

**Blanchardstown
to City Centre Core
Bus Corridor Scheme**
March 2022

**Preferred
Route
Option
Report**

**BUS
CONNECTS**

SUSTAINABLE TRANSPORT FOR A BETTER CITY.

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Glossary of Technical Terms

Signal Controlled Priority - Signal Control Priority (SCP) uses traffic signals to enable buses to get priority ahead of other traffic on single lane road sections, but it is only effective for short distances. This typically arises where the bus lane cannot continue due to obstructions on the roadway. An example might be where a road has pinch-points where it narrows due to existing buildings or structures that cannot be demolished to widen the road to make space for a bus lane. It works through the use of traffic signal controls (typically at junctions) where the bus lane and general traffic lane must merge ahead and share the road space for a short distance until the bus lane recommences downstream. The general traffic will be stopped at the signal to allow the bus pass through the narrow section first and when the bus has passed, the general traffic will then be allowed through the lights

Bus Gate – A Bus Gate is a sign-posted short length of stand-alone bus lane. This short length of road is restricted exclusively to buses, taxis and cyclists plus emergency vehicles. It facilitates bus priority by removing general through traffic along the overall road where the bus gate is located. General traffic will be directed by signage to divert away to other roads before they arrive at the Bus Gate.

Cycle Lane – A cycle lane is a lane on the carriageway that is reserved either exclusively or primarily for cycling and is separated from general traffic or bus lanes by road markings.

Cycle Track – A cycle track is a separate section of the road dedicated for cycling only. This space will generally be isolated from other vehicular traffic by a physical kerb.

Virtual Bus Priority – This refers to cases where physical bus priority (i.e. bus lanes) is not provided, and instead, bus priority is provided within the general traffic lane through the use of signal-controlled priority or bus gates to control the movements of general traffic.

Quiet Street Treatment – Where CBC roadway widths cannot facilitate cyclists without significant impact on bus priority, alternative cycle routes are explored for short distances away from the CBC bus route. Such offline options may include directing cyclists along streets with minimal general traffic other than car users who live on the street. They are called Quiet Streets due to the low amount of general traffic and are deemed suitable for cyclists sharing the roadway with the general traffic without the need to construct segregated cycle tracks or painted cycle lanes. The Quiet Street Treatment will involve appropriate advisory signage for both the general road users and cyclists.

Protected Junctions - Refers to junctions, which provide physical kerb buildouts to protect cyclists through the junction. Due to the inherently complex nature of mixed mode movements at junctions, the provision for cyclists at junctions is a critical factor in managing conflict and providing safe junctions for all road users.

As such, this is the preferred layout for signalised junctions as part of the CBC Infrastructure Works where practicable.

Greenway – A greenway is a recreational corridor for non-motorised journeys, developed in an integrated manner which enhances both the environment and quality of life of the surrounding area. These routes should meet satisfactory standards of width, gradient and surface condition to ensure that they are both user-friendly and low risk for users of all abilities.

Carbon – The term Carbon is used to refer to Carbon Emissions or Green House Gas Emissions interchangeably

Executive Summary

Introduction

The purpose of this report is to present an overview of the Preferred Route Option for the ‘Blanchardstown to City Centre’ Core Bus Corridor (CBC) as well as describing the options assessed, and changes made to the Proposed scheme since the first non-statutory public consultation in February 2019.

The aim of delivering the Blanchardstown to City Centre CBC is to provide enhanced walking, cycling and bus infrastructure on this key access corridor in the Dublin region, which will enable and deliver efficient, safe, and integrated sustainable transport movement along the corridor.

The objectives are to:

- Enhance the capacity and potential of the public transport system by improving bus speeds, reliability and punctuality through the provision of bus lanes and other measures to provide priority to bus movement over general traffic movements;
- Enhance the potential for cycling by providing safe infrastructure for cycling, segregated from general traffic wherever practicable;
- Support the delivery of an efficient, low carbon and climate resilient public transport service, which supports the achievement of Ireland’s emission reduction targets;
- Enable compact growth, regeneration opportunities and more effective use of land in Dublin, for present and future generations, through the provision of safe and efficient sustainable transport networks;
- Improve accessibility to jobs, education and other social and economic opportunities through the provision of improved sustainable connectivity and integration with other public transport services; and
- Ensure that the public realm is carefully considered in the design and development of the transport infrastructure and seek to enhance key urban focal points where appropriate and feasible.

Scheme Overview & Assessment Process

The Blanchardstown to City Centre CBC commences on the R121 Blanchardstown Road South, north of a proposed new bus interchange in the north-western area of Blanchardstown Shopping Centre. Beyond Blanchardstown Road South, the proposed and existing spine bus services branch out to reach a range of catchment areas north and west of Blanchardstown. The CBC scheme thus begins at the northern and southern ends of Blanchardstown Road South, at its junctions with Old Navan Road (just east of the N3 Mulhuddart Junction overbridge) and with Blakestown Way respectively. The corridor has two connections to the proposed new bus interchange, along the southern extension of Blakestown Way (to the south), and along the road link past the Crowne Plaza adjacent to the N3 (to the north).

From a new bus interchange at Blanchardstown Shopping Centre, the CBC is routed onto the N3 Navan Road via the Snugborough Road junction and follows the N3 and R147 Navan Road as far as the junction with the Old Cabra Road.

From the Navan Road / Old Cabra Road junction, the CBC is routed along Old Cabra Road, Prussia Street, Manor Street and Stoneybatter to the junction with King Street North.

From King Street North, the CBC is then routed via Blackhall Place as far as the junction with Ellis Quay and Arran Quay, where it joins the prevailing traffic management regime on the North Quays. At the Stoneybatter / Brunswick Street North junction, cyclists proceed along Brunswick Street North, George's Lane and Queen Street as far as Ellis Quay/Arran Quay.

Priority for buses is provided along the entire route, consisting primarily of dedicated bus lanes in both directions, with alternative measures to give buses priority over traffic proposed at particularly constrained locations.

Where substantial revisions have been made to the design since the publication of the Emerging Preferred Route Option (EPR Option) in November 2018, options have been assessed using a Multi-Criteria Assessment (MCA) to determine the preferred option. The methodology used is consistent with that carried out during the initial route optioneering work which informed the EPR Option. This additional assessment does not supersede work done during earlier stages but rather complements it and is a direct response to issues raised by the public during the public consultation process and further design development. This assessment has also been carried out in the context of more detailed information now available, including topographical survey.

The following list highlights the main scheme changes between the published EPR Option and the PRO proposals:

- The proposed layout at Mulhuddart junction has been changed, with cycle tracks modified and bus lanes removed from the N3 Overbridge at this location. Cycle tracks are now proposed on the nearside of the carriageway and cycle crossings alongside pedestrian crossings to minimise conflict between cyclists and motorists. The layout for Blanchardstown Road South has also been modified with the removal of the eastbound bus lane, provision

of a bus layover, and a new car park access into Blanchardstown shopping centre;

- A left turn filter lane has been introduced on the Old Navan Road leading to the N3 eastbound on-slip, south of the Mulhuddart junction;
- A bus lane has been introduced along a section of the N3 westbound off-slip to its junction with Blanchardstown Road South;
- The Blakestown Way Roundabout has been amended to a signalised crossroads junction;
- Additional alighting bays have been added to the Blanchardstown Bus Interchange;
- Along the N3 corridor, the proposed layout will not include for a future upgrade by Transport Infrastructure Ireland;
- The previously proposed two-way cycle track westbound along the R147 Navan Road to Auburn Avenue Junction is modified with cyclists routed from the R147 to an on-street 'Quiet Street' cycle route along Castleknock Manor. This will reduce the need for land take in this area;
- At the Navan Road/Ashtown Road junction, the PRO scheme modifies the existing roundabout to a signal-controlled crossroads. This is generally consistent with the EPR proposed layout and a change from the proposed signal-controlled roundabout shown in the November 2020 public consultation drawings;
- Land take requirement will be removed at Cabra Library due to redesign of the junction at Navan Road/Ratoath Road;
- New traffic signal controls are proposed at the Old Cabra Road/Glenbeigh Road junction, which will enable general traffic flows turning left or right onto Old Cabra Road (local access only) to be controlled (mitigating the risk of general traffic using Glenbeigh Road as a rat-run);
- On Old Cabra Road, the previously proposed two-way cycle track along Old Cabra Road is replaced by two one-way cycle tracks on either side of the road, and the northbound bus lane approaching the Navan Road junction is reduced in length. These measures will reduce the need for land take in areas along Old Cabra Road;
- Widening of the Old Cabra Road overbridge over the Heuston Station/Connolly Station railway line is no longer required. It is now proposed to accommodate the bus/bicycle infrastructure within the existing road bridge width;
- The location of the northbound bus gate on Old Cabra Road has been relocated to the railway overbridge to facilitate local access to properties south of the railway bridge;
- The revised proposals include making St Joseph's Road one-way towards Prussia Street at its eastern end, to avoid general traffic using this street as a short-cut route;

- The junction of Manor Street/Prussia Street with Aughrim Street at Stoneybatter is proposed to be signalised and includes a bus gate in both directions. All northbound general traffic will be required to turn left onto Aughrim Street. In the southbound direction, any general traffic on Prussia Street at this location will be required to turn right onto Aughrim Street. A bus gate has also been introduced in the southbound direction on Aughrim Street at this junction;
- The Manor Street/Kirwan Street/Manor Place junction is proposed to be signalised, and Kirwan Street general traffic (which is westbound only) are proposed to be limited to 'left-turns only' at its junction with Manor Street (to reduce the opportunity for rat-running by northbound through traffic via Grangegorman Lower to Aughrim Street and beyond);
- The revised proposals along Manor Street results in a reduction from a maximum of four lanes (two bus lanes and two general traffic lanes) to two general traffic lanes. The modified design also includes a northbound and southbound cycle track, wider footpaths and enhanced urban realm as a result of the reduction in carriageway width;
- At the north end of George's Lane, the revised proposals have a signal-controlled junction at Grangegorman Street Lower/Brunswick Street North.
- A northbound bus lane on Blackhall Place (at its junction with King Street North) is proposed and all northbound general traffic will be required to turn right into King Street North. Northbound general traffic will be required to travel via George's Lane and Brunswick Street North to reach Manor Street. Traffic signals at the Brunswick Street North/Blackhall Place junction will enable the level of flow of northbound general traffic to be controlled, and limited to a level which will ensure that buses are able to travel without delay along this section. The revised proposal for George's Lane removes the southbound traffic lane and includes a two-way cycle track, resulting in wider footpaths;
- A two-way cycle track will be provided along the eastern side of Queen Street from King Street to Ellis Quay/Arran Quay, with two southbound traffic lanes from George's Lane to Blackhall Street, and a reduction to one traffic lane from Blackhall Street to Ellis Quay/Arran Quay;
- On Blackhall Street, the proposed road layout is revised to include one lane for general traffic, a two-way cycle track, and angled parking; and
- Offline traffic management measures have been introduced to minimise general traffic levels on local side streets.

The Preferred Route drawings are presented in Appendix A of this report.

The Public Consultation Submission documents are presented in Appendix B and Appendix C of this report.

1 Introduction and Background

1.1 Introduction

This report presents the preferred route option for the Blanchardstown to City Centre Core Bus Corridor Scheme, (herein after called the **Proposed Scheme**).

The Proposed Scheme is one of twelve schemes to be delivered under the BusConnects Dublin - Core Bus Corridors Infrastructure Works programme (herein after called **the CBC Infrastructure Works**).

The CBC Infrastructure Works, once completed, will deliver the radial Core Bus Corridors identified in the Greater Dublin Area 2016-2035 (herein after called **the GDA Transport Strategy**) Core Bus Network.

The Proposed Scheme measures approximately 10.9 km from end to end.

The Proposed Scheme commences at Junction 3 (Blanchardstown / Mulhuddart) southbound off-slip from the N3. The corridor proceeds along the R121 Blanchardstown Road South into the Blanchardstown Shopping Centre.

From a new terminus to the north-west of Blanchardstown Shopping Centre the Proposed Scheme is routed onto the N3 Navan Road via the Snugborough Road junction and follows the N3 and Navan Road as far as the junction with the Old Cabra Road.

From here, the Proposed Scheme is routed along Old Cabra Road, Prussia Street Manor Street and Stoneybatter to the junction with King Street North. The CBC is then routed via Blackhall Place as far as the junction with Ellis Quay and Arran Quay, where it joins the prevailing traffic management regime on the North Quays. At the Stoneybatter / Brunswick Street North junction, cyclists proceed along Brunswick Street North, George's Lane and Queen Street as far as Ellis Quay/Arran Quay.

The Proposed Scheme will significantly enhance travel by public transport by providing continuous bus priority as well as improved pedestrian and cycling infrastructure in both directions on the Blanchardstown to City Centre CBC. Currently these key access corridors are characterised by traffic congestion and discontinuous inadequate bus and cycling infrastructure meaning that for most of the journey, buses and cyclists are competing for space with the general traffic impacting on the attractiveness of these sustainable modes. The objectives of the Proposed Scheme include provision of necessary bus, cycle, and walking infrastructure enhancements that will facilitate modal shift from car dependency contributing to an efficient, low carbon and climate resilient City. Refer to **Figure 1.1** for routing of the Proposed Scheme.

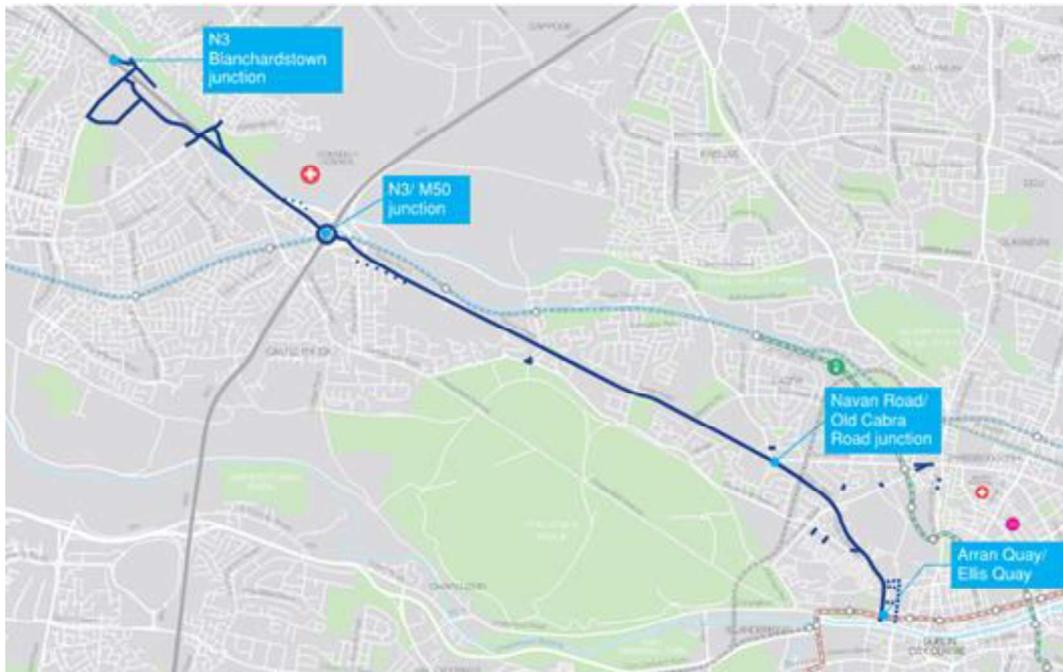


Figure 1.1: Blanchardstown to City Centre Core Bus Corridor Scheme

1.2 The Core Bus Corridor Infrastructure Works

The Proposed Scheme is one of 12 stand-alone core bus corridor schemes to be delivered under the BusConnects Dublin - Core Bus Corridors Infrastructure Works (herein after called the CBC Infrastructure Works). The CBC Infrastructure Works, once completed, will deliver the radial core corridors identified in the Greater Dublin Area 2016-2035 (herein after called the GDA Transport Strategy) Core Bus Network which is discussed below.

The BusConnects Dublin Programme is the National Transport Authority's programme to greatly improve bus services in the Greater Dublin Area and the CBC Infrastructure Works is one element of that Programme, itself containing 12 stand-alone Core Bus Corridor Schemes. It is a key part of the Government's policies to improve public transport and address climate change in Dublin and other cities.

The National Transport Authority (NTA) established a dedicated BusConnects Infrastructure team to advance the planning and construction of the CBC Infrastructure Works. It comprises an inhouse team including technical and communications resources and external service providers procured from time-to-time to assist the internal team in the planning and design of the 12 Proposed Schemes.

The CBC Infrastructure Works will deliver a major component of the overall Core Bus Network as identified in the GDA Transport Strategy, encompassing the delivery of approximately 230km of dedicated bus lanes and 200km of cycle tracks along 12 stand-alone Core Bus Corridors Schemes.

The 12 stand-alone Core Bus Corridor Schemes to be delivered under the CBC Infrastructure Works are (see **Figure 1.2**):

- The Clongriffin to City Centre Core Bus Corridor Scheme;
- The Swords to City Centre Core Bus Corridor Scheme;
- The Ballymun / Finglas to City Centre Core Bus Corridor Scheme;
- **The Blanchardstown to City Centre Core Bus Corridor Scheme;**
- The Lucan to City Centre Core Bus Corridor Scheme;
- The Liffey Valley to City Centre Core Bus Corridor Scheme;
- The Tallaght / Clondalkin to City Centre Core Bus Corridor Scheme;
- The Kimmage to City Centre Core Bus Corridor Scheme;
- The Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme;
- The Bray to City Centre Core Bus Corridor Scheme;
- The Belfield / Blackrock to City Centre Core Bus Corridor Scheme; and
- The Ringsend to City Centre Core Bus Corridor Scheme.

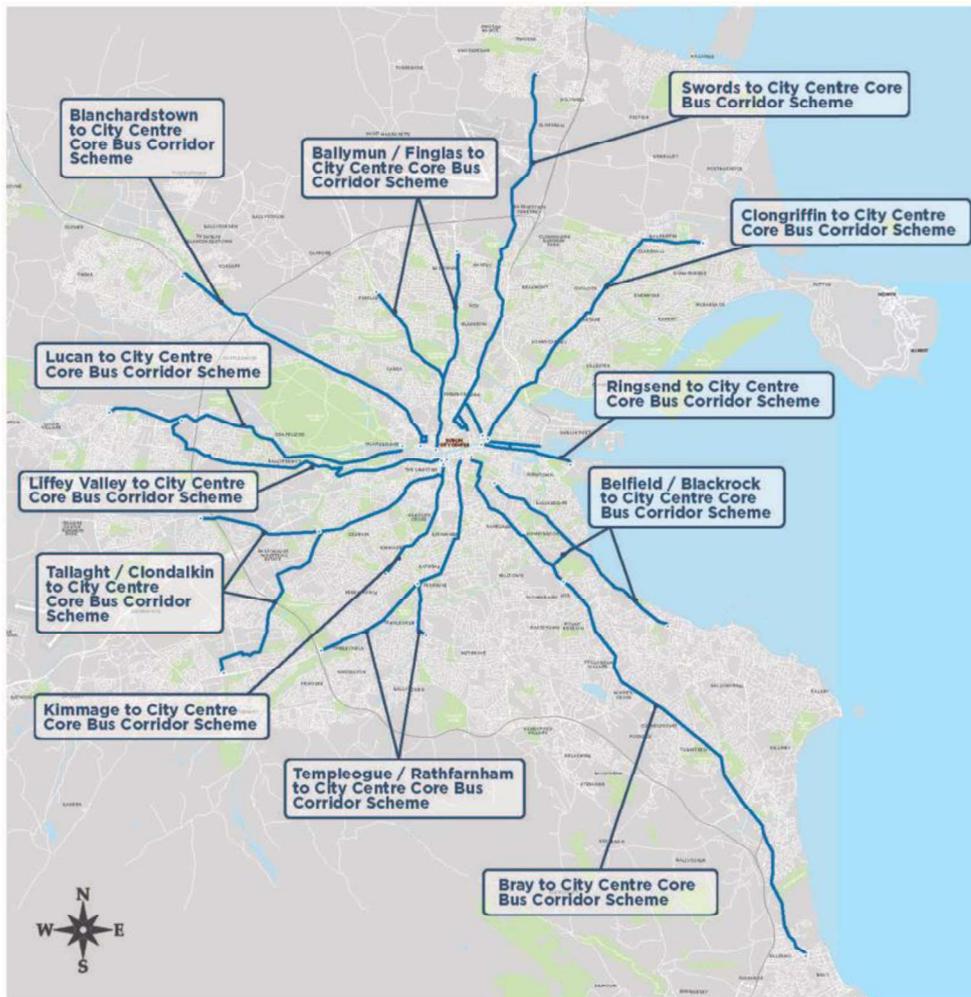


Figure 1.2: CBC Infrastructure Works

1.3 Approach for this Report

In June 2018, the NTA published the Core Bus Corridors Project Report. The report was a discussion document outlining proposals for the delivery of a CBC network across Dublin. The ‘Blanchardstown to City Centre’ is identified in this document as forming part of the radial Core Bus Network, designated as ‘Route 5’.

Following this, a non-statutory public consultation for the sixteen radial core bus corridors took place on a phased basis from November 2018 until May 2019.

As part of this process the ‘Blanchardstown Town Centre to the Liffey Quays (Ellis Quay) CBC Route Options Assessment’ was published, which identified feasible options along the corridor, assessed these options and arrived at an Emerging Preferred Route (EPR) Option. Submissions were invited from the public to provide comment on the EPR Option proposals and to inform subsequent design stages.

This ‘Preferred Route Option Report’ has been prepared for the Proposed Scheme, which will build on the assessment carried out in the ‘Blanchardstown Town Centre to the Liffey Quays (Ellis Quay) CBC Route Options Assessment’.

The ‘Blanchardstown Town Centre to the Liffey Quays (Ellis Quay) CBC Route Options Assessment’, along with its associated appendices as published, are included in Appendix K.

The Study Area Analysis and Multi Criteria Analysis (MCA) for the previously proposed feasible route options are considered to still be valid unless otherwise detailed and updated in this PRO Report. Any additional design work or optioneering has been assessed against the previously identified EPR Option and draft PRO in order to determine the PRO. Additional design development has been detailed in this report, and the resulting PRO referenced in this report has been based on:

- Updated topographical survey information;
- Output from engagement and consultation activities on the EPR Option and draft PRO proposals;
- Clarifications to the previous assessment in the ‘Blanchardstown Town Centre to the Liffey Quays (Ellis Quay) CBC Route Options Assessment’;
- Further design development and options assessment; and
- Change in the extent of the Proposed scheme.

1.4 Report Structure

The structure for the remainder of this report is set out as follows:

- Chapter 2: Planning and Policy Context – This chapter outlines the general background information to the CBC Infrastructure Works. It also outlines the policy context in which the CBC was developed and presents the concept of

the CBC network as outlined in the Transport Strategy for the Greater Dublin Area 2016-2035 (NTA 2015) and the CBC Infrastructure Works.

- Chapter 3: Background and Public Consultation – This chapter outlines the summary of the non-statutory public consultation process.
- Chapter 4: The Study Area – In this chapter, the study area for the CBC is detailed. The integration of the scheme with existing and planned transport networks is considered, along with considerations of the scheme for other road users.
- Chapter 5: Review of the ‘Blanchardstown Town Centre to the Liffey Quays (Ellis Quay) CBC Route Options Assessment’ – This chapter is a summary of the options assessment that was previously carried out in each section of the ‘Blanchardstown Town Centre to the Liffey Quays (Ellis Quay) CBC Route Options Assessment’. An assessment has been made on the validity of the previous options assessment in the context of additional information collected, including through more detailed survey work undertaken and feedback from the public consultation process. Issues arising and changes resulting from the design development are detailed.
- Chapter 6: Option Assessment – This chapter subsequently updates the previous options assessment work undertaken in light of the additional considerations set out in Chapter 5.
- Chapter 7: Preferred Route Option – This chapter gives the overall conclusions of the option assessment process and describes the PRO proposal.

2 Planning and Policy Context

2.1 Transport Strategy for the Greater Dublin Area, 2016 – 2035

2.1.1 Introduction

The GDA Transport Strategy, which was published by the National Transport Authority (NTA) in 2016, provides a statutory planning basis and framework for the planning and delivery of transport infrastructure and services in the Greater Dublin Area.

The GDA Transport Strategy has been prepared in accordance with Section 12 of the Dublin Transport Authority Act, 2008 and was approved in 2016 by the then Minister for Transport, Tourism and Sport (now the Department of Transport). The GDA Transport Strategy, along with supporting Government investment programmes, is an essential component for the orderly development of the GDA over the next 20 years. The purpose of the GDA Transport Strategy is stated as being “to contribute to the economic, social and cultural progress of the Greater Dublin Area by providing for the efficient, effective and sustainable movement of people and goods”.

2.1.2 The Core Bus Network as identified in the GDA Transport Strategy

The delivery of an efficient reliable bus service is an essential component of the GDA Transport Strategy as it will provide a viable and readily accessible alternative to private general traffic that is causing congestion problems in the GDA. As Dublin is a low density city there are few areas with the size and concentration of population for rail based public transport. This means that for most corridors in Dublin, bus travel represents the optimum form of public transport. Dublin Bus carried 153 million passengers in 2019. In percentage terms, the bus system accounts for over 65% of public transport passenger journeys in the GDA, the Luas carries 20%, and DART and commuter rail services deliver the remaining 15%.

In terms of geographical reach and coverage, bus operations extend across every corridor in the Dublin region. Luas operates two fixed lines - Red and Green and heavy rail operates four railway services – Kildare, Maynooth, Northern and South-eastern lines. While the GDA Transport Strategy identified key rail-based enhancements it is underpinned by the bus-based city-wide public transport system. The GDA Transport Strategy identified a “Core Bus Network”, representing the most important bus routes within the GDA, generally characterised by high passenger volumes, frequent services and significant trip attractors along the routes. The Core Bus Network forms part of an overall integrated transport system planned for the GDA. In developing the GDA Transport Strategy, alternatives were considered by the NTA at both a corridor and overall network level.

The identified core bus network comprised radial bus corridors, orbital bus corridors and regional bus corridors. These corridors are generally characterised by discontinuity, whereby the corridors currently have dedicated bus lanes along only less than one third of their lengths which means that for most of the journey, buses and cyclists are competing for space with general traffic and are negatively affected by the increasing levels of congestion. This results in delayed buses and unreliable journey times for passengers.

The GDA Transport Strategy states that it is intended to provide continuous bus priority, as far as is practicable, along the core bus routes, with the objective of supporting a more efficient and reliable bus service with lower journey times, increasing the attractiveness of public transport in these areas and facilitating a shift to more sustainable modes of transport.

In Section 5.5.4 of the GDA Transport Strategy it states that "[a] number of the Core Radial Bus Corridors are proposed to be developed as Bus Rapid Transit (BRT) routes, where the passenger numbers forecast on the routes are approaching the limits of conventional bus route capacity."

As design and planning work was progressed by the BusConnects Infrastructure team, it became clear that the level of differentiation between the BRT corridors and the Core Bus Corridors would, ultimately, be limited, and that all of the radial Core Bus Corridors should be developed to provide a similarly high level of priority service provision (i.e. to provide a consistency in terms of bus priority and infrastructure to support the bus services).

2.2 Greater Dublin Area Cycle Network Plan

The 'Greater Dublin Area Cycle Network Plan' (the 'GDA Cycle Network Plan') was adopted by the NTA in early 2014 following a period of consultation with the public and various stakeholders. This plan forms the strategy for the implementation of a high quality, integrated cycle network for the Greater Dublin Area.

Two primary cycle routes (Route 4 and 5) and secondary cycle routes align with the Proposed Scheme.

During the earlier assessment process which identified the EPR Option, the provision of these cycle routes was considered at all stages.

Therefore, as part of the option assessment process, any upgrading of infrastructure to provide bus priority also needs to consider and provide for cycling infrastructure, where practicable, to the appropriate level and quality of service (as defined by the NTA National Cycle Manual) required for primary and secondary cycle routes.

2.3 Development Plan, Local Area Plans and Strategic Development Zones

Dublin City Council Development Plan (2016 – 2022)

The current Development Plan for Dublin City Council (DCC) came into effect on 21 October 2016. The DCC Development Plan recognises the challenge that Transport has in making an important contribution towards achieving a sustainable city. These key challenges for the city are outlined as follows:

- *Effective integration of land-use and transportation, and the management of access and mobility.*
- *Pro-active engagement and collaboration with communities to bring about further modal shift and effective mobility management.*
- *The expansion of the strategic cycle network along all major water bodies including the River Liffey and the canals.*
- *Improving the city centre environment for pedestrians through public realm enhancements and through improvement of the strategic pedestrian network.*
- *Ensuring maximum benefits are achieved from public transport improvements including Luas cross-city and the anticipated Bus Rapid Transit network.*
- *Managing city centre road-space to best address the competing needs of public transport, pedestrians, cyclists, and the private car.*
- *Increasing significantly the existing mode share for active modes, i.e. walking and cycling, and supporting the forthcoming National Policy Framework for Alternative Fuels Infrastructure.*

Therefore, sustainable forms of transport such as public transport, walking, and cycling are strongly promoted in this plan, which takes a pro-active approach to influencing travel behaviour and effective traffic management. Relevant policies are outlined in **Table 2.1** and **Table 2.2**.

Table 2.1: DCC Development Plan Policies for Modal Change and Active Travel aligned with the proposed development

Movement and Transport: Promoting Modal Change and Active Travel	
MT2	Whilst having regard to the necessity for private car usage and the economic benefit to the city centre retail core as well as the city and national economy, to continue to promote modal shift from private car use towards increased use of more sustainable forms of transport such as cycling, walking and public transport, and to co-operate with the NTA, Transport Infrastructure Ireland (TII) and other transport agencies in progressing an integrated set of transport objectives. Initiatives contained in the government's 'Smarter Travel' document and in the NTA's draft transport strategy are key elements of this approach.

Table 2.2: DCC Development Plan Policies for Public Transport aligned with the proposed development

Movement and Transport: Public Transport	
MT3	To support and facilitate the development of an integrated public transport network with efficient interchange between transport modes, serving the existing and future needs of the city in association with relevant transport providers, agencies and stakeholders.
MT4	To promote and facilitate the provision of Metro, all heavy elements of the DART Expansion Programme including DART Underground (rail interconnector), the electrification of existing lines, the expansion of Luas, and improvements to the bus network in order to achieve strategic transport objectives.
MT5	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.
MT6 (i)	To work with Iarnród Eireann, the NTA, Transport Infrastructure Ireland (TII) and other operators to progress a coordinated approach to improving the rail network, integrated with other public transport modes to ensure maximum public benefit and promoting sustainable transport and improved connectivity.

Fingal County Council Development Plan (FCC) (2017 – 2023)

The current Development Plan for Fingal County Council (FCC) came into effect in 2017 and generally seeks to *‘Promote and facilitate movement to, from, and within the County of Fingal, by integrating land use with a high quality, sustainable transport system that prioritises walking, cycling and public transport.’*

The FCC Development Plan includes transport and mobility policies and objectives to promote the sustainable development of the County by supporting and guiding national agencies in delivering major improvements to the public transport network and to ensure existing and planned public transport services provide an attractive and convenient alternative to the car.

The Development Plan recognises that one of the major challenges facing the County during the life of this Plan is the need to promote and provide for sustainable transport options, whilst maintaining the effectiveness of the County’s road network.

In terms of transport infrastructure, the following (see **Table 2.3** and **Table 2.4**) Policies and Objectives have been identified in the County Development Plan which support the proposed development:

Table 2.3: FCC Development Plan Overarching Objectives aligned with the proposed development

Movement and Infrastructure - Overarching	
Objective MT01	Support National and Regional transport policies as they apply to Fingal. In particular, the Council supports the Government's commitment to the proposed new Metro North and DART expansion included in Building on Recovery: Infrastructure and Capital Investment 2016-2021. The Council also supports the implementation of sustainable transport solutions.
Objective MT02	Support the recommendations of the National Transport Authority's Transport Strategy for the Greater Dublin Area 2016-2035 to facilitate the future sustainable growth of Fingal.
Objective MT03	Implement Smarter Travel – A Sustainable Travel Future policy and work to achieve the Key Goals set out in this policy.
Objective MT04	At locations where higher density development is being provided, encourage the development of car-free neighbourhoods, where non-motorised transport is allowed and motorised vehicles have access only for deliveries but must park outside the neighbourhood, creating a much better quality public realm with green infrastructure, public health, economic and community benefits.

Table 2.4: FCC Development Plan Objectives for Public Transport aligned with the proposed development

Public Transport	
Objective MT24	Support and advise the NTA and TII on the planning and implementation of public transport infrastructure, in particular by providing an understanding of Fingal's policies, objectives and requirements, including environmental sensitivities.
Objective MT28	Facilitate, encourage and promote high quality interchange facilities at public transport nodes throughout the County.
Objective MT33	Facilitate and promote the enhancement of bus services through bus priority measures including bus lanes and bus gates.

The development plan identifies the need to re-balance movement priorities towards more sustainable modes of transportation by prioritising the development of walking and cycling facilities within a safe and traffic calmed street environment (see **Table 2.5**).

Table 2.5: FCC Development Plan Objectives for walking and cycling aligned with the proposed development

Sustainable Transport - Walking and Cycling	
Objective MT13	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.
Objective MT14	The Council will work in cooperation with the NTA and adjoining Local Authorities to implement the Greater Dublin Area Cycle Network Plan subject to detailed engineering design and the mitigation measures presented in the SEA and Natura Impact Statement accompanying the NTA Plan.

2.4 The Aim and Objectives of delivering the Blanchardstown to City Centre Core Bus Corridor Scheme

The aim of delivering the Blanchardstown to City Centre CBC Scheme is to provide enhanced walking, cycling and bus infrastructure on this key access corridor in the Dublin region, which will enable and deliver efficient, safe, and integrated sustainable transport movement along the corridor.

The objectives are to:

- Enhance the capacity and potential of the public transport system by improving bus speeds, reliability and punctuality through the provision of bus lanes and other measures to provide priority to bus movement over general traffic movements;
- Enhance the potential for cycling by providing safe infrastructure for cycling, segregated from general traffic wherever practicable;
- Support the delivery of an efficient, low carbon and climate resilient public transport service, which supports the achievement of Ireland's emission reduction targets;
- Enable compact growth, regeneration opportunities and more effective use of land in Dublin, for present and future generations, through the provision of safe and efficient sustainable transport networks;
- Improve accessibility to jobs, education and other social and economic opportunities through the provision of improved sustainable connectivity and integration with other public transport services; and
- Ensure that the public realm is carefully considered in the design and development of the transport infrastructure and seek to enhance key urban focal points where appropriate and feasible.

3 Background and Public Consultation

3.1 Emerging Preferred Route Options Assessment Report

In early 2016, the NTA initiated plans to develop the network of CBCs identified in GDA Transport Strategy. As part of this body of work, the ‘Blanchardstown Town Centre to the Liffey Quays (Ellis Quay) CBC Route Options Assessment’ (March 2018) was prepared which identified feasible options along the corridor, assessed these options and arrived at an EPR Option. These proposals formed the basis for the first Non-Statutory Public Consultation on the CBC.

3.2 First Non-Statutory Public Consultation – Emerging Preferred Route

The first non-statutory public consultation on the BusConnects CBCs took place on a phased basis. The first phase of consultation occurred from 14th November 2018 to 29th March 2019. The second phase ran from 23rd January 2019 to 30th April 2019 and the final phase ran from 26th February 2019 until 31st May 2019. The Blanchardstown to City Centre CBC EPR Option formed part of the first phase of consultation, which closed on 29th March 2019. The Information Brochure published as part of this consultation is included in Appendix L.

There were 542 submissions received relating to the Blanchardstown to City Centre CBC. These submissions ranged from individual submissions by residents, commuters and local representatives, to detailed proposals from public bodies, various associations and private sector businesses.

A brief summary of the feedback received on the Blanchardstown to City Centre CBC during the public consultation is presented in this chapter of the report.

While a variety of matters were raised in the submissions, the key issues emerging from the consultation were as follows:

1. Traffic Issues Associated with Proposed Traffic Management Measures
2. Removal of Trees
3. Inadequacies in Consultation Process
4. Reduction in Pedestrian Space
5. Rationalisation of Bus Services
6. Proposed Land Acquisition
7. Loss of Parking
8. Loss of Public Space
9. Cyclist Safety/Inadequate Provision for Cyclists
10. Vehicular access to Property
11. Loss of Access to Local Amenities

12. Increased Air and Noise Pollution

13. Increased Anti-Social Behaviour

Further detail on these issues can be found in the Blanchardstown to City Centre CBC Emerging Preferred Route First Non-Statutory Public Consultation Submission Report (November 2018).

3.3 Development of Draft Preferred Route Option

Following the first non-statutory public consultation, a review was undertaken of the scheme proposals along the route based on the following new information which was available for consideration:

- Detailed topographical survey along the route corridor;
- Submissions received during the first non-statutory public consultation; and
- Issues raised during meetings with community forum, resident groups and one-on-one meetings with directly impacted landowners.

As part of this review, several new options were developed for consideration in specific areas where issues were identified. These new options were subject to further options assessment (as detailed in Chapter 6 of this report) to identify the draft PRO. The selected draft PRO identified formed the basis for the second non-statutory public consultation in March/April 2020.

3.4 Second Non-Statutory Public Consultation – Preferred Route Option

The draft PRO was published in March 2020 and a second round of public consultation commenced on 4th March 2020 to 17th April 2020. The Information Brochure published as part of this consultation is included in Appendix M.

Due to Covid-19 restrictions being imposed by Government in mid-March, the planned Public Information Events were impacted. Consequently, there were 49 submissions received for the Blanchardstown to City Centre CBC. These submissions range from personal submissions sent in by residents, commuters, landowners and local representatives, to detailed proposals from public bodies, various associations and private sector businesses. A number of community forums, meetings with resident associations, and one-to-one meetings were held as part of the process.

A brief summary of the feedback received on the Blanchardstown to City Centre CBC during the public consultation is presented in this section of the report.

While a variety of matters were raised in the submissions, the key issues emerging from the consultation were as follows:

1. Traffic issues associated with proposed traffic management measures;
2. Pedestrian safety;
3. Cyclist safety;

4. Loss of access to local amenities;
5. Removal of trees;
6. Supportive of scheme;
7. Increased air and noise pollution;
8. Inadequacies in consultation process;
9. Loss of parking;
10. Need for scheme; and
11. Proposed land acquisition.
12. Location of bus stops

The issues raised during the second public consultation were considered in the further development of the draft PRO.

Subsequently, it was determined by the NTA that a third non-statutory public consultation would be conducted prior to finalising the PRO.

3.5 Development of the Updated Draft Preferred Route Option

Following the second non-statutory public consultation, a review was undertaken of the scheme proposals along the route based on the following new information which was available for consideration:

- Updated topographical survey along the route corridor;
- Submissions received during the second non-statutory public consultation; and
- Issues raised during meetings with community forum, resident groups and one-on-one meetings with directly impacted landowners.

As part of this review, options were reviewed further, and new options were considered where appropriate in specific areas where issues were identified. These new options were subject to further options assessment (as detailed in Chapter 6 of this report) to identify the updated draft PRO. The selected updated draft PRO identified formed the basis for the third non-statutory public consultation in November/December 2020.

3.6 Third Non-Statutory Public Consultation – Updated Draft Preferred Route Option

The third round of public consultation for the CBC Infrastructure Works took place from 4th November 2020 until 16th December 2020 on the updated Draft PRO. The Information Brochure published as part of this consultation is included in Appendix N.

With the continuing effect of the Covid-19 pandemic and associated Government restrictions, the third Public Consultation was held largely virtually. Virtual consultation rooms for each CBC were developed and published.

Along with offering a call back facility, these rooms provided a description of each Preferred Route from start to finish with supporting maps and included information of all revisions made, if any, since the previous rounds of public consultation as well as other supporting documents.

The consultation period remained open until 16th December 2020 and submissions could be made by email, through the virtual consultation room or by post. All relevant information including the updated Information Brochures and the Emerging Preferred Route public consultation reports were made available on the BusConnects website (<https://busconnects.ie>) to view and download. In addition, landowner meetings were held over the phone and/or online, and minutes were recorded as part of the consultation process. A number of community forums, meetings with resident groups, and one-to-one meetings were also held online as part of the process.

A total of 401 submissions were received relating to the Blanchardstown to City Centre CBC as part of the third consultation. These submissions ranged from individual submissions by residents, commuters and local representatives, to detailed proposals from various associations and private sector businesses.

While a variety of matters were raised in the submissions, the key issues emerging from the consultation were as follows:

1. Traffic issues associated with proposed traffic management measures;
2. Pedestrian safety;
3. Cyclist safety;
4. Loss of access to local amenities;
5. Removal of trees;
6. Supportive of scheme;
7. Increased air and noise pollution;
8. Inadequacies in consultation process;
9. Loss of parking;
10. Need for scheme;
11. Proposed land acquisition;
12. Location of bus stops.

The issues raised during the third public consultation have been considered in the further development of the PRO. Further detail on these issues can be found in the Public Consultation Submissions Report – 2nd and 3rd Non-Statutory Public Consultation in Appendix C.

4 The Study Area

4.1 Introduction

The overall study area for this assessment is based on that identified in the ‘Blanchardstown Town Centre to the Liffey Quays (Ellis Quay) CBC Route Options Assessment’ which can be found in Appendix K. For ease of reference, **Figure 4.1** identifies the sections into which the route was broken into for ease of reporting.

