

Carrigaline Phase 1A

Part 8 Planning Report

Reference: REP 001

Issue 1 | 9 June 2022



This report takes into account the particular instructions and requirements of our client. It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 285392-00

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1. Introduction

1.1 Objective of Report and Scheme Overview

The Carrigaline Transportation and Public Realm Plan (TPREP) has been prepared by Cork County Council to provide the framework for an integrated transport network for Carrigaline with the purpose of rejuvenating the town centre, improving and encouraging a significant increase in the number of people using sustainable modes of transport and enhancing cycle and pedestrian amenities for residents.

Carrigaline TPREP is an integrated transportation framework focused on addressing the transportation infrastructure and public realm enhancement required to support the sustainable development of the town. This plan was developed in 2020 and 2021 and was endorsed by the Elected Members at the Carrigaline Municipal District meeting on 19 July 2021.

This report represents the Part VIII Planning Report for the first implementation phase, Phase 1A, which includes Main Street, Church Hill, sections of Ballea Road and Lower Kilmoney Road along with the Bridgemount Link connecting Heron's Wood with Bridgemount. The objective of the report is to provide background to the project, outline the extent of the scheme and to provide a brief summary of accompanying documentation and drawings.

It is envisaged that the delivery of the Carrigaline TPREP Phase 1A would provide the catalyst Carrigaline requires to support a more vibrant and healthy town centre. The delivery of this scheme would also encourage a change in mindset with respect to mobility within the town itself. It is proposed that the public realm enhancement of Main Street would follow the opening of the Western Inner Relief Road (IRR) which is due to open to traffic in 2022. The Inner Relief Road provides an alternative vehicular traffic route between north and south of Carrigaline. Along with the proposed changes in traffic management measures on Main Street, the proposed scheme would facilitate increased accessibility by more sustainable modes of transport and allow for the enhancement of the urban realm.

Bridgemount Link connecting Heron's Wood with Bridgemount and other community facilities in Carrigaline is an important connection for active travel modes. Its delivery will enhance the town's accessibility by sustainable transport modes, connect schools and residential estates, provide more direct routes and support the wider delivery of an integrated pedestrian and cycle network for the town as envisaged in the Carrigaline TPREP.

The combined works included for in Phase 1A would provide enhanced connectivity between the town centre and the north east sector of Carrigaline via the Main Street - Bóthar Guidel - Bridgemount Link. This highly strategic link would provide an attractive route for pedestrians and cyclists between residential estates, schools and the town centre creating the change needed in Carrigaline to deliver on the sustainable transport vision for the town.

Some of the benefits of the scheme includes:

- Introduction of high quality public realm space in the heart of the town centre providing opportunities for existing and new businesses in the town;
- Better connection between residential estates, schools and the town centre by providing a green link through Heron's Wood to Bridgemount, reducing the need for car journeys;
- Encouraging sustainable modes of transport by expanding high quality walking, cycling and public transport routes and improve the priority of these transport modes in Carrigaline;
- Reduction of the dominance of the car on Main Street and providing a safer pedestrian and cycling environment in the heart of the town;
- Introduction of native trees and pollinator friendly green space; and
- A new attractive town centre with space for spill out seating in front of cafes and restaurants, space for art, exhibitions and markets, a quieter and less stressful environment, quality landscaping and street furniture.

1.2 Part 8 Documents

The following is a list of documents and drawings contained in the Part 8 Planning application:

- Carrigaline Transportation and Public Realm Plan;
- Public Realm Enhancement Drawings;
- Traffic Management Drawings;
- Appropriate Assessment Screening Report;
- Environmental Impact Assessment Screening Report;
- Archaeological Architectural and Cultural Heritage Studies;
- Ecological Impact Assessment;
- Flood Risk Assessment Report;
- Planning Report;
- Photomontages;
- Main Street Animation;
- Bridgemount to Heron's Wood Animation; and
- Public Notice.

1.3 Inspection of Plans and Particulars

Plans and particulars of the proposed development are available for inspection and / or purchase for a fee of €15 per set from 10th June 2022 until 8th July 2022 between the hours of 09:00 to 16:00 on each working day during which the said offices are opened for the transaction of business at the following venues / locations:

- Planning Counter, Ground Floor, County Hall, Cork
- Carrigaline Municipal District Office, Church Road, Carrigaline Middle, Carrigaline, Co. Cork P43 E281
- Carrigaline library, Carrigaline Middle, Carrigaline, Co. Cork, P43 HA25

A virtual exhibition will be available online from June 10th 2022 until July 8th 2022. This will provide the general public with access to view the plans and documentation in an exhibition-style setting. The link for the virtual exhibition is:

<https://www.corkcoco.ie/en/planning/traffic-transport/statutory-processes>

1.4 Submissions and Observations

Submissions or observations with respect to the proposed development, dealing with the proper planning and sustainable development of the area in which the development would be situated, may be made on or before 17:00 on Friday July 22th, 2022 as follows:

- Online submission form on Cork County Council's website at www.yourcouncil.ie; or
- In writing clearly marked: '*Part 8 – Carrigaline TPREP Phase 1A*', Senior Engineer, Traffic & Transportation, Cork County Council, Floor 3, County Hall, Carrigrohane Road, Cork, T12 R2NC'.

It should be noted that the Freedom of Information Act applies to all records held by Cork County Council.

2. Background

2.1 Carrigaline Transportation and Public Realm Enhancement Plan

The Carrigaline TPREP is a strategic transportation plan for the town which outlines the required infrastructure to encourage more walking, cycling and public transportation use. The vision of the TPREP is to provide a framework for an integrated transport network for Carrigaline with the purpose of rejuvenating the town centre, enhancing cycle and pedestrian amenities for residents and promoting connectivity with surrounding destinations by sustainable travel modes.

The vision will be achieved by:

- Creating an attractive town centre and reducing the presence of cars in the centre of the town;
- Developing a transport hierarchy focussed on pedestrians, cyclists and public transport;
- Connecting schools, the town centre and other community facilities to residential areas with a comprehensive active mode network;
- Providing routes on the outskirts of towns to accommodate vehicular traffic, and
- Reducing the volume of traffic on Main Street.

The starting point in the development of the Carrigaline TPREP was to review the existing travel patterns, identify the available transport infrastructure within and serving the town and identify opportunities for enhancement particularly with respect to public realm. In conjunction, with this existing information, future travel demand projections were made based on national policy expectations and existing trends. A local traffic model, based on the National Transportation Authority's South Western Regional Model (SWRM) was developed to represent future year travel patterns. The above base information was used to develop an understanding of current transportation issues, along with future constraints and opportunities. While travel demand is expected to grow over the next two decades, it was identified that the current, high vehicle reliance is not sustainable and that change in travel modes will need to be adopted in Carrigaline to ensure future mobility is maintained in and through the town.

The Plan developed eight transport strategy options. Each strategy included enhancements for pedestrians, cyclists and public transport users in Carrigaline.

The transportation strategy options were assessed individually based on established key criteria to allow a comparison between the options and to identify an emerging preferred transportation strategy. This strategy was further developed to include additional detail with respects to active and sustainable modes.

The emerging preferred transportation strategy as identified in the Carrigaline TPREP included an elaborate pedestrian and cycle network divided into 'strategic', 'primary', 'secondary' and 'feeder' routes. This strategy also included traffic management measures on Main Street to reduce the impact traffic has on the enjoyment of this street by other users (i.e. pedestrians, shoppers, etc.) and interventions to divert traffic to other more appropriate routes using the proposed Western, Eastern and Southern Outer Distributor Roads. Insets 1 and 2 on Figure 1 shows the proposed strategic, primary and secondary pedestrian and feeder cycle network for Carrigaline while Insets 3 and 4 shows the traffic management measures on Main Street and on the periphery of the town.

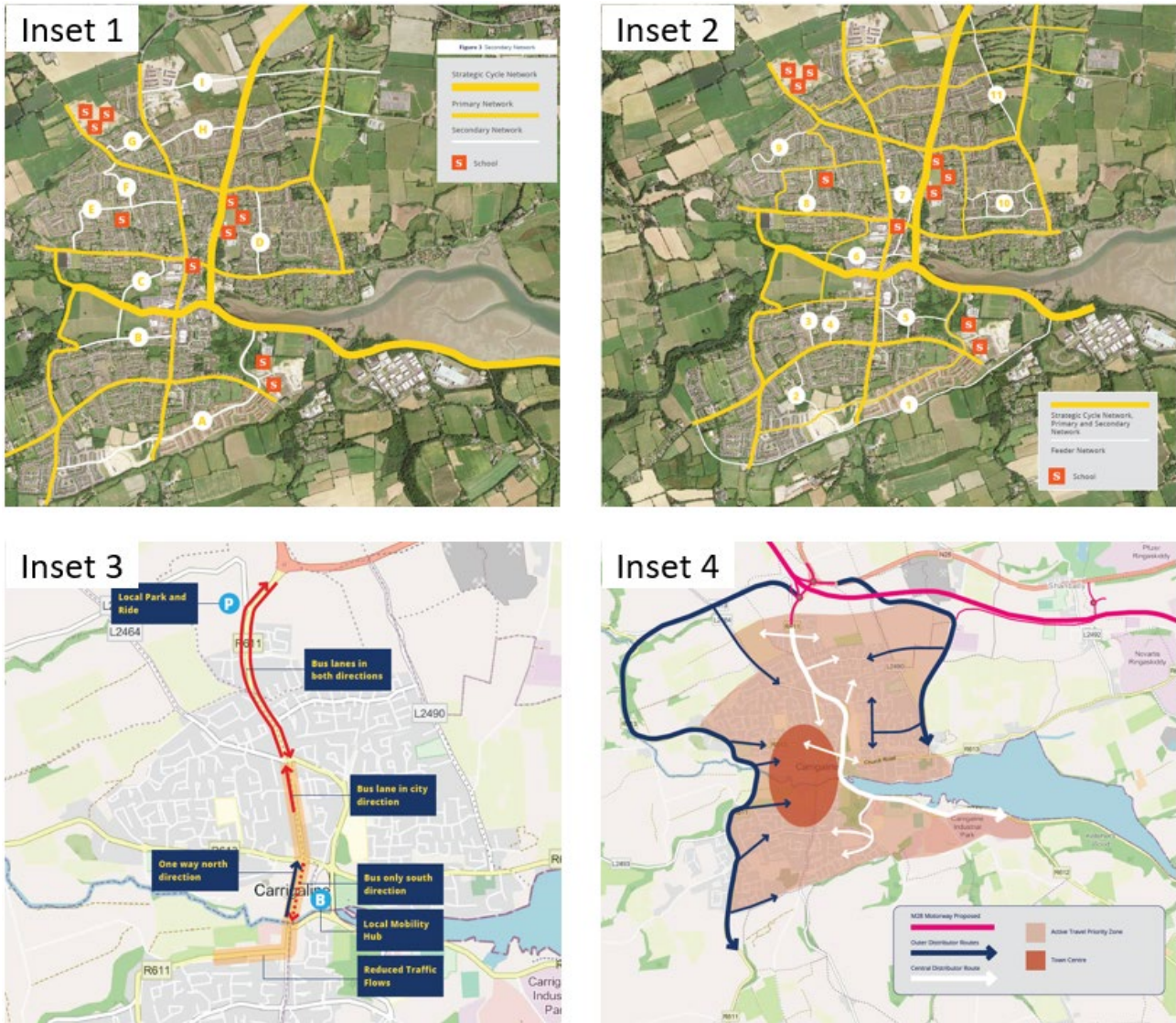


Figure 1: Strategic Transportation Interventions proposed by Carrigaline TPREP

2.2 Scheme Objectives

The projects identified under Phase 1A would assist in delivering on the Carrigaline TPREP vision and include the following key objectives:

- Creating an attractive town centre, providing space for outdoor eating and enhanced amenity through the introduction of street furniture and new landscaping;
- Reduce the number of cars within the town centre by managing access to Main Street;
- Develop a transport hierarchy focused on pedestrians, cyclists and public transport through the provision of wider, continuous and clutter free footways; providing shorter and more direct walking and cycling connections in the town and providing cycle parking at key destinations in Carrigaline; and
- Creating a strategic pedestrian and cycle link to the north east of the town, connecting schools, the town centre and other community facilities to residential areas;

3. Planning Context

The following documents have been considered in the development of the proposed scheme:

3.1 International Policy

Ireland supports the adoption of a net zero greenhouse gas emissions (GHG) target by 2050 at EU level. In view of the GHG emissions from transport (which are second only to agricultural emissions) and the energy use for transport (highest energy use by sector accounting for 40% of energy related CO₂ emissions in 2018) we need to achieve a significant change in how we travel. Nationally, transport accounted for 20.1% of Ireland's GHGs in 2018 with 96.6% of our transport energy demand in 2018 served by fossil fuels. The current Programme for Government sets out national commitment to an average 7% per annum reduction in overall greenhouse gas emissions from 2021 to 2030 (a 51% reduction over the decade) and to achieving net zero emissions by 2050.

