



Jacobs

BusConnects Dublin Core Bus Corridor Infrastructure Works – Package B

Liffey Valley to City Centre Core Bus Corridor - Draft Preferred Route Option Report

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BCIDB



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Glossary of Technical Terms

Signal Controlled Bus Priority - Signal Control Bus Priority 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 would 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.

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.

Executive Summary

Introduction

The purpose of this report is to present an overview of the draft Preferred Route Option (PRO) for the 'Liffey Valley to City Centre' Core Bus Corridor (CBC) as well as describing the options assessed, and changes made to the scheme since the Emerging Preferred Route (EPR) was published.

The aim of delivering the Liffey Valley 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 Liffey Valley to City Centre CBC commences at a new bus interchange on the northern boundary of Liffey Valley Shopping Centre. The route continues along the distributor road to the west and south of Liffey Valley Shopping Centre in a southerly direction towards Coldcut Road. From here it joins the R833 Coldcut Road and continues to the bridge over the M50, subsequently turning onto the R833 Ballyfermot Road. The CBC route travels through Ballyfermot Village and continues onto the Sarsfield Road, whilst city bound general traffic is diverted via Le Fanu Road and Kylemore Road back to Ballyfermot Road.

The route continues along Ballyfermot Road and Sarsfield Road, turning right at the junction with Con Colbert Road before turning right again onto Grattan Crescent. At the intersection of Grattan Crescent and Emmet Road the CBC travels along Emmet Road, Old Kilmainham, Mount Brown and James's Street. From here the route joins Thomas Street, Cornmarket and along High Street to the junction with Nicholas Street and Winetavern Street where it will join the existing traffic management regime in the City Centre and terminates at the end of High Street.

Where substantial revisions have been made to the design since the publication of the EPR Option in January 2019, options have been assessed using a Multi-Criteria Assessment (MCA) to determine the draft preferred route 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. This assessment has also been carried out in the context of more detailed information now available, including topographical survey, tree survey and traffic information.

The following list highlights the material scheme changes between the published EPR Option and the draft PRO.

- The Study Area originally extended from Ballyowen Road to Le Fanu Road. The starting point was subsequently changed to the Liffey Valley Shopping Centre to align with proposals brought forward to develop a bus interchange facility to the north of their campus. The Emerging Preferred Route for Study Area Section 1 is as outlined in the previous Options and Feasibility Report, with the starting point changed to align with the proposed bus interchange at the Liffey Valley Shopping Centre.
- At the Le Fanu Road junction, it was proposed to divert city bound traffic via Le Fanu Road and Kylemore Road which represents a change to the EPR. The section of the Ballyfermot Road between Le Fanu Road and Kylemore junction will be restricted to one bus lane in each direction and one outbound general traffic lane. Local access on Ballyfermot Road between La Fanu Road and Colepark Road is maintained.
- During the first phase of Public Consultation, residents of Inchicore made it clear that they strongly opposed the proposals to widen the carriageway along Grattan Crescent at the cost of green space or the local vernacular. Following multiple discussions with residents, alternative plans were proposed which would reduce Grattan Crescent to a single general traffic lane and allow the mature trees in the area to be retained.

- Blanchardstown to City Centre Core Bus Corridor;
- Lucan to City Centre Core Bus Corridor;
- Liffey Valley to City Centre Core Bus Corridor;
- Clondalkin to Drimnagh Core Bus Corridor;
- Greenhills to City Centre Core Bus Corridor;
- Tallaght to Terenure Core Bus Corridor;
- Kimmage to City Centre Core Bus Corridor;
- Rathfarnham to City Centre Core Bus Corridor;
- Bray to City Centre Core Bus Corridor;
- UCD Ballsbridge to City Centre Core Bus Corridor;
- Blackrock to Merrion Core Bus Corridor; and
- Ringsend to City Centre Core Bus Corridor

1.2 Background

The aim of the CBC Infrastructure Works is to provide enhanced walking, cycling and bus infrastructure on key access corridors in the Dublin region, which will enable and deliver efficient, safe, and integrated sustainable transport movement along these corridors.

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.

In June 2018 the National Transport Authority (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 'Liffey Valley to City Centre CBC' is identified in this document as forming part of the radial Core Bus Network. The BusConnects radial CBC network is shown in **Figure 1.2**.



Figure 1.2: BusConnects Radial CBC Network (the CBC highlighted)

Following this, a public consultation for the sixteen radial CBCs took place on a phased basis from November 2018 until May 2019. As part of this process the 'Liffey Valley to City Centre Core Bus Corridor CBC Feasibility Study and Options Assessment Report' was published, which identified feasible options along the corridor, assessed these options and arrived at an EPR Option. Submissions were invited from the public to provide comment on the EPR Option proposals and to inform subsequent design stages. A second round of public consultation commenced on 4th March 2020 and ran until the 17th of April 2020 when submissions were once again invited from the public on the draft PRO.

A comprehensive review of feedback received during both public consultations has been undertaken. Based on this review, as well as availability of new information (e.g. topographical survey), alternative options have been considered in a number of areas along the Liffey Valley to City Centre CBC which seek to address issues of concern to the public, as well as general refinements to the scheme to reduce the overall impact of the proposals, while still achieving the objectives of the scheme.

This report presents a summary of the issues raised in the public consultations and details the alternative options considered, and assessment of same, in order to identify a draft Preferred Route Option (PRO).

1.3 Approach for this Report

This 'Draft Preferred Route Option Report' has been prepared for the Liffey Valley to City Centre CBC (the CBC), which will build on the previous 'Liffey Valley to City Centre Core Bus Corridor CBC Feasibility Study and Options Assessment Report'.

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

- Updated topographical survey information;
- Output from engagement and consultation activities on the EPR Option and draft Preferred Route Option Proposals;
- Clarifications to the previous assessment in the 'Liffey Valley to City Centre Core Bus Corridor CBC Feasibility Study and Options Assessment Report';
- Further design development and options assessment; and
- Change in the extent of the 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:** 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 'Liffey Valley to City Centre Core Bus Corridor CBC Feasibility Study and Options Assessment Report' – This chapter is a summary of the options assessment that was previously carried out in each section of the 'Liffey Valley to City Centre Core Bus Corridor CBC Feasibility Study and Options Assessment Report'. 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 material 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:** Draft Preferred Route Option – This chapter gives the overall conclusions of the options assessment process and describes the draft PRO proposal.
- **Chapter 8:** Next Steps – This chapter details the "next steps" in the delivery of the CBC.

This chapter summarises a review of transport and planning policy which is relevant to the route selection process for the CBC.

The CBC Infrastructure Works has evolved from and is a key component of the 'Transport Strategy for the Greater Dublin Area 2016-2035' (the 'GDA Transport Strategy'), the purpose of which is *"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"*.

The map displays the Dublin Region with a proposed BRT network. The BRT routes are shown as dark blue lines, primarily following major corridors like the N1, N11, and N15. Bus routes are shown as pink lines, and Regional Bus routes as light pink lines. The map includes labels for various towns and cities, such as Kildare, Wick, Wexford, and Drogheda. A legend in the bottom right corner identifies the route types. A scale bar at the bottom left indicates distances of 0, 5, and 10 Kms.

The GDA Transport Strategy states that it is intended to provide continuous bus priority, as far as is practicable, along the core bus routes.

The Liffey Valley to City Centre CBC (the CBC) is identified as an enabling element as part of the CBC Infrastructure Works.

2.2 Greater Dublin Area Cycle Network Plan

The Greater Dublin Area 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.

There are a number of primary (Routes 7, 7A) and secondary (Routes 7D) cycle routes identified along the CBC. During the earlier assessment process which identified the CBC EPR Option, the provision of these cycle routes was considered at all stages. Therefore, as part of the options assessment process, any upgrading of infrastructure to provide bus priority also needs to consider and provide for the required 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

2.3.1 Dublin City Council Development Plan (2016 – 2022)

The current Development Plan for Dublin City Council (DCC) came into effect on 21st October 2016. The DCC Development Plan recognises the challenge that Transport has in making an important contribution to make 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.

<i>Movement and Transport: Promoting Modal Change and Active Travel</i>	
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 2.1: DCC Development Plan Policies for Modal Change and Active Travel aligned with the proposed development

<i>Movement and Transport: Public Transport</i>	
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 Éireann, 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.

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

2.3.2 South Dublin County Council Development Plan (2016 – 2022)

The current Development Plan for South Dublin County Council (SDCC) came into effect on 12th June 2016 and generally seeks to '*ensure an integrated strategy for transport and mobility that enhances access and movement within and through the County, while promoting change, in favour of sustainable modes.*'

The SDCC 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 Policies and Objectives have been identified in the County Development Plan which support the proposed development:

<i>Transport and Mobility Policy 1 Overarching</i>	
<i>TM1 Objective 1:</i>	<i>To support and guide national agencies in delivering major improvements to the transport network.</i>
<i>TM1 Objective 2:</i>	<i>To spatially arrange activities around, and improve access to, existing and planned public transport infrastructure and services.</i>
<i>TM1 Objective 3:</i>	<i>To focus on improvements to the local road and street network that will better utilise existing road space and encourage a transition towards more sustainable modes of transport, while also ensuring sufficient road capacity exists for the residual proportion of the trips which will continue to be taken by private vehicle.</i>
<i>TM1 Objective 5:</i>	<i>To balance the needs of road users and the local community with the need to support the development of a sustainable transportation network.</i>
<i>TM1 Objective 6:</i>	<i>To support the delivery of sufficient public transport and road capacity to facilitate sustainable new development in the County.</i>

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

The Development Plan outlines the policy of SDCC 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.

<i>Transport and Mobility Policy 2 Public Transport</i>	
<i>TM2 Objective 1:</i>	<i>To secure the implementation of major public transport projects as identified within the relevant public transport strategies and plans for the Greater Dublin Area....</i>
<i>TM2 Objective 2:</i>	<i>To establish future public transport routes that will support the County's medium to long term development, in particular orbital routes</i>
<i>TM2 Objective 3:</i>	<i>To generate additional demand for public transport services through integrated land use planning and maximising access to existing and planned public transport services throughout the network</i>
<i>TM2 Objective 4:</i>	<i>To create an interlinked network that maximises the efficiency of existing services, reduces overall journey times and facilitates easy exchanges between modes and/or routes</i>

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

These objectives result in SDCC identifying a number of actions outlined below:

- *Work with the NTA to secure the extension and expansion of the Core Bus Network and other bus services to serve new areas of employment, housing and tourism potential, whilst also improving the efficiency and frequency of services within more established areas.*
- *Identify opportunities for multi-modal interchange and transport hubs at key locations (such as Centres, cross cutting infrastructure) to increase the efficiency and flow of public transport services.*

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.

<i>Transport and Mobility Policy 3 Walking and Cycling</i>	
TM3 Objective 1:	To create a comprehensive and legible County-wide network of cycling and walking routes that link communities to key destinations, amenities and leisure activities with reference to the policies and objectives contained in Chapter 9 (Heritage, Conservation and Landscape) particularly those that relate to Public Rights of Way and Permissive Access Routes
TM3 Objective 3:	To ensure that all streets and street networks are designed to prioritise the movement of pedestrians and cyclists within a safe and comfortable environment for a wide range of ages, abilities and journey types.

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

2.4 The Aim of the Bus Connects Core Bus Corridor Infrastructure Works

The aim of the CBC Infrastructure Works is to provide enhanced walking, cycling and bus infrastructure on key access corridors in the Dublin region, which will enable and deliver efficient, safe, and integrated sustainable transport movement along these corridors. These works are fundamental to addressing the congestion issues in the Dublin region with the population due to grow by 25% by 2040, bringing it to almost 1.55m.

Across Dublin, 67% of public transport journeys each day are made by bus, carrying three and four times the number of passengers that travel on the Luas or Dart and commuter rail. The popularity of cycling to work has also increased in popularity, up by 43% since 2011. Through the development of continuous bus priority and segregated cycle tracks the CBC can meet the growing demand for fast, reliable, punctual and convenient bus journeys in and out of the city centre, and safe cycling facilities for this growing numbers of cyclists.

2.5 The Core Bus Corridor Objectives

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 Liffey Valley to City Centre Core Bus Corridor CBC Feasibility Study and Options Assessment Report and Emerging Preferred Route

In early 2016, the NTA initiated plans to develop the network of CBCs identified in the GDA Transport Strategy. As part of this body of work, the 'Liffey Valley to City Centre Core Bus Corridor CBC Feasibility Study and Options Assessment Report' (December 2017) 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 the 30th April 2019 and the final phase ran from 26th February 2019 until the 31st May 2019. The Liffey Valley to City Centre CBC EPR Option formed part of the second phase of consultation, which closed on the 30th of April 2019.

There were 135 submissions received relating to the Liffey Valley 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 Liffey Valley 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) Grattan Crescent in relation to the proposed removal of mature trees (Landscaping);
- 2) Grattan Crescent in relation to the narrowing of the footpath "plaza" outside the school gates (Access and Parking);
- 3) Access and parking;
- 4) Safety and speed
- 5) Anticipated increase in traffic volumes;
- 6) Heritage and conversation;
- 7) Community;
- 8) Cyclists and cycling provision;
- 9) Unsuitable design solutions;
- 10) Bus stops, service and network;
- 11) Land acquisition and accommodation works;
- 12) Air pollution;
- 13) Impact on local businesses;
- 14) One-way system;
- 15) Noise and vibration; and
- 16) Construction stage issues

Further detail on these issues can be found in the Liffey Valley to City Centre Core Bus Corridor Emerging Preferred Route First Non-Statutory Public Consultation Report (March 2020).

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 Section 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 – Draft Preferred Route Option

The draft PRO was published in March 2020 and a second round of public consultation commenced on 4th March 2020 and ran until the 17th of April 2020.

Due to Covid 19 restrictions being imposed by Government in mid-March the planned Public Information Events were impacted. Consequently there were 39 submissions received relating to the CBC (compared to 135 submissions following the First Public Consultation). These submissions ranged from individual submissions by residents, commuters and local representatives, to detailed proposals from various associations and private sector businesses.

A brief summary of the feedback received on the Liffey Valley 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) Reversal of Brookfield Road one way and the Bus Gate at Mount Brown
- 2) Cycling provision between Sarsfield Road and High Street
- 3) Right turn ban on Old Kilmainham Road to South Circular Road
- 4) The closure of the O'Hogan Road /Ballyfermot Road junction
- 5) Removal of Ballyfermot roundabout

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

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

4. The Study Area

4.1 Introduction

The study area remains the same as outlined in the Options and Feasibility report and is shown below in **Figure 4.1** below. The study area begins at Ballyowen Road to the west of Liffey Valley and generally includes feasible routes within 500m of the R833 (Ballyfermot Road). The study area generally includes feasible routes within 500m of the R833 (Ballyfermot Road). The study area encompasses the areas around Liffey Valley, Ballyfermot, Park West, Chapelizod, Inchicore and Kilmainham. The end point for the study area is defined as being at the junction of the R108 and R137 at Christchurch Cathedral.

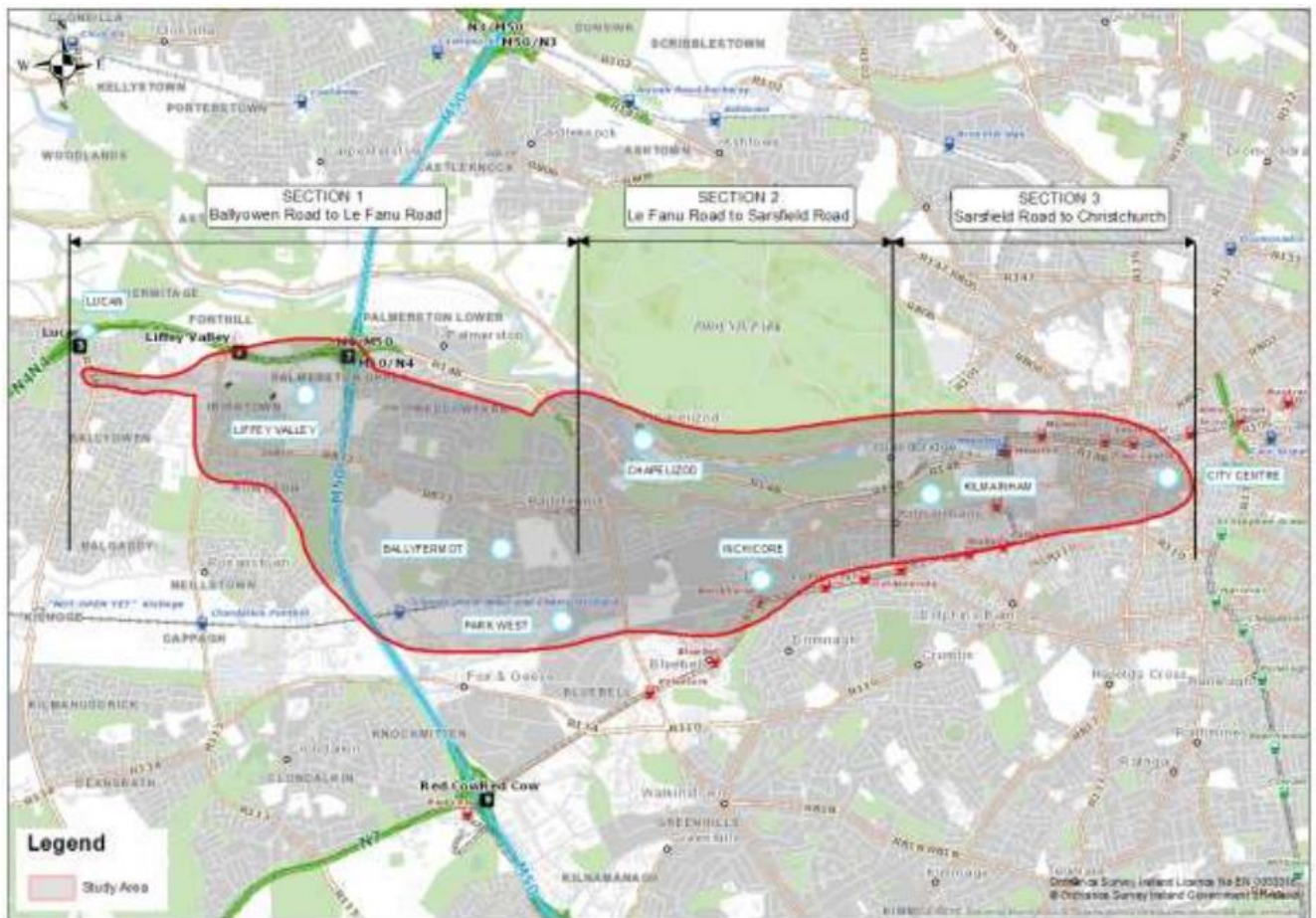


Figure 4.1: Original Study Area with Sections

As discussed in Section 3.1, it was proposed to commence this CBC at a new bus interchange facility on the northern boundary of the Liffey Valley Shopping Centre. Therefore, the study area has been revised, and the Ballyowen Road/ St Lomans Road is removed from the study area.

4.2 Study Area Sections

In order to simplify the assessment process and allow it to be presented in a clear manner, the study area is divided into three sections as per the Options and Feasibility Report:

- Section 1: Liffey Valley to Le Fanu Road
- Section 2: Le Fanu Road to Sarsfield Road
- Section 3: Sarsfield Road to City Centre

4.3 Physical Constraints and Opportunities

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

- Availability of space between building lines
- Public parks
- Adjacent trees
- Existing and committed future development along the route
- Existing monuments and protected structures
- Bridges
- St James's Hospital and future Children's Hospital
- Need to maintain traffic flow in key areas
- Urban realm upgrades in towns and village areas such as Ballyfermot

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 possible, seek to provide for improved existing or new interchange opportunities with other transport services including:

- Interface with other CBC Schemes
 - Lucan to City Centre CBC
- Bus Network
 - Existing bus routes – 18, 40, 76, 239, 79, 79a, 68, 123, 13
 - Revised Dublin Bus Network Redesign routes – G1, G2, S2, S4, W2, LS1, LS3, O, 60, 73, 80,
 - Liffey Valley Bus Interchange Facility
- Metropolitan Light Rail – LUAS, DART, Metro
 - The Luas Red Line
 - Dart + upgrade
- Metropolitan Heavy Rail
 - Heavy Rail at Heuston Station

4.5 Compatibility with Other Road Users

A key objective of the proposed scheme is to improve pedestrian and cyclist facilities along the route. In general, segregated facilities should be proposed for these modes.

As referenced earlier, the Greater Dublin Area Cycle Network Plan was adopted by the NTA in early 2014 and there are a number of primary (Routes 7, 7A) and secondary (Routes 7D) cycle routes identified along the *Liffey Valley to City Centre Corridor*. During the course of the analysis carried out to identify the preferred core bus corridor, the provision of these cycle routes was considered at all stages. Where it is considered impractical to construct pedestrian or cycle facilities along a particular section of the CBC route, such facilities may need to be provided along a suitable alternative route.

At discrete locations where segregated cycle facilities cannot be provided along the CBC route and there are no suitable routing alternatives, cyclists will share the bus lane with other vehicles. Such proposals need careful consideration and design to ensure the safety of cyclists.

General traffic flow and local access will generally be maintained along the CBC corridor although it is inevitable that there will be impacts on traffic capacity along the route associated with the reallocation of road space to CBC priority and cycle tracks and the introduction of turning movement restrictions. Any reductions in traffic carrying capacity of the road network will need to be considered in the context of the overall planned significant increase in quality and level of service of other modes (including increased capacity provision) on the CBC route once implemented.

DRAFT

5. Review of the Previous Feasibility Options & Report

5.1 Introduction

The Liffey Valley to Christchurch Core Bus Corridor Options Study Feasibility Report, prepared at the concept/feasibility stage, undertook a two-stage process to identify an Emerging Preferred Route for the CBC. This chapter describes the methodology previously undertaken to arrive at the summary of outcomes shown in **Table 5.1**. An initial “spiders-web” of potential routes that could feasibly accommodate the CBC was developed for the entire study area. The resulting spider web of route options for the entire study area is shown in **Figure 5.1** below.

The Liffey Valley to Christchurch Core Bus Corridor Options Study Feasibility Report and Concept Design Drawings are available on the Bus Connects website at link below.

<https://busconnects.ie/initiatives/core-bus-corridor-background-information/technical-documents>

The routes that passed Stage 1 Sifting were then taken forward and combined into a number of feasible longer routes between points. These route options were then assessed by a “Multi-Criteria Analysis” (MCA) process, in which routes were ranked in a comparative manner under a number of criteria.

As discussed in **Section 4.2** the Liffey Valley to City Centre CBC was split into three distinct sections and the methodology above applied to each individual section.

Study Area	Stage 1: No of Route Options considered at sifting stage	Stage 1: No of feasible Route Options	Stage 2: No of end to end Route Options	Stage 2: Emerging Preferred Route
Section 1	14	8	2	LV02
Section 2	20	11	4	BF03
Section 3	31	22	10	CT10

Table 5.1: Summary of Outcomes



Figure 5.1: Spiders Web of Route Options

5.2 Assessment Methodology for the Preferred Route

5.2.1 Assessment Methodology

The first step in the assessment process was to review the Emerging Preferred Route in the Options and Feasibility Report.

A number of locations along the Emerging Preferred Route 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 passed through a Multi-Criteria Assessment (MCA) in a similar manner to the Emerging Preferred Route assessment process.

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 of the project is the same as outlined in the Options and Feasibility Report. A summary of the MCA process is outlined below.

5.2.2 Multi-Criteria Analysis (MCA) process

The Emerging Preferred Route from the Options and Feasibility Report was assessed by a "Multi-Criteria Analysis" (MCA) process, in which routes were ranked in a comparative manner under a number of criteria.

The MCA comprised a more detailed qualitative and quantitative assessment, using criteria established to compare route options. 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
- Physical Activity

Physical Activity was scoped out of the multi-criteria assessment at this stage as all route options are considered to promote physical activity equally and it is, therefore, not considered to be a key differentiator between route options. Project-specific route options assessment criteria were established for the CBC Infrastructure Works by the NTA. These were tailored to have commonality with the Common Appraisal Framework guidelines where practical. **Table 5.2** presents a summary of the CBC assessment criteria and sub criteria used as part of the detailed route options assessment process.

<i>Assessment Criteria</i>	<i>Assessment Sub-Criteria</i>
1. Economy	1.a Capital Cost
	1.b Transport Reliability and Quality of Service
2. Integration	2.a Land Use Integration
	2.b Residential, Employment and Educational Catchments
	2.c Transport Network Integration
	2.d Cycling Integration
3. Accessibility & Social Inclusion	3.a Key Trip Attractors
	3.b Deprived Geographic Areas
4. Safety	4.a Road Safety
5. Environment	5.a Archaeology, Architectural and Cultural Heritage
	5.b Flora and Fauna
	5.c Soils and Geology
	5.d Hydrology
	5.e Landscape and Visual
	5.f Air Quality
	5.g Noise & Vibration
	5.h Land Use Character

Table 5.2: MCA Assessment Criteria

Route options were then compared based on a five point scale, ranging from having significant advantages to having significant disadvantages over other route options. **Table 5.3** shows the colour coding of the five point scale, with advantageous routes graded “dark green” and disadvantageous routes graded “red”

<i>Colour</i>	<i>Description</i>
	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.

Table 5.3: Route Options Colour Coded Ranking Scale

5.3 Study Area Section 1

As outlined in Section 3.1, the Study Area for Section 1 originally extended from the Ballyowen Road to Le Fanu Road. The starting point was subsequently changed to the Liffey Valley Shopping Centre to align with proposals brought forward to develop a bus interchange facility to the north of their campus.

In summary, the Emerging Preferred Route for Study Area Section 1 is as outlined in the previous Options and Feasibility Report, as presented in **Figure 5.2** with the starting point changed to align with the proposed bus interchange at the Liffey Valley Shopping Centre.

