

## **Chapter 04**

### Proposed Scheme Description

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## 4 Proposed Scheme Description

### 4.1 Introduction

This Chapter of the Environmental Impact Assessment Report (EIAR) provides a description of the BusConnects Galway: Cross-City Link (R863 University Road to R338 Dublin Road), hereafter referred to as the Proposed Scheme.

Article 5(1)(a) of the EIA Directive requires that the EIAR contains:

‘a description of the project comprising information on the site, design, size and other relevant features of the project;....’

Section 50(2)(b)(i) of the Roads Act 1993 (as amended) states that that the EIAR shall contain the following information:

‘a description of the proposed road development comprising information on the site, design, size and other relevant features of the development...’.

The layout of the chapter begins with the Proposed Scheme Overview (Section 4.2). This is followed by sections describing the design iteration process (Section 4.3) and the overall design principles applied to the Proposed Scheme (Section 4.4). Following this, there is a detailed description of the Proposed Scheme (Section 4.5) and a section describing the key infrastructure elements associated with the Proposed Scheme (Section 4.6). These sections should be read in conjunction with the scheme plans (listed in Table 4.1 below), which are contained in Chapter 3 (Consideration of Reasonable Alternatives) of the EIAR, to provide a full understanding of the Proposed Scheme and its associated infrastructure elements.

**Table 4.1: List of Drawings**

Drawing Series Number	Description
BCG-SP-00-9001	Site Map and Site Location Plan
BCG-GA-00-9001	General Arrangement
BCG-ML-00-9001	Mainline Plan and Profile
BCG-CS-00-9001	Typical Cross Sections
BCG-LA-00-9001	Landscaping General Arrangement
BCG-BW-00-9001	Fencing and Boundary Treatment
BCG-TS-00-9001	Traffic Signs and Road Markings
BCG-DN-00-9001	Proposed Surface Water Drainage Works
BCG-UT-01-9001	Combined Existing Utilities Records
BCG-UT-02-9001	IW Foul Sewer Asset Alterations
BCG-UT-03-9001	IW Water Asset Alterations
BCG-UT-04-9001	ESB Asset Alterations
BCG-UT-05-9001	GNI Asset Alterations
BCG-UT-06-9001	Telecommunications Asset Alterations
BCG-RW-00-9001	Retaining Structures

## 4.2 Proposed Scheme Overview

The Proposed Scheme comprises the ‘Cross-City Link’, supporting sections of the ‘Inner-City Access Route’ and other associated traffic management measures considered necessary to enable the introduction of the Cross-City Link. The Proposed Scheme has an overall length of approximately 6.7km, the extent of which is set out in Diagram 1.1 in Chapter 1 (Introduction) of this EIAR. The entirety of the Cross-City Link, Inner Access Route and City Centre Access Network are illustrated in Diagram 3.6 in Chapter 3 (Consideration of Reasonable Alternatives) of this EIAR.

The Cross-City Link is a public transport priority corridor, encompassing pedestrian crossings, upgraded footpaths, public realm improvements, enhanced cycle facilities and additional bus priority measures, from R863 University Road to R338 Dublin Road (east of the Moneenageisha junction).

In its totality, it is much more than a corridor for public transport. The Proposed Scheme also constitutes a significant investment in infrastructure aimed at improving the environment for walking and cycling in Galway. It supports the Galway Public Realm Strategy, provides strong linkages between existing and newly planned public realm spaces as part of the Proposed Scheme and, through the rebalancing of road and street space, will allow Galway City Centre to breathe again. In this regard it supports Galway’s vision, as set out in the City Development Plan 2017-2023 and the Draft City Development Plan 2023-2029, for Galway City to be a successful, sustainable, socially inclusive regional capital which aspires to create prosperity while also being environmentally responsible.

The extent of the ‘Inner-City Access Route’ contained within the Proposed Scheme, from the Headford Road to Lough Atalia Road, is being delivered as part of the Proposed Scheme because of necessary changes to this route due to the introduction of the Cross-City Link, and in order to accommodate improved orbital traffic movement around the core city centre area, while maintaining and improving overall accessibility to key city centre car parks.

The Cross-City Link component of the Proposed Scheme begins on R863 University Road at the intersection of R864 Newcastle Road. It proceeds along R863 University Road, across the Salmon Weir Bridge and staying on the R863, before turning onto R866 St Francis Street / Eglinton Street, at the Galway Courthouse junction. The Proposed Scheme continues along the R866 on St. Francis Street and Eglinton Street and around the northern (R866) and eastern (R336) perimeter of Eyre Square and on to R339 Forster Street. It then continues through the Fairgreen Road Junction and along R339 College Road as far as the junction with Lough Atalia Road. From here, the Proposed Scheme continues on R339 College Road to Moneenageisha junction and terminates on R338 Dublin Road immediately prior to the entrance to the Woodlands Campus for Brothers of Charity.

The section of the Inner-City Access Route delivered by the Proposed Scheme comprises an upgraded two-way traffic route along St. Brendan’s Avenue, Bóthar Na mBan, Bóthar Bhreandáin Uí Eithir and Fairgreen Road, thereby providing an additional inner orbital link from the Headford Road to Lough Atalia Road.

In effect, private motorised traffic will now be able to access the city centre from all directions, and to exit on the same side. In order to circulate within the city however, general traffic will have to use the orbital River Corrib crossings on the City Centre Access Network.

The Proposed Scheme includes an upgrade of the existing bus priority and cycle facilities associated with the corridor. The Proposed Scheme includes a substantial increase in the level of bus priority provided along the corridor, including the provision of additional lengths of bus lane, resulting in improved journey times and journey time reliability.

Bus priority will be achieved through a series of interventions. These vary throughout the proposed scheme and also vary throughout the time of day at certain locations. The hours of operation of the bus lanes and gates will be subject to on-going review based on prevailing traffic conditions and the goal of achieving the project objectives. Galway City Council and the NTA will co-operate in good faith to address any issues with the hours of operation that may arise during the lifetime of the scheme.

Bus priority along R863 University Road will be achieved through the introduction of bus lanes on the Salmon Weir Bridge, between the entrance to Fisheries Field and Galway Courthouse. These will function as an effective bus gate, only permitting buses and permitted vehicles to cross the Salmon Weir bridge in both directions. This will permit R863 University Road and Nuns Island to remain accessible to all vehicles during hours of operation of the bus lanes via Newcastle Road. The bus lanes on Salmon Weir Bridge are proposed to operate seven days a week (Mon – Sun) from 07:00-19:00.

Bus priority along R866 St. Francis Street, R866 Eglinton Street, R866/R336 Eyre Square and R339 Forster Street will also be achieved through the introduction of bus lanes. The proposed scheme provides for a southbound bus lane on R866 St. Francis Street and R866 Eglinton Street, an eastbound bus lane on R866 Eyre Square North, northbound and southbound bus lanes on R336 Eyre Square East (between Richardson's Corner and St. Patricks Avenue, and eastbound and westbound bus lanes along R339 Forster Street. These bus lanes are proposed to operate seven days a week (Mon – Sun) from 07:00 – 10:00 and between 13:00 – 19:00. These bus lanes are not proposed to operate between 10:00-13:00 in order to permit a window for access for deliveries along this corridor which cannot be serviced during the evening / night-time period between 19:00-07:00. Access to this section of the Cross-City Link during these time periods will be via the R866 Headford Road. Access to R866 St. Francis Street, R866 Eglinton Street and St. Patricks Avenue are maintained 24 hours, albeit in limited directions.

Bus priority along R339 College Road (between R339 Forster Street and the junction with Lough Atalia Road) will be achieved through the introduction of a bus gate, located between City Hall and R339 Forster Street. This will be provided through the installation of short sections of bus lane. While this will allow buses and permitted vehicles, including emergency services, taxis, and bicycles, to travel along the entire length of R339 College Road it will effectively remove all through traffic from using R339 College Road.

Local access to all locations will be maintained, however, vehicles will be required to enter and exit R339 College Road from the same direction, either side of the bus gate (dictated by the location of the origin/destination in relation to the bus gate).

Bus priority along R339 College Road (between the junction with Lough Atalia Road and Moneenageisha junction) will be achieved through the introduction of an outbound bus lane. This bus lane will terminate at the Moneengaeisha junction, where a bus priority signal is proposed to facilitate priority for buses moving through the junction. This bus lane is proposed to operate 24 hours a day Monday – Sunday. Segregated inbound bus priority is not considered necessary at this location due to the uncongested nature of this link.

Bus priority along R338 Dublin Road will be achieved through the introduction of bus lanes in both directions for the entirety of the R338 Dublin Road section of the Proposed Scheme. There is an existing outbound bus lane along the majority of this section, which will be extended to begin at the Moneenageisha junction. The inbound bus lane will terminate at the Moneenageisha junction, where a bus priority signal is proposed to facilitate priority for buses through the junction. These bus lanes are proposed to operate 24 hours a day, seven days a week (Monday – Sunday).

Outside of the Cross-City Link, some additional bus lanes are also proposed to either achieve enhanced bus priority or to ensure bus priority is maintained along the Cross-City Link. These include a short section of bus lane on Bóthar Uí hEithir approaching its junction with R339 Forster Street, comprising a right turn lane to permit authorised vehicles to access the Cross-City Link onto R339 Forster Street, but restrict unauthorised vehicles. Also proposed is a short section of Bus Lane on R 866 St. Vincent's Avenue in a westbound direction between Corrib Terrace and R866 St. Francis Street. This bus lane will provide priority for westbound buses from the Headford Road and also restrict unauthorised vehicles from accessing the Cross-City Link. These bus lanes are proposed to operate seven days a week (Monday – Sunday) from 07:00 – 10:00 and between 13:00 – 19:00.

A further outbound bus lane is proposed on the R866 Headford Road, between its junction with St. Brendan's Avenue and its junction with St. Bridget's Place. This will provide bus priority over general traffic on the Inner-City Access Network. These bus lanes are proposed to operate 24 hours a day, seven days a week (Monday – Sunday).

Throughout the Proposed Scheme bus stops will be enhanced to improve the overall journey experience for bus passengers.

Cycle facilities will be substantially improved throughout the Proposed Scheme, with segregated cycle tracks provided where practical to do so, or through the creation of low speed, low volume traffic calmed environments along sections of the Cross-City Link core city centre route.

A traffic calmed environment for cyclists will be accommodated along R863 University Road and R339 College Road, through the introduction of the proposed bus gates on these two streets.

These bus gates will remove all through traffic on R863 University Road and R339 College Road between the hours of 07:00 – 19:00, significantly reducing the volumes of traffic on these routes, transforming and reinforcing the character of these routes as more urban streets.

Similarly, the Cross-City Link travelling along R866 St. Francis Street, R866 Eglinton Street, R866/R336 Eyre Square and R339 Forster Street will also create a more comfortable environment for cycling through the introduction of bus lanes and the removal of through traffic.

On the Cross-City Link at R339 College Road, between Lough Atalia Road and Moneenageisha junction, cycle infrastructure will be improved through the provision of a segregated cycle track inbound along this section and the introduction of an outbound bus lane, which cyclists will be permitted to use.

On the R338 Dublin Road section of the Proposed Scheme, fully segregated inbound and outbound cycle tracks are proposed.

Furthermore, segregated contra-flow cycle tracks are proposed at two locations as part of the Proposed Scheme in locations where new one-way traffic systems are proposed to be introduced. These are located at Woodquay and Dyke Road, which will maintain directness for cyclists in these areas. Additionally, where vehicle movements are being removed or restricted, cycle permeability is proposed to be retained, at both Newtownsmith and Waterside, at their junctions with the Cross-City Link.