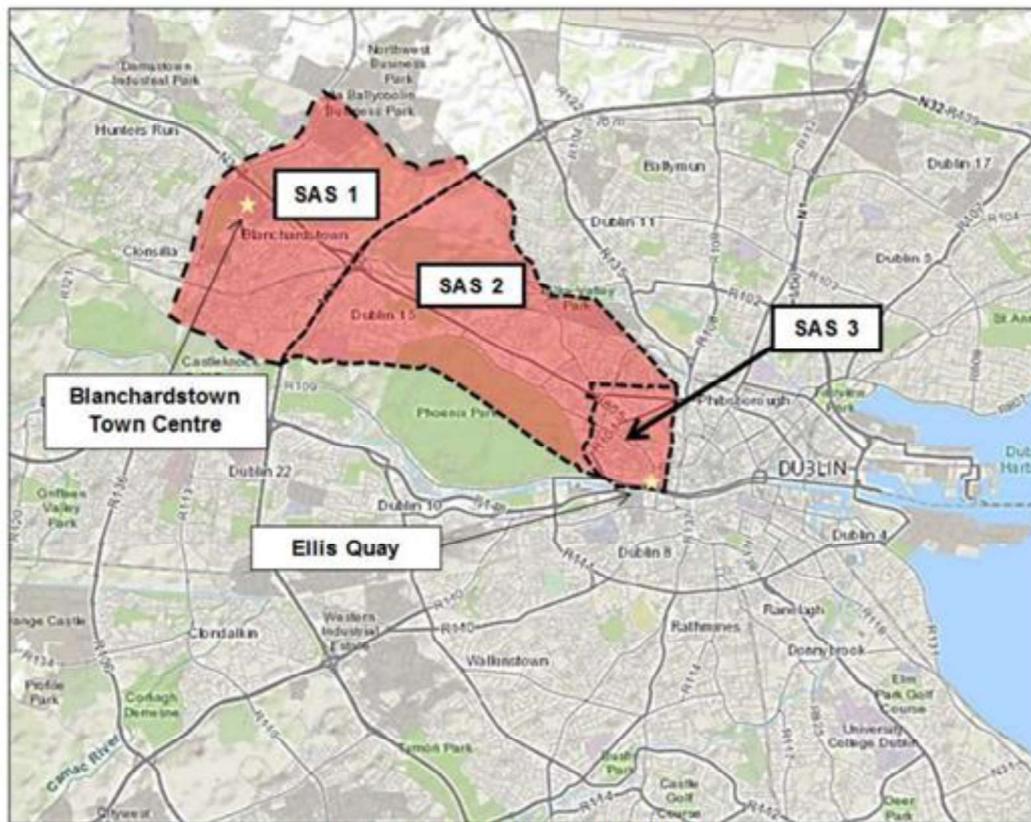


Figure 4.1: Blanchardstown to City Centre Corridor Map

(Reproduced from Blanchardstown Town Centre to the Liffey Quays (Ellis Quay) CBC Route Options Assessment)

Arising from the transport policy context, the study area was taken to include the route of the existing Blanchardstown Quality Bus Corridor, but extends beyond this in places to consider alternative potentially feasible route options. This CBC forms a section of the proposed cross-city Blanchardstown to UCD corridor and extends from Blanchardstown Town Centre to the Liffey Quays (Ellis Quay), through Ashtown. The study area is generally bounded to the south by Ellis Quay and to the north by Blanchardstown Road South and North.

4.2 Study Area Sections

4.2.1 Section 1

Section 1 is bounded to the north by Blanchardstown Road South / Blanchardstown Road North and to the south by the M50.

Section 1 consists of roads through Blanchardstown Shopping Centre, the Snugborough Road junction and the N3 dual carriageway west of the M50.

It is noted that although the Blakestown Way Junction and Blanchardstown Road North and South fell within the Study Area of the ‘Blanchardstown Town Centre to the Liffey Quays (Ellis Quay) CBC Route Options Assessment’, it did not form part of the route section selected in the report. However, the proposed scheme design for the EPR Option included bus and cycle measures on Blanchardstown Road North and South, to ensure that there is reliability of bus journey time for spine services branching out to the north of the proposed bus interchange within Blanchardstown Shopping Centre, and to provide cycle facilities on Secondary Route 5D of the GDA Cycle Network Plan.

4.2.2 Section 2

Section 2 is bounded to the north by the M50 and to the east and to the south by the Ratoath Road/Navan Road junction. Navan Road along Section 2 consists of a dual carriageway west of Navan Road/Ashtown Road Junction, and a three-lane urban road from Navan Road/Ashtown Road Junction to the east.

4.2.3 Section 3

Section 3 is bounded to the north by the Ratoath Road/Navan Road junction and to the south by Ellis/Arran Quay. This section of the route includes Old Cabra Road, Prussia Street, Manor Street and Blackhall Place, via Stoneybatter.

At Ellis Quay, the corridor connects to the traffic management and bus-priority regime on the North Quays.

4.3 Physical Constraints and Opportunities

There are a number of potential constraints, both natural (i.e. the existing natural environment) and physical (the built environment), which constrain route options for the proposed scheme within the defined study area including:

- Street trees and other natural features along the route;
- The existing urban and sub-urban roads and street network;
- Bridges at identified natural constraints (for example at the Old Cabra Road railway bridge);
- Road width and adjacent parking areas impacting on Blanchardstown Shopping Centre Interchange proposals;

- The available road width along Navan Road between Ashtown Road and Ratoath Road, and along Old Cabra Road; and
- The available width between buildings along Prussia Street to Blackhall Place through Stoneybatter.

There are also a number of potential opportunities and synergies which could enhance the proposed scheme within the defined study area including:

- The opportunity for the provision of enhanced public realm spaces within the study area including Stoneybatter Village, along Navan Road and at Navan Road/Ashtown Road Junction
- The natural amenity of the Royal Canal, and the opportunity for integration with the Royal Canal Cycleway.
- The opportunity to enhance connectivity by sustainable transport modes to educational centres on Navan Road, such as Holy Family School for the Deaf and St John Bosco schools, and the Grangegorman campus of TU Dublin.

4.4 Integration with Existing and Proposed Public Transport Network

One of the key objectives of the proposed CBC scheme is to enhance interchange between the various modes of public transport operating in the city and wider metropolitan area, both now and in the future. Route options within the study area have therefore been developed with this in mind and, in so far as practicable, seek to provide for improved existing or new interchange opportunities with other transport services including:

- Potential for interchange with the existing Luas on Benburb Street;
- Potential interchange with the 39a, 37, 39 and 70 at Aughrim St, Stoneybatter;
- Potential for interchange with the existing 46a, 39a, 39 and 70 routes at North Circular Road;
- Potential for interchange with the existing 37 at Skreen Road;
- Potential for interchange with the existing 122 at Kinvara Avenue;
- Potential for interchange with the existing 37 at Navan Road/Ashtown Road Junction;
- Potential for interchange with the existing 38 at Auburn Avenue;
- Potential for interchange with the existing 39, 39a, 38, 38a and 70 along the Navan Road;
- Potential for interchange with the existing 17a and 39a along the N3/Navan Road at Connolly Hospital; and
- Potential for interchange with the existing 37, 38a, 2202, 238, 239, 17a, 39a at Blanchardstown Shopping Centre.

Figure 4.2 highlights the potential for interchange with existing public transport services along the CBC.

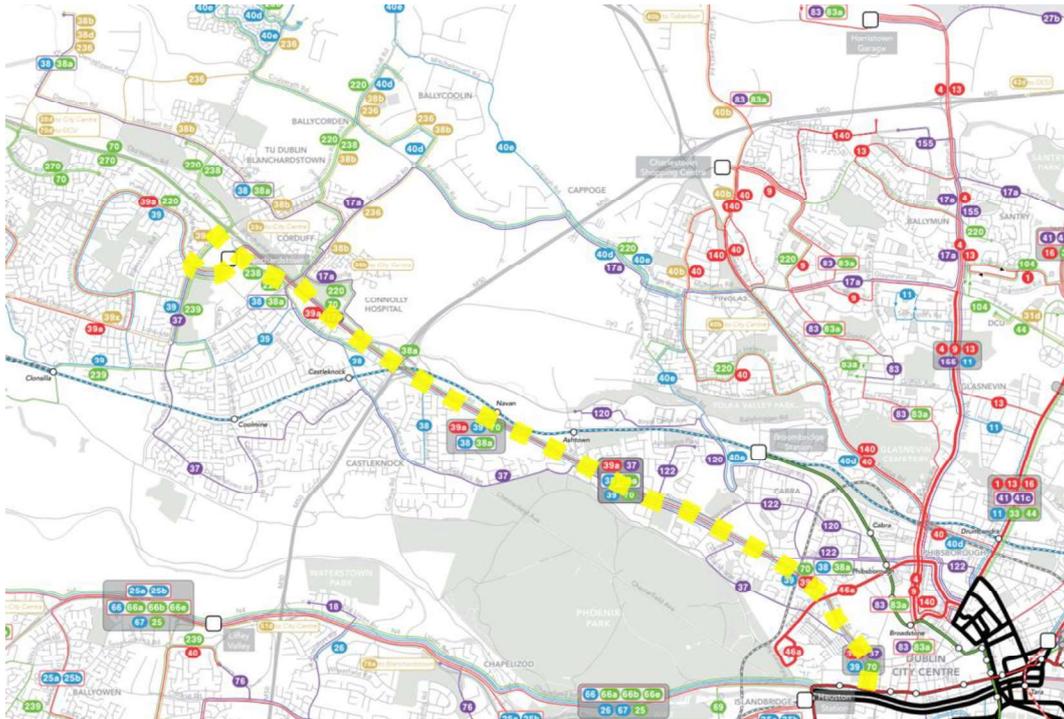


Figure 4.2: Existing Public Transport Services (the CBC highlighted yellow)

The route options also seek to provide for interchange opportunities with new transport services proposed within the New Dublin Area Bus Network, including:

- Potential for interchange with the proposed Orbital route at North Circular Road;
- Potential for interchange with the proposed 34/35 routes at Navan Road/Old Cabra Road;
- Potential for interchange with the proposed 48 route and the N2 Orbital at Nephin Road;
- Potential for interchange with the proposed 34, 35 and 37 routes at the Navan Road / Ashtown Road Junction;
- Potential for interchange with the proposed 35 route at Auburn Road;
- Potential for interchange with the Navan Road Parkway Rail Station;
- Potential for interchange with the proposed Orbital W4 and N8 routes and routes X62/X62/P63/P64/P65 at M50/Navan Road;
- Potential for interchange with the proposed 35/L61/N4//X61/X62/P63/P64/P65 routes at Mill Road;
- Potential for interchange with the proposed orbital W4, N8 and N4 routes at Snugborough Road junction; and
- Potential for interchange with the proposed orbital W4, N8 and N4 routes and routes L52/L61/L62/L63/L64/34/35/37 at Blanchardstown Interchange.

Figure 4.3 is extracted from the New Dublin Area Bus Network; it highlights the potential for interchange with other proposed bus routes along the CBC.

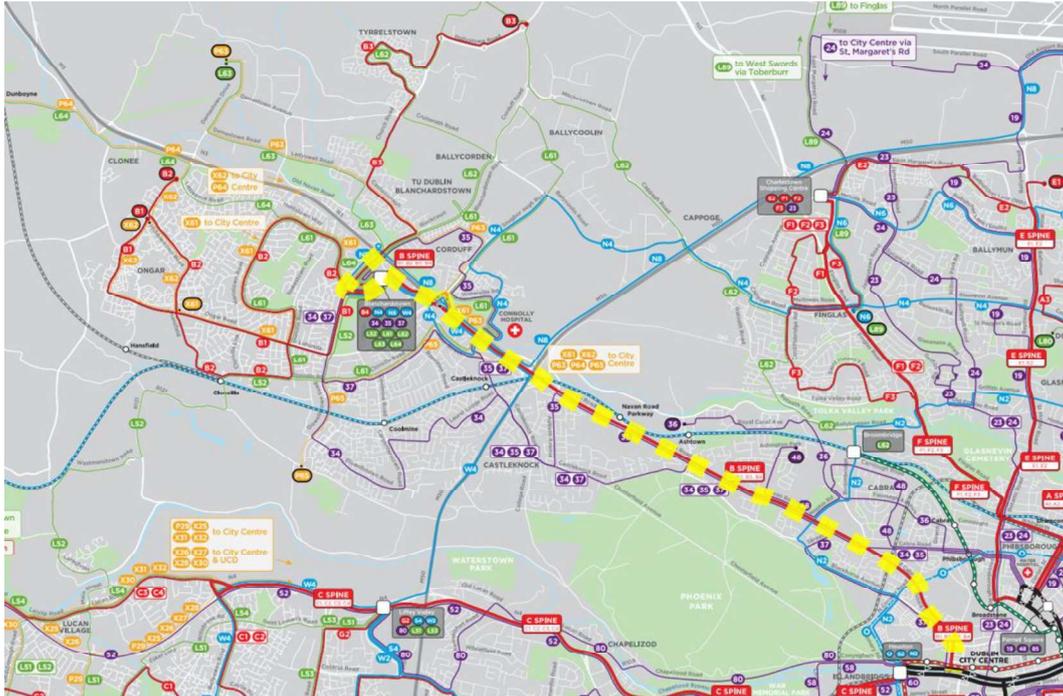


Figure 4.3: Extract from the New Dublin Area Bus Network (the CBC highlighted yellow)

4.5 Compatibility with Other Road Users

A key objective of the proposed scheme is to improve pedestrian and cyclist facilities along the route. For cyclists, segregated facilities should be provided where practical to do so.

The proposed route of the CBC cycle facilities will integrate with the route 4A of the GDA Cycle Network Plan via Castleknock Manor at Auburn Avenue Roundabout, as shown in **Figure 4.4** and **Figure 4.5** below. Route 4A also provides connectivity with the Royal Canal Greenway for safe access and cycle facilities on the north side of the N3. It is deemed inappropriate to provide a cycle track between Snugborough Road Junction and Auburn Avenue Junction along the N3, due to engineering constraints of realigning a section of the N3 to facilitate an additional 3 metres of cycle track, with an associated safety buffer, the higher speeds of vehicles and a lack of trip attractors along this section, and safety concerns regarding encouraging cyclists on to the M50 Roundabout and on to a National Primary Route.

Figure 4.4 and **Figure 4.5**, extracted from the GDA Cycle Network Plan, highlights the CBC in the context of the planned cycle network. The GDA Cycle Network Plan proposes a network of cycle links throughout the GDA, categorised as follows:

- **Primary Routes:** Main cycle arteries that cross the urban area and carry most cycle traffic.
- **Secondary Routes:** Link between principal cycle routes and local zones.

- **Feeder Routes:** Cycle routes within local zones and/or connections from zones to the network levels above.
- **Inter Urban Routes:** Links the towns and city across rural areas and includes the elements of the National Cycle Network within the GDA.
- **Green Route Network:** Cycle routes developed predominately for tourist, recreational and leisure purposes but may also carry elements of the utility cycle route network above. Many National Cycle Routes will be of this type.

Specifically, Primary Cycle Route 4, 4B, 4D and 5, and Secondary Route 4A, 2C, C8, NO1 and NO5 from the GDA Cycle Network Plan run along, or are intercepted by, the Blanchardstown to City Centre CBC, with their provision considered at all stages of the option assessment process.

The interaction of the CBC with other schemes progressing through the planning and design process has been considered, specifically the Royal Canal Greenway and the Tolka Valley Cycle Route. The interaction of the CBC with other cycle route schemes progressing through the planning and design process has also been considered in the design process, specifically the Grangegorman Campus Development and the Liffey Cycle Route Scheme.

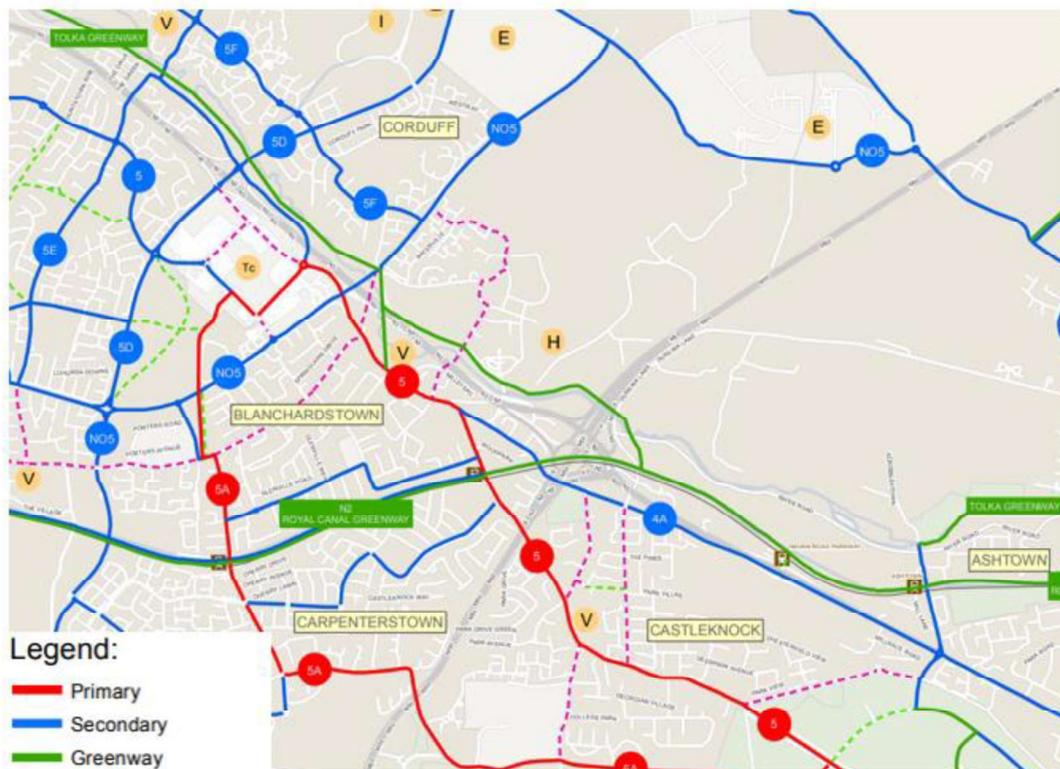


Figure 4.4: Extract from GDA Cycle Network Plan showing northern segment of the CBC



Figure 4.5: Extract from GDA Cycle Network Plan showing southern segment of the CBC

5 Review of the ‘Blanchardstown Town Centre to the Liffey Quays (Ellis Quay) CBC Route Options Assessment’

5.1 Introduction

From a review of submissions received as part of the public consultation process, as well as a review of the topographical survey carried out since the EPR Option’s publication, a number of issues have been identified which may be overcome through the implementation of alternative design solutions. These issues are described in the following sections.

5.2 Assessment Methodology

The first step in the assessment process was to review the ‘Blanchardstown Town Centre to the Liffey Quays (Ellis Quay) CBC Route Options Assessment’.

The ‘Blanchardstown Town Centre to the Liffey Quays (Ellis Quay) CBC Route Options Assessment’ utilised a two-stage assessment process to determine the EPR Option, comprising:

- An initial ‘Stage 1’ high-level route options assessment or ‘sifting’ process which appraised routes in terms of ability to achieve scheme objectives and whether they could be practically delivered; and
- Routes which passed this initial stage were taken forward to a more detailed Stage 2 assessment.

At the start of the Stage 1 assessment, an initial ‘spider’s web’ of potential route options that could accommodate a CBC was identified for each study area section. **Figure 5.1** is an extract from the ‘Blanchardstown Town Centre to the Liffey Quays (Ellis Quay) CBC Route Options Assessment’, illustrating the ‘spider’s web’ of potential routes considered in the Stage 1 assessment.

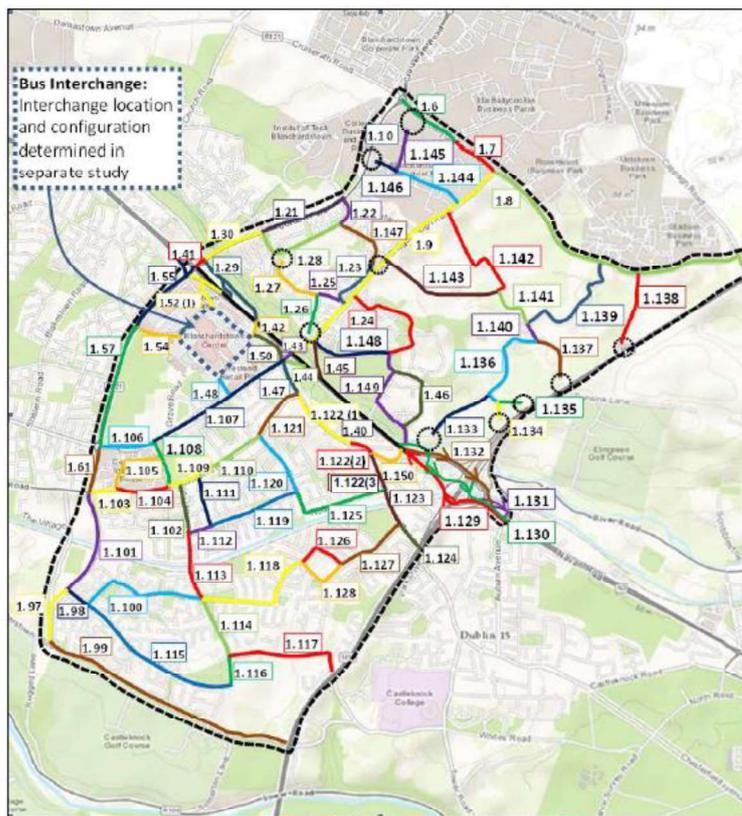


Figure 5.2: SAS 1 Route Sections – Blanchardstown to M50 East

Figure 5.1: Spider’s Web of Route Options extracted from ‘Blanchardstown Town Centre to the Liffey Quays (Ellis Quay) CBC Route Options Assessment’

The following extract from the ‘Blanchardstown Town Centre to the Liffey Quays (Ellis Quay) CBC Route Options Assessment’ describes the two-stage process used to determine the EPR Option:

“At the Stage 1, i.e. sifting stage, the initial “spider’s web” of route sections was narrowed down using a high level qualitative method based on professional judgement and a general appreciation for existing physical conditions / constraints within the Study Area from available survey information and site visits. This exercise identified route sections that would either not achieve the scheme objectives or would be subject to significant cost and/or impact to achieve these objectives (e.g. excessive land take).

Following completion of the Stage 1 assessment, the remaining potentially feasible route sections were progressed to Stage 2 of the assessment process. This stage comprised a more detailed qualitative and quantitative assessment of scheme options identified along each potential route, using criteria established to compare scheme options. The first step in the Stage 2 assessment was to combine shorter route sections which passed the Stage 1 assessment, to form longer end to end potential routes within the Study Area. After developing routes options, each was explored using different design concepts to identify the degree of facility provision and necessary infrastructure requirements. This process involved the development of typically two scheme options for each route within the Study Area. The scheme options for each route were then progressed to a multi criteria analysis.

The ‘Common Appraisal Framework for Transport Projects and Programmes’ published by the Department of Transport, Tourism and Sport (DTTAS), March 2016, requires schemes to undergo a ‘Multi Criteria Analysis’ (MCA) under the following criteria:

- *Economy;*
- *Integration;*
- *Accessibility and Social Inclusion;*
- *Safety;*
- *Environment; and*
- *Physical Activity.*

Physical Activity has been scoped out of the multicriteria analysis at this stage. This is because all route options are considered to promote physical activity equally and as such it is not considered to be a key differentiator between scheme options. An appreciation of constraints and opportunities within the Study Area as well as the defined project objectives, led to the establishment of project specific route options MCA criteria. These were tailored to have commonality to the Common Appraisal Framework guidelines where practical.”

A number of locations along the EPR Option were identified where there was potential to revisit scheme proposals to address issues raised in the public consultation or identified through a review of additional information. For each area identified, additional options were developed and if considered feasible, would be assessed through a Multi-Criteria Assessment (MCA) in a similar manner to the EPR Option assessment process.

In addition to the new options considered, any alternative options previously considered within the ‘Blanchardstown Town Centre to the Liffey Quays (Ellis Quay) CBC Route Options Assessment’ were considered to determine whether they could potentially address the issues currently being encountered. No options were brought forward in this regard. In addition, all new options were assessed against the EPR Option, in some cases refined to reflect issues identified upon review of the topographical survey and subsequent design refinement.

This additional assessment does not supersede work undertaken during earlier stages but complements it and responds to issues raised by the public during the public consultation process or issues identified by additional information available to the Design Team.

The methodology for the assessment of new options explored at this stage is the same as outlined in the ‘Blanchardstown Town Centre to the Liffey Quays (Ellis Quay) CBC Route Options Assessment’. A summary of the main criteria and sub criteria used in the options assessment process is presented in **Table 5.1**.

Table 5.1: Assessment Criteria

Assessment Criteria	Assessment Sub-Criteria
1. Economy	1.a. Capital Cost
	1.b. Transport Reliability and Quality (Journey Time)
2. Integration	2.a. Land Use Integration
	2.b. Residential Population and Employment Catchments
	2.c. Transport Network Integration
	2.d. Cycle Network Integration
	2.e. Traffic Network Integration
3. Accessibility & Social Inclusion	3.a. Key Trip Attractors (Education/Health/Commercial/Employment)
	3.b. Deprived Geographic Areas
4. Safety	4.a. Road Safety
	4.b. Pedestrian Safety
5. Environment	5.a. Archaeology and Cultural Heritage
	5.b. Architectural Heritage
	5.c. Flora & Fauna
	5.d. Soils and Geology
	5.e. Hydrology
	5.f. Landscape and Visual
	5.g. Air Quality
	5.h. Noise & Vibration
	5.i. Land Use Character

In keeping with the assessment undertaken in the ‘Blanchardstown Town Centre to the Liffey Quays (Ellis Quay) CBC Route Options Assessment’, Physical Activity has been scoped out of the multi-criteria assessment at this stage as all options are considered to promote physical activity equally and it is, therefore, not considered to be a key differentiator between options.

Again, in keeping with the assessment undertaken in the ‘Blanchardstown Town Centre to the Liffey Quays (Ellis Quay) CBC Route Options Assessment’, route options were compared based on a five-point scale, ranging from having significant advantages to having significant disadvantages over other route options. **Table 5.2** shows the colour coding of the five-point scale, with advantageous routes graded “dark green” and disadvantageous routes graded “red”.

Table 5.2: Route Options Colour Coded Ranking Scale

Colour	Description
	Significant advantages over other options.
	Some advantages over other options.
	Neutral compared to other options.
	Some disadvantages to other options
	Significant disadvantages to other options.

Where the design has undergone a change in respect of infrastructure provision or route choice has been recorded and explained. An MCA has been undertaken which assessed the newly developed and designed solutions. against the EPR Option from the ‘Blanchardstown Town Centre to the Liffey Quays (Ellis Quay) CBC Route Options Assessment’

Where the design has undergone more general updates and enhancements as expected during design maturation these have not been subject to a new MCA.

5.3 Section 1: Blanchardstown Shopping Centre to N3/M50 Junction

5.3.1 Section 1 Emerging Preferred Route

The EPR option previously identified along this section of the CBC is presented in **Figure 5.2**.

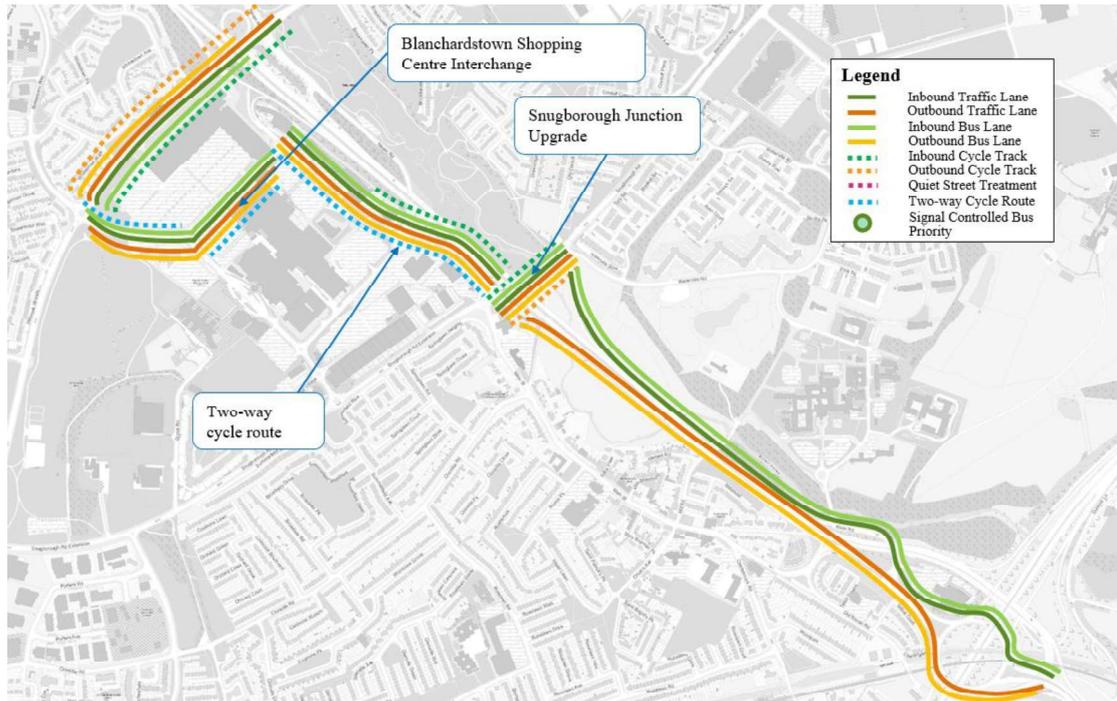


Figure 5.2: Section 1 EPR Option

The MCA undertaken in the ‘Blanchardstown Town Centre to the Liffey Quays (Ellis Quay) CBC Route Options Assessment’ determined that a route along West Street/North Street in Blanchardstown, and along the N3 dual carriageway corridor to the M50 junction, was the preferred route and hence designated as the EPR Option.

It is considered that the options assessment presented in the ‘Blanchardstown Town Centre to the Liffey Quays (Ellis Quay) CBC Route Options Assessment’ for the EPR appropriately assessed route options and that the selected corridor in Section 1 continues to offer the most benefits for pedestrians, cyclist, and buses and as such is considered to be the PRO.

5.3.2 Areas Identified for Re-examination

5.3.2.1 Blanchardstown Road North / Navan Road Junction to Blanchardstown Road South / Blakestown Way Junction

The EPR Option proposed bus lanes in both directions over the N3 Overbridge at this location, and bus lanes were also proposed in both directions along Blanchardstown Road South. The Blakestown Way Roundabout was proposed to be maintained as part of the EPR option.

Further design development has been undertaken to improve the resilience of operations at the two junctions on either side of the N3 overbridge at the Mullhuddart interchange (on R121 Blanchardstown Road North and South). The changes have focussed on improving cycling facilities through the junctions, and better management of traffic between the junctions. This is required to minimise the risk of queues adversely impacting bus movement; this has included

rearranging bus priority measures to have a greater reliance on bus lanes on the approaches to the two junctions, rather than provide bus lanes between the two junctions.

Design development of the bus interchange has identified that the optimal route for buses travelling to and from areas north of the interchange (to Blanchardstown Road North) is via the northbound bus lane adjacent to the Crowne Plaza hotel. This routing of buses means that the eastbound bus lane on Blanchardstown Road South (proposed in the EPR) is not needed - and is hence omitted from the updated PRO design.

The PRO also proposes to modify the cycle tracks in this area, allowing for protected-style junctions, and a reduction in conflict between cyclists and general traffic. The Blakestown Way Roundabout is proposed to be converted to a fully signalised junction, providing a safer route for pedestrians and cyclists.

5.4 Section 2: N3/M50 Junction to R147 Navan Road/Ratoath Road Junction

5.4.1 Section 2 Emerging Preferred Route

The EPR Option previously identified along this section of the CBC is presented in **Figure 5.3**.

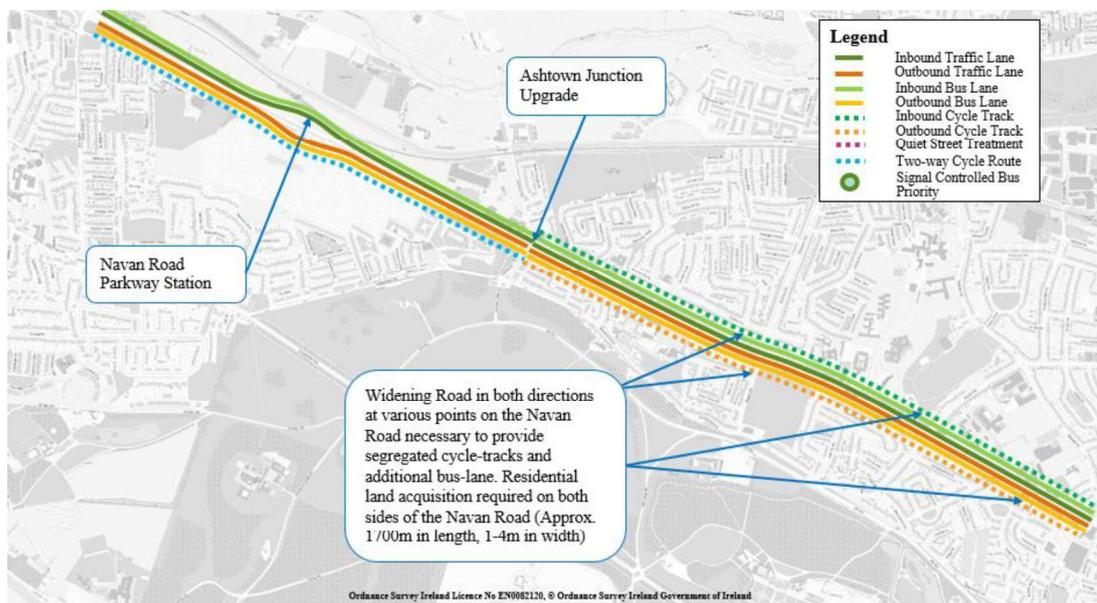


Figure 5.3: Section 2 EPR Option

The previous MCA undertaken determined that a route along the N3 and the R147 Navan Road was the EPR Option. It is considered that the options assessment presented in the 'Blanchardstown Town Centre to the Liffey Quays (Ellis Quay) CBC Route Options Assessment' for the EPR has appropriately assessed route options and that the selected corridor offers the most benefits for pedestrians, cyclists, and buses.

However, upon review of the topographical survey and public consultation submissions, a number of issues were identified that could potentially be addressed through the consideration of alternative design options along this route section. These are summarised in the following section. The EPR Option remains the preferred option for sections of the scheme not identified for further review.

5.4.2 Areas Identified for Re-examination

5.4.2.1 N3/M50 Junction to R147 Navan Road Parkway Junction

The EPR Option on the Navan Road included a two-way cycle track from Auburn Avenue to Navan Road Parkway Station. Following design development and submissions from the public which highlighted the potential impact on trees, the proposed cycle track on approach to Auburn Avenue has been relocated along Castleknock Manor. Thus, the integration with the remainder of route 4A of the GDA Cycle Network Plan is via Castleknock Manor as opposed to Auburn Avenue.

On this section, it was also considered that the R147 eastbound lane configuration in the EPR required to be reviewed due to safety concerns in respect of lane drop merge and slip road diverge movements occurring on a common section of road.

An alternative layout has been devised in which the lane drop from four to two lanes is located west of the pedestrian crossing which links the north side of the R147 to Castleknock Manor.

Alternative design solutions have therefore been explored in this area in determining a PRO, as described in Section 6.2.1 of this report.

5.4.2.2 R147 Navan Road/Ashtown Road Junction to Navan Road/Skreen Road Junction

The proposed EPR Option within this route section consisted of the ‘optimum BusConnects cross-section’ of two bus lanes, two cycle tracks and two footpaths, plus a traffic lane in both directions to reflect Navan Road’s role as an important local principal road.

For the EPR, the provision of continuous bus lanes and segregated cycle tracks in both directions necessitated some land take and loss of trees to achieve the desired standard of bus priority and segregation of cyclists from traffic.

On the southern part of this section, submissions received as part of the public consultation identified that proposed removal of on-street trees and those in front gardens was a significant cause for concern amongst residents.

An alternative approach of operating bus lanes in one direction only for short sections has been assessed – to ascertain whether land take requirements could be reduced.

Alternative design solutions have therefore been explored in this area in determining a PRO.

5.5 Section 3: R147 Navan Road/Ratoath Road Junction to Ellis Quay

5.5.1 Section 3 Emerging Preferred Route

The EPR option previously identified along this section of the CBC is presented in **Figure 5.4**.

The previous MCA undertaken determined that a route along the R805 Old Cabra Road and Prussia Street, Manor Street and Blackhall Place through Stoneybatter was the EPR Option. It is considered that the options assessment presented in the ‘Blanchardstown Town Centre to the Liffey Quays (Ellis Quay) CBC Route Options Assessment’ for the EPR has appropriately assessed route options and that the selected corridor offers the most benefits for pedestrians, cyclists, and buses.

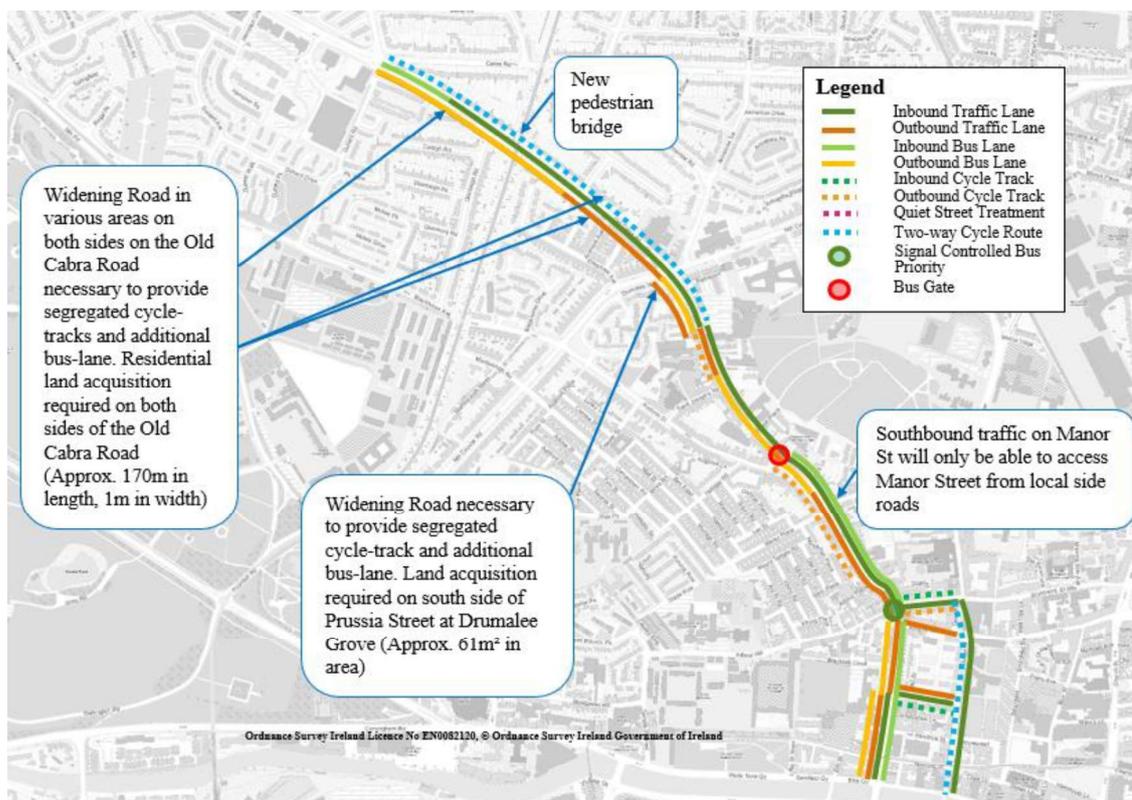


Figure 5.4: Section 3 EPR Option

Upon review of the topographical survey and public consultation submissions, a number of issues were identified that could potentially be addressed through the consideration of alternative options along this route section.

Key issues raised included land take from gardens, footpath widths, retention of local access by car, cycling facilities and safety, and enhancement of public realm. In addition, a review of the topographical survey carried out subsequent to the

route's publication identified opportunities for fine-tuning of the scheme design on this section. These are summarised in the following section.

The EPR Option remains the preferred option for sections of the scheme not identified for further review.

5.5.2 Areas Identified for Re-examination

5.5.2.1 Navan Road/Ratoath Road Junction to Prussia Street (Park Shopping Centre)

On this section it was considered that a two-way cycle track on one side of the road would not provide an intuitive route for cyclists. It was determined that a one-way cycle track on each side of the road would be more intuitive and user friendly, and match the remainder of the corridor and allow cyclists to travel northbound or southbound with less conflict with side roads and entrances.

Land take on Old Cabra Road could also potentially be minimised by modifying the two-way cycle track to one-way cycle tracks in each direction. Alternative design solutions have therefore been explored in this area in determining the PRO, as described in Section 6.2.1 of this report.

5.5.2.2 Prussia Street (Park Shopping Centre) to Manor Street/Brunswick Street North Junction:

On this section the provision of cycle track facilities was proposed in a northbound direction on Manor Street – with southbound cyclists needing to travel in the bus lane, and also to pass multiple side road accesses and adjacent on-street parking bays. Provision of improved cycle tracks on this section was thus investigated. Public realm provision (and bus priority facilities) in the centre of Stoneybatter (at the Aughrim Street junction) was also a concern in consultation and stakeholder responses.

Topographical survey information allowed more detailed investigation of road geometry and in particular pedestrian footpath widths. Alternative design solutions have therefore been explored in this area in determining the PRO, as described in Section 6.2.2 of this report.

5.5.2.3 Manor Street/Brunswick Street North Junction to Ellis Quay

Traffic management, footway widths, and cycling facilities were the subject of comments in the public consultation – and in this respect, topographical survey information allowed more detailed investigation of road geometry. Alternative design solutions have therefore been explored in this area in determining the PRO, as described in Section 6.2.3 of this report.

5.6 Summary

A summary of the EPR Option review areas discussed in this chapter and taken forward for detailed option assessment is presented below:

- Alternative design options for the corridor section between the Blanchardstown Road North / Navan Road Junction and Blanchardstown Road South / Blakestown Way Junction.
- Alternative design options for the corridor section between the Navan Road/ Auburn Avenue junction and the Navan Road Parkway junction.
- Alternative design options along Navan Road between Ashtown Road and Ratoath Road.
- Alternative design options along Old Cabra Road from the R147 Navan Road/ Ratoath Road Junction to south of the North Circular Road junction on Prussia Street (Park Shopping Centre).
- Alternative design options along Prussia Street and Manor Street from the Park Shopping Centre to Brunswick Street North.
- Alternative design options along Blackhall Place (from its junction with Brunswick Street North) to Ellis Quay, including George's Lane, King Street North and Queen Street.
- Alternative design options along Queen Street (from its junction with King Street North) to Ellis Quay/Arran Quay.

Detail of the option assessment completed is presented in Chapter 6.

5.7 Carbon Considerations for the Preferred Route Options

Carbon for the CBC would arise from the three potential sources namely user carbon, capital carbon and operational carbon. These sources are further discussed as follows:

- The majority is the road USER CARBON from cars, light and heavy goods vehicles and buses, whilst the majority of the fleet is combustion engine based in the short term the Climate Action Plan 2021 outlines a range of targets for the electrification of private and public service vehicles in the medium term.
- In comparison, road construction CAPITAL CARBON has been assessed as having a smaller footprint. On the basis that the Scheme is designed and executed appropriately, it will facilitate and enable a long term USER CARBON reduction.
- The OPERATIONAL CARBON of the project once construction is complete, includes the carbon associated with the operations of the CBC, such as maintenance.

