summerhill.

Route 23 connects Mullingar to the Dublin Airport and to Sligo. The route is operated by Expressway with 5 services each way spread out throughout the day from Monday to Saturday, with the first service at 03:00 towards the airport and the last service at 00:40 towards Sligo.

Bus route 190, operated by Bus Éireann, links Drogheda to Athlone, with stops in Mullingar. The route has 20. services a day both ways from Monday to Friday, approximately at every 2 hours.

Another bus service operated by Bu Éireann, bus route 167, provides linkage between Mullingar and Dundalk, with connections in Louth and Ardee. The service is operated 8 times a day, with 4 services each way from 06:00 to 20:00.

Route 70 connects the two largest towns in Co. Westmeath, Mullingar and Athlone, 4 times a day in each direction from Monday to Friday and is also operated by Bus Éireann.

Routes 447 and 448 offer connections to villages located adjacent to Mullingar. Both routes operate only once a week with only one service in each direction. Route 447 operates on Thursdays and connects Mullingar to Finea Village and route 448 operates on Fridays only to and from Shandonagh.

Mullingar town is also serviced by 2 private bus companies, Slieve Bloom Coaches and M4 Direct. Slieve Bloom Coaches operate bus route 837 and provides connection between Mullingar and Tullamore with 4 services a day in each direction from 07:00 to 19:00 Monday to Friday. The M4 Direct service, route 842, is from Ballymahon to Dublin Airport, also with 4 services a day each way.

Figure 3-23 – Bus Services in Mullingar

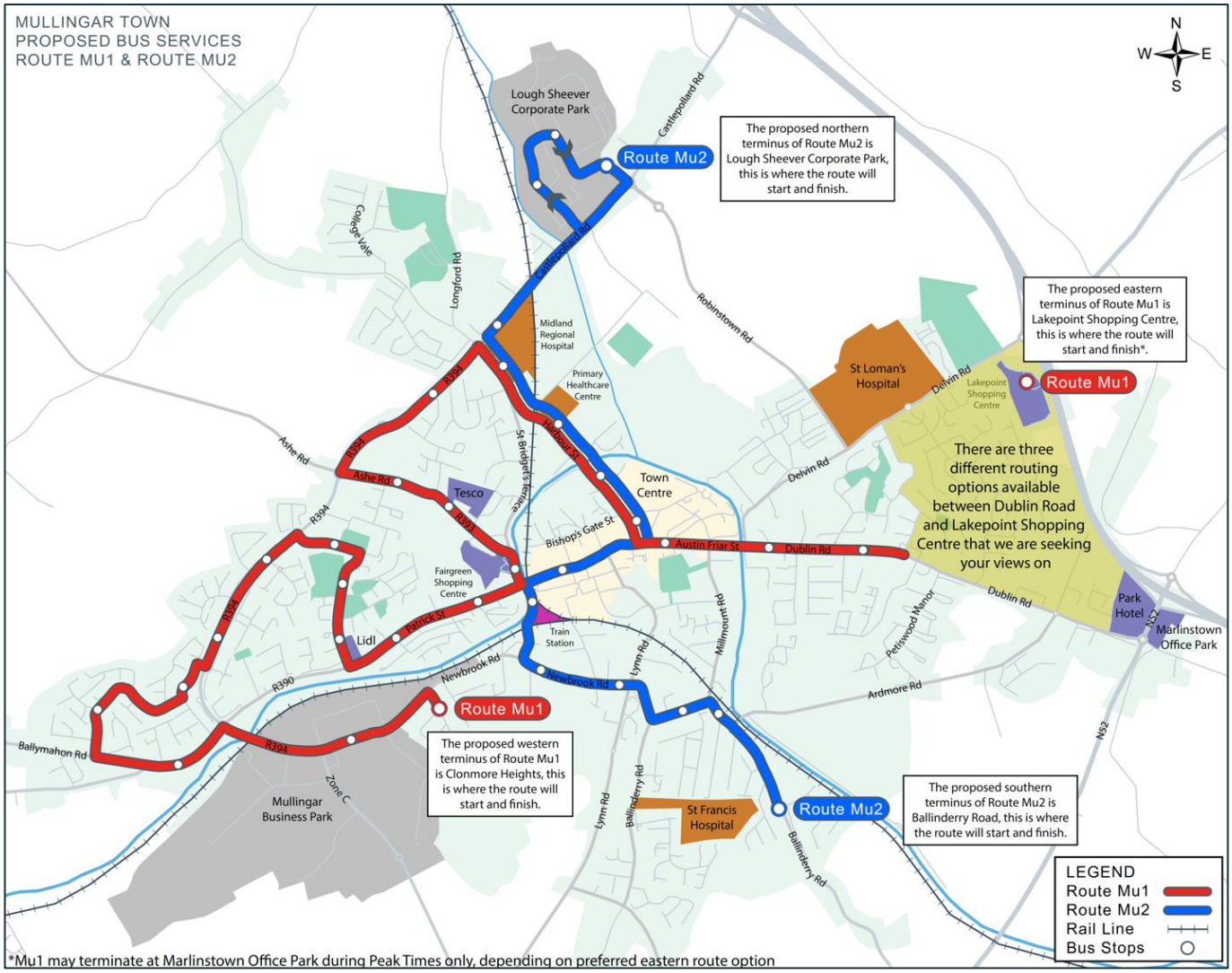


Mullingar has a train station with approximately 9 daily services in each direction from Sligo to Dublin Connolly and from Longford to Pearse Station.

The NTA, alongside Westmeath County Council, are proposing town bus services in Mullingar as the town has grown significantly over the last number of years and the introduction of a local bus service would ensure the sustainable development of the town into the future. Two bus routes are proposed, MU1 and MU2, as indicated in Figure 3-24.

Route MU1 would connect the Mullingar Business Park on the west to the Lakepoint Shopping Centre/Marlinstown Park on the east. Route MU2 would link the Lough Sheever Corporate Park to the northwest to Ballinderry Road on the southeast, with stops at the Midland Regional Hospital.

Figure 3-24 – Proposed Local Bus Services in Mullingar



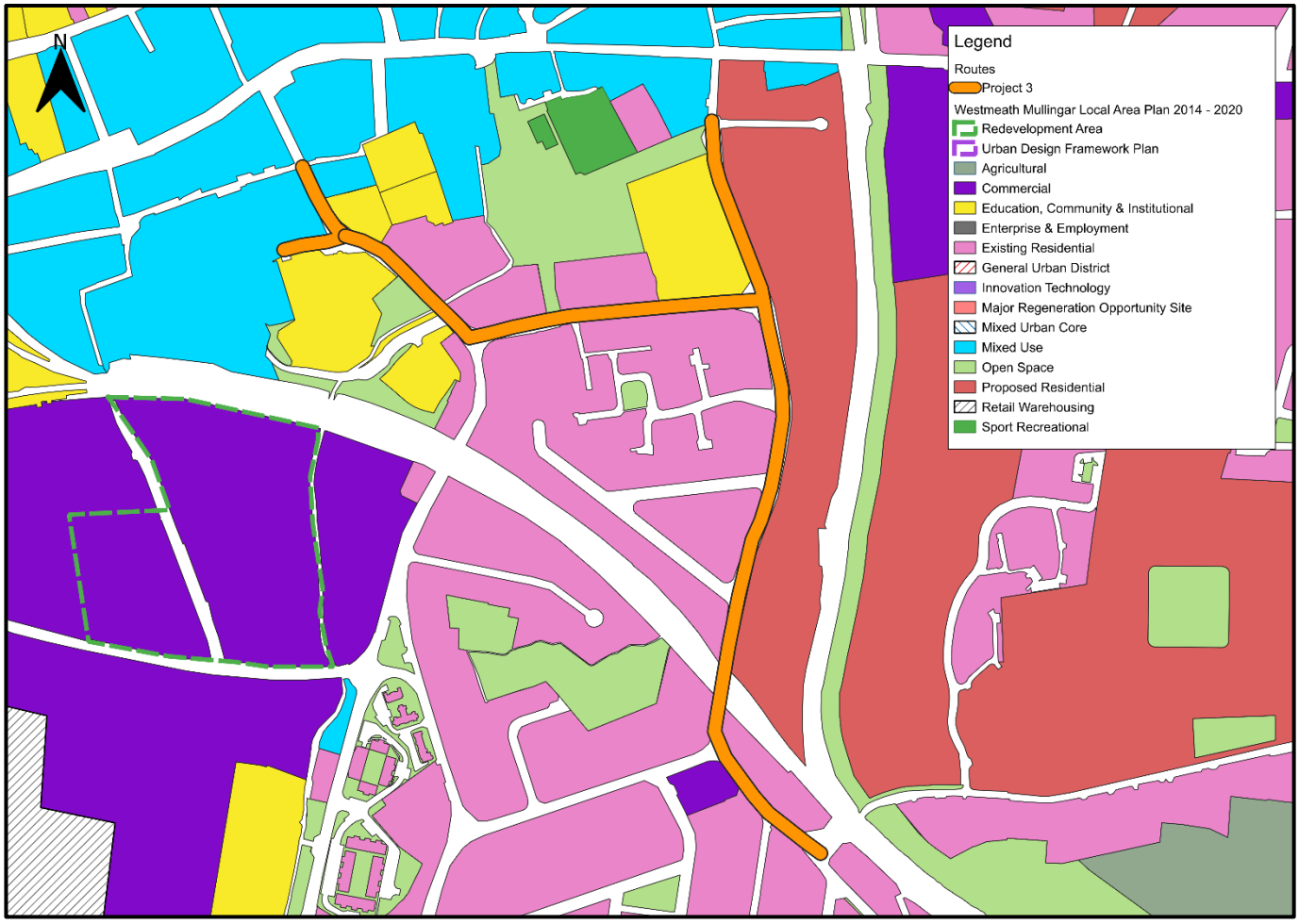
3.2.9 Land Use Zoning

The Land Use Zoning Map for Mullingar was consulted to obtain information on existing land use zoning and to obtain information of main trip generation areas within the town. Figure 3-25 shows the Local Area Plan 2014 – 2020 (extended) zoning map.

Land-uses along Project 3 primarily comprise of mainly existing residential, proposed residential, education, community & Institutional, open space and commercial.

The major destinations include Westmeath County Council Offices, Mullingar Arts Centre, Mullingar Court Offices, Town Park, Mullingar Community College, Millmount Medical Centre and the Royal Canal Greenway.

Figure 3-25 – Mullingar Land Use Zoning Map



3.3 Disability Audit

The following sections describe the findings at the major junctions along the corridor regarding the existing conditions for visually and mobility impaired users.

3.3.1 Mount Street / Jail Hill Roundabout

The existing conditions for visually and mobility impaired users along the Mount Street / Jail Hill roundabout are not fully in accordance with DMURS and other design standards. The following issues were observed:

- The junction only provides one dedicated crossing point, a zebra crossing on the northern arm of the junction, which is level with the carriageway level with a pedestrian island in the centre. The footpath connecting to the crossing is not generally in good condition and the tactile paving in the centre island is not continuous
- Several patches noted on the footpaths along the junction
- Pedestrian desire line is not catered for at the junction as there is only one crossing point
- Circulatory lane and entry lanes of the roundabout are wide which allows for vehicles to travel at excessive speeds.

Figure 3-26 – Zebra Crossing at Mount Street / Jail Hill Roundabout



3.3.2 Jail Hill / Southern Access to County Offices Priority Junction

The Jail Hill / Southern Access to County Offices does not accommodate visually and impaired users. The issues listed below have been observed:

- There are no crossing facilities at the junction and pedestrians are not catered for. There are dropped kerbs at the junction mouth however they do not accompany tactile paving.
- There is no footpath on the southern side of the side road to the County Offices.
- There is a utility patch noted on the pedestrian desire line at the junction.
- The junction is excessively wide. There are road markings provided on the exit arm to reduce the junction radii, however the pedestrian desire line is excessive, and the radius allow vehicles to travel at speed, which hinders safety for all road users.
- Visibility at the junction is impeded due to the bend on the southern side and junction is in close proximity to the Jail Hill / Lynn Road / Sunday's Well Road priority junction. Pedestrians crossing the road at the junction might not be seen from vehicles coming from the northbound of Lynn Road or Sunday's Well Road.

Figure 3-27 – Jail Hill / Southern Access to County Offices Priority Junction (Source: Google Street View)



3.3.3 Jail Hill / Lynn Road / Sunday's Well Road Priority Yield Junction

The Jail Hill / Lynn Road / Sunday's Well Road junction does not provide the necessary levels of safety for visually and mobility impaired users. The following issues have been identified:

- There are no crossing facilities at the junction. Pedestrians wishing to cross the road at the junction are not catered for, as there is no tactile paving or dropped kerbs
- The junction is extremely wide as there are two entry lanes into Lynn Road and the entry lane into Sunday's Well is over 10m at the mouth of the junction. The excessive width at the junction mouth allows vehicles to travel at speed, which hinders safety for all road users
- The footpaths on the southern side have sections less than the minimum 1.8m wide
- Footpath is not in good condition with several patches and utilities noted along the footpath at the junction
- Visibility at the junction is impeded due to the bend on the southern side and drivers travelling northbound on Lynn Road into Sunday's Well do not have appropriate visibility for pedestrians crossing the road at the junction.

Figure 3-28 – Jail Hill / Lynn Road / Sunday's Well Priority Junction



3.3.4 Auburn Road / Millmount Road Priority Junction

Similar to the Lynn Road / Sunday's Well Road junction above, the Auburn Road / Millmount Road priority junction does not provide good safety conditions for visually and mobility impaired users. The junction is a major junction in the town that caters for over 8,000 vehicles a day. As the junction is located adjacent to the Mullingar Community College, Town Park and the town centre, high levels of pedestrians also make use of the junction daily. The following issues have been observed:

- The junction provides tactile paving on the south side of the junction but there is no accompanying tactile paving on the north side, where only a drop kerb is provided. These ask pedestrians to cross right at the junction mouth requiring a crossing distance of 25m
- It is noted from the traffic counts that, due to the excessive width of the junction, vehicles tend to make U-turns at the junction to proceed in the opposite direction
- Vehicles tend to travel at speed at the junction due to excessive radii as well as to form two queues of traffic on the Auburn Road arm
- Footpaths are not generally in good condition along the junction and are also below the minimum width according to DMURS
- The carriageway at the junction is noted to have several structural defects, visibly noted in Figure 3-29, which are located at the pedestrian desire line.

Figure 3-29 – Auburn Road / Millmount Road Priority Junction



3.3.5 Ballinderry Road Roundabout

The Ballinderry Road Roundabout, similar to other junctions mentioned above, does not provide appropriate facilities for visual and mobility impaired users. Issues have been observed, as mentioned below:

- There are no crossing points at the junction. There is one zebra crossing located approximately 30m west of the junction, along Ballinderry Road, which pedestrians use when travelling north to south, however, the location is not in accordance with design standards. On the Saunders Court arm of the junction, there is a raised table level with the footpath that is used as a crossing point, however, no tactile paving or other measures to identify it as a crossing point are included.
- The lack of crossing points neglects pedestrian desire lines at the junction
- Junction entry lanes and the circulatory lane are excessively wide and vehicles can drive through the junction at speed, which poses risks to all road users
- Footpath widths are adequate at all locations along the junction; however, the footpath surface is not in good condition.

Figure 3-30 – Ballinderry Road Roundabout



3.3.6 Ballinderry Road / Ardmore Road Roundabout

The existing conditions for visually and mobility impaired users along the Ballinderry Road / Ardmore Road roundabout are not in accordance with DMURS and other design standards. The following issues have been identified:

- Footpath is not continuous on the Ardmore Road arm of the junction
- Footpath widths are not adequate as it is below minimum width at several locations
- There are no appropriate crossing points in any arm of the junction and pedestrian desire lines are not catered for at the junction
- Entry lanes and circulatory lane at the roundabout are too wide which allow vehicles to travel at excessive speeds
- Drivers travelling westbound at the junction do not have visibility for pedestrians crossing on the Ardmore Road arm of the junction.

Figure 3-31 – Ballinderry Road / Ardmore Road Roundabout



3.4 External Parameters

There are numerous other factors that influence the proposed scheme and therefore should be considered. The factors, referred to as external parameters, include other on-going projects in the area, funding considerations, construction phasing considerations, technical standards, and procedural and legal requirements. Each of these is discussed further in the following chapter.

3.4.1 Other Projects

Other transport infrastructure currently being developed in Mullingar that could influence/impact the proposed scheme are outlined below and discussed in further details in the following sections.

- Mullingar Town Bus Services
- Footpath and Cycle path works at Ardmore Road (Phase 3)
- Pedestrian and Cycle Bridge at Saunders Bridge.

3.4.1.1 Mullingar Town Bus Services

As mentioned in Section 3.2.8, there are plans to implement two local bus services, MU1 and MU2, in Mullingar. The town has experienced growth over the past years and the implementation of a local bus service is required to ensure sustainable development into the future. The National Transport Authority (NTA), in collaboration with Westmeath County Council, is delivering the project.

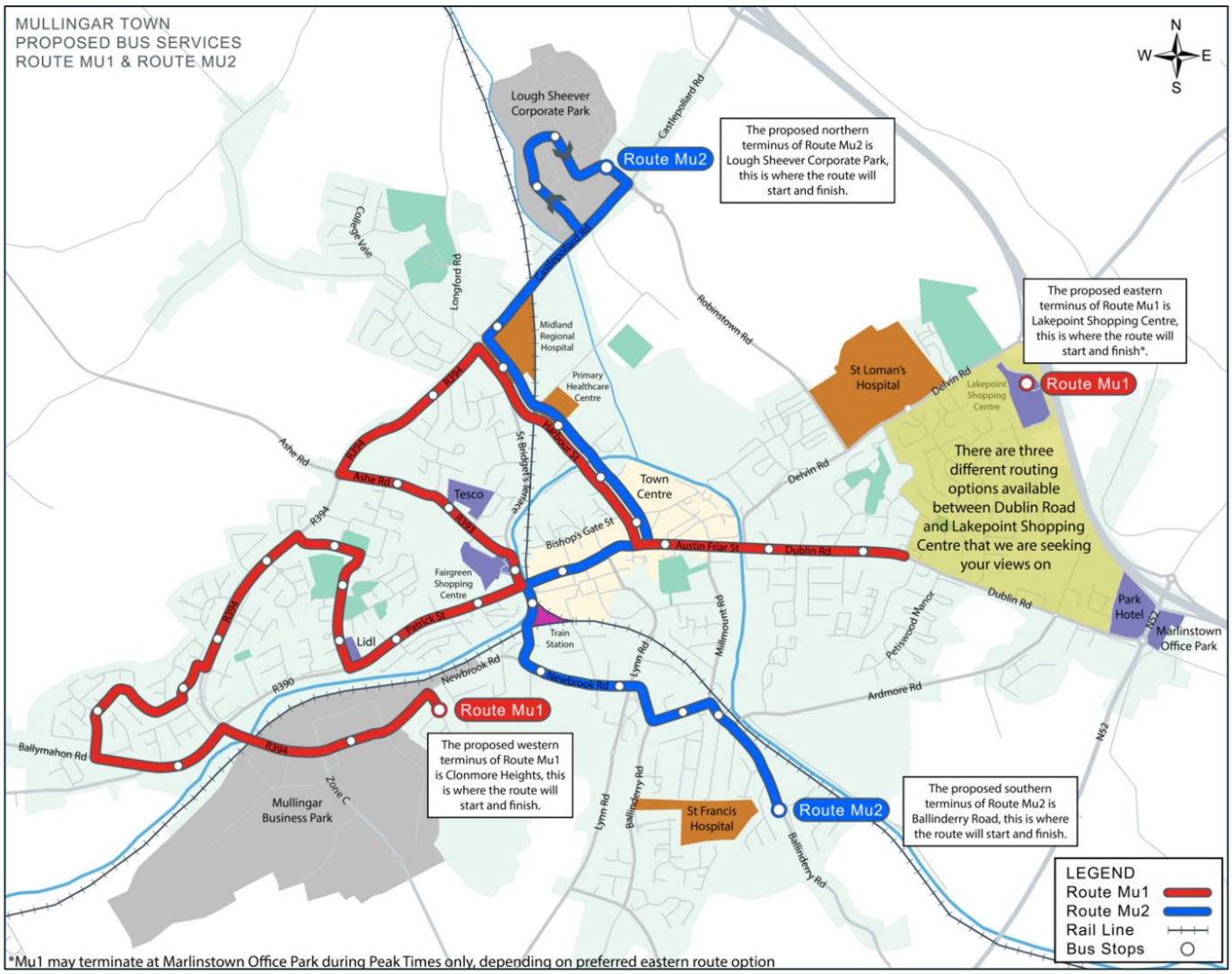
The proposed buses would be low-floor accessible urban style buses that would run on a 30-minute interval from 07:00 to 22:00 from Monday to Saturday and between 09:00 to 22:00 on Sundays. Appropriate bus stops would also be provided at approximately 400m intervals so the catchment area is maximised, with bus shelters placed at specific locations.

A public consultation was held in early 2021 where the proposed routes were shown, outlined in Figure 3-32. At the public consultation, the public was asked about the terminus location of route MU1. Three routes were proposed:

- Option 1: From Dublin Road through Lakepoint Park and terminating at Lakepoint Shopping Centre. At peak times, the route would terminate at the Marlinstown Office Park.
- Option 2: From Dublin Road to Lakepoint Shopping Centre through Bellview. This option would also terminate at Marlinstown Park at AM and PM peaks.
- Options 3: From Dublin Road through the N52 and the N4 to Lakepoint Shopping Centre. This is the only option that serves the National Science Park and Mullingar Park Hotel; however, it does not connect to St. Loman's Hospital.

The NTA plans to tender for the works and commence the services in 2025.

Figure 3-32 – Proposed Local Bus Services in Mullingar

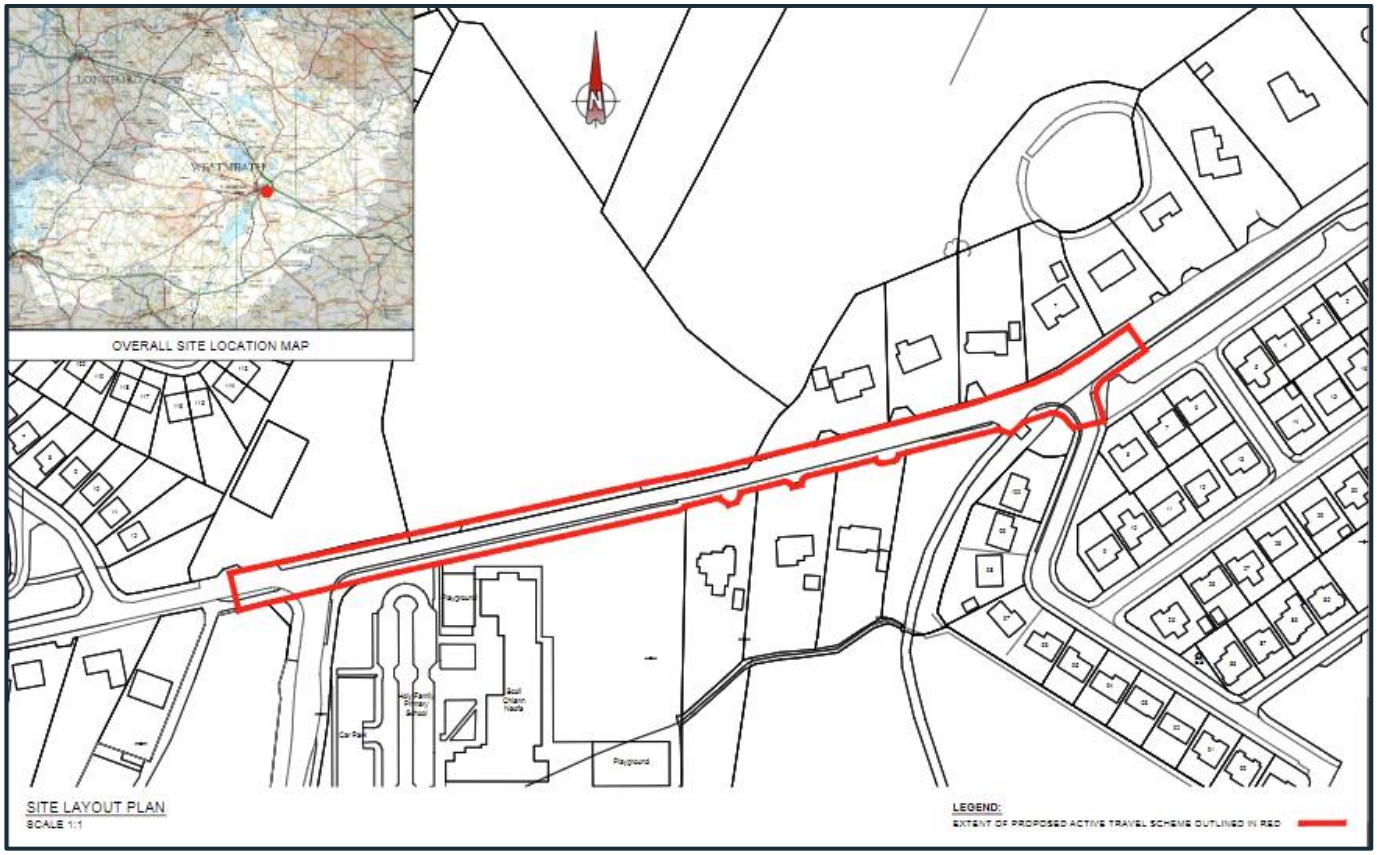


3.4.1.2 Footpath and Cycle Path Works at Ardmore Road (Phase 3)

Works have recently completed for Phase 3 of the Footpath and Cycle Path works at Ardmore Road. The scheme extends from east of the Ardmore Close entrance access to the east of the Ardmore Hills junction, along Ardmore Road, indicated in Figure 3-33.

The scheme improves active travel facilities along the road by providing a 3m shared active travel facility on the northern side of the road, where there were no existing facilities, segregated from vehicular traffic. On the southern side, from the Holy Family National School to the Ardmore Hill junction, the existing shared active travel facility will be retained. To the east of the junction with Ardmore Hills until the boundary of the scheme, improved facilities have been implemented, including a new controlled zebra crossing provided to the east of the junction with Ardmore Hills.

Figure 3-33 – Site Location of the Footpath and Cycle Path Works at Ardmore Road (Phase 3)

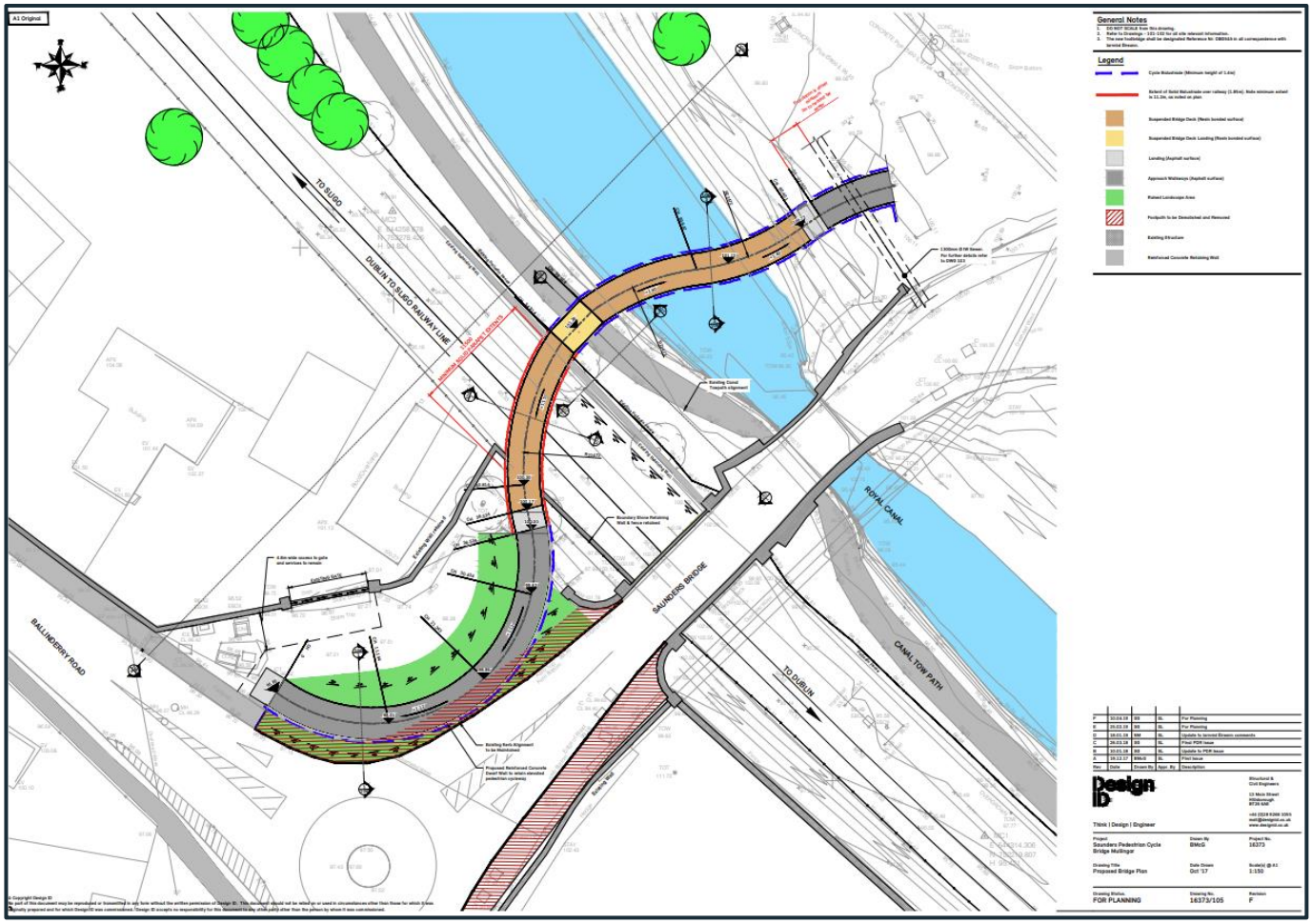


3.4.1.3 Pedestrian and Cycle Bridge at Saunders Bridge

The proposal includes the construction of a pedestrian and cyclist bridge over the Royal Canal Greenway and the Dublin-Sligo Railway line, at the Saunders Bridge, Ardmore Road. The scheme includes a suspended deck and landing, bridge supporting infrastructure, approach walkways/cycle ways, revised landscape area, cycle balustrades and ancillary works. Figure 3-34 shows the proposals.

The scheme has now received full planning and technical approval. The bridge construction is currently at tender stage.

Figure 3-34 – Proposed Saunders Bridge Pedestrian Cycle Bridge



3.4.2 Funding

Westmeath County Council will seek funding for this project from the National Transport Authority (NTA) once approvals for the various stages identified in the Project Approval Guidelines are obtained.

3.4.3 Construction Phasing

The estimated construction period, and phasing of works, will be assessed as the project progresses through the planning and design phases.

3.4.4 Technical Standards

The network will be designed to current design standards outlined in the Cycle Design Manual (CDM), Design Manual for Urban Roads and Streets (DMURS), National Transport Authority (NTA) publications and all relevant guidelines.

Throughout all stages, the developed design will comply with the following:

- The Westmeath County Development Plan 2021 – 2027 policies and objectives, in particular with respect to visual standards in design, protected structures, and the natural and built environment.
- The requirements (reporting, meetings, statutory consents, approvals and cost management) of the NTA PAGs, and Appropriate protection of all National and EU designated sites and species of ecological importance and to

include for any assessments required in accordance with the Habitat Directive 92/43 EEC and the Birds Directive (2009/147/EC)

- At this phase, the information regarding compound(s) for construction is currently unavailable. However, is considered that the location will not affect any protected sites.

3.4.5 Procedural and Legal Requirements

The scheme will be reviewed and developed in line with current procedural and legal requirements during all stages of the project lifecycle. All relevant local, regional, national and European legislation, guidelines, best practices and procedures will be reviewed and complied with where required.

3.5 Summary of Constraints

The findings concluded that the following **Environmental Constraints** must be considered in the development of feasible options and the preliminary design of the scheme:

- The proposed scheme is in a sensitive area with respect to archaeology and cultural heritage as it crosses several Site and Monuments Records (SMRs), Zone of Notification (ZoNs), Record of Protected structures (RPSs) and National Inventory and Architectural Heritage (NIAHs). Subject to liaison with the Westmeath Heritage Officer during the next phase, the requirement for an Archaeological Impact Assessment and/or conservation architect being required, will be discussed with Westmeath County Council.
- Project 3 crosses the River Brosna via an existing road – Jail Hill, The Farranistick runs ca. 1.68km from the and the Sarsantown River is 2.06km from Project 3. Mitigation measures will be implemented during construction stage to protect these watercourses and drainage channel.
- Groundwater is potentially shallow within the vicinity of Project 3 and it is therefore recommended that a Ground Investigation is undertaken as the project progresses and relevant mitigation measures developed / implemented to minimise / avoid impacts on groundwater resources which will be documented in a Construction Environmental Management Plan (CEMP) which will be prepared for the construction stage.
- Project 3 is within the zone of influence of a number of Natura 2000 sites. An appropriately qualified ecologist will undertake an Appropriate Assessment screening of the Projects.
- Invasive Species have been identified within the Mullingar area. An invasive species survey is required by an appropriately qualified ecologist during the optimum survey season.
- The proposed scheme runs ca. 88m from the Royal Canal Natural Heritage Area. Construction stage mitigation measures are recommended to be developed for the protection of this nationally important conservation area.
- Considering the small scale of the scheme and that it will be undertaken almost entirely on existing hardstanding surfaces of public roadways and pathways, adverse impacts to features of high ecological value are not considered likely.
- A review of GSI (2024) indicates that there are two Geological Heritage Areas (GHA) within 5km of the project.
- The project route is located adjacent to sensitive receptors. This includes private residents, and commercial buildings. Liaising with the sensitive receptors will be necessary for the next phase of this project.
- From a review of aerial imagery (Bing Maps, 2024), there are a number of trees located along Projects 3. It is recommended that an Arboricultural Survey is undertaken as the scheme progresses.
- It is recommended that a landscape architect is consulted regarding the potential for landscape impacts along the scheme and should be involved in the design of the proposed scheme should it be required.
- Given the urban nature of the scheme, there are numerous sensitive receptors of Air Quality and Noise and Vibration nuisance during the construction works. Mitigation / protection measures will be implemented during construction to minimise / avoid impacts on sensitive receptors which will be documented in a Construction Environmental Management Plan (CEMP) which will be prepared for the construction stage.
- High Radon levels have been reported in the area. Given the nature of the development, impacts from Radon do not need further consideration.

The following **Artificial Constraints** must be considered in the development of feasible options of the proposed scheme:

- Existing engineering infrastructure (roads, junctions, private and commercial accesses, buildings and property lines etc)
- Existing public and private land ownership
- Existing public transport links
- Existing utilities
- Existing planning permissions
- Current traffic volumes.

The following **External Parameters** must be considered in the development of the design options for the proposed scheme:

- All other projects currently envisaged for the study area
- All technical standards requirements
- All procedural and legal requirements.

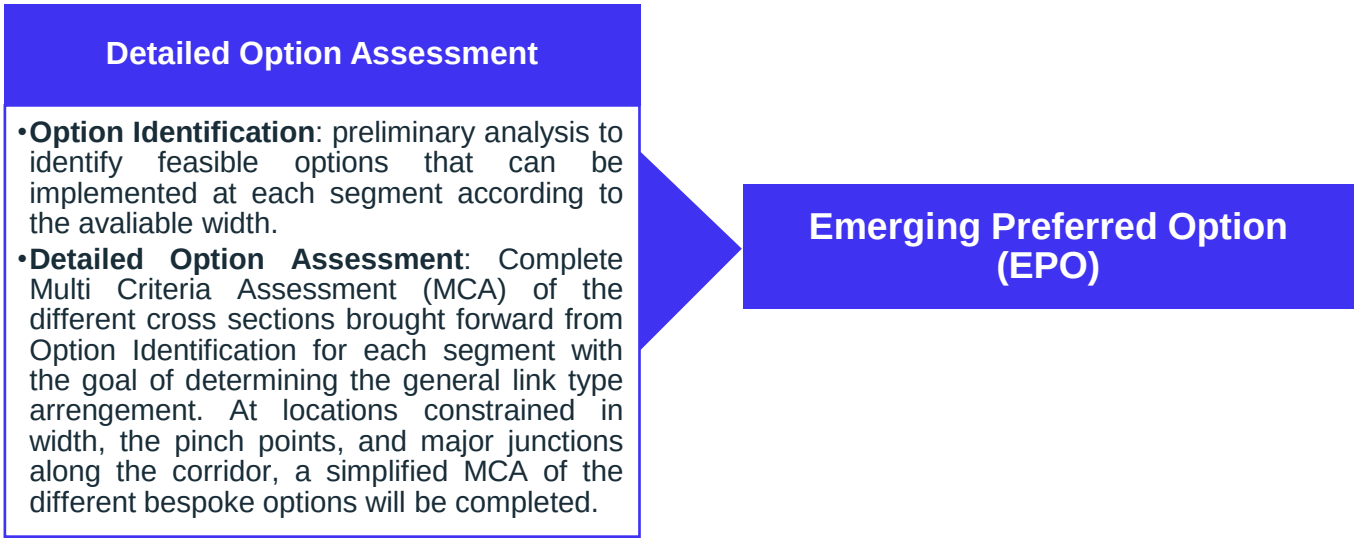
4. Option Selection Methodology

4.1 Overall Approach

The approach used to identify the Emerging Preferred Option for the Mullingar Active Travel Bundle is aligned with the Transport Appraisal Framework (TAF), the Public Spending Code (PSC), and the NTA Project Approval Guidelines (PAGs).

Figure 4-1 outlines the option selection methodology to identify the Emerging Preferred Option for each project of the Mullingar Active Travel Bundle. The appraisal will be completed in only one stage, the Detailed Option Assessment, which aligns with the TAF. The Detailed Option Assessment will comprise the assessment of the link types as well as the pinch point locations and major junctions, where bespoke options need to be considered.

Figure 4-1 – Option Selection Methodology



4.2 Detailed Option Assessment Methodology

The Detailed Option Assessment process focuses on evaluating link types, pinch points and major junctions. The aim of this process is to develop and investigate the reasonableness of alternative options based on other route development principles.

The initial process of the Detailed Option Assessment is to identify possible link type options for each segment based on the available width, obtained from topographical survey data and aerial imagery. This is known as the “Option Identification” stage.

The following step of the Detailed Option Assessment is the Detailed Option Assessment. The methodology for the Detailed Option Assessment process focuses on the following principles:

- Consideration of the user-hierarchy that promotes and prioritises sustainable forms of transportation starting with pedestrians, followed by cyclists, buses and private cars considered last. This is in line with Table 2.21 of DMURS. This inclusive approach was guided by DMURS section 2.2.2 which highlights children, elderly and disabled as the groups that are disproportionately affected by the threat of accident, community severance and the loss of social cohesion.
- Consideration of the link options depending on adjoining traffic regime, the need for segregation and the target quality of services as per Chapter 2.5 of the Cycle Design Manual.

- Consideration of PRAI landownership maps, Ordnance Survey and available Topographical Survey information, in terms of land take and the number of properties, accesses, etc that will be impacted with the proposed scheme.
- Consideration of likely construction costs associated with each option based on an internal cost database incorporating similar projects in Ireland in the last 5 years along with schedules of rates published by the NTA.
- Consideration to local environment and climate change aspects associated with each option assessed, based on the principles outlined in the TAF.

The Detailed Option Assessment MCA considers six of the seven TAF criteria, obtained from the Transport Appraisal Framework Module 7.0 Detailed Guidance on Appraisal Techniques, published by the Department of Transport, listed below. The Climate Change criteria has been screened out from the assessment as change in modal shift is already being assessed as part of Social Impacts, which cumulatively compares possible reduction in carbon emissions.

- Transport User Benefits and Other Economic Impacts
- Accessibility Impacts and Social Impacts
- Land Use Impacts
- Safety Impacts
- Local Environmental Impacts.

Table 4-1 outlines the criteria and key impacts to be measured to assess the Detailed Option Assessment. The sub-criteria and key impacts to be measured have been developed by AtkinsReális based on the TAF publication, the NTA PAG, project objectives and the principles outlined above. Therefore, the outcome of the Detailed Option assessment is to compare the options brought forward from the Option Identification against project objectives through a detailed and rigorous assessment process in order to identify the Emerging Preferred Option for the scheme.

Table 4-1 - Detailed Option Assessment Criteria and Key Impacts

Criteria	Sub-criteria	Indicator
Transport User Benefits and Other Economic Impacts	Cost and Programme Impacts	Land acquisition area
		Construction and maintenance
	Construction impacts	Rapid build achievability and construction impacts, including construction requirements and drainage impact
	Connectivity with public transport facilities	Connections to existing and proposed public transport
Accessibility Impacts	Access to Key Services	Access to key services (retail, groceries, banks, educational, healthcare, recreational facilities and employment areas)
		Impacts on loading and parking bays
	Coherence	Route consistency and continuity
	Directness	Directness along route and though junctions and maintenance of cyclist progression
	Comfort	Provision of comfort for pedestrians and cyclists through assessment of width
	Attractiveness	Attractiveness of the route

Criteria	Sub-criteria	Indicator
Social Impacts	Social inclusion for groups with deprived needs	Opportunities for social, community and recreational activity participation
	Health impacts	Impact on modal Shift/activity levels (i.e., Cars to Cyclists)
	Accessibility for users with different mobility needs	Qualitative assessment of accessibility of the options to serve users of all ages and abilities
	Gender Impacts	How the proposal may have gender specific impacts
Land Use Impacts	Integration with town environs	How the proposal integrates with the Land use, the objectives from development plan and NIFTI
		Impact on green areas
Safety Impacts	Safety Impact	Segregation between cyclists and vehicles
		Segregation between cyclists and pedestrians
		Safety for all users regarding traffic volumes and speeds along route
		Conflicts at junctions and side roads between vehicles and cyclists
	Traffic	Impact on traffic capacity due to the proposals
Local Environmental Impacts	Air Quality	Air Quality Impact
	Noise and Vibration	Potential Sensitive receptors including residential, commercial, education, healthcare properties
	Soils and geology	Bedrock and overburden. Alluvium Soils, Karst Features, Landslide susceptibility, Contaminated lands, Geological heritage areas
	Biodiversity	Impact on Biodiversity along scheme extents
	Water Resources	Groundwater Quality (Public and Private Wells, GWDTEs) Groundwater resources / Levels (vulnerable aquifers) Surface water quality and flows
	Landscape and Visual Quality	Landscape and visual assessment
	Cultural and Heritage	Impact at national monuments, NIAH features and Architecture Conservation Areas (ACA).

4.2.1 Detailed Option Assessment at Pinch Points and Major Junctions

At locations constrained in width and at major junctions, a similar process as discussed above will be utilised, however, as the process will only involve specific locations at short distances and junctions, it will be simplified with some sub-criteria removed and others unified however still maintaining six TAF criteria, as shown in Table 4-2.

Table 4-2 – Detailed Option Assessment for Pinch Points and Major Junctions Criteria and Considerations

Criteria	Sub-criteria	Indicator
Transport User benefits and Other Economic Impacts	Cost impacts	Land acquisition area
		Construction and maintenance
	Construction impacts	Rapid build achievability and construction impacts, including construction requirements and drainage impact
Accessibility Impacts	Coherence and Directness	Consistency, continuity and directness along the route and through junctions and the maintenance of cyclists' progression
	Comfort and Attractiveness	Provision of comfort for pedestrians and cyclists through assessment of width and its attractiveness
Social Impacts	Accessibility for users with different mobility needs	Qualitative assessment of accessibility of the options to serve users of all ages and abilities
	Gender Impacts	How the proposal may have gender specific impacts
Land Use Impact	Integration with town environs	How the proposal integrates with the Land use, the objectives from development plan and NIFTI
		Impact on green areas
Safety Impact	Safety Impact	Segregation between cyclists and vehicles
		Segregation between cyclists and pedestrians
		Safety for all users regarding traffic volumes and speeds along route
	Traffic	Impact on traffic capacity due to the proposals
Local Environmental Impact	Air Quality	Air Quality Impact
	Noise and Vibration	Potential Sensitive receptors including residential, commercial, education, healthcare properties
	Soils and geology	Bedrock and overburden. Alluvium Soils, Karst Features, Landslide susceptibility, Contaminated lands, Geological heritage areas
	Biodiversity	Impact on Biodiversity along scheme extents
	Water Resources	Groundwater Quality (Public and Private Wells, GWDTEs) Groundwater resources / Levels (vulnerable aquifers) Surface water quality and flows
	Landscape and Visual Quality	Landscape and visual assessment
	Cultural and Heritage	Impact at national monuments, NIAH features and Architecture Conservation Areas (ACA)

4.2.2 Scoring System

Each option is assessed relative to one another at the Detailed Option Assessment on a five-point ranking scale, shown in Table 4-3. The options were assessed against the above criteria in a performance matrix which describes how each option performs against the defined sub criteria in comparison with other options.

The performance matrix describes how each route performs against one another, showing their strengths and weaknesses compared to other options. The preferred option in each segment is then determined based on which option is most advantageous compared to others. Consistency across adjacent segments will also be taken into account when determining the most appropriate cross-section typology for the route corridor.

Table 4-3 - Detailed Option Assessment Scoring Scale

Colour Coding	Rank Description
	Significant advantages to other options
	Some advantages to other options
	Neutral compared to other options
	Some disadvantages to other options
	Significant disadvantages to other options

5. Design Principles

5.1 Cycle Flows

The CDM states that in order to determine the width of the cycle facility, there needs to be an estimation of the cycle flows along the route. The CDM divides the cycle flows into two categories: higher or lower than 300 cyclists per hour. In order to obtain the estimated number of cyclists along each route, traffic count data from December 2023 and the NTA Cycle Propensity Tool[1] for the Eastern Region were used. The NTA cycle propensity tool provides a reference scenario and two future growth scenarios, i.e. the high propensity and the high propensity with e-bikes scenarios. The reference scenario is the NTA model for 2028 which considers cycling attitudes not significantly changed from the present. The two future growth scenarios increase the cycling usage, with the provision of safe cycle parking, growth of bike hire, increase of acceptance of cycling and financial supports similar to the Cycle to Work Scheme. The high propensity scenario with e-bikes also consider an increase in the speed by 4 km/h in a scenario where electric bicycles are more accessible.

Traffic volumes were obtained from Automated traffic counts (ATC) undertaken at seven locations along the route, as indicated in Figure 3-20 in Section 3.2.6. According to the ATCs, the busiest segment is Segment 07, located on Ballinderry Road, with a total of 10,601 vehicles recorded travelling along the road on Friday the 8th of December 2023. The reference scenario in the cycle propensity tool zone located along Segment 07 indicates that 72.5% of the trips along the area comprise of motorised vehicles and that 1.7% are cyclists during a 24-hour period. Therefore, based on the ATC and the cycle propensity values, it can be calculated that a total of 14,622 users travel along the road, be it by private cars, HGVs, bicycles or on foot. Based on the number of cyclists representing 1.7% of the total trips along the segment, it's expected that a total of 249 cyclists travel along the road during the 24-hour period.

The high propensity with e-bike scenario of the cycle propensity tool along the route expects an increase in the cycle usage from the existing 1.7% to 4.8% with the improvement of existing cycle facility, creation of new networks and expansion of incentives to cycle rather than using private cars. Based on this, the expected number of cyclists along the route increases to 702 users during a 24-hour period.

At peak hours, Segment 07 registered a maximum of 1,001 vehicles between 14:00 and 15:00 on Friday the 8th of December, which represents 9% of the total vehicles during the 24-hour period. When translating the numbers presented above to the peak period, the maximum number of cyclists expected is approximately 66 cyclists per hour. As Segment 07 is the busiest segment along the corridor, and the maximum number of cyclists expected based on the cycle propensity tool is 66 users per hour, it can be considered appropriate to base the calculations for the width of the cycle facility to cater for less than 300 users per hour.

[1]https://www.nationaltransport.ie/planning-and-investment/transport-modelling/regional-modelling-system/cycle-propensity-scenarios/

Figure 5-1 – Cycle Propensity Scenario Tool at Segment 07



Table 5-1 - Cycle Flows calculations

	ATC values	Total trips based on the Cycle Propensity Tool Reference Scenario	No. of cyclists based on the Reference Scenario	No. of cyclists based on the High Propensity with E-bikes
24-hour	10,601	14,622	249	702
Peak hour	1,001	1,381	23	66

5.2 Design Principles and Approaches

The following principles were considered in line with the Cycle Design Manual:

- Quality of service - Quality of Service is a measurement of the degree to which the attributes and needs of the cyclist are met. The aim of the scheme is to achieve the highest Quality of service available on each route.
- Effective Width calculator - The designed width of a cycle facility is comprised of the effective width, i.e. the space that is “usable” by cyclists, as well as the clearances that will be required in different circumstances.
- Segregation - Segregation refers to the physical separation of cyclists from motorised traffic. Where possible throughout the scheme a segregated cycle facility is to be provided.
- Transitions - Cyclists may frequently be required to make a transition to the right or left, from on-road to offroad etc. The scheme will be designed to limit the occurrence of transitions and where required, transitions will be designed to provide continuity, comfort and safety to cyclists.

- Impacts on other road users – The scheme will look to minimise the impact on other road users while making a safer environment for all road users.
- Universal Design and Inclusive Mobility – The scheme shall be designed to be usable by all types of road users and all types of bicycles and wheeling equipment.

5.3 Link Type Options

Based on the constraints identified for Project 3, as outlined in Section 2 and the project objectives and expected benefits, outlined in Section 1.3, the options considered were based on an appropriately detailed assessment of each segment based on topographical survey and online mapping, with the aim to provide high quality segregated cycle and pedestrian provision.

Thus, to define the width dimensions of the cross sections used in the study, the Cycle Design Manual (CDM) was used as the base document regarding the detail and width of the cycle facilities and the Design Manual for Urban Roads and Streets (DMURS) was used regarding to the detail and width of footpaths and carriageways. The NTA publication 'Rapid Build Active Travel Facilities' was also utilised regarding rapid build facility options.

The approach to the development of the cross-section options was to consider the highest provision of segregated cycle provision in the first instance, and to consider cross-section options that provide incrementally lower quality of service, as well as to consider options with sufficient width to provide rapid build options, in accordance with Table 2.1 of the CDM.

The following lists the cross-section typology options considered in order of highest quality of service to lowest:

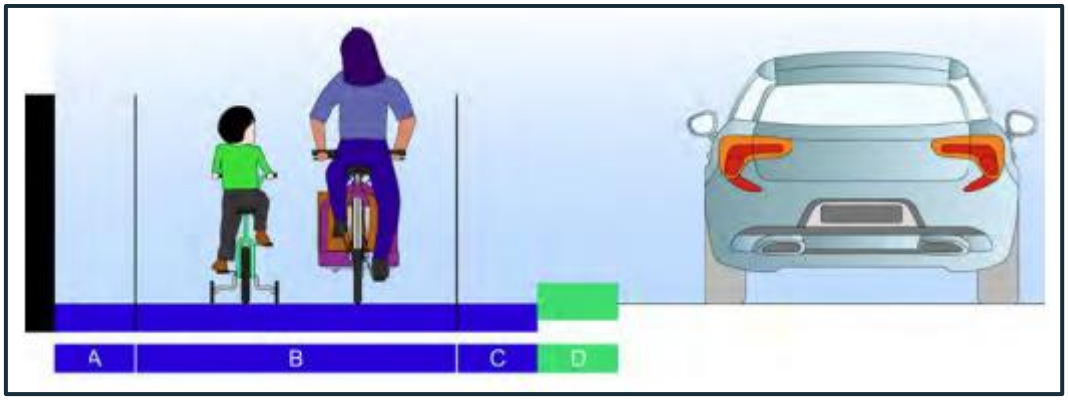
- Standard Cycle Track
- Stepped Cycle Track
- Protected Cycle Lanes
- Mandatory Cycle Lane
- Shared Active Travel Facilities
- Cycling in Mixed Traffic.

For each of the above cross-section options, a range of cross-section widths were also considered in order to provide flexibility in terms of the physical network constraints. The CDM states that the desirable minimum width should be used, however, where it cannot be achieved, incremental reductions can be applied towards the absolute minimum width. To facilitate the assessment, the cross-section option widths are based on CDM desirable width and absolute minimum width.

The width of the cycle facility is based on four elements: inside clearance (A), central width (B), outside clearance (C) and buffer (D), showed in Figure 5-2. The inside (A) and outside (C) clearance are the spaces at the edge of the cycle facility which the width is based on the height of the kerb used; the central width (B) is the actual space used by cyclists and it is determined by the volumes of cyclists and the facility type; and the buffer (D) is a horizontal separation between the cycle facility and the traffic, which is mandatory for two-way cycle tracks and is based on the speed limit of the road.

The footpath will be designed in accordance with Section 4.3.1 of DMURS. The desirable minimum width will be considered 2m wide, and the absolute minimum width is 1.8m, considered by DMURS the minimum comfortable width for two wheelchairs to pass one another. The footpaths will be raised 60mm from the cycle track, which according to the CDM, does not require additional inside clearance (A) and are the preferable way to detect a separation between facilities.

Figure 5-2 – Elements of a Cycle Facility



5.3.1 Standard Cycle Track

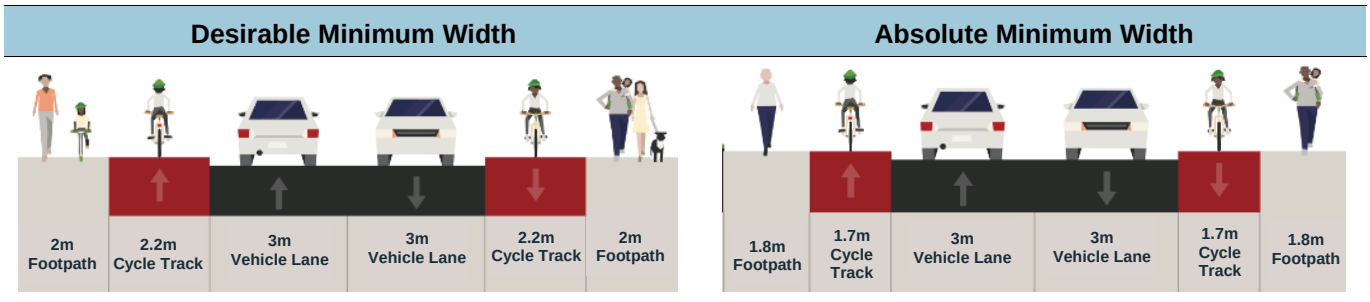
These options, detailed below, offer the highest level of service in terms of safety, comfort and quality for pedestrians and cyclists (active modes). These options can typically only be provided by traditional build construction methods, as they would require the realignment of kerb lines, construction of cycle track pavements, widening of footpaths (if required), changes to drainage system etc. Two cross sections options are proposed which provide standard cycle track provision: one-way cycle track and two-way cycle track.

5.3.1.1 One Way Cycle Track

Figure 5-3 shows cross sections for one way cycle tracks. For one way cycle tracks with less than 300 cyclists per hour and a speed limit of 50km/h, the desirable minimum width is 2.2 m in each direction, which offers a cycle track central width of 2.0 m in each direction (B), no inside clearance (A) as the kerb between the cycle track and the footpath is 60mm high, and outside clearance (C) of 0.2m and no buffer (D). A 2.2m wide cycle track will ensure that cyclists can ride comfortably and overtake safely, adequately meeting the criteria required by the CDM. Considering the criteria required by DMURS, this option provides footpaths with a width of 2m per direction for pedestrians, segregated to the cycle track by a 60mm high kerb, and a carriageway of 6m wide inside the town centre and 6.5m wide in the remaining areas to safely accommodate buses and HGVs. These measures ensure pedestrian comfort when walking along and past other pedestrians and provide greater control of vehicle speeds due to the influence of the narrower carriageway on driver behaviour and awareness.

The absolute minimum width for one way cycle tracks according to the CDM requires a central width of 1.5m wide (B), no inside clearance (A), 0.2m outside clearance (C) and no buffer (D), which brings the cycle facility to 1.7m in each direction. The footpath width for the absolute minimum options would have 1.8m, which will be raised 60mm above the cycle track, and the carriageway would be similar to the carriageway described above, 6m in the town centre and 6.5m elsewhere. The widths for this option are considered to provide the minimum level of service in terms of pedestrian comfort and safety.

Figure 5-3 – One-Way Cycle Tracks



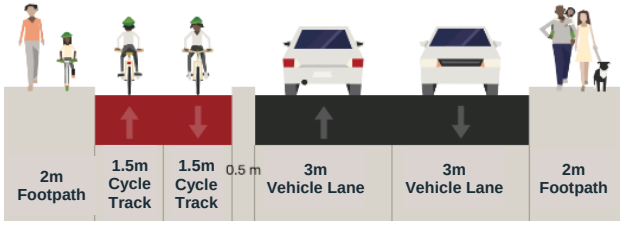
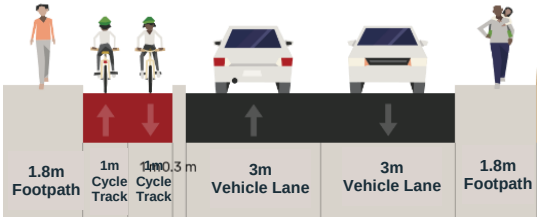
5.3.1.2 Two Way Cycle Track

Figure 5-4 shows cross sections for two-way cycle tracks. Two-way cycle tracks require a buffer as cyclists are travelling adjacent to oncoming traffic. The preferred buffer type, according to the CDM, are raised or planted verges, as they provide separation between cyclists and vehicles and prevents cyclists from swerving into the roadway.

For two-way cycle tracks with less than 300 cyclists per hour and at a road with a speed limit of 50km/h, the desirable minimum width according to the CDM is 0 for inside clearance (A), 3m wide central width (B), no outside clearance (C) and a buffer (D) of 0.5m, reaching a total of 3.5m. The carriageway width is considered as 6m or 6.5m, depending at the location, and the footpaths are 2m wide, also raised 60mm from the cycle track, according to DMURS.

For the absolute minimum width, the two-way cycle track central width (B) can be reduced to 2m, no inside clearance (A) and outside clearance (C) will be provided and a buffer (D) of 0.3m will be located between the cycle track and the carriageway, with the total width of the cycle facility 2.3m. The road carriageway is also 6-6.5m wide, depending on if it is inside the town centre or not, and the footpath is 1.8m wide, according to the minimum requirements set in DMURS.

Figure 5-4 – Two-Way Cycle Tracks

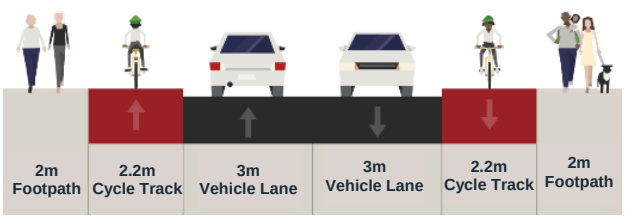
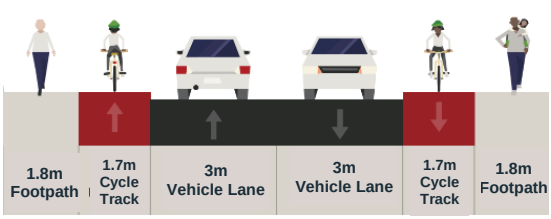
Desirable Minimum Width	Absolute Minimum Width
	

5.3.2 Stepped Cycle Tracks

Stepped cycle tracks are similar to standard cycle tracks, however, the kerb dividing the cycle facility to the roadway is raised up to 75mm above the carriageway and 60mm below the adjacent footpath. These facilities are ideal for locations with off-street accesses and driveways, as the footpath and cycle track can continue at the same level, which provides a better experience for both pedestrians and cyclists and enforce vehicles to reduce speeds. Stepped cycle tracks also do not provide a buffer between the cycle facility and the carriageway. These facilities are not appropriate for two-way cycle as it does not offer sufficient protection to cycle against oncoming traffic.

The desirable minimum width for this type of facility is 2.2m on each side of the road. No inside clearance or buffer are included and only a 0.2m outside clearance (C) is considered. The absolute minimum width is 1.7m, comprising of 1.5m central width (B) and 0.2m outside clearance (C). Figure 5-5 illustrates both options. The road carriageway and footpaths follow DMURS and are 6-6.5m and 1.8-2m, respectively.

Figure 5-5 – Stepped Cycle Tracks

Desirable Minimum Width	Absolute Minimum Width
	

5.3.3 Protected Cycle Lanes

Protected Cycle Lanes (PCLs) are cycle lanes provided at carriageway level but, different from mandatory cycle lanes, they are physically segregated from vehicular traffic. There are several forms of segregation that can be implemented, such as continuous separator kerbs, modular islands, discreate modular elements (flexible bollards), planters, parking protected facilities, etc. PCLs are a common rapid build measure that can be implemented to provide segregation for cyclists with a lower cost, as it makes use of the existing kerb-to-kerb width and does not require the relocation of road drainage and other infrastructure.

For one-way facilities, the desirable minimum width was considered to be 2.40m, which comprises of 0.20m inside clearance (A), 2.0m central width (B), 0.2m of outside clearance (C) and no buffer (D). The absolute minimum width is 1.90m on each side, which comprise of 0.20 (A), 1.5m (B), 0.2 (C) and no buffer (D).

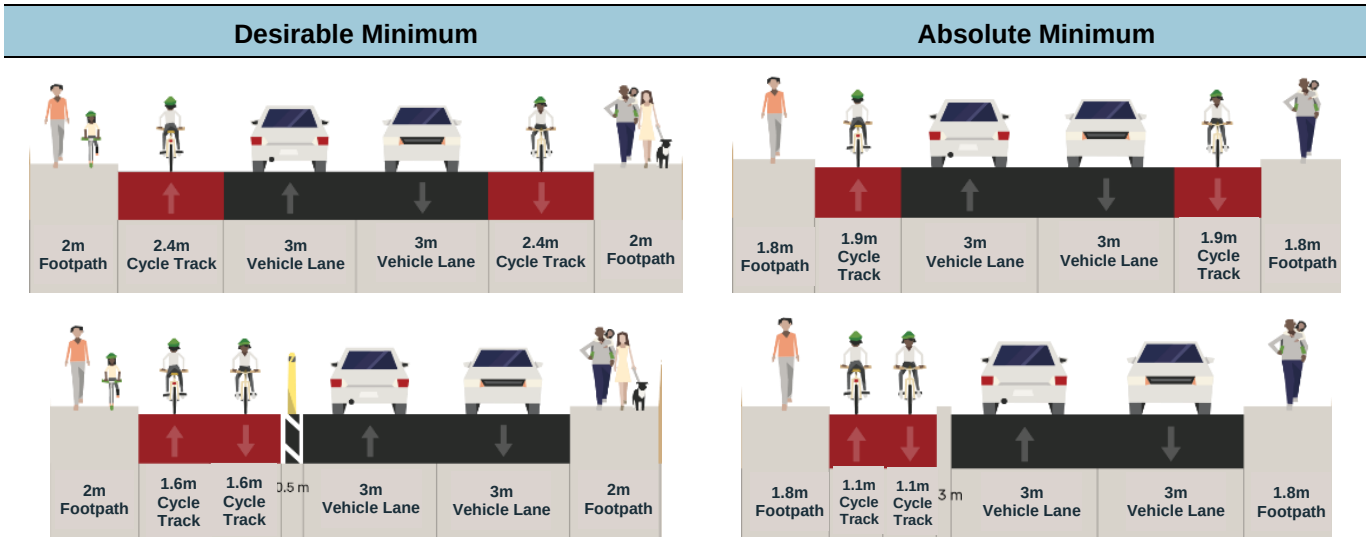
For two-way cycle facilities, the desirable minimum width considered is 3.70m (0.20 (A), 3.0 (B), 0 (C) and 0.5 (D)) and 2.50m for the absolute minimum (0.20m (A), 2.0m (B), 0m (C) and 0.3m (D)).

Figure 5-6 illustrates the desirable and absolute minimum PCL cross-section arrangements considered. Similar to the other options described above, the footpaths will follow DMURS guidelines and are 2m for the desirable minimum and 1.8m for the absolute minimum. The road carriageway is the same for both options, however, considered 6.0 within the town centre and 6.5m elsewhere.

These widths are indicative only and vary depending on the type of segregation provided, e.g., separator kerbs do not require the installation of a buffer zone, whereas flexible bollards higher than 600mm require a buffer of 0.5m and parking protected cycle lane require a buffer of 750mm.

Table 2.1 of the CDM indicates that protected cycle lanes may not be suitable for all users and Departure from Standard is required if two-way vehicular traffic flows are higher than 400 PCU/h.

Figure 5-6 - Types of Protected Cycle Lanes



5.3.4 Mandatory Cycle Lanes

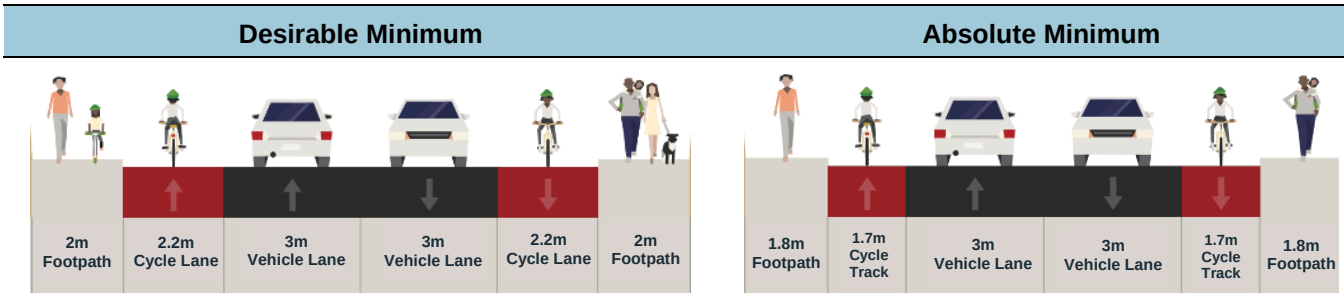
Mandatory cycle lanes do not provide physical separation between cyclists and motorized traffic. The separation between cyclists and cars is achieved by only continuous white lines and can be perceived as not safe enough for less confident users. Table 2.1 of the CDM states that when traffic volumes are over 400 pcu/hour on a 50km/h road, mandatory cycle facilities are not recommended as it is unlikely to be suitable for all users and Departure from

Standard is required. This option has not been considered for two-way cycle facilities as the CDM states that cycle lanes can only be provided for one-way facilities.

The desirable minimum width for mandatory cycle lanes was considered to be 2.20m, which provides an inside clearance (A) of 0.20m and a central width (B) of 2.0m. The absolute minimum width is 1.70m, with an inside clearance (A) of 0.20m and a central width (B) of 1.5m. As the cycle lanes do not provide any physical separation between the cycle facility and the road carriageway, no outside clearance (C) and buffer (D) have been considered. Footpaths are in accordance with DMURS and are 2-1.8m and the road carriageway is 6-6.5m.

This option can be provided by both traditional and rapid build methods; however, rapid build can only be provided where the width from kerb-to-kerb is sufficient to allow for the installation of the cycle facility without the requirement of changes to the kerblines. Figure 5-7 illustrates the desirable and absolute minimum cycle lane cross-section arrangements that can be considered.

Figure 5-7 - Types of Mandatory Cycle Lanes



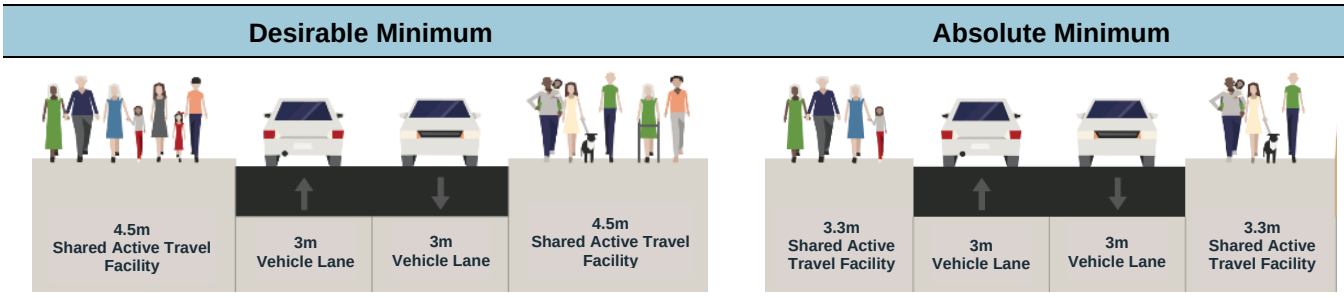
5.3.5 Shared Active Travel Facilities

While providing segregation for traffic, shared active travel facilities allow for the mixing of pedestrians and cyclists, reducing the overall quality of service for both active travel modes. According to the CDM, shared active travel facilities are considered appropriate if the density of pedestrians is less than 200 pedestrians/hour/m. These facilities are appropriate only at certain contexts, for example along busy inter-urban and National Roads with no high volumes of pedestrians and should be avoided at busy urban areas with high volumes pedestrians and/or cyclists.

Figure 5-8 illustrates the desirable and absolute minimum cross-section arrangements considered according to the Cycle Design Manual for less than 300 pedestrians and 300 cyclists per hour, which is 4.5m for the desirable minimum (4.0 for central width B and 0.5m for buffer D) and 3.3m for the absolute minimum width (3.0m B and 0.5m D). The buffer has been included as in some instances the shared active travel path will be used as a two-way cycle facility. The carriageway is considered 6.0m in the town centre areas and 6.5m in the remaining locations.

At some segments, a shared facility has been considered on only one side of the road due to physical constraints and reduced catchment area. As there are no existing footpaths with over 3m in width, this option can only be provided using traditional construction methods.

Figure 5-8 - Types of Shared Active Travel Facilities Provision



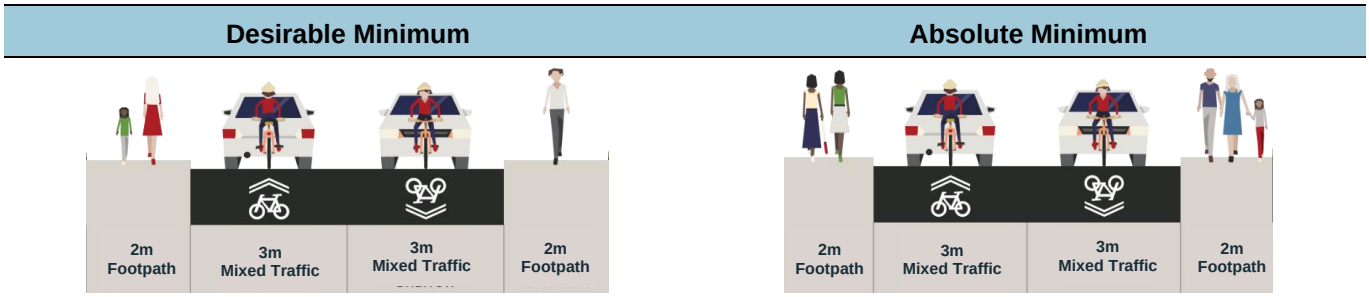
5.3.6 Cycling in Mixed Traffic

Mixed traffic provision does not provide any separation or segregation between cyclists and traffic, and it is only suitable for roads with low volumes of traffic, such as residential streets, local roads and rural lanes. Rapid build construction can be provided for this cross-section type as it does not require major construction works and can mainly be accommodated within the existing road layout, where there is sufficient road width.

At proposed mixed traffic streets, measures to reduce traffic speeds, such as reduction of carriageway widths, horizontal and vertical deflections, surface treatments etc, shall be implemented to reduce vehicular speeds and increase safety for all users. This option would look into providing a carriageway with 6.0m in width at the town centre areas, as it will require vehicles to reduce the speed when travelling along the roads. At locations outside the town centre, as they serve several bus routes, the width would be increased to 6.5m, a 3.25m lane on each side. Regarding footpath widths, the desirable minimum is 2.0m according to DMURS and the absolute minimum is 1.8m.

Figure 5-9 illustrates the desirable and absolute minimum mixed traffic cross-section arrangements considered.

Figure 5-9 - Types of Mixed Traffic Provision



5.4 Other Design Principles Applied

- Verges:
  - Where space is available, verges of a minimum of 0.5m will be provided between the carriageway and cycle track (Source: CDM).
- Vehicle Lanes:
  - Vehicle lanes shall be 3.25m wide by default and 3.0m wide within the town centre (source: DMURS).
- Land Take:
  - Due to the constrained nature of some segments, land take options were considered in two instances: footpaths and cycle tracks were widened to the desirable minimum width or footpaths and cycle tracks were kept to the absolute minimum widths in order to reduce the land take area required.
- Junctions and Driveways:
  - Raised Continuous Cycle Tracks: footpaths and cycle tracks will be continuous across side streets and driveways, as detailed in Figure 5-10 and Figure 5-11. Additional signage will be provided to warn motorists of the presence of two-way cycle flows and cyclists of the presence of oncoming vehicles. (Source: CDM)

Figure 5-10 - Example of One-Way Cycle Track Priority Junction Treatment

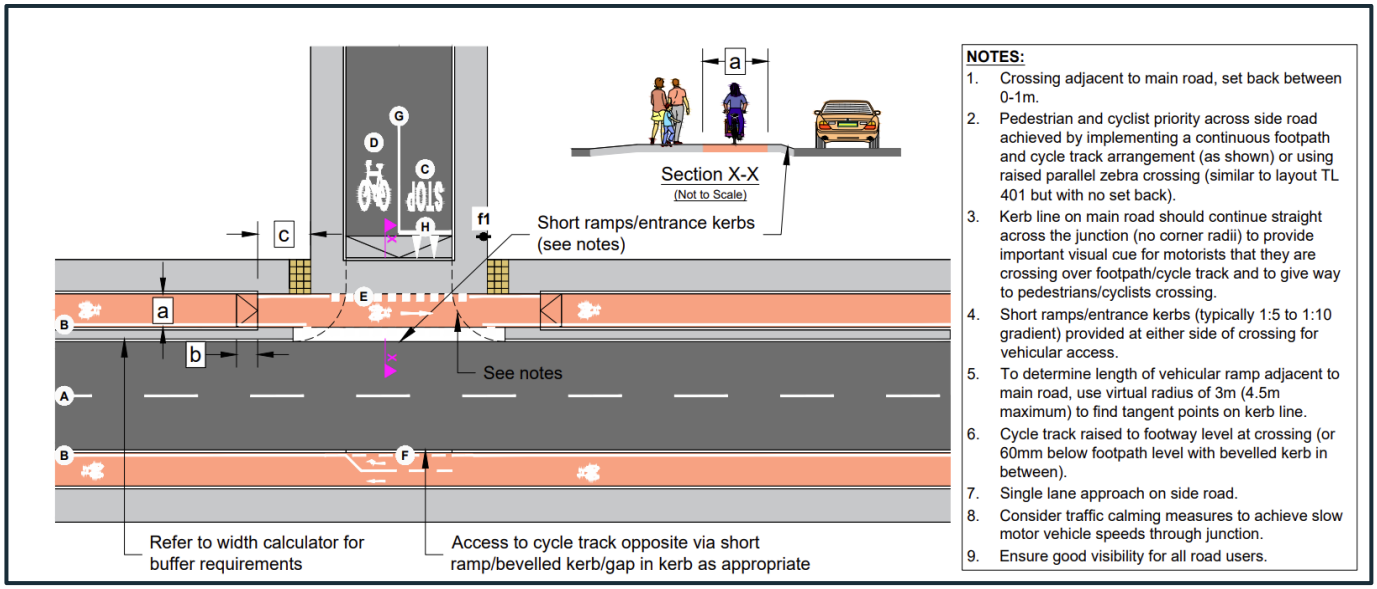
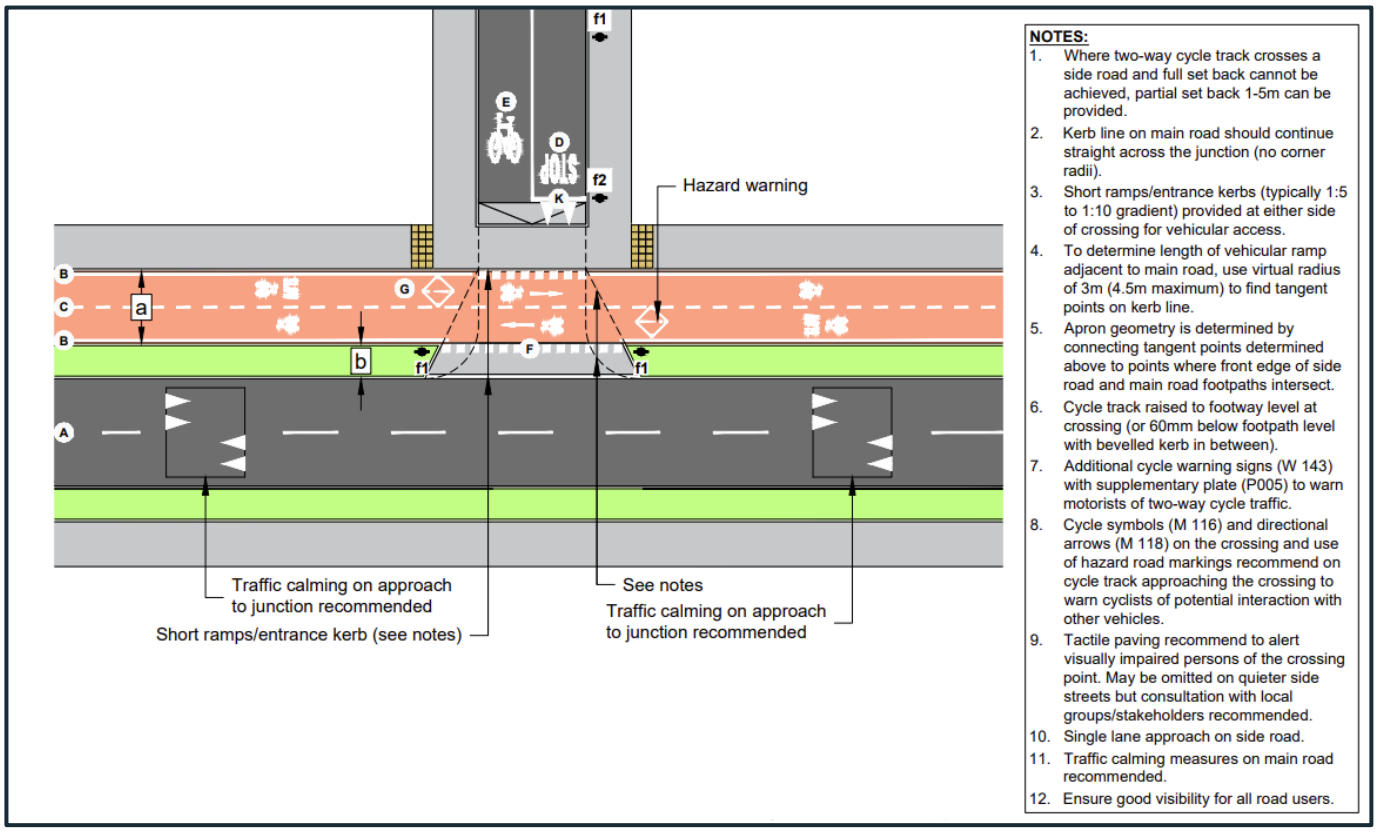
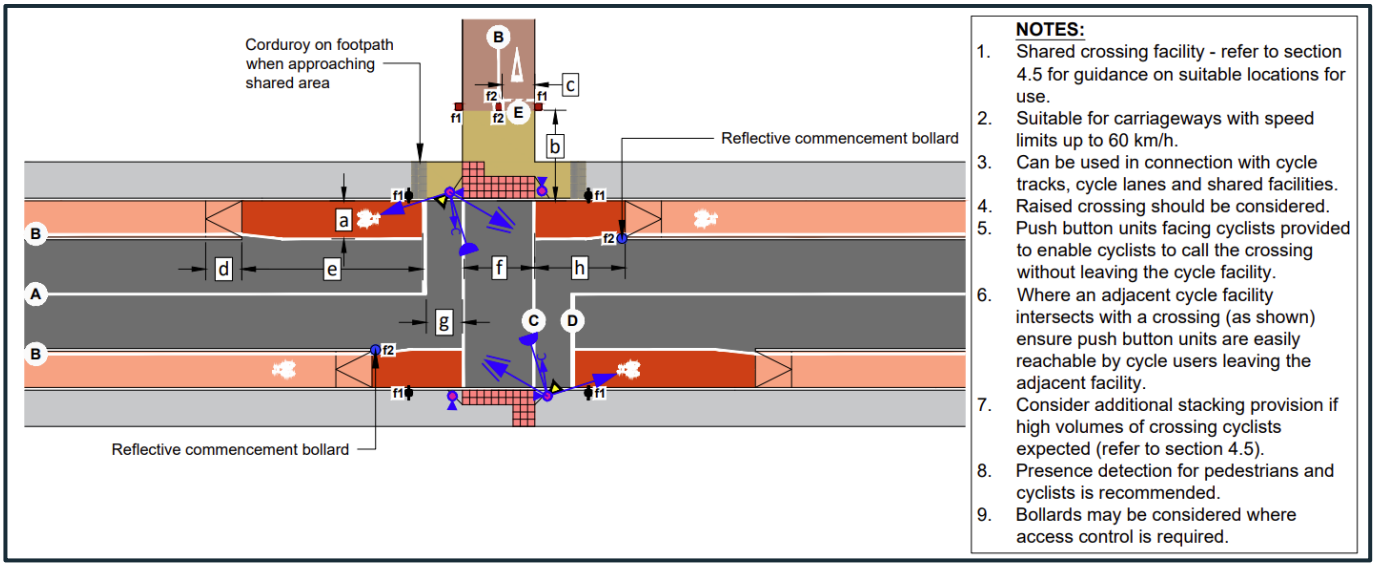


Figure 5-11 - Example of Two-Way Cycle Track Priority Junction Treatment



- Crossings
  - The location of crossings shall be based on the review of the corridors, the locations of key destination points, desirable pedestrian and cyclist lines, intersections and connections to public transport based on the guidelines stated in the Cycle Design Manual.
  - Each crossing location will be reviewed to determine the most appropriate crossing type according to Table 4.25 of the CDM. It is assumed that most crossings with either be signal-controlled crossings or uncontrolled crossings as these are usable by both pedestrians and cyclists. In specific instances where context, speeds and volumes are appropriate, zebra crossings may also be considered. Figure 5-12 shows the details for two alternative toucan crossing configurations.

Figure 5-12 - Example of Toucan Crossing Design



- Bus Stops
  - Existing bus stops are assumed to remain in the same general location as existing and only be moved slightly, if needed, to accommodate the proposed bus stops layouts.
  - The preference will be for bus stops to be designed as Island Bus Stops, as shown in Figure 5-13, where the cycle track is around the rear of the bus stop and adjacent to the footpath, therefore, reducing conflicts between cyclists and busses.
  - Where there is insufficient space, a shared bus stop landing zone shall be considered, shown in Figure 5-14. This option also removes the conflicts between cyclists and buses as it brings the cycle facility to the rear of the bus stop, however, increases conflicts between cyclists and pedestrians boarding and alighting the bus. To reduce the risks, the cycle facility shall be narrowed to encourage single file and shall bend from the road to create a boarding/alighting zone for bus passengers.

Figure 5-13 - Examples of Island Bus Stop (Source: CDM)

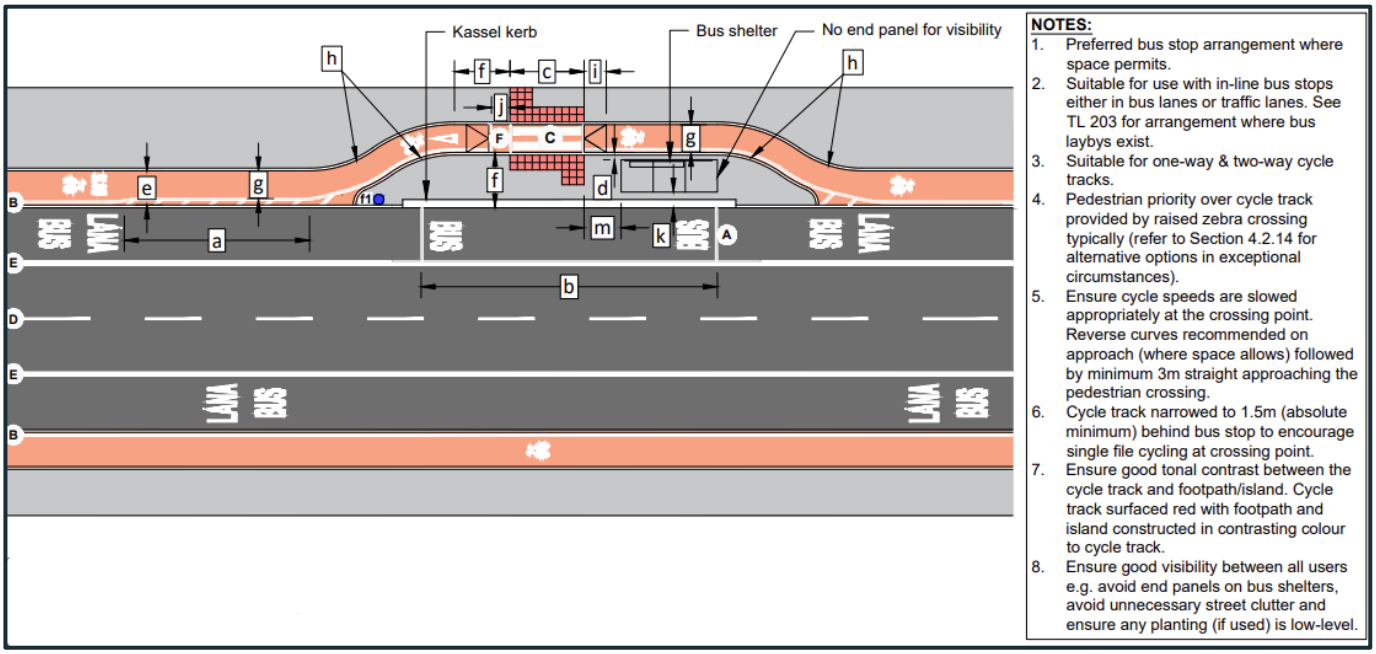
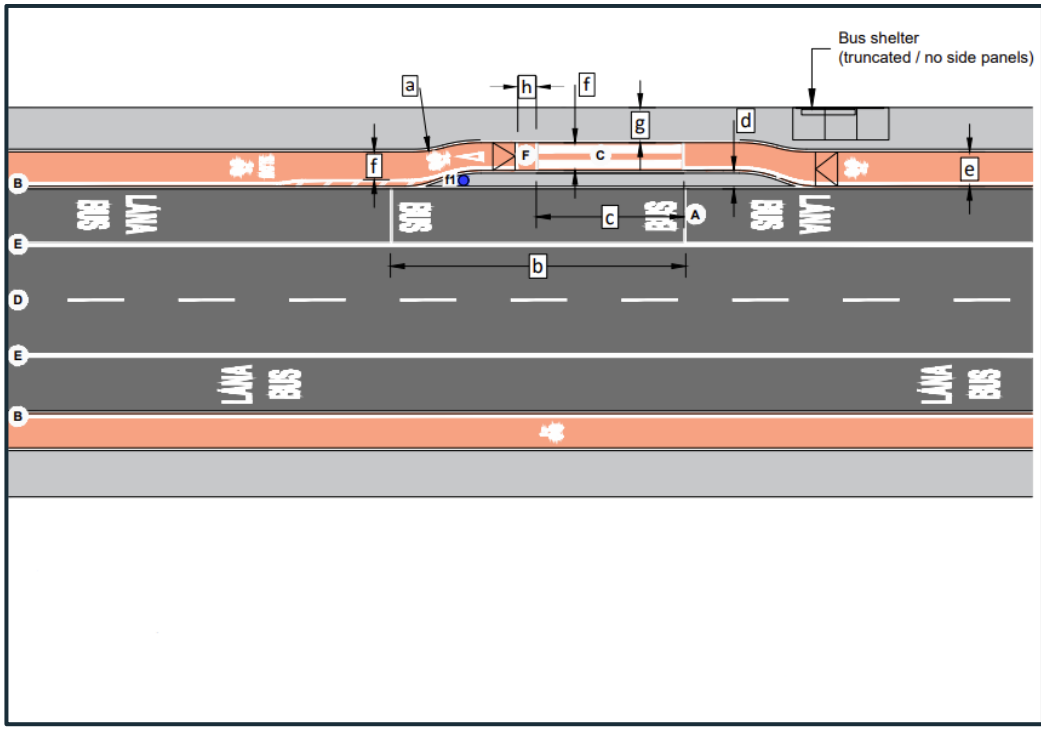


Figure 5-14 – Example of Shared Bus Stop Landing Zone (Source: CDM)



NOTES:

1. For use in constrained locations only where island bus stop/bus stop relocation is not feasible and where no. of bus passengers boarding/alighting and cycle flows are also low.
2. 1.0m (max.) buffer zone provided for bus passengers to board/alight. Wider buffer not recommended as may encourage passengers to wait in the buffer area.
3. Ensure raised kerb and reflective bollard at start of buffer to deflect cyclists away from buffer zone.
4. Pedestrian priority over cycle track provided by raised zebra crossing.
5. Cycle track narrowed to 1.5m (1.3m absolute min.) throughout extents of bus stop.
6. Minimum footpath width as per DMURS.
7. Cycle track, footpath and buffer zone to be flush with one another at crossing point.
8. Ensure good tonal contrast between the cycle track and footpath/buffer. Cycle track should be surfaced red and buffer should be constructed using similar palette to the footway.
9. Ensure good inter-visibility between bus passengers and cyclists, to minimise potential for conflict.