Pedestrian facilities will be upgraded, and additional signalised crossings will be provided throughout the route of the Proposed Scheme. Pedestrian footpaths will be widened as far as is feasible within existing boundaries, in areas of high pedestrian demand including along R863 University Road in front of NUIG and along R866 Eglinton Street and R339 Forster Street.

The removal of motorised general traffic from the city centre core will have a transformative impact on the city centre for all who live, work, and visit the city for essential services and leisure. This traffic being removed from the narrow streets will improve air and noise conditions, create a sense of space and allow the city centre to breathe. The Proposed Scheme takes the opportunity to both connect places of interest and further enhance the public realm within the city centre through the creation of new spaces designed for people. This will be achieved through the incorporation of urban landscape design interventions and the use of high-quality materials, planting and street furniture in accordance with Galway City's Public Realm Strategy. The Proposed Scheme and the interventions planned reflect the choices which need to be made in the creation of a much more liveable city, providing an enhanced experience within the city centre for all who visit. Section 4.5.11 sets out the specific urban realm improvements for the Proposed Scheme including a mixture of hardscape and softscape proposals which will have a transformative effect on Galway City Centre.

Table 4.2 summarises the infrastructure changes which will be made to the existing road and street network as a result of the Proposed Scheme. These are described in detail in Section 4.6.



**Table 4.2: Summary of Changes as a Result of the Proposed Scheme**

<b>Total Length of Proposed Scheme</b>	<b>6.7km</b>	
<b>Bus Priority</b>	<b>Existing (km)</b>	<b>Proposed Scheme (km)</b>
<b>Bus Lanes</b>		
Eastbound	0.3	1.6
Westbound	0.3	0.9
<b>Bus Priority through Traffic Management</b>		
Eastbound	0	1.5
Westbound	0	2.2
Total Bus Priority (both directions)	0.6	6.2
<b>Bus Measures</b>		
Proportion of Cross-City Link with Bus Measures	10%	100%
<b>Cycle Facilities – Segregated</b>		
Inbound	0	0.7
Outbound	0	0.5
<b>Cyclist Facilities – Non-segregated</b>		
Inbound	0	2.3
Outbound	0	2.3
<b>Cyclist Facilities – Overall</b>		
Total Cyclist Facilities (both directions)	0	5.8
<b>Other Features</b>		
Number of Traffic Signal Controlled Junctions	5	10
Number of Signal Crossings	10	21

### 4.3 Design Iteration

The design of the Proposed Scheme has evolved through a comprehensive design iteration process, with particular emphasis on minimising the potential for environmental impacts where practicable, whilst ensuring the objectives of the Proposed Scheme are attained. In addition, feedback received from the comprehensive consultation programme, described in Chapter 1 (Introduction) of this EIAR, undertaken throughout the option selection and design development process have been incorporated, where appropriate.

Chapter 3 (Consideration of Reasonable Alternatives) of this EIAR, Section 3.5.2, documents the ways in which the design developed from inception.

### 4.4 Design Principles

The design of the Proposed Scheme was developed with reference to the existing guidance documents/design standards relating to the design of urban streets, bus facilities, cycle facilities and public realm, which include the following:

- The Design Manual for Urban Roads and Streets (DMURS) (Government of Ireland 2013);
- The National Cycle Manual (NCM) (NTA 2011);
- Preliminary Design Guidance Booklet for BusConnects Core Bus Corridors (PDGB)(NTA 2021)
- TII National Road Design Standards;
- The Traffic Signs Manual (TSM) (DoT 2019);
- Guidance on the use of Tactile Paving (UK DfT 2007); and
- Building for Everyone: A Universal Design Approach (NDA 2020).

The design principles to simplify and improve bus, cycle, and pedestrian access for all have been employed throughout design of the Proposed Scheme. Accessibility for mobility impaired users is a core element of the design approach and it has been specifically informed by the principles of:

- DMURS;
- Building for Everyone: A Universal Design Approach (NDA 2020), How Walkable is Your Town (NDA 2015);
- Shared Space, Shared Surfaces and Home Zones from a Universal Design Approach for the Urban Environment in Ireland (NDA 2012);
- Best Practice Guidelines, Designing Accessible Environments (Irish Wheelchair Association 2020);
- Inclusive Mobility (UK Department for Transport 2005);
- Guidance on the Use of Tactile Paving Surfaces (UK DfT 2007); and
- BS8300:2018 Volume 1 Design of an accessible and inclusive built environment - External Environment – code of practice.

Further detail on accessibility for mobility impaired users is given in Section 4.5.9.

Taking guidance from the design principles as set out, the Proposed Scheme seeks to adopt a consistency and uniformity of approach to infrastructure provision along its route where practical to do so. The key elements of this infrastructure provision to be provided are described in Section 4.5, with their application along the route of the Proposed Scheme set out in Section 4.6.

## 4.5 Key Infrastructure Elements

### 4.5.1 Cross-Section Provision

The roads and streets along the route of the Proposed Scheme are urban in location and setting. The typical cross-sections to be adopted were developed based on the guidance outlined in DMURS, NCM and DN-GEO-03036, details of which are summarised in Table 4.3 and described in subsequent sections. In many cases the cross-sections adopted by the Proposed Scheme are dictated by existing constraints presented by available road or street widths, or what can be achieved with land acquisition where practical to do so.

**Table 4.3: BusConnects Galway Cross-City Link Cross-Section Design Parameters**

Design Element	Desirable Minimum	Absolute Minimum	Permitted Reductions at Constraints
Footpaths	2.0m	1.8m	1.2m over a 2m length of path (1)
Cycle Tracks (one-way)	2.0m	1.5m	Local narrowing below 1.5m may be necessary over short distances to cater for local constraints
Cycle Tracks (two-way)	3.25m+ 0.5m (buffer)	3.0m	
Bus Lanes	3.0m	N/A	N/A
Traffic Lanes	Preferred Width: 3.0m where speed $\leq$ 60 km/h 3.25m where speed limit > 60 km/h	2.75m (2)	Matches existing

- (1) Building for everyone: A Universal Design Approach.
- (2) Traffic lane widths of 2.75m are permissible but not desirable and should only be permitted on straight road sections with very low HGV percentage and where all desirable minimum widths for footpaths, cycle tracks, parking, bus lanes are not achievable without impacting on third-party lands.

## 4.5.2 Pedestrian Provision

### 4.5.2.1 Footpaths

The desirable minimum footpath widths as set out Table 4.3 should be increased in areas catering for significant pedestrian volumes where space permits. DMURS defines the absolute minimum footpath width for road sections as 1.8m based on the width required for two wheelchairs to pass each other. Building for Everyone: A Universal Design Approach (NDA 2020), defines acceptable minimum footpath widths at specific pinch points as being 1.2m wide over a two-metre length of path.

In line with the Road User Hierarchy designated within DMURS, at cross section pinch points, the width of the general traffic lane should be reduced first, then the width of the cycle track should be reduced before the width of the footpath is reduced, where practicable.

Throughout the Proposed Scheme, footpath widths of two metres or wider are proposed. Where this cannot be achieved, deviations from standards are required.

### 4.5.2.2 Pedestrian Crossings

Pedestrian crossings have been designed to accommodate the most direct crossings of roads and streets along the route of the Proposed Scheme, with a minimum crossing width of 2.4m provided at both signalised junctions and zebra crossings. Where pedestrians will share crossing locations with cyclists using 'Toucan' crossings, these crossings have been designed to be a minimum of 4m in width.

At signalised junctions and standalone pedestrian crossings, the footpath will be ramped down to carriageway level to facilitate pedestrians. At minor junctions, raised tables are proposed to raise the road level up to footpath level and facilitate unimpeded crossing. Tactile paving will be provided at the mouth of each pedestrian crossing, designed in accordance with the relevant standards as listed in Section 4.4. Audio units will be provided on each traffic signal push button.

### 4.5.3 Cycling Provision

The principal source for guidance on the design of cycle facilities is the National Cycle Manual (NCM), published by the National Transport Authority.

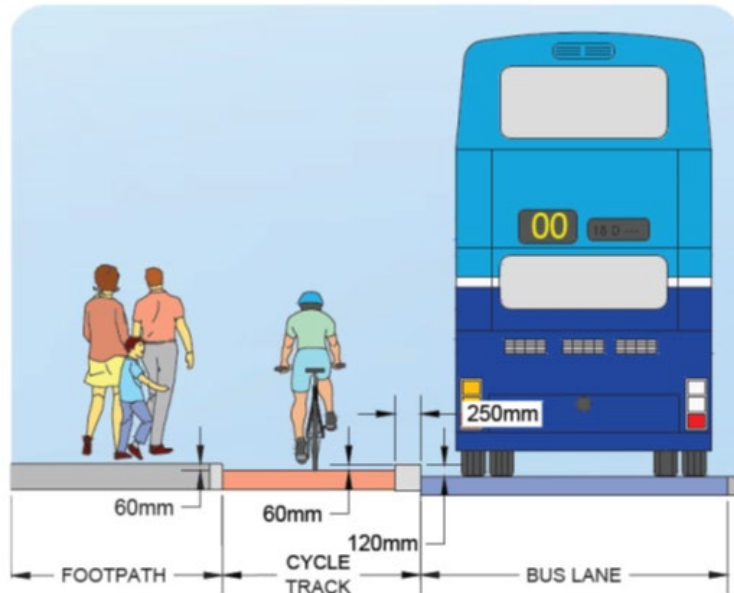
The National Cycle Manual recommends that designers consider the following steps in hierarchical order: (1) Traffic reduction, (2) Traffic Calming, (3) Junction treatment and traffic management, (4) Redistribution of carriageway, (5) Cycle lanes and cycle tracks, and (6) Cycleway (public roads for the exclusive use of cyclists and pedestrians).

The Proposed Scheme has adopted this approach along the length of the Cross-City Link. Along University Road, the introduction of a bus gate over the Salmon Weir Bridge, will significantly reduce the volume of traffic on University Road and St. Vincent's Avenue. The introduction of bus lanes on St. Francis Street, Eglinton Street, Eyre Square and Forster Street, together with the proposed traffic management interventions, will remove all through traffic along this corridor again significantly reducing the volume of traffic. Similarly, the introduction of a bus gate on College Road will remove all through traffic on College Road, between Forster Street and Lough Atalia Road. The removal of traffic from these links will create more cycle friendly streets in accordance with the hierarchy of interventions. Where the Cross-City Link overlaps with the City Centre Access Route, along College Road between Lough Atalia Road and Moneenageisha, and along the Dublin Road, reducing or managing traffic sufficiently to create a cycle friendly environment is not considered to be feasible, therefore redistribution of carriageway and cycle tracks have been proposed along these links.

The National Cycle Manual (NCM) indicates the desirable minimum width for a single-direction, with-flow, raised-adjacent cycle track is 2.0m which includes a 0.25m kerb. The minimum width is 1.5m, which, based on the NCM Width Calculator, allows for single file cycling. Localised narrowing of the cycle track below 1.5m may be necessary over very short distances to cater for local constraints. The desirable minimum width for a two-way cycle track is 3.25m with an absolute minimum width of 3.0m permitted.

### 4.5.3.1 Cycle Tracks

A cycle track is a segregated track which is physically segregated from the adjacent traffic lane and/or bus lane horizontally and/or vertically, as shown in Diagram 4.1.