The CBC will start with an increase in carbon (capital carbon) from the construction activities: a necessary investment to achieve the long term decarbonisation outcomes by facilitating the following Scheme objectives:

- Enhance the capacity and potential of the public transport system by improving bus speeds, reliability and punctuality through the provision of bus lanes and other measures to provide priority to bus movement over general traffic movements; and
- Support the delivery of an efficient, low carbon and climate resilient public transport service, which supports the achievement of Ireland's emission reduction targets.

In line with the Climate Action Plan, published by the Department of the Environment, Climate and Communication in 2021, the inclusion of a criterion addressing the construction capital carbon of route options was initially considered for the route options assessment process. As noted above, the capital carbon elements for the CBC will be less than that of the user carbon footprint and as such it was not considered to be a reasonable differentiator for the purposes of route options assessment. Although carbon was not directly assessed for the route options, each route options was assessed using a range of environmental factors including Noise and Air Quality which reflect similar contributory elements (i.e. construction and operational stage impacts) to that for carbon emissions.

Furthermore, the development of the preferred route options supports enhanced bus capacity and public transport potential in line with the objectives, which would contribute to reductions in user carbon and contribute towards the 500,000 additional trips by public transport by 2030 outlined as a target in the Climate Action Plan 2021.

In developing the PRO, consideration has been given to the carbon generated by the Scheme during construction and operation. Many of the changes made to the scheme design since the EPR proposal has resulted in minor changes in the construction carbon generated by the Proposed Scheme such as reducing lane widths to 3m, the altering of junction layouts, cycle tracks and footpaths. Additionally significant design iterations were undertaken to mitigate against traffic re-distribution impacts and consequent impacts on Greenhouse Gas (GHG) emissions.

The preferred route proposals will improve bus journey times and reliability, which will contribute to achieving reductions in user carbon through an efficient public transport service. This would in turn makes the existing bus services more attractive to existing road users and thereby encourage mode change from private car based transport to more sustainable public transport commuting.

Construction carbon has been considered and assessed as part of the evolving scheme design and the preparation of the supporting EIAR documentation.

6 Option Assessment

6.1 Section 1 Option Assessment: Blanchardstown Shopping Centre to N3/M50 Junction

6.1.1 Section 1a – Blanchardstown Road North / Navan Road Junction to Blanchardstown Road South / Blakestown Way Junction

6.1.1.1 Introduction

Submissions received as part of the public consultation process raised concerns about the infrastructure proposed for cyclists and pedestrians in this area.

6.1.1.2 Options Considered

Two alternative options have been assessed as follows:

- **Option MH1:** Option MH1 consists of four general traffic lanes (2 general traffic lanes in both directions) across the N3 overbridge along the R121. Along Blanchardstown Road South westbound carriageway, there is one general traffic lane with a bus lane as far as the Blakestown Way / Blanchardstown Road South junction. The eastbound section of Blanchardstown Road South consists of two general traffic lanes from the N3 overbridge to the Blakestown Way / Blanchardstown Road South junction. Cycle tracks are provided in both directions for this entire section.
- **Option MH2:** Option MH2 consists of a bus lane and a general traffic lane in both directions across the N3 overbridge. Along Blanchardstown Road South westbound carriageway, there is one general traffic lane with a bus lane as far as the Blakestown Way Roundabout. The eastbound section of Blanchardstown Road South consists of a bus lane for the majority of this section. In addition, two general traffic lanes merge to one lane a short distance after Blakestown Roundabout and two general traffic lanes are re-established a short distance before the N3 northbound on-slip. Cycle tracks are provided in both directions for this entire section.

The junction and bus layby added on Blanchardstown Road South in the PRO option is due to design development, and hence the impacts of the junction and layby are also incorporated into the EPR Option.

The key characteristics of each option are described in the following sections.

6.1.1.2.1 Alternative Options Considered

No alternative options were considered for this scheme section, additional to those assessed through the MCA.

6.1.1.2.2 Route Option MH1

Route Description

Route option MH1 is presented in **Figure 6.1**.



Figure 6.1: Route Option MH1

Inbound: This section of the CBC would commence at the Blanchardstown Road North / Navan Road junction, proceed across the N3 overbridge and continue along Blanchardstown Road South to its junction with Blakestown Way.

Outbound: The westbound route would follow the same route as the eastbound route.

Stops: One bus stop would likely be provided in one direction along this route section.

Indicative Scheme Design

Figure 6.2 illustrates the indicative scheme design for this route option. The location of cross-sections and junctions referenced in subsequent sections describing this route option are also presented in this figure.

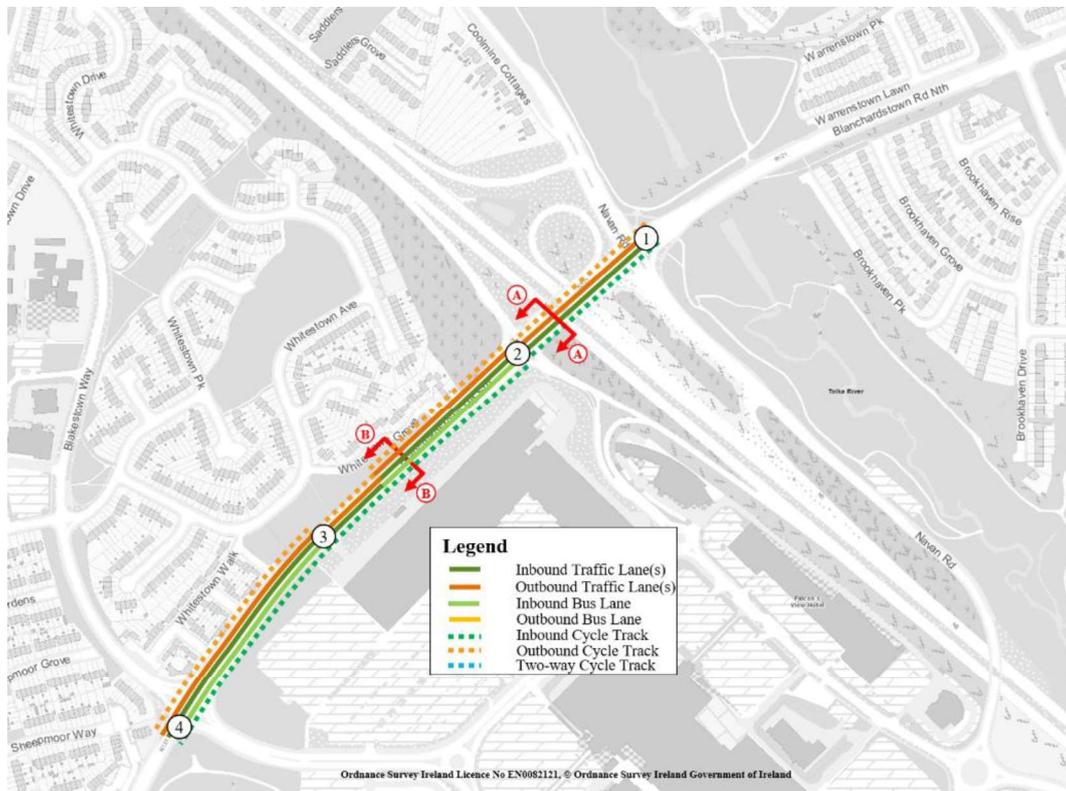


Figure 6.2: Route Option MH1 Indicative Scheme Design

The north-eastern part of this section of the route would commence at Blanchardstown Road North /Navan Road junction. Along the N3 overbridge, two general traffic lanes would be provided in both directions, with right turn general traffic filter lanes in both directions also. A cycle lane would be provided in both directions. The proposed cross section of the N3 overbridge on the R121 is presented in **Figure 6.3**.

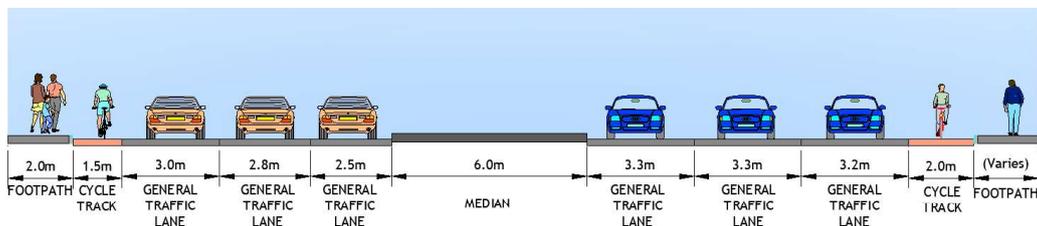


Figure 6.3: Route Option MH1 Cross-Section A-A

On Blanchardstown Road South, immediately after the Blanchardstown Road North/South junction, a bus lane from the N3 off-slip merges with the westbound bus lane along Blanchardstown Road South, with one general traffic lane alongside. The westbound bus lane is discontinued for approximately 115m to accommodate two junctions leading in and out of the shopping centre. The bus lane then re-commences and continues to the Blanchardstown Road South / Blakestown Way junction.

In the eastbound direction, two general traffic lanes are provided from the Blanchardstown Road South / Blakestown Way junction to the Blanchardstown Road North / Navan Road junction. At this junction, an on-slip to the N3 is provided with two general traffic lanes. A cycle track is provided in both directions along this section.

The proposed cross section on the Blanchardstown Road South is presented in **Figure 6.4**

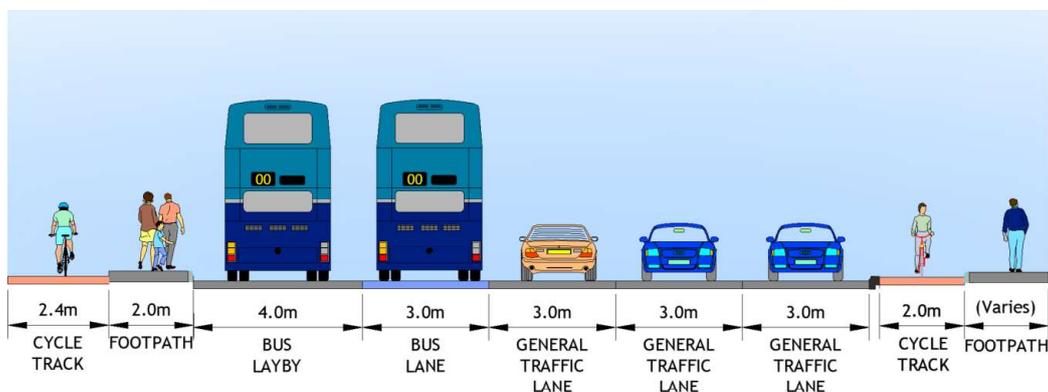


Figure 6.4: Route Option MH1 Cross-Section B-B

In summary, this route option would, subject to confirmation at the scheme design stage, result in the following characteristics:

- Cycle tracks would be located to the left of the carriageway (based on direction of travel) at all times, so as to avoid conflict with slip-road general traffic.
- A bus layover area would be provided on Blanchardstown Road South.
- A fully signalised protected junction would be provided at the Blanchardstown Road South / Blakestown Way junction.

Junctions:

There are four signalised junctions along this route option, all of which would require upgrading to facilitate bus priority and enhanced cycle/pedestrian facilities. The locations of these junctions are presented in **Figure 6.2** and discussed below:

- **Blanchardstown Road North / Navan Road Junction (1):** Adjustments to the junction layout would be required to facilitate the provision of protected

cycle tracks at this junction. There would also be a potential requirement to relocate/provide new signal equipment.

- **Blanchardstown Road North / Blanchardstown Road South Junction (2):** Adjustments to the slip road arrangements would be required to accommodate a bus lane on the slip road, and to accommodate cycle track adjustments at this location. There would be a potential requirement to relocate/provide new signal equipment.
- **Blanchardstown Road South / Blanchardstown Shopping Centre Junction (3):** This is a new junction at this location.
- **Blanchardstown Road South / Blakestown Way Junction (4):** Adjustments to the junction layout would be required to facilitate a new signalised junction replacing the current roundabout at this location.

6.1.1.2.3 Route Option MH2

Route Description

Route option MH2 is presented in **Figure 6.5** and represents the EPR Option.

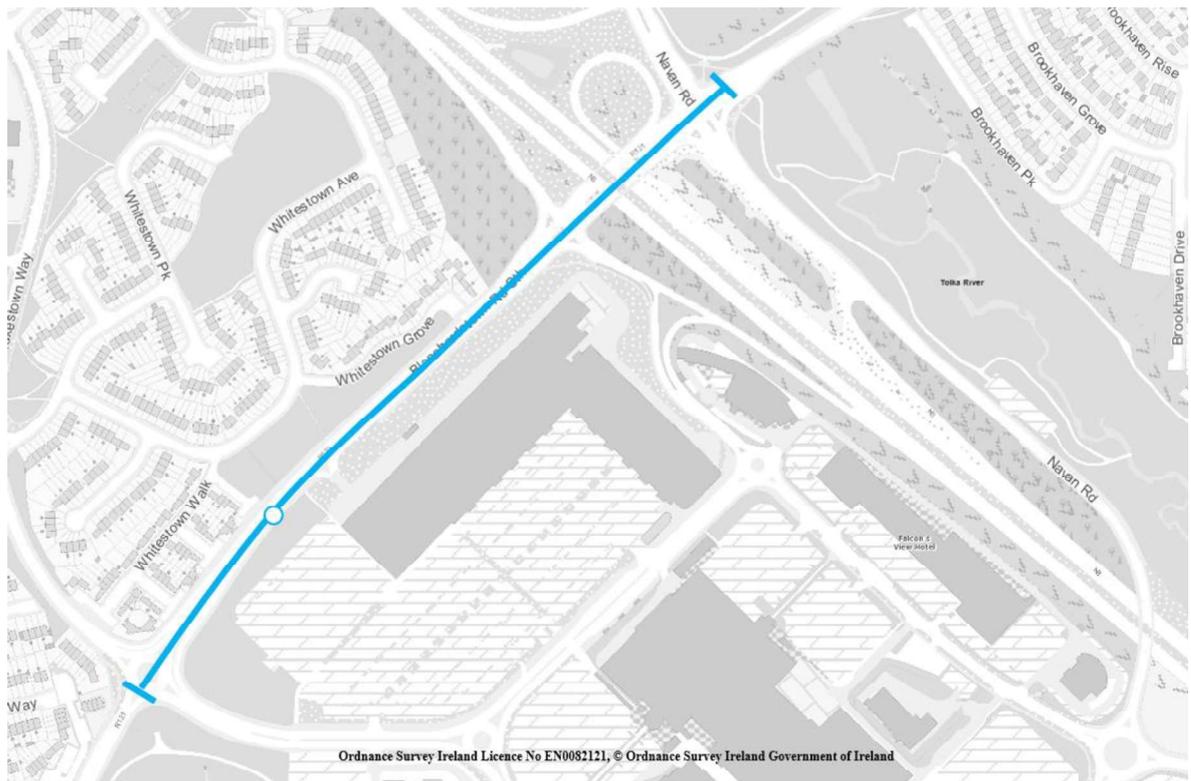


Figure 6.5: Route Option MH2

Inbound: This section of the CBC would commence at the Blanchardstown Road North / Navan Road junction, proceed across the N3 overbridge and continue along Blanchardstown Road South to its junction with Blakestown Way.

Outbound: The westbound route would follow the same route as the eastbound route.

On Blanchardstown Road South, immediately after the Blanchardstown Road North / Blanchardstown Road South junction, a westbound bus lane would be provided until Blakestown Way Roundabout with one general traffic lane alongside, and an additional general traffic lane added on approach to Blakestown Way Roundabout.

In the eastbound direction, two general traffic lanes would merge into one lane shortly after the Blakestown Way Roundabout, to accommodate provision of a bus lane. A bus lane and a general traffic lane would then be provided as far as the approach to the Blanchardstown Road South / Blanchardstown Road North, where the bus lane would be discontinued to allow for a second general traffic lane to be provided. Cycle tracks would be provided in both directions for this section.

The proposed cross section on the Blanchardstown Road South is presented in **Figure 6.8**

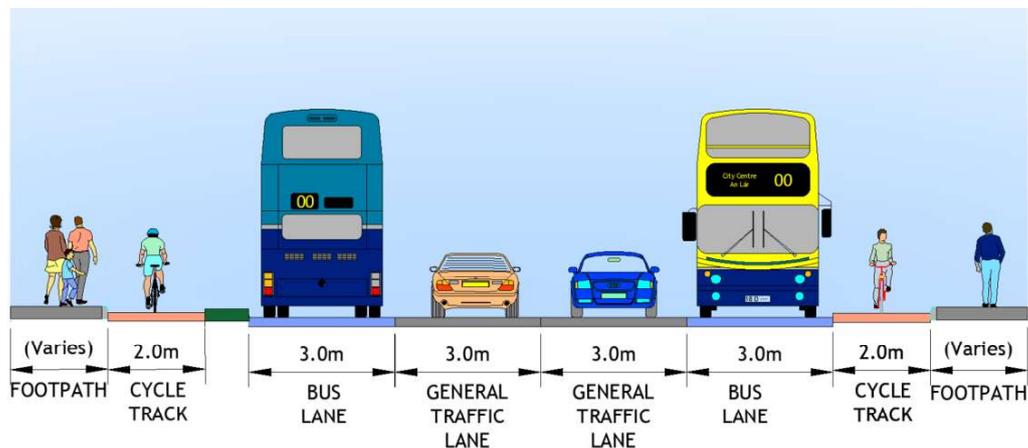


Figure 6.8: Route Option MH2 Cross-Section B-B

In summary, this route option would have the following characteristics:

- Bus lanes being provided in both directions for the majority of this section.
- Blakestown Way Roundabout being modified to a signalised roundabout.

Junctions:

There are three signalised junctions along this route option, all of which would require upgrading to facilitate bus priority and cycle/pedestrian facilities. The locations of these junctions are presented in **Figure 6.6** and discussed below:

- **Blanchardstown Road North / Navan Road Junction (1):** Adjustments to the junction layout would be required to facilitate the provision of a bus lane at this junction. There would also be a potential requirement to relocate/provide new signal equipment.

- **Blanchardstown Road North / Blanchardstown Road South Junction (2):** Adjustments to the junction layout would be required to facilitate the provision of a bus lane at this junction. There would also be a potential requirement to relocate/provide new signal equipment.
- **Blanchardstown Road South / Blakestown Way Junction (3):** Adjustments to the junction layout would be required to facilitate the provision of a bus lane at this junction.

6.1.1.2.4 Section 1a Route Option Assessment

Details of the route option assessment undertaken for Blanchardstown Road South between the Blanchardstown Road North / Navan Road junction and the Blanchardstown Road South / Blakestown Way junction study area section are presented in Appendix D. The relative ranking of route options against the scheme assessment sub-criteria is summarised in **Table 6.1**.

Table 6.1: Section 1a Route Option Assessment Summary (Sub-Criteria)

Appraisal Criteria	Sub-Criteria	Option MH1	Option MH2
1 Economy	1A Capital Cost	Orange	Green
	1B Transport Quality & Reliability	Orange	Green
2 Integration	2A Land Use Policy	Yellow	Yellow
	2B Residential Population and Employment Catchments	Yellow	Yellow
	2C Transport Network Integration	Yellow	Yellow
	2D Cycle Network Integration	Green	Orange
	2E Traffic Network Integration	Green	Orange
3 Accessibility & Social Inclusion	3A Key Trip Attractors	Yellow	Yellow
	3B Deprived Geographic Areas	Yellow	Yellow
4 Safety	4A Road Safety	Green	Orange
	4B Pedestrian Safety	Green	Orange
5 Environment	5A Archaeology & Cultural Heritage	Yellow	Yellow
	5B Architectural Heritage	Yellow	Yellow
	5C Flora & Fauna	Yellow	Yellow
	5D Soils, Geology & Hydrology	Yellow	Yellow
	5E Landscape & Visual	Yellow	Yellow
	5F Air Quality	Yellow	Yellow
	5G Noise & Vibration	Yellow	Yellow
	5H Land Use Character	Yellow	Yellow

In terms of economy, Option MH1 has the greater capital cost due to the additional infrastructure costs required to upgrade the Blakestown Way Roundabout to a signalised junction. Option MH2 performs better when considering physical bus priority and journey time consistency due to a greater provision of bus lanes when compared to Option MH1.

Both options serve the same catchments and as such are ranked equally in relation to land use policy and residential population catchments and employment catchments. Similarly, in terms of transport network integration, as both options follow the same route, the opportunity for interchange with other routes is equal.

In terms of cycle network integration, Option MH1 performs better than MH2 as it provides enhanced cycle infrastructure at the Blanchardstown Road South / Blakestown Way junction. Option MH1 performs better in traffic network integration due to more general traffic lanes allowing for greater capacity and ease of movement in this area.

Both options rank equally under accessibility and social inclusion as they both follow the same route.

In terms of safety, Option MH1 is considered to be safer than Option MH2. This is due to an improved arrangement for cycle tracks as they are being located to the outermost lane when in conflict with slip-roads. In addition, a protected junction facility is being provided for cyclists at the Blanchardstown Road North / Navan Road junction and the Blanchardstown Road South / Blakestown Way signalised crossroads junction arrangement allows for enhanced segregation for cyclists and pedestrians in comparison to a gyratory junction.

With respect to environment, Option MH1 and MH2 rank equally.

A summary of the assessment and relative ranking of route options against the five main assessment criteria is presented in **Table 6.2**.

Table 6.2: Section 1a MCA Summary

Sub-Criteria	Option MH1	Option MH2
1 Economy		
2 Integration		
3 Accessibility & Social Inclusion		
4 Safety		
5 Environment		

6.1.1.2.5 Section 1a Conclusion and Preferred Option

Based on the assessment undertaken, route Option MH1 offers more benefits over Option MH2. Option MH1 is the preferred option for the following reasons:

- On integration, it provides better facilities for cyclists and general traffic; and
- It is safer for cyclists and pedestrians.

6.2 Section 2 Option Assessment: N3/M50 Junction to R147 Navan Road/Ratoath Road

6.2.1 Section 2a - N3/M50 junction to R147 Navan Road / Parkway Junction

6.2.1.1 Introduction

To allow for greater integration with the GDA Cycle Network Plan secondary route 4A, a cycle route on Castleknock Manor away from the R147 was considered. Public consultation submissions also highlighted perceived safety concerns regarding the cycle facilities at the junction with Auburn Avenue. Also, submissions were made in respect of concerns that land take was required from front gardens on Navan Road between Navan Road/Ashtown Road junction and the Ratoath Road junction, and that trees were to be removed.

6.2.1.2 Options Considered

Two alternative options have been assessed as follows

- **Option AA1:** Option AA1 would involve routing cyclists along a two-way cycle track along the southside of the R147 west of Navan Road Parkway, with cyclists then routed to an on-street 'Quiet Street' cycle route along Castleknock Manor. The proposed eastbound general traffic lane and bus lane configuration along this section would consist of a four-lane section at the Auburn Avenue junction, with the inner two lanes and outer two lanes both merging to a single lane prior to the pedestrian crossing (which connects to Castleknock Manor) – with the merges separated by a hatched strip between the two general traffic streams. The proposed bus lane on the nearside of the N3 would be intermittent to allow left-in/left-out movement from side road and local access junctions. There would also be a lane drop at the Navan Road Parkway eastbound off-slip road, which would widen to a bus lane and general traffic lane.
- **Option AA2:** Option AA2 would involve routing cyclists along a two-way cycle track along the south side of the R147 from Navan Road Parkway to Auburn Avenue. The eastbound general traffic lane and bus lane configuration along this section would consist of a four-lane section at the Auburn Avenue junction, with two successive 'outside lane' lane drop merges, and a slip road diverge west of the Navan Road Parkway junction. The eastbound bus lane would be intermittent along this section to allow left-in/left-out movement from side road and local access junctions.

The key characteristics of each option are described in the following sections.

6.2.1.2.1 Alternative Options Considered

No alternative options were considered for this scheme section, additional to those assessed through the MCA.

Indicative Scheme Design

Figure 6.10 illustrates the indicative scheme design for this route option. The location of cross-sections and junctions referenced in subsequent sections describing this route option are also presented in this figure.

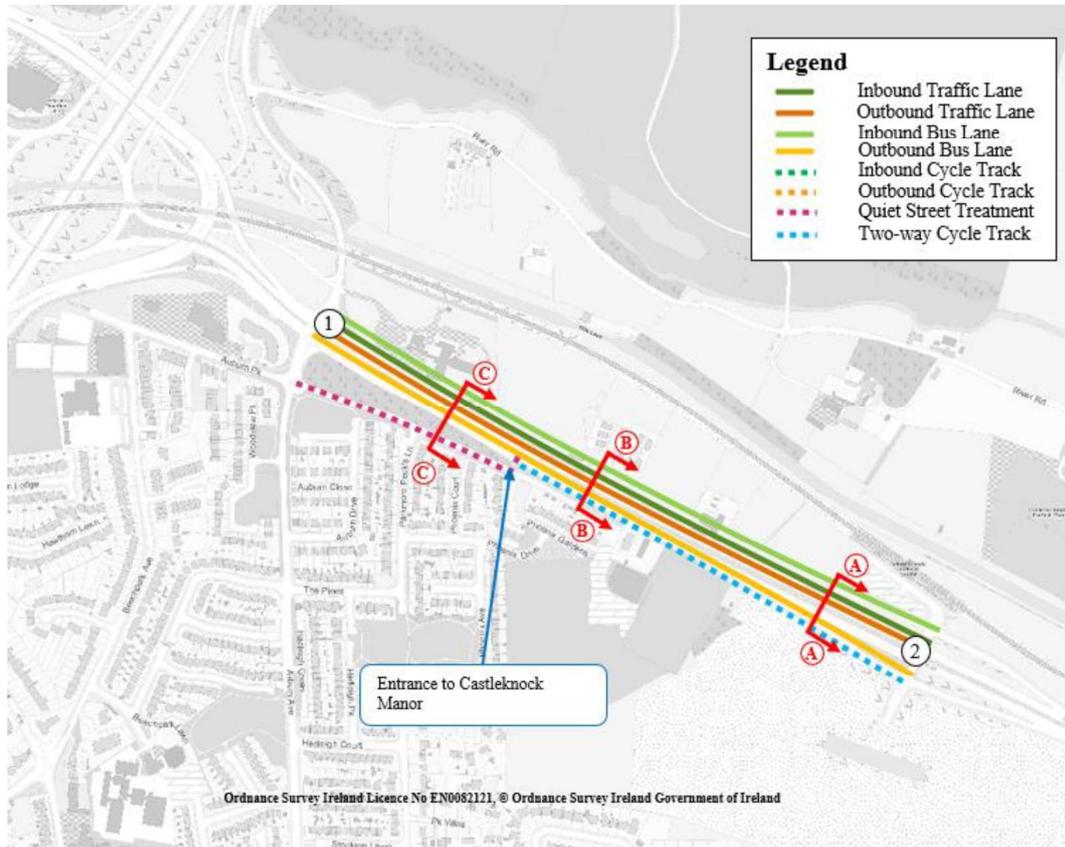


Figure 6.10: Route Option AA1 Indicative Scheme Design

The eastern part of this section of the route would commence at Navan Road Parkway junction. On the west-facing on and off slip roads it is proposed to provide a bus lane and general traffic lane on both slip roads, with a two-way cycle track alongside the westbound on-slip road. The proposed cross section of the Navan Road Parkway slip roads and Navan Road is presented in Figure 6.11.

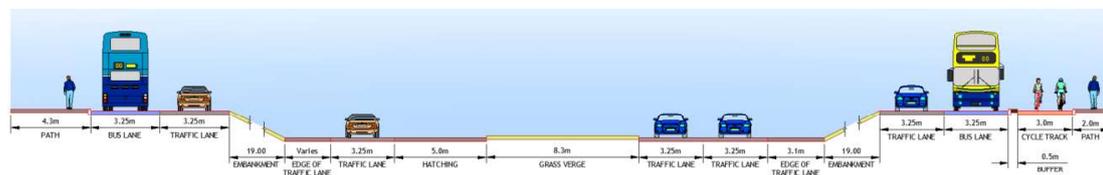


Figure 6.11: Route Option AA1 Cross-Section A-A

On the R147 west of the Navan Road Parkway eastbound off-slip, the inner eastbound general traffic lane would diverge as a lane drop (as at present, i.e. three lanes to two lanes) – such that the diverge movement would be simple to execute. An inbound bus lane is proposed at the end of the diverge taper.

An inbound bus lane and outbound bus lane is proposed on the outer edge of the eastbound and westbound carriageways respectively, but with the inbound bus lane operating as a general traffic lane from Morgan Place eastbound to allow left-in/left-out general traffic access for Morgan Place and the petrol station. The proposed cross section on the R147 Navan Road just west of Navan Road Parkway slip roads is presented in **Figure 6.12**.

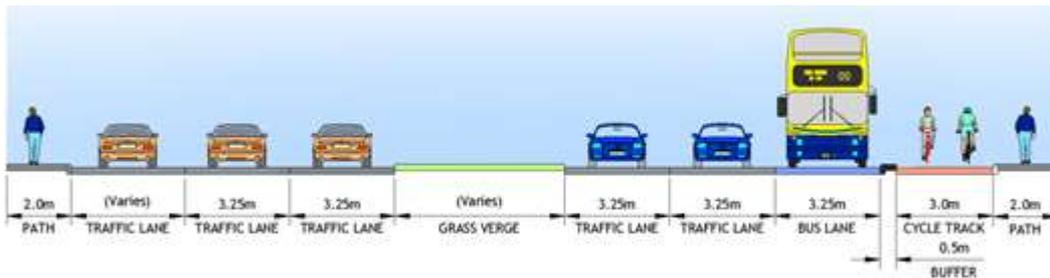


Figure 6.12: Route Option AA1 Cross-Section B-B

West of the Auburn Avenue junction, it is proposed to provide hatching between the inner two lanes and outer two lanes in the eastbound direction; this would enable these two-lane sections to be merged to two single lanes prior to the signalised pedestrian crossing west of Morgan Place. An inbound and outbound bus lane is proposed to be provided on the outer edge of the eastbound and westbound carriageways respectively. The cycle route is proposed to be located on Castleknock Manor, which is proposed as a Quiet Street, carrying low levels of local traffic. The proposed cross section on the R147 section east of Auburn Avenue is presented in **Figure 6.13**.

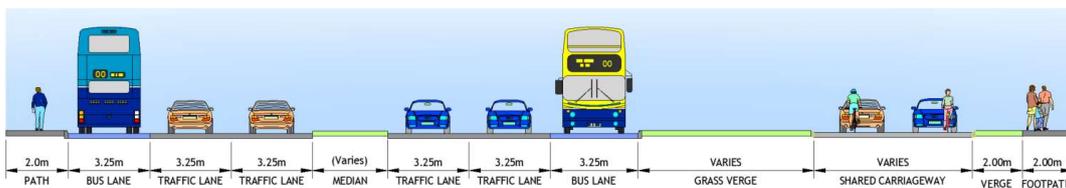


Figure 6.13: Route Option AA1 Cross-Section C-C

In summary, this route option would, subject to confirmation at the scheme design stage, result in the following characteristics:

- At Auburn Avenue/M50 link roads/Navan Road signal-controlled junction, the four eastbound general traffic lanes would merge to two lanes prior to the signalised pedestrian crossing of the R147.
- The proposed inbound bus lane on the nearside of the R147 would be intermittent to allow left-in/left-out general traffic movement from side road

and local access junctions, with a lane drop to reduce the mainline carriageway from three lanes to two lanes.

- A bus lane would be provided on the off-slip road to ensure appropriate provision for bus priority on the approach to, and through, the Navan Road Parkway junction.
- The cycle track on the south side of the R147 Navan Road would be diverted onto Castleknock Manor, which is proposed to be modified to a Quiet Street to carry cyclists and low levels of local traffic.

Junctions:

There are two signalised junctions along this route option, both of which would require upgrading to facilitate bus priority and cycle/pedestrian facilities. The locations of these junctions are presented in **Figure 6.10** and discussed below:

- **R147 Navan Road/Auburn Avenue Junction (1):** The junction would be widened to accommodate bus lanes in both directions, and pedestrian crossing facilities would be adjusted to suit the widened carriageway. There would be a potential requirement to relocate/provide new signal equipment.
- **R147 Navan Road Parkway Junction (2):** Adjustments to the slip road arrangements would be required to accommodate bus lanes on the outer edge of both slip roads. There would be a potential requirement to relocate/provide new signal equipment.

6.2.1.2.3 Route Option AA2

Route Description

Route option AA2 is presented in **Figure 6.14** and represents the EPR Option.



Figure 6.14: Route Option AA2

Inbound: This section of the CBC would commence at Navan Road Parkway junction and continue along the R147 Navan Road to its junction with Auburn Avenue.

Outbound: The outbound route would follow the same route as the inbound route.

Stops: A total of two bus stops would likely be provided in each direction along this route section.

Indicative Scheme Design

Figure 6.15 illustrates the indicative EPR Option scheme design for this route option. The location of cross-sections and junctions referenced in subsequent sections describing this route option are also presented in this figure.

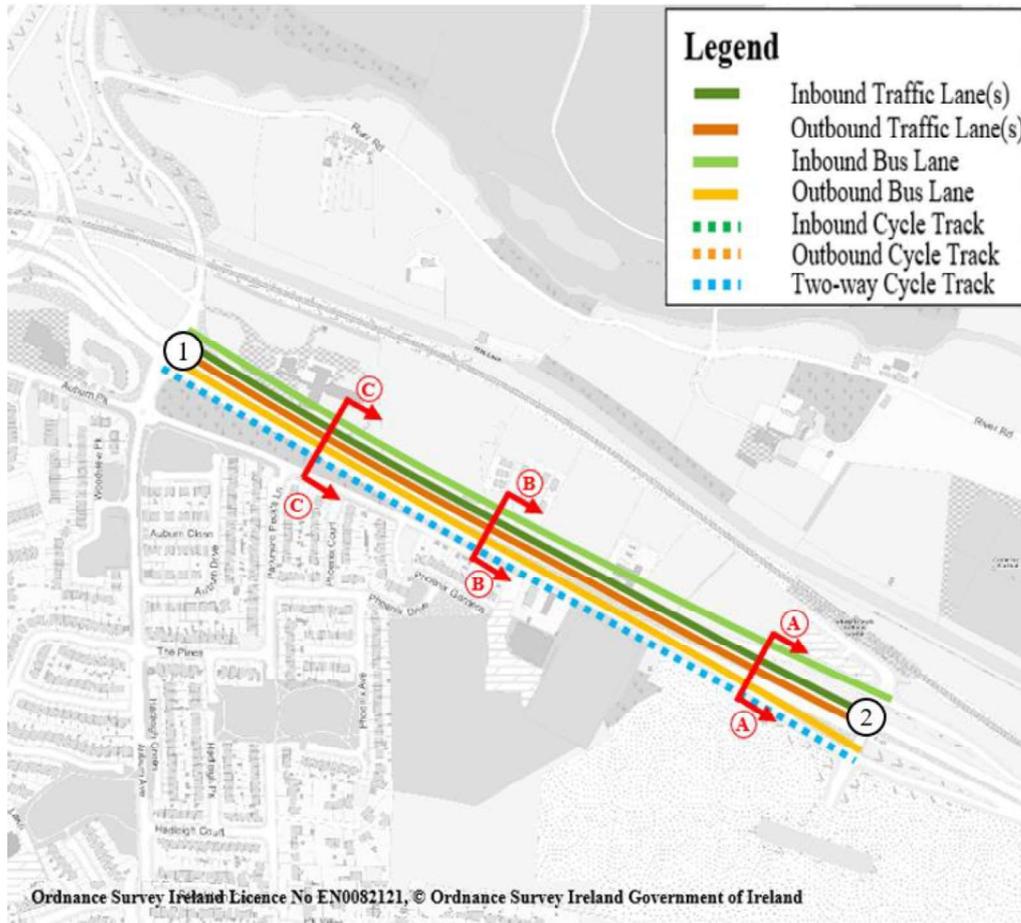


Figure 6.15: Route Option AA2 Indicative Scheme Design

The eastern part of this section of the route would commence at Navan Road Parkway junction. On the west-facing on and off slip roads, it is proposed to provide a bus lane and a general traffic lane on both slip roads, with a two-way cycle track alongside the westbound on-slip road. The proposed cross section is presented in Figure 6.16.

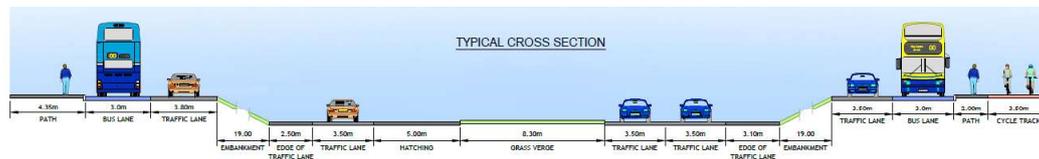


Figure 6.16: Route Option AA2 Cross-Section A-A

On the R147 west of the Navan Road Parkway eastbound off-slip, the proposal involves an outer lane merge (three lanes to two lane) and introduction of a diverge lane. The outer lane drop, diverge lane taper, and left-in/left-out at the petrol filling station, would all occur within the same section of road.

The nearside bus lane would terminate west of Morgan Place with side road and local access traffic using this lane for access and egress.

The bus lane would then be re-established through the diverge taper onto the eastbound off-slip. The proposed cross section on the R147 Navan Road just west of Navan Road Parkway slip roads is presented in **Figure 6.17**.

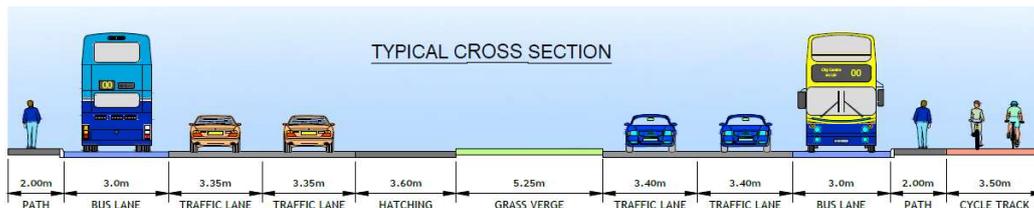


Figure 6.17: Route Option AA2 Cross-Section B-B

East of the Auburn Avenue junction, the proposed layout would include four lanes in the eastbound direction, plus a nearside bus lane. The mainline eastbound four general traffic lanes narrow to three lanes just west of the signalised pedestrian crossing, west of Morgan Place (with an outer lane drop). A two-way cycle track is proposed to be provided on the southern edge of the R147 Navan Road dual carriageway. The proposed cross section is presented in **Figure 6.18**.

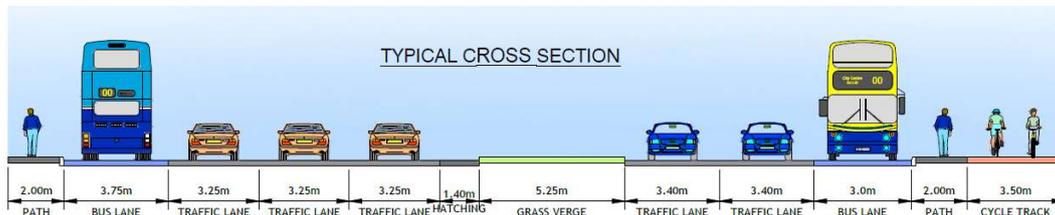


Figure 6.18: Route Option AA2 Cross-Section C-C

In summary, this route option would have the following characteristics:

- At Auburn Avenue/M50 link roads/Navan Road signal-controlled junction, the four eastbound general traffic lanes would merge to three lanes prior to the signalised pedestrian crossing of the N3, with a further outer lane merge prior to the eastbound off-slip road.
- Inbound and outbound bus lanes would be provided on the nearside of the westbound and eastbound carriageways. The proposed inbound bus lane on the nearside of the N3 would be terminated west of Morgan Place to allow left-in/left-out general traffic movement from side road and local access junctions, and would be re-established at the diverge taper of the eastbound off-slip road.
- Bus lanes would be provided on the nearside of the on and off-slip roads at Navan Road Parkway junctions.

- A two-way cycle track on the south side of the R147 Navan Road would be provided along the whole length of this section.

Junctions:

There are two signalised junctions along this route option, all of which would require upgrading to facilitate bus priority and cycle/pedestrian facilities. The locations of these junctions are presented in **Figure 6.15** and discussed below:

- **R147 Navan Road/Auburn Avenue Junction 1:** The junction would be widened to accommodate bus lanes in both directions, and pedestrian crossing facilities would be adjusted to suit the widened carriageway. There would be a potential requirement to relocate/provide new signal equipment.
- **R147 Navan Road Parkway Junction 2:** Adjustments to the slip road arrangements would be required to accommodate bus lanes on the outer edge of both slip roads. There would be a potential requirement to relocate/provide new signal equipment.

6.2.1.2.4 Section 2a Route Option Assessment

Details of the route option assessment undertaken for the R147 Navan Road between Auburn Avenue and the Navan Road Parkway junction study area section are presented in Appendix E. The relative ranking of route options against the scheme assessment sub-criteria is summarised in **Table 6.3**.

Table 6.3: Section 2a Route Option Assessment Summary (Sub-Criteria)

Appraisal Criteria	Sub-Criteria	Option AA1	Option AA2
1 Economy	1A Capital Cost		
	1B Transport Quality & Reliability		
2 Integration	2A Land Use Policy		
	2B Residential Population and Employment Catchments		
	2C Transport Network Integration		
	2D Cycle Network integration		
	2E Traffic Network Integration		
3 Accessibility & Social Inclusion	3A Key Trip Attractors		
	3B Deprived Geographic Areas		
4 Safety	4A Road Safety		
	4B Pedestrian Safety		
5 Environment	5A Archaeology & Cultural Heritage		
	5B Architectural Heritage		
	5C Flora & Fauna		
	5D Soils, Geology & Hydrology		
	5E Landscape & Visual		
	5F Air Quality		
	5G Noise & Vibration		
	5H Land Use Character		

In terms of economy, Option AA2 has a greater capital cost option due to the additional infrastructure costs to deliver a two-way cycle track on the entire length of this section of Navan Road. In terms of transport quality and reliability, option AA1 performs better when considering physical bus priority and journey time consistency due to the more efficient bus and general traffic lane arrangement which provides greater clarity for general traffic and buses.

