AtkinsRéalis

Route B (Dublin Road) Part 8 Report

Westmeath County Council

June 2025

0086381DG0114

ATHLONE ACTIVE TRAVEL SCHEMES BUNDLE

AtkinsRéalis - Baseline / Référence

Notice

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1. Project Description

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 & option selection, preliminary design and statutory processes of active travel provisions and associated works on the Athlone Active Travel Schemes Bundle.

The following are the key service requirements of the proposed project:

1. Identification of constraints and development of scheme options report including multi-criteria assessment of the proposed design options;
2. Development of a preliminary design and associated design report for the preferred option;
3. Obtain necessary statutory approval / consent for the proposed scheme;

The scheme is located in Athlone town, County Westmeath. In total there are approximately 15.8 km of active travel routes planned for Athlone as part of this scheme. The scheme extents and routes (A to F) are highlighted in Figure 1-1.

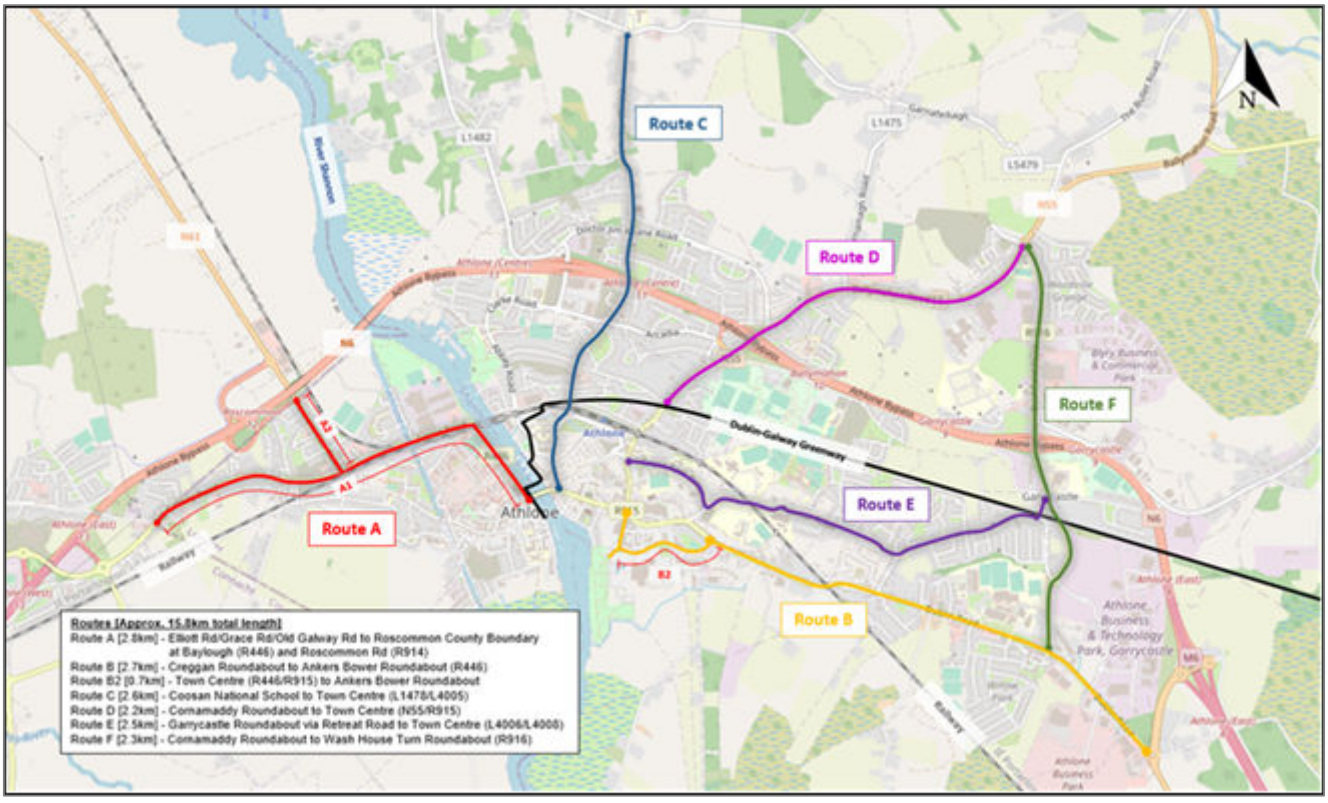


Figure 1-1 - Site Extents

The 15.8km total length of scheme has been divided into 6 separate routes, as follows:

- Route A [2.8 km] - Elliott Rd/Grace Rd/Old Galway Rd to Roscommon County Boundary at Baylough (R446) and Roscommon Rd (R914).
  - Route A1 [2.3 km] - Tesco Express in Baylough to the Greenway Bridge/Luan Gallery (R446).

- Route A2 [0.5 km] - Junction of the Old Galway Road (R446) and Roscommon Road (R914) to the Roscommon County boundary (R914).

- **Route B [2.7 km] - Creggan Roundabout to Ankers Bower Roundabout (R446).**
- Route B2 [0.7km] - Town Centre (R446/R915) to Ankers Bower Roundabout (subject to approval and funding)
- Route C [2.6km] - Coosan National School to Town Centre (L1478/L4005).
- Route D [2.2km] - Cornamaddy Roundabout to Town Centre (N55/R915).
- Route E [2.5km] - Garrycastle Roundabout via Retreat Road to Town Centre (L4006/L4008).
- Route F [2.3km] - Cornamaddy Roundabout to Wash House Turn Roundabout (R916).

The purpose of this report is to present the Part 8 Report for Route B only, as indicated in Figure 1-1. The other routes described above will be discussed in separate Part 8 Reports to be progressed at a later date.

2. Project Aims & Objectives

The purpose of this report is to present the Preliminary Design Report for the proposed scheme, outline the emerging preferred options proposed and the assessment and appraisal for these options, collectively referred to under the project name: “Athlone Active Travel Schemes Bundle”. The report also comprises of the identification and evaluation of constraints following the methodology set in the National Transport Authority’s (NTA) 2020 Project Approval Guidelines (PAG).

The overall purpose of the project is the delivery of a cycle network which will provide safe and attractive cycle routes, catering for all cycle users including commuters, leisure and family cycling groups. Ultimately when the routes are delivered, they will help to improve safety, including a reduction in vehicle speeds, and contribute towards an increased number of trips in the area by pedestrians and cyclists.

The main aims of this project are:

- To design new/upgrade existing cycleways/pedestrian footpaths, 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 meet and accommodate 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.
- Provides sustainable travel options.
- Enhanced safety of Vulnerable Road Users.

The objectives for the scheme are based on multi criteria requirements outlined by the Department of Transport in their report *‘Transport Appraisal Framework (June 2023)’* (TAF). The multi-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 retail, healthcare and educational facilities and other high employment areas. Improvements 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 gas 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.

3. Scheme Context

3.1 Policy Review

This chapter outlines the review of the relevant transport policies, guidance, and studies for the development of the Athlone Active Travel Bundle. Many long-lasting plans and policy objectives at all levels have been used to complete the policy review element of the Transport and Mobility Strategy. Furthermore, these will be used to inform the design decisions and to achieve the goals and objectives of the proposed network. 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

3.2 National Level Policy

3.2.1 National Planning Framework (Project Ireland 2040)

Project Ireland 2040 – National Planning Framework (NPF) provides a high-level strategic planning framework to guide development and investment. Athlone is located at 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; 500,000 more people than lives there at present.

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

- **National Policy Objective 4:** Ensure the creation of attractive, liveable, well-designed, high-quality urban places that are home to diverse and integrated communities that enjoy a high quality of life and well-being.
- **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.

3.2.2 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 prioritization, 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.

3.2.3 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 3-1 - 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:

- Maintenance of existing infrastructures and assets
- Optimisation of the existing network and infrastructure
- Improvements to the existing infrastructure
- Construction of new infrastructure.

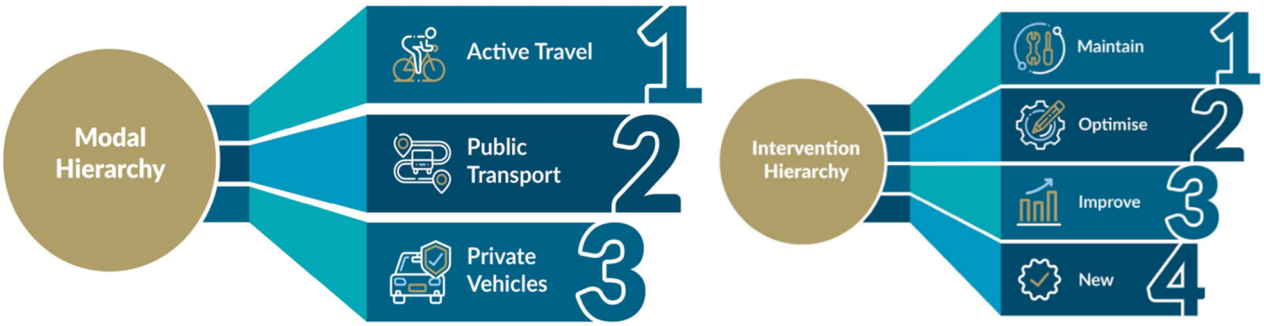


Figure 3-2 - NIFTI Modal and Intervention Hierarchies (source: gov.ie/transport)

As per the Intervention Hierarchy, NIFTI places emphasis on the use of existing assets (through maintenance, optimisation, or improvement), over the development of new. NIFTI recognises that investments in transport networks and services, and the policies that drive these investments, can impact on the environment, and several environmental assessments have been carried out in parallel with its development, which includes a Strategic Environmental Assessment (SEA), which highlighted a number of potential impacts associated with the outcomes, Investment Priorities and Hierarchies proposed by NIFTI, as follows:

Negative Impacts include, but are not limited to:

- Short-term/localised negative impacts on water quality and increased noise pollution during construction.
- Localised increases in pollution or increased CO2 emissions, or localised climate vulnerability such as flooding.
- Long-term impacts on biodiversity, landscape, or cultural heritage features as a result of new infrastructure developments.
- Long-term impacts because of land-take and changes in land use required for new developments.

Positive Impacts include, but are not limited to:

- Positive impacts to population and human health because of increased safety, with improvements to signage, adequate road surfacing, junction upgrades or realignment works.
- Benefits for the economy, tourism and regional connectivity providing better social inclusion.
- Reduced carbon emissions and improved air quality because of sustainable mobility developments.
- Reduction in localised noise pollution and vibration because of development in sustainable and active travel modes and actions to promote electric vehicles.

3.2.4 National Sustainable Mobility Policy

The Department of Transport published the National Sustainable Mobility Policy (NSMP) 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 will primarily focus 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 will outline 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 Athlone Active Travel Schemes Bundle is in alignment with this plan and would contribute to the implementation of several key actions identified in the plan.

Figure 3-3 below illustrates the benefits of sustainable mobility which will be achieved by delivering the Athlone Active Travel Schemes Bundle.

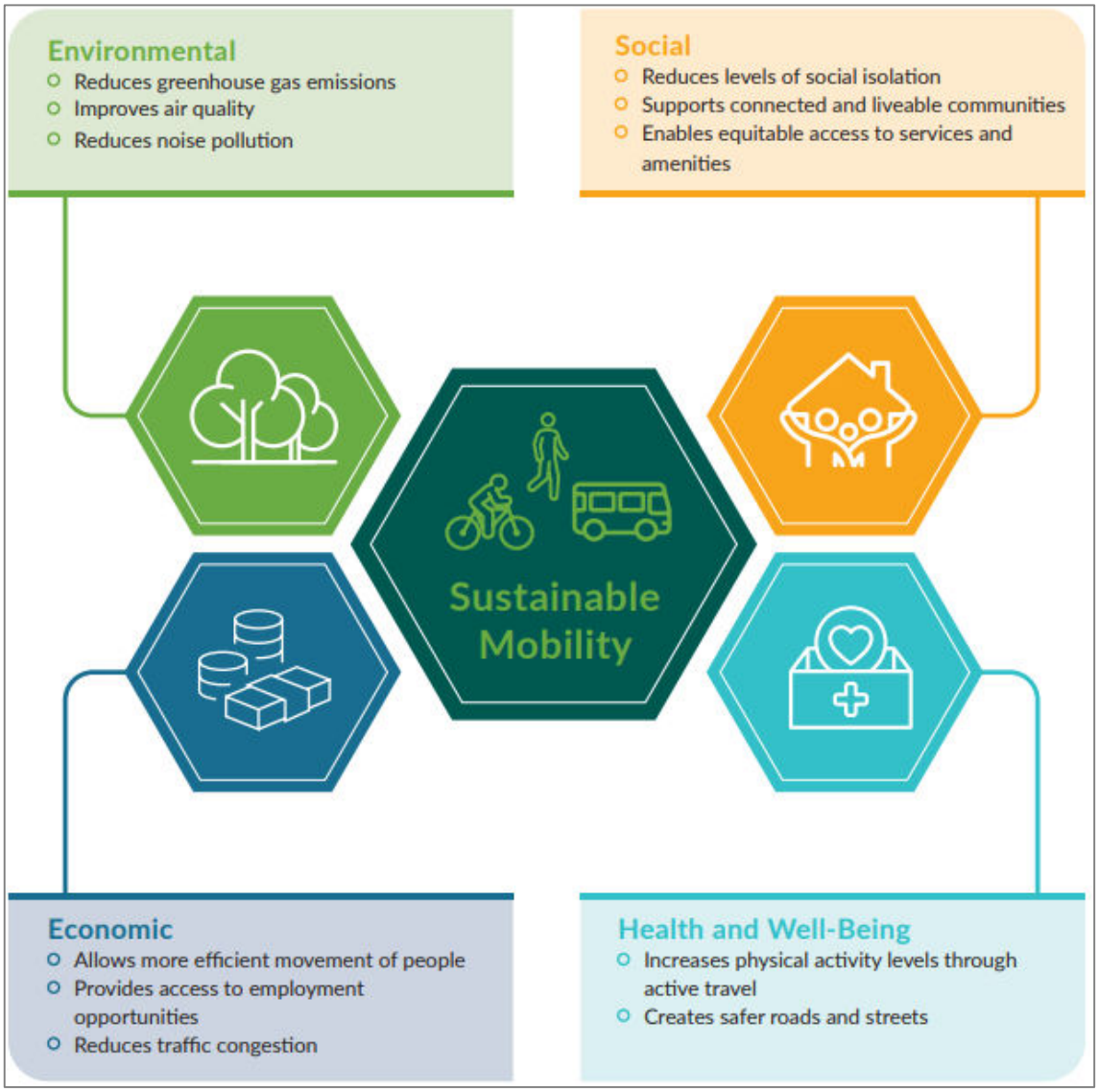


Figure 3-3 - Benefits of Sustainable Mobility

According to the NSMP, the above benefits can be achieved through ten goals, all of which are guided by three key principles, shown in Table 3-1.

Principles	Goals
Safe and Green Mobility	1. Improve mobility safety.
	2. Decarbonise public transport.
	3. Expand availability of sustainable mobility in metropolitan areas.
	4. Expand availability of sustainable mobility in regional and rural areas.
	5. Encourage people to choose sustainable mobility over the private car. People Focused Mobility.
People Focused Mobility	6. Take a whole of journey approach to mobility, promoting inclusive access for all.
	7. Design infrastructure according to Universal Design Principles and the Hierarchy of Road Users model.
	8. Promote sustainable mobility through research and citizen engagement. Better Integrated Mobility.
Better Integrated Mobility	9. Better integrate land use and transport planning at all levels.
	10. Promote smart and integrated mobility through innovative technologies and development of appropriate regulation.

Table 3-1 - NSMP Principles and Goals (source: National Sustainable Mobility Plan)

3.2.5 Climate Action Plan 2024

The Climate Action Plan (CAP24) 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.

Specific actions identified in the plan that relate to the Athlone Active Travel Schemes 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 (Land Development Agency) 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.

3.2.6 Healthy Ireland Strategic Action Plan 2021 – 2025

The vision of the 'Healthy Ireland Strategy 2021-2025' 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 and replacing this trip with cycling and walking includes public transport as well which will also improve local air quality. This can play a vital role in overall obesity reduction programme which also supports demand management study. This measure comprises of health, environmental and urban land aids. 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.

3.2.7 NTA CycleConnects

The National Transport Authority (NTA) opened the public consultation process in 2022 for proposals 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 Athlone and a county network in the rest of Westmeath and Roscommon.

The Athlone network includes existing greenways, along with proposed primary and secondary routes. Primary urban routes are seen as high-quality cycle routes that can accommodate a high volume of cyclists typical in most urban areas. These will look to feature on major desire lines in town centres and form radial and orbital cycle routes in the major towns and cities. The inter urban routes are on-road cycle routes to link all key settlements and destinations outside urban areas both within the county and into adjacent counties. These may have potential to provide off-road/segregated routes parallel to the existing road in later years.

The draft 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 itself). Together these plans will create an overall comprehensive cycle network for Ireland.

This 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 Athlone Active Travel Schemes Bundle extents form part of the following links as identified within the NTA's "Proposed Athlone Urban Cycle Network", as shown in Figure 3-4.

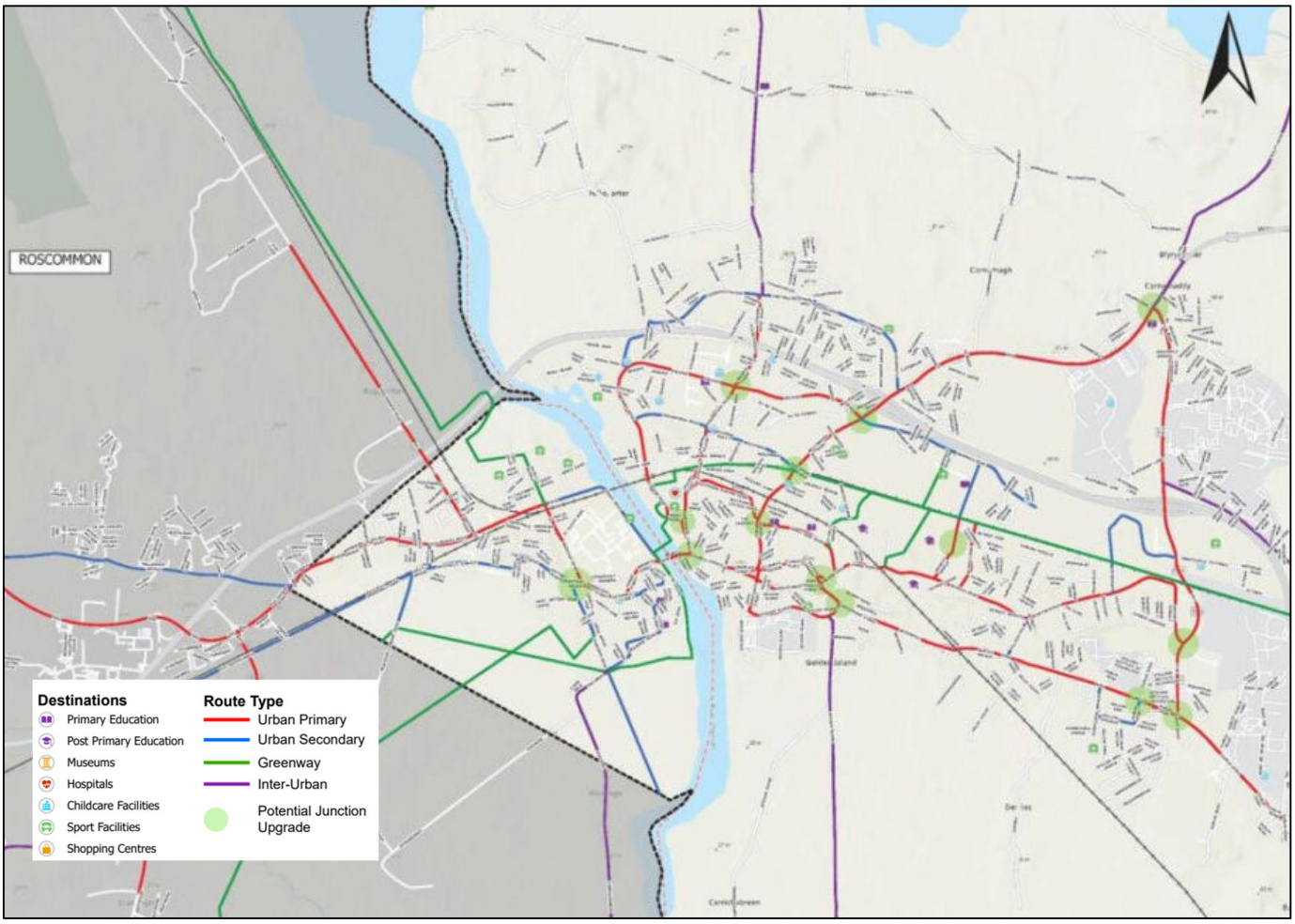


Figure 3-4 – NTA CycleConnects Routes in Athlone

The scheme extents form part of the following links as identified within the NTA's "Proposed Athlone Urban Cycle Network", as highlighted below for Route B.

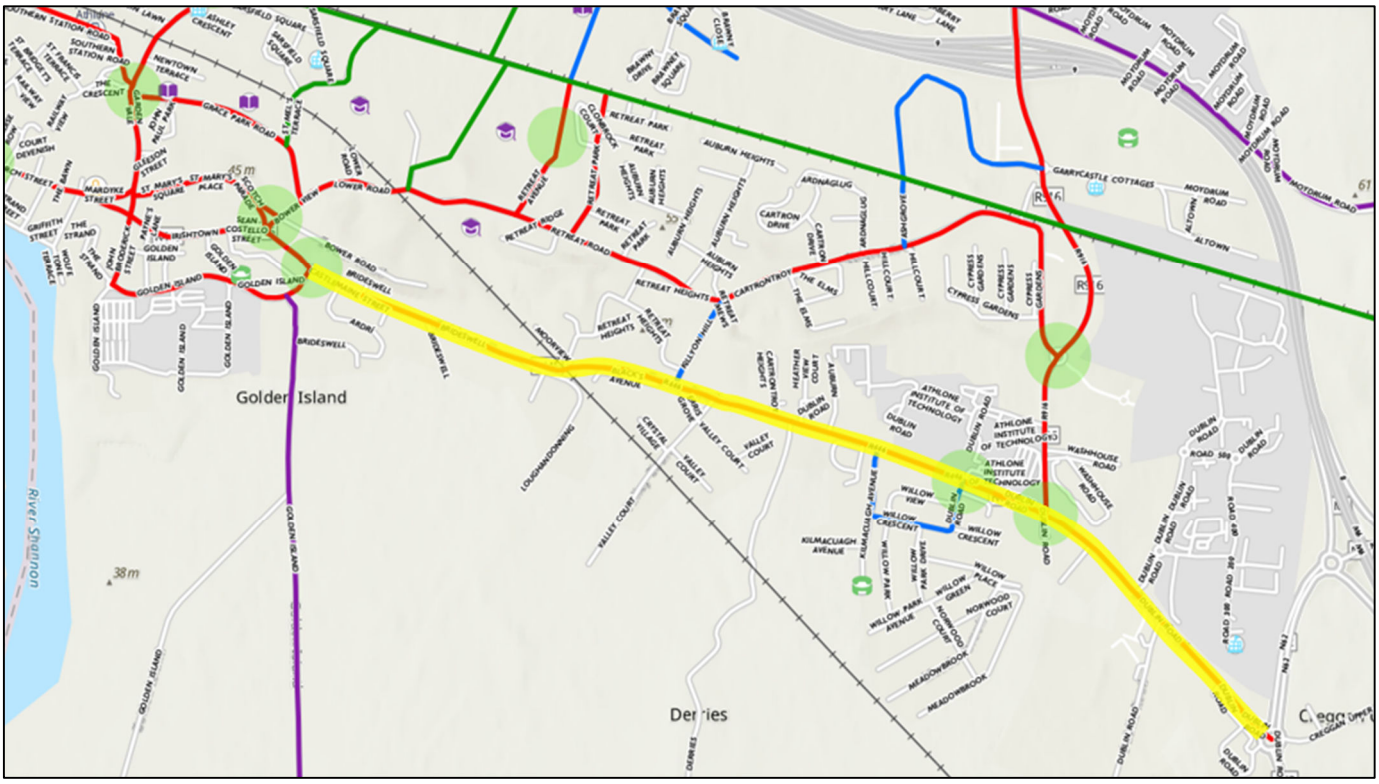


Figure 3-5 – Route B Highlighted on the NTA CycleConnects Routes

3.2.8 National Cycle Policy Framework (NCPF) 2009 – 2020

The backdrop to this policy is the government's transport policy for Ireland. The NCPF sets out a suite of interventions to improve the ease and safety of cycling to achieve greater mode share going forward. The framework states that the focus needs to be on:

- Reducing volumes of through-traffic, especially HGVs, in city and town centres and especially in the vicinity of schools and colleges.
- Calming traffic/enforcing low traffic speeds in urban areas.
- Making junctions safe for cyclists and removing cyclist-unfriendly multi-lane one-way street systems.
- Paying special attention to integrating cycling and public transport.