6. Detailed Option Assessment Appraisal

As outlined previously, the option assessment process comprises of an initial identification process, followed by a detailed option assessment, for different cross section options for each corridor segment, with the goal of determining the general arrangement (one-way cycle track, two-way cycle track, shared active travel facility, mixed traffic, etc.) of each segment.

The following text outlines the principles applied to the development of the cross-section options for each corridor segment:

- The key objective is to provide high quality segregated cycle provision with the desirable minimum width, however, where the desirable width cannot be applied, the width will be reduced to the absolute minimum width.
- Due to reduced available width at some segments, active travel facilities were only proposed on one side of the road following the existing arrangements.
- If the road space allows for reallocation for active travel modes, rapid build options were considered.
- Land acquisition was considered only at locations where there was no available width to provide a suitable level of active travel facility.

6.1 Link Type Appraisal

The initial stage for the assessment of the options for the link types is an identification process based on the cross-section options shown in Section 5.3 and on the Cross Section Width analysis described in Section 3.2.2. Based on the typical width for each corridor, the Option Identification process identifies cross section options that fit within the existing road boundaries. In the case where the standard segregated cycle track provision does not fit within the existing road boundaries and the existing facilities do not provide the necessary level of safety for pedestrians and cyclists, this stage will also look at options that require land acquisition.

The second stage is a Detailed Option Assessment, comprising of a Multi Criteria Assessment (MCA) that assess all the options for each segment and compares them against one another in a performance matrix as shown in Table 6-1. The goal of the MCA is to make recommendations on the preferred end-to-end cross section option for each segment.

Table 6-1 - Detailed Option Assessment Scoring Scale

Colour Coding	Rank Description
	Significant advantages to other options
	Some advantages to other options
	Neutral compared to other options
	Some disadvantages to other options
	Significant disadvantages to other options

6.1.1 Segments 01 and 02: Mount Street and Mount Street Gardens

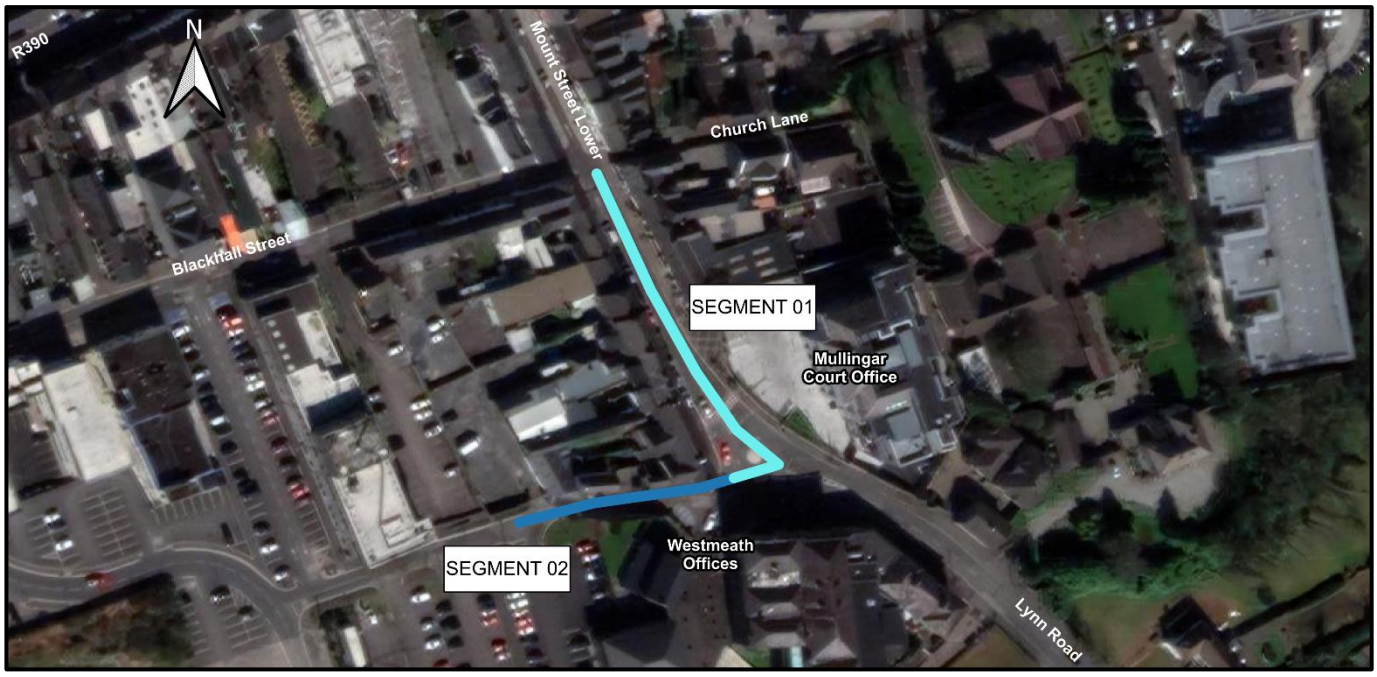
The intended solutions for both of these segments, considering the works previously undertaken on Mount Street are to extend the pedestrian interventions already in place at the upper end of Mount Street, where the road was transformed into a one-way street south to north, and the footpaths have been widened, which improved public realm and helped reduce vehicular speeds. The proposals for the segments are to extend the footpaths to provide connectivity along the road and improve safety for all users when accessing the County Buildings or travelling towards the Town Park.

As mentioned in Section 3.2.1.1, Segment 01 is currently a two-way street that links to the upgraded on-way section at the northern end of the road. However, the traffic counts carried out in December 2023 indicate that the segment is only used as a one-way street south to north and no vehicles have been recorded travelling south in any of the days of the traffic counts. The south bound lane in the segment is generally used as parking and loading bay, despite the double yellow line forbidding any parking at this location, as there is no traffic travelling southwards.

There are 10 parking bays at Segment 01, located on the western side of the road. A parking survey was conducted on Thursday 7th of December, between 07:00 and 19:00, which indicates that the parking bays along Segment 01 were used up to 91% of its capacity, mostly by the same vehicles being parking during the entire day. It was also noted from the survey that 2 vehicles were parked for the whole duration of the survey which displayed a permit, indicating that the parking bays are used as parking for the residential units located on the segment.

In Segment 02, the road is extremely narrow and also caters for a one-way movement west-east, with no available width to provide dedicated cycle facilities as it is constrained on both sides by existing buildings.

Figure 6-1 – Segments 01 and 02



Therefore, based on the findings of both traffic surveys, it is intended to reduce the carriageway width along Segment 01, similar to the upper end of Mount Street, to cater only for a one-way traffic flow from south to north and relocate the road space to provide increased footpath width and public realm interventions. The typical width along Segment 01 is 11.4m, which allows road space to be relocated to provide a 3.5m carriageway, retain the parking bays to the west at 2.1m wide and provide footpaths on both sides of the road of approximately 3m wide. The proposals at the segment will be further assessed, including landscaping, in Phase 3 Preliminary Design to assess the best options for public realm improvement at the segment.

At Segment 02, due to the narrow width of the road, the proposals are limited and would involve only improving the footpath quality on both sides and improving the connection on the southern side. The footpath on the north side is noted to be lacking quality, with several patches noted, which can cause safety issues for pedestrians.

On both segments, the proposals are to provide a mixed traffic road, where cyclists and vehicles share the same road space, as is the case on the upper end of Mount Street. The implementation of a narrow traffic lane would naturally help reduce vehicular speeds and the posted speed limit would be changed from 50km/h to 30km/h, which is already currently followed, as noted that the average speed limit along Segment 01 is 23.7km/h. The proposals

would clearly indicate the presence of cyclists on the road by implementing road marking and signage to warn motorists of cyclists on the road.

Figure 6-2 – Existing Pedestrian Enhancement along Mount Street



6.1.2 Segment 03: Jail Hill and Lynn Road

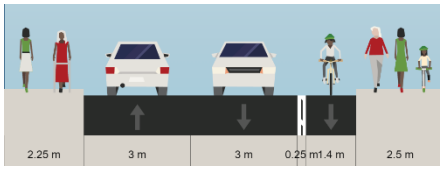
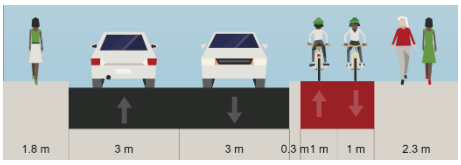
Based on the cross-section width analysis for Segment 03, as shown in Section 3.2.1.3, the typical width is 12.6m. There is a pinch point located along the segment where the width is reduced to 12.3m. Based on the width available and the location of the pinch point, the options considered for the segment are the minimum width options, which will be tailored to fit at the pinch point. As the road width is generally 7.3m along the segment, comprising the road lanes and cycle lane, rapid build options have also been considered for the segment. In line with the requirements of NIFTI, no land acquisition options have been considered for this segment.

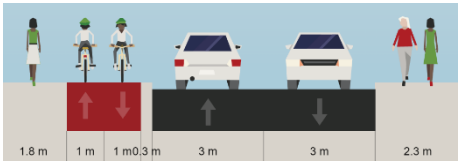
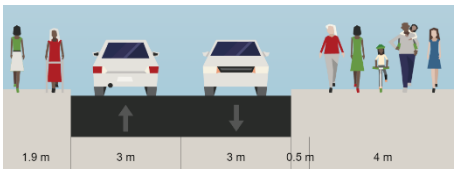
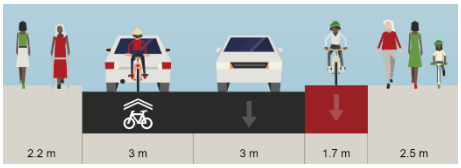
Figure 6-3 – Segment 03



6.1.2.1 Option Identification

Table 6-2 - Segment 03 Options

Option Description	Reference
Option 1: Do nothing This option would retain the existing arrangements and would not provide any improvements. The cycle lane would be retained on only the southern bound of the road.	
Option 2: Two-way Cycle Track Eastern side (12.4m cross section) This option proposes to construct a 2.3m wide two-way cycle track on the eastern side, retain the carriageway at 6.0m wide, reduce the footpath on the eastern side to 2.3m and on the western side to 1.8m. This option requires road realignment as the road would be shifted slightly to the west and would also require the removal of all trees on the eastern side, therefore, it would be built as a traditional build. This option could allow for new trees to be planted on the eastern footpath due to its available width. If the carriageway could be reduced to 5.5m, this option would not require road realignment and the trees on the eastern side would not need to be removed to reallocate the space for the cycle facility.	

Option Description	Reference
Option 3: Two-way Cycle Track Western Side (12.4m cross section) Similar to Option 2, this option proposes to construct a 2.3m two-way cycle track, but on the western side. The road carriageway and footpaths are the same as Option 2. This option would also require traditional build measures as it would require realignment of the road to construct the cycle track and the removal of the trees on the eastern side. Similar to Option 2, this option could also allow for new vegetation to be provided on the eastern footpath. Similar to Option 2 above, if the carriageway could be reduced to 5.5m, the minimum for an Arterial road according to DMURS, this option would not require road realignment and would not remove the trees on the east side.	
Option 4: Shared Active Travel Facility Eastern Side (12.4 cross section) This option proposes to construct a Shared Active Travel Facility on the eastern side of the road with the desirable minimum width, 4.5m and a minimum of 1.9m footpath on the western side. The road carriageway would continue to be 6.0m wide. This option would also be build using traditional methods as it requires road reconstruction and the removal of the trees. No new vegetation would be planted in this option as it would reduce the available width for the shared cycle and pedestrian traffic in the path.	
Option 5: One-way cycle track southbound side and mixed traffic northbound (12.4 cross section) This option proposes to replace the one-way mandatory cycle lane on the southern bound of the road to a 1.7m standard one-way cycle track. The footpath on the eastern side will be retained, therefore, this option would not affect the trees located on the eastern side of the road. The footpath on the western side would be slightly reduced in order to fit the cycle track but would still have a minimum width of 2.2m. The road carriageway would be retained to 6.0m and the northbound lane would be a shared lane for both vehicles and cyclists. This option would also be constructed using traditional measures as it requires road realignment.	

6.1.2.2 Detailed Option Assessment

The preferred option for Segment 03 is Option 2 a two-way cycle track on the eastern side of the road built using traditional methods. The cycle track would measure 2.3m, the absolute minimum, the footpath on the eastern side would be retained at 2.5m with the existing trees and on the western side would measure 2.1m. The road carriageway can be reduced to 5.5m, as it would allow for the retention of the five mature trees along the segment and it is not envisaged to affect traffic flows. This option provides advantages regarding directness, traffic and comfort when compared to other options. Full details of the MCA analysis are displayed in Appendix D and summarised in Table 6-3.

Table 6-3 - Segment 03 MCA Analysis

Criteria	Indicator	Option 1	Option 2	Option 3	Option 4	Option 5
Transport User benefits and Other Economic Impacts	Land acquisition area					
	Construction and maintenance					
	Rapid build achievability and construction impacts					
	Connections to existing and proposed public transport					
Accessibility Impacts	Access to key services					
	Impacts on loading and parking bays					
	Route consistency and continuity					
	Directness and maintenance of cyclist progression					
	Provision of comfort for pedestrians and cyclists through assessment of width					
	Attractiveness of the route					
Social Impacts	Opportunities for social, community and recreational activity participation					
	Impact on modal Shift/activity levels (i.e., Cars to Cyclists)					
	Qualitative assessment of accessibility to serve users of all ages and abilities					
	How the proposal may have gender specific impacts					
Land Use Impact	How the proposal integrates with the Land use, the objectives from development plan and NIFTI					
	Impact on green areas					
Safety Impact	Segregation between cyclists and vehicles					
	Segregation between cyclists and pedestrians					
	Safety for all users regarding traffic volumes and speeds along route					
	Conflicts at junctions and side roads between vehicles and cyclists					
	Impact on traffic capacity due to the proposals					

Criteria	Indicator	Option 1	Option 2	Option 3	Option 4	Option 5
Local Environmental Impact	Air Quality Impact					
	Potential Sensitive receptors					
	Bedrock and overburden, Alluvium Soils, Karst Features, Landslide susceptibility, Contaminated lands, Geological heritage areas					
	Impact on Biodiversity along scheme extents					
	Groundwater Quality, Groundwater resources / Levels Surface water quality and flows					
	Landscape and visual assessment					
	Impact at national monuments, NIAH features and ACA					
EMERGING PREFERED OPTION		**NO**	**YES**	**NO**	**NO**	**NO**

6.1.3 Segment 04: Sunday's Well Road and Auburn Road

Segment 04 has a typical width of 13.8m and includes several parking bays on the southern side of the road. The parking bays are used by the residents of the houses on the southern side of the road. There is a back lane with restricted width that serves some of the residential units of the terrace, but it is acknowledged that most residents park using the on-street parking. According to the parking survey carried out on the 7th of December 2023, the maximum occupancy in the car parks along the segment was 75%. As it is a free parking area, vehicles were not displaying a parking permit. Therefore, options for this segment have considered both removing and retaining the parking spaces along the road. As land acquisition would impact several properties along the segment, this has not been considered. The carriageway has been reduced to 5.5m on all options for this segment, which is the minimum width for Link Streets according to Section 4.4.1 of DMURS.

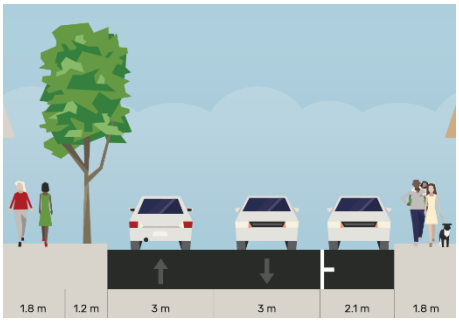
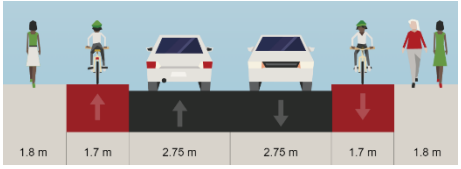
Due to the presence of the parking facilities on the southern side and possible removal of trees on the northern side of the road to accommodate segregated active travel facilities on this segment, an exceptional option has been considered for this segment, i.e. bringing the cycle facilities through the Town Park and reconnecting to the road to on the access on Millmount Road, as indicated in Figure 6-4. This option has been considered as an alternative option that would still provide segregated facilities for cyclists through the park, would still retain parking for the terraced houses on Sunday's Well Road and would not impact on the trees while a mixed street traffic regime could be applied along Auburn Road This is only feasible at this location due to the presence of an off-road route for cyclists through the adjacent park.

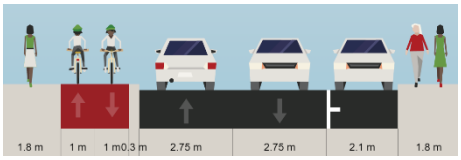
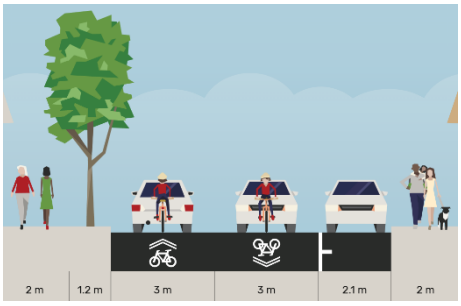
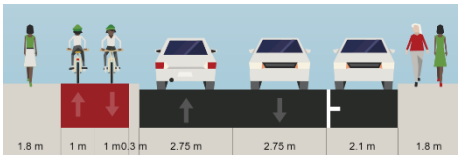
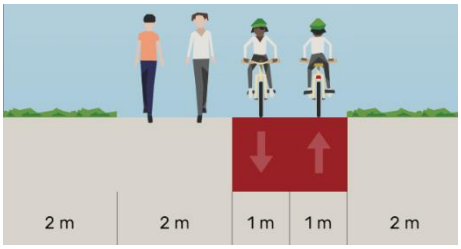
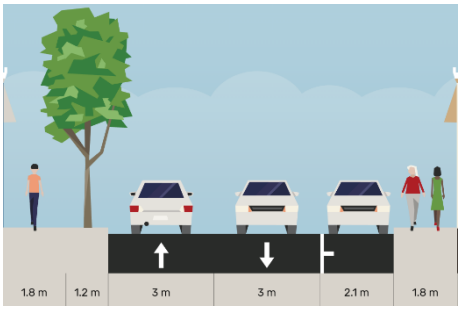
Figure 6-4 – Segment 04



6.1.3.1 Option Identification

Table 6-4 - Segment 04 Options

Option Description	Reference
Option 1: Do nothing This option would retain the existing arrangements and would not provide any improvements. The footpaths would continue to be below minimum width and all parking bays would be retained.	
Option 2: Stepped One-way Cycle Track (12.5m cross section) Option 2 proposes to construct a 1.7m one-way stepped cycle track on both sides of the road, a 1.8m footpath also on both sides and a 5.5m carriageway. In order to provide the cycle facilities, all parking bays would have to be removed, along with a number of trees. There is a 10m section of the segment where the width is less than 12.5 where, to avoid land acquisition, the dedicated paths would either	

Option Description	Reference
have to be brought into a shared active path or the width would have to be locally narrowed.	
<u>Option 3: Two-way Cycle Track on the North Side and Retention of one Parking Area on the South Side (13.5m cross section)</u> This option would allow for three parking areas to be retained, approximately catering for seven vehicles. The other parking bays would have to be removed to reallocate space for the active travel facilities. This option provides a 2.3m wide two-way cycle track on the north side of the road and 1.8m footpaths on both sides. Several trees would have to be removed to allow for the footpath on the north side to be widened to a minimum of 1.8m, however, there would still be available width to provide new vegetation in this option. This option would be build using traditional methods as it requires road reallocation and construction of new facilities.	
<u>Option 4: Mixed Traffic (12.1m cross section)</u> This option would retain all parking bays and would provide a mixed traffic between cyclists and vehicular traffic. This is the only proposed option where the road would be retained at a 6.0m wide. The footpaths on both sides of the road would be widened to 2.0m. Appropriate traffic calming measures would have to be implemented to reduce vehicular speeds to 20km/h as traffic flows are higher than 400 PCU/hour along the segment. This option would also require several trees to be removed.	
<u>Option 5: Additional Route Through Town Park: Two-way cycle track from junction with Lynn Road until access to park, with off-road facilities through the park and mixed street along Auburn Road. (Varying cross section)</u> This option would retain the parking bays and the trees along the segment. The road would be changed from the western end until the zebra crossing, where a two-way cycle track would be provided on the northern side of the road. From the zebra crossing, cyclists travelling east would either travel through the park to access Millmount Road to the north of Mullingar Community College or alternatively would continue on a mixed street regime along Auburn Road to reach Millmount Road. Cyclists travelling west on the segment and coming from Ballinderry Road can either continue north on Millmount Road and access the cycle facilities at the park or can travel on the mixed street road.	  

6.1.3.2 Detailed Option Assessment

According to the MCA results indicated in Table 6-5, the initial emerging preferred option for the segment is Option 3, a two-way cycle track on the northern side. However, this option would require the removal of all the trees and grassed areas along the segment as well as would require the removal of most parking bays, especially the ones serving the terraced houses to the south. The next most advantageous option for the segment is Option 5, which intends to re-route cyclists through the Town Park using an off-road facility so the trees and parking can be retained along the main segment. A mixed street regime including traffic management measures would be implemented on Auburn Road to allow cyclists to also use this as an alternative to the off-road route if they wish. This option has been identified as the emerging preferred option as it would have less environmental impacts than others and would still provide consistent and segregated facilities as an option. Full details of the MCA analysis are displayed in Appendix D and summarised in Table 6-5.

Table 6-5 - Segment 04 MCA Analysis

Criteria	Indicator	Option 1	Option 2	Option 3	Option 4	Option 5
Transport User benefits and Other Economic Impacts	Land acquisition area					
	Construction and maintenance					
	Rapid build achievability and construction impacts					
	Connections to existing and proposed public transport					
Accessibility Impacts	Access to key services					
	Impacts on loading and parking bays					
	Route consistency and continuity					
	Directness and maintenance of cyclist progression					
	Provision of comfort for pedestrians and cyclists through assessment of width					
	Attractiveness of the route					
Social Impacts	Opportunities for social, community and recreational activity participation					
	Impact on modal Shift/activity levels (i.e., Cars to Cyclists)					
	Qualitative assessment of accessibility to serve users of all ages and abilities					
	How the proposal may have gender specific impacts					
Land Use Impact	How the proposal integrates with the Land use, the objectives from development plan and NIFTI					
	Impact on green areas					

Criteria	Indicator	Option 1	Option 2	Option 3	Option 4	Option 5
Safety Impact	Segregation between cyclists and vehicles					
	Segregation between cyclists and pedestrians					
	Safety for all users regarding traffic volumes and speeds along route					
	Conflicts at junctions and side roads between vehicles and cyclists					
	Impact on traffic capacity due to the proposals					
Local Environmental Impact	Air Quality Impact					
	Potential Sensitive receptors					
	Bedrock and overburden, Alluvium Soils, Karst Features, Landslide susceptibility, Contaminated lands, Geological heritage areas					
	Impact on Biodiversity along scheme extents					
	Groundwater Quality, Groundwater resources / Levels Surface water quality and flows					
	Landscape and visual assessment					
	Impact at national monuments, NIAH features and ACA					
EMERGING PREFERED OPTION		**NO**	**NO**	**NO**	**NO**	**YES**

6.1.4 Segment 05: Millmount Road, from the Access to Town Park to Auburn Road

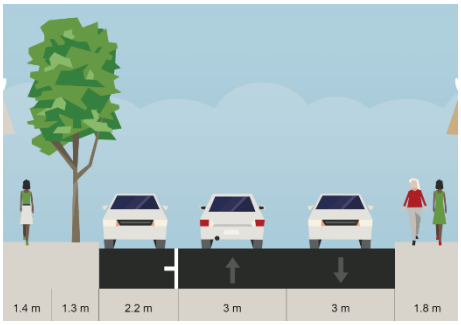
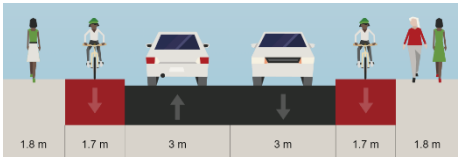
Segment 05 has a typical width of 12.8m as there are several parking bays on both sides of the road. The parking bays can accommodate up to 27 vehicles, according to the parking survey carried out on Thursday the 7th of December 2023. The survey results indicate that a total of 79 different vehicles were parked along the segment between 07:00 and 18:30 on the surveyed day, and the average occupancy of the parking bays are around 50%. Therefore, options for this segment consider both retaining and removing parking bays to construct high-quality cycle facilities. Some options would also require land acquisition and removal of green spaces to provide appropriate levels of comfort for pedestrians and cyclists.

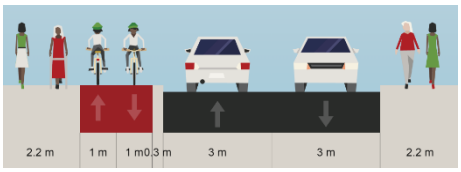
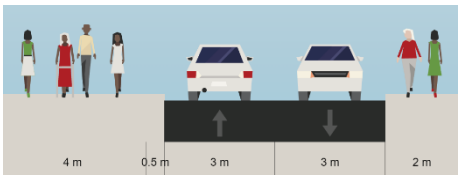
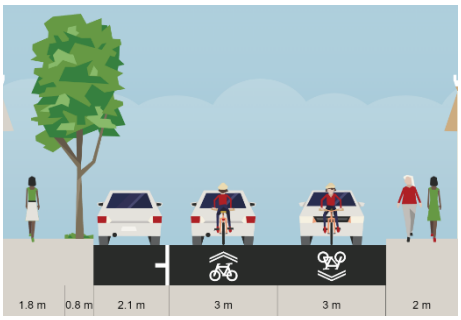
Figure 6-5 – Segment 05



6.1.4.1 Option Identification

Table 6-6 - Segment 05 Options

Option Description	Reference
Option 1: Do nothing This option would retain the footpaths on both sides of the road and all parking areas. Cyclists would continue to be accommodated on road alongside vehicles.	
Option 2: Stepped One-way Cycle Track (13.0m cross section) Option 2 proposes to construct a 1.7m one-way stepped cycle track on both sides of the road, a 1.8m footpath also on both sides and a 6.0m carriageway. In order to provide the cycle facilities, all parking bays, apart from the ones serving Millmount Terrace, would have to be removed, along with a number of trees. For this option to be implemented, land acquisition would also be required at certain sections.	

Option Description	Reference
Option 3: Two-way Cycle Track on the West Side and Retention of the Parking Bays on the East Side (12.8m cross section) This option aims to provide a high-quality cycle track whilst still retaining the parking bays on the eastern side to serve residents of Millmount Terrace. The two-way cycle track would measure 2.3m wide, the absolute minimum width, while the footpaths would measure around 2.2m on both sides of the road and the road carriageway would measure 6.0m. The parking facilities would measure 2.1m wide, the minimum width according to the Cycle Design Manual. This option does not require land acquisition, however, it does require removal of green areas.	
Option 4: Shared Active Travel Path on West Side and Retention of Parking on East side (12.5m cross section) Option 4 would provide an absolute minimum shared active travel path on the west side of the road, 4.5m wide, a 2.0m wide footpath on the east side, a 6.0m road carriageway and the retention of parking on the eastern side. This option would retain areas of vegetation on the southern end of the segment and would not require land acquisition.	
Option 5: Mixed Traffic with retention of all parking bays (12.6m cross section) This option would retain all parking bays and would provide a mixed traffic street between cyclists and vehicular traffic. The footpaths would be a minimum of 1.8m and the road would be 6.0m wide. Appropriate traffic calming measures would have to be implemented to reduce vehicular speeds to 20km/h as traffic flows are higher than 400 PCU/hour along the segment. This option would require several trees to be removed, however, would not require land acquisition.	

6.1.4.2 Detailed Option Assessment

The emerging preferred option for Segment 05 is Option 3, a two-way cycle track on the western side of the road. The cycle track would measure 2.3m wide and the footpaths on both sides of the road would measure approximately 2.2m on each side. The parking area adjacent to Millmount Terrace would be retain however the parking bays on the east side, adjacent the Mullingar Community College would have to be removed. This option provides advantages compared to other options as it does not require land acquisition to provide dedicated segregated facilities and would also connect well with the proposals for other segments. This option provides great connectivity to the school and the park, as they are both located on the western side of the road. This option also allows for good continuity to Segment 03. Full details of the MCA analysis are displayed in Appendix D and summarised in Table 6-7.

Table 6-7 - Segment 05 MCA Analysis

Criteria	Indicator	Option 1	Option 2	Option 3	Option 4	Option 5
Transport User benefits and Other Economic Impacts	Land acquisition area					
	Construction and maintenance					
	Rapid build achievability and construction impacts					
	Connections to existing and proposed public transport					
Accessibility Impacts	Access to key services					
	Impacts on loading and parking bays					
	Route consistency and continuity					
	Directness and maintenance of cyclist progression					
	Provision of comfort for pedestrians and cyclists through assessment of width					
	Attractiveness of the route					
Social Impacts	Opportunities for social, community and recreational activity participation					
	Impact on modal Shift/activity levels (i.e., Cars to Cyclists)					
	Qualitative assessment of accessibility to serve users of all ages and abilities					
	How the proposal may have gender specific impacts					
Land Use Impact	How the proposal integrates with the Land use, the objectives from development plan and NIFTI					
	Impact on green areas					
Safety Impact	Segregation between cyclists and vehicles					
	Segregation between cyclists and pedestrians					
	Safety for all users regarding traffic volumes and speeds along route					
	Conflicts at junctions and side roads between vehicles and cyclists					
	Impact on traffic capacity due to the proposals					

Criteria	Indicator	Option 1	Option 2	Option 3	Option 4	Option 5
Local Environmental Impact	Air Quality Impact					
	Potential Sensitive receptors					
	Bedrock and overburden, Alluvium Soils, Karst Features, Landslide susceptibility, Contaminated lands, Geological heritage areas					
	Impact on Biodiversity along scheme extents					
	Groundwater Quality, Groundwater resources / Levels Surface water quality and flows					
	Landscape and visual assessment					
	Impact at national monuments, NIAH features and ACA					
EMERGING PREFERED OPTION		**NO**	**NO**	**YES**	**NO**	**NO**

6.1.5 Segment 06: Millmount Road, from Auburn Road to the Railway Bridge

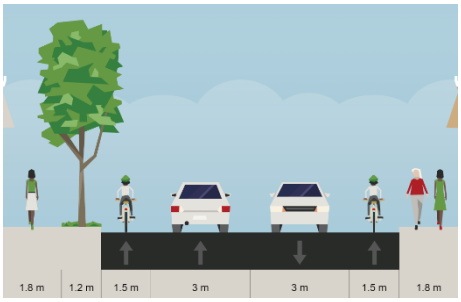
Segment 06 comprise Millmount Road from the junction with Auburn Road to the Railway Bridge. The segment has a typical width of 14.2m as it has mandatory cycle lanes on both sides and parkin bays on the western side. On Thursday, the 7th of December 2023, a total of 14 vehicles were parked along the segment, the majority were parked for up to half an hour. Options for this segment aim to either retain the existing cycle facilities or provide upgraded, high-quality facilities according to the CDM. As the segment already have mandatory cycle lanes, the options considered can be build using rapid build methods.

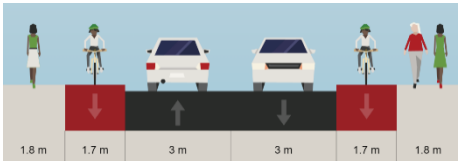
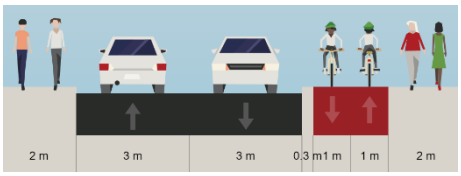
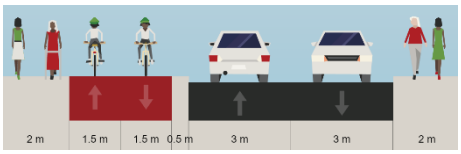
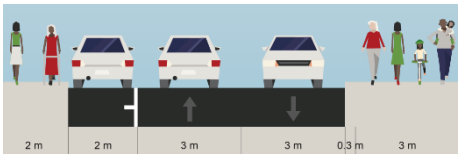
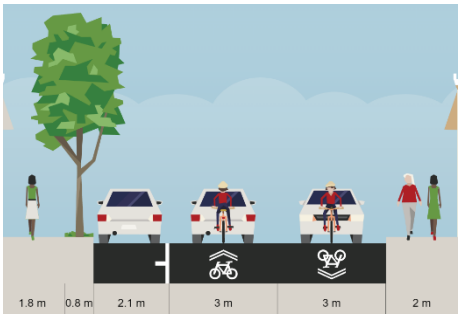
Figure 6-6 – Segment 06



6.1.5.1 Option Identification

Table 6-8 - Segment 06 Options

Option Description	Reference
Option 1: Do nothing This option would retain the mandatory cycle lanes provided on both sides of the road, the parking bays and the footpaths as existing.	

Option Description	Reference
Option 2: Stepped One-way Cycle Track (13.0m cross section) Option 2 proposes to construct a 1.7m one-way stepped cycle track on both sides of the road, a 1.8m footpath also on both sides and a 6.0m carriageway. The stepped cycle track is proposed due to the number of residential accesses on both sides of the road. In order to provide the cycle facilities, all parking bays would have to be removed, along with a number of trees. This option fits within the road boundaries and does not require land acquisition, however, as it requires the removal of the green verges on the western side, this option would be built using traditional methods.	
Option 3: Two-way Cycle Track on the East Side (12.3m cross section) This option proposes the absolute minimum width two-way cycle track on the east side of the road, measuring 2.3m, a 2.0m footpath on both sides of the road and the carriageway measuring 6.0m. This option fits within the existing road space and would still allow for most parking bays on the western side to be retained. However, in order to provide the cycle facilities and parking, the trees would have to be removed.	
Option 4: Two-way Cycle Track on the West Side (13.5m cross section) This option proposes a desirable minimum width two-way cycle track on the west side of the road, measuring 3.5m, a 2.0m footpath on both sides of the road and the carriageway measuring 6.0m. This option fits within the existing road space, however, it would require all parking bays to be removed as well as the grass verge between the road and the footpath.	
Option 5: Shared Active Travel Path on East Side and Retention of Parking on West side (13.4m cross section) Option 5 would provide an absolute minimum shared active travel path on the east side of the road, 3.0m wide with a buffer of 0.3m, a 2.0m wide footpath on the west side, a 6.0m road carriageway and the retention of parking on the west side. This option fits within the road boundaries, however, would also require the removal of vegetation on the west side.	
Option 6: Mixed Traffic (12.6m cross section) This option would retain all parking bays and would provide a mixed traffic between cyclists and vehicular traffic. The footpaths would be consistent at 2.0m wide and the road would be 6.0m wide. Appropriate traffic calming measures would have to be implemented to reduce vehicular speeds to 20km/h as traffic flows are higher than 400	

Option Description	Reference
PCU/hour along the segment. This option would require several trees to be removed, however, would not require land acquisition.	

6.1.5.2 Detailed Option Assessment

According to the MCA assessment, the option that scores higher is Option 3, the two-way cycle track on the eastern side as it would allow for the parking bays on the western side to be mostly retained. This option is followed closely by Option 4, the two-way cycle track on the western side. Option 3 provides advantages as it would retain the parking bays, however, Option 4 is more advantageous regarding comfort, as it would allow for a desirable minimum width cycle track to be constructed. It is noted that the parking bays along Segment 06 are adjacent to residential units that have parking areas within their property, therefore, are already provided with parking and would not require on-street parking space. As the scheme intends to provide the most appropriate pedestrian and cycle facilities for all users, Option 4, the two-way cycle track on the western side is the emerging preferred option for Segment 06. Full details of the MCA analysis are displayed in Appendix D and summarised in Table 6-9.

Table 6-9 - Segment 06 MCA Analysis

Criteria	Indicator	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6
Transport User benefits and Other Economic Impacts	Land acquisition area						
	Construction and maintenance						
	Rapid build achievability and construction impacts						
	Connections to existing and proposed public transport						
Accessibility Impacts	Access to key services						
	Impacts on loading and parking bays						
	Route consistency and continuity						
	Directness and maintenance of cyclist progression						
	Provision of comfort for pedestrians and cyclists through assessment of width						
	Attractiveness of the route						
Social Impacts	Opportunities for social, community and recreational activity participation						
	Impact on modal Shift/activity levels (i.e., Cars to Cyclists)						
	Qualitative assessment of accessibility to serve users of all ages and abilities						

Criteria	Indicator	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6
	How the proposal may have gender specific impacts						
Land Use Impact	How the proposal integrates with the Land use, the objectives from development plan and NIFTI						
	Impact on green areas						
Safety Impact	Segregation between cyclists and vehicles						
	Segregation between cyclists and pedestrians						
	Safety for all users regarding traffic volumes and speeds along route						
	Conflicts at junctions and side roads between vehicles and cyclists						
	Impact on traffic capacity due to the proposals						
Local Environmental Impact	Air Quality Impact						
	Potential Sensitive receptors						
	Bedrock and overburden, Alluvium Soils, Karst Features, Landslide susceptibility, Contaminated lands, Geological heritage areas						
	Impact on Biodiversity along scheme extents						
	Groundwater Quality, Groundwater resources / Levels Surface water quality and flows						
	Landscape and visual assessment						
	Impact at national monuments, NIAH features and ACA						
EMERGING PREFERED OPTION		**NO**	**NO**	**NO**	**YES**	**NO**	**NO**

6.1.6 Segment 07: Millmount Road and Ballinderry Road, from Railway Bridge to the junction with Ardmore Road

The final segment of Project 3 comprises from the Railway Bridge to the roundabout with Ardmore Road. This segment contains a pinch point, the Railway Bridge, that will be assessed separately, as mentioned in Section 4.2.1.

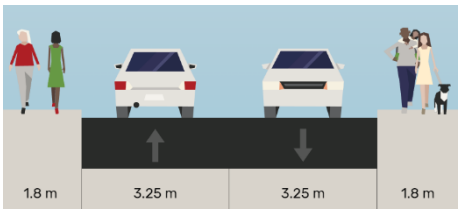
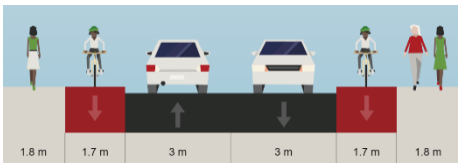
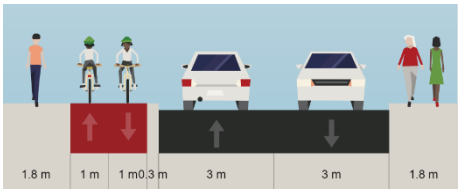
The available width along the segment is 11.8m, therefore, this option only considers absolute minimum widths and land take acquisition where necessary to provide the sufficient level of segregation between cyclists and pedestrians, as the existing road width cannot facilitate this. Rapid build options have also been considered to widen the existing footpaths and reduce the carriageway width.

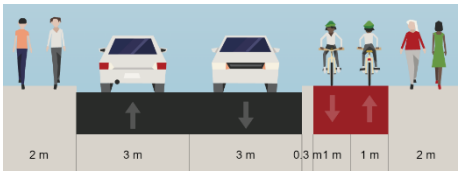
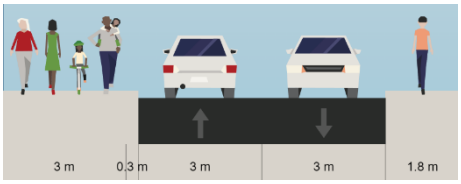
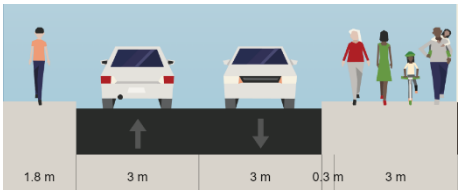
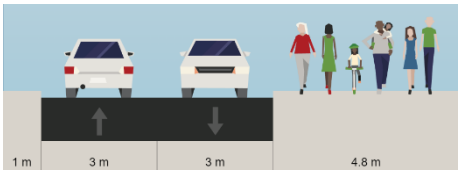
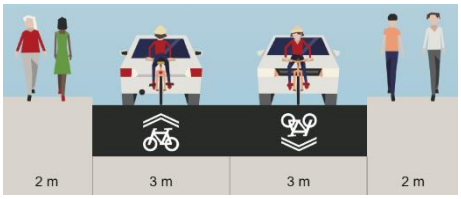
Figure 6-7 – Segment 07



6.1.6.1 Option Identification

Table 6-10 - Segment 07 Options

Option Description	Reference
Option 1: Do nothing This option would retain the exiting footpaths on both sides of the road and would not provide any improvements.	
Option 2: One-way Cycle Track (13.0m cross section) Option 2 proposes to construct a 1.7m one-way cycle track on both sides of the road, a 1.8m footpath also on both sides and a 6.0m carriageway. This option would require extensive land acquisition and would be built using traditional construction methods.	
Option 3: Two-way Cycle Track on the North Side (11.9m cross section) This option proposes an absolute minimum width two-way cycle track on the east side of the road, measuring 2.3m, a 1.8m footpath on both sides of the road and the carriageway measuring 6.0m. This option also requires land acquisition and would be constructed using traditional build methods.	

Option Description	Reference
Option 4: Two-way Cycle Track on the South Side (11.9m cross section) This option proposes an absolute minimum width two-way cycle track on the east side of the road, measuring 2.3m, a 1.8m footpath on both sides of the road and the carriageway measuring 6.0m. This option also requires land acquisition and would be constructed using traditional build methods.	
Option 5: Shared Active Travel Path on the North Side (11.1m cross section) Option 5 would provide an absolute minimum shared active travel path on the north side of the road, 3.3m wide, a 1.8m wide footpath on the south side and a 6.0m road carriageway. This option also requires sections of land acquisition.	
Option 6: Shared Active Travel Path on the South Side (11.1m cross section) Option 6 proposes an absolute minimum shared active travel path on the south side of the road, 3.3m wide, a 1.8m wide footpath on the south side and a 6.0m road carriageway. This option also requires sections of land acquisition.	
Option 7: Shared Active Travel Path on the South Side and no facility on the north side (10.8 minimum width) Option 7 proposes a shared active travel path on the south side of the road of up to 4.8m with a minimum of 3.8m with no facility on the north side of the road. This option would not require land acquisition but would require road reconstruction as it would have to be shifted to the north side.	
Option 8: Mixed Traffic (10.0m cross section) This option would not provide segregation between cyclists and vehicles, instead, would provide a mixed street. The footpaths would be consistent at 2.0m wide and the road would be 6.0m wide. Appropriate traffic calming measures would have to be implemented to reduce vehicular speeds to 20km/h as traffic flows are higher than 400 PCU/hour along the segment. This option would not require land acquisition and can be build using rapid build methods.	

6.1.6.2 Detailed Option Assessment

The emerging preferred option for the last segment, Segment 07, according to the MCA is Option 2, a one-way cycle track on both sides of the road. However, this option is not feasible as it requires extensive land acquisition and would significantly impact a residential unit in Millmount. The next following options are both Option 3 and Option 4, two-way cycle tracks, which are also not feasible due to the extensive land acquisition required. The best performing realistically achievable option in accordance with NIFTI is Option 7, a shared active travel path on the south side of

the road and the removal of the footpath on the north side. This would allow the shared path to be a minimum of 3.8m wide, which is wider than the absolute minimum. This option would provide crossing points on both ends of the segment to allow for both pedestrians and cyclists to cross the road safely and to connect to the proposed pedestrian bridge at Saunder's Bridge. Full details of the MCA analysis are displayed in Appendix D and summarised in Table 6-11.

Table 6-11 - Segment 07 MCA Analysis

Criteria	Indicator	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6	Option 7	Option 8
Transport User benefits and Other Economic Impacts	Land acquisition area								
	Construction and maintenance								
	Rapid build achievability and construction impacts								
	Connections to existing and proposed public transport								
Accessibility Impacts	Access to key services								
	Impacts on loading and parking bays								
	Route consistency and continuity								
	Directness and maintenance of cyclist progression								
	Provision of comfort for pedestrians and cyclists through assessment of width								
	Attractiveness of the route								
Social Impacts	Opportunities for social, community and recreational activity participation								
	Impact on modal Shift/activity levels (i.e., Cars to Cyclists)								
	Qualitative assessment of accessibility to serve users of all ages and abilities								
	How the proposal may have gender specific impacts								
Land Use Impact	How the proposal integrates with the Land use, the objectives from development plan and NIFTI								
	Impact on green areas								
Safety Impact	Segregation between cyclists and vehicles								

Criteria	Indicator	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6	Option 7	Option 8
	Segregation between cyclists and pedestrians								
	Safety for all users regarding traffic volumes and speeds along route								
	Conflicts at junctions and side roads between vehicles and cyclists								
	Impact on traffic capacity due to the proposals								
	Air Quality Impact								
	Potential Sensitive receptors								
	Bedrock and overburden, Alluvium Soils, Karst Features, Landslide susceptibility, Contaminated lands, Geological heritage areas								
	Impact on Biodiversity along scheme extents								
	Groundwater Quality, Groundwater resources / Levels Surface water quality and flows								
	Landscape and visual assessment								
	Impact at national monuments, NIAH features and ACA								
EMERGING PREFERED OPTION		**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**YES**	**NO**

6.2 Route Corridor Recommended Cross Section

Based on the MCA results shown in the above sections, Table 6-12 outlines the proposal for each segment of the corridor.

Table 6-12 – Route Corridor Preferred Cross Section

Segment	Preferred Cross Section
Segment 01 and Segment 02	Continuation of the pedestrian interventions in place on the north end of Mount Street and a mixed traffic for cyclists and vehicles. Option to be further assessed at Phase 3 Preliminary Design by a landscape architect.
Segment 03	Option 3: Two-way cycle track on the western side (traditional build, 12.4m cross section)

Segment	Preferred Cross Section
Segment 04	Option 5: Additional Route Through Town Park: Two-way cycle track from junction with Lynn Road until access to park, with off road facilities along the park and mixed street along Auburn Road. (traditional build, varying cross section widths)
Segment 05	Option 3: Two-way Cycle Track on the West Side and Retention of the Parking Bays on the East Side (traditional build, 12.8m cross section)
Segment 06	Option 4: Two-way Cycle Track on the West Side (traditional build, 13.5m cross section)
Segment 07	Option 7: Shared Active Travel Path on the South Side and no facility on the north side (traditional build, 10.8m minimum cross section)

6.3 Pinch Point and Junctions Appraisal

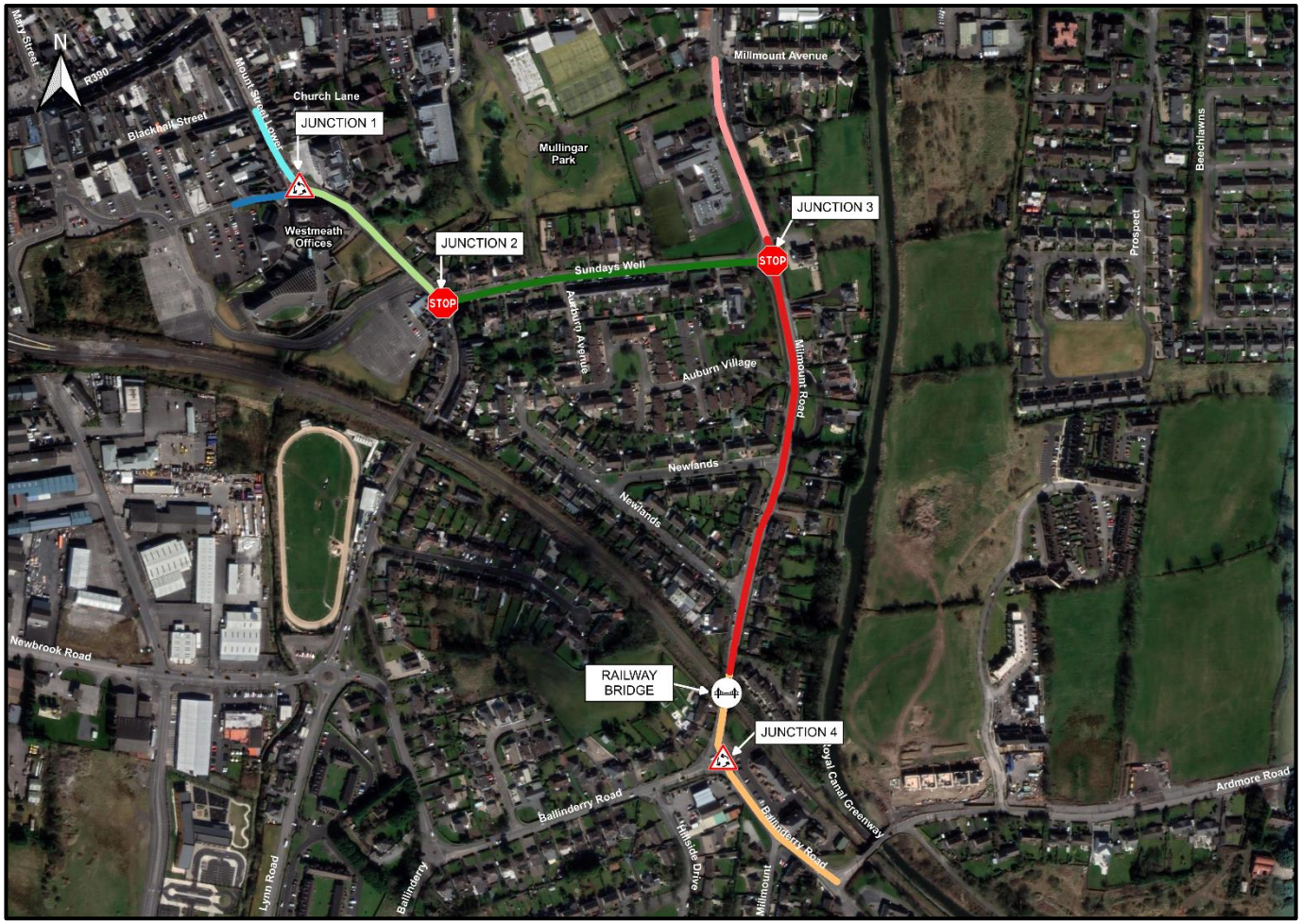
As mentioned previously, the pinch points and junctions have been assessed separately from the link type assessment as they require individual, bespoke options.

Two locations have been identified along the corridor where the width is constrained, the section on Segment 03 where it crosses River Brosna and the section on Segment 07 under the Railway Bridge, as mentioned in Section 3.2.2. The section on Segment 03 has been taken into account when proposing the link type options for the segment, as discussed in Section 6.1.2. Therefore, only the section under the railway bridge on Segment 07 will be looked into more details in a separate Multi Criteria Analysis (MCA).

Project 3 has a total of five junctions that are considered major junctions in the town due to high traffic volumes and key connectors to major locations, such as the Town Park, County Buildings, Library, major car parks, education facilities etc, and the town centre and environs. Based on this, appropriate options have been considered for each junction based on traffic volumes, speeds, existing junction type and existing land available in and around the junctions according to the guidelines stipulated in the Cycle Design Manual (CDM) and the Design Manual for Urban Roads and Streets (DMURS). Junction 5, Ballinderry Road and Ardmore Road roundabout, have not been included in the assessment as it has been considered as part of the Pedestrian and Cycle Bridge at Saunders Bridge, as mentioned in Section 3.4.1.3.

In July 2023, the NTA published a document titled “Roundabout Retrofit: Including Rapid Build Options”. This document is part of the NTA publications under the Rapid Build Guidance to speed the rollout of active travel schemes in the county. Based on this document, rapid build options have also been considered for junctions. The rapid build options align with the NIFTI hierarchy of investments, as it would provide “improved” and “optimised” facilities instead of “new”.

Figure 6-8 – Pinch Points and Junctions Locations



6.3.1 Section Under Railway Bridge

6.3.1.1 Option Identification

The following sections describe the options considered for the pinch point under the railway bridge on Segment 07.

6.3.1.2 Option 1: Do Nothing

This option would retain the existing arrangements: cyclists and vehicles share the road in a mixed street traffic, pedestrians are accommodated on footpaths on both sides of the road and vehicular traffic going northbound have preference over southbound traffic. The bridge has a height restriction of 3.98m.

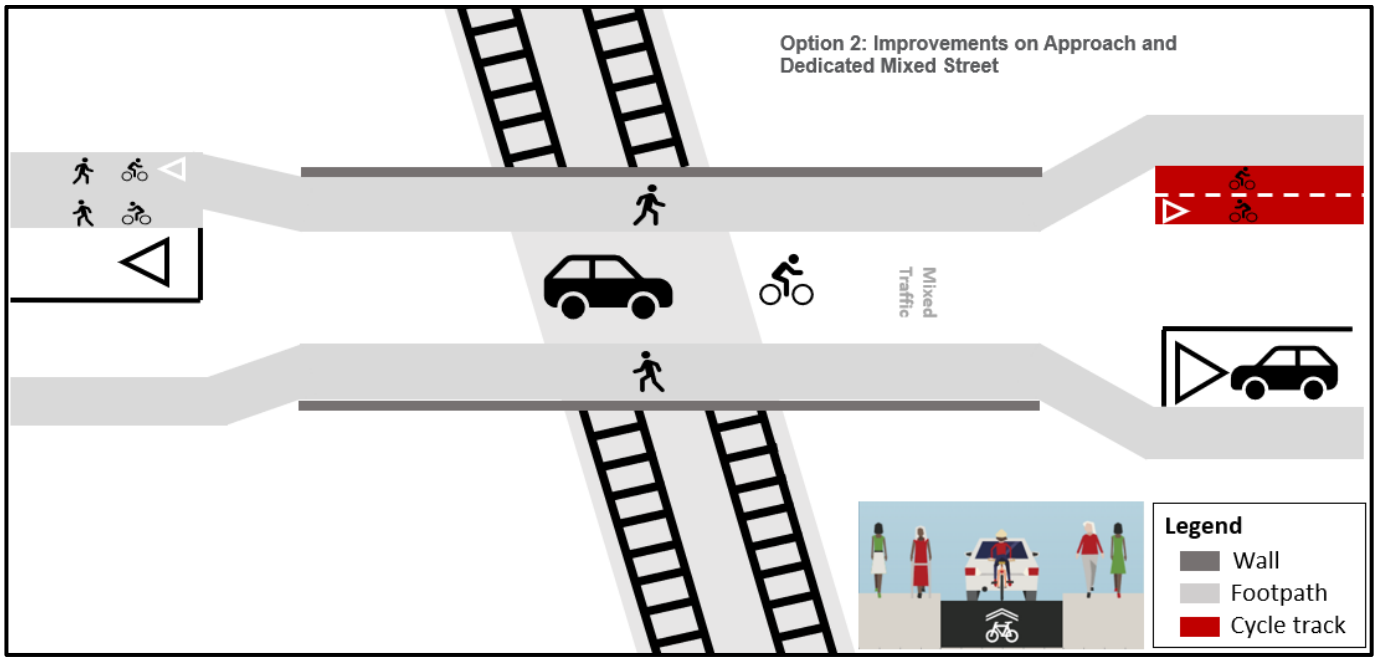
Figure 6-9 – Railway Bridge Option 1



6.3.1.3 Option 2: Improvements on Approach and Dedicated Mixed Street

This option differs from Option 1 Do Nothing as it would look into improving the approaches to the bridge, according to the Cycle Design Manual. This option would provide a smooth approach for cyclists merging into the roadway, with the installation of traffic signage and road markings to indicate the presence of cyclists on the road to drivers in order to improve safety for all road users. Measures to reduce vehicular speeds would also be implemented in this option.

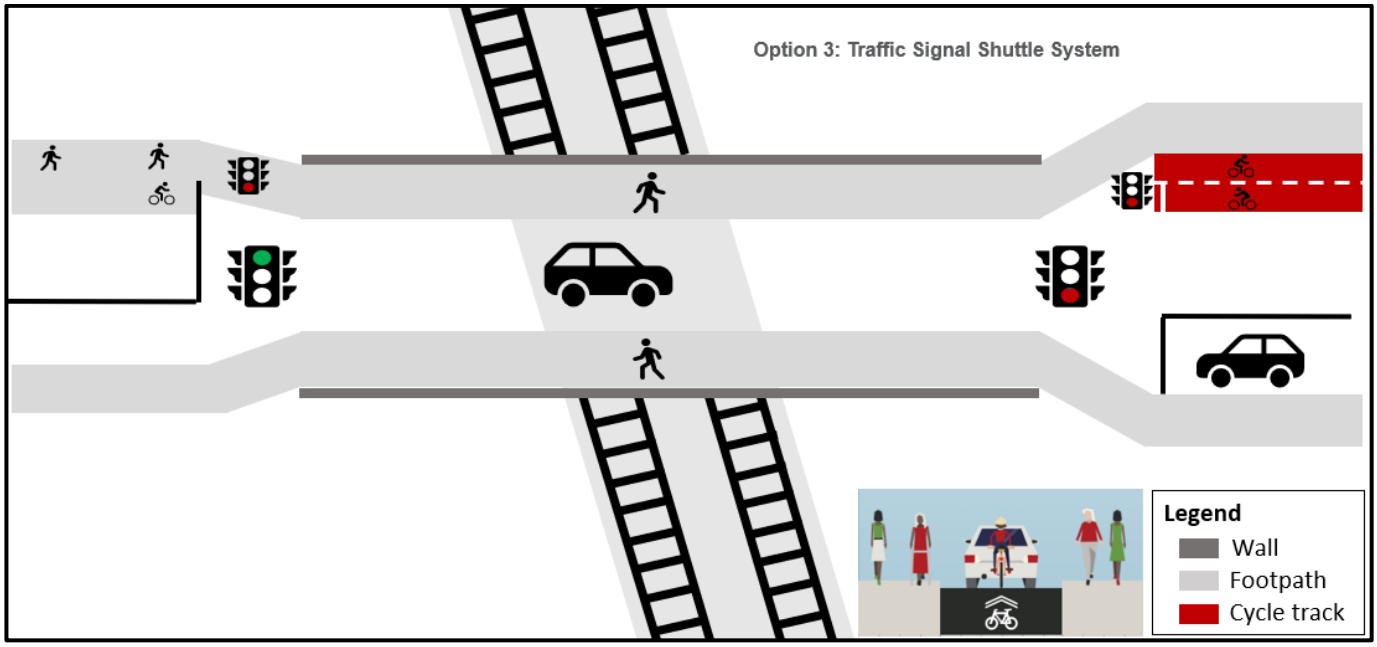
Figure 6-10 – Railway Bridge Option 2



6.3.1.4 Option 3: Traffic Signal Shuttle System

This option would provide a traffic signal shuttle system at the bridge to manage traffic flows and ensure traffic is controlled at this pinch point. The shuttle system would have a dedicated cycle stage in order to ensure cyclists and vehicles are segregated at this section. This option would retain the existing 3.0m carriageway and the footpaths and would install two sets of traffic lights, one on each approach of the bridge, as well as traffic calming measures to reduce vehicular speeds.

Figure 6-11 – Railway Bridge Option 3



6.3.1.5 Detailed Option Assessment

According to the MCA for the pinch point under the railway bridge, the emerging preferred option is Option 3, Traffic Shuttle System due to improved safety for all road users as it would allow cyclists to continue along the road separately from vehicular traffic, which also improves social and accessibility impacts. This option also provides improved environmental scores as it would attract more active travel users at this section. Full details of the MCA analysis are displayed in Appendix D and summarised in Table 6-13.

Table 6-13 – Railway Bridge MCA Analysis

Criteria	Indicator	Option 1	Option 2	Option 3
Transport User benefits and Other Economic Impacts	Land acquisition area			
	Construction and maintenance			
	Rapid build achievability and construction impacts			

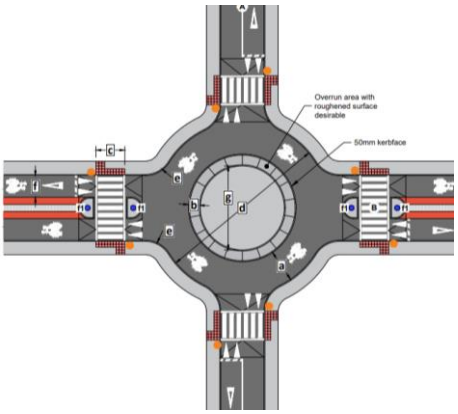
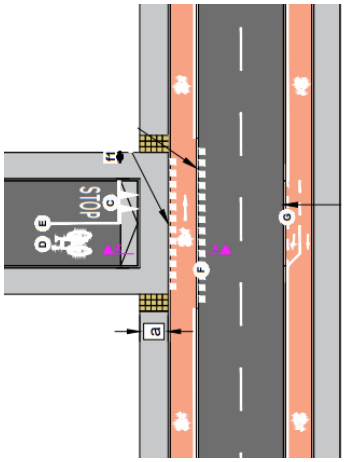
Criteria	Indicator	Option 1	Option 2	Option 3
Accessibility Impacts	Consistency, continuity and directness along the route and through junctions and the maintenance of cyclists' progression			
	Provision of comfort for pedestrians and cyclists through assessment of width and its attractiveness			
Social Impacts	Qualitative assessment of accessibility of the options to serve users of all ages and abilities			
	How the proposal may have gender specific impacts			
Land Use Impact	How the proposal integrates with the Land use, the objectives from development plan and NIFTI			
	Impact on green areas			
Safety Impact	Segregation between cyclists and vehicles			
	Segregation between cyclists and pedestrians			
	Safety for all users regarding traffic volumes and speeds along route			
	Impact on traffic capacity due to the proposals			
Local Environmental Impact	Air Quality Impact			
	Potential Sensitive receptors			
	Bedrock and overburden, Alluvium Soils, Karst Features, Landslide susceptibility, Contaminated lands, Geological heritage areas			
	Impact on Biodiversity			
	Groundwater Quality, Groundwater resources / Levels, Surface water quality and flows			
	Landscape and visual assessment			
	Impact at national monuments, NIAH features and ACA			
EMERGING PREFERED OPTION		**NO**	**NO**	**YES**

6.3.2 Junction 01: Mount Street / Jail Hill Roundabout

Table 6-14 describes the options considered for Junction 1 Mount Street / Jail Hill roundabout that links Segments 01, 02 and 03.

6.3.2.1 Option Identification

Table 6-14 - Junction 1 Options

Option Description	Reference
Option 1: Do Nothing The Option 1, Do Nothing, would retain the existing 3-arm roundabout with no dedicated space for cyclists. Cyclists would be forced into the roadway with motorised vehicles, which is not in line with the CDM Table 2.1 – Cycle Facilities Section Guide.	
Option 2: Upgrade Existing Roundabout to Compact Roundabout with Mixed Traffic Option 2 proposes to provide a compact roundabout with mixed traffic with zebra crossings on all arms of the junction.	
Option 3: Upgrade Priority Junction with Side Road Crossing Option 3 would replace the existing roundabout with a priority junction. The priority would be given to the Mount Street / Lynn Road, as they are the main road, and vehicles coming from the Mount Street Gardens would have to stop at the junction. There would be no segregation between cyclists and vehicles. Road marking and signage would be installed to warm motorists of cyclists on the road.	

6.3.2.2 Detailed Option Assessment

The results of the MCA assessment for the Junction 1 are similar for both Option 2 and Option 3. Option 2 scores higher in terms of costs and construction as it is a rapid build option, and Option 3 scores better in environmental criteria. The provision of a priority junction, Option 3, would align better with the proposals for Segment 01 and 02, as they would both be one-way streets and the junction would only have two entry arms. In terms of traffic capacity, both junction types would operate similar as currently vehicles entering the junction from the access to county buildings have to yield for vehicles coming from Lynn Road. Therefore, the emerging preferred option for Junction 1 is Option 3, the replacement of the roundabout to a priority junction. Full details of the MCA analysis are displayed in Appendix D and summarised in Table 6-15.

Table 6-15 – Junction 1 MCA Analysis

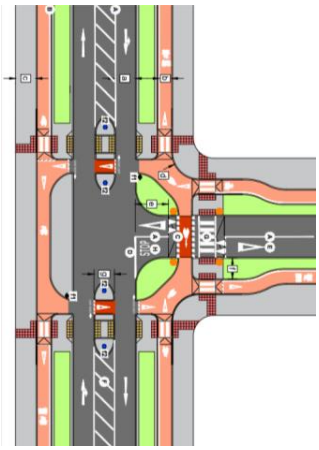
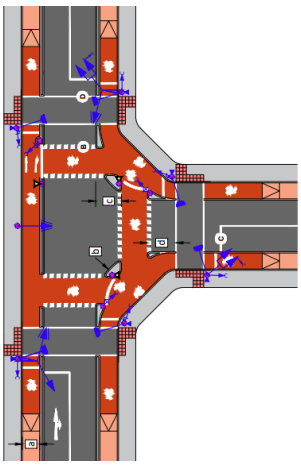
Criteria	Indicator	Option 1	Option 2	Option 3
Transport User benefits and Other Economic Impacts	Land acquisition area			
	Construction and maintenance			
	Rapid build achievability and construction impacts			
Accessibility Impacts	Consistency, continuity and directness along the route and through junctions and the maintenance of cyclists' progression			
	Provision of comfort for pedestrians and cyclists through assessment of width and its attractiveness			
Social Impacts	Qualitative assessment of accessibility of the options to serve users of all ages and abilities			
	How the proposal may have gender specific impacts			
Land Use Impact	How the proposal integrates with the Land use, the objectives from development plan and NIFTI			
	Impact on green areas			
Safety Impact	Segregation between cyclists and vehicles			
	Segregation between cyclists and pedestrians			
	Safety for all users regarding traffic volumes and speeds along route			
	Impact on traffic capacity due to the proposals			
Local Environmental Impact	Air Quality Impact			
	Potential Sensitive receptors			
	Bedrock and overburden, Alluvium Soils, Karst Features, Landslide susceptibility, Contaminated lands, Geological heritage areas			
	Impact on Biodiversity			
	Groundwater Quality, Groundwater resources / Levels, Surface water quality and flows			
	Landscape and visual assessment			
	Impact at national monuments, NIAH features and ACA			
EMERGING PREFERED OPTION		**NO**	**NO**	**YES**

6.3.3 Junction 02: Jail Hill / Lynn Road / Sunday's Well Road Priority Junction

6.3.3.1 Option Identification

Table 6-16 shows the options identified for Junction 2 that will go through an Multi Criteria Assessment that links Segment 03 and Segment 04.

Table 6-16 - Junction 2 Options

Option Description	Reference
Option 1: Do Nothing The Option 1, Do Nothing, would retain the existing priority junction with no dedicated crossing point and space for cyclists. The junction would continue to have very wide radius that can allow drivers to manoeuvre around the junction at speed and the two lanes into Lynn Road.	
Option 2: Upgrade Priority Junction with Protected Priority Junction Option 2 would upgrade the existing priority junction into a CDM junction with dedicated zebra crossing facilities for pedestrians and cyclists separately and tighter radius to reduce vehicular speeds. This junction would look into removing one of the directional lanes to reduce the carriageway width to improve space for pedestrians and cyclists.	
Option 3: Replace Priority Junction with Protected Signalised Junction Option 3, the final option for the junction, looks into replacing the existing priority arrangement to a protected fully signal controlled junction. This option would also remove the directional lanes and provide only one lane from Sunday's Well into Lynn Road. This junction type provides full segregation between all road users and pedestrians and cyclists do not cross the road through the same crossing, which improves safety for all users.	

6.3.3.2 Detailed Option Assessment

The emerging preferred option for Junction 2 is Option 2, a protected priority junction. This option scores better compared to Option 3 in terms of construction, costs, traffic capacity and integration. This option would require the removal of a turning lane into Lynn Road to allow for junction radii to be reduced, which would increase safety for all

users at the junction. Crossing points would be provided on all arms and the junction would be designed in accordance with the Cycle Design Manual and DMURS. Full details of the MCA analysis are displayed in Appendix D and summarised in Table 6-17.

Table 6-17 – Junction 2 MCA Analysis

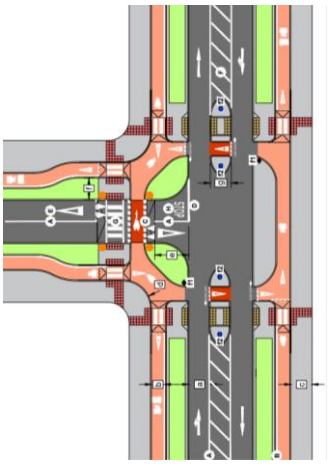
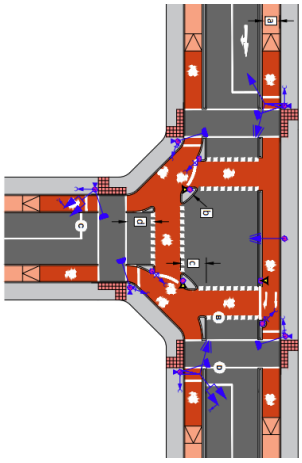
Criteria	Indicator	Option 1	Option 2	Option 3
Transport User benefits and Other Economic Impacts	Land acquisition area			
	Construction and maintenance			
	Rapid build achievability and construction impacts			
Accessibility Impacts	Consistency, continuity and directness along the route and through junctions and the maintenance of cyclists' progression			
	Provision of comfort for pedestrians and cyclists through assessment of width and its attractiveness			
Social Impacts	Qualitative assessment of accessibility of the options to serve users of all ages and abilities			
	How the proposal may have gender specific impacts			
Land Use Impact	How the proposal integrates with the Land use, the objectives from development plan and NIFTI			
	Impact on green areas			
Safety Impact	Segregation between cyclists and vehicles			
	Segregation between cyclists and pedestrians			
	Safety for all users regarding traffic volumes and speeds along route			
	Impact on traffic capacity due to the proposals			
Local Environmental Impact	Air Quality Impact			
	Potential Sensitive receptors			
	Bedrock and overburden, Alluvium Soils, Karst Features, Landslide susceptibility, Contaminated lands, Geological heritage areas			
	Impact on Biodiversity			
	Groundwater Quality, Groundwater resources / Levels, Surface water quality and flows			
	Landscape and visual assessment			
	Impact at national monuments, NIAH features and ACA			
EMERGING PREFERED OPTION		**NO**	**YES**	**NO**

6.3.4 Junction 03: Auburn Road / Millmount Road Priority Yield Junction

6.3.4.1 Option Identification

The option considered for Junction 3, a major junction near the town centre, are displayed in Table 6-18. This junction connects Segment 04, Segment 05 and Segment 06.

Table 6-18 - Junction 3 Options

Option Description	Reference
Option 1: Do Nothing The Option 1, Do Nothing, would retain the existing priority yield junction with no dedicated crossing point and space for cyclists. Drivers from Auburn Road do not need to make a full stop before proceeding into Millmount Road, and, as the junction radii is extremely wide, drivers can travel along the junction at speed, putting in risk pedestrians and cyclists.	
Option 2: Upgrade Priority Junction with Protected Priority Junction Option 2 would upgrade the existing priority junction into a CDM junction with dedicated zebra crossing facilities for pedestrians and cyclists separately and tighter radius to reduce vehicular speeds. This junction would look into removing one of the directional lanes to reduce the carriageway width to improve space for pedestrians and cyclists.	
Option 3: Replace Priority Junction with Protected Signalised Junction Option 3 proposes to replace the existing priority arrangement to a fully protected signal controlled junction. This option would also remove the directional lanes and provide only one lane from Auburn Road into Millmount Road. This junction type provides full segregation between all road users and pedestrians and cyclists do not cross the road through the same crossing, which improves safety for all users.	

6.3.4.2 Detailed Option Assessment

Similar to Junction 2, the Junction 3 emerging preferred option is Option 2, a protected priority junction. This option also scores better in terms of costs, construction, coherence and continuity, integration and traffic. This option would reduce the exaggerated radii at the junction in order to improve safety for all users by means of reducing vehicular speeds and providing dedicated crossing points in accordance with the CDM and DMURS. Full details of the MCA analysis are displayed in Appendix D and summarised in Table 6-19.

Table 6-19 – Junction 3 MCA Analysis

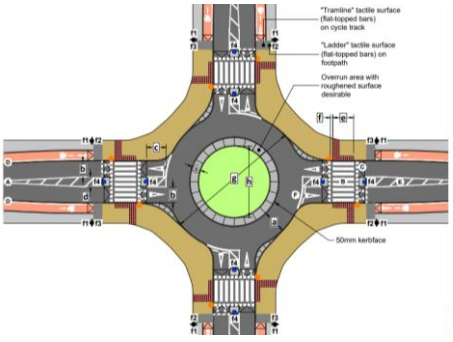
Criteria	Indicator	Option 1	Option 2	Option 3
Transport User benefits and Other Economic Impacts	Land acquisition area			
	Construction and maintenance			
	Rapid build achievability and construction impacts			
Accessibility Impacts	Consistency, continuity and directness along the route and through junctions and the maintenance of cyclists' progression			
	Provision of comfort for pedestrians and cyclists through assessment of width and its attractiveness			
Social Impacts	Qualitative assessment of accessibility of the options to serve users of all ages and abilities			
	How the proposal may have gender specific impacts			
Land Use Impact	How the proposal integrates with the Land use, the objectives from development plan and NIFTI			
	Impact on green areas			
Safety Impact	Segregation between cyclists and vehicles			
	Segregation between cyclists and pedestrians			
	Safety for all users regarding traffic volumes and speeds along route			
	Impact on traffic capacity due to the proposals			
Local Environmental Impact	Air Quality Impact			
	Potential Sensitive receptors			
	Bedrock and overburden, Alluvium Soils, Karst Features, Landslide susceptibility, Contaminated lands, Geological heritage areas			
	Impact on Biodiversity			
	Groundwater Quality, Groundwater resources / Levels, Surface water quality and flows			
	Landscape and visual assessment			
	Impact at national monuments, NIAH features and ACA			
EMERGING PREFERED OPTION		**NO**	**YES**	**NO**

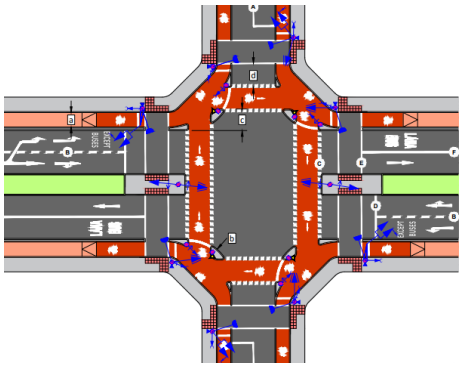
6.3.5 Junction 04: Ballinderry Road Roundabout

6.3.5.1 Option Identification

The option considered for Junction 4 are displayed in Table 6-20. This junction is located along Segment 07.

Table 6-20 - Junction 4 Options

Option Description	Reference
Option 1: Do Nothing The Option 1, Do Nothing, would retain the existing 4-arm roundabout with no dedicated space for cyclists. Cyclists would be forced into the roadway with motorised vehicles, which is not in line with the CDM Table 2.1 – Cycle Facilities Section Guide. The existing arrangement also do not provide crossing points for pedestrians.	
Option 2: Rapid Build Roundabout Upgrade The roundabout provides wide circulatory lane and entry lanes, which facilitates excessive speeds and reduce safety for all road users. Based on the rapid build guidance for roundabouts, this option would provide a “Level 1 Rapid build interim measures” improvement. This option would reduce the entry lanes and the circulatory lane to a minimum, implement raised crossings on all arms, and improve the active travel facilities at the roundabout. This option would not be the preferred option for the roundabout as it is a temporary measure, however, it is being assessed as it can be used to determine how all road users would approach the new junction layout prior to a full junction reconstruction.	
Option 3: Upgrade Existing Roundabout to Segregated Roundabout with Shared Active Travel Facilities Option 3 proposes to upgrade the existing roundabout into a segregated roundabout with shared active travel facilities, based on the Cycle Design Manual and the constrained width available at the junction.	

Option Description	Reference
Option 4: Replace Roundabout to a Protected Signalised Junction Option 4 would replace the existing roundabout into a protected signalised junction according to the CDM guidelines. All movements at the junction would be signal-controlled, therefore, safety would be improved to all users. This option connects to Option 2 Traffic Shuttle System for the Railway Bridge.	

6.3.5.2 Detailed Option Assessment

The final junction of Project 3, the Ballinderry Road roundabout, has Option 2 as the emerging preferred option, i.e. the upgrade of the existing roundabout into a protected roundabout using rapid build measures. This option provides advantages compared to other options as it is cheaper and quicker to build and would minimise affects to traffic capacity, as well scoring well regarding integration, coherence and directness. This option would provide dedicated crossing points on all arms of the junction and would provide good continuity of the active travel facilities along Segment 07. Full details of the MCA analysis are displayed in Appendix D and summarised in

Table 6-21.

Table 6-21 – Junction 4 MCA Analysis

Criteria	Indicator	Option 1	Option 2	Option 3	Option 4
Transport User benefits and Other Economic Impacts	Land acquisition area				
	Construction and maintenance				
	Rapid build achievability and construction impacts				
Accessibility Impacts	Consistency, continuity and directness along the route and through junctions and the maintenance of cyclists' progression				
	Provision of comfort for pedestrians and cyclists through assessment of width and its attractiveness				
Social Impacts	Qualitative assessment of accessibility of the options to serve users of all ages and abilities				
	How the proposal may have gender specific impacts				
Land Use Impact	How the proposal integrates with the Land use, the objectives from development plan and NIFTI				
	Impact on green areas				

Criteria	Indicator	Option 1	Option 2	Option 3	Option 4
Safety Impact	Segregation between cyclists and vehicles				
	Segregation between cyclists and pedestrians				
	Safety for all users regarding traffic volumes and speeds along route				
	Impact on traffic capacity due to the proposals				
Local Environmental Impact	Air Quality Impact				
	Potential Sensitive receptors				
	Bedrock and overburden, Alluvium Soils, Karst Features, Landslide susceptibility, Contaminated lands, Geological heritage areas				
	Impact on Biodiversity				
	Groundwater Quality, Groundwater resources / Levels, Surface water quality and flows				
	Landscape and visual assessment				
	Impact at national monuments, NIAH features and ACA				
EMERGING PREFERED OPTION		**NO**	**YES**	**NO**	**NO**

7. Summary of Emerging Preferred Options and Appraisal

7.1 Summary of Emerging Preferred Options

Following the Detailed Option Assessment process and taking cognisance of the key objectives of the project, the proposed Emerging Preferred Options for Project 1 of the Mullingar Active Travel Bundle are shown in Table 7-1. The Emerging Preferred Options drawings for all segments, junctions and pinch points are included in Appendix E.

Table 7-1 – Project 1 Preferred Option

Location	Proposal
Segment 01 and Segment 02	Continuation of the pedestrian interventions in place on the north end of Mount Street and a mixed traffic for cyclists and vehicles. Footpaths to be widened on both sides of the road in both segment and roads to be reduced to 3.5m wide. Option to be further assessed at Phase 3 Preliminary Design by a landscape architect.
Segment 03	2.3m two-way cycle track on the eastern side 1.8m footpaths on the western side 2.3m on the eastern side 6.0m carriageway
Segment 04	2.3m Two-way cycle track on the north side from junction with Lynn Road until access to park Off-road facilities through the park Mixed street along Auburn Road.
Segment 05	2.3m two-way Cycle Track on the West Side 2.2m footpaths on both sides of the road 6.0m carriageway
Segment 06	3.5m two-way cycle track on the West side 2.0m footpaths on both sides of the road 6.0m carriageway
Segment 07	4.8m shared Active Travel Path on the South Side No footpath on the north side 6.0m carriageway
Pinch Point under Railway Bridge	Implementation of a Traffic Shuttle System
Junction 1: Mount Street / Jail Hill Roundabout	Upgrade to a Standard Side Road Crossing according to the Cycle Design Manual.
Junction 2: Jail Hill /Lynn Road / Sunday's Well Priority Junction	Upgrade to a Protected Priority Junction according to the Cycle Design Manual.
Junction 3: Auburn Road / Millmount Road Priority Junction	Upgrade to a Protected Priority Junction according to the Cycle Design Manual.

Location	Proposal
Junction 4: Ballinderry Road Roundabout	Rapid Build Roundabout Upgrade as per the NTA Roundabout Retrofit – Including Rapid Build Options guidance
Parking bays affected	Approximately 30 parking bays would have to be removed (20 in Segment 05 and 10 in Segment 06).
Land acquisition required	No land acquisition required.
Public transport links	Improvement to all bus stops located along the corridor to be in accordance with the Cycle Design Manual guidelines.

7.2 Feasibility Working Costs

Details of the Feasibility Cost Estimates for the emerging preferred option for all segments, junctions and pinch points are included in Appendix F. The Option Comparison Costs for all options considered are also included in Appendix F. These have been undertaken in line with the NTA Cost Management Guidelines. Contingencies have been added in accordance with the NTA Contingency Calculator (also included within Appendix F).

7.3 Statutory Process

The Mullingar Active Travel Bundle is divided into four projects. Each project will go through a Part VIII planning process which will be in accordance with the Planning and Development Regulations.

7.4 Indicative Procurement Strategy

The procurement strategy for this Project is subject to change at this Phase, however it is envisaged that a Contractor shall be appointed from either a pre-existing Framework or appointed via a two-stage process in line with the Capital Works Management Framework. The form of Contract is envisaged at this Phase to be *PW-CF5 – Contract for Minor Building & Civil Engineering Works* designed by the Employer.

Details on the Procurement Strategy shall be reviewed and updated as the project progresses.

7.5 Conclusions and Recommendations

Considering all of the criteria set out in the Transport Appraisal Framework, including Transport User and Economic Benefits, Safety, Accessibility, Social Impacts, Land Use and Local Environmental Impacts, the proposed Mullingar Active Travel Bundle Project 3, that extends along the lower section of Mount Street, Mount Street Gardens, Jail Hill, the upper section of Lynn Road, Sunday's Well Road and Auburn Road, Millmount Road and Ballinderry Road, is an important project for Mullingar and County Westmeath, and fully aligns with national, regional and local policies, as outlined in Chapter 2 of this report.

It is recommended that the Emerging Preferred Options as outlined in Section 6.2 for the link types and Section 6.3 for the pinch point and junctions are progressed to Phase 3 Preliminary Design. These options are considered to best align with the objectives as set out in Section 1.3, when assessed as part of the multi-criteria analysis. The options proposed will improve safety for all road users by providing facilities which will be designed in accordance with current design standards and best practice. They will provide quality infrastructure for all active travel users including those with mobility or visual impairments.

The project will provide increased opportunity for residents, school goers and leisure cyclists/walkers of Mullingar town to choose active modes of travel, as well as provide a more accessible connection to the town centre and several locations along the corridor, e.g., Town Park, WCC County Buildings, Library, Arts Centre, Mullingar Community College, Mullingar Court House, among others. The project intends to encourage modal shift from the private vehicle to healthier and more sustainable modes of travel, such as walking and cycling; and will also improve permeability to the existing public transport facilitates.

APPENDICES

Appendix A. Environmental Constraints Study

AtkinsRéalis

Environmental Constraints Report

Westmeath County Council

October 2024

0086409DG0025

MULLINGAR ACTIVE TRAVEL BUNDLE

Notice

This document and its contents have been prepared and are intended solely as information for Westmeath County Council and use in relation to the Mullingar Active Travel Bundle.

WS Atkins Ireland Limited assumes no responsibility to any other party in respect of or arising out of or in connection with this document and/or its contents.

This document has 34 pages including the cover.