Both options serve the same catchments and as such are ranked equally in relation to land use policy and residential population catchments and employment catchments. Similarly, in terms of transport network integration, as both options follow the same route, the opportunity for interchange with other routes is equal.

In terms of cycle network integration, Option AA1 performs better than AA2 as it integrates better with the secondary route (4A) of the GDA Cycle Network Plan via Castleknock Manor, compared to Option AA2 which routes cyclists via Auburn Avenue.

Both options rank equally under accessibility and social inclusion as they both follow the same route.

In terms of safety, Option AA1 is considered to be an improved arrangement of general traffic and bus lanes (in the eastbound direction), with greater separation distance between merging of general traffic lanes and the lane drop diverge at the

Navan Road Parkway slip road junctions. In terms of pedestrian safety, Option AA1 performs better due to pedestrians on the southern side of the R147 Navan Road being routed via Castleknock Manor.

With respect to environment, Option AA1 and AA2 perform similarly in terms of air quality and noise and vibration. Option AA1, in which the cycle route is to be provided on Castleknock Manor, retains more trees on the southern edge of the R147, ranking it better than AA2 (which requires the removal of a number of trees) when considering flora and fauna.

In terms of land use and character. Option AA1 does not require public land-take at Castleknock Manor and keeps trees in place as mentioned above, which is an improved arrangement on Option AA2, as Option AA2 requires public land-take at Castleknock Manor and removal of a number of trees.

A summary of the assessment and relative ranking of route options against the five main assessment criteria is presented in **Table 6.4**.

Table 6.4: Section 2a MCA Summary

Sub-Criteria	Option AA1	Option AA2
1 Economy		
2 Integration		
3 Accessibility & Social Inclusion		
4 Safety		
5 Environment		

6.2.1.2.5 Section 2a Conclusion and Preferred Option

Based on the assessment undertaken, route Option AA1 offers more benefits over Option AA2. Option AA1 is the preferred option for the following reasons:

- On economy, it has a lower capital cost due to reduced cycle track provision and associated widening of the R147 cross-section;
- On integration, it provides a more direct route path for cyclists along GDA Cycle Network Plan secondary route 4A than Option AA2;
- In respect to safety, it provides a better separation of merging and diverging movements; and
- In respect to environment, this option allows more trees to be retained due to removal of the proposal for a two-way cycle track on the R147 corridor.

6.2.2 Section 2b - R147 Navan Road/Ashtown Road Junction to Navan Road/Ratoath Road Junction

6.2.2.1 Introduction

Submissions in the March 2020 consultation were made in respect of concerns that land take was required from front gardens on Navan Road between Navan

Road/Ashtown Road Junction and the Ratoath Road junction, and that trees were to be removed.

6.2.2.2 Options Considered

Two alternative options have been assessed for this section of route east of the Navan Road/Ashtown Road Junction as follows:

- **Option HH1:** Option HH1 proposals consist of inbound and outbound bus lanes on the outer edge of a four-lane carriageway, with a single general traffic lane in both directions. One-way cycle tracks are proposed on both sides of the road between the bus lane and footpath.
- **Option HH2:** Option HH2 proposals consist of inbound and outbound bus lanes on the outer edge of a four-lane carriageway, with intermittent three-lane sections, with buses and general traffic travelling in a single lane – controlled by signals at the beginning of these sections, which would give priority for buses over general traffic. One-way cycle tracks are proposed on both sides of the road adjacent to the footpath.

The key characteristics of each option are described in the following sections.

6.2.2.2.1 Alternative Options Considered

At the Navan Road/Ashtown Road junction, the EPR option proposed a signal-controlled crossroads junction.

However, following the first non-statutory public consultation, which requested the preservation of trees in the centre of the roundabout, the draft PRO proposed to widen and signalise the existing roundabout.

Following traffic modelling analysis and consideration of issues raised from the third round of public consultation submissions, it is now proposed to revert to the EPR option of a signal-controlled crossroads junction. The proposed layout includes separate pedestrian and cyclist crossing facilities at the junction, along with enhanced segregation of pedestrians and cyclists from vehicles. This results in improved safety for both pedestrians and cyclists.

Bus priority is also better achieved with buses being able to move directly through the junction in their dedicated nearside bus lane. This is in comparison to a roundabout layout where turning traffic on the gyratory would have priority, even when signalised, over bus and general traffic on the Navan Road entry points.

6.2.2.2.2 Route Option HH1

Route Description

Route option HH1 is presented in **Figure 6.19** and described in the following text.



Figure 6.19: Route Option HH1

Inbound: This section of the CBC would run along Navan Road from east of the Ashtown Road junction to the Navan Road/Ratoath Road junction.

Outbound: The outbound route would follow the same route as the inbound route.

Stops: A total of eight bus stops would likely be provided in each direction along this route section.

Indicative Scheme Design

Figure 6.20 illustrates the indicative scheme design for this route option. The location of cross-sections and junctions referenced in subsequent sections describing this route option are also presented in this figure.

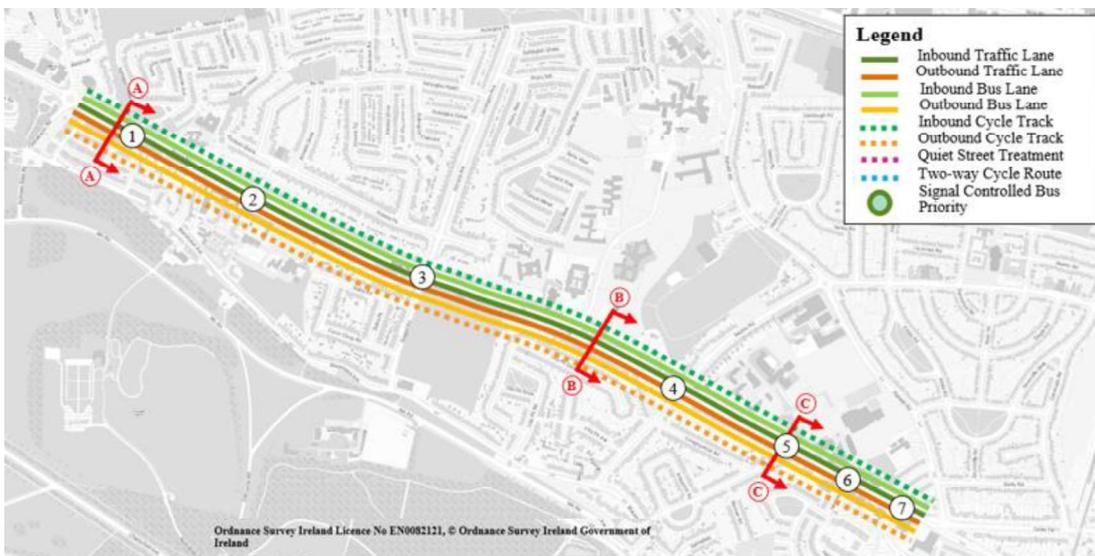


Figure 6.20 : Route Option HH1 Indicative Scheme Design

This section of the CBC would commence on Navan Road east of the Ashtown Road junction.

The route would continue to the east, connecting with side roads at Kempton Avenue and Ashton Grove, and at Kinvara Avenue/Baggot Road. Along Navan Road, two general traffic lanes and two bus lanes, with a cycle track in both directions, are proposed to be provided, as presented in **Figure 6.21**.

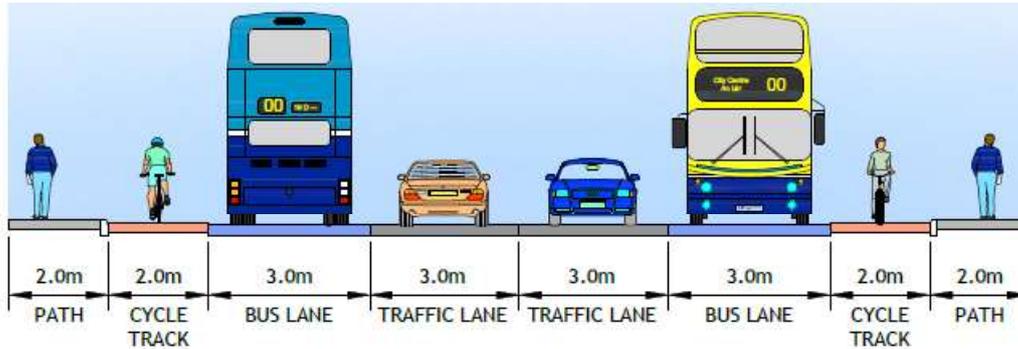


Figure 6.21: Route Option HH1 Cross-Section A-A

From the Kinvara Avenue/Baggot Road junction to Nephin Road, the cross-section of Navan Road is proposed as two general traffic lanes and two bus lanes – except for a 20m section of Navan Road which also has a right turn lane (to Kinvara Avenue) adjacent to the outbound general traffic lane. Cycle tracks are provided in both directions. The proposed cross section is indicated in **Figure 6.22**.

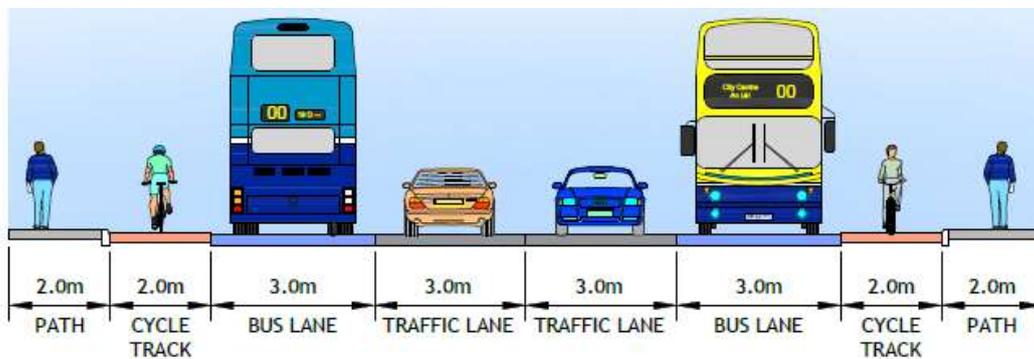


Figure 6.22: Route Option HH1 Cross-Section B-B

From Nephin Road to Skreen Road, the cross-section of Navan Road is proposed as two general traffic lanes and two bus lanes, with cycle tracks provided in both directions. The proposed cross section is indicated in **Figure 6.23**.

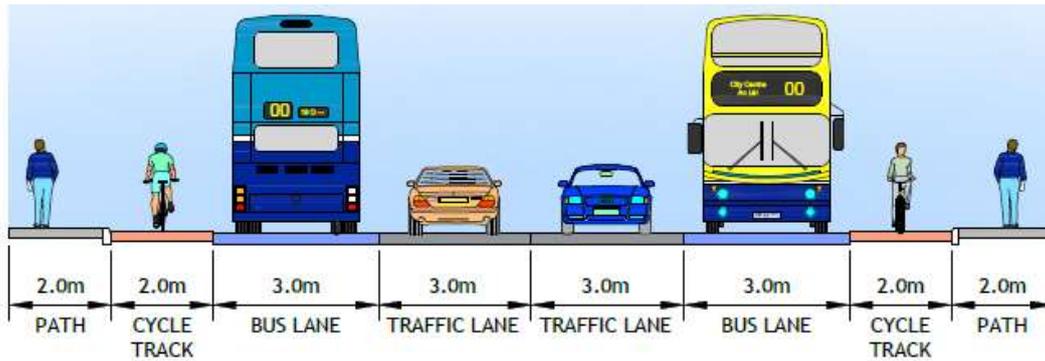


Figure 6.23: Route Option HH1 Cross-Section C-C

In summary, this route option would, subject to confirmation at the scheme design stage, result in the following characteristics:

- Two general traffic lanes and two bus lanes in each direction along Navan Road
- Segregated cycle tracks on both sides of the street.

Junctions:

There are seven signalised junctions along this route option, which would require upgrading to facilitate bus priority. The locations of these junctions are presented in **Figure 6.20** and discussed below:

- **R147 Navan Road/Kempton Avenue Junction (1):** Reallocation of road space would be required to facilitate the inbound and outbound bus lanes on approach to the junction and provision of cycle tracks on both sides of the road. There would also be a potential requirement to relocate/provide new signal equipment.
- **R147 Navan Road/Ashtown Grove Junction (2):** Reallocation of road space would be required to facilitate the inbound and outbound bus lanes on approach to the junction and provision of cycle tracks on both sides of the road. There would also be a potential requirement to relocate/provide new signal equipment.
- **R147 Navan Road/Kinvara Avenue/Baggot Road Junction (3):** Widening of the junction would be required to facilitate the inbound and outbound bus lanes on approach to the junction and provision of a right-turn lane from the east, plus cycle tracks on both sides of the road. There would also be a potential requirement to relocate/provide new signal equipment.
- **R147 Navan Road/Nephin Road Junction (4):** Widening of the junction would be required to facilitate the inbound and outbound bus lanes on approach to the junction and provision of cycle tracks on both sides of the road. There would also be a potential requirement to relocate/provide new signal equipment.
- **R147 Navan Road/Skreen Road Junction (5):** Widening of the junction would be required to facilitate the inbound and outbound bus lanes on approach to the junction and provision of cycle tracks on both sides of the

road. There would also be a potential requirement to relocate/provide new signal equipment.

- **R147 Navan Road/Hampton Green Junction (6):** Widening of the junction would be required to facilitate the inbound and outbound bus lanes on approach to the junction and a right-turn lane from the east, and provision of cycle tracks on both sides of the road. There would also be a potential requirement to relocate/provide new signal equipment
- **R147 Navan Road/Cabra Library Junction (7):** Widening of the junction would be required to facilitate the inbound and outbound bus lanes on approach to the junction and provision of cycle tracks on both sides of the road, and a right turn lane to access the library and retail park. There would also be a potential requirement to relocate/provide new signal equipment.

6.2.2.2.3 Route Option HH2

Route Description

Route option HH2 is presented in **Figure 6.24** and described in the following text.

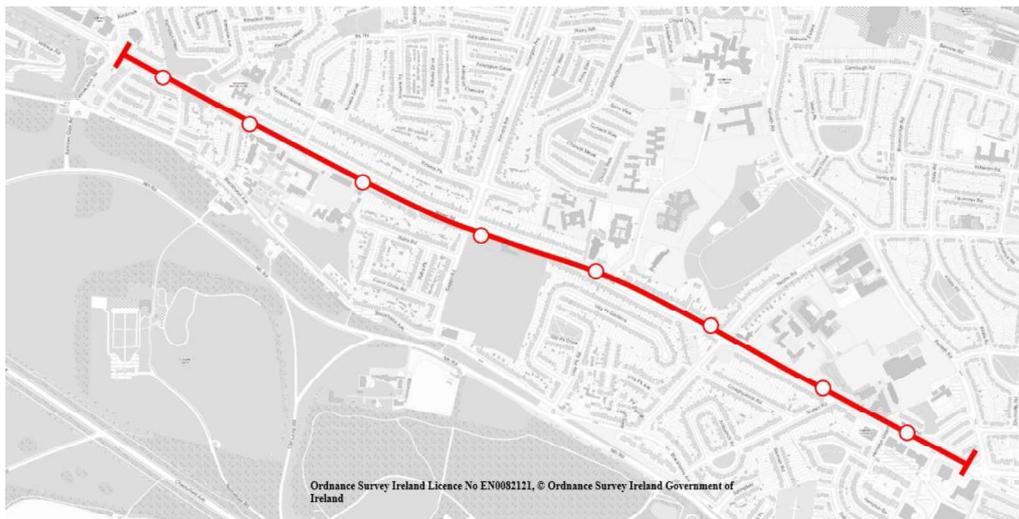


Figure 6.24: Route Option HH2

Inbound: This section of the CBC would run along Navan Road from east of the Ashtown Road junction to the Navan Road/Ratoath Road junction.

Outbound: The outbound route would follow the same route as the inbound route.

Stops: A total of eight bus stops would likely be provided in each direction along this route section.

Indicative Scheme Design

Figure 6.25 illustrates the indicative scheme design for this route option. The location of cross-sections and junctions referenced in subsequent sections describing this route option are also presented in this figure.

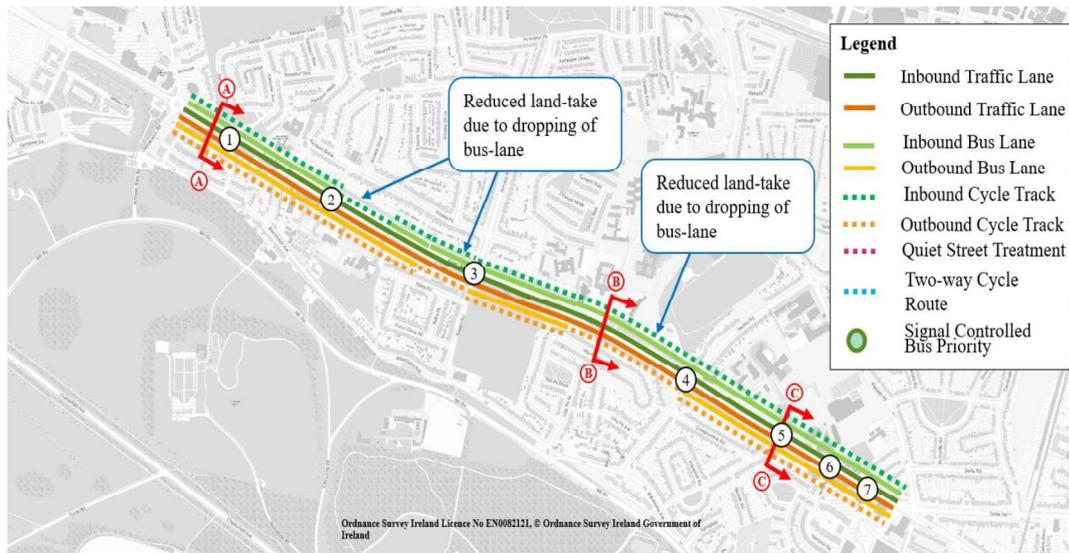


Figure 6.25: Route Option HH2 Indicative Scheme Design

This section of the CBC would commence on Navan Road east of the Ashtown Road junction.

The route would continue to the east, connecting with side roads at Kempton Avenue and Ashtown Grove, and at Kinvara Avenue/Baggot Road. Along Navan Road, two general traffic lanes and two bus lanes are proposed, with one-way cycle tracks on both sides of the road, as presented in **Figure 6.26**. On three short lengths where the road width is most constrained, the proposed arrangement is for general traffic and buses to share a single lane, with Signal Control Priority in place at the beginning of these sections to enable buses to have priority ahead of other general traffic. This single lane arrangement is proposed on a section east of Ashtown Grove (inbound), on a section west of Kinvara Avenue (outbound), and on a section west of Nephin Road (outbound) with a separate bus lane and general traffic lane in the opposing direction.

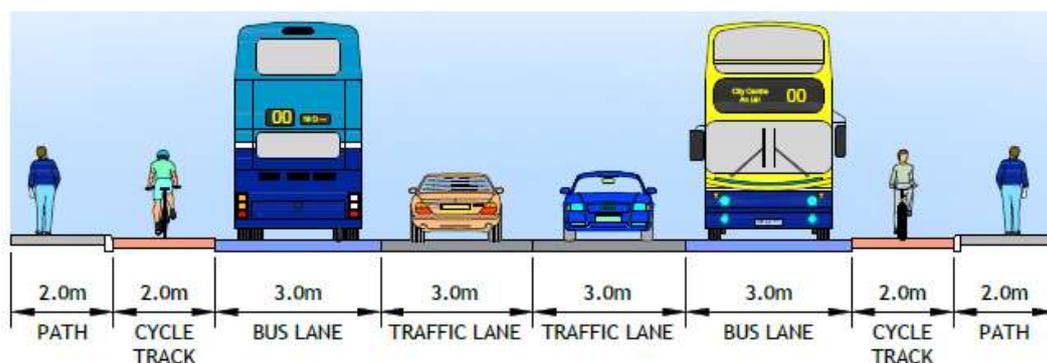


Figure 6.26: Route Option HH2 Cross-Section A-A

From Kinvara Avenue/Baggot Road junction to Nephin Road, the cross-section of Navan Road is proposed as two general traffic lanes and two bus lanes (and cycle tracks in both directions) – except for a 100m section of Navan Road on the western approach to the Nephin Road junction where the road width is constrained.

At this location, the proposed arrangement is for outbound general traffic and buses to share a single lane, with Signal Control Priority in place to enable buses to get priority ahead of other general traffic; this proposed cross section is indicated in **Figure 6.27**, and includes a separate bus lane and general traffic lane in the opposing direction.

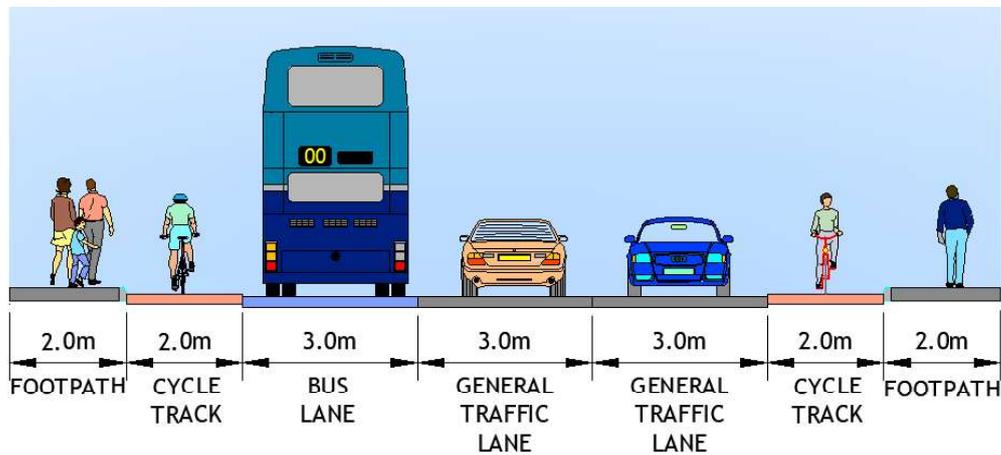


Figure 6.27: Route Option HH2 Cross-Section B-B

From Nephin Road to Skreen Road, the cross-section of Navan Road is proposed as two general traffic lanes and two bus lanes, with cycle tracks provided in both directions. The proposed cross section is indicated in **Figure 6.28**.

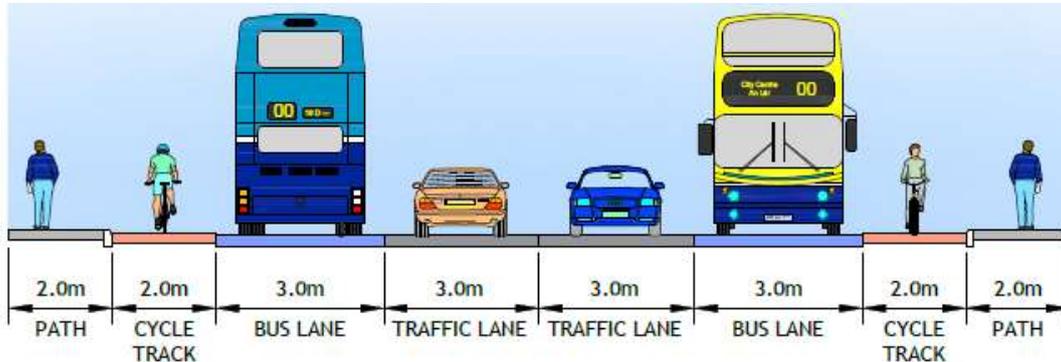


Figure 6.28: Route Option HH2 Cross-Section C-C

In summary, this route option would have the following characteristics:

- Two general traffic lanes and two bus lanes in each direction along Navan Road
- Intermittent three-lane sections where buses and general traffic share an inbound or outbound lane, with Signal Control Priority for buses at the beginning of these sections.
- Segregated cycle tracks on each side of the street.

Junctions:

There are seven signalised junctions along this route option, which would require upgrading to facilitate bus priority. The locations of these junctions are presented in **Figure 6.25** and discussed below:

- **R147 Navan Road/Kempton Avenue Junction (1):** Reallocation of road space would be required to facilitate the inbound and outbound bus lanes on approach to the junction and provision of cycle tracks on both sides of the road. There would also be a potential requirement to relocate/provide new signal equipment.
- **R147 Navan Road/Ashtown Grove Junction (2):** Reallocation of road space would be required to facilitate the inbound and outbound bus lanes on approach to the junction and provision of cycle tracks on both sides of the road. There would also be a potential requirement to relocate/provide new signal equipment.
- **R147 Navan Road/Kinvara Avenue/Baggot Road Junction (3):** Reallocation of road space at the junction would be required to facilitate the inbound and outbound bus lanes on approach to the junction and provision of a right-turn lane from the east, plus cycle tracks on both sides of the road. There would also be a potential requirement to relocate/provide new signal equipment.
- **R147 Navan Road/Nephin Road Junction (4):** Reallocation of road space would be required to facilitate the inbound and outbound bus lanes on approach to the junction and provision of cycle tracks on both sides of the road. There would also be a potential requirement to relocate/provide new signal equipment.
- **R147 Navan Road/Skreen Road Junction (5):** Reallocation of road space at the junction would be required to facilitate the inbound and outbound bus lanes on approach to the junction and provision of cycle tracks on both sides of the road. There would also be a potential requirement to relocate/provide new signal equipment.
- **R147 Navan Road/Hampton Green Junction (6):** Widening of the junction would be required to facilitate the inbound and outbound bus lanes on approach to the junction and a right-turn lane from the east, and provision of cycle tracks on both sides of the road. There would also be a potential requirement to relocate/provide new signal equipment.
- **R147 Navan Road/Cabra Library Junction (7):** Widening of the junction would be required to facilitate the inbound and outbound bus lanes on approach to the junction and provision of cycle tracks on both sides of the road, and a right turn lane to access the library and retail park. There would also be a potential requirement to relocate/provide new signal equipment.

6.2.2.2.4 Section 2b Route Option Assessment

Details of the route option assessment undertaken for the R147 Navan Road/Ashtown Road junction to Navan Road/Ratoath Road junction Route Option

Assessment study area section are presented in Appendix F. The relative ranking of route options against the scheme assessment sub-criteria is summarised in **Table 6.5**.

Table 6.5: Section 2b Route Option assessment Summary (Sub-Criteria)

Appraisal Criteria	Sub-Criteria	Option HH1	Option HH2
1 Economy	1A Capital Cost	Orange	Green
	1B Transport Quality & Reliability	Green	Red
2 Integration	2A Land Use Policy	Yellow	Yellow
	2B Residential Population and Employment Catchments	Yellow	Yellow
	2C Transport Network Integration	Yellow	Yellow
	2D Cycle Network integration	Yellow	Yellow
	2E Traffic Network Integration	Green	Red
3 Accessibility & Social Inclusion	3A Key Trip Attractors	Yellow	Yellow
	3B Deprived Geographic Areas	Yellow	Yellow
4 Safety	4A Road Safety	Green	Orange
	4B Pedestrian Safety	Green	Orange
5 Environment	5A Archaeology & Cultural Heritage	Yellow	Yellow
	5B Architectural Heritage	Yellow	Yellow
	5C Flora & Fauna	Yellow	Yellow
	5D Soils, Geology & Hydrology	Yellow	Yellow
	5E Landscape & Visual	Red	Green
	5F Air Quality	Yellow	Yellow
	5G Noise & Vibration	Yellow	Yellow
	5H Land Use Character	Orange	Green

In terms of capital cost, Option HH1 is the more expensive option due to the junction widening needed at the Kinvara Avenue and Nephin Road junctions. In terms of delivering transport quality & reliability of bus priority and journey time, option HH1 performs much better than HH2 due to the continuous bus lane infrastructure and the associated limited impact of any traffic queues on movement of buses.

For Option HH2, which involves bus and general traffic sharing a general traffic lane, it is considered that any blocking back of traffic queues at junctions would delay buses travelling in the shared traffic lane. It is relevant to note that Navan Road is designated as a major through route for general traffic (unlike in Stoneybatter where measures can be taken to dissuade through traffic) – and hence Navan Road would continue to carry significant levels of traffic flows even with bus priority measures in place.

Therefore, for Option HH2, traffic congestion would be increased (due to queuing at junctions) which would adversely impact reliability and punctuality of bus movement - a key objective of the CBC corridor measures.

Both options serve the same catchments and as such are ranked equally in relation to land use policy and residential population catchments and employment

catchments. Similarly, in terms of transport network integration, as both options follow the same route, the opportunity for interchange with other routes is equal.

In terms of cycle network integration, the two options perform equally well. HH1 has a better traffic management arrangement with a standard provision of a traffic lane in both directions,

Both options rank equally under accessibility and social inclusion as they both follow the same route.

In terms of safety, Option HH1 performs marginally better than HH2 due to the consistent number of traffic lanes and bus lanes and associated better traffic management conditions. Pedestrian crossing safety is also marginally better for HH1 due to the provision of a more intuitive standard cross-section (unlike Option HH2 which varies in width along its length).

In terms of environment, Option HH2 performs better due to less requirement for the removal of any trees; and more opportunity to provide urban realm improvements.

A summary of the assessment and relative ranking of route options against the five main assessment criteria is presented in **Table 6.6**.

Table 6.6: Section 2b Criteria MCA Summary

Sub-Criteria	Option HH1	Option HH2
1 Economy		
2 Integration		
3 Accessibility & Social Inclusion		
4 Safety		
5 Environment		

6.2.2.2.5 Section 2b Conclusion and Preferred Option

Based on the assessment undertaken, route Option HH1 offers more benefits. It performs well under all criteria. Option HH1 is the preferred option for the Navan Road/Ashtown Road junction to Navan Road/Skreen Road section for the following reasons:

- For economy, although HH1 has the higher capital cost, it is significantly better than HH2 in respect of transport quality and reliability – which in this case enhances the capacity and potential of the public transport system by improving bus speeds, reliability and punctuality through the provision of bus lanes to provide priority to bus movement over general traffic movements; and
- For integration, HH1 works better as it has a standard cross-section for traffic movements.

6.3 Section 3 Option Assessment: Navan Road/ Ratoath Road to Ellis Quay

6.3.1 Section 3a - Navan Road/Ratoath Road to Prussia Street (Park Shopping Centre)

6.3.1.1 Introduction

Numerous submissions received as part of the public consultation process raised concerns that the proposed traffic management plans; in particular, restricting general traffic movement along the Old Cabra Road may cause increased levels of traffic on residential roads as well as creating congestion elsewhere on the road network.

6.3.1.2 Options Considered

Two alternative options have been assessed as follows:

- **Option NV1:** Option NV1 would introduce a bus gate at the northern end of Old Cabra Road (at its junction with Navan Road), and a section of northbound bus lane on Old Cabra Road south of Glenbeigh Road – which would effectively remove the ability of through-traffic to travel between Stoneybatter and Navan Road in both directions along the Old Cabra Road. Cycle-lanes in each direction are proposed on Old Cabra Road from Navan Road to Prussia Street.
- **Option NV2:** EPR Option NV2 is similar to Option NV1 and would involve closing off Old Cabra Road as a general traffic through-route - but with a two-way cycle-track provided on the eastern side of Old Cabra Road from Navan Road to Prussia Street.

The key characteristics of each option are described in the following sections.

6.3.1.2.1 Alternative Options Considered

No alternative options were considered for this scheme section, additional to those assessed through the MCA.

6.3.1.2.2 Route Option NV1

Route Description

Route option NV1 is presented in **Figure 6.29**.

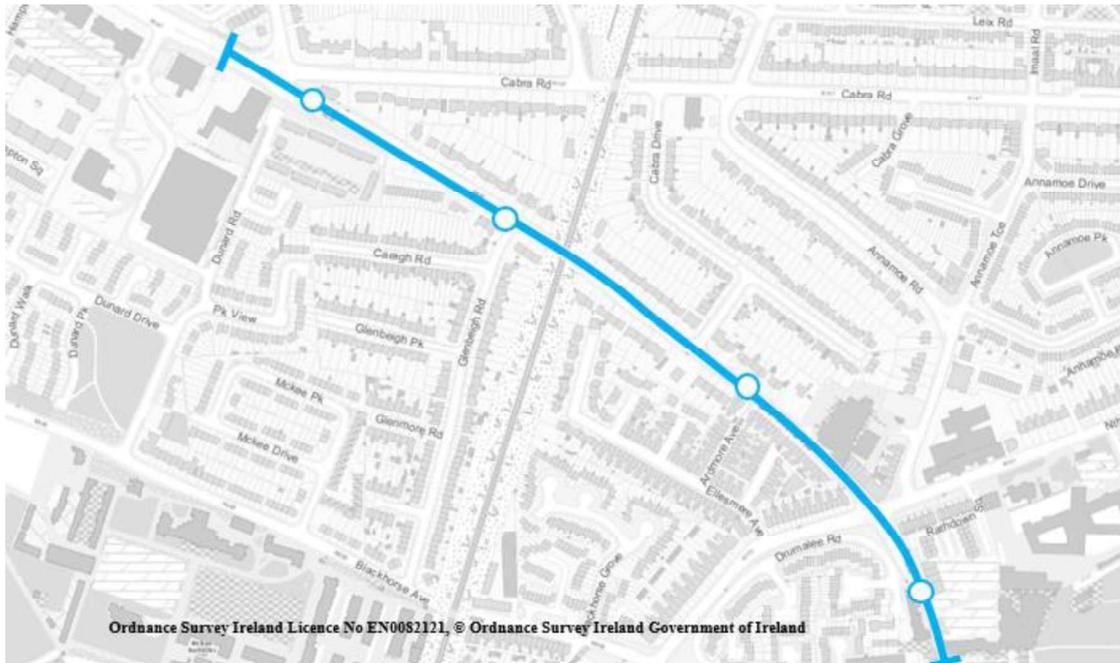


Figure 6.29: Route Option NV1

Inbound: This section of the route would commence at the Navan Road/Ratoath Road junction, proceed along Old Cabra Road, and end on Prussia Street just south of its junction with North Circular Road at the Park Shopping Centre.

Outbound: The outbound route would follow the same route as the inbound route.

Stops: A total of four bus stops would likely be provided in each direction along this route section.

Indicative Scheme Design

Figure 6.30 illustrates the indicative scheme design for this route option. The location of cross-sections and junctions referenced in subsequent sections describing this route option are also presented in this figure.

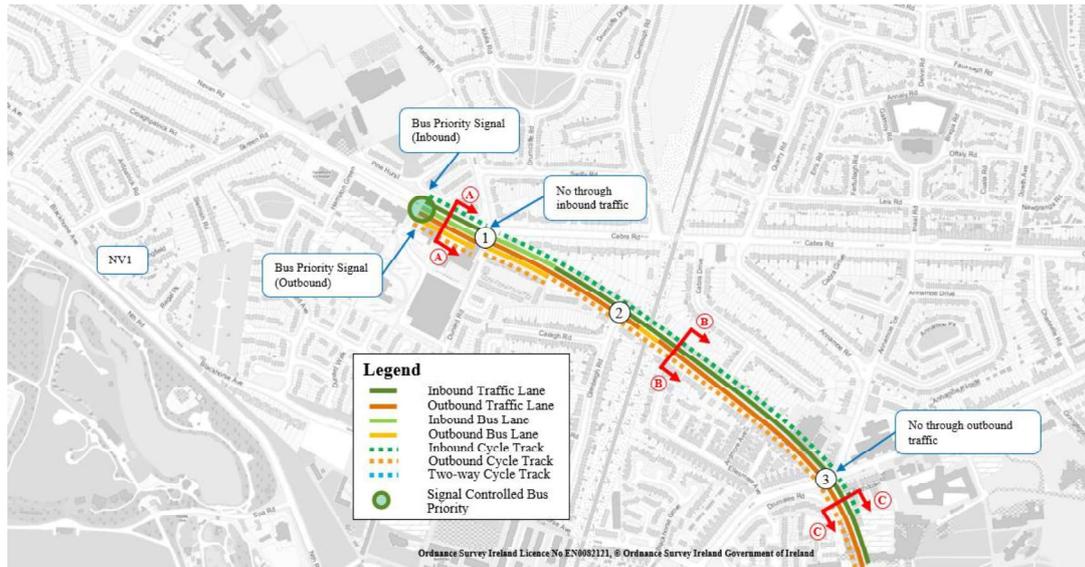


Figure 6.30: Route Option NV1 Indicative Scheme Design

This section of the route would commence at the Navan Road/Ratoath Road junction. At the Navan Road/Ratoath Road junction two one-way cycle tracks, bus lanes and general traffic lanes are proposed. The proposed cross section is presented in **Figure 6.31**.

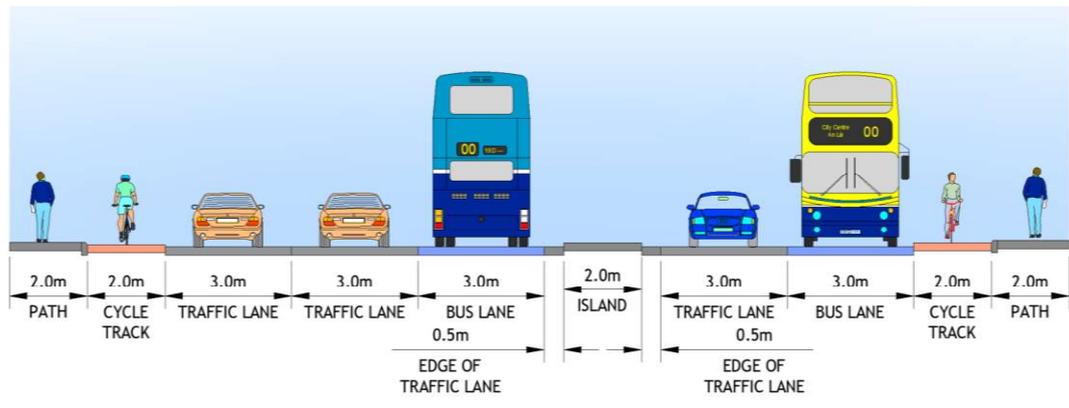


Figure 6.31: Route Option NV1 Cross-Section A-A

General traffic would not be able to travel southbound from Navan Road onto Old Cabra Road (due to a proposed southbound bus gate at the northern end of Old Cabra Road). Similarly, general traffic would be prevented from travelling northbound from the North Circular Road along Old Cabra Road (due to a northbound bus gate north of Cabra Drive).

These northbound and southbound bus gates on Old Cabra Road would ensure priority for bus movements in both directions along this section. Cycle tracks are also proposed on Old Cabra Road in both directions from Navan Road to Prussia Street. The proposed cross section on Old Cabra Road just north of its junction with Cabra Drive is presented in **Figure 6.32**.

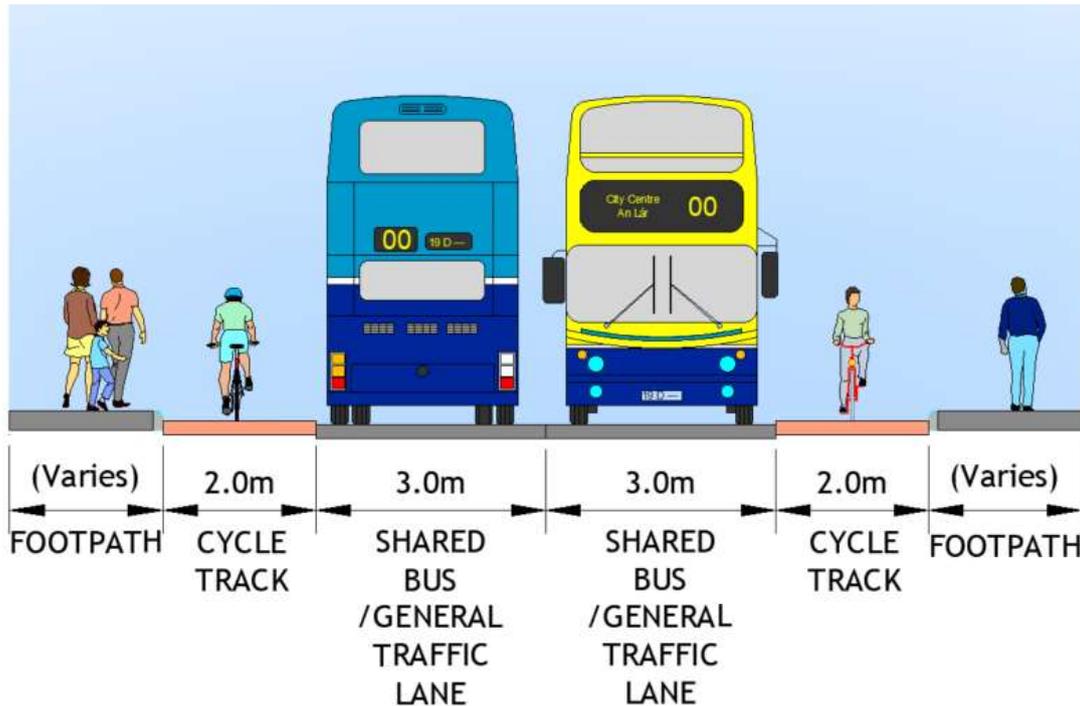


Figure 6.32: Route Option NV1 Cross-Section B-B

The inbound cycle track would merge into the general traffic lane on the northern end of Prussia Street due to width constraints (but with a proposed 30kph speed limit and limitations on through traffic which would give cyclists a safe environment for on-street cycling along this section). The proposed cross-section on Prussia Street at its northern end is presented in **Figure 6.33**.

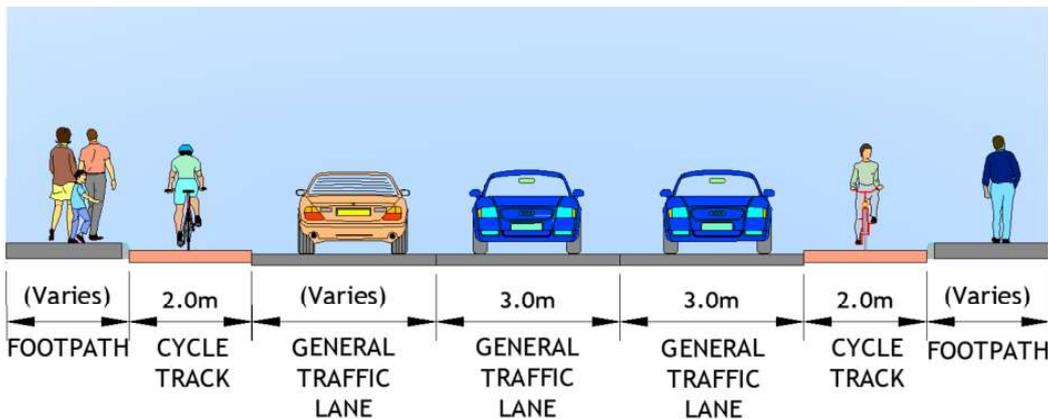


Figure 6.33: Route Option NV1 Cross-Section C-C

Local traffic access would be permitted in both directions along Old Cabra Road under this arrangement, however through-traffic would be directed to other roads.