Other interventions include the following:

- Schools will be a strong focus of the NCPF.
- Supporting the provision of dedicated signed rural cycle networks for Cycling Tourism.
- Ensuring surfaces used by cyclists are maintained to a high standard and are well lit.
- Ensuring that all cycling networks are sign-posted to a high standard.
- Supporting the provision of secure cycle parking at all destinations of importance.
- Integrating cycling and Public Transport, including cycle parking at stations, and the capability to carry bikes on Public Transport services.
- Creation of municipal bike systems to complement an improved Public Transport system.
- Ensuring proposals cater for a 10% modal share of cyclists.

The NCPF states that making provision for cyclists in the urban environment does not merely consist of providing dedicated cycling facilities, but also involves wider traffic interventions that benefit all vulnerable road users.

3.2.9 Get Ireland Active, 2016

Healthy Ireland, a Framework for Improved health and wellbeing 2013-2025 is the national framework for seeking to improve the health and wellbeing of people living in Ireland. The framework identifies a number of broad inter-sectoral actions, one of which commits to the development of a plan to promote increased physical activity levels.

Get Ireland Active's aim is to increase physical activity levels across the entire population thereby helping to improve health and wellbeing. Get Ireland Active has developed a plan which will seek to ensure that no group is disadvantaged and recognises that targeted interventions are required to address and overcome barriers to participation which are experienced by some people. Get Ireland Active acknowledges the role that cycling can play in achieving physical activity targets. The plan highlights the importance of good planning to promote the use of cycling, stating that the layout of the environment has a significant impact on the levels of physical activity undertaken across age groups.

> *"The built environment is an important determinant of physical activity behaviour. The way the built environment is designed, planned, and built can also act as a barrier to being active and can reinforce sedentary behaviour and car dependence."*

Cycling for transport or leisure is a form of physical activity that can easily be incorporated into the daily activities of many people.

The development of cycling facilities in Athlone is a positive example of how the built environment can be developed to promote physical activity, improving the health and well-being of those that choose to travel by bike. Facilities like this will be used for a variety of journey purposes including travelling to work and school, which is an ideal opportunity to increase physical activity through everyday journeys.

3.3 Regional Level Policy

3.3.1 Regional Spatial and Economic Strategy (RSES) for the Eastern and Midland Region, 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 "10-minute" settlement concept is proposed throughout the RSES as a means for delivering the 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 Strategy promotes cycling and walking as environmentally friendly, fuel efficient and healthy modes of transport to work, school, shopping and for recreational purposes. There are several Regional Policy Objectives (RPO) specifically promote the development of greenways in both urban and rural areas, as follows:

- **Regional Policy Objective (RPO) 4.4:** A cross boundary statutory Joint Urban Area Plan (UAP) for the Regional Growth Centre of Athlone shall be jointly prepared by Westmeath and Roscommon County Councils in collaboration with EMRA (Eastern and Midland Regional Assembly) and NWRA (Northern and Western Regional Assembly). The UAP will support, the development of Athlone as an attractive, vibrant and highly accessible Regional Centre and economic driver for the centre of the Country.
- **RPO 4.7:** Support the development of a cross sectoral approach to promote Athlone as a key tourism destination in the Midlands, building on Fáilte Ireland's Hidden Heartlands brand and the forthcoming Shannon Tourism Masterplan to develop the recreation and amenity potential of waterways including the River Shannon and Lough Ree and the development of a greenway network including the Galway to Dublin Cycleway.
- **RPO 6.30:** Support existing smart city initiatives such as Smart Dublin and the All-Ireland Smart Cities Forum and support the development of smart city programmes in Athlone, Dundalk and Drogheda.
- **RPO 7.24:** Promote the development of a sustainable Strategic Greenway Network of national and regional routes, with a number of high-capacity flagship routes that can be extended and / or linked with local greenways and other cycling and walking infrastructure, notwithstanding that capacity of a greenway is limited to what is ecologically sustainable.
- **RPO 7.25:** Support local authorities and state agencies in the delivery of sustainable strategic greenways, blueways, and peatways projects in the Region under the Strategy for the Future Development of National and Regional Greenways.
- **RPO 8.13:** Support the Local Link Rural Transport Programme throughout rural areas of the Region.

The Regional Spatial and Economic Strategy states 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 Athlone Active Travel Schemes 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).

3.3.2 Regional Spatial and Economic Strategy for the Northern and Western Region, 2020-2032

- **Regional Policy Objective (RPO) 3.7.1:** A cross-boundary Joint Plan shall be prepared by Westmeath County Council and Roscommon County Council in collaboration with the two Regional Assemblies to provide a coordinated planning framework for the future physical, economic, and social development of Athlone. The plan shall identify Athlone's functional urban area and adopt a boundary for the plan area in addition to the identification of strategic housing and employment development areas and infrastructure and investment requirements to promote greater coordination and sequential delivery of serviced lands for development, to realise Athlone's status as a Regional Growth Centre.
- **RPO 3.7.4:** Support the development of a cross sectoral approach to promote Athlone as a key tourism destination in the Midlands, building on Fáilte Ireland's Hidden Heartlands brand and the forthcoming Shannon Tourism Masterplan to develop the recreation and amenity potential of waterways including the River Shannon and Lough Ree and the development of a greenway network including the Galway to Dublin Cycleway.
- **RPO 3.7.16:** Promote Athlone as a sustainable transport hub, of national and regional importance and support the preparation of a joint Local Transport Plan between Westmeath and Roscommon County Councils in collaboration with transport agencies and key stakeholders to improve sustainable mobility in the town.
- **RPO 4.9:** To ensure provision is made for the expansion in accommodation, and facilities within key destination towns, such as Carrick on Shannon, Cavan, Roscommon Town and Athlone, together with necessary supporting infrastructural investments, including improvements in the public realm, transport links, accommodation, the night-time economy, and sustainable development of our natural and built economy.
- **RPO 4.10:** To ensure Orientation and Information Points targeted at 'Slow Tourism' market are provided at key Towns, such as Carrick on Shannon, Athlone, and Ballinasloe as an enabler for increasing bed-nights, and visitor numbers.
- **RPO 4.14:** Promote the development of integrated walking, cycling and bridle routes throughout the region as an activity for both international visitors and local tourists in a manner that is compatible with nature conservation and other environmental policies.
- **RPO 5.18:** The Regional Assembly shall collaborate with Local Authorities, Fáilte Ireland, Waterways Ireland, DTAS, and other relevant stakeholders in developing an integrated network of Greenways across the region's catchments. To support, and enable the development of sustainable Greenway projects, the NWRA will encourage and promote:
    - The advancement and growth of Greenways through several Key National and Regional Greenway Projects, which are high capacity, and which can in the medium/long term be extended and interlinked across County Boundaries and with Local Greenways, and other cycling/walking infrastructure.
    - Prioritisation of Greenways of scale and appropriate standard that have significant potential to deliver an increase in activity tourism to the region and are regularly used by overseas and domestic visitors, and locals, thereby contributing to a healthier society through increased physical activity.
    - The appropriate development of local businesses, and start-ups in the vicinity of Greenway Projects.
    - The development of Greenways in accordance with an agreed code of practice.
    - Collaborative development of Greenways and Blueways, including feasibility and route selection studies to minimise impacts on environmentally sensitive areas.

- **RPO 5.19:** The Assembly supports the further development of Greenways as part of the Outdoor Recreational Plan for Public Lands and Waters in Ireland 2017-2021', as part of an overall improvement of facilities to enhance health and wellbeing across society.
- **RPO 6.26:** The walking and cycling offer within the region shall be improved to encourage more people to walk and cycle, through:
    - Preparation and implementation of Local Transport Plans for Galway Metropolitan Area, Regional Growth Centres and Key Towns, which shall encourage a travel mode shift from private vehicular use towards sustainable travel modes of walking, cycling and use of public transport.
    - Safe walking and cycle infrastructure shall be provided in urban and rural areas, the design shall be informed by published design manuals, included the Design Manual for Urban Roads and Streets (DMURS) and the NTA Cycle Manual.
    - Development of a network of Greenways.
- **RPO 6.50**: Continue to encourage Active Travel initiatives and where possible leverage technology and digital platforms to enhance the delivery of cycleway and walking infrastructure, particularly in our urban centres.
- **RPO 7.9:** Promote the provision of high-quality, accessible and suitably proportioned areas of public open spaces and promote linkage with social, cultural and heritage sites and buildings. In this process prioritise access for walking and cycling.

3.3.3 Westmeath County Council Development Plan 2021 – 2027

The Westmeath County Development Plan 2021-2027 state 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.

The census 2016 outlined Westmeath as one of the counties with highest car usage in Ireland, with 72.9% of commutes to work done by private cars and just 3.5% done by public transport. In order to promote a modal shift into more sustainable transport modes, the council 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 Athlone Active Travel Schemes Bundle scheme:

- **Core Strategy Policy Objectives (CPO) 2.3:** Prepare a joint statutory Joint Urban Area Plan (UAP) for Athlone with Roscommon County Council in collaboration with EMRA and NWRA.
- **CPO 2.4:** Promote Athlone as a sustainable transport hub, of national and regional importance and support the preparation of a Joint Transport Plan between Westmeath and Roscommon County Councils in collaboration with transport agencies and key stakeholders to improve sustainable mobility in the town.
- **CPO 2.7:** Promote consolidation in Self-Sustaining Growth Towns coupled with targeted investment where required to improve local employment, services, and sustainable transport options and to become more self-sustaining settlements, in line with settlement specific policy contained within Chapter 8 of the plan.
- **CPO 2.16:** Promote the integration of land use and transportation policies and to prioritise provision for cycling and walking travel modes and the strengthening of public transport.
- **CPO 3.7:** Apply higher densities to the higher order settlements of Athlone and Mullingar to align with their roles as Regional Growth Centre and Key Town, subject to good design and development management standards being met.
- **CPO 4.1:** Support sustainable transport infrastructure, by developing mixed use schemes, higher densities close to public transport hubs, safe walking routes in developments, promoting alternative modes of transport and reduce the need to travel.

- **CPO 4.37:** Develop public open spaces that have good connectivity and are accessible by safe, secure walking and cycling routes.
- **CPO 4.40:** Facilitate and encourage open space to be planned for on a multi-functional basis incorporating ecosystem services, climate change measures, green infrastructure, and key landscape features in their design.
- **CPO 5.15:** Support the development of Joint Economic, Transport and Retail Plans in collaboration with Roscommon County Council and all other relevant agencies, to facilitate the growth of Athlone as a regional economic driver.
- **CPO 5.42:** Support the development of Smart City initiatives in Athlone and Mullingar.
- **CPO 6.49:** Support the provision of walking and cycling links between lakes and nearby villages, towns, and visitor attractions, provided such developments do not negatively impact on sensitive environments.
- **CPO 6.56:** Continue to augment the visitor experience on the county's greenways, through the provision of ancillary infrastructure as required, having regard to the DTTAS 'Greenways and Cycle Routes Ancillary Infrastructure Guidelines', along with high quality signage and links to nearby visitor attractions and places of interest.
- **CPO 6.57:** Support the provision of visitor services within existing towns and villages, such as cafes, accommodation etc, by providing linkages with greenways, trails etc where appropriate.
- **CPO 6.58:** Continue to support the development of the Galway to Dublin Cycleway, completing the connection to the west of the River Shannon in Athlone and working with neighbouring counties and national bodies to complete and promote the entire route. The development of the cycleway shall comply with the provisions of the Habitats Directive and the Department of Transport, Tourism and Sport's "Dublin to Galway Greenway Plan 2017" and associated measures relating to environmental management and sustainable development.
- **CPO 6.59:** Support increased opportunities for off-road walking, including looped walks and longer distance trails, taking account of 'positive control points' in trail design, such as areas of natural beauty, lakeshores or rivers, bogs, built heritage and archaeological features and with links to towns and villages where services may be provided for walkers and hikers. In designing walking trails, the Sport Ireland Guide to Planning and Developing Recreational Trails will be consulted.
- **CPO 6.60:** Continue to maintain and further enhance the County's walking and cycling trails, striving to achieve National Trails accreditation and other standards as set by Sport Ireland, in partnership with local communities and landowners.
- **CPO 6.61:** Support the re-routing and upgrade of the Westmeath Way walking trail, bringing it off-road and link to scenic areas where possible, ensuring its status as an accredited National Waymarked way in the long term and exploring options such as the Walks Scheme for future maintenance.
- **CPO 6.62:** Support the provision of visitor interpretation along walking and cycling trails, including storyboards, artworks, and other media, to create a greater sense of place, connecting and immersing visitors in our local heritage and stories.
- **CPO 6.63:** Support the provision of services for visitors using walking and cycling trails which are appropriate to the location and activity, including bike service points, picnic benches at scenic locations, public toilets in remote areas etc.
- **CPO 6.66:** Support the delivery of a River Shannon walking and / or trail, from Athlone to Clonmacnoise in collaboration with local communities and Offaly County Council and from Athlone to the Royal Canal at Ballymahon in collaboration with Longford County Council.
- **CPO 6.67:** Promote the principles of 'Leave no Trace' in all trail information panels, promotional materials and events and use all statutory procedures to deter negative environmental impact resulting from use of our trails and outdoor recreation amenities.
- **CPO 7.3:** Encourage transition towards sustainable and low carbon transport modes through the promotion of alternative modes of transport and 'walkable communities' whereby a range of facilities and services will be accessible within short walking or cycling distance.

- **CPO 10.1:** Promote and deliver a sustainable, integrated, and low carbon transport system with ease of movement throughout County Westmeath by enhancing the existing transport infrastructure in terms of road, bus, rail, cycling and pedestrian facilities.
- **CPO 10.2:** Support the development of a low carbon transport system by continuing to promote modal shift from private car use towards increased use of more sustainable forms of transport such as cycling, walking and public transport.
- **CPO 10.3:** Support the implementation of the following national and regional transport policies as they apply to Westmeath:
    - The National Planning Framework
    - The RSES for the Eastern and Midland Region
    - Smarter Travel, A Sustainable Transport Future 2009 – 2020
    - Design Manual for Urban Roads and Streets (DMURS)
    - Spatial Planning and National Roads - Guidelines for Planning Authorities 2012
    - National Cycling Policy Framework and National Cycle Manual
    - Strategy for the Future Development of National and Regional Greenways, 2018.
    - Local Link Rural Transport Programme Strategic Plan 2018 - 2022.
- The Council also supports the implementation of sustainable transport solutions.
- **CPO 10.4:** Seek to ensure primacy for transport options that provide for unit reductions in carbon emissions. This can most effectively be done by promoting public transport, walking, and cycling, and by actively seeking to reduce car use in circumstances where alternative options are available.
- **CPO 10.5:** Encourage transition towards sustainable and low carbon transport modes, through the promotion of alternative modes of transport, and 'walkable communities' together with promotion of compact urban forms close to public transport corridors to encourage more sustainable patterns of movement.
- **CPO 10.11:** Promote walking and cycling as efficient, healthy, and environmentally friendly modes of transport by securing the development of a network of direct, comfortable, convenient, and safe cycle routes and footpaths, particularly in urban areas and in the vicinity of schools.
- **CPO 10.12:** Improve pedestrian and cycle connectivity to stations and other public transport interchanges and request Iarnród Éireann to provide accommodation for bicycles on inter-city and commuter trains.
- **CPO 10.13:** Design pedestrian and cycling infrastructure in accordance with the principles, approaches and standards set out in the National Cycle Manual[1], the Design Manual for Urban Roads and Streets and international best practice.
- **CPO 10.14:** Encourage and seek sustainable transport movement at the earliest design stage of development proposals, to ensure accessibility by all modes of transport and all sections of society and promote the provision of parking space for bicycles in development schemes.
- **CPO 10.15:** Improve the streetscape environment for pedestrians, cyclists, and people with special mobility needs by providing facilities to enhance safety and convenience, including separation for pedestrian infrastructure from vehicular traffic.
- **CPO 10.16:** Provide better sign posting and public lighting where considered appropriate and ensure that the upgrading of roads will not impact negatively on the safety and perceived safety of cyclists.
- **CPO 10.17:** Work with the National Trails Office, Coillte, the Department of Planning, Housing and Local Government, the Department of Transport, Tourism and Sport, and other relevant stakeholders, to improve on the existing level of infrastructure and facilities for walking and cycling.

[1] The National Cycle Manual was current at the time of publication of the County Development Plan; but has since been replaced by the Cycle Design Manual.

- **CPO 10.18:** Continue to develop an integrated and connected network of sustainable greenways and green routes within Westmeath and to adjoining counties, in accordance with the "Strategy for the Future Development of National and Regional Greenways".
- **CPO 10.19:** Progress the expansion of the National Cycle Network westwards from Athlone to the Roscommon County boundary.
- **CPO 10.22:** Support and promote the development of additional greenway links from the various towns/villages to the Old Rail Trail and Royal Canal Cycleways, subject to Environment and Habitats Requirements.
- **CPO 10.23:** Maximise both pedestrian and cycle connectivity to the network of existing greenways within the County.
- **CPO 10.24:** Protect established Greenways within the County against inappropriate new vehicular accesses and increased traffic movements.
- **CPO 10.25:** Carry out a permeability and connectivity audit of existing pedestrian and cycle facilities in all towns and villages.
- **CPO 10.28:** Ensure that new development proposals for public transport infrastructure are designed to be fully accessible to people with disabilities and older persons by adopting a universal design approach to the built environment, including footpaths, roads, pedestrian crossing points, bus stops, seating, and interchange facilities.
- **CPO 10.30:** Continue to work with the relevant transport providers, agencies, and stakeholders to facilitate the integration of active travel (walking, cycling etc.) with public transport, thereby making it easier for people to access and use the public transport system.
- **CPO 12.82:** Support the development of an integrated Strategic Greenway Network of national and regional routes and maximise connectivity to existing greenways and link with cycling and walking infrastructure.
- **CPO 12.83:** Support the delivery of sustainable strategic greenways, blueways and peatways projects in the County in accordance with the Strategy for the Future Development of National and Regional Greenways.
- **CPO 12.85:** Support the development of implementation plans for greenways throughout the county together with supporting environmental assessments.

3.3.4 Westmeath Climate Change Adaptation Strategy 2024 – 2029

Westmeath County Council has prepared this Climate Action Plan 2024-2029, to create a low carbon and climate resilient County, by delivering and promoting best practice in climate action, at the local level. This is aligned to the Government's overall National Climate Objective, which seeks to pursue and achieve, by no later than the end of 2050, the transition to a climate resilient, biodiversity rich, environmentally sustainable and climate neutral economy. As part of Irelands Climate Action and Low Carbon Development (Amendment) Act 2021 Westmeath County Council has committed to developing and implementing this county focused Climate Action Plan.

The plan focuses on five thematic areas with a view to assessing the actions which can be carried out in order to tackle climate breakdown at a local level by carrying out measures to decrease emissions and enhance biodiversity locally with a view to slowing down and ultimately reversing climate change while closely focusing on quality of life for Westmeath citizens.

- Theme 1: Governance and Leadership
- Theme 2: Built Environment and Transport
- Theme 3: Natural Environment and Green Infrastructure
- Theme 4: Resilience and Transition
- Theme 5: Sustainability and Resource Management

Several actions within the document are aligned with the proposed Athlone Active Travel Schemes Bundle. Under Theme 2 point 2.1, 2.9, 2.13, 2.16, 2.17, 2.18 the document states the intention to give priority to more sustainable transport options, reduce car use in County Westmeath, promote and encourage a modal shift and increase active travel infrastructure to promote walking and cycling.

3.4 Local Level Policy

3.4.1 Athlone Local Area Plan 2014 – 2020 (Extended)

The Athlone Local Area Plan 2014-2020 set out a strategy for the sustainable development and planning of Athlone building upon the previous Athlone Town Plan 2008-2014. It also outlined the policies and objectives for the future development of the town and its environs.

Some objectives and policies from the town development plan that are still relevant to the Athlone Active Travel Schemes Bundle can be seen below:

- **Policy-EC10**: To continue to improve access to major areas of employment through sustainable transport modes.
- **Policy-AC1**: To create an environment in the Town Centre in which vehicles, cyclists and pedestrians can safely co-exist and share public space.
- **Policy-AC2**: To minimise vehicular traffic volumes in the town centre through traffic management measures. create an environment in the Town Centre in which vehicles, cyclists and pedestrians can safely co-exist and share public space.
- **Policy-TR2**: To promote the sustainable development of walking, cycling, public transport and other sustainable forms of transport in Athlone, as an alternative to the private car, by facilitating and promoting the development of necessary infrastructure and by promoting initiatives contained within “Smarter Travel, A Sustainable Transport Future 2009-2020”.
- **Policy-WC1**: To encourage and facilitate safe walking and cycling routes in Athlone, as a viable alternative to the private car, in accordance with initiatives contained within “Smarter Travel, A Sustainable Transport Future 2009-2020”
- **Policy-WC2**: To develop walking and cycling strategies within Athlone and between the Linked Gateway towns of Athlone and Mullingar and Athlone and Tullamore.
- **Policy-WC3**: To improve the streetscape environment for pedestrians, cyclists, and people with special mobility needs, by providing facilities to enhance safety and convenience.
- **Policy-WC4**: To provide for sustainable transport movement at the earliest design stage of development proposals to ensure accessibility by all modes of transport and all sections of society.
- **Policy-WC5**: To implement proposals for pedestrian and cycle routes along the River Shannon as prescribed in the Athlone Waterfront Strategy.
- **Policy-WC6**: To support and facilitate the development through Athlone of the National Cycle Network between Dublin and Galway, including the construction of a new pedestrian and cycle Bridge across the River Shannon, subject to the requirements of the Habitats Directive, Water Framework Directive and environmental sensitivities identified in the SEA being addressed.
- **Policy-WC7**: To support and facilitate the provision of a cycleway and walkway in Athlone within the corridor of the disused Mullingar to Athlone railway line, pending the re-opening of this line as a railway, subject to environmental sensitivities identified in the SEA being addressed.
- **Objective-PT12**: To provide pedestrian and cycle linkages across the River Shannon and canal.
- **Objective-WC1**: To further the development of an integrated cycle network in Athlone.

- **Objective-WC2**: To provide for signal-controlled pedestrian facilities at all crossing points with an audible signal and dished kerbs with tactile paving to assist visually and mobility-impaired persons in crossing roads.
- **Objective-WC14**: To provide a network of on-road and greenway pedestrian and cycle routes within the town.

3.4.2 Athlone Joint Local Area Plan (with Roscommon Co. Co.) (Under Pre-Draft Public Consultation)

The Athlone Local Area Plan 2024-2030 will cover the broad aims of Westmeath County Council based on the national and regional objectives in relation to Athlone. Whilst the Athlone Local Area Plan is still being prepared a pre-draft Consultation Strategic Issues Paper has been published that presents an overview of the main issues and challenges affecting Athlone.

3.5 Design Guidance

3.5.1 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.

3.5.2 Cycle Design Manual

The Cycle Design Manual (CDM) was published by the NTA in September 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. Throughout the option selection and design process of this scheme the CDM is used.

3.5.3 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 the Feasibility Report.

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.

3.5.4 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 SRTS Front of School Improvements Advice Note by NTA
- Roundabout Retrofit – Including Rapid Build Options by NTA
- Zebra Crossing Pilot Scheme Technical Literature Review by NTA
- 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.

4. Existing Transport Network

4.1 Existing Route

During the Option Selection Stage, Route B commenced from the Old Rail Trail / R915 intersection and extended south towards Athlone town centre and east to the Ankers Bower Roundabout and Creggan Roundabout, travelling through Ballymahon Road, Sean Costello Street, Castlemaine Street, Brideswell Street, and Dublin Road. The route was then divided into six segments to be assessed individually.

However, it was determined during the early part of the preliminary design stage that the first two segments of the route, Segment B1 and B2 were to be removed from the scope, effectively reducing the length of the scheme and reducing the proposed design. Additionally, some extent of Segment B3 were to be removed from the scope also.

The removal of these segments was due to the existing space constraints within the two segments, given the relatively narrow boundary-to-boundary width available. The only viable options to enable segregated cycling facilities coupled with the existing high traffic volumes within the town centre were predicted to result in significant negative feedback such that this could delay the entire Route B from progressing to Phase 4. Therefore, these segments were removed from the preliminary design process to allow the rest of Route B progress.

The new proposal sees the scheme commencing west of the Ankers Bower Roundabout and terminating just west of the Creggan Roundabout (R446/N62). Hence, Route B is made up of four segments at approximately 2.7km in length with three existing roundabouts, as shown in Figure 4-1. The following sections discuss the artificial constraints along each segment within the corridor.