Document history

Document title: Environmental Constraints Report

Document reference: 0086409DG0025

Revision	Purpose description	Originated	Checked	Reviewed	Authorised	Date
Rev 0	Draft for client comment	OW	OW/AMC	DE		29/05/24
Rev 1	Final	OW	OW/AMC	DE	SW	12/09/24
Rev 2	Addressing WCC Comments	TC	TC	AMC	SW	11/10/24

Client signoff

Client	Westmeath County Council
Project	MULLINGAR ACTIVE TRAVEL BUNDLE
Job number	0086409
Client signature/date	

Contents

1. Introduction 5

1.1 Background to the Active Travel Bundle 5

1.2 Purpose of this Report 6

1.3 Report Format 6

1.4 Methodology 6

1.5 Limitations 7

2. Existing Environment 8

2.1 Topography 8

2.2 Land, Soils and Geology 8

2.2.1 Land Use 8

2.2.2 Teagasc Soils 9

2.2.3 Quaternary Sediments 10

2.2.4 Bedrock Geology 11

2.2.5 Geological Heritage Areas 12

2.2.6 Landslide Susceptibility 12

2.3 Water 13

2.3.1 Hydrology 13

2.3.2 Hydrogeology 15

2.4 Biodiversity 16

2.4.1 Ecology 16

2.4.2 Ecological Site Setting 17

2.4.3 Internationally Designated Conservation Sites - European sites 17

2.4.4 Annex I Habitats 20

2.4.5 Sites of National Conservation Value – Natural Heritage Areas (NHAs) and proposed Natural Heritage Areas (pNHAs) 21

2.4.6 Other Ecological Receptors 23

2.4.7 Identification of Ecological Constraints 28

2.5 Archaeology and Cultural Heritage 28

2.6 EPA Licenced Facilities 29

2.7 Radon Levels 30

2.8 Landscape and Visual 31

2.8.1 Views and Prospects 31

2.8.2 Tree Preservation Orders 31

2.9 Noise and Vibration 32

2.10 Air Quality 32

3. Summary / Recommendations 33

Tables

Table 2-1- Internationally Designed Conservation Sites and their connectivity to study area-1 - 1 17

Table 2-2 - NHAs and pNHAs within 15km of the Study Area 22

Table 2-3 - Wetlands within 5km of the study area 24

Table 2-4 - NSNW and Ancient Woodlands 26

Table 2-5 – Species identified in the wider landscape of Mullingar town within the past 10 years. 27

Table 2-6 - List of Structures Protected under the Record of Protected Structures in Mullingar 29

Figures

Figure 1-1 - Mullingar Active Travel Bundle Routes 5

Figure 2-1 - Land Use Zonings within the vicinity (WCC, 2014) 9

Figure 2-2 - **Teagasc Soils within the vicinity of both route options (GSI, 2024)** [2] 10

Figure 2-3 - **Quaternary Sediments within the vicinity of both route options (GSI, 2024)[2]** 11

Figure 2-4 - Bedrock Geology within the vicinity (GSI, 2024)[2] 12

Figure 2-5 – OPW flooding extents – present day (OPW, 2024). 14

Figure 2-6 – Groundwater Vulnerability within the vicinity of both routes (GSI, 2024)[2] 16

Figure 2-7 – Designated Sites - SACs within the vicinity of both route options 19

Figure 2-8 – Designated Sites - SPAs within the vicinity of both route options 20

Figure 2-9 – pNHAs and NHAs within 15km of study area 23

Figure 2-10 – Licenced Facilities within the vicinity of both routes (EPA, 2024)[3] 30

Figure 2-11 – Radon Levels in the vicinity of the proposed development (EPA, 2024)[3] 31

1. Introduction

1.1 Background to the Active Travel Bundle

Westmeath County Council (The Client/WCC) as the Contracting Authority and National Transport Authority (NTA), appointed AtkinsRéalis (the Consultant) to provide Engineering-led Multi-disciplinary Consultancy and Design services for the concept development and option selection, preliminary design and statutory processes of active travel provisions and associated works on the Mullingar Active Travel Bundle.

The Scheme is in Mullingar Town, County Westmeath. The scheme's extents and routes are highlighted in Figure 1-1. Figure 1-1, outlines 4 separate projects that were examined; Projects 3 and 4 are the subject of this Constraints Report.

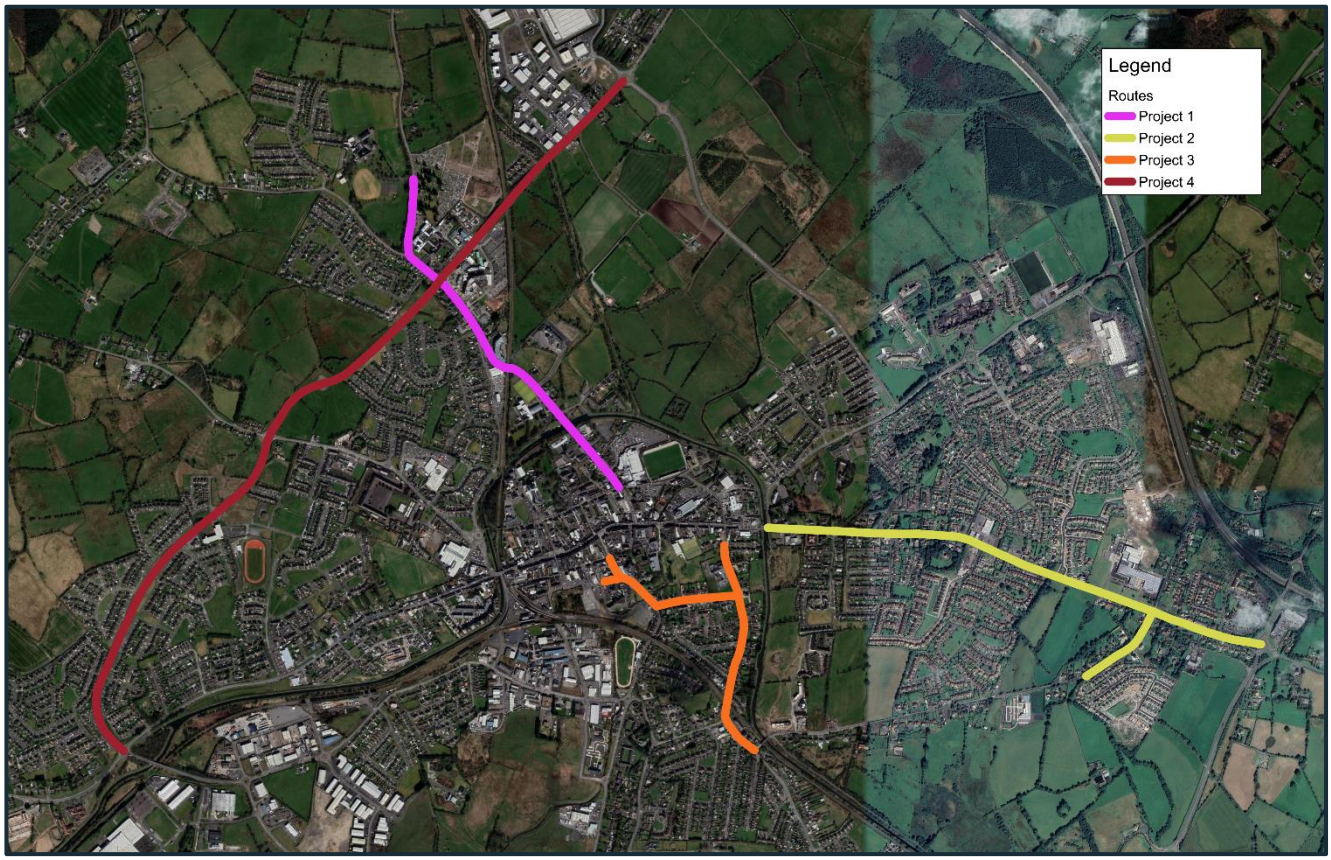


Figure 1-1 - Mullingar Active Travel Bundle Routes

The overall project includes six different areas within Mullingar town which will be divided into four different projects, as outlined below (refer to Figure 1-1):

- Project 1: WH/21/0004 St. Finian's to Harbour Street Footpath and Cycleway.
- Project 2: WH/21/0005 and WH/21/0008 Dublin Road Footpath and Cycleway and National Science Park Junction Improvements.
- Project 3: WH/21/0006 and WH/21/0009 Sundays Well Road - Lynn Road/Auburn Road - Millmount Junction Improvements and Mount Street Lower Pedestrian Interventions.
- Project 4: WH/21/0007 Grange South to Orbital C-Link Segregated Cycling Scheme.

As previously mentioned, this environmental constraints report is being prepared for Projects 3 and 4 only.

Project 3 is located along the lower section of Mount Street until Jail Hill, Mount Street Gardens, the upper section of Lynn Road, Sundays Well Road, Auburn Road, Millmount Road from the junction with Millmount Avenue to the lower end and Ballinderry Road until the roundabout with Ardmore Road at Saunder's Bridge. The total length of Project 3 is just over 1.5km. The section along Mount Street is to provide a continuation of the existing pedestrian enhancement facilities located at the upper section of the road while the remainder of the scheme aims to provide new high-quality pedestrian and cyclist provision along the route.

Project 4 which comprises the route from Grange South to the Orbital C-Link, approximately 3.5km in length will allow for greater active travel connectivity particularly to the Lough Sheever Business Park, Midlands Regional Hospital, Mullingar Educate Together National School and a significant amount of existing and proposed housing developments. Project 4 is proposed to connect with Project 1 at the Irishtown Roundabout, this connection will allow for an even greater level of active travel connectivity to and from Mullingar Town Centre.

1.2 Purpose of this Report

This report is being prepared to accompany the Feasibility and Options Selection Report for the proposed Mullingar Active Travel Bundle. The purpose of this report is to determine the identified environmental constraints within the site boundary and vicinity of Projects 3 and 4 and to set out any further studies / investigations which may be required as the scheme progresses.

1.3 Report Format

This Environmental Constraints Report identifies the key environmental constraints within the study area and its vicinity, as follows:

- Topography;
- Land, Soils and Geology;
- Hydrology and Hydrogeology (including Flood Risk);
- Biodiversity;
- Archaeology, Architecture and Cultural Heritage;
- Air and Climate;
- Noise and Vibration;
- Licenced Facilities;
- Radon; and,
- Landscape & Visual.

1.4 Methodology

A desk-top based review was conducted of all available information to identify key environmental constraints particularly sites protected by European and National legislations, plans and policies. The following data sources were consulted:

- Westmeath County Development Plan (2021-2027);
- Mullingar Local Area Plan 2014-2020 (extended);
- Mullingar Local Area Plan 2024-2030 – Pre-Draft Public Consultation Strategic Issues Papers;
- Environmental Protection Agency (EPA) Map Viewer (https://gis.epa.ie/EPAMaps/);
- Geological Survey Ireland Spatial Resources (GSI), https://www.gsi.ie/en-ie/data-andmaps/Pages/default.aspx

- Review of the Strategic Flood Risk Assessment (SFRA) prepared for the County Development Plan (2021-2027);
- National Biodiversity Data Centre Biodiversity Maps (https://maps.biodiversityireland.ie/Map);
- National Parks and Wildlife Service (NPWS) MapViewer (http://webgis.npws.ie/npwsviewer/);
- Office of Public Works (OPW) Flood Maps Viewer (http://www.floodinfo.ie/map/floodmaps/).
- Central Statistics Office, Census 2022; and,
- AtkinsRéalis (2024) Feasibility, Option Selection and Appraisal Report.

1.5 Limitations

This environmental constraints assessment has been prepared based on a review of all current available desk-based information relevant to the site. No specialist environmental or ecological studies have been carried out at this preliminary juncture. All desk-based sources are reliable. Nevertheless, the authenticity and reliability of information gathered from desk-based sources cannot be guaranteed. This site assessment is based on the site setting and land use at the time of writing. The study was conducted for, and this report prepared for, use solely by WCC. Thereafter, this report shall not be relied upon, or transferred to any other parties without the express written consent of AtkinsRéalis. If an unauthorised third party comes into possession of this report, they rely on its contents at their own risk.

2. Existing Environment

2.1 Topography

The general topography of the study area consists of urban streets bounded with properties and greenspace on either side.

The lands made available for the works have been identified within the existing street reserve boundaries and adjacent road verges.

Based on a review of OSI mapping, the constraints study areas for both routes appear to be generally flat in nature. Levels of ca. 87 - 102mAOD are reported along Projects 3 and 4.

2.2 Land, Soils and Geology

2.2.1 Land Use

The study area comprises the existing road network and / or associated footpaths / grassed verges within an urban setting.

As identified within the Mullingar Local Area Plan 2014 – 2020 (extended), land use zonings within the vicinity of Project 3 are as follows:

- Education, Community & Institutional.
- Existing Residential.
- Mixed Use.
- Open Space.

Similarly, land use zonings within the vicinity of Project 4 are as follows:

- Education, Community & Institutional.
- Existing Residential.
- Commercial.
- Mixed Use.
- Canals and Water Courses.
- General Urban District.
- Open Space.
- Innovation Technology.
- Proposed Residential.
- Enterprise and Employment.
- Mixed Urban Core.

Refer to Figure 2-1 below for details.

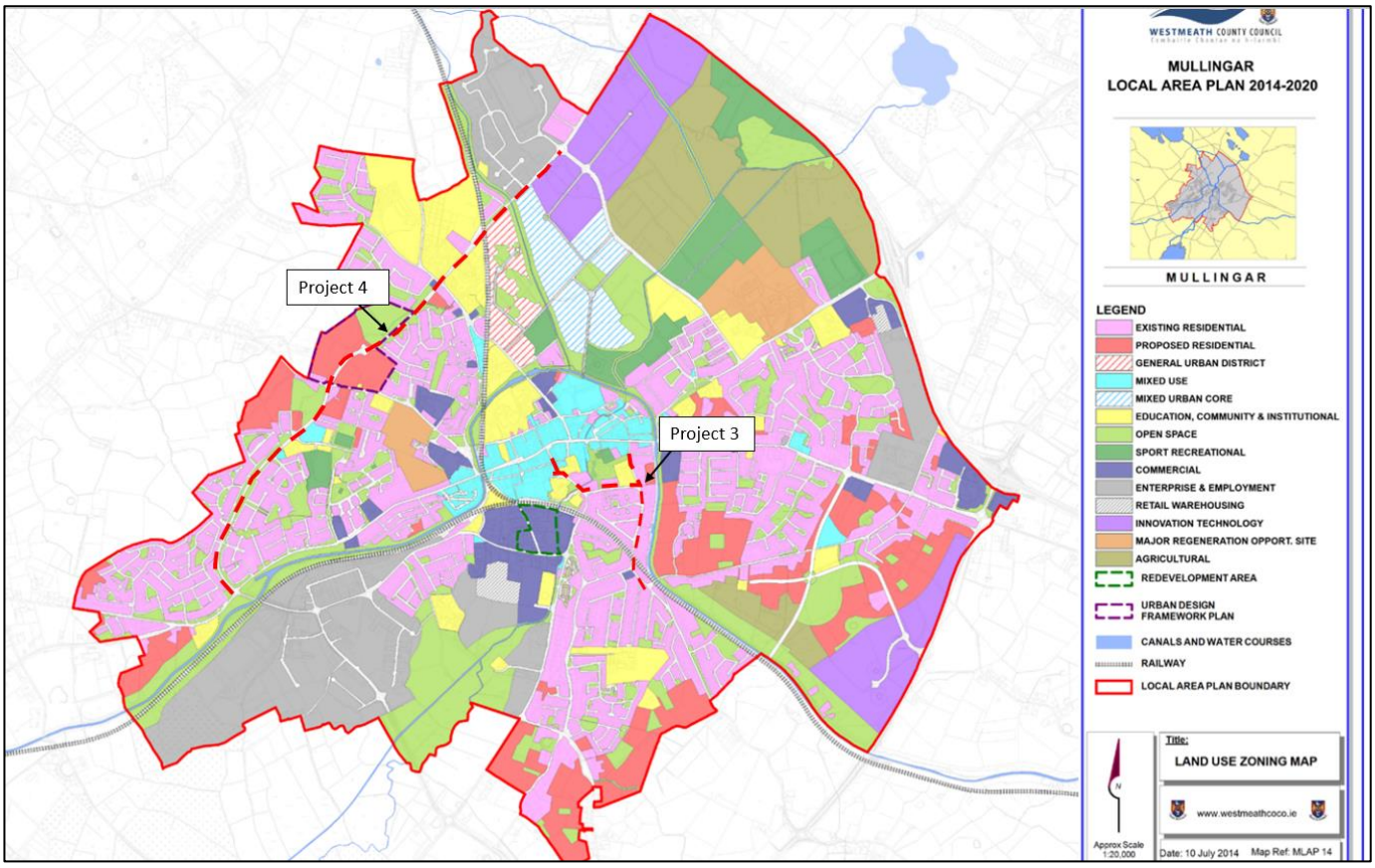


Figure 2-1 - Land Use Zonings within the vicinity (WCC, 2014)[1]

2.2.2 Teagasc Soils

According to GSI (2024)[2] the soil type in the vicinity of Project 3 is predominantly 'made ground' and the soil type in the vicinity of Project 4 is predominantly made up of 'Till derived chiefly from limestone; Grey Brown Podzolics, Brown Earths' with minor portions of 'Lake sediments', 'Till derived chiefly from limestone'; 'Surface water Gleys', 'Ground water Gleys' and 'made ground' soils as shown in Figure 2-2.

[1] Mullingar Local Area Plan 2014-2020 (extended).
https://www.westmeathcoco.ie/en/media/MLAP%20Volume%201%20Written%20Statement.pdf

[2] Geological Survey Ireland. https://www.gsi.ie/en-ie/data-and-maps/Pages/default.aspx

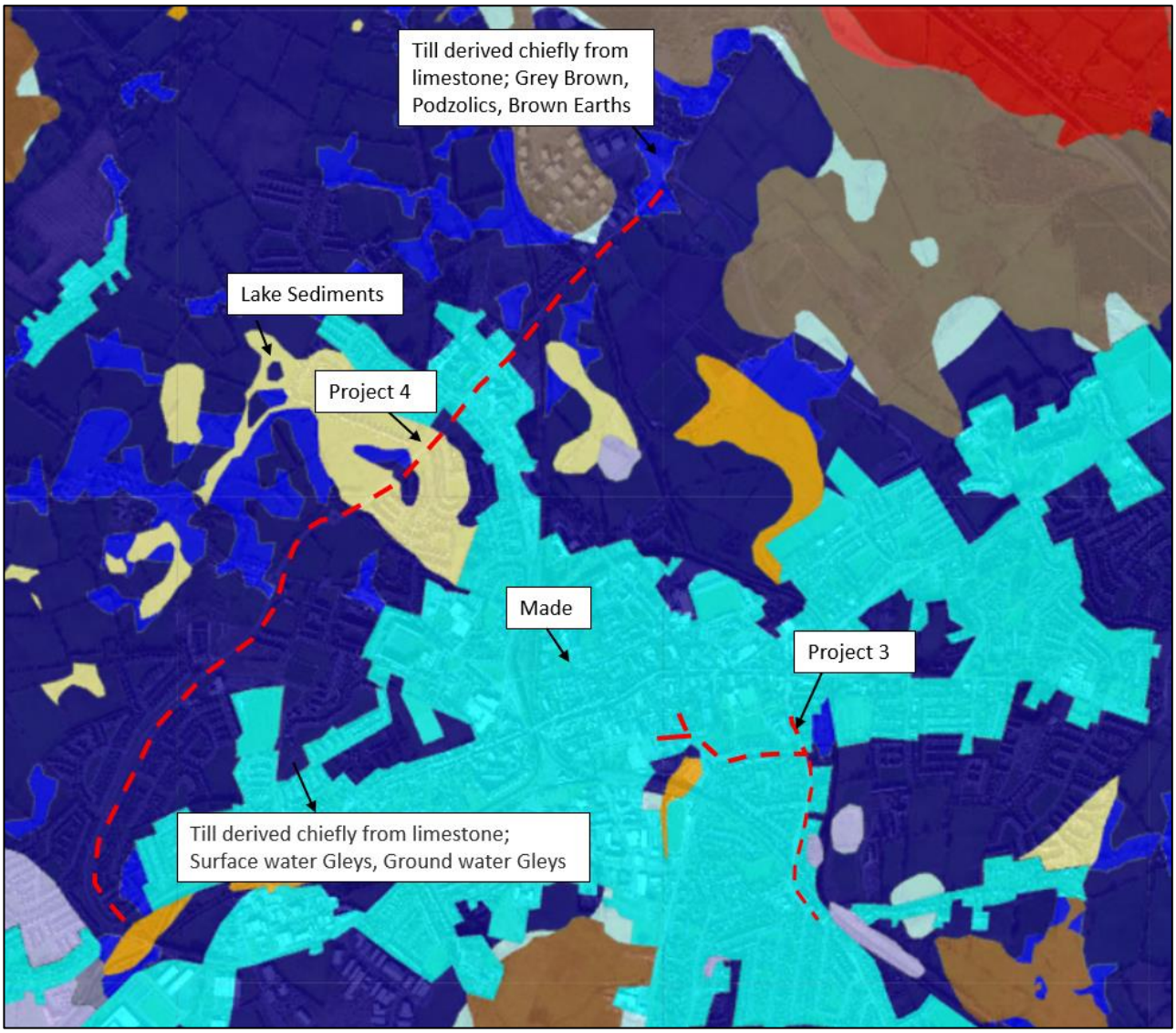


Figure 2-2 - **Teagasc Soils within the vicinity of both route options (GSI, 2024)** [2]

2.2.3 Quaternary Sediments

A review of GSI (2024)[2] indicates that the quaternary sediments underlaying Project 3 is predominantly classified as 'Urban' sediments and the quaternary sediments underlaying Project 4 are predominantly classified as 'Till derived from limestones', with minor portions of 'Urban' sediments and 'Lacustrine sediments' (refer to Figure 2-3).

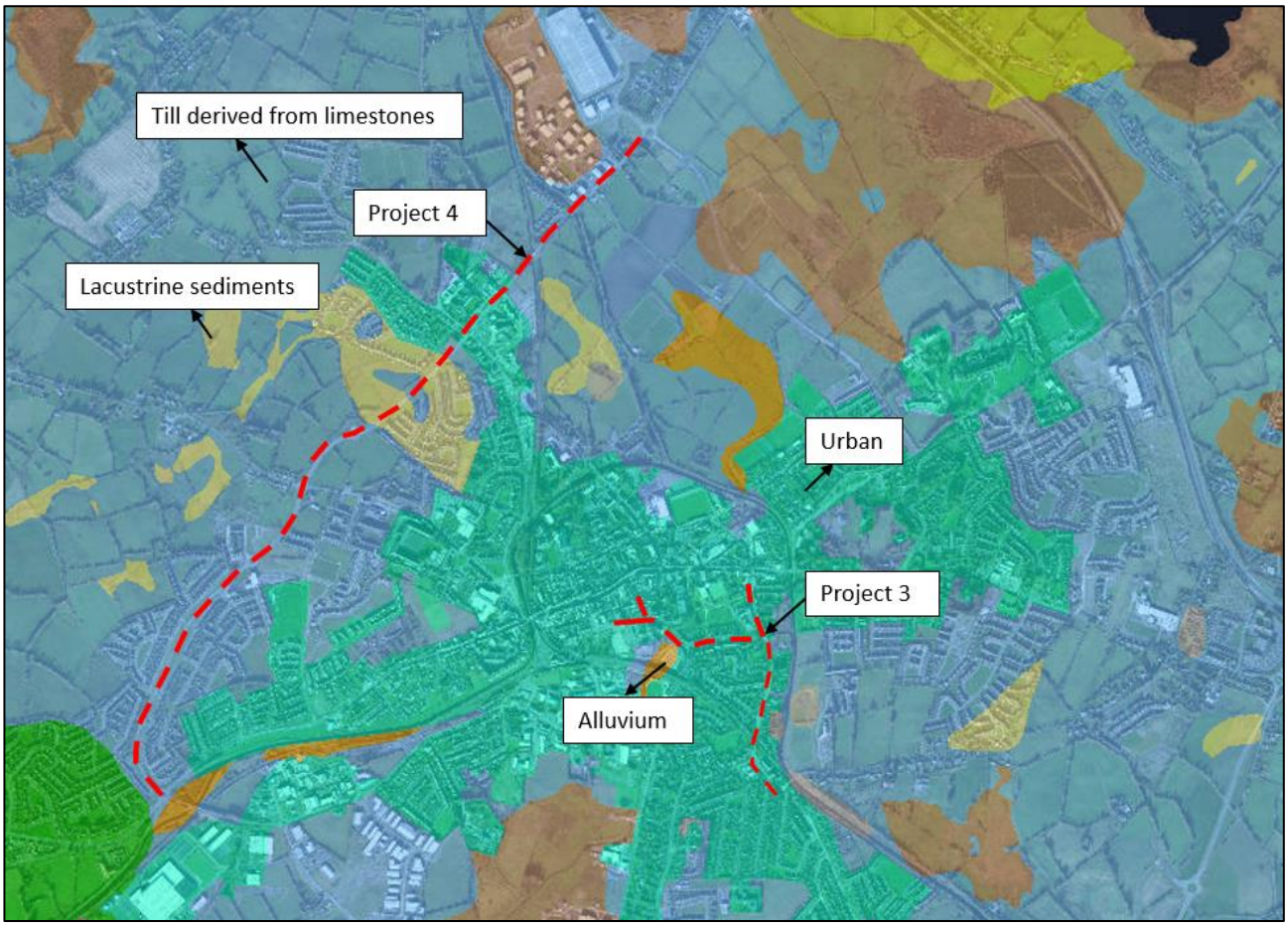


Figure 2-3 - **Quaternary Sediments within the vicinity of both route options (GSI, 2024)[2]**

2.2.4 Bedrock Geology

GSI (2024)[2] indicates that the Bedrock Geology within the vicinity of Projects 3 and 4 comprise 'Dark limestone & shale' of the Lucan Formation as shown in Figure 2-4.

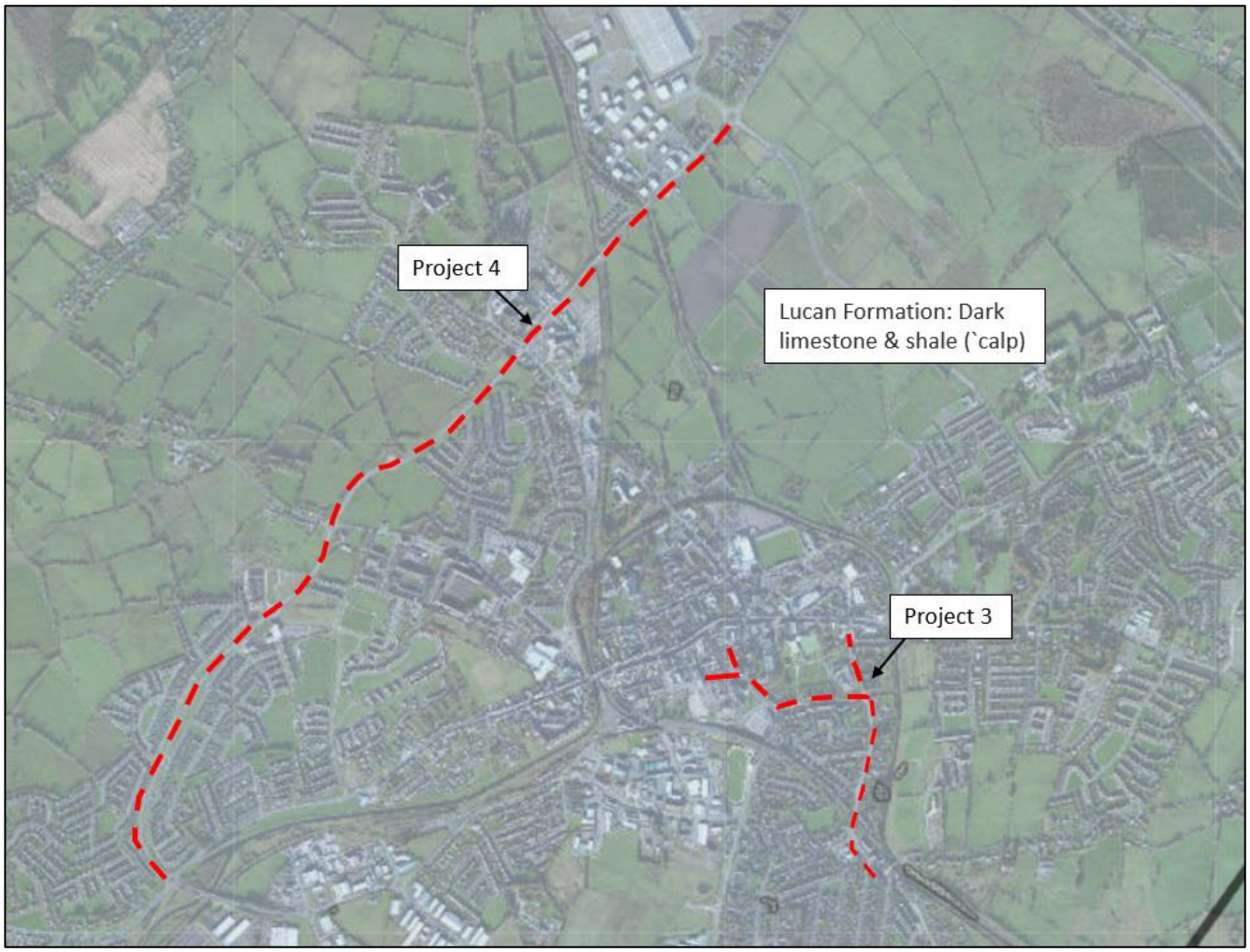


Figure 2-4 - Bedrock Geology within the vicinity (GSI, 2024)[2]

2.2.5 Geological Heritage Areas

A review of GSI (2024)[2] indicates that there are 2no. Geological Heritage Areas (GHA) within 5km of both schemes; Mullingar Bypass, described by GSI (2024)[2] as 'A roadcut section along the N4 road north of Mullingar, exposing limestone strata', is located ca.1.6km north of Project 4 and Portnashangan Quarry, described by GSI (2024)[2] as a 'Site comprising a disused, roadside quarry' is located ca. 4.67km north of Project 4.

2.2.6 Landslide Susceptibility

A review of GSI (2024)[2] indicates that landslide susceptibility within the vicinity of both routes is 'Low', 'Low inferred' and 'Made' land. There have been no landslide events reported by GSI (2024)[2] within Mullingar. Therefore, no issues are identified with regards to landslide potential.

2.3 Water

2.3.1 Hydrology

2.3.1.1 Surface Water Features

EPA (2024)[3] has identified 3no. rivers and 1no. Canal within the vicinity of both routes, as follows:

- Project 3 crosses the River Brosna via. an existing road - Lynn Road.
- Project 4 crosses the Farranistick Stream along the Castlepollard Road.
- The River Brosna runs ca. 891m from Project 4.
- The Farranistick runs ca. 1.7km from Project 3 and is crossed by Project 4 at the Castlepollard Road.
- The Sarsantown River is located ca. 365m from Project 4 and ca. 2.06km from Project 3.

The Water Framework Directive (WFD) status of each EPA reported watercourse is as follows:

- The Farranistick is 'Good' status for the 2016-2021 monitoring period. The risk assessment for the River Farranistick to see if it will meet the 2027 WFD Objectives is under review.
- The River Brosna is 'Poor' status for the 2016-2021 monitoring period, with the River Brosna being 'At risk' of failing to achieve relevant WFD objectives by 2027,
- The Canal is not an EPA watercourse, and therefore status or risk is not relevant to it.

The study area is located within the Lower Shannon catchment (Catchment ID: 25A) and the Brosna sub catchment (Subcatchment ID 25A_10).

2.3.1.2 Flooding

2.3.1.2.1 CFRAM Predictive Flood Maps

The OPW fluvial CFRAM predictive flood map of the study area for both projects was consulted. Areas predicted to be inundated during various theoretical or 'design' flood events with an estimated probability of occurrence (i.e. low, medium, high) for present day scenario are shown (see Figure 2-5). Neither Project Route is located within any inundated areas. However, the OPW flood maps indicates that benefitting lands are present around Mullingar hospital in the land surrounding Project 4.

The Strategic Flood Risk Assessment prepared by Westmeath County Council as part of the Westmeath County Development Plan 2021-2027[4] was consulted and showed 1% Annual Exceedance Probability (AEP) Fluvial and 0.1% AEP Fluvial predicted flooding along Project 3 (Mount Street). Pluvial Extreme and Pluvial Indicative areas were also identified across Project 4.

[3] EPA Maps. https://gis.epa.ie/EPAMaps/

[4] https://www.westmeathcoco.ie/en/ourservices/planning/developmentplans/countydevelopmentplan2021-2027/

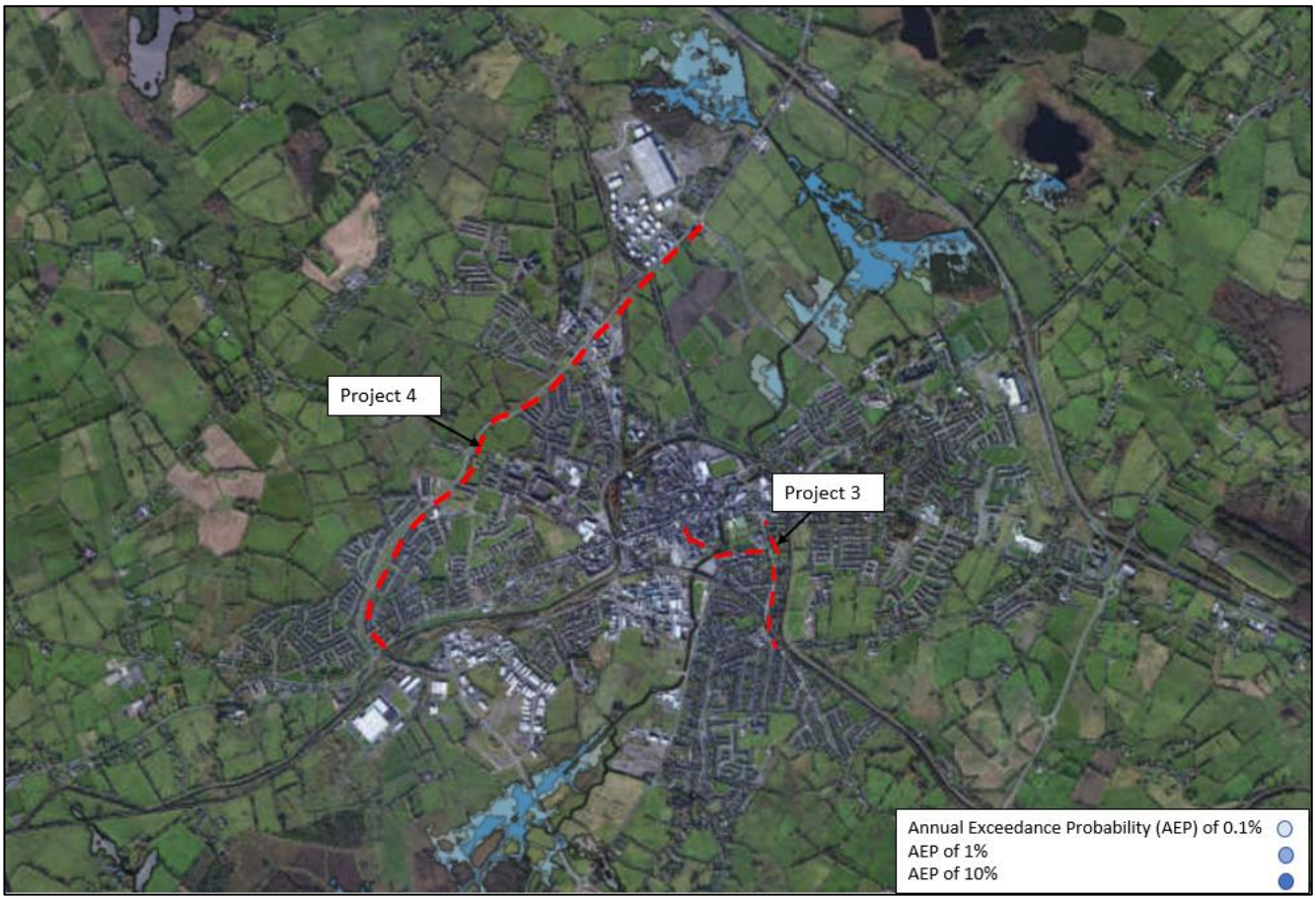


Figure 2-5 – OPW flooding extents – present day (OPW, 2024)[5].

2.3.1.2.2 Historic Flooding

OPW has reported 3no. recurrent flooding events within the vicinity of the proposed schemes, as follows:

- 1no. event along Pearse St / Austin Friars St to the west of the Canal (which is known as Brosna Pearse Street, Mullingar in the 2005 OPW Report)[6]. This recurring flood event is reported as 'Low lying floods every year after heavy rainfall. Inadequate drainage system – road culverts requiring maintenance'' (OPW, 2024)[5]. This recurring event is located ca. 259m from Project 3 and ca. 1.28km from Project 4.
- 1no. event along the Royal Canal Way south of the Canal (which is known as Springfield Canal Aqueduct, Mullingar in the OPW 2005 report)[7]. It is reported that 'The River Brosna overflows its banks upstream of the canal aqueduct every year after heavy rain.' (OPW, 2024). This recurring event is located ca. 476m from Project 3 and ca. 1.25km from Project 4.
- 1no. event along Jail Hill south of the Canal (which is known as Brosna Gaol Hill, Mullingar Recurring in the OPW report). It is reported that 'The River Brosna overflows its banks upstream of the road culvert every

[5] https://www.floodinfo.ie/map/floodmaps/

6 https://static-floodinfo.s3-eu-west-1.amazonaws.com/media/reports/F310%20Data%20Collection/035%20Westmeath%20County%20Council/004%20Minutes%20Verbal%20Report/wmh_mm_ab_0000002147.pdf

[7] https://static-floodinfo.s3-eu-west-1.amazonaws.com/media/reports/F310%20Data%20Collection/035%20Westmeath%20County%20Council/004%20Minutes%20Verbal%20Report/wmh_mm_ab_0000002147.pdf

year after heavy rain' (OPW, 2024)[5]. This recurring event is located on Jail Hill segment 3 of Project 3 and ca. 1.65km from Project 4.

2.3.2 Hydrogeology

2.3.2.1 Karst Features

There are no reported karst features within Mullingar (GSI, 2024)[2] with the closest karst feature; a Spring (GSI ID: 2325SEK006) which is reported to within a 20m locational accuracy, located ca. 2.5km southeast of Project 3.

2.3.2.2 Wells and Springs

There are no GSI reported wells or springs within Mullingar (GSI, 2024)[2]. The closest well (GSI ID: 2325SWW007) which is reported to within a 1km locational accuracy is located ca. 1.5km northwest of Project 4.

2.3.2.3 Drinking Water Protection Areas

There are no Ground Water Drinking Water Source Protection Areas within 5km of either scheme (GSI, 2024)[2]. There are no Group Water Schemes located within 10km of either scheme.

2.3.2.4 Aquifers

GSI (2024)[2] indicates that Mullingar, including the study areas for both Projects 3 and 4 is underlain by a locally important aquifer – bedrock which is moderately productive only in local zones.

2.3.2.5 Groundwater Vulnerability

GSI (2024)[2] has classified the groundwater vulnerability beneath Project 3 as 'High' and 'Moderate' with portions at the southern end of the project route classified as 'Extreme' and Project 4 being classified predominantly as having 'High' vulnerability with a small portion at the northeastern end classified as 'Moderate' vulnerability. All these groundwater vulnerability classifications indicate that groundwater is potentially shallow and vulnerable to contamination. Refer to Figure 2-6.

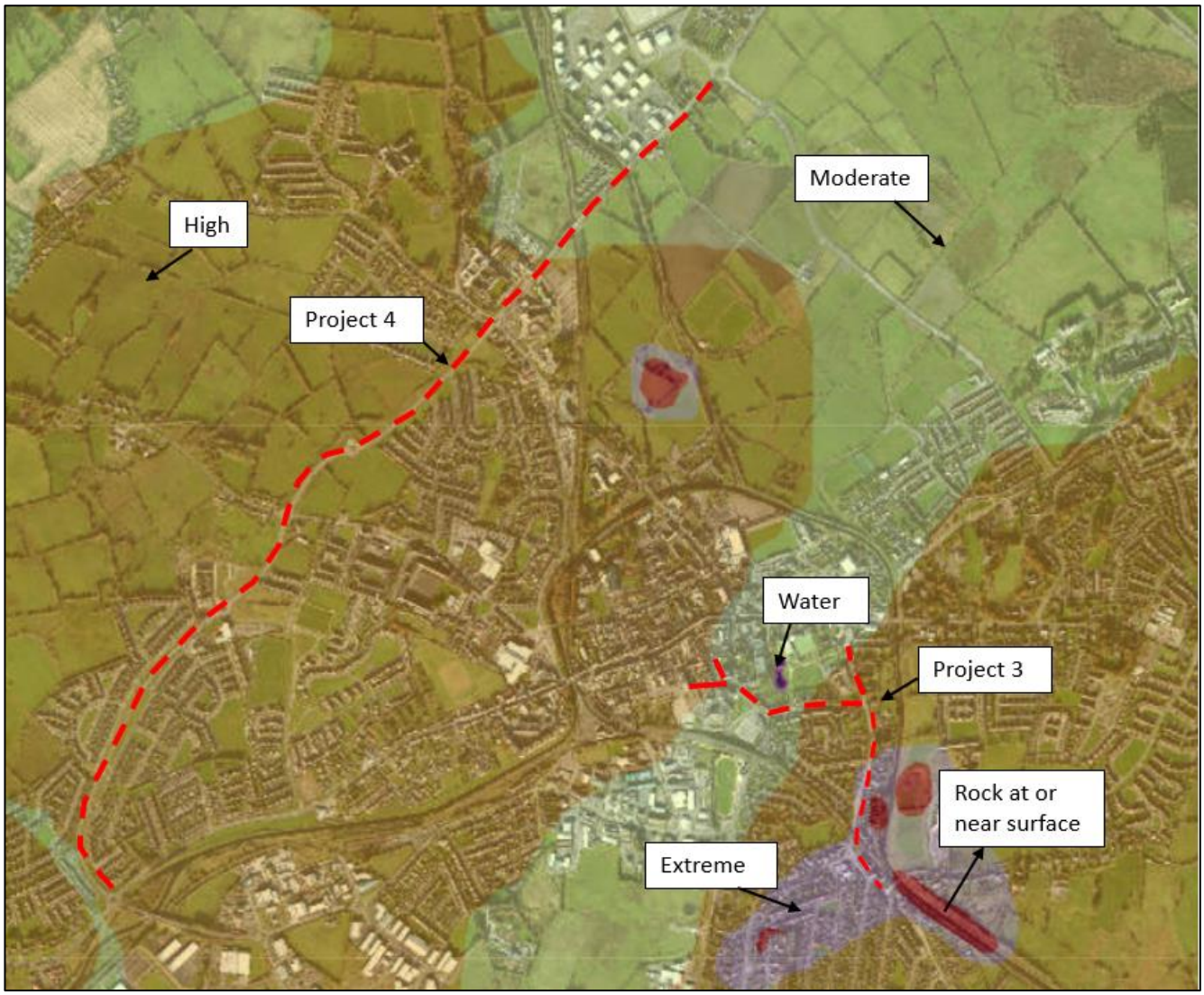


Figure 2-6 – Groundwater Vulnerability within the vicinity of both routes (GSI, 2024)[2]

2.3.2.6 Groundwater Quality

As indicated on EPA (2024)[3] there are 2no. ground waterbodies (GWB) within the study areas of Project 3 and 4 as follows:

- Project 3 is within Inny GWB;
- Project 4 is within Inny and Clara GWB.

Both GWBs are reported by EPA (2024)[3] as having 'Good' WFD status for the 2016-2021 monitoring period and are 'Not at Risk' of failing to achieve relevant WFD objectives by 2027.

2.4 Biodiversity

2.4.1 Ecology

This section of the report outlines the baseline ecological conditions and potential ecological constraints found within the study area of the proposed Mullingar Active Travel Bundle. Information and data on habitats and sites that are legally protected, are of conservation value or are of ecological importance has been collated to inform the development of route options for the proposed scheme.

A desk-based study was carried out to identify the potential ecological constraints associated with the study area for the proposed pedestrian and cycle network scheme, in line with the guidance set out in "*Guidelines for Assessment of Ecological Impacts of National Road Schemes"* (NRA, 2009). The sources of data used to compile this section include the following:

- National Parks and Wildlife Service (NPWS);
  - Information on sites designated for nature conservation, including spatial data
  - Habitats and species data
- National Biodiversity Data Centre (NBDC);
  - Species records
- Environmental Protection Agency (EPA);
  - Watercourses
- Ordnance Survey Ireland (OSI); and
  - Historic mapping
- Wetland Surveys Ireland (WSI)
  - Wetland Habitat Records.

2.4.2 Ecological Site Setting

The proposed Active Travel Bundle is located entirely within Mullingar. The study area is split into two areas Project 3 and Project 4. Project 3 is approximately 1.5km and Project 4 is approximately 3.5km as shown in Figure 2-8 below.

The following ecological features of importance have been reviewed in relation to the study area:

- Internationally Designated Conservation sites – European Sites;
- Annex I Habitats;
- Sites of National Conservation Value – National Heritage Areas (NHAs) and proposed National Heritage Areas (pNHAs);
- Other Ecological Receptors;
- Documented Rare and Protected Species (Species Records); and,
- Records of non-native species.

2.4.3 Internationally Designated Conservation Sites - European sites

There are no internationally designated conservation sites within the study area. The closest European site is located ca.2.28km north of the proposed scheme – Lough Owel SAC and SPA. There are 13no. European sites within the zone of influence of the study area. There is no direct or indirect hydrological connectivity between the project sites and any designated site. The European sites within 15km of the project sites are presented in Table 2-1 below. Figure 2-7 and Figure 2-8 below illustrate European sites within 15km of the proposed scheme.

Table 2-1- Internationally Designed Conservation Sites and their connectivity to study area-1 - 1

Site Name	Site ID	Distance and Connectivity to Study Area
Lough Owel SAC	000688	2.28km north of study area. No hydrological connectivity to site
Lough Owel SPA	004047	2.28km north of study area.

Site Name	Site ID	Distance and Connectivity to Study Area
		No hydrological connectivity to site
Wooddown Bog SAC	002205	4.43km east of study area. No hydrological connectivity to site
Lough Ennell SPA	004044	3.35km south of study area. Hydrologically connected via Brosna
Lough Ennell SAC	000685	3.35km south of study area. Hydrologically connected via Brosna
Scragh Bog SAC	000692	4.54km north of study area. No hydrological connectivity to site
Lough Iron SPA	004046	8.9km north west of study area. No hydrological connectivity to site
Lough Derravaragh SPA	004043	9.1km north of study area. No hydrological connectivity to site
River Boyne and River Blackwater SAC	002299	11.89km east of the study area. No hydrological connectivity to site
River Boyne and River Blackwater SPA	004232	14.9km east of the study area. No hydrological connectivity to the site
Garriskil Bog SAC	000679	14.2km north west of the study area. No hydrological connectivity to site
Garriskil Bog SPA	004102	14.2km north west of the study area. No hydrological connectivity to site
Lough Lene SAC	002121	14.7km north of the study area. No hydrological connectivity to site

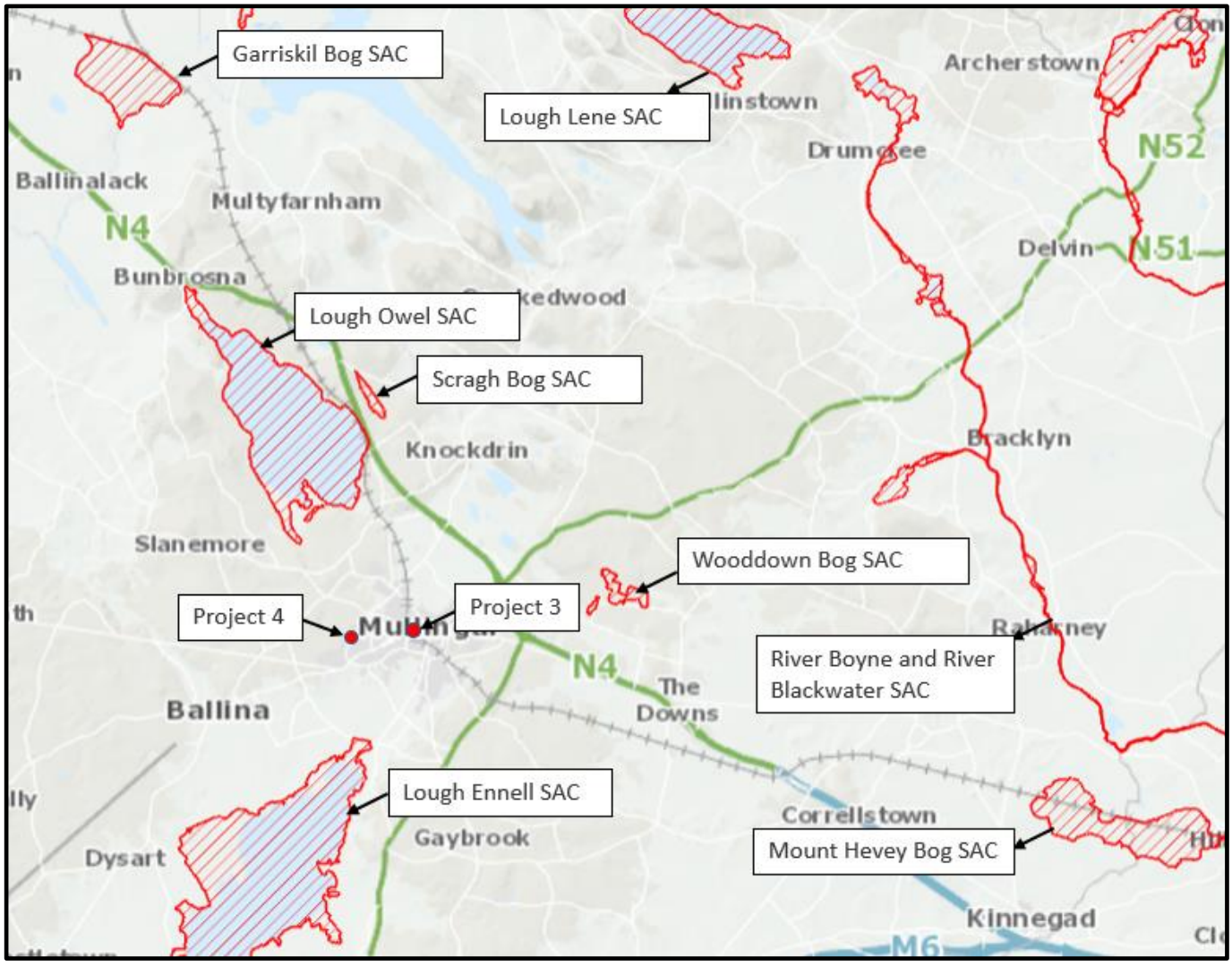


Figure 2-7 – Designated Sites - SACs within the vicinity of both route options

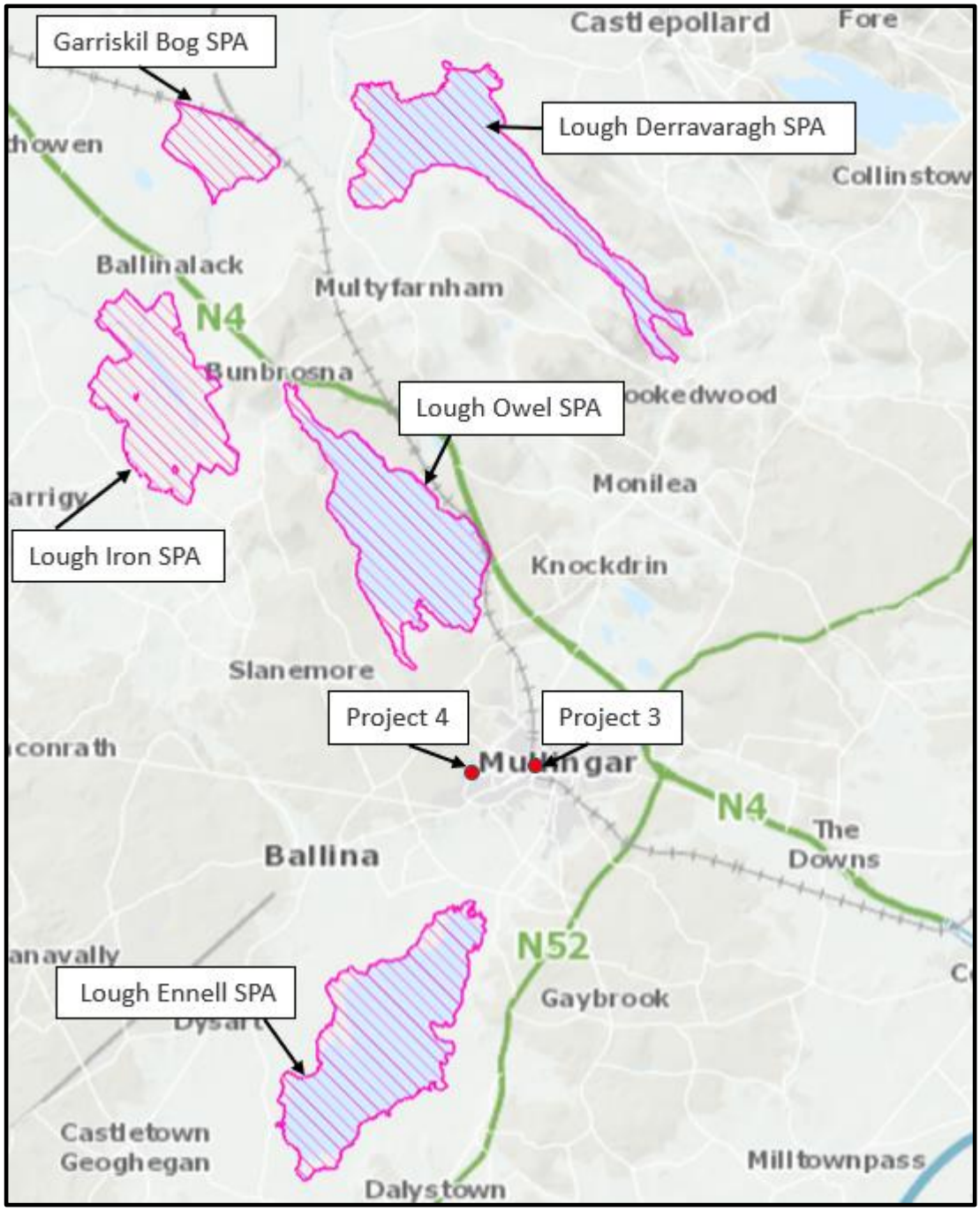


Figure 2-8 – Designated Sites - SPAs within the vicinity of both route options

2.4.4 Annex I Habitats

A review of NPWS datasets[8] identifies there are no Annex I habitats within the study areas. The following habitats have been identified within ca. 4km of the scheme:

- Turloughs (3180)
- Transition mires (7140)
- Cladium Fen (7210)

[8] https://www.npws.ie/maps-and-data/habitat-and-species-data/article-17/2019

- Molina Meadow (6410)
- Alkaline fens (7230)

There is no direct or indirect connectivity between any Annex 1 habitats and the proposed scheme.

2.4.5 Sites of National Conservation Value – Natural Heritage Areas (NHAs) and proposed Natural Heritage Areas (pNHAs)

Natural Heritage Areas (NHAs) are nationally designated sites which are considered important for the habitats present or which support species of plants and animals whose habitat requires protection. NHAs are legally protected under the Wildlife Amendment Act 2000. pNHAs are sites that are of significance for wildlife and habitats. pNHAs are not statutorily designated, however their ecological value is recognised by planning and licensing authorities.

There are no NHAs in the vicinity of the scheme however there are 5no. NHAs within 15km of the proposed scheme.

One pNHA is crossed by land by Project 4 of the proposed scheme in the north-eastern extents; Royal Canal pNHA [9]. A site summary of this pNHA is as follows;

> *"The Royal Canal is a man-made waterway linking the River Liffey at Dublin to the River Shannon near Tarmonbarry. There is a branch line from Kilashee to Longford Town. The canal pNHA comprises the central channel and the banks on either side of it. The main water supply is from Lough Owel (also an NHA) via a feeder channel into the canal at Mullingar. The Royal Canal was closed to navigation in 1961. The section of canal west of Mullingar was allowed to dry out, and the eastern section silted up and became overgrown. Restoration began in 1988, and is still in progress.*
>
> *A number of different habitats are found within the canal boundaries - hedgerow, tall herbs, calcareous grassland, reed fringe, open water, scrub and woodland.*
>
> *The hedgerow, although diverse, is dominated by Hawthorn (Crataegus monogyna). On the limestone soils of the midlands Spindle (Euonymus europaeus) and Guelder-rose (Viburnum opulus) are present.*
>
> *The vegetation of the towpath is usually dominated by grass species. Crested Dog's-tail (Cynosurus cristatus), Quaking Grass (Briza media) and Sweet Vernal-grass (Anthoxanthum odoratum) are typical species of the calcareous grasslands of the midlands. Where the canal was built through a bog, soil (usually calcareous) was brought in to make the banks. The contrast between the calcicolous species of the towpath and the calcifuge species of the bog is very striking.*
>
> *Otter spraints are found along the towpath, particularly where the canal passes over a river or stream.*
>
> *The Rare and legally protected Opposite-leaved Pondweed (Groenlandia densa) (Flora Protection Order 1987) is present at one site in Dublin, between Locks 4 and 5. Tolypella intricata (a stonewort listed in the Red Data Book as being Vulnerable) is also in the Royal Canal in Dublin, the only site in Ireland where it is now found.*
>
> *The ecological value of the canal lies more in the diversity of species it supports along its linear habitats than in the presence of rare species. It crosses through agricultural land and therefore provides a refuge for species threatened by modern farming methods."*

[9] https://www.dublincity.ie/sites/default/files/media/file-uploads/2018-10/O_Devaney_Gardens_EIS_-_Appendix_8.1_-_Site_Synopses.pdf

There are 4no. NHAs and 11no. pNHAs within 15km of the study area. Details of pNHAs within 15km of the study area are listed in Table 2-2 and illustrated in Figure 2-9.

Table 2-2 - NHAs and pNHAs within 15km of the Study Area

Site name (site code)	Distance from study area	Connectivity
Royal Canal pNHA (002103)	Crossed in north-eastern extents of the Project 4	Connectivity via land to Project 4
Lough Owel pNHA (000688)	2.3km north	No direct or indirect (hydrological) connectivity
Wooddown Bog NHA (000694)	3.2km east	No direct or indirect (hydrological) connectivity
Lough Sheever Fen/Slevin's Lough Complex pNHA (000690)	3.11km north east	No direct or indirect (hydrological) connectivity
Walshestown Fen pNHA (001731)	2.7km west	No direct or indirect (hydrological) connectivity
Lough Ennell pNHA (000685)	3.35km south	Hydrologic connectivity via Bronsa
Scragh Bog pNHA (000692)	4.53km north	No direct or indirect (hydrological) connectivity
Ballynafid Lake and Fen pNHA (000692)	6.3km north	No direct or indirect (hydrological) connectivity
Lough Iron pNHA (000687)	8.9km north west	No direct or indirect (hydrological) connectivity
Lough Derravaragh NHA (000684)	8.7km north	No direct or indirect (hydrological) connectivity
Milltownpass Bog NHA (002323)	9.5km south	No direct or indirect (hydrological) connectivity
Nure Bog NHA (001725)	8.9km south west	Hydrologic connectivity via Bronsa
Garriskil Bog pNHA (000679)	14.2km north west	No direct or indirect (hydrological) connectivity
Lough Garr NHA (001812)	14.1km north west	No direct or indirect (hydrological) connectivity

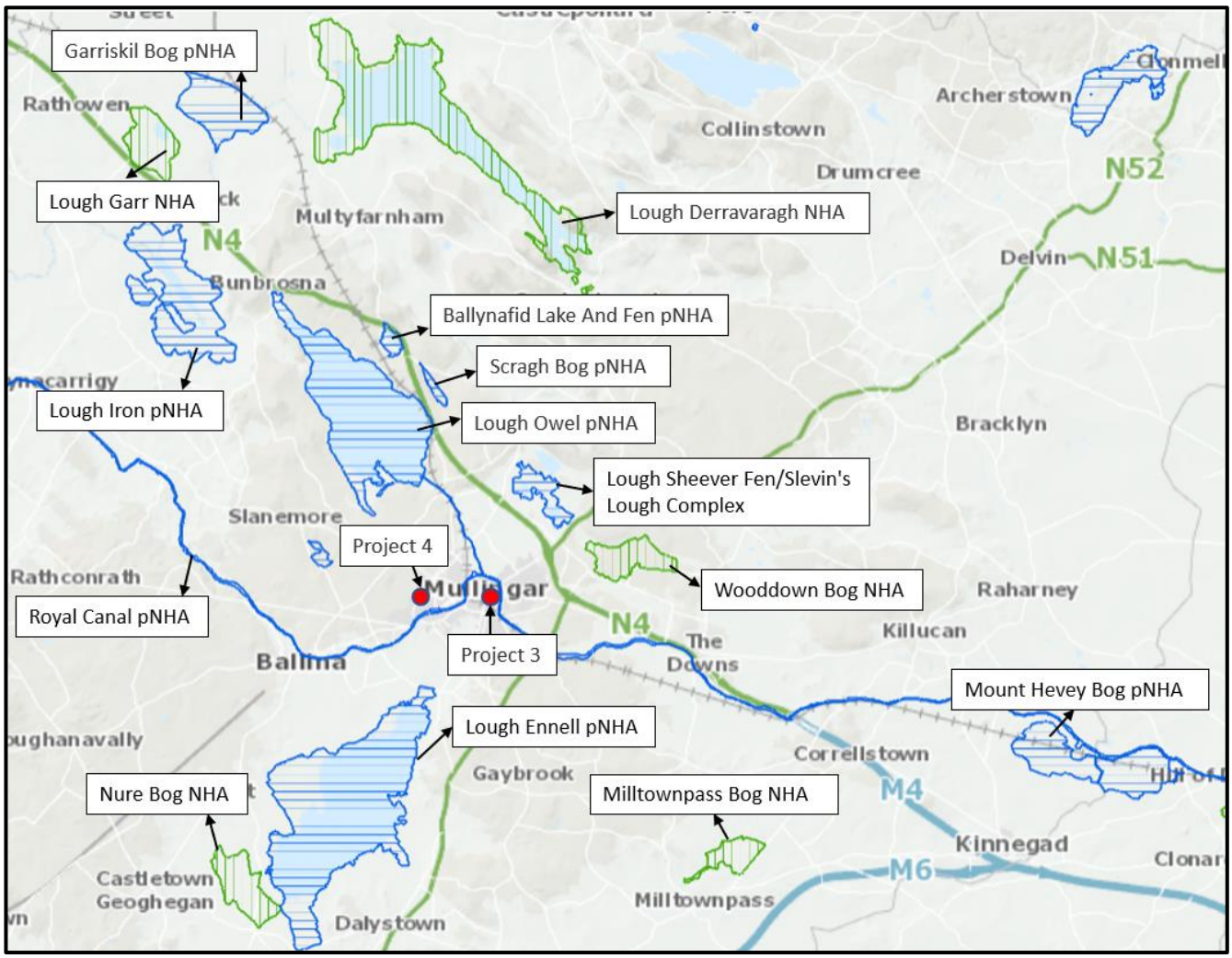


Figure 2-9 – pNHAs and NHAs within 15km of study area

2.4.6 Other Ecological Receptors

2.4.6.1 Freshwater Habitats

As stated in the Water Section above there are 3 no. rivers and 1 no. canal located in the vicinity of the proposed scheme. The River Brosna crosses Project 3 via. an existing road – Jail Hill and Project 4 is aligned ca. 891m from the River Brosna but does not cross it. The Farranistick is aligned ca. 1.68km from Project 3 and ca. 35m from Project 4.There is potential connectivity due to distance from Project 4 to the Farranistick. The Sarsantown River is located ca. 365m from Project 4 and ca. 2.06km from Project 3, however there is no connectivity.

The waterbody of the Royal Canal runs ca. 88m from Project 3 and ca. 163m from Project 4.

2.4.6.2 Wetland Habitats

A review of Wetland Survey Ireland (WSI) datasets confirms no WSI identified wetland habitats are located within the scheme site.

There are 22 no. wetland habitats within 5km of the study area. Two of these wetlands, Marlinstown Cutover Complex and Baltrasna North Fen have a potential connectivity to the site via the Royal Canal. These wetland sites are listed in the table below.

Table 2-3 - Wetlands within 5km of the study area

Name	MIW Code	Description
Marlinstown Cutover Complex	WMI_WM126	This wetland is located 2.69km east of the site boundary. Cutover bog at Marlinstown, is being used for active peat removal. Remaining high bog is afforested.
Baltrasna North Fen	WMI_WM345	This wetland is located 3.3km east of the site boundary. Data Pending, canal, wet grassland, fen and scrub.
Clonmore Fen	WMI_WM344	This wetland is located 0.87km south of the site boundary. Wet grassland, fen and scrub.
Tullaghan Fen – Lough Owel SAC	WMI_WM104	This wetland is located 1.73km north west of the site boundary. Areas of marsh and fen occur in the northern and south-western corners of the lake. These areas (Bunbrosna marsh and Tullaghan fen) were formerly separate Areas of Scientific Interest but have now been included within the Lough Owel site.
Wooddown Bog NHA	WMI_WM80	This wetland is located 3.1km north east of the site boundary. The site comprises a raised bog that includes both areas of high bog and cutover bog. A small fen is located to the south-west of the bog. The cutover supports humid grassland, Birch and Gorse (Ulex europaeus) scrub and woodland.
Irishtown North Ponds	WMI_WM339	This wetland is located 1.6km north west of the site boundary. Artificial pond and wet grassland.
Kilpatrick Bridge Fen cNHA	WMI_WM17	This wetland is located 1.21km south of the site boundary. A small wet Schoenus fen between the royal Canal and the disused railway line. Holds a range of fen species including the rare moss Homalothecium nitens.
Walshestown South Ponds	WMI_WM318	This wetland is located 2.3km west of the site boundary. Lake, reed, swamp, fen, scrub and wet grassland.
Macetown Bog	WMI_WM341	This wetland is located 3.3km north east of the site boundary. Data pending, wet grassland, raised bog, cutover bog, fen, bog woodland and scrub.
Kilpatrick Pond	WMI_WM343	This wetland is located 1.9km south of the site boundary. Artificial pond and scrub.
Wooddown South	WMI_WM342	This wetland is located 5.2km east of the site boundary. Data pending, wet grassland, raised bog fen and scrub.
Slevins Lake	WMI_WM101	This wetland is located 1.7km north east of the site boundary. Lough Sheever Fen/Slevin's Lake Complex comprises two medium-sized lakes and their associated woodland and grassland habitats. Habitats of note here include fen vegetation forming on the shores of both Lough Sheever and Slevin's Lake.
Lough Sheever – Lough Sheever Fen/Slevins complex pNHA	WMI_WM96	This wetland is located 1.8km north east of the site boundary. Lough Sheever Fen/Slevin's Lake Complex comprises two medium-sized lakes and their associated woodland and grassland habitats. Habitats of note here include fen

Name	MIW Code	Description
		vegetation forming on the shores of both Lough Sheever and Slevin's Lake.
Walshestown Fen	WMI_WM44	This wetland is located 2.34km west of the site boundary. This is a partially cut-out bog in which bog holes frequently occur. Reed swamp and fen communities occur in the hollows. Orchid rich site.
Baltransa Bog Complex	WMI_WM346	This wetland is located 4km south east of the site boundary. Data Pending, canal, wet grassland, raised bog, cutover bog, fen, bog woodland and scrub.
Culleen More Ponds	WMI_WM338	This wetland is located 2.5km north of the site boundary. Data pending, artificial pond, reed swamp and fen.
Culleen Beg Pond	WMI_WM337	This wetland is located ca. 1.6km north east. Small seasonal lake predominantly fed by surface warer in the winter and drained by a stream that has been piped underneath Mullingar Rugby Club.
Brockagh Pond	WMI_WM336	This wetland is located 2.4km north of the site boundary. Data pending, artificial pond, reed swamp and fen.
Lough Drin cNHA	WMI_WM20	This wetland is located 2.7km north of the site boundary. Drained marl lake with Pyrola rotundifolia communities on former lakebed. Lakebed exposed by arterial drainage scheme.
Srahenry	WMI_WM102	This wetland is located 2.31km south of the site boundary. Alkaline fen, lake, river, wet grassland and scrub
Loughagar More Macetown Bog	WMI_WM333	This wetland is located 4.1km north east of the site boundary. Data pending, wet grassland, raised bog, cutover bog, fen, bog woodland and scrub.
Lynn Bog Woodland	WMI_WM401	This wetland is located 2.3km south of the site boundary. This woodland is composed of two different types - the majority of the site is birch (Betula pubescens) dominated woodland on cut over bog.

2.4.6.3 Nature Reserves

The proposed site does not lie within a nature reserve. The closest nature reserve is Scragh Bog Nature Reserve approximately 3.9km north of the proposed site and has no connectivity to the proposed scheme.

2.4.6.4 Native Woodland

A National Survey of Native Woodlands (NSNW) was conducted between 2003 and 2008 with the aim to identify areas of native woodlands within Ireland. There are no NSNW identified native woodlands within the study area.

There are no woodlands identified within the inventory of Ancient and Long-Established Woodlands of Ireland within the proposed scheme. The nearest NSNW identified woodland habitat – Lough Slevin's Wood – is located ca. 2.5km from the proposed scheme and has no connectivity to the proposed scheme.

A review of NBDC datasets does not identify any forests within the scheme, furthermore, a review of aerial imagery does not identify any forests within the scheme.

Table 2-4 - NSNW and Ancient Woodlands

Distance to Site and Connectivity	Ancient Woodland Name and Site code	NSNW Type and Site Code	NSNW Descriptions
2.5km north east	Lough Slevins Wood	Lough Slevins Wood (91A0)	Old sessile oak woods with Ilex and Blechnum in the British Isles

2.4.6.5 Existing Habitat

The study area is in the town of Mullingar and is divided into two routes, Project 3 and Project 4.

Project 3 travels from the southern reaches of Mullingar in towards its centre. A section of this route travels down Millmount Road and Ballinderry Road. The Millmount Road section crosses a residential estate (Auburn Village) which is primarily hardstanding with areas of grass verges along the footpaths. Landscape features include deciduous trees along property boundaries in grass verges on the Millmount Road, Auburn Road, Sundays Well Road and Jail Hill. The vast majority of this route is comprised of hardstanding surfaces with no ecological value. Small areas of low ecological value such as grass verges are present but infrequent.

Project 4 travels from the south-western section of Mullingar along the R394 for ca. 3.5km. This route travels along existing roads which are absent of tress. 3no. roundabouts are present with amenity grassland and landscape features. Most of this route is comprises hardstanding surfaces with no ecological value. Small areas of low ecological value grass verges are present but infrequent. Trees in this area are predominantly off road behind stone walls in gardens. Along sections of the R394 sections of hedgerow are present between the footpath and housing estates approximately 4m from the road.

2.4.6.6 Bird Sites

There are no Irish Wetland Bird Survey (I-WeBS) count sites located within the proposed scheme extents.

Name of Wetland	Distance from Site
Lough Sheever (0W006)	2.8km north of proposed scheme
Walshestown South Turlough (0W022)	3.1km west of proposed scheme
Slevin's Lake (0W013)	3.5km north of proposed scheme
Lough Drin (0W015)	4km north of proposed scheme

None of these sites have a direct or indirect connectivity to Project 3 or Project 4.

2.4.6.7 Species Records

This section of the report outlines species that have been recorded within the study area. A search of National Biodiversity Data Centre records was carried out on the 22nd of March 2024. The search looked at records within the study area, a 100 m buffer zone either side of the routes, and the wider Mullingar area. The findings of our research for 2014 to 2024 is presented below.

2.4.6.8 Birds

Within the study area studies have identified 2no. red listed species Common Swift (*Apus apus*) 2023, Yellowhammer (*Emberiza citrinella*), 2023 and 5no. amber listed species; Starling (*Sturnus vulgaris*) 2023, European Greenfinch (*Carduelis chloris*) 2022, Barn Swallow (*Hirundo rustica*) 2022, Hen Harrier (*Circus cyaneus*) 2023 and House Sparrow (*Passer domesticus*) 2023 has been recorded.

Common birds recorded within this study area include Black-billed Magpie (*Pica pica*), Eurasian Jackdaw (*Corvus monedula*) and Rook (*Corvus frugilegus*) all of which were recorded within the study area.

2.4.6.9 Mammals

Within the area studied, a total of 4 no. mammals were recorded between 2014 and 2024. Badger (*Meles meles*) was recorded in 2014, Pine Marten (*Martes martes*) in 2020, Hedgehog (*Erinaceus europaeus*) in 2022 and Red Fox (*Vulpes vulpes*) in 2023 within the study area.

2.4.6.10 Other Species

Protected and / or threatened amphibian species recorded within the study area also include:

- Common Frog (*Rana temporaria*) 2020 – Protected Species under EU Habitat Directive (Annex V) and Wildlife Acts.
- Freshwater White-clawed Crayfish (*Austropotamobius pallipes*) 2014 - Annex II and Annex V of the Habitats Directive and the species is protected in Ireland under the Wildlife Acts.
- Smooth Newt (*Lissotriton vulgaris*), 2014 Wildlife Act, 1976 and the Wildlife Amendment Act, 2000.

2.4.6.11 Records of Non-native Species

Regulations 49 and 50 of Part 6 of the European Communities (Birds and Natural Habitats) Regulations, 2011 (S.I. No. 477 of 2011) outlines the legal context for the prohibition of the introduction and dispersal of certain plant and animal species. Specifically, Section 49, paragraph 2 states that any person without the required licence "who plants, disperses, allows or causes to disperse, spreads or otherwise causes to grow" any plant species listed in Part 1 of the Third Schedule within the State shall be guilty of an offence.

Under Section 50 paragraph 1, a person without the required licence "shall be guilty of an offence if he or she has in his or her possession for sale, or for the purposes of breeding, reproduction or propagation, or offers or exposes for sale, transportation, distribution, introduction or release" of any plant species listed in Part 1 of the Third Schedule or anything from which "a plant referred to in Part 1 of the Third Schedule can be reproduced or propagated or "a vector material listed in Part 3 of the Third Schedule".

A review of NBDC (2024)[10] indicates that no Third Schedule Invasive 1 species have been reported within the proposed project in the past 20 years.

In the wider landscape of Mullingar town the following species, as outlined in Table 2-5, have been identified within the past 10 years.

Table 2-5 – Species identified in the wider landscape of Mullingar town within the past 10 years.

Species Name	Scientific Name	Third Schedule
Butterfly-bush	*Buddleja davidii*	Not listed on the Third Schedule
Cherry Laurel	*Prunus laurocerasus*	Not listed on the Third Schedule
Giant Hogweed	*Heracleum mantegazzianum*	Not listed on the third schedule
Himalayan Honeysuckle	*Leycesteria formosa*	Not listed on the third schedule

[10] https://biodiversityireland.ie/

Species Name	Scientific Name	Third Schedule
Japanese Knotweed	*Fallopia japonica*	Listed on the Third Schedule
Sycamore	*Acer pseudoplatanus*	Not listed on the third schedule
Jenkins' Spire Snail	*Potamopyrgus antipodarum*	Not listed on the third schedule
Yellow-bellied Slider	*Trachemys scripta*	Not listed on the third schedule
American Mink	*Mustela vison*	Listed on the Third Schedule
Brown Rat	*Rattus norvegicus*	Listed on the Third Schedule
European Rabbit	*Oryctolagus cuniculus*	Not listed on the third schedule
Greater White-toothed Shrew	*Crocidura russula*	Not listed on the third schedule
Freshwater Shrimp	*Gammarus pulex*	Listed on the Third Schedule

2.4.7 Identification of Ecological Constraints

There are no internationally designated conservation sites within the study area. Lough Ennell SPA (004044) and SAC (000685) located ca. 3.5km south of the study area has hydrological connectivity to the study area via the Brosna.

The Royal Canal pNHA lies ca. 60m east of Project 3.

There are no annexed habitats, woodlands, wetlands or wintering waterbird sites within the study area.

The main feature of high ecological interest within the vicinity of the proposed scheme is the Royal Canal and the protected species which this watercourse can accommodate.

As both projects are to be undertaken predominantly on existing roadways the main ecological constraints are largely limited the landscape features trees, hedgerows and grass verges along the roadway borders.

Considering the small scale of the scheme and that it will be undertaken on primarily existing hardstanding surfaces it is not likely to cause adverse impacts to features of high ecological value.

2.5 Archaeology and Cultural Heritage

A search of the National Monuments Service (NMS, 2024)[11] identified Mullingar as a sensitive area in terms of archaeology and cultural heritage. Both Projects 3 and 4 border a number of Sites and Monuments Record (SMR) features, National Inventory of Architectural Heritage (NIAH) features and Protected Structures under the Record of Protected Structures (RPS) (refer to Table 2-6 for details). The eastern portion of Project 3 intersects an Archaeological Conservation Area (ACA) and zone of archaeological potential (WCC, 2014)[1]. Subject to liaison

[11] https://www.archaeology.ie/

with the Westmeath Heritage Officer during the next phase, the requirement for an Archaeological Impact Assessment and/or a conservation architect being required, will be discussed with Westmeath County Council.

Table 2-6 - List of Structures Protected under the Record of Protected Structures in Mullingar

RPS No.	Structure	Address	NIAH No.
019-005	Vent Pipe	Unknown location along Longford Road	15309005
019-20	Barrack View along ashe road	Unknown location	15310002
019-090	Site of Mullingar Gaol - along Mount Street	Unknown location	15310079
019-094	saunders bridge	Bordering start / end point of Route 4	15310087
019-147	Scoil na Maighdine Mhuire	Harbour Street Mullingar	15310156
019-162	Annesbrook	Bishop's Gate Street Mullingar	15310174
019-169	Church View	Bishop's Gate Street Mullingar	15310181
019-171	St. Brigid's & St. Oliver's	Bishop's Gate Street Mullingar	15310183
019-182	Five-bay three storey building (Weir's Pharmacy)	Pearse Street Market Place Mullingar	15310194
019-186	Corner-sited seven bay three-storey building (John Daly's/Way Out Fashion)	Oliver Plunkett Street Martin's Lane Mullingar	15310198
019-199	Five-bay three storey building (Stanley Racing / Davitt and Davitt)	Dominick Street Mullingar	15310212
019-202	Rochfort's Superstore	Dominick Street Mullingar	15310216

Source: Westmeath County Development Plan 2021-2027

2.6 EPA Licenced Facilities

A review of EPA (2024)[3] database indicates that there are no EPA licenced facilities within the vicinity of either routes. The closest reported EPA licenced facilities is the Data Packaging Limited (P0139) located ca. 340m west of Project 3, Penn Racquet Sport Company (P0104) located ca. 550m west of Project 3 and Soltec (Ireland) Limited (P1093) located ca. 800m south east of Project 4. This is illustrated in Figure 2-10. An EPA Waste Facility: Marlinstown Landfill (W0071-02) is located ca. 2.8km south east of Project 3.

There are 2no. lower tier Seveso establishments located in County Westmeath, however there is only 1no. located in the vicinity of the proposed Scheme - Ecolab Manufacturing IE Limited in Forest Park, Zone C Mullingar Industrial Estate, Mullingar, Co. Westmeath. Ecolab Manufacturing IE Limited is located ca. 2.3m from Project 3 and ca. 400m from Project 4.

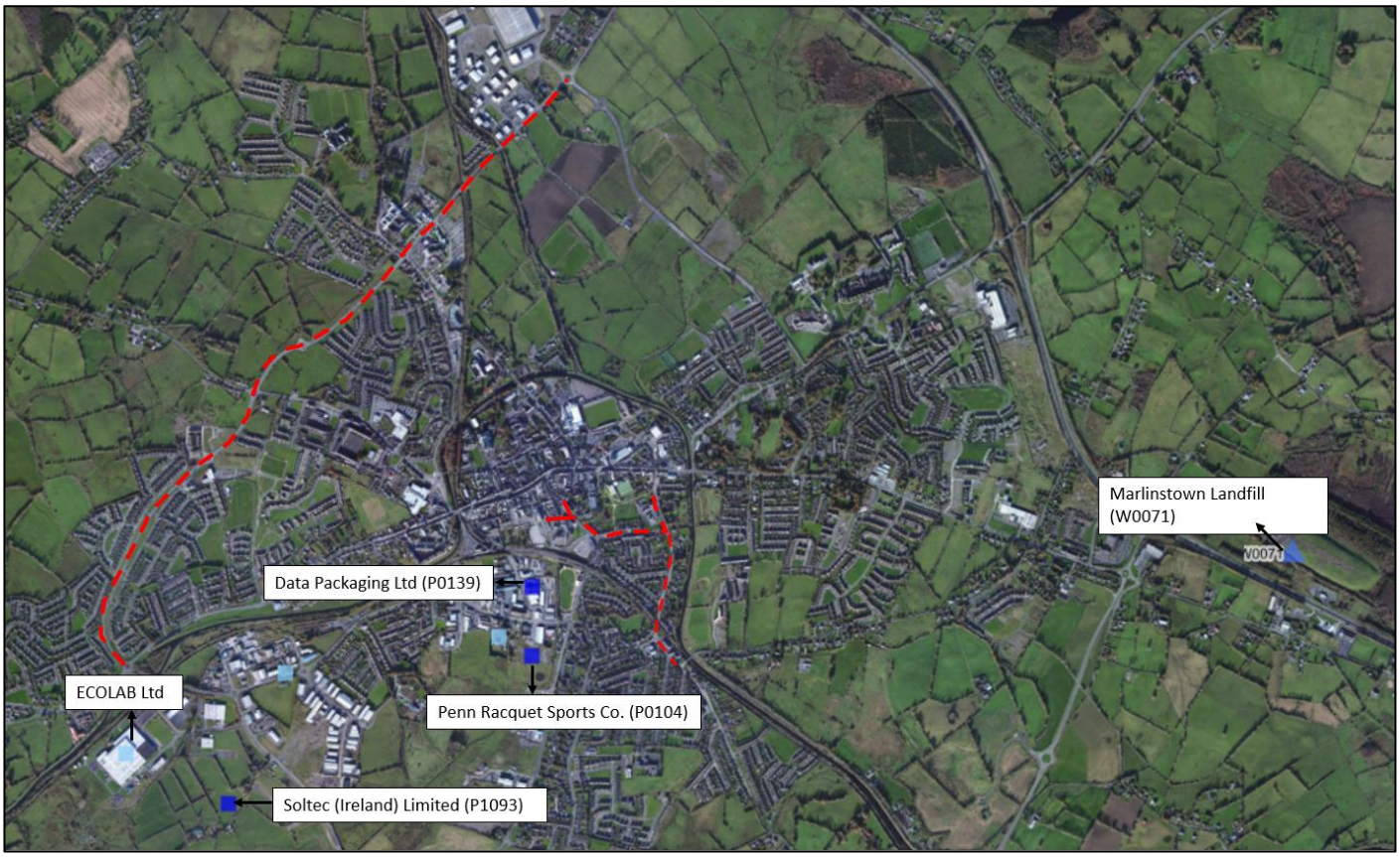


Figure 2-10 – Licenced Facilities within the vicinity of both routes (EPA, 2024)[3]

2.7 Radon Levels

According to EPA (2024)[3], radon levels within the vicinity of both routes are reported as 'about 1 in 10 homes in this area is likely to have high radon levels'. The national reference level for radon in the home is 200 becquerel per cubic metre (Bg/m3). This is the level at which it is recommended that you take action to reduce the level of radon. Therefore, the proposed development site is in an average radon area as shown in Figure 2-11.

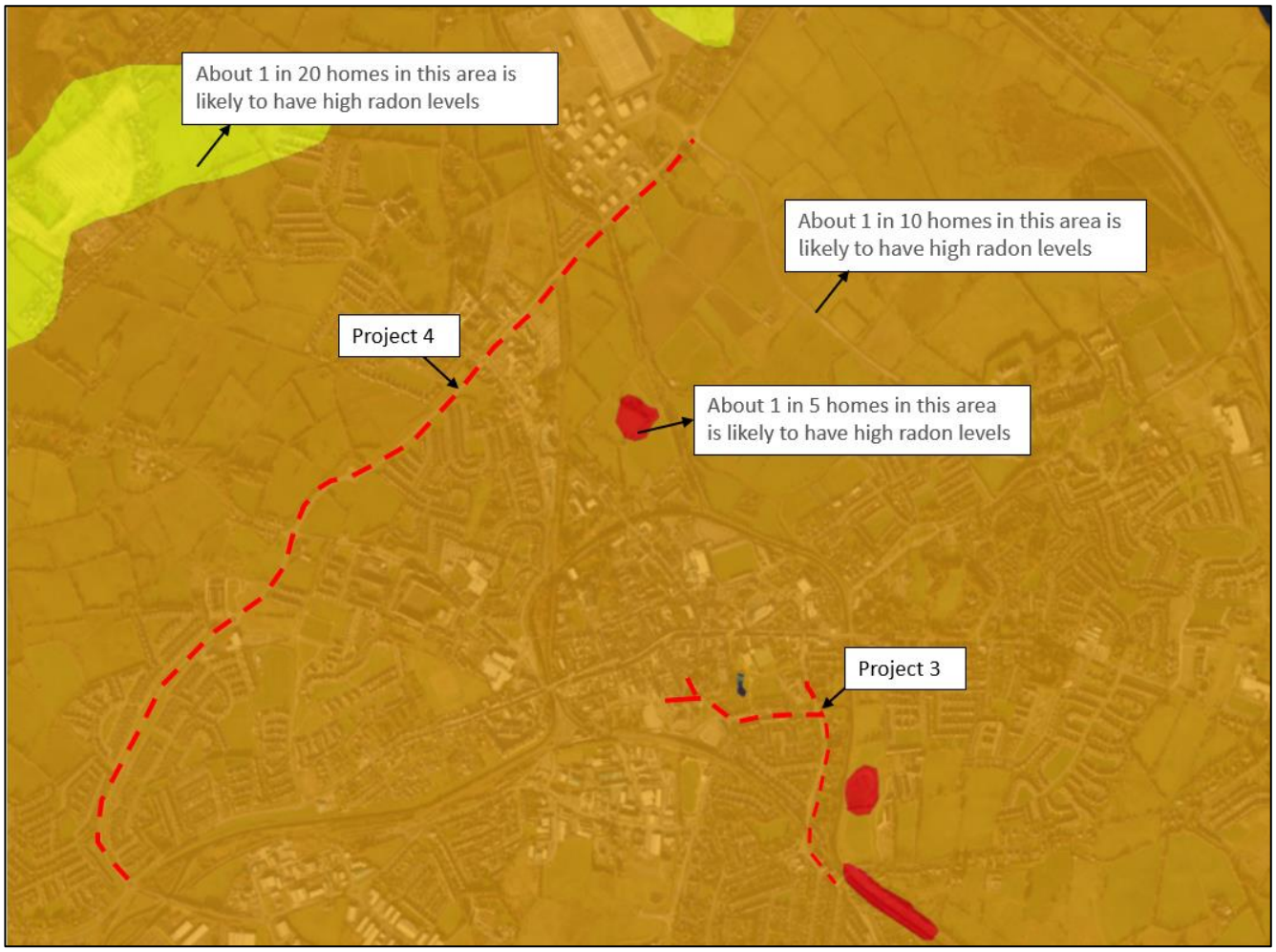


Figure 2-11 – Radon Levels in the vicinity of the proposed development (EPA, 2024)[3].

2.8 Landscape and Visual

2.8.1 Views and Prospects

Both routes are located entirely along existing roads and associated verges within Mullingar. Project 3 is located within the Royal Canal Corridor Landscape Character Area according to the Westmeath County Development Plan (2021-2027). It is noted as '*The canal corridor includes features of vernacular architecture and industrial heritage such as stone bridges, lock keeper's cottages, lock gates and milestones which enhance the waterway.*' Project 4 is located in the Royal Canal Corridor and the northern portion of the project is located in the Central Hills & Lakes Landscape Character Area which records that *'This area is typified by undulating hills and lakes, the most prominent of which are Lough Derravaragh and Lough Owel'.*

There are no scenic views or scenic routes within the vicinity of either routes.

2.8.2 Tree Preservation Orders

A review of the Westmeath County Development Plan 2021-2027 indicates that there are 6no. locations subjected to Tree Preservation Orders (TPO) within the town of Mullingar. None of these TPO's are within the vicinity of either Project 3 or 4. From a review of aerial imagery (Bing Maps, 2024), there are several trees located along both Project 3 and 4.