In summary, this route option would, subject to confirmation at the scheme design stage, result in the following characteristics:

- Priority for bus movements on Old Cabra Road in both directions due to introduction of bus gates at the northern end (southbound) and north of Cabra

Drive (northbound), which would limit access for general traffic on this route;
and

- A cycle track in both directions along Navan Road and Old Cabra Road.

Junctions:

There are three signalised junctions along this route option, all of which would require upgrading to facilitate bus priority and cycle/pedestrian facilities. The locations of these junctions are presented in **Figure 6.30** and discussed below:

- **Navan Road/Ratoath Road/Cabra Road/Old Cabra Road Junction (1):** Adjustments to the junction layout would be required to facilitate the inbound and outbound bus lanes on approach to the junction and provision of cycle tracks on both sides of the road and appropriate crossings. There would also be a potential requirement to relocate/provide new signal equipment.
- **Old Cabra Road/Glenbeigh Road Junction (2):** Adjustments to the junction layout would be required to facilitate the provision of separate outbound and inbound cycle tracks through the junction. There would also be a requirement to provide new signal equipment.
- **Prussia Street/North Circular Road Junction (3):** Adjustments to the junction layout would be required to facilitate the provision of separate inbound and outbound cycle tracks at this junction. There would also be a potential requirement to relocate/provide new signal equipment.

6.3.1.2.3 Route Option NV2

Route Description

Route option NV2 is presented in **Figure 6.34** and represents the EPR Option.



Figure 6.34: Route Option NV2

Inbound: This section of the route would commence at the Navan Road/Ratoath Road junction, proceed along Old Cabra Road, and end at Prussia Street just south of its junction with North Circular Road at the Park Shopping Centre.

Outbound: The outbound route would follow the same route as the inbound route.

Stops: A total of four bus stops would likely be provided in each direction along this route section.

Indicative Scheme Design

Figure 6.35 illustrates the indicative EPR Option scheme design for this route option. The location of cross-sections and junctions referenced in subsequent sections describing this route option are also presented in this figure.

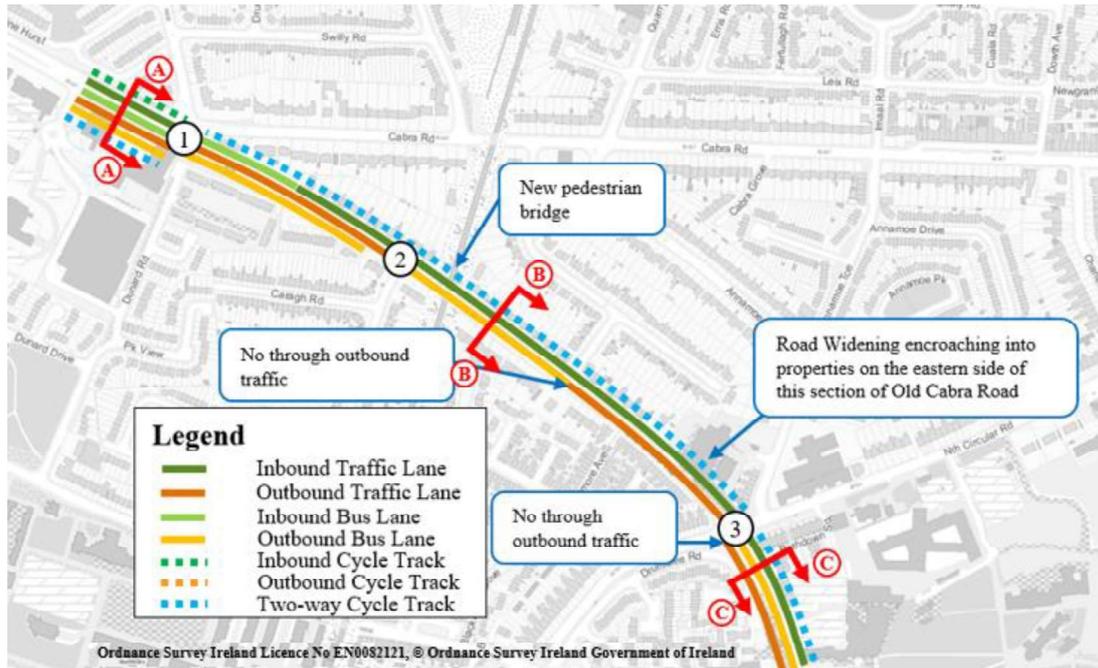


Figure 6.35: Route Option NV2 Indicative Scheme Design

This section of the route commences at the Navan Road/Ratoath Road Junction. At the Navan Road/Ratoath Road Junction a southbound one-way cycle track, and a two-way cycle track on the south side, a bus lane in both directions, and general traffic lanes are proposed. The proposed cross section is presented in **Figure 6.36**.

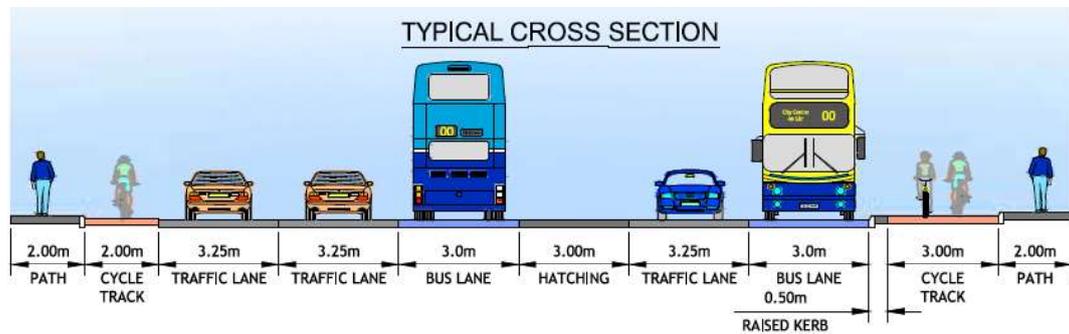


Figure 6.36: Route Option NV2 Cross-Section A-A

General traffic would not be able to travel southbound from Navan Road onto Old Cabra Road (due to a proposed bus gate at the northern end of Old Cabra Road).

Similarly, general traffic would be prevented from travelling northbound from the North Circular Road along Old Cabra Road (due to a northbound bus gate just north of Cabra Drive). These northbound and southbound bus gates on Old Cabra Road would ensure priority for bus movements in both directions on this section. A two-way cycle track would be provided along Old Cabra Road from Navan Road to Prussia Street. The proposed cross section is presented in **Figure 6.37**.

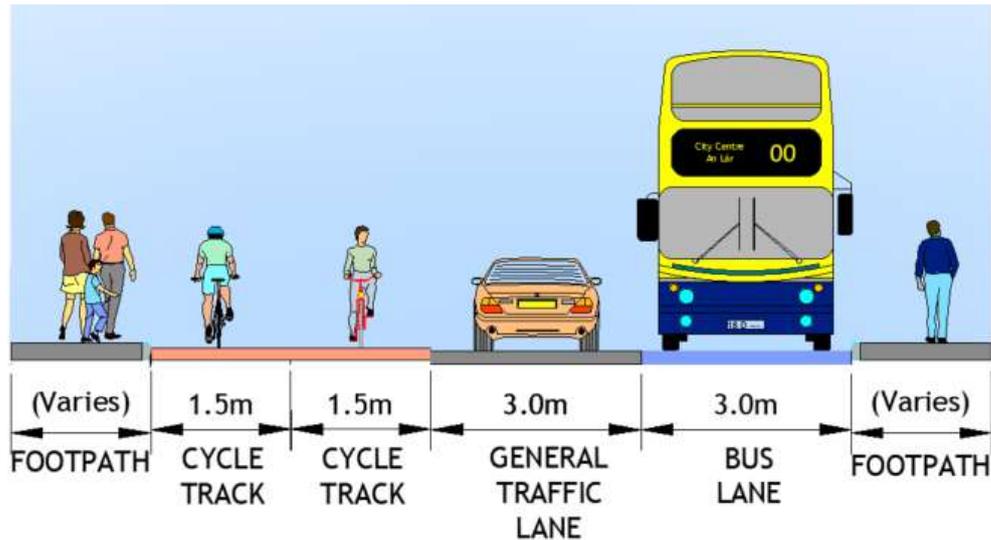


Figure 6.37: Route Option NV2 Cross-Section B-B

The proposed layout would include a two-way cycle track at the northern end of Prussia Street. The proposed cross-section is presented in **Figure 6.38**.

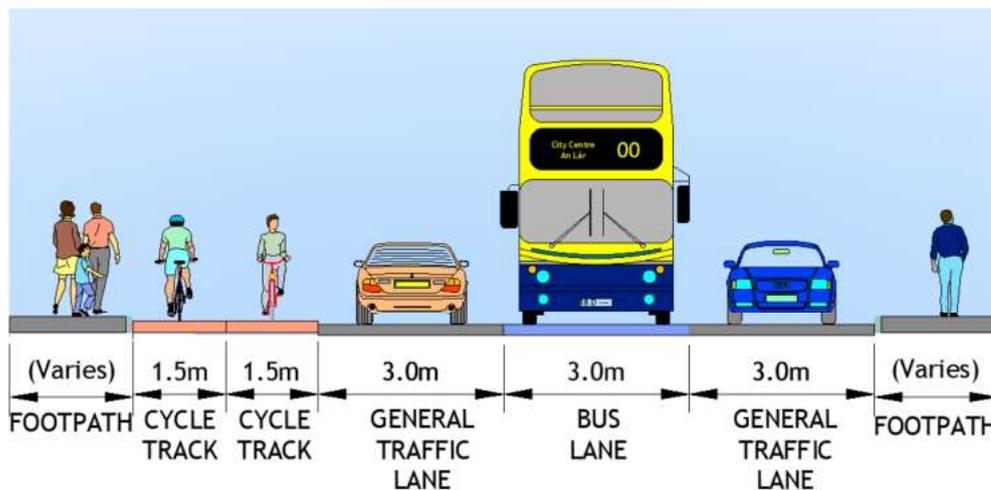


Figure 6.38: Route Option NV2 Cross-Section C-C

Local access would be permitted in both directions along Old Cabra Road under this arrangement, however through-traffic would be directed to other corridors.

In summary, this route option would have the following characteristics:

- Priority for bus movements on Old Cabra Road in both directions due to introduction of bus gates at the northern end (southbound) and south of Glenbeigh Road (northbound), which would limit access for general traffic on this route while maintaining local access; and
- A two-way cycle track along Navan Road and Old Cabra Road.

Junctions:

There are three signalised junctions along this route option, some of which would require upgrading to facilitate bus priority. The locations of these junctions are presented in **Figure 6.35** and discussed below:

- **Navan Road/Ratoath Road/Cabra Road/Old Cabra Road Junction (1):** Adjustments to the junction layout would be required to facilitate the inbound and outbound bus lanes on approach to the junction. There would also be a potential requirement to relocate/provide new signal equipment
- **Old Cabra Road/Glenbeigh Road Junction (2):** Adjustments to the junction layout would be required to facilitate the two-way cycle track through the junction. There would also be a potential requirement to provide new signal equipment.
- **Prussia Street/North Circular Road Junction (3):** Adjustments to the junction layout would be required to facilitate the two-way cycle track upgrade at this junction. There would also be a potential requirement to relocate/provide new signal equipment.

6.3.1.2.4 Section 3a Route Option Assessment

Details of the route option assessment undertaken for the Navan Road/Ratoath Road Junction to Prussia Street (Park Shopping Centre) study area section are presented in Appendix G. The relative ranking of route options against the scheme assessment sub-criteria is summarised in **Table 6.7**.

Table 6.7: Section 3a) Route Option assessment Summary (Sub-Criteria)

Appraisal Criteria	Sub-Criteria	Option NV1	Option NV2
1 Economy	1A Capital Cost	Green	Orange
	1B Transport Quality & Reliability	Yellow	Yellow
2 Integration	2A Land Use Policy	Yellow	Yellow
	2B Residential Population and Employment Catchments	Yellow	Yellow
	2C Transport Network Integration	Yellow	Yellow
	2D Cycle Network integration	Green	Orange
	2E Traffic Network Integration	Yellow	Yellow
3 Accessibility & Social Inclusion	3A Key Trip Attractors	Yellow	Yellow
	3B Deprived Geographic Areas	Yellow	Yellow
4 Safety	4A Road Safety	Yellow	Yellow
	4B Pedestrian Safety	Green	Orange
5 Environment	5A Archaeology & Cultural Heritage	Yellow	Yellow
	5B Architectural Heritage	Yellow	Yellow
	5C Flora & Fauna	Green	Orange
	5D Soils, Geology & Hydrology	Yellow	Yellow
	5E Landscape & Visual	Green	Red
	5F Air Quality	Yellow	Yellow
	5G Noise & Vibration	Yellow	Yellow
	5H Land Use Character	Green	Orange

In terms of economy, Option NV2 has a greater capital cost option due to the significant land acquisition and infrastructure costs to deliver a pedestrian bridge over the railway at Old Cabra Road. However, it should be noted that in terms of transport quality and reliability, Options NV1 and NV2 perform much the same when considering physical bus priority and journey time consistency.

All options serve the same catchments and as such are ranked equally in relation to land use policy and residential population catchments and employment catchments. Similarly, in terms of transport network integration, as all options follow the same route, the opportunity for interchange with other routes is equal.

In terms of cycle network integration, Option NV1 performs better than NV2 as the 'with flow' one-way cycle track arrangement (in NV1) has more direct and intuitive connectivity at both ends of Old Cabra Road than NV2 which would require less direct crossing manoeuvres at the Navan Road and North Circular Road junctions.

All options rank equally under accessibility and social inclusion as they all follow the same route.

In terms of safety, both options are similar with respect to road safety as the route, the number of junctions, and turning movements are the same.

However, NV1 scores marginally higher on pedestrian and cycle safety due to NV2 including a two-way cycle track across side roads and pedestrian crossings – which although not intrinsically unsafe, is potentially a less comfortable environment for pedestrians and cyclists in this constrained cross-section of Old Cabra Road. NV1 always performs better from a pedestrian safety perspective due to more consistent footway widths and less conflict with cycle tracks due to having cycle tracks on either side of the road.

With respect to appraisal, criteria 5, environment, Option NV1 performs better than NV2 as it has greater scope for urban realm improvements at the junction of Ratoath Road and Navan Road, due to less space for cycle tracks in the reconfigured cross section at this location. In terms of landscape and visual, Option NV1 requires less property acquisition when compared to NV2. In terms of air quality and noise and vibration, both options rank equally.

Option NV1 retains a tree line in the central reserve at the Ratoath Road junction when compared to NV2, ranking it better when considering land use and character at this urban focal point.

A summary of the assessment and relative ranking of route options against the five main assessment criteria is presented in **Table 6.8**.

Table 6.8: Section 3a Criteria MCA Summary

Sub-Criteria	Option NV1	Option NV2
1 Economy		
2 Integration		
3 Accessibility & Social Inclusion		
4 Safety		
5 Environment		

6.3.1.2.5 Section 3a Conclusion and Preferred Option

Based on the assessment undertaken, route Option NV1 offers more benefits over Option NV2 – although both options perform well in respect of bus priority. Option NV1 is the preferred option for the following reasons:

- On economy, NV2 has a higher capital cost due to the requirement to widen the rail bridge to accommodate the two-way cycle track, compared to NV1 where bridge widening is not required.
- In respect of integration, the NV1 option has two one-way cycle tracks, on each side of the road, segregated from the general traffic carriageway, which offers cyclists a more intuitive route on Old Cabra Road (compared to a two-way cycle track without a traffic/cycle buffer for NV2).
- On environment, Option NV1 has less land take and less impact on trees than NV2 due to a reconfiguration of the proposed carriageway cross-section.

6.3.2 Section 3b - Prussia Street (Park Shopping Centre) to Stoneybatter/Brunswick Street North Junction

6.3.2.1 Introduction

Numerous submissions received as part of the public consultation process raised concerns that the proposed traffic management plans, in particular, restricting general traffic movement through Stoneybatter, may cause increased levels of general traffic on residential roads as well as creating congestion elsewhere on the road network. Submissions also raised concerns about the impact on green space at the junction of Manor Street, Prussia Street and Aughrim Street, and constrained width of footpaths in Stoneybatter.

6.3.2.2 Options Considered

Three options have been assessed as follows:

- **Option SB1:** Option SB1 proposals consist of a southbound and northbound bus gate on Prussia Street at its junction with Aughrim Street. South of Aughrim Street, two general traffic lanes and two cycle tracks would be provided on Manor Street until the junction at Manor Place. Along Manor Street / Stoneybatter between Manor Place and Brunswick Street North, cycle tracks in both directions would be provided, with an outbound bus lane, and inbound and outbound general traffic lanes.
- **Option SB2:** EPR Option SB2 proposals consist of an inbound general traffic lane, with an inbound bus lane on Prussia Street beginning at Shea's Lane, and an outbound bus lane beginning just south of Manor Place. Aughrim Street would have a general traffic lane in both directions at its junction with Manor Street. Along Manor Street / Stoneybatter south of Manor Place, there would be general traffic lanes in both directions, a bus lane southbound, and a northbound cycle track.
- **Option SB3:** Option SB3 proposals consist of a southbound and northbound bus gate on Prussia Street at its junction with Aughrim Street. South of Aughrim Street, inbound and outbound general traffic lanes and two cycle tracks would be provided on Manor Street / Stoneybatter until the junction at Brunswick Street North.

A northbound bus priority signal is proposed on Blackhall Place – where northbound general traffic would need to turn right into King Street North, and then travel via George's Lane and Brunswick Street North, to reach Manor Street.

The key characteristics of each option are described in the following sections.

6.3.2.2.1 Alternative Options Considered

Three options have been assessed as follows:

Alternatives were considered, but not progressed, as follows:

- **Closing Stoneybatter to through traffic:** Full closure of through-traffic access via Stoneybatter was considered unfeasible due to the impracticality of preventing through vehicular traffic while also allowing the necessary vehicular access for local residents and businesses. For example, it would be necessary to allow local traffic to enter from the north or south, and the return journey would require long diversions of around 3km (e.g. via North Circular Road) – which would both tend to create local congestion and would also tend to encourage drivers to perform three-point turns on the bus corridor to avoid having to follow a one-way diversion route on their return journey.
- **Routing cyclists through Grangegorman:** Routing cyclists through Grangegorman instead of along Prussia Street and Manor Street was also considered, which would require a cycle link from the northern end of Prussia Street through to Grangegorman Lower. For purposes of the CBC, this alternative cycle route would not be an essential component, and routing cyclists along Prussia Street and Manor Street (Route 4D in the GDA Cycle Network Plan) would provide an appropriately high quality and direct route.
- **Routing of the CBC corridor via Phoenix Park:** Use of Phoenix Park has been identified by stakeholders as a potential alternative route for buses between Blanchardstown and the city centre. However, the general principle for successfully attracting people to use buses is to ensure that the bus service path is as close as potential to where people live, work and visit. In this respect, it is essential that the CBC is routed via Stoneybatter in order to ensure that people who live and work there, or need to visit, are able to do so using a high frequency bus service (which is connected to the wider bus network to maximise travel catchment). Hence the potential for routing the CBC corridor via Phoenix Park has not been taken forward for detailed consideration.

6.3.2.2.2 Route Option SB1

Route Description

Route option SB1 is presented in **Figure 6.39** and described in the following text.

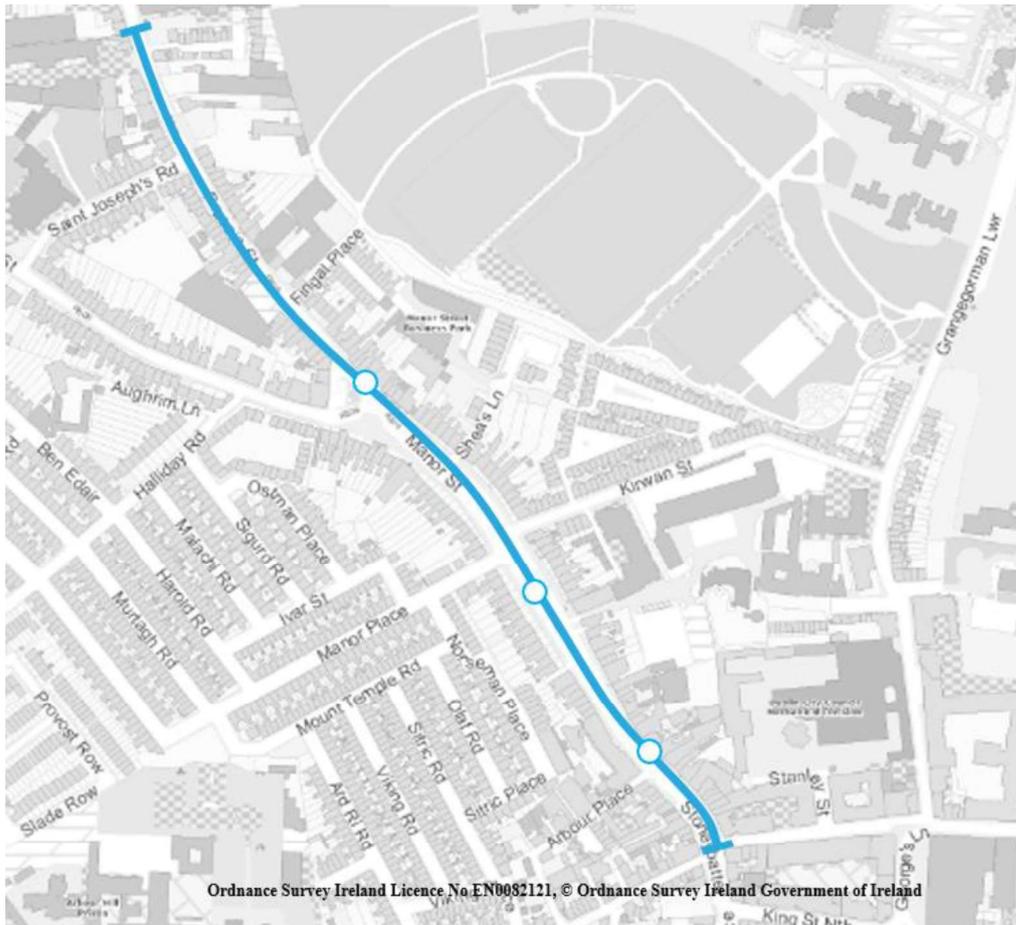


Figure 6.39: Route Option SB1

Inbound: This section of the CBC would run along Prussia Street (from south of the North Circular Road junction at the Park Shopping Centre) through to Manor Street, via the Stoneybatter junction with Aughrim Street. This section of the route would end at the junction of Stoneybatter and Brunswick Street North.

Outbound: The outbound route would follow the same route as the inbound route.

Stops: A total of three bus stops would likely be provided in each direction along this route section.

Indicative Scheme Design

Figure 6.40 illustrates the indicative scheme design for this route option. The location of cross-sections and junctions referenced in subsequent sections describing this route option are also presented in this figure.

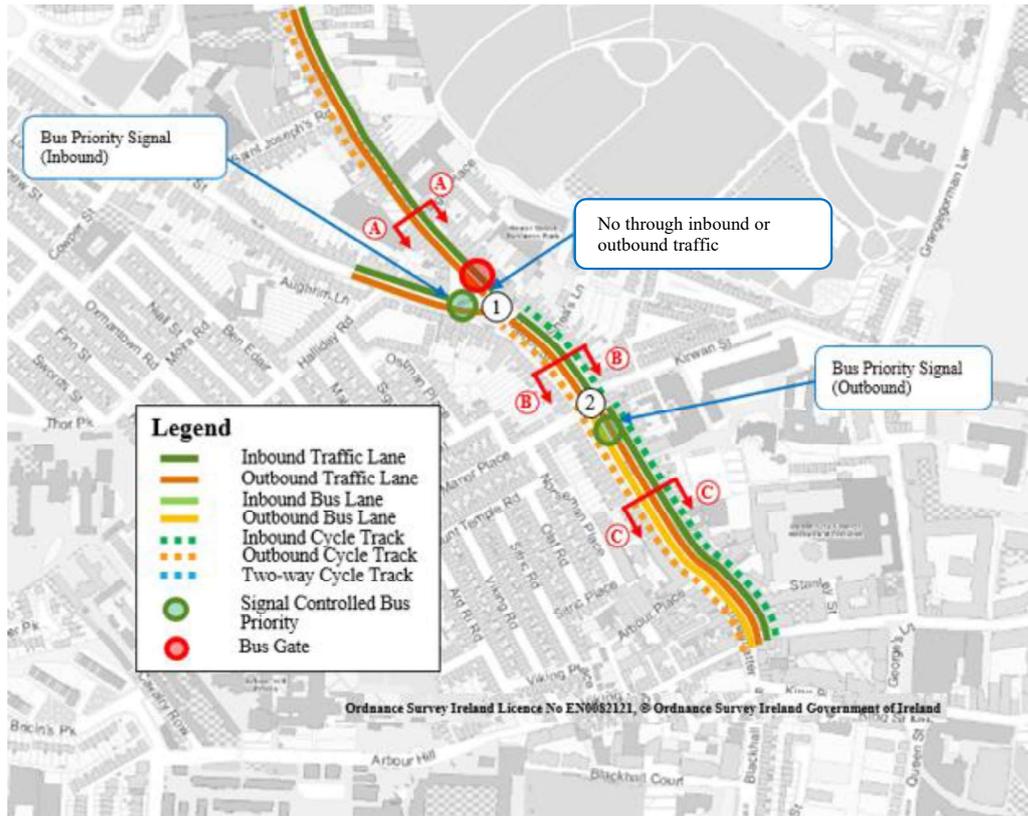


Figure 6.40: Route Option SB1 Indicative Scheme Design

This section of the CBC would commence on Prussia Street south of the North Circular Road junction. Along Prussia Street two general traffic lanes would be provided in the cross section just north of the Aughrim Street junction, as presented in **Figure 6.41**.

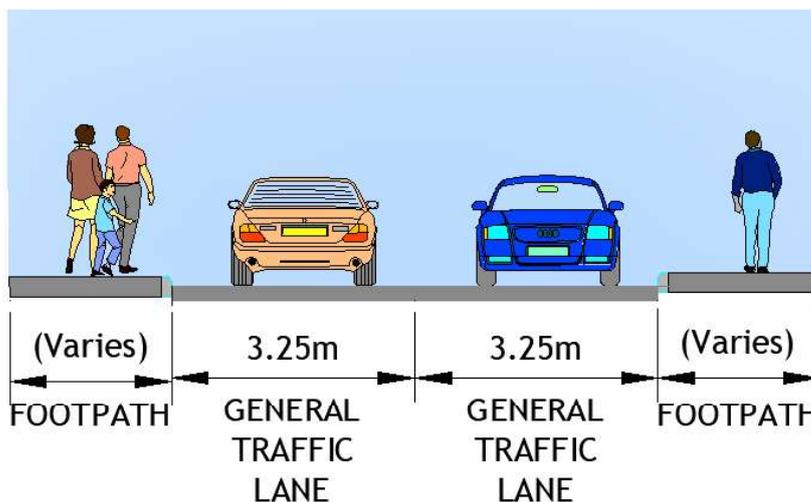


Figure 6.41: Route Option SB1 Cross-Section A-A

Outbound general traffic at the northern end of Manor Street would be directed onto Aughrim Street, with only buses and taxis allowed to proceed onto Prussia Street.

Two cycle tracks and two general traffic lanes are proposed from the Prussia Street/Manor Street/Aughrim Street junction to the junction of Manor Street/Manor Place. The proposed cross section is indicated in **Figure 6.42**.

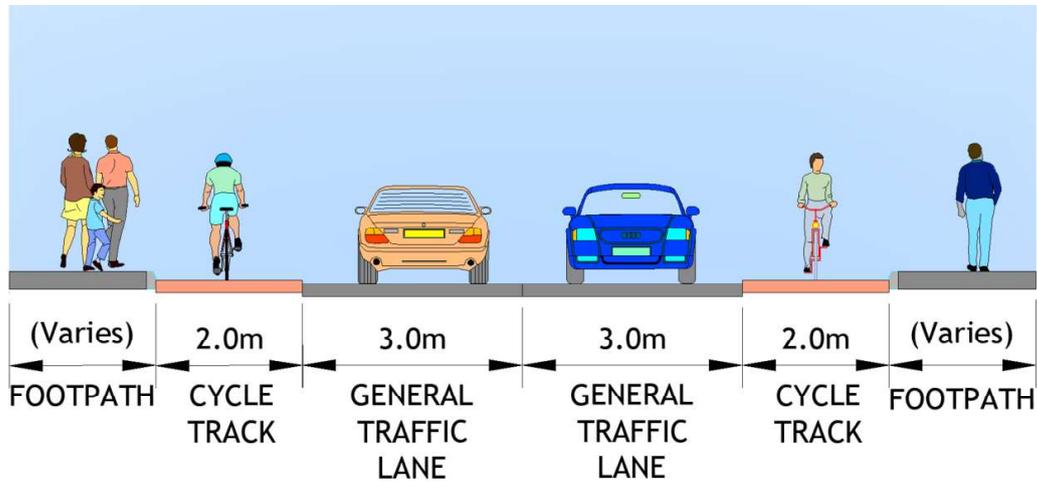


Figure 6.42: Route Option SB1 Cross-Section B-B

An outbound dedicated bus lane would be provided alongside two general traffic lanes and two cycle tracks from the Manor Place/Manor Street Junction to Brunswick Street North as shown in the cross section presented in **Figure 6.43**.

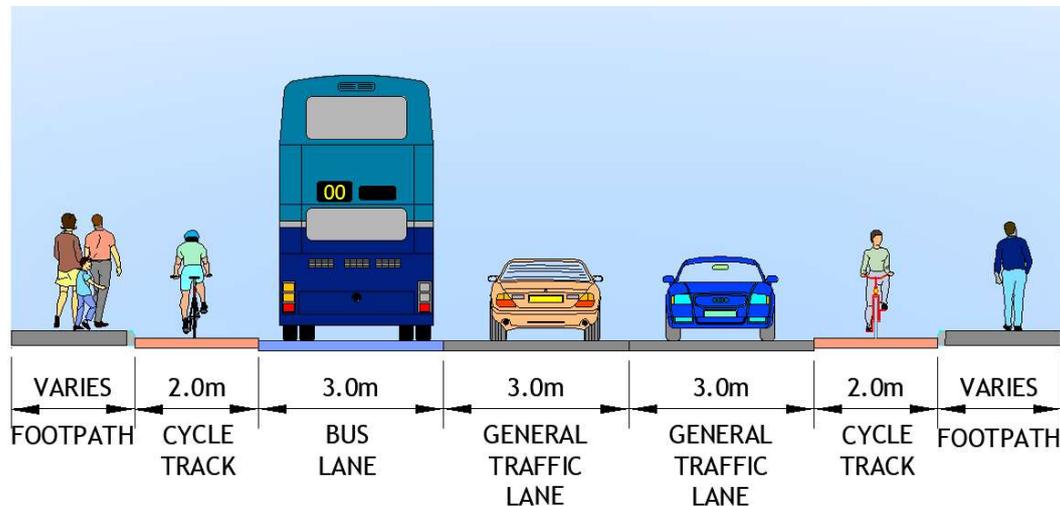


Figure 6.43: Route Option SB1 Cross-Section C-C

In summary, this route option would, subject to confirmation at the scheme design stage, result in the following characteristics:

- Two general traffic lanes and cycle tracks in each direction along Prussia Street/Manor Street/Stoneybatter, and
- An outbound bus lane on Stoneybatter/Manor Street, and a southbound and northbound bus only section on Prussia Street at its junction with Aughrim Street, which would severely limit general traffic flows on this section of bus corridor.

Junctions:

There are two signalised junctions along this route option, which would require upgrading to facilitate bus priority. The locations of these junctions are presented in **Figure 6.40** and discussed below:

- **Prussia Street/Aughrim Street/Manor Street Junction (1):** Adjustments to the junction layout would be required to facilitate the public realm improvement and bus priority measures on approach to the junction. There would also be a potential requirement to provide new signal equipment.
- **Manor Street/Manor Place Junction (2):** Adjustments to the junction layout would be required to facilitate the provision of cycle tracks in both directions. There would also be a potential requirement to provide new signal equipment.

6.3.2.2.3 Route Option SB2

Route Description

Route option SB2 is presented in **Figure 6.44** and described in the following text and represents the EPR Option.

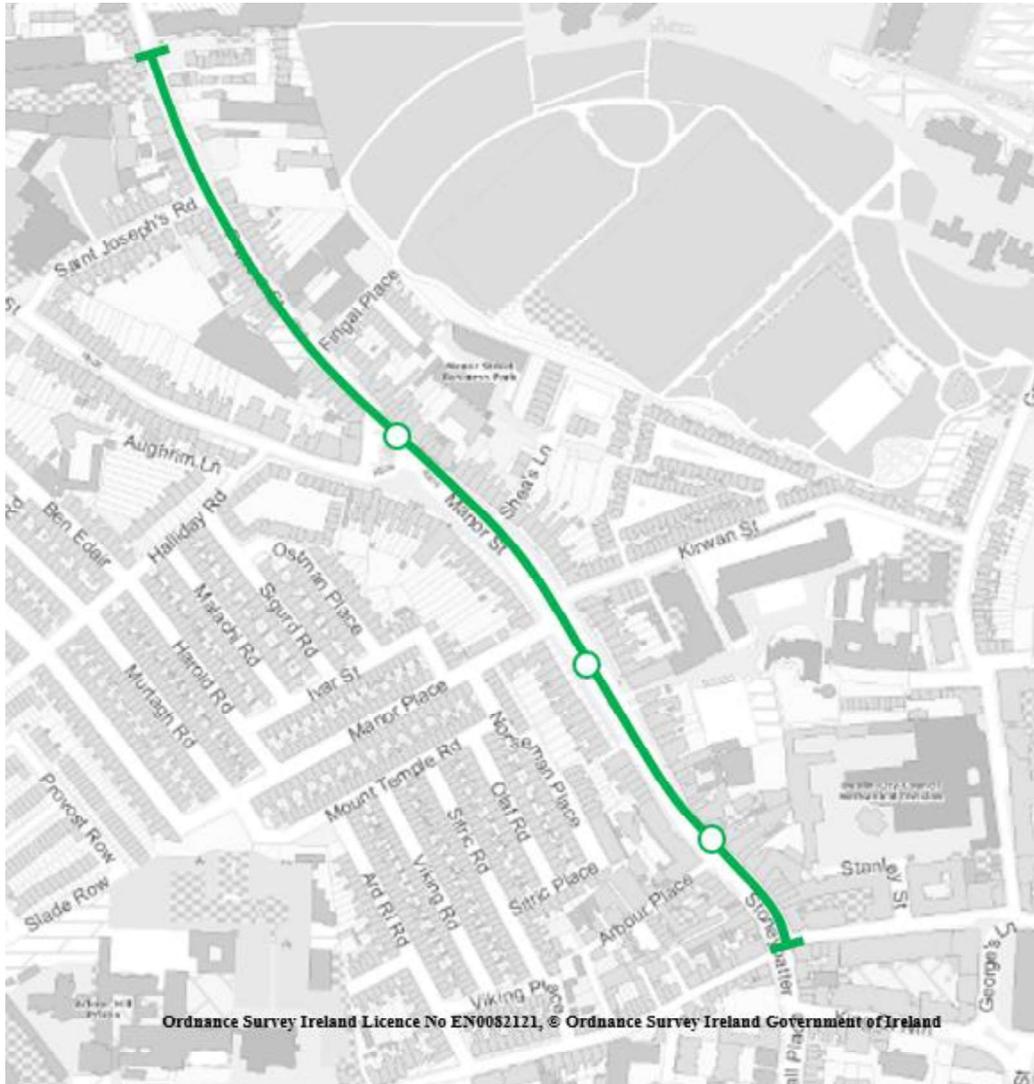


Figure 6.44: Route Option SB2

Inbound: This section of the CBC would run along Prussia Street (from south of the North Circular Road junction at the Park Shopping Centre) through to Manor Street, via the junction with Aughrim Street. This section of the route would end at the junction of Stoneybatter and Brunswick Street North.

Outbound: The outbound route would follow the same route as the inbound route.

Stops: A total of three stops would likely be provided in each direction along this route section.

Indicative Scheme Design

Figure 6.45 illustrates the indicative EPR Option scheme design for this route option. The location of cross-sections and junctions referenced in subsequent sections describing this route option are also presented in this figure.

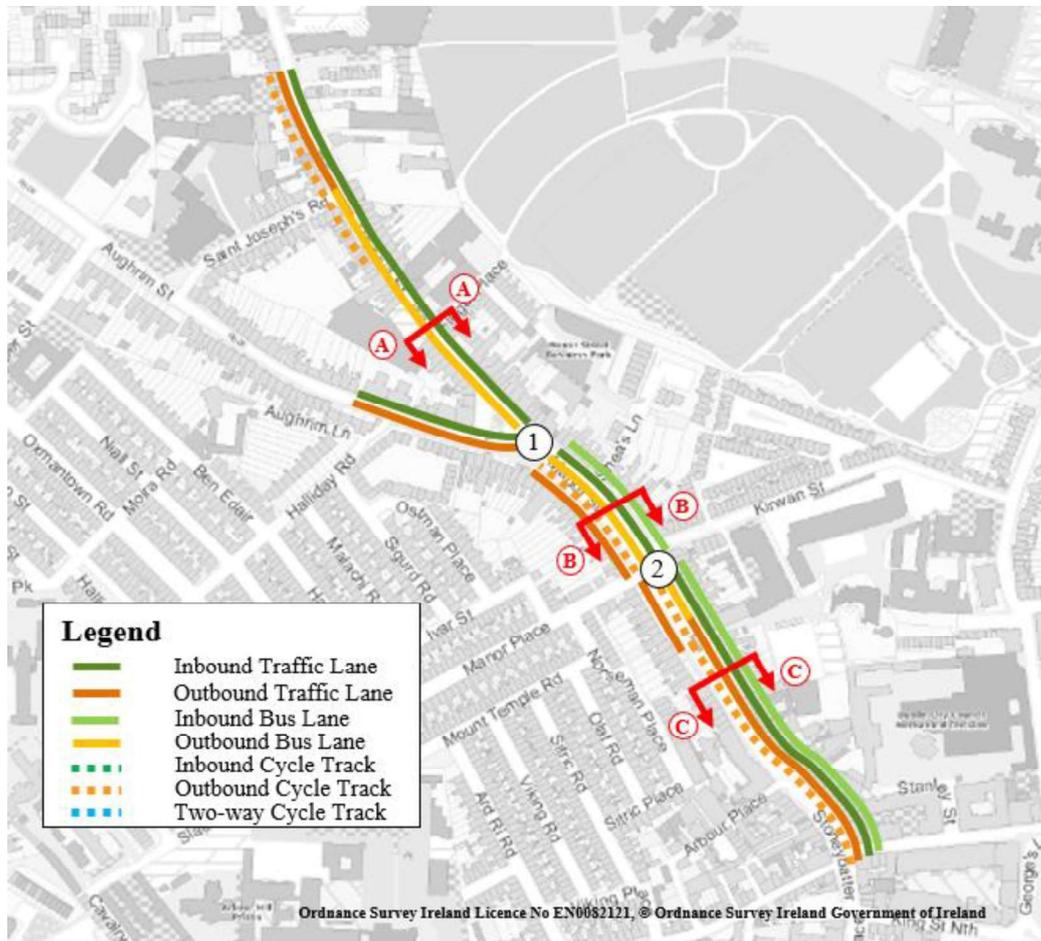


Figure 6.45: Route Option SB2 Indicative Scheme Design

This section of the CBC would commence on Prussia Street (from south of the North Circular Road junction at the Park Shopping Centre). Between St. Joseph's Road and Manor Street an outbound bus lane and an inbound general traffic lane are proposed. The proposed cross-section of Prussia Street is presented in **Figure 6.46**.

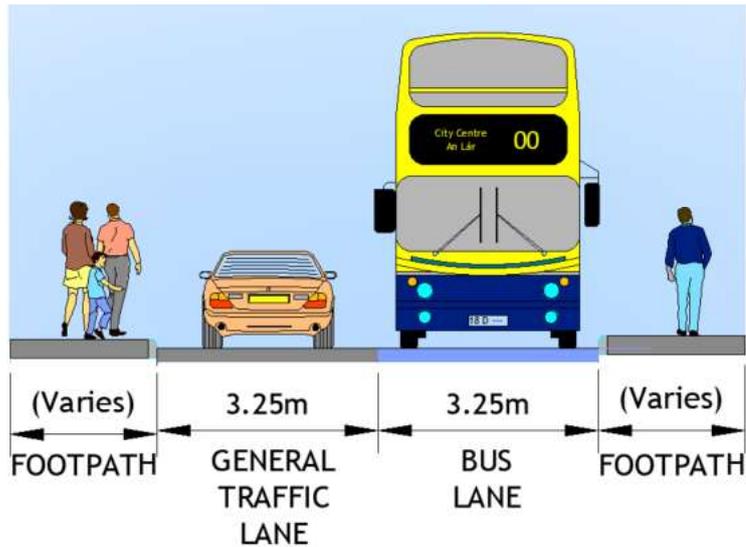


Figure 6.46: Route Option SB2 Cross-Section A-A

Outbound general traffic at the northern end of Manor Street would be directed onto Aughrim Street, with only buses and taxis allowed to proceed onto Prussia Street. One outbound cycle track, two bus lanes and two general traffic lanes would be provided along the northern part of Manor Street. This proposed cross section is presented in **Figure 6.47**.