**Diagram 4.1: Segregated Cycle Track**

The desirable minimum width used throughout the Proposed Scheme for a single-direction, with-flow, raised-adjacent cycle track is 2m. In addition, a full height 120mm upstand kerb between the carriageway and the cycle track should be provided (120mm kerb height on the bus lane side and 60mm kerb height on the cycle track side). This provides increased protection of the cycle track as well as allowing for side entry drainage systems where applicable.

Cycle track construction guidance is given in Section 5.6 of the NCM. The use of machine laid asphalt for cycle tracks has proven to be an effective way of providing a high level of service with a safe, smooth and continuous surface.

## 4.5.4 Bus Services Provision

### 4.5.4.1 Dedicated Bus Priority

Provision for full priority for bus services, where practical to do so, along the route of the Proposed Scheme uses dedicated bus lane within the road or street carriageway enabling buses (and other vehicles, such as taxis, permitted to use bus lanes) to travel unhindered from general traffic. In accordance with the guidance for traffic lane widths outlined in DMURS, a minimum 3m wide bus lane typically is provided for. Increased lane widths are needed in some instances where the swept path of a bus requires a greater width to undertake a manoeuvre.

#### 4.5.4.2 Signal Controlled Bus Priority

Signal Controlled 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 or street has cross section pinch-points where it narrows due to existing buildings or structures that cannot practically be demolished to widen the carriageway to make space for a bus lane. It works using 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 bus priority 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, general traffic will then be allowed through the lights.

#### 4.5.4.3 Bus Gates/Virtual Bus Priority

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.

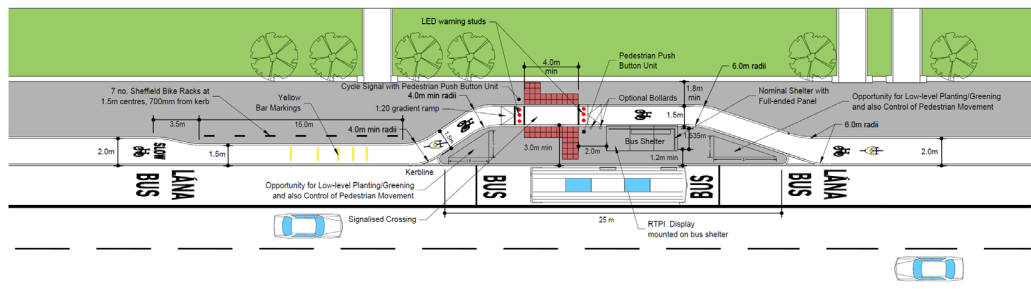
#### 4.5.4.4 Bus Stop Locations

Existing bus stop locations have been rationalised to provide for improved efficiency of existing and any future bus services using the Cross- City Link.

This rationalisation exercise adds to the overall level of service provision for buses travelling along the route by reducing journey times (linked to bus stop dwell times), while also optimising the walking catchment of the bus stops, thereby attracting more passengers, and ensuring key trip attractors located along the route are sufficiently catered for.

#### 4.5.4.5 Island Bus Stops

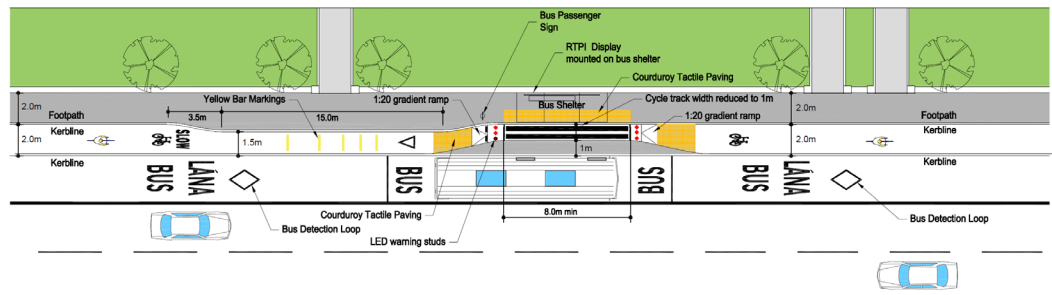
Where sufficient space is available, and both cycle tracks and bus stops are present, Island Bus Stops, as shown in both Diagram 4.2, have been proposed, which help to reduce the conflict between users departing the bus and cyclists.



### Diagram 4.2 : Island Bus-Stop Arrangement

#### 4.5.4.6 Shared Landing Area Bus Stops

Shared landing areas, as shown in Diagram 4.3, are used where there is insufficient space to provide an island bus stop. The cycle lane width is reduced on the approach to slow cyclists, along with a 1m island being provided for users departing the bus. This is to prevent bus users stepping directly into the cycleway.



### Diagram 4.3: Shared Landing Bus Stops

#### 4.5.4.7 Inline Bus Stop

Where there are no cycle tracks provided, inline bus stops are used, where the users departing the bus exit straight on the footway.

#### 4.5.4.8 Bus Stop Shelters

The Proposed Scheme supports the intent of providing significant improvement in the customer experience for bus service users in Galway under the BusConnects programme. The provision of high-quality bus shelters at bus stops forms part of this level of service improvement.

Bus shelters offer protection for people from poor weather, with lighting to help them feel more secure. Seating is provided to assist ambulant disabled and older passengers. Real Time Passenger Information (RTPI) signage is included at bus stops to provide information on the bus services which use the stop.

The optimum bus shelter configuration used on the Proposed Scheme to provide maximum comfort and protection from the elements to the travelling public is the 3-Bay Reliance ‘mark’ with full width roof.



This shelter is a relatively new arrangement which has been developed by JCDecaux in conjunction with the NTA. The shelter consists mainly of a stainless-steel structure with toughened safety glass and extruded aluminium roof beams.

Diagram 4.4 provides an example image of the preferred full end panel shelter arrangement.



**Diagram 4.4: Example of a 3-Bay Reliance full end Panel Bus Shelter (Source: JCDecaux)**

The desirable minimum footpath/island widths required to accommodate the full end panel shelter is 3.3m with an absolute minimum width of 3m to facilitate a minimum 1.2m clearance at the end panel for pedestrians.

Alternative arrangements for more constrained footpath widths are also required along sections of the route of the Proposed Scheme.

The cantilever shelter, using a full width roof and half end panel arrangement, provides a second alternative solution for bus shelters in constrained footpath locations.

Diagram 4.5 provides an example of this type of shelter.



**Diagram 4.5: Example of a 3-Bay Reliance Cantilever Shelter with full width Roof and half end Panels (Source: JCDecaux)**



Advertising panels in this arrangement are normally located on the back façade of the shelter compared to the full end panel arrangement. The desirable minimum footpath/island widths required to accommodate the full end panel shelter is 2.75m with an absolute minimum width of 2.4m to facilitate a minimum 1.2m clearance at the end panels for pedestrians.

Two alternative narrow roof shelter configurations, as illustrated by the images in Diagram 4.6, are also proposed which offer reduced protection against the elements compared to the full width roof arrangements but do provide an alternative solution for particularly constrained locations where widths cannot be achieved to facilitate the full width roof with half end panel shelter. The absolute minimum footpath widths for these shelters are 2.4m (with end panel) and 1.8m (no end panel) to allow for boarding and alighting passengers in consideration of wheelchair, pram, luggage and other such similar spatial requirements.



**Diagram 4.6: Example of a 3-Bay Reliance Cantilever Shelter with narrow Roof Configuration with and without half end Panels (Source: JCDecaux)**

## 4.5.5 General Traffic Provision

### 4.5.5.1 Traffic Lanes

For roads or streets with a design speed of 60 km/h or less, traffic lane widths follow the guidance outlined in DMURS, with the preferred minimum width of general traffic lanes on the Proposed Scheme being:

- 3.0m in areas with a posted speed limit  $\leq 60$  km/h; and
- Reduced traffic lane widths of 2.75m in limited locations (these are permissible in DMURS but are not desirable). Reduced lane widths have only been applied on short, constrained sections with very low heavy goods vehicle (HGV) traffic and where all desirable minimum widths for footpaths, cycle tracks, parking, bus lanes are not achievable without impact on third-party land.

### 4.5.6 Pavement

As part of the Proposed Scheme, varying pavement works will be undertaken. These works will comprise the following:

- Widening and narrowing of the existing carriageways;
- Carriageway realignment;
- Rehabilitation and strengthening of the existing carriageways;
- Other specific trafficked areas (e.g., bus lay-bys, off-line parking and loading bays);
- New pedestrianised areas including footways; and
- New cycle facilities.

New pavements are designed and constructed in accordance with TII's publications, international standards and relevant Local Authority standards.

### 4.5.7 Junctions

The design for each junction within the Proposed Scheme was developed to meet the objectives of the scheme and to align with the geometric parameters set out in conjunction with the junction operation principles described in the DMURS. Various traffic modelling tools were used to assess the impact of the proposals on a local, corridor and surrounding road network level which is further described in Appendix 6.1 (Traffic Modelling Report) in Volume 4 of this EIAR.

A traffic impact assessment has been undertaken for the Proposed Scheme in order to determine the predicted magnitude of impact Proposed Scheme measures may have against the likely receiving environment. The impact assessments have been carried out using the following scenarios:

- 'Do Minimum' – This scenario represents the likely conditions of the road and street network with all major committed transportation schemes in place that will impact on the use of public transport and general traffic, without the Proposed Scheme.
- 'Do Something' – This scenario represents the likely conditions of the road and street network with all major committed transportation schemes in place that will impact on the use of public transport and general traffic, with the Proposed Scheme (i.e. the 'Do Minimum' scenario with the addition of the Proposed Scheme) in place.

For the Proposed Scheme, a key policy is to ensure appropriate capacity and reliability for the bus services so as to maximise the overall throughput of people in an efficient manner. The design for each junction within the Proposed Scheme was an iterative process and was developed to meet the underlying objectives of the Proposed Scheme. The junctions shall provide safe and convenient crossing facilities for pedestrians with as little delay as possible.

The junction locations along the Proposed Scheme and the layouts that will be implemented at these locations are presented in Section 4.5.7.

### 4.5.8 Traffic Signage

Preliminary traffic sign design shall identify the requirements of the Proposed Scheme. A combination of Information, Regulatory and Warning signs shall be assessed taking consideration of key destinations/centres; intersections/decision points; built and natural environment.

In line with DMURS, signage proposals shall be kept to the minimum requirements of the Traffic Signs Manual (TSM) to avoid sign congestion within the Proposed Scheme streets.

The preliminary assessment shall consider the applicable requirements for all: information signs (TSM Chapter 2), regulatory signs (TSM Chapter 5), warning signs (TSM Chapter 6), and road markings (TSM Chapter 7).

### 4.5.9 Accessibility for Mobility Impaired Users

The aim of the Proposed Scheme is to provide enhanced walking, cycling and bus infrastructure. In achieving this aim, the Proposed Scheme has been developed in accordance with the principles of DMURS and Building for Everyone: A Universal Design Approach (NDA 2020) and the additional supporting guidance as listed in Section 4.4.