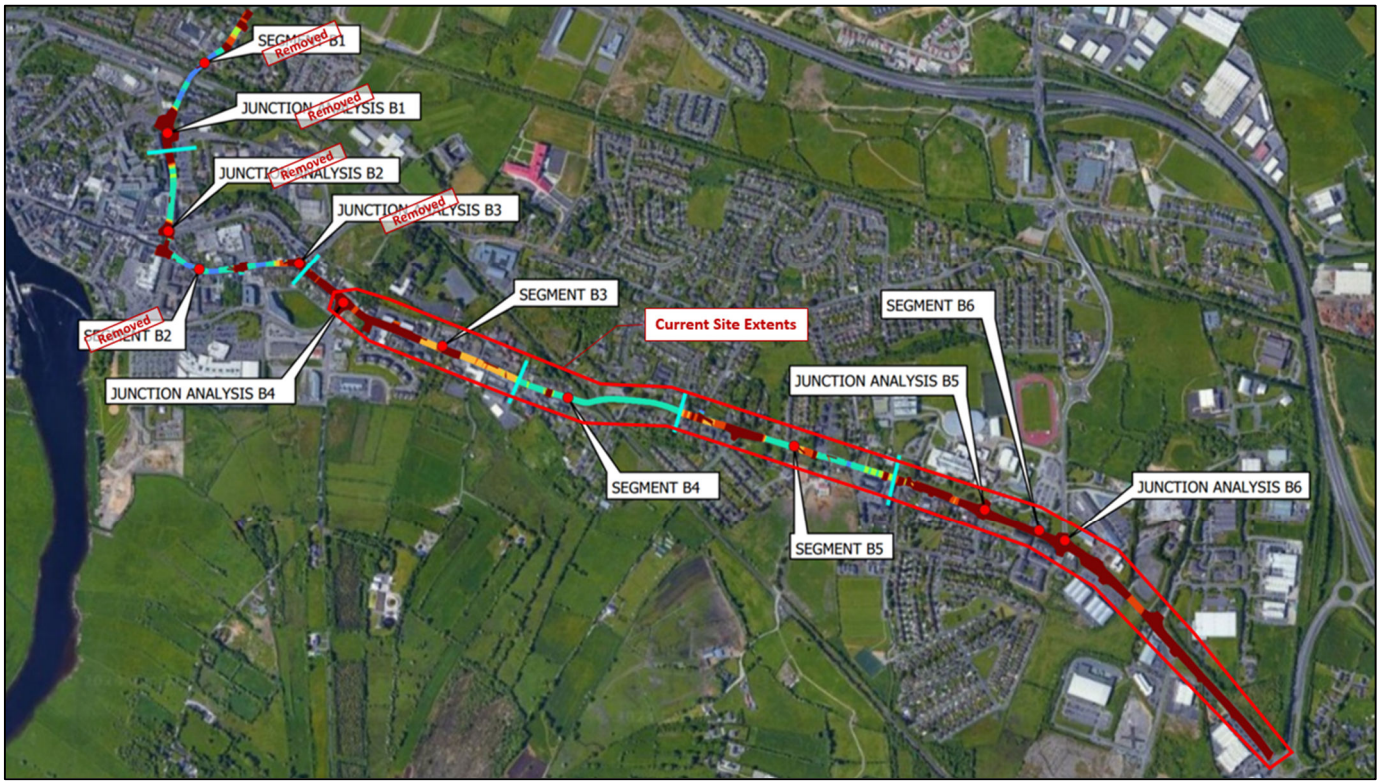


Figure 4-1 – Route B Segments and Width Analysis

The typical cross section of the Route B within the scheme's extents is a single carriageway circa 7.0m wide kerb to kerb, predominantly with footpaths on both sides of the carriageway, with the occasional provision of on-street parking

bays and bus laybys. Public lighting columns are typically located at the edge of the footpath. The scheme is predominantly bounded by residential and commercial properties. Figure 4-2 illustrates an example of an existing cross section of Route B.

Figure 4-2 - Examples of Existing Cross Section of Route B

4.2 Junctions

Route B contains 1no. three-arm roundabout and 2no. four-arm roundabouts. Aside from the Ankers Bower Roundabout, these roundabouts typically lack any form of pedestrian/cyclist crossings. All other junctions are unsignalised priority junctions.

Figure 4-3 - Ankers Bower Roundabout

Figure 4-4 - Willow Park Roundabout

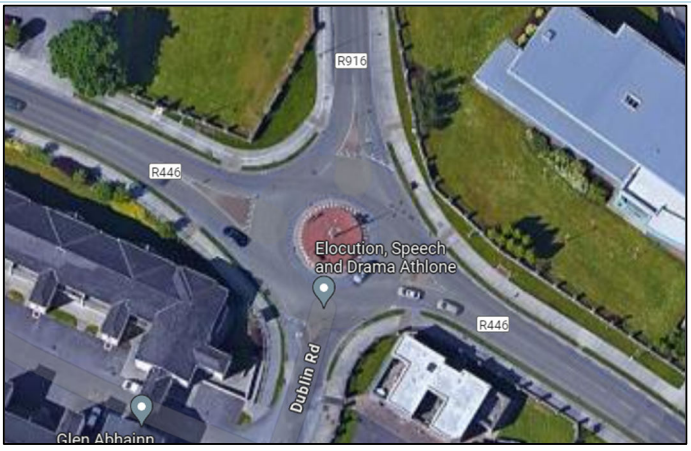


Figure 4-5 - Wash House Turn Roundabout

4.3 Public Transport

9no. bus stops are located along Route B. These are outlined within the table below:

Table 4-1 - Public Transport Details

Location	Stop ID	Bus	Direction
Castlemaine Street	500201	ATH1	Eastbound
Valley Court	555171	ATH1	Westbound
TUS West Gate	N/A	ATH1, 850	Westbound
Athlone College	N/A	819, 850	Eastbound
TUS	455591	A1, A2. 72, 190, 706, 706x & 763	Westbound
TUS	555391	A2, A2, 70, 72, 73, 190, 706, 706x, 721 & 763	Southbound
Athlone Business Park	455581	A1 & A2	Southbound
Athlone Business Park	455611	A1 & A2	Northbound
Kilmartin Centre	455601	A1 & A2	Northbound

The Route B bus routes are shown in the Figure **4-6** below:

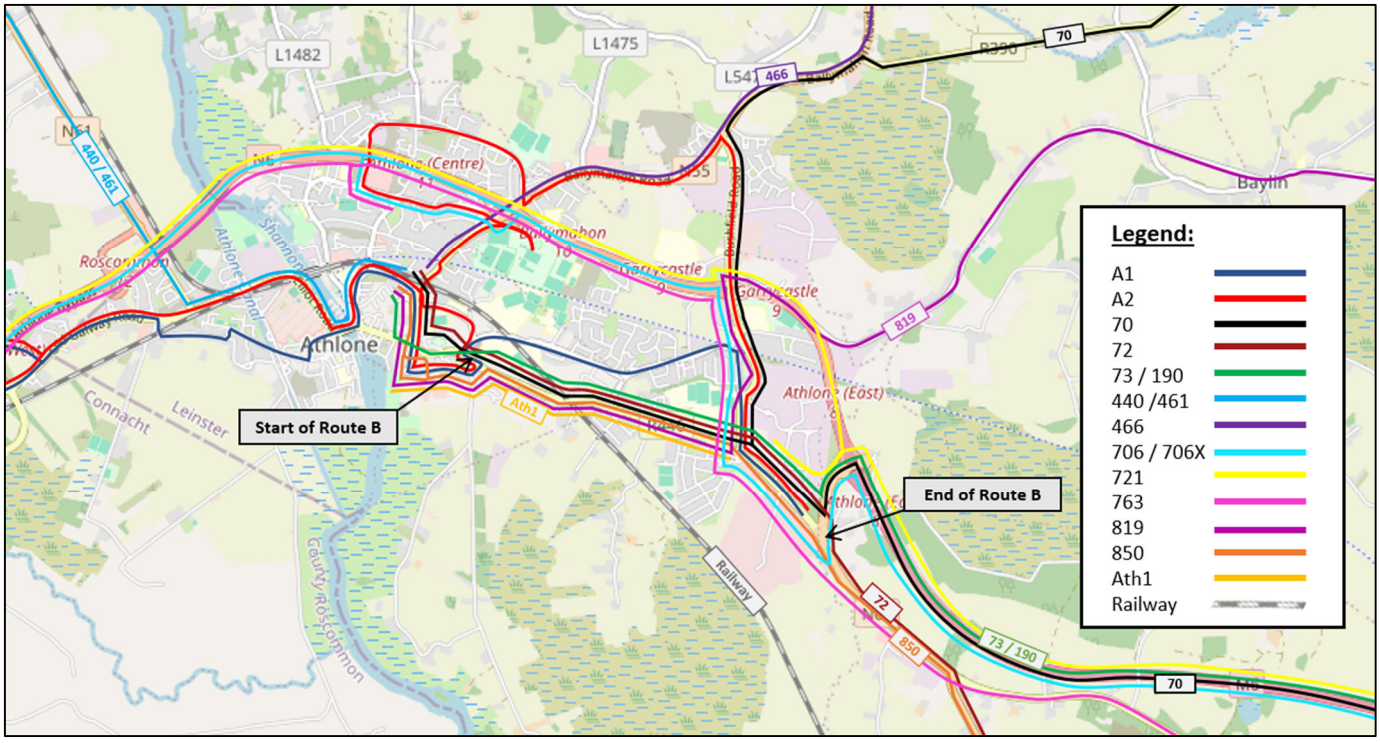


Figure 4-6 **- Bus Services along Route B**

4.4 Pedestrian & Cycle Facilities

There are five controlled pedestrian crossings located along this segment, three of which are pedestrian priority crossings with Belisha beacons and the remaining two are signal controlled pedestrian crossings. The road has

dropped kerbs across all crossing points with tactile paving on all five controlled crossings. Additional raised tables were provided for the three pedestrian priority crossings.

There is formal pedestrian footway present throughout this route, however there are no formal cycling facilities.

4.5 Road collision data

At the time of writing of this report, historical collision data, which is provided by the Road Safety Authority (RSA), was not available. Therefore, no collisions analysis has been completed. Currently, 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.

4.6 Existing Traffic Volumes and Speeds

Based on a 22nd to 28th of March 2022 traffic survey carried out by IDASO on behalf of WCC along the R446, the following was concluded at one ATC site in both the eastbound and westbound direction:

- Cumulative 85th percentile speeds of 55.16km/h
- Cumulative average speed of 46.84km/h
- Average weekday PCU of 6,470 per traffic lane

5. Phase 2 - Options Appraisal

5.1 Options Assessment

A Feasibility Study, Option Selection and Appraisal Report was compiled by AtkinsRéalis with the following aims and objectives:

- To consider the context of the scheme in terms of National, Regional, and Local Level Planning Policy.
- To identify significant engineering and environmental constraints.
- To set out the route options considered and to summarise their feasibility and relative ranking in terms of various relevant criteria.
- To appraise the route options and make a recommendation in relation to a preferred concept route option.

5.2 Methodology for Options Assessment

For the ease of identification and the option selection process, the route was originally divided into 6 links and 6 junctions. However, as discussed in Section 4.1, two links and three junctions have since been removed from the scope due to width constraints and will be excluded from the Phase 3 assessment. Hence, the scheme now consists of 4 links and 3 junctions as shown in Figure 4-1. Each of the links were assessed individually with various cross section and junction options using a Multi-Criteria Analysis based on their performance in terms of the needs of the cyclist and impacts on the community and environment.

Each option was assessed in a comparative manner to each other, and the highest ranked option carried forward to become part of the Preferred Option. The full detail of this options assessment process is included in the Feasibility Study and Options Selection & Appraisal Report (AtkinsRéalis document ref. 0086381DG0033).

5.3 Preferred Options

5.3.1 Link Type

Following an initial sifting exercise for Links, 8 options were appraised for this route:

- Option 1 – Do Nothing
- Option 2 – Standard One-Way Cycle Track
- Option 3 – Stepped One-Way Cycle Track
- Option 4 – Protected One-Way Cycle Lane
- Option 5 – Standard Two-Way Cycle Track
- Option 6 – Protected Two-Way Cycle Lane
- Option 7 – Shared Active Travel Facility
- Option 8 – Cycling in Mixed Traffic

5.3.1.1 Link Segment B3

The Emerging Preferred Option for Link Segment B3 is Option 5 – Standard Two-Way Cycle Track (Traditional build, 11.9m Cross Section) with a cross section comprising:

- 2No. 1.8m wide footpaths
- 1No. 2.3m standard two-way cycle track on northern side of the carriageway
- 2No. 3m wide traffic lanes

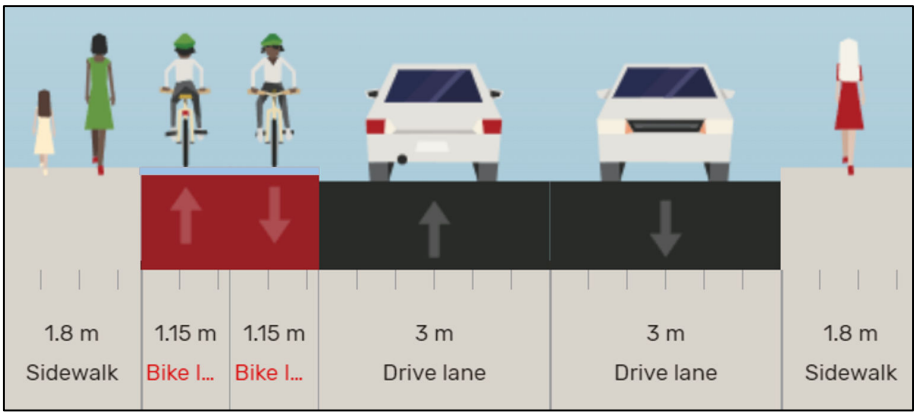


Figure 5-1 - Link Segment B3 Preferred Option

As part of the emerging preferred option for Segment B3, the proposal may require the realigning of the road centreline which will be detailed in the Preliminary Design Drawings. No land acquisition was expected to be required during the Option Selection Stage (Phase 2). However, it was identified in the current Preliminary Design Stage (Phase 3) that minor land take would be required as a result of modifications and improvements along the segment, as indicated in the Preliminary Design Drawings in Appendix A.

5.3.1.2 Link Segment B4

The Emerging Preferred Option for Link Segment B4 is Option 5 – Standard Two-Way Cycle Track (Traditional build, 11.9m Cross Section) with a cross section comprising:

- 2No. 1.8m wide footpaths
- 2No. 1.15m wide two-way cycle track along northern side of the carriageway
- 2No. 3m wide traffic lanes

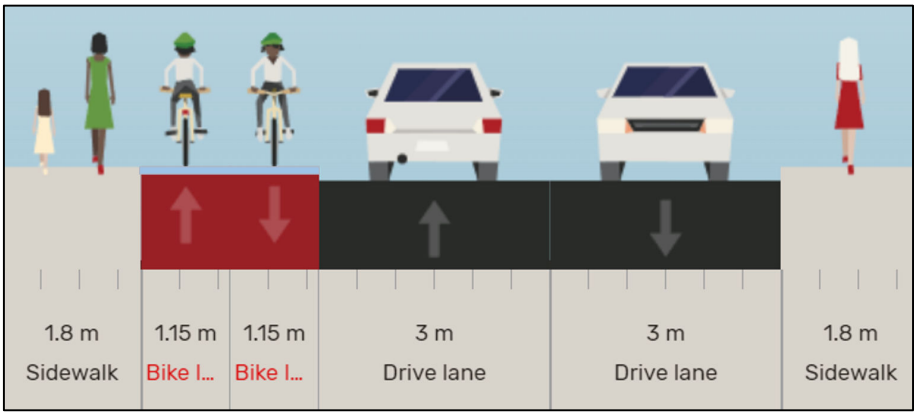


Figure 5-2 - Link Segment B4 Preferred Option

It should be noted, however, that due to the cross-sectional constraints on/after the Irish Rail Railway Bridge, there would be no footpaths provided along the southern side of the carriageway. Instead, a 0.5m rubbing strip would be provided. This will effectively narrow down the cross-section to a total of 10.6m. The cross section will then be comprised of:

- 1No. 1.8m wide footpaths on northern side of the road
- 1No. 2.3m standard two-way cycle track on northern side of the carriageway
- 2No. 3m wide traffic lanes
- 1No. 0.5m rubbing strip on southern side of the carriageway

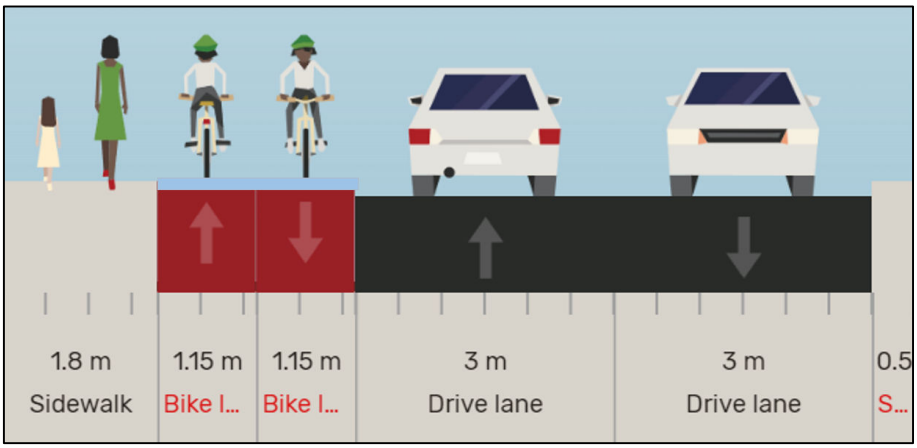


Figure 5-3 - Link Segment B4 Preferred Option

As part of the emerging preferred option for Segment B4, the proposal may require the realigning of the road centreline which will be detailed in the Preliminary Design Drawings. No land acquisition was expected to be required during the Option Selection Stage (Phase 2). However, it was identified in the current Preliminary Design Stage (Phase 3) that minor land take would be required as a result of modifications and improvements along the segment, as indicated in the Preliminary Design Drawings in Appendix A.

5.3.1.3 Link Segment B5

The Emerging Preferred Option for Link Segment B5 is Option 5 – Standard Two-Way Cycle Track (Traditional build, 11.9m Cross Section) with a cross section comprising:

- 2No. 1.8m wide footpaths
- 1No. 2.3m standard two-way cycle track on northern side of the carriageway
- 2No. 3m wide traffic lanes

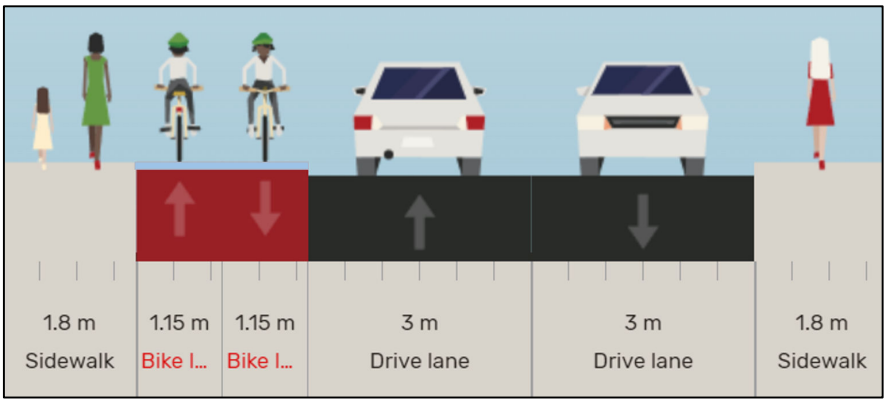


Figure 5-4 - Link Segment B5 Preferred Option

As part of the emerging preferred option for Segment B5, the proposal may require the realigning of the road centreline which will be detailed in the Preliminary Design Drawings. No land acquisition was expected to be required during the Option Selection Stage (Phase 2). However, it was identified in the current Preliminary Design Stage (Phase 3) that minor land take would be required as a result of modifications and improvements along the segment, as indicated in the Preliminary Design Drawings in Appendix A.

5.3.1.4 Link Segment B6

The Emerging Preferred Option for Link Segment B6 is Option 2 - Standard One-Way Cycle Track with a cross section comprising:

- 2No. 1.8m wide (minimum) footpaths
- 2No. 1.7m wide (minimum) one-way cycle track along both sides of the carriageway
- 2No. 3m wide traffic lanes

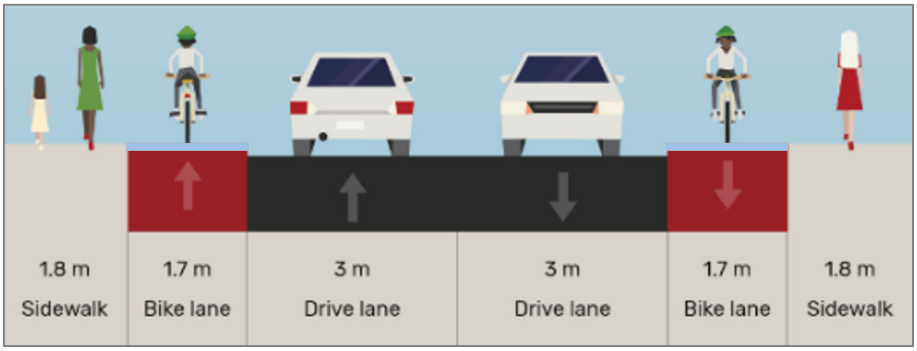


Figure 5-5 - Link Segment B6 Preferred Option

As part of the emerging preferred option for Segment B6, the proposal may require the realigning of the road centreline which will be detailed in the Preliminary Design Drawings. No land acquisition was expected to be required during the Option Selection Stage (Phase 2). However, it was identified in the current Preliminary Design Stage (Phase 3) that minor land take would be required as a result of modifications and improvements along the segment, as indicated in the Preliminary Design Drawings in Appendix A.

5.3.2 Junction Type

The junctions were assessed based on similar criteria to the links to provide the most preferrable option at each location. The options considered and assessed for each junction varies depending on the available land area and existing traffic volumes.

5.3.2.1 Junction B4 - Ankers Bower Roundabout

The options considered for the Ankers Bower Roundabout are:

- Option 1 – Do Nothing
- Option 2 – Existing Roundabout with Two-Way Cycle Track on Northern Side (Rapid Build)
- Option 3 – Segregated Roundabout w/ Shared Active Travel Facilities
- Option 4 – Protected Roundabout without Cycle Priority
- Option 5 – Standard Side Road Crossing
- Option 6 – Protected Signal-Controlled Junction

The multi-criteria analysis identified that the emerging preferred option at the Ankers Bower Roundabout would be to implement a two-way cycle track on the northern side of the carriageway while modifying the existing roundabout via rapid build methods, shown below in Figure **5-6**.

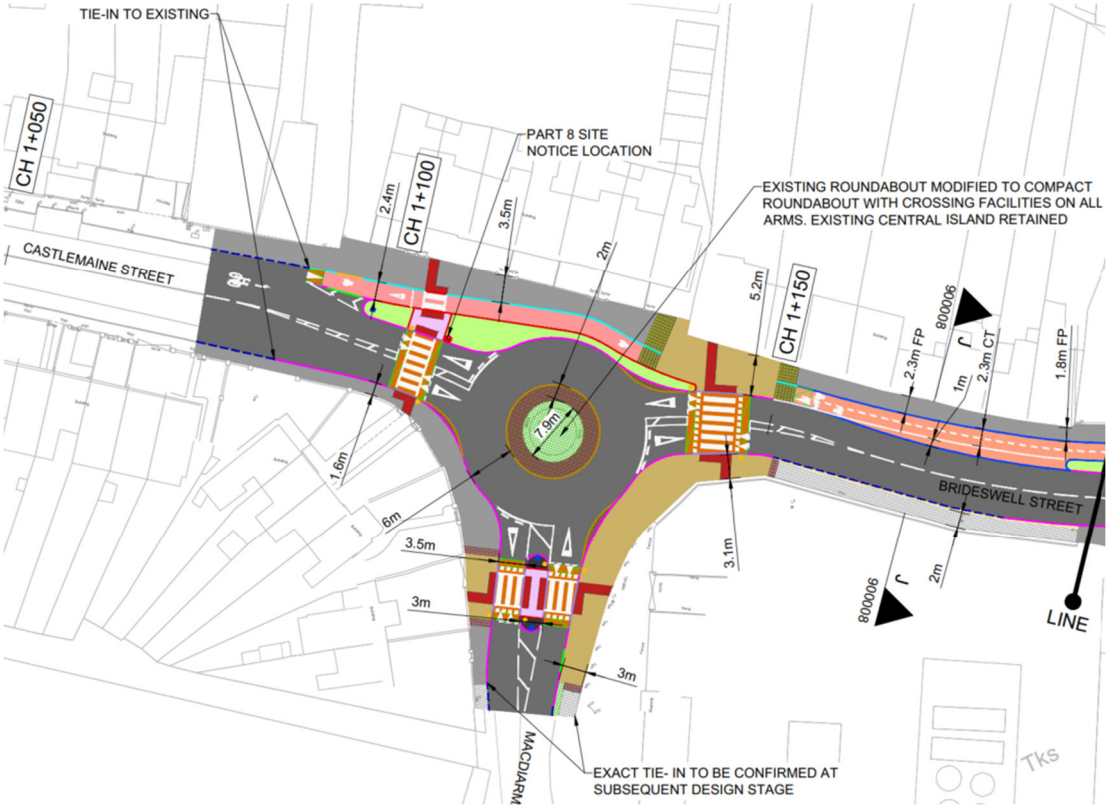


Figure 5-6 **- Ankers Bower Roundabout Preferred Option**

5.3.2.2 Junction B5 - Willow Park Roundabout

The options considered for the Willow Park Roundabout are:

- Option 1 – Do Nothing
- Option 2 – Existing Roundabout with Two-Way Cycle Track on Northern Side (Rapid Build)
- Option 3 – Segregated Roundabout w/ Shared Active Travel Facilities (Rapid Build)
- Option 4 – Segregated Roundabout w/ Shared Active Travel Facilities (Traditional Build)
- Option 5 – Protected Roundabout without Cycle Priority
- Option 6 – Protected Signal-Controlled Junction

The multi-criteria analysis identified that the emerging preferred option at the Willow Park Roundabout will be to implement a two-way cycle track on the northern side of the carriageway while modifying the existing roundabout via rapid build methods, shown below in Figure 5-7.