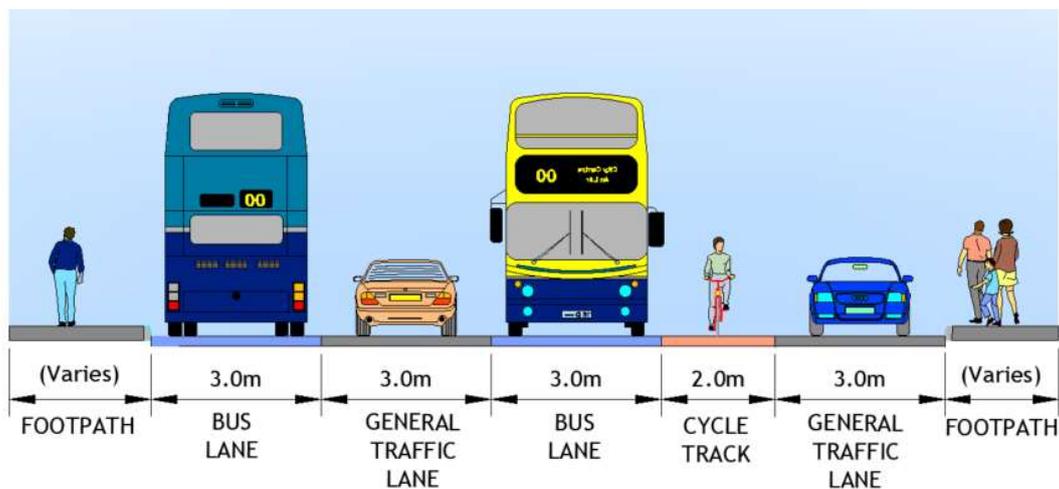


Figure 6.47: Route Option SB2 Cross-Section B-B

An inbound dedicated bus lane would be provided alongside two general traffic lanes (northbound and southbound) and one northbound cycle track on the southern end of Manor Street and Stoneybatter (from Brunswick Street North). This proposed cross section is presented in **Figure 6.48**.

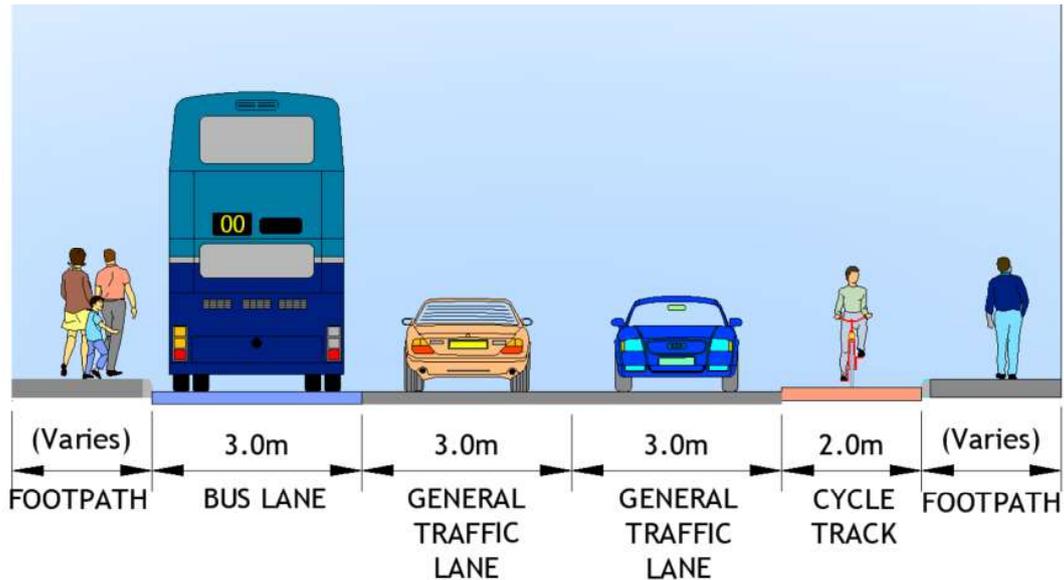


Figure 6.48: Route Option SB2 Cross-Section C-C

In summary, this route option would, subject to confirmation at the scheme design stage, result in the following characteristics:

- An inbound bus lane from Shea's Lane to Brunswick Street North and an outbound bus lane from Manor Place Junction to St. Joseph's Road.
- Two general traffic lanes along Manor Street/Stoneybatter between the Aughrim Street junction and Brunswick Street North. Outbound general traffic would be diverted from the CBC to Aughrim Street.
- An outbound cycle track would be provided from Brunswick Street North to Aughrim Street.

Junctions:

There are two signalised junctions along this route option, which would require upgrading to facilitate bus priority. The locations of these junctions are presented in **Figure 6.45** and discussed below:

- **Prussia Street/Manor Street/Aughrim Street Junction (1):** Adjustments to the junction layout would be required to facilitate the public realm improvement and bus priority on approach to the junction. There would also be a requirement to provide new signal equipment.
- **Manor Street/Manor Place/Kirwan Street Junction (2):** Adjustments to the junction layout would be required to facilitate the inbound and outbound bus lanes on approach to the junction. There would also be a requirement for new signal equipment.

6.3.2.2.4 Route Option SB3

Route Description

Route option SB3 is presented in **Figure 6.49** and described in the following text.

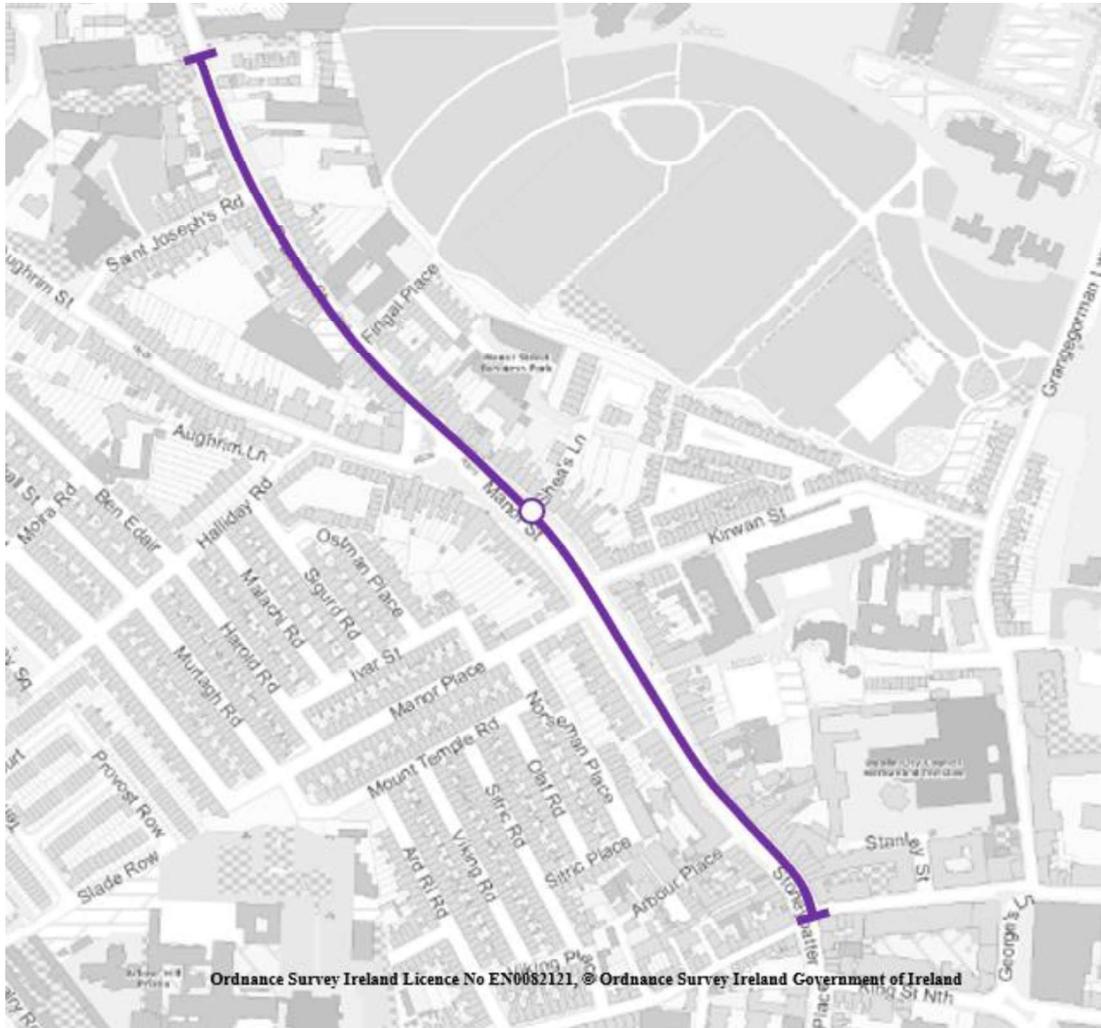


Figure 6.49: Route Option SB3

Inbound: This section of the CBC runs along Prussia Street (from south of the North Circular Road junction at Park Shopping Centre) through to Manor Street, via the junction with Aughrim Street. This section of the CBC ends at the junction of Stoneybatter and Brunswick Street North.

Outbound: The outbound route would follow the same route as the inbound route.

Stops: One bus stop would be provided in each direction along this route section.

Indicative Scheme Design

Figure 6.50 illustrates the indicative scheme design for this route option. The location of cross-sections and junctions referenced in subsequent sections describing this route option are also presented in this figure.

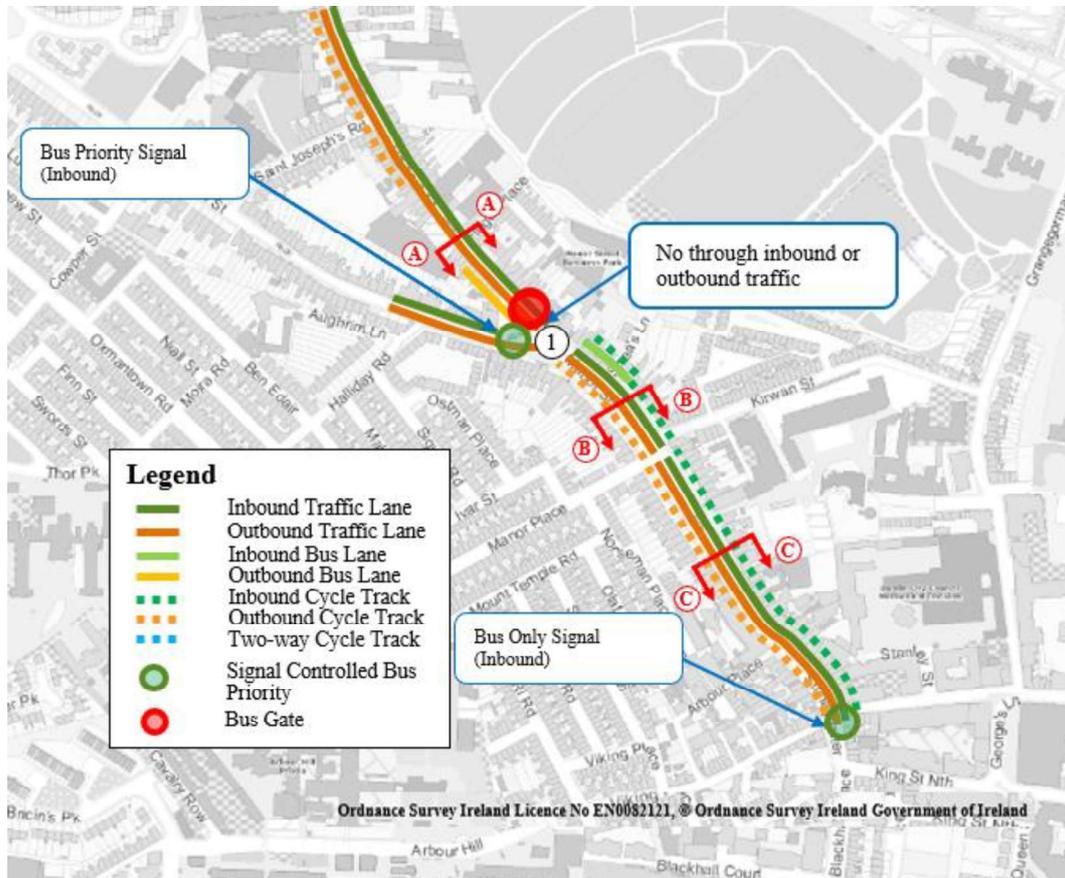


Figure 6.50: Route Option SB3 Indicative Scheme Design

This section of the CBC commences on Prussia Street south of the North Circular Road junction at Park Shopping Centre. Along Prussia Street two general traffic lanes would be provided in the cross section just north of the Aughrim Street junction, as presented in **Figure 6.51**.

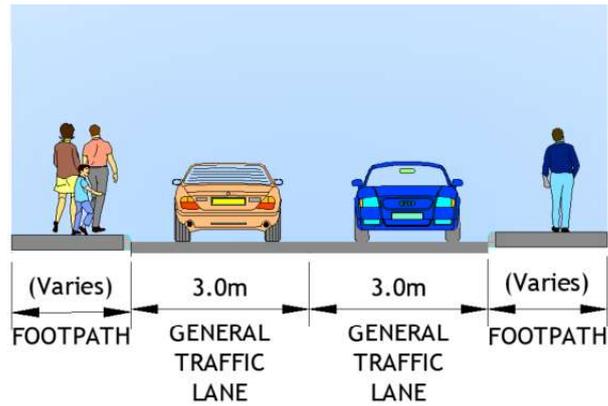


Figure 6.51: Route Option SB3 Cross-Section A-A

Outbound general traffic at the northern end of Manor Street would be directed onto Aughrim Street, with only buses and taxis allowed to proceed onto Prussia Street. Two cycle tracks and two general traffic lanes are proposed from the Prussia Street/Manor Street/Aughrim Street junction to the junction of Manor Street/Manor Place. The proposed cross section is indicated in **Figure 6.52**.

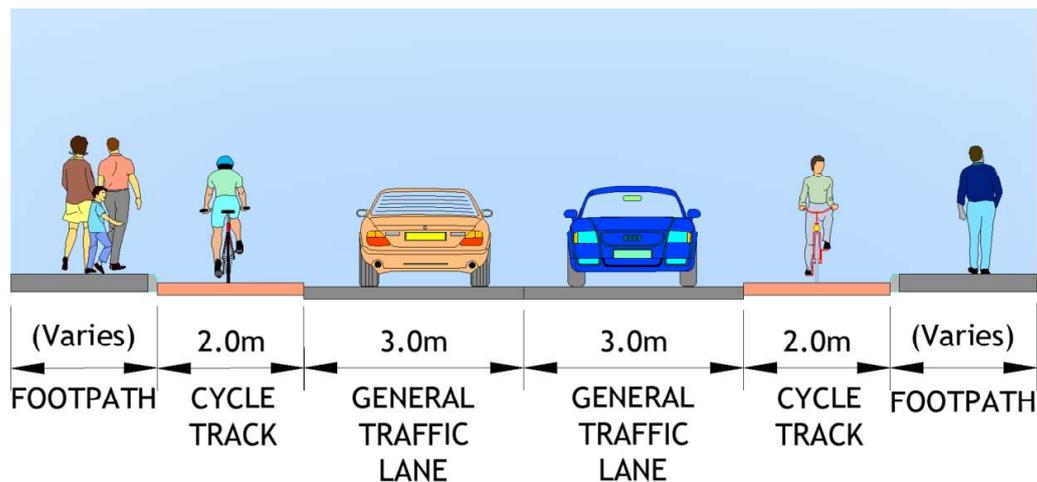


Figure 6.52: Route Option SB3 Cross-Section B-B

Two general traffic lanes and two cycle lanes would be provided from the Manor Place/Manor Street Junction to Brunswick Street North as shown in the cross section presented in **Figure 6.53**.

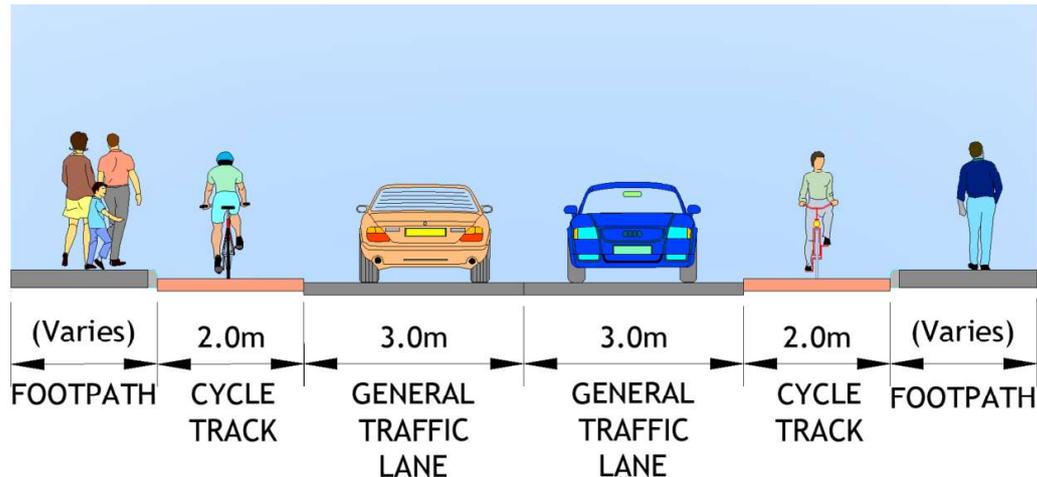


Figure 6.53: Route Option SB3 Cross-Section C-C

In summary, this route option would have the following characteristics:

- Two general traffic lanes and two cycle tracks in each direction along Prussia Street, and
- Two general traffic lanes and two cycle tracks on Manor Street/Stoneybatter, and a southbound and northbound bus only section on Prussia Street at its junction with Aughrim Street, which would severely limit general traffic flows on this section of bus corridor.
- An additional bus priority signal located at Blackhall Place would restrict northbound general traffic, diverting general traffic onto King Street North, via St George's Lane and Brunswick Street North to reach Manor Street

Junctions:

There are two signalised junctions along this route option, which would require upgrading to facilitate bus priority. The locations of these junctions are presented in **Figure 6.50** and discussed below:

- **Prussia Street/Aughrim Street/Manor Street Junction (1):** Adjustments to the junction layout would be required to facilitate the public realm improvement and bus priority measures on approach to the junction. There would also be a potential requirement to provide new signal equipment.
- **Manor Street/Manor Place/Kirwan Street Junction (2):** Adjustments to the junction layout would be required to facilitate the provision of cycle tracks in both directions. There would also be a requirement to provide new signal equipment.

6.3.2.2.5 Section 3b Route Option Assessment

Details of the route option assessment undertaken for the Prussia Street (Park Shopping Centre) to Stoneybatter/Brunswick Street North Junction study area section are presented in Appendix H. The relative ranking of route options against the scheme assessment sub-criteria is summarised in **Table 6.9**.

Table 6.9: Section 3b Route Option Assessment Summary (Sub-Criteria)

Appraisal Criteria	Sub-Criteria	Option SB1	Option SB2	Option SB3
1 Economy	1A Capital Cost	Green	Red	Green
	1B Transport Quality & Reliability	Yellow	Yellow	Light Green
2 Integration	2A Land Use Policy	Yellow	Yellow	Yellow
	2B Residential Population and Employment Catchments	Yellow	Yellow	Yellow
	2C Transport Network Integration	Yellow	Yellow	Yellow
	2D Cycle Network integration	Green	Red	Green
	2E Traffic Network Integration	Yellow	Yellow	Yellow
3 Accessibility & Social Inclusion	3A Key Trip Attractors	Yellow	Yellow	Yellow
	3B Deprived Geographic Areas	Yellow	Yellow	Yellow
4 Safety	4A Road Safety	Yellow	Yellow	Light Green
	4B Pedestrian Safety	Yellow	Yellow	Light Green
5 Environment	5A Archaeology & Cultural Heritage	Yellow	Yellow	Yellow
	5B Architectural Heritage	Yellow	Yellow	Yellow
	5C Flora & Fauna	Green	Red	Green
	5D Soils, Geology & Hydrology	Yellow	Yellow	Yellow
	5E Landscape & Visual	Yellow	Yellow	Yellow
	5F Air Quality	Yellow	Yellow	Yellow
	5G Noise & Vibration	Yellow	Yellow	Yellow
5H Land Use Character	Yellow	Yellow	Light Green	

In terms of economy, Option SB2 is the marginally more expensive option due to the extension junction realignment at the Prussia Street/Manor Street junction.

In terms of delivering transport quality in respect of bus priority and journey time reliability, options SB1 and SB3 perform better than SB2 due to the northbound bus-priority signal and associated limitation on northbound general through traffic, and SB3 performs better than SB1 due to the position of the bus priority signal on Stoneybatter (to the south) which provides better ability (by signal control) of limiting through traffic before it enters Manor Street.

All options serve the same catchments and as such are ranked equally in relation to land use policy, and residential population and employment catchments. Similarly, in terms of transport network integration, as all options follow the same route, the opportunity for interchange with other routes is equal.

In terms of cycle network integration, Options SB1 and SB3 perform significantly better than SB2 due to two cycle-tracks being provided for the majority of the section compared to SB2 only providing an outbound cycle track.

All options rank equally under accessibility and social inclusion as they all follow the same route.

In terms of safety, Option SB3 performs better than SB2, and marginally better than SB1, due to the reduced number of general traffic lanes and hence more

clarity in terms of lane usage and associated management of through traffic. This is the same in terms of pedestrian safety as SB3 allows for wider footpaths.

In terms of environment, Option SB3 performs marginally better than SB1 and SB2 due to the lesser road width reducing the requirement for removal of trees; and more opportunity to provide urban realm improvements.

A summary of the assessment and relative ranking of route options against the five main assessment criteria is presented in **Table 6.10**.

Table 6.10: Section 3b Criteria MCA Summary

Sub-Criteria	Option SB1	Option SB2	Option SB3
1 Economy	Yellow	Yellow	Green
2 Integration	Green	Red	Green
3 Accessibility & Social Inclusion	Yellow	Yellow	Yellow
4 Safety	Yellow	Yellow	Green
5 Environment	Yellow	Yellow	Green

6.3.2.2.6 Section 3b Conclusion and Preferred Option

Based on the assessment undertaken, route Option SB3 offers more benefits. It performs well under all criteria. Option SB3 is the preferred option for the Prussia Street/Manor Street to Brunswick Street North section for the following reasons:

- For economy, it provides reliable bus priority through Stoneybatter Village while also limiting through traffic efficiently (on Blackhall Place), while also allowing local access for residents and businesses; and acknowledging the urban village function of Stoneybatter Village;
- For integration, it provides high-quality segregated cycle tracks on both sides of the road, serving the urban village of Stoneybatter which is a significant trip attractor and cycling destination;
- For safety, it has two general traffic lanes and hence more clarity in terms of lane usage and associated management of through traffic, and has wider footpaths for pedestrians; and
- For environment, it allows for the wider footpaths and associated public realm improvements within Stoneybatter Village.

6.3.3 Section 3c - Stoneybatter/Brunswick Street North Junction to Ellis Quay

6.3.3.1 Introduction

Numerous submissions received as part of the public consultation process raised concerns about the proposed traffic management plans; constrained width of footpaths and space provided for cyclists and pedestrians in this area.

6.3.3.2 Options Considered

Three alternative options have been assessed as follows:

- **Option BK1:** Option BK1 consists of a full bus lane in both directions on Blackhall Place to Ellis Quay, with inbound general traffic diverted from the bus corridor to King Street North. Northbound general traffic would be accommodated on Blackhall Place alongside a bus lane.

A quiet street treatment is proposed for Brunswick Street North, and a two-way cycle track is proposed via Brunswick Street North, George's Lane and Queen Street.
- **Option BK2:** EPR Option BK2 consists of a Bus Priority signal for inbound movements from Stoneybatter at Brunswick Street North, with general traffic diverted onto Brunswick Street North and King Street North. Full bus lanes would be provided in both directions on Blackhall Place to Ellis Quay. George's Lane would become a two-way street for general traffic. A two-way cycle track is proposed on George's Lane and on Queen Street to Ellis Quay.
- **Option BK3:** Option BK3 consists of a bus lane in both directions on Blackhall Place to Ellis Quay, with inbound and outbound general traffic all turning into King Street North. Northbound general traffic bound for Stoneybatter / Manor Street would be accommodated via George's Lane and Brunswick Street North (which would be northbound and westbound one-way streets respectively). Two one-way cycle tracks are proposed on Brunswick Street North leading to a two-way cycle track along George's Lane and Queen Street.

The key characteristics of each option are described in the following sections.

6.3.3.2.1 Alternative Options Considered

An alternative was considered that involved closing Blackhall Place to southbound general traffic at its junction with Stoneybatter, to remove through traffic. This was not progressed due to the impracticalities of preventing through vehicular traffic while also allowing the necessary vehicular access for local residents and businesses in Stoneybatter.

Consideration was also given to removal of a southbound general traffic lane along Blackhall Place, from its junction with Blackhall Street to the Quays. However, following a review of the traffic modelling analysis, this was discounted.

6.3.3.2.2 Route Option BK1

Route Description

Route option BK1 is presented in **Figure 6.54** and described in the following text.

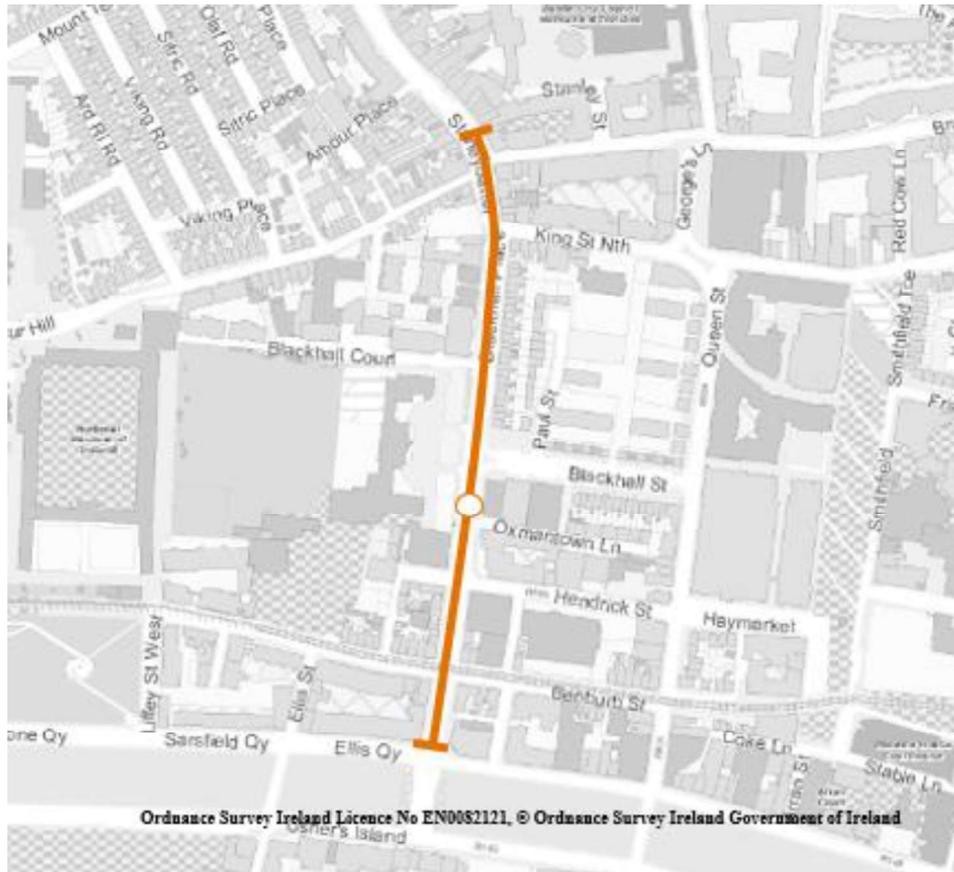


Figure 6.54: Route Option BK1

Inbound: This section of the CBC would commence on Stoneybatter at its junction with Brunswick Street North and proceed along Blackhall Place. This route section would end at the junction of Blackhall Place and Ellis Quay.

Outbound: The outbound route would follow the same route as the inbound route.

Stops: One bus stop is proposed in each direction along this route section.

Indicative Scheme Design

Figure 6.55 illustrates the indicative scheme design for this route option. The location of cross-sections and junctions referenced in subsequent sections describing this route option are also presented in this figure.

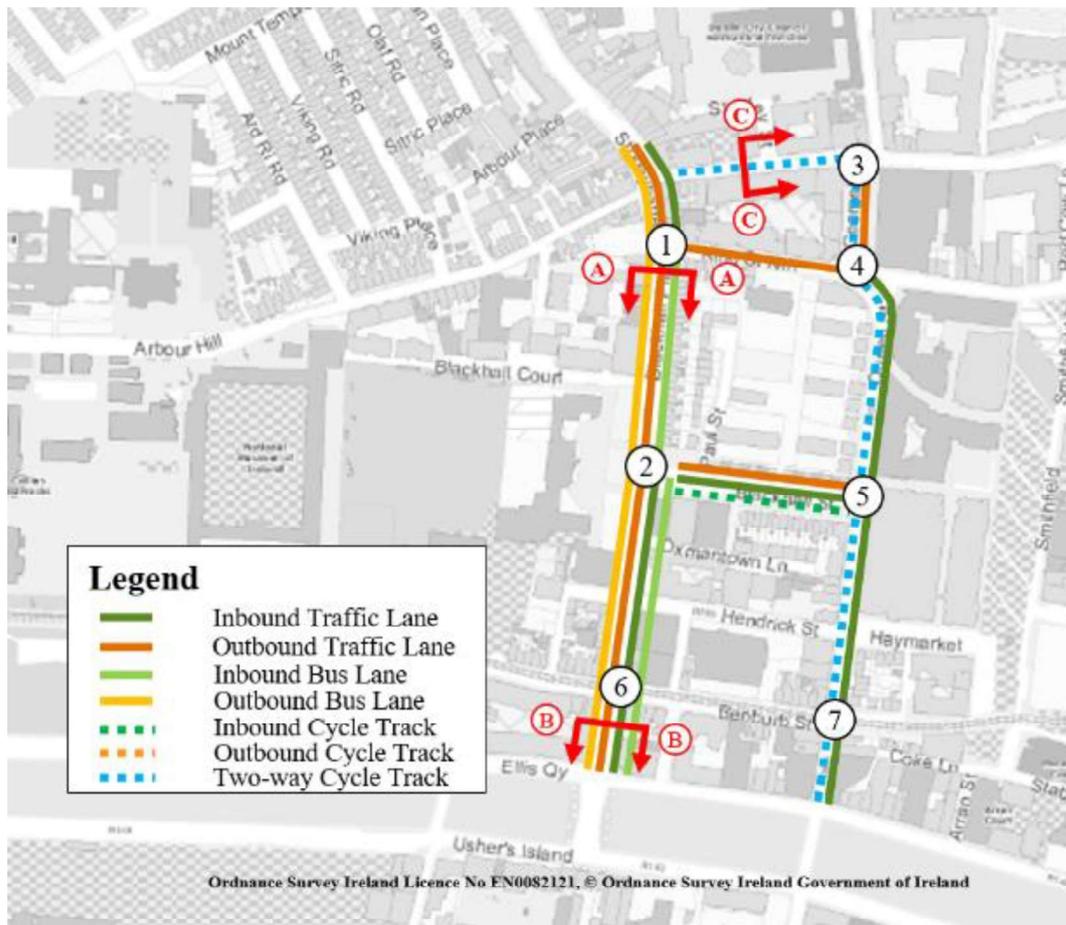


Figure 6.55: Route Option BK1 Indicative Scheme Design

This section of the route would commence on Stoneybatter where it connects with Brunswick Street North. Between Brunswick Street North and King Street North a general traffic lane in each direction is proposed, with an outbound bus lane. Inbound, buses and general traffic would share the single lane, with general traffic diverted onto King Street North, and buses continuing south on Blackhall Place.

The section between King Street North and Blackhall Street would consist of bus lanes in both directions, and an outbound general traffic lane. The proposed cross-section along this section of Blackhall Place is presented in **Figure 6.56**.

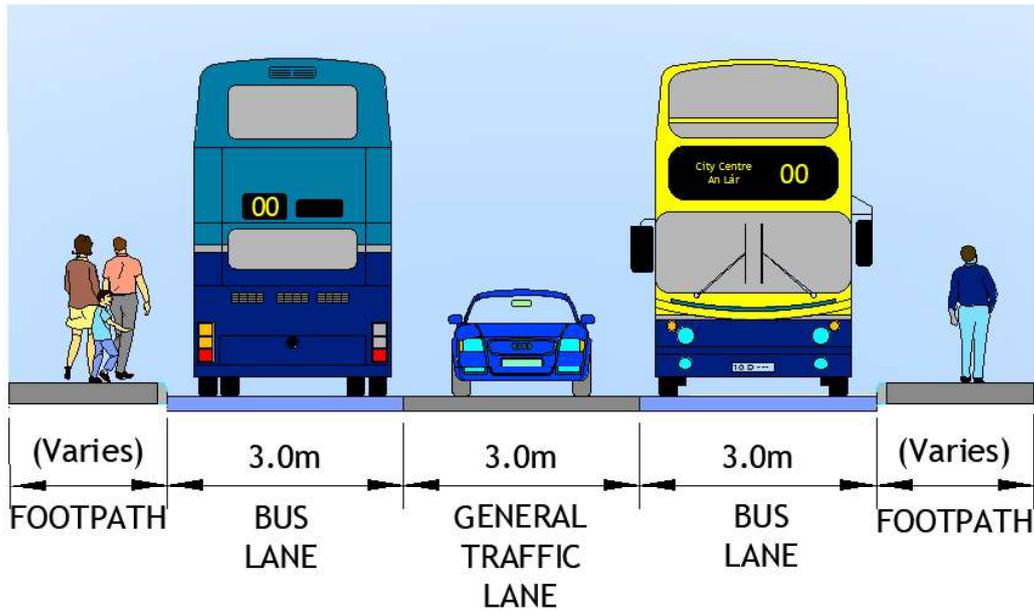


Figure 6.56: Route Option BK1 Cross-Section A-A

Inbound and outbound bus lanes would be provided south of Blackhall Street, but with a general traffic lane in both directions to Ellis Quay. This proposed cross section is presented in **Figure 6.57**.

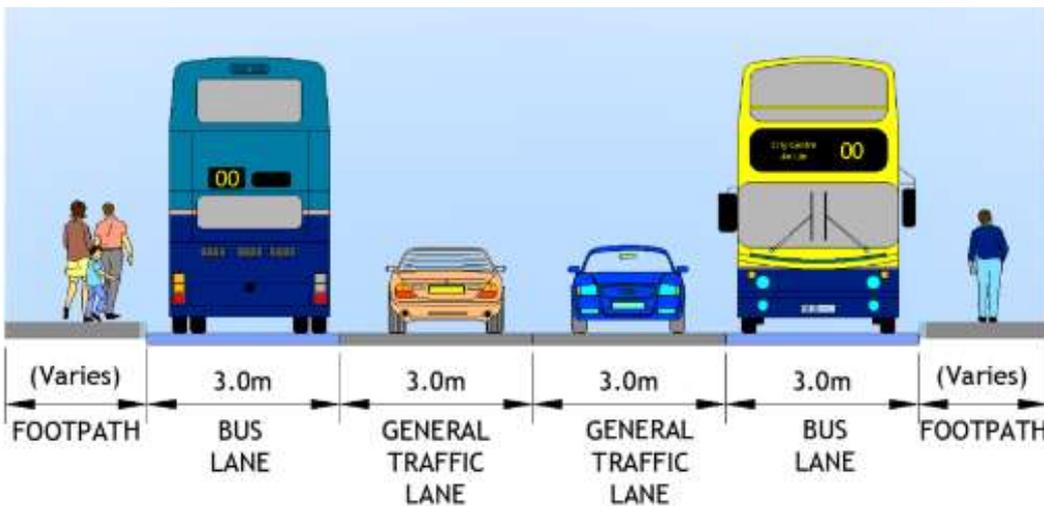


Figure 6.57: Route Option BK1 Cross-Section B-B

Brunswick Street North would be closed to traffic at its western end (at the junction with Stoneybatter), and the streetscape modified to a quiet street treatment. A two-way cycle track is proposed to be included in the quiet street treatment, with access-only traffic able to enter and leave Brunswick Street North via its junction with George's Lane. This proposed cross-section is presented in **Figure 6.58**.



Figure 6.58: Route Option BK1 Cross-Section C-C

In summary, this route option would, subject to confirmation at the scheme design stage, result in the following characteristics:

- An outbound bus lane between Manor Street and Blackhall Place;
- Bus lanes in each direction along Blackhall Place to/from Ellis Quay;
- A quiet street treatment at Brunswick Street North with a two-way cycle track; and
- A parallel two-way cycle track on Queen Street between Brunswick Street North and Arran/Ellis Quay.

Junctions:

There are seven signalised junctions along this route option, some of which would require upgrading to facilitate bus priority. The locations of these junctions are presented in **Figure 6.55** and discussed below:

- **Stoneybatter/Blackhall Place/King St North Junction (1):** Adjustments to the junction layout would be required to facilitate the outbound and inbound bus lanes on approach to the junction. There would also be a potential requirement to relocate/provide new signal equipment.
- **Blackhall St/Blackhall Place Junction (2):** Adjustments to the junction layout would be required to facilitate the bus lanes on approach to the junction. There would also be a potential requirement to relocate/provide new signal equipment.
- **Brunswick Street North/George's Lane Junction (3):** Adjustments to the junction layout would be required to facilitate the cycle tracks on approach to the junction. There would also be a requirement to provide new signal equipment.
- **King St North/George's Lane/Queen Street Junction (4):** Adjustments to the junction layout would be required to facilitate the cycle tracks on approach

to the junction. There would also be a requirement to provide new signal equipment.

- **Blackhall St/Queen St Junction (5):** Adjustments to the junction layout would be required to facilitate the cycle tracks on approach to the junction. There would also be a potential requirement to relocate/provide new signal equipment.
- **Blackhall Place/Benburb Street Junction (6):** No major adjustments are proposed at this junction, although there would be a potential requirement to relocate/provide new signal equipment.
- **Queen Street/Benburb Street Junction (7):** No major adjustments are proposed at this junction, although there would be a potential requirement to relocate/provide new signal equipment.

6.3.3.2.3 Route Option BK2

Route Description

Route option BK2 is presented in **Figure 6.59** and described in the following text and represents the EPR Option.

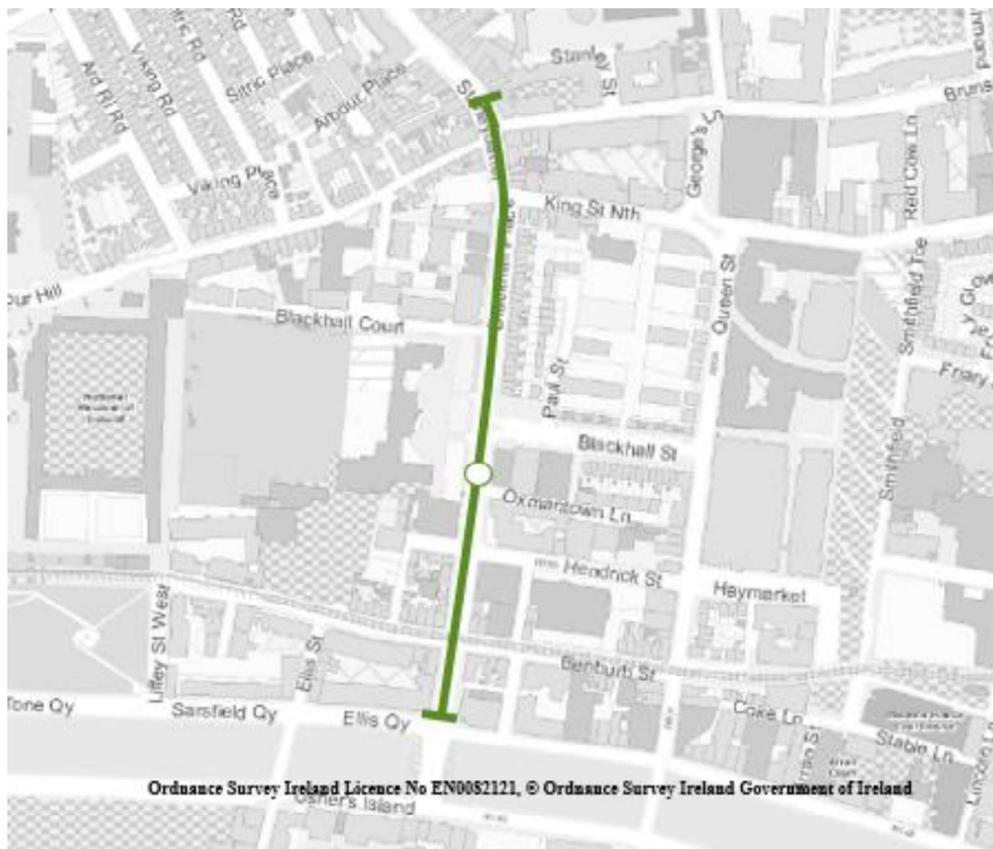


Figure 6.59: Route Option BK2

Inbound: This section of the CBC would commence on Stoneybatter at its junction with Brunswick Street North and proceed along Blackhall Place. This route section ends at the junction of Blackhall Place and Ellis Quay.

Outbound: The outbound route would follow the same route as the inbound route.

Stops: A total of one stop would likely be provided in each direction along this route section.

Indicative Scheme Design

Figure 6.60 illustrates the indicative EPR Option scheme design for this route option. The location of cross-sections and junctions referenced in subsequent sections describing this route option are also presented in this figure.