3.2 National Policy

3.2.1 National Planning Framework

The National Planning Framework (NPF) is the Government's high-level strategic plan for shaping the future growth and development of Ireland to the year 2040. The NPF is intended to establish a framework by which a population increase of approximately 1 million people by 2040 can be accommodated.

The NPF seeks to establish more concentrated growth in Ireland's five major cities (Dublin, Cork, Limerick Galway and Waterford), with 50% of national growth to be accommodated therein, and the remaining 50% in Ireland's large and smaller towns, villages and rural areas.

The NPF, which provides the framework for future development and investment in Ireland, is fully supported by the Government's investment strategy for public capital investment and investment by the State sector in general. It is the overall Plan from which other, more detailed plans will take their lead, including city and county development plans and regional strategies, hence the title, National Planning 'Framework'.

The National Strategic Outcomes identified within the NPF include the following:

- Compact Growth;
- Enhanced Regional Accessibility;
- Strengthened Rural Economies and Communities;
- Sustainable Mobility;
- A strong economy, supported by Enterprise, Innovation and Skills;
- High-Quality International Connectivity;
- Enhanced Amenity and Heritage;
- Transition to a low-carbon and climate-resilient society;
- Sustainable management of water, waste and other environmental resources; and
- Access to quality childcare, education and health services.

Some of these outcomes are further described below.

3.2.1.1 Compact Growth

The NPF states:

'Carefully managing the sustainable growth of compact cities, towns and villages will add value and create more attractive places in which people can live and work. All our urban settlements contain many potential

development areas, centrally located and frequently publicly owned, that are suitable and capable of re-use to provide housing, jobs, amenities and services, but which need a streamlined and co-ordinated approach to their development, with investment in enabling infrastructure and supporting amenities, to realise their potential. Activating these strategic areas and achieving effective density and consolidation, rather than more sprawl of urban development, is a top priority.’

3.2.1.2 Sustainable Mobility

The NPF states:

‘In line with Ireland’s Climate Change mitigation plan, we need to progressively electrify our mobility systems moving away from polluting and carbon intensive propulsion systems to new technologies such as electric vehicles and introduction of electric and hybrid traction systems for public transport fleets, such that by 2040 our cities and towns will enjoy a cleaner, quieter environment free of combustion engine driven transport systems.’

3.2.1.3 Transition to a Low Carbon and Climate Resilient Society

The NPF states:

‘The National Climate Policy Position establishes the national objective of achieving transition to a competitive, low carbon, climate-resilient and environmentally sustainable economy by 2050. This objective will shape investment choices over the coming decades in line with the National Mitigation Plan and the National Adaptation Framework. New energy systems and transmission grids will be necessary for a more distributed, renewables-focused energy generation system, harnessing both the considerable on-shore and off-shore potential from energy sources such as wind, wave and solar and connecting the richest sources of that energy to the major sources of demand.’

The proposed improvements to Carrigaline are expected to transform the area through the establishment of a priority corridor for sustainable transport modes, in turn supporting the continued modernisation of the public transport fleet and a transition towards low-carbon modes of transport.

3.2.2 National Development Plan (2019 – 2027)

The National Development Plan (NDP) is fully integrated with the National Planning Framework, and is intended to drive Ireland’s economic, environmental and social progress across all parts of the country over the next decade. As mentioned above, major national infrastructural projects identified in the NDP include the implementation of BusConnects schemes in Ireland’s cities.

Under ‘National Strategic Outcome 4 – Sustainable Mobility’, BusConnects Cork will be delivered through the NDP. This will include a revised bus network for Cork City developed as part of the Cork Transport Strategy. The Cork BusConnects will comprise the delivery of crucial bus corridors, enhanced services, cashless fares and account-based ticketing. It will also include a network of park and ride sites which is serviced by a more efficient bus network.

3.2.3 Climate Action Plan (2019)

The National Climate Action Plan, published in 2019 by the Department of Communications, Climate Action & Environment sets out an ambitious course of action over the coming years to address the issue of climate disruption in Ireland.

Under the category of ‘Transport’, the Action Plan outlines the following critical measures to the success of the plan:

- Modal Shift to sustainable transport modes;
- Conversion of public fleets to electric vehicles;
- Incentives and regulation;
- An EV charging network;
- The use of biofuels; and

- Leveraging emerging technologies.

The implementation of the BusConnects programmes within Irish cities is also listed as a key action within the overall plan.

3.2.4 National Sustainable Mobility Policy

The purpose of this policy is to set out a strategic framework to 2030 for active travel and public transport to support Ireland's overall requirement to achieve a 51% reduction in carbon emissions by the end of this decade. Its targets are to deliver at least 500,000 additional daily active travel and public transport journeys and a 10% reduction in kilometres driven by fossil fuelled cars by 2030 in line with metrics for transport set out in the Climate Action Plan 2021.

Some of the initiatives to be undertaken to achieve this includes:

- Continuing to protect and maintain the safety of existing walking, cycling and public transport networks and ensuring that new sustainable mobility infrastructure meets the highest safety standards;
- Continuing measures to address safety issues when travelling on public transport;
- Developing pedestrian enhancement plans and cycle network plans to guide investment in new active travel infrastructure and retrofitting of existing infrastructure;
- Expanding walking and cycling options across the country, including greenways;
- Rolling out the Safe Routes to School Programme;
- Rebalancing transport movement in metropolitan areas and other urban centres away from the private car and towards active travel and public transport.
- Identifying a pathway for the implementation of suitable demand management measures at national and local level to reduce reliance on the private car.
- Expanding behavioural change measures including the Smarter Travel Workplaces and Campus Programmes and Cycle Right training programme.

The policy is accompanied by an Action Plan which identifies goals, core actions, implementing authority and timelines for the output.

3.2.5 Smarter Travel – A Sustainable Transport Future (2009-2020)

Smarter Travel – A Sustainable Transport Future (2009-2020) is a government policy document which was launched in 2009. The policy document was prepared in the context of unsustainable transport and travel trends in Ireland.

Notwithstanding the economic conditions of recent years and the associated impacts on transport trends in this country, Ireland will still see excessive car ownership levels, higher car usage levels, lower speeds and longer commute times, increased health issues, pollution and congestion, and an overall decline in quality of life in the coming years if intervention measures are not implemented.

The overall vision set out in this policy document is to achieve a sustainable transport system in Ireland by 2020. This vision remains valid now and into the future, beyond the initial envisaged lifecycle of the document. The challenge therefore is to act, putting strategies in place to incrementally change the travel and transport system in Ireland to a more sustainable format, and to continue to support the implementation of these strategies at all levels.

3.2.6 National Cycle Policy Framework (2009-2020)

The National Cycle Policy Framework (NCPF) was developed as part of a suggested action contained in Smarter Travel, and as such the two are aligned. The NCPF notes a decline in cycle commuting from 1986 to

2006, but in the context of increasing congestion, journey times and emissions on roads, a return to cycle usage becomes more viable.

It therefore sets out a substantial suite of interventions to improve the ease and safety of cycling, in order to achieve greater mode share going forward; again, as with Smarter Travel, these interventions include both ‘hard’ and ‘soft’ measures.

The NCPF recognises 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.

The vision outlined in the NCPF for 2020 was that all cities, towns and villages would be bicycle friendly, and the bicycle will be the mode of choice for all ages. It envisaged that by 2020, 10% of all trips would be made by bicycle. This vision and target both remain valid for Cork City and the suburban areas into the future.

3.2.7 Regional Policy

3.2.7.1 Regional Spatial and Economic Strategy (RSES) for the Southern Region

The Southern Regional Assembly has prepared a Regional Spatial and Economic Strategy (RSES) for the Southern Region.

The RSES provides a long-term, strategic development framework for the future physical, economic and social development of the Southern Region and includes Metropolitan Area Strategic Plans (MASPs) to guide the future development of the Region’s three main cities and metropolitan areas – Cork, Limerick-Shannon and Waterford.

- The RSES sets out a vision for the Southern Region to:
- Nurture all our places to realise their full potential
- Protect, and enhance our environment
- Successfully combat climate change
- Achieve economic prosperity and improved quality of life for all our citizens
- Accommodate expanded growth and development in suitable locations
- Make the Southern Region one of Europe’s most creative, innovative, greenest and liveable regions

Chapter 6 of the Plan outlines connectivity objectives for RSES. Section 2 outlines a regional transport strategy and addresses the role of transport networks to improve the sustainable movement of people and goods. This chapter includes transport priorities for the Cork Metropolitan area. Some of the priorities applicable to Carrigaline includes:

- Prioritise buses over car traffic - the delivery of several high-quality bus corridors through the strategic bus network investment programme, connecting the city centre with the city suburbs/environs and surrounding metropolitan area;
- The development of a metropolitan wide cycle network focused on the City, its environs and metropolitan area towns, and connectivity between the City and its metropolitan area towns, catering for a range of journey purpose;
- Development of park-and-ride facilities to enable interchange between car and bus or rail services and bike-and-ride facilities with bicycle stations for overnight storage for public transport commuters;
- Support the provision of segregated walkways and cycleways;

- Support the delivery of east-west greenway through the city centre, connecting major employment/ education hubs to large commuter towns like Ballincollig and Carrigaline;
- Support walking and cycle connectivity and infrastructure to amenities such as Ballincollig Regional Park from the city centre;

3.2.8 County Policy

3.2.8.1 Cork County Development Plan (2021 – 2028)

The new Cork County Development Plan recognises that transport policy should facilitate efficient development of the economy, enhance quality of life and social inclusion, reduce both demand for travel and dependence on the private car for transport, and support high frequency public transport services. The plan emphasises sustainable, and particularly, active travel.

The vision for transport in the County is to support the delivery of an efficient transport system supporting connectivity and competitiveness, and to make sustainable travel modes an attractive and convenient choice for as many people as possible in order to deliver economic, social, health, wellbeing, environmental and climate action benefits.