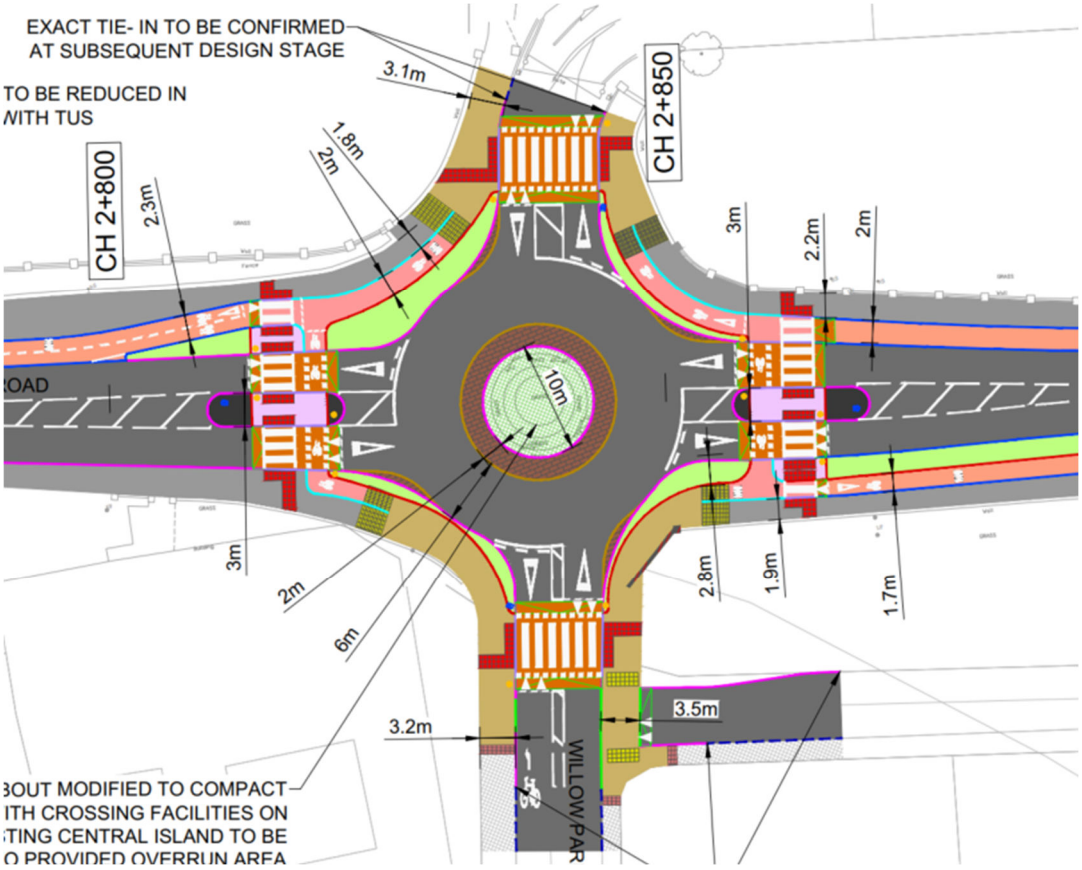


Figure 5-7 - Willow Park Roundabout Preferred Option

5.3.2.3 Junction B6 - Wash House Turn Roundabout

The options considered for the Wash House Turn Roundabout are:

- Option 1 – Do Nothing
- Option 2 – Segregated Roundabout w/ Shared Active Travel Facilities (Rapid Build)
- Option 3 – Segregated Roundabout w/ Shared Active Travel Facilities (Traditional Build)
- Option 4 – Protected Roundabout without Cycle Priority
- Option 5 – Protected Signal-Controlled Junction

The multi-criteria analysis during Phase 2 identified that the emerging preferred option at the Wash House Turn Roundabout is to upgrade the existing roundabout into a protected signalised junction. However, through consultation with the local authority it was determined in the early stages of Phase 3 that the junction will need to be retained as a roundabout, hence the emerging preferred option was updated to a Protected Roundabout without Cycle Priority.

This decision was primarily to facilitate safe U-turn manoeuvres at the junction, specifically at the eastern arm of the roundabout. The rationale behind this decision was down to vehicles turning left from the Athlone Business Park some 380m east of the roundabout. Vehicles have been observed exiting Athlone Business Park, traveling west and utilising the roundabout to turn eastwards (as there is no-right turn allowed from the Business Park).

The proposal for the Wash House Turn Roundabout can be seen in Figure 5-8 below;

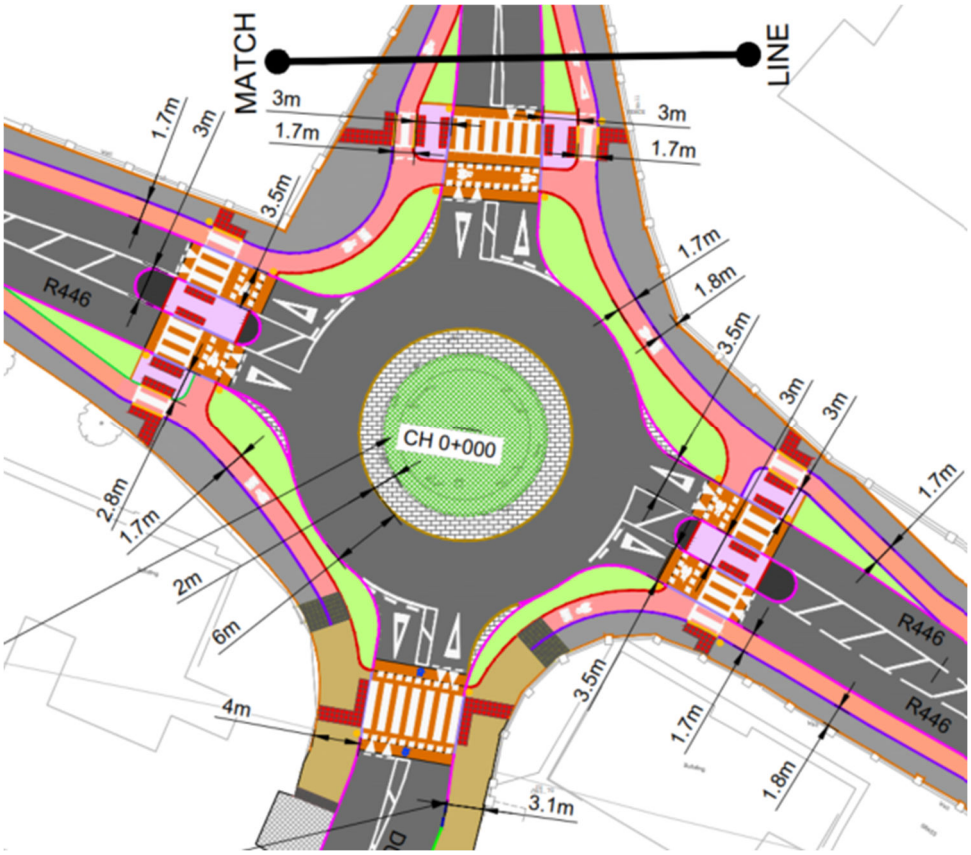


Figure 5-8 - Wash House Turn Roundabout Preferred Option

6. Phase 3 - Preliminary Design

The following sections discuss the key design features that have been developed for the Preferred Options.

Appendix A contains the Preliminary Design Drawings.

6.1 Link Design

As indicated in Section 5.3.1, the Preferred Options align with the link types outlined in CDM Section 2.5. The link types are as follows:

Table 6-1 - Link Types by Route

Ref.	Link Type	CDM Ref.	Existing Speed Limit	Proposed Speed Limit
Segment B3	Standard 2-Way Cycle track	Table 2.1	50kph	50kph
Segment B4	Standard 2-Way Cycle track	Table 2.1	50kph	50kph
Segment B5	Standard 2-Way Cycle track	Table 2.1	50kph	50kph
Segment B6	Standard 1-Way Cycle track	Table 2.1	50kph west of the Wash House Turn Roundabout, 60kph east of the Wash House Turn Roundabout	50kph (along full segment)

It shall be noted that whilst the above Link Type is applied to the route, where constraints or certain features require these may change locally, as described further in this chapter, and as shown on the Preliminary Design Drawings.

6.2 Junctions & Entrances

As indicated in Section 5.3.2, the Preferred Options align with the junction types outlined in CDM Section 4 and the NTA Roundabout Retrofit Technical Note. Each Preferred Option was carried over to Phase 3 Preliminary Design and minor adjustments were made to accommodate for existing boundary constraints except Junction B6 (Wash House Turn Roundabout) where preferred option changes from Protected Signalised Junction to Compact Roundabout (refer to 5.3.2.3). The resulting junction types are as follows:

Table 6-2 – Junction Types by Route

Ref.	Junction Type	CDM Ref.	Existing Speed Limit	Proposed Speed Limit
Ankers Bower Roundabout	Compact Roundabout with One-Way Cycle Tracks & Crossing Facilities	Table 2.1	50kph	50kph
Willow Park Roundabout	Compact Roundabout with One-Way Cycle Tracks & Crossing Facilities	Table 2.1	50kph	50kph
Wash House Turn Roundabout	Compact Roundabout with One-Way Cycle Tracks & Crossing Facilities	Table 2.1	50kph	50kph

All three roundabouts propose rapid build construction methods, where practical, which will include:

- Modification of the existing roundabout to a compact roundabout;
- Retainment of the central island;
- Zebra crossings with raised tables at each roundabout arm;
- One-way cycle tracks where possible with shared areas implemented at constrained sections.

6.3 Pedestrian Crossings

Given the location of the scheme (i.e., inside of town centre locations, which would have high pedestrian and cyclist activity) the widths of crossings shall be as per the minimum required within DMURS (Section 4.3.2) and the Traffic Sign Manual (Section 7.16):

- 4m min wide for toucan crossings (i.e., for pedestrians and cyclists);
- 2.4m min width at uncontrolled pedestrian crossings;
- 2.4m min width at signal-controlled pedestrian crossings;
- 2.4m min width at controlled zebra crossings;
- 4.0m min width at controlled shared zebra crossings (i.e., for pedestrians and cyclists).

6.4 Drainage

Typically, drainage will be provided using the existing surface water drainage system with existing gullies relocated into the realigned carriageway channel. The new footpaths and cycle tracks will generally slope towards the road in order to remove the need for additional drainage collection measures. Alternatively, and where the proposed scheme results in a marked increase in catchment area (due to an increased hard-standing area), sections of footway and/or cycle track will be constructed using either porous surfacing; or where appropriate, the cross-fall will fall towards an adjacent grass verge (thus not discharging into the surface water network).

The details of this will be developed as part of the detailed design.

A Stage 1 Flood Risk Assessment has been undertaken, which concluded that there will be no requirement to further review the risk of fluvial flooding at Stage 2. The Stage 1 report is appended (see Appendix B).

6.5 Lighting

All footpaths, cycle tracks and roads will be lit, in line with current best practice and design guidance in relation to public lighting.

All existing lighting within the scheme will be upgraded to new energy-efficient LED lighting; the details of which will be developed as part of the detailed design.

6.6 Pavements

To give the highest quality of service for cyclists, it is envisaged that a smooth asphalt surface course will be used as recommended by the Cycle Design Manual, with sufficient base and foundation layers to prevent failure. Footpaths are intended to be a concrete surface, to provide colour-contrast when compared to road and cycle surfaces, to aid people with visual impairments. The exact construction depth for the footpath and cycle track pavements is subject to

detailed design. The exact construction depth for the road construction in areas that need targeted interventions is subject to detailed design.

6.7 Services

At the outset of the project, utility companies were contacted seeking information relating to their plant and ducting within the route corridor. The following information was received:

Table 6-3 - Existing Utilities in Athlone 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
EU Networks	Telecoms

These above services are identified in the whole Athlone area and a Ground Penetrating Radar (GPR) survey will be procured and undertaken in the Detailed Design Phase to determine the location of services to the most accurate extent possible. Any service diversions or protection works will be determined at that Phase. Given the nature of the scheme, which is contained within the existing boundary extents for the majority of the length of the routes, service diversions are expected to be minimal.

6.8 Land Take

There are minor land take requirements for the scheme as denoted in the Preliminary Design Drawings in Appendix A. Folios and areas noted below:

Table 6-4 - Land Take Requirements

Folio No.	Approx. Area of Land Take (subject to Phase 5 Detailed Design) (m^2)
WH3019L	29.42
WH31677F	13.59
WH15891	0.89
WH9576	15.49
WH16602F	10.85
WH16603F	12.53
WH6207	20.52
WH35775F	1.10
WH11857	21.43
WH11818	32.03
WH9622	53.24
WH15987F	15.88
WH36871F	26.67
WH11967	20.53
WH16688	22.53
UNREGISTERED	22.94
WH11815	10.14
WH11314	7.05
WH9587	2.09
Total	**338.92**

6.9 Tree Removal and Proposed Landscaping

To accommodate the provision of the pedestrian and cyclist infrastructure, the proposed scheme may require the removal of trees. A targeted tree survey procurement will be undertaken based on the preliminary design and the expert advice of an arboriculturist to determine the value, age, and condition of all trees along the proposed route and any mitigation required where affected.

At the current stage, utilising the available LiDAR survey data, it has been identified that one tree in a house near to the Auburn Retail Centre and two trees adjacent to the Shannon Retail Park junction need to be removed to facilitate the proposals. These trees will be targeted as part of the tree survey to be undertaken.

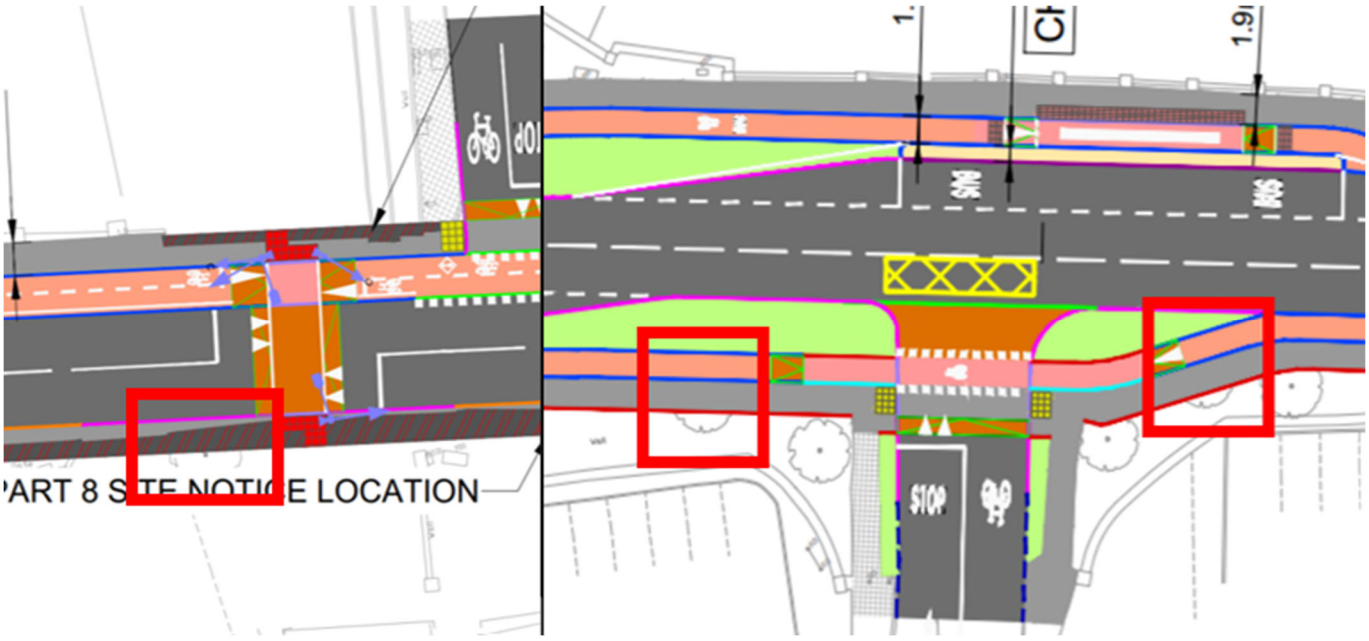


Figure 6-1 - Location of Trees to be Removed

6.10 Key Features

The proposed scheme will provide segregated one-way cycle tracks on both sides of the road, or two-way cycle tracks along the north side of the road, together with standard footpaths. Localised sections of shared active travel paths are required due to constrained widths at several of the roundabouts. Table 6-5 shows an overview of the key features of the proposed scheme.

As outlined in Section 4.1, Segments B1 and B2 have been excluded from the Preliminary Design. As such, the proposals will commence at Chainage 1+100m and end at Chainage 3+792m.

Table 6-5 – Key Features

Chainage	Details
1+100 to 1+150	The existing Ankers Bower Roundabout will be modified to a compact roundabout, however will be retaining the majority of features including the central island. Raised table crossings will be provided on each arm with the following details: ▪ The Eastern and Southern arm of this roundabout will provide raised tables with combined zebra crossings of 4.0m wide to cater for both cycle and pedestrian

Chainage	Details
	movement along with a traffic island of min. 2.5m width. This is to allow for connectivity to any future potential cycle facilities on MacDiarmada Road (Golden Island). ▪ The Western arm of this roundabout will provide a raised table with a zebra crossing of 2.4m wide to cater to pedestrian movement. A pedestrian island has been proposed between the one-way cycle track and carriageway, to make it a two-stage zebra crossing for pedestrians. The proposed standard one-way cycle track will continue through the roundabout on the northern side. Due to constrained widths, certain sections around the roundabout will be converted to a shared path (min. 3.0m). The entry lane to the roundabout from MacDiarmada Road and east Castlemaine Street will be reduced to single entry only.
1+150 to 1+760	This chainage range is a part of Segment B3 and B4 in which the whole length of carriageway cross-section has been proposed as a standard two-way cycle track (min. 2.3m) on the northern side along with segregated footpath (min. 1.8m) on both side of the carriageway. All minor side-road junctions will be provided with a raised table uncontrolled crossing with stop lines pulled back before the raised tables. Three new raised signalised pedestrian crossings will be proposed at chainage 1+310m, 1+550m, and 1+750. The existing eastbound bus stop (Castlemaine street - 500201) will be relocated just before the McCormack Centre parking access while a new bus stop for westbound commuters will be proposed near chainage 1+360m. The proposed traffic lane will be altered to 3.0m wide (per lane) while reinstating the 2.1m wide existing parking facilities on the northern side of the street before and after the McCormack Centre parking access. The existing parking facilities on the northern side of the street is approx. 128m in total length and will be reduced to 52m to facilitate the necessary provisions. On the southern side, all existing parking bays (approx. total length of 115m) will be removed to facilitate the active travel measures. Minor landtake is required from chainage 1+610 to 1+770 along private residential housing areas at the north side of the street, at a maximum width of 1.4m (measured from the back of the existing footway).
1+760 to 2+040	This section reflects the rest of Segment B4, which includes a railway overbridge. The proposed carriageway cross-section will be a standard two-way cycle track similar to the previous section, however, will require the removal of the southern footpath due to the cross-sectional constraints. Additionally, the cycle track and footpath widths will be required to reduce below the absolute minimum widths of 2.3m and 1.8m respectively due to the constraints over the bridge, which will require an NTA-approved Departure from Standards. The design proposals across the overbridge will require agreements with Iarnród Éireann.
2+040 to 2+800	This chainage range comprises Segment B5 and B6, with the entire section proposed to have a standard two-way cycle track (min 2.3m) with segregated footpaths (min 1.8m) on both sides of the carriageway. All minor side-road junctions will be provided with a raised table uncontrolled crossing with stop lines pulled back before the raised tables. The two existing bus stops (for TUS / Athlone IT) at chainage 2+720 will be retained with new and improved facilities. Three new raised signalised pedestrian crossings will be proposed at chainage 2+205, 2+475, and 2+590. The existing unmarked bus stand at chainage 2+230 is proposed to be retained and will be assessed for future bus activities in the detailed design stage. Parking bays between chainage 2+660 to 2+750 are proposed to be retained. Minor landtake requirement is expected at chainage 2+270, 2+420 and 2+450 involving the front garden/driveways of private residential housings.

Chainage	Details
2+800 to 2+870	The existing Willow Park Roundabout will be modified to a compact roundabout, however will be retaining the majority of features. The central island will be altered to provide an overrun area. Raised table crossings will be provided on each arm with the following details: ▪ The northern and southern arm of the roundabout will provide raised table combined zebra crossing of 4.0m wide to cater both cycle and pedestrian movement. ▪ The eastern and western arm of this roundabout will provide raised table segregated priority crossing of 4.0m wide to cater both cycle and pedestrian movement. Combined zebra crossings will be utilised on the northern and southern arm due to the costs and disruption associated with potential land acquisition required in order to provide sufficient width for segregated crossing facilities. The modified Willow Park Roundabout will be connected to a standard two-way cycle track (northern side) from the western arm. which will converted to a one-way arrangement from the eastern arm and will direct the cyclists to the standard one-way cycle track .
2+870 to 3+030	This chainage range is a part of Segment B6 which proposes a standard one-way cycle track from the Willow Park Roundabout to the Wash House Turn Roundabout with 1.7m min width cycle tracks and 1.9m min width footpaths. The proposed traffic lane will be altered to 3.0m (per lane).
3+030 to 3+080	The existing Wash House Turn Roundabout will be modified to a compact roundabout, however will be retaining the majority of features. The central island will be altered to provide an overrun area. Raised table crossings will be provided on each arm with the following details: ▪ The southern arm of the roundabout will provide raised table combined zebra crossing of 4.0m wide to cater both cycle and pedestrian movement. ▪ The northern, eastern and western arm of this roundabout will provide raised table segregated priority crossing of 4.0m wide to cater both cycle and pedestrian movement. Combined zebra crossings will be utilised on the southern arm due to the costs and disruption associated with potential land acquisition required in order to provide sufficient width for segregated crossing facilities. The modified Wash House Turn Roundabout will be connected to a standard one-way cycle track to the western arm and same arrangement will be continued from the eastern arm directing the cyclists to the standard -way cycle track.
3+080 to 3+792	This chainage makes up the remainder of Segment B6 which proposes a standard one-way cycle track 2.0m in width and footpaths 1.8m min in width along both sides of the proposed 3.0m width traffic lanes. Similar to previous sections, all minor side-road junctions will be provided with a raised table uncontrolled crossing with stop lines pulled back in advance of the raised tables. The major junction at chainage 3+360, will be upgraded to a TL504 Protected T-Junction to enable safer and more accessible active travel connectivity with the IDA Business & Technology Park. Additionally, the Athlone Business Park junction will also be upgraded to a TL505 Protected T-Junction with full signal control. The close proximity of this junction to the IDA Business & Technology Park junction is acknowledged and will be reviewed as part of Phase 5 to assess potential signal linkage between the two junctions in order to minimise disruption to straight through traffic. The TUS bus stops (555391 & 455591) at chainage 3+150 are proposed to be retained at their existing locations with new and improved facilities. The existing Athlone Business Park bus stops (455611 & 455581) at chainage 3+410 will be relocated further southeast to chainage 3+530 with upgraded facilities where space is available. The bus stops will be upgraded to a

Chainage	Details
	TL201 Island Bus Stop or a TL202 Shared Bus Stop Landing Zone. The Kilmartin Centre bus stop (455601) at chainage 3+690 will also be retained with the addition of a new bus island. The existing parking/loading bays at chainages 3+500 and 3+710 are proposed to be retained, however, due to cross sectional constraints, the existing parking/loading bays at chainage 3+580 will be removed. A proposed a signalised raised table crossing will be installed towards the end of this segment at chainage 3+760. In addition to providing a safe means of crossing for pedestrians, this raised crossing will slow eastbound vehicles on approach to the roundabout, where eastbound cyclist merge with traffic at the end of the scheme. The raised crossing will also slow westbound vehicles entering the scheme extents; which is notable considering vehicles entering here will most likely have travelled from the adjacent high speed road network (i.e. N6 / N62).

7. Summary & Conclusion

7.1 Pedestrians

The new facilities will provide safe, accessible and attractive routes for pedestrians with a minimum 1.8m wide footpaths for all areas where new paths are being provided, with the exception of a limited number of narrowed sections, as outlined within the Preliminary Design Drawings in Appendix A. New and improved crossings will allow pedestrians to cross all of the roads within the scheme extents in a safe manner. The location of these crossings will improve access and permeability for pedestrians to the residential, recreational and retail areas within the scheme extents; and onwards to the commercial, educational and transport hubs closer to the town centre.

Facilities for those users with visual or mobility impairments will be much improved, with tactile paving, flush kerbs and raised crossings provided throughout.

7.2 Cyclists

The provision of improved cycling facilities throughout this route will be beneficial to cyclists using the R446 and R916 to travel within Athlone. The provision of this high-quality cycle infrastructure will provide attractive and safe routes for cyclists linking many residential, educational and commercial areas in the Town Centre, as well as connections to other proposed cycleways in the area.

7.3 Vehicular Traffic

There will be some impacts to the existing vehicular traffic on the surrounding road network, particularly during the construction phases. Given the nature of the proposals (e.g., reduction in carriageway width, reduction in junction radii and an increase in pedestrian/cyclists crossings) there will be a slowing of vehicular speeds compared to that existing, resulting in some increase in journey time. Though there is no major changes in the existing roundabouts except the addition of active travel infrastructures but, the upgrades to the junctions to bring them in-line with the current standards (i.e. DMURS and the Cycle Design Manual) may result in a reduction in vehicle capacity of each of the junctions, due to the potential signalisation of the junction, reduction in junction kerb radii, potential removal of left-turn slips, and the provision of pedestrian and cyclist crossings on all arms of a junction.