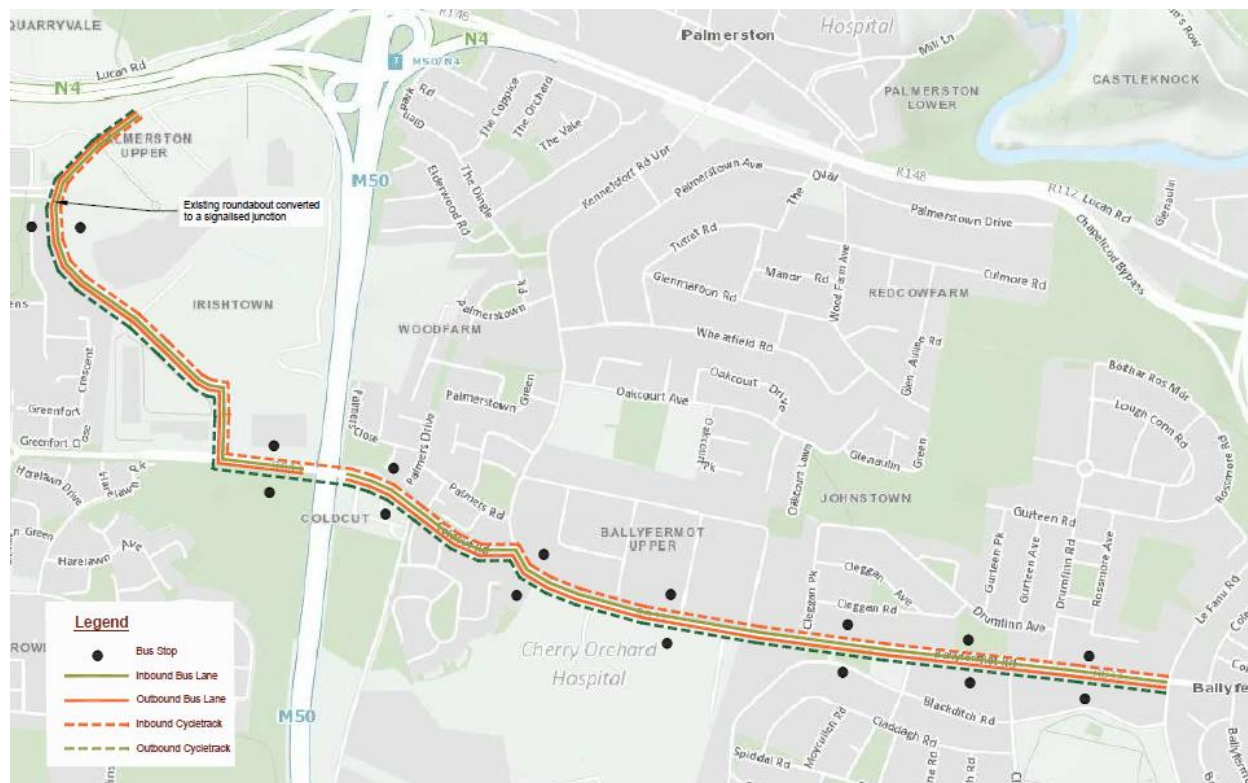


Figure 5.2: Emerging Preferred Route: Section 1

5.4 Study Area Section 2

5.4.1 Emerging Preferred Route

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

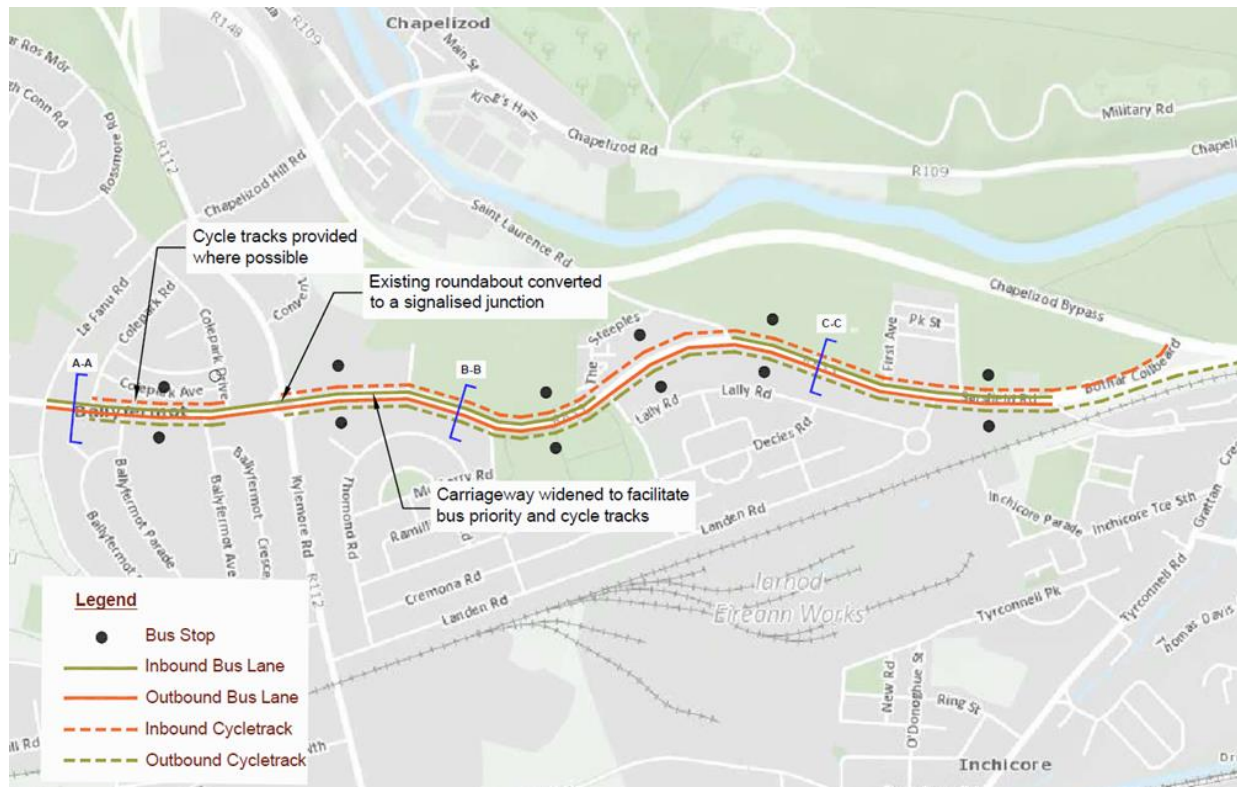


Figure 5.3: Emerging Preferred Route: Section 2

The previous MCA undertaken determined that a route along Ballyfermot Road was the Emerging Preferred Route.

Based on the Public Consultation submissions received and assessment of topographical survey subsequently undertaken along this route section one area was identified as requiring further review which is summarised in the following section.

5.4.2 Areas Identified for Re-examination

5.4.2.1 Ballyfermot Village

At the Le Fanu Road junction, it was proposed to divert city bound traffic via Le Fanu Road and Kylemore Road which represents a change to the EPR. The section of the Ballyfermot Road between Le Fanu Road and Kylemore junction will be restricted to one bus lane in each direction and one outbound general traffic lane. Local access on Ballyfermot Road between La Fanu Road and Colepark Road is maintained.

5.5 Study Area Section 3

5.5.1 Emerging Preferred Route

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

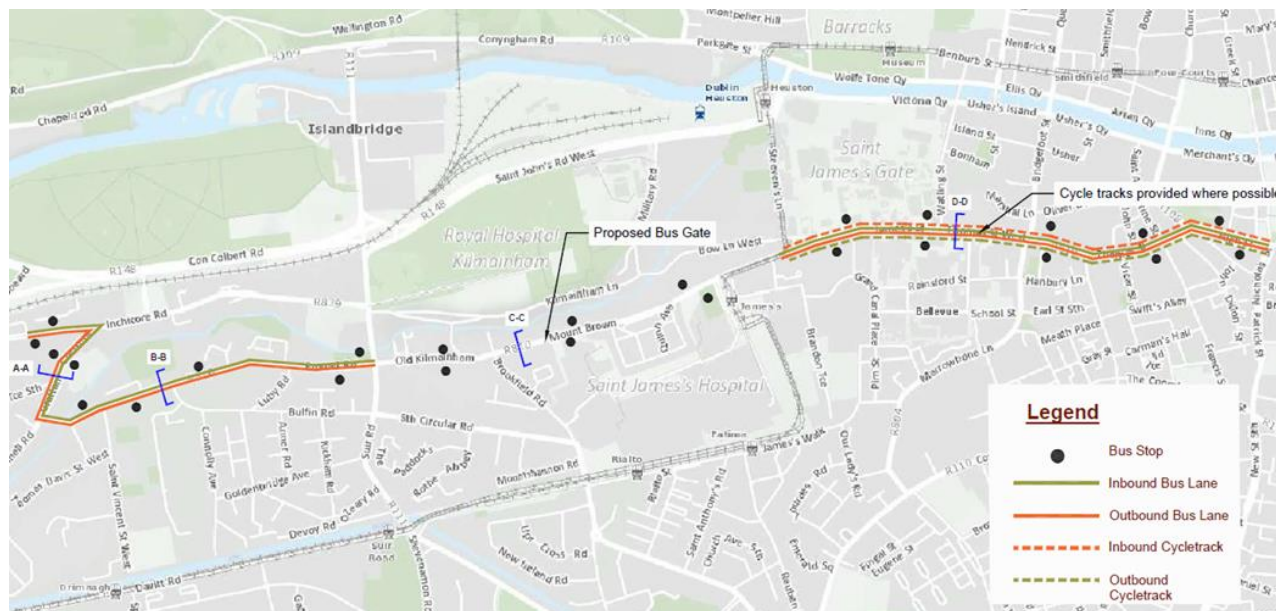


Figure 5.4: Emerging Preferred Route: Section 3

The previous MCA undertaken determined that a route along Sarsfield Road, Grattan Crescent, Emmet Road, Mount Brown, James Street and Thomas Street was the Emerging Preferred Route.

Based on the Public Consultation submissions received, and assessment of topographical survey subsequently undertaken along this route section one area was identified as requiring further review which is summarised in the following section.

5.5.2 Areas Identified for Re-examination

5.5.2.1 Grattan Crescent

During the first phase of Public Consultation, residents of Inchicore made it clear that they strongly opposed the proposals to widen the carriageway along Grattan Crescent at the cost of green space or the local vernacular. Following multiple discussions with residents, alternative plans were proposed which would reduce Grattan Crescent to a single general traffic lane and allow the mature trees in the area to be retained.

5.6 Summary

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

- Section 1 - The start of the route has been changed to align with the proposals for a bus interchange at Liffey Valley Shopping Centre
- Section 2 - Alternative options at Ballyfermot Village
- Section 3 - Alternative options along Grattan Crescent

6. Option Assessment

6.1 Introduction

This Chapter reassesses the Emerging Preferred Route in sections identified in the Options and Feasibility Report, taking into account updated topographical survey information, further design development and the output from subsequent engagement and consultation activities that have taken place since the previous Emerging Preferred Route was last published.

6.2 Section 1

As discussed in **Section 5.3** of this Draft PRO Report, the CBC Option for Study Area Section 1 is as outlined in the previous Options and Feasibility Report with the starting point changed to Liffey Valley Shopping Centre to align with proposals brought forward to develop a bus interchange facility to the north of their campus. The Study Area Analysis and Multi Criteria Analysis for the previously proposed feasible route options for Section 1 outlined in the Options and Feasibility Report have been evaluated by the design team and are considered still to be valid.

6.3 Section 2

6.3.1 Introduction

Following the Multi-Criteria Analysis for the Emerging Preferred Route in the Options and Feasibility Report, BF03 was considered the most desirable option by best balancing cost, reliability and catchments.

6.3.2 Options Considered

This section travels along Ballyfermot Road and Sarsfield Road.

Unless otherwise stated in the sections below, all three of the options considered (BF03, BF04 and BF05) follow the same layout as BF03 as detailed in the previous Options and Feasibility Report.

Figure 6.1 illustrates the indicative scheme design for Route Option BF03 as well as location of indicative cross-sections.

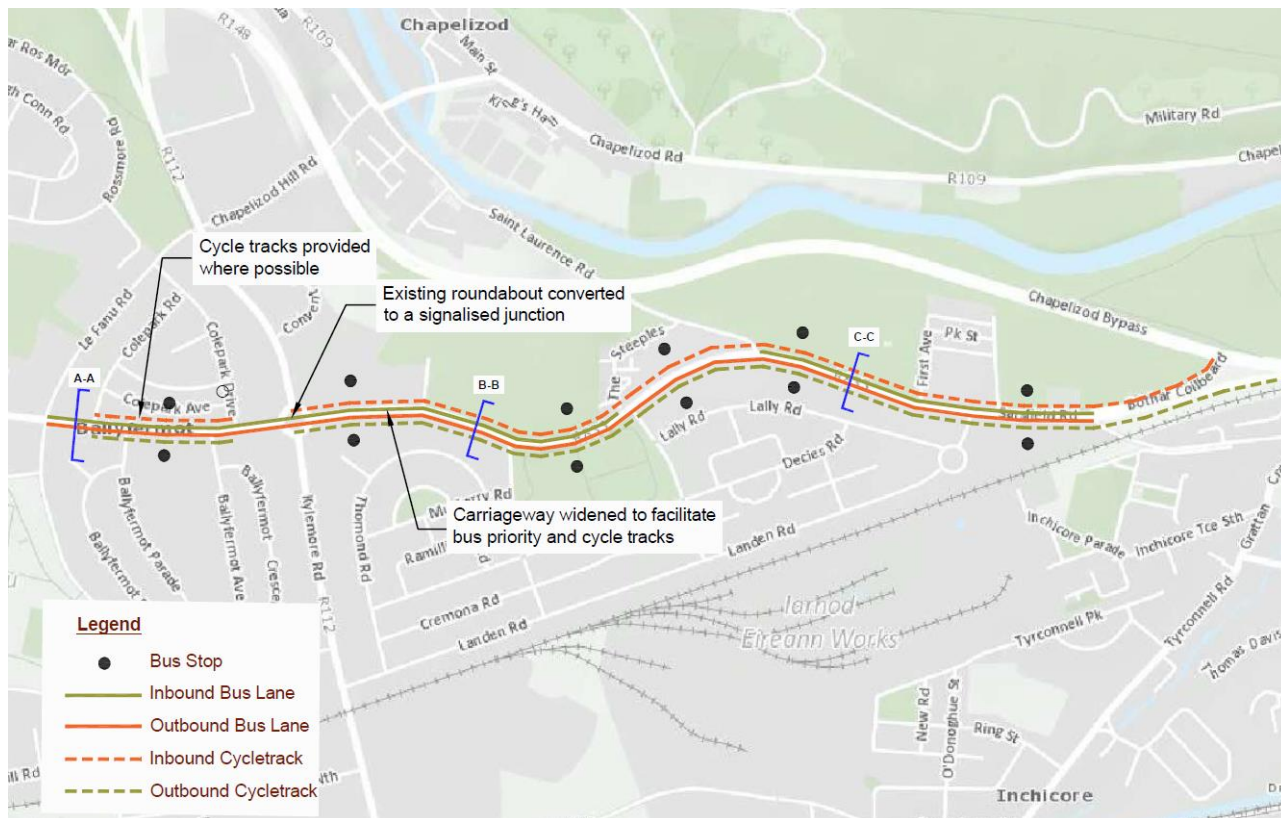


Figure 6.1: Route Option BF03

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

Bus Stops: A total of six bus stops would be provided in each direction along this route option.

Continuous inbound and outbound bus lanes are provided along the route.

The existing roundabout intersecting Ballyfermot Road and Kylemore Road would be upgraded to a signalised junction to minimise potential delays, improve bus priority and improve safety for cyclists. Bus lanes are provided right up to the stop lines of this junction along with the provision of left turn lanes for public traffic where there is large left turning traffic volumes

To reduce the impact on Markiewicz Park and the adjacent residential properties, it is proposed to provide Signal Controlled Priority in lieu of a bus lane for inbound buses on Ballyfermot Road between Markiewicz Park and St Laurence's Road. The inbound bus lane would then be reintroduced at St. Laurence's Road. To accommodate the revised arrangements, it is intended to close Ballyfermot Road/ O'Hogan Road junction of as part of the implementation of the bus priority signals on Ballyfermot Road.

Some land acquisition would be required from residential properties on the approach to the Landen Road/ Sarsfield Road junction although this has been minimised. Widening would be required along Sarsfield Road in

the form of setting back both private and public boundaries. Approximately 300m of boundary wall would be set back by approximately 5m to accommodate the widening adjacent to the Longmeadows Pitch and Putt Club following the reintroduction of the bus lane, impacting on green space. Approximately 100m of boundary wall would be set back by approximately 3m to accommodate the widening adjacent to Ruby's Public House, Paddy Power and 6 residential properties along Meadow View, impacting on customer parking and front gardens. Additional minor land take is required from Liffey Gaels GAA Club to accommodate the inbound bus stop.

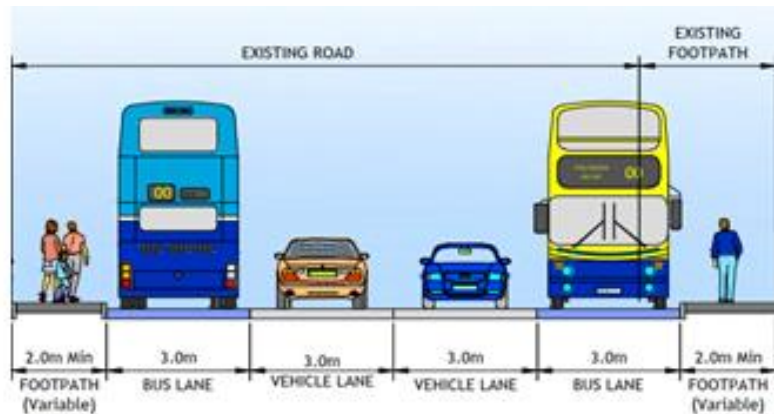


Figure 6.2: BF03 Cross Section A-A

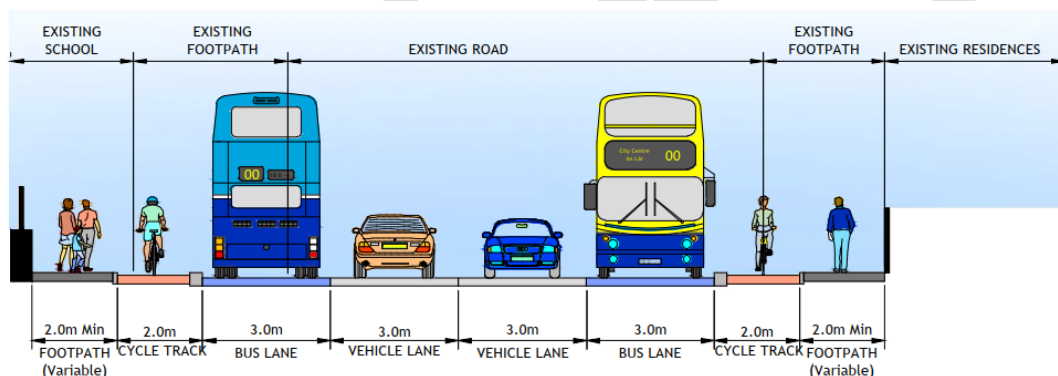


Figure 6.3: Section 2 Cross Section B-B

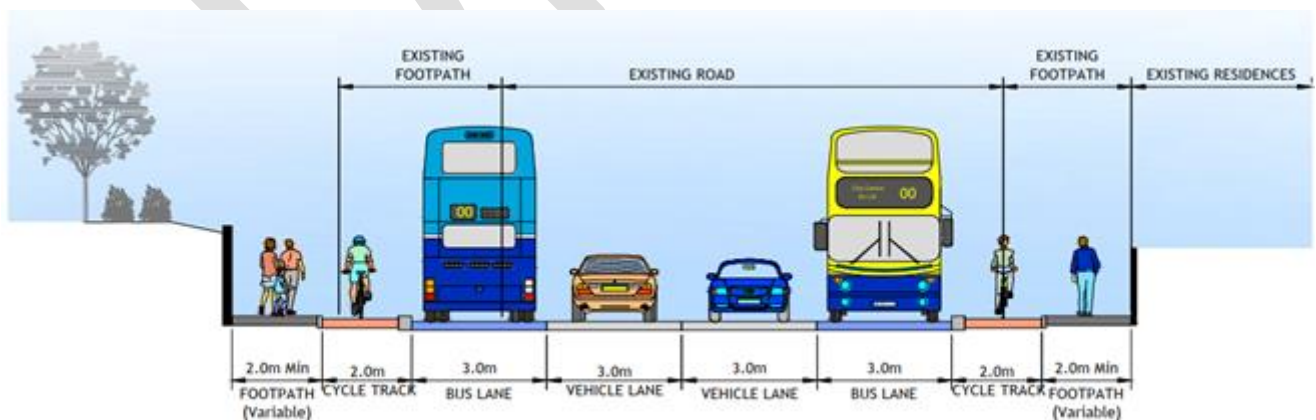


Figure 6.4: Section 2 Cross Section C-C

Cycle Route

The proposed cycle track would travel along Ballyfermot Road and subsequently onto the Sarsfield Road until its junction with the Con Colbert Road where it would tie into the Lucan CBC.

Between the junctions of Ballyfermot Road with Le Fanu Road and Kylemore Road, there are two locations on Ballyfermot Road where providing segregated cycle tracks would not be feasible due to the proximity of residential properties. The first location is approximately 100m east of the junction of Ballyfermot Road and Le Fanu Road in both directions. The second location is approximately 130m on the west side of the junction of the Ballyfermot Road and the Kylemore Road in both directions. At both locations cyclists would have to share the bus lane.

East of Ballyfermot Village, fully segregated cycling facilities are provided in both directions.

6.3.2.2 Route Option BF04

Figure 6.5 illustrates the indicative scheme design for Route Option BF04 as well as location of indicative cross-sections.

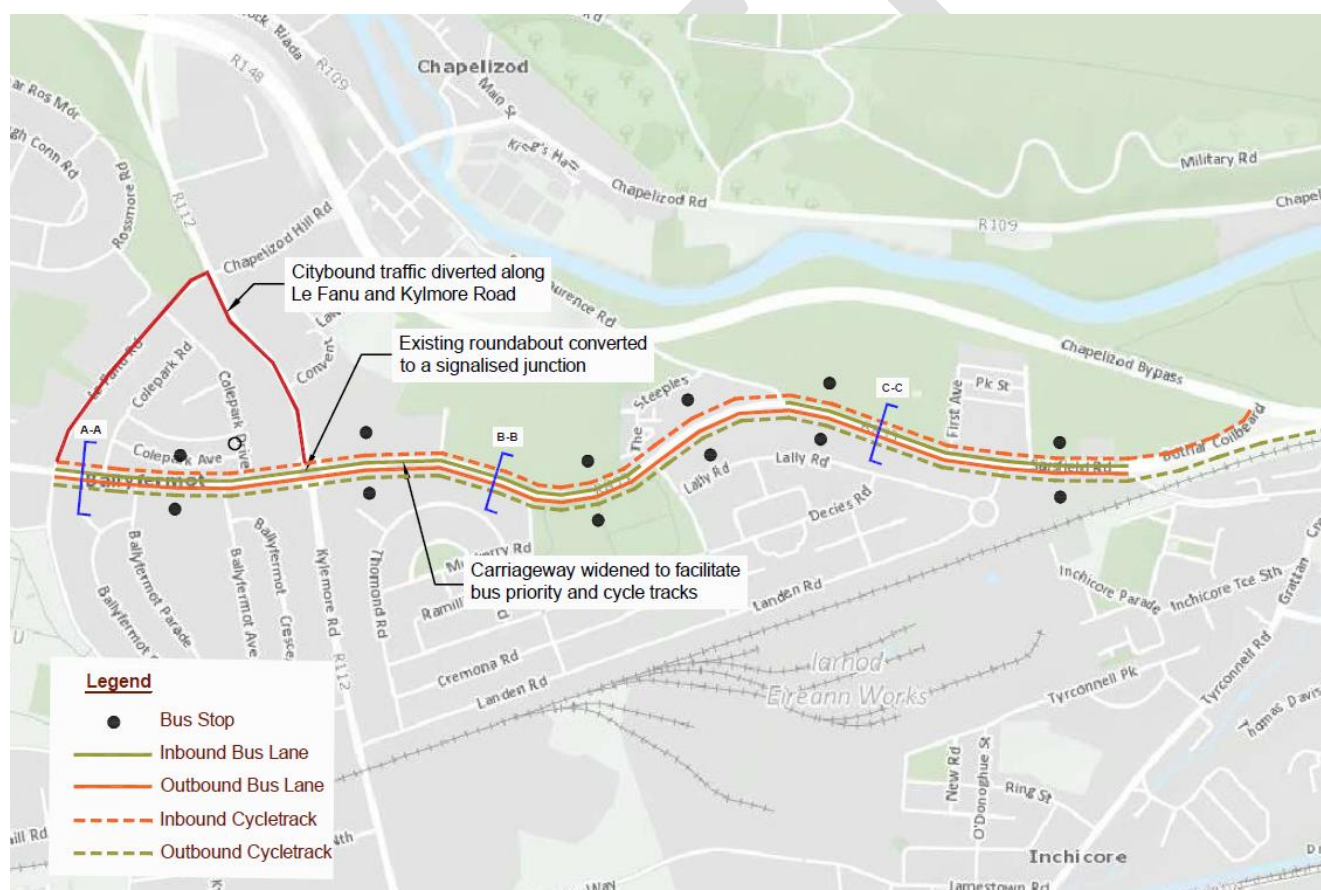


Figure 6.5: Route Option BF04

Option BF04 differs from the other options being considered as it proposes to divert citybound general traffic along Le Fanu Road and Kylemore Road in order to provide segregated cycle tracks for the full length of the section, without requiring any land acquisition through Ballyfermot Village. Citybound general traffic through Ballyfermot Village would be prohibited but local access would be permitted to access Colepark Road from the Le Fanu Road/ Ballyfermot Road junction.

Citybound general traffic would be required to turn left onto Le Fanu Road to its intersection with Kylemore Road, and then travel along Kylemore Road to the intersection with Ballyfermot Road. General traffic would then turn

left and rejoin Ballyfermot Road in the direction of the city centre. Outbound traffic would operate as normal and travel through Ballyfermot Village.

A total of six bus stops would be provided in each direction along this route option.

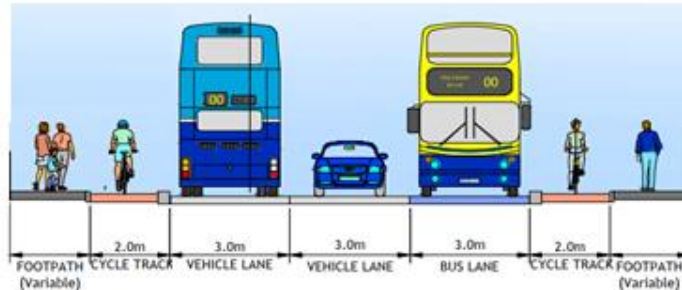


Figure 6.6: BF04 Cross Section A-A

Cross section B-B and C-C are as per option BF03.

Cycle Route

The proposed cycle track would run along Ballyfermot Road and subsequently onto the Sarsfield Road until its junction with the Con Colbert Road where it would tie into the Lucan CBC.

Fully segregated cycling facilities are provided in both directions.

6.3.2.3 Route Option BF05

Figure 6.7 illustrates the indicative scheme design for Route Option BF05 as well as location of indicative cross-sections.

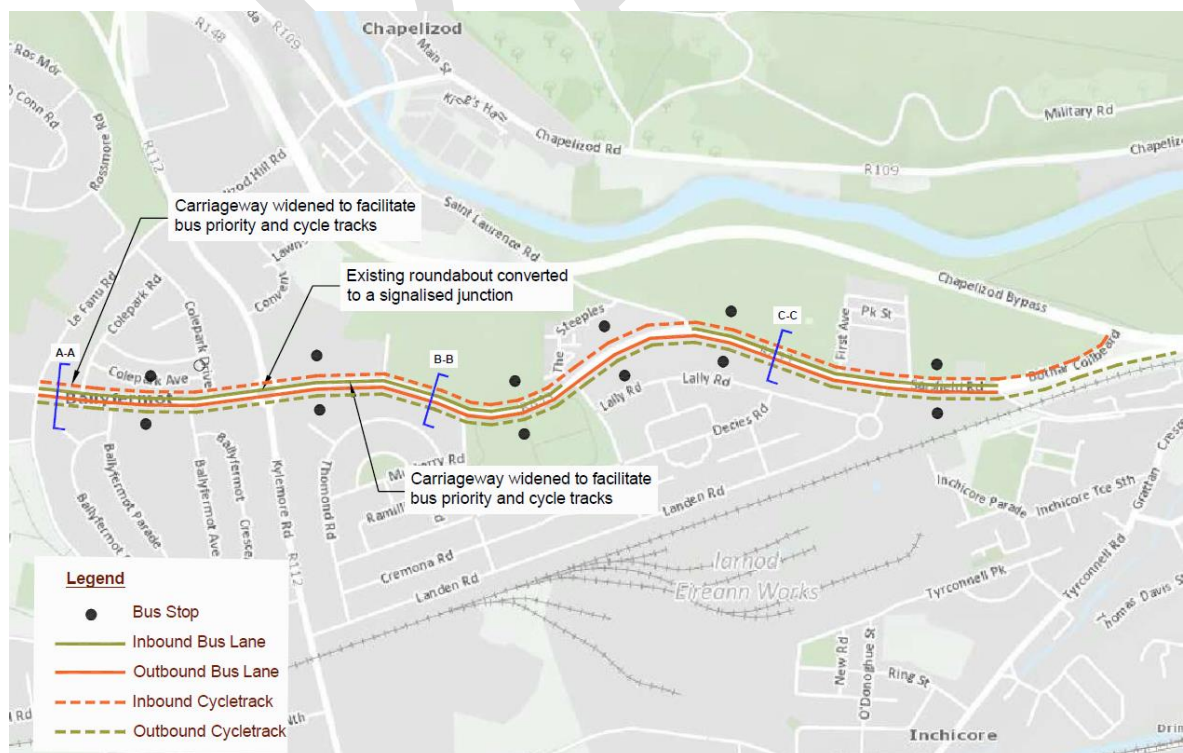


Figure 6.7: Route Option BF05 Indicative Scheme Design

The key difference in Option BF05 is the proposal to provide bus lanes, general traffic lanes, segregated cycle tracks and pedestrian facilities in both directions along Ballyfermot Road between Le Fanu Road and Kylemore Road. To provide this proposed cross section, widening and land take would be required along Ballyfermot Road between Le Fanu Road and Kylemore Road. Approximately 65m of private land boundary would be set back by approximately 1m to accommodate the widening along the citybound edge upstream of the Bank of Ireland, and approximately 130m of existing boundary would be set back by approximately 2m into private gardens and driveways to accommodate the widening on the outbound road edge.

It is estimated that approximately 14 car parking spaces for the shops may be affected by the widening, although alternative parking could be accommodated on adjacent side streets. The width of the pedestrian footpaths on either side of the carriageway would be reduced to 1.8m to limit the impact of the widening so driveways can still accommodate a standard vehicle.

A total of six bus stops would be provided in each direction along this route option.