2.9 Noise and Vibration

Based on available baseline noise mapping from TII (2024)[12] there are no reported noise levels within Project 3. Project 4 is reported as having Lden levels ranging from 55-59 dB to 65-69dB with Lnight levels ranging from 50-54 dB and 55-59 dB. A traffic data survey was conducted to assess the volume of traffic along the route of Project 4 over a 24hr period. Based on Automatic traffic counts, undertaken at 5 locations along the proposed route, it is estimated a total of 26,589 users travel along the road, either by private cars, HGVs, bicycles or on foot (AtkinsRéalis 2024).

Project 4 crosses the railway line, however no noise data has been reported by TII (2024) within this area. No other regional potential noise sources (i.e. airports) are identified within the vicinity of the scheme routes.

Based on the results of this review no significant vibration generating sources within vicinity of the constraints study area have been identified at this preliminary stage (GSI, 2024).

Sensitive receptors within the vicinity of Project 3 include residential dwellings and businesses along the route.

Sensitive receptors within the vicinity of Project 4 include residential dwellings and businesses along the R394. The Midlands Regional Hospital is also located along the stretch of Project 4.

2.10 Air Quality

EU legislation on air quality requires Member States to divide their lands into zones for the assessment and management of air quality. In Ireland we have divided the country into 4no. air quality management zones:

- Air Zone A: Dublin Conurbation;
- Air Zone B: Cork Conurbation;
- Air Zone C: 24 large cities and towns: Sligo, Tralee, Waterford, Wexford, Athlone, Balbriggan, Bray, Carlow, Celbridge, Clonmel, Drogheda, Dundalk, Ennis, Galway, Greystones, Kilkenny, Leixlip, Letterkenny, Limerick, Naas, Mullingar, Navan, Newbridge, and Portlaoise; and,
- Air Zone D: Rural Ireland – the reminder of Ireland outside Zones A, B and C.

According to the EPA Report on Air Quality (2024), the current baseline air quality index in the area is *'3-Good'* for Mullingar - Large Towns. It is noted that the information presented in these reports is for ambient air quality close to the sampling locations. The closest EPA ambient air monitoring site is in Mullingar (air monitoring site (Station Code: WH5)) located ca. 1.4km from Project 4 and ca. 221m from Project 3.

Sensitive receptors within the vicinity of Project 3 include residential dwellings and businesses along the route.

Sensitive receptors within the vicinity of Project 4 include residential dwellings and businesses along the R394. The Midlands Regional Hospital is also located along the stretch of Project 4.

[12] https://www.tii.ie/en/technical-services/environment/noise-maps/

3. Summary / Recommendations

In summary, both study areas are located entirely along existing roads within Mullingar town with the following constraints identified.

- The site of the proposed schemes are in a sensitive area with respect to archaeology and cultural heritage as both Project 3 and Project 4 cross several SMRs, ZoNs, RPSs and NIAHs. Subject to liaison with the Westmeath Heritage Officer during the next phase, the requirement for an Archaeological Impact Assessment and/or conservation architect being required, will be discussed with Westmeath County Council.
- Project 3 crosses the River Brosna via. an existing road – Jail Hill. The River Brosna runs ca. 891m from Project 4. The Farranistick runs ca. 1.68km from Project 3 and is crossed by Project 4 at the Castlepollard Road. Benefitting lands from this channel are reported around Mullingar Hospital within vicinity of Project 4. Mitigation measures will be implemented during construction stage to protect these watercourses and drainage channel. The Sarsantown River is located ca. 365m from Project 4 and ca. 2.06km from Project 3.
- Groundwater is potentially shallow within the vicinity of both projects, and it is therefore recommended that a Ground Investigation is undertaken as the project progresses and relevant mitigation measures developed / implemented to minimise / avoid impacts on groundwater resources which will be documented in a Construction Environmental Management Plan (CEMP) which will be prepared for the construction stage.
- Projects 3 and 4 are within the zone of influence of a number of Natura 2000 sites. An appropriately qualified ecologist will undertake an Appropriate Assessment of the Projects.
- Invasive Species have been identified within the Mullingar area encapsulating Project 3 and 4. An invasive species survey is required by an appropriately qualified ecologist during the optimum survey season.
- The proposed scheme runs ca. 88m from the Royal Canal Natural Heritage Area. Construction stage mitigation measures are recommended to be developed for the protection of this nationally important conservation area.
- Considering the small scale of the scheme and that it will be undertaken almost entirely on existing hardstanding surfaces of public roadways and pathways, adverse impacts to features of high ecological value are not considered likely.
- A review of GSI (2024) indicates that there are 2no. Geological Heritage Areas (GHA) within 5km of both schemes; Mullingar Bypass is located ca.1.58km north of Project 4 and Portnashangan Quarry, is located ca. 4.67km north of Project 4. A hydrogeological connection exists to Mullingar Bypass and mitigation measures will be implemented during construction to minimise / avoid impacts on these areas.
- Project 4 travels along the R394 and is aligned along lands which are identified as being at risk of flooding and which have been identified as benefitting lands. It is recommended that a Flood Risk Assessment is undertaken by an appropriately qualified hydrologist as the scheme progresses.
- The sites are located adjacent to sensitive receptors. This includes private residents, and commercial buildings. Liaising with the sensitive receptors will be necessary for the next phase of this project.
- From a review of aerial imagery (Bing Maps, 2024), there are a number of trees located along both Projects 3 and 4. It is recommended that an Arboricultural Survey is undertaken along both Projects 3 and 4 as the scheme progresses.
- It is recommended that a landscape architect is consulted regarding the potential for landscape impacts along the scheme and should be involved in the design of the proposed scheme should it be required.
- Given the urban nature of both Project 3 and 4, there are numerous sensitive receptors of Air Quality and Noise and Vibration nuisance during the construction works. Mitigation / protection measures will be implemented during construction to minimise / avoid impacts on sensitive receptors which will be documented in a Construction Environmental Management Plan (CEMP) which will be prepared for the construction stage.
- High Radon levels have been reported in the area. Given the nature of the development, impacts from Radon do not need further consideration.

AtkinsRéalis

WS Atkins Ireland Limited
Atkins House
150 Airside Business Park
Swords
Co. Dublin
K67 K5W4

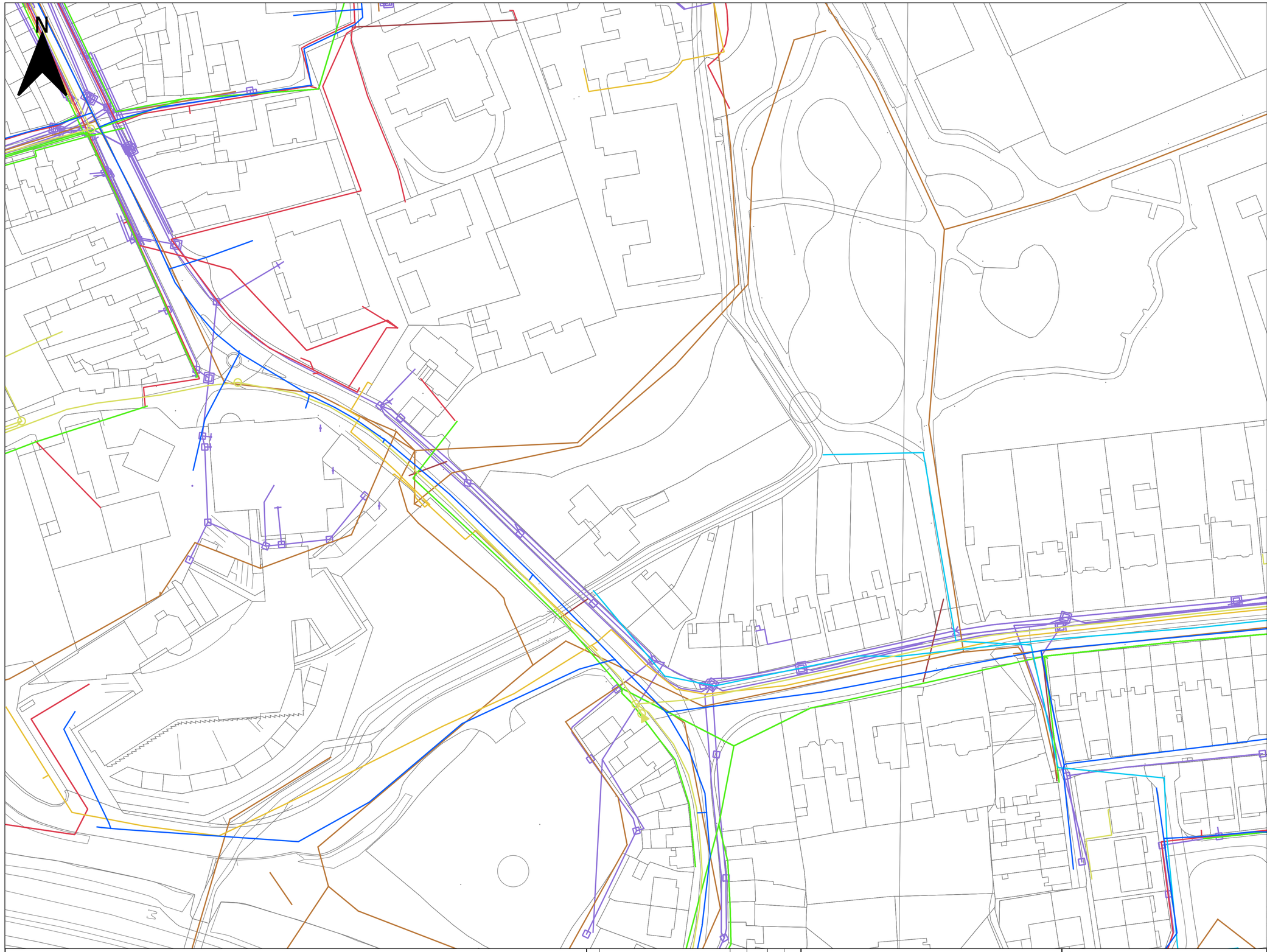
Tel: +353 1 810 8000

© WS Atkins Ireland Limited except where stated otherwise

Appendix B. Pavement Condition Survey

			Surface Defects		Structural Distresses (Load-Related)				Surface Distortion (Shape Problems)				Other Cracking					Surface Openings		Rate
Project	Segment_ID	Length of Segment (in meters)	Ravelling	Bleeding	Rutting	Potholes	Alligator Cracking	Edge Breakup and Cracking	Shoving	Settlement/Heave	Depressions/Sags	Bumps	Longitudinal Cracking	Transverse Cracking	Reflection Cracking	Meander Cracking	Slippage Cracking	Patching and Utility Repairs	Manhole-Ironworks defects	PSCI Rating System
3	1.0	102.0	Present	Absent	Absent	Absent	Present	Absent	Absent	Absent	Present	Absent	< 20% / > 12 mm	< 20% / <= 12 mm	Absent	Absent	Absent	Good Condition	Present	6
	2.0	57.2	Present	Absent	Absent	Absent	5% - 25%	Absent	Absent	Absent	Absent	Present	< 20% / <= 12 mm	Absent	Absent	Absent	Absent	Good Condition	Present	6
	3.0	178.1	Present	Absent	Absent	Absent	Present	Present	Absent	Absent	Absent	Present	< 20% / <= 12 mm	Absent	< 20% / <= 12 mm	Absent	Absent	Good Condition	Present	6
	4.0	323.7	Present	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	>20% / <= 12 mm	< 20% / <= 12 mm	Absent	Absent	Absent	Good Condition	Present	6
	5.0	182.8	Present	Absent	Present	Absent	5% - 25%	Present	Absent	Absent	Present	Present	< 20% / <= 12 mm	< 20% / <= 12 mm	< 20% / <= 12 mm	< 20% / <= 12 mm	Absent	Good Condition	Present	5
	6.0	430.0	Present	Absent	Absent	Absent	Present	Absent	Absent	Absent	Absent	Present	< 20% / > 12 mm	< 20% / <= 12 mm	Absent	Absent	Absent	Good Condition	Present	6
	7.0	250.9	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Good Condition	Absent	9

Appendix C. Utility Maps



A1

0 10 100

DO NOT SCALE

File: Mullingar Active Travel.rqpz
Date: 2024-04-02 17:36 Plotted by: tcortes

GENERAL NOTES

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE

2. ONLY WRITTEN DIMENSIONS SHALL BE USED. NO DIMENSIONS SHALL BE SCALED FROM THE DRAWINGS

3. ALL LEVELS ARE IN METRES AND ARE TO MALIN HEAD DATUM

4. ALL COORDINATES ARE IN METRES AND ARE TO IRISH TRANSVERSE MERCATOR

5. DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE SPECIFICATION

UTILITIES NOTES

1. THE INFORMATION PROVIDED ON THIS DRAWING IS BASED ON THAT RECEIVED FROM THE RELEVANT STATUTORY AUTHORITIES.

2. LOCATION OF EXISTING SERVICES AS SHOWN IN THE 500 SERIES DRAWINGS ARE INDICATIVE ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL EXISTING SERVICES ON SITE PRIOR TO EXCAVATION AND IN COLLABORATION WITH THE SERVICE PROVIDER BY CAREFUL DIGGING METHODS.

3. NO SERVICES ARE TO BE DECOMMISSIONED IN ADVANCE OF NEW SERVICES BEING ESTABLISHED AND COMMISSIONED.

4. THE CONTRACTOR TO CONFIRM ALL WORKS IN ADVANCE WITH THE RELEVANT AUTHORITY OR PUBLIC/PRIVATE UNDERTAKER.

5. ALL EXISTING SERVICES MUST BE PROTECTED IN SITU BY THE CONTRACTOR DURING THE WORKS. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING DUCTS DURING THE WORKS.

6. ALL MEETINGS ON SITE WITH THE SERVICE PROVIDERS SHOULD BE NOTIFIED TO THE EMPLOYER'S REPRESENTATIVE WHO WILL BE PRESENT AT THE MEETING WHEN AVAILABLE.

7. THE CONTRACTOR IS ADVISED THAT ANY COSTS ASSOCIATED WITH TEMPORARY WORKS FOR DIVERSION OF SERVICES HAVE NOT BEEN MEASURED AS PART OF THE WORKS AS THESE ARE DEPENDENT ON THE CONTRACTOR'S SEQUENCING FOR THE WORKS. THE CONTRACTOR SHOULD ALLOW FOR TEMPORARY REINSTATEMENT OF EXISTING PAVEMENTS AND THE LIKE.

8. IRISH WATER GIVES THIS INFORMATION AS TO THE POSITION OF ITS UNDERGROUND NETWORK AS A GENERAL GUIDE ONLY ON THE STRICT UNDERSTANDING THAT IT IS BASED ON THE BEST AVAILABLE INFORMATION PROVIDED BY EACH LOCAL AUTHORITY IN IRELAND. IT SHOULD NOT BE RELIED UPON IN THE EVENT OF EXCAVATIONS OR OTHER WORKS BEING CARRIED OUT IN THE VICINITY OF THE NETWORK. THE ONUS IS ON THE PARTIES CARRYING OUT THE WORKS TO ENSURE THE EXACT LOCATION OF THE NETWORK IS IDENTIFIED PRIOR TO MECHANICAL WORKS BEING CARRIED OUT. SERVICE PIPES ARE NOT GENERALLY SHOWN BUT THEIR PRESENCE SHOULD BE ANTICIPATED. © IRISH WATER

LEGEND

- EXISTING WATER MAIN
- EXISTING FOUL SEWER
- EXISTING SURFACE WATER SEWER
- EXISTING GAS PIPES
- EXISTING DECOMISSIONED GAS PIPES
- EXISTING ESB OVERHEAD
- EXISTING ESB UNDERGROUND
- EXISTING ESB LV OVERHEAD
- EXISTING ESB LV UNDERGROUND
- EXISTING ESB MV OVERHEAD
- EXISTING ESB MV UNDERGROUND
- EXISTING EIR DUCTING
- EXISTING VIRGIN MEDIA DUCTING
- EXISTING SIRO DUCTING
- EXISTING AURORA TELECOM DUCTING
- EXISTING BT DUCTING



NTA
Údarás Náisiúnta Iompair
National Transport Authority

WESTMEATH COUNTY COUNCIL
Comhairle Chontae na hIarmhí

Rev	Description	By	Date	Chk'd	Auth
0	INFORMATION	TC	04.2024	SW	SW

ATKINS
Member of the SNC-Lavalin Group

Atkins House, 150-155 Airside Business Park, Swords, Co. Dublin
Tel (+353) 01 810 8000
Fax (+353) 01 810 8001

Unit 2B, 2200 Cork Airport Business Park, Cork
Tel (+353) 021 429 0300
Fax (+353) 021 429 0360

2nd Floor Technology House Parkmore Technology Park, Galway
Tel (+353) 091 786 050
Fax (+353) 091 779 830

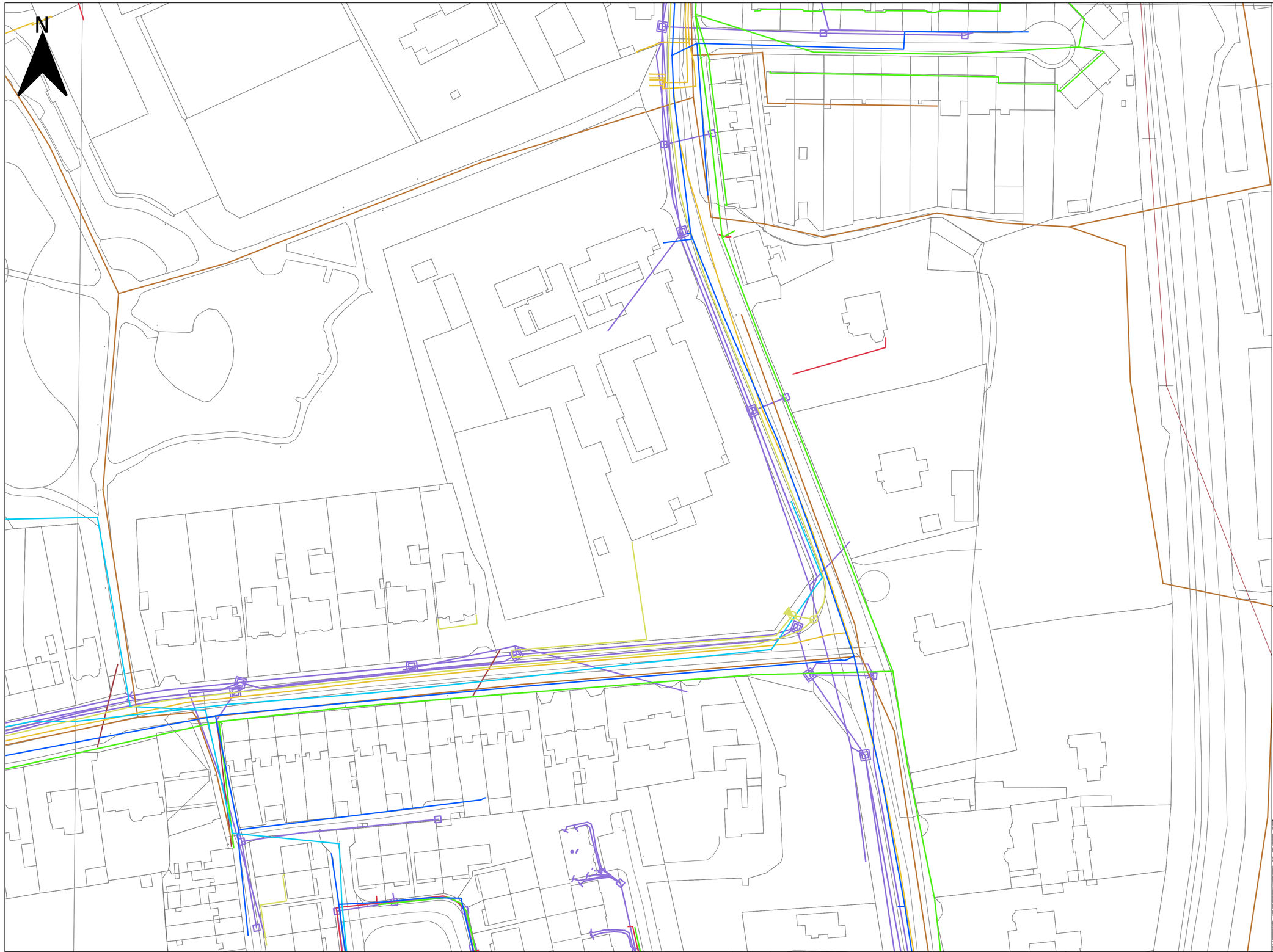
Client
WESTMEATH COUCNTY COUNCIL

Project
MULLINGAR ACTIVE TRAVEL BUNDLE

Title
PROJECT 3
EXISTING UTILITIES
SHEET 1 OF 4

Original Scale	Design/Drawn	Checked	Authorised
1:1,000	TC	SW	SW
	Date 04.2024	Date 04.2024	Date 04.2024

Status	Drawing Number	Rev
I	0086409-ATK-ZZ-ZZ-DR-C-960511	0



A1

0 10 100

DO NOT SCALE

File: Mullingar Active Travel.qgz

Date: 2024-04-02 17:38 Plotted by: tcortes

GENERAL NOTES

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE

2. ONLY WRITTEN DIMENSIONS SHALL BE USED. NO DIMENSIONS SHALL BE SCALED FROM THE DRAWINGS

3. ALL LEVELS ARE IN METRES AND ARE TO MALIN HEAD DATUM

4. ALL COORDINATES ARE IN METRES AND ARE TO IRISH TRANSVERSE MERCATOR

5. DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE SPECIFICATION

UTILITIES NOTES

1. THE INFORMATION PROVIDED ON THIS DRAWING IS BASED ON THAT RECEIVED FROM THE RELEVANT STATUTORY AUTHORITIES.

2. LOCATION OF EXISTING SERVICES AS SHOWN IN THE 500 SERIES DRAWINGS ARE INDICATIVE ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL EXISTING SERVICES ON SITE PRIOR TO EXCAVATION AND IN COLLABORATION WITH THE SERVICE PROVIDER BY CAREFUL DIGGING METHODS.

3. NO SERVICES ARE TO BE DECOMMISSIONED IN ADVANCE OF NEW SERVICES BEING ESTABLISHED AND COMMISSIONED.

4. THE CONTRACTOR TO CONFIRM ALL WORKS IN ADVANCE WITH THE RELEVANT AUTHORITY OR PUBLIC/PRIVATE UNDERTAKER.

5. ALL EXISTING SERVICES MUST BE PROTECTED IN SITU BY THE CONTRACTOR DURING THE WORKS. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING DUCTS DURING THE WORKS.

6. ALL MEETINGS ON SITE WITH THE SERVICE PROVIDERS SHOULD BE NOTIFIED TO THE EMPLOYER'S REPRESENTATIVE WHO WILL BE PRESENT AT THE MEETING WHEN AVAILABLE.

7. THE CONTRACTOR IS ADVISED THAT ANY COSTS ASSOCIATED WITH TEMPORARY WORKS FOR DIVERSION OF SERVICES HAVE NOT BEEN MEASURED AS PART OF THE WORKS AS THESE ARE DEPENDENT ON THE CONTRACTOR'S SEQUENCING FOR THE WORKS. THE CONTRACTOR SHOULD ALLOW FOR TEMPORARY REINSTATEMENT OF EXISTING PAVEMENTS AND THE LIKE.

8. IRISH WATER GIVES THIS INFORMATION AS TO THE POSITION OF ITS UNDERGROUND NETWORK AS A GENERAL GUIDE ONLY ON THE STRICT UNDERSTANDING THAT IT IS BASED ON THE BEST AVAILABLE INFORMATION PROVIDED BY EACH LOCAL AUTHORITY IN IRELAND. IT SHOULD NOT BE RELIED UPON IN THE EVENT OF EXCAVATIONS OR OTHER WORKS BEING CARRIED OUT IN THE VICINITY OF THE NETWORK. THE ONUS IS ON THE PARTIES CARRYING OUT THE WORKS TO ENSURE THE EXACT LOCATION OF THE NETWORK IS IDENTIFIED PRIOR TO MECHANICAL WORKS BEING CARRIED OUT. SERVICE PIPES ARE NOT GENERALLY SHOWN BUT THEIR PRESENCE SHOULD BE ANTICIPATED. © IRISH WATER

LEGEND

- EXISTING WATER MAIN
- EXISTING FOUL SEWER
- EXISTING SURFACE WATER SEWER
- EXISTING GAS PIPES
- EXISTING DECOMISSIONED GAS PIPES
- EXISTING ESB OVERHEAD
- EXISTING ESB UNDERGROUND
- EXISTING ESB LV OVERHEAD
- EXISTING ESB LV UNDERGROUND
- EXISTING ESB MV OVERHEAD
- EXISTING ESB MV UNDERGROUND
- EXISTING EIR DUCTING
- EXISTING VIRGIN MEDIA DUCTING
- EXISTING SIRO DUCTING
- EXISTING AURORA TELECOM DUCTING
- EXISTING BT DUCTING

KEY PLAN
N.T.S.



NTA
Údarás Náisiúnta Iompair
National Transport Authority

WESTMEATH COUNTY COUNCIL
Comhairle Chontae na hIarmhí

Rev	Description	By	Date	Chk'd	Auth
0	INFORMATION	TC	04.2024	SW	SW

ATKINS
Member of the SNC-Lavalin Group

Atkins House, 150-155 Airside Business Park, Swords, Co. Dublin
Tel (+353) 01 810 8000
Fax (+353) 01 810 8001

Unit 2B, 2200 Cork Airport Business Park, Cork
Tel (+353) 021 429 0300
Fax (+353) 021 429 0360

2nd Floor Technology House Parkmore Technology Park, Galway
Tel (+353) 091 786 050
Fax (+353) 091 779 830

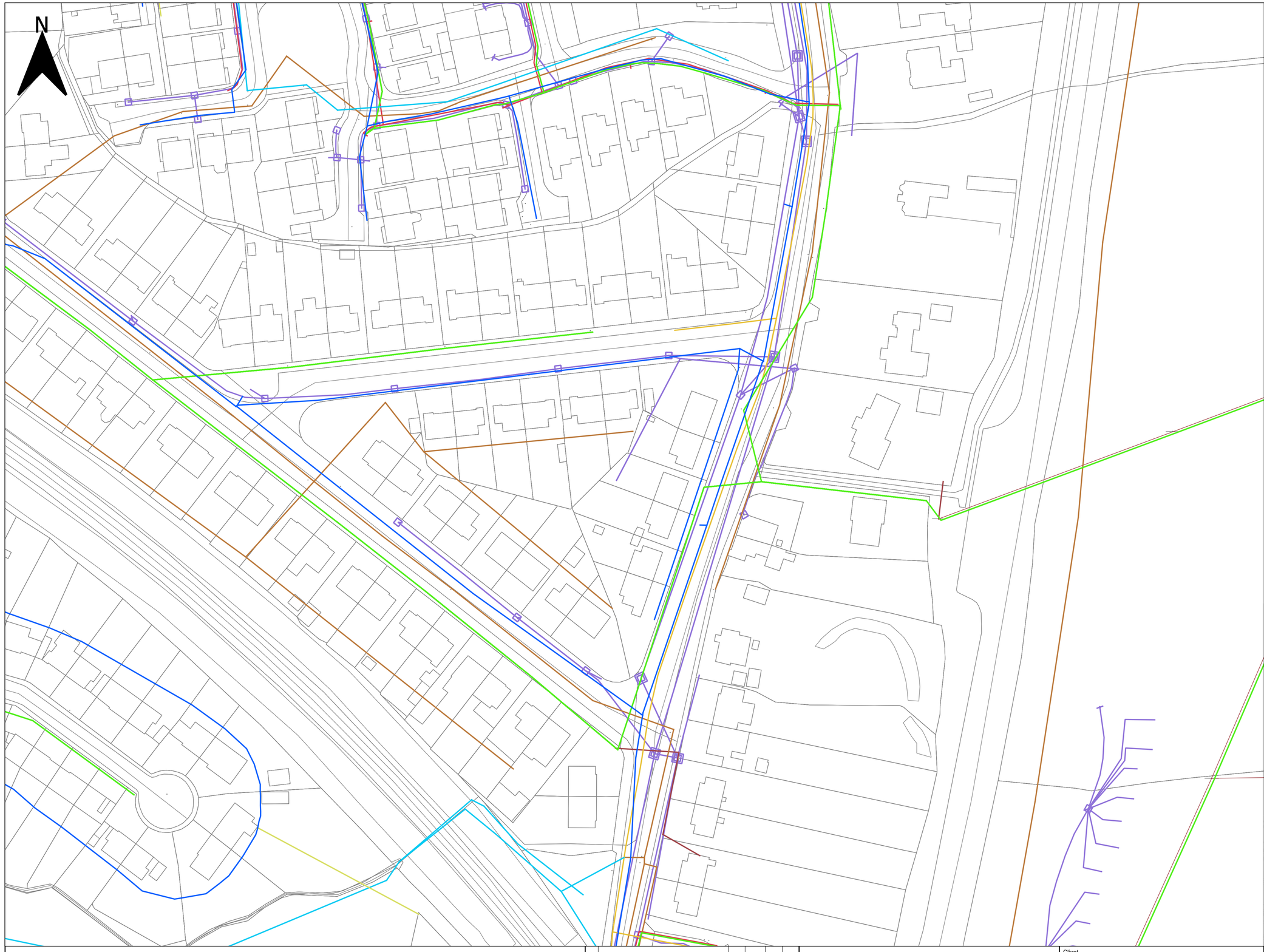
Client
WESTMEATH COUCNTY COUNCIL

Project
MULLINGAR ACTIVE TRAVEL BUNDLE

Title
PROJECT 3
EXISTING UTILITIES
SHEET 2 OF 4

Original Scale	Design/Drawn	Checked	Authorised
1:1,000	TC Date 04.2024	SW Date 04.2024	SW Date 04.2024

Status	Drawing Number	Rev
I	0086409-ATK-ZZ-ZZ-DR-C-960512	0



A1

DO NOT SCALE

File: Mullingar Active Travel.qgz
Date: 2024-04-02 17:40 Plotted by: tcortes

GENERAL NOTES

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE

2. ONLY WRITTEN DIMENSIONS SHALL BE USED. NO DIMENSIONS SHALL BE SCALED FROM THE DRAWINGS

3. ALL LEVELS ARE IN METRES AND ARE TO MALIN HEAD DATUM

4. ALL COORDINATES ARE IN METRES AND ARE TO IRISH TRANSVERSE MERCATOR

5. DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE SPECIFICATION

UTILITIES NOTES

1. THE INFORMATION PROVIDED ON THIS DRAWING IS BASED ON THAT RECEIVED FROM THE RELEVANT STATUTORY AUTHORITIES.

2. LOCATION OF EXISTING SERVICES AS SHOWN IN THE 500 SERIES DRAWINGS ARE INDICATIVE ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL EXISTING SERVICES ON SITE PRIOR TO EXCAVATION AND IN COLLABORATION WITH THE SERVICE PROVIDER BY CAREFUL DIGGING METHODS.

3. NO SERVICES ARE TO BE DECOMMISSIONED IN ADVANCE OF NEW SERVICES BEING ESTABLISHED AND COMMISSIONED.

4. THE CONTRACTOR TO CONFIRM ALL WORKS IN ADVANCE WITH THE RELEVANT AUTHORITY OR PUBLIC/PRIVATE UNDERTAKER.

5. ALL EXISTING SERVICES MUST BE PROTECTED IN SITU BY THE CONTRACTOR DURING THE WORKS. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING DUCTS DURING THE WORKS.

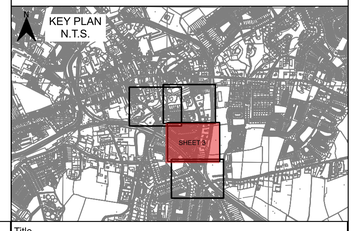
6. ALL MEETINGS ON SITE WITH THE SERVICE PROVIDERS SHOULD BE NOTIFIED TO THE EMPLOYER'S REPRESENTATIVE WHO WILL BE PRESENT AT THE MEETING WHEN AVAILABLE.

7. THE CONTRACTOR IS ADVISED THAT ANY COSTS ASSOCIATED WITH TEMPORARY WORKS FOR DIVERSION OF SERVICES HAVE NOT BEEN MEASURED AS PART OF THE WORKS AS THESE ARE DEPENDENT ON THE CONTRACTOR'S SEQUENCING FOR THE WORKS. THE CONTRACTOR SHOULD ALLOW FOR TEMPORARY REINSTATEMENT OF EXISTING PAVEMENTS AND THE LIKE.

8. IRISH WATER GIVES THIS INFORMATION AS TO THE POSITION OF ITS UNDERGROUND NETWORK AS A GENERAL GUIDE ONLY ON THE STRICT UNDERSTANDING THAT IT IS BASED ON THE BEST AVAILABLE INFORMATION PROVIDED BY EACH LOCAL AUTHORITY IN IRELAND. IT SHOULD NOT BE RELIED UPON IN THE EVENT OF EXCAVATIONS OR OTHER WORKS BEING CARRIED OUT IN THE VICINITY OF THE NETWORK. THE ONUS IS ON THE PARTIES CARRYING OUT THE WORKS TO ENSURE THE EXACT LOCATION OF THE NETWORK IS IDENTIFIED PRIOR TO MECHANICAL WORKS BEING CARRIED OUT. SERVICE PIPES ARE NOT GENERALLY SHOWN BUT THEIR PRESENCE SHOULD BE ANTICIPATED. © IRISH WATER

LEGEND

- EXISTING WATER MAIN
- EXISTING FOUL SEWER
- EXISTING SURFACE WATER SEWER
- EXISTING GAS PIPES
- EXISTING DECOMISSIONED GAS PIPES
- EXISTING ESB OVERHEAD
- EXISTING ESB UNDERGROUND
- EXISTING ESB LV OVERHEAD
- EXISTING ESB LV UNDERGROUND
- EXISTING ESB MV OVERHEAD
- EXISTING ESB MV UNDERGROUND
- EXISTING EIR DUCTING
- EXISTING VIRGIN MEDIA DUCTING
- EXISTING SIRO DUCTING
- EXISTING AURORA TELECOM DUCTING
- EXISTING BT DUCTING



NTA
Údarás Náisiúnta Iompair
National Transport Authority

WESTMEATH COUNTY COUNCIL
Comhairle Chontae na hIarmhí

Rev	Description	By	Date	Chk'd	Auth
0	INFORMATION	TC	04.2024	SW	SW

ATKINS
Member of the SNC-Lavalin Group

Atkins House, 150-155 Airside Business Park, Swords, Co. Dublin
Tel (+353) 01 810 8000
Fax (+353) 01 810 8001

Unit 2B, 2200 Cork Airport Business Park, Cork
Tel (+353) 021 429 0300
Fax (+353) 021 429 0360

2nd Floor Technology House Parkmore Technology Park, Galway
Tel (+353) 091 786 050
Fax (+353) 091 779 830

Client
WESTMEATH COUCNTY COUNCIL

Project
MULLINGAR ACTIVE TRAVEL BUNDLE

Title
PROJECT 3
EXISTING UTILITIES
SHEET 3 OF 4

Original Scale	Design/Drawn	Checked	Authorised
1:1,000	TC Date 04.2024	SW Date 04.2024	SW Date 04.2024

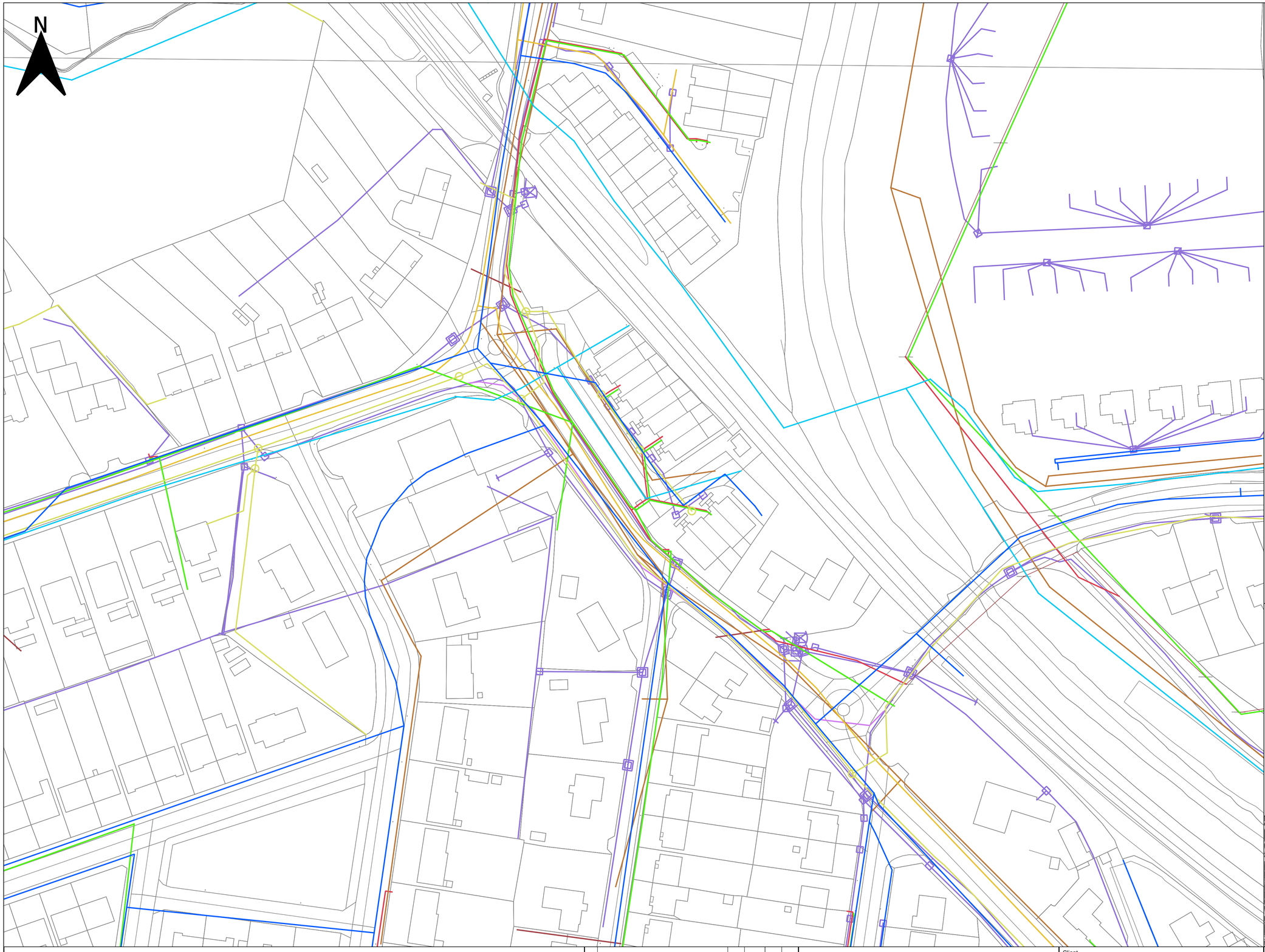
Status	Drawing Number	Rev
I	0086409-ATK-ZZ-ZZ-DR-C-960513	0

A1

0 10 100

DO NOT SCALE

File: Mullingar Active Travel.qgz
Date: 2024-04-02 17:43 Plotted by: tcortes



GENERAL NOTES

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE

2. ONLY WRITTEN DIMENSIONS SHALL BE USED. NO DIMENSIONS SHALL BE SCALED FROM THE DRAWINGS

3. ALL LEVELS ARE IN METRES AND ARE TO MALIN HEAD DATUM

4. ALL COORDINATES ARE IN METRES AND ARE TO IRISH TRANSVERSE MERCATOR

5. DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE SPECIFICATION

UTILITIES NOTES

1. THE INFORMATION PROVIDED ON THIS DRAWING IS BASED ON THAT RECEIVED FROM THE RELEVANT STATUTORY AUTHORITIES.

2. LOCATION OF EXISTING SERVICES AS SHOWN IN THE 500 SERIES DRAWINGS ARE INDICATIVE ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL EXISTING SERVICES ON SITE PRIOR TO EXCAVATION AND IN COLLABORATION WITH THE SERVICE PROVIDER BY CAREFUL DIGGING METHODS.

3. NO SERVICES ARE TO BE DECOMMISSIONED IN ADVANCE OF NEW SERVICES BEING ESTABLISHED AND COMMISSIONED.

4. THE CONTRACTOR TO CONFIRM ALL WORKS IN ADVANCE WITH THE RELEVANT AUTHORITY OR PUBLIC/PRIVATE UNDERTAKER.

5. ALL EXISTING SERVICES MUST BE PROTECTED IN SITU BY THE CONTRACTOR DURING THE WORKS. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING DUCTS DURING THE WORKS.

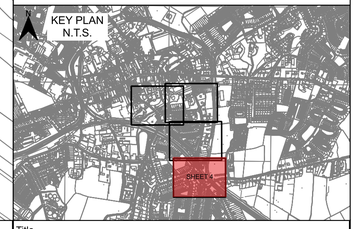
6. ALL MEETINGS ON SITE WITH THE SERVICE PROVIDERS SHOULD BE NOTIFIED TO THE EMPLOYER'S REPRESENTATIVE WHO WILL BE PRESENT AT THE MEETING WHEN AVAILABLE.

7. THE CONTRACTOR IS ADVISED THAT ANY COSTS ASSOCIATED WITH TEMPORARY WORKS FOR DIVERSION OF SERVICES HAVE NOT BEEN MEASURED AS PART OF THE WORKS AS THESE ARE DEPENDENT ON THE CONTRACTOR'S SEQUENCING FOR THE WORKS. THE CONTRACTOR SHOULD ALLOW FOR TEMPORARY REINSTATEMENT OF EXISTING PAVEMENTS AND THE LIKE.

8. IRISH WATER GIVES THIS INFORMATION AS TO THE POSITION OF ITS UNDERGROUND NETWORK AS A GENERAL GUIDE ONLY ON THE STRICT UNDERSTANDING THAT IT IS BASED ON THE BEST AVAILABLE INFORMATION PROVIDED BY EACH LOCAL AUTHORITY IN IRELAND. IT SHOULD NOT BE RELIED UPON IN THE EVENT OF EXCAVATIONS OR OTHER WORKS BEING CARRIED OUT IN THE VICINITY OF THE NETWORK. THE ONUS IS ON THE PARTIES CARRYING OUT THE WORKS TO ENSURE THE EXACT LOCATION OF THE NETWORK IS IDENTIFIED PRIOR TO MECHANICAL WORKS BEING CARRIED OUT. SERVICE PIPES ARE NOT GENERALLY SHOWN BUT THEIR PRESENCE SHOULD BE ANTICIPATED. © IRISH WATER

LEGEND

- EXISTING WATER MAIN
- EXISTING FOUL SEWER
- EXISTING SURFACE WATER SEWER
- EXISTING GAS PIPES
- EXISTING DECOMISSIONED GAS PIPES
- EXISTING ESB OVERHEAD
- EXISTING ESB UNDERGROUND
- EXISTING ESB LV OVERHEAD
- EXISTING ESB LV UNDERGROUND
- EXISTING ESB MV OVERHEAD
- EXISTING ESB MV UNDERGROUND
- EXISTING EIR DUCTING
- EXISTING VIRGIN MEDIA DUCTING
- EXISTING SIRO DUCTING
- EXISTING AURORA TELECOM DUCTING
- EXISTING BT DUCTING



NTA
Údarás Náisiúnta Iompair
National Transport Authority

WESTMEATH COUNTY COUNCIL
Comhairle Chontae na hIarmhí

Rev	Description	By	Date	Chk'd	Auth
0	INFORMATION	TC	04.2024	SW	SW

ATKINS
Member of the SNC-Lavalin Group

Atkins House, 150-155 Airside Business Park, Swords, Co. Dublin
Tel (+353) 01 810 8000
Fax (+353) 01 810 8001

Unit 2B, 2200 Cork Airport Business Park, Cork
Tel (+353) 021 429 0300
Fax (+353) 021 429 0360

2nd Floor Technology House Parkmore Technology Park, Galway
Tel (+353) 091 786 050
Fax (+353) 091 779 830

Client
WESTMEATH COUCNTY COUNCIL

Project
MULLINGAR ACTIVE TRAVEL BUNDLE

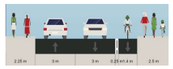
Title
PROJECT 3
EXISTING UTILITIES
SHEET 4 OF 4

Original Scale	Design/Drawn	Checked	Authorised
1:1,000	TC Date 04.2024	SW Date 04.2024	SW Date 04.2024

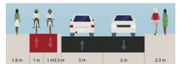
Status	Drawing Number	Rev
I	0086409-ATK-ZZ-ZZ-DR-C-960514	0

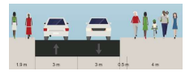
Appendix D. Multi-Criteria Analysis

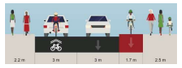
Project 3: Segment 3









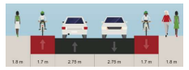


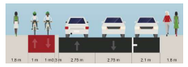
Criteria	Sub-Criteria	Indicator to be measured	Option 1 Do Nothing	Indicator Score	Option 2 Two-way cycle track on the Eastern side (absolute minimum 12.4m)	Indicator Score	Option 3 Two-way cycle track on the west side (absolute minimum 12.4m)	Indicator Score	Option 4 Shared path on the east side (desirable minimum 12.4m)	Indicator Score	Option 5 One-way cycle track on the eastern side and mixed traffic on the western side (Absolute minimum 12.4 cross section)	Indicator Score
Transport User benefits and Other Economic Impacts	Cost and Programme Impacts	Land acquisition area	No land acquisition required.	Neutral	No land acquisition required.	Neutral	No land acquisition required.	Neutral	No land acquisition required.	Neutral	No land acquisition required.	Neutral
		Construction and maintenance	No construction costs associated with the option.	Significant advantages	The cost of this option is higher than others (€270,174.50)	Significant disadvantages	The cost of this option is higher than others (€267,973.43)	Significant disadvantages	The cost of this option is slightly lower than other options (€209,104.43)	Some disadvantages	The cost of this option is higher than others (€243,608.33)	Significant disadvantages
	Construction impacts	Rapid build achievability and construction impacts, including construction requirements and drainage impact	No changes proposed to the existing road arrangements.	Significant advantages	This option would be constructed as a traditional build as it would require road reconstruction to accommodate the two-way cycle track.	Significant disadvantages	This option would be constructed as a traditional build as it would require road reconstruction to accommodate the two-way cycle track.	Significant disadvantages	This option would be constructed as a traditional build as it would require road reconstruction to accommodate the shared path.	Significant disadvantages	This option would be constructed as a traditional build as it would require road reconstruction to accommodate the cycle track.	Significant disadvantages
	Connectivity with public transport facilities	Connections to existing and proposed public transport	Bus route 837 makes use of the segment, however, there are no bus stops.	Neutral	There are no proposals to implement bus stops along the segment as part of the scheme. The 6.0m carriageway will provide the available width in cases where two buses meet.	Neutral	There are no proposals to implement bus stops along the segment as part of the scheme. The 6.0m carriageway will provide the available width in cases where two buses meet.	Neutral	There are no proposals to implement bus stops along the segment as part of the scheme. The 6.0m carriageway will provide the available width in cases where two buses meet.	Neutral	There are no proposals to implement bus stops along the segment as part of the scheme. The 6.0m carriageway will provide the available width in cases where two buses meet.	Neutral
Accessibility Impacts	Access to Key Services	Access to key services (retail, groceries, banks, educational, healthcare, recreational facilities and employment areas)	The segment links the Arts Centre and the Library on the western side. There are footpaths provided on both sides of the road and a cycle lane on the eastern side of the road. Only pedestrians are connected to the key locations, however, there are no appropriate crossing facilities at junctions or adjacent these locations.	Significant disadvantages	The location of the proposed two-way cycle track does not directly connect the key locations on the segment, however, it is improved from the existing scenario.	Some advantages	The proposed two-way cycle track connects well with the key locations along the segment, which will help improve community and recreational participation along the segment.	Significant advantages	The location of the proposed shared path is not directly connect the key locations on the segment, however, it is improved from the existing scenario.	Some disadvantages	The mixed street on the western side would provide direct access to the key facilities on the western side of the segment.	Some advantages
		Impacts on loading and parking bays	There are no parking or loading bays along the segment. However, it's noted that vehicles tend to park at the cycle lane opposite the Arts Centre, imposing risks to cyclists.	Neutral	There are no parking or loading bays along the segment.	Neutral	There are no parking or loading bays along the segment.	Neutral	There are no parking or loading bays along the segment.	Neutral	There are no parking or loading bays along the segment.	Neutral
	Coherence	Route consistency and continuity	There are footpaths on both sides of the road. A cycle lane is provided only on the eastern side and does not connect to any other cycle facility.	Some disadvantages	Footpaths and cycle facilities would be continuous in this option.	Significant advantages	Footpaths and cycle facilities would be continuous in this option.	Significant advantages	The shared path and the footpath would be continuous in this option.	Significant advantages	The cycle track on the east side and the mixed traffic would provide continuity of the facilities for both cyclists and pedestrians. The mixed traffic would connect to Segments 01 and 02, both proposed mixed street segments.	Significant advantages
	Directness	Directness along route and though junctions and maintenance of cyclists progression	On the north bound, cyclists have to share the road with vehicles, therefore, directness is impeded by stopped and turning vehicles. On the south bound, cyclists are accommodated in a cycle lane that is below standard. There are no appropriate crossing facilities and pedestrian progression is not maintained.	Significant disadvantages	Cyclists would be accommodated for at the two-way cycle facility, which would be direct and flow well. The footpaths would also be provided continuously along the segment, with appropriate crossings at junctions.	Significant advantages	Cyclists would be accommodated for at the two-way cycle facility, which would be direct and flow well. The footpaths would also be provided continuously along the segment, with appropriate crossings at junctions.	Significant advantages	As cyclists and pedestrians would share the facility, cyclist progression may be interrupted by pedestrian conflicts. Cyclists would have priority across junctions and side-streets.	Some disadvantages	On the southbound, cyclist movements would be direct and unimpeded. But on the northbound, as cyclists and vehicles share the road, cycle progression may be interrupted by turning and stopped vehicles. Footpaths would be continuous on both sides of the road, with appropriate crossings at junctions.	Significant disadvantages
	Comfort	Provision of comfort for pedestrians and cyclists through assessment of width	Footpaths are provided with over 2m width. The cycle lane is only 1.4m wide, which is less than the absolute minimum according to the CDM.	Significant disadvantages	Footpath on the eastern side would be kept at 2.5m and on the western side would be provided at 1.8m minimum. The two-way cycle track would be the absolute minimum of 2.3m. Both are in accordance with standards.	Significant advantages	Footpath on the eastern side would be kept at 2.5m and on the western side would be provided at 1.8m minimum. The two-way cycle track would be the absolute minimum of 2.3m. Both are in accordance with standards.	Significant advantages	The shared path would have the desirable minimum width, which would be able to accommodate both cyclists and pedestrians and the footpath on the western side would be provided with a minimum of 1.9m, which is higher than the minimum width according to DMURS.	Significant advantages	Footpaths would be provided with a minimum of 2.2m, which is over the absolute minimum on DMURS. The cycle track would be provided with 1.7m wide, the absolute minimum according to the CDM.	Significant advantages
	Attractiveness	Attractiveness of the route	Footpaths are over 2m wide, which is in accordance with DMURS. However, the cycle lane is too narrow on the east side and on the west side there is no signage to indicate the presence of cyclists on the road. Therefore, for cyclists, the existing level of facilities are not attractive.	Significant disadvantages	The improved facility would increase attractiveness along the segment due to the presence of dedicated segregated facilitates.	Significant advantages	The improved facility would increase attractiveness along the segment, especially as it would provide improved connectivity with the Arts Centre and the Library.	Significant advantages	The improved facility would slightly increase attractiveness along the segment as pedestrians and cyclists share the same path.	Some advantages	The improved facility would increase attractiveness along the segment. North bound, signage and road marking would be installed to ensure drivers are aware of the presence of cyclists on the road and on the southbound, the cycle track would improve attractiveness compared to the existing cycle lane.	Some advantages
Social Impacts	Social inclusion for groups with deprived needs	Opportunities for social, community and recreational activity participation	The segment links to two key locations in the town, however, it does not provide suitable opportunities for all users.	Significant disadvantages	Improvements to facilities will facilitate community and recreational participation along the segment and would help connect to the Library and Arts Centre.	Significant advantages	Improvements to facilities will facilitate community and recreational participation along the segment and would help connect to the Library and Arts Centre.	Significant advantages	Improvements to facilities will facilitate community and recreational participation along the segment and would help connect to the Library and Arts Centre. However, because this option would have no segregation between cyclists and pedestrians on the eastern side, this option would not be as inclusive for less confident users and would not see as much of these activities being uptake as fully segregated options.	Some advantages	This option would provide improvements for community and recreational participation along the segment, however, not as significant as fully segregated options as the mixed traffic on the south bound might not be attractive to all users.	Some advantages
	Health impacts	Impact on modal Shift/activity levels (i.e., Cars to Cyclists)	The existing arrangements does not provide sufficient levels of active travel infrastructure to impact on modal shift.	Significant disadvantages	The improved facility has the potential to impact on the modal shift in the area, as it would improve connectivity to a key service. Likewise, the implementation of the active travel facilities would improve safety along the segment, which could help increase the number of users.	Significant advantages	The improved facility has the potential to impact on the modal shift in the area, as it would improve connectivity to a key service. Likewise, the implementation of the active travel facilities would improve safety along the segment, which could help increase the number of users.	Significant advantages	The improved facility has the potential to impact on the modal shift in the area, as it would improve connectivity to a key service. The possibility of conflicts between cyclists and pedestrians decreases the expected modal shift with this option slightly.	Some advantages	The improved facilities have the potential to impact on the modal shift in the area, especially as it would connect well with the Library and Arts Centre. However, this option is limited in providing for less confident and vulnerable users that are less likely to feel comfortable sharing the carriageway with vehicles on the northbound, which would result in a decrease in uptake of these activities.	Some advantages
	Accessibility for users with different mobility needs	Qualitative assessment of accessibility of the options to serve users of all ages and abilities	Footpaths are over 2m wide however, there are no consistent cycle facilities. Therefore, existing scenario is not accessible for all users.	Significant disadvantages	The cycle track and footpaths would be accessible to all users as they would be designed according to standards.	Significant advantages	The cycle track and footpaths would be accessible to all users as they would be designed according to standards.	Significant advantages	The shared path and footpath would be accessible to all users as they would be designed according to standards. The shared path would be designed with the desirable minimum width which would reduce conflicts between cyclists and pedestrians.	Significant advantages	This option provides improved facilities for cyclists travelling south, as they would be fully segregated from traffic, but cyclists travelling north would share the road with vehicles, which is not ideal for more vulnerable users.	Some advantages
	Gender Impacts	How the proposal may have gender specific impacts	Footpaths are wide enough to provide safety for users. Lack of physical segregation between car and cyclist users is problematic as well as the cycle facility is narrow than the minimum, which may force cyclists into the road.	Significant disadvantages	The segregated cycle track and footpath would improve perception of safety for all users, particularly for women and children.	Significant advantages	The segregated cycle track and footpath would improve perception of safety for all users, particularly for women and children.	Significant advantages	The segregation of cycling and car users would improve safety perception, however, this would reduce perception of safety for pedestrians as they lose their segregation from cyclists in this scenario.	Some advantages	The installation of proper signage to indicate mixed traffic would slightly increase perception of safety for all users. The improved perception of safety would be quite limited for cyclists due to their still being no segregation between themselves and vehicles on a busy road. On the other hand, cyclists on the south bound would have their perception of safety improved.	Some advantages

Land Use Impact	Integration with town environs	How the proposal integrates with the Land use, the objectives from development plan and NIFTI	Regarding NIFTI, this option would maintain the existing scenario, therefore, scores higher. Regarding land use, all options are equal. The option would not align with Westmeath County Development Plan 2021-2027 as much as the other options.	Significant advantages	Regarding NIFTI, this option would require implementation of new/improve facilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Significant disadvantages	Regarding NIFTI, this option would require implementation of new/improve facilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Significant disadvantages	Regarding NIFTI, this option would require optimization of the existing facilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Some advantages	Regarding NIFTI, this option would require implementation of new/improve facilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Significant disadvantages
		Impact on green areas	This option would not require the removal of the trees along the segment.	Significant advantages	This option requires the removal of all five trees along the segment to provide the cycle facilities. Impact on the trees can be eliminated if carriageway is reduced to 5.5m, which would allow footpath on the eastern side to be retained.Details on the type and size of vegetation to be decided in preliminary design.	Significant disadvantages	This option requires the removal of all five trees along the segment to provide the cycle facilities. Impact on the trees can be eliminated if carriageway is reduced to 5.5m, which would allow footpath on the eastern side to be retained. Similar to Option 2, new vegetation can be planted on the eastern side footpath.	Significant disadvantages	This option requires the removal of all five trees along the segment to provide the cycle facilities. This option does not allow for new vegetation to be planted in the shared path as it would reduced the width for the shared cycle and pedestrian traffic.	Significant disadvantages	This option would not require the removal of the trees along the eastern side of the road.	Significant advantages
Safety Impact	Safety Impact	Segregation between cyclists and vehicles	Cyclists travelling north share the road with vehicles and cyclists travelling south are accommodated in the mandatory cycle lane, with no physical segregation.	Significant disadvantages	Cyclists would be fully physically segregated from vehicular traffic.	Significant advantages	Cyclists would be fully physically segregated from vehicular traffic.	Significant advantages	Cyclists would be fully physically segregated from vehicular traffic.	Significant advantages	Cyclists on the southbound would be fully segregated but on the northbound they would share the road with vehicular traffic.	Some disadvantages
		Segregation between cyclists and pedestrians	Cyclists and pedestrians are fully segregated.	Significant advantages	Cyclists and pedestrians would be fully segregated in this option.	Significant advantages	Cyclists and pedestrians would be fully segregated in this option.	Significant advantages	Cyclists and pedestrians share the path on the east side of the road.	Significant disadvantages	Cyclists and pedestrians would be fully segregated in this option.	Significant advantages
		Safety for all users regarding traffic volumes and speeds along route	Cycle lanes are not appropriate to 50km/h roads according to the CDM.	Significant disadvantages	Cyclists would be segregated from vehicular traffic, which would comply with CDM standards.	Significant advantages	Cyclists would be segregated from vehicular traffic, which would comply with CDM standards.	Significant advantages	Cyclists would be segregated from vehicular traffic, which would comply with CDM standards.	Significant advantages	There is a high volume of traffic along the segment, over 400 pcu/hr in standard peak traffic times, therefore, measures would have to be implemented to reduce vehicular speeds to improve safety for all road users. Also, based on Table 2.1 of the CDM, the implementation of a mixed traffic along the route is not suitable. The speed limit would have to be reduced to 20km/h and it would be a departure from standard. Speeds were noted to be of an average of 26km/h on the segment. Ramps and signage would have to be implemented to ensure a 20km/h speed limit is obeyed.	Significant disadvantages
		Conflicts at junctions and side roads between vehicles and cyclists	At the junctions, there are no road markings and signage to indicate the presence of cyclists on the road, which poses a risk of conflicts.	Significant disadvantages	As cyclists would be segregated from vehicular traffic, it would reduce conflict opportunities. However, drivers exiting side roads and junctions might not be expecting contra-flow cyclists which can cause conflicts.	Some advantages	As cyclists would be segregated from vehicular traffic, it would reduce conflict opportunities. However, drivers exiting side roads and junctions might not be expecting contra-flow cyclists which can cause conflicts.	Some advantages	As cyclists would be segregated from vehicular traffic, it would reduce conflict opportunities. However, drivers exiting side roads and junctions might not be expecting contra-flow cyclists which can cause conflicts.	Some advantages	Cyclists and vehicles sharing the road on the northbound bound increase the vulnerability of cyclists. However, appropriate signage would be require to indicate the presence of cyclists on the road to improve safety as well as reduced speeds.	Some disadvantages
	Traffic	Impact on traffic capacity due to the proposals	No proposed changes.	Some advantages	This option would not incur in any impacts on traffic along the segment.	Some advantages	This option would require a signal controlled crossing point to be located at the junction between Lynn Road and Sunday's Well to safely accommodate cyclists going from Segment 03 to Segment 04. The inclusion of the crossing would impact vehicles continuity at this locaiton, which can impact traffic.	Some disadvantages	This option would not incur in any impacts on traffic along the segment.	Some advantages	This option would not incur in any impacts on traffic along the segment.	Some advantages
Local Environmental Impact	Air Quality	Air Quality Impact	No change to current air quality.	Some disadvantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local air quality during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local air quality during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local air quality during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may not encourage use by less confident cyclists resulting in limited modal shift from personal vehicles to cycling and therefore limiting the potential for increasing local air quality. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some disadvantages
	Noise and Vibration	Potential Sensitive receptors including residential, commercial, education, healthcare properties	No change to current level of noise pollution.	Some disadvantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local noise and vibration levels during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local noise and vibration levels during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local noise and vibration levels during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may not encourage use by less confident cyclists resulting in limited modal shift from personal vehicles to cycling and therefore limiting the potential for reducing local noise and vibration levels. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some disadvantages
	Soils and geology	Bedrock and overburden. Alluvium Soils, Karst Features, Landslide susceptibility, Contaminated lands, Geological heritage areas	Unlikely to have an impact on soils and geology.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity of any option.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity of any option.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity of any option.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity of any option.	Neutral
	Biodiversity	Impact on Biodiversity along scheme extents	This option would not require the removal of the trees along the segment.	Significant advantages	This option requires the removal of trees along eastern side of the roadway to provide the cycle facilities.	Some disadvantages	This option requires the removal of trees along eastern side of the roadway to provide the cycle facilities.	Some disadvantages	This option requires the removal of trees along the eastern side of the roadway.	Some disadvantages	This option would not require the removal of the trees along the segment.	Significant advantages
	Water Resources	Groundwater Quality (Public and Private Wells, GWDTEs) Groundwater resources / Levels (vulnerable aquifers) Surface water quality and flows	Unlikely to have an impact on water.	Neutral	This segment crosses the River Brosna via an existing bridge/culvert structure, and this applies to all options. There are no wells / springs or drinking water protection areas within the vicinity of any segment/option. Bedrock aquifers beneath all segments are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within the vicinity of this segment is moderate, which applies to all options.	Neutral	This segment crosses the River Brosna via an existing bridge/culvert structure, and this applies to all options. There are no wells / springs or drinking water protection areas within the vicinity of any segment/option. Bedrock aquifers beneath all segments are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within the vicinity of this segment is moderate, which applies to all options.	Neutral	This segment crosses the River Brosna via. an existing bridge/culvert structure, and this applies to all options. There are no wells / springs or drinking water protection areas within the vicinity of any segment/option. Bedrock aquifers beneath all segments are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within the vicinity of this segment is moderate, which applies to all options.	Neutral	This segment crosses the River Brosna via. an existing bridge/culvert structure, and this applies to all options. There are no wells / springs or drinking water protection areas within the vicinity of any segment/option. Bedrock aquifers beneath all segments are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within the vicinity of this segment is moderate, which applies to all options.	Neutral
	Landscape and Visual Quality	Landscape and visual assessment	No changes to landscape and visual receptors.	Neutral	At this stage of the desktop analysis and according to available relevant resources it is considered unlikely that any option will have an impact. A landscape architect will be required to undertake surveys and input into the design.	Neutral	At this stage of the desktop analysis and according to available relevant resources it is considered unlikely that any option will have an impact. A landscape architect will be required to undertake surveys and input into the design.	Neutral	At this stage of the desktop analysis and according to available relevant resources it is considered unlikely that any option will have an impact. A landscape architect will be required to undertake surveys and input into the design.	Neutral	At this stage of the desktop analysis and according to available relevant resources it is considered unlikely that any option will have an impact. A landscape architect will be required to undertake surveys and input into the design.	Neutral
	Cultural and Heritage	Impact at national monuments, NIAH features and Architecture Conservation Areas (ACA)	Unlikely to have an impact on archaeological & architectural heritage assets.	Neutral	At this stage of the desktop analysis and according to available relevant resources, this segment is partially located within Mullingar Architectural Conservation Area (ACA) and a Zone of Archaeological Potential, which applies to all options. 2no. NIAH features; Post box (15310098) & Westmeath County Hall (15310076) border this segment however it is not anticipated that they will be impacted by any option. A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral	At this stage of the desktop analysis and according to available relevant resources, this segment is partially located within Mullingar Architectural Conservation Area (ACA) and a Zone of Archaeological Potential, which applies to all options. 2no. NIAH features; Post box (15310098) & Westmeath County Hall (15310076) border this segment however it is not anticipated that they will be impacted by any option. A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral	At this stage of the desktop analysis and according to available relevant resources, this segment is partially located within Mullingar Architectural Conservation Area (ACA) and a Zone of Archaeological Potential, which applies to all options. 2no. NIAH features; Post box (15310098) & Westmeath County Hall (15310076) border this segment however it is not anticipated that they will be impacted by any option. A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral	At this stage of the desktop analysis and according to available relevant resources, this segment is partially located within Mullingar Architectural Conservation Area (ACA) and a Zone of Archaeological Potential, which applies to all options. 2no. NIAH features; Post box (15310098) & Westmeath County Hall (15310076) border this segment however it is not anticipated that they will be impacted by any option. A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral

Project 3: Segment 4









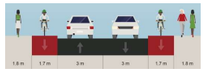


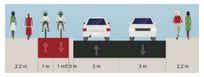
Criteria	Sub-Criteria	Indicator to be measured	Option 1 Do Nothing	Indicator Score	Option 2 One-way cycle track (absolute minimum width 12.5m)	Indicator Score	Option 3 Two-way cycle track and retention of one parking area on the south side (absolute minimum width 13.5m)	Indicator Score	Option 4 Mixed traffic with retention of parking bays (absolute minimum width (12.1m)	Indicator Score	Option 5 Additional Route Through Town Park: Two-way cycle track from junction with Lynn Road until access to park, with off-road facilities along the park and mixed street along the road. (varying cross section)	Indicator Score
Transport User benefits and Other Economic Impacts	Cost and Programme Impacts	Land acquisition area	No land acquisition required.	Neutral	No land acquisition required.	Neutral	No land acquisition required.	Neutral	No land acquisition required in this option.	Neutral	No land acquisition required in this option.	Neutral
		Construction and maintenance	No construction costs associated with the option.	Significant advantages	The cost of this option is higher than others (€484,824.25)	Significant disadvantages	The cost of this option is higher than others (€436,905.80)	Significant disadvantages	The cost of this option are lower than other options (€159,007.20)	Some advantages	The cost of this option are lower than Options 1 and 2, but is more expensive than Option 3 (€340,198.69)	Some disadvantages
	Construction impacts	Rapid build achievability and construction impacts, including construction requirements and drainage impact	No changes proposed to the existing road arrangements.	Significant advantages	This option would be constructed as a traditional build as it would require road reconstruction to accommodate the one-way cycle track.	Significant disadvantages	This option would be constructed as a traditional build as it would require road reconstruction to accommodate the two-way cycle track.	Significant disadvantages	This option would be built as a rapid build option, therefore, it is more likely to be concluded faster than the other options.	Some advantages	This option would be constructed as a traditional build as it would require road reconstruction to accommodate the two-way cycle track on the first section of the road and along the park to construct the segregated paths. Along the remainder of the road, no works are being proposed.	Some disadvantages
	Connectivity with public transport facilities	Connections to existing and proposed public transport	There is no public transport available along the segment, resulting in no change in connection to public transport.	Neutral	There is no public transport available along the segment, resulting in no change in connection to public transport.	Neutral	There is no public transport available along the segment, resulting in no change in connection to public transport.	Neutral	There is no public transport available along the segment, resulting in no change in connection to public transport.	Neutral	There is no public transport available along the segment, resulting in no change in connection to public transport.	Neutral
Accessibility Impacts	Access to Key Services	Access to key services (retail, groceries, banks, educational, healthcare, recreational facilities and employment areas)	The segment links to the Mullingar Park and the town centre. There is a zebra crossing located at the entrance to the park and footpaths are provided on both sides of the road, but cyclists are not accommodated and not catered to access these locations. Therefore, the existing cross section does not provide the necessary level of active travel facilities.	Significant disadvantages	The proposed active travel facilities connect well with the key locations along the segment, which will help improve community and recreational participation along the segment. The option would provide appropriate crossing points to allow cyclists to cross the road and access the facilities.	Significant advantages	The proposed active travel facilities connect well with the key locations along the segment, which will help improve community and recreational participation along the segment.	Significant advantages	Improvements to facilities will facilitate community and recreational participation along the segment. It will improve active travel usage to and from the key locations, to a limited degree compared with other options as this option would be challenging for less confident users to access these services.	Some disadvantages	Improvements to facilities will facilitate community and recreational participation along the segment. This option would require a longer travel for some users but would still improve community and recreational participation.	Some advantages
		Impacts on loading and parking bays	No proposed changes to parking bays.	Significant advantages	This option would retain only the parking area to the west of the zebra crossing.	Significant disadvantages	This option would retain three parking areas.	Some disadvantages	This option retains all parking bays.	Significant advantages	This option retains all parking bays.	Significant advantages
	Coherence	Route consistency and continuity	There are footpaths provided on both sides of the road. There are no cycle facilities.	Significant disadvantages	Footpaths and cycle facilities would be continuous in this option.	Significant advantages	Footpaths and cycle facilities would be continuous in this option.	Significant advantages	Facilities would be continuous in this option.	Significant advantages	Cyclists would be require to do a detour through the park to progress north, however, the route is shorter than if they had to travel along Auburn Road to reach Millmount Road to the north. For cyclists that continue along Aubrun Road will transition from a segregated two-way cycle track into a mixed street.	Some advantages
	Directness	Directness along route and though junctions and maintenance of cyclists progression	Cyclists have to share the road with vehicles, therefore, directness is impeded by stopped and turning vehicles. There is a zebra crossing which connects to the Mullingar Park, however, at the junctions, there are no appropriated crossing point.	Significant disadvantages	Cyclists would be accommodated for at the one-way cycle facility, which would be direct and flow well. The footpaths would also be provided continuously along the segment, with appropriate crossings at junctions.	Significant advantages	Cyclists would be accommodated for at the two-way cycle facility, which would be direct and flow well. The footpaths would also be provided continuously along the segment, with appropriate crossings at junctions.	Significant advantages	Cyclists travelling along the segment would have to share the road with vehicles, therefore, directness is impeded by stopped and turning vehicles. The proper signage and road markings are expected to improve the directness for cyclists slightly.	Some disadvantages	There would be sections of segregated cycle facilities (first seciton of Sunday's Well Road and through the town park) and a section of mixed traffic. Directness along the segregated paths would not be impeded but on the mixed street would be impeded by stopping and turning vehicles. The proper signage and road markings are expected to improve the directness for cyclists slightly.	Some advantages
	Comfort	Provision of comfort for pedestrians and cyclists through assessment of width	There are no cycle facilities and no appropriate signage to indicate motorists of cyclists on the road. The footpath is below minimum width at several locations.	Significant disadvantages	Footpaths would be a minimum of 1.8m and the one-way cycle track would be the absolute minimum of 1.7m. However, for a 10m length, due to a pinch point, the facilities would either have to be locally narrowed or brought into a share active path, which would impact comfort for all users.	Some advantages	Footpaths would be a minimum of 1.8m and the two-way cycle track would be the absolute minimum of 2.3m.	Significant advantages	Footpaths would be provide according to DMURS guidelines, however cyclists would be accommodated on road only, impacting comfort.	Some advantages	In general, footpaths would be widened to a minimum of 1.8m, however from the zebra crossing to the junction between Aubrun Road and Milmount Road, the footpath on the northern side would be retained at 1.3m in order to retain the existing trees. The remainder of the footpaths would be over 1.8m.	Some disadvantages
	Attractiveness	Attractiveness of the route	As the level of active travel infrastructure provided is limited, existing scenario is not considered attractive.	Significant disadvantages	The improved facility would increase attractiveness along the segment due to the presence of dedicated segregated facilitates.	Significant advantages	The improved facility would increase attractiveness along the segment due to the presence of dedicated segregated facilitates.	Significant advantages	The widening of the footpath and proper signage to indicate mixed traffic would increase perception of safety for all users, however, as cyclists and vehicles would share the carriageway this would be less attractive to cyclists.	Some disadvantages	The sections with segregated facilities for all road users would increase attractiveness along the segment. The section of mixed street would be less attractive for cyclists and drivers, however, proper signage would be installed to increase perception of safety.	Some advantages
Social Impacts	Social inclusion for groups with deprived needs	Opportunities for social, community and recreational activity participation	The current arrangements provide footpaths on both sides of the road and a zebra crossing at the Mullingar Park entrance. The arrangements are only appropriate for pedestrians as there are no cycle facilities.	Significant disadvantages	Improvements to facilities will facilitate community and recreational participation along the road, connecting the residential units and the wider sections of the town to the town centre and the park.	Significant advantages	Improvements to facilities will facilitate community and recreational participation along the road, connecting the residential units and the wider sections of the town to the town centre and the park.	Significant advantages	Improvements to facilities will facilitate community and recreational participation along the road. This option is limited in providing for less confident and vulnerable users that are less likely to feel comfortable sharing the carriageway with vehicles which would result in a decrease in uptake of these activities.	Some advantages	Improvements to facilities will facilitate community and recreational participation along the road, connecting the residential units and the wider sections of the town to the town centre and the park.	Some advantages
	Health impacts	Impact on modal Shift/activity levels (i.e., Cars to Cyclists)	The existing arrangements does not provide sufficient levels of active travel infrastructure to impact on modal shift.	Significant disadvantages	The improved facility has the potential to impact on the modal shift in the area, as it would improve connectivity to key locations. Likewise, the implementation of the active travel facilities would improve safety along the segment, which could help increase the number of users.	Significant advantages	The improved facility has the potential to impact on the modal shift in the area, as it would improve connectivity to a key service. Likewise, the implementation of the active travel facilities would improve safety along the segment, which could help increase the number of users.	Significant advantages	The improved facility has the potential to impact on the modal shift in the area, as it would provide direct access to key locations in the town, however, the lack of segregation between cyclists and vehicles would likely lead to a significantly lower modal shift than other options.	Some disadvantages	The improved facility has the potential to impact on the modal shift in the area, as it would improve connectivity to a key service. Likewise, the implementation of the active travel facilities would improve safety along the segment, which could help increase the number of users.	Some advantages
	Accessibility for users with different mobility needs	Qualitative assessment of accessibility of the options to serve users of all ages and abilities	Footpaths are narrow at several locations along the segment, which is not accessible for several users. There is also no cycle facilities.	Significant disadvantages	The cycle track and footpaths would be accessible to all users as they would be designed according to standards.	Significant advantages	The cycle track and footpaths would be accessible to all users as they would be designed according to standards.	Significant advantages	The footpaths would be adequate to accommodate the levels of pedestrians along the segment, however, the shared street might not be suitable for less experienced users.	Some disadvantages	The cycle track would be accessible to all users as they would be designed according to standards. Some sections of footpath would be less than 1.8m, the minimum width, which might not be accessible to some users, however, users can avail of the footpath on the other side of the road as there would be appropriate crossing points. The section of mixed street might not be suitable for some users but there are alternative options provided.	Some advantages
	Gender Impacts	How the proposal may have gender specific impacts	Footpaths are provided on both sides of the road, but are less than minimum stipulated in DMURS. Also, there is no segregation between cyclists and vehicles along the road.	Significant disadvantages	The segregated cycle track and footpath would improve perception of safety for all users, particularly for women and children.	Significant advantages	The segregated cycle track and footpath would improve perception of safety for all users, particularly for women and children.	Significant advantages	The widening of the footpath and proper signage to indicate mixed traffic would increase perception of safety for all users compared to the existing scenario, however, lack of actual segregation between traffic and cyclists makes this option less favourable than other options.	Some disadvantages	The segregated cycle track and footpath would improve perception of safety for all users, particularly for women and children. Cyclists not confident in using the section of mixed street can continue to use the segregated paths provided.	Some advantages

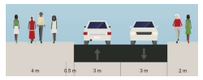
Land Use Impact	Integration with town environs	How the proposal integrates with the Land use, the objectives from development plan and NIFTI	Regarding NIFTI, this option would maintain the existing scenario, therefore, scores higher. Regarding land use, all options are equal. The option would not align with Westmeath County Development Plan 2021-2027 as much as the other options.	Some advantages	Regarding NIFTI, this option would require implementation of new/improve facilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Significant disadvantages	Regarding NIFTI, this option would require implementation of new/improve facilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Significant disadvantages	Regarding NIFTI, this option would require optimization of the existing facilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Some advantages	Regarding NIFTI, this option would require optimization of the existing facilities and new/improved facilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Some disadvantages
		Impact on green areas	No changes proposed to the green areas.	Significant advantages	This option requires the removal of the grassed verge and the trees along the segment to install the cycle facilities.	Significant disadvantages	This option requires the removal of the grassed verge and the trees along the segment to instal the cycle facilities. However, there would be space in this option to provide new vegetation.	Some disadvantages	Some trees would have to be removed along the segment to provide appropriate footpath width on both sides of the road.	Some disadvantages	This option would require the removal of one tree to the west of the zebra crossing.	Some advantages
Safety Impact	Safety Impact	Segregation between cyclists and vehicles	There is currently no segregation between cyclists and vehicles.	Significant disadvantages	Cyclists would be segregated from vehicular traffic.	Significant advantages	Cyclists would be fully physically segregated from vehicular traffic.	Significant advantages	This option would not provide segregation between cyclists and vehicles.	Significant disadvantages	This option would provide segregation between cyclists and vehicles for most part of the route.	Some advantages
		Segregation between cyclists and pedestrians	Cyclists and pedestrians are fully segregated.	Significant advantages	Cyclists and pedestrians would be segregated from one another for most part, apart from a small pinch point area where the paths might become a share path.	Some advantages	Cyclists and pedestrians would be fully segregated in this option.	Significant advantages	Pedestrians and cyclists would be segregated in this option.	Significant advantages	Pedestrians and cyclists would be segregated in this option.	Significant advantages
		Safety for all users regarding traffic volumes and speeds along route	Based on the traffic volumes of the segment, this option is not appropriate and does not meet CDM standards.	Significant disadvantages	Cyclists would be segregated from vehicular traffic, which would comply with CDM standards.	Significant advantages	Cyclists would be segregated from vehicular traffic, which would comply with CDM standards.	Significant advantages	There is a high volume of traffic along the segment, over 400 pcu/hr in standard peak traffic times, therefore, measures would have to be implemented to reduce vehicular speeds to improve safety for all road users. Also, based on Table 2.1 of the CDM, the implementation of a mixed traffic along the route is not suitable. The speed limit would have to be reduced to 20km/h and it would be a departure from standard. Speeds were noted to be of an average of 40km/h on the segment. Ramps and signage would have to be implemented to ensure a 20km/h speed limit is obeyed.	Significant disadvantages	Most of the segment provide segregated facilities. There is a section of mixed street along Auburn Road, where, according to the CDM, a mixed street is not suitable due to high volumes of traffic. Cyclists that do not feel confident in using this section of the seghment, can avail of the segregated facility through the town park. Traffic calming measures and road marking would be installed along Aurburn Road to increase safety for all road users.	Some advantages
		Conflicts at junctions and side roads between vehicles and cyclists	At the junctions, there are no road markings and signage to indicate the presence of cyclists on the road, which poses a risk of conflicts.	Significant disadvantages	As cyclists would be segregated from vehicular traffic, it would reduce conflict opportunities.	Significant advantages	As cyclists would be segregated from vehicular traffic, it would reduce conflict opportunities. However, drivers exiting side roads and junctions might not be expecting contra-flow cyclists which can cause conflicts.	Some advantages	Cyclists and vehicles sharing the road increase the vulnerability of cyclists. However, appropriate signage would be require to indicate the presence of cyclists on the road to improve safety.	Some disadvantages	The main route at the segment is the segregated path through the park and the two-way cycle track along Sunday's Well Road. Cyclists are excluded from risks of conflicts along the park. On Sunday's Well Road, drivers exiting the driveways might not be expecting contra-flow cyclists, which can cause conflicts. Along the mixed street section, appropriate signage would be require to indicate the presence of cyclists on the road.	Some advantages
	Traffic	Impact on traffic capacity due to the proposals	No proposed changes.	Neutral	This option would not incur in any impacts on traffic along the segment.	Neutral	This option would not incur in any impacts on traffic along the segment.	Neutral	This option would not incur in any impacts on traffic along the segment.	Neutral	This option would not incur in any impacts on traffic along the segment.	Neutral
Local Environmental Impact	Air Quality	Air Quality Impact	No change to current air quality.	Some disadvantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local air quality during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local air quality during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may not encourage use by less confident cyclists resulting in limited modal shift from personal vehicles to cycling and therefore limiting the potential for increasing local air quality. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some disadvantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local air quality during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages
	Noise and Vibration	Potential Sensitive receptors including residential, commercial, education, healthcare properties	No change to current level of noise pollution.	Some disadvantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local noise and vibration levels during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local noise and vibration levels during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may not encourage use by less confident cyclists resulting in limited modal shift from personal vehicles to cycling and therefore limiting the potential for reducing local noise and vibration levels. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some disadvantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local noise and vibration levels during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages
	Soils and geology	Bedrock and overburden. Alluvium Soils, Karst Features, Landslide susceptibility, Contaminated lands, Geological heritage areas	Unlikely to have an impact on soils and geology.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity of any option.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity of any option.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity of any option.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity of any option.	Neutral
	Biodiversity	Impact on Biodiversity along scheme extents	No impact on biodiversity as no vegetation will be removed and scheme undertaken on existing roadways.	Significant advantages	This option requires the removal of the grass verge and the trees along the segment to install the cycle facilities.	Some disadvantages	This option requires the removal of the grass verge and the trees along the segment to instal the cycle facilities.	Some disadvantages	This option requires the removal of trees and would reduce the grass verge width.	Some disadvantages	This option requires the removal of grassed areas and a tree to the west of the zebra crossing.	Some advantages
	Water Resources	Groundwater Quality (Public and Private Wells, GWDTEs) Groundwater resources / Levels (vulnerable aquifers) Surface water quality and flows	Unlikely to have an impact on water.	Neutral	There are no surface water features, wells / springs or drinking water protection areas within the vicinity of any option. Bedrock aquifers beneath all segments are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within the vicinity of this segment is moderate and high, which applies to all options.	Neutral	There are no surface water features, wells / springs or drinking water protection areas within the vicinity of any option. Bedrock aquifers beneath all segments are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within the vicinity of this segment is moderate and high, which applies to all options.	Neutral	There are no surface water features, wells / springs or drinking water protection areas within the vicinity of any option. Bedrock aquifers beneath all segments are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within the vicinity of this segment is moderate and high, which applies to all options.	Neutral	There are no surface water features, wells / springs or drinking water protection areas within the vicinity of any option. Bedrock aquifers beneath all segments are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within the vicinity of this segment is moderate and high, which applies to all options.	Neutral
	Landscape and Visual Quality	Landscape and visual assessment	No changes to landscape and visual receptors.	Neutral	At this stage of the desktop analysis and according to available relevant resources it is considered unlikely that any option will have an impact. A landscape architect will be required to undertake surveys and input into the design.	Neutral	At this stage of the desktop analysis and according to available relevant resources it is considered unlikely that any option will have an impact. A landscape architect will be required to undertake surveys and input into the design.	Neutral	At this stage of the desktop analysis and according to available relevant resources it is considered unlikely that any option will have an impact. A landscape architect will be required to undertake surveys and input into the design.	Neutral	At this stage of the desktop analysis and according to available relevant resources it is considered unlikely that any option will have an impact. A landscape architect will be required to undertake surveys and input into the design.	Neutral
	Cultural and Heritage	Impact at national monuments, NIAH features and Architecture Conservation Areas (ACA)	Unlikely to have an impact on archaeological & architectural heritage assets.	Neutral	At this stage of the desktop analysis and according to available relevant resources, this segment is partially located within an Architectural Conservation Area (ACA), which applies to all options. 2no. NIAH features; Sunday Well (15310096) & House (15310233), and 1no. SMR feature; Ritual Site-holy well (WM019-089011) border this segment. A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral	At this stage of the desktop analysis and according to available relevant resources, this segment is partially located within an Architectural Conservation Area (ACA), which applies to all options. 2no. NIAH features; Sunday Well (15310096) & House (15310233), and 1no. SMR feature; Ritual Site-holy well (WM019-089011) border this segment. A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral	At this stage of the desktop analysis and according to available relevant resources, this segment is partially located within an Architectural Conservation Area (ACA), which applies to all options. 2no. NIAH features; Sunday Well (15310096) & House (15310233), and 1no. SMR feature; Ritual Site-holy well (WM019-089011) border this segment. A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral	At this stage of the desktop analysis and according to available relevant resources, this segment is partially located within an Architectural Conservation Area (ACA), which applies to all options. 2no. NIAH features; Sunday Well (15310096) & House (15310233), and 1no. SMR feature; Ritual Site-holy well (WM019-089011) border this segment. A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral

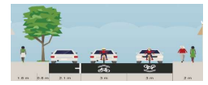
Project 3: Segment 5









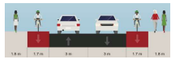


Criteria	Sub-Criteria	Indicator to be measured	Option 1 Do Nothing	Indicator Score	Option 2 Stepped one-way cycle track (absolute minimum width 13.0m)	Indicator Score	Option 3 Two-way cycle track on the west side and retention of parking bays on the east side (absolute minimum width 12.8m)	Indicator Score	Option 4 Shared Active Travel Path on West Side and Retention of Parking on East side (desirable minimum width 12.5m)	Indicator Score	Option 5 Mixed traffic and retention of parking bays (absolute minimum width 12.6m)	Indicator Score
Transport User benefits and Other Economic Impacts	Cost and Programme Impacts	Land acquisition area	No land acquisition required.	Significant advantages	Some section of land acquisition would be required to facilitate this option.	Significant disadvantages	No land acquisition required for this option.	Significant advantages	No land acquisition required for this option.	Significant advantages	No land acquisition required for this option.	Significant advantages
		Construction and maintenance	No construction costs associated with the option.	Significant advantages	The cost of this option is higher than others (€279,075.79)	Significant disadvantages	The cost of this option is higher than others (€252,018.18)	Significant disadvantages	The cost of this option is higher than others (€233,735.10)	Significant disadvantages	The cost of this option are slightly lower than other options (€126,024.45)	Some advantages
	Construction impacts	Rapid build achievability and construction impacts, including construction requirements and drainage impact	No changes proposed to the existing road arrangements.	Significant advantages	This option would be constructed as a traditional build as it would require road reconstruction to accommodate the one-way cycle track.	Significant disadvantages	This option would be constructed as a traditional build as it would require road reconstruction to accommodate the two-way cycle track.	Significant disadvantages	This option would be constructed as a traditional build as it would require road reconstruction to accommodate the shared path.	Significant disadvantages	This option would be built as a rapid build option, therefore, it is more likely to be concluded faster than the other options.	Some advantages
	Connectivity with public transport facilities	Connections to existing and proposed public transport	Bus route 190 makes use of the segment, however, there are no bus stops.	Neutral	There are no proposals to implement bus stops along the segment as part of the scheme. The 6.0m carriageway will provide the available width in unlikely the case where two buses meet.	Neutral	There are no proposals to implement bus stops along the segment as part of the scheme. The 6.0m carriageway will provide the available width in unlikely the case where two buses meet.	Neutral	There are no proposals to implement bus stops along the segment as part of the scheme. The 6.0m carriageway will provide the available width in unlikely the case where two buses meet.	Neutral	There are no proposals to implement bus stops along the segment as part of the scheme. The 6.0m carriageway will provide the available width in unlikely the case where two buses meet.	Neutral
Accessibility Impacts	Access to Key Services	Access to key services (retail, groceries, banks, educational, healthcare, recreational facilities and employment areas)	The segment links the town centre to the east of the town and the Mullingar Community College. The existing cross section does not provide appropriate active travel infrastructure for users accessing these locations.	Significant disadvantages	The proposed active travel facility provides good connection with the Mullingar College and between the segment and the wider town, which will help improve community and recreational participation along the segment. The option would provide appropriate crossing points to allow cyclists to cross the road and access the facilities.	Significant advantages	The proposed active travel facility provides good connection with the Mullingar College and between the segment and the wider town, which will help improve community and recreational participation along the segment. The option would provide appropriate crossing points to allow cyclists to cross the road and access the facilities.	Significant advantages	Improvements to facilities will facilitate community and recreational participation along the segment and the wider town and the Mullingar College. However, because this option would have no segregation between cyclists and pedestrians on the eastern side, this option would not be as inclusive for less confident users and would not see as much of these activities being uptake as fully segregated options.	Some advantages	Improvements to facilities will facilitate community and recreational participation on along the segment, the Mullingar College and the wider town. It will improve active travel usage to a limited degree compared with other options as this option would be challenging for less confident users to access these services.	Some disadvantages
		Impacts on loading and parking bays	No proposed changes to parking bays.	Significant advantages	This option would require the removal of all parking bays on the western side and would only retain the parking on the eastern side, serving Millmount Terrace.	Significant disadvantages	This option would require the removal of all parking bays on the western side and would only retain the parking on the eastern side, serving Millmount Terrace.	Significant disadvantages	This option would require the removal of all parking bays on the western side and would only retain the parking on the eastern side, serving Millmount Terrace.	Significant disadvantages	This option would retain all parking bays on both sides of the road.	Significant advantages
	Coherence	Route consistency and continuity	There are footpaths provided on both sides of the road. There are no cycle facilities.	Significant disadvantages	Footpaths and cycle facilities would be continuous in this option.	Significant advantages	Footpaths and cycle facilities would be continuous in this option.	Significant advantages	The shared path and the footpath would be continuous in this option.	Significant advantages	Facilities would be continuous in this option.	Significant advantages
	Directness	Directness along route and though junctions and maintenance of cyclists progression	Footpaths are provided on both sides of the road but cyclists have to share the road with vehicles, therefore, directness is impeded by stopped and turning vehicles.	Significant disadvantages	Cyclists would be accommodated for at the one-way cycle facility, which would be direct and flow well. The footpaths would also be provided continuously along the segment, with appropriate crossings at junctions.	Significant advantages	Cyclists would be accommodated for at the two-way cycle facility, which would be direct and flow well. The footpaths would also be provided continuously along the segment, with appropriate crossings at junctions.	Significant advantages	As cyclists and pedestrians would share the facility, cyclist progression may be interrupted by pedestrian conflicts. Cyclists would have priority across junctions and side-streets.	Some advantages	Cyclists travelling along the segment would have to share the road with vehicles, therefore, directness is impeded by stopped and turning vehicles. The proper signage and road markings are expected to improve the directness for cyclists slightly.	Some disadvantages
	Comfort	Provision of comfort for pedestrians and cyclists through assessment of width	There are no cycle facilities and no appropriate signage to indicate motorists of cyclists on the road. The footpath is below minimum width at several locations.	Significant disadvantages	Footpaths would be a minimum of 1.8m and the one-way cycle track would be the absolute minimum of 1.7m.	Significant advantages	Footpaths would be a minimum of 1.8m and the two-way cycle track would be the absolute minimum of 2.3m.	Significant advantages	The shared path would have the desirable minimum width, which would be able to accommodate both cyclists and pedestrians and the footpath on the western side would be provided with a minimum of 2.0m, which is higher than the minimum width according to DMURS.	Significant advantages	Footpaths would be provide according to DMURS guidelines, however cyclists would be accommodated on road only, impacting comfort.	Some advantages
	Attractiveness	Attractiveness of the route	As the level of active travel infrastructure provided is limited, existing scenario is not considered attractive.	Significant disadvantages	The improved facility would increase attractiveness along the segment due to the presence of dedicated segregated facilitates.	Significant advantages	The improved facility would increase attractiveness along the segment due to the presence of dedicated segregated facilitates.	Significant advantages	The improved facility would slightly increase attractiveness along the segment as pedestrians and cyclists share the same path.	Some advantages	The widening of the footpath and proper signage to indicate mixed traffic would increase perception of safety for all users, however, as cyclists and vehicles would share the carriageway this would be less attractive to cyclists.	Some disadvantages
Social Impacts	Social inclusion for groups with deprived needs	Opportunities for social, community and recreational activity participation	The segment provides connection to the town centre from the south-eastern part of the town and the Mullingar College, however, it does not provide suitable opportunities for all users.	Significant disadvantages	Improvements to facilities will facilitate community and recreational participation along the road, connecting south-eastern part of the town to the town centre and the Mullingar College.	Significant advantages	Improvements to facilities will facilitate community and recreational participation along the road, connecting south-eastern part of the town to the town centre and the Mullingar College.	Significant advantages	Improvements to facilities will facilitate community and recreational participation along the segment and the wider locations across the town. However, because this option would have no segregation between cyclists and pedestrians on the western side, this option would not be as inclusive for less confident users and would not see as much of these activities being uptake as fully segregated options.	Some advantages	Improvements to facilities will facilitate community and recreational participation along the road and the wider town. This option is limited in providing for less confident and vulnerable users that are less likely to feel comfortable sharing the carriageway with vehicles which would result in a decrease in uptake of these activities.	Some disadvantages
	Health impacts	Impact on modal Shift/activity levels (i.e., Cars to Cyclists)	The existing arrangements does not provide sufficient levels of active travel infrastructure to impact on modal shift.	Significant disadvantages	The improved facility has the potential to impact on the modal shift in the area. Likewise, the implementation of the active travel facilities would improve safety along the segment, which could help increase the number of users.	Significant advantages	The improved facility has the potential to impact on the modal shift in the area. Likewise, the implementation of the active travel facilities would improve safety along the segment, which could help increase the number of users.	Significant advantages	The improved facility has the potential to impact on the modal shift in the area. The possibility of conflicts between cyclists and pedestrians decreases the expected modal shift with this option slightly.	Some advantages	The improved facility has the potential to impact on the modal shift in the area, however, the lack of segregation between cyclists and vehicles would likely lead to a significantly lower modal shift than other options.	Some disadvantages
	Accessibility for users with different mobility needs	Qualitative assessment of accessibility of the options to serve users of all ages and abilities	Footpaths are narrow at several locations along the segment, which is not accessible for several users. There is also no cycle facilities.	Significant disadvantages	The cycle track and footpaths would be accessible to all users as they would be designed according to standards.	Significant advantages	The cycle track and footpaths would be accessible to all users as they would be designed according to standards.	Significant advantages	The shared path and footpath would be accessible to all users as they would be designed according to standards. The shared path would be designed with the desirable minimum width which would reduce conflicts between cyclists and pedestrians.	Some advantages	The footpaths would be adequate to accommodate the levels of pedestrians along the segment, however, the shared street might not be suitable for less experienced users.	Some disadvantages
	Gender Impacts	How the proposal may have gender specific impacts	Footpaths are provided on both sides of the road, but are less than minimum stipulated in DMURS. Also, there is no segregation between cyclists and vehicles along the road.	Significant disadvantages	The segregated cycle track and footpath would improve perception of safety for all users, particularlly for women and children.	Significant advantages	The segregated cycle track and footpath would improve perception of safety for all users, particularlly for women and children.	Significant advantages	The segregation of cycling and car users would improve safety perception, however, this would reduce perception of safety for pedestrians as they lose their segregation from cyclists in this scenario.	Some advantages	The widening of the footpath and proper signage to indicate mixed traffic would increase perception of safety for all users compared to the existing scenario, however, lack of actual segregation between traffic and cyclists makes this option less favourable than other options.	Some disadvantages

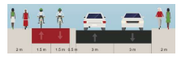
Land Use Impact	Integration with town environs	How the proposal integrates with the Land use, the objectives from development plan and NIFTI	Regarding NIFTI, this option would maintain the existing scenario, therefore, scores higher. Regarding land use, all options are equal. The option would not align with Westmeath County Development Plan 2021-2027 as much as the other options.	Some advantages	Regarding NIFTI, this option would require implementation of new/improve facilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Significant disadvantages	Regarding NIFTI, this option would require implementation of new/improve facilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Significant disadvantages	Regarding NIFTI, this option would require optimization of the existing facilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Some advantages	Regarding NIFTI, this option would require optimization of the existing facilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Some advantages
		Impact on green areas	No changes to the green area and vegetation along the segment.	Significant advantages	This option requires the removal of the grassed verge and several trees along the segment.	Significant disadvantages	This option requires the removal of the grassed verge and several trees along the segment.	Significant disadvantages	This option would retain the grassed verge on the southern side of the segment, and would require the removal of several trees.	Significant disadvantages	This option also requires the removal of several trees along the segment, however, less than other options.	Some disadvantages
Safety Impact	Safety Impact	Segregation between cyclists and vehicles	There is currently no segregation between cyclists and vehicles.	Significant disadvantages	Cyclists would be segregated from vehicular traffic.	Significant advantages	Cyclists would be fully physically segregated from vehicular traffic.	Significant advantages	Cyclists would be fully physically segregated from vehicular traffic.	Significant advantages	This option would not provide segregation between cyclists and vehicles.	Significant disadvantages
		Segregation between cyclists and pedestrians	Cyclists and pedestrians are fully segregated.	Significant advantages	Cyclists and pedestrians would be segregated from one another.	Significant advantages	Cyclists and pedestrians would be fully segregated in this option.	Significant advantages	Cyclists and pedestrians share the path on the east side of the road.	Significant disadvantages	Pedestrians and cyclists would be segregated in this option.	Significant advantages
		Safety for all users regarding traffic volumes and speeds along route	Based on the traffic volumes of the segment, this option is not appropriate and does not meet CDM standards.	Significant disadvantages	Cyclists would be segregated from vehicular traffic, which would comply with CDM standards.	Significant advantages	Cyclists would be segregated from vehicular traffic, which would comply with CDM standards.	Significant advantages	Cyclists would be segregated from vehicular traffic, which would comply with CDM standards.	Significant advantages	There is a high volume of traffic along the segment, over 400 pcu/hr in standard peak traffic times, therefore, measures would have to be implemented to reduce vehicular speeds to improve safety for all road users. Also, based on Table 2.1 of the CDM, the implementation of a mixed traffic along the route is not suitable. The speed limit would have to be reduced to 20km/h and it would be a departure from standard. Speeds were noted to be of an average of 35km/h on the segment. Ramps and signage would have to be implemented to ensure a 20km/h speed limit is obeyed.	Significant disadvantages
		Conflicts at junctions and side roads between vehicles and cyclists	At the junctions, there are no road markings and signage to indicate the presence of cyclists on the road, which poses a risk of conflicts.	Significant disadvantages	As cyclists would be segregated from vehicular traffic, it would reduce conflict opportunities.	Significant advantages	As cyclists would be segregated from vehicular traffic, it would reduce conflict opportunities. However, drivers exiting side roads and junctions might not be expecting contra-flow cyclists which can cause conflicts.	Some advantages	As cyclists would be segregated from vehicular traffic, it would reduce conflict opportunities. However, drivers exiting side roads and junctions might not be expecting contra-flow cyclists which can cause conflicts.	Some advantages	Cyclists and vehicles sharing the road increase the vulnerability of cyclists. However, appropriate signage would be require to indicate the presence of cyclists on the road to improve safety.	Some disadvantages
	Traffic	Impact on traffic capacity due to the proposals	No proposed changes.	Neutral	This option would not incur in any impacts on traffic along the segment.	Neutral	This option would not incur in any impacts on traffic along the segment.	Neutral	This option would not incur in any impacts on traffic along the segment.	Neutral	This option would not incur in any impacts on traffic along the segment.	Neutral
Local Environmental Impact	Air Quality	Air Quality Impact	No change to current air quality.	Some disadvantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local air quality during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local air quality during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local air quality during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may not encourage use by less confident cyclists resulting in limited modal shift from personal vehicles to cycling and therefore limiting the potential for reducing local air quality. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some disadvantages
	Noise and Vibration	Potential Sensitive receptors including residential, commercial, education, healthcare properties	No change to current level of noise pollution.	Some disadvantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local noise and vibration levels during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local noise and vibration levels during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local noise and vibration levels during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may not encourage use by less confident cyclists resulting in limited modal shift from personal vehicles to cycling and therefore limiting the potential for reducing local noise and vibration levels. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some disadvantages
	Soils and geology	Bedrock and overburden. Alluvium Soils, Karst Features, Landslide susceptibility, Contaminated lands, Geological heritage areas	Unlikely to have an impact on soils and geology.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity of any option.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity of any option.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity of any option.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity of any option.	Neutral
	Biodiversity	Impact on Biodiversity along scheme extents	There will be no impact on any features of ecological importance as a result of this option.	Some advantages	There will be a minor loss of roadside trees as a result of this option.	Some disadvantages	There will be a minor loss of roadside trees as a result of this option.	Some disadvantages	There will be a minor loss of roadside trees as a result of this option.	Some disadvantages	There will be a minor loss of roadside trees as a result of this option.	Some disadvantages
	Water Resources	Groundwater Quality (Public and Private Wells, GWDTEs) Groundwater resources / Levels (vulnerable aquifers) Surface water quality and flows	Unlikely to have an impact on water.	Neutral	There are no surface water features, wells / springs or drinking water protection areas within the vicinity of any option. Bedrock aquifers beneath all segments are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within the vicinity of this segment is moderate and high, which applies to all options.	Neutral	There are no surface water features, wells / springs or drinking water protection areas within the vicinity of any option. Bedrock aquifers beneath all segments are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within the vicinity of this segment is moderate and high, which applies to all options.	Neutral	There are no surface water features, wells / springs or drinking water protection areas within the vicinity of any option. Bedrock aquifers beneath all segments are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within the vicinity of this segment is moderate and high, which applies to all options.	Neutral	There are no surface water features, wells / springs or drinking water protection areas within the vicinity of any option. Bedrock aquifers beneath all segments are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within the vicinity of this segment is moderate and high, which applies to all options.	Neutral
	Landscape and Visual Quality	Landscape and visual assessment	No changes to landscape and visual receptors.	Neutral	At this stage of the desktop analysis and according to available relevant resources it is considered unlikely that any option will have an impact. A landscape architect will be required to undertake surveys and input into the design.	Neutral	At this stage of the desktop analysis and according to available relevant resources it is considered unlikely that any option will have an impact. A landscape architect will be required to undertake surveys and input into the design.	Neutral	At this stage of the desktop analysis and according to available relevant resources it is considered unlikely that any option will have an impact. A landscape architect will be required to undertake surveys and input into the design.	Neutral	At this stage of the desktop analysis and according to available relevant resources it is considered unlikely that any option will have an impact. A landscape architect will be required to undertake surveys and input into the design.	Neutral
	Cultural and Heritage	Impact at national monuments, NIAH features and Architecture Conservation Areas (ACA)	Unlikely to have an impact on archaeological & architectural heritage assets.	Neutral	At this stage of the desktop analysis and according to available relevant resources, this segment is partially located within an Architectural Conservation Area (ACA), which applies to all options. A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral	At this stage of the desktop analysis and according to available relevant resources, this segment is partially located within an Architectural Conservation Area (ACA), which applies to all options. A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral	At this stage of the desktop analysis and according to available relevant resources, this segment is partially located within an Architectural Conservation Area (ACA), which applies to all options. A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral	At this stage of the desktop analysis and according to available relevant resources, this segment is partially located within an Architectural Conservation Area (ACA), which applies to all options. A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral

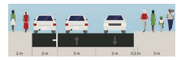
Project 3: Segment 6









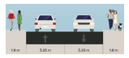
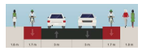


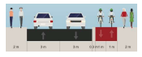
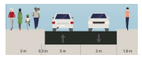
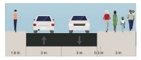


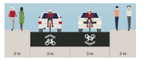
Criteria	Sub-Criteria	Indicator to be measured	Option 1 Do Nothing	Indicator Score	Option 2 Stepped one way cycle track (absolute minimum 13.0m)	Indicator Score	Option 3 Two-way cycle track on the east side (absolute minimum width 12.3m)	Indicator Score	Option 4 Two-way cycle track on the west side (desirable minimum width 13.5m)	Indicator Score	Option 5 Shared Active Travel Path on East Side and Retention of Parking on East side (absolute minimum width 13.4m)	Indicator Score	Option 6 Mixed Traffic and retention of traffic (desirable minimum width 12.6m)	Indicator Score
Transport User benefits and Other Economic Impacts	Cost and Programme Impacts	Land acquisition area	No land acquisition.	Neutral	No land acquisition required.	Neutral	No land acquisition required.	Neutral	No land acquisition required.	Neutral	No land acquisition required.	Neutral	No land acquisition required.	Neutral
		Construction and maintenance	No construction costs associated with the option.	Significant advantages	This cost of this option is higher than all other options (€665,231.45)	Significant disadvantages	The cost of this option is higher than others (€558,899.20)	Significant disadvantages	The cost of this option is higher than others (€614,717.66)	Significant disadvantages	The cost of this option is not as high as others (€448,455.84)	Some disadvantages	The cost of this option are lower than other options as it is a rapid build option (€145,053.22)	Some advantages
	Construction impacts	Rapid build achievability and construction impacts, including construction requirements and drainage impact	No changes proposed to the existing road arrangements.	Significant advantages	This option would be constructed as a traditional build as it would require road reconstruction to accommodate the two-way cycle track.	Significant disadvantages	This option would be constructed as a traditional build as it would require road reconstruction to accommodate the two-way cycle track.	Significant disadvantages	This option would be constructed as a traditional build as it would require road reconstruction to accommodate the two-way cycle track.	Significant disadvantages	This option would be constructed as a traditional build as it would require road reconstruction to accommodate the shared path.	Significant disadvantages	This option would be built as a rapid build option, therefore, it is more likely to be concluded faster than the other options.	Some advantages
	Connectivity with public transport facilities	Connections to existing and proposed public transport	Bus route 190 makes use of the segment, however, there are no bus stops.	Neutral	There are no proposals to implement bus stops along the segment as part of the scheme. The 6.0m carriageway will provide the available width in unlikely the case where two buses meet.	Neutral	There are no proposals to implement bus stops along the segment as part of the scheme. The 6.0m carriageway will provide the available width in unlikely the case where two buses meet.	Neutral	There are no proposals to implement bus stops along the segment as part of the scheme. The 6.0m carriageway will provide the available width in unlikely the case where two buses meet.	Neutral	There are no proposals to implement bus stops along the segment as part of the scheme. The 6.0m carriageway will provide the available width in unlikely the case where two buses meet.	Neutral	There are no proposals to implement bus stops along the segment as part of the scheme. The 6.0m carriageway will provide the available width in unlikely the case where two buses meet.	Neutral
Accessibility Impacts	Access to Key Services	Access to key services (retail, groceries, banks, educational, healthcare, recreational facilities and employment areas)	The segment links the town centre to the east of the town. There are cycle lanes and footpaths provided on both sides of the road at the segment. However, they are not provided according to standards.	Significant disadvantages	The proposed active travel facility provides good connection between the segment and the wider town, which will help improve community and recreational participation along the segment. The option would provide appropriate crossing points to allow cyclists to cross the road and access the facilities.	Significant advantages	The proposed active travel facility provides connection between the segment and the wider town, which will help improve community and recreational participation along the segment. The option would provide appropriate crossing points to allow cyclists to cross the road and access the facilities.	Significant advantages	The proposed active travel facility provides connection between the segment and the wider town, which will help improve community and recreational participation along the segment. The option would provide appropriate crossing points to allow cyclists to cross the road and access the facilities.	Significant advantages	Improvements to facilities will facilitate community and recreational participation along the segment and the wider town. However, because this option would have no segregation between cyclists and pedestrians on the eastern side, this option would not be as inclusive for less confident users and would not see as much of these activities being uptake as fully segregated options.	Some advantages	Improvements to facilities will facilitate community and recreational participation on along the segment. It will improve active travel usage to a limited degree compared with other options as this option would be challenging for less confident users to access these services.	Some disadvantages
		Impacts on loading and parking bays	No proposed changes to parking bays.	Significant advantages	This option requires all parking bays to be removed.	Significant disadvantages	This option retains most parking bays on the western side.	Some advantages	This option requires all parking bays to be removed.	Significant disadvantages	This option retains all parking bays on the western side of the road.	Significant advantages	This option retains all parking bays on the western side of the road.	Significant advantages
	Coherence	Route consistency and continuity	There are footpaths and mandatory cycle lanes provided continuously on both sides of the road at the segment.	Some advantages	Footpaths and cycle facilities would be continuous in this option.	Significant advantages	Footpaths and cycle facilities would be continuous in this option.	Significant advantages	Footpaths and cycle facilities would be continuous in this option.	Significant advantages	The shared path and the footpath would be continuous in this option.	Significant advantages	Facilities would be continuous in this option.	Significant advantages
	Directness	Directness along route and though junctions and maintenance of cyclists progression	There are mandatory cycle lanes and footpaths on both sides of the road, however, both pedestrians and cyclists lose progress at junctions as there are no appropriate crossings.	Significant disadvantages	Cyclists would be accommodated for at the one-way cycle facility, which would be direct and flow well. The footpaths would also be provided continuously along the segment, with appropriate crossings at junctions.	Significant advantages	Cyclists would be accommodated for at the two-way cycle facility, which would be direct and flow well. The footpaths would also be provided continuously along the segment, with appropriate crossings at junctions.	Significant advantages	Cyclists would be accommodated for at the two-way cycle facility, which would be direct and flow well. The footpaths would also be provided continuously along the segment, with appropriate crossings at junctions.	Significant advantages	As cyclists and pedestrians would share the facility, cyclist progression may be interrupted by pedestrian conflicts. Cyclists would have priority across junctions and side-streets.	Some advantages	Cyclists travelling along the segment would have to share the road with vehicles, therefore, directess is impeded by stopped and turning vehicles. The proper signage and road markings are expected to improve the directness for cyclists slightly.	Some disadvantages
	Comfort	Provision of comfort for pedestrians and cyclists through assessment of width	Width of cycle lanes and footpaths are below standard.	Significant disadvantages	Footpaths would be a minimum of 1.8m and the one-way cycle track would be the absolute minimum of 1.7m.	Some advantages	Footpaths would be a minimum of 2.0m and the two-way cycle track would be the absolute minimum of 2.3m.	Some advantages	Footpaths would be a minimum of 2.0m and the two-way cycle track would be the desirale minimum of 3.5m.	Significant advantages	The shared path would have the absolute minimum width 3.3m, which would be able to accommodate both cyclists and pedestrians and the footpath on the western side would be provided with a minimum of 2.0m, which is higher than the minimum width according to DMURS.	Some advantages	Footpaths would be provide according to DMURS guidelines, however cyclists would be accommodated on road only, impacting comfort.	Some disadvantages
	Attractiveness	Attractiveness of the route	The narrow nature of the facilities and the lack of physical segregation between cyclists and vehicles are not attractive for all users.	Significant disadvantages	The improved facility would increase attractiveness along the segment.	Significant advantages	The improved facility would increase attractiveness along the segment.	Significant advantages	The improved facility would increase attractiveness along the segment.	Significant advantages	The improved facility would slightly increase attractiveness along the segment as pedestrians and cyclists share the same path.	Some advantages	The widening of the footpath and proper signage to indicate mixed traffic would increase perception of safety for all users, however, as cyclists and vehicles would share the carriageway this would be less attractive to cyclists.	Some disadvantages
Social Impacts	Social inclusion for groups with deprived needs	Opportunities for social, community and recreational activity participation	The segment provides connection to the town centre from the south-eastern part of the town, however, it does not provide suitable opportunities for all users.	Significant disadvantages	Improvements to facilities will facilitate community and recreational participation along the road, connecting the residential units and the wider sections of the town to the town centre, the park and the Mullingar College.	Significant advantages	Improvements to facilities will facilitate community and recreational participation along the road, connecting the residential units and the wider sections of the town to the town centre, the park and the Mullingar College.	Significant advantages	Improvements to facilities will facilitate community and recreational participation along the road, connecting the residential units and the wider sections of the town to the town centre, the park and the Mullingar College.	Significant advantages	Improvements to facilities will facilitate community and recreational participation along the segment and the wider locations across the town. However, because this option would have no segregation between cyclists and pedestrians on the western side, this option would not be as inclusive for less confident users and would not see as much of these activities being uptake as fully segregated options.	Some advantages	Improvements to facilities will facilitate community and recreational participation along the road and the wider town. This option is limited in providing for less confident and vulnerable users that are less likely to feel comfortable sharing the carriageway with vehicles which would result in a decrease in uptake of these activities.	Some disadvantages
	Health impacts	Impact on modal Shift/activity levels (i.e., Cars to Cyclists)	The existing arrangements does not provide sufficient levels of active travel infrastructure to impact on modal shift.	Significant disadvantages	The improved facility has the potential to impact on the modal shift in the area. Likewise, the implementation of the active travel facilities would improve safety along the segment, which could help increase the number of users.	Significant advantages	The improved facility has the potential to impact on the modal shift in the area. Likewise, the implementation of the active travel facilities would improve safety along the segment, which could help increase the number of users.	Significant advantages	The improved facility has the potential to impact on the modal shift in the area. Likewise, the implementation of the active travel facilities would improve safety along the segment, which could help increase the number of users.	Significant advantages	The improved facility has the potential to impact on the modal shift in the area. The possibility of conflicts between cyclists and pedestrians decreases the expected modal shift with this option slighty.	Some advantages	The improved facility has the potential to impact on the modal shift in the area, however, the lack of segregation between cyclists and vehicles would likely lead to a significantly lower modal shift than other options.	Some disadvantages
	Accessibility for users with different mobility needs	Qualitative assessment of accessibility of the options to serve users of all ages and abilities	Footpaths are narrow at some locations along the segment, which is not accessible for several users. There are mandatory cycle lanes provided on both sides of the road, but are narrower than the minimum stipulated in the CDM.	Significant disadvantages	The cycle track and footpaths would be accessible to all users as they would be designed according to standards.	Significant advantages	The cycle track and footpaths would be accessible to all users as they would be designed according to standards.	Significant advantages	The cycle track and footpaths would be accessible to all users as they would be designed according to standards.	Significant advantages	The shared path and footpath would be accessible to all users as they would be designed according to standards. The shared path would be designed with the desirable minimum width which would reduce conflicts between cyclists and pedestrians.	Some advantages	The footpaths would be adequate to accommodate the levels of pedestrians along the segment, however, the shared street might not be suitable for less experienced users.	Some disadvantages
	Gender Impacts	How the proposal may have gender specific impacts	Footpaths are provided on both sides of the road, but are less than minimum stipulated in DMURS. Also, the cycle lanes are too narrow in some locations and there are no physical segregation between cyclists and vehicles.	Significant disadvantages	The segregated cycle track and footpath would improve perception of safety for all users, particularly for women and children.	Significant advantages	The segregated cycle track and footpath would improve perception of safety for all users, particularly for women and children.	Significant advantages	The segregated cycle track and footpath would improve perception of safety for all users, particularly for women and children.	Significant advantages	The segregation of cycling and car users would improve safety perception, however, this would reduce perception of safety for pedestrians as they lose their segregation from cyclists in this scenario.	Some advantages	The widening of the footpath and proper signage to indicate mixed traffic would increase perception of safety for all users compared to the existing scenario, however, lack of actual segregation between traffic and cyclists makes this option less favourable than other options.	Some disadvantages

Land Use Impact	Integration with town environs	How the proposal integrates with the Land use, the objectives from development plan and NIFTI	Regarding NIFTI, this option would maintain the existing scenario, therefore, scores higher. Regarding land use, all options are equal. The option would not align with Westmeath County Development Plan 2021-2027 as much as the other options.	Some advantages	Regarding NIFTI, this option would require implementation of new/improve facilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Significant disadvantages	Regarding NIFTI, this option would require implementation of new/improve facilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Significant disadvantages	Regarding NIFTI, this option would require implementation of new/improve facilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Significant disadvantages	Regarding NIFTI, this option would require optimization of the existing facilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Some advantages	Regarding NIFTI, this option would require optimization of the existing facilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Some advantages
		Impact on green areas	No changes on the green areas along the segment.	Significant advantages	This option would require the removal of the trees and grassed verges along the segment to instal the cycle facilities.	Significant disadvantages	This option would require the removal of the trees and grassed verges along the segment to instal the cycle facilities.	Significant disadvantages	This option would require the removal of the trees and grassed verges along the segment to instal the cycle facilities.	Significant disadvantages	This option would require the removal of the trees and grassed verges along the segment to instal the cycle facilities.	Significant disadvantages	This option requires several trees to be removed in order to widen the existing footpaths, however, less than option options.	Some disadvantages
Safety Impact	Safety Impact	Segregation between cyclists and vehicles	Cyclists are accommodated at cycle lanes, without physical segregation with vehicles.	Some disadvantages	Cyclists would be segregated from vehicular traffic.	Significant advantages	Cyclists would be fully physically segregated from vehicular traffic.	Significant advantages	Cyclists would be fully physically segregated from vehicular traffic.	Significant advantages	Cyclists would be fully physically segregated from vehicular traffic.	Significant advantages	This option would not provide segregation between cyclists and vehicles.	Significant disadvantages
		Segregation between cyclists and pedestrians	Cyclists and pedestrians are fully segregated.	Significant advantages	Cyclists and pedestrians would be segregated from one another.	Significant advantages	Cyclists and pedestrians would be fully segregated in this option.	Significant advantages	Cyclists and pedestrians would be fully segregated in this option.	Significant advantages	Cyclists and pedestrians share the path on the east side of the road.	Significant disadvantages	Pedestrians and cyclists would be segregated in this option.	Significant advantages
		Safety for all users regarding traffic volumes and speeds along route	Based on the traffic volumes of the segment, this option is not appropriate and does not meet CDM standards.	Significant disadvantages	Cyclists would be segregated from vehicular traffic, which would comply with CDM standards.	Significant advantages	Cyclists would be segregated from vehicular traffic, which would comply with CDM standards.	Significant advantages	Cyclists would be segregated from vehicular traffic, which would comply with CDM standards.	Significant advantages	Cyclists would be segregated from vehicular traffic, which would comply with CDM standards.	Significant advantages	There is a high volume of traffic along the segment, over 400 pcu/hr in standard peak traffic times, therefore, measures would have to be implemented to reduce vehicular speeds to improve safety for all road users. Also, based on Table 2.1 of the CDM, the implementation of a mixed traffic along the route is not suitable. The speed limit would have to be reduced to 20km/h and it would be a departure from standard. Speeds were noted to be of an average of 40km/h on the segment. Ramps and signage would have to be implemented to ensure a 20km/h speed limit is obeyed.	Significant disadvantages
		Conflicts at junctions and side roads between vehicles and cyclists	There is limited segregation using painted cycle lanes, leaving opportunity for conflicts at the junctions and side roads.	Significant disadvantages	As cyclists would be segregated from vehicular traffic, it would reduce conflict opportunities.	Significant advantages	As cyclists would be segregated from vehicular traffic, it would reduce conflict opportunities. However, drivers exiting side roads and junctions might not be expecting contra-flow cyclists which can cause conflicts.	Some advantages	As cyclists would be segregated from vehicular traffic, it would reduce conflict opportunities. However, drivers exiting side roads and junctions might not be expecting contra-flow cyclists which can cause conflicts.	Some advantages	As cyclists would be segregated from vehicular traffic, it would reduce conflict opportunities. However, drivers exiting side roads and junctions might not be expecting contra-flow cyclists which can cause conflicts.	Some advantages	Cyclists and vehicles sharing the road increase the vulnerability of cyclists. However, appropriate signage would be require to indicate the presence of cyclists on the road to improve safety.	Some disadvantages
	Traffic	Impact on traffic capacity due to the proposals	No proposed changes.	Neutral	This option would not incur in any impacts on traffic along the segment.	Neutral	This option would not incur in any impacts on traffic along the segment.	Neutral	This option would not incur in any impacts on traffic along the segment.	Neutral	This option would not incur in any impacts on traffic along the segment.	Neutral	This option would not incur in any impacts on traffic along the segment.	Neutral
Local Environmental Impact	Air Quality	Air Quality Impact	No change to current air quality.	Some disadvantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local air quality during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local air quality during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local air quality during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local air quality during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may not encourage use by less confident cyclists resulting in limited modal shift from personal vehicles to cycling and therefore limiting the potential for increasing local air quality. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some disadvantages
	Noise and Vibration	Potential Sensitive receptors including residential, commercial, education, healthcare properties	No change to current level of noise pollution.	Some disadvantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local noise and vibration levels during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local noise and vibration levels during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local noise and vibration levels during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local noise and vibration levels during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may not encourage use by less confident cyclists resulting in limited modal shift from personal vehicles to cycling and therefore limiting the potential for reducing local noise and vibration levels. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some disadvantages
	Soils and geology	Bedrock and overburden. Alluvium Soils, Karst Features, Landslide susceptibility, Contaminated lands, Geological heritage areas	Unlikely to have an impact on soils and geology.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity of any option. This segment ends at the Railway line and therefore has potential for contaminated land. This applies to all options.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity of any option. This segment ends at the Railway line and therefore has potential for contaminated land. This applies to all options.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity of any option. This segment ends at the Railway line and therefore has potential for contaminated land. This applies to all options.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity of any option. This segment ends at the Railway line and therefore has potential for contaminated land. This applies to all options.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity of any option. This segment ends at the Railway line and therefore has potential for contaminated land. This applies to all options.	Neutral
	Biodiversity	Impact on Biodiversity along scheme extents	No impact on biodiversity as no trees will be removed.	Some advantages	This option would require the removal of the trees and grass verges on west side of roadway.	Some disadvantages	This option would require the removal of the trees and grass verges on west side of roadway.	Some disadvantages	This option would require the removal of the trees and grass verges on west side of roadway.	Some disadvantages	This option would require the removal of the trees and grass verges on west side of roadway.	Some disadvantages	This option retains trees on west side of roadway.	Some advantages
	Water Resources	Groundwater Quality (Public and Private Wells, GWDTEs) Groundwater resources / Levels (vulnerable aquifers) Surface water quality and flows	Unlikely to have an impact on water.	Neutral	There are no surface water features, wells / springs or drinking water protection areas within the vicinity of any option. Bedrock aquifers beneath all segments are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within the vicinity of this segment is high and extreme indicating potential shallow groundwater, which applies to all options.	Neutral	There are no surface water features, wells / springs or drinking water protection areas within the vicinity of any option. Bedrock aquifers beneath all segments are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within the vicinity of this segment is high and extreme indicating potential shallow groundwater, which applies to all options.	Neutral	There are no surface water features, wells / springs or drinking water protection areas within the vicinity of any option. Bedrock aquifers beneath all segments are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within the vicinity of this segment is high and extreme indicating potential shallow groundwater, which applies to all options.	Neutral	There are no surface water features, wells / springs or drinking water protection areas within the vicinity of any option. Bedrock aquifers beneath all segments are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within the vicinity of this segment is high and extreme indicating potential shallow groundwater, which applies to all options.	Neutral	There are no surface water features, wells / springs or drinking water protection areas within the vicinity of any option. Bedrock aquifers beneath all segments are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within the vicinity of this segment is high and extreme indicating potential shallow groundwater, which applies to all options.	Neutral
	Landscape and Visual Quality	Landscape and visual assessment	No changes to landscape and visual receptors.	Neutral	At this stage of the desktop analysis and according to available relevant resources it is considered unlikely that any option will have an impact. A landscape architect will be required to undertake surveys and input into the design.	Neutral	At this stage of the desktop analysis and according to available relevant resources it is considered unlikely that any option will have an impact. A landscape architect will be required to undertake surveys and input into the design.	Neutral	At this stage of the desktop analysis and according to available relevant resources it is considered unlikely that any option will have an impact. A landscape architect will be required to undertake surveys and input into the design.	Neutral	At this stage of the desktop analysis and according to available relevant resources it is considered unlikely that any option will have an impact. A landscape architect will be required to undertake surveys and input into the design.	Neutral	At this stage of the desktop analysis and according to available relevant resources it is considered unlikely that any option will have an impact. A landscape architect will be required to undertake surveys and input into the design.	Neutral
	Cultural and Heritage	Impact at national monuments, NIAH features and Architecture Conservation Areas (ACA)	Unlikely to have an impact on archaeological & architectural heritage assets.	Neutral	At this stage of the desktop analysis and according to available relevant resources 2no. NIAH features; Lakeview House (15310092) & Bridge (15310090) border this segment. A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral	At this stage of the desktop analysis and according to available relevant resources 2no. NIAH features; Lakeview House (15310092) & Bridge (15310090) border this segment. A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral	At this stage of the desktop analysis and according to available relevant resources 2no. NIAH features; Lakeview House (15310092) & Bridge (15310090) border this segment. A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral	At this stage of the desktop analysis and according to available relevant resources 2no. NIAH features; Lakeview House (15310092) & Bridge (15310090) border this segment. A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral	At this stage of the desktop analysis and according to available relevant resources 2no. NIAH features; Lakeview House (15310092) & Bridge (15310090) border this segment. A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral

Project 3: Segment 7



Criteria	Sub-Criteria	Indicator to be measured	Option 1 Do Nothing	Indicator Score	Option 2 One-way cycle track (absolute minimum 13.0m)	Indicator Score	Option 3 Two-way cycle track on the north side (absolute minimum width 11.9m)	Indicator Score	Option 4 Two-way cycle track on the south side (absolute minimum width 11.9m)	Indicator Score	Option 5 Shared Active Travel Path on the North Side (absolute minimum width 11.1m)	Indicator Score	Option 6 Shared Active Travel Path on the South Side (absolute minimum width 11.1m)	Indicator Score	Option 7 Shared Active Travel Path on the south side and no facilities on the north side (absolute minimum width 11.9m)	Indicator Score	Option 8 Mixed traffic (desirable minimum width 10.0m)	Indicator Score
Transport User benefits and Other Economic Impacts	Cost and Programme Impacts	Land acquisition area	No land acquisition.	Significant advantages	This option requires extensive land acquisition, 160m2. This option would also not be suitable as it would encroach house 1 Millmount area.	Significant disadvantages	This option requires land acquisition, approximately 50m2.	Significant disadvantages	This option requires land acquisition, approximately 50m2.	Significant disadvantages	This option requires approximately 3m2 of land acquisition.	Some disadvantages	This option requires approximately 3m2 of land acquisition.	Some disadvantages	No land acquisition required.	Significant advantages	No land acquisition required.	Significant advantages
		Construction and maintenance	No construction costs associated with the option.	Significant advantages	The cost of this option is higher than others (€368,962.80)	Significant disadvantages	The cost of this option is higher than others (€331,818.53)	Significant disadvantages	The cost of this option is higher than others (€331,818.53)	Significant disadvantages	The cost of this option is not as high as others (€267,132.14)	Some disadvantages	The cost of this option is not as high as others (€267,132.14)	Some disadvantages	The cost of this option is not as high as others (€271,988.58)	Some disadvantages	The cost of this option are lower than other options as it is a rapid build option (€137,855.49)	Some advantages
	Construction impacts	Rapid build achievability and construction impacts, including construction requirements and drainage impact	No changes proposed to the existing road arrangements.	Significant advantages	This option would be constructed as a traditional build as it would require road reconstruction and land acquisition to accommodate the one-way cycle track.	Significant disadvantages	This option would be constructed as a traditional build as it would require road reconstruction and land acquisition to accommodate the two-way cycle track.	Significant disadvantages	This option would be constructed as a traditional build as it would require road reconstruction and land acquisition to accommodate the two-way cycle track.	Significant disadvantages	This option would be constructed as a traditional build as it would require road reconstruction and land acquisition to accommodate the shared path.	Significant disadvantages	This option would be constructed as a traditional build as it would require road reconstruction and land acquisition to accommodate the shared path.	Significant disadvantages	This option would be constructed as a traditional build as it would require road reconstruction accommodate the shared path.	Significant disadvantages	This option would be built as a rapid build option, therefore, it is more likely to be concluded faster than the other options.	Some advantages
	Connectivity with public transport facilities	Connections to existing and proposed public transport	Bus route 190 makes use of the segment, however, there are no bus stops. The Mullingar Local Bus Services proposes to install two bus stops at the segment.	Some advantages	As part of the proposed Mullingar Active Travel Bundle, it is not envisaged to provide any new proposed bus stop location. However, the Mullingar Local Bus Service intends to provide two bus stops, located on opposite sides of the road, at the segment. The proposed option would allow for the bus stops to be installed and still provide sufficient carriageway width to allow for two buses to pass each other.	Some advantages	As part of the proposed Mullingar Active Travel Bundle, it is not envisaged to provide any new proposed bus stop location. However, the Mullingar Local Bus Service intends to provide two bus stops, located on opposite sides of the road, at the segment. The proposed option would allow for the bus stops to be installed and still provide sufficient carriageway width to allow for two buses to pass each other.	Some advantages	As part of the proposed Mullingar Active Travel Bundle, it is not envisaged to provide any new proposed bus stop location. However, the Mullingar Local Bus Service intends to provide two bus stops, located on opposite sides of the road, at the segment. The proposed option would allow for the bus stops to be installed and still provide sufficient carriageway width to allow for two buses to pass each other.	Some advantages	As part of the proposed Mullingar Active Travel Bundle, it is not envisaged to provide any new proposed bus stop location. However, the Mullingar Local Bus Service intends to provide two bus stops, located on opposite sides of the road, at the segment. The proposed option would allow for the bus stops to be installed and still provide sufficient carriageway width to allow for two buses to pass each other.	Some advantages	As part of the proposed Mullingar Active Travel Bundle, it is not envisaged to provide any new proposed bus stop location. However, the Mullingar Local Bus Service intends to provide two bus stops, located on opposite sides of the road, at the segment. As this option would remove the footpath on the north side, this would affect the proposed bus stop at this location.	Some disadvantages	As part of the proposed Mullingar Active Travel Bundle, it is not envisaged to provide any new proposed bus stop location. However, the Mullingar Local Bus Service intends to provide two bus stops, located on opposite sides of the road, at the segment. The proposed option would allow for the bus stops to be installed and still provide sufficient carriageway width to allow for two buses to pass each other.	Some advantages
Accessibility Impacts	Access to Key Services	Access to key services (retail, groceries, banks, educational, healthcare, recreational facilities and employment areas)	The segment links the south east part of the town to several residential areas. The existing cross section does not provide appropriate active travel infrastructure for users accessing these locations.	Significant disadvantages	The proposed active travel facility provides good connection between the segment and the south east part of the town to several residential areas, which will help improve community and recreational participation along the segment. The option would provide appropriate crossing points to allow cyclists to cross the road and access the facilities.	Significant advantages	The proposed active travel facility provides good connection between the segment and the south east part of the town to several residential areas, which will help improve community and recreational participation along the segment. The option would provide appropriate crossing points to allow cyclists to cross the road and access the facilities.	Significant advantages	The proposed active travel facility provides good connection between the segment and the south east part of the town to several residential areas, which will help improve community and recreational participation along the segment. The option would provide appropriate crossing points to allow cyclists to cross the road and access the facilities.	Significant advantages	The proposed active travel facility provides good connection between the segment and the south east part of the town to several residential areas, which will help improve community and recreational participation along the segment. The option would provide appropriate crossing points to allow cyclists to cross the road and access the facilities.	Some advantages	The proposed active travel facility provides good connection between the segment and the south east part of the town to several residential areas, which will help improve community and recreational participation along the segment. The option would provide appropriate crossing points to allow cyclists to cross the road and access the facilities.	Some advantages	The proposed active travel facility provides good connection between the segment and the south east part of the town to several residential areas, which will help improve community and recreational participation along the segment. The option would provide appropriate crossing points to allow cyclists to cross the road and access the facilities.	Some advantages	Improvements to facilities will facilitate community and recreational participation on along the segment. It will improve active travel usage to a limited degree compared with other options as this option would be challenging for less confident users to access these services.	Some disadvantages
		Impacts on loading and parking bays	There are no parking or loading bays along the segment.	Neutral	There are no parking or loading bays along the segment.	Neutral	There are no parking or loading bays along the segment.	Neutral	There are no parking or loading bays along the segment.	Neutral	There are no parking or loading bays along the segment.	Neutral	There are no parking or loading bays along the segment.	Neutral	There are no parking or loading bays along the segment.	Neutral	There are no parking or loading bays along the segment.	Neutral
	Coherence	Route consistency and continuity	There are footpaths provided on both sides of the road. There are no cycle facilities.	Significant disadvantages	Footpaths and cycle facilities would be continuous in this option.	Significant advantages	Footpaths and cycle facilities would be continuous in this option.	Significant advantages	Footpaths and cycle facilities would be continuous in this option.	Significant advantages	The shared path and the footpath would be continuous in this option.	Significant advantages	The shared path and the footpath would be continuous in this option.	Significant advantages	The shared path would be continuous in this option.	Significant advantages	Facilities would be continuous in this option.	Significant advantages
	Directness	Directness along route and though junctions and maintenance of cyclists progression	Footpaths are provided on both sides of the road but cyclists have to share the road with vehicles, therefore, directness is impeded by stopped and turning vehicles.	Significant disadvantages	Cyclists would be accommodated for at the one-way cycle facility, which would be direct and flow well. The footpaths would also be provided continuously along the segment, with appropriate crossings at junctions.	Significant advantages	Cyclists would be accommodated for at the two-way cycle facility, which would be direct and flow well. The footpaths would also be provided continuously along the segment, with appropriate crossings at junctions.	Significant advantages	Cyclists would be accommodated for at the two-way cycle facility, which would be direct and flow well. The footpaths would also be provided continuously along the segment, with appropriate crossings at junctions.	Significant advantages	As cyclists and pedestrians would share the facility, cyclist progression may be interrupted by pedestrian conflicts. Cyclists would have priority across junctions and side-streets.	Some disadvantages	As cyclists and pedestrians would share the facility, cyclist progression may be interrupted by pedestrian conflicts. Cyclists would have priority across junctions and side-streets.	Some disadvantages	As cyclists and pedestrians would share the facility, cyclist progression may be interrupted by pedestrian conflicts, however, shared path would be wider than absolute minimum to avoid this conflict. Cyclists would have priority across junctions and side-streets.	Some advantages	Cyclists travelling along the segment would have to share the road with vehicles, therefore, directness is impeded by stopped and turning vehicles. The proper signage and road markings are expected to improve the directness for cyclists slightly.	Significant disadvantages
	Comfort	Provision of comfort for pedestrians and cyclists through assessment of width	There are no cycle facilities and no appropriate signage to indicate motorists of cyclists on the road. The footpath is provided according to standards.	Some disadvantages	Footpaths would be a minimum of 1.8m and the one-way cycle track would be the absolute minimum of 1.7m.	Significant advantages	Footpaths would be a minimum of 1.8m and the two-way cycle track would be the absolute minimum of 2.3m.	Significant advantages	Footpaths would be a minimum of 1.8m and the two-way cycle track would be the absolute minimum of 2.3m.	Significant advantages	The shared path would have the absolute minimum width, which would be able to accommodate both cyclists and pedestrians and the footpath on the western side would be provided with a minimum of 1.8m, which is higher than the minimum width according to DMURS.	Some advantages	The shared path would have the absolute minimum width, which would be able to accommodate both cyclists and pedestrians and the footpath on the western side would be provided with a minimum of 1.8m, which is higher than the minimum width according to DMURS.	Some advantages	The shared path would be wider than the absolute minimum and at some locations where the width is avaliable, it would be wider than the desirable minimum. However, there would be no facility on the north side and all active travel users would have to share the same path which may impact comfort.	Some disadvantages	Footpaths would be a minimum of 2.0m, however cyclists would be accommodated on road only, impacting comfort.	Some disadvantages
	Attractiveness	Attractiveness of the route	As the level of active travel infrastructure provided is limited, existing scenario is not considered attractive.	Significant disadvantages	The improved facility would increase attractiveness along the segment.	Significant advantages	The improved facility would increase attractiveness along the segment.	Significant advantages	The improved facility would increase attractiveness along the segment.	Significant advantages	The improved facility would slightly increase attractiveness along the segment as pedestrians and cyclists share the same path.	Some advantages	The improved facility would slightly increase attractiveness along the segment as pedestrians and cyclists share the same path.	Some advantages	The improved facility would slightly increase attractiveness along the segment as pedestrians and cyclists share the same path.	Some advantages	The widening of the footpath and proper signage to indicate mixed traffic would increase perception of safety for all users, however, as cyclists and vehicles would share the carriageway this would be less attractive to cyclists.	Some disadvantages
Social Impacts	Social inclusion for groups with deprived needs	Opportunities for social, community and recreational activity participation	The current arrangements provide footpaths on both sides of the road. The arrangements are only appropriate for pedestrians as there are no cycle facilities.	Significant disadvantages	Improvements to facilities will facilitate community and recreational participation along the road, connecting the residential units and the wider sections of the town.	Significant advantages	Improvements to facilities will facilitate community and recreational participation along the road, connecting the residential units and the wider sections of the town.	Significant advantages	Improvements to facilities will facilitate community and recreational participation along the road, connecting the residential units and the wider sections of the town.	Significant advantages	Improvements to facilities will facilitate community and recreational participation along the segment and the wider locations across the town. However, because this option would have no segregation between cyclists and pedestrians on the northern side, this option would not be as inclusive for less confident users and would not see as much of these activities being uptake as fully segregated options.	Some advantages	Improvements to facilities will facilitate community and recreational participation along the segment and the wider locations across the town. However, because this option would have no segregation between cyclists and pedestrians on the southern side, this option would not be as inclusive for less confident users and would not see as much of these activities being uptake as fully segregated options.	Some advantages	Improvements to facilities will facilitate community and recreational participation along the segment and the wider locations across the town. However, because this option would have no segregation between cyclists and pedestrians on the southern side, this option would not be as inclusive for less confident users and would not see as much of these activities being uptake as fully segregated options.	Some advantages	Improvements to facilities will facilitate community and recreational participation along the road and the wider town. This option is limited in providing for less confident and vulnerable users that are less likely to feel comfortable sharing the carriageway with vehicles which would result in a decrease in uptake of these activities.	Some disadvantages
	Health impacts	Impact on modal Shift/activity levels (i.e., Cars to Cyclists)	The existing arrangements do not provide sufficient levels of active travel infrastructure to impact on modal shift.	Significant disadvantages	The improved facility has the potential to impact on the modal shift in the area. Likewise, the implementation of the active travel facilities would improve safety along the segment, which could help increase the number of users.	Significant advantages	The improved facility has the potential to impact on the modal shift in the area. Likewise, the implementation of the active travel facilities would improve safety along the segment, which could help increase the number of users.	Significant advantages	The improved facility has the potential to impact on the modal shift in the area. Likewise, the implementation of the active travel facilities would improve safety along the segment, which could help increase the number of users.	Significant advantages	The improved facility has the potential to impact on the modal shift in the area. The possibility of conflicts between cyclists and pedestrians decreases the expected modal shift with this option slightly.	Some advantages	The improved facility has the potential to impact on the modal shift in the area. The possibility of conflicts between cyclists and pedestrians decreases the expected modal shift with this option slightly.	Some advantages	The improved facility has the potential to impact on the modal shift in the area. The possibility of conflicts between cyclists and pedestrians decreases the expected modal shift with this option slightly.	Some advantages	The improved facility has the potential to impact on the modal shift in the area, however, the lack of segregation between cyclists and vehicles would likely lead to a significantly lower modal shift than other options.	Some disadvantages
	Accessibility for users with different mobility needs	Qualitative assessment of accessibility of the options to serve users of all ages and abilities	Footpaths are over 2m wide however, there are no cycle facilities. Therefore, existing scenario is not accessible for all users.	Significant disadvantages	The cycle track and footpaths would be accessible to all users as they would be designed according to standards.	Significant advantages	The cycle track and footpaths would be accessible to all users as they would be designed according to standards.	Significant advantages	The cycle track and footpaths would be accessible to all users as they would be designed according to standards.	Significant advantages	The shared path and footpath would be accessible to all users as they would be designed according to standards. The shared path would be designed with the desirable minimum width which would reduce conflicts between cyclists and pedestrians.	Some advantages	The shared path and footpath would be accessible to all users as they would be designed according to standards. The shared path would be designed with the desirable minimum width which would reduce conflicts between cyclists and pedestrians.	Some advantages	The shared path would be accessible to all users as they would be designed according to standards. The shared path would be designed with the desirable minimum width which would reduce conflicts between cyclists and pedestrians.	Some advantages	The footpaths would be adequate to accommodate the levels of pedestrians along the segment, however, the shared street might not be suitable for less experienced users.	Some disadvantages
	Gender Impacts	How the proposal may have gender specific impacts	Footpaths are wide enough to provide safety for users however, cyclists have to share the road with vehicles, which is not attractive for several users.	Significant disadvantages	The segregated cycle track and footpath would improve perception of safety for all users, particularly for women and children.	Significant advantages	The segregated cycle track and footpath would improve perception of safety for all users, particularly for women and children.	Significant advantages	The segregated cycle track and footpath would improve perception of safety for all users, particularly for women and children.	Significant advantages	The segregation of cycling and car users would improve safety perception, however, this would reduce perception of safety for pedestrians as they lose their segregation from cyclists in this scenario.	Some advantages	The segregation of cycling and car users would improve safety perception, however, this would reduce perception of safety for pedestrians as they lose their segregation from cyclists in this scenario.	Some advantages	The segregation of cycling and car users would improve safety perception, however, this would reduce perception of safety for pedestrians as they lose their segregation from cyclists in this scenario.	Some advantages	The widening of the footpath and proper signage to indicate mixed traffic would increase perception of safety for all users compared to the existing scenario, however, lack of actual segregation between traffic and cyclists makes this option less favourable than other options.	Some disadvantages

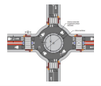
Land Use Impact	Integration with town environs	How the proposal integrates with the Land use, the objectives from development plan and NIFTI	Regarding NIFTI, this option would maintain the existing scenario, therefore, scores higher. Regarding land use, all options are equal. The option would not align with Westmeath County Development Plan 2021-2027 as much as the other options.	Some advantages	Regarding NIFTI, this option would require implementation of new/improve facilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Significant disadvantages	Regarding NIFTI, this option would require implementation of new/improve facilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Significant disadvantages	Regarding NIFTI, this option would require implementation of new/improve facilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Significant disadvantages	Regarding NIFTI, this option would require implementation of new/improve facilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Significant disadvantages	Regarding NIFTI, this option would require implementation of new/improve facilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Significant disadvantages	Regarding NIFTI, this option would require implementation of new/improve facilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Significant disadvantages	Regarding NIFTI, this option would require optimization of the existing facilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Some advantages
		Impact on green areas	There is no vegetation along the segment.	Neutral	There is no vegetation along the segment.	Neutral	There is no vegetation along the segment.	Neutral	There is no vegetation along the segment.	Neutral	There is no vegetation along the segment.	Neutral	There is no vegetation along the segment.	Neutral	There is no vegetation along the segment.	Neutral	There is no vegetation along the segment.	Neutral
Safety Impact	Safety Impact	Segregation between cyclists and vehicles	There is currently no segregation between cyclists and vehicles.	Significant disadvantages	Cyclists would be segregated from vehicular traffic.	Significant advantages	Cyclists would be fully physically segregated from vehicular traffic.	Significant advantages	Cyclists would be fully physically segregated from vehicular traffic.	Significant advantages	Cyclists would be fully physically segregated from vehicular traffic.	Significant advantages	Cyclists would be fully physically segregated from vehicular traffic.	Significant advantages	Cyclists would be fully physically segregated from vehicular traffic.	Significant advantages	This option would not provide segregation between cyclists and vehicles.	Significant disadvantages
		Segregation between cyclists and pedestrians	Cyclists and pedestrians are fully segregated.	Significant advantages	Cyclists and pedestrians would be segregated from one another.	Significant advantages	Cyclists and pedestrians would be fully segregated in this option.	Significant advantages	Cyclists and pedestrians would be fully segregated in this option.	Significant advantages	Cyclists and pedestrians share the path on the north side of the road.	Significant disadvantages	Cyclists and pedestrians share the path on the south side of the road.	Significant disadvantages	Cyclists and pedestrians share the path on the south side of the road.	Significant disadvantages	Pedestrians and cyclists would be segregated in this option.	Significant advantages
		Safety for all users regarding traffic volumes and speeds along route	Based on the traffic volumes of the segment, this option is not appropriate and does not meet CDM standards.	Significant disadvantages	Cyclists would be segregated from vehicular traffic, which would comply with CDM standards.	Significant advantages	Cyclists would be segregated from vehicular traffic, which would comply with CDM standards.	Significant advantages	Cyclists would be segregated from vehicular traffic, which would comply with CDM standards.	Significant advantages	Cyclists would be segregated from vehicular traffic, which would comply with CDM standards.	Significant advantages	Cyclists would be segregated from vehicular traffic, which would comply with CDM standards.	Significant advantages	Cyclists would be segregated from vehicular traffic, which would comply with CDM standards.	Significant advantages	There is a high volume of traffic along the segment, over 400 pcu/hr in standard peak traffic times, therefore, measures would have to be implemented to reduce vehicular speeds to improve safety for all road users. Also, based on Table 2.1 of the CDM, the implementation of a mixed traffic along the route is not suitable. The speed limit would have to be reduced to 20km/h and it would be a departure from standard. Speeds were noted to be of an average of 45km/h on the segment. Ramps and signage would have to be implemented to ensure a 20km/h speed limit is obeyed.	Significant disadvantages
		Conflicts at junctions and side roads between vehicles and cyclists	At the junctions, there are no road markings and signage to indicate the presence of cyclists on the road, which poses a risk of conflicts. There is also no appropriate crossing facilities for pedestrians at junctions.	Significant disadvantages	As cyclists would be segregated from vehicular traffic, it would reduce conflict opportunities.	Significant advantages	As cyclists would be segregated from vehicular traffic, it would reduce conflict opportunities. However, drivers exiting side roads and junctions might not be expecting contra-flow cyclists which can cause conflicts.	Some advantages	As cyclists would be segregated from vehicular traffic, it would reduce conflict opportunities. However, drivers exiting side roads and junctions might not be expecting contra-flow cyclists which can cause conflicts.	Some advantages	As cyclists would be segregated from vehicular traffic, it would reduce conflict opportunities. However, drivers exiting side roads and junctions might not be expecting contra-flow cyclists which can cause conflicts.	Some advantages	As cyclists would be segregated from vehicular traffic, it would reduce conflict opportunities. However, drivers exiting side roads and junctions might not be expecting contra-flow cyclists which can cause conflicts.	Some advantages	As cyclists would be segregated from vehicular traffic, it would reduce conflict opportunities. However, drivers exiting side roads and junctions might not be expecting contra-flow cyclists which can cause conflicts.	Some advantages	Cyclists and vehicles sharing the road increase the vulnerability of cyclists. However, appropriate signage would be require to indicate the presence of cyclists on the road to improve safety.	Some disadvantages
	Traffic	Impact on traffic capacity due to the proposals	No proposed changes.	Neutral	This option would not incur in any impacts on traffic along the segment.	Neutral	This option would not incur in any impacts on traffic along the segment.	Neutral	This option would not incur in any impacts on traffic along the segment.	Neutral	This option would not incur in any impacts on traffic along the segment.	Neutral	This option would not incur in any impacts on traffic along the segment.	Neutral	This option would not incur in any impacts on traffic along the segment.	Neutral	This option would not incur in any impacts on traffic along the segment.	Neutral
Local Environmental Impact	Air Quality	Air Quality Impact	No change to current air quality.	Some disadvantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local air quality during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local air quality during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local air quality during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local air quality during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local air quality during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local air quality during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may not encourage use by less confident cyclists resulting in limited modal shift from personal vehicles to cycling and therefore limiting the potential for increasing local air quality. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some disadvantages
	Noise and Vibration	Potential Sensitive receptors including residential, commercial, education, healthcare properties	No change to current level of noise pollution.	Some disadvantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local noise and vibration levels during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local noise and vibration levels during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local noise and vibration levels during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local noise and vibration levels during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local noise and vibration levels during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local noise and vibration levels during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may not encourage use by less confident cyclists resulting in limited modal shift from personal vehicles to cycling and therefore limiting the potential for reducing local noise and vibration levels. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some disadvantages
	Soils and geology	Bedrock and overburden. Alluvium Soils, Karst Features, Landslide susceptibility, Contaminated lands, Geological heritage areas	Unlikely to have an impact on soils and geology.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity of any option. This segment starts at the Railway line and therefore has potential for contaminated land. This applies to all options.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity of any option. This segment starts at the Railway line and therefore has potential for contaminated land. This applies to all options.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity of any option. This segment starts at the Railway line and therefore has potential for contaminated land. This applies to all options.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity of any option. This segment starts at the Railway line and therefore has potential for contaminated land. This applies to all options.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity of any option. This segment starts at the Railway line and therefore has potential for contaminated land. This applies to all options.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity of any option. This segment starts at the Railway line and therefore has potential for contaminated land. This applies to all options.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity of any option. This segment starts at the Railway line and therefore has potential for contaminated land. This applies to all options.	Neutral
	Biodiversity	Impact on Biodiversity along scheme extents	There will be no impact on any ecological features as a result of this option.	Neutral	There will be no impact on any ecological features as a result of this option.	Neutral	There will be no impact on any ecological features as a result of this option.	Neutral	There will be no impact on any ecological features as a result of this option.	Neutral	There will be no impact on any ecological features as a result of this option.	Neutral	There will be no impact on any ecological features as a result of this option.	Neutral	There will be no impact on any ecological features as a result of this option.	Neutral	There will be no impact on any ecological features as a result of this option.	Neutral
	Water Resources	Groundwater Quality (Public and Private Wells, GWDTEs) Groundwater resources / Levels (vulnerable aquifers) Surface water quality and flows	Unlikely to have an impact on water.	Neutral	There are no surface water features, wells / springs or drinking water protection areas within the vicinity of any option. Bedrock aquifers beneath all segments are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within the vicinity of this segment is extreme indicating potential shallow groundwater, which applies to all options.	Neutral	There are no surface water features, wells / springs or drinking water protection areas within the vicinity of any option. Bedrock aquifers beneath all segments are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within the vicinity of this segment is extreme indicating potential shallow groundwater, which applies to all options.	Neutral	There are no surface water features, wells / springs or drinking water protection areas within the vicinity of any option. Bedrock aquifers beneath all segments are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within the vicinity of this segment is extreme indicating potential shallow groundwater, which applies to all options.	Neutral	There are no surface water features, wells / springs or drinking water protection areas within the vicinity of any option. Bedrock aquifers beneath all segments are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within the vicinity of this segment is extreme indicating potential shallow groundwater, which applies to all options.	Neutral	There are no surface water features, wells / springs or drinking water protection areas within the vicinity of any option. Bedrock aquifers beneath all segments are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within the vicinity of this segment is extreme indicating potential shallow groundwater, which applies to all options.	Neutral	There are no surface water features, wells / springs or drinking water protection areas within the vicinity of any option. Bedrock aquifers beneath all segments are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within the vicinity of this segment is extreme indicating potential shallow groundwater, which applies to all options.	Neutral	There are no surface water features, wells / springs or drinking water protection areas within the vicinity of any option. Bedrock aquifers beneath all segments are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within the vicinity of this segment is extreme indicating potential shallow groundwater, which applies to all options.	Neutral
	Landscape and Visual Quality	Landscape and visual assessment	No changes to landscape and visual receptors.	Neutral	At this stage of the desktop analysis and according to available relevant resources it is considered unlikely that any option will have an impact. A landscape architect will be required to undertake surveys and input into the design.	Neutral	At this stage of the desktop analysis and according to available relevant resources it is considered unlikely that any option will have an impact. A landscape architect will be required to undertake surveys and input into the design.	Neutral	At this stage of the desktop analysis and according to available relevant resources it is considered unlikely that any option will have an impact. A landscape architect will be required to undertake surveys and input into the design.	Neutral	At this stage of the desktop analysis and according to available relevant resources it is considered unlikely that any option will have an impact. A landscape architect will be required to undertake surveys and input into the design.	Neutral	At this stage of the desktop analysis and according to available relevant resources it is considered unlikely that any option will have an impact. A landscape architect will be required to undertake surveys and input into the design.	Neutral	At this stage of the desktop analysis and according to available relevant resources it is considered unlikely that any option will have an impact. A landscape architect will be required to undertake surveys and input into the design.	Neutral	At this stage of the desktop analysis and according to available relevant resources it is considered unlikely that any option will have an impact. A landscape architect will be required to undertake surveys and input into the design.	Neutral
	Cultural and Heritage	Impact at national monuments, NIAH features and Architecture Conservation Areas (ACA)	Unlikely to have an impact on archaeological & architectural heritage assets.	Neutral	At this stage of the desktop analysis and according to available relevant resources 2no. NIAH features; Millmount House (15310088) & Bridge (15310090) border this segment. A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral	At this stage of the desktop analysis and according to available relevant resources 2no. NIAH features; Millmount House (15310088) & Bridge (15310090) border this segment. A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral	At this stage of the desktop analysis and according to available relevant resources 2no. NIAH features; Millmount House (15310088) & Bridge (15310090) border this segment. A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral	At this stage of the desktop analysis and according to available relevant resources 2no. NIAH features; Millmount House (15310088) & Bridge (15310090) border this segment. A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral	At this stage of the desktop analysis and according to available relevant resources 2no. NIAH features; Millmount House (15310088) & Bridge (15310090) border this segment. A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral	At this stage of the desktop analysis and according to available relevant resources 2no. NIAH features; Millmount House (15310088) & Bridge (15310090) border this segment. A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral	At this stage of the desktop analysis and according to available relevant resources 2no. NIAH features; Millmount House (15310088) & Bridge (15310090) border this segment. A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral

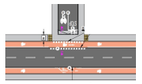
Section under railway bridge

Criteria	Sub-Criteria	Indicator to be measured	Option 1 Do Nothing Yield and cyclists on the road	Indicator Score	Option 2 Mixed Traffic and Traffic Calming Measures - rapid build	Indicator Score	Option 3 Traffic Shuttle System - traditional build	Indicator Score
Transport User benefits and Other Economic Impacts	Cost impacts	Land acquisition area	No land acquisition required.	Neutral	No land acquisition required.	Neutral	No land acquisition required.	Neutral
		Construction and maintenance	No construction involved in this option.	Significant advantages	The cost of this options is lower than Option 3.	Some advantages	The cost of this options is higher than Option 2 as it requires the implementation of traffic signals.	Significant disadvantages
	Construction impacts	Rapid build achievability and construction impacts, including construction requirements and drainage impact	No proposed changes to the existing road arrangements.	Significant advantages	This option would only improve the approaches to the bridge to make it a more smooth transition for both cyclists and pedestrians, with the installation of traffic calming measures, road markings and signage. As there is no drainage in place along the section, there will be no impact.	Some advantages	This option would implement traffic lights on both approaches to the bridge, however, it does not require major road works, thefore, it does not have significant more construction impacts than Option 2.	Some advantages
Accessibility Impacts	Coherence and Directness	Consistency, continuity and directness along the route and through junctions and the maintenance of cyclists' progression	The retention of the existing scenario does not offer appropriate continuity and consistency along the route as it only provides footpaths on both sides of the road and cyclists are accommodated on the road.	Significant disadvantages	According to the MCA for the link types, Segment 06 would provide a two-way cycle track on the western side and Segment 07 would provide a shared path on the western side. Cyclists would have to yield from either sides of the bridge to oncoming vehicles, which may affect progression.	Some disadvantages	According to the MCA for the link types, Segment 06 would provide a two-way cycle track on the western side and Segment 07 would provide a shared path on the western side. Cyclists would be accomodated with a dedicated cycle stage and would be allowed to progress separately from traffic.	Some advantages
	Comfort and Attractiveness	Provision of comfort for pedestrians and cyclists through assessment of width and its attractiveness	Footpaths are provided over 1.8m wide which is in accordance with DMURS. Cyclists are accommodated on the road.	Significant disadvantages	The footpaths would be retained as they are designed according to DMURS, but cyclists would travel with vehicles on road, reducing comfort for these users.	Some disadvantages	The footpaths would be retained as they are designed according to DMURS. Cyclists would continue along the bridge at their own cycle stage of the traffic signals, which would improve comfort.	Some advantages
Social Impacts	Accessibility for users with different mobility needs	Qualitative assessment of accessibility of the options to serve users of all ages and abilities	The existing scenario is not accessible to all users as it does not provide cycle facilities. The footpaths are wide enough to accommodate pedestrians, however, mixed traffic might not be accessible for all users.	Significant disadvantages	The footpaths are adequate to accommodate the levels of pedestrians along the segment, however, the shared street might not be suitable for less experienced users.	Some disadvantages	The footpaths are adequate to accommodate the levels of pedestrians along the segment and cyclists would continue at the road, but segregated from traffic.	Some advantages
	Gender Impacts	How the proposal may have gender specific impacts	The lack of appropriate cycle facilities might not be suitable for some users.	Significant disadvantages	For some users, cycling in mixed traffic does not provide the necessary level of safety and may impact the usage of the facility.	Some disadvantages	The road would be essentially a mixed street, but the traffic signals would allow for cyclists to continue the moviment separated from vehicular traffic, therefore, it would work as a dedictaed cycle space.	Some advantages
Land Use Impact	Integration with town environs	How the proposal integrates with the Land use, the objectives from development plan and NIFTI	Regarding NIFTI, this option would maintain the existing scenario, therefore, scores higher. Regarding land use, all options are equal. The option would not align with Westmeath County Development Plan 2021-2027 as much as the other options.	Some advantages	Regarding NIFTI, this option would require the optimization of the existing facilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Some disadvantages	Regarding NIFTI, this option would require the optimization of the existing facilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Some disadvantages
		Impact on green areas	No proposed changes in the green areas.	Neutral	No proposed changes in the green areas.	Neutral	No proposed changes in the green areas.	Neutral
Safety Impact	Safety Impact	Segregation between cyclists and vehicles	There is no segregation between cyclists and vehicles.	Significant disadvantages	There would be no segregation between cyclists and vehicles.	Significant disadvantages	Cyclists and vehicular traffic would be segregated with the implementaiton of the dedicated cycle stage.	Significant advantages
		Segregation between cyclists and pedestrians	Cyclists and pedestrians are segregated.	Neutral	Cyclists and pedestrians are segregated.	Neutral	Cyclists and pedestrians are segregated.	Neutral
		Safety for all users regarding traffic volumes and speeds along route	Due to high volumes of traffic, the current scenario is not appropriate according to the CDM.	Significant disadvantages	There is a high volume of traffic over the bridge, over 400 pcu/hr in standard peak traffic times, however, it is understood that speeds are relatively slow with the yield system in place, however, measures would be implemented to ensure speeds do not surpass 20km/h.	Some advantages	There is a high volume of traffic over the bridge, over 400 pcu/hr in standard peak traffic times. The implementation of the shuttle system would also implement a dedicated cycle stage, segregating cycle traffic from vehicular traffic, which would improve safety for all road users.	Significant advantages
	Traffic	Impact on traffic capacity due to the proposals	No changes proposed.	Significant advantages	This option could impact traffic through the implementation of traffic calming measures although these are likely to be minor.	Some advantages	Vehicles currently yield for oncoming traffic at this section. The implementation of the traffic signals might increase the wait time for vehicles, however, it's understood this increase would be minor compared to current waiting time.	Some disadvantages
Local Environmental Impact	Air Quality	Air Quality Impact	No changes to existing air quality.	Some disadvantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local air quality during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may further encourage more cycling / walking and less use of personal vehicles and therefore result in better local air quality during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Significant advantages
	Noise and Vibration	Potential Sensitive receptors including residential, commercial, education, healthcare properties	No changes to existing noise and vibration levels.	Some disadvantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in lower noise and vibration to local sensitive receptors during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may further encourage more cycling / walking and less use of personal vehicles and therefore result in lower noise and vibration to local sensitive receptors during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Significant advantages
	Soils and geology	Bedrock and overburden. Alluvium Soils, Karst Features, Landslide susceptibility, Contaminated lands, Geological heritage areas	No changes / impacts to soils and geology.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity. Contaminated land may be associated with the railway crossing. This applies to all options.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity. Contaminated land may be associated with the railway crossing. This applies to all options.	Neutral
	Biodiversity	Impact on Biodiversity along scheme extents	No proposed changes to green spaces. This will have no affect on biodiversity.	Neutral	No proposed changes to green spaces. This will have no affect on biodiversity.	Neutral	No proposed changes to green spaces. This will have no affect on biodiversity.	Neutral
	Water Resources	Groundwater Quality (Public and Private Wells, GWDTEs) Groundwater resources / Levels (vulnerable aquifers) Surface water quality and flows	No changes / impacts to water resources.	Neutral	The Royal Canal is located ca. 90m from this bridge crossing. There are no wells / springs or drinking water protection areas within the vicinity of this option. Bedrock aquifers beneath all options are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within vicinity of this bridge is Extreme, indicating shallow groundwater which applies to all options.	Neutral	The Royal Canal is located ca. 90m from this bridge crossing. There are no wells / springs or drinking water protection areas within the vicinity of this option. Bedrock aquifers beneath all options are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within vicinity of this bridge is Extreme, indicating shallow groundwater which applies to all options.	Neutral
	Landscape and Visual Quality	Landscape and visual assessment	No changes / impacts to landscape & visual receptors.	Neutral	No changes / impacts to landscape & visual receptors.	Neutral	No changes / impacts to landscape & visual receptors.	Neutral
	Cultural and Heritage	Impact at national monuments, NIAH features and Architecture Conservation Areas (ACA)	No change / impacts to cultural heritage.	Neutral	At this stage of the desktop analysis and according to available relevant resources the Railway Bridge is a NIAH feature (15310090). A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral	At this stage of the desktop analysis and according to available relevant resources the Railway Bridge is a NIAH feature (15310090). A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral

J1: Mount Street / Lynn Road Roundabout



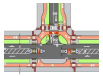


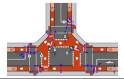


Criteria	Sub-Criteria	Indicator to be measured	Option 1 Do Nothing Retain 4-arm roundabout	Indicator Score	Option 2 Upgrade Existing Roundabout to Compact Roundabout with Mixed Traffic - Rapid Build	Indicator Score	Option 3 Replace Roundabout to Priority Junction with Side crossing - traditional build	Indicator Score
Transport User benefits and Other Economic Impacts	Cost impacts	Land acquisition area	No land acquisition required.	Neutral	No land acquisition required.	Neutral	No land acquisition required.	Neutral
		Construction and maintenance	No construction costs associated with the option.	Significant advantages	The cost of this options is approximately €116,520.00.	Some disadvantages	The cost of this options is approximately €153,484.70.	Significant disadvantages
	Construction impacts	Rapid build achievability and construction impacts, including construction requirements and drainage impact	No changes proposed.	Significant advantages	This option is a proposed rapid build hence it can be built quickly. No changes required for the drainage system.	Some advantages	This option would have to be constructed using traditional construction methods and would require drainage works.	Significant disadvantages
Accessibility Impacts	Coherence and Directness	Consistency, continuity and directness along the route and through junctions and the maintenance of cyclists' progression	Footpaths are continuous along the roundabout, but cyclists are accommodated on road.	Significant disadvantages	Segments 01 and 02 would provide a mixed traffic regime, the mixed traffic at the junction would integrate with the proposals for segments 01 and 02. At segment 03, it is proposed to provide segregated facilities, therefore, would require transition from cycle facilities. However, transition would be designed according to standard and would maintain cyclists progression. Regarding pedestrians, footpaths would be consistent and there would be crossing points on all arms of the junction.	Some advantages	Segments 01 and 02 would provide a mixed traffic regime, the mixed traffic at the junction would integrate with the proposals for segments 01 and 02. At segment 03, it is proposed to provide segregated facilities, therefore, would require transition from cycle facilities. However, transition would be designed according to standard and would maintain cyclists progression. Both pedestrians and cyclists would have designated priorty over vehicles at the junction improving coherence and directness.	Significant advantages
	Comfort and Attractiveness	Provision of comfort for pedestrians and cyclists through assessment of width and its attractiveness	At some sections the footpath is less than 1.8m wide, the minimum according to DMURS. There is also no cycle facilities at the junction. Therefore, the existing arrangements are not considered attractive for most users.	Significant disadvantages	Cyclists would continue to be accommodated on the road alongside vehicles, but signage and change in geometry of the junction would be in place to improve safety at the junction to improve its attractiveness for all users. Footpaths would also be widened to standard. This option requires pedestrians and cyclists to travel out of their desire line to reach a controlled crossing point.	Some advantages	Cyclists would continue to be accommodated on the road alongside vehicles, but signage and change in the junction layout would be in place to improve safety at the junction to improve its attractiveness for all users. Footpaths would also be widened to standard.	Significant advantages
Social Impacts	Accessibility for users with different mobility needs	Qualitative assessment of accessibility of the options to serve users of all ages and abilities	The narrow nature of the footpath and the lack of cycle facilities does not provide opportunities for all users. There is only one crossing point at the junction, the remaining arms do not provide any facilitation for pedestrians to cross the road.	Significant disadvantages	The proposal would install crossing facilities on all arms of the junction which would improve safety for all users.	Significant advantages	The proposal would install crossing facilities on all arms of the junction which would improve safety for all users.	Significant advantages
	Gender Impacts	How the proposal may have gender specific impacts	There is only one crossing point at the junction and cyclists travel with vehicles on the road. Also, the footpaths at some locations are very narrow.	Significant disadvantages	The proposal would be better designed than the current scenario, with dedicated crossing facilities and appropriate width.	Significant advantages	The proposal would be better designed than the current scenario, with dedicated crossing facilities and appropriate width.	Significant advantages
Land Use Impact	Integration with town environs	How the proposal integrates with the Land use, the objectives from development plan and NIFTI	Regarding NIFTI, this option would maintain the existing scenario, therefore, scores higher. Regarding land use, all options are equal. The option would not align with Westmeath County Development Plan 2021-2027 as much as the other options.	Some advantages	Regarding NIFTI, this option would mainly require improvement of existing facilities and implementation of some new facilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Some disadvantages	Regarding NIFTI, this option would require implementation of newfacilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Significant disadvantages
		Impact on green areas	There are no green areas at the junction.	Neutral	There are no green areas at the junction.	Neutral	There are no green areas at the junction.	Neutral
Safety Impact	Safety Impact	Segregation between cyclists and vehicles	There is no segregation between cyclists and vehicles.	Neutral	Cyclists and vehicles would share the road in this option.	Neutral	Cyclists and vehicles would share the road in this option.	Neutral
		Segregation between cyclists and pedestrians	Cyclists and pedestrians are segregated at the junction.	Neutral	Cyclists and pedestrians would be segregated at this option.	Neutral	Cyclists and pedestrians would be segregated at this option.	Neutral
		Safety for all users regarding traffic volumes and speeds along route	Due to high volumes of traffic, the current scenario is not appropriate.	Significant disadvantages	Cyclists and vehicles would still share the road at the junction, which is not in accordance with the CDM. However, measures would be implemented to reduce traffic speeds to improve safety for all users.	Some advantages	Cyclists and vehicles would still share the road at the junction, which is not in accordance with the CDM. However, measures would be implemented to reduce traffic speeds to improve safety for all users.	Some advantages
	Traffic	Impact on traffic capacity due to the proposals	No changes proposed.	Significant advantages	Entry arm and circulating carriageway widths would be reduced along with turning radii which will have some impacts on traffic capacity at the junction.	Some disadvantages	This option would change the nature of the junction and vehicles accessing the junction from the access to the county buildings would have to fully stop at the junction. However traffic north-south along Mount Street / Lynn Road would travel unimpeded. The change to the priority operation of the junction is not expected to impact traffic flows.	Some disadvantages
Local Environmental Impact	Air Quality	Air Quality Impact	No changes to existing air quality.	Some disadvantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local air quality during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may further encourage more cycling / walking and less use of personal vehicles and therefore result in better local air quality during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Significant advantages
	Noise and Vibration	Potential Sensitive receptors including residential, commercial, education, healthcare properties	No changes to existing noise and vibration levels.	Some disadvantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in lower noise and vibration to local sensitive receptors during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may further encourage more cycling / walking and less use of personal vehicles and therefore result in lower noise and vibration to local sensitive receptors during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Significant advantages
	Soils and geology	Bedrock and overburden. Alluvium Soils, Karst Features, Landslide susceptibility, Contaminated lands, Geological heritage areas	No changes / impacts to soils and geology.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity.	Neutral
	Biodiversity	Impact on Biodiversity along scheme extents	This option will have no affect on any features of ecological importance.	Neutral	This option will have no affect on any features of ecological importance.	Neutral	This option will have no affect on any features of ecological importance.	Neutral
	Water Resources	Groundwater Quality (Public and Private Wells, GWDTEs) Groundwater resources / Levels (vulnerable aquifers) Surface water quality and flows	No changes / impacts to water resources.	Neutral	There are no surface water courses, wells / springs or drinking water protection areas within the vicinity of this option. Bedrock aquifers beneath all options are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within vicinity of this junction is Moderate which applies to all options.	Neutral	There are no surface water courses, wells / springs or drinking water protection areas within the vicinity of this option. Bedrock aquifers beneath all options are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within vicinity of this junction is Moderate which applies to all options.	Neutral
	Landscape and Visual Quality	Landscape and visual assessment	No changes / impacts to landscape & visual receptors.	Neutral	No changes / impacts to landscape & visual receptors.	Neutral	No changes / impacts to landscape & visual receptors.	Neutral
	Cultural and Heritage	Impact at national monuments, NIAH features and Architecture Conservation Areas (ACA)	No change / impacts to cultural heritage.	Neutral	At this stage of the desktop analysis and according to available relevant resources this junction is located within Mullingar Architectural Conservation Area (ACA) and a Zone of Archaeological Potential. 4 no. NIAH features are located at this junction: 2no. Houses (15310073 & 15310074), Mullingar Courthouse (15310099) and Westmeath County Hall: office (15310076). However it is not anticipated that they will be impacted by any option. A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral	At this stage of the desktop analysis and according to available relevant resources this junction is located within Mullingar Architectural Conservation Area (ACA) and a Zone of Archaeological Potential. 4 no. NIAH features are located at this junction: 2no. Houses (15310073 & 15310074), Mullingar Courthouse (15310099) and Westmeath County Hall: office (15310076). However it is not anticipated that they will be impacted by any option. A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral

J2: Lynn Road / Sundays Well Priority Junction



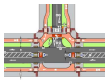


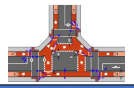


Criteria	Sub-Criteria	Indicator to be measured	Option 1 Do Nothing Retain priority junction	Indicator Score	Option 2 Upgrade to a protected priority junction - traditional build	Indicator Score	Option 3 Upgrade to a protected signalised junction - traditional build	Indicator Score
Transport User benefits and Other Economic Impacts	Cost impacts	Land acquisition area	No land acquisition required.	Neutral	No land acquisition required.	Neutral	No land acquisition required.	Neutral
		Construction and maintenance	No costs associated with this option.	Significant advantages	The cost of this options is approximately €147,610.00.	Some advantages	The cost of this options is approximately €529,037.05.	Significant disadvantages
	Construction impacts	Rapid build achievability and construction impacts, including construction requirements and drainage impact	No changes proposed.	Significant advantages	This option would have to be constructed using traditional construction methods and would require drainage works.	Significant disadvantages	This option would have to be constructed using traditional construction methods and would require drainage works.	Significant disadvantages
Accessibility Impacts	Coherence and Directness	Consistency, continuity and directness along the route and through junctions and the maintenance of cyclists' progression	Footpaths are continuous along the junction, but cyclists are accommodated on road. The retention of the existing scenario would disrupt pedestrian and cyclist progression.	Significant disadvantages	Option would connect well to the other segments facilities and allow for cyclists to progress with ease, with pedestrian and cyclist priority provided at zebra crossings.	Significant advantages	Option would connect well to the other segments facilities and allow for cyclists to progress with ease, although some delays may be experienced at traffic signals.	Some advantages
	Comfort and Attractiveness	Provision of comfort for pedestrians and cyclists through assessment of width and its attractiveness	At some sections the footpath is less than 1.8m wide, the minimum according to DMURS. There is also no cycle facilities at the junction. Therefore, the existing arrangements are not considered attractive for most users.	Significant disadvantages	The junction would be designed in accordance with the CDM with protection given to cyclists except at defined conflict points. Footpaths would also be widened to standard.	Significant advantages	Cyclists would continue to be accommodated on the road alongside vehicles, but signage and change in the junction layout would be in place to improve safety at the junction to improve its attractiveness for all users. Footpaths would also be widened to standard.	Significant advantages
Social Impacts	Accessibility for users with different mobility needs	Qualitative assessment of accessibility of the options to serve users of all ages and abilities	The narrow nature of the footpath and the lack of cycle facilities does not provide opportunities for all users. There is also no dedicated crossing point at the junction.	Significant disadvantages	The proposal would install crossing facilities on all arms of the junction which would improve safety for all users. Cyclists would continue to be accommodated on the road, but with adequate design.	Some advantages	This option would allow active travel users to have further protection, which would be especially beneficial for more vulnerable users. The signal stage will ensure pedestrians and cyclists can cross the road in safety and segregated from vehicular traffic.	Significant advantages
	Gender Impacts	How the proposal may have gender specific impacts	The narrow footpaths, the lack of crossing facilities and the cycle lane terminating at the junction and bringing cyclists on vehicles path is not suitable for some users.	Significant disadvantages	Increase in protection for active travel users would increase perception of safety at the junction due to the presence of appropriate crossing points.	Some advantages	Increase in protection for active travel users would increase perception of safety at the junction due to the presence of signalised crossing points.	Significant advantages
Land Use Impact	Integration with town environs	How the proposal integrates with the Land use, the objectives from development plan and NIFTI	Regarding NIFTI, this option would maintain the existing scenario, therefore, scores higher. Regarding land use, all options are equal. The option would not align with Westmeath County Development Plan 2021-2027 as much as the other options.	Some advantages	Regarding NIFTI, this option would mainly require improvement of existing facilities and implementation of some new facilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Some disadvantages	Regarding NIFTI, this option would require implementation of newfacilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Significant disadvantages
		Impact on green areas	No green areas at the junction.	Neutral	No green areas at the junction.	Neutral	No green areas at the junction.	Neutral
Safety Impact	Safety Impact	Segregation between cyclists and vehicles	Cyclists and vehicles are not segregated at the junction.	Neutral	Cyclists and vehicles would share the road in this option.	Neutral	Cyclists and vehicles would share the road in this option.	Neutral
		Segregation between cyclists and pedestrians	Cyclists and pedestrians are segregated at the junction.	Neutral	Cyclists and pedestrians would be segregated at this option.	Neutral	Cyclists and pedestrians would be segregated at this option.	Neutral
		Safety for all users regarding traffic volumes and speeds along route	Due to high volumes of traffic, the current scenario is not appropriate.	Significant disadvantages	Cyclists and vehicles would still have some conflict points the road at the junction, however, protection would be given to cyclists in line with the CDM. Dedicated crossings for pedestrians would also be provided.	Some advantages	Cyclists and vehicles would still have some conflict points the road at the junction, however, protection would be given to cyclists in line with the CDM along with signal controls to ensure segregation. Dedicated crossings for pedestrians would also be provided.	Significant advantages
	Traffic	Impact on traffic capacity due to the proposals	No changes proposed.	Significant advantages	This option requires the removal of the turning lanes into Lynn Road, which can impact traffic flows, however less than Option 3.	Some disadvantages	Traffic capacity is likely to be impacted in this option due to the implementation of traffic signals including pedestrian/cyclist stages.	Significant disadvantages
Local Environmental Impact	Air Quality	Air Quality Impact	No changes to existing air quality.	Some disadvantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local air quality during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local air quality during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages
	Noise and Vibration	Potential Sensitive receptors including residential, commercial, education, healthcare properties	No changes to existing noise and vibration levels.	Some disadvantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in lower noise and vibration to local sensitive receptors during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in lower noise and vibration to local sensitive receptors during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages
	Soils and geology	Bedrock and overburden. Alluvium Soils, Karst Features, Landslide susceptibility, Contaminated lands, Geological heritage areas	No changes / impacts to soils and geology.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity.	Neutral
	Biodiversity	Impact on Biodiversity along scheme extents	This option will have no affect on any features of ecological importance.	Neutral	This option will have no affect on any features of ecological importance.	Neutral	This option will have no affect on any features of ecological importance.	Neutral
	Water Resources	Groundwater Quality (Public and Private Wells, GWDTEs) Groundwater resources / Levels (vulnerable aquifers) Surface water quality and flows	No changes / impacts to water resources .	Neutral	The Brosna River is located ca. 40m from this junction and is crossed by Lynn Rd. via an existing bridge / culvert structure. There are no wells / springs or drinking water protection areas within the vicinity of this option. Bedrock aquifers beneath all options are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within vicinity of this junction is Moderate which applies to all options.	Neutral	The Brosna River is located ca. 40m from this junction and is crossed by Lynn Rd. via an existing bridge / culvert structure. There are no wells / springs or drinking water protection areas within the vicinity of this option. Bedrock aquifers beneath all options are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within vicinity of this junction is Moderate which applies to all options.	Neutral
	Landscape and Visual Quality	Landscape and visual assessment	No changes / impacts to landscape & visual receptors.	Neutral	No changes / impacts to landscape & visual receptors.	Neutral	No changes / impacts to landscape & visual receptors.	Neutral
	Cultural and Heritage	Impact at national monuments, NIAH features and Architecture Conservation Areas (ACA)	No change / impacts to cultural heritage.	Neutral	At this stage of the desktop analysis and according to available relevant resources this junction is located just outside the Mullingar Architectural Conservation Area (ACA) and a Zone of Archaeological Potential. 2 no. SMR features: Ford (WM019-089014-) and Ritual Site - holy well (WM019-089011) and 1no. NIAH feature: Sunday Well (15310096) are located within the vicinity of this junction. However it is not anticipated that they will be impacted by any option. A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral	At this stage of the desktop analysis and according to available relevant resources this junction is located just outside the Mullingar Architectural Conservation Area (ACA) and a Zone of Archaeological Potential. 2 no. SMR features: Ford (WM019-089014-) and Ritual Site - holy well (WM019-089011) and 1no. NIAH feature: Sunday Well (15310096) are located within the vicinity of this junction. However it is not anticipated that they will be impacted by any option. A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral

J3: Auburn Road / Millmount Road Priority Junction







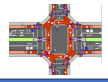
Criteria	Sub-Criteria	Indicator to be measured	Option 1 Do Nothing Retain priority junction	Indicator Score	Option 2 Upgrade to a protected priority junction - traditional build	Indicator Score	Option 3 Upgrade to a protected signalised junction - traditional build	Indicator Score
Transport User benefits and Other Economic Impacts	Cost impacts	Land acquisition area	No land acquisition required.	Neutral	No land acquisition required.	Neutral	No land acquisition required.	Neutral
		Construction and maintenance	No costs associated with this option.	Significant advantages	The cost of this options is approximately €143,647.05.	Some advantages	The cost of this options is approximately €514,147.05	Significant disadvantages
	Construction impacts	Rapid build achievability and construction impacts, including construction requirements and drainage impact	No changes proposed.	Significant advantages	This option would have to be constructed using traditional construction methods and would require drainage works.	Significant disadvantages	This option would have to be constructed using traditional construction methods and would require drainage works.	Significant disadvantages
Accessibility Impacts	Coherence and Directness	Consistency, continuity and directness along the route and through junctions and the maintenance of cyclists' progression	Footpaths are continuous along the junction, but cyclists are accommodated on road. The retention of the existing scenario would disrupt pedestrian and cyclist progression.	Significant disadvantages	The route would allow for continuity with other segments and act as a pleasant entry/exit point for users of the project, allowing good progression.	Significant advantages	Option would connect well to the other segments facilities and allow for cyclists to progress with ease, although some delays may be experienced at traffic signals.	Some advantages
	Comfort and Attractiveness	Provision of comfort for pedestrians and cyclists through assessment of width and its attractiveness	At some sections the footpath is less than 1.8m wide, the minimum according to DMURS. There is also no cycle facilities at the junction. Therefore, the existing arrangements are not considered attractive for most users.	Significant disadvantages	The junction would be designed in accordance with the CDM with protection given to cyclists except at defined conflict points. Footpaths would also be widened to standard.	Significant advantages	The junction would be designed in accordance with the CDM with protection given to cyclists except at defined conflict points. Footpaths would also be widened to standard.	Significant advantages
Social Impacts	Accessibility for users with different mobility needs	Qualitative assessment of accessibility of the options to serve users of all ages and abilities	The lack of crossings and active travel facilities makes the current layout not accessible for all users. The junction radius is very wide, which incurs an extensive distance pedestrians have to walk to cross the road, putting them in the path of vehicles for an extended period.	Significant disadvantages	The proposal would install crossing facilities on all arms of the junction which would improve safety for all users.	Some advantages	This option would allow active travel users to have further protection, which would be especially beneficial for more vulnerable users. The signal stage will ensure pedestrians and cyclists can cross the road in safety and segregated from vehicular traffic.	Significant advantages
	Gender Impacts	How the proposal may have gender specific impacts	The narrow footpaths and the increased junction radius impact the usage of the junction for some users with safety concerns.	Significant disadvantages	Increase in protection for active travel users would increase perception of safety at the junction due to the presence of appropriate crossing points.	Some advantages	Increase in protection for active travel users would increase perception of safety at the junction due to the presence of signalised crossing points.	Significant advantages
Land Use Impact	Integration with town environs	How the proposal integrates with the Land use, the objectives from development plan and NIFTI	Regarding NIFTI, this option would maintain the existing scenario, therefore, scores higher. Regarding land use, all options are equal. The option would not align with Westmeath County Development Plan 2021-2027 as much as the other options.	Some advantages	Regarding NIFTI, this option would mainly require improvement of existing facilities and implementation of some new facilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Some disadvantages	Regarding NIFTI, this option would require implementation of newfacilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Significant disadvantages
		Impact on green areas	No changes proposed to the green areas adjacent to the junction.	Significant advantages	No major changes to the green areas at the junction as the junction mouth would be reduced.	Some advantages	No major changes to the green areas at the junction as the junction mouth would be reduced.	Some advantages
Safety Impact	Safety Impact	Segregation between cyclists and vehicles	Cyclists and vehicles are not segregated at the junction.	Significant disadvantages	Cyclists and vehicles would be segregated on the Millmount road but would share the road with vehicles on Auburn Road.	Some advantages	Cyclists and vehicles would be segregated on the Millmount road but would share the road with vehicles on Auburn Road.	Some advantages
		Segregation between cyclists and pedestrians	Cyclists and pedestrians are segregated at the junction.	Neutral	Cyclists and pedestrians would be segregated at this option.	Neutral	Cyclists and pedestrians would be segregated at this option.	Neutral
		Safety for all users regarding traffic volumes and speeds along route	Due to high volumes of traffic, the current scenario is not appropriate.	Significant disadvantages	Cyclists and vehicles would still have some conflict points the road at the junction, however, protection would be given to cyclists in line with the CDM. Dedicated crossings for pedestrians would also be provided.	Some advantages	Cyclists and vehicles would still have some conflict points the road at the junction, however, protection would be given to cyclists in line with the CDM along with signal controls to ensure segregation. Dedicated crossings for pedestrians would also be provided.	Significant advantages
	Traffic	Impact on traffic capacity due to the proposals	No changes proposed.	Significant advantages	This option requires the removal os the turning lanes into Lynn Road, which can impact traffic flows, however less than Option 3.	Some disadvantages	Traffic capacity is likely to be impacted in this option due to the implementation of traffic signals including pedestrian/cyclist stages.	Significant disadvantages
Local Environmental Impact	Air Quality	Air Quality Impact	No changes to existing air quality.	Some disadvantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local air quality during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local air quality during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages
	Noise and Vibration	Potential Sensitive receptors including residential, commercial, education, healthcare properties	No changes to existing noise and vibration levels.	Some disadvantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in lower noise and vibration to local sensitive receptors during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in lower noise and vibration to local sensitive receptors during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages
	Soils and geology	Bedrock and overburden. Alluvium Soils, Karst Features, Landslide susceptibility, Contaminated lands, Geological heritage areas	No changes / impacts to soils and geology.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity.	Neutral
	Biodiversity	Impact on Biodiversity along scheme extents	This option will have no affect on any features of ecological importance.	Neutral	This option will have no affect on any features of ecological importance.	Neutral	This option will have no affect on any features of ecological importance.	Neutral
	Water Resources	Groundwater Quality (Public and Private Wells, GWDTEs) Groundwater resources / Levels (vulnerable aquifers) Surface water quality and flows	No changes / impacts to water resources.	Neutral	The Royal Canal is located ca. 100m from this junction. There are no wells / springs or drinking water protection areas within the vicinity of this option. Bedrock aquifers beneath all options are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within vicinity of this junction is High, indicating potentially shallow groundwater, which applies to all options.	Neutral	The Royal Canal is located ca. 100m from this junction. There are no wells / springs or drinking water protection areas within the vicinity of this option. Bedrock aquifers beneath all options are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within vicinity of this junction is High, indicating potentially shallow groundwater, which applies to all options.	Neutral
	Landscape and Visual Quality	Landscape and visual assessment	No changes / impacts to landscape & visual receptors.	Neutral	No changes / impacts to landscape & visual receptors.	Neutral	No changes / impacts to landscape & visual receptors.	Neutral
	Cultural and Heritage	Impact at national monuments, NIAH features and Architecture Conservation Areas (ACA)	No change / impacts to cultural heritage.	Neutral	At this stage of the desktop analysis and according to available relevant resources 1no. NIAH feature: Lakeview House (15310092) is located at this junction. However it is not anticipated that it will be impacted by any option. A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral	At this stage of the desktop analysis and according to available relevant resources 1no. NIAH feature: Lakeview House (15310092) is located at this junction. However it is not anticipated that it will be impacted by any option. A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral

J4: Ballinderry Roundabout









Criteria	Sub-Criteria	Indicator to be measured	Option 1 Do Nothing Retain 4-arm roundabout	Indicator Score	Option 2 Upgrade roundabout to protected roundabout - Rapid Build	Indicator Score	Option 3 Upgrade roundabout to protected roundabout - Traditional build	Indicator Score	Option 4 Upgrade to a protected signalised junction - traditional build	Indicator Score
Transport User benefits and Other Economic Impacts	Cost impacts	Land acquisition area	No land acquisition required.	Neutral	No land acquisition required.	Neutral	No land acquisition required.	Neutral	No land acquisition required.	Neutral
		Construction and maintenance	No costs associated with this option.	Significant advantages	The cost of this options is approximately €167,320.00.	Some disadvantages	The cost of this options is approximately €198,069.55.	Some disadvantages	The cost of this options is approximately €683,219.55.	Significant disadvantages
	Construction impacts	Rapid build achievability and construction impacts, including construction requirements and drainage impact	No changes proposed.	Significant advantages	This option is a proposed rapid build hence it can be built quickly. No changes required for the drainage system.	Some advantages	This option would have to be constructed using traditional construction methods and would require drainage works.	Significant disadvantages	This option would require traditional construction of a signalised junction along the removal of the existing roundabout leading to long construction times.	Significant disadvantages
Accessibility Impacts	Coherence and Directness	Consistency, continuity and directness along the route and through junctions and the maintenance of cyclists' progression	This option would disrupt continuity with the other segments, and cause challenges for the cyclists progression.	Significant disadvantages	Option would connect well to the other segments facilities and allow for cyclists to progress with ease.	Significant advantages	Option would connect well to the other segments facilities and allow for cyclists to progress with ease.	Significant advantages	Option would connect well to the other segments facilities and allow for cyclists to progress with ease, although some delays may be experienced at traffic signals.	Some advantages
	Comfort and Attractiveness	Provision of comfort for pedestrians and cyclists through assessment of width and its attractiveness	Currently provisions are inadequate for existing cyclists and not ideal for pedestrians as it lacks appropriate crossing facilities.	Significant disadvantages	The shared path will be designed according to the CDM with the minimum width. Pedestrians and cyclists would be required to share space at the roundabout which may impact comfort.	Some advantages	The shared path will be designed according to the CDM with the minimum width. Pedestrians and cyclists would be required to share space at the roundabout which may impact comfort.	Some advantages	The footpath would be designed according to DMURS and the cycle track according to the CDM following the desirable minimum width guidelines. Full segregation for pedestrians and cyclists would be provided.	Significant advantages
Social Impacts	Accessibility for users with different mobility needs	Qualitative assessment of accessibility of the options to serve users of all ages and abilities	Currently no cycle facilities present, making the roundabout very intimidating to less confident users.	Significant disadvantages	This option would allow active travel users to have further protection, which would be especially beneficial for more vulnerable users. However, shared spaces between pedestrians and cyclists may reduce accessibility for some.	Some advantages	This option would allow active travel users to have further protection, which would be especially beneficial for more vulnerable users. However, shared spaces between pedestrians and cyclists may reduce accessibility for some.	Some advantages	This option would allow active travel users to have further protection, which would be especially beneficial for more vulnerable users. The signal stage will ensure pedestrians and cyclists can cross the road in safety and segregated from one another.	Significant advantages
	Gender Impacts	How the proposal may have gender specific impacts	Inadequate facilities at present, impacting the level of safety felt by active travel users.	Significant disadvantages	Increase in protection for active travel users would increase perception of safety at the roundabout, as there will be crossing points on all arms. But shared space between cyclists and pedestrians might not be ideal to some users.	Some advantages	Increase in protection for active travel users would increase perception of safety at the roundabout, as there will be crossing points on all arms. But shared space between cyclists and pedestrians might not be ideal to some users.	Some advantages	Increase in protection for active travel users would increase perception of safety at the junction due to the presence of segregated paths for pedestrians and cyclists and signalised crossing points.	Significant advantages
Land Use Impact	Integration with town environs	How the proposal integrates with the Land use, the objectives from development plan and NIFTI	Regarding NIFTI, this option would maintain the existing scenario, therefore, scores higher. Regarding land use, all options are equal. The option would not align with Westmeath County Development Plan 2021-2027 as much as the other options.	Some advantages	Regarding NIFTI, this option would mainly require improvement of existing facilities and implementation of some new facilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Some disadvantages	Regarding NIFTI, this option would require improvement of existing facilities and implementation of new facilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Some disadvantages	Regarding NIFTI, this option would require implementation of newfacilities. Regarding land use, all options are equal. The option aligns with Westmeath County Development Plan 2021-2027.	Significant disadvantages
		Impact on green areas	No green area at the junction.	Neutral	No green area at the junction.	Neutral	No green area at the junction.	Neutral	No green area at the junction.	Neutral
Safety Impact	Safety Impact	Segregation between cyclists and vehicles	There is no segregation between cyclists and vehicles.	Significant disadvantages	Cyclists and vehicles would be physically segregated.	Significant advantages	Cyclists and vehicles would be physically segregated.	Significant advantages	Cyclists and vehicles would be physically segregated.	Significant advantages
		Segregation between cyclists and pedestrians	Cyclists and pedestrians are segregated at the junction.	Significant advantages	Cyclists and pedestrians would shared the same path at the junction.	Significant disadvantages	Cyclists and pedestrians would shared the same path at the junction.	Significant disadvantages	Cyclists and pedestrians would be segregated at the junction.	Significant advantages
		Safety for all users regarding traffic volumes and speeds along route	Due to high volumes of traffic, the current scenario is not appropriate.	Significant disadvantages	The proposed cross section is appropriate regarding traffic volumes and speeds.	Significant advantages	Option is appropriate as it offers much higher to protection to cyclists and pedestrians which is desirable due to high traffic present at the junction.	Significant advantages	Option is appropriate as it offers much higher to protection to cyclists and pedestrians which is desirable due to high traffic present at the junction.	Significant advantages
	Traffic	Impact on traffic capacity due to the proposals	No changes proposed.	Significant advantages	Traffic capacity is significantly reduced in this option due to the removal of entry width at the roundabout arms and the general additional geometric constraints.	Some disadvantages	Traffic capacity is significantly reduced in this option due to the removal of entry width at the roundabout arms and the general additional geometric constraints.	Some disadvantages	Traffic capacity is likely to be impacted in this option due to the implementation of traffic signals including pedestrian and cyclist stages.	Significant disadvantages
Local Environmental Impact	Air Quality	Air Quality Impact	No changes to existing air quality.	Some disadvantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local air quality during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local air quality during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in better local air quality during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages
	Noise and Vibration	Potential Sensitive receptors including residential, commercial, education, healthcare properties	No changes to existing noise and vibration levels.	Some disadvantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in lower noise and vibration to local sensitive receptors during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in lower noise and vibration to local sensitive receptors during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages	This option may encourage more cycling / walking and less use of personal vehicles and therefore result in lower noise and vibration to local sensitive receptors during operation. Construction impacts will be short term and not significant as mitigation measures will be implemented.	Some advantages
	Soils and geology	Bedrock and overburden. Alluvium Soils, Karst Features, Landslide susceptibility, Contaminated lands, Geological heritage areas	No changes / impacts to soils and geology.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity.	Neutral	There are no karst features, geological heritage areas or identified landslide issues within the vicinity.	Neutral
	Biodiversity	Impact on Biodiversity along scheme extents	This option will have no affect on any features of ecological importance.	Neutral	This option will have no affect on any features of ecological importance.	Neutral	This option will have no affect on any features of ecological importance.	Neutral	This option will have no affect on any features of ecological importance.	Neutral
	Water Resources	Groundwater Quality (Public and Private Wells, GWDTEs) Groundwater resources / Levels (vulnerable aquifers) Surface water quality and flows	No changes / impacts to water resources.	Neutral	The Royal Canal is located ca. 70m from this junction. There are no wells / springs or drinking water protection areas within the vicinity of this option. Bedrock aquifers beneath all options are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within vicinity of this junction is extreme, indicating shallow groundwater, which applies to all options.	Neutral	The Royal Canal is located ca. 70m from this junction. There are no wells / springs or drinking water protection areas within the vicinity of this option. Bedrock aquifers beneath all options are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within vicinity of this junction is extreme, indicating shallow groundwater, which applies to all options.	Neutral	The Royal Canal is located ca. 70m from this junction. There are no wells / springs or drinking water protection areas within the vicinity of this option. Bedrock aquifers beneath all options are identified as locally important which are moderately productive only in local zones. Groundwater vulnerability within vicinity of this junction is extreme, indicating shallow groundwater, which applies to all options.	Neutral
	Landscape and Visual Quality	Landscape and visual assessment	No changes / impacts to landscape & visual receptors.	Neutral	No changes / impacts to landscape & visual receptors.	Neutral	No changes / impacts to landscape & visual receptors.	Neutral	No changes / impacts to landscape & visual receptors.	Neutral
	Cultural and Heritage	Impact at national monuments, NIAH features and Architecture Conservation Areas (ACA)	No change / impacts to cultural heritage.	Neutral	At this stage of the desktop analysis and according to available relevant resources there are no NIAH or SMR features located at this junction. However it is not anticipated that it will be impacted by any option. A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral	At this stage of the desktop analysis and according to available relevant resources there are no NIAH or SMR features located at this junction. However it is not anticipated that it will be impacted by any option. A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral	At this stage of the desktop analysis and according to available relevant resources there are no NIAH or SMR features located at this junction. However it is not anticipated that it will be impacted by any option. A cultural heritage specialist will be required to undertake surveys and input into the design as required.	Neutral

Appendix E. Emerging Preferred Option Drawings

Appendix F. Feasibility Working Costs

Feasibility Working Cost Estimate Template

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 01		
Project / Contract Code:		Prepared By (Individual/Organisation):	AtkinsRéalis
Approving Authority:	NTA	Date Estimate Prepared:	17/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

Project Information

Mainline Cross-Section Type:	Single	Location:	Mount Street Lower	
Total Mainline Length (m):	102.04	Road Rating:		
Total Mainline Width (m):	6	Land take Required:	☐ Check Box If Yes	
Potential Construction Works Start Date:	Q4 2024	Anticipated Construction Works Duration:	12	Months
Other Relevant Project Information:	Mixed Street			

1 Construction Costs

Ref	Description	Total
1.1	Site Clearance	€ 4,674.81
1.2	Fencing	€ -
1.3	Road Restraint Systems	€ -
1.4	Earthworks	€ 28,593.83
1.5	Drainage	€ 23,469.20
1.6	Pavements	€ -
1.7	Kerbing & Footways	€ 35,413.60
1.8	Traffic Signs & Road Marking	€ 4,674.81
1.9	Road Lighting	€ 19,344.00
1.10	Structural Concrete (Including Structures Generally)	€ -
1.11	Accommodation Works	€ -
1.12	Works for Statutory Undertakers	€ -
1.13	Landscaping & Ecology	€ 934.96
1.14	Other Project Costs	€ 154,184.70
1.15	Preliminaries Including Site Compounds (excluding traffic management)	€ 14,024.43
	Sub-Total A - Construction Costs	**€ 285,314.34**

Add-On Costs

Ref	Description	Quantity	Unit	Rate	Total
1.16	Preparation and Administration Costs				€ 11,177.24
1.16.1	Scope & Purpose				
1.16.2	Concept, Development & Option Selection	1		€ 5,816.33	€ 5,816.33
1.16.3	Preliminary Design	1		€ 3,957.75	€ 3,957.75
1.16.4	Statutory Processes	1		€ 1,403.16	€ 1,403.16
1.16.5	Detailed Design & Procurement				
1.16.6	Construction & Implementation				
1.16.7	Close Out & Review				
1.17	Traffic Management Related Costs	10%	%	€ 285,314.34	€ 28,531.43
1.18	Land and Property Costs				
	Sub-Total B - Add-On Costs				**€ 39,708.68**

2 Adjustments

Description	Quantity	Unit	Rate	Total
Add Inflation	6.6%	%	€ 325,023.02	€ 21,451.52
Add Contingency *(001_B123_CC_CMG)*	38.4%	%	€ 346,474.54	€ 133,046.22
Per Cent for Art Scheme https://publicart.ie/main/commissioning/funding/per-cent-for-art-scheme/	1%	%	€ 346,474.54	€ 3,464.75
Total Adjustments				**€ 157,962.49**

Total Feasibility Working Cost Estimate Exclusive of VAT				**€ 482,985.51**
VAT *on Construction Costs, TM and Associated Adjustment Costs*	13.5%	%	€ 471,808.26	**€ 63,694.12**
VAT *on Preparation and Administration Costs*	23%	%	€ 11,177.24	**€ 2,570.77**
VAT *on Land and Property* https://www.revenue.ie/en/vat/vat-on-property-and-construction/vat-and-the-supply-of-property/index.aspx		Item		€ -
Total Feasibility Working Cost Estimate Inclusive of VAT				**€ 549,250.39**

Mainline Length	0.10204	Km	**Rate Per Km (Excluding VAT)**	**€ 4,733,295.84**
			Rate Per Km (Including VAT)	**€ 5,382,696.87**

Source of Cost Data *(Please provide a brief narrative on the source of cost data in the box below)*

Revision	Title	Prepared By	Checked By	Issue Date
	Draft	DS	TC	12/07/2024

NOTE:
Costs are considered to include all allowances for overheads and profits.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project Control Document Summary

NOTE: The information below will be auto-generated from the main cost estimate template to obtain the relevant totals in line with the seven costs heads required for inclusion within the project control document.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 01		
Project / Contract Code:		Prepared By (Individual & Organisation)	AtkinsRéalis
Approving Authority:	NTA	Date Estimate Prepared:	17/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

1	PCD Summary				Sub-Total	VAT %	VAT Amount	Total Incl. VAT
	1.1	Scope & Purpose	1	Item	€ -	23.00	€ -	€ -
	1.2	Concept, Development & Option Selection	1	Item	€ 5,816.33	23.00	€ 1,337.76	€ 7,154.09
	1.3	Preliminary Design	1	Item	€ 3,957.75	23.00	€ 910.28	€ 4,868.03
	1.4	Statutory Processes	1	Item	€ 1,403.16	23.00	€ 322.73	€ 1,725.89
	1.5	Detailed Design & Procurement	1	Item	€ -	23.00	€ -	€ -
	1.6	Construction & Implementation	1	Item	€ -	23.00	€ -	€ -
	1.7	Close Out & Review	1	Item	€ -	23.00	€ -	€ -
	1.8	Traffic Management	1	Item	€ 28,531.43	13.50	€ 3,851.74	€ 32,383.18
	1.9	Land & Property Costs	1	Item	€ -			€ -
	1.1	Construction Costs (Main Contractor)	1	Item	€ 285,314.34	13.50	€ 38,517.44	€ 323,831.78
	1.11	Inflation Allowance (Band 2/3 Only)	1	Item	€ 21,451.52	13.50	€ 2,895.96	€ 24,347.47
	1.12	Contingency Allowance	1	Item	€ 133,046.22	13.50	€ 17,961.24	€ 151,007.46
	1.13	Allowance for Arts (%)	1	Item	€ 3,464.75	13.50	€ 467.74	€ 3,932.49
			Sub-Total (Ex.VAT)		**€ 482,985.51**			
							Add VAT on Land (If Applicable)	-
							Total Feasibility Working Cost Estimate (Including VAT)	**€ 549,250.39**

NOTE:
Costs are reflective of costs at the base date stated above.
Costs are considered to include allowances for overheads and profit.

Estimate Assumptions, Exclusions and Inclusions

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 01
Project / Contract Code:	0
Approving Authority:	NTA
Sponsoring Agency:	Westmeath County Council
Prepared By (Individual/Organisation)	AtkinsRéalis

1 Construction Costs

1.1 - Site Clearance: Assumed 5% of construction cost.
1.6 - Pavement: Assumed the construction cost of the Carriageway and cycletrack, excluding kerbs.
1.7 - Kerbing & Footways: Assumed the construction cost of the footpath, kerbs and shared path.
1.8 - Signs and lines: Assumed 5% of construction cost.
1.13 - Landscaping & Ecology: Assumed 1% of construction cost + construction cost of the verge.
1.14 - Other Project Cost: Assumed the construction cost of the junctions (protected signalised junctions and CDM roundabouts) + utiilities cost.*
1.15 - Preliminaries: Assumed 15% of construction cost.
**Utilities Cost: Assumed 15% or 10% of construction cost for traditional and rapid buld construction respectively.*

2 Delivery and Construction Programme

At this point in the scheme, it is assumed that the project will be built from the year 2024 after all the planned stages of study and approval of the project have been carried out.

3 Preparation and Administration Costs

Due to the original breakdown of tender price requested by WCC, the amount entered in the Scope & Purpose item is the combined rates of the Scope & Purpose (1.16.1) and Concept , Development & Option Select (1.16.2) items. Similarly, the amount entered in the Preliminary Design item is the combined rates of the Preliminary Design (1.16.3) and Staturory Processes (1.16.4) items

4 Traffic Management Related Costs

1.17 - Traffic Management Related Cost: Assumed 10% of construction cost.

5 Land and Property Costs

6 Other Relevant Information

Revision	Title	Prepared By	Checked By	Issue Date
0	Draft	DS	TC	12/07/2024

Project Risk

Risk

Please include details of known key project risks.
(Additional rows to be added as required)

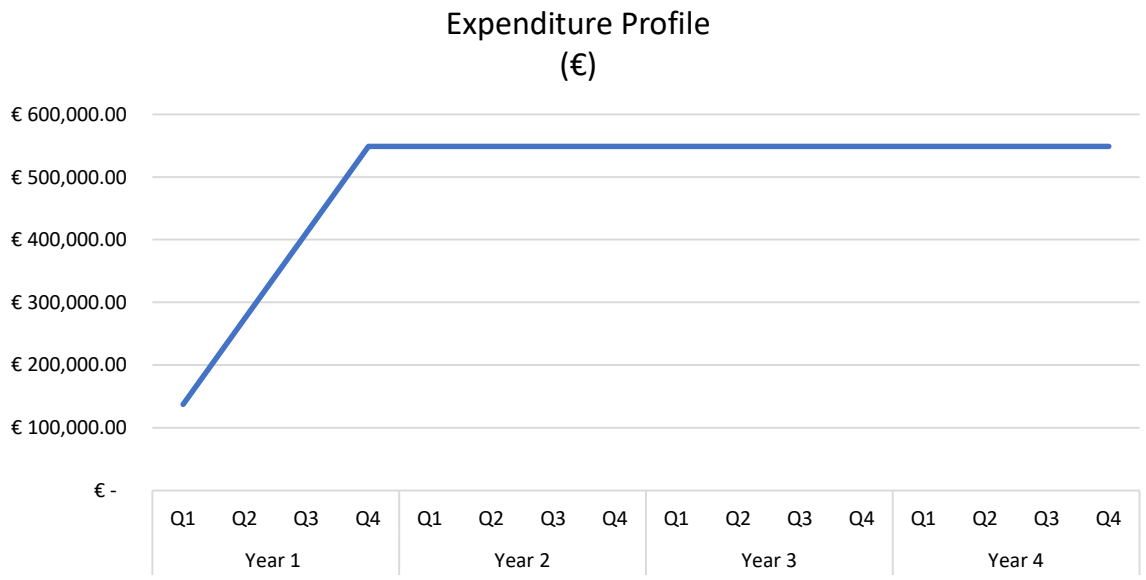
Please rank risks in order of severity with 5 being most severe.

Risk	Rank
	2
	1
	3
	4

Expenditure Profile

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 01	
Project / Contract Code:	0	
Total Feasibility Working Cost Estimate:	€ 549,250.39	
Anticipated Programme Duration:	12	Months

Year	Quarter	Total Quarterly Expenditure (€)	Cumulative Expenditure (€)
Year 1	Q1	€ 137,312.60	€ 137,312.60
	Q2	€ 137,312.60	€ 274,625.19
	Q3	€ 137,312.60	€ 411,937.79
	Q4	€ 137,312.60	€ 549,250.39
Year 2	Q1		€ 549,250.39
	Q2		€ 549,250.39
	Q3		€ 549,250.39
	Q4		€ 549,250.39
Year 3	Q1		€ 549,250.39
	Q2		€ 549,250.39
	Q3		€ 549,250.39
	Q4		€ 549,250.39
Year 4	Q1		€ 549,250.39
	Q2		€ 549,250.39
	Q3		€ 549,250.39
	Q4		€ 549,250.39



Revision	Title	Prepared by	Checked by	Issue Date
0	Draft	DS	TC	12/07/2024

Note:
Years and quarters stated are for illustrative purposes only. Please amend to suit the project duration.

Expenditure Profile must be demonstrated quarterly unless otherwise agreed with NTA.

Estimate Comparison

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 01
Project / Contract Code:	0

Estimate Comparison

Ref	Item	Option Comparison Cost Estimate	Feasibility Working Cost Estimate	Variance	
				€	%
1	Construction Costs	€ 131,829.64	€ 285,314.34	€ 153,484.70	116%
2	Preparation and Administration Costs	€ 11,177.24	€ 11,177.24	€ -	0%
3	Traffic Management Related Costs	€ 13,182.96	€ 28,531.43	€ 15,348.47	116%
4	Land and Property Costs	€ -	€ -	€ -	0%
5	Inflation	€ 10,308.53	€ 21,451.52	€ 11,142.99	108%
6	Contingency	€ 63,935.38	€ 133,046.22	€ 69,110.85	108%
7	Per Cent for Art Scheme	€ 1,664.98	€ 3,464.75	€ 1,799.76	108%
8	Total Costs (Cumulative)	€ 232,098.74	€ 482,985.51	€ 250,886.77	108%
9	Add VAT @ 13.5%	€ 29,824.40	€ 63,694.12	€ 33,869.71	114%
10	Add VAT @ 23%	€ 2,570.77	€ 2,570.77	€ -	0%
11	Add VAT on Land (If Applicable)	€ -		€ -	0%
12	**Total Costs (Including VAT)**	**€ 264,493.91**	**€ 549,250.39**	**€ 284,756.48**	108%

Programme Comparison

Ref	Item	Grant Application Cost Estimate	Feasibility Working Cost Estimate	Variance	
				Months	%
1	Anticipated Programme Duration	4	12	8	200%

Commentary on Variances

If costs vary more than 10% or a value advised by NTA from the last cost estimate please provide a commentary in the space below:

Rev	Title	Prepared by	Checked by	Issue Date
0	Draft	DS	TC	12/07/2024

Feasibility Working Cost Estimate Template

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 02		
Project / Contract Code:		Prepared By (Individual/Organisation):	AtkinsRéalis
Approving Authority:	NTA	Date Estimate Prepared:	17/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

Project Information

Mainline Cross-Section Type:	Single	Location:	Access to County Offices	
Total Mainline Length (m):	57.02	Road Rating:		
Total Mainline Width (m):	6.5	Land take Required:	☐ Check Box If Yes	
Potential Construction Works Start Date:	Q4 2024	Anticipated Construction Works Duration:	12	Months
Other Relevant Project Information:	Mixed Street			

1 Construction Costs

Ref	Description	Total
1.1	Site Clearance	€ 1,701.64
1.2	Fencing	€ -
1.3	Road Restraint Systems	€ -
1.4	Earthworks	€ 12,389.61
1.5	Drainage	€ 4,576.00
1.6	Pavements	€ -
1.7	Kerbing & Footways	€ 11,800.00
1.8	Traffic Signs & Road Marking	€ 1,701.64
1.9	Road Lighting	€ 9,672.00
1.10	Structural Concrete (Including Structures Generally)	€ -
1.11	Accommodation Works	€ -
1.12	Works for Statutory Undertakers	€ -
1.13	Landscaping & Ecology	€ 340.33
1.14	Other Project Costs	€ 700.00
1.15	Preliminaries Including Site Compounds (excluding traffic management)	€ 5,104.91
	Sub-Total A - Construction Costs	**€ 47,986.11**

Add-On Costs

Ref	Description	Quantity	Unit	Rate	Total
1.16	Preparation and Administration Costs				€ 6,261.40
1.16.1	Scope & Purpose				
1.16.2	Concept, Development & Option Selection	1		€ 3,258.26	€ 3,258.26
1.16.3	Preliminary Design	1		€ 2,217.10	€ 2,217.10
1.16.4	Statutory Processes	1		€ 786.04	€ 786.04
1.16.5	Detailed Design & Procurement				
1.16.6	Construction & Implementation				
1.16.7	Close Out & Review				
1.17	Traffic Management Related Costs	10%	%	€ 47,986.11	€ 4,798.61
1.18	Land and Property Costs				
				Sub-Total B - Add-On Costs	**€ 11,060.01**

2 Adjustments

Description	Quantity	Unit	Rate	Total
Add Inflation	6.6%	%	€ 59,046.12	€ 3,897.04
Add Contingency *(001_B123_CC_CMG)*	38.4%	%	€ 62,943.16	€ 24,170.18
Per Cent for Art Scheme https://publicart.ie/main/commissioning/funding/per-cent-for-art-scheme/	1%	%	€ 62,943.16	€ 629.43
			Total Adjustments	**€ 28,696.65**

Total Feasibility Working Cost Estimate Exclusive of VAT				**€ 87,742.77**
VAT *on Construction Costs, TM and Associated Adjustment Costs*	13.5%	%	€ 81,481.37	**€ 10,999.98**
VAT *on Preparation and Administration Costs*	23%	%	€ 6,261.40	**€ 1,440.12**
VAT *on Land and Property* https://www.revenue.ie/en/vat/vat-on-property-and-construction/vat-and-the-supply-of-property/index.aspx		Item		€ -
Total Feasibility Working Cost Estimate Inclusive of VAT				**€ 100,182.88**

Mainline Length	0.05702	**Km**	**Rate Per Km (Excluding VAT)**	**€ 1,538,806.94**
			Rate Per Km (Including VAT)	**€ 1,756,977.89**

Source of Cost Data *(Please provide a brief narrative on the source of cost data in the box below)*

Revision	Title	Prepared By	Checked By	Issue Date
	Draft	DS	TC	12/07/2024

NOTE:
Costs are considered to include all allowances for overheads and profits.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project Control Document Summary

NOTE: The information below will be auto-generated from the main cost estimate template to obtain the relevant totals in line with the seven costs heads required for inclusion within the project control document.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 02		
Project / Contract Code:		Prepared By (Individual & Organisation)	AtkinsRéalis
Approving Authority:	NTA	Date Estimate Prepared:	17/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

1	PCD Summary					Sub-Total		VAT %		VAT Amount		Total Incl. VAT
	1.1	Scope & Purpose	1	Item	€	-		23.00	€	-	€ -
	1.2	Concept, Development & Option Selection	1	Item	€	3,258.26		23.00	€	749.40	€ 4,007.66
	1.3	Preliminary Design	1	Item	€	2,217.10		23.00	€	509.93	€ 2,727.03
	1.4	Statutory Processes	1	Item	€	786.04		23.00	€	180.79	€ 966.83
	1.5	Detailed Design & Procurement	1	Item	€	-		23.00	€	-	€ -
	1.6	Construction & Implementation	1	Item	€	-		23.00	€	-	€ -
	1.7	Close Out & Review	1	Item	€	-		23.00	€	-	€ -
	1.8	Traffic Management	1	Item	€	4,798.61		13.50	€	647.81	€ 5,446.42
	1.9	Land & Property Costs	1	Item	€	-					€ -
	1.1	Construction Costs (Main Contractor)	1	Item	€	47,986.11		13.50	€	6,478.12	€ 54,464.23
	1.11	Inflation Allowance (Band 2/3 Only)	1	Item	€	3,897.04		13.50	€	526.10	€ 4,423.14
	1.12	Contingency Allowance	1	Item	€	24,170.18		13.50	€	3,262.97	€ 27,433.15
	1.13	Allowance for Arts (%)	1	Item	€	629.43		13.50	€	84.97	€ 714.40
				Sub-Total (Ex.VAT)	**€**	**87,742.77**					
										Add VAT on Land (If Applicable)	-
										Total Feasibility Working Cost Estimate (Including VAT)	**€ 100,182.88**

NOTE:
Costs are reflective of costs at the base date stated above.
Costs are considered to include allowances for overheads and profit.

Estimate Assumptions, Exclusions and Inclusions

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 02
Project / Contract Code:	0
Approving Authority:	NTA
Sponsoring Agency:	Westmeath County Council
Prepared By (Individual/Organisation)	AtkinsRéalis

1	**Construction Costs**
	1.1 - Site Clearance: Assumed 5% of construction cost. *1.6 - Pavement: Assumed the construction cost of the Carriageway and cycletrack, excluding kerbs.* *1.7 - Kerbing & Footways: Assumed the construction cost of the footpath, kerbs and shared path.* *1.8 - Signs and lines: Assumed 5% of construction cost.* *1.13 - Landscaping & Ecology: Assumed 1% of construction cost + construction cost of the verge.* *1.14 - Other Project Cost: Assumed the construction cost of the junctions (protected signalised junctions and CDM roundabouts) + utiilities cost*.* *1.15 - Preliminaries: Assumed 15% of construction cost.* **Utilities Cost: Assumed 15% or 10% of construction cost for traditional and rapid buld construction respectively.*
2	**Delivery and Construction Programme**
	At this point in the scheme, it is assumed that the project will be built from the year 2024 after all the planned stages of study and approval of the project have been carried out.
3	**Preparation and Administration Costs**
	Due to the original breakdown of tender price requested by WCC, the amount entered in the Scope & Purpose item is the combined rates of the Scope & Purpose (1.16.1) and Concept , Development & Option Select (1.16.2) items. Similarly, the amount entered in the Preliminary Design item is the combined rates of the Preliminary Design (1.16.3) and Staturory Processes (1.16.4) items
4	**Traffic Management Related Costs**
	1.17 - Traffic Management Related Cost: Assumed 10% of construction cost.
5	**Land and Property Costs**
6	**Other Relevant Information**

Revision	Title	Prepared By	Checked By	Issue Date
0	Draft	DS	TC	12/07/2024

Project Risk

Risk

Please include details of known key project risks.
(Additional rows to be added as required)

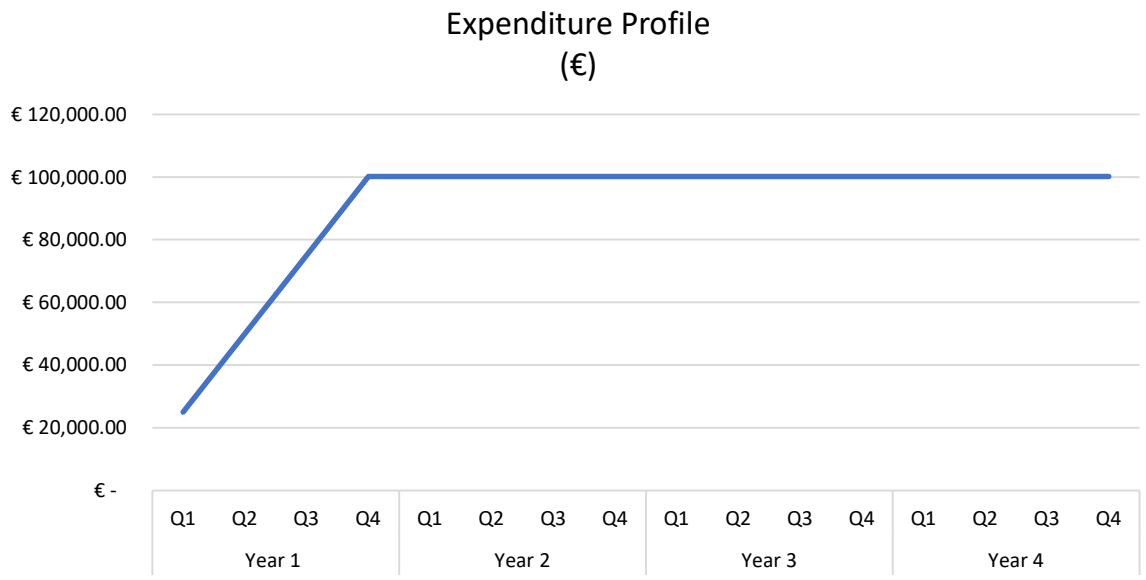
Please rank risks in order of severity with 5 being most severe.

Risk	Rank
	2
	1
	3
	4

Expenditure Profile

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 02	
Project / Contract Code:	0	
Total Feasibility Working Cost Estimate:	€ 100,182.88	
Anticipated Programme Duration:	12	Months

Year	Quarter	Total Quarterly Expenditure (€)	Cumulative Expenditure (€)
Year 1	Q1	€ 25,045.72	€ 25,045.72
	Q2	€ 25,045.72	€ 50,091.44
	Q3	€ 25,045.72	€ 75,137.16
	Q4	€ 25,045.72	€ 100,182.88
Year 2	Q1		€ 100,182.88
	Q2		€ 100,182.88
	Q3		€ 100,182.88
	Q4		€ 100,182.88
Year 3	Q1		€ 100,182.88
	Q2		€ 100,182.88
	Q3		€ 100,182.88
	Q4		€ 100,182.88
Year 4	Q1		€ 100,182.88
	Q2		€ 100,182.88
	Q3		€ 100,182.88
	Q4		€ 100,182.88



Revision	Title	Prepared by	Checked by	Issue Date
0	Draft	DS	TC	12/07/2024

Note:
Years and quarters stated are for illustrative purposes only. Please amend to suit the project duration.

Expenditure Profile must be demonstrated quarterly unless otherwise agreed with NTA.

Estimate Comparison

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 02
Project / Contract Code:	0

Estimate Comparison

Ref	Item	Option Comparison Cost Estimate	Feasibility Working Cost Estimate	Variance	
				€	%
1	Construction Costs	€ 47,986.11	€ 47,986.11	€ -	0%
2	Preparation and Administration Costs	€ 6,261.40	€ 6,261.40	€ -	0%
3	Traffic Management Related Costs	€ 4,798.61	€ 4,798.61	€ -	0%
4	Land and Property Costs	€ -	€ -	€ -	0%
5	Inflation	€ 3,897.04	€ 3,897.04	€ -	0%
6	Contingency	€ 24,170.18	€ 24,170.18	€ -	0%
7	Per Cent for Art Scheme	€ 629.43	€ 629.43	€ -	0%
8	Total Costs (Cumulative)	€ 87,742.77	€ 87,742.77	€ -	0%
9	Add VAT @ 13.5%	€ 10,999.98	€ 10,999.98	€ -	0%
10	Add VAT @ 23%	€ 1,440.12	€ 1,440.12	€ -	0%
11	Add VAT on Land (If Applicable)	€ -		€ -	0%
12	**Total Costs (Including VAT)**	**€ 100,182.88**	**€ 100,182.88**	**€ -**	0%

Programme Comparison

Ref	Item	Grant Application Cost Estimate	Feasibility Working Cost Estimate	Variance	
				Months	%
1	Anticipated Programme Duration	4	12	8	200%

Commentary on Variances

If costs vary more than 10% or a value advised by NTA from the last cost estimate please provide a commentary in the space below:

Rev	Title	Prepared by	Checked by	Issue Date
0	Draft	DS	TC	12/07/2024

Feasibility Working Cost Estimate Template

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 03		
Project / Contract Code:		Prepared By (Individual/Organisation):	AtkinsRéalis
Approving Authority:	NTA	Date Estimate Prepared:	17/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

Project Information

Mainline Cross-Section Type:	Single	Location:	Lynn Road R400	
Total Mainline Length (m):	178.09	Road Rating:		
Total Mainline Width (m):	12.6	Land take Required:	☐ Check Box If Yes	
Potential Construction Works Start Date:	Q4 2024	Anticipated Construction Works Duration:	12	Months
Other Relevant Project Information:	Two-way cycle East TB			

1 Construction Costs

Ref	Description	Total
1.1	Site Clearance	€ 9,580.66
1.2	Fencing	€ -
1.3	Road Restraint Systems	€ -
1.4	Earthworks	€ 50,596.07
1.5	Drainage	€ 29,918.45
1.6	Pavements	€ 25,644.38
1.7	Kerbing & Footways	€ 92,665.59
1.8	Traffic Signs & Road Marking	€ 9,580.66
1.9	Road Lighting	€ 21,530.60
1.10	Structural Concrete (Including Structures Generally)	€ -
1.11	Accommodation Works	€ -
1.12	Works for Statutory Undertakers	€ -
1.13	Landscaping & Ecology	€ 1,916.13
1.14	Other Project Costs	€ 158,537.05
1.15	Preliminaries Including Site Compounds (excluding traffic management)	€ 28,741.97
	Sub-Total A - Construction Costs	**€ 428,711.55**

Add-On Costs

Ref	Description	Quantity	Unit	Rate	Total
1.16	Preparation and Administration Costs				€ 19,507.16
1.16.1	Scope & Purpose				
1.16.2	Concept, Development & Option Selection	1		€ 10,150.99	€ 10,150.99
1.16.3	Preliminary Design	1		€ 6,907.28	€ 6,907.28
1.16.4	Statutory Processes	1		€ 2,448.88	€ 2,448.88
1.16.5	Detailed Design & Procurement				
1.16.6	Construction & Implementation				
1.16.7	Close Out & Review				
1.17	Traffic Management Related Costs	10%	%	€ 428,711.55	€ 42,871.16
1.18	Land and Property Costs				
				Sub-Total B - Add-On Costs	**€ 62,378.31**

2 Adjustments

Description	Quantity	Unit	Rate	Total
Add Inflation	6.6%	%	€ 491,089.86	€ 32,411.93
Add Contingency *(001_B123_CC_CMG)*	38.4%	%	€ 523,501.80	€ 201,024.69
Per Cent for Art Scheme https://publicart.ie/main/commissioning/funding/per-cent-for-art-scheme/	1%	%	€ 523,501.80	€ 5,235.02
			Total Adjustments	**€ 238,671.64**

Total Feasibility Working Cost Estimate Exclusive of VAT				**€ 729,761.50**
VAT *on Construction Costs, TM and Associated Adjustment Costs*	13.5%	%	€ 710,254.34	**€ 95,884.34**
VAT *on Preparation and Administration Costs*	23%	%	€ 19,507.16	**€ 4,486.65**
VAT *on Land and Property* https://www.revenue.ie/en/vat/vat-on-property-and-construction/vat-and-the-supply-of-property/index.aspx		Item		€ -
Total Feasibility Working Cost Estimate Inclusive of VAT				**€ 830,132.49**

Mainline Length	**0.178086**	**Km**	**Rate Per Km (Excluding VAT)**	**€ 4,097,803.88**
			Rate Per Km (Including VAT)	**€ 4,661,413.50**

Source of Cost Data *(Please provide a brief narrative on the source of cost data in the box below)*

Revision	Title	Prepared By	Checked By	Issue Date
	Draft	DS	TC	12/07/2024

NOTE:
Costs are considered to include all allowances for overheads and profits.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project Control Document Summary

NOTE: The information below will be auto-generated from the main cost estimate template to obtain the relevant totals in line with the seven costs heads required for inclusion within the project control document.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 03		
Project / Contract Code:		Prepared By (Individual & Organisation)	AtkinsRéalis
Approving Authority:	NTA	Date Estimate Prepared:	17/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

1	PCD Summary				Sub-Total	VAT %	VAT Amount	Total Incl. VAT
	1.1	Scope & Purpose	1	Item	€ -	23.00	€ -	€ -
	1.2	Concept, Development & Option Selection	1	Item	€ 10,150.99	23.00	€ 2,334.73	€ 12,485.72
	1.3	Preliminary Design	1	Item	€ 6,907.28	23.00	€ 1,588.68	€ 8,495.96
	1.4	Statutory Processes	1	Item	€ 2,448.88	23.00	€ 563.24	€ 3,012.13
	1.5	Detailed Design & Procurement	1	Item	€ -	23.00	€ -	€ -
	1.6	Construction & Implementation	1	Item	€ -	23.00	€ -	€ -
	1.7	Close Out & Review	1	Item	€ -	23.00	€ -	€ -
	1.8	Traffic Management	1	Item	€ 42,871.16	13.50	€ 5,787.61	€ 48,658.76
	1.9	Land & Property Costs	1	Item	€ -			€ -
	1.1	Construction Costs (Main Contractor)	1	Item	€ 428,711.55	13.50	€ 57,876.06	€ 486,587.61
	1.11	Inflation Allowance (Band 2/3 Only)	1	Item	€ 32,411.93	13.50	€ 4,375.61	€ 36,787.54
	1.12	Contingency Allowance	1	Item	€ 201,024.69	13.50	€ 27,138.33	€ 228,163.02
	1.13	Allowance for Arts (%)	1	Item	€ 5,235.02	13.50	€ 706.73	€ 5,941.75
				Sub-Total (Ex.VAT)	**€ 729,761.50**			
							Add VAT on Land (If Applicable)	-
							Total Feasibility Working Cost Estimate (Including VAT)	**€ 830,132.49**

NOTE:
Costs are reflective of costs at the base date stated above.
Costs are considered to include allowances for overheads and profit.

Estimate Assumptions, Exclusions and Inclusions

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 03
Project / Contract Code:	0
Approving Authority:	NTA
Sponsoring Agency:	Westmeath County Council
Prepared By (Individual/Organisation)	AtkinsRéalis

1	**Construction Costs**
	1.1 - Site Clearance: Assumed 5% of construction cost. *1.6 - Pavement: Assumed the construction cost of the Carriageway and cycletrack, excluding kerbs.* *1.7 - Kerbing & Footways: Assumed the construction cost of the footpath, kerbs and shared path.* *1.8 - Signs and lines: Assumed 5% of construction cost.* *1.13 - Landscaping & Ecology: Assumed 1% of construction cost + construction cost of the verge.* *1.14 - Other Project Cost: Assumed the construction cost of the junctions (protected signalised junctions and CDM roundabouts) + utiilities cost*.* *1.15 - Preliminaries: Assumed 15% of construction cost.* **Utilities Cost: Assumed 15% or 10% of construction cost for traditional and rapid buld construction respectively.*
2	**Delivery and Construction Programme**
	At this point in the scheme, it is assumed that the project will be built from the year 2024 after all the planned stages of study and approval of the project have been carried out.
3	**Preparation and Administration Costs**
	Due to the original breakdown of tender price requested by WCC, the amount entered in the Scope & Purpose item is the combined rates of the Scope & Purpose (1.16.1) and Concept , Development & Option Select (1.16.2) items. Similarly, the amount entered in the Preliminary Design item is the combined rates of the Preliminary Design (1.16.3) and Staturory Processes (1.16.4) items
4	**Traffic Management Related Costs**
	1.17 - Traffic Management Related Cost: Assumed 10% of construction cost.
5	**Land and Property Costs**
6	**Other Relevant Information**

Revision	Title	Prepared By	Checked By	Issue Date
0	Draft	DS	TC	12/07/2024

Project Risk

Risk

Please include details of known key project risks.
(Additional rows to be added as required)

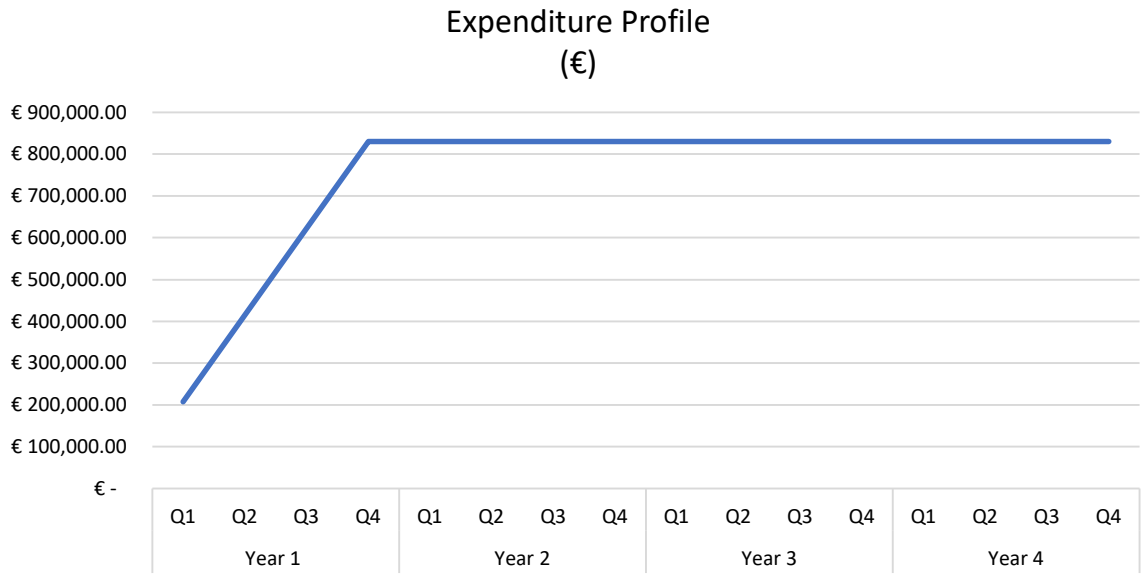
Please rank risks in order of severity with 5 being most severe.

Risk	Rank
	2
	1
	3
	4

Expenditure Profile

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 03	
Project / Contract Code:	0	
Total Feasibility Working Cost Estimate:	€ 830,132.49	
Anticipated Programme Duration:	12	Months

Year	Quarter	Total Quarterly Expenditure (€)	Cumulative Expenditure (€)
Year 1	Q1	€ 207,533.12	€ 207,533.12
	Q2	€ 207,533.12	€ 415,066.24
	Q3	€ 207,533.12	€ 622,599.36
	Q4	€ 207,533.12	€ 830,132.49
Year 2	Q1		€ 830,132.49
	Q2		€ 830,132.49
	Q3		€ 830,132.49
	Q4		€ 830,132.49
Year 3	Q1		€ 830,132.49
	Q2		€ 830,132.49
	Q3		€ 830,132.49
	Q4		€ 830,132.49
Year 4	Q1		€ 830,132.49
	Q2		€ 830,132.49
	Q3		€ 830,132.49
	Q4		€ 830,132.49



Revision	Title	Prepared by	Checked by	Issue Date
0	Draft	DS	TC	12/07/2024

Note:
Years and quarters stated are for illustrative purposes only. Please amend to suit the project duration.

Expenditure Profile must be demonstrated quarterly unless otherwise agreed with NTA.

Estimate Comparison

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 03
Project / Contract Code:	0

Estimate Comparison

Ref	Item	Option Comparison Cost Estimate	Feasibility Working Cost Estimate	Variance	
				€	%
1	Construction Costs	€ 270,174.50	€ 428,711.55	€ 158,537.05	59%
2	Preparation and Administration Costs	€ 19,507.16	€ 19,507.16	€ -	0%
3	Traffic Management Related Costs	€ 27,017.45	€ 42,871.16	€ 15,853.71	59%
4	Land and Property Costs	€ -	€ -	€ -	0%
5	Inflation	€ 20,902.14	€ 32,411.93	€ 11,509.79	55%
6	Contingency	€ 129,638.88	€ 201,024.69	€ 71,385.81	55%
7	Per Cent for Art Scheme	€ 3,376.01	€ 5,235.02	€ 1,859.01	55%
8	Total Costs (Cumulative)	€ 470,616.14	€ 729,761.50	€ 259,145.36	55%
9	Add VAT @ 13.5%	€ 60,899.71	€ 95,884.34	€ 34,984.62	57%
10	Add VAT @ 23%	€ 4,486.65	€ 4,486.65	€ -	0%
11	Add VAT on Land (If Applicable)	€ -		€ -	0%
12	**Total Costs (Including VAT)**	**€ 536,002.50**	**€ 830,132.49**	**€ 294,129.98**	55%

Programme Comparison

Ref	Item	Grant Application Cost Estimate	Feasibility Working Cost Estimate	Variance	
				Months	%
1	Anticipated Programme Duration	4	12	8	200%

Commentary on Variances

If costs vary more than 10% or a value advised by NTA from the last cost estimate please provide a commentary in the space below:

Rev	Title	Prepared by	Checked by	Issue Date
0	Draft	DS	TC	12/07/2024

Feasibility Working Cost Estimate Template

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 04		
Project / Contract Code:		Prepared By (Individual/Organisation):	AtkinsRéalis
Approving Authority:	NTA	Date Estimate Prepared:	17/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

Project Information

Mainline Cross-Section Type:	Single	Location:	Auburn Road	
Total Mainline Length (m):	649.21	Road Rating:		
Total Mainline Width (m):	12.1	Land take Required:	☐ Check Box If Yes	
Potential Construction Works Start Date:	Q4 2024	Anticipated Construction Works Duration:	12	Months
Other Relevant Project Information:	Route Through Park			

1 Construction Costs

Ref	Description	Total
1.1	Site Clearance	€ 12,063.78
1.2	Fencing	€ -
1.3	Road Restraint Systems	€ -
1.4	Earthworks	€ 47,118.40
1.5	Drainage	€ 36,720.00
1.6	Pavements	€ 46,607.62
1.7	Kerbing & Footways	€ 135,790.00
1.8	Traffic Signs & Road Marking	€ 12,063.78
1.9	Road Lighting	€ 10,881.00
1.10	Structural Concrete (Including Structures Generally)	€ -
1.11	Accommodation Works	€ -
1.12	Works for Statutory Undertakers	€ -
1.13	Landscaping & Ecology	€ 2,412.76
1.14	Other Project Costs	€ 350.00
1.15	Preliminaries Including Site Compounds (excluding traffic management)	€ 36,191.35
	Sub-Total A - Construction Costs	**€ 340,198.69**

Add-On Costs

Ref	Description	Quantity	Unit	Rate	Total
1.16	Preparation and Administration Costs				€ 35,453.46
1.16.1	Scope & Purpose				
1.16.2	Concept, Development & Option Selection	1		€ 18,449.01	€ 18,449.01
1.16.3	Preliminary Design	1		€ 12,553.70	€ 12,553.70
1.16.4	Statutory Processes	1		€ 4,450.74	€ 4,450.74
1.16.5	Detailed Design & Procurement				
1.16.6	Construction & Implementation				
1.16.7	Close Out & Review				
1.17	Traffic Management Related Costs	10%	%	€ 340,198.69	€ 34,019.87
1.18	Land and Property Costs				
	Sub-Total B - Add-On Costs				**€ 69,473.33**

2 Adjustments

Description	Quantity	Unit	Rate	Total
Add Inflation	6.6%	%	€ 409,672.02	€ 27,038.35
Add Contingency *(001_B123_CC_CMG)*	38.4%	%	€ 436,710.37	€ 167,696.78
Per Cent for Art Scheme https://publicart.ie/main/commissioning/funding/per-cent-for-art-scheme/	1%	%	€ 436,710.37	€ 4,367.10
			Total Adjustments	**€ 199,102.24**

Total Feasibility Working Cost Estimate Exclusive of VAT				**€ 608,774.26**
VAT *on Construction Costs, TM and Associated Adjustment Costs*	13.5%	%	€ 573,320.80	**€ 77,398.31**
VAT *on Preparation and Administration Costs*	23%	%	€ 35,453.46	**€ 8,154.30**
VAT *on Land and Property* https://www.revenue.ie/en/vat/vat-on-property-and-construction/vat-and-the-supply-of-property/index.aspx		Item		€ -
Total Feasibility Working Cost Estimate Inclusive of VAT				**€ 694,326.86**

Mainline Length	0.64921	**Km**	**Rate Per Km (Excluding VAT)**	**€ 937,718.36**
			Rate Per Km (Including VAT)	**€ 1,069,498.31**

Source of Cost Data *(Please provide a brief narrative on the source of cost data in the box below)*

Revision	Title	Prepared By	Checked By	Issue Date
	Draft	DS	TC	12/07/2024
1	Draft	TC	SW	25/09/2024

NOTE:
Costs are considered to include all allowances for overheads and profits.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project Control Document Summary

NOTE: The information below will be auto-generated from the main cost estimate template to obtain the relevant totals in line with the seven costs heads required for inclusion within the project control document.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 04		
Project / Contract Code:		Prepared By (Individual & Organisation)	AtkinsRéalis
Approving Authority:	NTA	Date Estimate Prepared:	17/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

1	PCD Summary				Sub-Total	VAT %	VAT Amount	Total Incl. VAT
	1.1	Scope & Purpose	1	Item	€ -	23.00	€ -	€ -
	1.2	Concept, Development & Option Selection	1	Item	€ 18,449.01	23.00	€ 4,243.27	€ 22,692.28
	1.3	Preliminary Design	1	Item	€ 12,553.70	23.00	€ 2,887.35	€ 15,441.06
	1.4	Statutory Processes	1	Item	€ 4,450.74	23.00	€ 1,023.67	€ 5,474.42
	1.5	Detailed Design & Procurement	1	Item	€ -	23.00	€ -	€ -
	1.6	Construction & Implementation	1	Item	€ -	23.00	€ -	€ -
	1.7	Close Out & Review	1	Item	€ -	23.00	€ -	€ -
	1.8	Traffic Management	1	Item	€ 34,019.87	13.50	€ 4,592.68	€ 38,612.55
	1.9	Land & Property Costs	1	Item	€ -			€ -
	1.1	Construction Costs (Main Contractor)	1	Item	€ 340,198.69	13.50	€ 45,926.82	€ 386,125.51
	1.11	Inflation Allowance (Band 2/3 Only)	1	Item	€ 27,038.35	13.50	€ 3,650.18	€ 30,688.53
	1.12	Contingency Allowance	1	Item	€ 167,696.78	13.50	€ 22,639.07	€ 190,335.85
	1.13	Allowance for Arts (%)	1	Item	€ 4,367.10	13.50	€ 589.56	€ 4,956.66
				Sub-Total (Ex.VAT)	**€ 608,774.26**			
							Add VAT on Land (If Applicable)	-
							Total Feasibility Working Cost Estimate (Including VAT)	**€ 694,326.86**

NOTE:
Costs are reflective of costs at the base date stated above.
Costs are considered to include allowances for overheads and profit.

Estimate Assumptions, Exclusions and Inclusions

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 04
Project / Contract Code:	0
Approving Authority:	NTA
Sponsoring Agency:	Westmeath County Council
Prepared By (Individual/Organisation)	AtkinsRéalis

1	**Construction Costs**
	1.1 - Site Clearance: Assumed 5% of construction cost. *1.6 - Pavement: Assumed the construction cost of the Carriageway and cycletrack, excluding kerbs.* *1.7 - Kerbing & Footways: Assumed the construction cost of the footpath, kerbs and shared path.* *1.8 - Signs and lines: Assumed 5% of construction cost.* *1.13 - Landscaping & Ecology: Assumed 1% of construction cost + construction cost of the verge.* *1.14 - Other Project Cost: Assumed the construction cost of the junctions (protected signalised junctions and CDM roundabouts) + utiilities cost*.* *1.15 - Preliminaries: Assumed 15% of construction cost.* **Utilities Cost: Assumed 15% or 10% of construction cost for traditional and rapid buld construction respectively.*
2	**Delivery and Construction Programme**
	At this point in the scheme, it is assumed that the project will be built from the year 2024 after all the planned stages of study and approval of the project have been carried out.
3	**Preparation and Administration Costs**
	Due to the original breakdown of tender price requested by WCC, the amount entered in the Scope & Purpose item is the combined rates of the Scope & Purpose (1.16.1) and Concept , Development & Option Select (1.16.2) items. Similarly, the amount entered in the Preliminary Design item is the combined rates of the Preliminary Design (1.16.3) and Staturory Processes (1.16.4) items
4	**Traffic Management Related Costs**
	1.17 - Traffic Management Related Cost: Assumed 10% of construction cost.
5	**Land and Property Costs**
6	**Other Relevant Information**

Revision	Title	Prepared By	Checked By	Issue Date
0	Draft	DS	TC	12/07/2024
1	Draft	TC	SW	25/09/2024

Project Risk

Risk

Please include details of known key project risks.
(Additional rows to be added as required)

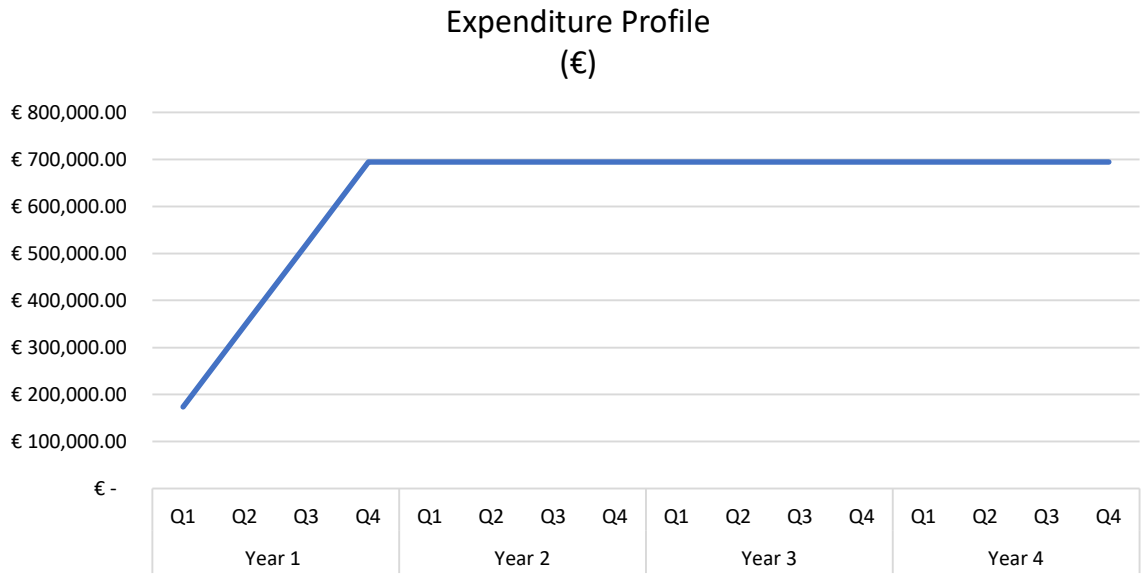
Please rank risks in order of severity with 5 being most severe.

Risk	Rank
	2
	1
	3
	4

Expenditure Profile

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 04	
Project / Contract Code:	0	
Total Feasibility Working Cost Estimate:	€ 694,326.86	
Anticipated Programme Duration:	12	Months

Year	Quarter	Total Quarterly Expenditure (€)	Cumulative Expenditure (€)
Year 1	Q1	€ 173,581.72	€ 173,581.72
	Q2	€ 173,581.72	€ 347,163.43
	Q3	€ 173,581.72	€ 520,745.15
	Q4	€ 173,581.72	€ 694,326.86
Year 2	Q1		€ 694,326.86
	Q2		€ 694,326.86
	Q3		€ 694,326.86
	Q4		€ 694,326.86
Year 3	Q1		€ 694,326.86
	Q2		€ 694,326.86
	Q3		€ 694,326.86
	Q4		€ 694,326.86
Year 4	Q1		€ 694,326.86
	Q2		€ 694,326.86
	Q3		€ 694,326.86
	Q4		€ 694,326.86



Revision	Title	Prepared by	Checked by	Issue Date
0	Draft	DS	TC	12/07/2024
0	Draft	TC	SW	25/09/2024

Note:
Years and quarters stated are for illustrative purposes only. Please amend to suit the project duration.

Expenditure Profile must be demonstrated quarterly unless otherwise agreed with NTA.

Estimate Comparison

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 04
Project / Contract Code:	0

Estimate Comparison

Ref	Item	Option Comparison Cost Estimate	Feasibility Working Cost Estimate	Variance	
				€	%
1	Construction Costs	€ 436,905.80	€ 340,198.69	-€ 96,707.11	-22%
2	Preparation and Administration Costs	€ 35,453.46	€ 35,453.46	€ -	0%
3	Traffic Management Related Costs	€ 43,690.58	€ 34,019.87	-€ 9,670.71	-22%
4	Land and Property Costs	€ -	€ -	€ -	0%
5	Inflation	€ 34,059.29	€ 27,038.35	-€ 7,020.94	-21%
6	Contingency	€ 211,241.91	€ 167,696.78	-€ 43,545.12	-21%
7	Per Cent for Art Scheme	€ 5,501.09	€ 4,367.10	-€ 1,133.99	-21%
8	Total Costs (Cumulative)	€ 766,852.12	€ 608,774.26	-€ 158,077.87	-21%
9	Add VAT @ 13.5%	€ 98,738.82	€ 77,398.31	-€ 21,340.51	-22%
10	Add VAT @ 23%	€ 8,154.30	€ 8,154.30	€ -	0%
11	Add VAT on Land (If Applicable)	€ -		€ -	0%
12	**Total Costs (Including VAT)**	**€ 873,745.24**	**€ 694,326.86**	**-€ 179,418.38**	-21%

Programme Comparison

Ref	Item	Grant Application Cost Estimate	Feasibility Working Cost Estimate	Variance	
				Months	%
1	Anticipated Programme Duration	4	12	8	200%

Commentary on Variances

If costs vary more than 10% or a value advised by NTA from the last cost estimate please provide a commentary in the space below:

Rev	Title	Prepared by	Checked by	Issue Date
0	Draft	DS	TC	12/07/2024
1	Draft	TC	SW	25/09/2024

Feasibility Working Cost Estimate Template

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 05		
Project / Contract Code:		Prepared By (Individual/Organisation):	AtkinsRéalis
Approving Authority:	NTA	Date Estimate Prepared:	17/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

Project Information

Mainline Cross-Section Type:	Single	Location:	Millmount Road		
Total Mainline Length (m):	182.76	Road Rating:			
Total Mainline Width (m):	12.8	Land take Required:	☐ Check Box If Yes		
Potential Construction Works Start Date:	Q4 2024	Anticipated Construction Works Duration:	12	Months	
Other Relevant Project Information:	Two-way cycle track TB				

1 Construction Costs

Ref	Description	Total
1.1	Site Clearance	€ 8,936.81
1.2	Fencing	€ -
1.3	Road Restraint Systems	€ -
1.4	Earthworks	€ 52,306.89
1.5	Drainage	€ 28,510.56
1.6	Pavements	€ 26,317.44
1.7	Kerbing & Footways	€ 76,316.16
1.8	Traffic Signs & Road Marking	€ 8,936.81
1.9	Road Lighting	€ 22,095.68
1.10	Structural Concrete (Including Structures Generally)	€ -
1.11	Accommodation Works	€ -
1.12	Works for Statutory Undertakers	€ -
1.13	Landscaping & Ecology	€ 1,787.36
1.14	Other Project Costs	€ -
1.15	Preliminaries Including Site Compounds (excluding traffic management)	€ 26,810.44
	Sub-Total A - Construction Costs	**€ 252,018.18**

Add-On Costs

Ref	Description	Quantity	Unit	Rate	Total
1.16	Preparation and Administration Costs				€ 20,019.14
1.16.1	Scope & Purpose				
1.16.2	Concept, Development & Option Selection	1		€ 10,417.41	€ 10,417.41
1.16.3	Preliminary Design	1		€ 7,088.57	€ 7,088.57
1.16.4	Statutory Processes	1		€ 2,513.16	€ 2,513.16
1.16.5	Detailed Design & Procurement				
1.16.6	Construction & Implementation				
1.16.7	Close Out & Review				
1.17	Traffic Management Related Costs	10%	%	€ 252,018.18	€ 25,201.82
1.18	Land and Property Costs				
				Sub-Total B - Add-On Costs	**€ 45,220.96**

2 Adjustments

Description	Quantity	Unit	Rate	Total
Add Inflation	6.6%	%	€ 297,239.13	€ 19,617.78
Add Contingency *(001_B123_CC_CMG)*	38.4%	%	€ 316,856.91	€ 121,673.05
Per Cent for Art Scheme https://publicart.ie/main/commissioning/funding/per-cent-for-art-scheme/	1%	%	€ 316,856.91	€ 3,168.57
			Total Adjustments	**€ 144,459.41**

Total Feasibility Working Cost Estimate Exclusive of VAT				**€ 441,698.54**
VAT *on Construction Costs, TM and Associated Adjustment Costs*	13.5%	%	€ 421,679.40	**€ 56,926.72**
VAT *on Preparation and Administration Costs*	23%	%	€ 20,019.14	**€ 4,604.40**
VAT *on Land and Property* https://www.revenue.ie/en/vat/vat-on-property-and-construction/vat-and-the-supply-of-property/index.aspx		Item		€ -
Total Feasibility Working Cost Estimate Inclusive of VAT				**€ 503,229.66**

Mainline Length	0.18276	**Km**	**Rate Per Km (Excluding VAT)**	**€ 2,416,822.82**
			Rate Per Km (Including VAT)	**€ 2,753,499.99**

Source of Cost Data *(Please provide a brief narrative on the source of cost data in the box below)*

Revision	Title	Prepared By	Checked By	Issue Date
	Draft	DS	TC	12/07/2024

NOTE:
Costs are considered to include all allowances for overheads and profits.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project Control Document Summary

NOTE: The information below will be auto-generated from the main cost estimate template to obtain the relevant totals in line with the seven costs heads required for inclusion within the project control document.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 05		
Project / Contract Code:		Prepared By (Individual & Organisation)	AtkinsRéalis
Approving Authority:	NTA	Date Estimate Prepared:	17/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

1	PCD Summary				Sub-Total	VAT %	VAT Amount	Total Incl. VAT
	1.1	Scope & Purpose	1	Item	€ -	23.00	€ -	€ -
	1.2	Concept, Development & Option Selection	1	Item	€ 10,417.41	23.00	€ 2,396.00	€ 12,813.42
	1.3	Preliminary Design	1	Item	€ 7,088.57	23.00	€ 1,630.37	€ 8,718.94
	1.4	Statutory Processes	1	Item	€ 2,513.16	23.00	€ 578.03	€ 3,091.18
	1.5	Detailed Design & Procurement	1	Item	€ -	23.00	€ -	€ -
	1.6	Construction & Implementation	1	Item	€ -	23.00	€ -	€ -
	1.7	Close Out & Review	1	Item	€ -	23.00	€ -	€ -
	1.8	Traffic Management	1	Item	€ 25,201.82	13.50	€ 3,402.25	€ 28,604.06
	1.9	Land & Property Costs	1	Item	€ -			€ -
	1.1	Construction Costs (Main Contractor)	1	Item	€ 252,018.18	13.50	€ 34,022.45	€ 286,040.63
	1.11	Inflation Allowance (Band 2/3 Only)	1	Item	€ 19,617.78	13.50	€ 2,648.40	€ 22,266.18
	1.12	Contingency Allowance	1	Item	€ 121,673.05	13.50	€ 16,425.86	€ 138,098.92
	1.13	Allowance for Arts (%)	1	Item	€ 3,168.57	13.50	€ 427.76	€ 3,596.33
				Sub-Total (Ex.VAT)	**€ 441,698.54**			
							Add VAT on Land (If Applicable)	-
							Total Feasibility Working Cost Estimate (Including VAT)	**€ 503,229.66**

NOTE:
Costs are reflective of costs at the base date stated above.
Costs are considered to include allowances for overheads and profit.

Estimate Assumptions, Exclusions and Inclusions

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 05
Project / Contract Code:	0
Approving Authority:	NTA
Sponsoring Agency:	Westmeath County Council
Prepared By (Individual/Organisation)	AtkinsRéalis

1	**Construction Costs**
	1.1 - Site Clearance: Assumed 5% of construction cost. *1.6 - Pavement: Assumed the construction cost of the Carriageway and cycletrack, excluding kerbs.* *1.7 - Kerbing & Footways: Assumed the construction cost of the footpath, kerbs and shared path.* *1.8 - Signs and lines: Assumed 5% of construction cost.* *1.13 - Landscaping & Ecology: Assumed 1% of construction cost + construction cost of the verge.* *1.14 - Other Project Cost: Assumed the construction cost of the junctions (protected signalised junctions and CDM roundabouts) + utiilities cost*.* *1.15 - Preliminaries: Assumed 15% of construction cost.* **Utilities Cost: Assumed 15% or 10% of construction cost for traditional and rapid buld construction respectively.*
2	**Delivery and Construction Programme**
	At this point in the scheme, it is assumed that the project will be built from the year 2024 after all the planned stages of study and approval of the project have been carried out.
3	**Preparation and Administration Costs**
	Due to the original breakdown of tender price requested by WCC, the amount entered in the Scope & Purpose item is the combined rates of the Scope & Purpose (1.16.1) and Concept , Development & Option Select (1.16.2) items. Similarly, the amount entered in the Preliminary Design item is the combined rates of the Preliminary Design (1.16.3) and Staturory Processes (1.16.4) items
4	**Traffic Management Related Costs**
	1.17 - Traffic Management Related Cost: Assumed 10% of construction cost.
5	**Land and Property Costs**
6	**Other Relevant Information**

Revision	Title	Prepared By		Checked By		Issue Date	
0	Draft	DS		TC		12/07/2024	

Project Risk

Risk

Please include details of known key project risks.
(Additional rows to be added as required)

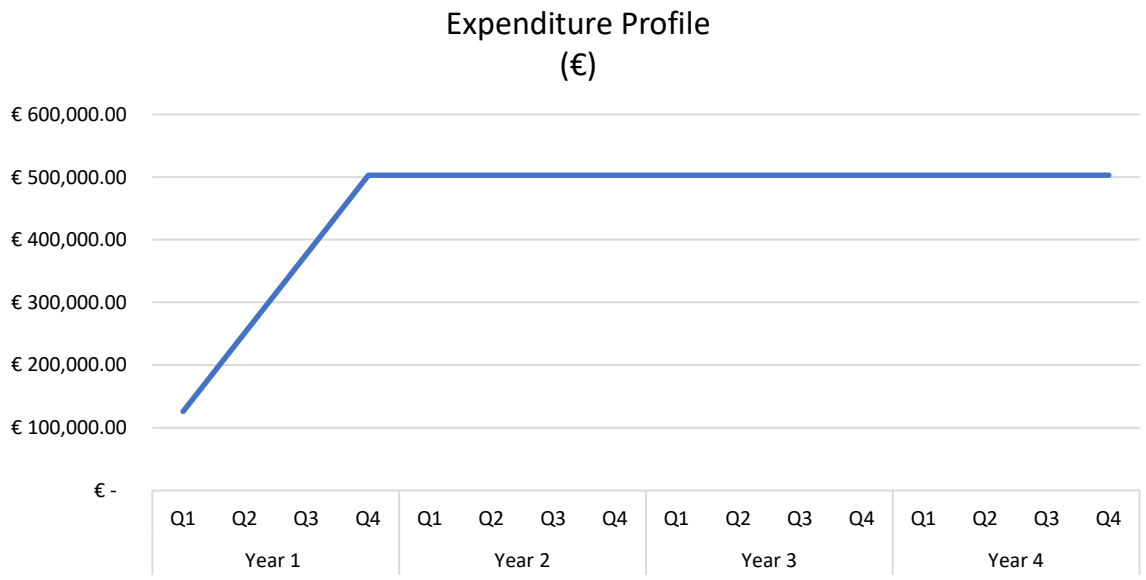
Please rank risks in order of severity with 5 being most severe.

Risk	Rank
	2
	1
	3
	4

Expenditure Profile

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 05	
Project / Contract Code:	0	
Total Feasibility Working Cost Estimate:	€ 503,229.66	
Anticipated Programme Duration:	12	Months

Year	Quarter	Total Quarterly Expenditure (€)	Cumulative Expenditure (€)
Year 1	Q1	€ 125,807.41	€ 125,807.41
	Q2	€ 125,807.41	€ 251,614.83
	Q3	€ 125,807.41	€ 377,422.24
	Q4	€ 125,807.41	€ 503,229.66
Year 2	Q1		€ 503,229.66
	Q2		€ 503,229.66
	Q3		€ 503,229.66
	Q4		€ 503,229.66
Year 3	Q1		€ 503,229.66
	Q2		€ 503,229.66
	Q3		€ 503,229.66
	Q4		€ 503,229.66
Year 4	Q1		€ 503,229.66
	Q2		€ 503,229.66
	Q3		€ 503,229.66
	Q4		€ 503,229.66



Revision	Title	Prepared by	Checked by	Issue Date
0	Draft	DS	TC	12/07/2024

Note:
Years and quarters stated are for illustrative purposes only. Please amend to suit the project duration.

Expenditure Profile must be demonstrated quarterly unless otherwise agreed with NTA.

Estimate Comparison

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 05
Project / Contract Code:	0

Estimate Comparison

Ref	Item	Option Comparison Cost Estimate	Feasibility Working Cost Estimate	Variance €	Variance %
1	Construction Costs	€ 252,018.18	€ 252,018.18	€ -	0%
2	Preparation and Administration Costs	€ 20,019.14	€ 20,019.14	€ -	0%
3	Traffic Management Related Costs	€ 25,201.82	€ 25,201.82	€ -	0%
4	Land and Property Costs	€ -	€ -	€ -	0%
5	Inflation	€ 19,617.78	€ 19,617.78	€ -	0%
6	Contingency	€ 121,673.05	€ 121,673.05	€ -	0%
7	Per Cent for Art Scheme	€ 3,168.57	€ 3,168.57	€ -	0%
8	Total Costs (Cumulative)	€ 441,698.54	€ 441,698.54	€ -	0%
9	Add VAT @ 13.5%	€ 56,926.72	€ 56,926.72	€ -	0%
10	Add VAT @ 23%	€ 4,604.40	€ 4,604.40	€ -	0%
11	Add VAT on Land (If Applicable)	€ -		€ -	0%
12	**Total Costs (Including VAT)**	**€ 503,229.66**	**€ 503,229.66**	**€ -**	0%

Programme Comparison

Ref	Item	Grant Application Cost Estimate	Feasibility Working Cost Estimate	Variance Months	Variance %
1	Anticipated Programme Duration	4	12	8	200%

Commentary on Variances

If costs vary more than 10% or a value advised by NTA from the last cost estimate please provide a commentary in the space below:

Rev	Title	Prepared by	Checked by	Issue Date
0	Draft	DS	TC	12/07/2024

Feasibility Working Cost Estimate Template

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 06		
Project / Contract Code:		Prepared By (Individual/Organisation):	AtkinsRéalis
Approving Authority:	NTA	Date Estimate Prepared:	18/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

Project Information

Mainline Cross-Section Type:	Single	Location:	Millmount Road	
Total Mainline Length (m):	430.03	Road Rating:		
Total Mainline Width (m):	14.2	Land take Required:	☐ Check Box If Yes	
Potential Construction Works Start Date:	Q4 2024	Anticipated Construction Works Duration:	12	Months
Other Relevant Project Information:	Two-way cycle track west			

1 Construction Costs

Ref	Description		Total
1.1	Site Clearance	€	21,798.50
1.2	Fencing	€	-
1.3	Road Restraint Systems	€	-
1.4	Earthworks	€	120,030.75
1.5	Drainage	€	90,305.88
1.6	Pavements	€	61,924.03
1.7	Kerbing & Footways	€	177,114.42
1.8	Traffic Signs & Road Marking	€	21,798.50
1.9	Road Lighting	€	51,990.39
1.10	Structural Concrete (Including Structures Generally)	€	-
1.11	Accommodation Works	€	-
1.12	Works for Statutory Undertakers	€	-
1.13	Landscaping & Ecology	€	4,359.70
1.14	Other Project Costs	€	143,647.05
1.15	Preliminaries Including Site Compounds (excluding traffic management)	€	65,395.50
	Sub-Total A - Construction Costs	**€**	**758,364.71**

Add-On Costs

Ref	Description	Quantity	Unit	Rate	Total
1.16	Preparation and Administration Costs				€ 47,104.34
1.16.1	Scope & Purpose				
1.16.2	Concept, Development & Option Selection	1		€ 24,511.81	€ 24,511.81
1.16.3	Preliminary Design	1		€ 16,679.16	€ 16,679.16
1.16.4	Statutory Processes	1		€ 5,913.37	€ 5,913.37
1.16.5	Detailed Design & Procurement				
1.16.6	Construction & Implementation				
1.16.7	Close Out & Review				
1.17	Traffic Management Related Costs	10%	%	€ 758,364.71	€ 75,836.47
1.18	Land and Property Costs				
	Sub-Total B - Add-On Costs				**€ 122,940.82**

2 Adjustments

Description	Quantity	Unit	Rate	Total
Add Inflation	6.6%	%	€ 881,305.52	€ 58,166.16
Add Contingency *(001_B123_CC_CMG)*	38.4%	%	€ 939,471.68	€ 360,757.13
Per Cent for Art Scheme https://publicart.ie/main/commissioning/funding/per-cent-for-art-scheme/	1%	%	€ 939,471.68	€ 9,394.72
			Total Adjustments	**€ 428,318.01**

Total Feasibility Working Cost Estimate Exclusive of VAT				**€ 1,309,623.53**
VAT *on Construction Costs, TM and Associated Adjustment Costs*	13.5%	%	€ 1,262,519.18	**€ 170,440.09**
VAT *on Preparation and Administration Costs*	23%	%	€ 47,104.34	**€ 10,834.00**
VAT *on Land and Property* https://www.revenue.ie/en/vat/vat-on-property-and-construction/vat-and-the-supply-of-property/index.aspx		Item		€ -
Total Feasibility Working Cost Estimate Inclusive of VAT				**€ 1,490,897.62**

Mainline Length	0.43003	**Km**	**Rate Per Km (Excluding VAT)**	**€ 3,045,437.81**
			Rate Per Km (Including VAT)	**€ 3,466,978.01**

Source of Cost Data *(Please provide a brief narrative on the source of cost data in the box below)*

Revision	Title	Prepared By	Checked By	Issue Date
	Draft	DS	TC	12/07/2024

NOTE:
Costs are considered to include all allowances for overheads and profits.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project Control Document Summary

NOTE: The information below will be auto-generated from the main cost estimate template to obtain the relevant totals in line with the seven costs heads required for inclusion within the project control document.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 06		
Project / Contract Code:		Prepared By (Individual & Organisation)	AtkinsRéalis
Approving Authority:	NTA	Date Estimate Prepared:	18/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

1	PCD Summary				Sub-Total	VAT %	VAT Amount	Total Incl. VAT
	1.1	Scope & Purpose	1	Item	€ -	23.00	€ -	€ -
	1.2	Concept, Development & Option Selection	1	Item	€ 24,511.81	23.00	€ 5,637.72	€ 30,149.53
	1.3	Preliminary Design	1	Item	€ 16,679.16	23.00	€ 3,836.21	€ 20,515.37
	1.4	Statutory Processes	1	Item	€ 5,913.37	23.00	€ 1,360.07	€ 7,273.44
	1.5	Detailed Design & Procurement	1	Item	€ -	23.00	€ -	€ -
	1.6	Construction & Implementation	1	Item	€ -	23.00	€ -	€ -
	1.7	Close Out & Review	1	Item	€ -	23.00	€ -	€ -
	1.8	Traffic Management	1	Item	€ 75,836.47	13.50	€ 10,237.92	€ 86,074.39
	1.9	Land & Property Costs	1	Item	€ -			€ -
	1.1	Construction Costs (Main Contractor)	1	Item	€ 758,364.71	13.50	€ 102,379.24	€ 860,743.94
	1.11	Inflation Allowance (Band 2/3 Only)	1	Item	€ 58,166.16	13.50	€ 7,852.43	€ 66,018.60
	1.12	Contingency Allowance	1	Item	€ 360,757.13	13.50	€ 48,702.21	€ 409,459.34
	1.13	Allowance for Arts (%)	1	Item	€ 9,394.72	13.50	€ 1,268.29	€ 10,663.00
				Sub-Total (Ex.VAT)	**€ 1,309,623.53**			
							Add VAT on Land (If Applicable)	-
							Total Feasibility Working Cost Estimate (Including VAT)	**€ 1,490,897.62**

NOTE:
Costs are reflective of costs at the base date stated above.
Costs are considered to include allowances for overheads and profit.