The following provides a description of the key accessibility features and potential barriers to mobility impaired people which have been incorporated into the Proposed Scheme:

- Accessible Parking - On-street Disabled Parking Spaces to the appropriate standard, with dropped kerb access between the parking space and footpath;
- Access Routes on Footpaths - Width of footpaths clear of clutter, such as street furniture, and allowing unimpeded access for the mobility impaired, and in doing so, meet the minimum standards for widths;
- Drainage - All footpaths having sufficient cross-fall for drainage purposes but without affecting the ability of mobility-impaired people to move safely along the corridor;
- Guardrails - Guardrails located only where needed for safety purposes –care taken not to create narrow spaces which create difficulties for movement;
- Pedestrian Crossing Points - Pedestrian crossing points laid out in accordance with standards and made convenient and safe for mobility impaired users to negotiate crossing of carriageways;
- Controlled and Uncontrolled Crossings – All controlled and uncontrolled crossings have tactile paving laid out correctly to provide tactile and visual assistance to mobility-impaired users approaching crossing points;
- Changes in Level - Any changes in level addressed to ensure that all changes in level, where practicable, comply with standards;
- Shared pedestrian/cyclist areas - Shared pedestrian/cyclist areas well laid out, with clear visual and tactile elements included, to ensure that these areas are safe for mobility-impaired users, pedestrians and cyclists;

- Surface Material - Footpath materials selected to ensure surfaces are free of undulations, with no trip hazards where there is a transition between surface materials – or where the Proposed Scheme ties into the existing infrastructure; and
- Street Furniture - All poles for signs and street lighting carefully located to minimise the effect on the safe and convenient passage of pedestrians and cyclists, with due cognisance to the safe movement of mobility impaired users

#### **4.5.10 Integration**

##### **4.5.10.1 Interchange with Existing and Proposed Public Transport Network**

One of the objectives of the Proposed Scheme is to enhance interchange between the various modes of public transport operating in the city. The Proposed Scheme facilitates improved existing and new interchange opportunities with other transport services including:

- Interchange with existing regional bus services at Ceannt Station at R336 Eyre Square;
- Interchange with existing rail services at Ceannt Station at R336 Eyre Square;
- Interchange with regional and inter-urban coach services at Fairgreen Coach Station;
- Potential interchange with coach services utilising new parking facilities at Galway Cathedral; and
- Interchange between proposed bus routes along the Cross-City Link through utilisation of the same bus stops for multiple bus services.

##### **4.5.10.2 Integration with Other Road Users**

Local access will be maintained along the Proposed Scheme corridor although there will be impacts on vehicle routing along the route due to the creation of bus priority and the removal of 'through traffic along the majority of the Cross-City Link. The provision of bus priority will result in more efficient movement of increased numbers of people along the route, without removing the option for general traffic to access locations along the route. It is recognised that some members of the public and local businesses will remain dependant on cars or other private vehicles.

##### **4.5.10.3 Integration with Other Infrastructure Projects and Transport Management Schemes**

Several infrastructure projects are planned within the vicinity of the Proposed Scheme which will interface with the proposals. These are outlined below:

#### **4.5.10.4 Galway City 30 km/hr Special Speed Limit Zone**

Galway City Council intend to introduce a special 30 km/hr speed limit zone within the city centre area. The boundary of this area is proposed to be defined by, but not including the City Centre Access Network. This special speed limit is intended to be proposed at the next Galway City Council speed limit review and a decision to adopt these will be made by the Elected Members of Galway City Council under the Road Traffic Act 2004. Should this special speed limit be adopted, the majority of the proposed scheme (with the exception of the Section of R339 College Road between Lough Atalia Road and Moneenageisha Junction and R338 Dublin Road) will be subject to a 30 km/hr speed limit. This will further improve the cycling environment along the Cross-City Link and provide additional traffic calming within the city centre, further improving the pedestrian environment.

#### **4.5.10.5 Salmon Weir Pedestrian and Cycle Bridge**

This project includes the construction of a new bridge over the river Corrib, connecting Gaol Road with Newtownsmith. The proposed scheme ties in with this bridge at either end and complements the proposals with regards to improved pedestrian and cycle movement.

#### **4.5.10.6 Bonham Quay Development**

The Bonham Quay development comprises of four buildings, containing new office space. The development is located at Queen Street and Dock Road and interfaces directly with the proposed scheme. The Proposed Scheme ties in with the proposed footpath works along Dock Road at this location.

#### **4.5.10.7 Connacht Rugby Sportsground**

This development proposes to upgrade the existing Connacht Rugby stadium on R339 College Road to a capacity for up to 12,000 spectators. The Proposed Scheme interfaces with this development and directly ties in with the development along the development boundary on R339 College Road. The Proposed Scheme will complement this proposed development in terms of improving pedestrian connections from the city centre to the Sportsground, including accessibility to public transport services within the city centre and along the Cross-City Link.

#### **4.5.10.8 BusConnects Galway: R338 Dublin Road**

Galway City Council propose a 4-kilometre multi-modal transport corridor along the entire length of R338 Dublin Road, for the end of the Proposed Scheme to the Martin Roundabout. This development is only at concept stage, however the Proposed Scheme has been developed so that it can operate in isolation while also facilitate tying into the future development of the R338 Dublin Road.

### 4.5.11 Landscape and Urban Realm

Urban Realm refers to the everyday streets and spaces that are used by people to shop, socialise, play, and use for activities such as walking, exercise or to commute to/from work. The Urban Realm encompasses all streets, public spaces, junctions and other rights-of-way, whether in residential, commercial or civic use. Well-designed urban realm contributes to the identity of localities and enhances the everyday lives of local communities and those passing through. It typically relates to the space between buildings to which the public has free access and may include seating, trees, planting and other features that enhance the experience for all.

Successful urban realms or public open spaces tend to have certain characteristics. These include:

- Having a distinct identity;
- Being safe and pleasant;
- Being easy to move through; and
- Welcoming in character.

#### 4.5.11.1 Landscape and Character Analysis

The landscape and urban realm proposals included within the Proposed Scheme are derived from analysis of the existing urban realm, including existing street and public space character, heritage features, boundaries, tree planting and vegetation, and the range of contemporary and heritage materials in use that inform the quality and character of different parts of the overall route.

The analysis identified the range of character areas along different parts of the route informed by adjacent land uses fronting onto the route; the character and heritage of buildings including any protected structures and private gardens or grounds; the nature and presentation of any boundary walls, railings or hedgerows; existing street trees or vegetation and the nature and quality of streetscape materials.

This analysis provided an understanding of the existing character areas along the route and facilitated detailed and iterative consideration as to the integration of the Proposed Scheme. This analysis informed design changes to the initial proposals so as to avoid adverse impacts of existing streetscape character, and also identified opportunities for enhancement and creation of new spaces along the route. Character analysis also informed the development of mitigation proposals where public or private property would be directly impacted by the Proposed Scheme.

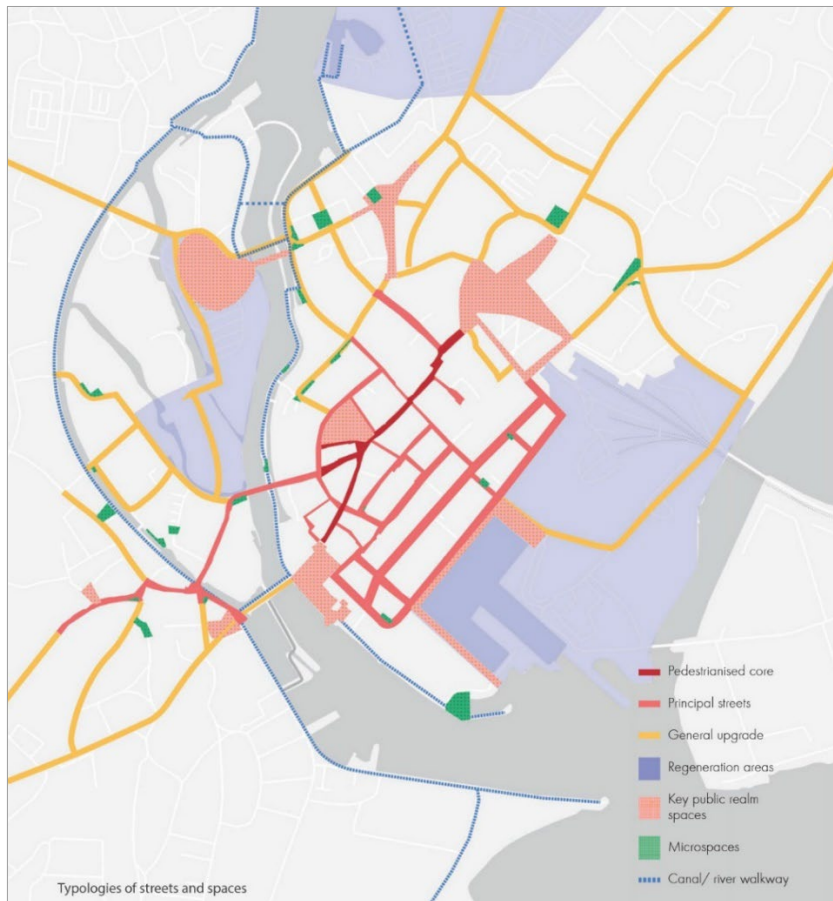
#### 4.5.11.2 Hardscape

The Proposed Scheme has been developed in a manner which employs best practice in urban design and having regard to the Street Material typology described in Chapter 4 Streetscape Materials of Galway Public Realm Strategy (GPRS), Galway City Council (2019).



### 4.5.11.3 Material Typologies

The GPRS sets out the typical streetscape arrangements for the public realm typologies for Galway as illustrated in Diagram 4.7.



**Diagram 4.7: Typologies of Streets and Spaces, extract from Galway Public Realm Strategy**

It showcases how the design approach and application of the material palette and streetscape elements differ in each typology. The materials palette accounts for different typologies and different conditions within those typologies. A hierarchy of streets and spaces ensures that the proposals are cost-efficient while setting apart special places in the city. The proposed materials are based on the existing materials and treatments along various parts of the route to match existing material treatments, while also identifying areas of opportunity for enhancement through the use of higher quality materials.

The proposed material typologies employed in the preliminary design for the Proposed Scheme are characterised as:

- Poured in situ concrete pavement** - Used generally on existing footpaths outside of the identified upgrade areas. Concrete pavements can be laid with or without a kerb, can have neatly trowelled edges and textured surface for a clean, durable, slip resistant surface.

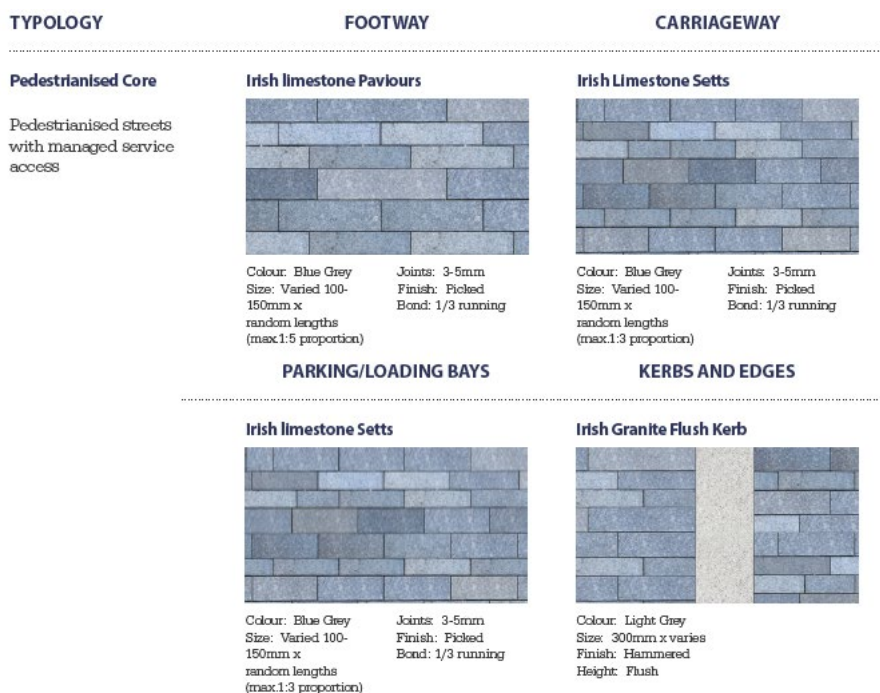
- **Precast concrete unit paving** - Concrete paving slabs and bricks available in a wide variety of sizes, colours and finishes to provide an enhanced urban realm. Can be used with matching concrete kerbs or with salvaged natural stone kerbs as appropriate. This is used extensively along the scheme.
- **Natural stone paving** - Employed for high quality urban realm areas, mostly in city centre locations. This typology represents new or re-used natural stone paving and kerbs surface and is used to create enhanced public spaces for major urban realm interventions.
- **Stone or concrete setts** - Proposed for distinguishing features such as pedestrian crossing points, raised tables and parking/set-down areas.
- **Self-binding gravel** - Proposed for some pedestrian pathways that are off-road and leading through informal landscaped areas.
- **No change/existing surface retained** - At some locations, the proposed scheme does not necessitate any alteration to the alignment of the existing footpath or roadway. These include established and more recently constructed sections of streetscape.