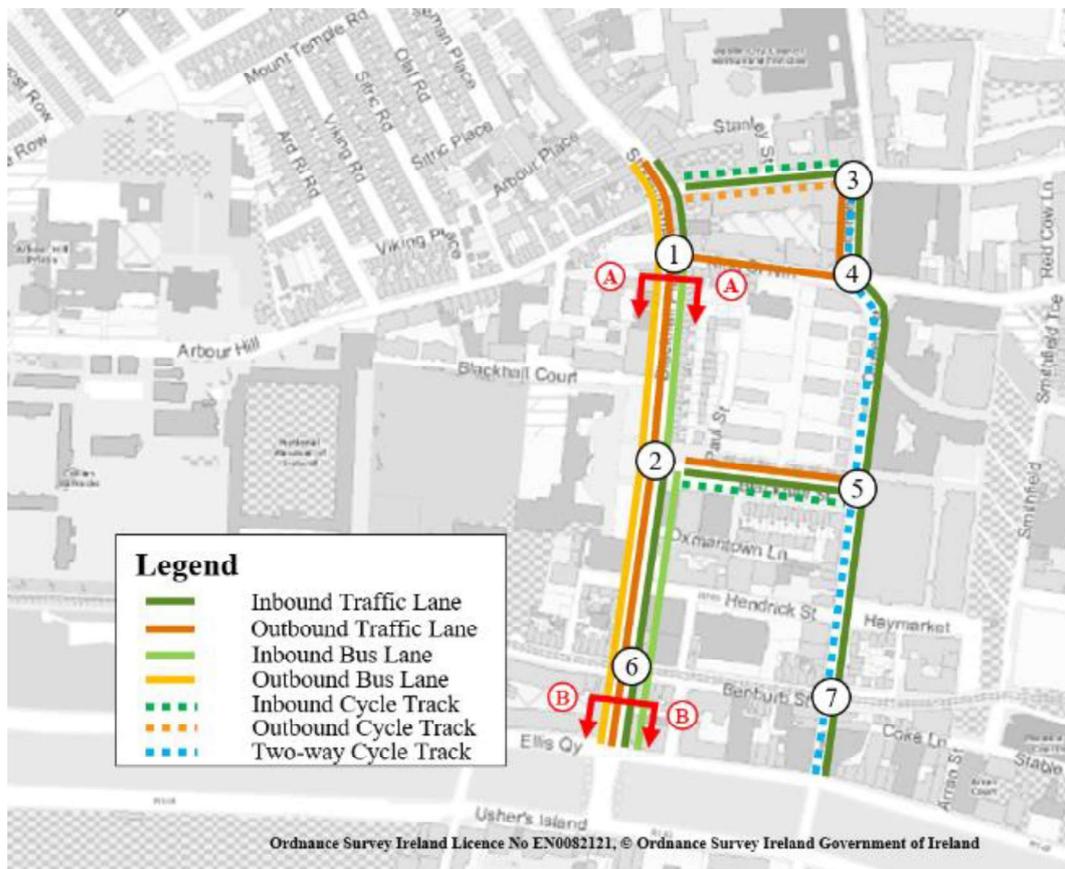


Figure 6.60: Route Option BK2 Indicative Scheme Design

This section of the route would commence on Stoneybatter at Brunswick Street North. Between Stoneybatter and Blackhall Place a general traffic lane in each direction is proposed. Inbound, the bus would share a general traffic lane until King Street North, where general traffic is diverted. Outbound Bus Priority would be provided through a bus lane. The cross section at Blackhall Place would consist of bus lanes in each direction and an outbound general traffic lane in each direction. The proposed cross section of Blackhall Place is presented in **Figure 6.61**.

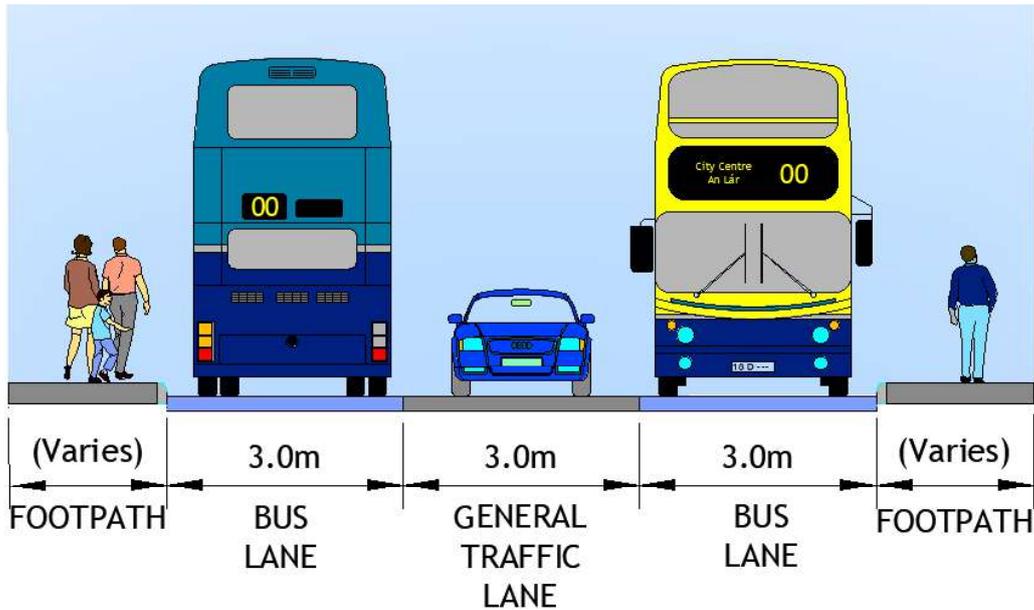


Figure 6.61: Route Option BK2 Cross-Section A-A

Inbound and outbound bus lanes would be provided between the junction with Blackhall Street and Ellis Quay. This cross-section, consisting of inbound and outbound bus lanes and general traffic lanes in each direction, would continue onto Ellis Quay. This proposed cross section is presented in **Figure 6.62**.

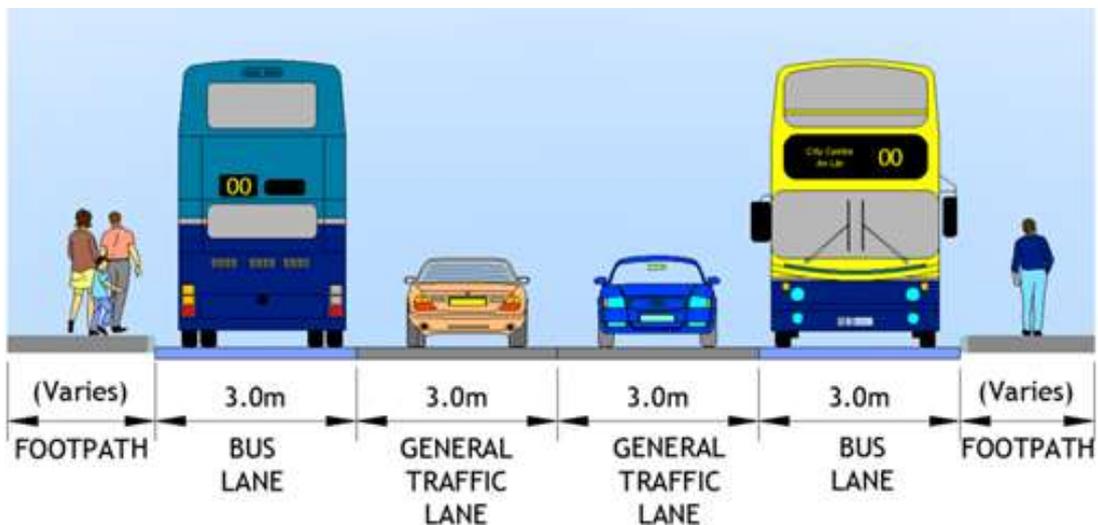


Figure 6.62: Route Option BK2 Cross-Section B-B

In summary, this route option would, subject to confirmation at the scheme design stage, result in the following characteristics:

- Bus lanes in each direction between King Street North and Ellis Quay;
- Cycle tracks in each direction on Brunswick Street North; and
- A parallel two-way cycle track on Queen Street between Brunswick Street North and Arran/Ellis Quay.

Junctions:

There are seven signalised junctions along this route option, some of which would require upgrading to facilitate bus priority. The locations of these junctions are presented in **Figure 6.60** and discussed below:

- **Stoneybatter/Blackhall Place/King St North Junction (1):** Adjustments to the junction layout would be required to facilitate the outbound and inbound bus lanes on approach to the junction. There would also be a potential requirement to relocate/provide new signal equipment.
- **Blackhall St/Blackhall Place Junction (2):** Adjustments to the junction layout would be required to facilitate the bus lanes on approach to the junction. There would also be a potential requirement to relocate/provide new signal equipment.
- **Brunswick Street North/George's Lane Junction (3):** Adjustments to the junction layout would be required to facilitate the cycle tracks on approach to the junction. There would also be a potential requirement to relocate/provide new signal equipment.
- **King St North/George's Lane/Queen Street Junction (4):** Adjustments to the junction layout would be required to facilitate the cycle tracks on approach to the junction. There would also be a potential requirement to relocate/provide new signal equipment.
- **Blackhall St/Queen St Junction (5):** Adjustments to the junction layout would be required to facilitate the cycle tracks on approach to the junction. There would also be a potential requirement to relocate/provide new signal equipment.
- **Blackhall Place/Benburb Street Junction (6):** No major adjustments are proposed at this junction, although there would be a potential requirement to relocate/provide new signal equipment.
- **Queen Street/Benburb Street Junction (7):** No major adjustments are proposed at this junction, although there would be a potential requirement to relocate/provide new signal equipment.

6.3.3.2.4 Route Option BK3

Route Description

Route option BK3 is presented in **Figure 6.63** and described in the following text.

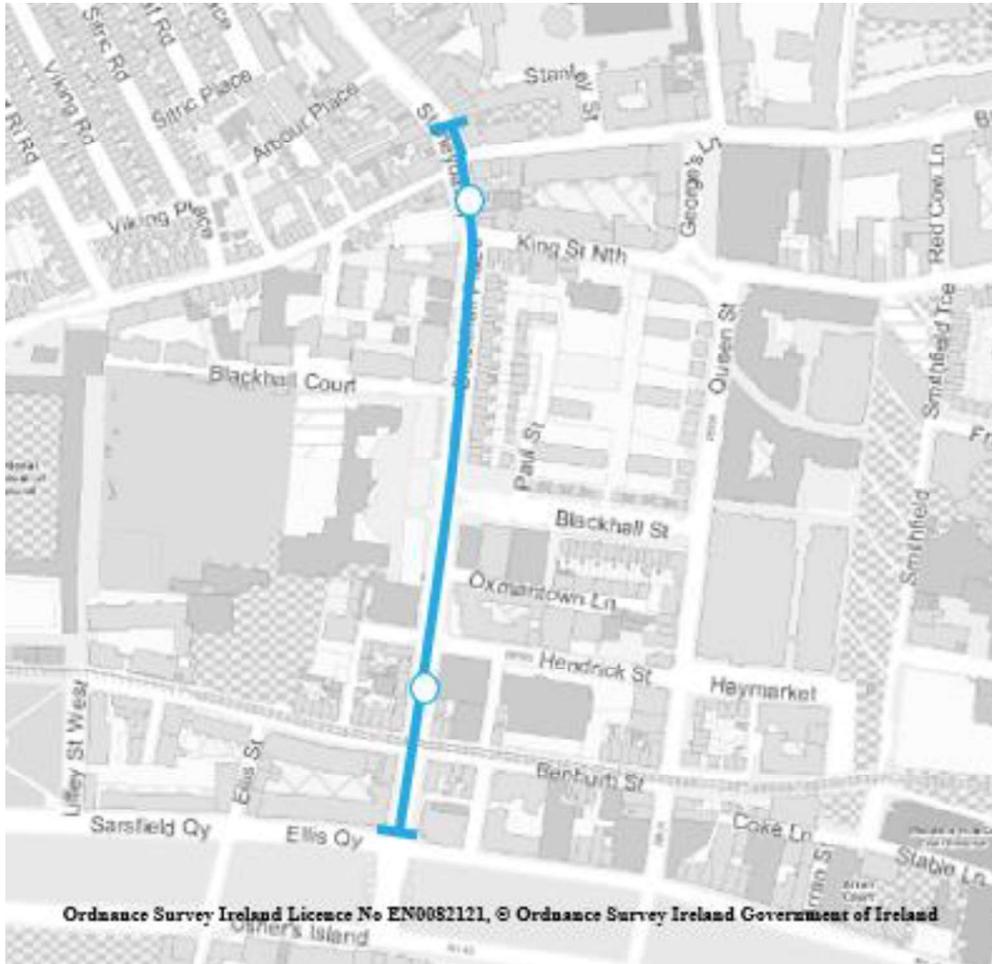


Figure 6.63: Route Option BK3

Inbound: This section of the CBC would commence on Stoneybatter at its junction with Brunswick Street North and proceed along Blackhall Place. This route section would end at the junction of Blackhall Place and Ellis Quay.

Outbound: The outbound route would follow the same route as the inbound route.

Stops: A total of two stops would likely be provided in each direction along this route section.

Indicative Scheme Design

Figure 6.64 illustrates the indicative scheme design for this route option. The location of cross-sections and junctions referenced in subsequent sections describing this route option are also presented in this figure.

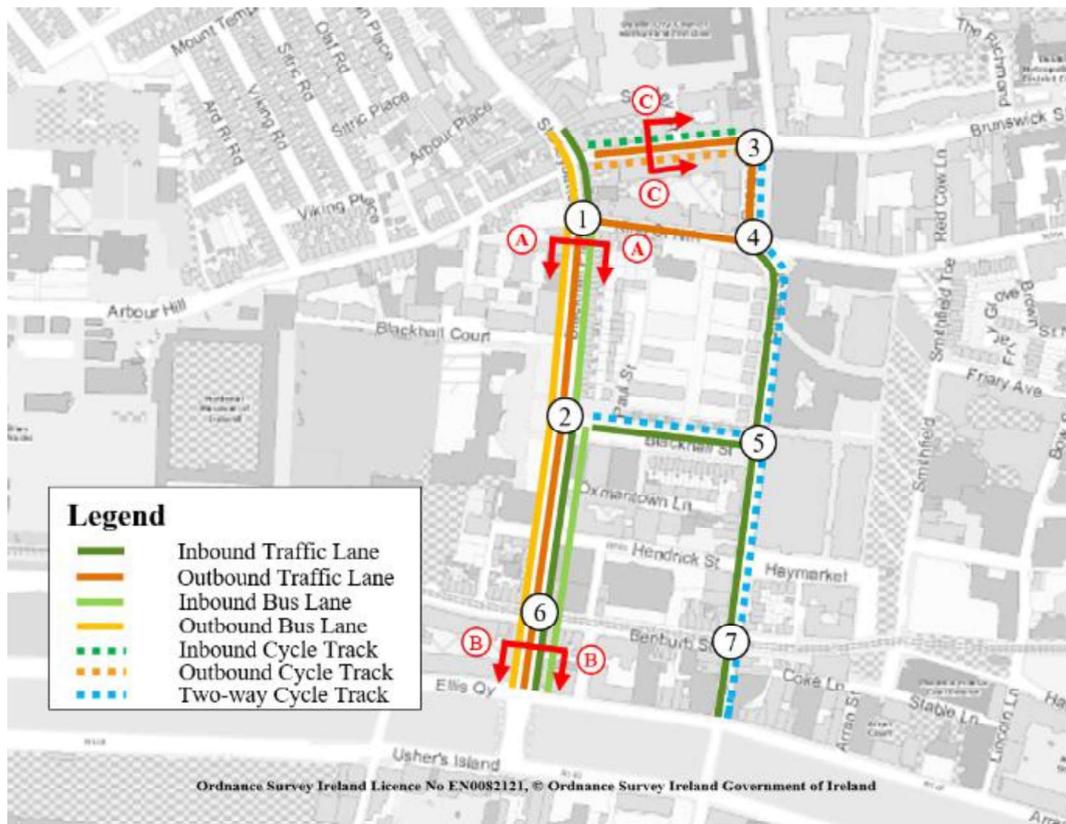


Figure 6.64: Route Option BK3 Indicative Scheme Design

This section of the route would commence on Stoneybatter at its junction with Brunswick Street North. Between Brunswick Street North and King Street North, Stoneybatter would have a general traffic lane in the southbound direction, which would also be used by buses. Southbound general traffic would then be diverted to King Street North, and buses would be allowed to continue south to a bus lane on Blackhall Place. Outbound bus priority would be provided through a bus lane. The cross section at Stoneybatter would consist of an outbound bus lane and an inbound general traffic lane.

Between King Street North and Blackhall Street, Blackhall Place would consist of bus lanes in both directions, and an outbound general traffic lane. The proposed cross-section along this section of Blackhall Place is presented in **Figure 6.65**.

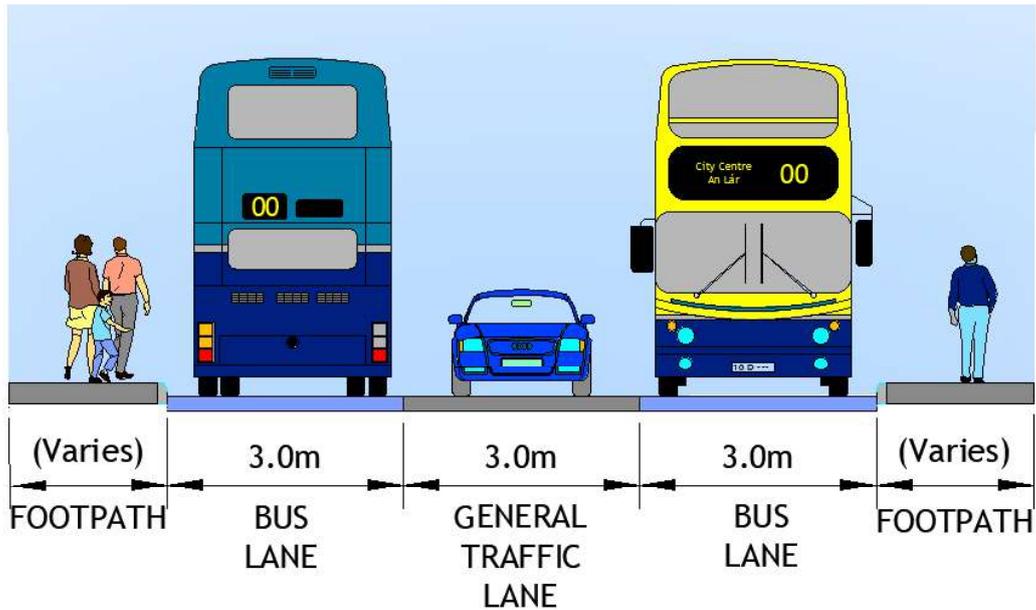


Figure 6.65: Route Option BK3 Cross-Section A-A

The cross-section of Blackhall Place consists of inbound and outbound bus lanes and a general traffic lane in both directions from Blackhall Street to Ellis Quay. This proposed cross section is presented in **Figure 6.66**.

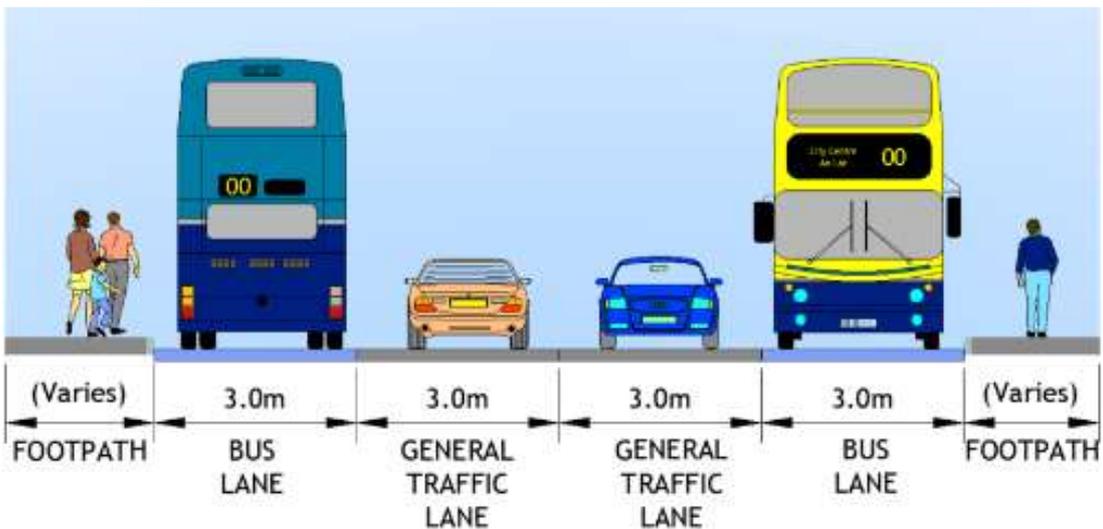


Figure 6.66: Route Option BK3 Cross-Section B-B

Brunswick Street North is proposed as single lane one-way street (westbound) with a two one-way cycle tracks (which connect to a two-way cycle track on George's Lane and Queen Street). This proposed cross-section is presented in **Figure 6.67**.

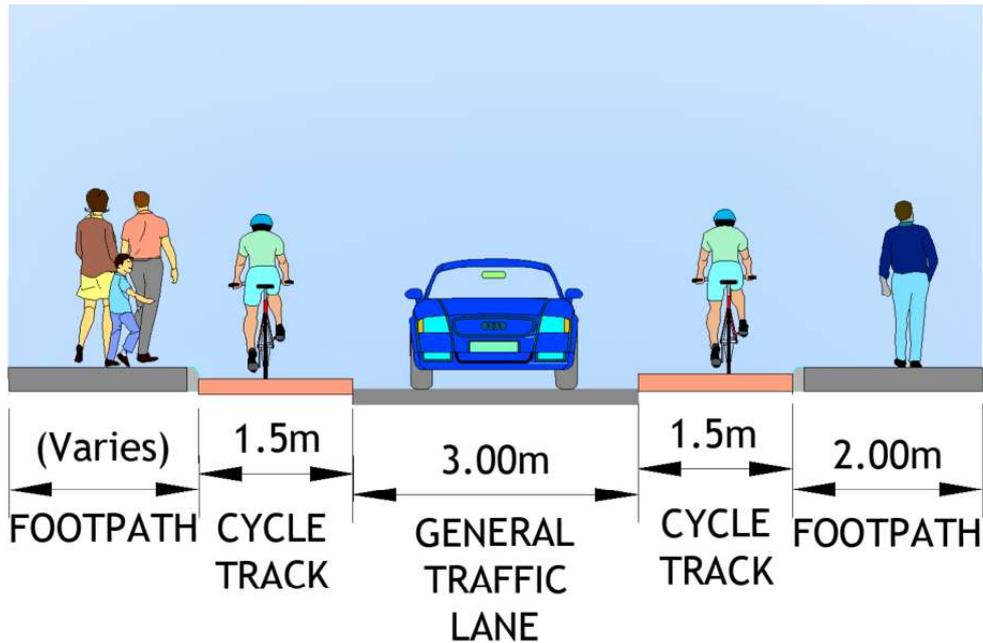


Figure 6.67: Route Option BK3 Cross-Section C-C

In summary, this route option would have the following characteristics:

- An outbound bus lane on Stoneybatter between King Street North and Brunswick Street North;
- Bus lanes in each direction on Blackhall Place between King Street North and Ellis Quay; and
- A two-way cycle track on Queen Street and George's Lane between Brunswick Street North and Arran/Ellis Quay.

Junctions:

There are eight signalised junctions along this route option, some of which would require upgrading to facilitate bus priority. The locations of these junctions are presented in **Figure 6.64** and discussed below:

- **Stoneybatter/Blackhall Place/Brunswick Street North Junction (1):** Adjustments to the junction layout would be required to facilitate the outbound bus lane and conversion of Brunswick Street North to a westbound one-way street. There would also be a potential requirement to relocate/provide new signal equipment
- **Blackhall Place/King St North Junction (2):** Adjustments to the junction layout would be required to facilitate the outbound and inbound bus lanes on approach to the junction. There would also be a potential requirement to relocate/provide new signal equipment.
- **Blackhall St/Blackhall Place Junction (3):** Adjustments to the junction layout would be required to facilitate the bus lanes on approach to the junction. There would also be a potential requirement to relocate/provide new signal equipment.

- **Brunswick Street North /George’s Lane Junction (4):** Adjustments to the junction layout would be required to facilitate the cycle tracks on approach to the junction. There would also be a requirement to provide new signal equipment.
- **King St North/George’s Lane/Queen Street Junction (5):** Adjustments to the junction layout would be required to facilitate the cycle tracks on approach to the junction. There would also be a requirement to provide new signal equipment.
- **Blackhall St/Queen St Junction (6):** Adjustments to the junction layout would be required to facilitate the cycle tracks on approach to the junction. There would also be a potential requirement to relocate/provide new signal equipment.
- **Blackhall Place/Benburb Street Junction (7):** No major adjustments are proposed at this junction, although there would be a potential requirement to relocate/provide new signal equipment

6.3.3.2.5 Section 3c Route Option Assessment

Details of the route option assessment undertaken for the Stoneybatter / Brunswick Street North junction to Ellis Quay study area section are presented in Appendix I. The relative ranking of route options against the scheme assessment sub-criteria is summarised in **Table 6.11**.

Table 6.11: Section 3c Route MCA Summary

Appraisal Criteria	Sub-Criteria	Option BK1	Option BK2	Option BK3
1 Economy	1A Capital Cost			
	1B Transport Quality & Reliability			
2 Integration	2A Land Use Policy			
	2B Residential Population and Employment Catchments			
	2C Transport Network Integration			
	2D Cycle Network integration			
	2E Traffic Network Integration			
3 Accessibility & Social Inclusion	3A Key Trip Attractors			
	3B Deprived Geographic Areas			
4 Safety	4A Road Safety			
	4B Pedestrian Safety			
5 Environment	5A Archaeology & Cultural Heritage			
	5B Architectural Heritage			
	5C Flora & Fauna			
	5D Soils, Geology & Hydrology			
	5E Landscape & Visual			
	5F Air Quality			
	5G Noise & Vibration			
	5H Land Use Character			

In terms of capital cost, Option BK2 is marginally more expensive due to the road widening on George's Lane. Option BK3 is marginally the cheapest option of the three.

In terms of transport quality and reliability, Option BK3 performs better due to the bus priority signal on Stoneybatter providing an efficient means to ensure outbound buses are able to travel unhindered by congestion through Stoneybatter. In particular, northbound through traffic can be effectively capped by limiting green signal time for general traffic movements from Brunswick Street North to Stoneybatter.

All options serve the same catchments and as such are ranked equally in relation to land use policy and residential population and employment catchments.

In terms of cycle network integration, all options provide high quality cycle facilities parallel to the CBC along Brunswick Street North, George's Lane and Queen Street (which forms part of the GDA Cycle Network Plan Primary Route 4D). BK1 and BK3 perform better due to the continuous two-way track on Brunswick Street North and George's Lane.

In terms of transport network integration, all three options require a change in traffic movements from the existing situation. In terms of traffic network integration BK1 performs better than BK2 and BK3 due to the simpler traffic management (with less traffic conflicts) at George’s Lane/Queen Street and Blackhall Place/King Street North.

All options rank equally under accessibility and social inclusion as they all follow the same route. Option BK3 performs better for safety due to a rationalisation of general traffic and bus movements at Blackhall Place/King Street North (such that only buses can travel directly north, and all general traffic must turn right on to King Street North). All options rank equally in the environment criteria – as Option BK2 encroaches on public realm at George’s Lane, while BK1 has a beneficial provision of Quiet Street treatment at Brunswick Street North, while BK3 provides more scope for public realm with wider footpaths on Manor Street/Stoneybatter, and with a lesser road width on George’s Lane.

A summary of the assessment and relative ranking of route options against the five main assessment criteria is presented in **Table 6.12**.

Table 6.12: Section 3c Criteria MCA Summary

Sub-Criteria	Option BK1	Option BK2	Option BK3
1 Economy	Orange	Orange	Green
2 Integration	Green	Orange	Green
3 Accessibility & Social Inclusion	Yellow	Yellow	Yellow
4 Safety	Orange	Orange	Green
5 Environment	Yellow	Yellow	Yellow

6.3.3.2.6 Section 3c Conclusion and Preferred Option

Based on the assessment undertaken, route Option BK3 offers more benefits over the other options. Option BK3 is the preferred option for the following reasons:

- For economy, it provides reliable bus priority by traffic signal control (and limitation) of through traffic at Blackhall Place.
- For integration, it provides a continuous high-quality cycle facility from Manor Street through to Queen Street.
- For safety, it provides safe facilities for pedestrians and cyclists alike due to the rationalised junction arrangements at Blackhall Place/King Street North and George’s Lane/Queen Street.
- For Environment, it provides for wider footpaths on Manor Street/Stoneybatter and maintains public space on George’s Lane.

6.3.4 Section 3d – Queen Street/King St North to Ellis Quay/Arran Quay

6.3.4.1 Introduction

Numerous submissions received as part of the public consultation process raised concerns about the proposed traffic management plans; constrained width of existing footpaths and space provided for cyclists and pedestrians in this area.

6.3.4.2 Options Considered

Two alternative options have been assessed as follows:

- **Option QS1:** Option QS1 consists of two general traffic lanes on Queen Street from King Street North to Blackhall Street. At Blackhall Street the two general traffic lanes would merge into one general traffic lane. One general traffic lane would be provided from Blackhall Street to Ellis Quay/Arran Quay. A two-way cycle-track would be in place on the eastern side of the carriageway from King Street North to Ellis Quay/Arran Quay.
- **Option QS2:** Option QS2 would consist of two general traffic lanes on Queen Street from King Street North to Ellis Quay/Arran Quay. A two-way cycle-track would be in place on the western side of the carriageway from King Street North to Ellis Quay/Arran Quay.

The key characteristics of each option are described in the following sections.

6.3.4.2.1 Alternative Options Considered

No alternative options were considered for this scheme section, additional to those assessed through the MCA.

6.3.4.2.2 Route Option QS1

Route Description

Route option QS1 is presented in **Figure 6.68** and described in the following text.

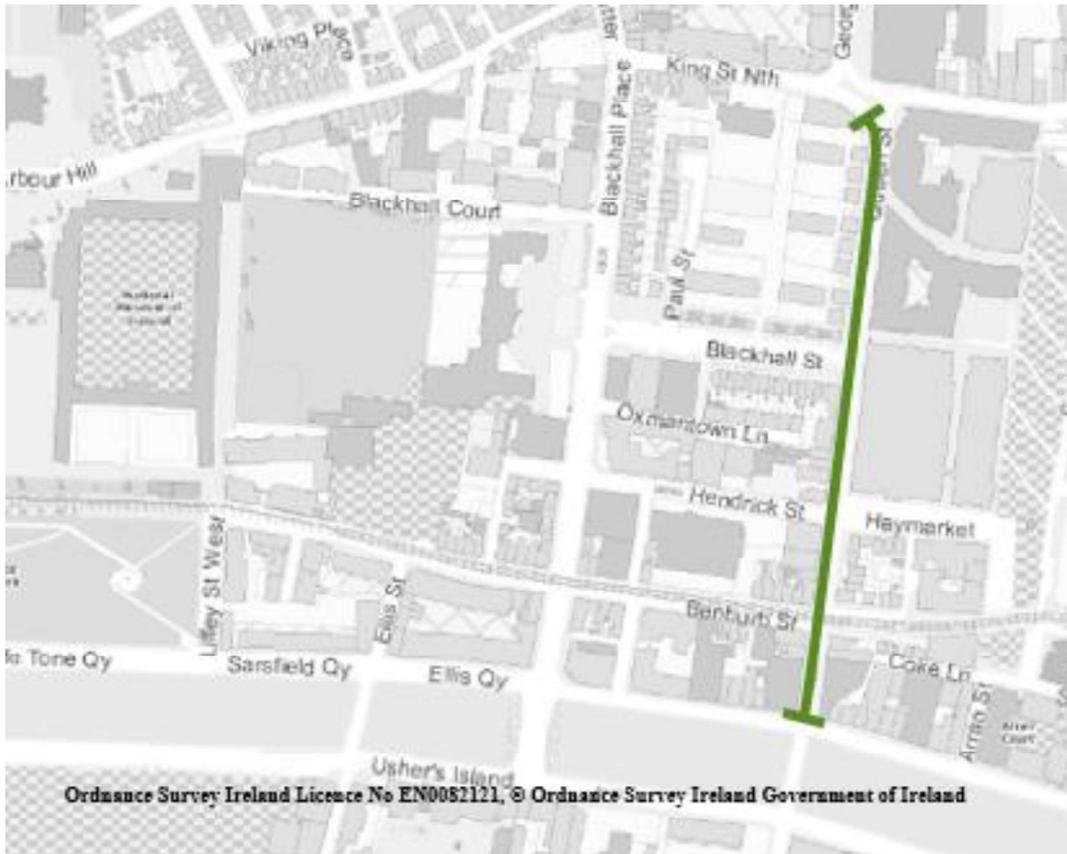


Figure 6.68: Route Option QS1

Inbound: This section of the CBC scheme would commence on Queen Street at its junction with King Street North and proceeds along Queen Street. This route section would end at the junction of Queen Street and Ellis Quay/Arran Quay.

Outbound: There is no outbound route along this section.

Stops: No bus stops are proposed in each direction along this route section.

Indicative Scheme Design

Figure 6.69 illustrates the indicative scheme design for this route option. The location of cross-sections and junctions referenced in subsequent sections describing this route option are also presented in this figure.

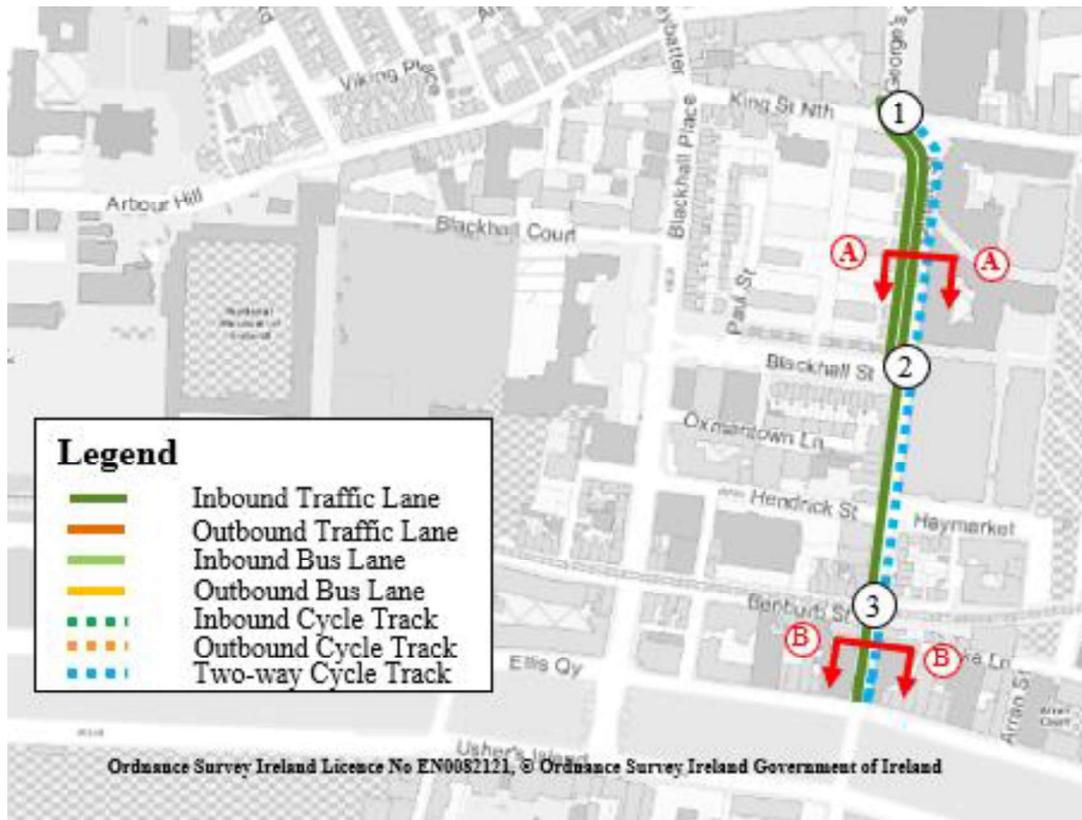


Figure 6.69: Route Option QS1 Indicative Scheme Design

This section of the route would commence on Queen Street where it connects with King Street North. Between King Street North and Blackhall Street two inbound general traffic lanes would be provided. A two-way cycle track would be provided along the eastern side of Queen Street carriageway from King Street North to Ellis Quay/Arran Quay.

The proposed cross-section along this section of Queen Street is presented in **Figure 6.70**.

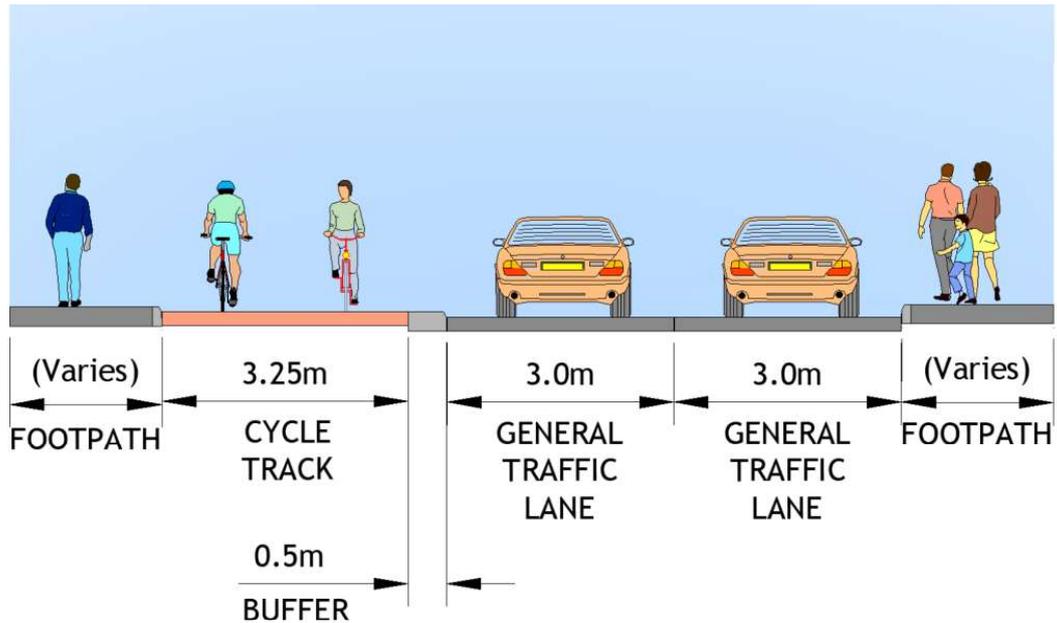


Figure 6.70: Route Option QS1 Cross-Section A-A

At Blackhall Street, the two general traffic lanes proposed would merge into one general traffic lane. From Blackhall Street to Ellis Quay, one inbound general traffic lane would be provided. A two-way cycle track would be provided along the eastern side of Queen Street carriageway from King Street North to Ellis Quay/Arran Quay. This proposed cross section is presented in **Figure 6.71**.

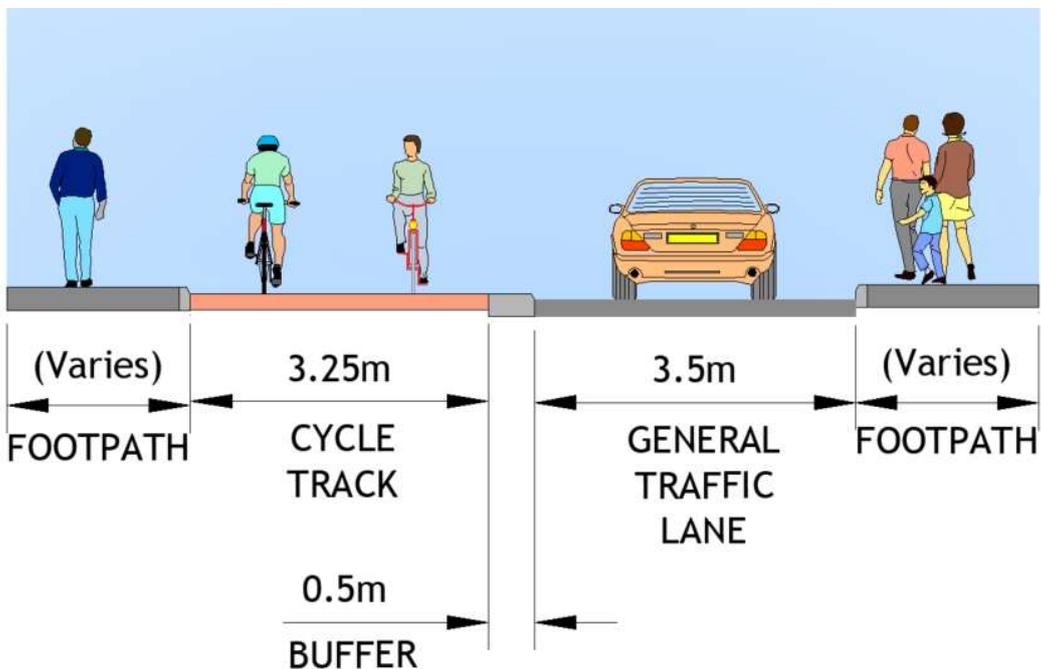


Figure 6.71: Route Option QS1 Cross-Section B-B

In summary, this route option would, subject to confirmation at the scheme design stage, result in the following characteristics:

- Two inbound general traffic lanes from King Street North to Blackhall Street, where the two lanes merge into one general traffic lane from Blackhall Street to Ellis Quay/Arran Quay.
- A two-way cycle track on the eastern side of Queen Street carriageway from King Street North to Ellis Quay.

Junctions:

There are three signalised junctions along this route option, some of which would require upgrading to facilitate the proposed design. The locations of these junctions are presented in **Figure 6.69** and discussed below:

- **King Street North/Queen Street Junction (1):** Adjustments to the junction layout would be required to facilitate the two-way cycle track being provided from George's Lane connecting to Queen Street. There would also be a potential requirement to relocate/provide new signal equipment.
- **Blackhall Street/Queen Street Junction (2):** Adjustments to the junction layout would be required to facilitate the two-way cycle track being provided along Queen Street and allowing for footpath widening due to the two general traffic lanes merging into one. There would also be a potential requirement to relocate/provide new signal equipment.
- **Benburb Street/Queen Street Junction (3):** Adjustments to the junction layout would be required to facilitate the cycle track on Queen Street on approach to the junction. There would also be a potential requirement to relocate/provide new signal equipment.

6.3.4.2.3 Route Option QS2

Route Description

Route option QS2 is presented in **Figure 6.72** and described in the following text.