Estimate Assumptions, Exclusions and Inclusions

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 06
Project / Contract Code:	0
Approving Authority:	NTA
Sponsoring Agency:	Westmeath County Council
Prepared By (Individual/Organisation)	AtkinsRéalis

1	**Construction Costs**
	1.1 - Site Clearance: Assumed 5% of construction cost. *1.6 - Pavement: Assumed the construction cost of the Carriageway and cycletrack, excluding kerbs.* *1.7 - Kerbing & Footways: Assumed the construction cost of the footpath, kerbs and shared path.* *1.8 - Signs and lines: Assumed 5% of construction cost.* *1.13 - Landscaping & Ecology: Assumed 1% of construction cost + construction cost of the verge.* *1.14 - Other Project Cost: Assumed the construction cost of the junctions (protected signalised junctions and CDM roundabouts) + utiilities cost*.* *1.15 - Preliminaries: Assumed 15% of construction cost.* **Utilities Cost: Assumed 15% or 10% of construction cost for traditional and rapid buld construction respectively.*
2	**Delivery and Construction Programme**
	At this point in the scheme, it is assumed that the project will be built from the year 2024 after all the planned stages of study and approval of the project have been carried out.
3	**Preparation and Administration Costs**
	Due to the original breakdown of tender price requested by WCC, the amount entered in the Scope & Purpose item is *the combined rates of the Scope & Purpose (1.16.1) and Concept , Development & Option Select (1.16.2) items.* *Similarly, the amount entered in the Preliminary Design item is the combined rates of the Preliminary Design (1.16.3) and Staturory Processes (1.16.4) items*
4	**Traffic Management Related Costs**
	1.17 - Traffic Management Related Cost: Assumed 10% of construction cost.
5	**Land and Property Costs**
6	**Other Relevant Information**

Revision	Title	Prepared By	Checked By	Issue Date
0	Draft	DS	TC	12/07/2024

Project Risk

Risk

Please include details of known key project risks.
(Additional rows to be added as required)

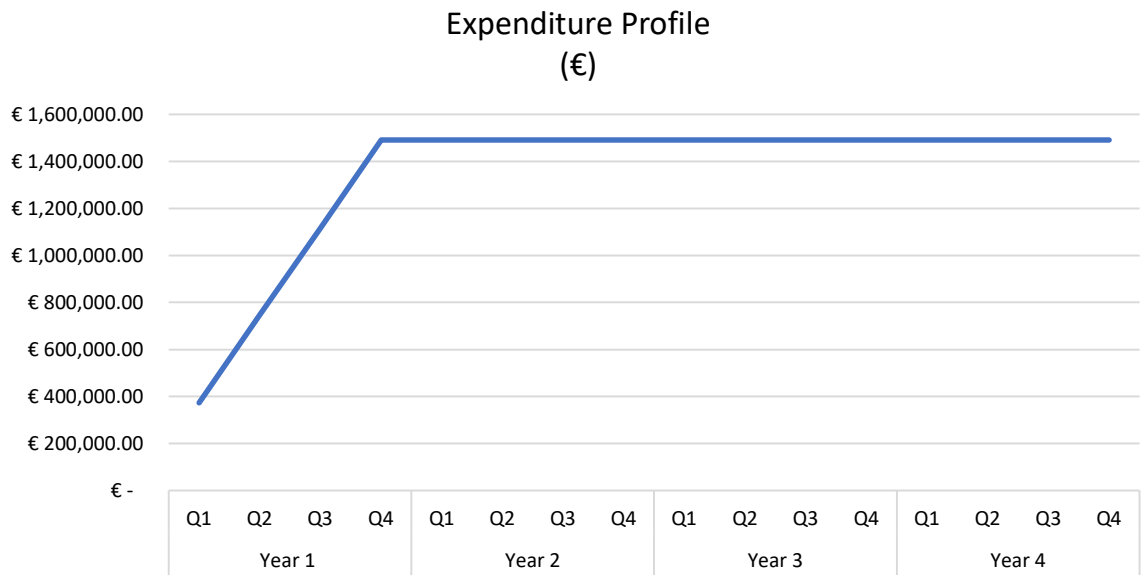
Please rank risks in order of severity with 5 being most severe.

Risk	Rank
	2
	1
	3
	4

Expenditure Profile

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 06	
Project / Contract Code:	0	
Total Feasibility Working Cost Estimate:	€ 1,490,897.62	
Anticipated Programme Duration:	12	Months

Year	Quarter	Total Quarterly Expenditure (€)	Cumulative Expenditure (€)
Year 1	Q1	€ 372,724.40	€ 372,724.40
	Q2	€ 372,724.40	€ 745,448.81
	Q3	€ 372,724.40	€ 1,118,173.21
	Q4	€ 372,724.40	€ 1,490,897.62
Year 2	Q1		€ 1,490,897.62
	Q2		€ 1,490,897.62
	Q3		€ 1,490,897.62
	Q4		€ 1,490,897.62
Year 3	Q1		€ 1,490,897.62
	Q2		€ 1,490,897.62
	Q3		€ 1,490,897.62
	Q4		€ 1,490,897.62
Year 4	Q1		€ 1,490,897.62
	Q2		€ 1,490,897.62
	Q3		€ 1,490,897.62
	Q4		€ 1,490,897.62



Revision	Title	Prepared by	Checked by	Issue Date
0	Draft	DS	TC	12/07/2024

Note:
Years and quarters stated are for illustrative purposes only. Please amend to suit the project duration.

Expenditure Profile must be demonstrated quarterly unless otherwise agreed with NTA.

Estimate Comparison

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 06
Project / Contract Code:	0

Estimate Comparison

Ref	Item	Option Comparison Cost Estimate	Feasibility Working Cost Estimate	Variance	
				€	%
1	Construction Costs	€ 614,717.66	€ 758,364.71	€ 143,647.05	23%
2	Preparation and Administration Costs	€ 47,104.34	€ 47,104.34	€ -	0%
3	Traffic Management Related Costs	€ 61,471.77	€ 75,836.47	€ 14,364.71	23%
4	Land and Property Costs	€ -	€ -	€ -	0%
5	Inflation	€ 47,737.39	€ 58,166.16	€ 10,428.78	22%
6	Contingency	€ 296,075.96	€ 360,757.13	€ 64,681.16	22%
7	Per Cent for Art Scheme	€ 7,710.31	€ 9,394.72	€ 1,684.41	22%
8	Total Costs (Cumulative)	€ 1,074,817.43	€ 1,309,623.53	€ 234,806.10	22%
9	Add VAT @ 13.5%	€ 138,741.27	€ 170,440.09	€ 31,698.82	23%
10	Add VAT @ 23%	€ 10,834.00	€ 10,834.00	€ -	0%
11	Add VAT on Land (If Applicable)	€ -		€ -	0%
12	**Total Costs (Including VAT)**	**€ 1,224,392.69**	**€ 1,490,897.62**	**€ 266,504.92**	22%

Programme Comparison

Ref	Item	Grant Application Cost Estimate	Feasibility Working Cost Estimate	Variance	
				Months	%
1	Anticipated Programme Duration	4	12	8	200%

Commentary on Variances

If costs vary more than 10% or a value advised by NTA from the last cost estimate please provide a commentary in the space below:

Rev	Title	Prepared by	Checked by	Issue Date
0	Draft	DS	TC	12/07/2024

Feasibility Working Cost Estimate Template

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 07		
Project / Contract Code:		Prepared By (Individual/Organisation):	AtkinsRéalis
Approving Authority:	NTA	Date Estimate Prepared:	18/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

Project Information

Mainline Cross-Section Type:	Single	Location:	Ballinderry Road		
Total Mainline Length (m):	250.89	Road Rating:			
Total Mainline Width (m):	11.8	Land take Required:	☐ Check Box If Yes		
Potential Construction Works Start Date:	Q4 2024	Anticipated Construction Works Duration:	12	Months	
Other Relevant Project Information:	Shared path traditional build				

1 Construction Costs

Ref	Description	Total
1.1	Site Clearance	€ 9,644.99
1.2	Fencing	€ -
1.3	Road Restraint Systems	€ -
1.4	Earthworks	€ 61,716.11
1.5	Drainage	€ 24,587.22
1.6	Pavements	€ 36,128.16
1.7	Kerbing & Footways	€ 69,070.57
1.8	Traffic Signs & Road Marking	€ 9,644.99
1.9	Road Lighting	€ 30,332.60
1.10	Structural Concrete (Including Structures Generally)	€ -
1.11	Accommodation Works	€ -
1.12	Works for Statutory Undertakers	€ -
1.13	Landscaping & Ecology	€ 1,929.00
1.14	Other Project Costs	€ 176,840.00
1.15	Preliminaries Including Site Compounds (excluding traffic management)	€ 28,934.96
	Sub-Total A - Construction Costs	**€ 448,828.58**

Add-On Costs

Ref	Description	Quantity	Unit	Rate	Total
1.16	Preparation and Administration Costs				€ 27,481.95
1.16.1	Scope & Purpose				
1.16.2	Concept, Development & Option Selection	1		€ 14,300.86	€ 14,300.86
1.16.3	Preliminary Design	1		€ 9,731.08	€ 9,731.08
1.16.4	Statutory Processes	1		€ 3,450.02	€ 3,450.02
1.16.5	Detailed Design & Procurement				
1.16.6	Construction & Implementation				
1.16.7	Close Out & Review				
1.17	Traffic Management Related Costs	10%	%	€ 448,828.58	€ 44,882.86
1.18	Land and Property Costs				
	Sub-Total B - Add-On Costs				**€ 72,364.81**

2 Adjustments

Description	Quantity	Unit	Rate	Total
Add Inflation	6.6%	%	€ 521,193.39	€ 34,398.76
Add Contingency *(001_B123_CC_CMG)*	38.4%	%	€ 555,592.16	€ 213,347.39
Per Cent for Art Scheme https://publicart.ie/main/commissioning/funding/per-cent-for-art-scheme/	1%	%	€ 555,592.16	€ 5,555.92
			Total Adjustments	**€ 253,302.07**

Total Feasibility Working Cost Estimate Exclusive of VAT				**€ 774,495.47**
VAT *on Construction Costs, TM and Associated Adjustment Costs*	13.5%	%	€ 747,013.51	**€ 100,846.82**
VAT *on Preparation and Administration Costs*	23%	%	€ 27,481.95	**€ 6,320.85**
VAT *on Land and Property* https://www.revenue.ie/en/vat/vat-on-property-and-construction/vat-and-the-supply-of-property/index.aspx		Item		€ -
Total Feasibility Working Cost Estimate Inclusive of VAT				**€ 881,663.14**

Mainline Length	0.25089	Km	**Rate Per Km (Excluding VAT)**	**€ 3,086,992.17**
			Rate Per Km (Including VAT)	**€ 3,514,142.21**

Source of Cost Data *(Please provide a brief narrative on the source of cost data in the box below)*

Revision	Title	Prepared By	Checked By	Issue Date
	Draft	DS	TC	12/07/2024

NOTE:
Costs are considered to include all allowances for overheads and profits.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project Control Document Summary

NOTE: The information below will be auto-generated from the main cost estimate template to obtain the relevant totals in line with the seven costs heads required for inclusion within the project control document.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 07		
Project / Contract Code:		Prepared By (Individual & Organisation)	AtkinsRéalis
Approving Authority:	NTA	Date Estimate Prepared:	18/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

1	PCD Summary				Sub-Total	VAT %	VAT Amount	Total Incl. VAT
	1.1	Scope & Purpose	1	Item	€ -	23.00	€ -	€ -
	1.2	Concept, Development & Option Selection	1	Item	€ 14,300.86	23.00	€ 3,289.20	€ 17,590.05
	1.3	Preliminary Design	1	Item	€ 9,731.08	23.00	€ 2,238.15	€ 11,969.22
	1.4	Statutory Processes	1	Item	€ 3,450.02	23.00	€ 793.50	€ 4,243.52
	1.5	Detailed Design & Procurement	1	Item	€ -	23.00	€ -	€ -
	1.6	Construction & Implementation	1	Item	€ -	23.00	€ -	€ -
	1.7	Close Out & Review	1	Item	€ -	23.00	€ -	€ -
	1.8	Traffic Management	1	Item	€ 44,882.86	13.50	€ 6,059.19	€ 50,942.04
	1.9	Land & Property Costs	1	Item	€ -			€ -
	1.1	Construction Costs (Main Contractor)	1	Item	€ 448,828.58	13.50	€ 60,591.86	€ 509,420.44
	1.11	Inflation Allowance (Band 2/3 Only)	1	Item	€ 34,398.76	13.50	€ 4,643.83	€ 39,042.60
	1.12	Contingency Allowance	1	Item	€ 213,347.39	13.50	€ 28,801.90	€ 242,149.29
	1.13	Allowance for Arts (%)	1	Item	€ 5,555.92	13.50	€ 750.05	€ 6,305.97
				Sub-Total (Ex.VAT)	**€ 774,495.47**			
							Add VAT on Land (If Applicable)	-
							Total Feasibility Working Cost Estimate (Including VAT)	**€ 881,663.14**

NOTE:
Costs are reflective of costs at the base date stated above.
Costs are considered to include allowances for overheads and profit.

Estimate Assumptions, Exclusions and Inclusions

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 07
Project / Contract Code:	0
Approving Authority:	NTA
Sponsoring Agency:	Westmeath County Council
Prepared By (Individual/Organisation)	AtkinsRéalis

1	**Construction Costs**
	1.1 - Site Clearance: Assumed 5% of construction cost. *1.6 - Pavement: Assumed the construction cost of the Carriageway and cycletrack, excluding kerbs.* *1.7 - Kerbing & Footways: Assumed the construction cost of the footpath, kerbs and shared path.* *1.8 - Signs and lines: Assumed 5% of construction cost.* *1.13 - Landscaping & Ecology: Assumed 1% of construction cost + construction cost of the verge.* *1.14 - Other Project Cost: Assumed the construction cost of the junctions (protected signalised junctions and CDM roundabouts) + utiilities cost*.* *1.15 - Preliminaries: Assumed 15% of construction cost.* **Utilities Cost: Assumed 15% or 10% of construction cost for traditional and rapid buld construction respectively.*
2	**Delivery and Construction Programme**
	At this point in the scheme, it is assumed that the project will be built from the year 2024 after all the planned stages of study and approval of the project have been carried out.
3	**Preparation and Administration Costs**
	Due to the original breakdown of tender price requested by WCC, the amount entered in the Scope & Purpose item is the combined rates of the Scope & Purpose (1.16.1) and Concept , Development & Option Select (1.16.2) items. Similarly, the amount entered in the Preliminary Design item is the combined rates of the Preliminary Design (1.16.3) and Staturory Processes (1.16.4) items
4	**Traffic Management Related Costs**
	1.17 - Traffic Management Related Cost: Assumed 10% of construction cost.
5	**Land and Property Costs**
6	**Other Relevant Information**

Revision	Title	Prepared By	Checked By	Issue Date
0	Draft	DS	TC	12/07/2024

Project Risk

Risk

Please include details of known key project risks.
(Additional rows to be added as required)

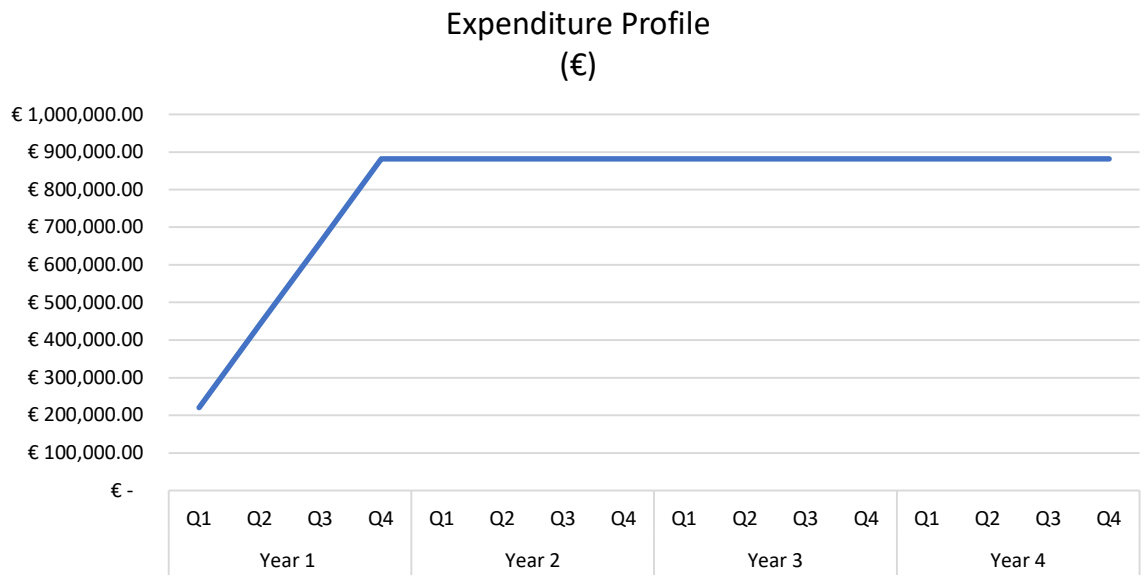
Please rank risks in order of severity with 5 being most severe.

Risk	Rank
	2
	1
	3
	4

Expenditure Profile

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 07	
Project / Contract Code:	0	
Total Feasibility Working Cost Estimate:	€ 881,663.14	
Anticipated Programme Duration:	12	Months

Year	Quarter	Total Quarterly Expenditure (€)	Cumulative Expenditure (€)
Year 1	Q1	€ 220,415.78	€ 220,415.78
	Q2	€ 220,415.78	€ 440,831.57
	Q3	€ 220,415.78	€ 661,247.35
	Q4	€ 220,415.78	€ 881,663.14
Year 2	Q1		€ 881,663.14
	Q2		€ 881,663.14
	Q3		€ 881,663.14
	Q4		€ 881,663.14
Year 3	Q1		€ 881,663.14
	Q2		€ 881,663.14
	Q3		€ 881,663.14
	Q4		€ 881,663.14
Year 4	Q1		€ 881,663.14
	Q2		€ 881,663.14
	Q3		€ 881,663.14
	Q4		€ 881,663.14



Revision	Title	Prepared by	Checked by	Issue Date
0	Draft	DS	TC	12/07/2024

Note:
Years and quarters stated are for illustrative purposes only. Please amend to suit the project duration.

Expenditure Profile must be demonstrated quarterly unless otherwise agreed with NTA.

Estimate Comparison

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 07
Project / Contract Code:	0

Estimate Comparison

Ref	Item	Option Comparison Cost Estimate	Feasibility Working Cost Estimate	Variance	
				€	%
1	Construction Costs	€ 271,988.58	€ 448,828.58	€ 176,840.00	65%
2	Preparation and Administration Costs	€ 27,481.95	€ 27,481.95	€ -	0%
3	Traffic Management Related Costs	€ 27,198.86	€ 44,882.86	€ 17,684.00	65%
4	Land and Property Costs	€ -	€ -	€ -	0%
5	Inflation	€ 21,560.18	€ 34,398.76	€ 12,838.58	60%
6	Contingency	€ 133,720.16	€ 213,347.39	€ 79,627.23	60%
7	Per Cent for Art Scheme	€ 3,482.30	€ 5,555.92	€ 2,073.63	60%
8	Total Costs (Cumulative)	€ 485,432.02	€ 774,495.47	€ 289,063.44	60%
9	Add VAT @ 13.5%	€ 61,823.26	€ 100,846.82	€ 39,023.56	63%
10	Add VAT @ 23%	€ 6,320.85	€ 6,320.85	€ -	0%
11	Add VAT on Land (If Applicable)	€ -		€ -	0%
12	**Total Costs (Including VAT)**	**€ 553,576.13**	**€ 881,663.14**	**€ 328,087.01**	59%

Programme Comparison

Ref	Item	Grant Application Cost Estimate	Feasibility Working Cost Estimate	Variance	
				Months	%
1	Anticipated Programme Duration	4	12	8	200%

Commentary on Variances

If costs vary more than 10% or a value advised by NTA from the last cost estimate please provide a commentary in the space below:

Rev	Title	Prepared by	Checked by	Issue Date
0	Draft	DS	TC	12/07/2024

Option Comparison Cost Estimate Template

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 01		
Project / Contract Code:		Prepared By (Individual / Organisation):	AtkinsRealis
Approving Authority:	NTA	Date Estimate Prepared:	12/07/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

Route Option Number / Reference:	2				
Project Information					
Mainline Cross-Section Type (Single/Dual):	Single				
Anticipated Programme Duration (Months):	6				
Location:	R400				
Total Mainline Length (m):	102.04				
Other Relevant Project Information:	Two-way cycle east TB				
Project Costs					
Option Construction Costs					
	€				
Site Clearance	€ 4,674.81				
Fencing	€ -				
Road Restraint Systems	€ -				
Drainage & Service Ducts	€ 28,593.83				
Earthworks	€ 23,469.20				
Pavements	€ -				
Kerbing & Footways	€ 35,413.60				
Traffic Signs & Road Marking	€ 4,674.81				
Road Lighting	€ 19,344.00				
Structural Concrete (including Structures Generally)	€ -				
Accommodation Works	€ -				
Works for Statutory Undertakers	€ -				
Landscaping & Ecology	€ 934.96				
Other Project Costs	€ 700.00				
Preliminaries including Site Compounds (excluding traffic management)	€ 14,024.43				
Sub-Total A - Construction Costs	**€ 131,829.64**				
Option Add-On Costs					
	€				
Preparation and Administration Costs	€ 11,177.24				
Traffic Management Related Costs	€ 13,182.96				
Land and Property Costs	€ -				
Sub-Total B - Add-On Costs	**€ 24,360.21**				
Total Inflation Allowance	€ 10,308.53				
Total Contingency Allowance	€ 63,935.38				
Per Cent Art Scheme	€ 1,664.98				
Sub-Total - Adjustments	**€ 75,908.89**				
Total Option Comparison Cost Estimate (excluding VAT)	**€ 232,098.74**				
Total Rate Per Km (excluding VAT)	**€ 2,274,585.86**				

Rev	Title	Prepared By	Checked By	Issue Date
	Draft	Daragh Scanlan	TC	12/07/2024

Note:
Costs are considered to include allowances for overheads and profit.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project 3 Segment 01
Option Nr 2

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Route Option Number / Reference:	2			
Route Description:	Mixed Street			
Project Information				
Mainline Cross-Section Type:	Single	Location:	Mount Street Lower	
Total Mainline Length (m):	102.04	Traffic Impact Rating (DCC Only):		
Total Mainline Width (m):	11	Land take Required:	☐ Check Box If Yes	
Potential Start Date:	Q4 2024	Anticipated Duration:	6	Months
Other Relevant Project Information:	Mixed Street			

1 Option Comparison Cost Estimate

Ref	Description	Total
Construction Costs *(Please provide supplementary information giving detail of costs)*		
1.1	Site Clearance	€ 4,674.81
1.2	Fencing	€ -
1.3	Road Restraint Systems	€ -
1.4	Drainage & Service Ducts	€ 28,593.83
1.5	Earthworks	€ 23,469.20
1.6	Pavements	€ -
1.7	Kerbing & Footways	€ 35,413.60
1.8	Traffic Signs & Road Markings	€ 4,674.81
1.9	Road Lighting	€ 19,344.00
1.10	Structural Concrete (Including Structures Generally)	€ -
1.11	Accommodation Works	€ -
1.12	Works for Statutory Undertakers	€ -
1.13	Landscaping & Ecology	€ 934.96
1.14	Other Project Costs	€ 700.00
1.15	Preliminaries including Site Compounds (excluding traffic management)	€ 14,024.43
	Sub-Total A - Construction Costs	**€ 131,829.64**

Add-On Costs

Description		Quantity	Unit	Rate	Total
1.16	Preparation and Administration Costs				€ 11,177.24
1.16.1	Scope & Purpose				€ -
1.16.2	Concept, Development & Option Selection	1		€ 5,816.33	€ 5,816.33
1.16.3	Preliminary Design	1		€ 3,957.75	€ 3,957.75
1.16.4	Statutory Processes	1		€ 1,403.16	€ 1,403.16
1.16.5	Detailed Design & Procurement				€ -
1.16.6	Construction & Implementation				€ -
1.16.7	Close Out & Review				€ -
1.17	Traffic Management Related Costs	10	%	€ 131,829.64	€ 13,182.96
1.18	Land and Property Costs				€ -
	Sub-Total B - Add-On Costs				**€ 24,360.21**
	Total Project Base Costs (A+B)				**€ 156,189.85**

2 Adjustments

Description	Quantity	Unit	Rate	Total
Add Inflation	6.6	%	€ 156,189.85	€ 10,308.53
Add Contingency *(001_B123_CC_CMG)*	38.4	%	€ 166,498.38	€ 63,935.38
Per Cent for Art Scheme https://publicart.ie/main/commissioning/funding/per-cent-for-art-scheme/	1.0	%	€ 166,498.38	€ 1,664.98
Total Adjustments				**€ 75,908.89**

Total Option Comparison Cost Estimate Exclusive of VAT				**€ 232,098.74**
Mainline Length	0.10204	**Km**	**Rate Per Km (Excluding VAT)**	**€ 2,274,585.86**

Source of Cost Data *(Please provide a brief narrative on the source of cost data in the box below)*

Revision	Title	Prepared By	Checked By	Issue Date
	Draft	Daragh Scanlan	TC	17/06/2024

NOTE:
Costs are considered to include allowances for overheads and profit.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project Control Document Summary
Option 1

NOTE: The information below will be auto-generated from the main cost estimate template to obtain the relevant totals in line with the seven costs heads required for inclusion within the project control document.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 01		
Project / Contract Code:		Prepared By (Individual & Organisation)	AtkinsRealis
Approving Authority:	NTA	Date Estimate Prepared:	12/07/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

1	PCD Summary				Sub-Total	VAT %	VAT Amount	Total Incl. VAT
1.1	Scope & Purpose	1	Item	€ -	23.00	€ -	€ -
1.2	Concept, Development & Option Selection	1	Item	€ 5,816.33	23.00	€ 1,337.76	€ 7,154.09
1.3	Preliminary Design	1	Item	€ 3,957.75	23.00	€ 910.28	€ 4,868.03
1.4	Statutory Processes	1	Item	€ 1,403.16	23.00	€ 322.73	€ 1,725.89
1.5	Detailed Design & Procurement	1	Item	€ -	23.00	€ -	€ -
1.6	Construction & Implementation	1	Item	€ -	23.00	€ -	€ -
1.7	Close Out & Review	1	Item	€ -	23.00	€ -	€ -
1.8	Traffic Management	1	Item	€ 13,182.96	13.50	€ 1,779.70	€ 14,962.66
1.9	Land & Property Costs	1	Item	€ -			€ -
1.10	Construction Costs (Main Contractor)	1	Item	€ 131,829.64	13.50	€ 17,797.00	€ 149,626.64
1.11	Inflation Allowance (Band 2/3 Only)	1	Item	€ 10,308.53	13.50	€ 1,391.65	€ 11,700.18
1.12	Contingency Allowance	1	Item	€ 63,935.38	13.50	€ 8,631.28	€ 72,566.65
1.13	Allowance for Arts (%)	1	Item	€ 1,664.98	13.50	€ 224.77	€ 1,889.76
			Sub-Total (Ex.VAT)	**€ 232,098.74**			
					Total Option 1 Cost Estimate (Including VAT)		**€ 264,493.91**

NOTE:
Costs are reflective of costs at the base date stated above.
Costs are considered to include allowances for overheads and profit.

Option Comparison Cost Estimate Template

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 02		
Project / Contract Code:		Prepared By (Individual / Organisation):	AtkinsRealis
Approving Authority:	NTA	Date Estimate Prepared:	17/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

Route Option Number / Reference:	2				
Project Information					
Mainline Cross-Section Type (Single/Dual):	Single				
Anticipated Programme Duration (Months):	6				
Location:	Access to WCC				
Total Mainline Length (m):	57.02				
Other Relevant Project Information:	Two-way cycle east TB				
Project Costs					
Option Construction Costs					
	€				
Site Clearance	€ 1,701.64				
Fencing	€ -				
Road Restraint Systems	€ -				
Drainage & Service Ducts	€ 12,389.61				
Earthworks	€ 4,576.00				
Pavements	€ -				
Kerbing & Footways	€ 11,800.00				
Traffic Signs & Road Marking	€ 1,701.64				
Road Lighting	€ 9,672.00				
Structural Concrete (including Structures Generally)	€ -				
Accommodation Works	€ -				
Works for Statutory Undertakers	€ -				
Landscaping & Ecology	€ 340.33				
Other Project Costs	€ 700.00				
Preliminaries including Site Compounds (excluding traffic management)	€ 5,104.91				
Sub-Total A - Construction Costs	**€ 47,986.11**				
Option Add-On Costs					
	€				
Preparation and Administration Costs	€ 6,261.40				
Traffic Management Related Costs	€ 4,798.61				
Land and Property Costs	€ -				
Sub-Total B - Add-On Costs	**€ 11,060.01**				
Total Inflation Allowance	€ 3,897.04				
Total Contingency Allowance	€ 24,170.18				
Per Cent Art Scheme	€ 629.43				
Sub-Total - Adjustments	**€ 28,696.65**				
Total Option Comparison Cost Estimate (excluding VAT)	**€ 87,742.77**				
Total Rate Per Km (excluding VAT)	**€ 1,538,806.94**				

Rev	Title	Prepared By	Checked By	Issue Date
	Draft	Daragh Scanlan	TC	12/07/2024

Note:
Costs are considered to include allowances for overheads and profit.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project 3 Segment 02
Option Nr 2

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Route Option Number / Reference:	2			
Route Description:	Mixed Street			
Project Information				
Mainline Cross-Section Type:	Single	Location:	Access to County Offices	
Total Mainline Length (m):	57.20	Traffic Impact Rating (DCC Only):		
Total Mainline Width (m):	6.5	Land take Required:	☐ Check Box If Yes	
Potential Start Date:	Q4 2024	Anticipated Duration:	6	Months
Other Relevant Project Information:	Mixed Street			

1 Option Comparison Cost Estimate

Ref	Description	Total
Construction Costs *(Please provide supplementary information giving detail of costs)*		
1.1	Site Clearance	€ 1,701.64
1.2	Fencing	€ -
1.3	Road Restraint Systems	€ -
1.4	Drainage & Service Ducts	€ 12,389.61
1.5	Earthworks	€ 4,576.00
1.6	Pavements	€ -
1.7	Kerbing & Footways	€ 11,800.00
1.8	Traffic Signs & Road Markings	€ 1,701.64
1.9	Road Lighting	€ 9,672.00
1.10	Structural Concrete (Including Structures Generally)	€ -
1.11	Accommodation Works	€ -
1.12	Works for Statutory Undertakers	€ -
1.13	Landscaping & Ecology	€ 340.33
1.14	Other Project Costs	€ 700.00
1.15	Preliminaries including Site Compounds (excluding traffic management)	€ 5,104.91
	Sub-Total A - Construction Costs	**€ 47,986.11**

Add-On Costs

Description		Quantity	Unit	Rate	Total
1.16	Preparation and Administration Costs				€ 6,261.40
1.16.1	Scope & Purpose				€ -
1.16.2	Concept, Development & Option Selection	1		€ 3,258.26	€ 3,258.26
1.16.3	Preliminary Design	1		€ 2,217.10	€ 2,217.10
1.16.4	Statutory Processes	1		€ 786.04	€ 786.04
1.16.5	Detailed Design & Procurement				
1.16.6	Construction & Implementation				
1.16.7	Close Out & Review				
1.17	Traffic Management Related Costs	10	%	€ 47,986.11	€ 4,798.61
1.18	Land and Property Costs				
	Sub-Total B - Add-On Costs				**€ 11,060.01**
	Total Project Base Costs (A+B)				**€ 59,046.12**

2 Adjustments

Description	Quantity	Unit	Rate	Total
Add Inflation	6.6	%	€ 59,046.12	€ 3,897.04
Add Contingency *(001_B123_CC_CMG)*	38.4	%	€ 62,943.16	€ 24,170.18
Per Cent for Art Scheme https://publicart.ie/main/commissioning/funding/per-cent-for-art-scheme/	1.0	%	€ 62,943.16	€ 629.43
Total Adjustments				**€ 28,696.65**

Total Option Comparison Cost Estimate Exclusive of VAT			**€ 87,742.77**
Mainline Length	**0.05720**	**Km**	**Rate Per Km (Excluding VAT)** **€ 1,533,964.54**

Source of Cost Data *(Please provide a brief narrative on the source of cost data in the box below)*

Revision	Title	Prepared By	Checked By	Issue Date
	Draft	Daragh Scanlan	TC	12/07/2024

NOTE:
Costs are considered to include allowances for overheads and profit.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project Control Document Summary
Option 1

NOTE: The information below will be auto-generated from the main cost estimate template to obtain the relevant totals in line with the seven costs heads required for inclusion within the project control document.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 02		
Project / Contract Code:		Prepared By (Individual & Organisation)	AtkinsRealis
Approving Authority:	NTA	Date Estimate Prepared:	17/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

1	PCD Summary				Sub-Total	VAT %	VAT Amount	Total Incl. VAT
1.1	Scope & Purpose	1	Item	€ -	23.00	€ -	€ -
1.2	Concept, Development & Option Selection	1	Item	€ 3,258.26	23.00	€ 749.40	€ 4,007.66
1.3	Preliminary Design	1	Item	€ 2,217.10	23.00	€ 509.93	€ 2,727.03
1.4	Statutory Processes	1	Item	€ 786.04	23.00	€ 180.79	€ 966.83
1.5	Detailed Design & Procurement	1	Item	€ -	23.00	€ -	€ -
1.6	Construction & Implementation	1	Item	€ -	23.00	€ -	€ -
1.7	Close Out & Review	1	Item	€ -	23.00	€ -	€ -
1.8	Traffic Management	1	Item	€ 4,798.61	13.50	€ 647.81	€ 5,446.42
1.9	Land & Property Costs	1	Item	€ -			€ -
1.10	Construction Costs (Main Contractor)	1	Item	€ 47,986.11	13.50	€ 6,478.12	€ 54,464.23
1.11	Inflation Allowance (Band 2/3 Only)	1	Item	€ 3,897.04	13.50	€ 526.10	€ 4,423.14
1.12	Contingency Allowance	1	Item	€ 24,170.18	13.50	€ 3,262.97	€ 27,433.15
1.13	Allowance for Arts (%)	1	Item	€ 629.43	13.50	€ 84.97	€ 714.40
			Sub-Total (Ex.VAT)	**€ 87,742.77**			
						Total Option 1 Cost Estimate (Including VAT)	**€ 100,182.88**

NOTE:
Costs are reflective of costs at the base date stated above.
Costs are considered to include allowances for overheads and profit.

Option Comparison Cost Estimate Template

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 03				
Project / Contract Code:			Prepared By (Individual / Organisation):	AtkinsRealis	
Approving Authority:	NTA		Date Estimate Prepared:	17/06/2024	
Sponsoring Agency:	Westmeath County Council		Base Date of Estimate:	Q3 2023	
Route Option Number / Reference:	2	3	4	5	
Project Information					
Mainline Cross-Section Type (Single/Dual):	Single	Single	Single	Single	
Anticipated Programme Duration (Months):	6	6	6	6	
Location:	R400	R400	R400	R400	
Total Mainline Length (m):	178.09	178.09	178.09	178.09	
Other Relevant Project Information:	Two-way cycle east TB	Two-way cycle west TB	Shared path TB	One-way and mixed TB	
Project Costs					
Option Construction Costs					
	€	€	€	€	
Site Clearance	€ 9,580.66	€ 7,379.59	€ 7,379.59	€ 39,109.19	
Fencing	€ -	€ -	€ -	€ -	
Road Restraint Systems	€ -	€ -	€ -	€ -	
Drainage & Service Ducts	€ 50,596.07	€ 50,596.07	€ 43,992.87	€ 44,417.09	
Earthworks	€ 29,918.45	€ 29,918.45	€ 18,877.12	€ 17,808.60	
Pavements	€ 25,644.38	€ 25,644.38	€ 25,644.38	€ 25,644.38	
Kerbing & Footways	€ 92,665.59	€ 92,665.59	€ 59,685.60	€ 63,232.27	
Traffic Signs & Road Marking	€ 9,580.66	€ 9,580.66	€ 7,379.59	€ 7,521.00	
Road Lighting	€ 21,530.60	€ 21,530.60	€ 21,530.60	€ 21,530.60	
Structural Concrete (including Structures Generally)	€ -	€ -	€ -	€ -	
Accommodation Works	€ -	€ -	€ -	€ -	
Works for Statutory Undertakers	€ -	€ -	€ -	€ -	
Landscaping & Ecology	€ 1,916.13	€ 1,916.13	€ 1,475.92	€ 1,504.20	
Other Project Costs	€ -	€ -	€ -	€ 350.00	
Preliminaries including Site Compounds (excluding traffic management)	€ 28,741.97	€ 28,741.97	€ 22,138.77	€ 22,562.99	
Sub-Total A - Construction Costs	**€ 270,174.50**	**€ 267,973.43**	**€ 208,104.43**	**€ 243,680.33**	
Option Add-On Costs					
	€	€	€	€	
Preparation and Administration Costs	€ 19,507.16	€ 19,507.16	€ 19,507.16	€ 19,507.16	
Traffic Management Related Costs	€ 27,017.45	€ 26,797.34	€ 20,810.44	€ -	
Land and Property Costs	€ -	€ -	€ -	€ 10,150.99	
Sub-Total B - Add-On Costs	**€ 46,524.61**	**€ 46,304.50**	**€ 40,317.60**	**€ 29,658.15**	
Total Inflation Allowance	€ 20,902.14	€ 20,742.34	€ 16,395.85	€ 18,978.66	
Total Contingency Allowance	€ 129,638.88	€ 128,647.79	€ 101,690.07	€ 117,709.13	
Per Cent Art Scheme	€ 3,376.01	€ 3,350.20	€ 2,648.18	€ 3,065.34	
Sub-Total - Adjustments	**€ 153,917.03**	**€ 152,740.33**	**€ 120,734.10**	**€ 139,753.13**	
Total Option Comparison Cost Estimate (excluding VAT)	**€ 470,616.14**	**€ 467,018.27**	**€ 369,156.13**	**€ 413,091.61**	
Total Rate Per Km (excluding VAT)	**€ 2,642,634.13**	**€ 2,622,431.13**	**€ 2,072,909.32**	**€ 2,319,618.65**	

Rev	Title	Prepared By	Checked By	Issue Date
	Draft	Daragh Scanlan	TC	12/07/2024

Note:
Costs are considered to include allowances for overheads and profit.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project 3 Segment 03
Option Nr 2

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Route Option Number / Reference:	2			
Route Description:	Two-way cycle east			
Project Information				
Mainline Cross-Section Type:	Single	Location:	R400	
Total Mainline Length (m):	178.09	Traffic Impact Rating (DCC Only):		
Total Mainline Width (m):	12.4	Land take Required:	☐ Check Box If Yes	
Potential Start Date:	Q4 2024	Anticipated Duration:	6	Months
Other Relevant Project Information:	Two-way cycle east TB			

1 Option Comparison Cost Estimate

Ref	Description	Total
Construction Costs *(Please provide supplementary information giving detail of costs)*		
1.1	Site Clearance	€ 9,580.66
1.2	Fencing	€ -
1.3	Road Restraint Systems	€ -
1.4	Drainage & Service Ducts	€ 50,596.07
1.5	Earthworks	€ 29,918.45
1.6	Pavements	€ 25,644.38
1.7	Kerbing & Footways	€ 92,665.59
1.8	Traffic Signs & Road Markings	€ 9,580.66
1.9	Road Lighting	€ 21,530.60
1.10	Structural Concrete (Including Structures Generally)	€ -
1.11	Accommodation Works	€ -
1.12	Works for Statutory Undertakers	€ -
1.13	Landscaping & Ecology	€ 1,916.13
1.14	Other Project Costs	€ -
1.15	Preliminaries including Site Compounds (excluding traffic management)	€ 28,741.97
	Sub-Total A - Construction Costs	**€ 270,174.50**

Add-On Costs

Description		Quantity	Unit	Rate	Total
1.16	Preparation and Administration Costs				€ 19,507.16
1.16.1	Scope & Purpose				
1.16.2	Concept, Development & Option Selection	1		€ 10,150.99	€ 10,150.99
1.16.3	Preliminary Design	1		€ 6,907.28	€ 6,907.28
1.16.4	Statutory Processes	1		€ 2,448.88	€ 2,448.88
1.16.5	Detailed Design & Procurement				
1.16.6	Construction & Implementation				
1.16.7	Close Out & Review				
1.17	Traffic Management Related Costs	10	%	€ 270,174.50	€ 27,017.45
1.18	Land and Property Costs				
	Sub-Total B - Add-On Costs				**€ 46,524.61**
	Total Project Base Costs (A+B)				**€ 316,699.11**

2 Adjustments

Description	Quantity	Unit	Rate	Total
Add Inflation	6.6	%	€ 316,699.11	€ 20,902.14
Add Contingency *(001_B123_CC_CMG)*	38.4	%	€ 337,601.25	€ 129,638.88
Per Cent for Art Scheme https://publicart.ie/main/commissioning/funding/per-cent-for-art-scheme/	1.0	%	€ 337,601.25	€ 3,376.01
Total Adjustments				**€ 153,917.03**

Total Option Comparison Cost Estimate Exclusive of VAT			**€ 470,616.14**
Mainline Length	**0.17809** **Km**	**Rate Per Km (Excluding VAT)**	**€ 2,642,634.13**

Source of Cost Data *(Please provide a brief narrative on the source of cost data in the box below)*

Revision	Title	Prepared By	Checked By	Issue Date
	Draft	Daragh Scanlan	TC	12/07/2024

NOTE:
Costs are considered to include allowances for overheads and profit.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project Control Document Summary
Option 2

NOTE: The information below will be auto-generated from the main cost estimate template to obtain the relevant totals in line with the seven costs heads required for inclusion within the project control document.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 03		
Project / Contract Code:		Prepared By (Individual & Organisation)	AtkinsRealis
Approving Authority:	NTA123	Date Estimate Prepared:	17/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

1	PCD Summary				Sub-Total	VAT %	VAT Amount	Total Incl. VAT
1.1	Scope & Purpose	1	Item	€ -	23.00	€ -	€ -
1.2	Concept, Development & Option Selection	1	Item	€ 10,150.99	23.00	€ 2,334.73	€ 12,485.72
1.3	Preliminary Design	1	Item	€ 6,907.28	23.00	€ 1,588.68	€ 8,495.96
1.4	Statutory Processes	1	Item	€ 2,448.88	23.00	€ 563.24	€ 3,012.13
1.5	Detailed Design & Procurement	1	Item	€ -	23.00	€ -	€ -
1.6	Construction & Implementation	1	Item	€ -	23.00	€ -	€ -
1.7	Close Out & Review	1	Item	€ -	23.00	€ -	€ -
1.8	Traffic Management	1	Item	€ 27,017.45	13.50	€ 3,647.36	€ 30,664.81
1.9	Land & Property Costs	1	Item	€ -			€ -
1.10	Construction Costs (Main Contractor)	1	Item	€ 270,174.50	13.50	€ 36,473.56	€ 306,648.06
1.11	Inflation Allowance (Band 2/3 Only)	1	Item	€ 20,902.14	13.50	€ 2,821.79	€ 23,723.93
1.12	Contingency Allowance	1	Item	€ 129,638.88	13.50	€ 17,501.25	€ 147,140.13
1.13	Allowance for Arts (%)	1	Item	€ 3,376.01	13.50	€ 455.76	€ 3,831.77
			Sub-Total (Ex.VAT)	**€ 470,616.14**			
					Total Option 1 Cost Estimate (Including VAT)		**€ 536,002.50**

NOTE:
Costs are reflective of costs at the base date stated above.
Costs are considered to include allowances for overheads and profit.

Project 3 Segment 03
Option Nr 3

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Route Option Number / Reference:	3			
Route Description:	Two-way cycle track west traditional build			
Project Information				
Mainline Cross-Section Type:	Single	Location:	R400	
Total Mainline Length (m):	178.09	Traffic Impact Rating (DCC Only):		
Total Mainline Width (m):	12.4	Land take Required:	☐ Check Box If Yes	
Potential Start Date:	Q4 2024	Anticipated Duration:	6	Months
Other Relevant Project Information:	Two-way cycle west TB			

1 Option Comparison Cost Estimate

Ref	Description	Total
Construction Costs *(Please provide supplementary information giving detail of costs)*		
1.1	Site Clearance	€ 7,379.59
1.2	Fencing	€ -
1.3	Road Restraint Systems	€ -
1.4	Drainage & Service Ducts	€ 50,596.07
1.5	Earthworks	€ 29,918.45
1.6	Pavements	€ 25,644.38
1.7	Kerbing & Footways	€ 92,665.59
1.8	Traffic Signs & Road Markings	€ 9,580.66
1.9	Road Lighting	€ 21,530.60
1.10	Structural Concrete (Including Structures Generally)	€ -
1.11	Accommodation Works	€ -
1.12	Works for Statutory Undertakers	€ -
1.13	Landscaping & Ecology	€ 1,916.13
1.14	Other Project Costs	€ -
1.15	Preliminaries including Site Compounds (excluding traffic management)	€ 28,741.97
	Sub-Total A - Construction Costs	**€ 267,973.43**

Add-On Costs

Description		Quantity	Unit	Rate	Total
1.16	Preparation and Administration Costs				€ 19,507.16
1.16.1	Scope & Purpose				€ -
1.16.2	Concept, Development & Option Selection	1		€ 10,150.99	€ 10,150.99
1.16.3	Preliminary Design	1		€ 6,907.28	€ 6,907.28
1.16.4	Statutory Processes	1		€ 2,448.88	€ 2,448.88
1.16.5	Detailed Design & Procurement				€ -
1.16.6	Construction & Implementation				€ -
1.16.7	Close Out & Review				€ -
1.17	Traffic Management Related Costs	10	%	€ 267,973.43	€ 26,797.34
1.18	Land and Property Costs				€ -
	Sub-Total B - Add-On Costs				**€ 46,304.50**
	Total Project Base Costs (A+B)				**€ 314,277.94**

2 Adjustments

Description	Quantity	Unit	Rate	Total
Add Inflation	6.6	%	€ 314,277.94	€ 20,742.34
Add Contingency *(001_B123_CC_CMG)*	38.4	%	€ 335,020.28	€ 128,647.79
Per Cent for Art Scheme https://publicart.ie/main/commissioning/funding/per-cent-for-art-scheme/	1.0	%	€ 335,020.28	€ 3,350.20
Total Adjustments				**€ 152,740.33**

Total Option Comparison Cost Estimate Exclusive of VAT	**€ 467,018.27**

Mainline Length	0.17809	Km	**Rate Per Km (Excluding VAT)** € 2,622,431.13

Source of Cost Data *(Please provide a brief narrative on the source of cost data in the box below)*

Revision	Title	Prepared By	Checked By	Issue Date
	Draft	Daragh Scanlan	TC	12/07/2024

NOTE:
Costs are considered to include allowances for overheads and profit.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project Control Document Summary
Option 3

NOTE: The information below will be auto-generated from the main cost estimate template to obtain the relevant totals in line with the seven costs heads required for inclusion within the project control document.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 03		
Project / Contract Code:		Prepared By (Individual & Organisation)	AtkinsRealis
Approving Authority:	NTA123	Date Estimate Prepared:	17/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

1	PCD Summary				Sub-Total	VAT %	VAT Amount	Total Incl. VAT
	1.1	Scope & Purpose	1	Item	€ -	23.00	€ -	€ -
	1.2	Concept, Development & Option Selection	1	Item	€ 10,150.99	23.00	€ 2,334.73	€ 12,485.72
	1.3	Preliminary Design	1	Item	€ 6,907.28	23.00	€ 1,588.68	€ 8,495.96
	1.4	Statutory Processes	1	Item	€ 2,448.88	23.00	€ 563.24	€ 3,012.13
	1.5	Detailed Design & Procurement	1	Item	€ -	23.00	€ -	€ -
	1.6	Construction & Implementation	1	Item	€ -	23.00	€ -	€ -
	1.7	Close Out & Review	1	Item	€ -	23.00	€ -	€ -
	1.8	Traffic Management	1	Item	€ 26,797.34	13.50	€ 3,617.64	€ 30,414.98
	1.9	Land & Property Costs	1	Item	€ -			€ -
	1.10	Construction Costs (Main Contractor)	1	Item	€ 267,973.43	13.50	€ 36,176.41	€ 304,149.85
	1.11	Inflation Allowance (Band 2/3 Only)	1	Item	€ 20,742.34	13.50	€ 2,800.22	€ 23,542.56
	1.12	Contingency Allowance	1	Item	€ 128,647.79	13.50	€ 17,367.45	€ 146,015.24
	1.13	Allowance for Arts (%)	1	Item	€ 3,350.20	13.50	€ 452.28	€ 3,802.48
				Sub-Total (Ex.VAT)	**€ 467,018.27**			
							Total Option 2 Cost Estimate (Including VAT)	**€ 531,918.92**

NOTE:
Costs are reflective of costs at the base date stated above.
Costs are considered to include allowances for overheads and profit.

Project 3 Segment 03
Option Nr 4

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Route Option Number / Reference:	4			
Route Description:	Shared path traditional build			
Project Information				
Mainline Cross-Section Type:	Single	Location:	R400	
Total Mainline Length (m):	178.09	Traffic Impact Rating (DCC Only):		
Total Mainline Width (m):	12.4	Land take Required:	☐ Check Box If Yes	
Potential Start Date:	Q4 2024	Anticipated Duration:	6	Months
Other Relevant Project Information:	Shared path TB			

1 Option Comparison Cost Estimate

Ref	Description	Total
Construction Costs *(Please provide supplementary information giving detail of costs)*		
1.1	Site Clearance	€ 7,379.59
1.2	Fencing	€ -
1.3	Road Restraint Systems	€ -
1.4	Drainage & Service Ducts	€ 43,992.87
1.5	Earthworks	€ 18,877.12
1.6	Pavements	€ 25,644.38
1.7	Kerbing & Footways	€ 59,685.60
1.8	Traffic Signs & Road Markings	€ 7,379.59
1.9	Road Lighting	€ 21,530.60
1.10	Structural Concrete (Including Structures Generally)	€ -
1.11	Accommodation Works	€ -
1.12	Works for Statutory Undertakers	€ -
1.13	Landscaping & Ecology	€ 1,475.92
1.14	Other Project Costs	€ -
1.15	Preliminaries including Site Compounds (excluding traffic management)	€ 22,138.77
	Sub-Total A - Construction Costs	**€ 208,104.43**

Add-On Costs

Description		Quantity	Unit	Rate	Total
1.16	Preparation and Administration Costs				€ 19,507.16
1.16.1	Scope & Purpose				€ -
1.16.2	Concept, Development & Option Selection	1		€ 10,150.99	€ 10,150.99
1.16.3	Preliminary Design	1		€ 6,907.28	€ 6,907.28
1.16.4	Statutory Processes	1		€ 2,448.88	€ 2,448.88
1.16.5	Detailed Design & Procurement				€ -
1.16.6	Construction & Implementation				€ -
1.16.7	Close Out & Review				€ -
1.17	Traffic Management Related Costs	10	%	€ 208,104.43	€ 20,810.44
1.18	Land and Property Costs				€ -
	Sub-Total B - Add-On Costs				**€ 40,317.60**
	Total Project Base Costs (A+B)				**€ 248,422.03**

2 Adjustments

Description	Quantity	Unit	Rate	Total
Add Inflation	6.6	%	€ 248,422.03	€ 16,395.85
Add Contingency *(001_B123_CC_CMG)*	38.4	%	€ 264,817.88	€ 101,690.07
Per Cent for Art Scheme https://publicart.ie/main/commissioning/funding/per-cent-for-art-scheme/	1.0	%	€ 264,817.88	€ 2,648.18
Total Adjustments				**€ 120,734.10**

Total Option Comparison Cost Estimate Exclusive of VAT	**€ 369,156.13**

Mainline Length	0.17809	Km	**Rate Per Km (Excluding VAT)**	**€ 2,072,909.32**

Source of Cost Data *(Please provide a brief narrative on the source of cost data in the box below)*

Revision	Title	Prepared By	Checked By	Issue Date
	Draft	Daragh Scanlan		17/06/2024

NOTE:
Costs are considered to include allowances for overheads and profit.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project Control Document Summary
Option 4

NOTE: The information below will be auto-generated from the main cost estimate template to obtain the relevant totals in line with the seven costs heads required for inclusion within the project control document.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 03		
Project / Contract Code:		Prepared By (Individual & Organisation)	AtkinsRealis
Approving Authority:	NTA123	Date Estimate Prepared:	17/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

1	PCD Summary				Sub-Total	VAT %	VAT Amount	Total Incl. VAT
1.1	Scope & Purpose	1	Item	€ -	23.00	€ -	€ -
1.2	Concept, Development & Option Selection	1	Item	€ 10,150.99	23.00	€ 2,334.73	€ 12,485.72
1.3	Preliminary Design	1	Item	€ 6,907.28	23.00	€ 1,588.68	€ 8,495.96
1.4	Statutory Processes	1	Item	€ 2,448.88	23.00	€ 563.24	€ 3,012.13
1.5	Detailed Design & Procurement	1	Item	€ -	23.00	€ -	€ -
1.6	Construction & Implementation	1	Item	€ -	23.00	€ -	€ -
1.7	Close Out & Review	1	Item	€ -	23.00	€ -	€ -
1.8	Traffic Management	1	Item	€ 20,810.44	13.50	€ 2,809.41	€ 23,619.85
1.9	Land & Property Costs	1	Item	€ -			€ -
1.10	Construction Costs (Main Contractor)	1	Item	€ 208,104.43	13.50	€ 28,094.10	€ 236,198.53
1.11	Inflation Allowance (Band 2/3 Only)	1	Item	€ 16,395.85	13.50	€ 2,213.44	€ 18,609.29
1.12	Contingency Allowance	1	Item	€ 101,690.07	13.50	€ 13,728.16	€ 115,418.23
1.13	Allowance for Arts (%)	1	Item	€ 2,648.18	13.50	€ 357.50	€ 3,005.68
			Sub-Total (Ex.VAT)	**€ 369,156.13**			
					Total Option 3 - Cost Estimate (Including VAT)		**€ 420,845.39**

NOTE:
Costs are reflective of costs at the base date stated above.
Costs are considered to include allowances for overheads and profit.

Project 3 Segment 03
Option Nr 5

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Route Option Number / Reference:	5			
Route Description:	One-way and mixed			
Project Information				
Mainline Cross-Section Type:	Single	Location:	R400	
Total Mainline Length (m):	178.086	Traffic Impact Rating (DCC Only):		
Total Mainline Width (m):	12.4	Land take Required:	☐ Check Box If Yes	
Potential Start Date:	Q4 2024	Anticipated Duration:	6	Months
Other Relevant Project Information:	One-way and mixed			

1 Option Comparison Cost Estimate

Ref	Description	Total
Construction Costs *(Please provide supplementary information giving detail of costs)*		
1.1	Site Clearance	€ 39,109.19
1.2	Fencing	€ -
1.3	Road Restraint Systems	€ -
1.4	Drainage & Service Ducts	€ 44,417.09
1.5	Earthworks	€ 17,808.60
1.6	Pavements	€ 25,644.38
1.7	Kerbing & Footways	€ 63,232.27
1.8	Traffic Signs & Road Markings	€ 7,521.00
1.9	Road Lighting	€ 21,530.60
1.10	Structural Concrete (Including Structures Generally)	€ -
1.11	Accommodation Works	€ -
1.12	Works for Statutory Undertakers	€ -
1.13	Landscaping & Ecology	€ 1,504.20
1.14	Other Project Costs	€ 350.00
1.15	Preliminaries including Site Compounds (excluding traffic management)	€ 22,562.99
	Sub-Total A - Construction Costs	**€ 243,680.33**

Add-On Costs

Description		Quantity	Unit	Rate	Total
1.16	Preparation and Administration Costs				€ 19,507.16
1.16.1	Scope & Purpose				€ -
1.16.2	Concept, Development & Option Selection	1		€ 10,150.99	€ 10,150.99
1.16.3	Preliminary Design	1		€ 6,907.28	€ 6,907.28
1.16.4	Statutory Processes	1		€ 2,448.88	€ 2,448.88
1.16.5	Detailed Design & Procurement				€ -
1.16.6	Construction & Implementation				€ -
1.16.7	Close Out & Review				€ -
1.17	Traffic Management Related Costs	10	%	€ 243,680.33	€ 24,368.03
1.18	Land and Property Costs				€ -
	Sub-Total B - Add-On Costs				**€ 43,875.19**
	Total Project Base Costs (A+B)				**€ 287,555.52**

2 Adjustments

Description	Quantity	Unit	Rate	Total
Add Inflation	6.6	%	€ 287,555.52	€ 18,978.66
Add Contingency *(001_B123_CC_CMG)*	38.4	%	€ 306,534.18	€ 117,709.13
Per Cent for Art Scheme https://publicart.ie/main/commissioning/funding/per-cent-for-art-scheme/	1.0	%	€ 306,534.18	€ 3,065.34
Total Adjustments				**€ 139,753.13**

Total Option Comparison Cost Estimate Exclusive of VAT **€ 427,308.65**

Mainline Length 0.178086 **Km** **Rate Per Km (Excluding VAT)**

Source of Cost Data *(Please provide a brief narrative on the source of cost data in the box below)*

Revision	Title	Prepared By	Checked By	Issue Date
	Draft	Daragh Scanlan		

NOTE:
Costs are considered to include allowances for overheads and profit.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project Control Document Summary
Option 5

NOTE: The information below will be auto-generated from the main cost estimate template to obtain the relevant totals in line with the seven costs heads required for inclusion within the project control document.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 03		
Project / Contract Code:		Prepared By (Individual & Organisation)	AtkinsRealis
Approving Authority:	NTA123	Date Estimate Prepared:	17/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

1	PCD Summary				Sub-Total	VAT %	VAT Amount	Total Incl. VAT
1.1	Scope & Purpose	1	Item	€ -	23.00	€ -	€ -
1.2	Concept, Development & Option Selection	1	Item	€ 10,150.99	23.00	€ 2,334.73	€ 12,485.72
1.3	Preliminary Design	1	Item	€ 6,907.28	23.00	€ 1,588.68	€ 8,495.96
1.4	Statutory Processes	1	Item	€ 2,448.88	23.00	€ 563.24	€ 3,012.13
1.5	Detailed Design & Procurement	1	Item	€ -	23.00	€ -	€ -
1.6	Construction & Implementation	1	Item	€ -	23.00	€ -	€ -
1.7	Close Out & Review	1	Item	€ -	23.00	€ -	€ -
1.8	Traffic Management	1	Item	€ 24,368.03	13.50	€ 3,289.68	€ 27,657.72
1.9	Land & Property Costs	1	Item	€ -			€ -
1.10	Construction Costs (Main Contractor)	1	Item	€ 243,680.33	13.50	€ 32,896.84	€ 276,577.17
1.11	Inflation Allowance (Band 2/3 Only)	1	Item	€ 18,978.66	13.50	€ 2,562.12	€ 21,540.78
1.12	Contingency Allowance	1	Item	€ 117,709.13	13.50	€ 15,890.73	€ 133,599.86
1.13	Allowance for Arts (%)	1	Item	€ 3,065.34	13.50	€ 413.82	€ 3,479.16
			Sub-Total (Ex.VAT)	**€ 427,308.65**			
						Total Option 4 - Cost Estimate (Including VAT)	**€ 486,848.49**

NOTE:
Costs are reflective of costs at the base date stated above.
Costs are considered to include allowances for overheads and profit.

Option Comparison Cost Estimate Template

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 04				
Project / Contract Code:			Prepared By (Individual / Organisation):	AtkinsRealis	
Approving Authority:	NTA		Date Estimate Prepared:	17/06/2024	
Sponsoring Agency:	Westmeath County Council		Base Date of Estimate:	Q3 2024	
Route Option Number / Reference:	2	3	4	5	
Project Information					
Mainline Cross-Section Type (Single/Dual):	Single	Single	Single	Single	
Anticipated Programme Duration (Months):	6	6	6	6	
Location:	Auburn Road	Auburn Road	Auburn Road	Auburn Road	
Total Mainline Length (m):	323.66	323.66	323.66	649.21	
Other Relevant Project Information:	One-way cycle TB	Two-way cycle TB	Mixed traffic RB	Two-way and mixed traffic	
Project Costs					
Option Construction Costs					
	€	€	€	€	
Site Clearance	€ 17,192.35	€ 15,493.11	€ 5,845.85	€ 12,063.78	
Fencing	€ -	€ -	€ -	€ -	
Road Restraint Systems	€ -	€ -	€ -	€ -	
Drainage & Service Ducts	€ 91,642.90	€ 86,545.19	€ 11,691.71	€ 47,118.40	
Earthworks	€ 58,906.85	€ 52,433.57	€ 16,183.20	€ 36,720.00	
Pavements	€ 42,723.65	€ 42,723.65	€ 46,607.62	€ 46,607.62	
Kerbing & Footways	€ 163,019.66	€ 135,508.22	€ 46,952.96	€ 135,790.00	
Traffic Signs & Road Marking	€ 17,192.35	€ 15,493.11	€ 5,845.85	€ 12,063.78	
Road Lighting	€ 39,130.98	€ 39,130.98	€ 6,473.28	€ 10,881.00	
Structural Concrete (including Structures Generally)	€ -	€ -	€ -	€ -	
Accommodation Works	€ -	€ -	€ -	€ -	
Works for Statutory Undertakers	€ -	€ -	€ -	€ -	
Landscaping & Ecology	€ 3,438.47	€ 3,098.62	€ 1,169.17	€ 2,412.76	
Other Project Costs	€ -	€ -	€ 700.00	€ 350.00	
Preliminaries including Site Compounds (excluding traffic management)	€ 51,577.05	€ 46,479.34	€ 17,537.56	€ 36,191.35	
Sub-Total A - Construction Costs	**€ 484,824.25**	**€ 436,905.80**	**€ 159,007.20**	**€ 340,198.69**	
Option Add-On Costs					
	€	€	€	€	
Preparation and Administration Costs	€ 35,453.46	€ 35,453.46	€ 35,453.46	€ 35,453.46	
Traffic Management Related Costs	€ 48,482.43	€ 43,690.58	€ 15,900.72	€ 34,019.87	
Land and Property Costs	€ -	€ -	€ -	€ -	
Sub-Total B - Add-On Costs	**€ 83,935.89**	**€ 79,144.04**	**€ 51,354.18**	**€ 69,473.33**	
Total Inflation Allowance	€ 37,538.17	€ 34,059.29	€ 13,883.85	€ 27,038.35	
Total Contingency Allowance	€ 232,818.55	€ 211,241.91	€ 86,110.17	€ 167,696.78	
Per Cent Art Scheme	€ 6,062.98	€ 5,501.09	€ 2,242.45	€ 4,367.10	
Sub-Total - Adjustments	**€ 276,419.70**	**€ 250,802.29**	**€ 102,236.47**	**€ 199,102.24**	
Total Option Comparison Cost Estimate (excluding VAT)	**€ 845,179.84**	**€ 766,852.12**	**€ 312,597.85**	**€ 608,774.26**	
Total Rate Per Km (excluding VAT)	**€ 2,611,287.76**	**€ 2,369,313.86**	**€ 965,821.68**	**€ 937,718.36**	

Rev	Title	Prepared By	Checked By	Issue Date
	Draft	Daragh Scanlan	TC	12/07/2024
1	Draft	Thais Cortes	SW	25/09/2024

Note:
Costs are considered to include allowances for overheads and profit.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project 3 Segment 04
Option Nr 2

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Route Option Number / Reference:	2			
Route Description:	One-way cycle traditional build			
Project Information				
Mainline Cross-Section Type:	Single	Location:	Auburn Road	
Total Mainline Length (m):	323.66	Traffic Impact Rating (DCC Only):		
Total Mainline Width (m):	12.5	Land take Required:	☐ Check Box If Yes	
Potential Start Date:	Q4 2024	Anticipated Duration:	6	Months
Other Relevant Project Information:	One-way cycle TB			

1 Option Comparison Cost Estimate

Ref	Description	Total
Construction Costs *(Please provide supplementary information giving detail of costs)*		
1.1	Site Clearance	€ 17,192.35
1.2	Fencing	€ -
1.3	Road Restraint Systems	€ -
1.4	Drainage & Service Ducts	€ 91,642.90
1.5	Earthworks	€ 58,906.85
1.6	Pavements	€ 42,723.65
1.7	Kerbing & Footways	€ 163,019.66
1.8	Traffic Signs & Road Markings	€ 17,192.35
1.9	Road Lighting	€ 39,130.98
1.10	Structural Concrete (Including Structures Generally)	€ -
1.11	Accommodation Works	€ -
1.12	Works for Statutory Undertakers	€ -
1.13	Landscaping & Ecology	€ 3,438.47
1.14	Other Project Costs	€ -
1.15	Preliminaries including Site Compounds (excluding traffic management)	€ 51,577.05
	Sub-Total A - Construction Costs	**€ 484,824.25**

Add-On Costs

Description		Quantity	Unit	Rate	Total
1.16	Preparation and Administration Costs				€ 35,453.46
1.16.1	Scope & Purpose				€ -
1.16.2	Concept, Development & Option Selection	1		€ 18,449.01	€ 18,449.01
1.16.3	Preliminary Design	1		€ 12,553.70	€ 12,553.70
1.16.4	Statutory Processes	1		€ 4,450.74	€ 4,450.74
1.16.5	Detailed Design & Procurement				€ -
1.16.6	Construction & Implementation				€ -
1.16.7	Close Out & Review				€ -
1.17	Traffic Management Related Costs	10	%	€ 484,824.25	€ 48,482.43
1.18	Land and Property Costs				€ -
	Sub-Total B - Add-On Costs				**€ 83,935.89**
	Total Project Base Costs (A+B)				**€ 568,760.14**

2 Adjustments

Description	Quantity	Unit	Rate	Total
Add Inflation	6.6	%	€ 568,760.14	€ 37,538.17
Add Contingency *(001_B123_CC_CMG)*	38.4	%	€ 606,298.31	€ 232,818.55
Per Cent for Art Scheme https://publicart.ie/main/commissioning/funding/per-cent-for-art-scheme/	1.0	%	€ 606,298.31	€ 6,062.98
Total Adjustments				**€ 276,419.70**

Total Option Comparison Cost Estimate Exclusive of VAT				**€ 845,179.84**
Mainline Length	0.32366	**Km**	**Rate Per Km (Excluding VAT)**	**€ 2,611,287.76**

Source of Cost Data *(Please provide a brief narrative on the source of cost data in the box below)*

Revision	Title	Prepared By	Checked By	Issue Date
	Draft	Daragh Scanlan	TC	12/07/2024
1	Draft	TC	SW	25/08/2024

NOTE:
Costs are considered to include allowances for overheads and profit.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project Control Document Summary
Option 2

NOTE: The information below will be auto-generated from the main cost estimate template to obtain the relevant totals in line with the seven costs heads required for inclusion within the project control document.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 04		
Project / Contract Code:		Prepared By (Individual & Organisation)	AtkinsRealis
Approving Authority:	NTA	Date Estimate Prepared:	17/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2024

1	PCD Summary				Sub-Total	VAT %	VAT Amount	Total Incl. VAT
1.1	Scope & Purpose	1	Item	€ -	23.00	€ -	€ -
1.2	Concept, Development & Option Selection	1	Item	€ 18,449.01	23.00	€ 4,243.27	€ 22,692.28
1.3	Preliminary Design	1	Item	€ 12,553.70	23.00	€ 2,887.35	€ 15,441.06
1.4	Statutory Processes	1	Item	€ 4,450.74	23.00	€ 1,023.67	€ 5,474.42
1.5	Detailed Design & Procurement	1	Item	€ -	23.00	€ -	€ -
1.6	Construction & Implementation	1	Item	€ -	23.00	€ -	€ -
1.7	Close Out & Review	1	Item	€ -	23.00	€ -	€ -
1.8	Traffic Management	1	Item	€ 48,482.43	13.50	€ 6,545.13	€ 55,027.55
1.9	Land & Property Costs	1	Item	€ -			€ -
1.10	Construction Costs (Main Contractor)	1	Item	€ 484,824.25	13.50	€ 65,451.27	€ 550,275.53
1.11	Inflation Allowance (Band 2/3 Only)	1	Item	€ 37,538.17	13.50	€ 5,067.65	€ 42,605.82
1.12	Contingency Allowance	1	Item	€ 232,818.55	13.50	€ 31,430.50	€ 264,249.05
1.13	Allowance for Arts (%)	1	Item	€ 6,062.98	13.50	€ 818.50	€ 6,881.49
			Sub-Total (Ex.VAT)	**€ 845,179.84**			
					Total Option 1 Cost Estimate (Including VAT)		**€ 962,647.20**

NOTE:
Costs are reflective of costs at the base date stated above.
Costs are considered to include allowances for overheads and profit.

Project 3 Segment 04
Option Nr 3

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Route Option Number / Reference:	3			
Route Description:	Two-way cycle track traditional build			
Project Information				
Mainline Cross-Section Type:	Single	Location:	Auburn Road	
Total Mainline Length (m):	323.66	Traffic Impact Rating (DCC Only):		
Total Mainline Width (m):	13.5	Land take Required:	☑ Check Box If Yes	
Potential Start Date:	Q4 2024	Anticipated Duration:	6	Months
Other Relevant Project Information:	Two-way cycle TB			

1 Option Comparison Cost Estimate

Ref	Description	Total
Construction Costs *(Please provide supplementary information giving detail of costs)*		
1.1	Site Clearance	€ 15,493.11
1.2	Fencing	€ -
1.3	Road Restraint Systems	€ -
1.4	Drainage & Service Ducts	€ 86,545.19
1.5	Earthworks	€ 52,433.57
1.6	Pavements	€ 42,723.65
1.7	Kerbing & Footways	€ 135,508.22
1.8	Traffic Signs & Road Markings	€ 15,493.11
1.9	Road Lighting	€ 39,130.98
1.10	Structural Concrete (Including Structures Generally)	€ -
1.11	Accommodation Works	€ -
1.12	Works for Statutory Undertakers	€ -
1.13	Landscaping & Ecology	€ 3,098.62
1.14	Other Project Costs	€ -
1.15	Preliminaries including Site Compounds (excluding traffic management)	€ 46,479.34
	Sub-Total A - Construction Costs	**€ 436,905.80**

Add-On Costs

Description		Quantity	Unit	Rate	Total
1.16	Preparation and Administration Costs				€ 35,453.46
1.16.1	Scope & Purpose				€ -
1.16.2	Concept, Development & Option Selection	1		€ 18,449.01	€ 18,449.01
1.16.3	Preliminary Design	1		€ 12,553.70	€ 12,553.70
1.16.4	Statutory Processes	1		€ 4,450.74	€ 4,450.74
1.16.5	Detailed Design & Procurement				€ -
1.16.6	Construction & Implementation				€ -
1.16.7	Close Out & Review				€ -
1.17	Traffic Management Related Costs	10	%	€ 436,905.80	€ 43,690.58
1.18	Land and Property Costs				€ -
	Sub-Total B - Add-On Costs				**€ 79,144.04**
	Total Project Base Costs (A+B)				**€ 516,049.84**

2 Adjustments

Description	Quantity	Unit	Rate	Total
Add Inflation	6.6	%	€ 516,049.84	€ 34,059.29
Add Contingency *(001_B123_CC_CMG)*	38.4	%	€ 550,109.13	€ 211,241.91
Per Cent for Art Scheme https://publicart.ie/main/commissioning/funding/per-cent-for-art-scheme/	1	%	€ 550,109.13	€ 5,501.09
Total Adjustments				**€ 250,802.29**

Total Option Comparison Cost Estimate Exclusive of VAT **€ 766,852.12**

Mainline Length 0.32366 **Km** **Rate Per Km (Excluding VAT)** **€ 2,369,284.58**

Source of Cost Data *(Please provide a brief narrative on the source of cost data in the box below)*

Revision	Title	Prepared By	Checked By	Issue Date
	Draft	Daragh Scanlan	TC	12/07/2024
1	Draft	TC	SW	25/09/2024

NOTE:
Costs are considered to include allowances for overheads and profit.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project Control Document Summary
Option 3

NOTE: The information below will be auto-generated from the main cost estimate template to obtain the relevant totals in line with the seven costs heads required for inclusion within the project control document.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 04		
Project / Contract Code:		Prepared By (Individual & Organisation)	AtkinsRealis
Approving Authority:	NTA	Date Estimate Prepared:	17/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2024

1	PCD Summary				Sub-Total	VAT %	VAT Amount	Total Incl. VAT
1.1	Scope & Purpose	1	Item	€ -	23.00	€ -	€ -
1.2	Concept, Development & Option Selection	1	Item	€ 18,449.01	23.00	€ 4,243.27	€ 22,692.28
1.3	Preliminary Design	1	Item	€ 12,553.70	23.00	€ 2,887.35	€ 15,441.06
1.4	Statutory Processes	1	Item	€ 4,450.74	23.00	€ 1,023.67	€ 5,474.42
1.5	Detailed Design & Procurement	1	Item	€ -	23.00	€ -	€ -
1.6	Construction & Implementation	1	Item	€ -	23.00	€ -	€ -
1.7	Close Out & Review	1	Item	€ -	23.00	€ -	€ -
1.8	Traffic Management	1	Item	€ 43,690.58	13.50	€ 5,898.23	€ 49,588.81
1.9	Land & Property Costs	1	Item	€ -			€ -
1.10	Construction Costs (Main Contractor)	1	Item	€ 436,905.80	13.50	€ 58,982.28	€ 495,888.08
1.11	Inflation Allowance (Band 2/3 Only)	1	Item	€ 34,059.29	13.50	€ 4,598.00	€ 38,657.29
1.12	Contingency Allowance	1	Item	€ 211,241.91	13.50	€ 28,517.66	€ 239,759.56
1.13	Allowance for Arts (%)	1	Item	€ 5,501.09	13.50	€ 742.65	€ 6,243.74
			Sub-Total (Ex.VAT)	**€ 766,852.12**			
						Total Option 2 Cost Estimate (Including VAT)	**€ 873,745.24**

NOTE:
Costs are reflective of costs at the base date stated above.
Costs are considered to include allowances for overheads and profit.

Project 3 Segment 04
Option Nr 4

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Route Option Number / Reference:	4			
Route Description:	Mixed traffic rapid build			
Project Information				
Mainline Cross-Section Type:	Single	Location:	Auburn Road	
Total Mainline Length (m):	323.66	Traffic Impact Rating (DCC Only):		
Total Mainline Width (m):	12.1	Land take Required:	☐ Check Box If Yes	
Potential Start Date:	Q4 2024	Anticipated Duration:	6	Months
Other Relevant Project Information:	Mixed traffic RB			

1 Option Comparison Cost Estimate

Ref	Description	Total
Construction Costs *(Please provide supplementary information giving detail of costs)*		
1.1	Site Clearance	€ 5,845.85
1.2	Fencing	€ -
1.3	Road Restraint Systems	€ -
1.4	Drainage & Service Ducts	€ 11,691.71
1.5	Earthworks	€ 16,183.20
1.6	Pavements	€ 46,607.62
1.7	Kerbing & Footways	€ 46,952.96
1.8	Traffic Signs & Road Markings	€ 5,845.85
1.9	Road Lighting	€ 6,473.28
1.10	Structural Concrete (Including Structures Generally)	€ -
1.11	Accommodation Works	€ -
1.12	Works for Statutory Undertakers	€ -
1.13	Landscaping & Ecology	€ 1,169.17
1.14	Other Project Costs	€ 700.00
1.15	Preliminaries including Site Compounds (excluding traffic management)	€ 17,537.56
	Sub-Total A - Construction Costs	**€ 159,007.20**

Add-On Costs

Description		Quantity	Unit	Rate	Total
1.16	Preparation and Administration Costs				€ 35,453.46
1.16.1	Scope & Purpose				€ -
1.16.2	Concept, Development & Option Selection	1		€ 18,449.01	€ 18,449.01
1.16.3	Preliminary Design	1		€ 12,553.70	€ 12,553.70
1.16.4	Statutory Processes	1		€ 4,450.74	€ 4,450.74
1.16.5	Detailed Design & Procurement				€ -
1.16.6	Construction & Implementation				€ -
1.16.7	Close Out & Review				€ -
1.17	Traffic Management Related Costs	10	%	€ 159,007.20	€ 15,900.72
1.18	Land and Property Costs				€ -
	Sub-Total B - Add-On Costs				**€ 51,354.18**
	Total Project Base Costs (A+B)				**€ 210,361.38**

2 Adjustments

Description	Quantity	Unit	Rate	Total
Add Inflation	6.6	%	€ 210,361.38	€ 13,883.85
Add Contingency *(001_B123_CC_CMG)*	38.4	%	€ 224,245.23	€ 86,110.17
Per Cent for Art Scheme https://publicart.ie/main/commissioning/funding/per-cent-for-art-scheme/	1	%	€ 224,245.23	€ 2,242.45
Total Adjustments				**€ 102,236.47**

Total Option Comparison Cost Estimate Exclusive of VAT	**€ 312,597.85**

Mainline Length	0.32366	**Km**	**Rate Per Km (Excluding VAT)**	**€ 965,809.75**

Source of Cost Data *(Please provide a brief narrative on the source of cost data in the box below)*

Revision	Title	Prepared By	Checked By	Issue Date
	Draft	Daragh Scanlan	TC	12/07/2024
1	Draft	TC	SW	25/09/2024

NOTE:
Costs are considered to include allowances for overheads and profit.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project Control Document Summary
Option 4

NOTE: The information below will be auto-generated from the main cost estimate template to obtain the relevant totals in line with the seven costs heads required for inclusion within the project control document.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 04		
Project / Contract Code:		Prepared By (Individual & Organisation)	AtkinsRealis
Approving Authority:	NTA	Date Estimate Prepared:	17/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2024

1	PCD Summary				Sub-Total	VAT %	VAT Amount	Total Incl. VAT
1.1	Scope & Purpose	1	Item	€ -	23.00	€ -	€ -
1.2	Concept, Development & Option Selection	1	Item	€ 18,449.01	23.00	€ 4,243.27	€ 22,692.28
1.3	Preliminary Design	1	Item	€ 12,553.70	23.00	€ 2,887.35	€ 15,441.06
1.4	Statutory Processes	1	Item	€ 4,450.74	23.00	€ 1,023.67	€ 5,474.42
1.5	Detailed Design & Procurement	1	Item	€ -	23.00	€ -	€ -
1.6	Construction & Implementation	1	Item	€ -	23.00	€ -	€ -
1.7	Close Out & Review	1	Item	€ -	23.00	€ -	€ -
1.8	Traffic Management	1	Item	€ 15,900.72	13.50	€ 2,146.60	€ 18,047.32
1.9	Land & Property Costs	1	Item	€ -			€ -
1.10	Construction Costs (Main Contractor)	1	Item	€ 159,007.20	13.50	€ 21,465.97	€ 180,473.17
1.11	Inflation Allowance (Band 2/3 Only)	1	Item	€ 13,883.85	13.50	€ 1,874.32	€ 15,758.17
1.12	Contingency Allowance	1	Item	€ 86,110.17	13.50	€ 11,624.87	€ 97,735.04
1.13	Allowance for Arts (%)	1	Item	€ 2,242.45	13.50	€ 302.73	€ 2,545.18
			Sub-Total (Ex.VAT)	**€ 312,597.85**			
						Total Option 3 - Cost Estimate (Including VAT)	**€ 358,166.63**

NOTE:
Costs are reflective of costs at the base date stated above.
Costs are considered to include allowances for overheads and profit.

Project 3 Segment 04
Option Nr 5

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Route Option Number / Reference:	5			
Route Description:	Two-way and mixed traffic			
Project Information				
Mainline Cross-Section Type:	Single	Location:	Auburn Road	
Total Mainline Length (m):	649.21	Traffic Impact Rating (DCC Only):		
Total Mainline Width (m):	12.1	Land take Required:	☐ Check Box If Yes	
Potential Start Date:	Q4 2024	Anticipated Duration:	6	Months
Other Relevant Project Information:	Route Through Park			

1 Option Comparison Cost Estimate

Ref	Description	Total
Construction Costs *(Please provide supplementary information giving detail of costs)*		
1.1	Site Clearance	€ 12,063.78
1.2	Fencing	€ -
1.3	Road Restraint Systems	€ -
1.4	Drainage & Service Ducts	€ 47,118.40
1.5	Earthworks	€ 36,720.00
1.6	Pavements	€ 46,607.62
1.7	Kerbing & Footways	€ 135,790.00
1.8	Traffic Signs & Road Markings	€ 12,063.78
1.9	Road Lighting	€ 10,881.00
1.10	Structural Concrete (Including Structures Generally)	€ -
1.11	Accommodation Works	€ -
1.12	Works for Statutory Undertakers	€ -
1.13	Landscaping & Ecology	€ 2,412.76
1.14	Other Project Costs	€ 350.00
1.15	Preliminaries including Site Compounds (excluding traffic management)	€ 36,191.35
	Sub-Total A - Construction Costs	**€ 340,198.69**

Add-On Costs

Description		Quantity	Unit	Rate	Total
1.16	Preparation and Administration Costs				€ 35,453.46
1.16.1	Scope & Purpose				€ -
1.16.2	Concept, Development & Option Selection	1		€ 18,449.01	€ 18,449.01
1.16.3	Preliminary Design	1		€ 12,553.70	€ 12,553.70
1.16.4	Statutory Processes	1		€ 4,450.74	€ 4,450.74
1.16.5	Detailed Design & Procurement				€ -
1.16.6	Construction & Implementation				€ -
1.16.7	Close Out & Review				€ -
1.17	Traffic Management Related Costs	10	%	€ 340,198.69	€ 34,019.87
1.18	Land and Property Costs				€ -
	Sub-Total B - Add-On Costs				**€ 69,473.33**
	Total Project Base Costs (A+B)				**€ 409,672.02**

2 Adjustments

Description	Quantity	Unit	Rate	Total
Add Inflation	6.6	%	€ 409,672.02	€ 27,038.35
Add Contingency *(001_B123_CC_CMG)*	38.4	%	€ 436,710.37	€ 167,696.78
Per Cent for Art Scheme https://publicart.ie/main/commissioning/funding/per-cent-for-art-scheme/	1	%	€ 436,710.37	€ 4,367.10
Total Adjustments				**€ 199,102.24**

Total Option Comparison Cost Estimate Exclusive of VAT	**€ 608,774.26**

Mainline Length	0.64921 **Km**	**Rate Per Km (Excluding VAT)**	**€ 937,718.36**

Source of Cost Data *(Please provide a brief narrative on the source of cost data in the box below)*

Revision	Title	Prepared By	Checked By	Issue Date
	Draft	Daragh Scanlan	TC	12/07/2024
1	Draft	TC	SW	25/09/2024

NOTE:
Costs are considered to include allowances for overheads and profit.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project Control Document Summary
Option 5

NOTE: The information below will be auto-generated from the main cost estimate template to obtain the relevant totals in line with the seven costs heads required for inclusion within the project control document.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 04		
Project / Contract Code:		Prepared By (Individual & Organisation)	AtkinsRealis
Approving Authority:	NTA	Date Estimate Prepared:	17/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2024

1	PCD Summary				Sub-Total	VAT %	VAT Amount	Total Incl. VAT
1.1	Scope & Purpose	1	Item	€ -	23.00	€ -	€ -
1.2	Concept, Development & Option Selection	1	Item	€ 18,449.01	23.00	€ 4,243.27	€ 22,692.28
1.3	Preliminary Design	1	Item	€ 12,553.70	23.00	€ 2,887.35	€ 15,441.06
1.4	Statutory Processes	1	Item	€ 4,450.74	23.00	€ 1,023.67	€ 5,474.42
1.5	Detailed Design & Procurement	1	Item	€ -	23.00	€ -	€ -
1.6	Construction & Implementation	1	Item	€ -	23.00	€ -	€ -
1.7	Close Out & Review	1	Item	€ -	23.00	€ -	€ -
1.8	Traffic Management	1	Item	€ 15,900.72	13.50	€ 2,146.60	€ 18,047.32
1.9	Land & Property Costs	1	Item	€ -			€ -
1.10	Construction Costs (Main Contractor)	1	Item	€ 159,007.20	13.50	€ 21,465.97	€ 180,473.17
1.11	Inflation Allowance (Band 2/3 Only)	1	Item	€ 13,883.85	13.50	€ 1,874.32	€ 15,758.17
1.12	Contingency Allowance	1	Item	€ 86,110.17	13.50	€ 11,624.87	€ 97,735.04
1.13	Allowance for Arts (%)	1	Item	€ 2,242.45	13.50	€ 302.73	€ 2,545.18
			Sub-Total (Ex.VAT)	**€ 312,597.85**			
						Total Option 3 - Cost Estimate (Including VAT)	**€ 358,166.63**

NOTE:
Costs are reflective of costs at the base date stated above.
Costs are considered to include allowances for overheads and profit.