#### 4.5.11.4 Pedestrianised Core

These streets are Galway's traditional 'high streets', which are in an Architectural Conservation Area and an archaeological zone, and include a number of protected structure designations. Williamsgate Street is part of the Pedestrianised Core identified in the Galway Public Realm Strategy and is located on the Cross-City Link. The approach to the design for Galway's Pedestrianised Core is to resolve the underlying issues (substructure failures, drainage issues and heavy vehicular use), and to provide a robust surfacing of the highest quality, allowing the buildings and activity to be the focal point.

The proposed materials palette is described as 'Natural limestone paving' This typology represents new or re-used Irish limestone pavements, setts and kerb surfaces, as illustrated in Diagram 4.8.









**Diagram 4.8: Pedestrianised Core Materials Palette (extract from GPRS)**

#### 4.5.11.5 Principal Streets

The principal streets are places which provide a city centre role and are visited by a huge number of people. In these streets, materials will remain high quality, though perhaps be slightly less formal in their application and expression. Eglinton Street, Victoria Place, Queen Street, Merchants Road and Forthill Street are all Principal Streets within the proposed scheme.

The proposed materials palette is described as ‘Natural limestone slab paving and Irish granite setts paving with granite kerb. This typology represents new or re-used natural stone pavlours, setts and kerb surfaces, as illustrated in Diagram 4.9.





TPOLOGY	FOOTWAY	CARRIAGEWAY
<b>Principal Streets</b>  Pedestrian lanes Pedestrian priority streets	<b>Irish Limestone Slab</b>  <p>Colour: Blue Grey Size: 600 x 450-900mm random lengths Joints: 5-7mm Finish: Pickled Bond: 1/3 running</p>	<b>Irish Granite Setts</b>  <p>Colour: Three tones random mixed Size: 150 x 150-300mm random lengths Joints: 7-9mm joint Finish: Sawn top, pickled finish, split sides</p>
	<b>PARKING/LOADING BAYS</b>  <p>Colour: Three tones random mixed Size: 150 x 150-300mm random lengths Joints: 7-9mm joint Finish: Sawn top, pickled finish, split sides</p>	<b>KERBS AND EDGES</b>  <p>Colour: Light Grey Size: 300mm x varies Finish: Hammered Height: Flush - 25mm</p>

**Diagram 4.9 : Principal Streets Materials Palette (extract from GPRS)**

#### 4.5.11.6 Public Realm Upgrades/General Upgrade

The strategy provides a palette for general upgrades across the city. Here the focus is on lifting the quality of streetscape and achieving a level of consistency in the design approach.

The proposed materials palette is described as concrete paving and concrete setts paving with granite kerb, as illustrated in Diagram 4.10.

TPOLOGY	FOOTWAY	CARRIAGEWAY
<b>Public Realm Upgrades</b>  1 & 2 lane streets Integrated cycle lanes	<b>Concrete Pavours</b>  <p>Colour: Grey Finish: Exposed aggregate Size: 600 x 450/600/750mm Bond: 1/3 running</p>	<b>Bitmac to IS EN 13108-4</b>  <p>Bitmac with 6-10 mm limestone chipping surface course 225mm wide mastic asphalt channel beside kerb</p>
	<b>PARKING/LOADING BAYS</b> <b>Concrete Setts</b>  <p>Size: 100x200mm Colour: Grey (to match concrete slabs) Finish: Exposed aggregate Joints: Butt jointed 7-9mm</p>	<b>KERBS AND EDGES</b> <b>Irish Granite Kerb</b>  <p>Colour: Light Grey Size: 150mm x varies Finish: Hammered Height: 100mm</p>

**Diagram 4.10: Public Realm Upgrade Materials Palette (extract from GPRS)**

#### 4.5.11.7 Detailing

The Proposed Scheme design considered re-use of existing high-quality and natural stone kerbs so as to maintain streetscape character, reduce construction costs and maximise sustainability.

Pedestrian crossings at side streets will be raised where practicable and will be distinguished using stone or concrete setts as appropriate to the locality.

In some locations, existing street trees have disturbed or broken footpath surfaces. The footpath around such trees will be replaced where appropriate with self-binding gravel so as to improve the vitality of the trees and ensure accessible pedestrian facilities.

Sustainable Drainage Systems (SuDS) will be incorporated within hardscape areas to locally manage surface water run-off and reduce demand for piped surface water drainage infrastructure.

Informal footpaths through landscaped areas that are set back from the main carriageway will be formed using self-binding gravel as an alternative to asphalt or concrete.

Where private or commercial property boundaries are realigned, boundary walls and railings will be reinstated to match the existing and may be extended to other properties along the same street to enhance streetscape character.

Existing street furniture such as seating will be relocated within the revised streetscape and new street furniture will be provided at locations where opportunity sites have been identified to establish or enhance public spaces.

Hardscape works will be complemented by soft landscaping including trees, hedgerows, native planting, ornamental planting, amenity grass areas and species rich grasslands as appropriate. Soft landscaping will enhance the amenity value and visual character of streets and spaces, mitigate the loss of existing trees, and enhance ecological value along the route.

#### 4.5.11.8 Softscape

Softscape refers to existing trees including street trees and groups of trees, new tree planting, hedgerows, ornamental planting and amenity grasslands. Softscape plays an important role in ensuring that streets and public spaces are attractive and healthy spaces for the local community, but also in providing better air quality, managing surface water run-off and in maintaining and creating habitats.

##### **Planting Strategy**

The planting strategy has been developed in response to the objectives set out in both the Galway City Council Development Plan (GCDP) 2017-2023 and in response to landscape and urban realm opportunities arising from the proposed scheme to integrate new infrastructure within the existing local context and to enhance the visual and amenity value of streets and spaces.

The overarching planting strategy is to retain established trees and vegetation wherever possible for their arboricultural amenity and biodiversity value.

The planting strategy includes replacement of street trees and groups of trees that may be impacted by the proposed scheme, but also the introduction of new tree planting and street trees within other spaces and along streets. Reinforcement of green infrastructure along the route will improve the overall amenity, character and appeal of the route corridor and localities along it, as well as enhancing biodiversity.

In addition to trees and street trees, other vegetation is also proposed along the route including hedgerows, ornamental planting and amenity grassland, shrub and meadow grass areas. These will, in part, be utilised to reinstate property boundaries altered by the Proposed Scheme, but also to create new landscape spaces along the route where existing junctions are to be rationalised yield increases in pedestrian and amenity space.

Throughout the design process, collaboration between the Landscape and Urban Realm designers and the Drainage Engineers has sought to adopt Sustainable Drainage Solutions (SuDS) to manage storm water run-off. SuDS features have been considered along the route and incorporated within suitable landscape areas in the form of rain gardens, bioretention areas, filter drains, swales, tree pits and permeable paving.

### **Arboricultural Survey**

An Arboricultural Impact Assessment (AIA) Report (Appendix 16.1 in Volume 4 of this EIAR) identifies the likely direct and indirect impacts to trees of the Proposed Scheme along with suitable mitigation measures, as appropriate to allow for the successful retention of significant trees, or to compensate for trees to be removed.

The Arboricultural Survey identified trees and groups of trees along the route of the Proposed Scheme and provided a detailed schedule of the characteristics, vitality and quality of trees. The AIA Report was prepared by overlaying the Proposed Scheme General Arrangement with the tree survey so as to identify trees or groups of trees that might be impacted by the scheme. The AIA includes recommendations for the retention, removal or management of trees and identifies trees that will be impacted by virtue of the proposed scheme. It also sets out tree protection measures for trees adjacent to the proposed scheme that might otherwise risk damage during construction.

### **Typical Planting Typologies**

A range of general planting typologies are incorporated into the Proposed Scheme as appropriate to localities and character areas along the route. In some instances, planting is focussed on reinstatement and repair of existing tree group areas that will be impacted to facilitate construction of new footpaths and road infrastructure. In other cases, planting is focussed on enhancing the amenity, green infrastructure, and biodiversity along the route and in providing distinctive and attractive places for people to gather and relax.


## New Street Trees and Tree Groups

A range of urban street tree species have been incorporated into the overall Proposed Scheme planting design depending on location and whether trees are to be planted in grass verges or in tree pits within paved urban environments as appropriate, and also to ensure diversity of species and provide habitats for urban wildlife. Typically, proposed trees will be semi-mature, minimum 20/25cm girth standards with 2m clear stem height to facilitate visual permeability. The full range of proposed street trees are included in Table 4.4.





Elsewhere along the route of the Proposed Scheme there are a range of existing mature and immature street trees. While it is proposed to retain and protect existing trees wherever possible, some will be impacted. The Proposed Scheme includes replacement and additional planting of semi-mature street trees to mitigate the loss of existing trees and to maintain the long-term tree-lined character of streets.





The Proposed Scheme incorporates additional landscaping arising from junction reconfiguration, reinforcement of existing vegetation areas, and the establishment of new urban realm and landscape opportunity areas. Tree species will be determined by location and will comprise either native trees species as set out above, or selected non-native street trees suitable for coastal areas, tolerant to salt-laden wind and tolerant to drought as set out in Table 4.4.


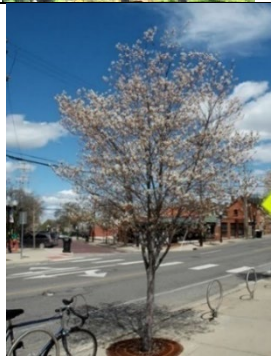


**Table 4.4: Proposed Tree Planting Species**

Scientific name Common name	Criteria for use	Proposed specification	Reference Image
<i>Carpinus betulus</i> 'Frans Fontaine'  Hornbeam	Attractive, small, fastigate and columnar tree. Tough, resilient and attractive tree with good autumn colour. Excellent for narrow spaces/streetscapes. Tolerant coastal areas.	25-30cm girth, 5.0-5.5m tall, standard, 1.8-2.0m clearstem, 80cm rootball.	
<i>Pyrus calleryana</i> 'Chanticleer'  Ornamental pear	This tried and tested street tree, up to 8m tall, has a narrow, triangular habit, white flowers in spring and glossy green deciduous leaves that turn burgundy and claret late in autumn. It is a beautiful tree, suitable for most soils, very hardy and	25-30cm girth, 5.0-5.5m tall, standard, 1.8-2.0m clearstem, 80cm rootball.	