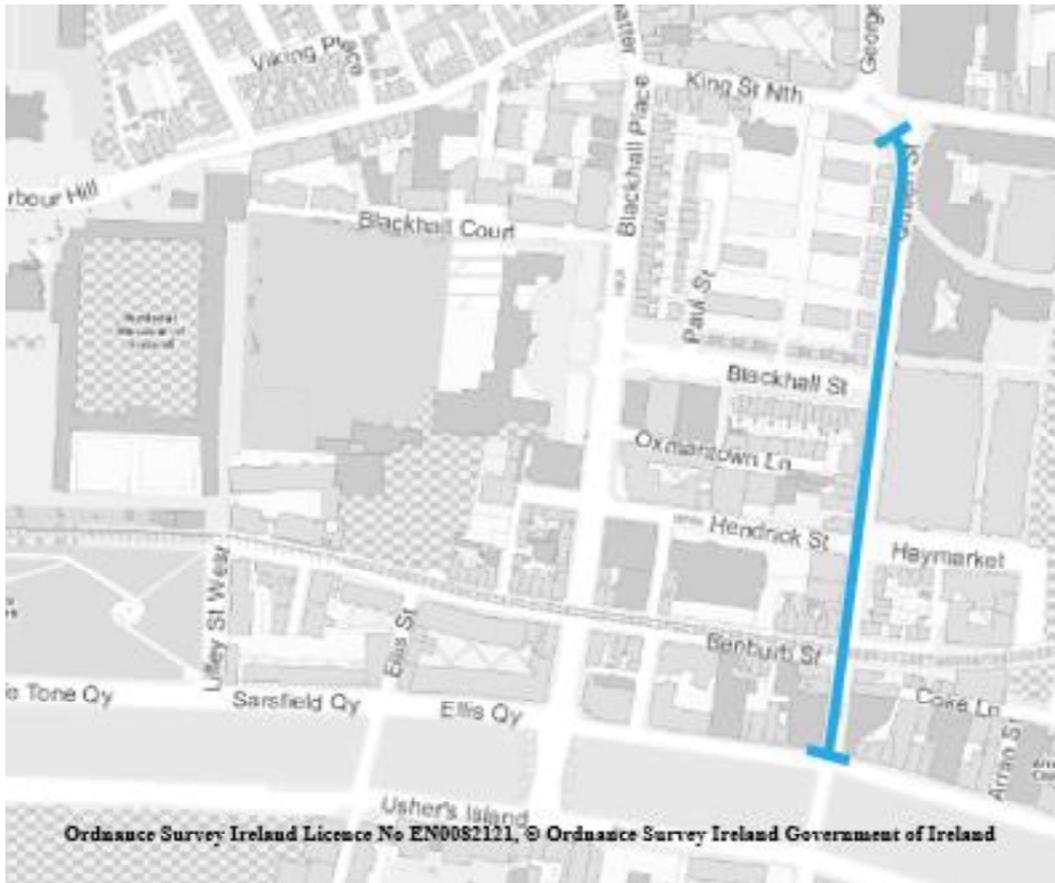


Figure 6.72: Route Option QS2

Inbound: This section of the CBC scheme would commence on Queen Street at its junction with King Street North and proceed inbound along Queen Street. This route section would end at the junction of Queen Street and Ellis Quay/Arran Quay.

Outbound: There is no outbound route along this section.

Stops: No bus stops are proposed in each direction along this route section.

Indicative Scheme Design

Figure 6.73 illustrates the indicative scheme design for this route option. The location of cross-sections and junctions referenced in subsequent sections describing this route option are also presented in this figure.

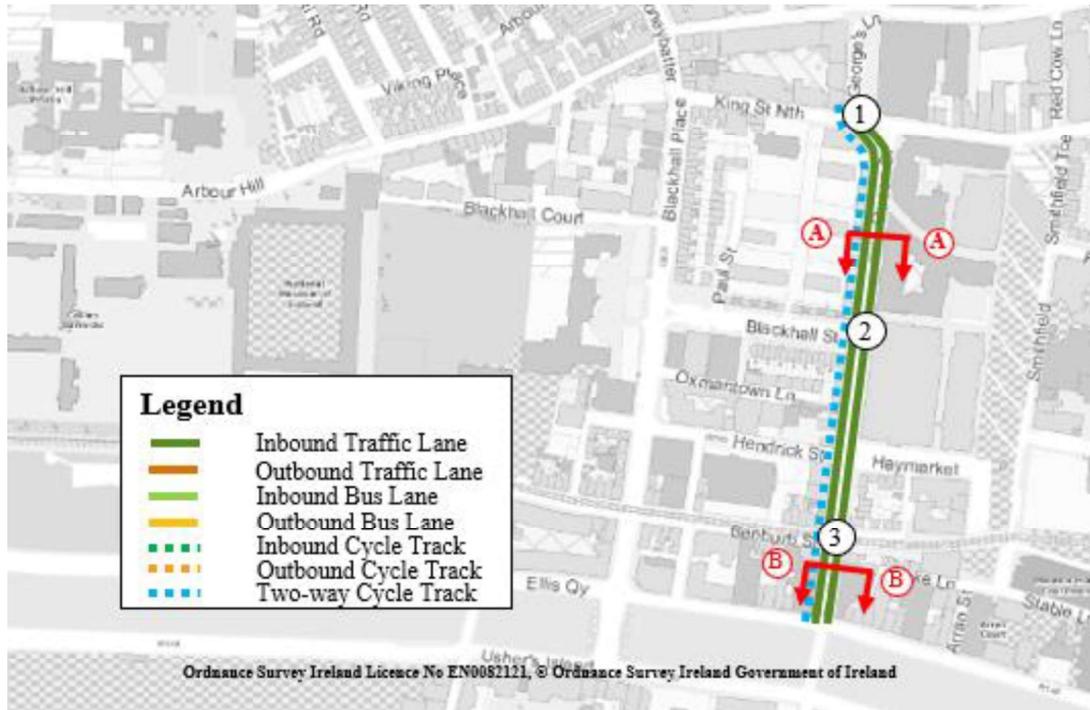


Figure 6.73: Route Option QS2 Indicative Scheme Design

This section of the route would commence on Queen Street where it connects with King Street North. Between King Street North and Blackhall Street two inbound general traffic lanes would be provided. A two-way cycle track would be provided on the western side of Queen Street carriageway from King Street North to Ellis Quay/Arran Quay.

The proposed cross section of Queen Street is presented in **Figure 6.74**.

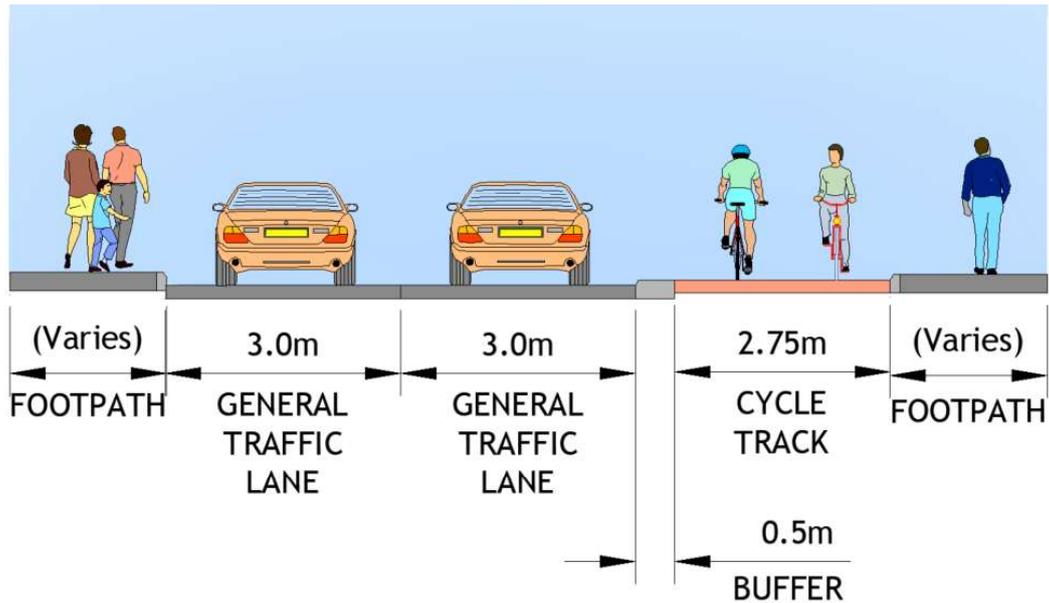


Figure 6.74: Route Option QS2 Cross-Section A-A

From Blackhall Street to Ellis Quay/Arran Quay, two inbound general traffic lanes would be provided. A two-way cycle track would be provided on the western side of Queen Street carriageway from King Street North to Ellis Quay/Arran Quay. This proposed cross section is presented in **Figure 6.75**.

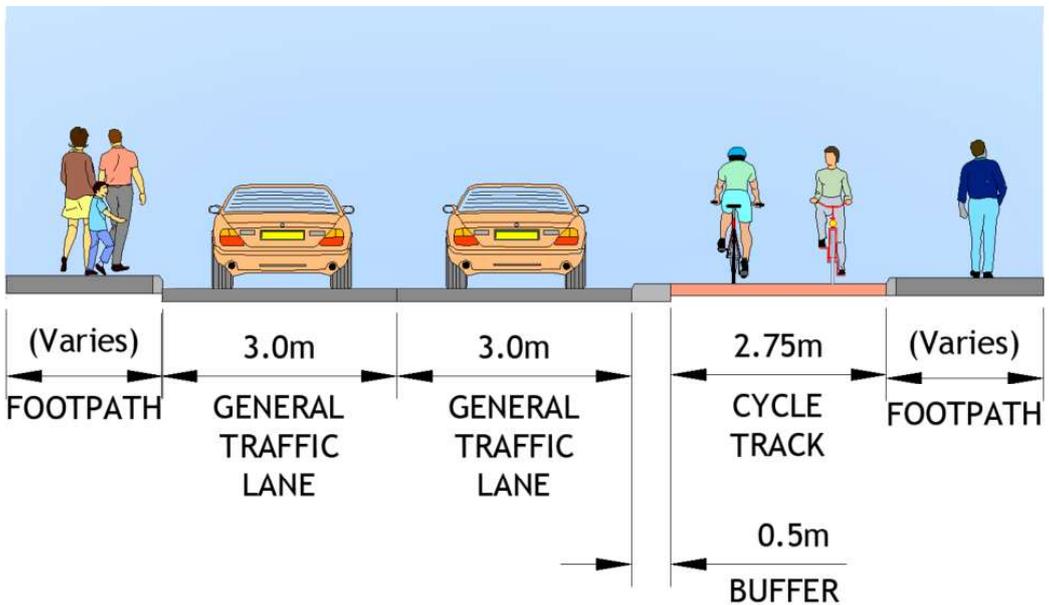


Figure 6.75: Route Option QS2 Cross-Section B-B

In summary, this route option would have the following characteristics:

- Two inbound general traffic lanes from King Street North to Ellis Quay,
- A two-way cycle track on the western side of Queen Street carriageway from King Street North to Ellis Quay.

Junctions:

There are three signalised junctions along this route option, some of which would require upgrading to facilitate the proposed design. The locations of these junctions are presented in **Figure 6.73** and discussed below:

- **King Street North/Queen Street Junction (1):** Adjustments to the junction layout would be required to facilitate the two-way cycle track being provided from George's Lane connecting to Queen Street. There would also be a potential requirement to relocate/provide new signal equipment.
- **Blackhall Street/Queen Street Junction (2):** Adjustments to the junction layout would be required to facilitate the two-way cycle track being provided along Queen Street. There would also be a potential requirement to relocate/provide new signal equipment.
- **Benburb Street/Queen Street Junction (3):** Adjustments to the junction layout would be required to facilitate the cycle track on Queen Street on approach to the junction. There would also be a potential requirement to relocate/provide new signal equipment.

6.3.4.2.4 Section 3d Route Option Assessment

Details of the route option assessment undertaken for the Queen Street study area section are presented in Appendix j. The relative ranking of route options against the scheme assessment sub-criteria is summarised in **Table 6.13**.

Table 6.13: Section 3d Route MCA Summary

Appraisal Criteria	Sub-Criteria	Option QS1	Option QS2
1 Economy	1A Capital Cost	Yellow	Yellow
	1B Transport Quality & Reliability	Orange	Green
2 Integration	2A Land Use Policy	Yellow	Yellow
	2B Residential Population and Employment Catchments	Yellow	Yellow
	2C Transport Network Integration	Yellow	Yellow
	2D Cycle Network integration	Green	Orange
	2E Traffic Network Integration	Green	Orange
3 Accessibility & Social Inclusion	3A Key Trip Attractors	Yellow	Yellow
	3B Deprived Geographic Areas	Yellow	Yellow
4 Safety	4A Road Safety	Green	Orange
	4B Pedestrian Safety	Green	Orange
5 Environment	5A Archaeology & Cultural Heritage	Yellow	Yellow
	5B Architectural Heritage	Yellow	Yellow
	5C Flora & Fauna	Yellow	Yellow
	5D Soils, Geology & Hydrology	Yellow	Yellow
	5E Landscape & Visual	Yellow	Yellow
	5F Air Quality	Green	Orange
	5G Noise & Vibration	Green	Orange
	5H Land Use Character	Green	Orange

In terms of capital cost, both options rank equally.

In terms of transport quality and reliability, Option QS2 performs better due to having two general traffic lanes for the entire section of Queen Street allowing for more capacity than Option QS1.

All options serve the same catchments and as such are ranked equally in relation to land use policy and residential population and employment catchments.

In terms of transport network integration, both options are similar with limited direct impact on the provision of bus priority and journey time reliability since the bus movement would be accommodated on the adjacent corridor at Blackhall Place.

In terms of cycle network integration, Option QS1 provides a more intuitive route than Option QS2 due to the two-way cycle track connecting with more ease onto Ellis Quay/Aaron Quay because of its placement on the eastern side of Queen Street.

In terms of traffic network integration, Option QS1 performs better due to less conflict at junctions between cyclists and other modes. This outweighs the reduction of general traffic capacity on the southern end of Queen Street, due to the removal of one of the two general traffic lanes.

Both options rank equally under accessibility and social inclusion as they both follow the same route. Option QS1 performs better for safety due to a removal of a general traffic lane for a section of Queen Street, less conflicts involved with cycle-track crossings and wider footpaths for a section of Queen Street. Option QS1 performs better in the environment criteria due to the removal of one general traffic lane for a section on Queen Street, allowing for better air quality and noise & vibration, while also providing better land use character due to wider footpaths in this location.

A summary of the assessment and relative ranking of route options against the five main assessment criteria is presented in **Table 6.14**.

Table 6.14: Section 3c Criteria MCA Summary

Sub-Criteria	Option QS1	Option QS2
1 Economy	Orange	Green
2 Integration	Green	Orange
3 Accessibility & Social Inclusion	Yellow	Yellow
4 Safety	Green	Orange
5 Environment	Green	Orange

6.3.4.2.5 Section 3d Conclusion and Preferred Option

Based on the assessment undertaken, route Option QS1 offers more benefits over Option QS2. Option QS1 is the preferred option for the following reasons:

- For integration, it provides a continuous high-quality cycle facility from King Street North through to Ellis Quay/Arran Quay.
- For safety, it provides safe facilities for pedestrians and cyclists alike due to the rationalised junction arrangement at Queen Street/King Street North, and better linkage onto Ellis Quay/Arran Quay.
- For environment, it provides for wider footpaths and allows for the removal of a general traffic lane for a section of Queen Street.

7 Preferred Route Option

7.1 Introduction

Chapter 6 of this report presented an appraisal of all route options considered for sections of the CBC. Following this appraisal, the preferred options for each section have been incorporated into the route from the ‘Blanchardstown Town Centre to the Liffey Quays (Ellis Quay) CBC Route Options Assessment’ to form an end-to-end PRO. This chapter of the report presents and describes the preferred route option identified and the preferred route option scheme design.

7.2 Preferred Route Description

The Preferred Route is presented in **Figure 7.1** below:

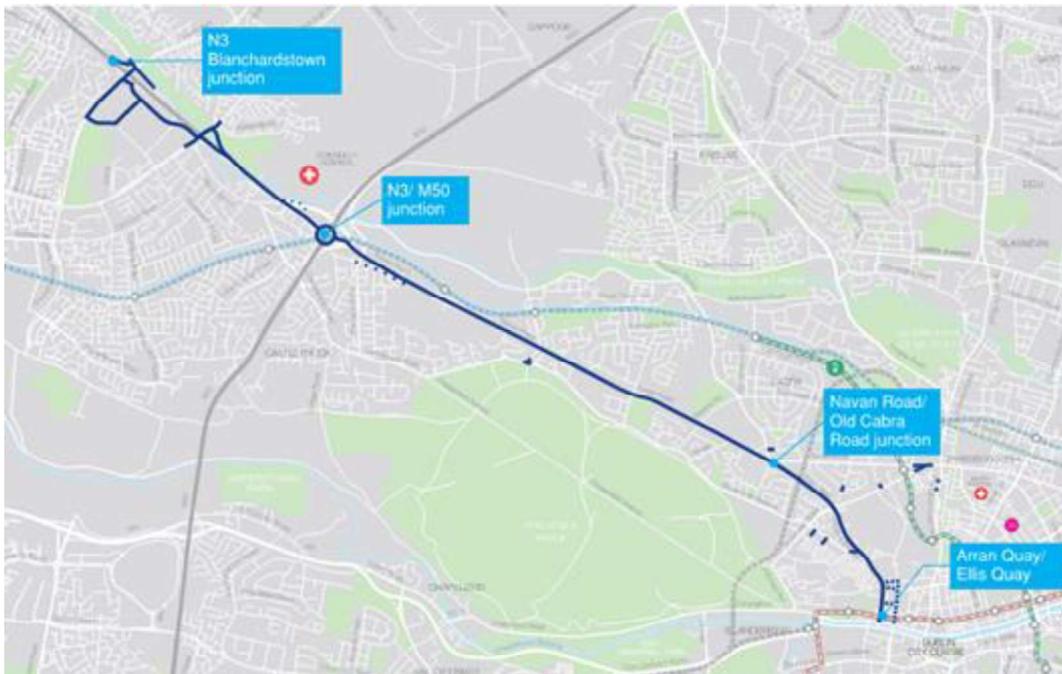


Figure 7.1: CBC Preferred Route Option

The Blanchardstown to City Centre CBC commences at Junction 3 (Blanchardstown / Mulhuddart) southbound off-slip from the N3. The corridor proceeds along the R121 Blanchardstown Road South into the Blanchardstown Shopping Centre.

From a new terminus to the north-west of Blanchardstown Shopping Centre the CBC is routed onto the N3 Navan Road via the Snugborough Road junction and follows the N3 and Navan Road as far as the junction with the Old Cabra Road.

The CBC is then routed along Old Cabra Road, Prussia Street Manor Street and Stoneybatter to the junction with Brunswick Street North. The CBC continues via Blackhall Place as far as the junction with Ellis Quay and Arran Quay, where it joins the prevailing traffic management regime on the North Quays.

At the Stoneybatter / Brunswick Street North junction, cyclists proceed along Brunswick Street North, George's Lane and Queen Street as far as Ellis Quay/Arran Quay.

7.3 Preferred Route Option Scheme Design Description

7.3.1 Section 1: Blanchardstown Shopping Centre to M50 Junction (East)

The CBC will commence at Junction 3 (Blanchardstown / Mulhuddart) eastbound off-slip from the N3. The proposed layout will consist of altering the existing off-slip road from the N3 from two general traffic lanes to one general traffic lane and one bus lane. The junction at Blanchardstown Road North / Navan Road will be modified to a protected style junction to enhance safety for cyclists. Immediately to the south of this junction, the N3 on-slip junction will be modified to accommodate a left turn filter lane with the northbound cycle track being moved to alongside the verge.

Another change from the EPR Option will be the relocation of cycle tracks to alongside footpaths, which will cross with pedestrians at slip-roads to avoid conflict with vehicular traffic.

The proposed lane configuration along the R121 over the N3 will result in a change from the EPR option, with the removal of bus lanes from the overbridge, to maintain its current layout of three general traffic lanes in each direction.

After crossing the overbridge, a bus lane will be provided along the southern side of the Blanchardstown Road South towards the Blanchardstown Shopping Centre via the Blakestown Way junction. The EPR option included for a bus lane in each direction along this section. It is proposed that the Blakestown Way Roundabout is modified to a four-arm signalised junction to maximise bus priority and manage peak congestion flows. This PRO arrangement also accommodates enhanced cycling and walking facilities.

To the east of Blakestown Way junction, it is proposed to provide a new general traffic access from Blanchardstown Road South into the northern car park of the shopping centre. This access will reduce traffic pressure on the road network adjacent to the proposed new bus interchange.

South of Blanchardstown Road South, it is proposed that the Blakestown Way roundabout junction be modified to a signal-controlled junction in order to maximise bus priority directly into and out of the bus interchange, located just to the east of the junction. As with previous proposed junction amendments, this proposed arrangement will also provide better cycling and walking facilities.

From the Blakestown Way junction, it is proposed to provide two general traffic lanes and a bus lane on approach to the bus interchange, which is a change from the EPR option.

Within the Blanchardstown Centre site, it is proposed to upgrade the existing bus stops to a more formal bus terminus/interchange with associated improved passenger waiting facilities.

It is proposed to revise the layout presented from the EPR Option, with a modified size and shape for the interchange, with six bays for boarding/alighting, and alighting bays for seven buses. The proposed layout will have eastbound and westbound general traffic lanes routed to the north and south of the interchange respectively.

The proposed interchange layout has greater capacity for bus movements, and accommodates pedestrian and passenger movements, and seeks to provide a comfortable route through the interchange for shoppers on foot.

A northbound bus lane on the Blanchardstown north-eastern link road towards Blanchardstown Road South is proposed for buses travelling north from Blanchardstown Interchange, and a new bus-stop for inter-urban buses is proposed on the Northbound N3 off-slip adjacent to Crowne Plaza. The bus lane alongside the Northbound N3 off-slip will be an additional lane and will not reduce traffic, pedestrian or cycle provision. It is also proposed that a bus layover 'layby' is to be located north of the shopping centre on Blanchardstown Road South, which will meet bus operational needs in terms of providing flexibility in the operation of Blanchardstown Bus Interchange. A driver welfare facility is also proposed in close proximity to the bus layby. An element of land take is required here which was not previously identified in the EPR Option.

South of the Shopping Centre, buses will then be routed towards the L3020 / Liberty Insurance junction along the existing carriageway running to the north-east of the Blanchardstown Centre. It is proposed to provide dedicated bus lanes along this section as per the EPR Option scheme.

As per the EPR Option, it is proposed to modify the existing L3020 / Liberty Insurance roundabout at the south-eastern edge of Blanchardstown to a fully signalised crossroads; and to provide a bus lane through this junction in both directions. As part of the revised design, the northern cycle track has been removed at this location. This has resulted in a reduction in impact on trees.

Following this section, it is proposed to route bus lanes through the Snugborough Road junction. The proposed configuration for this junction has been updated from the EPR Option proposal. The works, which are being undertaken on behalf of Fingal County Council under a separate project, involve the widening of the Snugborough Road bridge and provision of additional general traffic lanes on the L3020.

Following the Snugborough Road junction, bus lanes will be routed on to the N3 Navan Road via the south-facing on and off-slip roads. On the N3, it is proposed to construct a continuous bus lane on the outer extremities of the corridor in both directions.

It is also proposed to provide continuous bus lanes in both directions along the N3 route across the M50/N3 interchange via the main junction roundabout.

7.3.2 Section 2: M50 Junction (East) to R147 Navan Road/ Ratoath Road Junction

The proposed CBC scheme has additional bus stops at the Auburn Avenue junction, with a proposed Quiet Street Treatment proposed for cyclists via Castleknock Manor to integrate with secondary route 4A of the GDA Cycle Network Plan. The Auburn Avenue / Castleknock Manor roundabout will be modified to provide enhanced pedestrian and cyclist facilities.

The two-way cycle track will then continue along the outer edge of the R147 western (outbound) carriageway to serve existing and planned residential areas.

A bus lane will be provided along the existing inner lane of the inbound and outbound R147 carriageway, with the inbound bus lane terminated over a short section between Morgan place and Navan Parkway off-slip. At the Navan Road Parkway junction, it is proposed that buses be routed off the mainline and along the on and off slip roads (widened to carry bus lanes) to the junction overbridge.

At Ashtown Road junction, it is proposed to terminate the two-way cycle track on the R147, west of the junction, and to transition to a one-way cycle track on each side of the Navan Road carriageway (east of the junction, and within the 50 Km/h speed limit). A general traffic lane and bus lane in both directions will be provided along Navan Road (i.e. four lanes in total), with a one-way cycle track on both sides of the road.

From Phoenix Park Avenue Junction to Ratoath Road Junction, there will generally be a bus lane and general traffic lane in each direction. The existing central median between Phoenix Park Avenue and Ashtown Road Junction will be removed.

At the Navan Road/Ashtown Road junction, the existing roundabout will be modified to a signal-controlled crossroads, with segregated pedestrian and cycle crossings.

From the traffic modelling results, it was apparent that general traffic may divert from Navan Road to Blackhorse Avenue. To address these concerns, the junction of Blackhorse Avenue/Ashtown Gate Road will be signalised to allow improved traffic management – such that signal green times from Blackhorse Avenue can be minimised to limit through movement on this route.

At the junction of Navan Road/Kinvara Avenue/Baggot Road, the previously proposed southbound right turn lane into Baggot Road has been removed (although the right-turn movement is allowed). This will result in a reduced land take.

On the approach to the Old Cabra Road/Cabra Road junction, the two-way cycle track on the south side of Navan Road previously proposed in the EPR Option has been modified within the PRO to two one-way cycle tracks (on either side of the road). This will provide a more intuitive route for cyclists and reduce the need for land take.

The overall width of bus/traffic/cycling and pedestrian infrastructure will be less than the previous layout and land take will hence be reduced.

7.3.3 Section 3: R147 Navan Road/Ratoath Road Junction to Ellis Quay

On the section of route from the Navan Road/Ratoath Road junction to Prussia Street (Park Shopping Centre), proposals are summarised in the following paragraphs.

Proposals to limit use of Old Cabra Road to local access traffic, buses, taxis and cyclists have been retained from the EPR Option scheme. It is proposed that no through traffic will be permitted in the southbound direction at the northern end of Old Cabra Road (at its junction with Navan Road), except for buses, taxis and cyclists, which thus will preclude general traffic from Navan Road travelling to Stoneybatter along Old Cabra Road.

It is also proposed that no through traffic will be permitted in the northbound direction except for buses, taxis and cyclists on Old Cabra Road at the railway overbridge – which thus will preclude general traffic from Stoneybatter and the North Circular Road from travelling along Old Cabra Road through to Navan Road.

At this section, further minor changes have been made from the EPR Option. It is proposed that there will be new traffic signal controls at the Old Cabra Road/Glenbeigh Road junction. This junction alteration will enable general traffic flows turning left or right onto Old Cabra Road to be controlled and minimised (to avoid general traffic taking short-cuts along Glenbeigh Road). The general layout of the junction will be unchanged except for signals and a pedestrian crossing.

On Old Cabra Road, the extent of the proposed northbound dedicated bus lane has been revised from the EPR Option and will be limited to an approximate 110m section just south of the Navan Road junction; this has been reduced in length in response to introduction of a signal control at the Glenbeigh Road junction, which will provide a method of controlling the level of general northbound general traffic movement from Glenbeigh Road; that is, to give northbound buses a virtual bus priority over general traffic.

Previously, a two-way cycle track had been proposed along Old Cabra Road in the EPR Option. This proposal has been replaced by two one-way cycle tracks on either side of the road.

The infrastructure proposed at the bridge over the Heuston Station/Connolly Station railway line has been reviewed and it is now proposed to accommodate the bus / bicycle infrastructure within the existing road bridge width, negating the need for a new pedestrian bridge at this location.

The proposed northbound dedicated bus lane at this location is also proposed to be confined to across the railway overbridge. This will facilitate better access for residents to their properties in this area.

Proposed land take on Old Cabra Road to accommodate the BusConnects infrastructure improvements has been reduced from the EPR proposal – but some limited land take will still likely be required between Cabra Drive and the North Circular Road junction.

On the section of route from Prussia Street (Park Shopping Centre) to Stoneybatter / Brunswick Street North junction, proposals are summarised in the following paragraphs.

On Prussia Street, between North Circular Road and the entrance to the Park Shopping Centre, the proposed road layout has been amended marginally from the EPR Option; with one southbound general traffic lane, one northbound ‘straight-ahead only’ lane (for local traffic and buses travelling to Old Cabra Road), and one left turn lane from Prussia Street to North Circular Road. The straight-ahead movement from Prussia Street to Old Cabra Road will be signposted as a no through road except for buses, taxis, cyclists and local access traffic, and right-turns from Prussia Street to North Circular Road will be banned. The revised proposals will avoid the need for land take on the approach to the North Circular Road on Prussia Street at Drumalee Road.

To provide an alternative route to and from the city centre (along Cabra Road, North Circular Road, Infirmary Road and Conyngham Road) the proposals include an alteration to an offline junction at St Peter’s Church (where Cabra Road meets the North Circular Road). This signalised junction will be modified to allow right-turns from Cabra Road to North Circular Road and left-turns from North Circular Road onto Cabra Road, which will provide an alternative route for general traffic movement between Navan Road and Stoneybatter - instead of travelling along Old Cabra Road.

Through traffic travelling between Navan Road and the Quays will also be able to travel from Cabra Road via the North Circular Road, Berkeley Road (southbound) or Phibsborough Road/Constitution Hill (northbound).

On Prussia Street at the Park Shopping Centre access junction, the previously proposed (in the EPR Option) two-way cycle track routed into the Park Shopping Centre has been removed. Two one-way cycle tracks on each side of the road are proposed instead at the northern end of Prussia Street. The southbound cycle track merges into the general traffic lane just north of the Park Shopping Centre.

On Prussia Street south of the Park Shopping Centre, the proposal will provide a general traffic lane in both directions which will allow local traffic to access this area as at present. The proposal has been modified to reduce the possibility of through traffic using St Joseph’s Road, by including a short one-way section (in an eastbound direction) at its eastern end (at the junction with Prussia Street).

At the junction of Aughrim Street/Manor Street/Prussia Street, the PRO includes revised bus gate arrangements in both directions at the junction, which will

effectively limit use of Prussia Street/Manor Street to local access traffic, buses and taxis – as well as cyclists.

In the northbound direction, the bus gate will be located on Prussia Street just north of the Aughrim Street junction, such that northbound general traffic will need to turn left onto Aughrim Street.

In the southbound direction, a bus gate will be located on Prussia Street/Manor Street just south of the Aughrim Street junction, and any general traffic travelling southbound on Prussia Street at this location will have to turn right onto Aughrim Street. This change will provide improved bus priority southbound, better facilities for cyclists, and greater scope for public realm improvements. These arrangements will allow for local traffic access, but effectively discourage through traffic.

The updated Manor Street/Aughrim Street junction design also includes provision for a signal controlled ‘bus only’ phase from Aughrim Street to Manor Street (which will be activated by southbound buses on Aughrim Street). A signal-controlled cycle-crossing will be included at the junction of Manor Street and Aughrim Street.

South of the Manor Street/Aughrim Street junction, the PRO proposal includes introducing signal control at the Manor Street/Kirwan Street/Manor Place junction, which will allow general traffic levels on these side roads to be limited by management of green times in order to reduce their attractiveness to through traffic. The signal-controlled junction will also include a pedestrian crossing of Manor Street within the junction. It is also proposed to restrict movements out of Kirwan Street to left-turns only to limit the ability of general traffic to short-cut along local roads, and to operate Manor Place as one-way eastbound towards the junction to minimise rat-running.

On Manor Street/Stoneybatter south of the Manor Place junction, the EPR option included a southbound bus lane and a general traffic lane in both directions, and a northbound cycle track. The revised design will include a general traffic lane in both directions, and a cycle track in both directions.

The revised proposal will include retention of a number of parking bays where feasible on Manor Street, Stoneybatter and Aughrim Street. The loading bays next to Kavanagh’s Public house on Aughrim Street near the junction of Manor Street and Prussia Street, and at Stoneybatter will be retained. Under the proposed layout, a loading bay will also be provided on the west side of Manor Street, south of Manor Place junction.

On the section of route from Stoneybatter/Brunswick Street North junction to Ellis Quay, proposals are summarised in the following paragraphs.

On Brunswick Street North, the EPR Option proposed one eastbound general traffic lane which allowed traffic to turn right into George’s Lane, or to continue straight along Brunswick Street North. Brunswick Street North also included cycle tracks on each side of the general traffic lane. This linked into a proposed two-way cycle track on George’s Lane, crossing King Street North, and then

along Queen Street onto Arran Quay. Blackhall Place will be accessed by cyclists via a cycle track on Blackhall Street in the EPR option.

The revised proposal on Stoneybatter will be to operate a northbound bus-only section between the junctions of King Street North and Brunswick Street North – with northbound general traffic having to turn right into King Street North, and then travel anti-clockwise along George's Lane and Brunswick Street North to reach Manor Street.

This arrangement will provide improved control and limitation of northbound through-traffic while also ensuring reliability for bus movement through Stoneybatter; wider footpaths on Manor Street/Stoneybatter will also be achieved by removal of the previously proposed northbound bus lane there (Bus priority is achieved by the proposed signal-controlled priority on Stoneybatter).

Brunswick Street North is proposed as a westbound one-way street, with two one-way cycle tracks – which will link to the one-way cycle tracks on Stoneybatter/Manor Street (to the north), and two-way cycle tracks on George's Lane and Queen Street (to the south). The cycle track on George's Lane has been realigned in the PRO to connect better with Grangegorman Lower which is considered to be an increasingly important cycle route to/from the TU Dublin campus at Grangegorman.

Local vehicular traffic on Brunswick Street North will be able to exit to the south (Stoneybatter) and the north (Stoneybatter/Manor Street). General traffic exiting Arbour Hill will be required to turn right only at the Stoneybatter junction. General traffic into Arbour Hill will only be allowed from Manor Street or Brunswick Street North direction.

Southbound general traffic will travel on Manor Street/Stoneybatter in a single lane; and will be required to turn left into King Street North (which will remain one-way eastbound), but with buses allowed to continue travelling straight ahead to a southbound bus lane on Blackhall Place. A loading bay will be introduced on King Street North, a change from the EPR option.

On Blackhall Street, the EPR Option scheme proposed a junction redesign at Blackhall Place and two general traffic lanes with a one-way cycle track exiting on to Blackhall Place. The PRO proposed road layout has been revised to include one lane for general traffic, a two-way cycle track, and angled parking.

General traffic movements from Blackhall Place to the east will be via King Street North. Westbound general traffic on the eastern section of King Street North (east of George's Lane) will be restricted to left turns only, into Queen Street.

The EPR Option proposed to have general traffic lanes in both directions on George's Lane. In the preferred layout, George's Lane will have one northbound lane, and a two-way cycle track, with proposed new signal controls at the junction of Grangegorman Street Lower and Brunswick Street North. This layout will provide additional pedestrian space and the opportunity for enhanced urban realm.

On Blackhall Place between Blackhall Street and Ellis Quay, the EPR Option is unchanged, with a bus lane and general traffic lane proposed in each direction.

However, on Queen Street the layout will be modified to allow for a reduction from two southbound general traffic lanes to one southbound general traffic lane from Blackhall Street to Ellis Quay/Arran Quay, which will allow for footpath widening in this area, with a two-way cycle track on the eastern side of Queen Street.

7.4 Summary

7.4.1 Infrastructure Provision

The Preferred Route is approximately 10.9 km long from end to end. The updated concept scheme design drawings show the extent of the infrastructure proposed to deliver this CBC. The bullet points below present the length of existing and proposed bus and cycle priority as a percentage of the overall route length.

- 10% Existing bus priority (outbound) (*10% physical*)
- 40% Existing bus priority (citybound) (*40% physical*)
- 97% Proposed bus priority (outbound) *83% physical – 14% virtual*)
- 98% Proposed bus priority (citybound) (*84% physical – 14% virtual*)
- 48% Existing cycle priority (outbound) (*14% mandatory cycle lane, 23% advisory, 11% cycle-track*)
- 38% Existing cycle priority (citybound) (*15% mandatory lane, 16% advisory, 7% cycle-track*)
- 80% Proposed cycle priority (outbound) (*80% cycle track*)
- 77% Proposed cycle priority (citybound) (*77% cycle track*)

Virtual bus priority measures are provided at a number of locations. These are sections of road with limited traffic movements due to traffic management restrictions in place, as follows:

- Old Cabra Road (citybound and outbound) - Approximately 800m length;
- Prussia Street (citybound and outbound) - Approximately 480m length; and
- Stoneybatter Village from Brunswick Street North to Prussia Street (inbound and outbound) - Approximately 400m length.

7.4.2 Main Scheme Changes

The following list highlights the main scheme changes between the published EPR Option and the PRO:

- The proposed layout at Mulhuddart junction has been changed, with cycle tracks modified and bus lanes removed from the N3 Overbridge at this location on the R121. Cycle tracks are now proposed on the nearside of the carriageway and cycle crossings alongside pedestrian crossings to minimise conflict between cyclists and motorists.

The layout for R121 Blanchardstown Road South has also been modified with the removal of the eastbound bus lane and provision of a bus layover.

- The Blakestown Way Roundabout has been amended to a signalised crossroads junction.
- Along the N3 corridor, the proposed layout will not include for a future upgrade by Transport Infrastructure Ireland.
- The previously proposed two-way cycle track westbound along the R147 Navan Road to Auburn Avenue Junction is modified with cyclists routed from the R147 to an on-street 'Quiet Street' cycle route along Castleknock Manor. This will reduce the need for land take in this area.
- At the Navan Road/Ashtown Road junction, the PRO scheme modifies the existing roundabout to a signal-controlled crossroads. This is generally consistent with the EPR proposed layout and a change from the proposed signal-controlled roundabout shown in the November 2020 public consultation drawings.
- Land take requirement will be removed at Cabra Library due to redesign of the junction at Navan Road/Ratoath Road.
- New traffic signal controls are proposed at the Old Cabra Road/Glenbeigh Road junction, which will enable general traffic flows turning left or right onto Old Cabra Road (local access only) to be controlled (mitigating the risk of general traffic using Glenbeigh Road as a rat-run).
- On Old Cabra Road, the previously proposed two-way cycle track along Old Cabra Road is replaced by two one-way cycle tracks on either side of the road, and the northbound bus lane approaching the Navan Road junction is reduced in length. These measures will reduce the need for land take in areas along Old Cabra Road.
- Widening of the Old Cabra Road overbridge over the Heuston Station/Connolly Station railway line is no longer required. It is now proposed to accommodate the bus/bicycle infrastructure within the existing road bridge width.
- The revised proposals include making St Joseph's Road one-way towards Prussia Street at its eastern end, to avoid general traffic using this street as a short-cut route.
- The junction of Manor Street/Prussia Street with Aughrim Street at Stoneybatter is proposed to be signalised and includes a bus gate in both directions. All northbound general traffic will be required to turn left onto Aughrim Street. In the southbound direction, any general traffic on Prussia Street at this location will be required to turn right onto Aughrim Street.
- The Manor Street/Kirwan Street/Manor Place junction is proposed to be signalised, and Kirwan Street general traffic (which is westbound only) are proposed to be limited to 'left-turns only' at its junction with Manor Street (to reduce the opportunity for rat-running by northbound through traffic via Grangegorman Lower to Aughrim Street and beyond). Manor Place is proposed to be one-way eastbound to address potential rat-running.

- The revised proposals along Manor Street results in a reduction from three lanes (two bus lanes and a southbound general traffic lane) to two general traffic lanes. The modified design also includes a northbound and southbound cycle track, wider footpaths and enhanced urban realm as a result of the reduction in carriageway width.
- At the north end of George's Lane, the revised proposals have a signal-controlled junction at Grangegorman Street Lower/Brunswick Street North as a means of limiting general traffic flow entering and leaving Grangegorman Street Lower.
- A northbound bus lane on Blackhall Place (at its junction with King Street North) is proposed and all northbound general traffic will be required to turn right into King Street North. Northbound general traffic will be required to travel via George's Lane and Brunswick Street North to reach Manor Street. Traffic signals at the Brunswick Street North/Blackhall Place junction will enable the level of flow of northbound general traffic to be controlled, and limited to a level which will ensure that buses are able to travel without delay along this section. The revised proposal for George's Lane removes the southbound traffic lane and includes a two-way cycle track, resulting in wider footpaths.
- A two-way cycle track will be provided along the eastern side of Queen Street from King Street to Ellis Quay/Aaron Quay, with two southbound traffic lanes from George's Lane to Blackhall Street, and a reduction to one traffic lane from Blackhall Street to Ellis Quay/Arran Quay.
- On Blackhall Street, the proposed road layout is revised to include one lane for general traffic, a two-way cycle track, and angled parking.

In developing the PRO, consideration has been given to the carbon generated by the scheme during construction. Many of the changes made to the scheme design since the EPR proposal have resulted in a change in the construction carbon generated by the scheme. Notable changes include the following:

- Removal of the previously proposed cycle track on the northern side of the L3020 opposite the Westend Office Park, which reduces the extent of road widening;
- Revisions to the previously proposed two-way cycle track westbound along the R147 Navan Road to Auburn Avenue Junction, which is modified with cyclists routed from the R147 to an on-street 'Quiet Street' cycle route along Castleknock Manor. This reduces the amount of construction work required and the extent of widening;
- Revisions to the proposed junction arrangement at Navan Road/Ratoath Road, which reduces the extent of road widening and works encroaching into adjacent properties;
- Revisions to the proposed road layout on Old Cabra Road, which reduces the extent of road widening and works encroaching into adjacent properties; and

- Revisions to the proposed layout on the Old Cabra Road overbridge (at Heuston Station/Connolly Station railway line) which removes the need for widening of the bridge extents and reduces overall construction works.

7.4.3 Scheme Benefits

7.4.3.1 Bus Journey Times

Through the provision of increased bus priority infrastructure, the proposed scheme will improve both the overall journey times for buses along the route and their journey time reliability. This will help to realise the objectives of the scheme as set out in Section 2.5 of this report.

The facilitation of bus priority along the CBC, through the delivery of dedicated bus lanes and virtual bus priority measures such as bus gates and bus priority traffic signals, is forecast to reduce bus journey times along the CBC. In addition to this, journey reliability is forecast to be improved, by largely removing interaction between bus traffic and general traffic.

7.4.3.2 Walking & Cycling

In addition to the improvements to bus journey time and journey time reliability, the proposed scheme will provide benefits for cyclists and pedestrians.

The provision of dedicated cycling infrastructure along the CBC as well as on parallel routes in some cases, will improve the level of service provided for cyclists along the route, making cycling trips safer and more attractive.

The scheme will deliver substantial elements of the GDA Cycle Network Plan as outlined in Section 4.5, as well as linking with other proposed cycling schemes, contributing towards the development of a comprehensive cycling network for Dublin.

A number of public realm upgrades, including widened footpaths, high quality hard and soft landscaping and street furniture will be provided in areas of high activity to contribute towards a safer, more attractive environment of pedestrians. The scheme will also provide improved pedestrian crossing facilities along the route.