This however is a necessity in order to provide a scheme which is safe and in line with best practice and guidelines. These proposals will help to reduce the likelihood of conflicts between all road users. The improvements to pedestrian and cycling infrastructure will encourage a modal shift away from the private vehicle, which should have a corresponding effect on reducing traffic volumes locally.

7.4 Environmental Impacts

7.4.1 Environmental Impact Assessment Screening

As a part of the Preliminary Design Phase an Environmental Impact Assessment Screening Report was prepared (AtkinsRéalis ref. 0086381DG0042). The purpose of this report is to determine whether the project requires the preparation of an Environmental Impact Assessment Report (EIAR), the key findings of which were as follows;

- Due to the limited nature of the works it is considered that there will be no significant cumulative impacts with other developments in the general area;

- Limited noise, vibration and dust emissions may be generated during construction; however, this is anticipated to be minimal in effect and will cause no significant impact;
- Soil and waste may be generated during construction; however, this is not anticipated to have significant effect;
- There will be no significant impact on biodiversity, groundwater, surface water or traffic; and,
- There will be no impact on recorded monuments or historic features.

In summary, no significant adverse impacts to the surrounding environment will arise as a result of the proposed scheme.

Accordingly, it is considered that the Environmental Impact Assessment Report (EIAR) is not required for the Athlone Active Travel scheme – Route B but, it has been prepared. However, Westmeath County Council will ultimately determine whether an EIAR is required or not at this stage.

7.4.2 Screening for Appropriate Assessment

As part of the Preliminary Design Phase a Screening for Appropriate Assessment Report was undertaken (AtkinsRéalis ref. 0086381DG0046). The purpose of the Screening for Appropriate Assessment Report is to determine the likelihood of significant effects, if any, that the proposed project could have on Natura 2000 sites either alone or in combination with other plans or projects.

The report determined that the proposed scheme is not located within or adjacent to any Natura 2000 sites and as such there will be no direct impacts on any Natura 2000 sites. On the basis of objective information and in view of best scientific knowledge and applying a precautionary principle, it is concluded by the author of this report that with the absence of any mitigation measures the proposed Athlone Active Travel Bundle – Route B, either alone or in-combination with other plans or projects, will not result in likely significant effects on the River Shannon Callows SAC, Middle Shannon Callows SPA, Lough Ree SAC, Lough Ree SPA or any other Natura 2000 site. Thus, it is recommended that it is not necessary for the scheme to proceed to Appropriate Assessment.

Should the scope, nature or extent of the proposed scheme change, a new assessment (AA Screening Report or AA Screening Addendum Report) would be required.

7.4.3 Trees

To accommodate the provision of the necessary pedestrian and cyclist infrastructure, the proposed scheme may necessitate the removal of trees at various locations along the scheme. At the current stage (Phase 3), utilising the available LiDAR survey data, it has been identified that one tree in a house near to the Auburn Retail Centre and two trees adjacent to the Shannon Retail Park junction need to be removed to facilitate the necessary provisions, as shown in Figure 6-1. These trees will be targeted as part of the tree survey to be undertaken and will be further addressed in the Detailed Design Stage of the project once the tree survey has been undertaken.

7.5 Conclusion

The preliminary design for the scheme has been undertaken in line with DMURS and the NTA Cycle Design Manual, developing the preferred options as outlined in the *Route A & B Feasibility Study and Options Selection & Appraisal Report*.

The proposed improvements realised as part of the scheme align with the aims and objectives, as follows:

- Safety (Conflict)

- The potential for conflicts shall be reduced through the provision of formalised crossing facilities throughout.
- Where traffic volumes and speeds require it, the potential for conflicts shall be reduced by the segregation of cyclists from vehicular traffic.
- The potential for conflicts between cyclists and pedestrians shall be reduced through the implementation of segregated facilities for the vast majority of the scheme.

- Safety (Priority)
  - Cyclist priority shall be improved at all junctions.
- Safety (Vulnerable Road Users)
  - Vulnerable road users shall be catered for through formalised crossing facilities, footways and the provision of kerbing and tactile paving in line with best practice.
- Physical Activity
  - The provision of the proposed facilities shall bring enhancements for pedestrians and cyclists, thereby promoting physical activity, particularly for those travelling to the adjacent residential, recreational, commercial and educational areas.
- Accessibility and Social Inclusion
  - Likewise, as with Physical Activity, accessibility and social inclusion shall be improved for those road users who rely on a non-motorised means of transport.
- Environment
  - The impact on the environment will be minimal, and the scheme is recommended to be screened-out for EIAR and AA.
- Integration and Economy
  - From these benefits the proposals will offer good value for money, both at a strategic level, and also to those individual users for whom the scheme shall enable a modal switch from the private car to walking / cycling; and aligns with national, regional and local policies, as outlined in Section 3.
- Localised objectives
  - The scheme will improve local movement capabilities including access to Athlone Town Centre from residential areas to the West and east of Athlone for pedestrians and cyclists, through the provision of new pedestrian and cycling infrastructure.
  - The scheme will create a sustainable mode of active-travel access to the primary and secondary schools in the area of Athlone.
  - The scheme will provide additional recreational links by linking the local communities to future active travel routes for Athlone (as identified in the GDA Cycle Network Plan).
  - The scheme will bring about improvements in the urban space / public realm, along the route, and in particular in Athlone.
  - The scheme will improve accessibility to the Technical University of Shannon for both active travel users and vehicular traffic.

APPENDICES

Appendix A. Preliminary Design Drawings

100
0
10

A1

DO NOT SCALE

TO TOWN CENTRE

SCOTCH PARADE

LOWER ROAD

CH 0+950

CH 0+900

IRISH TOWN

TO TOWN CENTRE

CH 1+000

CH 1+050

CASTLEMAINE STREET

TIE-IN TO EXISTING

PART 8 SITE NOTICE LOCATION

EXISTING ROUNDABOUT MODIFIED TO COMPACT ROUNDABOUT WITH CROSSING FACILITIES ON ALL ARMS. EXISTING CENTRAL ISLAND RETAINED

CH 1+100

CH 1+150

CH 1+200

BRIDESWELL STREET

MATCH LINE

MATCH LINE

TIE- IN TO ROUTE B2 OF THE ATHLONE ACTIVE TRAVEL SCHEMES BUNDLE

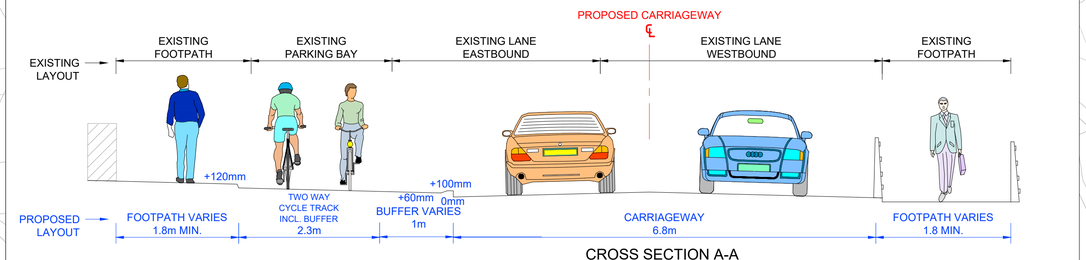
MACDARMADA ROAD

Car Park

Car Park

Tks

TK



CROSS SECTION A-A
Scale at A1 1:50
Scale at A3 1:100

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

LEGEND

- CARRIAGEWAY
- PROPOSED SEGREGATION BUFFER/ HARD STANDING/ RUBBING STRIP
- PROPOSED CYCLE TRACK (STEPPED)
- PROPOSED CYCLE TRACK (FOOTWAY LEVEL)
- PROPOSED SHARED USE FACILITY
- PROPOSED NEW / UPGRADED FOOTWAY
- PROPOSED LANDSCAPING
- PROPOSED REFUGE/ WAITING SPACE
- PROPOSED OVERRUN AREA
- PROPOSED RAISED TABLE/ RAMP
- PROPOSED TRAFFIC ISLAND
- PROPOSED RAMP
- PROPOSED BUS SHELTER
- LAND ACQUISITION REQUIRED
- EXISTING LANDSCAPING TO BE RETAINED
- EXISTING FOOTWAY TO BE RETAINED
- PROPOSED TACTILE PAVING (CONTROLLED CROSSING - RED COLOUR)
- PROPOSED TACTILE PAVING (UNCONTROLLED CROSSING - BUFF COLOUR)
- PROPOSED TACTILE PAVING (CORDUROY)
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- PROPOSED FLUSH KERB AT RAISED CROSSING
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- PROPOSED KASSEL KERB
- PROPOSED CYCLE DEMARCATION KERB
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- PROPOSED BELISHA BEACON
- PRIMARY TRAFFIC SIGNAL ASPECT
- SECONDARY TRAFFIC SIGNAL ASPECT
- PEDESTRIAN THREE ASPECT SIGNAL
- CYCLIST THREE ASPECT SIGNAL
- PROPOSED PEDESTRIAN PUSH BUTTON UNIT
- PROPOSED CYCLIST PUSH BUTTON UNIT
- PROPOSED SITE NOTICE LOCATION (PART 8)
- SITE EXTENT

NOTES:

1. ROAD WIDTH TO BE MINIMUM 6.0m WIDE UNLESS NOTED OTHERWISE.
2. PROPOSED ONE-WAY CYCLE TRACK, TWO-WAY CYCLE TRACK TO BE MINIMUM 1.7m (INCLUSIVE OF 0.2m BUFFER) AND 2.3m (INCLUSIVE OF 0.3m BUFFER) WIDE RESPECTIVELY UNLESS NOTED OTHERWISE.
3. PROPOSED FOOTWAY TO BE MINIMUM 1.8m WIDE UNLESS NOTED OTHERWISE.
4. OPPORTUNITIES TO MAXIMIZE CYCLE TRACK WIDTH IS STILL UNDER INVESTIGATION.
5. MATERIALS TO BE USED FOR LANDSCAPING/ HARD STANDING TO BE CONFIRMED AT SUBSEQUENT DESIGN STAGE.
6. EXACT ARRANGEMENT AT BUS STOP LOCATION TO BE CONFIRMED AT SUBSEQUENT DESIGN STAGE.

Risk Level	X	
		Atkins Base Line - Low Risk
		Atkins Sensitive - Medium Risk
		Atkins Private - High Risk
		Client Critical - Already Marked

NTA Údarás Náisiúnta Iompair National Transport Authority

WESTMEATH COUNTY COUNCIL Comhairle Chontae na hIarmhí

Rialtas na hÉireann Government of Ireland

Tionscadal Éireann Project Ireland 2040

Rev	Description	By	Date	Chk'd	Rev'd	Auth
C01	PART 8 SUBMISSION	SD	24/06/25	BD	AB	ST

AtkinsRéalis

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

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Tel (+353) 021 429 0300
Fax (+353) 021 429 0360

1st Floor Technology House Parkmore Technology Park, Galway
Tel (+353) 091 786 050
Fax (+353) 091 779 830

Client: WESTMEATH COUNTY COUNCIL

Project: ATHLONE ACTIVE TRAVEL SCHEMES BUNDLE CO. WESTMEATH

Purpose: FOR PART 8 SUBMISSION

Title: ROUTE B GENERAL ARRANGEMENT SHEET 1 OF 6

Original Scale	Drawn	Checked	Reviewed	Authorised
1:500 at A1 1:1000 at A3	SD Date 24/06/25	BD Date 24/06/25	AB Date 24/06/25	ST Date 24/06/25

Status	Drawing Number	Rev
A2	0086381-ATK-B1-XX-DR-CE-900007	C01

File: 0086381-ATK-HGN-XX-DR-CE-900007.dwg
Date: Jun 24, 2025 - 2:00pm
Plotted by: DUBESS83

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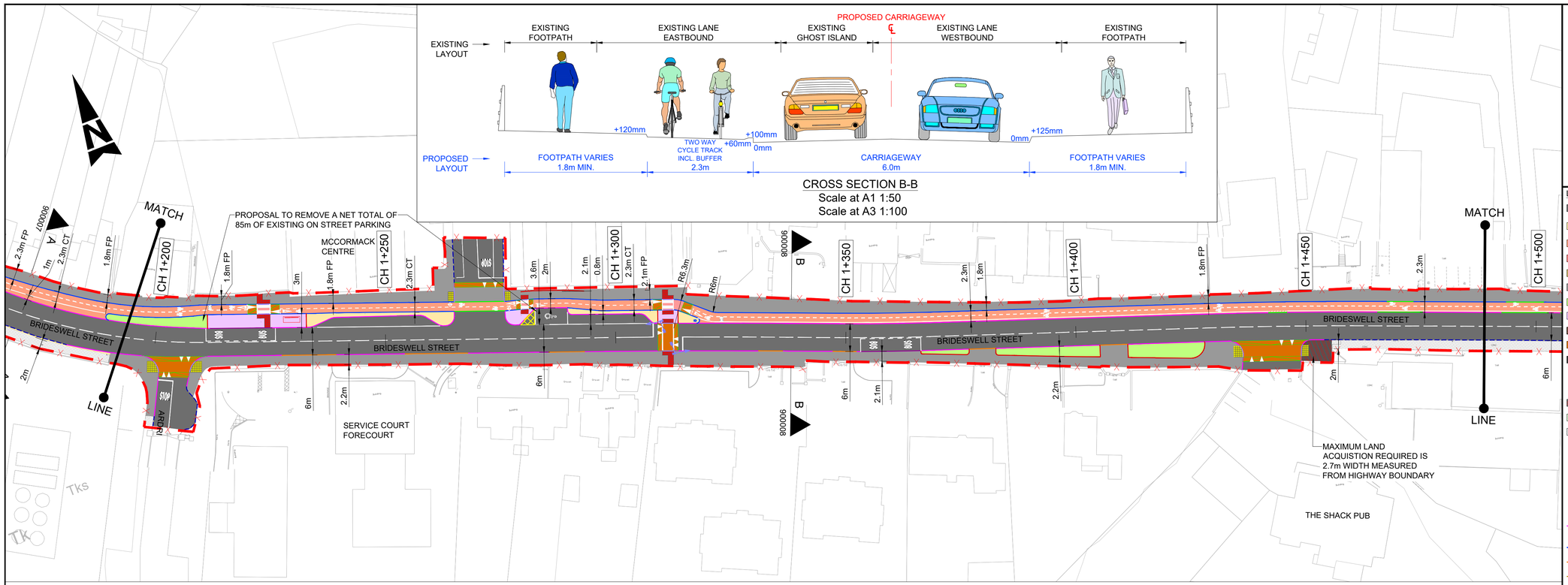

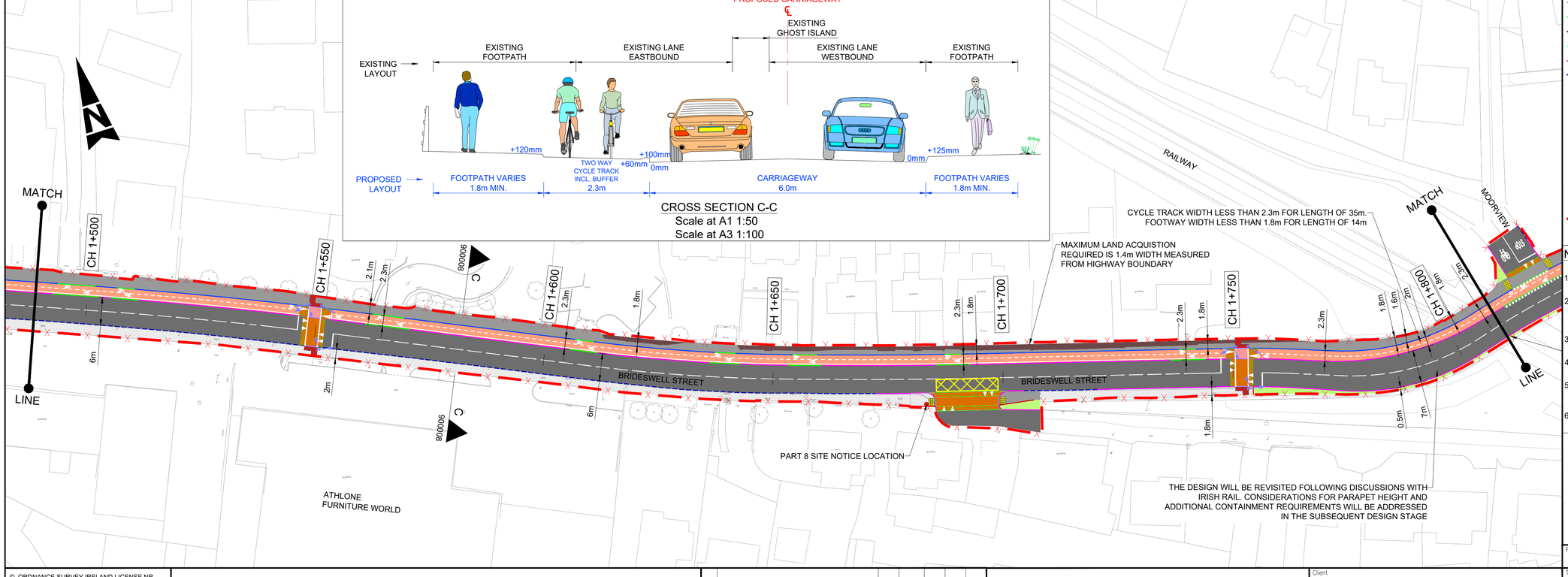

GENERAL NOTES

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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

LEGEND

- CARRIAGEWAY
- PROPOSED SEGREGATION BUFFER/ HARD STANDING/ RUBBING STRIP
- PROPOSED CYCLE TRACK (STEPPED)
- PROPOSED CYCLE TRACK (FOOTWAY LEVEL)
- PROPOSED SHARED USE FACILITY
- PROPOSED NEW / UPGRADED FOOTWAY
- PROPOSED LANDSCAPING
- PROPOSED REFUGE/ WAITING SPACE
- PROPOSED OVERRUN AREA
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Purpose: FOR PART 8 SUBMISSION

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		Atkins Sensitive - Medium Risk
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WESTMEATH COUNTY COUNCIL Comhairle Chontae na hIarmhí
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Rev	Description	By	Date	Chk'd	Rev'd	Auth
C01	PART 8 SUBMISSION	SD	24/06/25	BD	AB	ST

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Client: WESTMEATH COUNTY COUNCIL

Project: ATHLONE ACTIVE TRAVEL SCHEMES BUNDLE CO. WESTMEATH

Title: ROUTE B GENERAL ARRANGEMENT SHEET 2 OF 6

Original Scale	Drawn	Checked	Reviewed	Authorised
1:500 at A1 1:1000 at A3	SD	BD	AB	ST
	Date 24/06/25	Date 24/06/25	Date 24/06/25	Date 24/06/25

Status	Drawing Number	Rev
A2	0086381-ATK-B1-XX-DR-CE-900008	C01

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File: 0086381-ATK-XX-XX-DR-CE-900008.dwg Date: Jun 24, 2025 - 2:28pm Plotted by: DUBE5583

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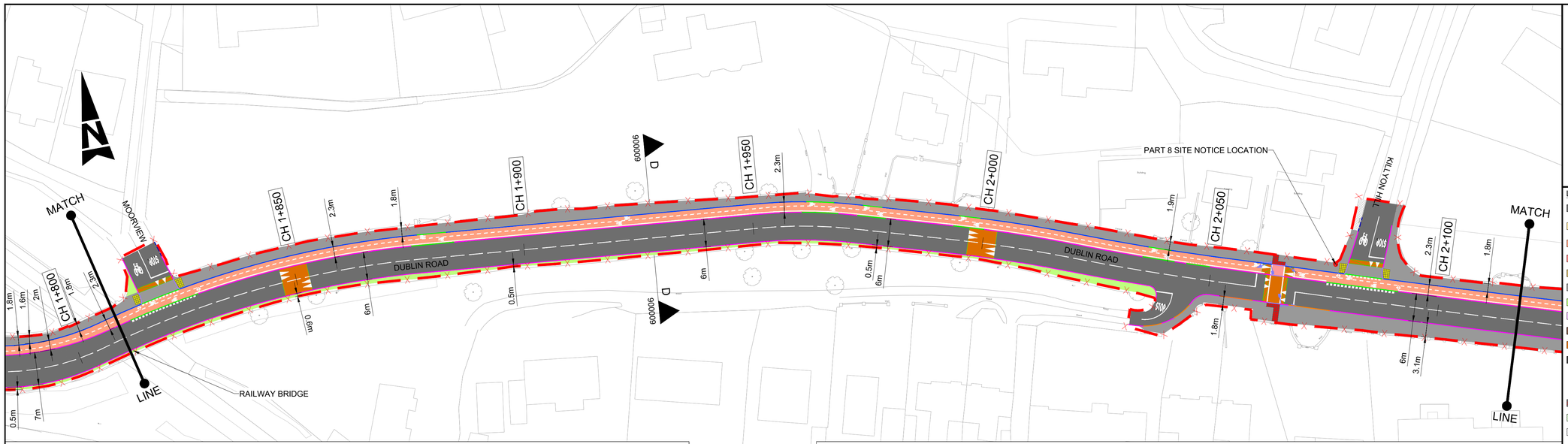

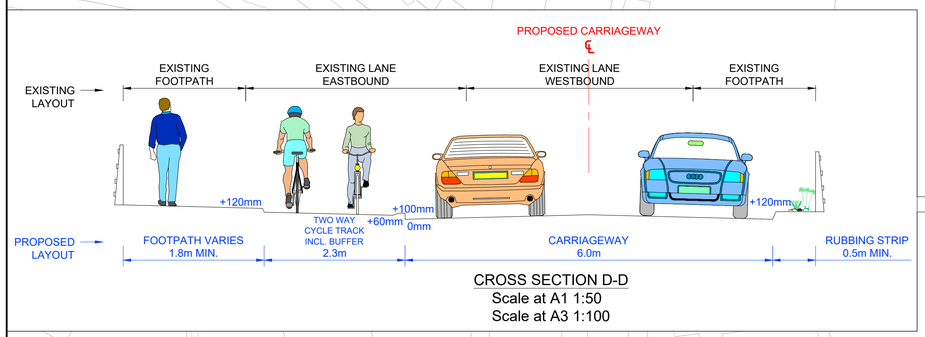

CROSS SECTION D-D
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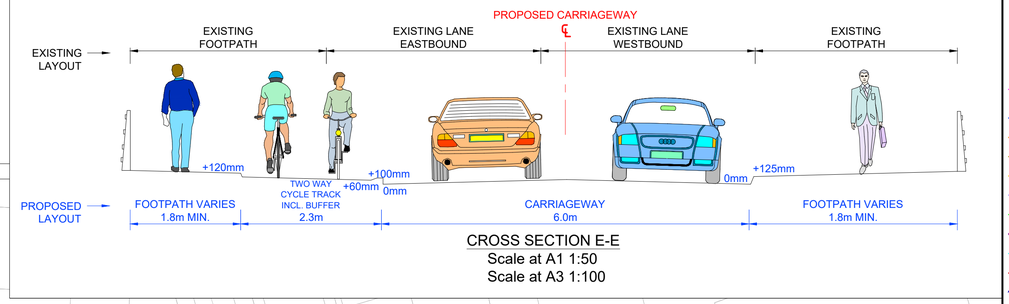
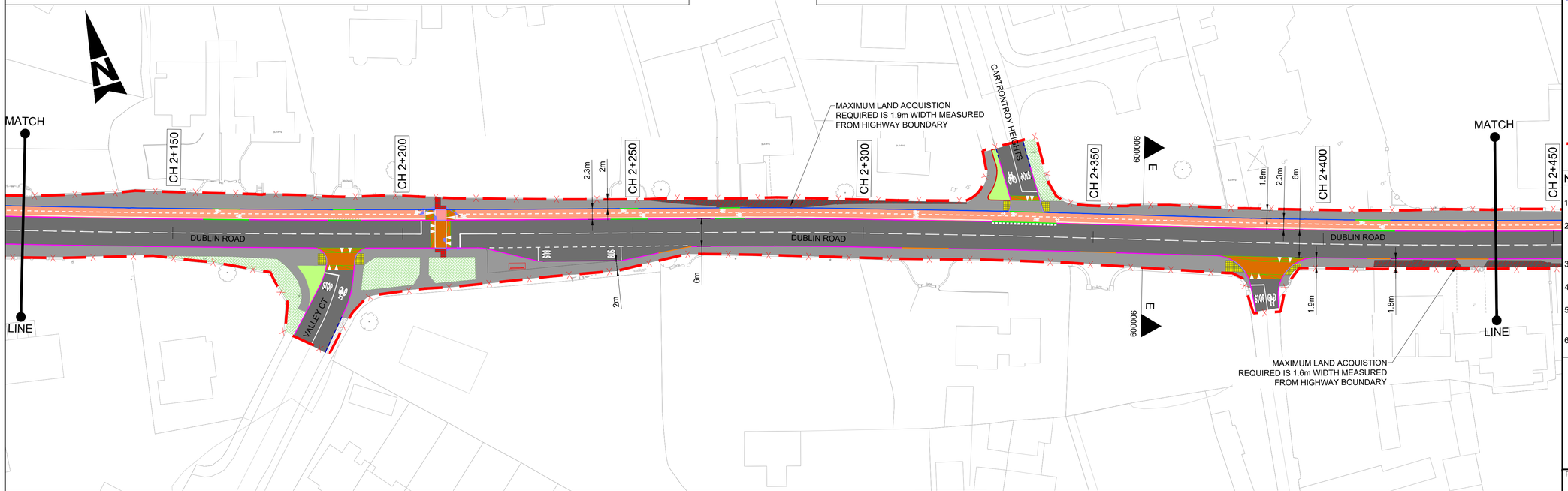
Scale at A3 1:100