Scientific name Common name	Criteria for use	Proposed specification	Reference Image
	tolerant of drought conditions. Tolerant in sheltered, well drained coastal areas. Great for attracting native wildlife.		
<b><i>Alnus glutinosa</i></b> Alder	Irish native tree. Planter beds. Native, deciduous. Tolerant of exposed coastal areas.	25-30cm girth, 5.0-5.5m tall, standard, 1.8-2.0m clearstem, 80cm rootball.	
<b><i>Arbutus unedo</i></b> Strawberry Tree	Irish native tree. Specimen planter beds. Native, evergreen. Tolerant in sheltered, well drained coastal areas.	Multistem with raised stems, 3-3.5m, 130L CG.	
<b><i>Betula pendula</i></b> Silver Birch	Irish native tree. Planter beds. Good in groups. Tolerant of exposed coastal areas. An invaluable part of the native ecosystem, host to many insect species and birds.	25-30cm girth, 5.0-5.5m tall, standard, 1.8-2.0m clearstem, 80cm rootball.	

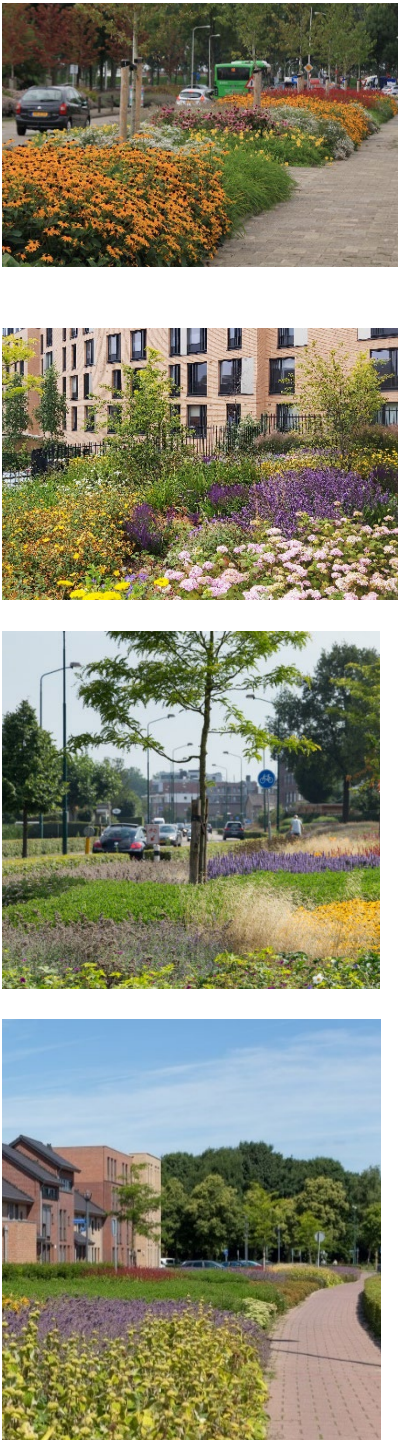
Scientific name Common name	Criteria for use	Proposed specification	Reference Image
<b><i>Prunus avium</i></b> <b>'Plena'</b>  Double flowering cherry	Irish native tree. Planter beds. Tolerant in sheltered coastal areas. Feature accent element on urban squares, parks and avenues.	30-35cm girth, 5.0-5.5m tall, standard, 1.8-2.0m clearstem, 100cm rootballs.	
<b><i>Ilex aquifolium</i></b> <b>'Nellie Stevens'</b>  Holly	Irish native tree. Evergreen. Tolerant of exposed coastal areas. Provides a habitat for native Irish fauna and fauna.	20-25cm girth, 4.0-4.5m tall, standard, 1.8-2.0m clearstem, 80cm rootball.	
<b><i>Acer campestre</i></b> <b>'Streetwise'</b> <b>'Elsrijk'</b> or <b>'Elegant'</b>  Field Maple	Good street tree. Tolerant of exposed coastal areas. Tolerates air pollution and resists drought. Low maintenance architectural tree. Attractive to pollinating insects.	25-30cm girth, 5.0-5.5m tall, standard, 1.8-2.0m clearstem, 80cm rootball.	
<b><i>Quercus robur</i></b> <b>'Fastigiata Koster'</b>  Common Oak	Irish native tree. Feature tree in planter beds. Tall narrow pyramidal version of the Common Oak 'Fastigiata Koster' is ideal for growing along an avenue or where space is at a premium. Great for attracting native wildlife.	25-30cm girth, 5.0-5.5m tall, standard, 1.8-2.0m clearstem, 80cm rootball.	

Scientific name Common name	Criteria for use	Proposed specification	Reference Image
<i>Acer platanoides</i> <b>'Columnare'</b>  Norway Maple	Good street tree. Tolerant of exposed coastal areas. Low maintenance architectural tree. Attractive to pollinating insects.	30-35cm girth, 5.0-5.5m tall, standard, 1.8-2.0m clearstem, 100cm rootball.	
<i>Amelanchier x grandiflora</i> <b>'Robin Hill'</b>  Snowy Mespilus or Shadbush	Specimen planter beds. Tolerant in sheltered coastal areas. Feature accent element on urban squares and parks. Available as a multi-stem and a standard tree. Attracts a wide assortment of birds and wildlife.	25-30cm girth, 5.0-5.5m tall, standard, 1.8-2.0m clearstem, 80cm rootball.	
<i>Tilia cordata</i> <b>'Greenspire'</b>  Small-leaved Lime	Street tree. Tolerant in sheltered coastal areas. Tolerates air pollution and resists heavy pruning. Wildlife friendly, attractive to pollinating insects.	30-35cm girth, 5.0-5.5m tall, standard, 1.8-2.0m clearstem, 100cm rootball.	
<i>Ulmus</i> <b>'Doedens', U. 'Lobel'</b>  Elm (DED resistant)	Good street tree. Tolerant of exposed coastal areas. Tolerant of urban conditions. High resistance to Dutch elm disease (DED).	30-35cm girth, 5.0-5.5m tall, standard, 1.8-2.0m clearstem, 100cm rootball.	

Landscaping proposals respond to the different localities and may include grass planting, hedgerows, trees, grasses, ornamental planting and swathes of spring bulbs. The full range of proposed ornamental planting, shrub and hedging species specified for the Proposed Scheme are included in Table 4.5.



**Table 4.5: Proposed Ornamental Planting, Shrub and Hedging Species**

Scientific name	Reference image
<b>Blocks of mixed perennial planting including:</b> <i>Achillea</i> 'Moonshine' <i>Agapanthus</i> Headbourne hybrids <i>Armeria</i> maritima <i>Artemisia ludoviciniana</i> 'Silver Queen' <i>Anemone</i> 'Honorine Jobert' <i>Aster x frikartii</i> 'Monch' <i>Ballotia pseudodictamnus</i> <i>Bupleurum fruticosum</i> <i>Centranthus ruber</i> <i>Convolvulus cneorum</i> <i>Crocsmia x crocosmiflora</i> 'George Davison' <i>Erigeron karvinskianus</i> <i>Erysimum</i> 'Bowles's Mauve' <i>Eryngium x zabelii</i> 'Jos Eijking' <i>Geranium</i> 'Orion' <i>Geranium</i> 'Rozanne' <i>Geranium sanguineum</i> <i>Geranium oxonianum</i> 'Wargrave Pink' <i>Helenium</i> 'Rubinzweg' <i>Hemerocallis</i> 'Burning Daylight' and 'Red Precious' <i>Hydrangea macrophylla</i> 'Zorro' <i>Hydrangea macrophylla</i> 'Ayesha' <i>Iris sibirica</i> 'Sparkling Rose' <i>Kniphofia</i> 'Alcazar' <i>Libertia grandiflora</i> <i>Limonium platyphyllum</i> <i>Nepeta</i> 'Six Hills Giant' <i>Origanum vulgare</i> <i>Perovskia</i> 'Blue Spire' <i>Persicaria amplexicaulis</i> 'Blackfield' <i>Phlomis fructiosa</i> , <i>P. lanata</i> , <i>P. russeliana</i> <i>Phygelius x rectus</i> 'Winchester Fanfare' <i>Phygelius x rectus</i> 'Devils Tears' <i>Rudbeckia fulgida</i> var. <i>sullivantii</i> 'Goldsturm' <i>Salvia nemorosa</i> 'Ostfriesland' <i>Salvia nemorosa</i> 'Caradonna' <i>Salvia officinalis</i> <i>Santolina chaemaecyparis</i> <i>Santolina rosmarinifolia</i> subsp. <i>rosmarinifolia</i> <i>Sedum spectabile</i> 'Brilliant' <i>Stachys byzantium</i> 'Silver Carpet' <i>Verbena bonariensis</i> <i>Veronica spicata</i> 'Ulster Blue Dwarf' P11 plants planted at 8 plants/sq.m.	
<b>Low maintenance low height evergreen edging/hedge</b>  <i>Euonymus japonicus</i> 'Jean Hughes'  <i>Euonymus japonicus</i> 'Microphyllus Aureovariegatus'  <i>Ilex crenata</i>	

<p><b>Taller hedge</b>  <i>Ilex aquifolium</i>  <i>Viburnum opulus</i></p> <p><b>Low maintenance, low shrub planting</b></p> <p><i>Astelia chathamica</i> 'Silver Spear'  <i>Convolvulus cneorum</i>  <i>Genista Lydia</i>  <i>Hedera helix</i> 'Hibernica', <i>H.</i> 'Green Ripple'  <i>Hebe albicans</i>  <i>Hebe pimeleoides</i>  <i>Hebe rakiensis</i>  <i>Hebe</i> 'Frozen Flame'  <i>Hebe</i> 'Blue Gem'  <i>Lonicera pileata</i> 'Maigreen'  <i>Rosa rugosa</i> 'Alba' and 'Rubra'  <i>Pittosporum tenuifolium</i> 'Tom Thumb'  <i>Viburnum tinus</i> 'Eve Prince'</p>	
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## 4.5.12 Lighting

### 4.5.12.1 New Lighting and Modifications to Existing Lighting

All new public lighting will be designed and installed in accordance with the specific lighting and electrical items set out the following National Standards and guides, including but not limited to:

- Galway City Council Guidance Specifications;
- EN 13201: 2014 Road Lighting (all sections);
- ET211:2003 'Code of Practice for Public Lighting Installations in Residential Areas';
- BS 5489-1 'Code of practice for the design of road lighting';
- Volume 1 - NRA Specification for Road Works, Series 1300 & 1400;
- Volume 4 - NRA Road Construction Details, Series 1300 & 1400;
- IS EN 40 – Lighting Columns;
- Institution of Lighting Professionals "GN01 Guidance Notes for Reduction of Obtrusive Light".

All new lighting on the Proposed Scheme will aim to minimise the effects of obtrusive light at night and reduce visual impact during daylight. Lighting schemes will comply with the 'Guidance notes for the Reduction of Light Pollution' issued by the Institution of Lighting Professionals (ILP).

Light Emitting Diode (LED) lanterns will be the light source for any new or relocated public lighting provided.

The lighting design involves works on functional, heritage and contemporary lighting installations, on a broad spectrum of lighting infrastructure along the Proposed Scheme.

This will include, but not exclusively, luminaires supplied by underground and overhead cable installations and those located on ESB Infrastructure.

In locations where road widening and/or additional space in the road margin is required, it is proposed that the public lighting columns be replaced and relocated to the rear of the footpath, where practicable, and the existing lighting columns removed once the new facility is operational.