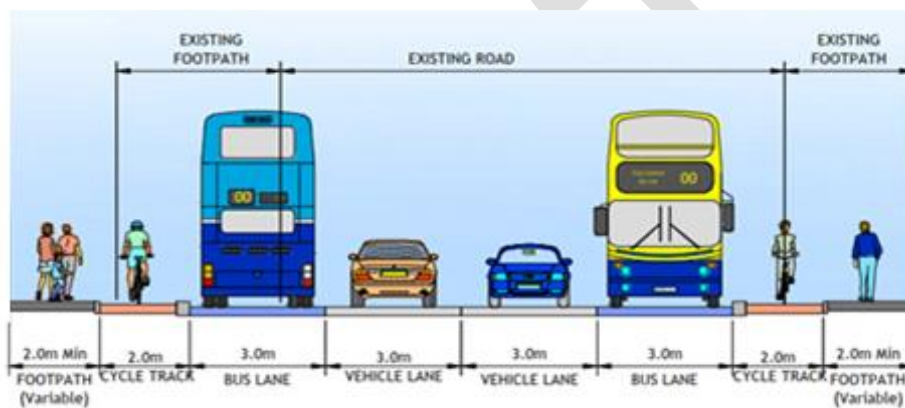


Figure 6.8: Route Option BF05 Cross Section A-A

Cross section B-B and C-C are as per option BF03.

Cycle Route

The proposed cycle track would travel along Ballyfermot Road and subsequently onto the Sarsfield Road until its junction with the Con Colbert Road where it would tie into the Lucan CBC.

Fully segregated cycling facilities are provided in both directions.

6.3.3 Option Assessment

The Stage 2 Route Options Assessment – Multi Criteria Appraisal summary tables for this section is included in Appendix A. The relative ranking of the route options for each assessment sub-criteria is shown in **Table 6.1** below:

Assessment Criteria	Assessment Sub-Criteria	BF03	BF04	BF05
Economy	Capital Cost			
	Transport Reliability and Quality of Service			
Integration	Land Use Integration			
	Residential, Employment and Educational Catchments			
	Transport Network Integration			
	Cycling Integration			
Accessibility & Social Inclusion	Key Trip Attractors			
	Deprived Geographic Areas			
Safety	Road Safety			
Environment	Archaeology, Architectural and Cultural Heritage			
	Flora and Fauna			
	Soils and Geology			
	Hydrology			
	Landscape and Visual			
	Air Quality			
	Noise & Vibration			
	Land Use Character			

Table 6.1: Section 2: Route Options Assessment Summary (Sub-Criteria)

In terms of Economy, Option BF05 is the most expensive due to the Capital Cost associated with land take and construction works along Ballyfermot Village which are required for the proposed cross section compared to Option BF03 and BF04 which retains the existing highway boundary for the majority of this section due to a reduced cross section.

All options ranked equally on Transport Reliability and Quality of Service as they have the same levels of bus priority.

In terms of Cycling Integration, Options BF04 and BF05 are considered to perform favourably as they provide continuous cycle tracks through Ballyfermot Village compared to option BF03 which requires cyclists to share the bus lane at pinch points.

All options rank equally under Accessibility and Social Inclusion as they all follow the same route.

In terms of Environment, Option BF05 scored lower due to the impacts as a result of the additional land take required along Ballyfermot Village to provide the full cross section compared to options BF03 and BF04 which retain the existing highway boundary and have a reduced cross section for the majority of this section.

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

Assessment Criteria	BF03	BF04	BF05
Economy	Green	Green	Orange
Integration	Red	Green	Green
Accessibility and Social Inclusion	Yellow	Yellow	Yellow
Safety	Yellow	Yellow	Yellow
Environment	Green	Green	Red

Table 6.2: Section 2: Final Summary of MCA

Based on the assessment undertaken, route Option BF04 appears to offer more benefits over other options. It performs well under the Economy, Integration and Environment criteria. Option BF04 is the Preferred Route Option for the Le Fanu Road to Sarsfield Road section for the following reasons:

- It provides full physical bus priority throughout this section, ensuring reliability of journey time for the bus;
- It provides continuous cycle tracks through the section in line with primary Route 7a of the GDA cycle network, and
- It minimises the impact on properties along Ballyfermot Road in the vicinity of Ballyfermot village.

6.4 Section 3

6.4.1 Introduction

Following the Multi-Criteria Analysis for the Emerging Preferred Route in the Options and Feasibility Report, CCT10 was considered the most desirable option by best balancing cost, reliability and catchments.

However, during the first phase of Public Consultation, residents of Inchicore made it clear that they strongly opposed the proposals to widen the carriageway along Grattan Crescent at the cost of green space or the local vernacular. Following multiple discussions with residents, alternative plans were proposed which would reduce Grattan Crescent to a single general traffic lane and allow the mature trees in the area to be retained. As such CCT10 from the Emerging Preferred Route was reassessed against two new options, CCT11 and CCT12, which were one-way systems from general traffic along Grattan Crescent, northbound and southbound respectively.

6.4.2 Options Considered

This section travels along Sarsfield Road, Grattan Crescent and the R810 Emmet Road to the Christchurch area. This involves travelling along Emmet Road, Old Kilmainham, Mount Brown, James's Street, Thomas Street and terminates on High Street.

Unless otherwise stated, all three of the options considered (CCT10, CCT11 and CCT12) follow the same layout as CCT10 as detailed in the Options and Feasibility Report.

6.4.2.1 Route Option CCT10 (EPR)

Figure 6.9 illustrates the indicative scheme design for Route Option CCT10 as well as location of indicative cross-sections.

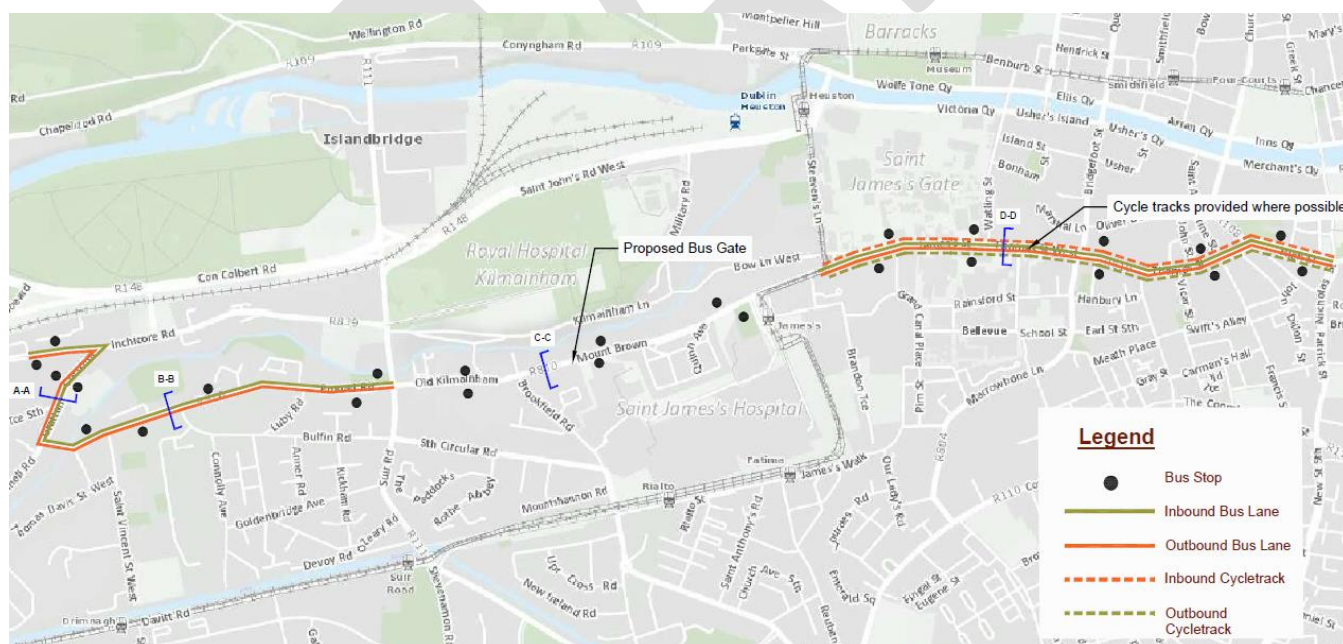


Figure 6.9: Route Option CCT10 Indicative Scheme Design

Inbound: Route Option CCT10 would commence on Sarsfield Road at the junction with Con Colbert Road, from here the bus would continue in an easterly direction and subsequently turn right onto Grattan Crescent. At the intersection of Grattan Crescent and Emmet Road the CBC travels along Emmet Road, Old Kilmainham, Mount Brown and James's Street. From here the route joins Thomas Street, Cornmarket and along High Street to the

junction with Nicholas Street and Winetavern Street where it will join the existing traffic management regime in the City Centre and terminates at the end of High Street.

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

Bus Stops: A total of 13 bus stops would be provided in the inbound direction and 12 bus stops provide in the outbound direction along this route option.

Continuous inbound and outbound bus lanes are provided along the majority of the route. A bus gate is proposed to provide bus priority between the South Circular Road and Bow lane.

CCT10 proposes to provide new and upgraded bus lanes and pedestrian facilities on the R839 (Grattan Crescent) in both directions between the Sarsfield Road and Emmet Road junctions. The existing traffic lane layout would be maintained throughout the section (unless otherwise stated) but would have reduced traffic lane widths to 3m, as shown in **Figure 6.10** below. To incorporate the new bus lanes, the carriageway would need to be widened and a number of mature trees would be removed. It is proposed to retain car parking along this section where possible.

Emmet Road is proposed to be reconfigured to provide a bus lane and general traffic lane in both directions. To facilitate this wider road configuration some local on-street parking would be removed. It is proposed to provide some alternative off-street parking near the junction with South Circular Road.

Currently Old Kilmainham / Mount Brown has significant width restrictions that will not permit any substantial road widening or bus lane provision. To maintain bus priority on this section of the route, it is proposed to provide a bus gate, (a short section of road for use only by public transport and cyclists) directly east of the proposed entrance to St. James Children's Hospital. This bus gate would prevent general through-traffic using Old Kilmainham/Mount Brown; Local access to residences and business along Mount Brown and surrounding streets will be maintained through Bow Lane West and James' Street.

Between the St. James' Adult Hospital Entrance and the Junction with Bow Lane West, it is proposed to retain the existing road layout. From Bow Lane West to High Street, it is intended to provide a bus lane and general traffic lane in both directions. Where road widths permit, cycle tracks will also be provided; however, these may not be continuous and at pinch points cyclists may be required to use the bus lane.

The CBC will join the prevailing City Centre traffic management regime at the junction with Nicholas Street and Winetavern Street.

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

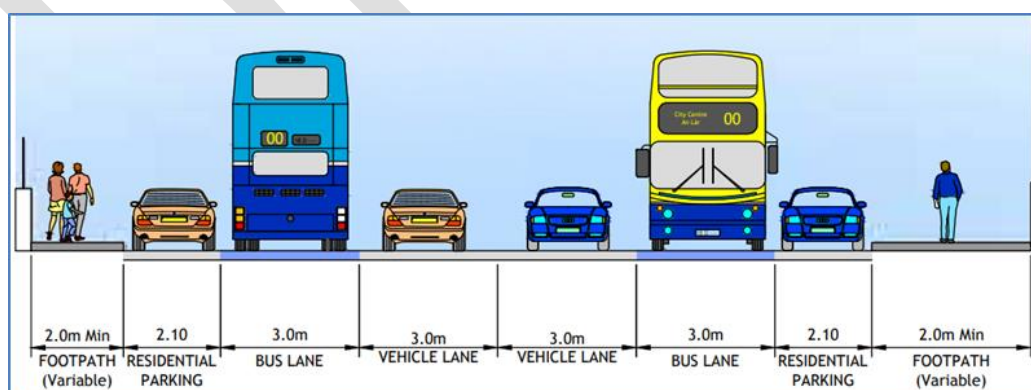


Figure 6.10: Route Option CCT10 Cross Section A-A

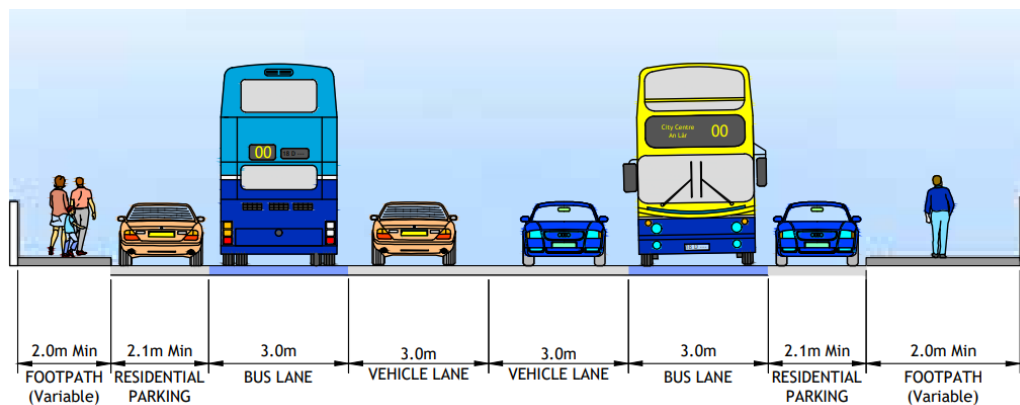


Figure 6.11: Section 3 Cross Section B-B

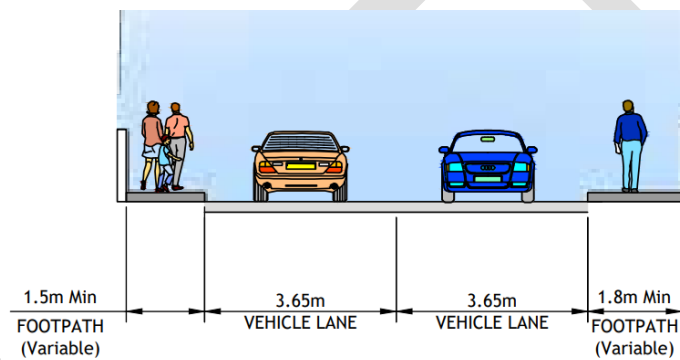


Figure 6.12: Section 3 Cross Section C-C

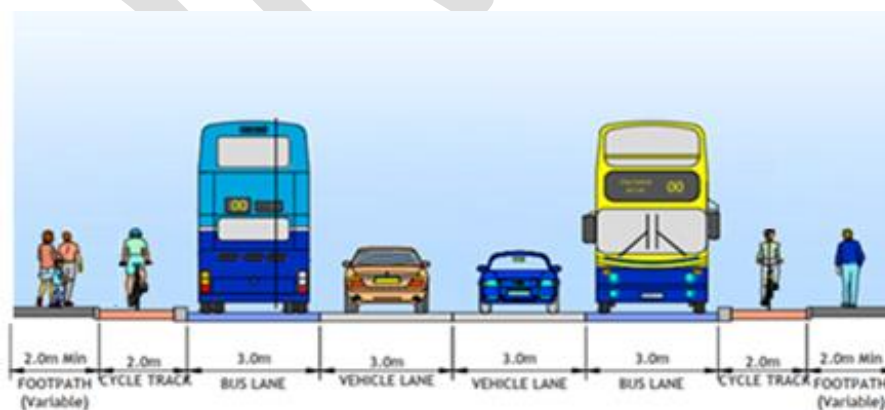


Figure 6.13: Section 3 Cross Section D-D

6.4.2.2 Route Option CCT11

Figure 6.14 illustrates the indicative scheme design for Route Option CCT11 as well as location of indicative cross-sections.

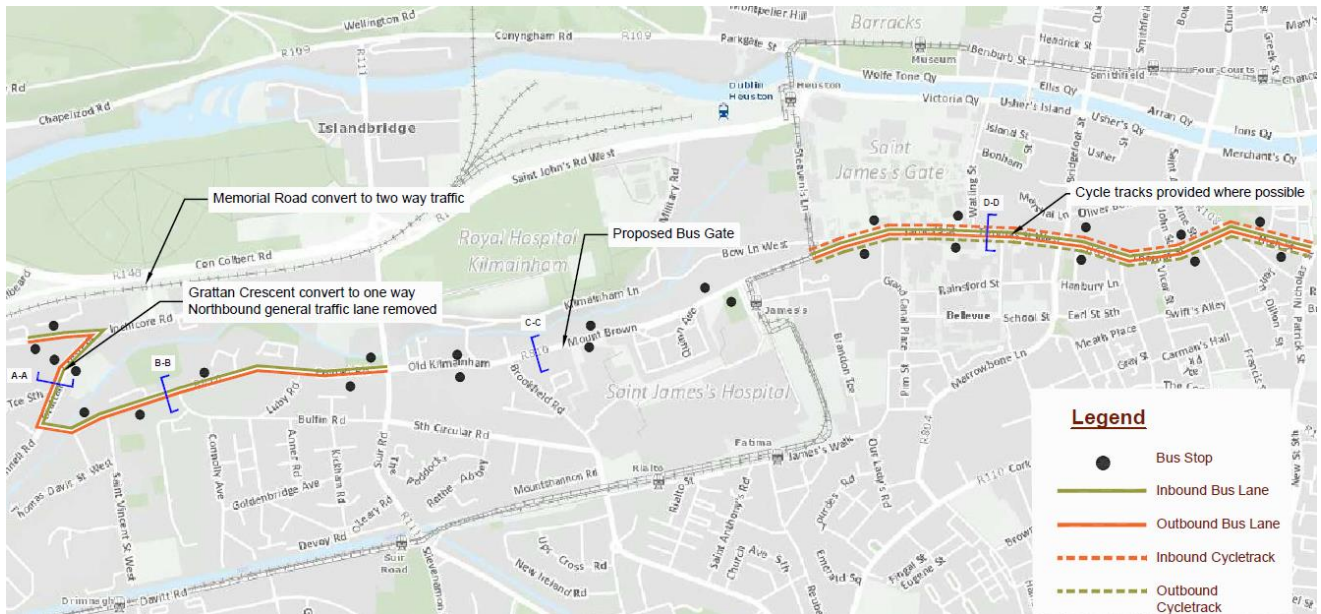


Figure 6.14: Route Option CCT11 Indicative Scheme Design

CCT11 proposes to provide new and upgraded bus lanes and pedestrian facilities on Grattan Crescent in both directions between the Sarsfield Road and Emmet Road junctions. To remove the need for carriageway widening and retain the existing mature trees, general traffic will be limited to a single lane along Grattan Crescent in a southbound direction between Sarsfield Road and Inchicore Terrace South. The space made available by removing a lane of general traffic will be utilised to widen the footways and carry out public realm works along Grattan Crescent. This is shown below in Figure 6.15. Some car parking will be retaining along this section, and a new pedestrian crossing would be provided between Grattan Crescent Park and Inchicore National School.

To reduce the impact of the proposed traffic restrictions on local residents; Memorial Road will be converted to two-way general traffic, the junction between Inchicore Road and Memorial Road will be modified to accommodate the traffic movements, and a new right turn will be made available for cars accessing the Chapelized Bypass from the western end of Sarsfield Road.

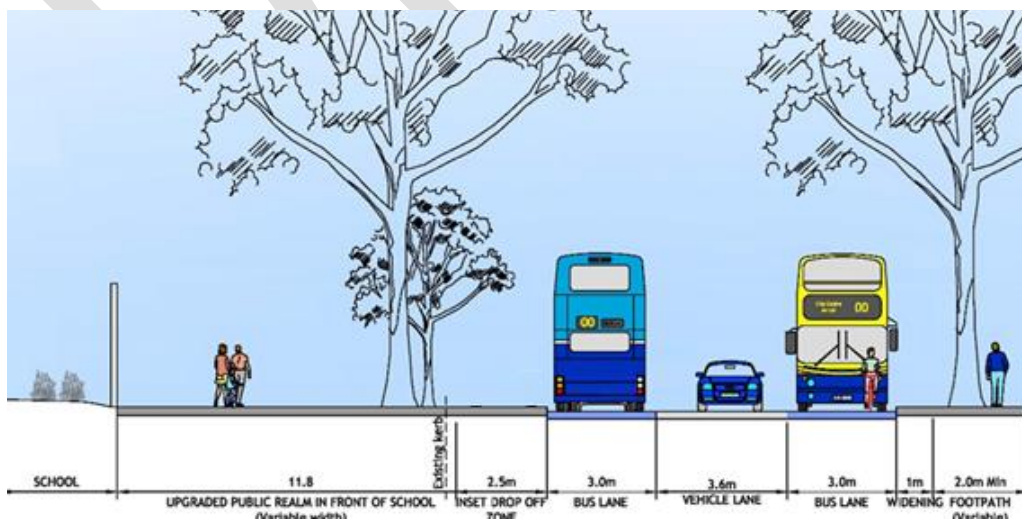


Figure 6.15: CCT11 Cross-Section A-A

Cross sections B-B, C-C- and D-D are as per option CCT10.

6.4.2.3 Route Option CCT12

This route option is shown in **Figure 6.16** below.

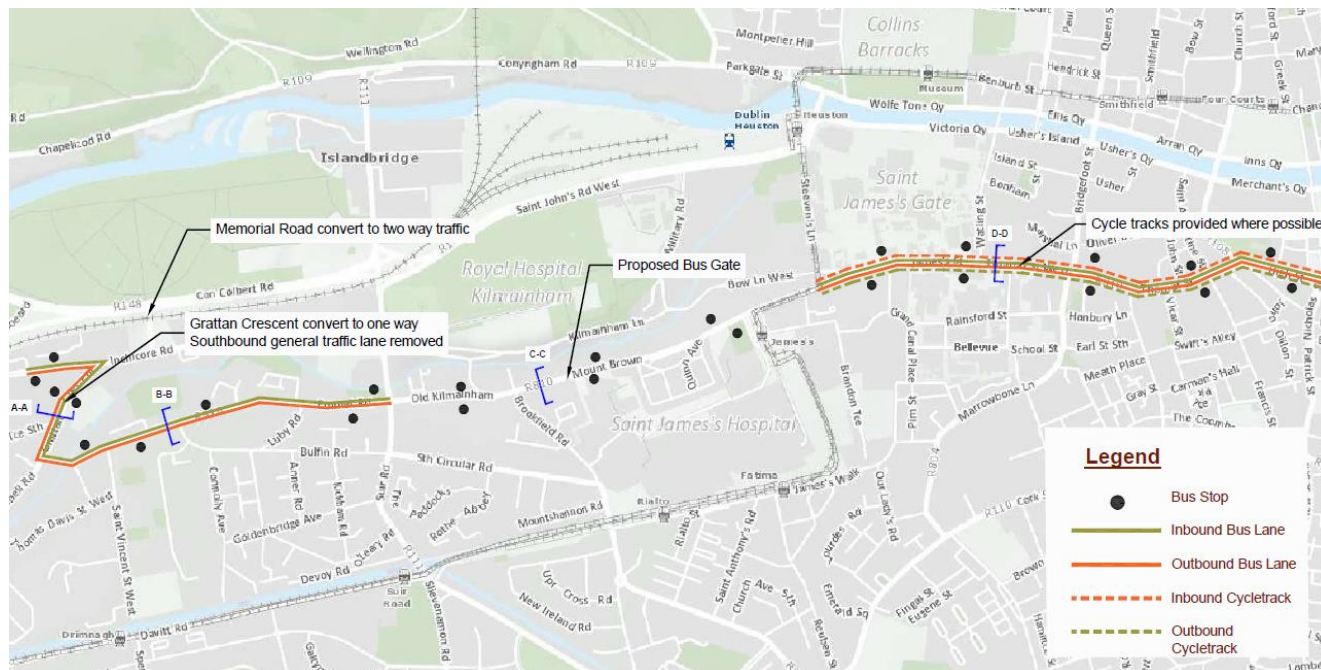


Figure 6.16: Route Option CCT12 Indicative Scheme Design

CCT12 proposes to provide new and upgraded bus lanes and pedestrian facilities on the Grattan Crescent in both directions between the Sarsfield Road and Emmet Road junctions. To remove the need for carriageway widening, general traffic would be limited to a single lane along Grattan Crescent in a northbound direction between Sarsfield Road and Inchicore Terrace South. The space made available by removing a lane of general traffic will be utilised to widen the footways and carry out public realm works along Grattan Crescent. This is shown below in **Figure 6.17**. Some car parking will be retaining along this section, and a new pedestrian crossing would be provided between Grattan Crescent Park and Inchicore National School.

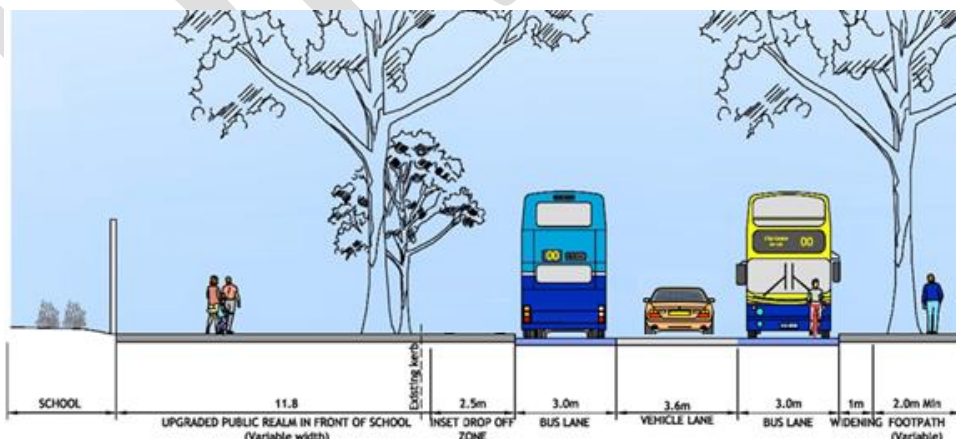


Figure 6.17: CCT12 Cross-Section A-A

As part of the analysis of this route, the re-routing of existing outbound general traffic was considered. Vehicles entering the city centre would be encouraged take the R148 (Chapelizod Bypass) from Sarsfield Road, while vehicles making more local journeys are to instead follow the R148, the R111 (South Circular Road), Inchicore Road and the R810.

To reduce the impact of the proposed traffic restrictions on local residents; Memorial Road will be converted to two-way general traffic, the junction between Inchicore Road and Memorial Road will be modified to accommodate the traffic movements, and a new right turn will be made available for cars accessing the Chapelizod Bypass from the western end of Sarsfield Road.

6.4.3 Option Assessment

The Stage 2 Route Options Assessment – Multi Criteria Appraisal summary tables for this section are include in **Appendix A**. The relative ranking of the route options for each assessment sub-criteria is shown in **Table 6.3**:

Assessment Criteria	Assessment Sub-Criteria	CCT10	CCT11	CCT12
Economy	Capital Cost			
	Transport Reliability and Quality of Service			
Integration	Land Use Integration			
	Residential, Employment and Educational Catchments			
	Transport Network Integration			
	Cycling Integration			
Accessibility & Social Inclusion	Key Trip Attractors			
	Deprived Geographic Areas			
Safety	Road Safety			
Environment	Archaeology, Architectural and Cultural Heritage			
	Flora and Fauna			
	Soils and Geology			
	Hydrology			
	Landscape and Visual			
	Air Quality			
	Noise & Vibration			
	Land Use Character			

Table 6.3: Section 3: Route Options Assessment Summary (Sub-Criteria)

In terms of Economy, Option CCT10 is the most expensive due to the Capital Cost associated with the additional carriageway widening works proposed on Grattan Crescent which are required to accommodate the proposed cross section. Option CCT11 and CCT12 retain the majority of the existing carriageway along Grattan Crescent due to the reduced cross section.

All options ranked equally on Transport Reliability and Quality of Service as they have the same levels of bus priority.

In terms of Integration, option CCT12 scored lower as the proposed northbound one-way system for general traffic on Grattan Crescent did not tie in as well with exiting local traffic management arrangements in the area. CCT11 proposes a southbound one-way system for general traffic on Grattan Crescent which ties in with the existing one-way system on Inchicore Road.

All options rank equally under Accessibility and Social Inclusion as they all follow the same route.

In terms of Environment, Option CCT10 scored lower due to the impact as a result of the additional carriageway widening along Grattan Crescent which required the removal of the existing mature trees on both sides of the road. This would have a negative impact in terms of landscape and visual and the land use character of the area. Options CCT11 and CCT12 retain the existing trees along Grattan Crescent.

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

Assessment Criteria	CCT10	CCT11	CCT12
Economy	Orange	Green	Green
Integration	Green	Green	Orange
Accessibility and Social Inclusion	Yellow	Yellow	Yellow
Safety	Yellow	Yellow	Yellow
Environment	Orange	Green	Green

Table 6.4: Section 3: Final Summary of MCA

Based on the assessment undertaken, route Option CCT11 appears to offer more benefits over other options. It performs well under the Economy, Integration and Environment criteria. Option CCT11 is the Preferred Route Option for the Sarsfield Road to City Centre section for the following reasons:

- It provides full physical bus priority throughout this section, ensuring reliability of journey time for the bus;
- It retains the existing mature trees along Grattan Crescent
- The proposed one-way system on Grattan Crescent ties in well with the existing local traffic management in the area.

7.3 Preferred Route Option Scheme Design Description

7.3.1 Section 1- Liffey Valley to Le Fanu road

It is proposed to commence this CBC at a new bus interchange facility on the northern boundary of the Liffey Valley Shopping Centre. The tie in with the location of a new pedestrian and cycle bridge over the N4 has been incorporated in the Preferred Route Option. Between the interchange facility and the junction with Coldcut Road, it is proposed to provide a continuous bus lane in each direction. Cycle tracks can be accommodated in both directions through dedicated cycle tracks. These proposals can be provided by widening into the central median, modifying the existing junctions and utilising existing green space adjacent to the road.