CROSS SECTION E-E
Scale at A1 1:50
Scale at A3 1:100



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- CARRIAGEWAY
- PROPOSED SEGREGATION BUFFER/ HARD STANDING/ RUBBING STRIP
- PROPOSED CYCLE TRACK (STEPPED)
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- PROPOSED NEW / UPGRADED FOOTWAY
- PROPOSED LANDSCAPING
- PROPOSED REFUGE/ WAITING SPACE
- PROPOSED OVERRUN AREA
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- PROPOSED RAMP
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NOTES:

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A1
DO NOT SCALE
100
10
0

File: 0086381-ATK-XX-XX-DR-CE-900009.dwg
Date: Jun 24, 2025 - 1:35pm Plotted by: DUBS583

Risk Level		
	X	Atkins Base Line - Low Risk
		Atkins Sensitive - Medium Risk
		Atkins Private - High Risk
		Client Critical - Already Marked

NTA Údarás Náisiúnta Iompair National Transport Authority
WESTMEATH COUNTY COUNCIL Comhairle Chontae na hIarmhí
Rialtas na hÉireann Government of Ireland
Tionscadal Éireann Project Ireland 2040

Rev	Description	By	Date	Chk'd	Rev'd	Auth
C01	PART 8 SUBMISSION	SD	24/06/25	BD	AB	ST

AtkinsRéalis
Atkins House, 150-155 Airside Business Park, Swords, Co. Dublin Tel (+353) 01 810 8000 Fax (+353) 01 810 8001
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1st Floor Technology House Parkmore Technology Park, Galway Tel (+353) 091 786 050 Fax (+353) 091 779 830

Purpose: FOR PART 8 SUBMISSION
Client: WESTMEATH COUNTY COUNCIL
Project: ATHLONE ACTIVE TRAVEL SCHEMES BUNDLE CO. WESTMEATH
Title: ROUTE B GENERAL ARRANGEMENT SHEET 3 OF 6

Original Scale	Drawn	Checked	Reviewed	Authorised
1:500 at A1 1:1000 at A3	SD Date 24/06/25	BD Date 24/06/25	AB Date 24/06/25	ST Date 24/06/25

Status	Drawing Number	Rev
A2	0086381-ATK-B1-XX-DR-CE-900009	C01

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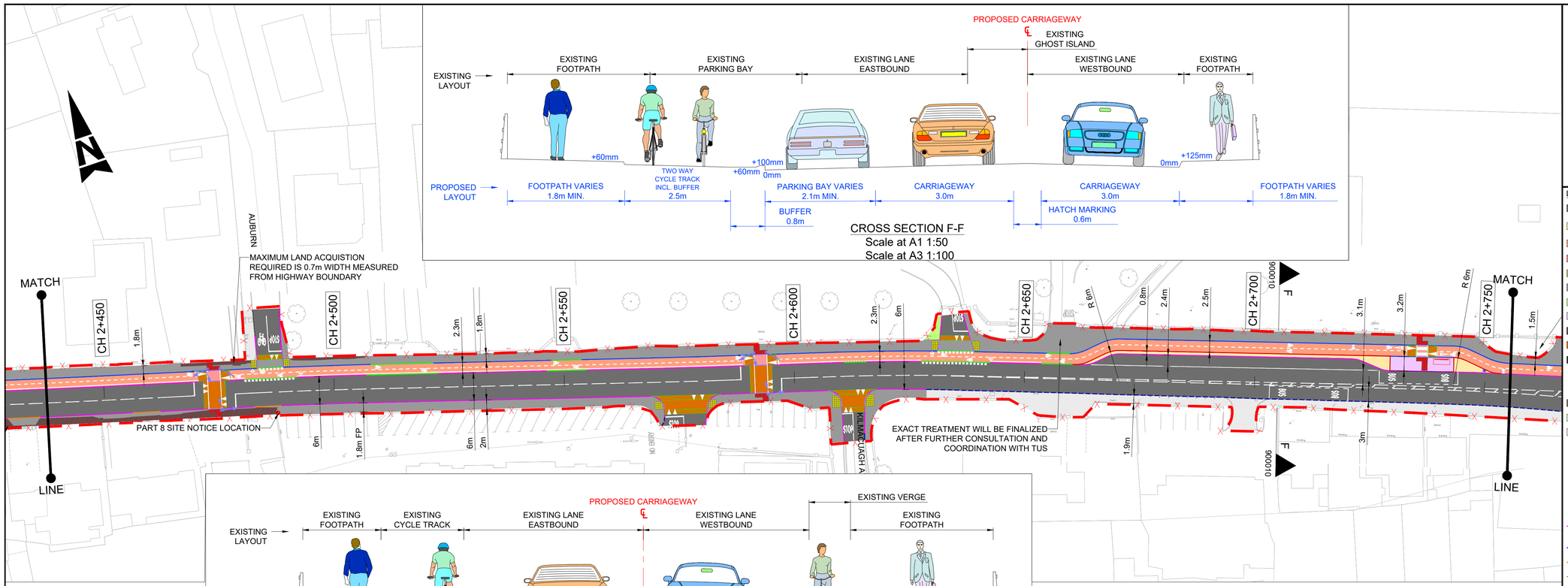

GENERAL NOTES

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A1

DO NOT SCALE

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Client: WESTMEATH COUNTY COUNCIL

Project: ATHLONE ACTIVE TRAVEL SCHEMES BUNDLE CO. WESTMEATH

Purpose: FOR PART 8 SUBMISSION

Title: ROUTE B GENERAL ARRANGEMENT SHEET 4 OF 6

Original Scale	Drawn	Checked	Reviewed	Authorised
1:500 at A1 1:1000 at A3	SD	BD	AB	ST
	Date 24/06/25	Date 24/06/25	Date 24/06/25	Date 24/06/25

Status	Drawing Number	Rev
A2	0086381-ATK-B1-XX-DR-CE-900010	C01

File: 0086381-ATK-HGN-XX-DR-CE-900010.dwg Date: Jun 24, 2025 - 1:40pm Plotted by: DUBE5583

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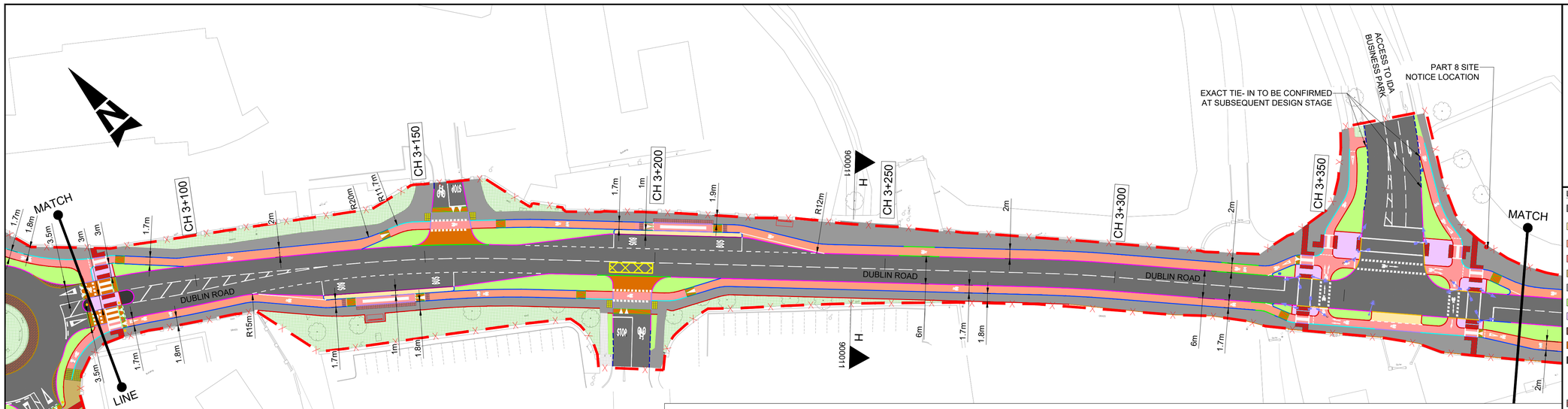
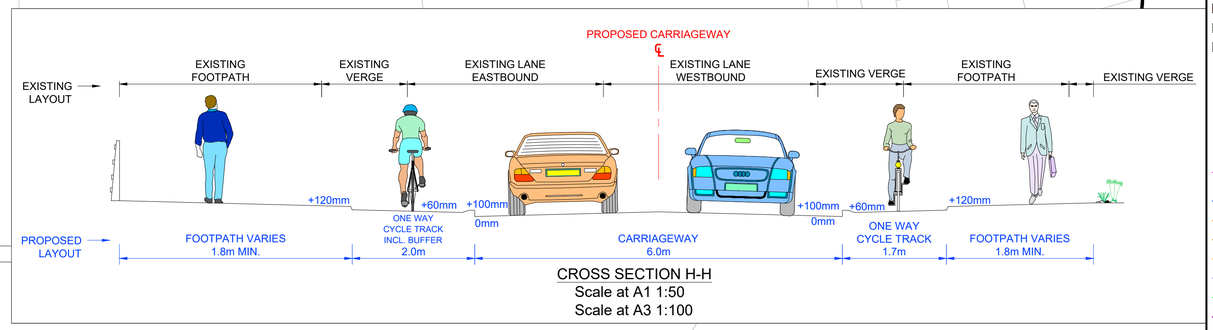
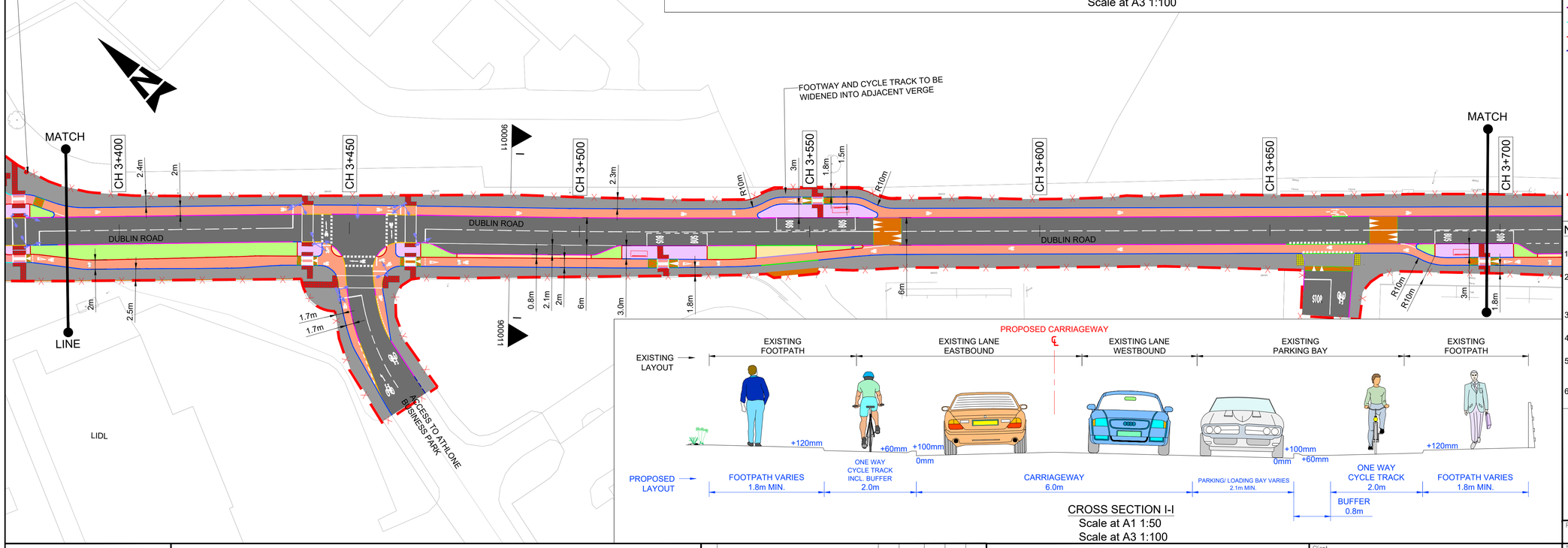




CROSS SECTION H-H
Scale at A1 1:50
Scale at A3 1:100



CROSS SECTION I-I
Scale at A1 1:50
Scale at A3 1:100

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2. PROPOSED ONE-WAY CYCLE TRACK, TWO-WAY CYCLE TRACK TO BE MINIMUM 1.7m (INCLUSIVE OF 0.2m BUFFER) AND 2.3m (INCLUSIVE OF 0.3m BUFFER) WIDE RESPECTIVELY UNLESS NOTED OTHERWISE.
3. PROPOSED FOOTWAY TO BE MINIMUM 1.8m WIDE UNLESS NOTED OTHERWISE.
4. OPPORTUNITIES TO MAXIMIZE CYCLE TRACK WIDTH IS STILL UNDER INVESTIGATION.
5. MATERIALS TO BE USED FOR LANDSCAPING/ HARD STANDING TO BE CONFIRMED AT SUBSEQUENT DESIGN STAGE.
6. EXACT ARRANGEMENT AT BUS STOP LOCATION TO BE CONFIRMED AT SUBSEQUENT DESIGN STAGE.

Purpose: FOR PART 8 SUBMISSION

Risk Level	X	
		Atkins Base Line - Low Risk
		Atkins Sensitive - Medium Risk
		Atkins Private - High Risk
		Client Critical - Already Marked

NTA Údarás Náisiúnta Iompair National Transport Authority
WESTMEATH COUNTY COUNCIL Comhairle Chontae na hIarmhí
Rialtas na hÉireann Government of Ireland
Tionscadal Éireann Project Ireland 2040

Rev	Description	By	Date	Chk'd	Rev'd	Auth
C01	PART 8 SUBMISSION	SD	24/06/25	BD	AB	ST

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Unit 2B, 2200 Cork Airport Business Park, Cork Tel (+353) 021 429 0300 Fax (+353) 021 429 0360
1st Floor Technology House Parkmore Technology Park, Galway Tel (+353) 091 786 050 Fax (+353) 091 779 830

Client: WESTMEATH COUNTY COUNCIL

Project: ATHLONE ACTIVE TRAVEL SCHEMES BUNDLE CO. WESTMEATH

Title: ROUTE B GENERAL ARRANGEMENT SHEET 5 OF 6

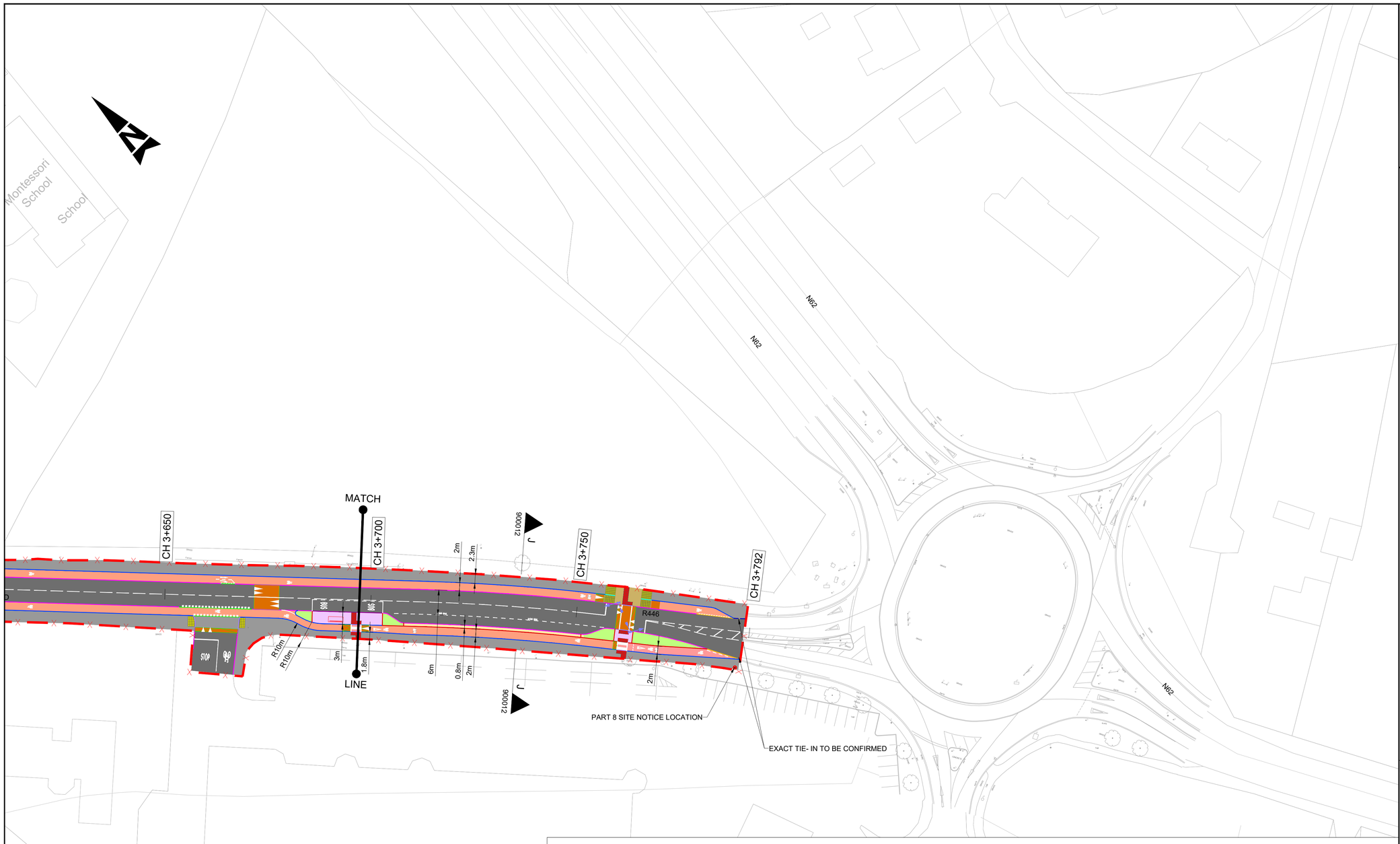
Original Scale	Drawn	Checked	Reviewed	Authorised
1:500 at A1 1:1000 at A3	SD Date 24/06/25	BD Date 24/06/25	AB Date 24/06/25	ST Date 24/06/25

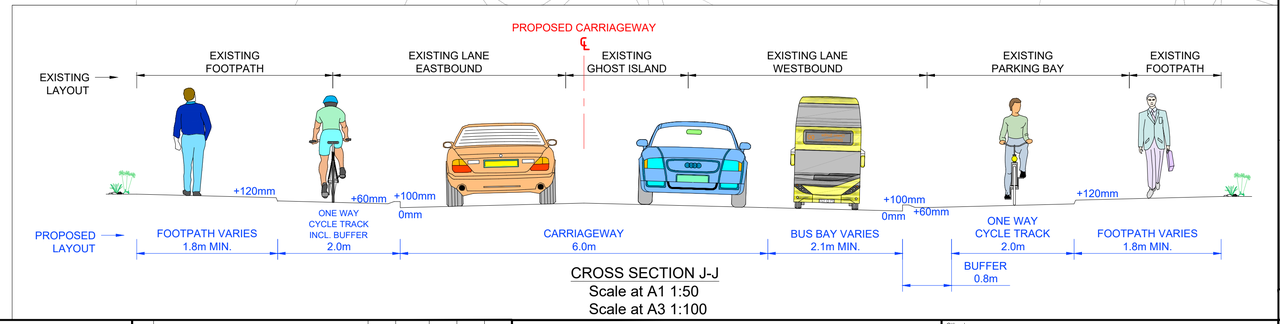
Status	Drawing Number	Rev
A2	0086381-ATK-B1-XX-DR-CE-900011	C01

A1 DO NOT SCALE

File: 0086381-ATK-HGN-XX-DR-CE-900011.dwg Date: Jun 24, 2025 - 2:04pm Plotted by: DUBE5583

P:\INGUA\Europe\Ireland\5228757-Athlone AT PD Route AB\400 Technical Information\403 Working Drawings and 3D Models\4032 Cad\Drawings (Current)\NTA\0086381-ATK-HGN-XX-DR-CE-900011.dwg





CROSS SECTION J-J
Scale at A1 1:50
Scale at A3 1:100

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

LEGEND

- CARRIAGEWAY
- PROPOSED SEGREGATION BUFFER/ HARD STANDING/ RUBBING STRIP
- PROPOSED CYCLE TRACK (STEPPED)
- PROPOSED CYCLE TRACK (FOOTWAY LEVEL)
- PROPOSED SHARED USE FACILITY
- PROPOSED NEW / UPGRADED FOOTWAY
- PROPOSED LANDSCAPING
- PROPOSED REFUGE/ WAITING SPACE
- PROPOSED OVERRUN AREA
- PROPOSED RAISED TABLE/ RAMP
- PROPOSED TRAFFIC ISLAND
- PROPOSED RAMP
- PROPOSED BUS SHELTER
- LAND ACQUISITION REQUIRED
- EXISTING LANDSCAPING TO BE RETAINED
- EXISTING FOOTWAY TO BE RETAINED
- PROPOSED TACTILE PAVING (CONTROLLED CROSSING - RED COLOUR)
- PROPOSED TACTILE PAVING (UNCONTROLLED CROSSING - BUFF COLOUR)
- PROPOSED TACTILE PAVING (CORDUROY)
- PROPOSED TACTILE PAVING (TRAMLINE AND LADDER)
- PROPOSED FULL HEIGHT CONCRETE KERB (UPSTAND 100/125mm)
- PROPOSED CONCRETE KERB (UPSTAND 60mm)
- PROPOSED DROPPED KERB (UPSTAND 25mm)
- PROPOSED BULL NOSED KERB (UPSTAND 50mm)
- PROPOSED FLUSH KERB (UPSTAND 0- 6mm)
- PROPOSED FLUSH KERB AT RAISED CROSSING
- PROPOSED BEVELLED ENTRANCE KERB
- PROPOSED KASSEL KERB
- PROPOSED CYCLE DEMARCATION KERB
- PROPOSED EDGING KERB
- EXISTING KERB TO BE RETAINED
- PROPOSED BOLLARD
- PROPOSED BELISHA BEACON
- PRIMARY TRAFFIC SIGNAL ASPECT
- SECONDARY TRAFFIC SIGNAL ASPECT
- PEDESTRIAN THREE ASPECT SIGNAL
- CYCLIST THREE ASPECT SIGNAL
- PROPOSED PEDESTRIAN PUSH BUTTON UNIT
- PROPOSED CYCLIST PUSH BUTTON UNIT
- PROPOSED SITE NOTICE LOCATION (PART 8)
- SITE EXTENT

NOTES:

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A1

DO NOT SCALE

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File: 0086381-ATK-HGN-XX-DR-CE-900012.dwg
Date: Jun 24, 2025 - 2:06pm Plotted by: DUBE5583

Risk Level		
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		Atkins Sensitive - Medium Risk
		Atkins Private - High Risk
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NTA Údarás Náisiúnta Iompair National Transport Authority

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Appendix B. Flood Risk Assessment

AtkinsRéalis

Flood Risk Assessment for Route B

Westmeath County Council

June 2025

0086381DG0048

ATHLONE ACTIVE TRAVEL SCHEMES 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 Athlone Active Travel Bundle Flood Risk Assessment.

AtkinsRéalis (WS) 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 21 pages including the cover.

Document history

Document title: Flood Risk Assessment for Route B

Document reference: 0086381DG0048

Revision	Purpose description	Originated	Checked	Reviewed	Authorised	Date
Rev 0	Draft	S. Nahas	S. Kamuni	G. Hanratty	G. Hanratty	06.08.2024
Rev 1	WCC Comments Addressed	K. Paija	S. Nahas	S. Kamuni	G. Hanratty	16.01.2025
Rev 2	For Part 8 Submission	K. Paija	S. Nahas	S. Kamuni	G. Hanratty	25.05.2025

Client signoff

Client	Westmeath County Council
Project	ATHLONE ACTIVE TRAVEL SCHEMES BUNDLE
Job number	0086381
Client signature/date	

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Figures

1. Introduction

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 & option selection, preliminary design and, statutory processes of active travel provisions and associated works on the Athlone Active Travel Schemes Bundle.

The project is located in Athlone which is a town situated on the border of Co. Roscommon and Co. Westmeath. In total there is approximately 16km of active travel planned for Athlone. The 15.8 km Active Travel Bundle identified has been divided into 6 separate sub routes. The scheme extents and routes are highlighted in Figure 1-1. Route B has been earmarked as the priority routes as they have been identified on the Department of Transport's Pathfinder Programme (a project launched in October 2022 which lists 35 exemplar transport projects to be delivered by local authorities and agencies around the country within the next 3 years)[1]. This report presents the Flood Risk Assessment for Route B.