Where significant alterations are proposed to the existing carriageways, the existing public lighting arrangement will be reviewed in association with the Public Lighting Departments of the relevant Local Authority, to ensure that the current standard of public lighting is maintained or improved.

To determine whether existing public lighting is to be improved / relocated or where new public lighting is required, an inspection will be carried out in association with the relevant Local Authority, to identify any new column locations required for particular sections of the Proposed Scheme.

For existing columns that have specific aesthetic requirements, the intent for the replacement of such columns will include:

- Replacing the existing heritage columns and brackets with identical replica columns and brackets;
- Replacing existing luminaires with approved LED heritage luminaires; and
- Ensuring that the electrical installation is compliant.

#### 4.5.12.2 Lighting at Bus Stops

The Proposed Scheme will include for the provision of lighting in covered areas, open areas and passenger waiting areas.

The location of the lighting column will be dictated by light spread of fittings to give the necessary level of illumination (the columns at stations provide clearance for buses).

#### 4.5.13 Utilities

There are several measures incorporated to protect existing utilities during the Construction Phase of the Proposed Scheme. These are specifically outlined in Chapter 5 (Construction) and Chapter 18 (Material Assets) of this EIAR. Where there are clashes between the existing utility infrastructure, measures are proposed to either protect the infrastructure in place or divert the utility infrastructure as required.

The utility design strategy included the analysis of records provided by all utility providers associated with the Proposed Scheme corridor. The analysis included desktop reviews including review of topographic surveys together with site reconnaissance. In locations where critical assets were identified and the risk of interference was considered high, Ground Penetrating Radar surveys were undertaken to inform the Proposed Scheme design.

#### 4.5.13.1 Utility Diversions

The construction of the Proposed Scheme will result in conflicts with several existing utility assets. Identified service conflicts and proposed diversions are described and assessed in Chapter 18 (Material Assets) of this EIAR.

These conflicts have been identified, so that the conflict can be resolved by relocating or diverting the services, where necessary, and protecting in-situ where appropriate.

The principal statutory and other service providers affected are:

- ESB;
- Irish Water (Water & Public Sewer);
- GNI; and
- Telecommunication Services – Eir, Virgin Media, eNet, BT and GCC Fibre Optic Network.

In addition to the above, it will be necessary to relocate and upgrade some of the existing public lighting and traffic signalling network and equipment along the extents of the scheme.

#### 4.5.14 Drainage

##### 4.5.14.1 Relevant Standards and Approach

The drainage design for the Proposed Scheme was developed following consultation with Galway City Council. The design basis was developed taking account of the Planning requirements of Galway City Council, Transport Infrastructure Ireland (TII) requirements and international best practices such as CIRIA The SuDS Manual (C753).

The principal objectives of drainage design are as follows:

- To drain surface water from existing and proposed pavement areas throughout the Proposed Scheme and maintain the existing standard of service.
- To maintain existing run-off rates from existing and newly paved surfaces using Sustainable Urban Drainage Systems (SuDS).
- To minimise the impact of the runoff from the carriageway on the surrounding environment using SuDS and/or silt traps.

No drainage features like gullies or manholes will be located at, or any ponding will be allowed to occur at, pedestrian crossing locations or at bus-stop locations. Drainage of newly paved areas includes SuDS measures to treat and attenuate any additional run-off where possible. These measures ensure that there is:

- No increase in existing run-off rates from newly paved areas; and
- Appropriate treatment to ensure run-off quality.

A hierarchical approach to the selection of SuDS measures has been adopted with 'Source' type measures e.g. Tree pits implemented in preference to catchment type measures e.g. attenuation tanks.

The Drainage Preliminary Design Report and the Drainage Design Basis are contained in Appendix 4.1 and Sub Appendix 4.1A respectively.

#### 4.5.15 Maintenance

All traffic signal, CCTV, and communications equipment will be located to allow access for maintenance. All equipment will be accessible without disrupting pedestrian, bicycle, or vehicle traffic and without the use of special equipment.

Apparatus will be designed and located to allow for easy access and the safe maintenance of the Proposed Scheme into the future. This will include:

- Use of retention sockets, where applicable, for the erection of Traffic Signals, CCTV, Above Ground Detection, and other equipment mounting poles to allow for the ease of installation, maintenance and replacement;
- The use of lightweight equipment poles, where appropriate, such as cantilever signal poles. Consideration will be given to the selection of products that allow for maintenance activities to be undertaken from ground level, such as tilt down poles or poles with wind-down mechanisms;
- Placement of poles and retention sockets within 7m of chambers to provide ease of installation and replacement of cables;
- Locating chambers away from pedestrian desire lines, and areas of tactile paving. This is to provide for a reduced impact of Traffic Management;
- On longitudinal duct runs, chambers to be placed at 180m centres to allow for the ease of installation and replacement of cables;
- Safe areas to be provided for the access and parking of maintenance vehicles; and
- Locating controller, and other, cabinets in positions that allow for safe access and clear visibility of the operation of the junction.

#### 4.5.16 Safety and Security

The requirement for a pleasant, safe and secure environment for passengers waiting at Bus Stops and undertaking their journeys is a key component of the proposed public transport service. This is facilitated by the provision of:

- RTPI – Each stop will be provided with Real Time Passenger Information showing the estimated time of arrival of subsequent buses; and
- Public Lighting – each stop will have public lighting designed to ensure the safe operation of the stops in all lighting conditions and to enhance the sense of security at the stops.
- Increased frequency of services – Unreliable services can leave users waiting for extended periods sometimes in vulnerable situations. Increased frequency of services, especially after dark, will provide improved safety for bus passengers.



#### 4.5.17 Land Use and Accommodation Works

The land use along the Proposed Scheme comprises a mix of residential, commercial properties, community, cultural and institutional and city centre uses. The extent of the impact due to the Proposed Scheme on a landowner's holding is shown on the Compulsory Purchase Order maps for the Proposed Scheme.

The nature and extent of accommodation works associated with any land acquisition varies and is described as appropriate for each sub-section of the Proposed Scheme Route in Section 4.6.

The proposed accommodation works typically consist of relocated boundary walls and gates, and the regrading of driveways and adjacent grass areas, where deemed necessary. Where driveways are proposed to be regraded a maximum gradient of 5% in accordance with Recommendations for Site Development Works for Housing Areas, Department of the Environment and Local Government, 1998 has been adopted, where practicable.

Where cellar and private landings are affected by the Proposed Scheme, pre-construction and post construction surveys will be performed by the appointed contractor. It will be determined during the detailed design stage if strengthening works are required to these existing structures.

To maintain the character and setting along the route of the Proposed Scheme, the approach to undertaking the new boundary treatment works is replacement on a 'like for like' basis in terms of material selection and general aesthetics, unless otherwise noted on the scheme drawings, as listed at the outset of this Chapter.

### 4.6 Description of the Proposed Scheme

This section details the proposed scheme. It should be read in conjunction with the scheme plans, which are contained in Chapter 3 (Consideration of Reasonable Alternatives) of the EIAR.

#### 4.6.1 Route Sub-Sections

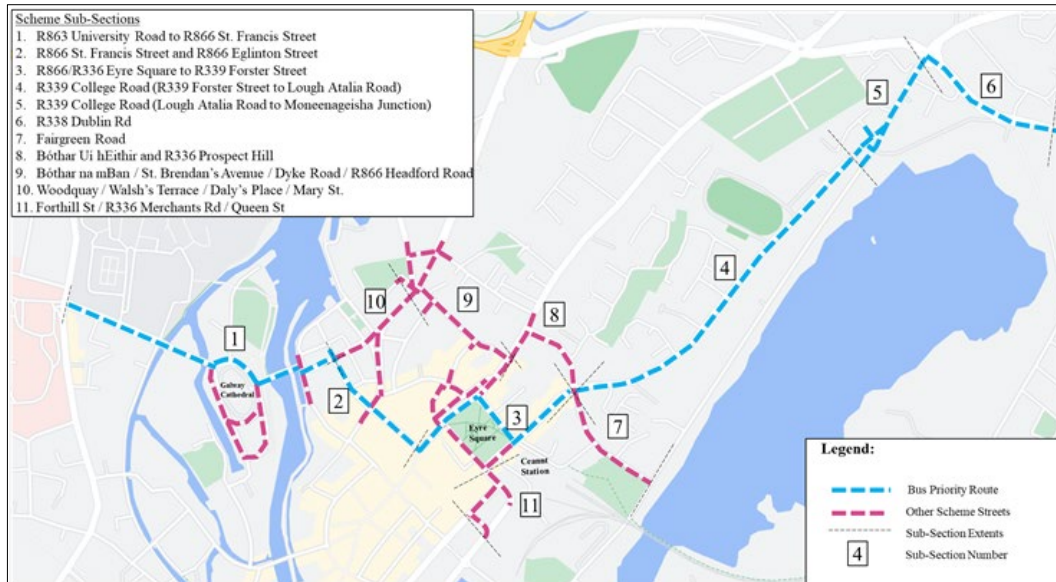
For the purposes of description, the Proposed Scheme is divided into the eleven route sub-sections as listed below, and as located in Diagram 4.11:

- Sub-Section 1 - R863 University Road to R866 St. Francis Street;
- Sub-Section 2 - R866 St. Francis Street and R866 Eglinton Street;
- Sub-Section 3 - R866/R336 Eyre Square to R339 Forster Street;
- Sub-Section 4 - R339 College Road (R339 Forster Street to Lough Atalia Road);
- Sub-Section 5 - R339 College Road (Lough Atalia Road to Moneenageisha Junction);
- Sub-Section 6 - R338 Dublin Road;

For the Inner-City Access Route:

- Sub-Section 7 - Fairgreen Road;

- Sub-Section 8 - Bóthar Uí hEithir and R336 Prospect Hill;
- Sub-Section 9 - Bóthar na mBan / St. Brendan's Avenue / R866 Headford Road / Dyke Road;
- Sub-Section 10 - Woodquay / Walsh's Terrace / Daly's Place / Mary Street; and
- Sub-Section 11 - Forthill Street / R336 Merchants Road / Queen Street.



**Diagram 4.11: Proposed Scheme Sub-Sections**

## 4.6.2 Sub-Section 1 - R863 University Road to R866 St. Francis Street

### 4.6.2.1 Overview

The interventions proposed on this section of the Proposed Scheme are summarised as follows:

- Footpaths widened along R863 University Road;
- New drainage network along R863 University Road and outfall to canal;
- Salmon Weir Bridge to be restricted to a 'bus gate' during associated hours of operation (07:00 – 19:00);
- Public Realm Space to be created in front of Galway Cathedral, with Gaol Road to the back of the Cathedral to be made 2-way;
- Re-configured bus and car parking within existing Cathedral car park;
- Newtownsmith and Waterside to be closed off onto St. Vincent's Avenue;
- The provision of raised tables, entry treatments and signalised crossings;
- Reconfiguration of footpaths on Salmon Weir Bridge; and
- Temporary land acquisition necessary to construct the Proposed Scheme.

#### 4.6.2.2 Bus Lane Provision and General Vehicular Impacts

The Proposed Scheme involves the creation of bus lanes over the existing Salmon Weir Bridge, effectively closing the Salmon Weir Bridge to general vehicular traffic during the hours of operation of the bus lane (07:00-19:00). Bus priority will be achieved along R863 University Road largely through the removal of through vehicular traffic along the route.

The inbound bus lane will begin to the immediate east of the existing vehicular access to Fisheries Field and will terminate immediately to the east of the Salmon Weir Bridge. This will permit vehicles exiting from Newtownsmith to travel along St. Vincent's Avenue, during times that vehicles are permitted to exit from Newtownsmith (06:00-10:00).