In alignment with National policy and the goal of achieving sustainable development and compact growth, and in the interest of a vibrant economy, a healthy environment and enhanced wellbeing, transport policy in the County seeks to achieve:

- Compact growth and the transition to a low carbon society;
- Transport oriented development;
- Sustainable travel choices;
- Enhanced connectivity and permeability;
- Clear transport investment priorities;
- Implementation of transport demand management measures; and
- Support for competitive economies.

3.2.8.2 Cork Metropolitan Area Transport Strategy (CMATS)

The NPF 2040 envisages that Cork will become the fastest growing county in Ireland with a projected increase of its population of 105,000 – 125,000 people within the Cork City and Suburbs area up to 2040. The projected population and associated economic growth will result in a significant increase in the demand for travel, which needs to be managed and planned for carefully to safeguard Cork’s attractiveness to live, work, visit and invest in.

CMATS is a coordinated land use and transport strategy for the Cork Metropolitan area and sets out a framework for the planning and delivery of transport infrastructure and services to support the envisaged growth.

3.3 Local Policy

3.3.1.1 Carrigaline Transportation and Public Enhancement Plan

As noted in the sections above, the Carrigaline TPREP was completed and endorsed by the Carrigaline Municipal District Elected members in July 2021. This plan was also adopted in the Cork County Development Plan 2021 to 2018. The Carrigaline Transportation and Public Realm Enhancement Plan (TPREP) is an integrated transportation framework focused on addressing the

transportation infrastructure and public realm enhancement required to support the sustainable development of Carrigaline. The TPREP included a comprehensive pedestrian and cycle network for Carrigaline. Cork County Council identified a number of key routes as critical infrastructure to be implemented in the short term. These routes, which are included within the Phases 1A project, provide the first building block in the desired transformation towards an increased active travel mode share and a corresponding reduction in car use in Carrigaline.

The Carrigaline TPREP and supporting infrastructure is in line with the 2040 National Planning Framework and National Development Plan 2018 – 2027 and its National Strategic Outcomes including Sustainable Mobility and Enhanced Regional Mobility.

It is also in line with the Cork Metropolitan Area Strategic Strategy (CMATS) principles which includes, for example, the provision of an efficient and safe transport network, to prioritise sustainable transport and reduce car dependency, to provide a high level of public transport connectivity and to enhance the public realm through traffic management and transport interventions.

4. Options Assessment

This section outlines the options that were considered in the development of the Phase 1A proposals.

4.1 Main Street Public Realm Enhancement

4.1.1 Site Appraisal

The Main Street Public Realm Enhancement Plan includes Main Street, Church Hill and short sections of Ballea Road, Strand Road and Lower Kilmoney Road.

Main Street (South) and Lower Kilmoney Road is for the most part defined by two storey buildings with retail and commercial activity on the ground floor. Main Street is between approximately 12 and 16m wide and accommodates footways, the carriageway and parking/loading bays. There are very few street trees although there is some planting in tubs and baskets. There are no seats and no cycle parking stands currently on the street.

The footways are generally around 2 metres in width and surfaced in concrete block pavers. The effective walking space, however, is often compromised by street furniture particularly lamp posts and telegraph poles which in some locations causes narrowing to less than 2m. Walkways are also discontinuous in that they terminate (usually in a dropped kerb with tactile paving) at access lanes, side roads and junctions.

The two traffic lanes on the carriageway are wide at approximately 4.0 metres in width with no marked cycle lanes. Parking and loading bays occupy the kerb sides and are marked at between 2 and 2.4 m wide.

The street generally feels cluttered which is caused by the presence of telegraph and overhead wires and various ad-hoc traffic management infrastructure such as signage poles and line markings that have been added to the street over the years. It also feels car dominated as a result of the almost continuous kerbside on-street parking, continuous slow moving cars on traffic lanes and limited space provided for pedestrian movement. Overall, it is not an environment that is particularly attractive to pedestrians or cyclists. However, notwithstanding the current street environment, there are a high number of active and popular shops/ pubs and restaurants on the street providing a level of activity that will support the rejuvenation of the street.



The section of Strand Road is edged by the Owenabue River to the north with a bar and the public library on the south side. Ballea Road is characterised by commercial buildings set back from the roadway with surface parking provided in the foregrounds of the buildings. Main Street (North) has more residential land uses with two storey terraces set back behind front gardens on the eastern side along with a church, school and garda station. The west side of Main Street currently accommodates a large development site, car sales garage and hotel and as such feels less well defined particularly with respect to pedestrian connectivity.



Church Hill starts at the junction of Main Street and Lower Kilmoney Road and heading southbound is a route with a steep uphill gradient. The start of the route is edged by two storey residential buildings which soon gives way to single storey detached houses. The road comprises one traffic lane in each direction. Close to town centre between Lower Kilmoney Road and Mount Rivers Close, there are footpaths available on both sides of the roadway. Further up the road a footpath is only available on the northbound direction towards the town centre, while there is only a drainage channel on the southbound direction and the property walls are directly adjacent to the roadway. The road width varies between approximately 11m to 13m which include the footpaths which are generally 2.0m in width.



4.1.2 Consideration of Alternatives and Options

4.1.2.1 Project Scope

The Main Street Public Realm Enhancement Plan rejuvenation project area has seven subtly distinct zones or character areas as shown in Figure 3.



Figure 2: Main Street -Character Areas

1. Church Hill between Lower Kilmoney Road up to Upper Kilmoney Road is mainly a residential street. The density of the housing closer to the town centre is higher and becomes lower further to the south. This road is quite narrow and there is limited opportunity to provide additional infrastructure along the route.
2. The section of Lower Kilmoney Road between the petrol station to the Main Street junction displays a high street character with ground floor retail and commercial properties and on street parking.
3. Main Street South, is similar to the Lower Kilmoney Road section, but has a greater intensity of food outlets, cafes and bars.
4. As Main Street continues over the Owenabue Bridge it forms the town centre.. This section of Main Street is only defined by buildings on one side but its `centre` status is reinforced by the two bus stops and the high pedestrian demands in this area.
5. North of Supervalu the typical retail / commercial character of Main Street re-establishes with ground floor retail and commercial properties.
6. Cork Road commences at the northern end of Main Street at the Garda Station and is more open with set-back residential properties defining the eastern side. The western side currently provides little containment with a gap site (locally known as the Pottery Site), garage and large hotel again set back from the road. Although, the future development of the Pottery Site will enhance the urban setting of this character area.

7. Ballea Road is a more typical suburban street with properties set back from the roadway with a dominance of off-street parking prevalent within the study area.

4.1.2.2 Option Development

The options developed for this project were based on The Design Manual for Urban Roads and Streets (DMURS) and were also influenced by the on street design typologies introduced by the Chartered Institution of Highways & Transportation (CIHT) in its 2018 publication '*Creating better streets: Inclusive and accessible places*'. To add some objectivity around the somewhat ill-defined concept of 'shared space' the CIHT developed three street design typologies based on the degree of 'sharing' involved: enhanced; informal and pedestrian priority. They are a useful tool when exploring broad options for public realm enhancement projects.

The *enhanced typology* results in a street that is functionally very similar to a standard / traditional street where there is a distinct carriageway separated from the footways with a 100 – 125 mm high kerb, with typical road markings such as double yellow lines and centre lines on an asphalt carriageway. The 'enhancement' comes from new paving, trees, seats and street furniture etc. The CIHT cite the Walworth Road project in London, England as an example of an enhanced street.



The *informal street type* of project removes some of the typical 'segregation' measures to create a slower more relaxed, pedestrian and cycling friendly environment. Typically, an informal street will have low kerbs (25 - 60 mm.) separating the footway and will incorporate trees, raingardens, seats, areas for outdoor dining and the legally minimum road markings etc. as behaviours should be more intuitive in line with the changed streetscape character. The Poynton project in Cheshire, England is cited as a good typical example.



The final typology, and the only one which necessitates a degree of 'sharing' is the *pedestrian priority street*. Essentially this type of street is designed as a pedestrianised space in which vehicles (often filtered) are permitted to use but at low speeds. Street furniture is carefully placed to loosely define the vehicle movement corridor but there is no 'carriageway' or 'footway' in the typical sense. It is also useful to have a pedestrian only clear zone next to the building edge, defined by tactile paving to allow it to be used by visually impaired people and other pedestrians who do not feel confident being in a space with moving vehicles.



4.1.2.3 Proposed Options

Four options in terms of street typologies were identified including a Do Minimum Scenario and a series of alternative Do Something Scenarios. Each of the options is described below:

Option 1: Do Minimum Scenario

The Do-Minimum Scenario would only focus on the introduction of travel restrictions on Main Street following the opening of the Inner Relief Road (IRR). An example of the scale of intervention associated with Option 1 is shown below in Figure 3.

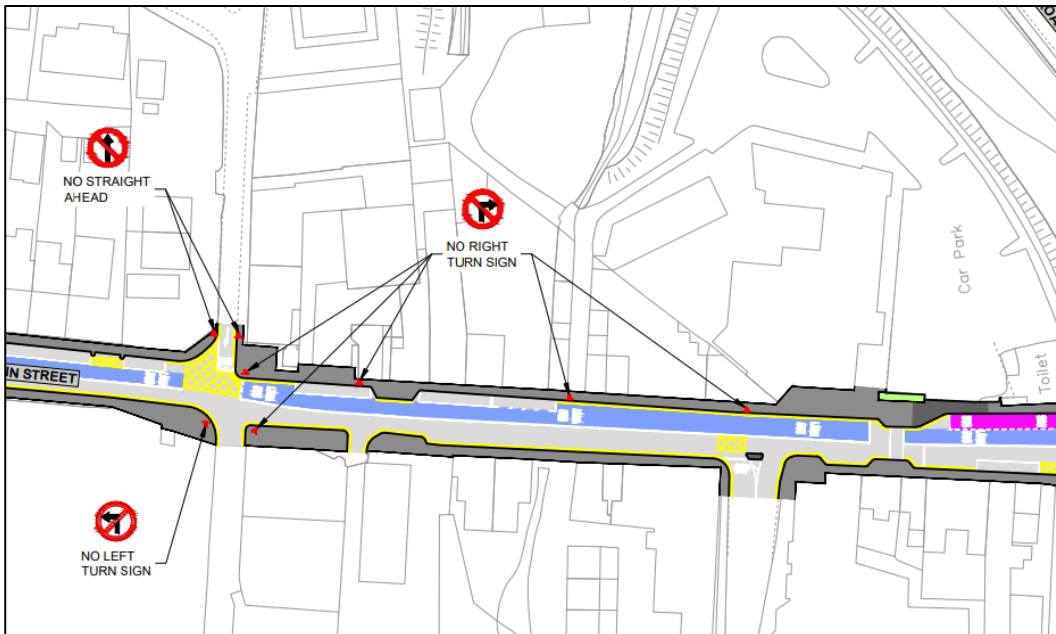


Figure 3: Option 1 - Street Typology Layout

The Do-minimum Scenario would focus only on the following changes in traffic management:

- The introduction of a new southbound bus lane on Main Street from Ballea Road to the entrance to the Garda Station on Main Street. This bus lane would be supported by a bus gate to ensure general traffic does not access the bus lane. Traffic would be facilitated to continue to travel northbound on Main Street. Sideroad junctions into Main Street are reconfigured to only allow left in left out movements by providing painted islands and concrete splitter islands.
- The most western section of Crosshaven Road would be converted into a one way westbound lane with the traffic signalised junction retained.
- The junction with Lower Kilmoney Road and Main Street would be retained under its current priority controlled junction with the northbound approach (from Church Hill) yielding to the southbound right turning traffic and the eastbound.
- On Church Hill Road, there would be no access northbound from Foster's Cross, however residents on the roadway would be able to use the roadway in both directions.
- Access to the Owenabue car park from Main Street would be closed to vehicular traffic.
- The pedestrian facilities on Lower Kilmoney Road adjacent to the Co-op entrance would be enhanced to improve safety at this location.