It is proposed to modify the Coldcut Road / Liffey Valley Entrance Road to accommodate the following lanes:

- 2 no. bus lanes on Coldcut Road (westbound and eastbound);
- 3 no. general traffic lanes (westbound, eastbound and right turn lane for accessing Liffey Valley);
- Cycle tracks and footways in both directions.

As Coldcut Road crosses over the M50, the carriageway width is restricted. To overcome this restriction and maintain bus priority over this section, it is proposed to provide a bus priority signal on both sides of the bridge crossing. The traffic signals at this location will be sequenced to ensure bus priority. To accommodate these changes, it is proposed to encroach on the green space to the east of the existing structure.

Between this bridge crossing and the junction with Ballyfermot Road, it is intended to maintain a single bus lane and general traffic lane in both directions. It is proposed to modify the Cloverhill Road and Kennelsfort Road junctions to provide improved facilities for cyclists and pedestrians. To accommodate these changes, it is proposed to utilise limited land take along the green space adjacent to Palmers Walk, Palmers Court and Palmers Drive area.

On Ballyfermot Road, it is proposed to maintain one single bus lane, one general traffic lane and a cycle track in both directions. To accommodate this improved infrastructure, it may be necessary to acquire limited land take at the following locations:

- Cherry Orchard Industrial Estate;
- Cherry Orchard Hospital;
- Entrance Cherry Orchard Filling Station;
- At junction with Le Fanu Road.

It is also proposed to amalgamate the main Ballyfermot Road and the access road serving 430 – 512 Ballyfermot Road by removing the existing boundary fence and landscaping. This would provide sufficient space to improve the existing public transport infrastructure. Public Realm works, additional tree planting and provision for parallel parking are proposed where the access road will be modified.

7.3.2 Section 2 - Le Fanu Road to Sarsfield Road

At the Le Fanu Road junction, it is proposed to divert city bound traffic on to Le Fanu Road. The section of Ballyfermot Road between Le Fanu Road and Kylemore Junction will be restricted to one bus lane in both directions and one outbound general traffic lane. Local access on Ballyfermot Road between La Fanu Road and Colepark Road has been maintained. City bound traffic will be redirected up Le Fanu Road and down Kylemore Road. It is intended to provide a cycle track in both directions on this section of the Ballyfermot Road and on Kylemore Road. Eastbound local access will still be permitted on Ballyfermot Road up to the junction with Colepark Avenue.

It is proposed to upgrade the existing roundabout junction on Kylemore Road / Ballyfermot Road to a signalised junction and provide improved infrastructure for cyclists and pedestrians. Between Kylemore Road and Markiewicz Park, it is proposed to maintain one bus lane, one general traffic lane and one cycle track in both directions. To accommodate this modified cross section, it is anticipated that limited land take will be required at the following locations:

- Limited green space from St. Raphael's and St. Gabriel's Primary School;
- Limited green space from the former De La Salle National School/ Mount La Salle;

To reduce the impact on Markiewicz Park and the adjacent residential properties, it is proposed to provide signal-controlled priority for citybound buses with the traffic signals sequenced to ensure full bus priority. The citybound bus lane would then be reintroduced at St. Laurence's Road. To accommodate the revised arrangements, it is intended to close the junction of O'Hogan Road and Ballyfermot Road as part of the implementation of the bus priority signals on Ballyfermot Road. O'Hogan Road can still be accessed via Garryowen Road and Decies Road. The proposals will require land take at the following locations:

- Limited land take at Markiewicz Park;
- Boundary lands at the Steeples Estate;
- Private frontages between O'Hogan Road and St. Laurence's Road;
- Boundary lands on Longmeadows Pitch and Putt / Longmeadow Park;
- Private frontages between First Avenue and Saint Mary's Avenue West.

Between Sarsfield Road and Chapelizod Bypass it is proposed to extend the proposed cycle track to tie into the proposed cycle infrastructure that forms part of the Lucan CBC scheme.

7.3.3 Section 3 - Sarsfield Road to City Centre

It is proposed to change Memorial Road from one way to two way for general traffic. Traffic will also be able to turn right from the Chapelizod Bypass to Memorial Road which is being implemented as part of the adjacent Lucan CBC scheme. It is intended to provide cycle track in both directions on Memorial Road. On Inchicore Road, between Memorial Road and Grattan Crescent, it is proposed to retain the existing lane configuration.

On Grattan Crescent, it is proposed to provide bus lanes in both directions and one general traffic lane in a southbound direction. Northbound traffic will be permitted up to the junction with the CIE works to maintain local access. It is anticipated that the existing footway will be widened, and a new crossing will be provided between Grattan Crescent Park and Inchicore National School. Several of the car parking spaces adjacent to the entrance to Grattan Park will be retained. This design revision has been implemented due to feedback received as part of the Public Consultation carried out on the EPR published in January 2019.

At the junction of Emmet Road and Tyrconnell Road, general traffic turning right from Emmet Road to Grattan Crescent will be for access to Inchicore Works only.

Between St. Vincent's Street West and South Circular Road, Emmet Road is proposed to be reconfigured to provide a bus lane and general traffic lane in both directions. To facilitate this wider road configuration some local on-street parking will need to be removed. It is proposed to provide some alternative off-street parking near the junction with South Circular road.

To maintain bus priority on Old Kilmainham / Mount Brown, it is proposed to provide a bus gate, (a short section of road for use only by public transport and cyclists) directly east of the proposed entrance to St. James Children's Hospital (across from 10 Faulkners Terrace, Mount Brown). This bus gate would prevent general through-traffic using Old Kilmainham/Mount Brown; however, it will not impact access to the Children's Hospital from Mount Brown or Old Kilmainham. Exiting traffic from the hospital will only be permitted to turn left towards Old Kilmainham. This access strategy is currently in development with the St. James Children's Hospital delivery team

and Dublin City Council and may be subject to change. Access to St. James Adult Hospital will be maintained at the James' Street entrance.

Eastbound general through traffic along the Old Kilmainham Road may divert to the South Circular Road and St. Johns Road. Westbound general traffic through Old Kilmainham Road may divert to the South Circular Road.

Between the St. James' Adult Hospital Entrance and the Junction with Bow Lane West, it is proposed to retain the existing road layout. From Bow Lane West to High Street, it is intended to provide continuous cycle tracks, a bus lanes where possible and general traffic lane in both directions. Bus priority is provided via a combinations of bus lanes, signals controlled priority and by the reduction in general traffic in the area as a result of the bus gate in Mount Brown.

At the Cornmarket junction the priority has been changed from High Street / Thomas Street to High Street / Bridge Street Upper. The CBC will join the prevailing City Centre traffic management regime at the junction with Nicholas Street and Winetavern Street.

7.4 Summary

7.4.1 Infrastructure Provision

The Preferred Route Option is approximately 10 km long from end to end. The updated concept scheme design drawings show the extent of the infrastructure proposed to deliver this CBC.

- 17% Existing bus priority (outbound)
- 23% Existing bus priority (citybound)
- 85% Proposed bus priority (outbound)
- 87% Proposed bus priority (citybound)
- 41% Existing cycle provision (outbound)
- 33% Existing cycle provision (citybound)
- 69% Proposed cycle provision (outbound)
- 68% Proposed cycle provision (citybound)

The proposed locations of bus priority infrastructure such as signal control priority, bus gates and bus-only roads and one-way general traffic are outlined below;

- One-Way general traffic lane outbound along Ballyfermot Road between Le Fanu Road and Kylemore Road
- Signal controlled priority for buses is proposed between Markiewicz Park and St. Laurence's Road. To facilitate bus priority on this section it is also proposed to close the junction of O'Hogan Road and Ballyfermot Road.
- One-way general traffic lane outbound along Grattan Crescent.
- To maintain bus priority on Old Kilmainham / Mount Brown, a bus gate is proposed directly east of the proposed entrance to St. James Children's Hospital
- At the Cornmarket junction the priority has been changed from High Street / Thomas Street to High Street / Bridge Street Upper.

7.4.2 Scheme Benefits

The Liffey Valley to City Centre CBC will deliver journey time savings of up to 40-50%. The dedicated bus lanes proposed will significantly increase bus travel speeds and reliability while the cycle infrastructure will promote modal shift from private car to a more sustainable forms of transport. The scheme will provide the added benefit of access to a bus interchange facility at Liffey Valley, facilitating connection to additional routes.

Along the route, improvements and enhancements will be made to footpaths, walkways and pedestrian crossings. Additional landscaping and outdoor amenities will be provided to improve the local urban realm.

The improved travel times combined with increased services will promote an efficient, reliable and frequent public transport service.

Furthermore, the CBC will provide the advantage of segregated cycling facilities along the Preferred Route in both directions. These high quality cycle tracks will be typically 2.0 m in width offering a high level of service and help to reduce dependency on private car use for short journeys.

In developing the Draft 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:

- The reduction in scheme length due to the proposal to align the start of the route with the bus interchange in the Liffey Valley Shopping Centre has led to a reduction in the construction carbon footprint of the scheme.
- The introduction of approximately 300m of signal-controlled priority between Markiewicz Park and St Laurence's Road will reduce the proposed cross section in this area. As a result, this has led to a reduction in the construction carbon footprint of the scheme.
- The proposed design along Thomas St and James's Street has been refined and the existing layout and kerb line is proposed to be retained. The majority of the existing layout and trees along Grattan Crescent is also being retained. As a result, this has led to a reduction in the construction carbon footprint of the scheme.

Construction carbon will continue to be considered and assessed as part of the evolving scheme design and the preparation of the supporting Environmental Impact Assessment Report documentation.

8. Next Steps

This Draft PRO Report has identified a Preferred Route Option for the bus infrastructure along this Core Bus Corridor for which an updated concept design has been developed.

The next stage (the development of a Preliminary Design) will further refine and update the concept design along the CBC. Further account will be taken of likely public transport service levels, particularly the bus service patterns and any changes to the overall bus network which may arise from the separate bus network review process. The proposals will be amended, if and as required, to integrate any resultant changes. The Preliminary Design will define the final practically achievable scheme for the CBC, considering more detailed studies of potential constraints, impacts and environmental assessment required at a local level, and submissions arising from the third non-statutory public consultation.

This Preliminary Design will form the basis of the planning consent process for the scheme, which will require a development consent application to be made directly to An Bord Pleanála, due to the nature and extent of the proposed works.

DRAFT

Appendices

DRAFT

Appendix A. Multi Criteria Assessment

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Appendix A1: Multi-Criteria Analysis – Section 2: Le Fanu Road to Sarsfield Road

Assessment Criteria	Assessment Sub-Criteria	Route Option BF03	Route Option BF04	Route Option BF05
Economy	Capital Cost	<ul style="list-style-type: none"> Redistribution of existing road space on R833 Ballyfermot Rd from Le Fanu Road to R112 Kylemore Road to provide bus lanes in both directions with cycle tracks provided where not restricted by pinch points. At these pinch points, cyclists share road space with general traffic in the bus lane. Upgrade existing roundabout between R833 Ballyfermot Rd and R112 Kylemore Rd to signalised junction. Widening of R833 Ballyfermot Rd to provide continuous bus lanes and cycle tracks in both directions from R112 Kylemore Rd to Con Colbert Road. Signal Controlled Priority to be provided near Markiewicz Park for city bound lane due to pinch point. Upgrading of existing bus stops. Provision of new bus stops <p>Land Acquisition</p> <ul style="list-style-type: none"> 3420m² public land 390m² private land 35 private properties affected 	<ul style="list-style-type: none"> Removal of city bound general traffic lane between the R833 Ballyfermot Rd/ Le Fanu Road junction and the R833 Ballyfermot Rd/ R112 Kylemore Road junction. Local access to Colepark Rd maintained. City bound general traffic diverted along Le Fanu Road and R112 Kylemore Road. Redistribution of existing road space on R112 Kylemore Road to facilitate cycle track infrastructure and parking. Redistribution of existing road space on R833 Ballyfermot Rd from Le Fanu Road to Kylemore Road to provide continuous bus lanes in both directions and cycle tracks in both directions. Upgrade of junction between R112 Kylemore Road and Le Fanu Road to cater for the resultant volume of left turning traffic from the junction of R833 Ballyfermot Rd and Le Fanu Road. Upgrade existing roundabout between R833 Ballyfermot Rd and R112 Kylemore Rd to signalised junction. Widening of R833 Ballyfermot Rd to provide continuous bus lanes and cycle tracks in both directions from R112 Kylemore Rd to Con Colbert Road. Signal Controlled Priority to be provided near Markiewicz Park for city bound lane 	<ul style="list-style-type: none"> Redistribution of existing road space on R833 Ballyfermot Rd from Le Fanu Road to R112 Kylemore Road to provide continuous bus lanes, cycle tracks and general traffic lanes in both directions. Upgrade existing roundabout between R833 Ballyfermot Rd and R112 Kylemore Rd to signalised junction. Widening of R833 Ballyfermot Rd to provide continuous bus lanes and cycle tracks in both directions from R112 Kylemore Rd to Con Colbert Road. Signal Controlled Priority to be provided near Markiewicz Park for city bound lane due to pinch point Upgrading of existing bus stops. Provision of new bus stops <p>Land Acquisition</p> <ul style="list-style-type: none"> 3420m² public land 940m² private land 80 private properties affected

Assessment Criteria	Assessment Sub-Criteria	Route Option BF03	Route Option BF04	Route Option BF05
			<p>due to pinch point Upgrading of existing bus stops</p> <ul style="list-style-type: none"> Provision of new bus stops. <p>Land Acquisition</p> <ul style="list-style-type: none"> 3420m² public land 390m² private land 35 private properties affected 	
	<i>Rank</i>			
	Transport Reliability and Quality of Service	<p>Length of route: 2.2 km</p> <p>Priority: Full bus priority provided for 80% of inbound route including through signalised junctions. Full bus priority provided for 100% of outbound route including through signalised junctions.</p>	<p>Length of route: 2.2 km</p> <p>Priority: Full bus priority provided for 80% of inbound route including through signalised junctions. Full bus priority provided for 100% of outbound route including through signalised junctions.</p>	<p>Length of route: 2.2 km</p> <p>Priority: Full bus priority provided for 80% of inbound route including through signalised junctions. Full bus priority provided for 100% of outbound route including through signalised junctions.</p>
	<i>Rank</i>			
Integration	Land Use Integration	<p>Most of area surrounding route is already substantially developed with little opportunity to encourage further.</p> <p>Route integrates well with land use zoning identified in County Development Plans.</p>	<p>Most of area surrounding route is already substantially developed with little opportunity to encourage further.</p> <p>Route integrates well with land use zoning identified in County Development Plans.</p>	<p>Most of area surrounding route is already substantially developed with little opportunity to encourage further.</p> <p>Route integrates well with land use zoning identified in County Development Plans.</p>
	<i>Rank</i>			
	Residential, Employment and	<p>Residential Population Catchment</p> <ul style="list-style-type: none"> 7469 within 5 minute walk of route 	<p>Residential Population Catchment</p> <ul style="list-style-type: none"> 7469 within 5 minute walk of route 	<p>Residential Population Catchment</p> <ul style="list-style-type: none"> 7469 within 5 minute walk of route

Assessment Criteria	Assessment Sub-Criteria	Route Option BF03	Route Option BF04	Route Option BF05
	Educational Catchments	<ul style="list-style-type: none"> 9997 within 10 minute walk of route 20234 within 15 minute walk of route <p>Employment Catchment</p> <ul style="list-style-type: none"> 1276 within 5 minute walk of route 1735 within 10 minute walk of route 4792 within 15 minute walk of route <p>Educational Catchment (1st, 2nd and 3rd Levels)</p> <ul style="list-style-type: none"> 2887 within 5 minute walk of route 2891 within 10 minute walk of route 4645 within 15 minute walk of route 	<ul style="list-style-type: none"> 9997 within 10 minute walk of route 20234 within 15 minute walk of route <p>Employment Catchment</p> <ul style="list-style-type: none"> 1276 within 5 minute walk of route 1735 within 10 minute walk of route 4792 within 15 minute walk of route <p>Educational Catchment (1st, 2nd and 3rd Levels)</p> <ul style="list-style-type: none"> 2887 within 5 minute walk of route 2891 within 10 minute walk of route 4645 within 15 minute walk of route 	<ul style="list-style-type: none"> 9997 within 10 minute walk of route 20234 within 15 minute walk of route <p>Employment Catchment</p> <ul style="list-style-type: none"> 1276 within 5 minute walk of route 1735 within 10 minute walk of route 4792 within 15 minute walk of route <p>Educational Catchment (1st, 2nd and 3rd Levels)</p> <ul style="list-style-type: none"> 2887 within 5 minute walk of route 2891 within 10 minute walk of route 4645 within 15 minute walk of route
	Rank			
	Transport Network Integration	This route option follows the route of a number of Dublin Bus services that travel to the city centre from Liffey Valley and the surrounding area.	This route option follows the route of a number of Dublin Bus services that travel to the city centre from Liffey Valley and the surrounding area.	This route option follows the route of a number of Dublin Bus services that travel to the city centre from Liffey Valley and the surrounding area.
	Rank			
	Cycling Integration	<p>All of the route is designated as a primary cycle route (7A).</p> <p>There are two short sections along this route, at Ballyfermot Village where segregated cycle facilities cannot be provided due to pinch points. At these pinch points, cyclists share road space with buses.</p>	<p>All of the route is designated as a primary cycle route (7A).</p> <p>Continuous cycle tracks provided along route option.</p>	<p>All of the route is designated as a primary cycle route (7A).</p> <p>Continuous cycle tracks provided along route option.</p>
	Rank			

Assessment Criteria	Assessment Sub-Criteria	Route Option BF03	Route Option BF04	Route Option BF05
Accessibility & Social Inclusion	Key Trip Attractors	<p>Education</p> <ul style="list-style-type: none"> St. Gabriels NS St. John's College De La Salle Ballyfermot College of Further Education St. Michael's NS St. Raphael's NS Scoil Mhuire De La Salle NS St. Dominic's Secondary School, Ballyfermot Kylemore College FAS Ballyfermot Training Centre Inchicore NS <p>Retail/Leisure</p> <ul style="list-style-type: none"> Ballyfermot Village Inchicore Village <p>Employment</p> <ul style="list-style-type: none"> Kylemore Industrial Estates 	<p>Education</p> <ul style="list-style-type: none"> St. Gabriels NS St. John's College De La Salle Ballyfermot College of Further Education St. Michael's NS St. Raphael's NS Scoil Mhuire De La Salle NS St. Dominic's Secondary School, Ballyfermot Kylemore College FAS Ballyfermot Training Centre Inchicore NS <p>Retail/Leisure</p> <ul style="list-style-type: none"> Ballyfermot Village Inchicore Village <p>Employment</p> <ul style="list-style-type: none"> Kylemore Industrial Estates 	<p>Education</p> <ul style="list-style-type: none"> St. Gabriels NS St. John's College De La Salle Ballyfermot College of Further Education St. Michael's NS St. Raphael's NS Scoil Mhuire De La Salle NS St. Dominic's Secondary School, Ballyfermot Kylemore College FAS Ballyfermot Training Centre Inchicore NS <p>Retail/Leisure</p> <ul style="list-style-type: none"> Ballyfermot Village Inchicore Village <p>Employment</p> <ul style="list-style-type: none"> Kylemore Industrial Estates
	Rank			
	Deprived Geographic Areas	<p>The Dublin – Ballyfermot RAPID area is within 10 minutes walk of the route.</p> <p>There are 34 disadvantaged areas and 3 very disadvantaged areas, as shown on the Pobal deprivation maps, within 10 minutes walk of the route.</p>	<p>The Dublin – Ballyfermot RAPID area is within 10 minutes walk of the route.</p> <p>There are 34 disadvantaged areas and 3 very disadvantaged areas, as shown on the Pobal deprivation maps, within 10 minutes walk of the route.</p>	<p>The Dublin – Ballyfermot RAPID area is within 10 minutes walk of the route.</p> <p>There are 34 disadvantaged areas and 3 very disadvantaged areas, as shown on the Pobal deprivation maps, within 10 minutes walk of the route.</p>

Assessment Criteria	Assessment Sub-Criteria	Route Option BF03	Route Option BF04	Route Option BF05
	<i>Rank</i>			
Safety	Road Safety	No. of junctions: 3 signalised Vehicle Accident Data (since 2005) 2 serious 30+ minor	No. of junctions: 4 signalised Vehicle Accident Data (since 2005) 2 serious 30+ minor	No. of junctions: 3 signalised Vehicle Accident Data (since 2005) 2 serious 30+ minor
	<i>Rank</i>			
	Pedestrian Safety	Footpaths are available on both sides for the majority of this route. Pedestrian crossings located within 50m of 5 of 12 stops. Pedestrian Accident Data (since 2005) 20 minor 3 serious 1 Fatal	Footpaths are available on both sides for the majority of this route. Pedestrian crossings located within 50m of 5 of 14 stops. Pedestrian Accident Data (since 2005) 20 minor 3 serious 1 Fatal	Footpaths are available on both sides for the majority of this route. Pedestrian crossings located within 50m of 5 of 12 stops. Pedestrian Accident Data (since 2005) 20 minor 3 serious 1 Fatal
	<i>Rank</i>			
Environment	Archaeology, Architectural and Cultural Heritage	There are no recorded monuments/places identified along this route. One protected structure is identified along the route. However, it is not intended to directly affect this structure.	There are no recorded monuments/places identified along this route. One protected structure is identified along the route. However, it is not intended to directly affect this structure.	There are no recorded monuments/places identified along this route. One protected structure is identified along the route. However, it is not intended to directly affect this structure.

Assessment Criteria	Assessment Sub-Criteria	Route Option BF03	Route Option BF04	Route Option BF05
	<i>Rank</i>			
	Flora and Fauna	<p>Land-take may impact grass land in parkland areas.</p> <p>The extent of land-take in these areas is small and the removal of trees in an urban parkland environment is unlikely to have major effects on the local flora and fauna.</p> <p>There are no known designated ecological areas or other areas of ecological importance.</p>	<p>Land-take may impact grass land in parkland areas.</p> <p>The extent of land-take in these areas is small and the removal of trees in an urban parkland environment is unlikely to have major effects on the local flora and fauna.</p> <p>There are no known designated ecological areas or other areas of ecological importance.</p>	<p>Land-take may impact grass land in parkland areas.</p> <p>The extent of land-take in these areas is small and the removal of trees in an urban parkland environment is unlikely to have major effects on the local flora and fauna.</p> <p>There are no known designated ecological areas or other areas of ecological importance.</p>
	<i>Rank</i>			
	Soils and Geology	<p>In general, the route uses the existing carriageway reservation for the majority of its route.</p> <p>In areas where widening is required, there is little risk of affecting the existing geology of the area.</p> <p>Minimal surface drainage is to be directed towards the surrounding earthworks.</p> <p>No areas of geological significance.</p>	<p>In general, the route uses the existing carriageway reservation for the majority of its route.</p> <p>In areas where widening is required, there is little risk of affecting the existing geology of the area.</p> <p>Minimal surface drainage is to be directed towards the surrounding earthworks.</p> <p>No areas of geological significance.</p>	<p>In general, the route uses the existing carriageway reservation for the majority of its route.</p> <p>In areas where widening is required, there is little risk of affecting the existing geology of the area.</p> <p>Minimal surface drainage is to be directed towards the surrounding earthworks.</p> <p>No areas of geological significance.</p>
	<i>Rank</i>			
	Hydrology	<p>Risk of flooding along this route is minimal and the route does not cross any major watercourses.</p> <p>The entire route has existing surface water drainage.</p>	<p>Risk of flooding along this route is minimal and the route does not cross any major watercourses.</p> <p>The entire route has existing surface water drainage.</p>	<p>Risk of flooding along this route is minimal and the route does not cross any major watercourses.</p> <p>The entire route has existing surface water drainage.</p>

Assessment Criteria	Assessment Sub-Criteria	Route Option BF03	Route Option BF04	Route Option BF05
		Unlikely to affect flood risk along this route.	Unlikely to affect flood risk along this route.	Unlikely to affect flood risk along this route.
	Rank			
	Landscape and Visual	<p>This route makes use of existing road corridors along its length.</p> <p>Some impact on landscape and visual aesthetics in locations where widening is required, including grass parkland and public amenity areas along with residential areas.</p> <p>Protected structures are not to be affected.</p>	<p>This route makes use of existing road corridors along its length.</p> <p>Some impact on landscape and visual aesthetics in locations where widening is required, including grass parkland and public amenity areas along with residential areas.</p> <p>Protected structures are not to be affected.</p>	<p>This route makes use of existing road corridors along its length.</p> <p>Some impact on landscape and visual aesthetics in locations where widening is required, including grass parkland and public amenity areas along with residential areas.</p> <p>Large impact on landscape and visual along R833 Ballyfermot Rd within the vicinity of Ballyfermot Village to facilitate proposed road cross section</p> <p>Protected structures are not to be affected.</p>
	Rank			
	Air Quality	<p>Where road widening is required, traffic may be relocated closer to sensitive areas, possibly resulting in an increase in pollutants.</p>	<p>Where road widening is required, traffic may be relocated closer to sensitive areas, possibly resulting in an increase in pollutants.</p> <p>Between the junctions of the R833 Ballyfermot Rd /Le Fanu Road and R833 Ballyfermot Rd /Kylemore road, there will be no inbound general traffic, therefore possibly resulting In a decrease in pollutants. However, the increased general traffic along Le Fanu Road and Kylemore</p>	<p>Where road widening is required, traffic may be relocated closer to sensitive areas, possibly resulting in an increase in pollutants.</p> <p>The additional widening to facilitate the proposed cross section along the R833 Ballyfermot Rd within vicinity of Ballyfermot Village could possibly result on an increased impact on receptors.</p>

Assessment Criteria	Assessment Sub-Criteria	Route Option BF03	Route Option BF04	Route Option BF05
			Road will possibly result in an increase in pollutants	
	<i>Rank</i>			
	Noise & Vibration	<p>Where road widening is required, traffic may be relocated closer to sensitive areas, possibly resulting in an increase in noise and vibration.</p> <p>Some road widening is required along this route in the vicinity of residential areas.</p>	<p>Where road widening is required, traffic may be relocated closer to sensitive areas, possibly resulting in an increase in noise and vibration.</p> <p>Between the junctions of the R833/Le Fanu Road and R833/Kylemore road, there will be no inbound traffic, possibly resulting in a decrease in noise and vibration. However, the increased traffic along Le Fanu Road and Kylemore Road may possibly result in a increase in noise and vibration.</p> <p>Some road widening is required along this route in the vicinity of residential areas.</p>	<p>Where road widening is required, traffic may be relocated closer to sensitive areas, possibly resulting in an increase in noise and vibration.</p> <p>Some road widening is required along this route in the vicinity of residential areas, particularly along R833 Ballyfermot Rd within the vicinity of Ballyfermot Village to facilitate proposed road cross section</p>
	<i>Rank</i>			
	Land Use Character	<p>Route option has some impact on existing land use as widening is required along most of the route.</p> <p>Land acquisition is generally taken from open green spaces, however, large areas of land would also be required from various private land owners and residences.</p>	<p>Route option has some impact on existing land use as widening is required along most of the route.</p> <p>Land acquisition is generally taken from open green spaces, however, large areas of land would also be required from various private land owners and residences.</p>	<p>Route option has some impact on existing land use as widening is required along most of the route.</p> <p>Land acquisition is generally taken from open green spaces, however, large areas of land would also be required from various private land owners and residences.</p>

Assessment Criteria	Assessment Sub-Criteria	Route Option BF03	Route Option BF04	Route Option BF05
				Additional land take required for this option along R833 Ballyfermot Rd within the vicinity of Ballyfermot Village to facilitate proposed road cross section.
	Rank			

Appendix A2: Multi-Criteria Analysis – Section 3: Sarsfield Road to City Centre

Assessment Criteria	Assessment Sub-Criteria	Route Option CCT10	Route Option CCT11	Route Option CCT12
Economy	Capital Cost	<ul style="list-style-type: none"> Use existing contra flow bus lane on Sarsfield Road outbound and relocate existing parking occurring along inbound all-vehicle lane to ensure no obstructions to bus movement. Redistribution of existing road space on R839 from junction with Sarsfield Road to junction with Emmet Road to provide bus lanes in both directions. Redistribution of space on Emmet Road to provide bus lanes in both directions. Install bus gate on R810 at Kearn's Place junction. General traffic prohibited from travelling through bus gate. Redistribute existing road space on R810 from Thomas St to Christchurch to provide bus lanes in both directions and cycle tracks where possible. 	<ul style="list-style-type: none"> Redistribution of road space on Sarsfield Road to remove contra flow bus lane and replace with westbound general traffic lane between junction with Woodfield Cottages and R833 Con Colbert Road. Removal of right turn for general traffic from Sarsfield Road onto Grattan Crescent. Relocate existing parking occurring along inbound all-vehicle lane of Sarsfield Road to ensure no obstructions to bus movement. Redistribution of existing road space on Grattan Crescent from junction with Sarsfield Road to junction with Emmet Road and removal of northbound bound general traffic lane to provide bus lanes in both directions. Carriageway profile is narrowed from existing. 	<ul style="list-style-type: none"> Redistribution of road space on Sarsfield Road to remove contra flow bus lane and replace with westbound general traffic lane between junction with Woodfield Cottages and R833 Con Colbert Road. Removal of right turn for general traffic from Sarsfield Road onto Grattan Crescent. Relocate existing parking occurring along inbound all-vehicle lane of Sarsfield Road to ensure no obstructions to bus movement. Redistribution of existing road space on Grattan Crescent from junction with Sarsfield Road to junction with Emmet Road and removal of the southbound general traffic lane to provide bus lanes in both directions. Carriageway profile is narrowed from existing.