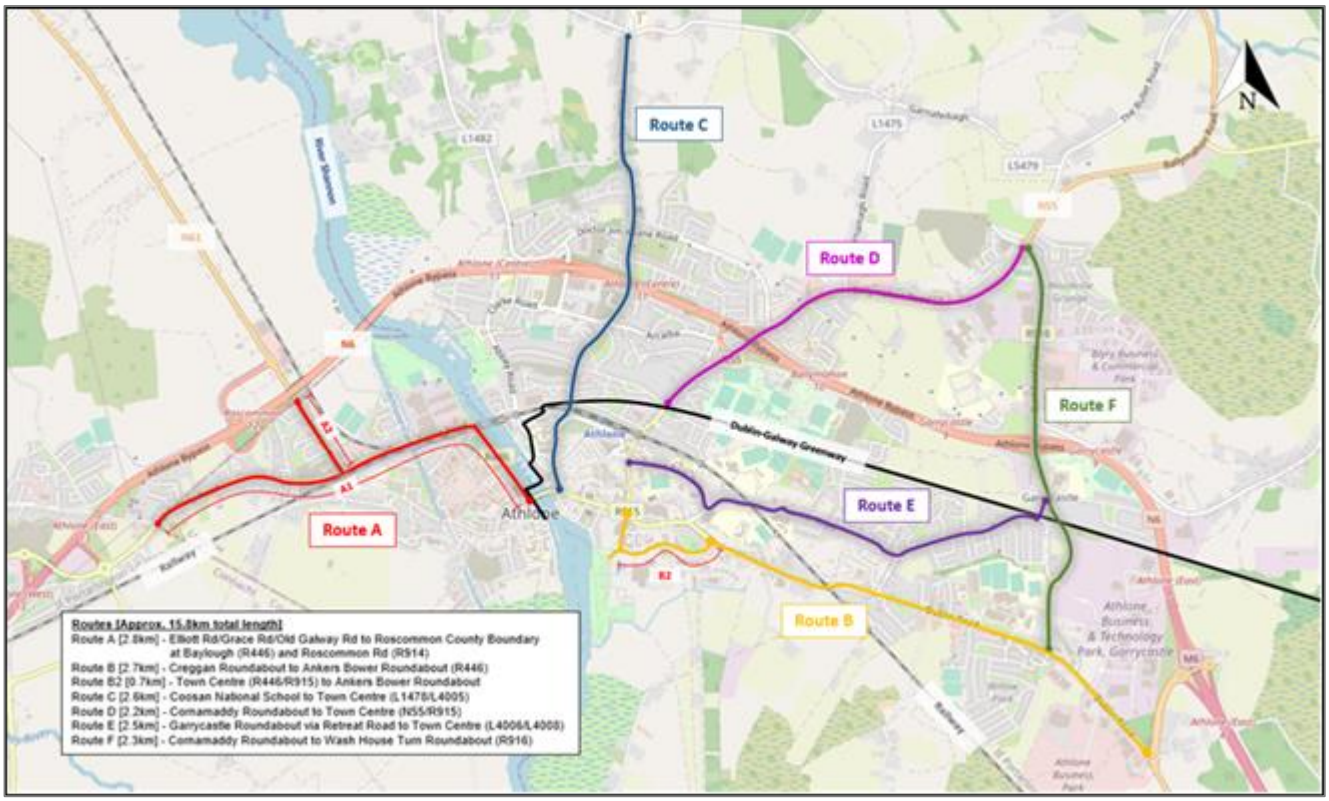


Figure 1-1 - Scheme routes and extents

1.1 Relevant Guidance

This FRA has been undertaken in consideration with 'The Planning System and Flood Risk Management – Guidelines for Planning Authorities' DOEHLG November 2009, which is the latest guidance document. The guidance has been

[1] The Pathfinder Programme only identifies the portion of Route A labelled as "A1" in Figure 1-1. It is noted that for the purposes of this project, Route A is made up of A1 and A2, due to the proximity and interconnectivity of these roads.

issued to ensure that flood risk is a key consideration for developers, planning & regional authorities, and the public in preparing and submitting development proposals. The principles of the guidance are as follows:

- Avoid the risk, where possible
- Substitute less vulnerable users, where avoidance is not possible, and
- Mitigate and manage the risk, where avoidance and substitution are not possible.

A staged approach is recommended within the guidance document in relation to identifying and assessing flood risk. The three stages of appraisal and assessment are as follows:

- Stage 1 Flood risk identification
- Stage 2 Initial flood risk assessment
- Stage 3 Detailed flood risk assessment

1.2 Flood Risk

Flood risk can be quantified by relating the probability of the flood event occurring to the consequence of the flood. Probability, in flood event terms, is gauged by potential annual occurrence/return period and flood consequence is dependent on the nature of the flood hazard and the vulnerability of the inundated area. The source-pathway-receptor model considers the components of flood risk.

The source is the hazard with the potential to cause harm through flooding (e.g., rainfall, high sea levels). The pathway is the mechanism by which the source can affect the receptor (e.g., inadequate drainage, overtopping of coastal defences) and finally, the receptor is anything which is affected by the flood event (e.g., people, infrastructure, property).

1.3 Causes of Flooding

The Planning System and Flood Risk Management Guidelines requires a FRA to consider all potential causes of flooding including the following:

- Coastal flooding
- Inland flooding
    - Overland flow
    - River flooding
    - Flooding from artificial drainage systems
    - Groundwater flooding
    - Estuarial flooding
    - Failure of infrastructure

1.4 Floodplains

A river flood plain is a low-lying area which receives excess flood water when the flow within the watercourse exceeds the capacity of the channel. A coastal flood plain is an area which, during high tide or increased sea levels, becomes inundated with sea water.

1.5 Assessing Flood Risk

In the context of the 'Planning System and Flood Risk Management Guidelines, DOEHLG, 2009' three flood zones are designated in the consideration of flood risk to a particular site. The three flood zones are described in Table 1-1 below.

Table 1-1 - Flood Zones

Flood Zone	Description
Flood 'Zone A'	where the probability of flooding from watercourses is the highest (greater than 1% or 1 in 100 year for watercourse flooding or 0.5% or 1 in 200 for coastal flooding).
Flood 'Zone B'	where the probability of flooding from watercourses is moderate (between 0.1% or 1 in 1000 year and 1% or 1 in 100 year for watercourse flooding, and between 0.1% or 1 in 1000 year and 0.5% or 1 in 200 for coastal flooding).
Flood 'Zone C'	where the probability of flooding from watercourses and the sea is low or negligible (less than 0.1% or 1 in 1000 year for both watercourse and coastal flooding). Flood Zone 'C' covers all areas which are not in Zones 'A' or 'B'.

The planning implications for each of the flood zones are:

Zone A - High probability of flooding. Most types of development would be considered inappropriate in this zone. Development in this zone should be avoided and/or only considered in exceptional circumstances, such as in city and town centres, or in the case of essential infrastructure that cannot be located elsewhere, and where the Justification Test has been applied. Only water-compatible development, such as docks and marinas, dockside activities that require a waterside location, amenity open space, outdoor sports and recreation, would be considered appropriate in this zone.

Zone B - Moderate probability of flooding. Highly vulnerable development, such as hospitals, residential care homes, Garda, fire and ambulance stations, dwelling houses and primary strategic transport and utilities infrastructure, would generally be considered inappropriate in this zone, unless the requirements of the Justification Test can be met. Less vulnerable development, such as retail, commercial and industrial uses, sites used for short-let for caravans and camping and secondary strategic transport and utilities infrastructure, and water-compatible development might be considered appropriate in this zone. In general, however, less vulnerable development should only be considered in this zone if adequate lands or sites are not available in Zone C and subject to a flood risk assessment to the appropriate level of detail to demonstrate that flood risk to and from the development can or will adequately be managed.

Zone C - Low probability of flooding. Development in this zone is appropriate from a flood risk perspective (subject to assessment of flood hazard from sources other than rivers and the coast) but would need to meet the normal range of other proper planning and sustainable development considerations.

2. Site Description

2.1 Site Location

The proposed Route B of the scheme is a c. 3.9km in length. The purpose of the Active Travel Bundle is to include a pedestrian and cycleway on the existing road R446 and road R915 in Athlone, Co. Westmeath. The proposed route extends from the Creggan Roundabout on R446 in the South to Athlone town centre where R915 crosses the Old Rail Trail Greenway. The proposed route is bound by the N6 National Road to the North & East and by River Shannon to the West. The proposed route is also bound by greenfields and developments of varying nature on all sides. Figure 2-1 below illustrates the location and the extents of the proposed route highlighted in red.

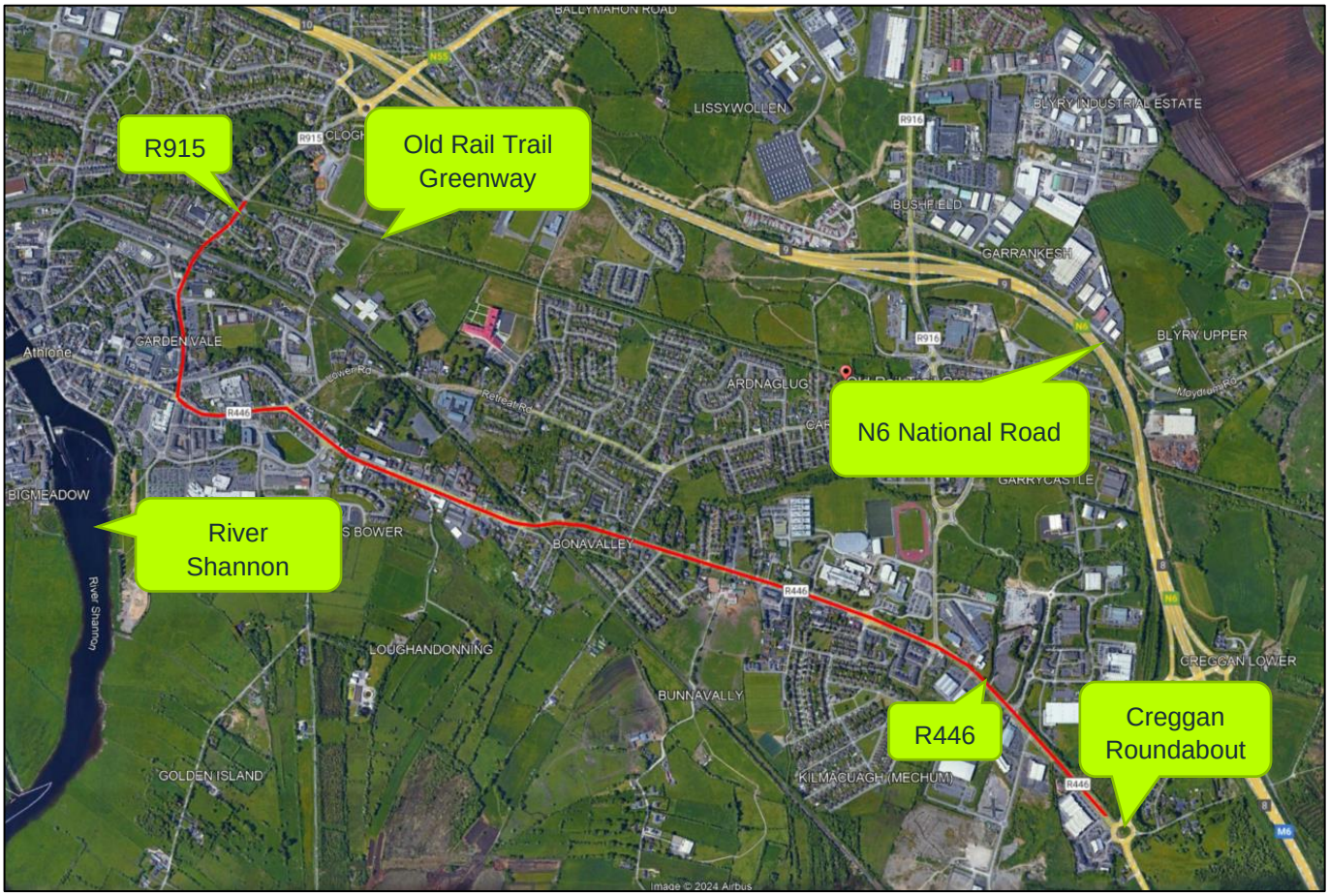


Figure 2-1 - Site Location

2.2 Topography

The topographical levels within the proposed route are undulating and range from approximately 37.88mOD to 49.06mOD, with the levels generally falling from the centre towards either end of the proposed route.

2.3 Local Hydrology & Existing Drainage

The Environmental Protection Agency (EPA) Geoportal (https://gis.epa.ie/EPAMaps/https://gis.epa.ie/EPAMaps/) was consulted in relation to the proposed route to identify nearby waterbodies. The closest water body to the proposed route is River Al which passes below R446 in the southeast and flows in a westerly manner. River Al finally discharges into River Shannon which flows towards the south as shown in Figure 2-2 below.

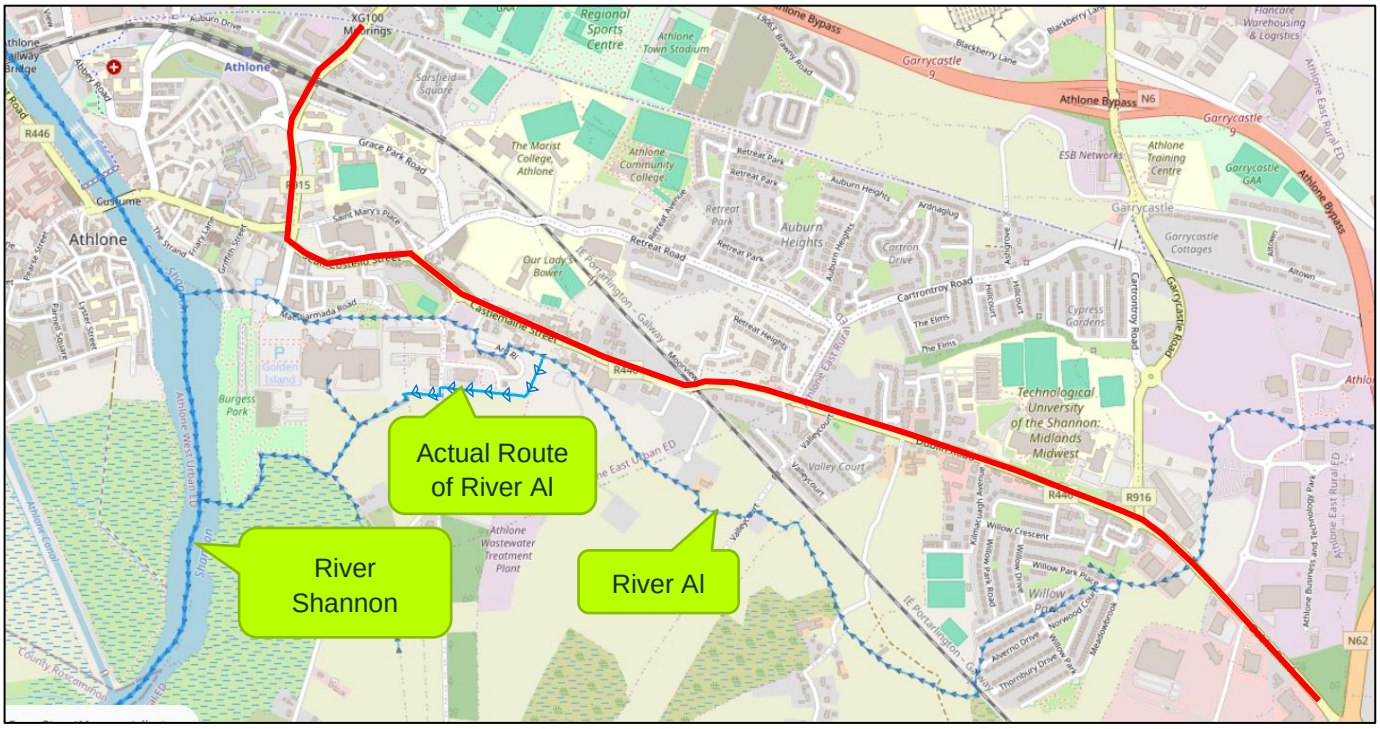


Figure 2-2 - Hydrological Features

3. Flood Risk Identification for the Site

In accordance with the planning guidelines, a Stage 1 Flood risk identification is required to be undertaken to identify if there are any flooding or surface water management issued related to the proposed route that may warrant further investigation. Initially, the following possible flood mechanisms for the proposed route have been identified:

Table 3-1 - Possible Flooding Mechanisms

Source/Pathway	Significant?	Comment/Reason
Coastal flooding	No	The proposed route is not close to coastal location.
Overland flow	No	The surrounding topography is relatively shallow.
River flooding	No	The proposed route is along existing roads with levels higher than the nearby water courses.
Flooding from artificial drainage systems	No	There is no urban drainage infrastructure within the route and in the immediate vicinity of the route.
Groundwater flooding	No	There are no significant springs or groundwater discharges recorded in the immediate vicinity of the route.
Estuarial flooding	No	The route is not at an estuarial location.
Failure of infrastructure	No	There are no hydraulic structures in the direct vicinity of the route.

Table 3-1 above demonstrates that the proposed route is not at risk of flooding, however the report will continue to confirm the initial assumptions detailed above.

3.1 Flood Risk Investigation

3.1.1 OPW Flood Maps

The Office of Public Works (OPW) interactive map viewer (http://www.floodinfo.ie/map/floodmaps/) displays the predicted flood extents for both rivers and coastal areas over various return periods. The viewer was consulted in relation to the proposed route.

From the maps, it is evident that the proposed route is not at risk from fluvial flooding from the Shannon River or its tributaries for any return period. The floodmaps have been included as Appendix A of this report.

3.1.2 Historical Flood Records

The GeoHive map viewer (http://map.geohive.ie/mapviewer.html) was consulted to review available historic mapping for the proposed route which can contain evidence of historical flooding incidences or occurrences. The maps consulted were the pre-1900's historic 6-inch colour and 25-inch maps. The maps did not show any evidence of historic flooding along the proposed route. The 6-inch map and the 25-inch map are shown in Figure 3-1 and Figure 3-2 respectively, with the route indicated in red.

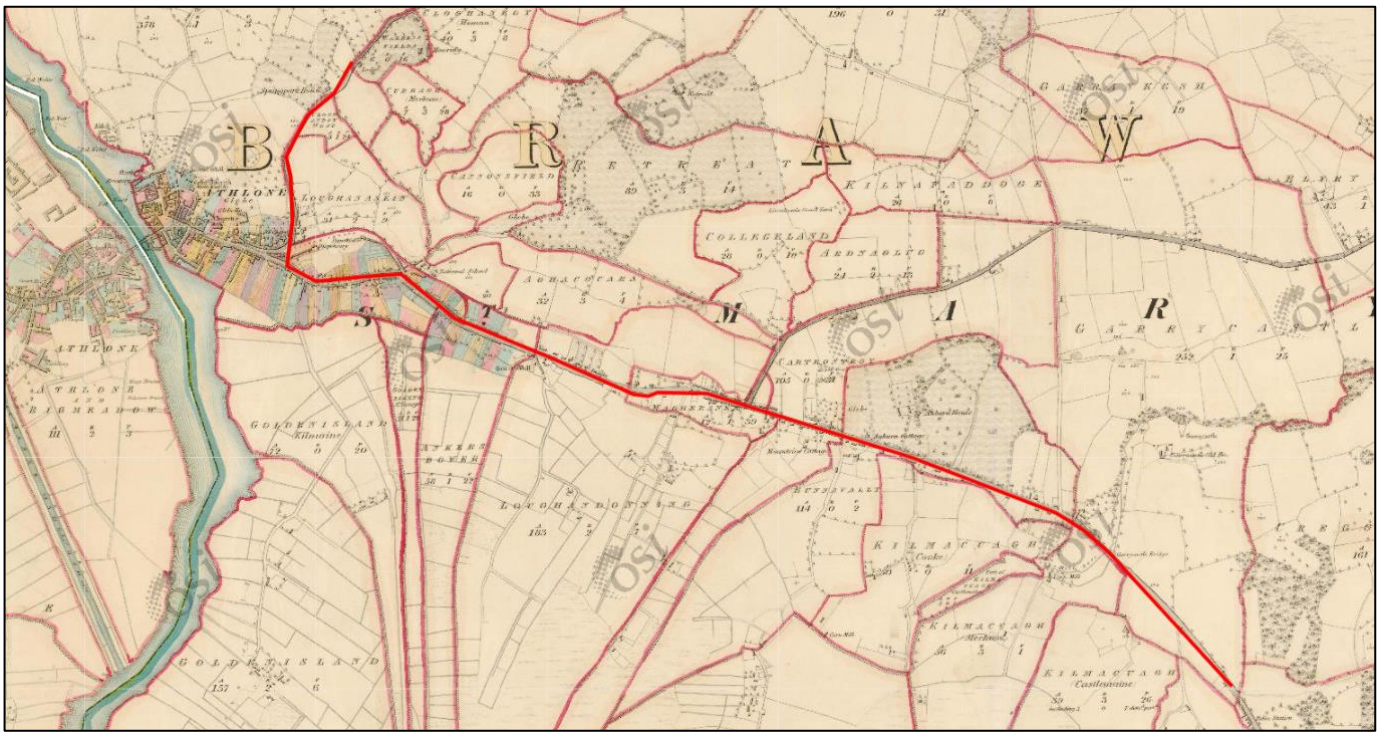


Figure 3-1 - Historic 6-inch Colour Map

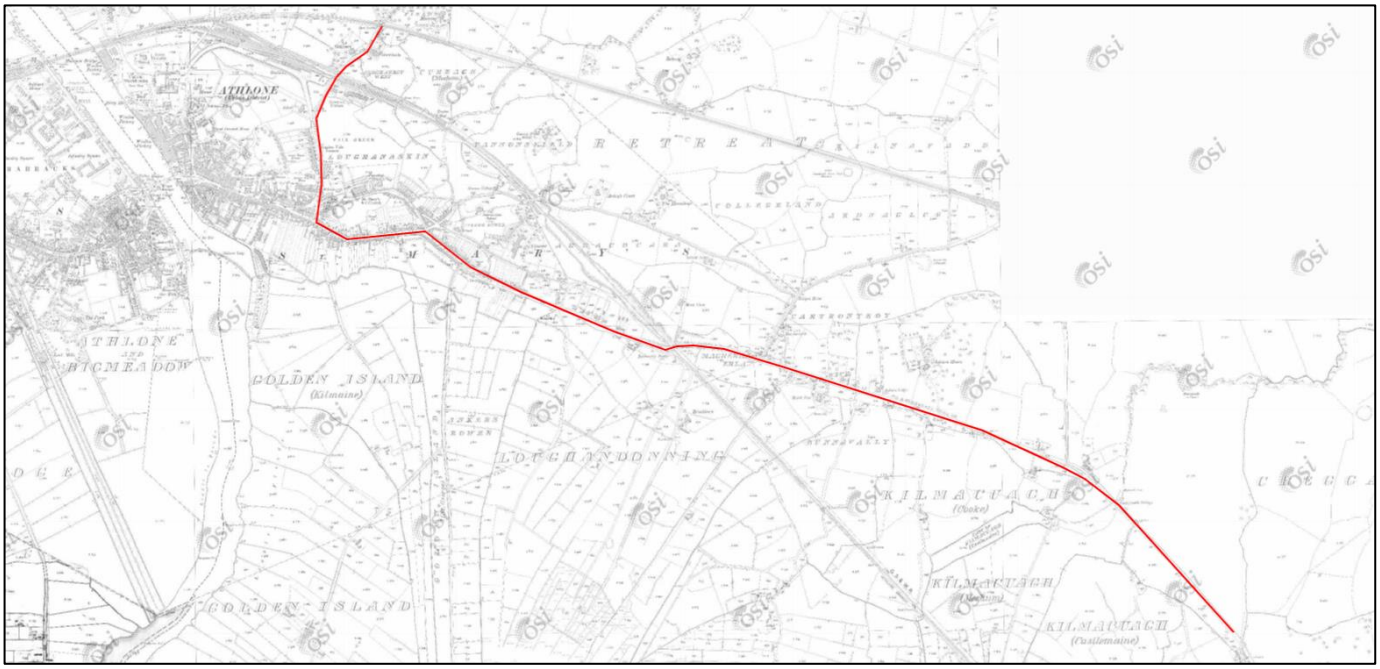


Figure 3-2 - Historic 25-inch Map

3.1.3 Historic Flooding

The Office of Public Works (OPW) interactive map viewer http://www.floodinfo.ie/map/floodmaps was consulted to view any historic flood events located along the proposed route.

Figure 3-3 shows a recurring flood event that has been identified on the Northern section of the proposed route on Railway Bridge on Ballymahon Road. The cause of flooding is mentioned as heavy rainfall, on the report dated 03/10/2005, which flows down to low lying areas below the railway bridge up until the roundabout in the north every year. Several other flood events have been identified all of which fall outside the proposed route environs as shown in Figure 3-3. The closest flood event identified outside the route environs is c.210m to South of the route at Wolfe Tone Terrace in Athlone.

Figure 3-3 - Historic Flood Events

The Athlone Flood Alleviation Scheme was also consulted, which reports a major flood event in 2016. It notes that this event is the largest recorded in the area and has an estimated frequency of 1% AEP. However, no record of this event is available on the OPW website.