The Do-Minimum scenario does not propose any widening of the existing footpaths and all the existing on-street parking and loading bays would be retained as part of the Do-Minimum scenario. Existing public lighting, signage, overhead cables and surface materials would largely be retained. The existing junctions, at Ballea Road/ Main Street, Crosshaven road/ Main Street and Lower Kilmoney Road/ Main Street would be retained as part of the Do-Minimum Scenario.

The proposed traffic management scheme would be expected to significantly reduce traffic flows on Main Street and therefore deliver a quieter environment providing the potential for an improved street environment. The proposed traffic management measures would have a significant impact on

reducing the effectiveness of Main Street as a through traffic route encouraging greater use of the Western Inner Relief Road. The reduced traffic volumes would therefore make it easier for pedestrians to cross the street and for cyclists to cycle along the roadway. However, the physical environment would potentially encourage higher traffic speeds following the projected reduction in traffic flows along the street. In addition, the lower flows combined with the current wide streets could encourage increased double parking and the continued dominance of cars along the street. Therefore, under the Do Minimum Option, additional measures should be considered to manage speeds and potential parking issues along the street.

Option 2: Enhanced Scheme

Option 2 the Enhanced Scheme would retain much of the same character of the existing Main Street as it is now with familiar 'street' components such as an asphalt road carriageway and the concrete/paved footway with standard road kerb and line markings. The footpaths would be widened under this proposal but on-street parking would be retained kerbside. There is potential for new landscaping and the inclusion of new seating areas to improve the vitality of the street along with improved crossing opportunities for pedestrians at junctions. An example of the scale of intervention associated with Option 2 is shown below in Figure 4.



Figure 4: Option 2-Street Typology Layout

Option 2 includes the following key characteristics:

Traffic management within the enhanced scheme retains the elements identified under Option 1 at its core but with an 'enhanced' public realm with some reduction in on-street parking provision and the reduction in width of the existing road carriageway. Option 2 would be expected to achieve the same reduction in traffic flow on Main Street as Option 1 (between 80%-90% less traffic compared to current flows). The existing roundabout at the junction of Ballea Road/ Main Street would be replaced with traffic signals with other dedicated pedestrian traffic signals provided at Crosshaven Road and at the junction of Church Hill/Lower Kilmoney Road.

At 10.8m wide the **carriageway** would have two 3.0m wide running lanes allowing **loading and parking bays** down both sides varying between 2.1 and 2.4 m. The **road kerb** would be 100 – 125mm high with dropped sections to allow vehicle and pedestrian access. It would include widened and refurbished **footways** on both sides varying between 2.6 m and 1.8m wide.

Pedestrian crossings with dropped kerbs and tactile paving would be provided at side roads and junctions to warn pedestrians when they are crossing carriageways. Existing stand-alone crossings on Main Street would all be retained. Small to medium sized **trees** would be planted where space and utilities allow.

Public *benches and seats* with backs and armrests and *cycle parking stands* would be placed at strategic points on both sides to support known and predicted demand. New *street lighting* columns would replace the existing network.

Concrete paving *materials* would typically be used on this type of scheme although stone products could easily be mixed in or substituted in places.

Option 2a: Segregated Cycling Enhanced Scheme

Option 2a is very similar to Option 2 but instead of providing wider footpaths and kerbside parking and loading bays these would be removed in favour of providing segregated cycling facilities.

All loading activity would need to take place from the carriageway which would have reduced traffic flows due to the introduction of the proposed traffic management measures as described under Option 1. An example of the scale of intervention associated Option 2a is shown below in Figure 5.

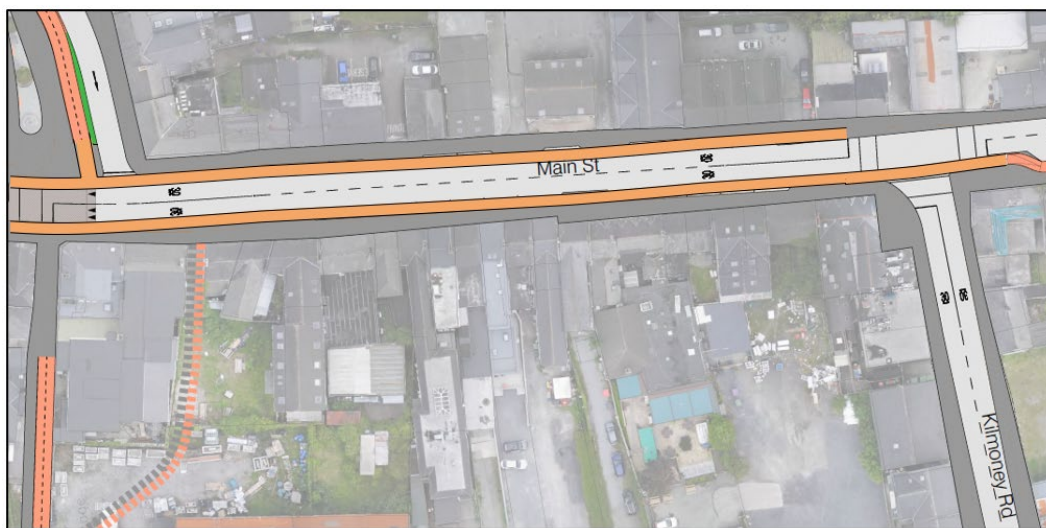


Figure 5: Option 2a- Street Typology Layout

Option 3: Informal Scheme

Option 3, the Informal Scheme creates a considerable change in the streetscape character. The distinction between the footway and carriageway is more blurred with a lower kerb, absence of road markings and the inclusion of a central medium which all help to make pedestrians feel more comfortable on the street. An example of the scale of invention associated with Option 3 is shown below in Figure 6.

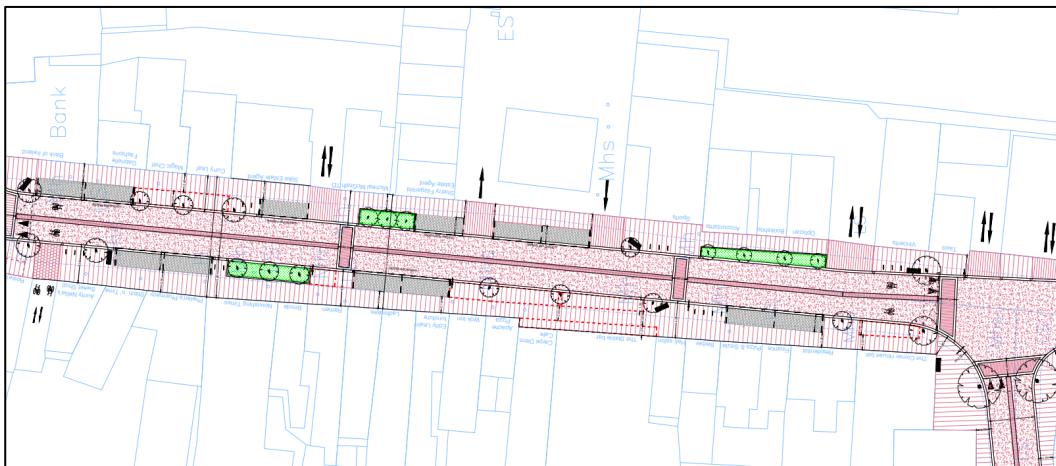


Figure 6: Option 3- Street Typology Layout

Option 3 includes the following key characteristics:

The core **traffic management** proposals are similar to both Option 1 and Option 2 with this option also including the signalisation of the roundabout at the junction of Ballea Road/ Main Street.

Option 3 would not include any signalised controlled pedestrian crossings with pedestrians permitted to cross at any location as the traffic speeds and flows would be low along the street.

The **carriageway** would be narrowed to 6.0m wide allowing space for two 3.0m traffic lanes. A flush but slightly cambered median would run between the two traffic lanes, to visually reduce the mass of the carriageway and make it easier to cross. A wide stone kerb between 30-100 mm high would define the edge of the carriageway without creating a significant barrier to physically impaired people.

The **footways** would be widened to between 3.0 and 5.0m resurfaced and would incorporate loading and parking bays between 2.1 and 2.4m wide and strategically placed along the footways on raised pads. Courtesy crossings would be placed across Main Street at regular intervals and where space will allow. The widened footpaths would have designated areas to allow traders spill out tables and chairs onto the street to assist deliver an improved vibrancy along the street.

Small, medium and large **trees** would be planted where space and utilities allow, and **seats** and cycle parking stands installed in locations of known and predicted demand. New **street lighting** columns would replace the existing telegraph poles and the overhead wires would all be re-located underground.

Junctions would all be raised and signals would be removed where practical with implied priority given to traffic moving north south on Main Street. Courtesy pedestrian crossings would be placed across each junction arm. This type of street is usually built from the highest quality stone paving materials, but concrete products could also be used without a significant detrimental short-term impact.

Option 4: Pedestrian Priority Scheme

Option 4, the Pedestrian Priority scheme creates a dramatic change to the function of the street by providing a wholly pedestrian area where vehicles are allowed enter but their movement is secondary to pedestrians. The delivery of such a typology requires high pedestrian flows with corresponding low vehicular flows which are envisaged for Main Street, Carrigaline. The **character** of this type of street reinforces the village centre / town square feeling of a town. An example of the scale of invention associated with Option 4 is shown below in Figure 7.

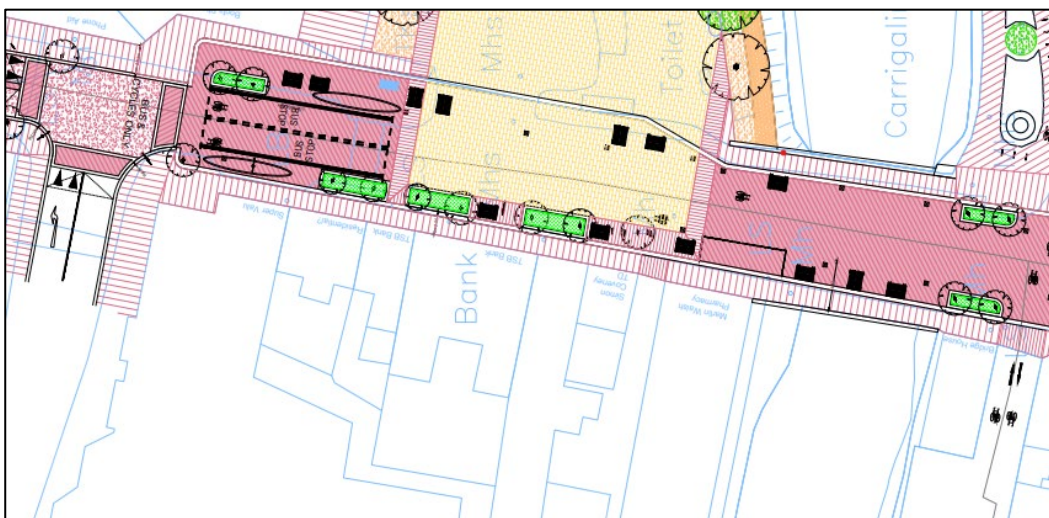


Figure 7: Option 4 Street Typology Layout

Option 4 includes the following key characteristics:

The wider **traffic management** proposals set out in Option 3 would continue to operate, including the signalisation of Heron's Roundabout and the removal of any other traffic signals along Main Street. In this type of design there would be no upstand kerb defining a '**carriageway**', however a 'pedestrian only clear zone' would be created adjacent to the building edge which would be defined by tactile paving to allow easy navigation by visually impaired people.