Assessment Criteria	Assessment Sub-Criteria	Route Option CCT10	Route Option CCT11	Route Option CCT12
		<ul style="list-style-type: none"> Provision of cycle tracks on Con Colbert Road, R148, Memorial Road as alternative for primary cycle route. Upgrade existing bus stops Provision of new bus stops <p>Land Acquisition:</p> <ul style="list-style-type: none"> No land take required 	<ul style="list-style-type: none"> Redistribution of space on Emmet Road to provide bus lanes in both directions where possible. Install bus gate at the future National Children's Hospital. General traffic prohibited from travelling through bus gate. Redistribute existing road space on R810 from Thomas St to Christchurch to provide bus lanes in both directions and cycle tracks where possible. Provision of cycle tracks on Con Colbert Road, R148, Memorial Road as alternative for primary cycle route. Change in Traffic Management regime results in Memorial Road becoming two way. Upgrade existing bus stops Provision of new bus stops <p>Land Acquisition:</p> <p>No land take required</p>	<ul style="list-style-type: none"> Redistribution of space on Emmet Road to provide bus lanes in both directions where possible. Install bus gate on R810 at the future National Children's Hospital. General traffic prohibited from travelling through bus gate. Redistribute existing road space on R810 from Thomas St to Christchurch to provide bus lanes in both directions and cycle tracks where possible. Provision of cycle tracks on Con Colbert Road, R148, Memorial Road as alternative for primary cycle route. Change in Traffic Management regime results in Memorial Road becoming two way. Upgrade existing bus stops Provision of new bus stops <p>Land Acquisition:</p> <p>No land take required</p>
	Rank			

Assessment Criteria	Assessment Sub-Criteria	Route Option CCT10	Route Option CCT11	Route Option CCT12
	Transport Reliability and Quality of Service	<p>Length of route:</p> <p>4.4 km</p> <p>Priority:</p> <p>Full bus priority provided for 60% of inbound route including through signalised junctions.</p> <p>Priority not achievable on Sarsfield Road.</p> <p>Full bus priority provided for 65% of outbound route including through signalised junctions.</p> <p>Provision of bus gate along the R810 at Kearn's Place ensures that general traffic is removed except for access. This would improve bus travel times and reliability along this section without the need for full bus priority.</p>	<p>Length of route:</p> <p>4.4 km</p> <p>Priority:</p> <p>Full bus priority provided for 60% of inbound route including through signalised junctions.</p> <p>Priority not achievable on Sarsfield Road.</p> <p>Full bus priority provided for 65% of outbound route including through signalised junctions.</p> <p>Provision of bus gate along the R810 at the future National Children's Hospital ensures that general traffic is removed except for access. This would improve bus travel times and reliability along this section without the need for full bus priority.</p>	<p>Length of route:</p> <p>4.4 km</p> <p>Priority:</p> <p>Full bus priority provided for 60% of inbound route including through signalised junctions.</p> <p>Priority not achievable on Sarsfield Road.</p> <p>Full bus priority provided for 65% of outbound route including through signalised junctions.</p> <p>Provision of bus gate along the R810 at the future National Children's Hospital ensures that general traffic is removed except for access. This would improve bus travel times and reliability along this section without the need for full bus priority.</p>
	Rank			
Integration	Land Use Integration	Most of area surrounding route is already substantially developed with little opportunity to encourage further.	Most of area surrounding route is already substantially developed with little opportunity to encourage further.	Most of area surrounding route is already substantially developed with little opportunity to encourage further.

Assessment Criteria	Assessment Sub-Criteria	Route Option CCT10	Route Option CCT11	Route Option CCT12
		This route integrates well with the land use and objectives identified in the DCC City Development Plan.	This route integrates well with the land use and objectives identified in the DCC City Development Plan.	This route integrates well with the land use and objectives identified in the DCC City Development Plan.
	<i>Rank</i>			
	Residential, Employment and Educational Catchments	Residential Population Catchment <ul style="list-style-type: none"> 23,197 within 5 minute walk of route 45,715 within 10 minute walk of route 71,638 within 15 minute walk of route Employment Catchment <ul style="list-style-type: none"> 17,280 within 5 minute walk of route 37,618 within 10 minute walk of route 68,089 within 15 minute walk of route Educational Catchment (1st, 2nd and 3rd Levels) <ul style="list-style-type: none"> 2,685 within 5 minute walk of route 10,393 within 10 minute walk of route 31,690 within 15 minute walk of route 	Residential Population Catchment <ul style="list-style-type: none"> 23,197 within 5 minute walk of route 45,715 within 10 minute walk of route 71,638 within 15 minute walk of route Employment Catchment <ul style="list-style-type: none"> 17,280 within 5 minute walk of route 37,618 within 10 minute walk of route 68,089 within 15 minute walk of route Educational Catchment (1st, 2nd and 3rd Levels) <ul style="list-style-type: none"> 2,685 within 5 minute walk of route 10,393 within 10 minute walk of route 31,690 within 15 minute walk of route 	Residential Population Catchment <ul style="list-style-type: none"> 23,197 within 5 minute walk of route 45,715 within 10 minute walk of route 71,638 within 15 minute walk of route Employment Catchment <ul style="list-style-type: none"> 17,280 within 5 minute walk of route 37,618 within 10 minute walk of route 68,089 within 15 minute walk of route Educational Catchment (1st, 2nd and 3rd Levels) <ul style="list-style-type: none"> 2,685 within 5 minute walk of route 10,393 within 10 minute walk of route 31,690 within 15 minute walk of route

Assessment Criteria	Assessment Sub-Criteria	Route Option CCT10	Route Option CCT11	Route Option CCT12
	<i>Rank</i>			
	Transport Network Integration	<p>This route follows that of the main Dublin Bus services to Liffey Valley and Ballyfermot on Thomas Street only.</p> <p>This route serves the red line Luas directly at St. James's Hospital, where an interchange is possible.</p> <p>This Route requires a bus gate on the R810 at Kearn's Place, effectively closing the road to general traffic except for access. This would force traffic travelling towards the city centre to reroute, most probably onto the R148 and the quays or on to the R110 if coming from further outside the city centre. These routes would then become increasingly saturated.</p> <p>This route option maintains the one way system on Memorial Road between Chapelizod Bypass and R839 Inchicore Road</p> <p>Access to St. James's Hospital and future Children's Hospital would still be available in both directions but people wishing to access properties along Old Kilmainham</p>	<p>This route follows that of the main Dublin Bus services to Liffey Valley and Ballyfermot on Thomas Street only.</p> <p>This route serves the red line Luas directly at St. James's Hospital, where an interchange is possible.</p> <p>This route requires removal of northbound general traffic lane on Grattan Crescent, which will impact the flow of vehicles leaving the city centre.</p> <p>This route options provides for two way access for general traffic between Chapelizod Bypass and R839 Inchicore Road via Memorial Road, permitting access to Grattan Crescent.</p> <p>This route requires a bus gate on the R810 at the future National Children's Hospital, effectively closing the road to general traffic except for access. This would force traffic travelling towards the city centre to reroute, most probably onto the R148 and the quays or on to the R110 if coming from further outside the city centre.</p>	<p>This route follows that of the main Dublin Bus services to Liffey Valley and Ballyfermot on Thomas Street only.</p> <p>This route serves the red line Luas directly at St. James's Hospital, where an interchange is possible.</p> <p>This route requires removal of southbound general traffic lane on Grattan Crescent, which will impact the flow of vehicles entering the city centre.</p> <p>This route options provides for two way access for general traffic between Chapelizod Bypass and R839 Inchicore Road via Memorial Road, permitting access to Grattan Crescent.</p> <p>This route requires a bus gate on the R810 at the future National Children's Hospital, effectively closing the road to general traffic except for access. This would force traffic travelling towards the city centre to reroute, most probably onto the R148 and the quays or on to the R110 if coming from further outside the city centre.</p>

Assessment Criteria	Assessment Sub-Criteria	Route Option CCT10	Route Option CCT11	Route Option CCT12
		may be forced to travel in a circuitous manner.	These routes would then become increasingly saturated. Access to St. James's Hospital and future National Children's Hospital would still be available in both directions but people wishing to access properties along Old Kilmainham may be forced to travel in a circuitous manner.	These routes would then become increasingly saturated. Access to St. James's Hospital and future National Children's Hospital would still be available in both directions but people wishing to access properties along Old Kilmainham may be forced to travel in a circuitous manner.
	Rank			
	Cycling Integration	<p>The majority of this route is designated as a primary cycle route (7A/ 7).</p> <p>It is not feasible to provide cycle tracks along with bus lanes along Sarsfield Road and the R810 from its junction with the R111 to the junction with Bow Lane West due to the proximity of building lines.</p> <p>An alternative for the primary cycle route on Sarsfield Road can be provided on the R148 and Memorial Road. As traffic volumes will be largely reduced by the introduction of a bus gate on Old Kilmainham/James Street, the primary cycle could remain on</p>	<p>The majority of this route is designated as a primary cycle route (7A/ 7).</p> <p>It is not feasible to provide cycle tracks along with bus lanes along Sarsfield Road and the R810 from its junction with the R111 to the junction with Bow Lane West due to the proximity of building lines.</p> <p>An alternative for the primary cycle route on Sarsfield Road can be provided on the R148 and Memorial Road. As traffic volumes will be largely reduced by the introduction of a bus gate on Old Kilmainham/James Street, the primary cycle could remain on</p>	<p>The majority of this route is designated as a primary cycle route (7A/ 7).</p> <p>It is not feasible to provide cycle tracks along with bus lanes along Sarsfield Road and the R810 from its junction with the R111 to the junction with Bow Lane West due to the proximity of building lines.</p> <p>An alternative for the primary cycle route on Sarsfield Road can be provided on the R148 and Memorial Road. As traffic volumes will be largely reduced by the introduction of a bus gate on Old Kilmainham/James Street, the primary cycle could remain on</p>

Assessment Criteria	Assessment Sub-Criteria	Route Option CCT10	Route Option CCT11	Route Option CCT12
		<p>these roads without need for segregation.</p> <p>It is not feasible to provide cycle tracks on the R839 from Sarsfield Road to Emmet Road junctions due to proximity of building lines. This is currently designated as a secondary cycle route and no alternative exists.</p> <p>Thomas Street is designated as a primary cycle track. It is proposed to provide cycle tracks along with bus lanes in this area where possible, although shared lanes are required in a number of areas</p>	<p>these roads without need for segregation.</p> <p>It is not feasible to provide cycle tracks on the R839 from Sarsfield Road to Emmet Road junctions due to proximity of building lines. This is currently designated as a secondary cycle route and no alternative exists.</p> <p>Thomas Street is designated as a primary cycle track. It is proposed to provide cycle tracks along with bus lanes in this area where possible, although shared lanes are required in a number of areas</p>	<p>these roads without need for segregation.</p> <p>It is not feasible to provide cycle tracks on the R839 from Sarsfield Road to Emmet Road junctions due to proximity of building lines. This is currently designated as a secondary cycle route and no alternative exists.</p> <p>Thomas Street is designated as a primary cycle track. It is proposed to provide cycle tracks along with bus lanes in this area where possible, although shared lanes are required in a number of areas</p>
	<i>Rank</i>			
Accessibility & Social Inclusion	Key Trip Attractors	<p>Education</p> <ul style="list-style-type: none"> • Inchicore NS • Mercy Secondary School • Inchicore College of Further Education • St. John of God School • Canal Way Educate Together • Various City Centre Schools <p>Health</p> <ul style="list-style-type: none"> • St. James' Hospital • St. Patrick's University Hospital 	<p>Education</p> <ul style="list-style-type: none"> • Inchicore NS • Mercy Secondary School • Inchicore College of Further Education • St. John of God School • Canal Way Educate Together • Various City Centre Schools <p>Health</p> <ul style="list-style-type: none"> • St. James' Hospital • St. Patrick's University Hospital 	<p>Education</p> <ul style="list-style-type: none"> • Inchicore NS • Mercy Secondary School • Inchicore College of Further Education • St. John of God School • Canal Way Educate Together • Various City Centre Schools <p>Health</p> <ul style="list-style-type: none"> • St. James' Hospital • St. Patrick's University Hospital

Assessment Criteria	Assessment Sub-Criteria	Route Option CCT10	Route Option CCT11	Route Option CCT12
		Retail/Leisure <ul style="list-style-type: none"> Irish Museum of Modern Art Kilmainham Gaol National Museum of Ireland Guinness Storehouse Christchurch Cathedral St. Patrick's Cathedral Smithfield Dame St. area Employment <ul style="list-style-type: none"> Heuston South Quarter Dublin City Centre West Dublin City Centre South-West Saint James's Gate Brewery Inchicore Village Other <ul style="list-style-type: none"> Criminal Courts of Justice Four Courts 	Retail/Leisure <ul style="list-style-type: none"> Irish Museum of Modern Art Kilmainham Gaol National Museum of Ireland Guinness Storehouse Christchurch Cathedral St. Patrick's Cathedral Smithfield Dame St. area Employment <ul style="list-style-type: none"> Heuston South Quarter Dublin City Centre West Dublin City Centre South-West Saint James's Gate Brewery Inchicore Village Other <ul style="list-style-type: none"> Criminal Courts of Justice Four Courts 	Retail/Leisure <ul style="list-style-type: none"> Irish Museum of Modern Art Kilmainham Gaol National Museum of Ireland Guinness Storehouse Christchurch Cathedral St. Patrick's Cathedral Smithfield Dame St. area Employment <ul style="list-style-type: none"> Heuston South Quarter Dublin City Centre West Dublin City Centre South-West Saint James's Gate Brewery Inchicore Village Other <ul style="list-style-type: none"> Criminal Courts of Justice Four Courts
	<i>Rank</i>			
	Deprived Geographic Areas	<p>The Dublin – South West Inner City, Dublin – South Inner City and Dublin – North West Inner City RAPID area are within 10 minutes' walk of this route.</p> <p>There are 23 disadvantaged areas and 10 very disadvantaged areas, as shown on Pobal deprivation</p>	<p>The Dublin – South West Inner City, Dublin – South Inner City and Dublin – North West Inner City RAPID area are within 10 minutes' walk of this route.</p> <p>There are 23 disadvantaged areas and 10 very disadvantaged areas, as shown on Pobal deprivation</p>	<p>The Dublin – South West Inner City, Dublin – South Inner City and Dublin – North West Inner City RAPID area are within 10 minutes' walk of this route.</p> <p>There are 23 disadvantaged areas and 10 very disadvantaged areas, as shown on Pobal deprivation</p>

Assessment Criteria	Assessment Sub-Criteria	Route Option CCT10	Route Option CCT11	Route Option CCT12
		maps, within 10 minutes' walk of the route.	maps, within 10 minutes' walk of the route.	maps, within 10 minutes' walk of the route.
	<i>Rank</i>			
Safety	Road Safety	No. of junctions: 10 signalised Vehicle Accident Data (since 2005) 115+ minor 7 serious 1 fatal	No. of junctions: 10 signalised Vehicle Accident Data (since 2005) 115+ minor 7 serious 1 fatal	No. of junctions: 10 signalised Vehicle Accident Data (since 2005) 115+ minor 7 serious 1 fatal
	<i>Rank</i>			
	Pedestrian Safety	Footpaths are available on both sides for the majority of this route. Pedestrian crossings located within 50m of 12 of 24 stops. Pedestrian Accident Data (since 2005) 49 minor 5 serious 1 fatal	Footpaths are available on both sides for the majority of this route. Pedestrian crossings located within 50m of 12 of 24 stops. Pedestrian Accident Data (since 2005) 49 minor 5 serious 1 fatal	Footpaths are available on both sides for the majority of this route. Pedestrian crossings located within 50m of 12 of 24 stops. Pedestrian Accident Data (since 2005) 49 minor 5 serious 1 fatal
	<i>Rank</i>			
Environment	Archaeology, Architectural and Cultural Heritage	There are 20+ recorded monuments/places, along this	There are 20+ recorded monuments/places, along this	There are 20+ recorded monuments/places, along this

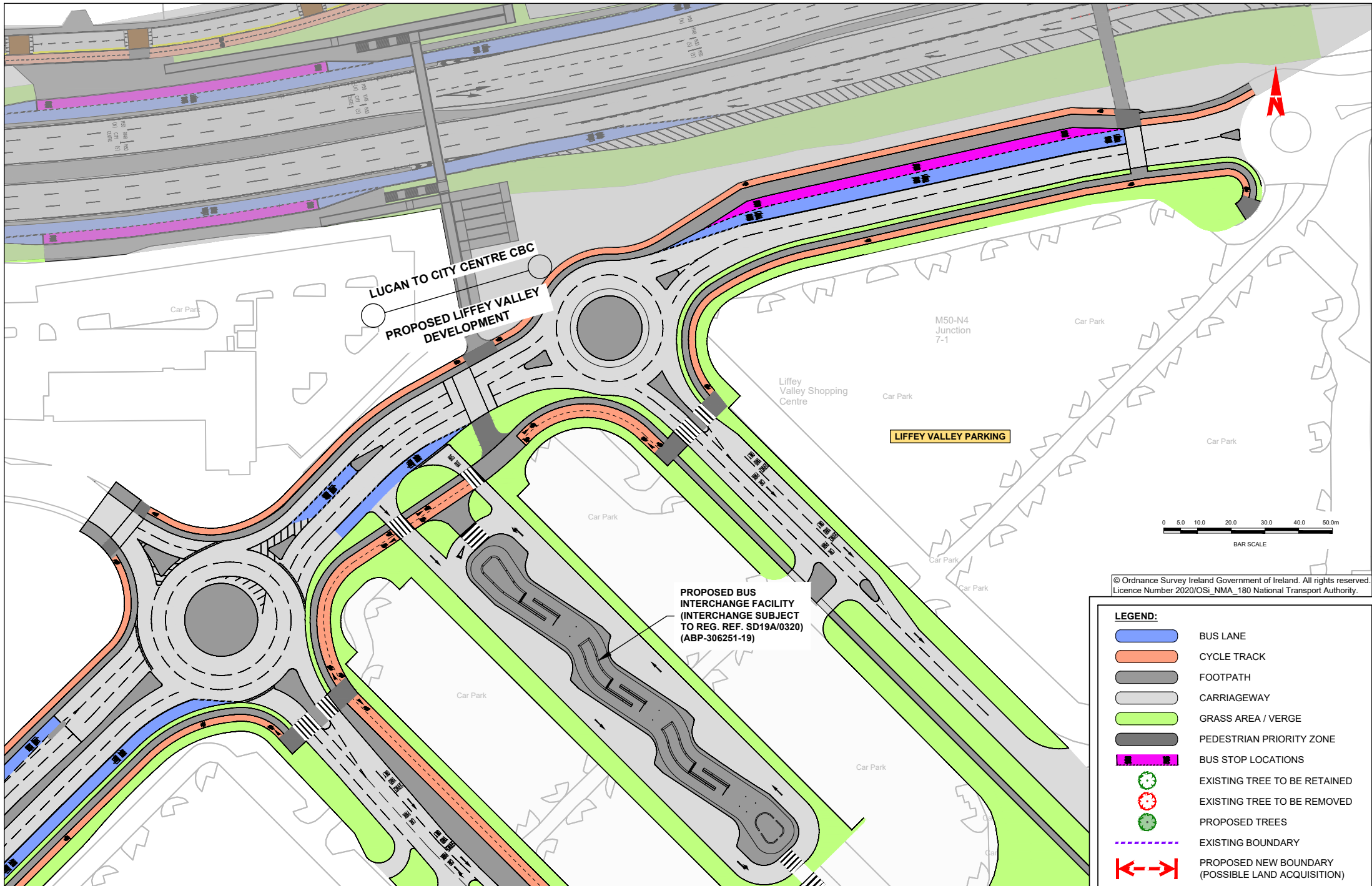
Assessment Criteria	Assessment Sub-Criteria	Route Option CCT10	Route Option CCT11	Route Option CCT12
		<p>route, most of which are along Thomas Street.</p> <p>64 protected structures are identified along the route, the vast majority of which are listed buildings along Thomas Street.</p> <p>It is not intended to affect any of these protected structures or monuments.</p> <p>The route passes through the architectural conservation area at Thomas Street but does not impact on this.</p>	<p>route, most of which are along Thomas Street.</p> <p>64 protected structures are identified along the route, the vast majority of which are listed buildings along Thomas Street.</p> <p>It is not intended to affect any of these protected structures or monuments.</p> <p>The route passes through the architectural conservation area at Thomas Street but does not impact on this.</p>	<p>route, most of which are along Thomas Street.</p> <p>64 protected structures are identified along the route, the vast majority of which are listed buildings along Thomas Street.</p> <p>It is not intended to affect any of these protected structures or monuments.</p> <p>The route passes through the architectural conservation area at Thomas Street but does not impact on this.</p>
	Rank			
	Flora and Fauna	There is no land take required along this route and the route is generally within existing road reservations. As such, there would be minimal effect on flora and fauna.	There is no land take required along this route and the route is generally within existing road reservations. As such, there would be minimal effect on flora and fauna.	There is no land take required along this route and the route is generally within existing road reservations. As such, there would be minimal effect on flora and fauna.
	Rank			
	Soils and Geology	Given that the route is contained within existing road reservations there is minimal risk of any effects to the soils and geology in the area.	Given that the route is contained within existing road reservations there is minimal risk of any effects to the soils and geology in the area.	Given that the route is contained within existing road reservations there is minimal risk of any effects to the soils and geology in the area.
	Rank			

Assessment Criteria	Assessment Sub-Criteria	Route Option CCT10	Route Option CCT11	Route Option CCT12
	Hydrology	A section of this route along the R810 is identified as being at risk from a 1 in 10-year flood event.	A section of this route along the R810 is identified as being at risk from a 1 in 10-year flood event.	A section of this route along the R810 is identified as being at risk from a 1 in 10-year flood event.
	Rank			
	Landscape and Visual	<p>This route option makes use of existing road corridors along its length.</p> <p>There is an impact to the landscape or visual amenity along R839 Grattan Crescent due to the removal of mature trees to facilitate a northbound bus lane.</p>	<p>This route makes use of existing road corridors along its length. There is little impact to the landscape or visual amenity.</p>	<p>This route makes use of existing road corridors along its length. There is little impact to the landscape or visual amenity.</p>
	Rank			
	Air Quality	Widening is required in a very localised area along Grattan Crescent. The effects of this widening are minimal in terms of increases in air quality.	As the route is generally within the existing road reservations, it is unlikely to have much effect on air quality.	As the route is generally within the existing road reservations, it is unlikely to have much effect on air quality.
	Rank			
	Noise & Vibration	Widening is required in a very localised area along Grattan Crescent. The effects of this widening are minimal in terms of increases in noise and vibration.	This route is contained within the existing road reservation and no widening is proposed.	This route is contained within the existing road reservation and no widening is proposed.
	Rank			
	Land Use Character	Grattan Crescent will be impacted by the removal of the existing	Route option has little impact on existing land use as it is generally	Route option has little impact on existing land use as it is generally

Assessment Criteria	Assessment Sub-Criteria	Route Option CCT10	Route Option CCT11	Route Option CCT12
		<p>mature trees to facilitate the proposed road widening.</p> <p>Existing residential car parking spaces are retained along Emmet Road and R810 as these cannot be adequately relocated.</p> <p>Loading bays at shops along the route will be retained where possible.</p>	<p>contained within the existing road reservation.</p> <p>Existing residential car parking spaces are retained along Emmet Road and R810 as these cannot be adequately relocated.</p> <p>Loading bays at shops along the route will be retained where possible.</p>	<p>contained within the existing road reservation.</p> <p>Existing residential car parking spaces are retained along Emmet Road and R810 as these cannot be adequately relocated.</p> <p>Loading bays at shops along the route will be retained where possible.</p>
	<i>Rank</i>			

Appendix B. Preferred Route Option Drawings







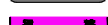





DRAFT



LEGEND:

- BUS LANE
- CYCLE TRACK
- FOOTPATH
- CARRIAGEWAY
- GRASS AREA / VERGE
- PEDESTRIAN PRIORITY ZONE
- BUS STOP LOCATIONS
- EXISTING TREE TO BE RETAINED
- EXISTING TREE TO BE REMOVED
- PROPOSED TREES
- EXISTING BOUNDARY
- PROPOSED NEW BOUNDARY (POSSIBLE LAND ACQUISITION)

LEGEND:

-  BUS LANE
-  CYCLE TRACK
-  FOOTPATH
-  CARRIAGEWAY
-  GRASS AREA / VERGE
-  PEDESTRIAN PRIORITY ZONE
-  BUS STOP LOCATIONS
-  EXISTING TREE TO BE RETAINED
-  EXISTING TREE TO BE REMOVED
-  PROPOSED TREES
-  EXISTING BOUNDARY
-  PROPOSED NEW BOUNDARY (POSSIBLE LAND ACQUISITION)