3.1.4 Geological Survey of Ireland Mapping

The soils maps of Geological Survey of Ireland (GSI) were consulted to determine the presence of alluvium deposits in the vicinity of the proposed route. Deposition of Alluvium deposits can be an indicator of areas which have flooded in the recent geological past.

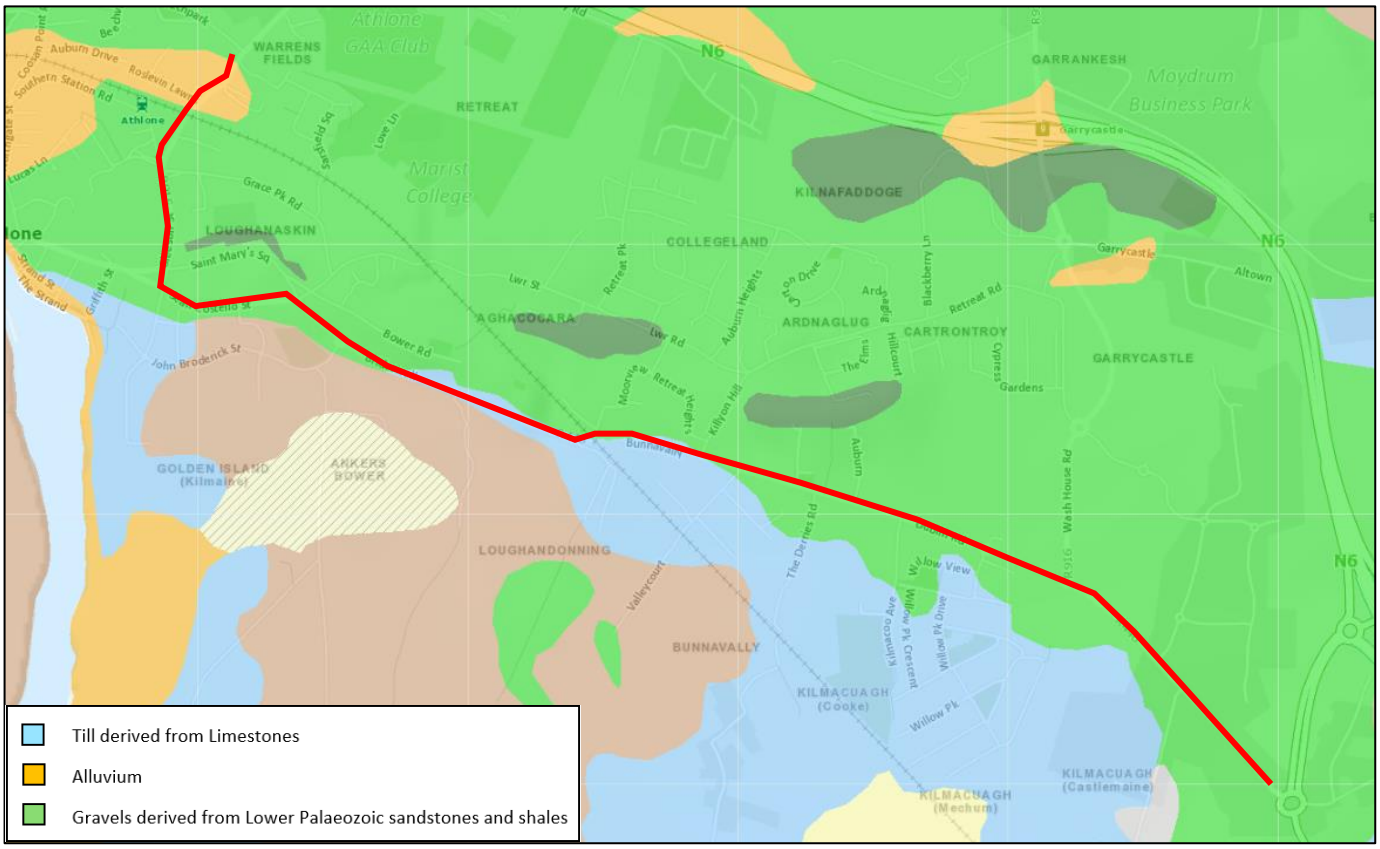


Figure 3-4 - GSI Soil Map

Figure 3-4 above shows the soils mapping for the proposed route which indicates presence of alluvium along the northern section of the proposed route. Other sediments identified on the proposed route include Till derived from limestones and Gravels derived from Palaeozoic sandstones and shales.

3.1.5 Westmeath County Development Plan 2021-2027

The Westmeath County Development Plan (CDP) Strategic Flood Risk Assessment (SFRA) was consulted in relation to the proposed route. The report states that Athlone is excluded from the SFRA as it will be subject to separate Urban Area and Local Area Plan.

3.1.6 Athlone Town Development Plan 2014–2020

The flood risk map created as part of the Athlone Town Development Plan 2014-2020 was consulted in relation to the proposed route. An extract of the map is shown in Figure 3-5 with the proposed route indicated in red. The map indicates that majority of the proposed route is in floodzone C except a section in the East which is identified to be within the 100 year fluvial flood event extents. The identified stream is noted to be the tributary of a River Shannon which flows from North to South. Based on the desktop study, it is observed that the tributary crosses the R446 and travels southwest, flowing between a residential development and finally discharging into River Shannon. However, based on the existing development, it is observed that the tributary does not affect R446 and the surrounding existing structures.

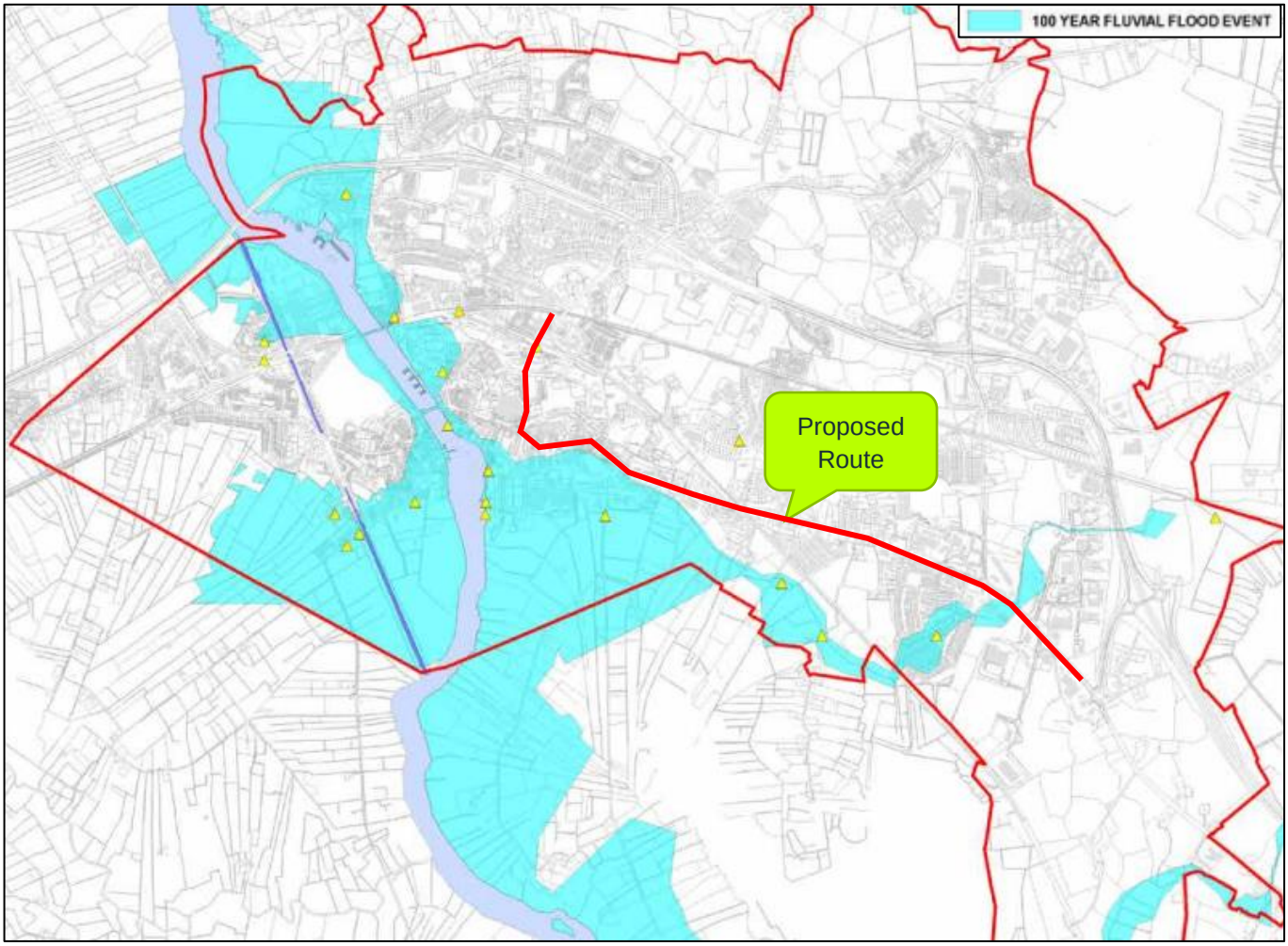


Figure 3-5 - Athlone Flood Risk Map

3.1.7 Potential receptors

A receptor of flooding can include people, their property and the environment. The vulnerability of a potential receptor must be identified and reviewed for all sites which are at risk of flooding.

In accordance with the planning guidelines, it is deemed that the proposed route should be classified as “water compatible”.

4. Conclusion and Recommendations

4.1 Conclusion of Flood Risk Identification

The purpose of the Stage 1 Flood risk identification process is to establish whether a flood risk issue currently exists or may exist in the future. If a potential flood risk issue is identified the risk will be investigated in further detail by undertaking a Stage 2 – Initial flood risk assessment. However, if no potential flood risk is identified then the overall assessment can conclude at this point.

In relation to the Proposed Route B of the Athlone Active Travel Scheme which proposes to include a pedestrian and cycleway on two existing roads in Athlone, based on the Stage 1 - Flood risk identification findings discussed above, the flood risk study shall be concluded at this point as the proposed route is not at risk from flooding.

A Stage 1 flood risk assessment has been completed in accordance with *The Planning System and Flood Risk Management – Guidelines for Planning Authorities* and the following conclusions can be drawn;

- OPW floodmaps indicates that the proposed route is in Floodzone C.
- Athlone County Development Plan Floodmap indicates that majority of the proposed route is located in Floodzone C, except a section in the East on R446 which is identified to be in Floodzone A. However, further desk study indicated that R446 and the surrounding existing structures are not affected by the stream.
- Historic risk of flooding is identified at a northern section of the proposed route. In view of records of historic flooding on the proposed route, it is recommended that in advance of the construction stage of the proposed route, the nominated contractor shall have in place a flood emergency plan so that any flooding from the River Shannon during construction stage can be mitigate against. During operational stage it will be the responsibility of Westmeath County Council to manage the proposed route during a flood event.

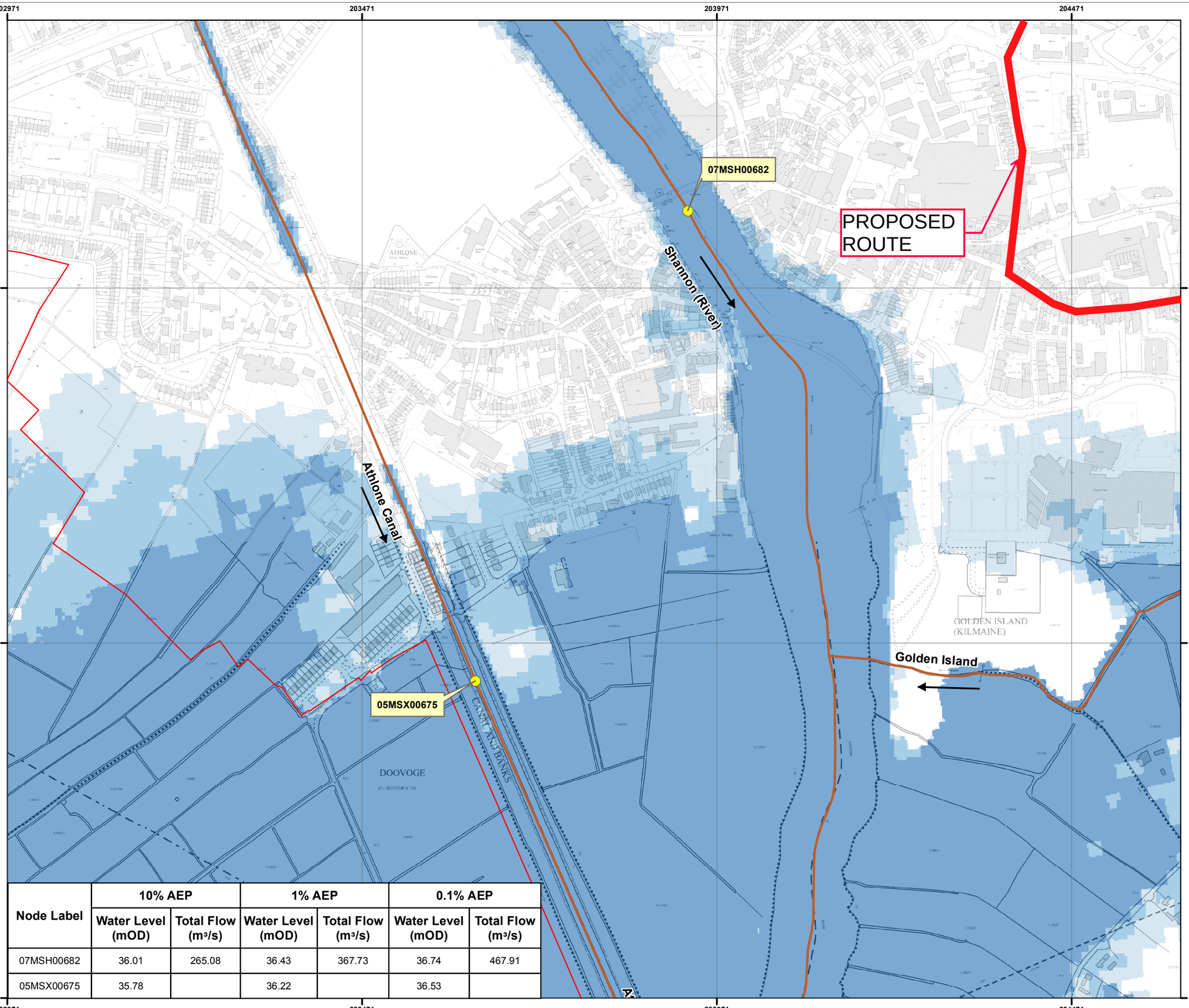
4.2 Recommendations

The following recommendations should be considered;

- Suitable Sustainable Urban Drainage systems (SUDs) are to be used within the proposed scheme to reduce surface water runoff from the route where feasible and designed in accordance with CIRIA report C753 ‘The SuDS Manual V-6’.
- Location of culverts along the proposed route if any, must be confirmed. Maintenance of the culverts must be carried out as and when necessary to prevent any blockage which can lead to a flood risk.

APPENDICES

Appendix A. OPW Flood Maps



Node Label	10% AEP		1% AEP		0.1% AEP	
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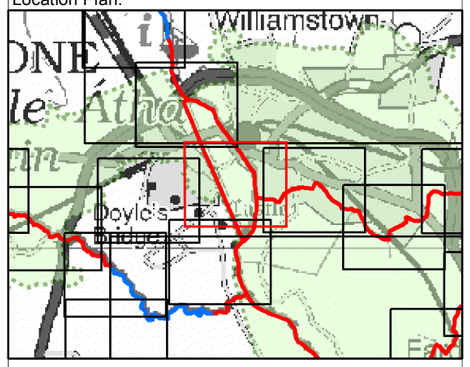
07MSH00682	36.01	265.08	36.43	367.73	36.74	467.91
05MSX00675	35.78		36.22		36.53	

0 50 100 200 300 400 500 Meters

Location Plan:



Legend:

- Nodes
- Model Reach
- AFA Boundary
- Flood Defence: Wall
- Flood Defence: Embankment
- Defended Area

10% AEP Fluvial Flood Extent
(1 in 10 chance in any given year)

1% AEP Fluvial Flood Extent
(1 in 100 chance in any given year)

0.1% AEP Fluvial Flood Extent
(1 in 1000 chance in any given year)

IMPORTANT USER NOTE:
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The Office of Public Works
Jonathan Swift Street
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C15 NX36

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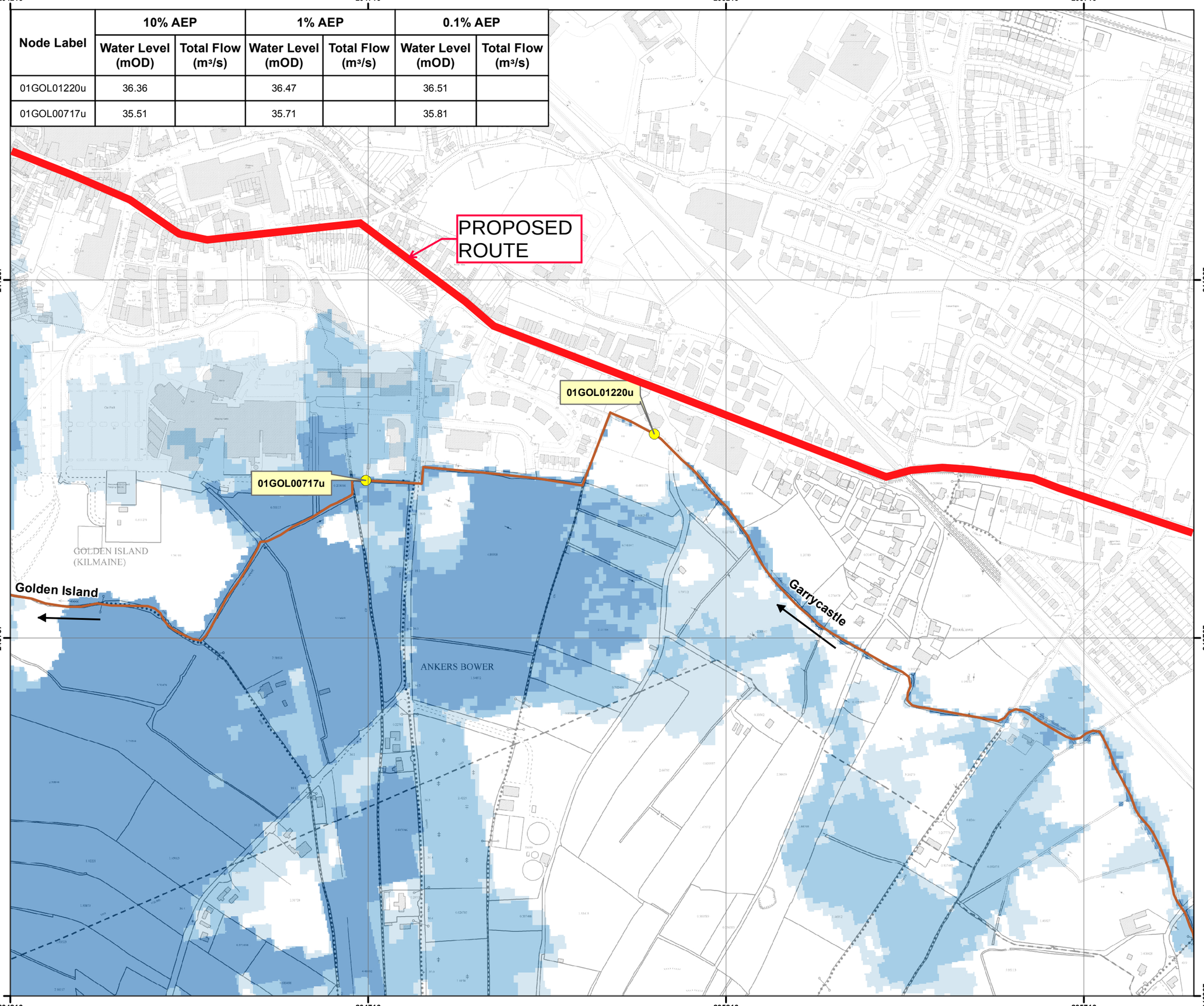
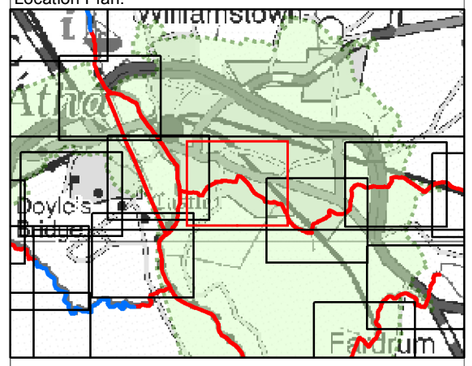
Project:	SHANNON CFRAM STUDY
Map Type:	EXTENT
Source:	FLUVIAL
Area:	ATHLONE
Scenario:	EXISTING
Drawn by: EF	Date: JUNE 2016
Checked by: AC	Date: JUNE 2016
Reviewed by: MC	Date: JUNE 2016
Approved by: PS	Date: JUNE 2016
Map Number:	S2526ATN_EXFCD_F1_05
Sheet: 5 of 25	Revision: 0
Map Scale: 1: 5000	Plot Scale: 1:1 @ A3

Node Label	10% AEP		1% AEP		0.1% AEP	
	Water Level (mOD)	Total Flow (m³/s)	Water Level (mOD)	Total Flow (m³/s)	Water Level (mOD)	Total Flow (m³/s)
01GOL01220u	36.36		36.47		36.51	
01GOL00717u	35.51		35.71		35.81	



Location Plan:



Legend:

- Nodes
- Model Reach
- AFA Boundary
- Flood Defence: Wall
- Flood Defence: Embankment
- Defended Area

10% AEP Fluvial Flood Extent
(1 in 10 chance in any given year)

1% AEP Fluvial Flood Extent
(1 in 100 chance in any given year)

0.1% AEP Fluvial Flood Extent
(1 in 1000 chance in any given year)

IMPORTANT USER NOTE:
THE VIEWER OF THIS MAP SHOULD REFER TO THE DISCLAIMER, GUIDANCE NOTES AND CONDITIONS OF USE THAT ACCOMPANY THIS MAP.

OPW
The Office of Public Works
Jonathan Swift Street
Trim
Co. Meath
C15 NX36

JACOBS
Merrion House
Merrion Road
Dublin 4
D04 R2C5

Project:	SHANNON CFRAM STUDY
Map Type:	EXTENT
Source:	FLUVIAL
Area:	ATHLONE
Scenario:	EXISTING
Drawn by: EF	Date: JUNE 2016
Checked by: AC	Date: JUNE 2016
Reviewed by: MC	Date: JUNE 2016
Approved by: PS	Date: JUNE 2016
Map Number:	S2526ATN_EXFCD_F1_15
Sheet: 15 of 25	Revision: 0
Map Scale: 1: 5000	Plot Scale: 1:1 @ A3

Meters
0 50 100 200 300 400 500

205472 205972 206472 206972

240683 240183 239683

PROPOSED ROUTE

01GOL04215d

01GOL03432d

01GOL02819d

Garrycastle

GARRYCASTLE

KILMACUAGH (MECHUM)

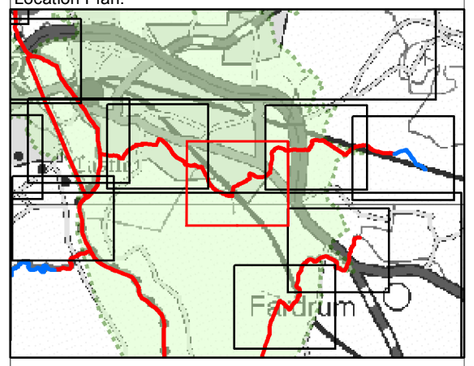
KILMACUAGH (CASTLEMAINE)

DERRIES

Node Label	10% AEP		1% AEP		0.1% AEP	
	Water Level (mOD)	Total Flow (m^3/s)	Water Level (mOD)	Total Flow (m^3/s)	Water Level (mOD)	Total Flow (m^3/s)
01GOL04215d	48.04	1.48	48.19	2.41	48.33	3.28
01GOL03432d	42.22	2.05	42.42	3.37	42.56	4.58
01GOL02819d	40.11	3.22	40.33	5.12	40.51	7.19

0 50 100 200 300 400 500 Meters

Location Plan:



Legend:

- Nodes
- Model Reach
- AFA Boundary
- Flood Defence: Wall
- Flood Defence: Embankment
- Defended Area

10% AEP Fluvial Flood Extent
(1 in 10 chance in any given year)

1% AEP Fluvial Flood Extent
(1 in 100 chance in any given year)

0.1% AEP Fluvial Flood Extent
(1 in 1000 chance in any given year)

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Project:		SHANNON CFRAM STUDY
Map Type:		EXTENT
Source:		FLUVIAL
Area:		ATHLONE
Scenario:		EXISTING
Drawn by:	EF	Date: JUNE 2016
Checked by:	AC	Date: JUNE 2016
Reviewed by:	MC	Date: JUNE 2016
Approved by:	PS	Date: JUNE 2016
Map Number:		S2526ATN_EXFCD_F1_16
Sheet: 16 of 25		Revision: 0
Map Scale: 1: 5000		Plot Scale: 1:1 @ A3

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AtkinsRéalis - Baseline / Référence