Similarly, there is no '**footway**' as such with pedestrians encouraged to walk through the whole space. In this type of space, formal or informal crossings, are not normally needed as vehicles, travelling at low speeds, give way to pedestrians.

Trees, raingardens, seats, cycle parking stands and **streetlights** would all be strategically placed to ensure that vehicles are confined to a relatively narrow movement corridor. The junctions at each end of the pedestrian priority street would be raised to create a step free environment physically connecting the junctions, street and square.

Materials throughout would be high quality stone products in a small range of contextually sensitive colours in a variety of sizes to suit the loading requirements.

4.1.3 Multi Criteria Assessment

Each of the options above were evaluated based on a set of multi criteria analysis founded on the principles set out in the Common Appraisal Framework. The evaluation of each of the street typologies was carried out for the seven primary character areas as defined earlier. The key criteria used to evaluate each scheme included the following:

- Environment
- Safety
- Economy
- Accessibility
- Integration
- Physical Activity
- Options Assessment

4.1.3.1 Character Area 1 – Church Hill

The assessment of each of the five options for Character Area 1 identified Option 2a, Segregated Cycling Enhancement, as the preferred street typology. As available space to provide additional infrastructure is limited, a segregated cycle lane has been provided in the southbound direction to facilitate uphill cyclists, which are the most vulnerable. While cyclists traveling downhill will share the roadway with local traffic, traffic volumes will be low, as no northbound traffic is permitted from Foster's Cross.

4.1.3.2 Character Area 2 – Lower Kilmoney Road

The assessment of each of the five options for Lower Kilmoney Road has identified the Enhanced Street as the preferred street typology. The design of Lower Kilmoney Road would include the provision of wider footpaths and the retention of the majority of the parking along this street.

4.1.3.3 Character Area 3 – Main Street (South)

Similar to Lower Kilmoney Road, the assessment of options for Main Street (South) identified the Enhanced Street as the preferred street typology. Again the street will have wider footpaths, which will accommodate spill out areas for pubs/ restaurants, etc. and the retention of some parking along the street.

4.1.3.4 Character Area 4 – Main Street (Central)

For the central section of Main Street the optimum street typology has been identified as the Pedestrian Priority classification. This area has the highest concentration of pedestrian flows, is the central public transport node for Carrigaline and will also tie-in to the proposed plaza.

4.1.3.5 Character Area 5 – Main Street (North)

Similar to Main Street (South), the Enhanced Street is the preferred street typology for Main Street (North). The width of the street on this section is not as generous as the Main Street (South), however some widening of the footpaths is possible along with the retention of loading and set down spaces.

4.1.3.6 Character Area 6 – Cork Road (South)

The assessment of Cork Road (South) identified the Informal Street as the preferred street typology. The existing footpath widths will be maintained along this street with enhanced crossing locations, parking for residents will be retained under this street typology.

4.1.3.7 Character Area 7 – Ballea Road

As with Cork Road (South) the Informal Street has been identified as the preferred street typology for Ballea Road. The delivery of this street typology will include dedicated cycle facilities to ensure overall compatibility with the roll out of the entire pedestrian and cycle network for Carrigaline.

4.1.4 Summary

Based on the above options selection appraisal it is recommended to proceed with the enhanced street typology for Lower Kilmoney Road, Main Street (South), and Main Street (North). For Main Street (Central) the pedestrian priority street typology is recommended although it is recognised that the enhanced street typology would offer similar overall benefits. The provision of cycle lanes is recommended for Church Hill. Finally, the informal street typology with dedicated cycle facilities is best recommended for the section of Ballea Road and Cork Road (South) which is included as part of the Phases 1A project.

4.2 Bridgemount Link

4.2.1 Introduction

The proposed Heron's Wood to Bridgemount pedestrian and cycle facility provides good local connectivity between two large residential areas to the north-east of Carrigaline and provides shorter routes to schools. The delivery of this facility will provide significant benefits at a local community level. However, to ensure the optimum route for the longer distance and more strategic cycle route connecting Carrigaline to Passage West and on towards Cork City an assessment of alternative options was carried out.

A number of alternative options were considered with respect to the delivery of the pedestrian/ cycleway connection through the north east of Carrigaline. These options all considered connecting Crosshaven Road (where the existing Crosshaven Greenway will be extended to) and Ringaskiddy Road (where ultimately the permitted Raffeen to Glenbrook Cycleway will be extended to).

4.2.2 Option Development

In total, three alternative options were considered and are described below:

4.2.2.1 Route Option 1 via Cork Road

This option travels from Crosshaven Road along Bóthar Guidel and Cork Road before connecting with Ringaskiddy Road. The distance between the Crosshaven Road and M28 Ringaskiddy Road is approximately 3.0 kilometres. The scheme would include the provision of a segregated two-way cycleway with an appropriate buffer along Cork Road. Pedestrian facilities on both sides of the route would be maintained.

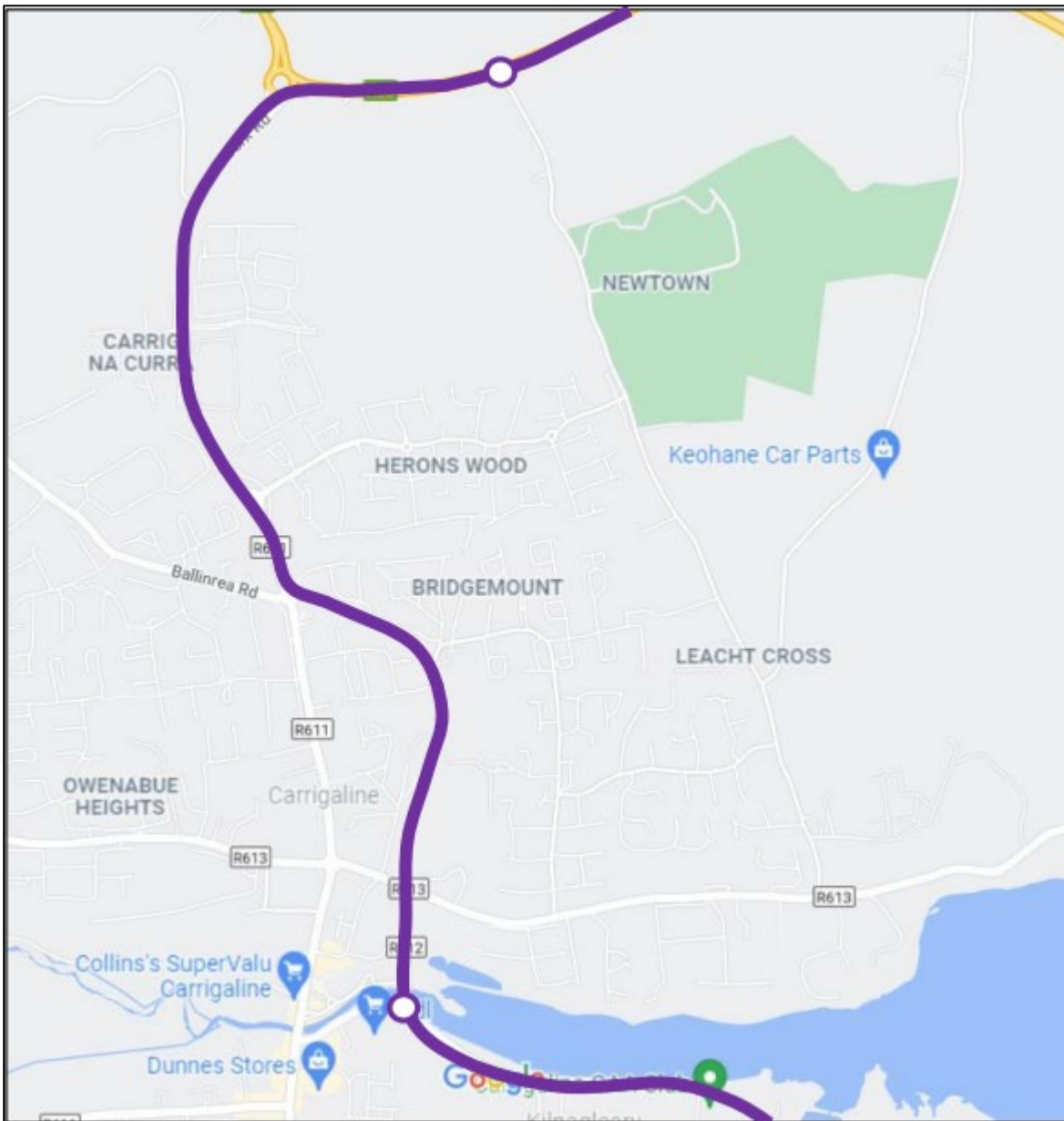


Figure 8: Route Option 1 Via Cork Road

This scheme would have a relatively high cost with significant road widening required along Cork Road, in addition some modest land take would be required. The potential number of users would be limited as the cycleway alignment runs along a busy road and the use of the Shannonpark Roundabout (Interchange) reduces

the overall attractiveness of the route compared to other possible alignments. Option 1 runs along busy roads within Carrigaline and there is the potential for more conflicts between cyclists and pedestrians with general traffic. In terms of impacts on the natural and built environment these are expected to be low under Option 1. Finally, the delivery of this route does not increase accessibility locally compared to other options and in terms of inclusion this route would be less appealing to younger members of the community due to the high traffic flows along the route.

4.2.2.2 *Route Option 2 via Old Railway Line*

This option travels from Crosshaven Road along Bóthar Guidel and then utilises the alignment of the old rail line connecting with Ringaskiddy Road. This route avails of the active travel measures proposed for the Fernhill Road as part of the M28 Motorway. The distance between Crosshaven Road and Ringaskiddy Road along this route is approximately 2.5 kilometres. Route Option 2 has been identified as a strategic pedestrian/cycleway route in various iterations of Cork County Council's Development Plan since 2005. The scheme would include the provision of a shared 4.0m pedestrian/ cycleway between Bridgemount and Heron's Wood.