0 5.0 10.0 20.0 30.0 40.0 50.0m

BAR SCALE

Giraffe
Childcare

Car Park

Car Park

Car Park

Tie into existing

PROPOSED LIFFEY VALLEY
DEVELOPMENT

QUARRYVALE PARK

96
94
92
90
88
86

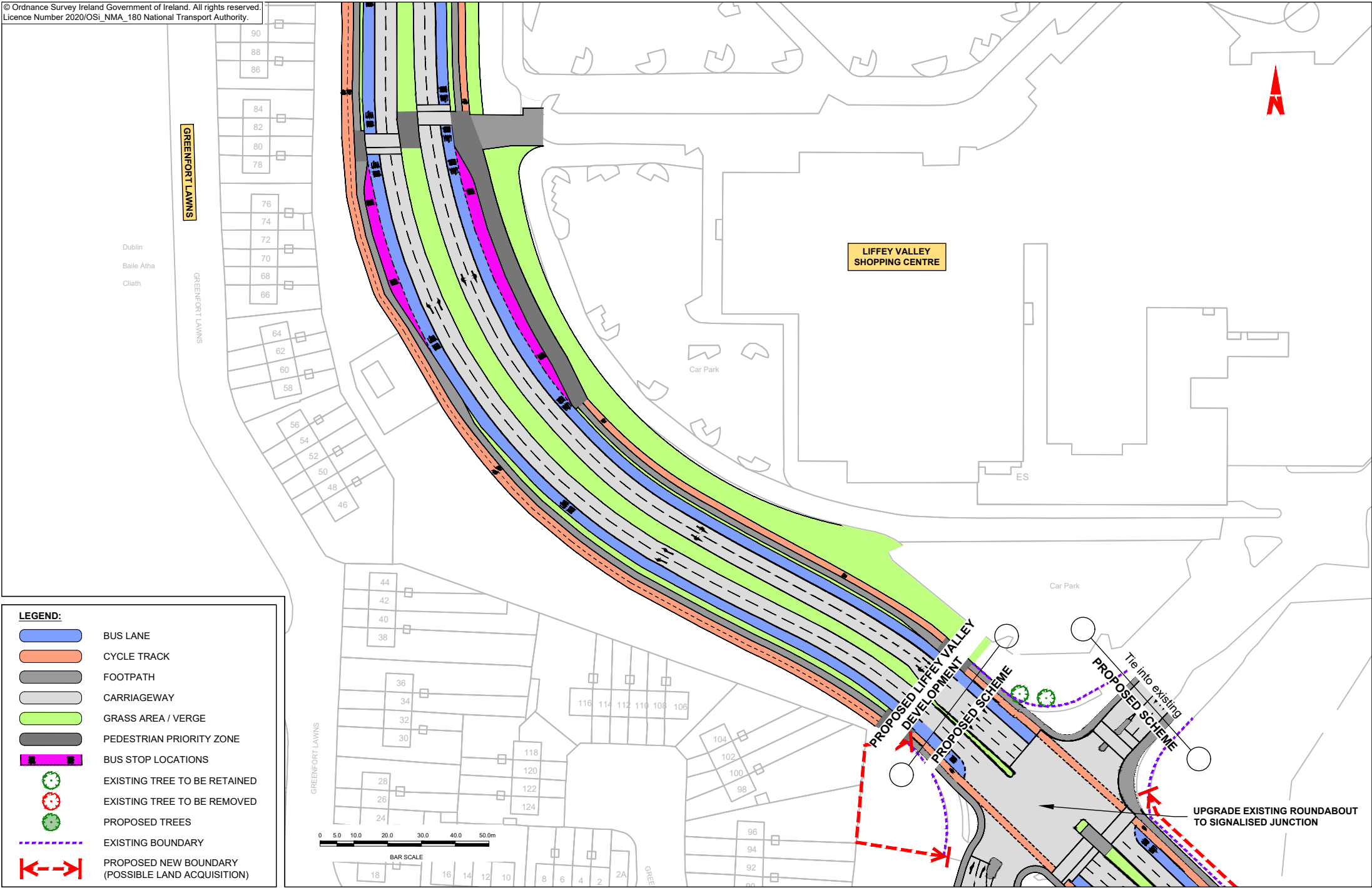
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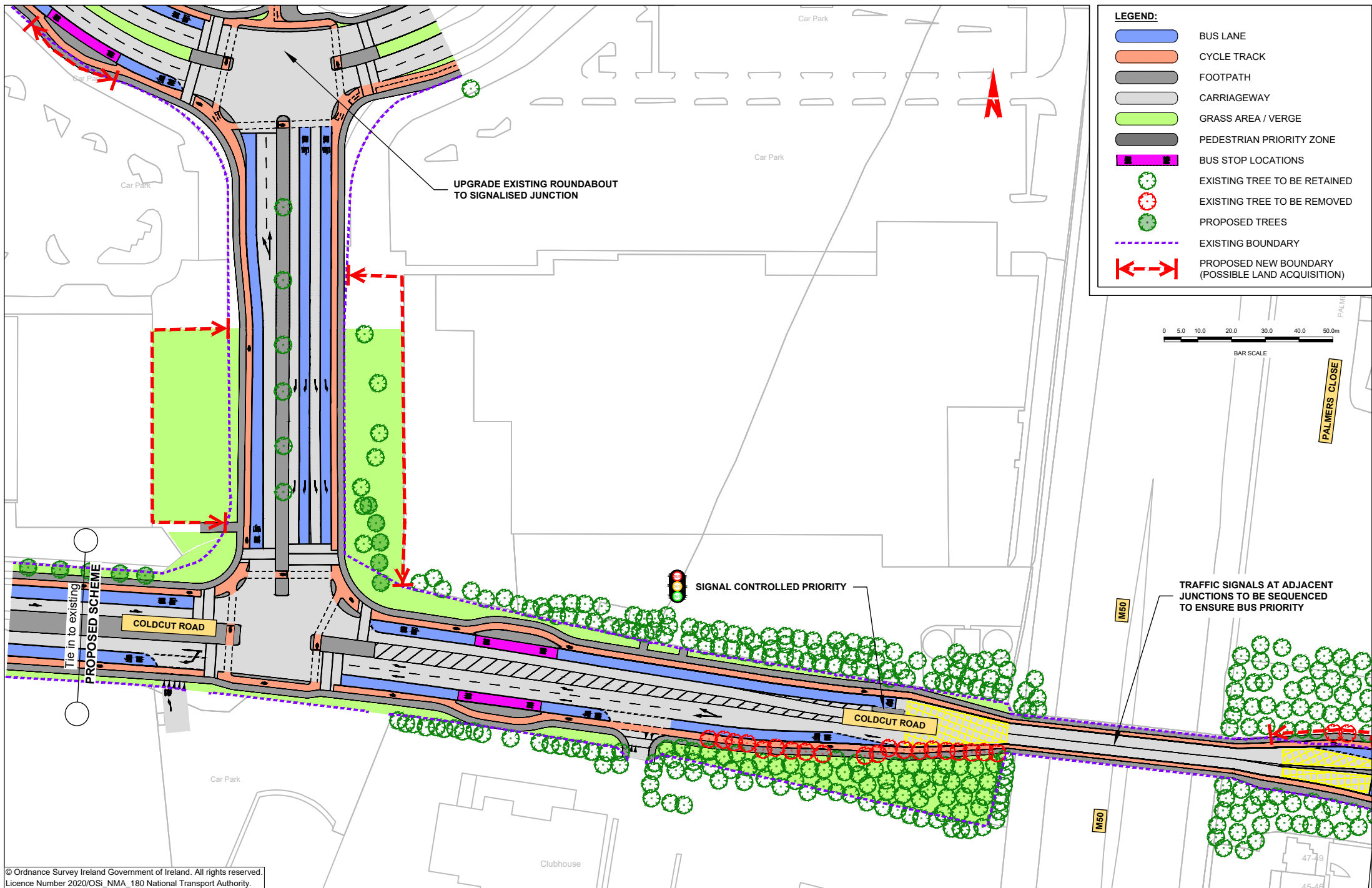
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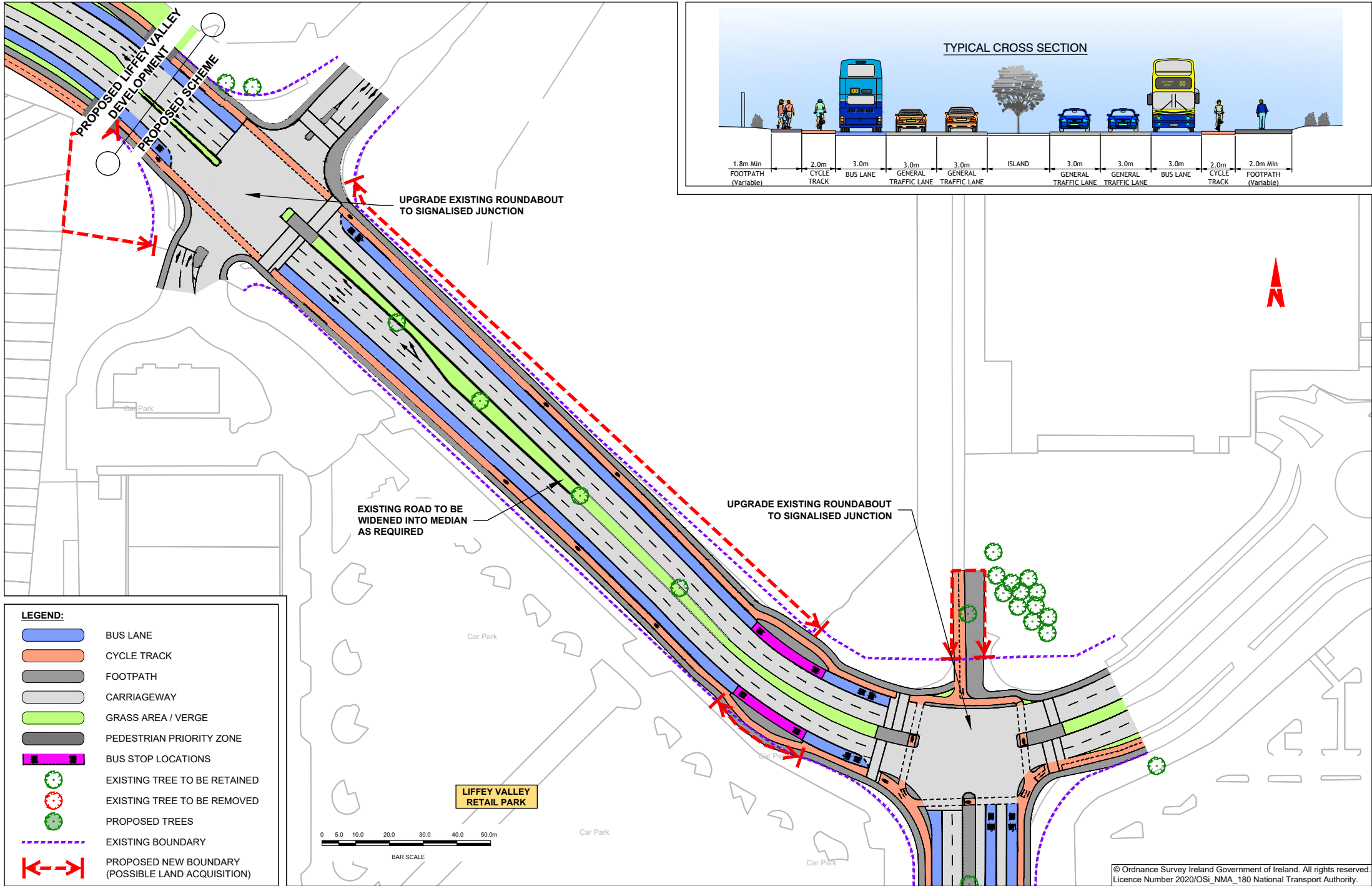
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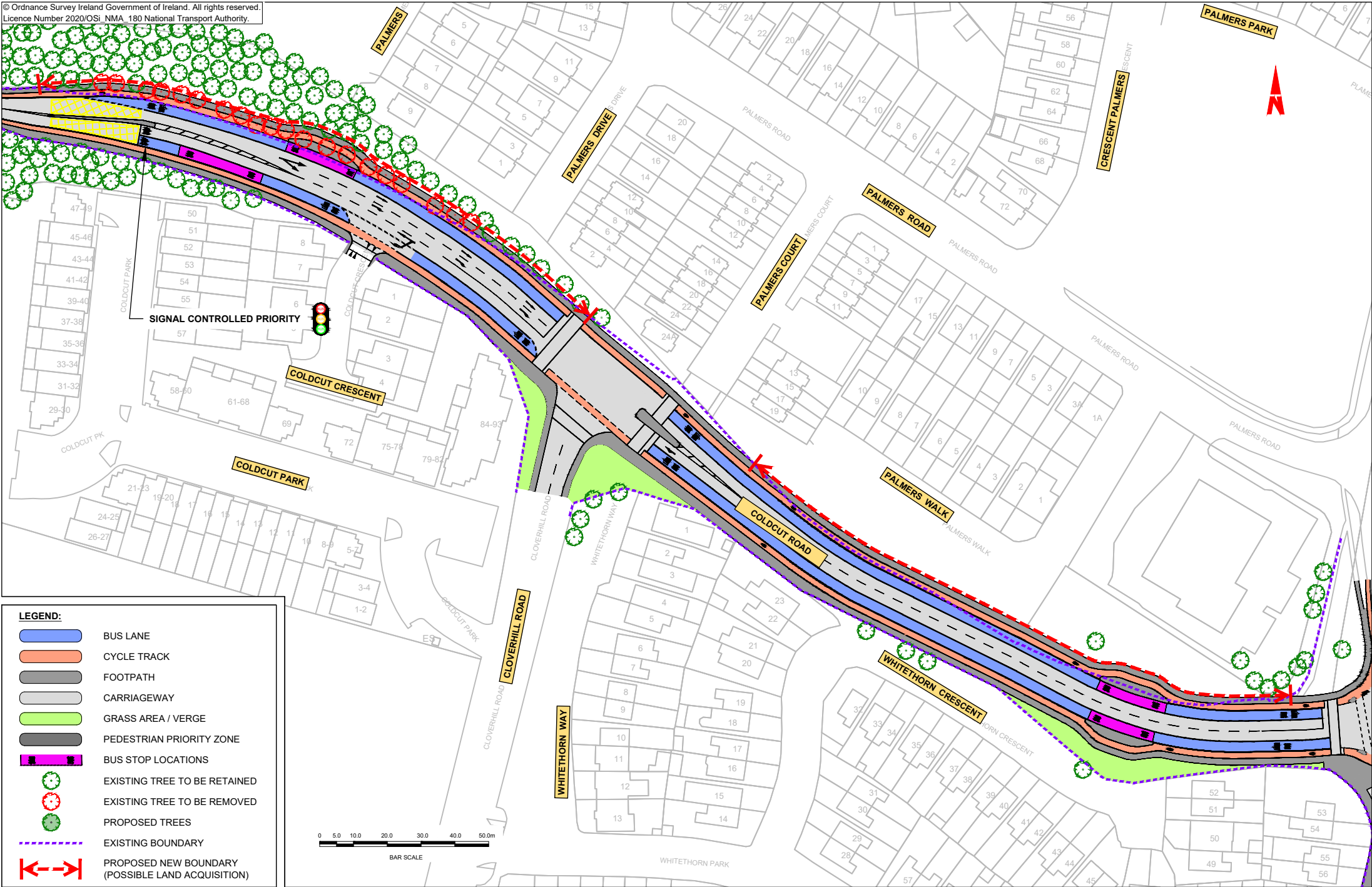
Liffey Valley
Shopping
Centre

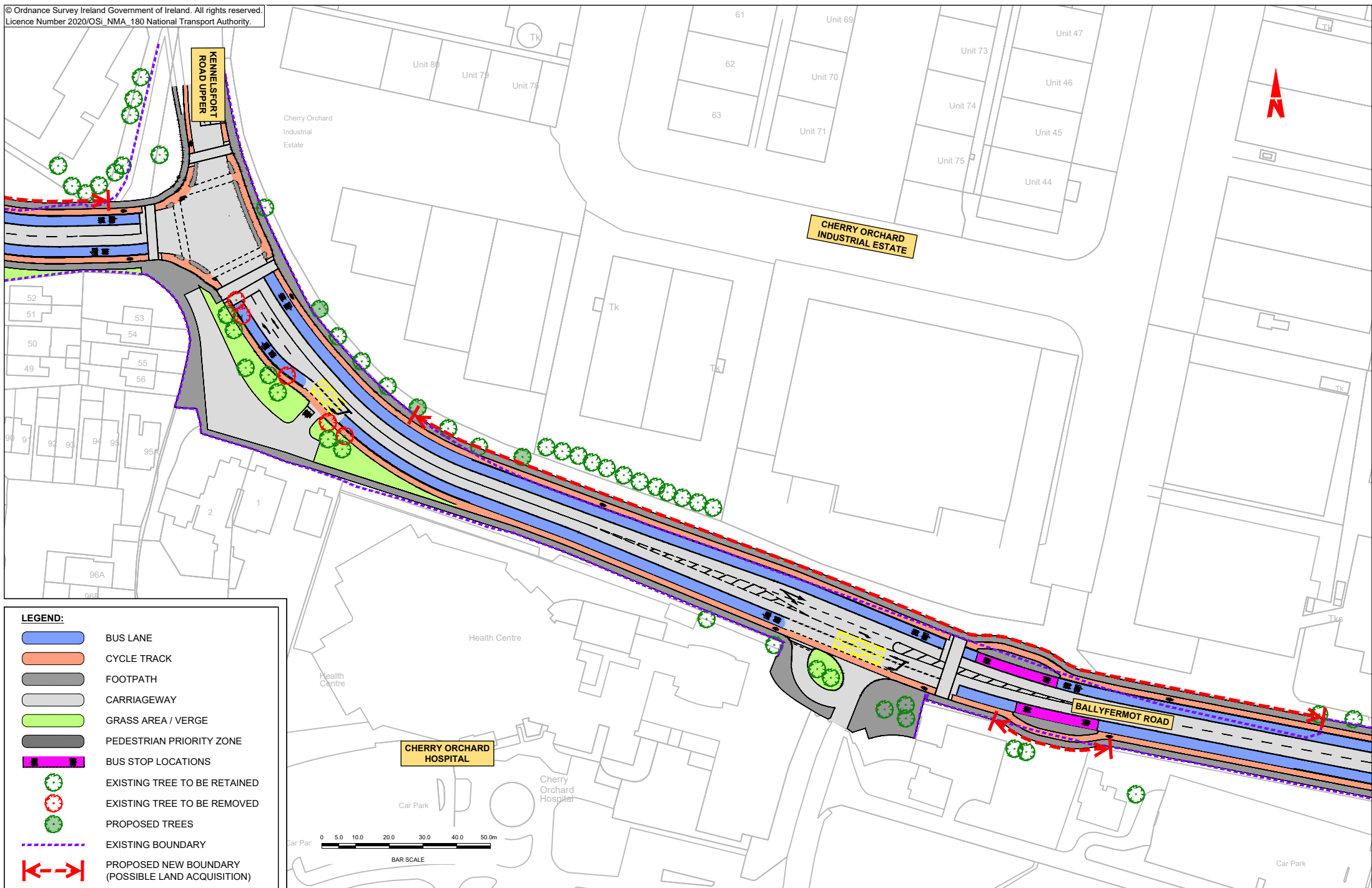
Car Park

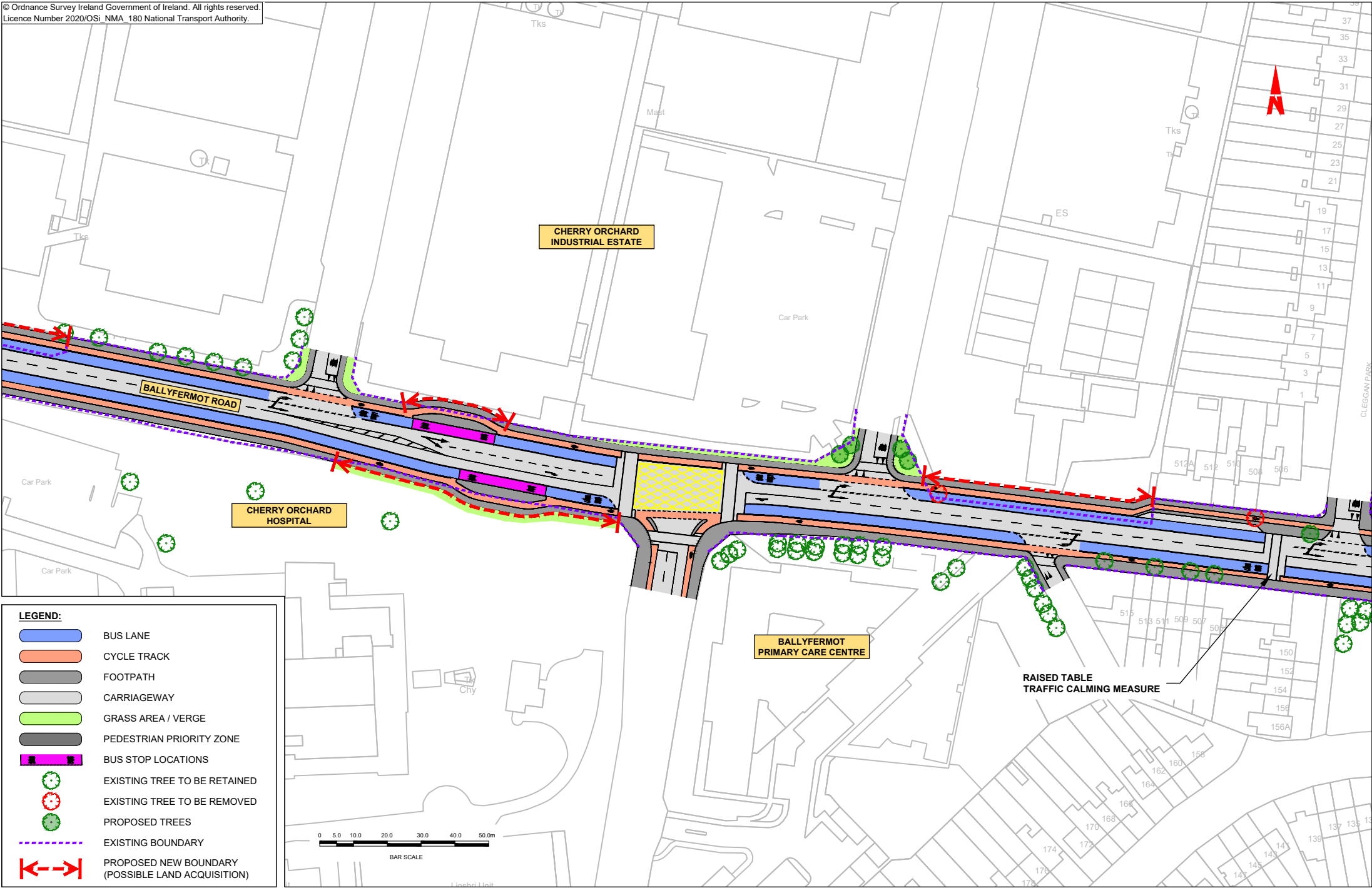


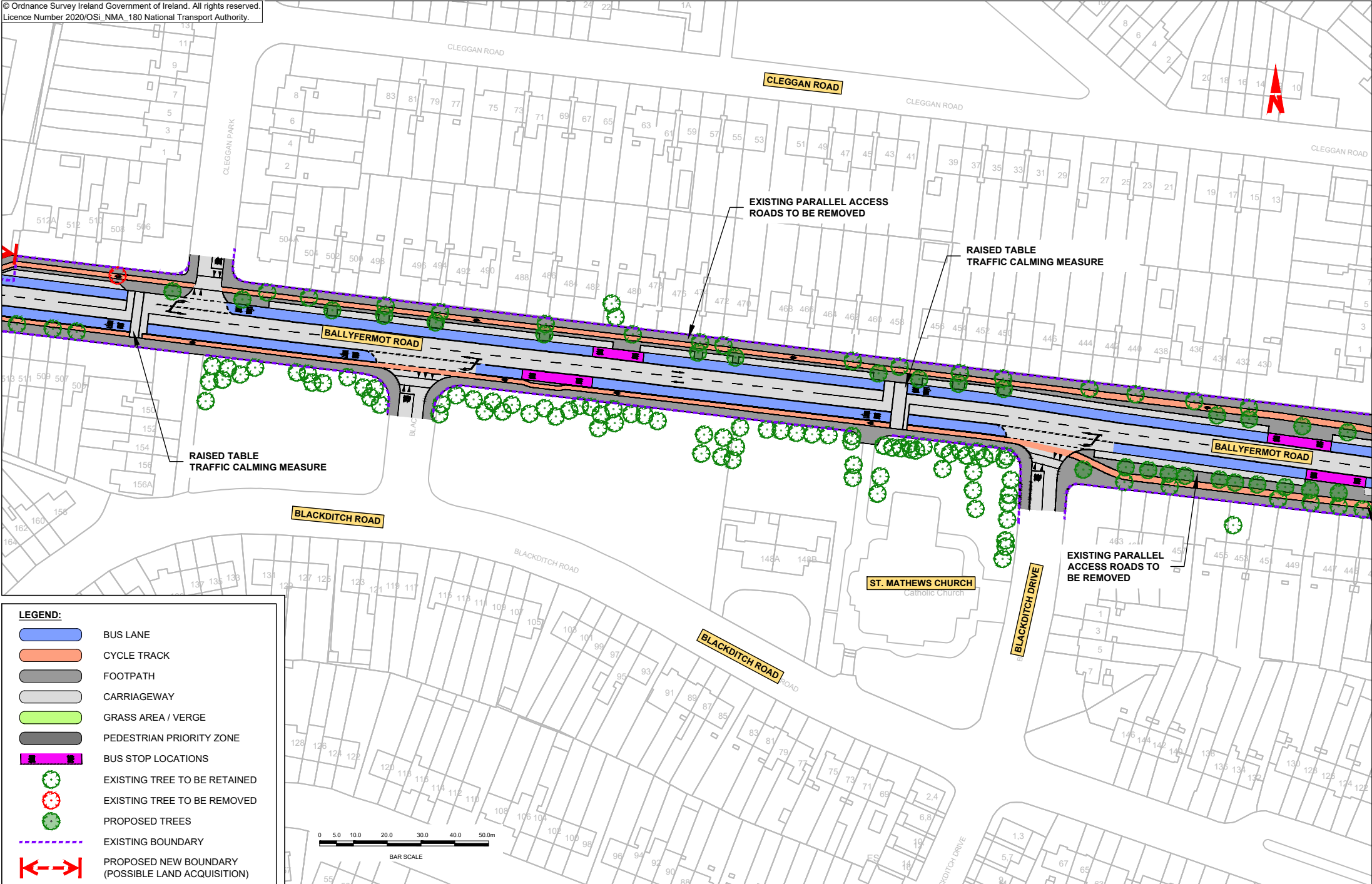


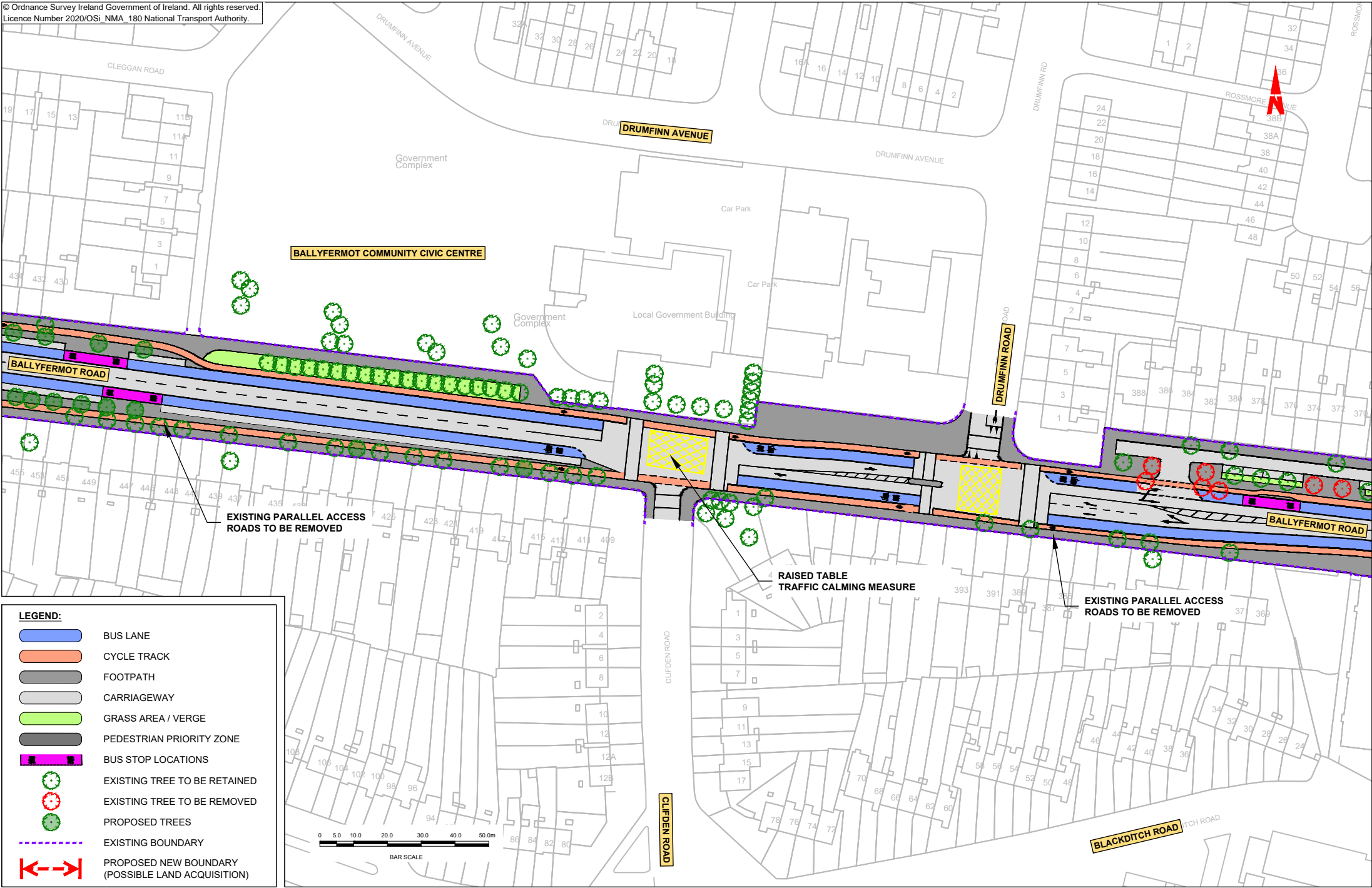


















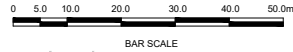






LEGEND:

-  BUS LANE
-  CYCLE TRACK
-  FOOTPATH
-  CARRIAGEWAY
-  GRASS AREA / VERGE
-  PEDESTRIAN PRIORITY ZONE
-  BUS STOP LOCATIONS
-  EXISTING TREE TO BE RETAINED
-  EXISTING TREE TO BE REMOVED
-  PROPOSED TREES
-  EXISTING BOUNDARY
-  PROPOSED NEW BOUNDARY
(POSSIBLE LAND ACQUISITION)