Option Comparison Cost Estimate Template

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 05				
Project / Contract Code:			Prepared By (Individual / Organisation):		AtkinsRealis
Approving Authority:	NTA		Date Estimate Prepared:		17/06/2024
Sponsoring Agency:	Westmeath County Council		Base Date of Estimate:		Q3 2023
Route Option Number / Reference:	2	3	4	5	
Project Information					
Mainline Cross-Section Type (Single/Dual):	Single	Single	Single	Location:	
Anticipated Programme Duration (Months):	6	6	6	6	
Location:	Millmount Road	Millmount Road	Millmount Road	Millmount Road	
Total Mainline Length (m):	182.76	182.76	182.76	182.76	
Other Relevant Project Information:	One-way cycle TB	Two-way cycle TB	Shared path TB	Mixed traffic RB	

Project Costs

Option Construction Costs

	€	€	€	€	
Site Clearance	€ 9,896.30	€ 8,936.81	€ 8,288.48	€ 24,865.44	
Fencing	€ -	€ -	€ -	€ -	
Road Restraint Systems	€ -	€ -	€ -	€ -	
Drainage & Service Ducts	€ 55,185.36	€ 52,306.89	€ 50,361.89	€ 7,557.61	
Earthworks	€ 32,165.76	€ 28,510.56	€ 29,972.64	€ 8,041.44	
Pavements	€ 26,317.44	€ 26,317.44	€ 26,317.44	€ 26,317.44	
Kerbing & Footways	€ 91,850.76	€ 76,316.16	€ 61,887.36	€ 37,212.00	
Traffic Signs & Road Marking	€ 9,896.30	€ 8,936.81	€ 8,288.48	€ 8,288.48	
Road Lighting	€ 22,095.68	€ 22,095.68	€ 22,095.68	€ 3,655.20	
Structural Concrete (including Structures Generally)	€ -	€ -	€ -	€ -	
Accommodation Works	€ -	€ -	€ -	€ -	
Works for Statutory Undertakers	€ -	€ -	€ -	€ -	
Landscaping & Ecology	€ 1,979.26	€ 1,787.36	€ 1,657.70	€ 755.76	
Other Project Costs	€ -	€ -	€ -	€ 350.00	
Preliminaries including Site Compounds (excluding traffic management)	€ 29,688.91	€ 26,810.44	€ 24,865.44	€ 11,336.41	
Sub-Total A - Construction Costs	**€ 279,075.79**	**€ 252,018.18**	**€ 233,735.10**	**€ 128,379.78**	

Option Add-On Costs

	€	€	€	€	
Preparation and Administration Costs	€ 20,019.14	€ 20,019.14	€ 20,019.14	€ 20,019.14	
Traffic Management Related Costs	€ 27,907.58	€ 25,201.82	€ 23,373.51	€ 12,837.98	
Land and Property Costs	€ -	€ -	€ -		
Sub-Total B - Add-On Costs	**€ 47,926.72**	**€ 45,220.96**	**€ 43,392.65**	**€ 32,857.12**	
Total Inflation Allowance	€ 21,582.17	€ 19,617.78	€ 18,290.43	€ 10,641.63	
Total Contingency Allowance	€ 133,856.52	€ 121,673.05	€ 113,440.58	€ 66,001.35	
Per Cent Art Scheme	€ 3,485.85	€ 3,168.57	€ 2,954.18	€ 1,718.79	
Sub-Total - Adjustments	**€ 158,924.53**	**€ 144,459.41**	**€ 134,685.19**	**€ 78,361.77**	
Total Option Comparison Cost Estimate (excluding VAT)	**€ 485,927.04**	**€ 441,698.54**	**€ 411,812.94**	**€ 239,598.67**	
Total Rate Per Km (excluding VAT)	**€ 2,658,826.00**	**€ 2,416,822.82**	**€ 2,253,299.10**	**€ 1,311,001.67**	

Rev	Title	Prepared By	Checked By	Issue Date
	Draft	DS	TC	12/07/2024

Note:
Costs are considered to include allowances for overheads and profit.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project 3 Segment 04
Option Nr 2

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Route Option Number / Reference:	2			
Route Description:	One-way cycle traditional build			
Project Information				
Mainline Cross-Section Type:	Single	Location:	Millmount Road	
Total Mainline Length (m):	182.76	Traffic Impact Rating (DCC Only):		
Total Mainline Width (m):	13	Land take Required:	☐ Check Box If Yes	
Potential Start Date:	Q4 2024	Anticipated Duration:	6	Months
Other Relevant Project Information:	One-way cycle TB			

1 Option Comparison Cost Estimate

Ref	Description	Total
Construction Costs *(Please provide supplementary information giving detail of costs)*		
1.1	Site Clearance	€ 9,896.30
1.2	Fencing	€ -
1.3	Road Restraint Systems	€ -
1.4	Drainage & Service Ducts	€ 55,185.36
1.5	Earthworks	€ 32,165.76
1.6	Pavements	€ 26,317.44
1.7	Kerbing & Footways	€ 91,850.76
1.8	Traffic Signs & Road Markings	€ 9,896.30
1.9	Road Lighting	€ 22,095.68
1.10	Structural Concrete (Including Structures Generally)	€ -
1.11	Accommodation Works	€ -
1.12	Works for Statutory Undertakers	€ -
1.13	Landscaping & Ecology	€ 1,979.26
1.14	Other Project Costs	€ -
1.15	Preliminaries including Site Compounds (excluding traffic management)	€ 29,688.91
	Sub-Total A - Construction Costs	**€ 279,075.79**

Add-On Costs

Description		Quantity	Unit	Rate	Total
1.16	Preparation and Administration Costs				€ 20,019.14
1.16.1	Scope & Purpose				€ -
1.16.2	Concept, Development & Option Selection	1		€ 10,417.41	€ 10,417.41
1.16.3	Preliminary Design	1		€ 7,088.57	€ 7,088.57
1.16.4	Statutory Processes	1		€ 2,513.16	€ 2,513.16
1.16.5	Detailed Design & Procurement				€ -
1.16.6	Construction & Implementation				€ -
1.16.7	Close Out & Review				€ -
1.17	Traffic Management Related Costs	10	%	€ 279,075.79	€ 27,907.58
1.18	Land and Property Costs				€ -
	Sub-Total B - Add-On Costs				**€ 47,926.72**
	Total Project Base Costs (A+B)				**€ 327,002.51**

2 Adjustments

Description	Quantity	Unit	Rate	Total
Add Inflation	6.6	%	€ 327,002.51	€ 21,582.17
Add Contingency *(001_B123_CC_CMG)*	38.4	%	€ 348,584.68	€ 133,856.52
Per Cent for Art Scheme https://publicart.ie/main/commissioning/funding/per-cent-for-art-scheme/	1.0	%	€ 348,584.68	€ 3,485.85
Total Adjustments				**€ 158,924.53**

Total Option Comparison Cost Estimate Exclusive of VAT				**€ 485,927.04**
Mainline Length	0.18276	**Km**	**Rate Per Km (Excluding VAT)**	**€ 2,658,826.00**

Source of Cost Data *(Please provide a brief narrative on the source of cost data in the box below)*

Revision	Title	Prepared By	Checked By	Issue Date
	Draft	DS		

NOTE:
Costs are considered to include allowances for overheads and profit.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project Control Document Summary
Option 2

NOTE: The information below will be auto-generated from the main cost estimate template to obtain the relevant totals in line with the seven costs heads required for inclusion within the project control document.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 05		
Project / Contract Code:		Prepared By (Individual & Organisation)	AtkinsRealis
Approving Authority:	NTA123	Date Estimate Prepared:	17/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

1	PCD Summary				Sub-Total	VAT %	VAT Amount	Total Incl. VAT
1.1	Scope & Purpose	1	Item	€ -	23.00	€ -	€ -
1.2	Concept, Development & Option Selection	1	Item	€ 10,417.41	23.00	€ 2,396.00	€ 12,813.42
1.3	Preliminary Design	1	Item	€ 7,088.57	23.00	€ 1,630.37	€ 8,718.94
1.4	Statutory Processes	1	Item	€ 2,513.16	23.00	€ 578.03	€ 3,091.18
1.5	Detailed Design & Procurement	1	Item	€ -	23.00	€ -	€ -
1.6	Construction & Implementation	1	Item	€ -	23.00	€ -	€ -
1.7	Close Out & Review	1	Item	€ -	23.00	€ -	€ -
1.8	Traffic Management	1	Item	€ 27,907.58	13.50	€ 3,767.52	€ 31,675.10
1.9	Land & Property Costs	1	Item	€ -			€ -
1.10	Construction Costs (Main Contractor)	1	Item	€ 279,075.79	13.50	€ 37,675.23	€ 316,751.03
1.11	Inflation Allowance (Band 2/3 Only)	1	Item	€ 21,582.17	13.50	€ 2,913.59	€ 24,495.76
1.12	Contingency Allowance	1	Item	€ 133,856.52	13.50	€ 18,070.63	€ 151,927.15
1.13	Allowance for Arts (%)	1	Item	€ 3,485.85	13.50	€ 470.59	€ 3,956.44
			Sub-Total (Ex.VAT)	**€ 485,927.04**			
						Total Option 1 Cost Estimate (Including VAT)	**€ 553,429.01**

NOTE:
Costs are reflective of costs at the base date stated above.
Costs are considered to include allowances for overheads and profit.

Project 3 Segment 04
Option Nr 3

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Route Option Number / Reference:	3			
Route Description:	Two-way cycle track south traditional build			
Project Information				
Mainline Cross-Section Type:	Single	Location:	Millmount Road	
Total Mainline Length (m):	182.76	Traffic Impact Rating (DCC Only):		
Total Mainline Width (m):	12.8	Land take Required:	☐ Check Box If Yes	
Potential Start Date:	Q4 2024	Anticipated Duration:	6	Months
Other Relevant Project Information:	Two-way cycle south TB			

1 Option Comparison Cost Estimate

Ref	Description	Total
Construction Costs *(Please provide supplementary information giving detail of costs)*		
1.1	Site Clearance	€ 8,936.81
1.2	Fencing	€ -
1.3	Road Restraint Systems	€ -
1.4	Drainage & Service Ducts	€ 52,306.89
1.5	Earthworks	€ 28,510.56
1.6	Pavements	€ 26,317.44
1.7	Kerbing & Footways	€ 76,316.16
1.8	Traffic Signs & Road Markings	€ 8,936.81
1.9	Road Lighting	€ 22,095.68
1.10	Structural Concrete (Including Structures Generally)	€ -
1.11	Accommodation Works	€ -
1.12	Works for Statutory Undertakers	€ -
1.13	Landscaping & Ecology	€ 1,787.36
1.14	Other Project Costs	€ -
1.15	Preliminaries including Site Compounds (excluding traffic management)	€ 26,810.44
	Sub-Total A - Construction Costs	**€ 252,018.18**

Add-On Costs

Description		Quantity	Unit	Rate	Total
1.16	Preparation and Administration Costs				€ 20,019.14
1.16.1	Scope & Purpose				
1.16.2	Concept, Development & Option Selection	1		€ 10,417.41	€ 10,417.41
1.16.3	Preliminary Design	1		€ 7,088.57	€ 7,088.57
1.16.4	Statutory Processes	1		€ 2,513.16	€ 2,513.16
1.16.5	Detailed Design & Procurement				
1.16.6	Construction & Implementation				
1.16.7	Close Out & Review				
1.17	Traffic Management Related Costs	10	%	€ 252,018.18	€ 25,201.82
1.18	Land and Property Costs				€ -
	Sub-Total B - Add-On Costs				**€ 45,220.96**
	Total Project Base Costs (A+B)				**€ 297,239.13**

2 Adjustments

Description	Quantity	Unit	Rate	Total
Add Inflation	6.6	%	€ 297,239.13	€ 19,617.78
Add Contingency *(001_B123_CC_CMG)*	38.4	%	€ 316,856.91	€ 121,673.05
Per Cent for Art Scheme https://publicart.ie/main/commissioning/funding/per-cent-for-art-scheme/	1	%	€ 316,856.91	€ 3,168.57
Total Adjustments				**€ 144,459.41**

Total Option Comparison Cost Estimate Exclusive of VAT	**€ 441,698.54**

Mainline Length 0.18276 Km **Rate Per Km (Excluding VAT)** € 2,416,822.82

Source of Cost Data *(Please provide a brief narrative on the source of cost data in the box below)*

Revision	Title	Prepared By	Checked By	Issue Date
	Draft	DS	TC	12/07/2024

NOTE:
Costs are considered to include allowances for overheads and profit.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project Control Document Summary
Option 3

NOTE: The information below will be auto-generated from the main cost estimate template to obtain the relevant totals in line with the seven costs heads required for inclusion within the project control document.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 05		
Project / Contract Code:		Prepared By (Individual & Organisation)	AtkinsRealis
Approving Authority:	NTA123	Date Estimate Prepared:	17/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

1	PCD Summary				Sub-Total	VAT %	VAT Amount	Total Incl. VAT
1.1	Scope & Purpose	1	Item	€ -	23.00	€ -	€ -
1.2	Concept, Development & Option Selection	1	Item	€ 10,417.41	23.00	€ 2,396.00	€ 12,813.42
1.3	Preliminary Design	1	Item	€ 7,088.57	23.00	€ 1,630.37	€ 8,718.94
1.4	Statutory Processes	1	Item	€ 2,513.16	23.00	€ 578.03	€ 3,091.18
1.5	Detailed Design & Procurement	1	Item	€ -	23.00	€ -	€ -
1.6	Construction & Implementation	1	Item	€ -	23.00	€ -	€ -
1.7	Close Out & Review	1	Item	€ -	23.00	€ -	€ -
1.8	Traffic Management	1	Item	€ 25,201.82	13.50	€ 3,402.25	€ 28,604.06
1.9	Land & Property Costs	1	Item	€ -			€ -
1.10	Construction Costs (Main Contractor)	1	Item	€ 252,018.18	13.50	€ 34,022.45	€ 286,040.63
1.11	Inflation Allowance (Band 2/3 Only)	1	Item	€ 19,617.78	13.50	€ 2,648.40	€ 22,266.18
1.12	Contingency Allowance	1	Item	€ 121,673.05	13.50	€ 16,425.86	€ 138,098.92
1.13	Allowance for Arts (%)	1	Item	€ 3,168.57	13.50	€ 427.76	€ 3,596.33
			Sub-Total (Ex.VAT)	**€ 441,698.54**			
						Total Option 2 Cost Estimate (Including VAT)	**€ 503,229.66**

NOTE:
Costs are reflective of costs at the base date stated above.
Costs are considered to include allowances for overheads and profit.

Project 3 Segment 04
Option Nr 4

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Route Option Number / Reference:	4			
Route Description:	Shared path traditional build			
Project Information				
Mainline Cross-Section Type:	Single	Location:	Millmount Road	
Total Mainline Length (m):	182.76	Traffic Impact Rating (DCC Only):		
Total Mainline Width (m):	12.5	Land take Required:	☐ Check Box If Yes	
Potential Start Date:	Q4 2024	Anticipated Duration:	6	Months
Other Relevant Project Information:	Shared path TB			

1 Option Comparison Cost Estimate

Ref	Description	Total
Construction Costs *(Please provide supplementary information giving detail of costs)*		
1.1	Site Clearance	€ 8,288.48
1.2	Fencing	€ -
1.3	Road Restraint Systems	€ -
1.4	Drainage & Service Ducts	€ 50,361.89
1.5	Earthworks	€ 29,972.64
1.6	Pavements	€ 26,317.44
1.7	Kerbing & Footways	€ 61,887.36
1.8	Traffic Signs & Road Markings	€ 8,288.48
1.9	Road Lighting	€ 22,095.68
1.10	Structural Concrete (Including Structures Generally)	€ -
1.11	Accommodation Works	€ -
1.12	Works for Statutory Undertakers	€ -
1.13	Landscaping & Ecology	€ 1,657.70
1.14	Other Project Costs	€ -
1.15	Preliminaries including Site Compounds (excluding traffic management)	€ 24,865.44
	Sub-Total A - Construction Costs	**€ 233,735.10**

Add-On Costs

Description		Quantity	Unit	Rate	Total
1.16	Preparation and Administration Costs				€ 20,019.14
1.16.1	Scope & Purpose				
1.16.2	Concept, Development & Option Selection	1		€ 10,417.41	€ 10,417.41
1.16.3	Preliminary Design	1		€ 7,088.57	€ 7,088.57
1.16.4	Statutory Processes	1		€ 2,513.16	€ 2,513.16
1.16.5	Detailed Design & Procurement				
1.16.6	Construction & Implementation				
1.16.7	Close Out & Review				
1.17	Traffic Management Related Costs	10	%	€ 233,735.10	€ 23,373.51
1.18	Land and Property Costs				
	Sub-Total B - Add-On Costs				**€ 43,392.65**
	Total Project Base Costs (A+B)				**€ 277,127.75**

2 Adjustments

Description	Quantity	Unit	Rate	Total
Add Inflation	6.6	%	€ 277,127.75	€ 18,290.43
Add Contingency *(001_B123_CC_CMG)*	38.4	%	€ 295,418.18	€ 113,440.58
Per Cent for Art Scheme https://publicart.ie/main/commissioning/funding/per-cent-for-art-scheme/	1	%	€ 295,418.18	€ 2,954.18
Total Adjustments				**€ 134,685.19**

Total Option Comparison Cost Estimate Exclusive of VAT	**€ 411,812.94**

Mainline Length	0.18276 **Km**	**Rate Per Km (Excluding VAT)**	**€ 2,253,299.10**

Source of Cost Data *(Please provide a brief narrative on the source of cost data in the box below)*

Revision	Title	Prepared By	Checked By	Issue Date
	Draft	DS	TC	12/07/2024

NOTE:
Costs are considered to include allowances for overheads and profit.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project Control Document Summary
Option 4

NOTE: The information below will be auto-generated from the main cost estimate template to obtain the relevant totals in line with the seven costs heads required for inclusion within the project control document.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 05		
Project / Contract Code:		Prepared By (Individual & Organisation)	AtkinsRealis
Approving Authority:	NTA123	Date Estimate Prepared:	17/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

1	PCD Summary				Sub-Total	VAT %	VAT Amount	Total Incl. VAT
	1.1	Scope & Purpose	1	Item	€ -	23.00	€ -	€ -
	1.2	Concept, Development & Option Selection	1	Item	€ 10,417.41	23.00	€ 2,396.00	€ 12,813.42
	1.3	Preliminary Design	1	Item	€ 7,088.57	23.00	€ 1,630.37	€ 8,718.94
	1.4	Statutory Processes	1	Item	€ 2,513.16	23.00	€ 578.03	€ 3,091.18
	1.5	Detailed Design & Procurement	1	Item	€ -	23.00	€ -	€ -
	1.6	Construction & Implementation	1	Item	€ -	23.00	€ -	€ -
	1.7	Close Out & Review	1	Item	€ -	23.00	€ -	€ -
	1.8	Traffic Management	1	Item	€ 23,373.51	13.50	€ 3,155.42	€ 26,528.93
	1.9	Land & Property Costs	1	Item	€ -			€ -
	1.10	Construction Costs (Main Contractor)	1	Item	€ 233,735.10	13.50	€ 31,554.24	€ 265,289.34
	1.11	Inflation Allowance (Band 2/3 Only)	1	Item	€ 18,290.43	13.50	€ 2,469.21	€ 20,759.64
	1.12	Contingency Allowance	1	Item	€ 113,440.58	13.50	€ 15,314.48	€ 128,755.06
	1.13	Allowance for Arts (%)	1	Item	€ 2,954.18	13.50	€ 398.81	€ 3,353.00
				Sub-Total (Ex.VAT)	**€ 411,812.94**			
							Total Option 3 - Cost Estimate (Including VAT)	**€ 469,309.51**

NOTE:
Costs are reflective of costs at the base date stated above.
Costs are considered to include allowances for overheads and profit.

Project 3 Segment 04
Option Nr 5

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Route Option Number / Reference:	5			
Route Description:	Mixed traffic rapid build			
Project Information				
Mainline Cross-Section Type:	Single	Location:	Millmount Road	
Total Mainline Length (m):	182.76	Traffic Impact Rating (DCC Only):		
Total Mainline Width (m):	12.6	Land take Required:	☐ Check Box If Yes	
Potential Start Date:	Q4 2024	Anticipated Duration:	6	Months
Other Relevant Project Information:	Mixed traffic RB			

1 Option Comparison Cost Estimate

Ref	Description	Total
Construction Costs *(Please provide supplementary information giving detail of costs)*		
1.1	Site Clearance	€ 24,865.44
1.2	Fencing	€ -
1.3	Road Restraint Systems	€ -
1.4	Drainage & Service Ducts	€ 7,557.61
1.5	Earthworks	€ 8,041.44
1.6	Pavements	€ 26,317.44
1.7	Kerbing & Footways	€ 37,212.00
1.8	Traffic Signs & Road Markings	€ 8,288.48
1.9	Road Lighting	€ 3,655.20
1.10	Structural Concrete (Including Structures Generally)	€ -
1.11	Accommodation Works	€ -
1.12	Works for Statutory Undertakers	€ -
1.13	Landscaping & Ecology	€ 755.76
1.14	Other Project Costs	€ 350.00
1.15	Preliminaries including Site Compounds (excluding traffic management)	€ 11,336.41
	Sub-Total A - Construction Costs	**€ 128,379.78**

Add-On Costs

Description		Quantity	Unit	Rate	Total
1.16	Preparation and Administration Costs				€ 20,019.14
1.16.1	Scope & Purpose				
1.16.2	Concept, Development & Option Selection	1		€ 10,417.41	€ 10,417.41
1.16.3	Preliminary Design	1		€ 7,088.57	€ 7,088.57
1.16.4	Statutory Processes	1		€ 2,513.16	€ 2,513.16
1.16.5	Detailed Design & Procurement				
1.16.6	Construction & Implementation				
1.16.7	Close Out & Review				
1.17	Traffic Management Related Costs	10	%	€ 128,379.78	€ 12,837.98
1.18	Land and Property Costs				
	Sub-Total B - Add-On Costs				**€ 32,857.12**
	Total Project Base Costs (A+B)				**€ 161,236.89**

2 Adjustments

Description	Quantity	Unit	Rate	Total
Add Inflation	6.6	%	€ 161,236.89	€ 10,641.63
Add Contingency *(001_B123_CC_CMG)*	38.4	%	€ 171,878.53	€ 66,001.35
Per Cent for Art Scheme https://publicart.ie/main/commissioning/funding/per-cent-for-art-scheme/	1	%	€ 171,878.53	€ 1,718.79
Total Adjustments				**€ 78,361.77**

Total Option Comparison Cost Estimate Exclusive of VAT	**€ 239,598.67**

Mainline Length 0.18276 **Km** **Rate Per Km (Excluding VAT)**

Source of Cost Data *(Please provide a brief narrative on the source of cost data in the box below)*

Revision	Title	Prepared By	Checked By	Issue Date
	Draft	DS	TC	12/07/2024

NOTE:
Costs are considered to include allowances for overheads and profit.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project Control Document Summary
Option 5

NOTE: The information below will be auto-generated from the main cost estimate template to obtain the relevant totals in line with the seven costs heads required for inclusion within the project control document.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 05		
Project / Contract Code:		Prepared By (Individual & Organisation)	AtkinsRealis
Approving Authority:	NTA123	Date Estimate Prepared:	17/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

1	PCD Summary				Sub-Total	VAT %	VAT Amount	Total Incl. VAT
1.1	Scope & Purpose	1	Item	€ -	23.00	€ -	€ -
1.2	Concept, Development & Option Selection	1	Item	€ 10,417.41	23.00	€ 2,396.00	€ 12,813.42
1.3	Preliminary Design	1	Item	€ 7,088.57	23.00	€ 1,630.37	€ 8,718.94
1.4	Statutory Processes	1	Item	€ 2,513.16	23.00	€ 578.03	€ 3,091.18
1.5	Detailed Design & Procurement	1	Item	€ -	23.00	€ -	€ -
1.6	Construction & Implementation	1	Item	€ -	23.00	€ -	€ -
1.7	Close Out & Review	1	Item	€ -	23.00	€ -	€ -
1.8	Traffic Management	1	Item	€ 12,837.98	13.50	€ 1,733.13	€ 14,571.10
1.9	Land & Property Costs	1	Item	€ -			€ -
1.10	Construction Costs (Main Contractor)	1	Item	€ 128,379.78	13.50	€ 17,331.27	€ 145,711.05
1.11	Inflation Allowance (Band 2/3 Only)	1	Item	€ 10,641.63	13.50	€ 1,436.62	€ 12,078.26
1.12	Contingency Allowance	1	Item	€ 66,001.35	13.50	€ 8,910.18	€ 74,911.54
1.13	Allowance for Arts (%)	1	Item	€ 1,718.79	13.50	€ 232.04	€ 1,950.82
			Sub-Total (Ex.VAT)	**€ 239,598.67**			
						Total Option 4 - Cost Estimate (Including VAT)	**€ 273,846.30**

NOTE:
Costs are reflective of costs at the base date stated above.
Costs are considered to include allowances for overheads and profit.

Option Comparison Cost Estimate Template

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 06				
Project / Contract Code:			Prepared By (Individual / Organisation):		AtkinsRealis
Approving Authority:	NTA		Date Estimate Prepared:		17/06/2024
Sponsoring Agency:	Westmeath County Council		Base Date of Estimate:		Q3 2023
Route Option Number / Reference:	2	3	4	5	6
Project Information					
Mainline Cross-Section Type (Single/Dual):	Single	Single	Single	Single	Single
Anticipated Programme Duration (Months):	6	6	6	6	6
Location:	Millmount Road	Millmount Road	Millmount Road	Millmount Road	Millmount Road
Total Mainline Length (m):	430.03	430.03	430.03	430.03	430.03
Other Relevant Project Information:	One-way RB	Two-way cycle east TB	Two-way cycle west TB	Shared path TB	Mixed traffic RB
Project Costs					
Option Construction Costs					
	€	€	€	€	€
Site Clearance	€ 23,589.77	€ 19,819.12	€ 21,798.50	€ 15,902.69	€ 5,332.84
Fencing	€ -	€ -	€ -	€ -	€ -
Road Restraint Systems	€ -	€ -	€ -	€ -	€ -
Drainage & Service Ducts	€ 125,404.55	€ 114,092.61	€ 120,030.75	€ 102,343.32	€ 10,665.68
Earthworks	€ 86,865.66	€ 78,265.10	€ 90,305.88	€ 55,903.64	€ 30,101.96
Pavements	€ 61,924.03	€ 61,924.03	€ 61,924.03	€ 61,924.03	€ 5,160.34
Kerbing & Footways	€ 216,380.03	€ 149,567.65	€ 177,114.42	€ 93,600.48	€ 62,093.92
Traffic Signs & Road Marking	€ 23,589.77	€ 19,819.12	€ 21,798.50	€ 15,902.69	€ 5,332.84
Road Lighting	€ 51,990.39	€ 51,990.39	€ 51,990.39	€ 51,990.39	€ 8,600.56
Structural Concrete (including Structures Generally)	€ -	€ -	€ -	€ -	€ -
Accommodation Works	€ -	€ -	€ -	€ -	€ -
Works for Statutory Undertakers	€ -	€ -	€ -	€ -	€ -
Landscaping & Ecology	€ 4,717.95	€ 3,963.82	€ 4,359.70	€ 3,180.54	€ 1,066.57
Other Project Costs	€ -	€ -	€ -	€ -	€ 700.00
Preliminaries including Site Compounds (excluding traffic management)	€ 70,769.30	€ 59,457.36	€ 65,395.50	€ 47,708.07	€ 15,998.52
Sub-Total A - Construction Costs	**€ 665,231.45**	**€ 558,899.20**	**€ 614,717.66**	**€ 448,455.84**	**€ 145,053.22**
Option Add-On Costs					
	€	€	€	€	€
Preparation and Administration Costs	€ 47,104.34	€ 47,104.34	€ 47,104.34	€ 47,104.34	€ 47,104.34
Traffic Management Related Costs	€ 66,523.14	€ 55,889.92	€ 61,471.77	€ 44,845.58	€ 14,505.32
Land and Property Costs	€ -	€ -	€ -		
Sub-Total B - Add-On Costs	**€ 113,627.49**	**€ 102,994.26**	**€ 108,576.11**	**€ 91,949.93**	**€ 61,609.67**
Total Inflation Allowance	€ 51,404.69	€ 43,684.97	€ 47,737.39	€ 35,666.78	€ 13,639.75
Total Contingency Allowance	€ 318,821.23	€ 270,942.12	€ 296,075.96	€ 221,211.86	€ 84,596.21
Per Cent Art Scheme	€ 8,302.64	€ 7,055.78	€ 7,710.31	€ 5,760.73	€ 2,203.03
Sub-Total - Adjustments	**€ 378,528.56**	**€ 321,682.87**	**€ 351,523.66**	**€ 262,639.37**	**€ 100,438.99**
Total Option Comparison Cost Estimate (excluding VAT)	**€ 1,157,387.49**	**€ 983,576.34**	**€ 1,074,817.43**	**€ 803,045.14**	**€ 307,101.87**
Total Rate Per Km (excluding VAT)	**€ 2,691,423.57**	**€ 2,287,237.90**	**€ 2,499,412.66**	**€ 1,867,425.23**	**€ 714,143.89**

Rev	Title	Prepared By	Checked By	Issue Date
	Draft	DS	TC	12/07/2024

Note:
Costs are considered to include allowances for overheads and profit.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project 3 Segment 06
Option Nr 2

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Route Option Number / Reference:	2			
Route Description:	Stepped one-way cycle			
Project Information				
Mainline Cross-Section Type:	Single	Location:	Millmount Road	
Total Mainline Length (m):	430.03	Traffic Impact Rating (DCC Only):		
Total Mainline Width (m):	13	Land take Required:	☐ Check Box If Yes	
Potential Start Date:	Q4 2024	Anticipated Duration:	6	Months
Other Relevant Project Information:	One-way cycle TB			

1 Option Comparison Cost Estimate

Ref	Description	Total
Construction Costs *(Please provide supplementary information giving detail of costs)*		
1.1	Site Clearance	€ 23,589.77
1.2	Fencing	€ -
1.3	Road Restraint Systems	€ -
1.4	Drainage & Service Ducts	€ 125,404.55
1.5	Earthworks	€ 86,865.66
1.6	Pavements	€ 61,924.03
1.7	Kerbing & Footways	€ 216,380.03
1.8	Traffic Signs & Road Markings	€ 23,589.77
1.9	Road Lighting	€ 51,990.39
1.10	Structural Concrete (Including Structures Generally)	€ -
1.11	Accommodation Works	€ -
1.12	Works for Statutory Undertakers	€ -
1.13	Landscaping & Ecology	€ 4,717.95
1.14	Other Project Costs	€ -
1.15	Preliminaries including Site Compounds (excluding traffic management)	€ 70,769.30
	Sub-Total A - Construction Costs	**€ 665,231.45**

Add-On Costs

Description		Quantity	Unit	Rate	Total
1.16	Preparation and Administration Costs				€ 47,104.34
1.16.1	Scope & Purpose				€ -
1.16.2	Concept, Development & Option Selection	1		€ 24,511.81	€ 24,511.81
1.16.3	Preliminary Design	1		€ 16,679.16	€ 16,679.16
1.16.4	Statutory Processes	1		€ 5,913.37	€ 5,913.37
1.16.5	Detailed Design & Procurement				€ -
1.16.6	Construction & Implementation				€ -
1.16.7	Close Out & Review				€ -
1.17	Traffic Management Related Costs	10	%	€ 665,231.45	€ 66,523.14
1.18	Land and Property Costs				€ -
	Sub-Total B - Add-On Costs				**€ 113,627.49**
	Total Project Base Costs (A+B)				**€ 778,858.94**

2 Adjustments

Description	Quantity	Unit	Rate	Total
Add Inflation	6.6	%	€ 778,858.94	€ 51,404.69
Add Contingency *(001_B123_CC_CMG)*	38.4	%	€ 830,263.63	€ 318,821.23
Per Cent for Art Scheme https://publicart.ie/main/commissioning/funding/per-cent-for-art-scheme/	1.0	%	€ 830,263.63	€ 8,302.64
			Total Adjustments	**€ 378,528.56**

Total Option Comparison Cost Estimate Exclusive of VAT				**€ 1,157,387.49**
Mainline Length	0.43003	**Km**	**Rate Per Km (Excluding VAT)**	**€ 2,691,423.57**

Source of Cost Data *(Please provide a brief narrative on the source of cost data in the box below)*

Revision	Title	Prepared By	Checked By	Issue Date
	Draft	DS	TC	12/07/2024

NOTE:
Costs are considered to include allowances for overheads and profit.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project Control Document Summary
Option 1

NOTE: The information below will be auto-generated from the main cost estimate template to obtain the relevant totals in line with the seven costs heads required for inclusion within the project control document.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 06		
Project / Contract Code:		Prepared By (Individual & Organisation)	AtkinsRealis
Approving Authority:	NTA	Date Estimate Prepared:	17/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

1	PCD Summary				Sub-Total	VAT %	VAT Amount	Total Incl. VAT
1.1	Scope & Purpose	1	Item	€ -	23.00	€ -	€ -
1.2	Concept, Development & Option Selection	1	Item	€ 24,511.81	23.00	€ 5,637.72	€ 30,149.53
1.3	Preliminary Design	1	Item	€ 16,679.16	23.00	€ 3,836.21	€ 20,515.37
1.4	Statutory Processes	1	Item	€ 5,913.37	23.00	€ 1,360.07	€ 7,273.44
1.5	Detailed Design & Procurement	1	Item	€ -	23.00	€ -	€ -
1.6	Construction & Implementation	1	Item	€ -	23.00	€ -	€ -
1.7	Close Out & Review	1	Item	€ -	23.00	€ -	€ -
1.8	Traffic Management	1	Item	€ 66,523.14	13.50	€ 8,980.62	€ 75,503.77
1.9	Land & Property Costs	1	Item	€ -			€ -
1.10	Construction Costs (Main Contractor)	1	Item	€ 665,231.45	13.50	€ 89,806.25	€ 755,037.69
1.11	Inflation Allowance (Band 2/3 Only)	1	Item	€ 51,404.69	13.50	€ 6,939.63	€ 58,344.32
1.12	Contingency Allowance	1	Item	€ 318,821.23	13.50	€ 43,040.87	€ 361,862.10
1.13	Allowance for Arts (%)	1	Item	€ 8,302.64	13.50	€ 1,120.86	€ 9,423.49
			Sub-Total (Ex.VAT)	**€ 1,157,387.49**			
						Total Option 1 Cost Estimate (Including VAT)	**€ 1,318,109.72**

NOTE:
Costs are reflective of costs at the base date stated above.
Costs are considered to include allowances for overheads and profit.

Project 3 Segment 06
Option Nr 3

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Route Option Number / Reference:	3			
Route Description:	Two-way cycle track east traditional build			
Project Information				
Mainline Cross-Section Type:	Single	Location:	Millmount Road	
Total Mainline Length (m):	430.03	Traffic Impact Rating (DCC Only):		
Total Mainline Width (m):	12.3	Land take Required:	☐ Check Box If Yes	
Potential Start Date:	Q4 2024	Anticipated Duration:	6	Months
Other Relevant Project Information:	Two-way cycle east TB			

1 Option Comparison Cost Estimate

Ref	Description	Total
Construction Costs *(Please provide supplementary information giving detail of costs)*		
1.1	Site Clearance	€ 19,819.12
1.2	Fencing	€ -
1.3	Road Restraint Systems	€ -
1.4	Drainage & Service Ducts	€ 114,092.61
1.5	Earthworks	€ 78,265.10
1.6	Pavements	€ 61,924.03
1.7	Kerbing & Footways	€ 149,567.65
1.8	Traffic Signs & Road Markings	€ 19,819.12
1.9	Road Lighting	€ 51,990.39
1.10	Structural Concrete (Including Structures Generally)	€ -
1.11	Accommodation Works	€ -
1.12	Works for Statutory Undertakers	€ -
1.13	Landscaping & Ecology	€ 3,963.82
1.14	Other Project Costs	€ -
1.15	Preliminaries including Site Compounds (excluding traffic management)	€ 59,457.36
	Sub-Total A - Construction Costs	**€ 558,899.20**

Add-On Costs

Description		Quantity	Unit	Rate	Total
1.16	Preparation and Administration Costs				€ 47,104.34
1.16.1	Scope & Purpose				€ -
1.16.2	Concept, Development & Option Selection	1		€ 24,511.81	€ 24,511.81
1.16.3	Preliminary Design	1		€ 16,679.16	€ 16,679.16
1.16.4	Statutory Processes	1		€ 5,913.37	€ 5,913.37
1.16.5	Detailed Design & Procurement				€ -
1.16.6	Construction & Implementation				€ -
1.16.7	Close Out & Review				€ -
1.17	Traffic Management Related Costs	10	%	€ 558,899.20	€ 55,889.92
1.18	Land and Property Costs				€ -
	Sub-Total B - Add-On Costs				**€ 102,994.26**
	Total Project Base Costs (A+B)				**€ 661,893.47**

2 Adjustments

Description	Quantity	Unit	Rate	Total
Add Inflation	6.6	%	€ 661,893.47	€ 43,684.97
Add Contingency *(001_B123_CC_CMG)*	38.4	%	€ 705,578.43	€ 270,942.12
Per Cent for Art Scheme https://publicart.ie/main/commissioning/funding/per-cent-for-art-scheme/	1	%	€ 705,578.43	€ 7,055.78
Total Adjustments				**€ 321,682.87**

Total Option Comparison Cost Estimate Exclusive of VAT	**€ 983,576.34**

Mainline Length	0.43003	**Km**	**Rate Per Km (Excluding VAT)**	**€ 2,287,237.90**

Source of Cost Data *(Please provide a brief narrative on the source of cost data in the box below)*

Revision	Title	Prepared By	Checked By	Issue Date
	Draft	DS	TC	12/07/2024

NOTE:
Costs are considered to include allowances for overheads and profit.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project Control Document Summary
Option 2

NOTE: The information below will be auto-generated from the main cost estimate template to obtain the relevant totals in line with the seven costs heads required for inclusion within the project control document.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 06		
Project / Contract Code:		Prepared By (Individual & Organisation)	AtkinsRealis
Approving Authority:	NTA	Date Estimate Prepared:	17/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

1	PCD Summary				Sub-Total	VAT %	VAT Amount	Total Incl. VAT
1.1	Scope & Purpose	1	Item	€ -	23.00	€ -	€ -
1.2	Concept, Development & Option Selection	1	Item	€ 24,511.81	23.00	€ 5,637.72	€ 30,149.53
1.3	Preliminary Design	1	Item	€ 16,679.16	23.00	€ 3,836.21	€ 20,515.37
1.4	Statutory Processes	1	Item	€ 5,913.37	23.00	€ 1,360.07	€ 7,273.44
1.5	Detailed Design & Procurement	1	Item	€ -	23.00	€ -	€ -
1.6	Construction & Implementation	1	Item	€ -	23.00	€ -	€ -
1.7	Close Out & Review	1	Item	€ -	23.00	€ -	€ -
1.8	Traffic Management	1	Item	€ 55,889.92	13.50	€ 7,545.14	€ 63,435.06
1.9	Land & Property Costs	1	Item	€ -			€ -
1.10	Construction Costs (Main Contractor)	1	Item	€ 558,899.20	13.50	€ 75,451.39	€ 634,350.59
1.11	Inflation Allowance (Band 2/3 Only)	1	Item	€ 43,684.97	13.50	€ 5,897.47	€ 49,582.44
1.12	Contingency Allowance	1	Item	€ 270,942.12	13.50	€ 36,577.19	€ 307,519.31
1.13	Allowance for Arts (%)	1	Item	€ 7,055.78	13.50	€ 952.53	€ 8,008.32
			Sub-Total (Ex.VAT)	**€ 983,576.34**			
						Total Option 2 Cost Estimate (Including VAT)	**€ 1,120,834.06**

NOTE:
Costs are reflective of costs at the base date stated above.
Costs are considered to include allowances for overheads and profit.

Project 3 Segment 06
Option Nr 4

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Route Option Number / Reference:	4			
Route Description:	Two-way west traditional build			
Project Information				
Mainline Cross-Section Type:	Single	Location:	Millmount Road	
Total Mainline Length (m):	430.03	Traffic Impact Rating (DCC Only):		
Total Mainline Width (m):	13.5	Land take Required:	☐ Check Box If Yes	
Potential Start Date:	Q4 2024	Anticipated Duration:	6	Months
Other Relevant Project Information:	Two-way west TB			

1 Option Comparison Cost Estimate

Ref	Description	Total
Construction Costs *(Please provide supplementary information giving detail of costs)*		
1.1	Site Clearance	€ 21,798.50
1.2	Fencing	€ -
1.3	Road Restraint Systems	€ -
1.4	Drainage & Service Ducts	€ 120,030.75
1.5	Earthworks	€ 90,305.88
1.6	Pavements	€ 61,924.03
1.7	Kerbing & Footways	€ 177,114.42
1.8	Traffic Signs & Road Markings	€ 21,798.50
1.9	Road Lighting	€ 51,990.39
1.10	Structural Concrete (Including Structures Generally)	€ -
1.11	Accommodation Works	€ -
1.12	Works for Statutory Undertakers	€ -
1.13	Landscaping & Ecology	€ 4,359.70
1.14	Other Project Costs	€ -
1.15	Preliminaries including Site Compounds (excluding traffic management)	€ 65,395.50
	Sub-Total A - Construction Costs	**€ 614,717.66**

Add-On Costs

Description		Quantity	Unit	Rate	Total
1.16	Preparation and Administration Costs				€ 47,104.34
1.16.1	Scope & Purpose				€ -
1.16.2	Concept, Development & Option Selection	1		€ 24,511.81	€ 24,511.81
1.16.3	Preliminary Design	1		€ 16,679.16	€ 16,679.16
1.16.4	Statutory Processes	1		€ 5,913.37	€ 5,913.37
1.16.5	Detailed Design & Procurement				€ -
1.16.6	Construction & Implementation				€ -
1.16.7	Close Out & Review				€ -
1.17	Traffic Management Related Costs	10	%	€ 614,717.66	€ 61,471.77
1.18	Land and Property Costs				€ -
	Sub-Total B - Add-On Costs				**€ 108,576.11**
	Total Project Base Costs (A+B)				**€ 723,293.77**

2 Adjustments

Description	Quantity	Unit	Rate	Total
Add Inflation	6.6	%	€ 723,293.77	€ 47,737.39
Add Contingency *(001_B123_CC_CMG)*	38.4	%	€ 771,031.15	€ 296,075.96
Per Cent for Art Scheme https://publicart.ie/main/commissioning/funding/per-cent-for-art-scheme/	1	%	€ 771,031.15	€ 7,710.31
Total Adjustments				**€ 351,523.66**

Total Option Comparison Cost Estimate Exclusive of VAT	**€ 1,074,817.43**

Mainline Length	0.43003	**Km**	**Rate Per Km (Excluding VAT)**	**€ 2,499,412.66**

Source of Cost Data *(Please provide a brief narrative on the source of cost data in the box below)*

Revision	Title	Prepared By	Checked By	Issue Date
	Draft	DS	TC	12/07/2024

NOTE:
Costs are considered to include allowances for overheads and profit.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project Control Document Summary
Option 3

NOTE: The information below will be auto-generated from the main cost estimate template to obtain the relevant totals in line with the seven costs heads required for inclusion within the project control document.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 06		
Project / Contract Code:		Prepared By (Individual & Organisation)	AtkinsRealis
Approving Authority:	NTA	Date Estimate Prepared:	17/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

1	PCD Summary				Sub-Total	VAT %	VAT Amount	Total Incl. VAT
	1.1	Scope & Purpose	1	Item	€ -	23.00	€ -	€ -
	1.2	Concept, Development & Option Selection	1	Item	€ 24,511.81	23.00	€ 5,637.72	€ 30,149.53
	1.3	Preliminary Design	1	Item	€ 16,679.16	23.00	€ 3,836.21	€ 20,515.37
	1.4	Statutory Processes	1	Item	€ 5,913.37	23.00	€ 1,360.07	€ 7,273.44
	1.5	Detailed Design & Procurement	1	Item	€ -	23.00	€ -	€ -
	1.6	Construction & Implementation	1	Item	€ -	23.00	€ -	€ -
	1.7	Close Out & Review	1	Item	€ -	23.00	€ -	€ -
	1.8	Traffic Management	1	Item	€ 61,471.77	13.50	€ 8,298.69	€ 69,770.45
	1.9	Land & Property Costs	1	Item	€ -			€ -
	1.10	Construction Costs (Main Contractor)	1	Item	€ 614,717.66	13.50	€ 82,986.88	€ 697,704.54
	1.11	Inflation Allowance (Band 2/3 Only)	1	Item	€ 47,737.39	13.50	€ 6,444.55	€ 54,181.94
	1.12	Contingency Allowance	1	Item	€ 296,075.96	13.50	€ 39,970.26	€ 336,046.22
	1.13	Allowance for Arts (%)	1	Item	€ 7,710.31	13.50	€ 1,040.89	€ 8,751.20
				Sub-Total (Ex.VAT)	**€ 1,074,817.43**			
							Total Option 3 - Cost Estimate (Including VAT)	**€ 1,224,392.69**

NOTE:
Costs are reflective of costs at the base date stated above.
Costs are considered to include allowances for overheads and profit.

Project 3 Segment 06
Option Nr 5

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Route Option Number / Reference:	5			
Route Description:	Shared path traditional build			
Project Information				
Mainline Cross-Section Type:	Single	Location:	Millmount Road	
Total Mainline Length (m):	430.03	Traffic Impact Rating (DCC Only):		
Total Mainline Width (m):	13.4	Land take Required:	☐ Check Box If Yes	
Potential Start Date:	Q4 2024	Anticipated Duration:	6	Months
Other Relevant Project Information:	Shared path TB			

1 Option Comparison Cost Estimate

Ref	Description	Total
Construction Costs *(Please provide supplementary information giving detail of costs)*		
1.1	Site Clearance	€ 15,902.69
1.2	Fencing	€ -
1.3	Road Restraint Systems	€ -
1.4	Drainage & Service Ducts	€ 102,343.32
1.5	Earthworks	€ 55,903.64
1.6	Pavements	€ 61,924.03
1.7	Kerbing & Footways	€ 93,600.48
1.8	Traffic Signs & Road Markings	€ 15,902.69
1.9	Road Lighting	€ 51,990.39
1.10	Structural Concrete (Including Structures Generally)	€ -
1.11	Accommodation Works	€ -
1.12	Works for Statutory Undertakers	€ -
1.13	Landscaping & Ecology	€ 3,180.54
1.14	Other Project Costs	€ -
1.15	Preliminaries including Site Compounds (excluding traffic management)	€ 47,708.07
	Sub-Total A - Construction Costs	**€ 448,455.84**

Add-On Costs

Description		Quantity	Unit	Rate	Total
1.16	Preparation and Administration Costs				€ 47,104.34
1.16.1	Scope & Purpose				
1.16.2	Concept, Development & Option Selection	1		€ 24,511.81	€ 24,511.81
1.16.3	Preliminary Design	1		€ 16,679.16	€ 16,679.16
1.16.4	Statutory Processes	1		€ 5,913.37	€ 5,913.37
1.16.5	Detailed Design & Procurement				
1.16.6	Construction & Implementation				
1.16.7	Close Out & Review				
1.17	Traffic Management Related Costs	10	%	€ 448,455.84	€ 44,845.58
1.18	Land and Property Costs				
	Sub-Total B - Add-On Costs				**€ 91,949.93**
	Total Project Base Costs (A+B)				**€ 540,405.77**

2 Adjustments

Description	Quantity	Unit	Rate	Total
Add Inflation	6.6	%	€ 540,405.77	€ 35,666.78
Add Contingency *(001_B123_CC_CMG)*	38.4	%	€ 576,072.55	€ 221,211.86
Per Cent for Art Scheme https://publicart.ie/main/commissioning/funding/per-cent-for-art-scheme/	1	%	€ 576,072.55	€ 5,760.73
Total Adjustments				**€ 262,639.37**

Total Option Comparison Cost Estimate Exclusive of VAT **€ 803,045.14**

Mainline Length 0.43003 **Km** **Rate Per Km (Excluding VAT)** **€ 1,867,425.23**

Source of Cost Data *(Please provide a brief narrative on the source of cost data in the box below)*

Revision	Title	Prepared By	Checked By	Issue Date
	Draft	DS	TC	12/07/2024

NOTE:
Costs are considered to include allowances for overheads and profit.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project Control Document Summary
Option 4

NOTE: The information below will be auto-generated from the main cost estimate template to obtain the relevant totals in line with the seven costs heads required for inclusion within the project control document.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 06		
Project / Contract Code:		Prepared By (Individual & Organisation)	AtkinsRealis
Approving Authority:	NTA	Date Estimate Prepared:	17/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

1	PCD Summary				Sub-Total	VAT %	VAT Amount	Total Incl. VAT
1.1	Scope & Purpose	1	Item	€ -	23.00	€ -	€ -
1.2	Concept, Development & Option Selection	1	Item	€ 24,511.81	23.00	€ 5,637.72	€ 30,149.53
1.3	Preliminary Design	1	Item	€ 16,679.16	23.00	€ 3,836.21	€ 20,515.37
1.4	Statutory Processes	1	Item	€ 5,913.37	23.00	€ 1,360.07	€ 7,273.44
1.5	Detailed Design & Procurement	1	Item	€ -	23.00	€ -	€ -
1.6	Construction & Implementation	1	Item	€ -	23.00	€ -	€ -
1.7	Close Out & Review	1	Item	€ -	23.00	€ -	€ -
1.8	Traffic Management	1	Item	€ 44,845.58	13.50	€ 6,054.15	€ 50,899.74
1.9	Land & Property Costs	1	Item	€ -			€ -
1.10	Construction Costs (Main Contractor)	1	Item	€ 448,455.84	13.50	€ 60,541.54	€ 508,997.38
1.11	Inflation Allowance (Band 2/3 Only)	1	Item	€ 35,666.78	13.50	€ 4,815.02	€ 40,481.80
1.12	Contingency Allowance	1	Item	€ 221,211.86	13.50	€ 29,863.60	€ 251,075.46
1.13	Allowance for Arts (%)	1	Item	€ 5,760.73	13.50	€ 777.70	€ 6,538.42
			Sub-Total (Ex.VAT)	**€ 803,045.14**			
						Total Option 4 - Cost Estimate (Including VAT)	**€ 915,931.14**

NOTE:
Costs are reflective of costs at the base date stated above.
Costs are considered to include allowances for overheads and profit.

Project 3 Segment 06
Option Nr 6

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Route Option Number / Reference:	6				
Route Description:	Mixed traffic rapid build				
Project Information					
Mainline Cross-Section Type:	Single	Location:	Millmount Road		
Total Mainline Length (m):	430.03	Traffic Impact Rating (DCC Only):			
Total Mainline Width (m):	12.6	Land take Required:	☐ Check Box If Yes		
Potential Start Date:	Q4 2024	Anticipated Duration:	6	Months	
Other Relevant Project Information:	Mixed traffic RB				

1 Option Comparison Cost Estimate

Ref	Description	Total
Construction Costs *(Please provide supplementary information giving detail of costs)*		
1.1	Site Clearance	€ 5,332.84
1.2	Fencing	€ -
1.3	Road Restraint Systems	€ -
1.4	Drainage & Service Ducts	€ 10,665.68
1.5	Earthworks	€ 30,101.96
1.6	Pavements	€ 5,160.34
1.7	Kerbing & Footways	€ 62,093.92
1.8	Traffic Signs & Road Markings	€ 5,332.84
1.9	Road Lighting	€ 8,600.56
1.10	Structural Concrete (Including Structures Generally)	€ -
1.11	Accommodation Works	€ -
1.12	Works for Statutory Undertakers	€ -
1.13	Landscaping & Ecology	€ 1,066.57
1.14	Other Project Costs	€ 700.00
1.15	Preliminaries including Site Compounds (excluding traffic management)	€ 15,998.52
	Sub-Total A - Construction Costs	**€ 145,053.22**

Add-On Costs

Description		Quantity	Unit	Rate	Total
1.16	Preparation and Administration Costs				€ 47,104.34
1.16.1	Scope & Purpose				
1.16.2	Concept, Development & Option Selection	1		€ 24,511.81	€ 24,511.81
1.16.3	Preliminary Design	1		€ 16,679.16	€ 16,679.16
1.16.4	Statutory Processes	1		€ 5,913.37	€ 5,913.37
1.16.5	Detailed Design & Procurement				
1.16.6	Construction & Implementation				
1.16.7	Close Out & Review				
1.17	Traffic Management Related Costs	10	%	€ 145,053.22	€ 14,505.32
1.18	Land and Property Costs				
	Sub-Total B - Add-On Costs				**€ 61,609.67**
	Total Project Base Costs (A+B)				**€ 206,662.88**

2 Adjustments

Description	Quantity	Unit	Rate	Total
Add Inflation	6.6	%	€ 206,662.88	€ 13,639.75
Add Contingency *(001_B123_CC_CMG)*	38.4	%	€ 220,302.63	€ 84,596.21
Per Cent for Art Scheme https://publicart.ie/main/commissioning/funding/per-cent-for-art-scheme/	1	%	€ 220,302.63	€ 2,203.03
Total Adjustments				**€ 100,438.99**

Total Option Comparison Cost Estimate Exclusive of VAT	**€ 307,101.87**

Mainline Length	0.43003	Km	**Rate Per Km (Excluding VAT)**	**€ 714,143.89**	

Source of Cost Data *(Please provide a brief narrative on the source of cost data in the box below)*

Revision	Title	Prepared By	Checked By	Issue Date
	Draft	DS	TC	12/07/2024

NOTE:
Costs are considered to include allowances for overheads and profit.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project Control Document Summary
Option 5

NOTE: The information below will be auto-generated from the main cost estimate template to obtain the relevant totals in line with the seven costs heads required for inclusion within the project control document.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 06		
Project / Contract Code:		Prepared By (Individual & Organisation)	AtkinsRealis
Approving Authority:	NTA	Date Estimate Prepared:	17/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

1	PCD Summary				Sub-Total	VAT %	VAT Amount	Total Incl. VAT
1.1	Scope & Purpose	1	Item	€ -	23.00	€ -	€ -
1.2	Concept, Development & Option Selection	1	Item	€ 24,511.81	23.00	€ 5,637.72	€ 30,149.53
1.3	Preliminary Design	1	Item	€ 16,679.16	23.00	€ 3,836.21	€ 20,515.37
1.4	Statutory Processes	1	Item	€ 5,913.37	23.00	€ 1,360.07	€ 7,273.44
1.5	Detailed Design & Procurement	1	Item	€ -	23.00	€ -	€ -
1.6	Construction & Implementation	1	Item	€ -	23.00	€ -	€ -
1.7	Close Out & Review	1	Item	€ -	23.00	€ -	€ -
1.8	Traffic Management	1	Item	€ 14,505.32	13.50	€ 1,958.22	€ 16,463.54
1.9	Land & Property Costs	1	Item	€ -			€ -
1.10	Construction Costs (Main Contractor)	1	Item	€ 145,053.22	13.50	€ 19,582.18	€ 164,635.40
1.11	Inflation Allowance (Band 2/3 Only)	1	Item	€ 13,639.75	13.50	€ 1,841.37	€ 15,481.12
1.12	Contingency Allowance	1	Item	€ 84,596.21	13.50	€ 11,420.49	€ 96,016.70
1.13	Allowance for Arts (%)	1	Item	€ 2,203.03	13.50	€ 297.41	€ 2,500.43
			Sub-Total (Ex.VAT)	**€ 307,101.87**			
						Total Option 5 - Cost Estimate (Including VAT)	**€ 353,035.53**

NOTE:
Costs are reflective of costs at the base date stated above.
Costs are considered to include allowances for overheads and profit.

Option Comparison Cost Estimate Template

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 07				
Project / Contract Code:			Prepared By (Individual / Organisation):		AtkinsRealis
Approving Authority:	NTA		Date Estimate Prepared:		18/06/2024
Sponsoring Agency:	Westmeath County Council		Base Date of Estimate:		Q3 2023
Route Option Number / Reference:	2	3 & 4	5 & 6	7	8
Project Information					
Mainline Cross-Section Type (Single/Dual):	Single	Single	Single	Single	Single
Anticipated Programme Duration (Months):	6	6	6	6	6
Location:	Ballinderry Rd	Ballinderry Rd	Ballinderry Rd	Ballinderry Rd	Ballinderry Rd
Total Mainline Length (m):	250.89	250.89	250.89	250.89	250.89
Other Relevant Project Information:	One-way cycle TB	Two-way cycle TB	Shared path TB	Shared path TB	Mixed traffic RB
Project Costs					
Option Construction Costs					
	€	€	€	€	€
Site Clearance	€ 13,083.79	€ 11,766.61	€ 9,472.77	€ 9,644.99	€ 6,336.35
Fencing	€ -	€ -	€ -	€ -	€ -
Road Restraint Systems	€ -	€ -	€ -	€ -	€ -
Drainage & Service Ducts	€ 72,032.51	€ 68,080.99	€ 61,199.46	€ 61,716.11	€ 45,453.86
Earthworks	€ 36,629.94	€ 31,612.14	€ 18,565.86	€ 24,587.22	€ 3,512.46
Pavements	€ 36,128.16	€ 36,128.16	€ 36,128.16	€ 36,128.16	€ 36,128.16
Kerbing & Footways	€ 125,803.89	€ 104,478.24	€ 71,647.65	€ 69,070.57	€ 15,687.40
Traffic Signs & Road Marking	€ 13,083.79	€ 11,766.61	€ 9,472.77	€ 9,644.99	€ 6,336.35
Road Lighting	€ 30,332.60	€ 30,332.60	€ 30,332.60	€ 30,332.60	€ 3,147.29
Structural Concrete (including Structures Generally)	€ -	€ -	€ -	€ -	€ -
Accommodation Works	€ -	€ -	€ -	€ -	€ -
Works for Statutory Undertakers	€ -	€ -	€ -	€ -	€ -
Landscaping & Ecology	€ 2,616.76	€ 2,353.32	€ 1,894.55	€ 1,929.00	€ 1,894.55
Other Project Costs	€ -	€ -	€ -	€ -	€ 350.00
Preliminaries including Site Compounds (excluding traffic management)	€ 39,251.36	€ 35,299.84	€ 28,418.31	€ 28,934.96	€ 19,009.06
Sub-Total A - Construction Costs	**€ 368,962.80**	**€ 331,818.53**	**€ 267,132.14**	**€ 271,988.58**	**€ 137,855.49**
Option Add-On Costs					
	€	€	€	€	€
Preparation and Administration Costs	€ 27,481.95	€ 27,481.95	€ 27,481.95	€ 27,481.95	€ 27,481.95
Traffic Management Related Costs	€ 36,896.28	€ 33,181.85	€ 26,713.21	€ 27,198.86	€ 13,785.55
Land and Property Costs	€ -	€ -	€ -	€ -	€ -
Sub-Total B - Add-On Costs	**€ 64,378.23**	**€ 60,663.81**	**€ 54,195.17**	**€ 54,680.81**	**€ 41,267.50**
Total Inflation Allowance	€ 28,600.51	€ 25,903.83	€ 21,207.60	€ 21,560.18	€ 11,822.12
Total Contingency Allowance	€ 177,385.55	€ 160,660.29	€ 131,533.41	€ 133,720.16	€ 73,322.92
Per Cent Art Scheme	€ 4,619.42	€ 4,183.86	€ 3,425.35	€ 3,482.30	€ 1,909.45
Sub-Total - Adjustments	**€ 210,605.47**	**€ 190,747.99**	**€ 156,166.36**	**€ 158,762.63**	**€ 87,054.49**
Total Option Comparison Cost Estimate (excluding VAT)	**€ 643,946.50**	**€ 583,230.32**	**€ 477,493.67**	**€ 485,432.02**	**€ 266,177.47**
Total Rate Per Km (excluding VAT)	**€ 2,566,648.73**	**€ 2,324,645.55**	**€ 1,903,199.29**	**€ 1,934,840.07**	**€ 1,060,932.98**

Rev	Title	Prepared By	Checked By	Issue Date
	Draft	DS	TC	12/07/2024

Note:
Costs are considered to include allowances for overheads and profit.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project 3 Segment 07
Option Nr 2

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Route Option Number / Reference:	2			
Route Description:	One-way cycle traditional build			
Project Information				
Mainline Cross-Section Type:	Single	Location:	Ballinderry Road	
Total Mainline Length (m):	250.89	Traffic Impact Rating (DCC Only):		
Total Mainline Width (m):	13	Land take Required:	☐ Check Box If Yes	
Potential Start Date:	Q4 2024	Anticipated Duration:	6	Months
Other Relevant Project Information:	One-way cycle TB			

1 Option Comparison Cost Estimate

Ref	Description	Total
Construction Costs *(Please provide supplementary information giving detail of costs)*		
1.1	Site Clearance	€ 13,083.79
1.2	Fencing	€ -
1.3	Road Restraint Systems	€ -
1.4	Drainage & Service Ducts	€ 72,032.51
1.5	Earthworks	€ 36,629.94
1.6	Pavements	€ 36,128.16
1.7	Kerbing & Footways	€ 125,803.89
1.8	Traffic Signs & Road Markings	€ 13,083.79
1.9	Road Lighting	€ 30,332.60
1.10	Structural Concrete (Including Structures Generally)	€ -
1.11	Accommodation Works	€ -
1.12	Works for Statutory Undertakers	€ -
1.13	Landscaping & Ecology	€ 2,616.76
1.14	Other Project Costs	€ -
1.15	Preliminaries including Site Compounds (excluding traffic management)	€ 39,251.36
	Sub-Total A - Construction Costs	**€ 368,962.80**

Add-On Costs

Description		Quantity	Unit	Rate	Total
1.16	Preparation and Administration Costs				€ 27,481.95
1.16.1	Scope & Purpose				€ -
1.16.2	Concept, Development & Option Selection	1		€ 14,300.86	€ 14,300.86
1.16.3	Preliminary Design	1		€ 9,731.08	€ 9,731.08
1.16.4	Statutory Processes	1		€ 3,450.02	€ 3,450.02
1.16.5	Detailed Design & Procurement				€ -
1.16.6	Construction & Implementation				€ -
1.16.7	Close Out & Review				€ -
1.17	Traffic Management Related Costs	10	%	€ 368,962.80	€ 36,896.28
1.18	Land and Property Costs				€ -
	Sub-Total B - Add-On Costs				**€ 64,378.23**
	Total Project Base Costs (A+B)				**€ 433,341.03**

2 Adjustments

Description	Quantity	Unit	Rate	Total
Add Inflation	6.6	%	€ 433,341.03	€ 28,600.51
Add Contingency *(001_B123_CC_CMG)*	38.4	%	€ 461,941.54	€ 177,385.55
Per Cent for Art Scheme https://publicart.ie/main/commissioning/funding/per-cent-for-art-scheme/	1.0	%	€ 461,941.54	€ 4,619.42
Total Adjustments				**€ 210,605.47**

Total Option Comparison Cost Estimate Exclusive of VAT				**€ 643,946.50**
Mainline Length	0.25089	**Km**	**Rate Per Km (Excluding VAT)**	**€ 2,566,648.73**

Source of Cost Data *(Please provide a brief narrative on the source of cost data in the box below)*

Revision	Title	Prepared By	Checked By	Issue Date
	Draft	DS	TC	12/07/2024

NOTE:
Costs are considered to include allowances for overheads and profit.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project Control Document Summary
Option 2

NOTE: The information below will be auto-generated from the main cost estimate template to obtain the relevant totals in line with the seven costs heads required for inclusion within the project control document.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 07		
Project / Contract Code:		Prepared By (Individual & Organisation)	AtkinsRealis
Approving Authority:	NTA	Date Estimate Prepared:	18/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

1	PCD Summary				Sub-Total	VAT %	VAT Amount	Total Incl. VAT
1.1	Scope & Purpose	1	Item	€ -	23.00	€ -	€ -
1.2	Concept, Development & Option Selection	1	Item	€ 14,300.86	23.00	€ 3,289.20	€ 17,590.05
1.3	Preliminary Design	1	Item	€ 9,731.08	23.00	€ 2,238.15	€ 11,969.22
1.4	Statutory Processes	1	Item	€ 3,450.02	23.00	€ 793.50	€ 4,243.52
1.5	Detailed Design & Procurement	1	Item	€ -	23.00	€ -	€ -
1.6	Construction & Implementation	1	Item	€ -	23.00	€ -	€ -
1.7	Close Out & Review	1	Item	€ -	23.00	€ -	€ -
1.8	Traffic Management	1	Item	€ 36,896.28	13.50	€ 4,981.00	€ 41,877.28
1.9	Land & Property Costs	1	Item	€ -			€ -
1.10	Construction Costs (Main Contractor)	1	Item	€ 368,962.80	13.50	€ 49,809.98	€ 418,772.77
1.11	Inflation Allowance (Band 2/3 Only)	1	Item	€ 28,600.51	13.50	€ 3,861.07	€ 32,461.58
1.12	Contingency Allowance	1	Item	€ 177,385.55	13.50	€ 23,947.05	€ 201,332.60
1.13	Allowance for Arts (%)	1	Item	€ 4,619.42	13.50	€ 623.62	€ 5,243.04
			Sub-Total (Ex.VAT)	**€ 643,946.50**			
					Total Option 1 Cost Estimate (Including VAT)		**€ 733,490.06**

NOTE:
Costs are reflective of costs at the base date stated above.
Costs are considered to include allowances for overheads and profit.

Project 3 Segment 07
Options Nr 3 and 4

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Route Option Number / Reference:	3 & 4			
Route Description:	Two-way cycle track traditional build			
Project Information				
Mainline Cross-Section Type:	Single	Location:	Ballinderry Road	
Total Mainline Length (m):	250.89	Traffic Impact Rating (DCC Only):		
Total Mainline Width (m):	11.9	Land take Required:	☐ Check Box If Yes	
Potential Start Date:	Q4 2024	Anticipated Duration:	6	Months
Other Relevant Project Information:	Two-way cycle TB			

1 Option Comparison Cost Estimate

Ref	Description	Total
Construction Costs *(Please provide supplementary information giving detail of costs)*		
1.1	Site Clearance	€ 11,766.61
1.2	Fencing	€ -
1.3	Road Restraint Systems	€ -
1.4	Drainage & Service Ducts	€ 68,080.99
1.5	Earthworks	€ 31,612.14
1.6	Pavements	€ 36,128.16
1.7	Kerbing & Footways	€ 104,478.24
1.8	Traffic Signs & Road Markings	€ 11,766.61
1.9	Road Lighting	€ 30,332.60
1.10	Structural Concrete (Including Structures Generally)	€ -
1.11	Accommodation Works	€ -
1.12	Works for Statutory Undertakers	€ -
1.13	Landscaping & Ecology	€ 2,353.32
1.14	Other Project Costs	€ -
1.15	Preliminaries including Site Compounds (excluding traffic management)	€ 35,299.84
	Sub-Total A - Construction Costs	**€ 331,818.53**

Add-On Costs

Description		Quantity	Unit	Rate	Total
1.16	Preparation and Administration Costs				€ 27,481.95
1.16.1	Scope & Purpose				€ -
1.16.2	Concept, Development & Option Selection	1		€ 14,300.86	€ 14,300.86
1.16.3	Preliminary Design	1		€ 9,731.08	€ 9,731.08
1.16.4	Statutory Processes	1		€ 3,450.02	€ 3,450.02
1.16.5	Detailed Design & Procurement				€ -
1.16.6	Construction & Implementation				€ -
1.16.7	Close Out & Review				€ -
1.17	Traffic Management Related Costs	10	%	€ 331,818.53	€ 33,181.85
1.18	Land and Property Costs				€ -
	Sub-Total B - Add-On Costs				**€ 60,663.81**
	Total Project Base Costs (A+B)				**€ 392,482.34**

2 Adjustments

Description	Quantity	Unit	Rate	Total
Add Inflation	6.6	%	€ 392,482.34	€ 25,903.83
Add Contingency *(001_B123_CC_CMG)*	38.4	%	€ 418,386.17	€ 160,660.29
Per Cent for Art Scheme https://publicart.ie/main/commissioning/funding/per-cent-for-art-scheme/	1	%	€ 418,386.17	€ 4,183.86
Total Adjustments				**€ 190,747.99**

Total Option Comparison Cost Estimate Exclusive of VAT	**€ 583,230.32**

Mainline Length 0.25089 Km **Rate Per Km (Excluding VAT)** € 2,324,645.55

Source of Cost Data *(Please provide a brief narrative on the source of cost data in the box below)*

Revision	Title	Prepared By	Checked By	Issue Date
	Draft	DS	TC	12/07/2024

NOTE:
Costs are considered to include allowances for overheads and profit.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project Control Document Summary
Options 3 and 4

NOTE: The information below will be auto-generated from the main cost estimate template to obtain the relevant totals in line with the seven costs heads required for inclusion within the project control document.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 07		
Project / Contract Code:		Prepared By (Individual & Organisation)	AtkinsRealis
Approving Authority:	NTA	Date Estimate Prepared:	18/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

1	PCD Summary				Sub-Total	VAT %	VAT Amount	Total Incl. VAT
1.1	Scope & Purpose	1	Item	€ -	23.00	€ -	€ -
1.2	Concept, Development & Option Selection	1	Item	€ 14,300.86	23.00	€ 3,289.20	€ 17,590.05
1.3	Preliminary Design	1	Item	€ 9,731.08	23.00	€ 2,238.15	€ 11,969.22
1.4	Statutory Processes	1	Item	€ 3,450.02	23.00	€ 793.50	€ 4,243.52
1.5	Detailed Design & Procurement	1	Item	€ -	23.00	€ -	€ -
1.6	Construction & Implementation	1	Item	€ -	23.00	€ -	€ -
1.7	Close Out & Review	1	Item	€ -	23.00	€ -	€ -
1.8	Traffic Management	1	Item	€ 33,181.85	13.50	€ 4,479.55	€ 37,661.40
1.9	Land & Property Costs	1	Item	€ -			€ -
1.10	Construction Costs (Main Contractor)	1	Item	€ 331,818.53	13.50	€ 44,795.50	€ 376,614.03
1.11	Inflation Allowance (Band 2/3 Only)	1	Item	€ 25,903.83	13.50	€ 3,497.02	€ 29,400.85
1.12	Contingency Allowance	1	Item	€ 160,660.29	13.50	€ 21,689.14	€ 182,349.43
1.13	Allowance for Arts (%)	1	Item	€ 4,183.86	13.50	€ 564.82	€ 4,748.68
			Sub-Total (Ex.VAT)	**€ 583,230.32**			
						Total Option 2 Cost Estimate (Including VAT)	**€ 664,577.20**

NOTE:
Costs are reflective of costs at the base date stated above.
Costs are considered to include allowances for overheads and profit.

Project 3 Segment 07
Options Nr 5 and 6

NTA
Údarás Náisiúnta Iompair
National Transport Authority

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Route Option Number / Reference:	5 & 6			
Route Description:	Shared path traditional build			
Project Information				
Mainline Cross-Section Type:	Single	Location:	Ballinderry Road	
Total Mainline Length (m):	250.89	Traffic Impact Rating (DCC Only):		
Total Mainline Width (m):	11.1	Land take Required:	☐ Check Box If Yes	
Potential Start Date:	Q4 2024	Anticipated Duration:	6	Months
Other Relevant Project Information:	Shared path TB			

1 Option Comparison Cost Estimate

Ref	Description	Total
Construction Costs *(Please provide supplementary information giving detail of costs)*		
1.1	Site Clearance	€ 9,472.77
1.2	Fencing	€ -
1.3	Road Restraint Systems	€ -
1.4	Drainage & Service Ducts	€ 61,199.46
1.5	Earthworks	€ 18,565.86
1.6	Pavements	€ 36,128.16
1.7	Kerbing & Footways	€ 71,647.65
1.8	Traffic Signs & Road Markings	€ 9,472.77
1.9	Road Lighting	€ 30,332.60
1.10	Structural Concrete (Including Structures Generally)	€ -
1.11	Accommodation Works	€ -
1.12	Works for Statutory Undertakers	€ -
1.13	Landscaping & Ecology	€ 1,894.55
1.14	Other Project Costs	€ -
1.15	Preliminaries including Site Compounds (excluding traffic management)	€ 28,418.31
	Sub-Total A - Construction Costs	**€ 267,132.14**

Add-On Costs

Description		Quantity	Unit	Rate	Total
1.16	Preparation and Administration Costs				€ 27,481.95
1.16.1	Scope & Purpose				€ -
1.16.2	Concept, Development & Option Selection	1		€ 14,300.86	€ 14,300.86
1.16.3	Preliminary Design	1		€ 9,731.08	€ 9,731.08
1.16.4	Statutory Processes	1		€ 3,450.02	€ 3,450.02
1.16.5	Detailed Design & Procurement				€ -
1.16.6	Construction & Implementation				€ -
1.16.7	Close Out & Review				€ -
1.17	Traffic Management Related Costs	10	%	€ 267,132.14	€ 26,713.21
1.18	Land and Property Costs				€ -
	Sub-Total B - Add-On Costs				**€ 54,195.17**
	Total Project Base Costs (A+B)				**€ 321,327.31**

2 Adjustments

Description	Quantity	Unit	Rate	Total
Add Inflation	6.6	%	€ 321,327.31	€ 21,207.60
Add Contingency *(001_B123_CC_CMG)*	38.4	%	€ 342,534.91	€ 131,533.41
Per Cent for Art Scheme https://publicart.ie/main/commissioning/funding/per-cent-for-art-scheme/	1	%	€ 342,534.91	€ 3,425.35
Total Adjustments				**€ 156,166.36**

Total Option Comparison Cost Estimate Exclusive of VAT	**€ 477,493.67**

Mainline Length	0.25089	**Km**	**Rate Per Km (Excluding VAT)**	**€ 1,903,199.29**

Source of Cost Data *(Please provide a brief narrative on the source of cost data in the box below)*

Revision	Title	Prepared By	Checked By	Issue Date
	Draft	DS	TC	12/07/2024

NOTE:
Costs are considered to include allowances for overheads and profit.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project Control Document Summary
Options 5 and 6

NOTE: The information below will be auto-generated from the main cost estimate template to obtain the relevant totals in line with the seven costs heads required for inclusion within the project control document.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 07		
Project / Contract Code:		Prepared By (Individual & Organisation)	AtkinsRealis
Approving Authority:	NTA	Date Estimate Prepared:	18/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

1	PCD Summary				Sub-Total	VAT %	VAT Amount	Total Incl. VAT
	1.1	Scope & Purpose	1	Item	€ -	23.00	€ -	€ -
	1.2	Concept, Development & Option Selection	1	Item	€ 14,300.86	23.00	€ 3,289.20	€ 17,590.05
	1.3	Preliminary Design	1	Item	€ 9,731.08	23.00	€ 2,238.15	€ 11,969.22
	1.4	Statutory Processes	1	Item	€ 3,450.02	23.00	€ 793.50	€ 4,243.52
	1.5	Detailed Design & Procurement	1	Item	€ -	23.00	€ -	€ -
	1.6	Construction & Implementation	1	Item	€ -	23.00	€ -	€ -
	1.7	Close Out & Review	1	Item	€ -	23.00	€ -	€ -
	1.8	Traffic Management	1	Item	€ 26,713.21	13.50	€ 3,606.28	€ 30,319.50
	1.9	Land & Property Costs	1	Item	€ -			€ -
	1.10	Construction Costs (Main Contractor)	1	Item	€ 267,132.14	13.50	€ 36,062.84	€ 303,194.98
	1.11	Inflation Allowance (Band 2/3 Only)	1	Item	€ 21,207.60	13.50	€ 2,863.03	€ 24,070.63
	1.12	Contingency Allowance	1	Item	€ 131,533.41	13.50	€ 17,757.01	€ 149,290.42
	1.13	Allowance for Arts (%)	1	Item	€ 3,425.35	13.50	€ 462.42	€ 3,887.77
				Sub-Total (Ex.VAT)	**€ 477,493.67**			
							Total Option 3 - Cost Estimate (Including VAT)	**€ 544,566.10**

NOTE:
Costs are reflective of costs at the base date stated above.
Costs are considered to include allowances for overheads and profit.

Project 3 Segment 07
Option Nr 7

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Route Option Number / Reference:	7			
Route Description:	Shared path on the south side and no footpath on the north side			

Project Information

Mainline Cross-Section Type:	Single	Location:	Ballinderry Road	
Total Mainline Length (m):	250.89	Traffic Impact Rating (DCC Only):		
Total Mainline Width (m):	11.8	Land take Required:	☐ Check Box If Yes	
Potential Start Date:	Q4 2024	Anticipated Duration:	6	Months
Other Relevant Project Information:	Shared path TB			

1 Option Comparison Cost Estimate

Ref	Description	Total
Construction Costs *(Please provide supplementary information giving detail of costs)*		
1.1	Site Clearance	€ 9,644.99
1.2	Fencing	€ -
1.3	Road Restraint Systems	€ -
1.4	Drainage & Service Ducts	€ 61,716.11
1.5	Earthworks	€ 24,587.22
1.6	Pavements	€ 36,128.16
1.7	Kerbing & Footways	€ 69,070.57
1.8	Traffic Signs & Road Markings	€ 9,644.99
1.9	Road Lighting	€ 30,332.60
1.10	Structural Concrete (Including Structures Generally)	€ -
1.11	Accommodation Works	€ -
1.12	Works for Statutory Undertakers	€ -
1.13	Landscaping & Ecology	€ 1,929.00
1.14	Other Project Costs	€ -
1.15	Preliminaries including Site Compounds (excluding traffic management)	€ 28,934.96
	Sub-Total A - Construction Costs	**€ 271,988.58**

Add-On Costs

Description		Quantity	Unit	Rate	Total
1.16	Preparation and Administration Costs				€ 27,481.95
1.16.1	Scope & Purpose				€ -
1.16.2	Concept, Development & Option Selection	1		€ 14,300.86	€ 14,300.86
1.16.3	Preliminary Design	1		€ 9,731.08	€ 9,731.08
1.16.4	Statutory Processes	1		€ 3,450.02	€ 3,450.02
1.16.5	Detailed Design & Procurement				€ -
1.16.6	Construction & Implementation				€ -
1.16.7	Close Out & Review				€ -
1.17	Traffic Management Related Costs	10	%	€ 271,988.58	€ 27,198.86
1.18	Land and Property Costs				€ -
	Sub-Total B - Add-On Costs				**€ 54,680.81**
	Total Project Base Costs (A+B)				**€ 326,669.39**

2 Adjustments

Description	Quantity	Unit	Rate	Total
Add Inflation	6.6	%	€ 326,669.39	€ 21,560.18
Add Contingency *(001_B123_CC_CMG)*	38.4	%	€ 348,229.57	€ 133,720.16
Per Cent for Art Scheme https://publicart.ie/main/commissioning/funding/per-cent-for-art-scheme/	1	%	€ 348,229.57	€ 3,482.30
Total Adjustments				**€ 158,762.63**

Total Option Comparison Cost Estimate Exclusive of VAT	**€ 485,432.02**

Mainline Length	0.25089	**Km**	**Rate Per Km (Excluding VAT)** **€ 1,934,840.07**

Source of Cost Data *(Please provide a brief narrative on the source of cost data in the box below)*

Revision	Title	Prepared By	Checked By	Issue Date
	Draft	DS	TC	12/07/2024

NOTE:
Costs are considered to include allowances for overheads and profit.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project Control Document Summary
Option 7

NOTE: The information below will be auto-generated from the main cost estimate template to obtain the relevant totals in line with the seven costs heads required for inclusion within the project control document.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 07		
Project / Contract Code:		Prepared By (Individual & Organisation)	AtkinsRealis
Approving Authority:	NTA	Date Estimate Prepared:	18/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

1	PCD Summary				Sub-Total	VAT %	VAT Amount	Total Incl. VAT
1.1	Scope & Purpose	1	Item	€ -	23.00	€ -	€ -
1.2	Concept, Development & Option Selection	1	Item	€ 14,300.86	23.00	€ 3,289.20	€ 17,590.05
1.3	Preliminary Design	1	Item	€ 9,731.08	23.00	€ 2,238.15	€ 11,969.22
1.4	Statutory Processes	1	Item	€ 3,450.02	23.00	€ 793.50	€ 4,243.52
1.5	Detailed Design & Procurement	1	Item	€ -	23.00	€ -	€ -
1.6	Construction & Implementation	1	Item	€ -	23.00	€ -	€ -
1.7	Close Out & Review	1	Item	€ -	23.00	€ -	€ -
1.8	Traffic Management	1	Item	€ 27,198.86	13.50	€ 3,671.85	€ 30,870.70
1.9	Land & Property Costs	1	Item	€ -			€ -
1.10	Construction Costs (Main Contractor)	1	Item	€ 271,988.58	13.50	€ 36,718.46	€ 308,707.04
1.11	Inflation Allowance (Band 2/3 Only)	1	Item	€ 21,560.18	13.50	€ 2,910.62	€ 24,470.80
1.12	Contingency Allowance	1	Item	€ 133,720.16	13.50	€ 18,052.22	€ 151,772.38
1.13	Allowance for Arts (%)	1	Item	€ 3,482.30	13.50	€ 470.11	€ 3,952.41
			Sub-Total (Ex.VAT)	**€ 485,432.02**			
						Total Option 4 - Cost Estimate (Including VAT)	**€ 553,576.13**

NOTE:
Costs are reflective of costs at the base date stated above.
Costs are considered to include allowances for overheads and profit.

Project 3 Segment 07
Option Nr 8

NOTE: For Band 2 & 3 Projects the activity cost heads presented are the minimum expected for a linear road project and are to be proposed, discussed and agreed in writing with NTA prior to production of the cost estimate.

Route Option Number / Reference:	8			
Route Description:	Mixed traffic rapid build			
Project Information				
Mainline Cross-Section Type:	Single	Location:	Ballinderry Road	
Total Mainline Length (m):	250.89	Traffic Impact Rating (DCC Only):		
Total Mainline Width (m):	10	Land take Required:	☐ Check Box If Yes	
Potential Start Date:	Q4 2024	Anticipated Duration:	6	Months
Other Relevant Project Information:	Mixed traffic RB			

1 Option Comparison Cost Estimate

Ref	Description	Total
Construction Costs *(Please provide supplementary information giving detail of costs)*		
1.1	Site Clearance	€ 6,336.35
1.2	Fencing	€ -
1.3	Road Restraint Systems	€ -
1.4	Drainage & Service Ducts	€ 45,453.86
1.5	Earthworks	€ 3,512.46
1.6	Pavements	€ 36,128.16
1.7	Kerbing & Footways	€ 15,687.40
1.8	Traffic Signs & Road Markings	€ 6,336.35
1.9	Road Lighting	€ 3,147.29
1.10	Structural Concrete (Including Structures Generally)	€ -
1.11	Accommodation Works	€ -
1.12	Works for Statutory Undertakers	€ -
1.13	Landscaping & Ecology	€ 1,894.55
1.14	Other Project Costs	€ 350.00
1.15	Preliminaries including Site Compounds (excluding traffic management)	€ 19,009.06
	Sub-Total A - Construction Costs	**€ 137,855.49**

Add-On Costs

Description		Quantity	Unit	Rate	Total
1.16	Preparation and Administration Costs				€ 27,481.95
1.16.1	Scope & Purpose				€ -
1.16.2	Concept, Development & Option Selection	1		€ 14,300.86	€ 14,300.86
1.16.3	Preliminary Design	1		€ 9,731.08	€ 9,731.08
1.16.4	Statutory Processes	1		€ 3,450.02	€ 3,450.02
1.16.5	Detailed Design & Procurement				€ -
1.16.6	Construction & Implementation				€ -
1.16.7	Close Out & Review				€ -
1.17	Traffic Management Related Costs	10	%	€ 137,855.49	€ 13,785.55
1.18	Land and Property Costs				€ -
	Sub-Total B - Add-On Costs				**€ 41,267.50**
	Total Project Base Costs (A+B)				**€ 179,122.99**

2 Adjustments

Description	Quantity	Unit	Rate	Total
Add Inflation	6.6	%	€ 179,122.99	€ 11,822.12
Add Contingency *(001_B123_CC_CMG)*	38.4	%	€ 190,945.10	€ 73,322.92
Per Cent for Art Scheme https://publicart.ie/main/commissioning/funding/per-cent-for-art-scheme/	1	%	€ 190,945.10	€ 1,909.45
Total Adjustments				**€ 87,054.49**

Total Option Comparison Cost Estimate Exclusive of VAT	**€ 266,177.47**

Mainline Length 0.25089 Km **Rate Per Km (Excluding VAT)** **€ 1,060,932.98**

Source of Cost Data *(Please provide a brief narrative on the source of cost data in the box below)*

Revision	Title	Prepared By	Checked By	Issue Date
	Draft	DS	TC	12/07/2024

NOTE:
Costs are considered to include allowances for overheads and profit.
Costs are reflective of costs at the base date stated above.
VAT is not applicable to all land and property therefore it is not appropriate to apply a uniform percentage. The value associated with VAT on land and property is to be determined on an individual basis and included as a lump sum.

Project Control Document Summary
Option 8

NOTE: The information below will be auto-generated from the main cost estimate template to obtain the relevant totals in line with the seven costs heads required for inclusion within the project control document.

Project Title:	Mullingar Active Travel Bundle - Project 3 Segment 07		
Project / Contract Code:		Prepared By (Individual & Organisation)	AtkinsRealis
Approving Authority:	NTA	Date Estimate Prepared:	18/06/2024
Sponsoring Agency:	Westmeath County Council	Base Date of Estimate:	Q3 2023

1	PCD Summary				Sub-Total	VAT %	VAT Amount	Total Incl. VAT
1.1	Scope & Purpose	1	Item	€ -	23.00	€ -	€ -
1.2	Concept, Development & Option Selection	1	Item	€ 14,300.86	23.00	€ 3,289.20	€ 17,590.05
1.3	Preliminary Design	1	Item	€ 9,731.08	23.00	€ 2,238.15	€ 11,969.22
1.4	Statutory Processes	1	Item	€ 3,450.02	23.00	€ 793.50	€ 4,243.52
1.5	Detailed Design & Procurement	1	Item	€ -	23.00	€ -	€ -
1.6	Construction & Implementation	1	Item	€ -	23.00	€ -	€ -
1.7	Close Out & Review	1	Item	€ -	23.00	€ -	€ -
1.8	Traffic Management	1	Item	€ 13,785.55	13.50	€ 1,861.05	€ 15,646.60
1.9	Land & Property Costs	1	Item	€ -			€ -
1.10	Construction Costs (Main Contractor)	1	Item	€ 137,855.49	13.50	€ 18,610.49	€ 156,465.98
1.11	Inflation Allowance (Band 2/3 Only)	1	Item	€ 11,822.12	13.50	€ 1,595.99	€ 13,418.10
1.12	Contingency Allowance	1	Item	€ 73,322.92	13.50	€ 9,898.59	€ 83,221.51
1.13	Allowance for Arts (%)	1	Item	€ 1,909.45	13.50	€ 257.78	€ 2,167.23
			Sub-Total (Ex.VAT)	**€ 266,177.47**			
					Total Option 5 - Cost Estimate (Including VAT)		**€ 304,722.22**

NOTE:
Costs are reflective of costs at the base date stated above.
Costs are considered to include allowances for overheads and profit.

WS Atkins Ireland Limited
Atkins House
150 Airside Business Park
Swords
Co. Dublin
K67 K5W4

Tel: +353 1 810 8000

© WS Atkins Ireland Limited except where stated otherwise

AtkinsRéalis - Sensitive / Sensible (FR)