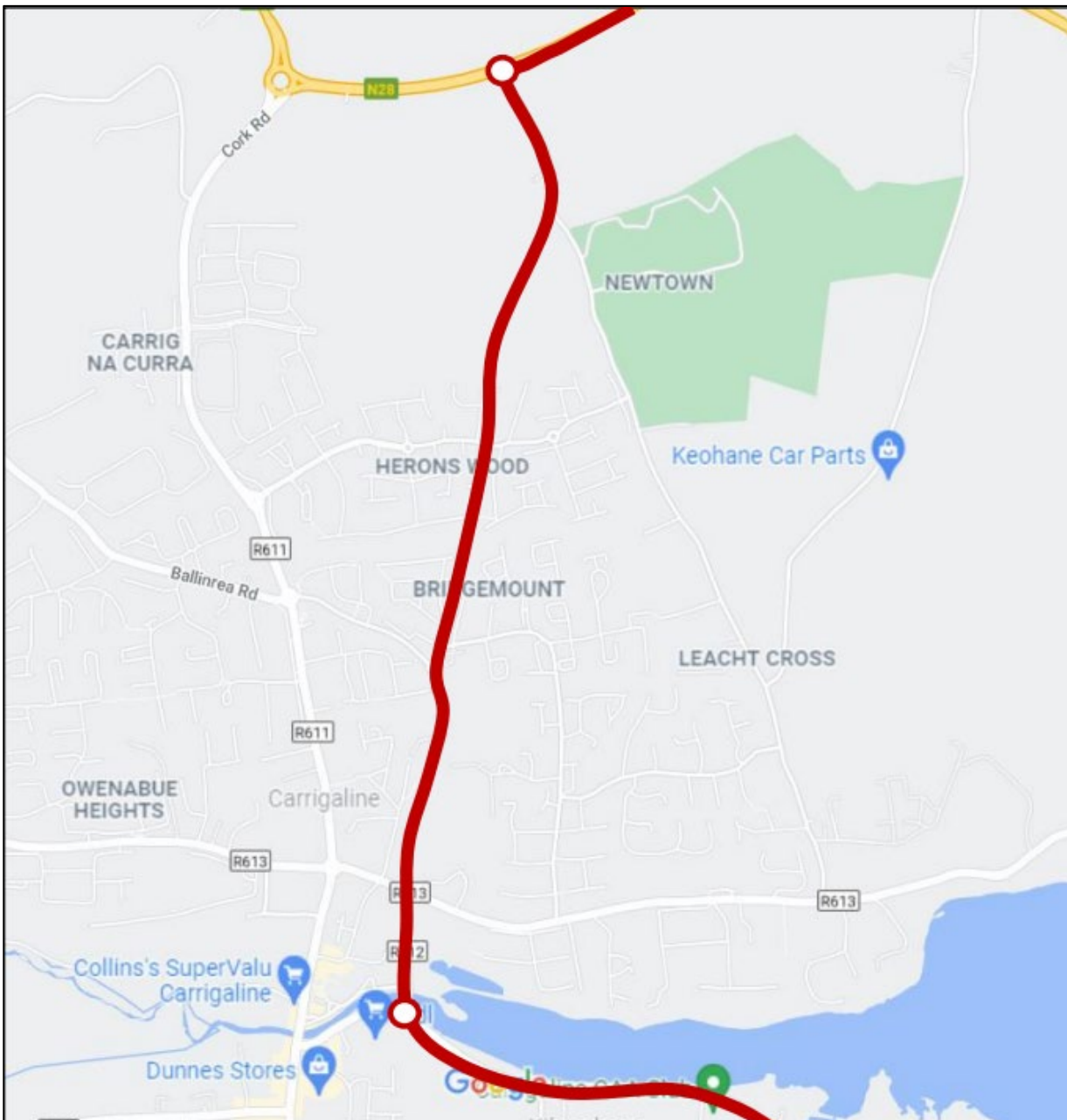


Figure 9: Route Option 2 Via Old Railway Line

This scheme would have a relatively modest cost as much of the route runs through green/ undeveloped lands. Land take from private homes is not required. The number of potential users is high as the route serves both local and longer distance trips. In addition, the route is traffic free for a section which makes its use more attractive to potential users.

This option is the safest of the options as it runs segregated for the majority of its length and is traffic free for a good proportion. There will be some impact on the natural environment particularly through the old railway line cutting between Bridgemount and Heron's Wood. Finally, the delivery of this route does increase accessibility within the established built-up areas particularly to the schools located in Waterpark. The route will also be more desirable to younger members of the community due to its location within established residential communities.

4.2.2.3 *Route Option 2 via Fernhill*

This option travels along Church Road and Fernhill Road before connecting with Ringaskiddy Road. As with Option 2 this route avails of the active travel measures proposed for the Fernhill Road as part of the M28 Motorway. The distance between Crosshaven Road and Ringaskiddy Road is approximately 3.2 kilometres. The scheme would include the provision of a shared 4.0m pedestrian/ cycleway on one side of the roadway with an appropriate buffer between it and the road carriageway on Fernhill Road.

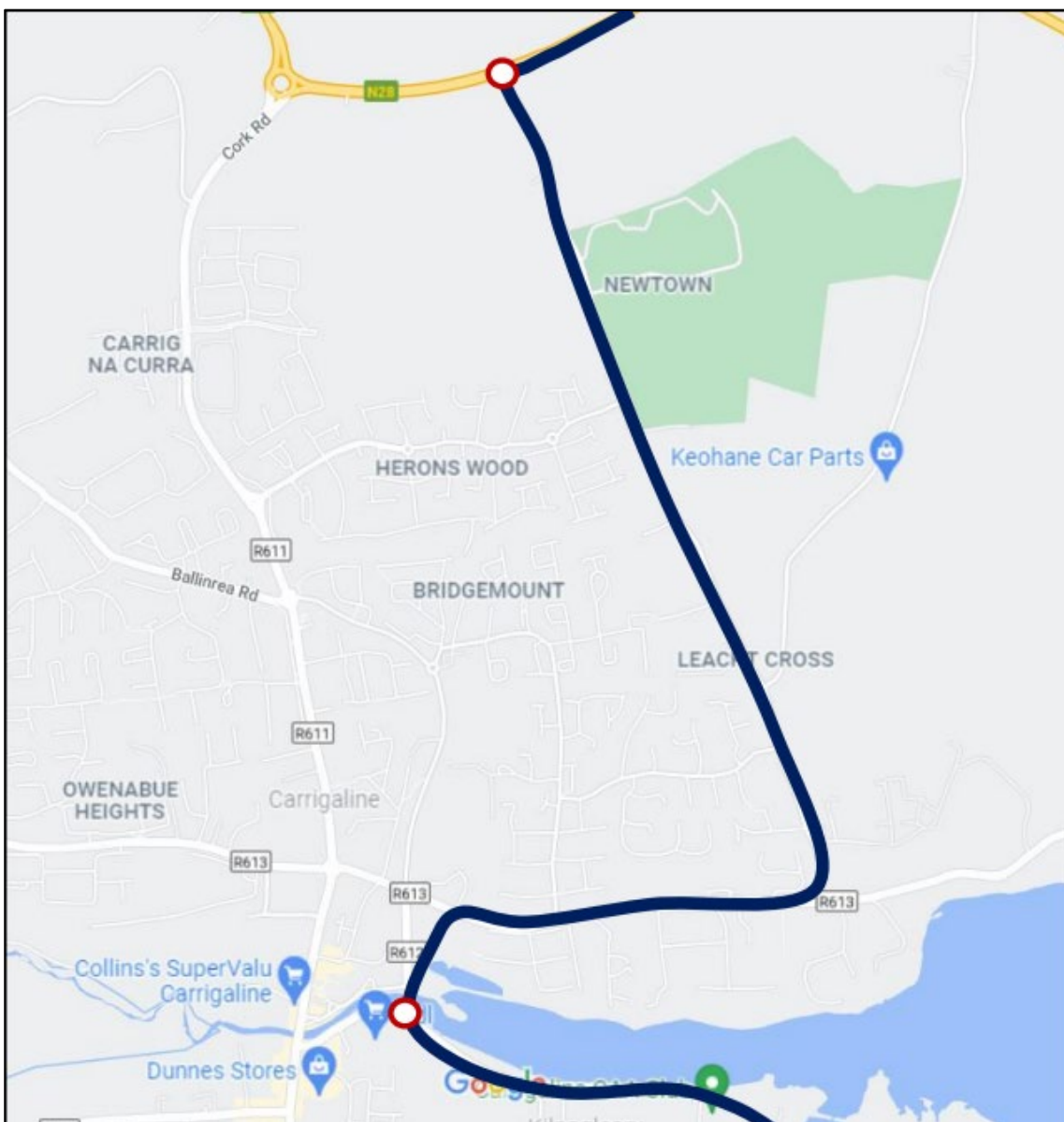


Figure 10: Route Option 1 Via Fernhill

The delivery of Route Option 3 would require the widening of Fernhill Road along its entire length, as well as some of Church Road, and third party lands would need to be acquired to facilitate its construction. The potential number of users would be reduced due to the indirectness of the route and its peripheral location on the edge of Carrigaline. This option is projected to be safer than the Route Option 1, which is routed along Cork Road, due to the lower traffic flows on Fernhill Road.

In terms of impact the widening of the roadway will require the removal of existing hedgerows and road side trees in the area. Finally, the delivery of pedestrian/cycle facilities improves safety along Fernhill Road but does not add significantly to increased accessibility due to the peripheral location of the route with respect to the existing built-up areas in Carrigaline. Although the route does have the potential to serve the Fernhill Expansive Zone.

4.2.2.4 Summary

The route option travelling through the Old Railway Line is the preferred alignment as it has the following benefits:

- Potential for highest usage due to central location within Carrigaline
- Safer than the other options due to the traffic free nature of the route appealing to the younger community locally
- Significant enhancement with respect to accessibility locally
- Limited impact on land acquisition, particularly private land holdings
- Most cost effective solution

The Bridgemount Link connecting Bridgemount with Heron's Wood, which is the focus of this planning application, will form part of the Carrigaline to Passage Cycleway when it is delivered in its entirety. Therefore it's delivery will have local benefits in the short term with the potential for wider strategic benefits in the medium to longer term.

As noted previously the provision of this pedestrian/ cycleway connectivity between Heron's Wood and Bridgemoun offers significant benefits in terms of local accessibility, the promotion of active travel modes in Carrigaline, a reduction in the reliance on the car to carry out short duration trips all of which will assist deliver on our national climate change objectives.

5. Description of the Proposed Scheme

5.1 Project Description

The proposed development at the locations identified consists of street and public realm improvements as follow:

5.2 Main Street

- The provision of enhanced public realm to include new street furniture, improved public lighting, on-street spill out areas for bars and restaurants, removal of overhead utilities (where practical), provision of raised loading bays and set down parking bays; cycle parking, street trees and rain gardens along with other ancillary works;
- Enhanced pedestrian and cycle facilities at the junction of the Western Inner Relief Road/ Cork Road;
- Dedicated cycle facilities on both sides of Ballea Road between Cork Road and the Western Inner Relief Road;
- The removal of the existing roundabout at the junction of Cork Road/ Ballea Road (Heron's Roundabout) and its replacement with a signalised junction with dedicated pedestrian and cycle facilities;

- The provision of a southbound bus lane on Cork Road from its junction with Ballea Road to Strand Road??? replacing the existing southbound general traffic lane;
- The provision of a northbound dedicated cycle facility on Cork Road between Old Waterpark and the junction of Cork Road/ Ballea Road;
- Upgraded bus stop facilities and improved pedestrian facilities on Cork Road;
- The provision of a southbound bus lane on Main Street between Old Waterpark and Strand Road replacing the existing southbound general traffic lane;
- The provision of a pedestrian priority zone on Main Street between Strand Road and the entrance to the Super Valu, with the removal of some on-street parking bays;
- The retention of northbound traffic on Main Street between Strand Road and Old Waterpark along with retaining northbound traffic on Cork Road between Old Waterpark and Ballea Road;
- The removal of the existing traffic signals at the junction of Main Street/ Strand Road and their replacement with informal pedestrian crossings;
- The narrowing of the road carriageway approaching the junction of Main Street/ Strand Road and the widening of the pedestrian facilities;
- The removal of some on-street parking and the provision of wider footpaths and enhanced public realm on both sides of Main Street between Lower Kilmoney Road and Strand Road;
- The retention of two-way traffic movements in a trafficked calmed environment between Lower Kilmoney Road and Strand Road;
- The realignment of the Lower Kilmoney Road/ Main Street Junction to provide priority to traffic on Main Street - Church Hill;
- The widening and enhancements to the footpaths along Lower Kilmoney Road between the entrance to the Dairygold Co-Op and Main Street;
- The provision of a new footpath on Church Hill between Mount Rivers and Ferney Road;
- The provision of a southbound cycle facility from Main Street to Ferney Road;
- The introduction of traffic management measures restricting access to Church Hill in the northbound direction from Upper Kilmoney Road, Ferney Road and Rose Hill;
- Upgrade and resurface the road carriageway along the section of Ballea Road, Cork Road, Main Street, Lower Kilmoney Road and Church Hill and install new road markings and street signs;

5.3 Bridgemount Link

- The provision of a shared pedestrian/cycle facility connecting Bridgemount (at the entrance to Heatherfield Lawn) to Heron's Wood at The Walk;
- The shared pedestrian/ cycle facility follows the alignment of the old railway line to the rear of properties along Heatherfield Lawn and The Pines; and
- The shared pedestrian/ cycle facility is routed within the existing amenity space in front of Firgrove Mews and The Walk, Heron's Wood.