ST. JOHNS COLLEGE DE LA SALLE

Saint Johns National School

Saint Johns National School

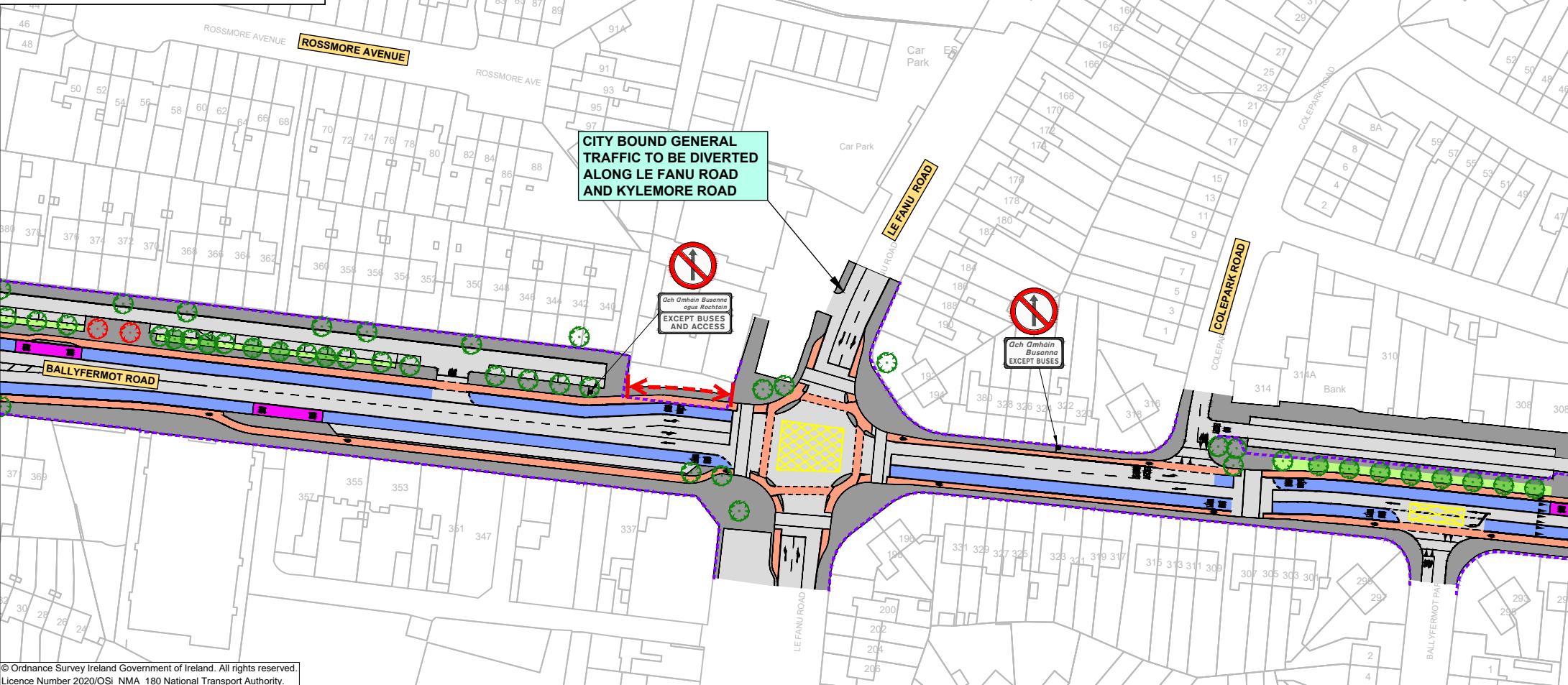
CITY BOUND GENERAL TRAFFIC TO BE DIVERTED ALONG LE FANU ROAD AND KYLEMORE ROAD



Och Amhair Busanna agus Rochtain
EXCEPT BUSES AND ACCESS

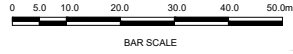


Och Amhair Busanna
EXCEPT BUSES



LEGEND:

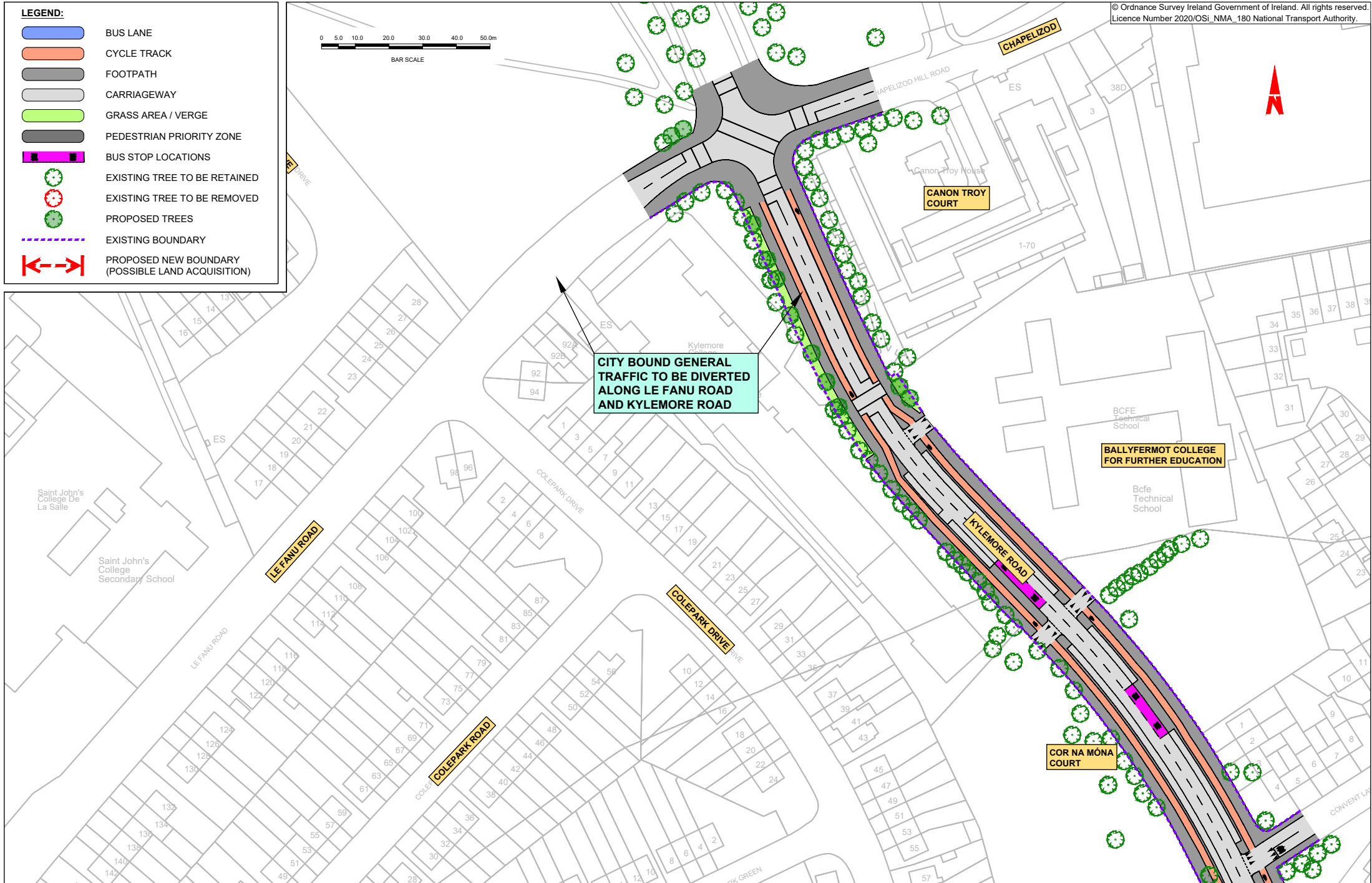
- BUS LANE
- CYCLE TRACK
- FOOTPATH
- CARRIAGEWAY
- GRASS AREA / VERGE
- PEDESTRIAN PRIORITY ZONE
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CITY BOUND GENERAL
TRAFFIC TO BE DIVERTED
ALONG LE FANU ROAD
AND KYLEMORE ROAD



LEGEND:

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-  CYCLE TRACK
-  FOOTPATH
-  CARRIAGEWAY
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-  EXISTING TREE TO BE REMOVED
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-  EXISTING BOUNDARY
-  PROPOSED NEW BOUNDARY (POSSIBLE LAND ACQUISITION)

0 5.0 10.0 20.0 30.0 40.0 50.0m

BAR SCALE

COLEPARK

COLEPARK GREEN

CITY BOUND GENERAL
TRAFFIC TO BE DIVERTED
ALONG LE FANU ROAD
AND KYLEMORE ROAD

COR NA MÓNA
COURT

CHURCH OF OUR LADY
OF THE ASSUMPTION

UPGRADE EXISTING ROUNDABOUT
TO SIGNALISED JUNCTION

FATHER LEMASS COURT

RAISED TABLE
TRAFFIC CALMING MEASURE

BALLYFERMOT ROAD

BALLYFERMOT ROAD













KYLEMORE
ROAD

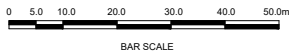


St Raphaels
Gabriels and S
Michaels Prima

OK-500

LEGEND:

-  BUS LANE
-  CYCLE TRACK
-  FOOTPATH
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-  PROPOSED NEW BOUNDARY
(POSSIBLE LAND ACQUISITION)



ST. RAPHAELS
NATIONAL SCHOOL

BALLYFERMOT FAMILY
RESOURCE CENTRE

DE LA SALLE
NATIONAL SCHOOL

BALLYFERMOT ROAD













BALLYFERMOT ROAD

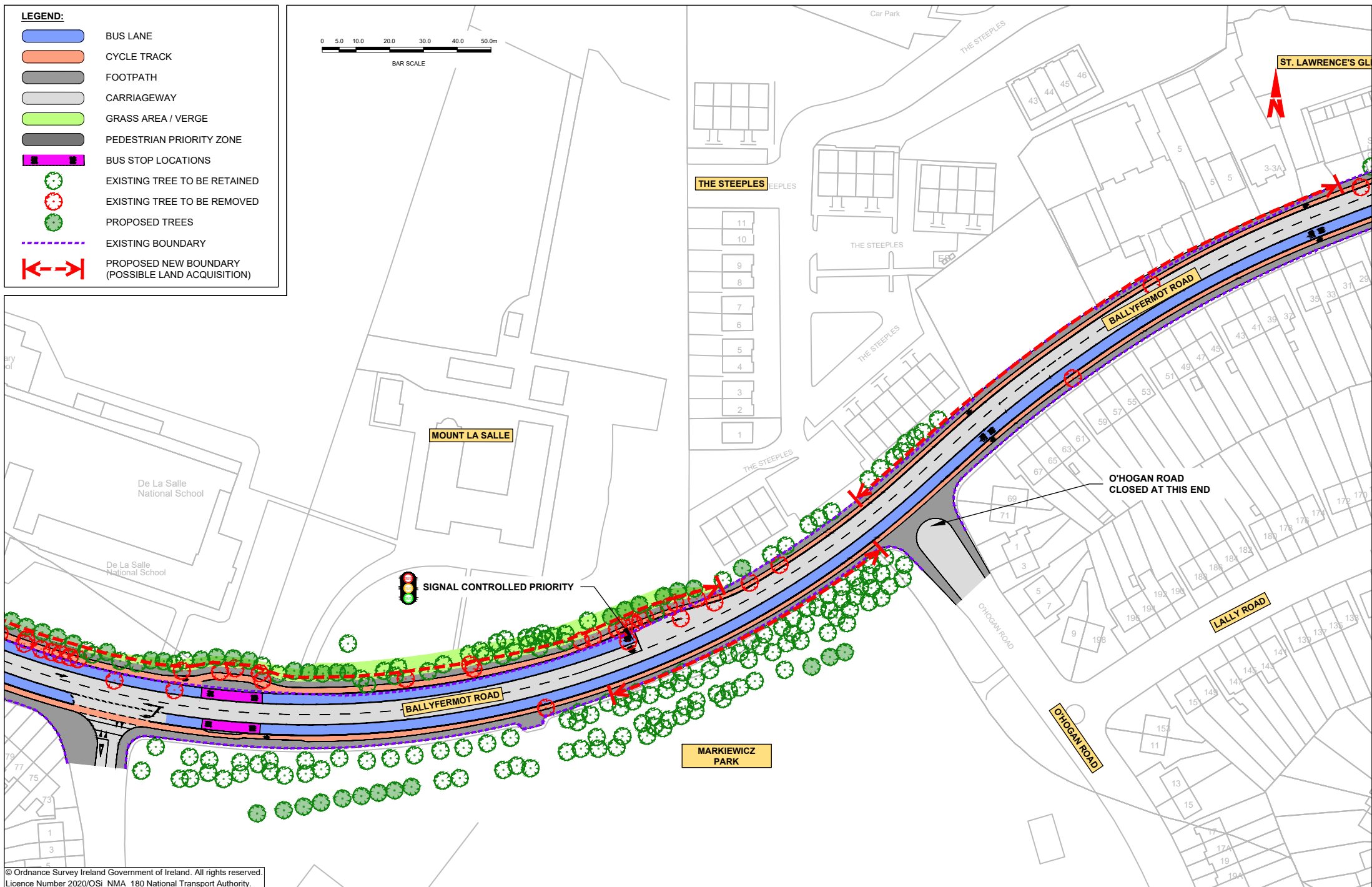
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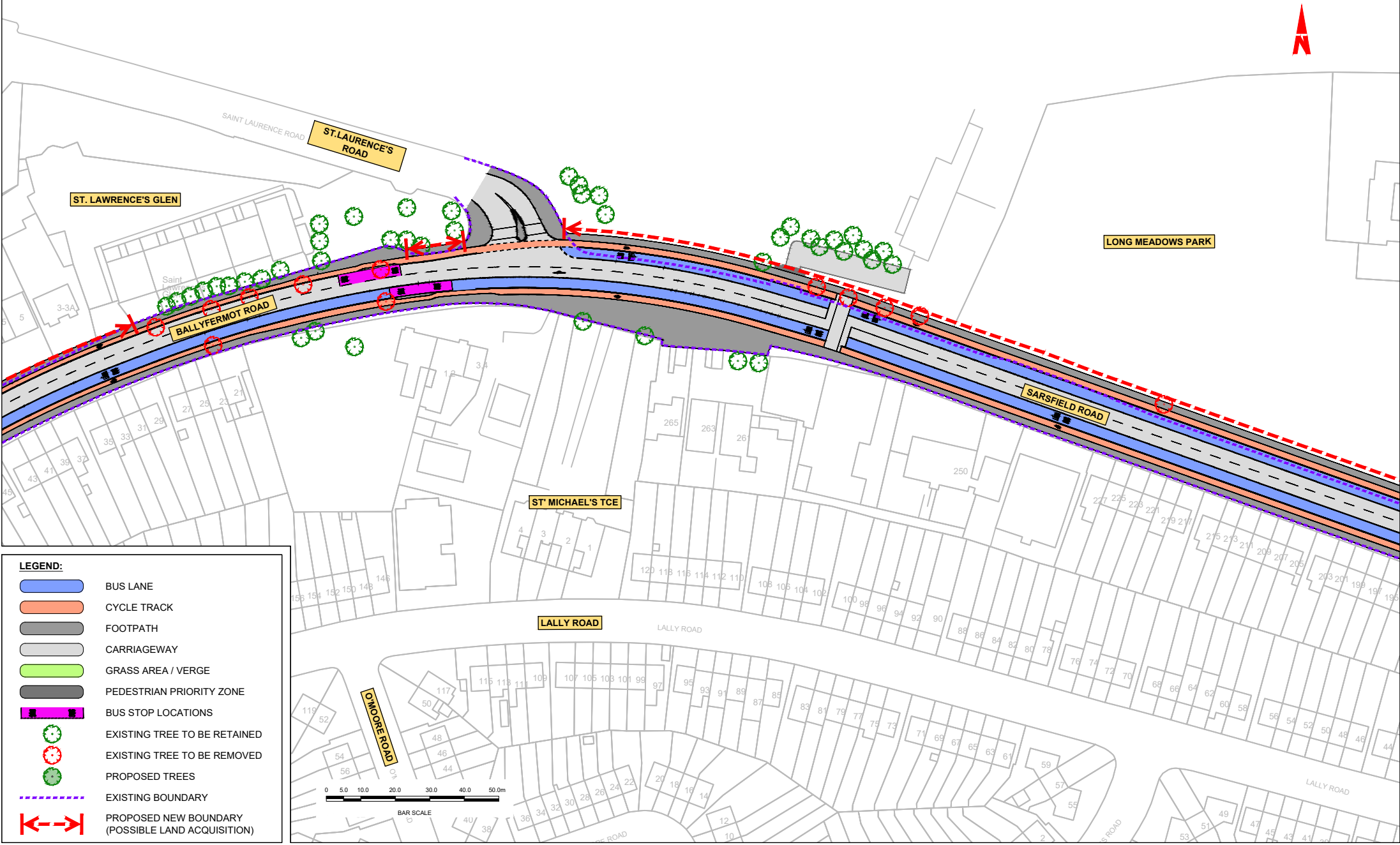
THOMOND ROAD

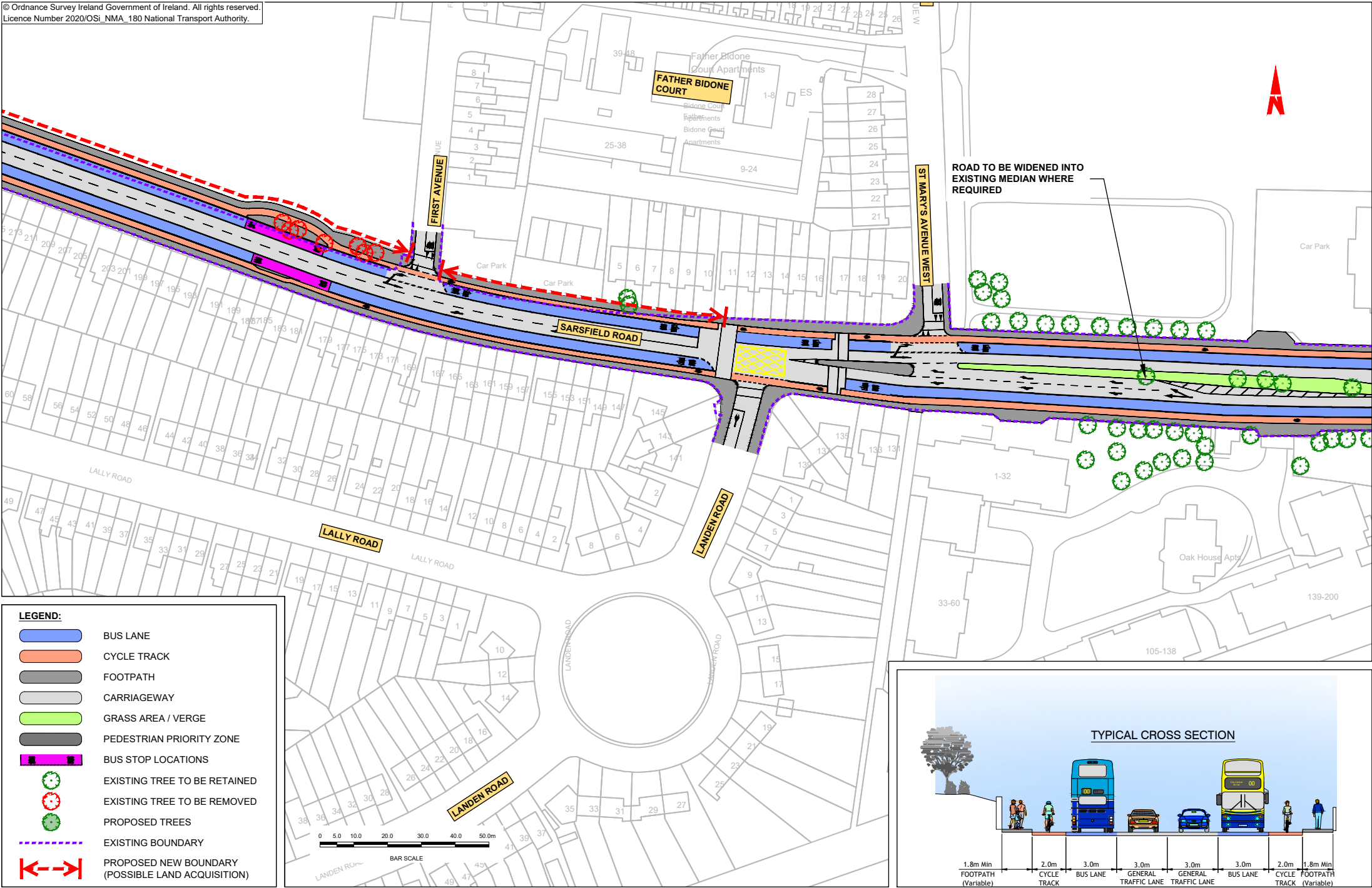
GARWOMEN ROAD

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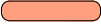










-  BUS LANE
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-  FOOTPATH
-  CARRIAGEWAY
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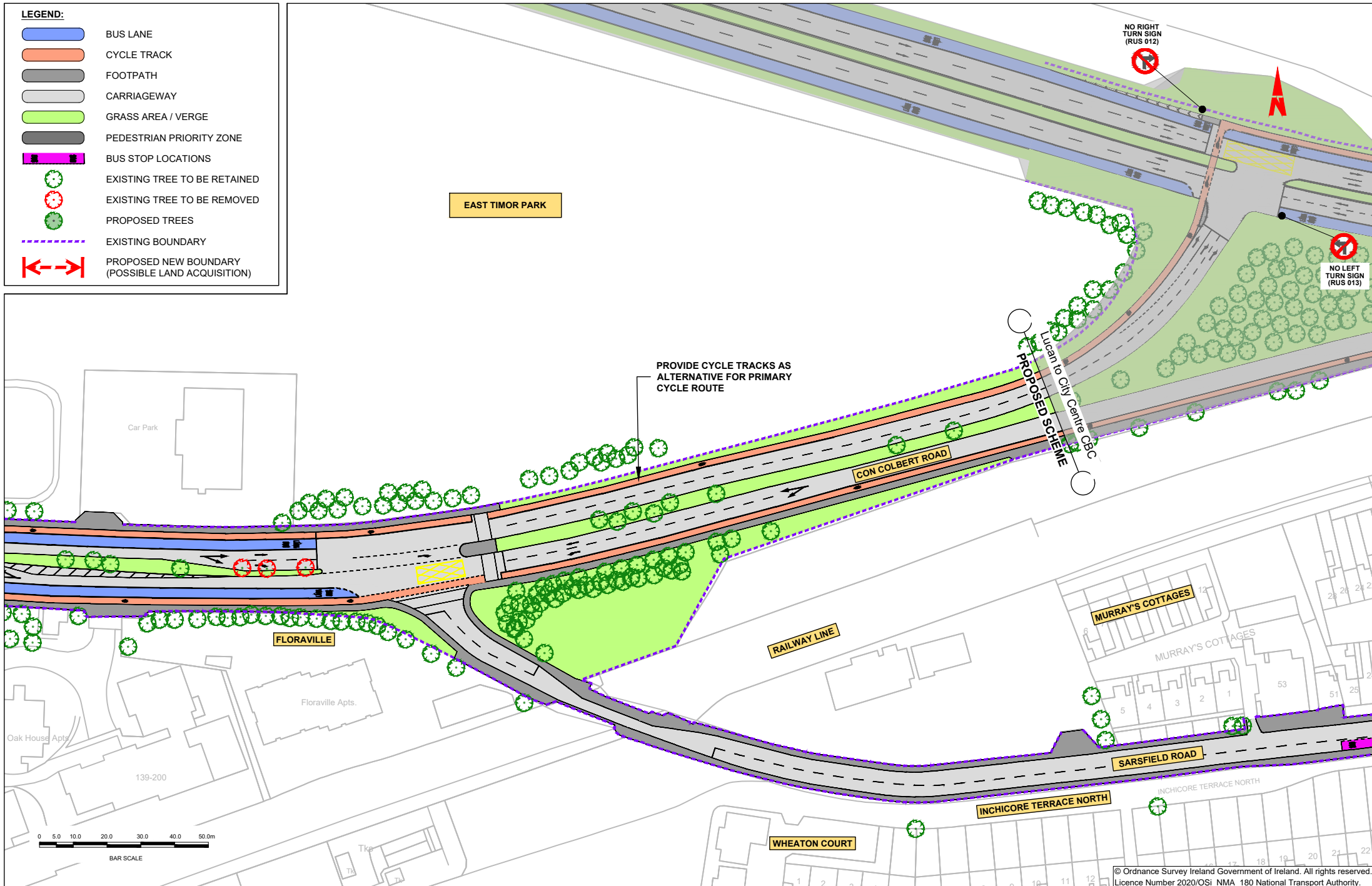


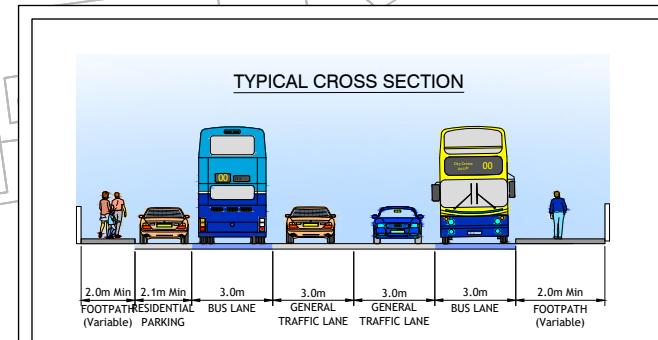
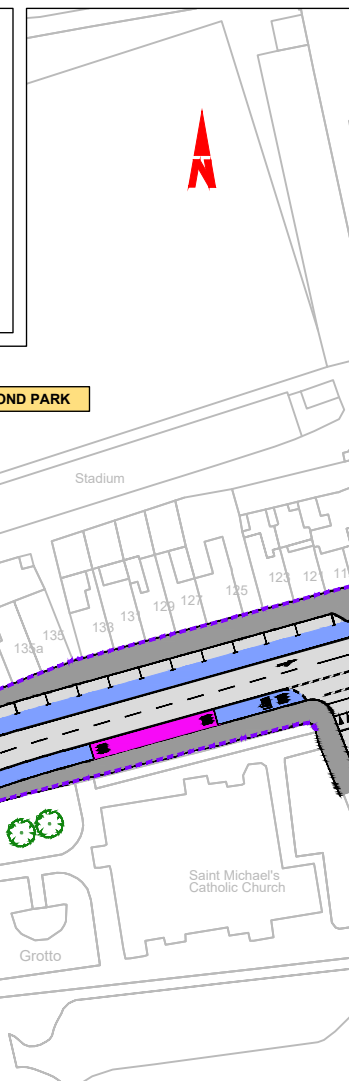
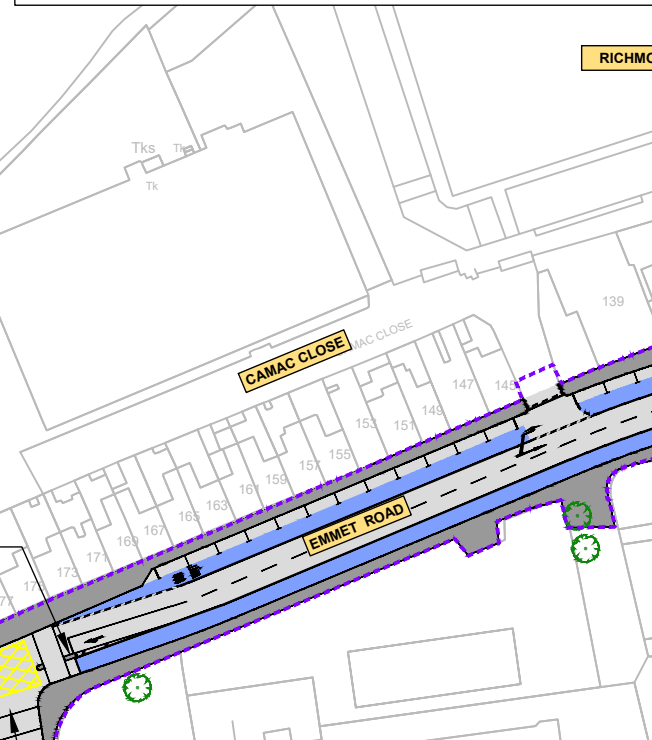
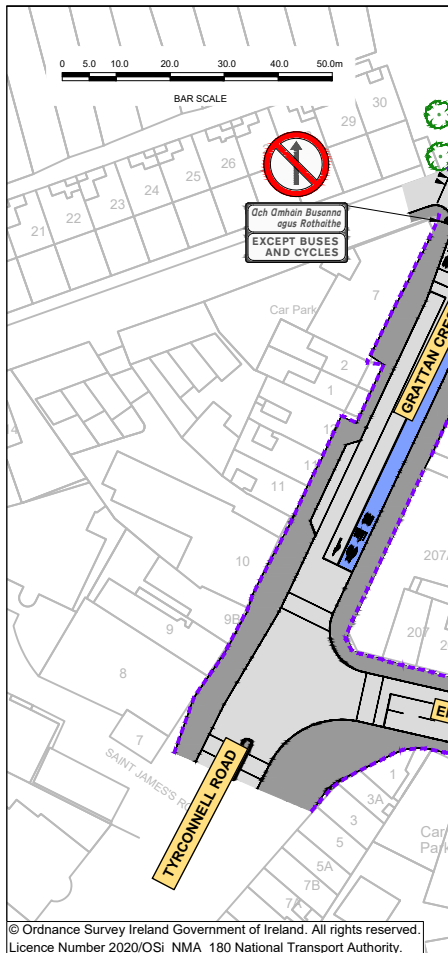