6. Design Statement

6.1 Introduction

This section sets out the concepts and standards supporting and informing design decisions and describes the manner in which the proposed development responds to the project objectives.

6.2 Design Context

6.2.1 Environmental Context

The proposed development has been designed with careful consideration to minimise negative impacts on the environment, and with an aim of overall positive impacts. The proposed development incorporates measures such as new trees and rain gardens to increase the biodiversity within the area. None of the proposals are considered to have any significant long-term negative impact on the environment, and any impact will be short-term during the construction stage.

An EIA Screening and AA Screening have been carried out on the proposed development. In addition an Ecological Impact Assessment was carried out on the Bridgemount Link element. The associated reports form part of this planning documentation.

6.2.2 Design Standards

The proposed development has been designed with reference to, and in compliance with, the Design Manual for Urban Roads and Streets (DMURS) in terms of the overall principles of design. The general design speed applied to Main Street is 30km/h ensuring that a positive environment for pedestrians and cyclists is delivered.

In terms of the user hierarchy on Main Street, greater priority has been given to pedestrians, cyclists and public transport. This includes narrowing general traffic lanes, providing raised pedestrian crossings at regular intervals, widening footpaths, creating zones for street furniture, providing seating breakout areas, introducing additional greenery and other street functions, providing high quality paving to provide pedestrian priority ahead of motorists in the town centre and placing urban design features strategically to reduce speeds. Traffic management measures to reduce the volume of traffic on Main Street are also being proposed and a bus only lane is provided on the southbound lane. Specific design standards, such as lane and carriageway widths and appropriate corner radii were applied as appropriate.

Where applicable, the National Cycle Manual has also been consulted for best practice guidance. In addition, emerging design guidance arising from the national BusConnects programme has been applied regarding details of bus lanes, cycle tracks and footway.

The Bridgemount Link is an independent pedestrian and cycling facility and is also based on DMURS principles of promoting active travel modes by reducing travel distances. The design of the shared facility will ensure that the route operates safely and provides the right level of connectivity between the local communities in this part of Carrigaline.

6.2.3 Bus Priority

A bus lane is proposed on the southbound lane of Main Street from the intersection of Church Street to Strand Road. Two sets of bus stops will be located within the Phase 1A works, the first on Cork Road near to the Carrigaline Court Hotel, and a second south of the entrance to SuperValu. Accessible bus stops will be available in both directions and bus shelters will be provided at the bus stops in line with the National Transport Authority (NTA) bus shelter contract at the time of the construction.

6.2.4 Parking

The proposed public realm works along Main Street which include Church Hill, a section of Lower Kilmoney Road, Strand Road, Cork Road and Ballea Road include the provision of 58 designated parking bays. On Cork Road, all the parking outside St John's Terrace will be retained. On Main Street, 22 parking spaces will be

provided, these parking spaces will be set aside for loading/ unloading, parking for the disabled and set down spaces. The provision of set down spaces will allow for the increased turnover of parking on Main Street ensuring those who need to drop of passengers or pick up goods can carry out these activities with ease. Longer stay parkers can avail of the many publicly accessible car parks in the town centre including the parking within the Owenabue car park and new public car park set aside within the redevelopment of the Pottery lands to the west of Main Street.

On Church Hill a total of 9 parking bays are proposed to serve the residential community along this street and 12 parking spaces are retained on Lower Kilmoney Road, which would continue to have time limits to promote enhanced turnover of parking spaces.

The streets subject to the public realm enhancement works currently accommodates 99 parking bays including both formal parking bays and informal parking areas where parking is unauthorised but occurs on a regular basis such as on the hatched area on the Owenabue Bridge. The proposed public realm enhancement plan will reduce this number by 41 parking bays with all future parking provided for in formal parking bays.

It should be noted that the design of the street and the parking bays themselves includes an element of flexibility where these areas (under license) can be set aside for additional outdoor seating, market stalls, etc. depending on the time of year, time of the day.

6.2.5 Pavement

The footpaths on Cork Road, Ballea Road and Church Hill will be generally constructed with in-situ concrete and both cycle lanes and traffic lanes will have a bituminous surface. Within the heart of the town centre, footpaths will be surfaced with high quality stone sets. Within the area between the south of SuperValu and Strand Road, the high quality stone sets will be provided across the entire street carriageway to highlight the pedestrian priority zone. The road carriageway on Main Street (South) between Strand Road and Lower Kilmoney Road, Main Street (North) between Old Waterpark and the entrance to Super Valu and Lower Kilmoney Road will be asphalt and it is proposed to include a slight change in colour using either alternative resins or stone chips. Pedestrian crossings will be raised slightly and again have a different texture and colouring to the roadway to reinforce the pedestrian priority nature of the street.

The surfacing of the Bridgemount Link will be bituminous asphalt, edged with flat kerbs.

6.2.6 Trees

In order to provide the sustainable transport infrastructure proposed to meet the objectives of this scheme, some trees will be required to be removed. On Main Street it is anticipated that 16 existing trees will be retained while 80 new trees will be provided along Main Street and the other streets forming part of the works package.

At Bridgemount Link it is anticipated that up to 15 trees will be removed along the route of the proposed pedestrian/ cycleway, although the detailed design will focus on retaining as many of the existing trees as possible. The scheme proposes the provision of an additional 50 deciduous mixed trees along the route of the pedestrian/ cycleway. Construction best practice, such as hand digging around trees, will be undertaken to ensure as many trees as possible can be retained in their current location. Works will be undertaken in accordance with the Transport Infrastructure Ireland (TII) Guidance for the Protection and Preservation of Trees, Hedgerows and scrub prior to, during and post construction of National Road Schemes.

6.2.7 Public Lighting

Public lighting is currently available along Main Street mounted on high masts. These existing public lighting fittings will be replaced with more efficient LED lighting and their design will match the quality of the public realm enhancement works. The existing street light columns will also be relocated to match the alignment of the wider footpaths along the length of the street.

There is currently public lighting in both Heron's Wood and Bridgemount however the section of the route running through the old disused rail line has no lighting. The lighting columns will be of relatively low height (4.0 metres) and directed to light the path only to limit light spill onto the receiving natural environment along the corridor.

6.2.8 Utilities

At Main Street, it is proposed to remove overhead wires, cables and masts to achieve a more clutter free environment. The overhead utilities will be placed in underground ducts within the roadway or adjacent walkway. All utility companies will be consulted during the detailed design phase of the project.

At Bridgemount Link, there are no existing utilities affected that run parallel to the route. It is expected that utilities which cross the proposed route will be accommodated for within the detailed design of the proposal.

6.2.9 Drainage

It is not anticipated that there will be any major drainage works as part of this scheme with the majority of the drainage works focusing on the relocation of gullies and new connections to the existing surface water drainage system. No change in surface water drainage outfalls is proposed as part of the scheme. It is envisioned that there will be no increase to the storm water flows into the existing surface water drainage system. Additional vegetation in the form of rain gardens along Main Street will assist in managing the surface water run-off associated with the proposed scheme while in Bridgemount elements such as swales will be designed to reduce the water run-off into the network.

6.2.10 Earthworks

Along Main Street the most significant earthworks will be in areas where footpaths, cycle lanes and new paving will be provided. Within these areas, which includes a total area of around 1,200m² earthworks to a depth up to 1.0m will be carried out. Excavation on existing general traffic lanes will be minimum as existing road base will be used and roads will be resurfaced.

At Bridgemount Link shallow earthworks will be required to provide a compact base for the pedestrian and cycle route and to facilitate installation of services. Within the existing railway cutting, spoil will be removed for a short section of approximately 50m to achieve the desired route gradient.

The earthworks will be designed to try and ensure equal measures of cut and fill to prevent the need for either the import or disposal of excessive quantities of fill.

6.2.11 Road Safety Audit

A Stage 1 Road Safety Audit of the proposed scheme has been undertaken at Main Street by JB Barry & Partners Consulting Engineers on behalf of Cork County Council. As part of the Road Safety Audit, the Audit Team examined issues within the design which relate directly to road safety.

The Road Safety Audit was carried out in accordance with the procedures and scope set out in TII publication number GE-STY-01024 – Road Safety Audit.

No significant issues have been identified with the proposed design and the findings of the Road Safety Audit Report will be considered in the preparation of the detailed design of any granted scheme arising from the Part VIII Planning Application.