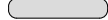








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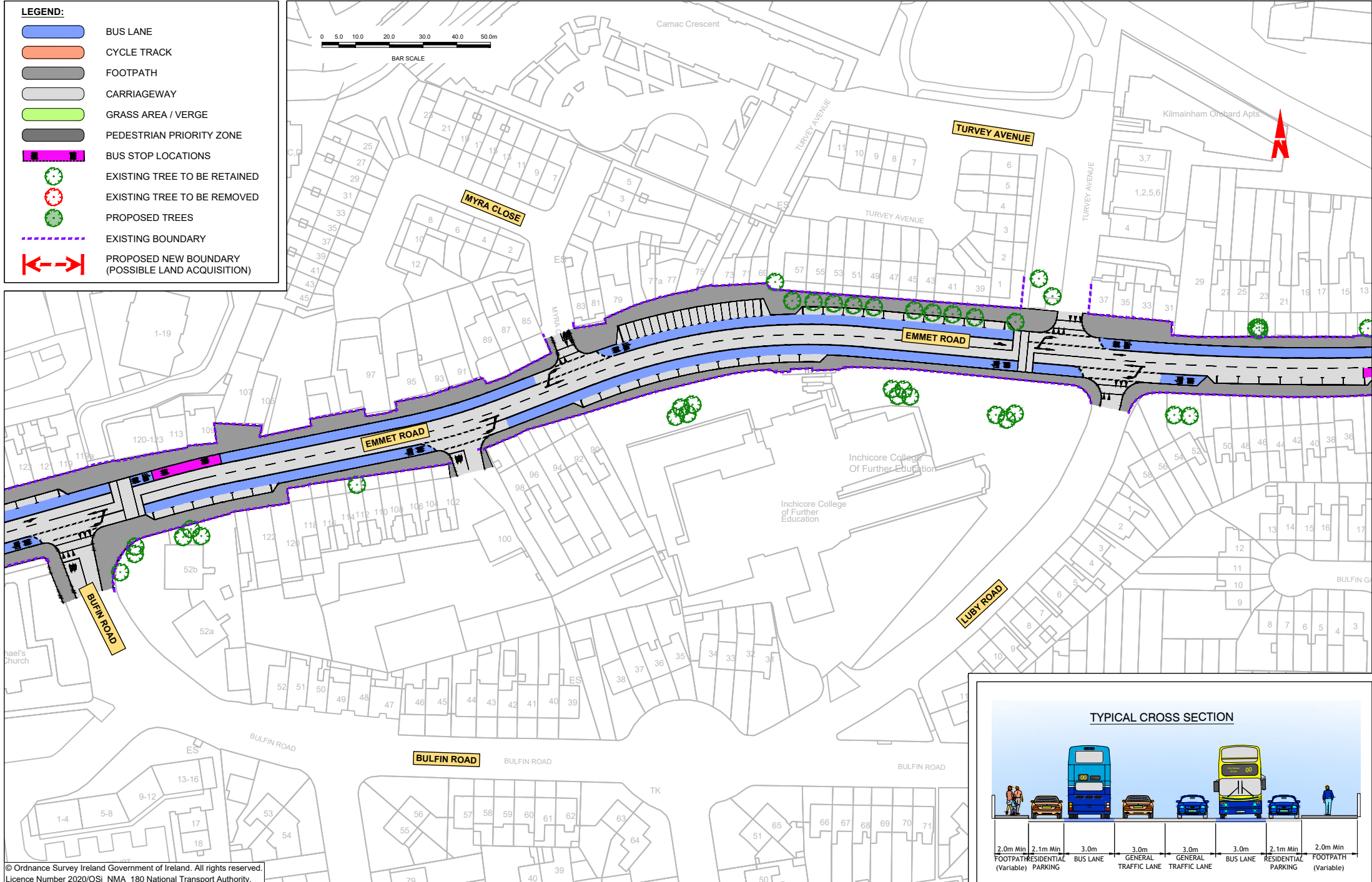
-  BUS LANE
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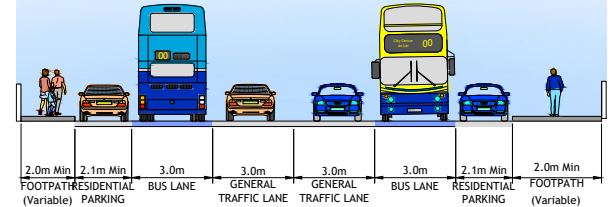


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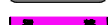





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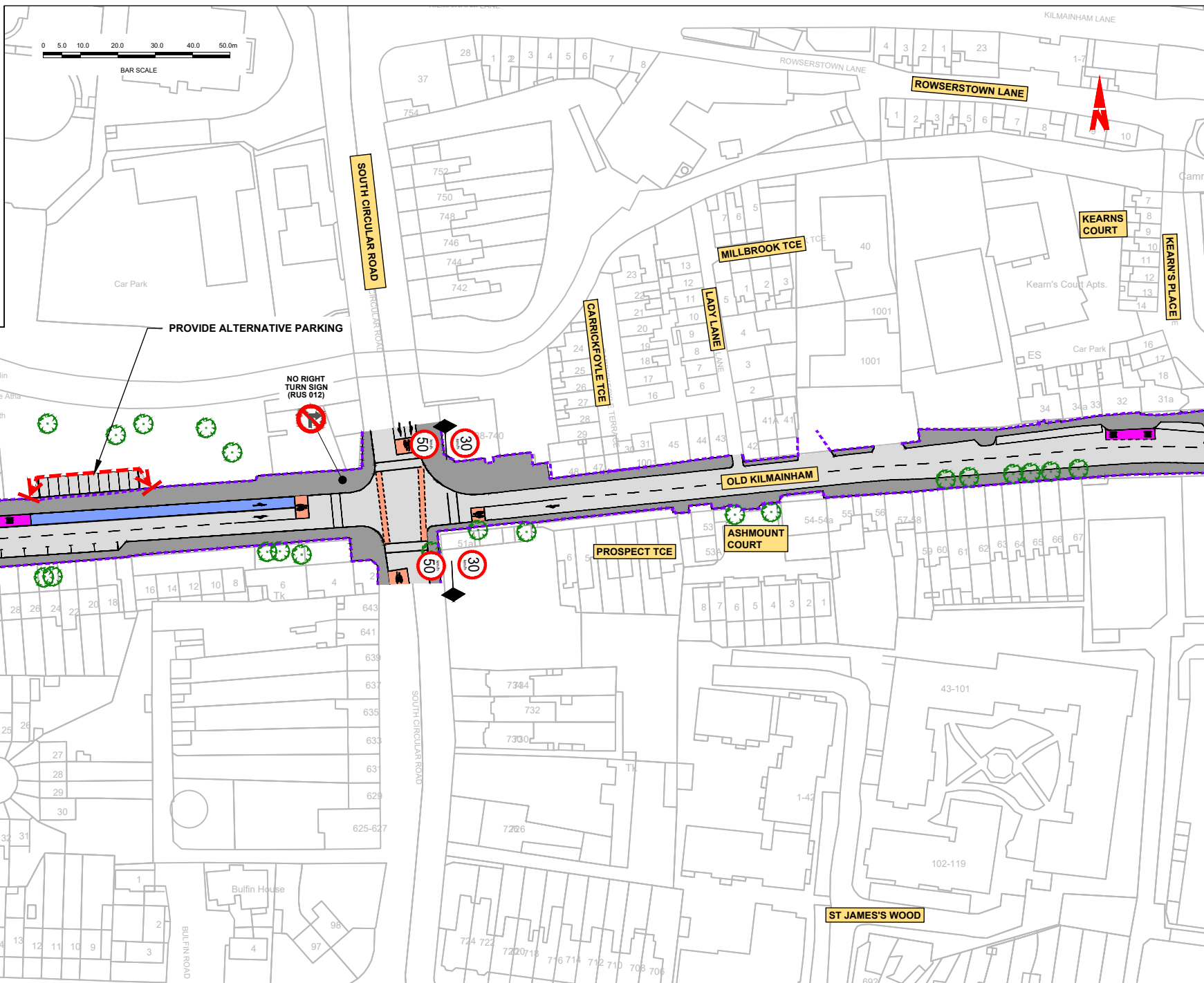


TYPICAL CROSS SECTION




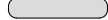










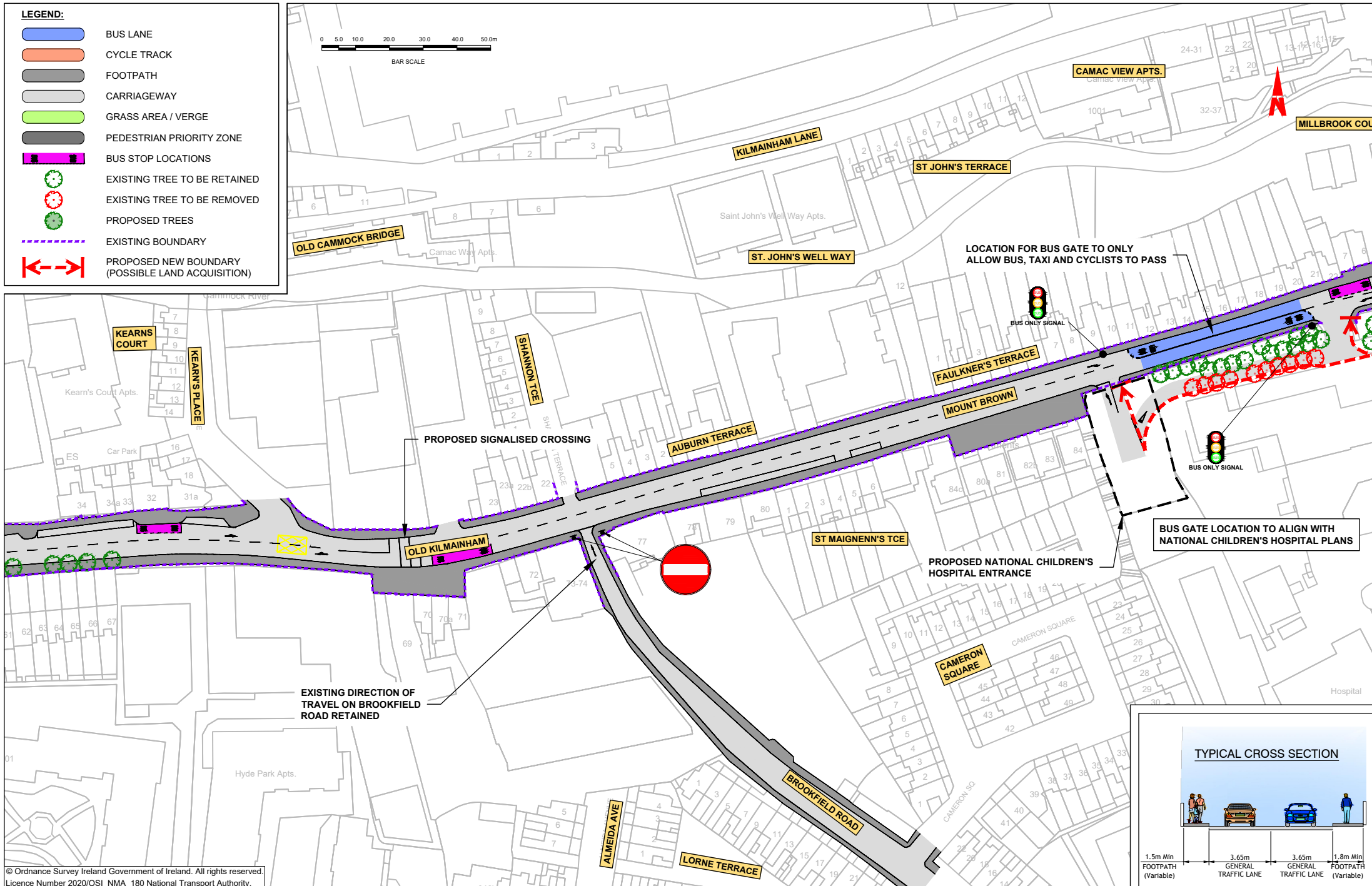
LEGEND:

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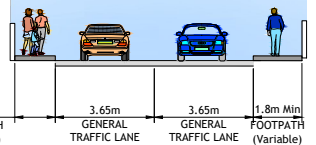


LEGEND:













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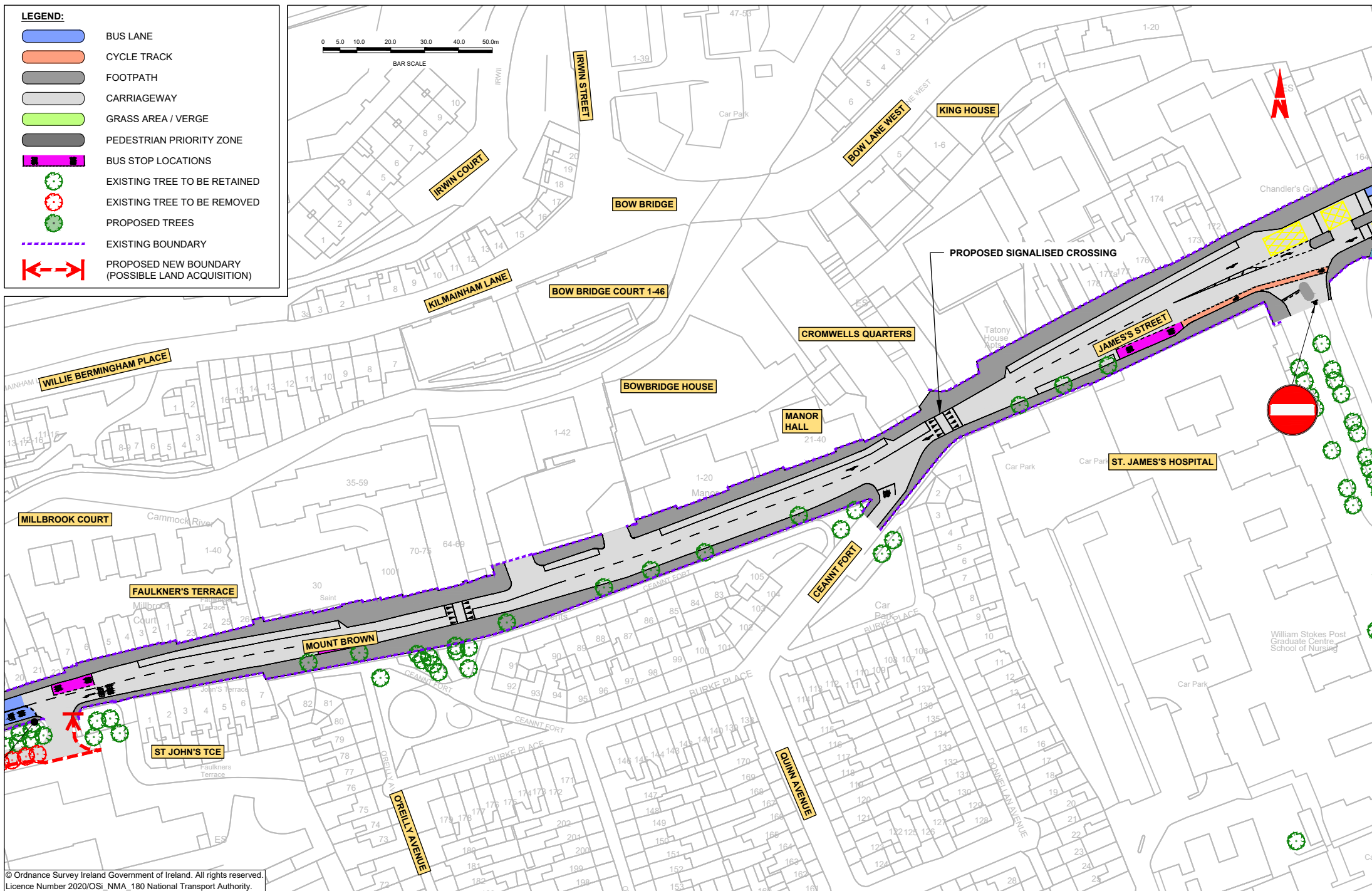
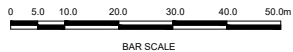


TYPICAL CROSS SECTION





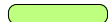









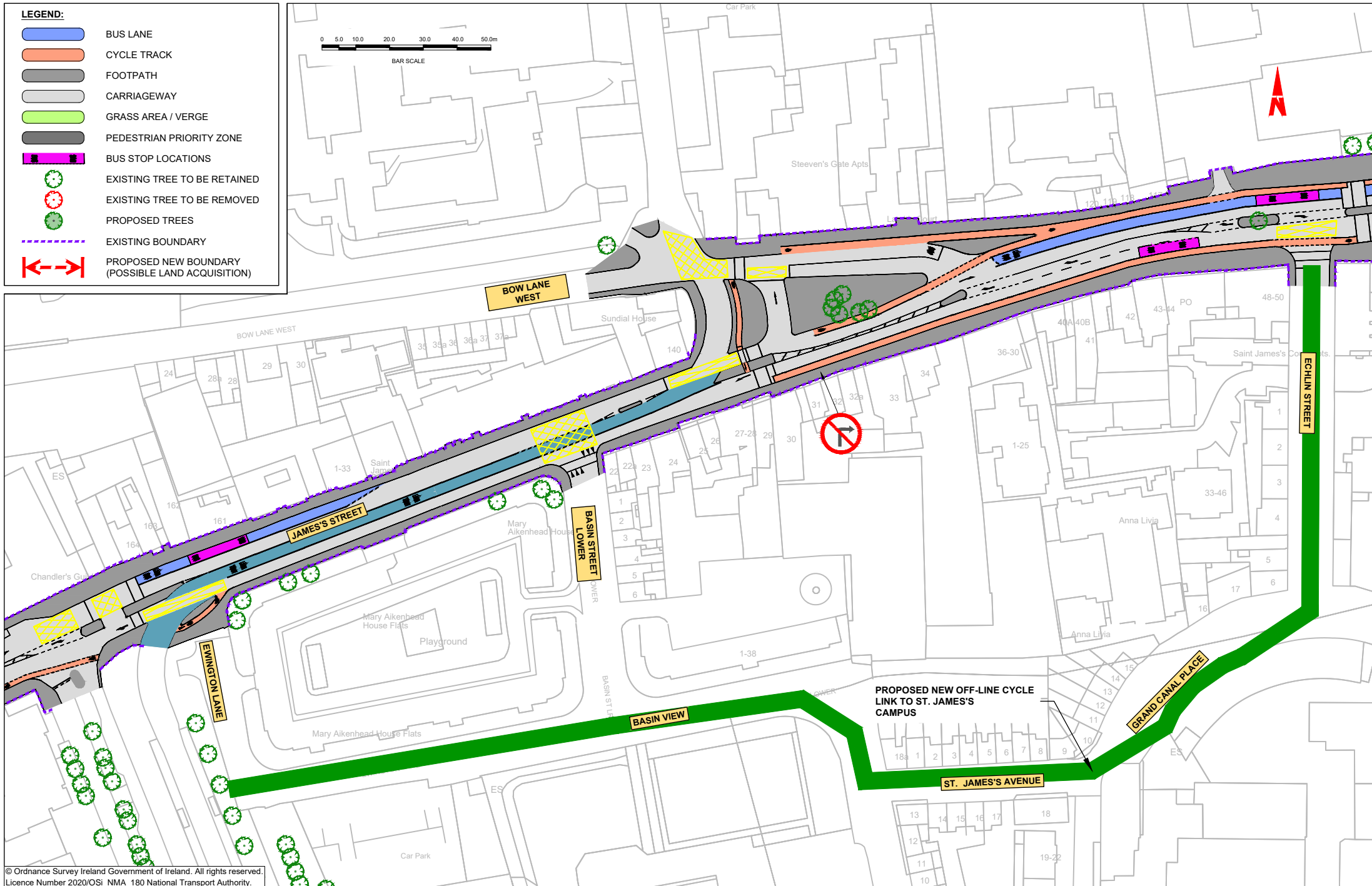
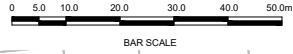
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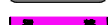







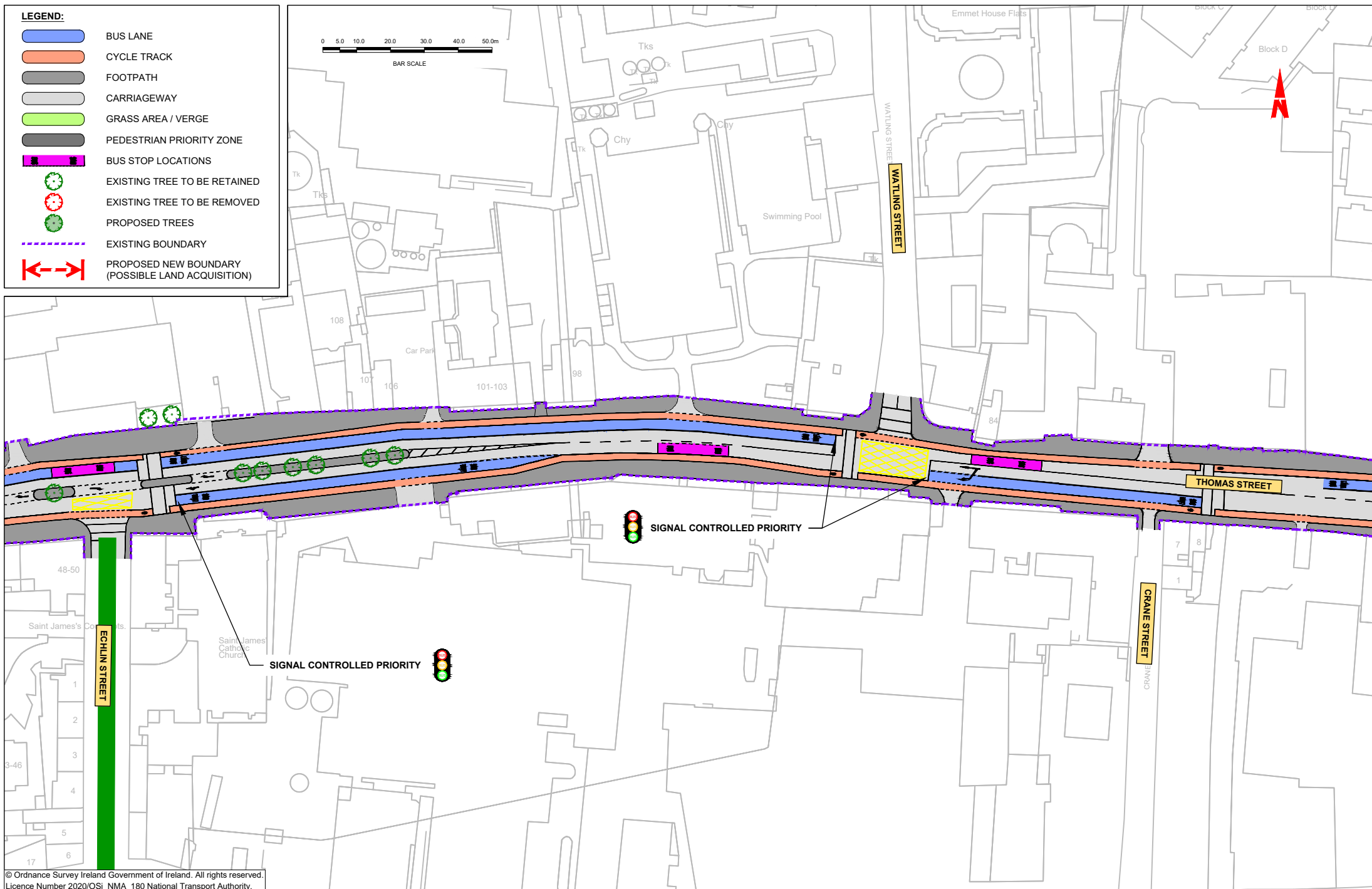
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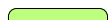









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0 5.0 10.0 20.0 30.0 40.0 50.0m

BAR SCALE

MULLINAHACK



MARSHAL LANE

BRIDGEFOOT STREET

OLIVER BOND STREET

SIGNAL CONTROLLED PRIORITY



THOMAS STREET

JOHN'S LANE WEST

JOHN'S STREET

RAINSFORD AVENUE

THOMAS COURT

ST CATHERINE'S LANE WEST

MEATH STREET

MOLYNEUX YARD

VICAR STREET













HANBURY COURT (APTS)

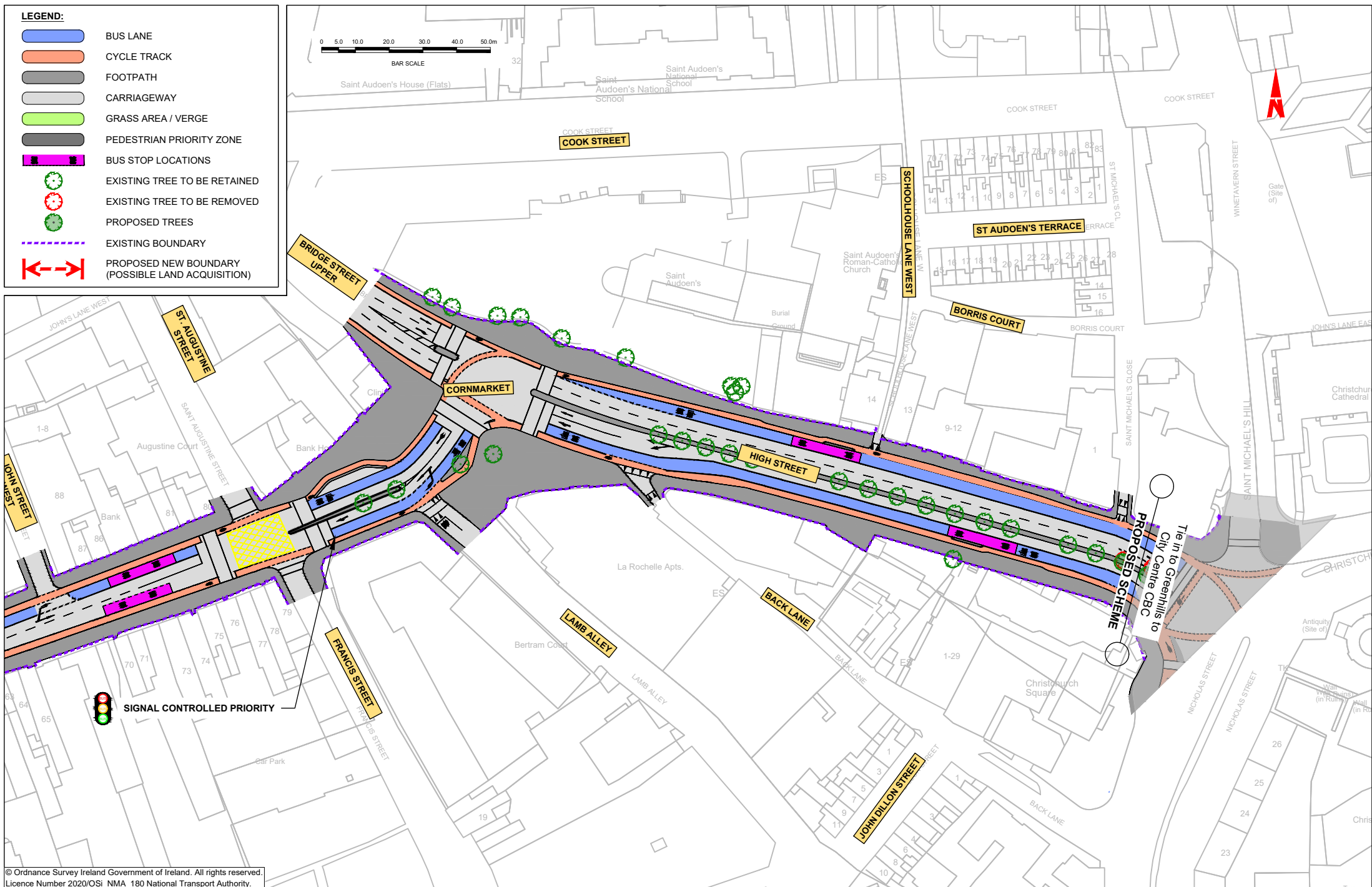
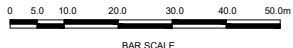
SWAN ALLEY

HANBURY LANE

WILSON TERRACE

LEGEND:

-  BUS LANE
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Appendix C. Previous feasibility study/route options assessment report

Link - <https://busconnects.ie/initiatives/core-bus-corridor-background-information/technical-documents/>

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Appendix D. Emerging Preferred Route

Link - <https://busconnects.ie/initiatives/core-bus-corridor-background-information/emerging-preferred-route/>

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