7. Land Acquisition

7.1 Main Street

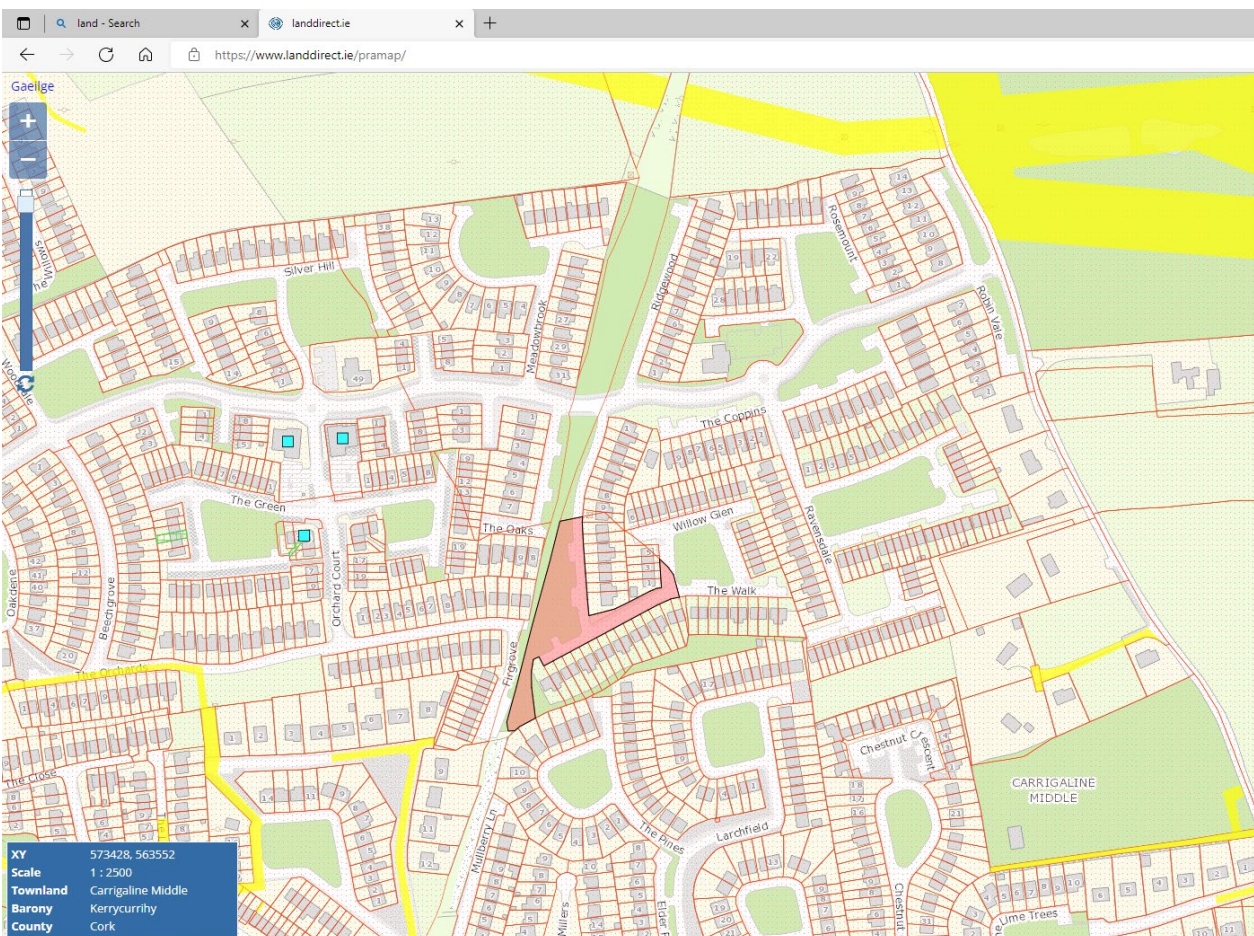
The majority of the scheme lies within the existing public right of way, however there are locations where it will be necessary to acquire land or property in order to implement the scheme. These locations are as follows:

- Lands of two private properties located to the north of Ballea Road and west of Cork Road. This land take is required to provide sufficient room to accommodate a left turn lane, footpaths and cycle lanes in each direction on Ballea Road.
- Some land acquisition is also required along Church Hill from five private properties. This land take is required to accommodate a new southbound cycle lane and footpaths on both sides of the road while maintaining two way movement of cars for those residing on Church Hill.

Where land or property has been identified as necessary to facilitate the scheme, Cork County Council have contacted and will continue to liaise with the relevant impacted landowners directly. Through this liaison, Cork County Council will seek to acquire the relevant lands as outlined above to facilitate the implementation of the proposed scheme through agreement with the relevant landowners in question, or via Compulsory Purchase Order (CPO).

7.2 Bridgemount Link

The proposed Bridgemount Link has been routed through lands in the ownership of Cork County Council and through lands reserved for public amenity. As noted previously the alignment of the Bridgemount Link between Heron’s Wood and Bridgemount follows that presented in Cork County Council’s Development Plan since 2005. The area in pink in the image below shows the lands in ownership of Cork County Council and the areas in green shows the lands reserved for public amenity.



8. Receiving Natural Environment

8.1 Appropriate Assessment Screening

The Appropriate Assessment (AA) Screening report was prepared by Arup.

The aims of this report were as follows:

- Determine whether the proposed development is directly connected with, or necessary to the conservation management of any Natura 2000 sites.
- Provide information on and assess the potential for the proposed development to significantly impact on Natura 2000 Sites (also known as European sites).
- Determine whether the proposed development, alone or in combination with other projects and plans, is likely to have significant effects on Natura 2000 sites in view of their conservation objectives.

It has been objectively concluded that:

- The proposed project is not necessary to the conservation objectives and/or management of any Natura 2000 sites.
- The Proposed Scheme, individually or in-combination with other plans or projects, would not have likely significant effects on any European site, in view of sites' conservation objectives.

Cork County Council carried out a Habitats Directive screening determination on the Screening for Appropriate Assessment Report which has been prepared by Arup. The conclusion of the screening determination statement is the following:

On the basis of the information contained in the AA Screening Report and other project documents which is considered adequate to undertake a screening assessment and to make a screening determination, Cork County Council is satisfied that the proposed project poses no likelihood of causing significant effects on any EU site for the following reasons:

1. No direct interventions are proposed within any EU site – therefore, there is no associated risk of direct damage to qualifying interest habitats or other habitats of biodiversity value within any such site.
2. There is no risk that activities will cause disturbance impacts to birds as
 - no elements of the project will generate noise to levels above ambient levels in any part of the Cork Harbour SPA;
 - no elements of the project have the potential to cause visual disturbance to birds within any part of the Cork Harbour SPA; and
 - no elements of the project have the potential to cause ex-situ disturbance related impacts to qualifying interest bird species.
3. The construction works do not pose a risk of causing significant pollution risk to water quality for the following reasons:
 - there is no hydrological linkage of the Bridgemount works area to the estuary;
 - proposed excavations in the Main Street area are limited in scale;
 - while the project could result in the release of silt or hydrocarbons to the surface water drainage system, any such releases will not be significant taking account of the limited scale of the works and the predicted dispersal and dilution of soiled surface water entering the river.
4. The project is intended to reduce car usage in Carrigaline and has therefore the potential to reduce threats and pressures to water quality in the receiving catchment over the long term.
5. No increase in surface water discharges is proposed. There will therefore be no change in natural hydrological conditions in the estuary.

6. The proposed project does not pose a risk of causing the spread of invasive alien species to either the Cork Harbour SPA as surveys have indicated that there are invasive alien species within the works area.

Note: While works on site will be implemented in accordance with environmental best practise to prevent water pollution as standard, this has not been taken account of in the completion of this screening assessment. These measures, while welcome to prevent localised water pollution, are not deemed to be essential to prevent significant negative effects on any EU sites.

8.2 Environmental Impact Assessment Report Screening

The Preliminary Environmental Impact Assessment Screening Report contains necessary information to enable the competent authority, in this case CCC, to undertake a preliminary examination and screening, of the proposed scheme to determine if an EIA is required.

The conclusion of Arup's preliminary examination is that the nature, scale and location of the proposed development is such that there is no real likelihood of significant effects on the environment arising from the proposed development and that there is no doubt regarding the likelihood of significant effects. Following the preliminary examination, the report's findings are that neither a screening determination nor an EIA is required for the proposed development.

Cork County Council have reviewed this report, concurs with the findings of the report and has determined that an Environmental Impact Assessment Report is not required. Given the nature, scale and location of the proposed development, determine that the proposed development would not be likely to have significant effects on the environment and that the preparation and submission of an environmental impact report is not required.

8.3 Ecological Impact Assessment

An Ecological Impact Assessment was prepared as part of the project to develop an understanding of the potential ecological impacts associated with the delivery of the proposed development particularly the new pedestrian/ cycleway routed along the line of the disused railway line between Heron's Wood and Bridgemount. The findings from the Ecological Impact Assessment clearly note that the development does not have any significant residual impacts although it is acknowledged that there will be some localised effects associated with the loss of trees and nesting habitats for bird species. The Ecological Impact Assessment has identified the following mitigation measures to offset the potential localised impacts.

- Carry out pre-clearance checks;
- Carry out the tree felling outside of the breeding bird season;
- Replace the lost tree habit with an equivalent (or greater) area of woodland habitat along the route

8.4 Flood Risk Assessment

The Flood Risk Assessment (FRA) was undertaken in accordance with the 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' published in November 2009, jointly by the Office of Public Works (OPW) and the then Department of Environment, Heritage and Local Government (DoEHLG), herein referred to as 'the Guidelines'.

Carrigaline town has historically been prone to tidal flooding with significant events occurring in recent years. The site is at risk of both fluvial and tidal flooding from the Owenabue River. The risk of pluvial flooding is high while the risk of groundwater flooding is considered moderate.

The proposed development supporting the delivery of the public realm enhancement of Main Street consists of upgrading approximately 1,200m of existing street infrastructure to include enhanced pedestrian and cycle infrastructure and changes in traffic and parking management. The existing street infrastructure along Main Street passes over the Owenbue River in the centre of Carrigaline.

Having reviewed the various sources of flooding in Stage 1 it was determined that the site of the proposed public realm enhancement works on Main Street is at risk of flooding, with much of the site being within Flood Zones A and B and hence Stage 2 FRA has been carried out.

Stage 2 identified the flood extents within Flood Zones A and B from tidal flood source up to a maximum flood depth of 1m are encountered within the site of the proposed development. Additional flood extents are seen from pluvial and fluvial sources. The proposed development along the existing Main Street is considered 'highly vulnerable' as it involves street infrastructure and therefore a Justification Test was required. The Justification Test for the development was completed as part of the site-specific Flood Risk Assessment (FRA) and it was determined that the development proposal satisfied all the requirements.

The scope of the proposed development is in keeping with the existing road profile and does not increase the risk of flooding elsewhere. Furthermore, the design of the drainage system has imbedded measures (i.e., provision of additional green area and SUDs) which will positively influence run-off from the existing street.

During construction, staff on site will maintain awareness of flood and weather forecasts on an ongoing basis as well as receiving warnings from Cork County Council and Met Eireann as appropriate. During operation, roadway, bike, and pedestrian users will have sufficient notice through social media and news reports as part of weather warnings to avoid affected areas in advance of a possible flood.

This FRA has demonstrated that the risks relating to flooding can be managed and mitigated to acceptable levels and therefore comply with DoEHLG / OPW and Cork County Council planning guidance.

9. Summary and Conclusion

This report supports the Part VIII Planning Application for the proposed Carrigaline Transportation and Public Realm Enhancement Plan Phase 1A scheme. The project includes for both public realm enhancements to Main Street and its environs and the delivery of improved pedestrian and cycle connectivity to the northeast of Carrigaline. The delivery of the Carrigaline Transportation and Public Realm Enhancement Plan Phase 1A scheme is consistent with national, regional and local planning policies to encourage greater use of active and sustainable travel modes and will assist in delivering on the nation's targeted reduction in carbon emissions.

The proposed development will result in a substantial improvement to the existing sustainable transport infrastructure in Carrigaline and will be the catalyst for change in Carrigaline to encourage more trips to be taken by sustainable travel modes. The public realm works on Main Street will invigorate the town centre increasing footfall and providing a vibrant centre for residents and visitors to enjoy. The proposed Carrigaline TPREP Phase 1A scheme is the next stage in the continued roll out of sustainable transport infrastructure that will transform the town in terms of enhanced accessibility creating a sustainable town for the future.

The proposed development is in accordance with the proper planning and sustainable development of the area and is in accordance with local planning policies and objectives, as set out in the Cork County Development Plan 2022. The potential environmental and ecological impacts, arising from the scheme have been reviewed and assessed. The proposed development will result in some localised effects on the natural environment along the Bridgemount Link with the loss of existing trees. The proposed landscaping of the route to include native trees to replace any trees being removed, will mitigate any loss of tree habitat and will broaden the biodiversity of the area when operational. The proposed development will not result in significant environmental or ecological residual effects.