The outbound bus lane along this route begins at the junction of St. Vincent's Avenue with R866 St. Francis Street. The R866 St. Francis Street approach to this junction does not have a bus lane, meaning any vehicles travelling along R866 St. Francis Street which are not permitted to enter a bus lane must either turn right onto the R866 towards the Headford Road, or continue straight towards Waterside. On the R866 westbound approach to the R866 St. Francis Street / St. Vincent's Avenue junction, a westbound bus lane is proposed beginning at Woodquay, meaning only vehicles permitted to travel along a bus lane will arrive at this junction and can continue onto the bus lane along St. Vincent's Avenue towards the Salmon Weir Bridge. This section of bus lane will be time plated and operate between the hours of 07:00-10:00 and 13:00-19:00, thereby providing access to the Cross-City Link on R866 St. Francis Street and R866 Eglinton Street to R866/R336 Eyre Square, for the purposes of loading and deliveries between the hours of 10:00-13:00, and between 19:00-07:00.

The Proposed Scheme includes for the conversion of Gaol Road (west) into a two-way street alongside the Cathedral to the west and south, with the Gaol Road (east) junction to R863 University Road being closed off to all public transport and vehicular traffic. This creates a natural 'gateway' whereby general traffic is diverted from R863 University Road in advance of Salmon Weir Bridge, and facilitates local access to Nun's Island and the environs of Galway Cathedral.

In tandem with these works, the existing car park to the south of Galway Cathedral will be amended to provide additional coach parking facilities and to reduce the number of general parking spaces as a result. The existing vehicular egress arrangement from Galway Cathedral will also be amended, with the existing entrance on the southern side to be widened into an entrance and exit, with the existing exit on the eastern side to be closed to vehicular traffic.

Traffic calming features are proposed along the route entailing the provision of raised tables at the Canal Road Upper and Fisheries Field, and the provision of two new signalised pedestrian crossings on R863 University Road in combination with the narrowing of the road carriageway along R863 University Road. These will impact upon the existing on-street parking provision with a reduction in parking spaces along R863 University Road. This is considered in Section 4.6.2.7.



### 4.6.2.3 Bus Stops

Table 4.6 states the how existing bus stops will be affected by the Proposed Scheme.

**Table 4.6: Proposed changes to Bus Stops**

Inbound/ Outbound	Bus Stop Name/No.	Bus Stop Type	Location	Retained/ Relocate d/ Removed / New	Existing Facilities	Proposed Facilities	Reason for moving / locating stop
Eastbound	R863 University Road (NUIG Main Gate) No.522561	Inline	30m North- West of NUI Galway Main Gate	Retained	Bus Shelter No Seating Paper timetable	Bus Shelter with Seating	N/A
Westbound	NUIG Main Gate No. 523031	Inline	35m south-east of NUI Galway Main Gate	Retained	RTPI Bus Stop Pole Paper timetable	Bus Shelter with Seating	N/A
Eastbound	Galway Cathedral No. 523181	Inline	North East Galway Cathedral, 50m after crossing Salmon Weir Bridge	Relocated	Bus Stop Pole Paper timetable	Bus Shelter with Seating	Stop moved closer to pedestrian crossing
Westbound	Galway Cathedral No. 522571	Inline	North East Galway Cathedral, 50m after crossing Salmon Weir Bridge	New	Bus Stop Pole Paper timetable	Bus Shelter with Seating	New outbound stop to correspon d with existing inbound stop

### 4.6.2.4 Cycling Provision

The removal of through traffic on R863 University Road between 07:00-19:00 in combination with traffic calming will enable safer and more efficient cycling in the inbound and outbound directions within a low speed, low traffic environment. No segregated cycle facilities are proposed along this section.

New bicycle parking is proposed along R863 University Road, Gaol Road, Newtownsmith and Waterside. Refer to General Arrangement drawings, as listed at the outset of this Chapter.

#### 4.6.2.5 Pedestrian Provision

In conjunction with the closure of the Salmon Weir bridge to through traffic, the Proposed Scheme will also involve upgrading pedestrian footways and crossing points to improve pedestrian accessibility to and along R863 University Road itself. This will include widening footways along the route and the rationalisation of on-street parking.

On the Salmon Weir Bridge, the existing narrow footpath on the southern side of the bridge will be removed and replaced with a narrower 'rubbing strip' (still maintaining traffic safety and providing protection to the bridge parapet), thereby allowing the northern footpath to be widened to 1.8m wide. This maintains this pedestrian route and retaining the view of the weir for those walking across the bridge.

The diversion of general traffic onto Gaol Road (west of the Cathedral) affords an opportunity to considerably enhance the public realm in the Galway Cathedral area. To achieve this, it is proposed to close Gaol Road on the eastern side of Galway Cathedral and to re-purpose the space as a large public area with urban landscaping permeable to pedestrians and cyclists.

Footpaths along R863 University Road, Salmon Weir Bridge and St. Vincent's Avenue are to be replaced and widened. All footpath on these streets will be replaced with a concrete paving surface and granite kerbs. Existing natural stone kerbs at the junction of St. Vincent's Avenue and R866 St. Francis Street will be retained however, while the existing footpath on the northern side of St. Vincent's Avenue in the vicinity of Galway Courthouse and on the western side of Gaol Road will be retained. Footpaths and islands within the reconfigured Galway Cathedral carpark will be formed by in-situ concrete. Pedestrian routes through Newtownsmith and Waterside, which will be permeable to vehicles at specific times, will be finished with concrete setts.

#### 4.6.2.6 Junctions

Table 4.7 (Signalised) and Table 4.8 (Non-Signalised) summarises the junction upgrade works to be provided along this section of the Proposed Scheme route.

**Table 4.7: Signalised Junctions**

Name	Summary
St Vincent Avenue / R866 St. Francis Street / Court House Square	<p><b>Overview</b></p> <p>An upgrading of the existing signal controlled cross intersection junction is proposed. The design rationale was to ensure buses will have more priority at the junction and to reduce potential impacts on local access to R866 St. Francis Street and surrounding areas. This is achieved using a mix of full and virtual bus priority.</p>

	<p>This junction is connected to Galway City Council's Urban Traffic Control System which has the capability to provide appropriate bus priority through signal operation.</p> <p><b>Permitted Movements</b></p> <p>R866 St. Francis Street outbound: This lane will remain open to general traffic, allowing to turn right onto St. Vincent Avenue or continue straight on to Court House Square.</p> <p>Court House Square inbound: Here, general traffic will only have the option turn left only onto St Vincent's Avenue.</p> <p>St. Vincent's Ave westbound: This will be converted to a bus lane, with the option to turn left or continue straight on to other bus lanes. On the St. Vincent's Ave eastbound direction, this will remain as a general traffic lane, with virtual bus priority, with the option to turn right or continue straight on to other bus lanes.</p>
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**Table 4.8: Minor/Non-signalised Junctions**

Name	Summary
R863 University Road / University Driveway	<p><b>Overview</b></p> <p>The existing T-junction is to remain, with a raised table proposed at the side-road entrance to improve facilities for pedestrians crossing the junction.</p>
R863 University Road / Canal Road Upper	<p><b>Overview</b></p> <p>Existing 4-way junction is to remain, with raised table proposed across intersection to improve facilities for pedestrians crossing the junction.</p>
R863 University Road / Gaol Road (west)	<p><b>Overview</b></p> <p>Existing T-junction is to remain with reduced kerb radii proposed</p>
R863 University Road / Fisheries Field Access	<p><b>Overview</b></p> <p>Existing T-way junction is to remain, with raised table proposed across intersection to improve facilities for pedestrians crossing the junction.</p>
R863 University Road / Gaol Road (east)	<p><b>Overview</b></p> <p>Existing T-junction to be removed and replaced with pedestrian plaza</p>
R863 University Road / Waterside	<p><b>Overview</b></p> <p>Existing T-junction is to be replaced with pedestrian plaza and cycle permeability</p>
R863 University Road / Newtownsmith	<p><b>Overview</b></p> <p>Existing T-junction is to remain, though it is to become one-way (northbound) with controlled egress to facilitate deliveries.</p>

#### 4.6.2.7 Parking and Loading Bays

The Proposed Scheme will require the removal of some parking spaces and adjustments to loading facilities along this section of its route to deliver the required improvements to facilities for pedestrians, cyclists, and buses. The proposed changes in parking and loading provision along the Cross-City Link are summarised in Table 4.9 and Table 4.10.

**Table 4.9: Summary of Parking Changes**

Location	Baseline		Proposed		Change
	Corridor	Adjacent	Corridor	Adjacent	
R863 University Road (Newcastle Road to Salmon Weir Bridge)	17	211	13	211	-4
Galway Cathedral	175	175	49	175	-126

**Table 4.10: Summary of Loading Changes**

Location	Loading Bays		Change
	Baseline	Proposed	
R863 University Road (Newcastle Road to Salmon Weir Bridge)	3	3	0
Galway Cathedral	0	0	0

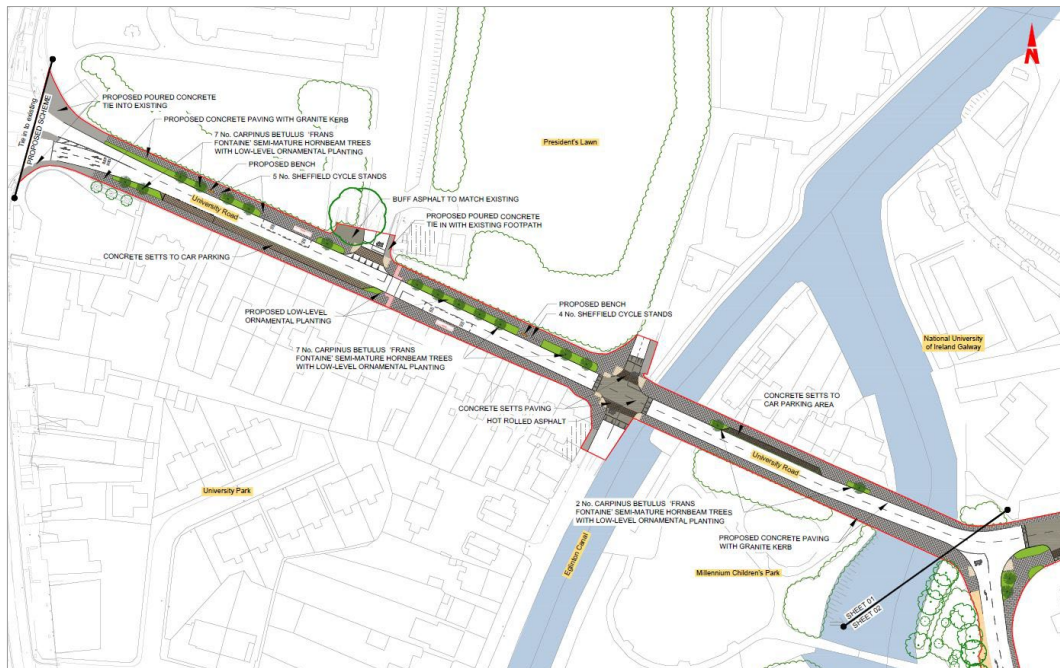
#### 4.6.2.8 Landscape Design

##### R863 University Road

The Proposed Scheme will be modified to increase the quantum of public space and through the provision of hard and soft landscaping to create a more attractive and pedestrian friendly environment. Entry treatments will improve pedestrian facilities at junctions along the route, with raised pedestrian crossing facilities provided.

The landscape design intent is to also reinforce the low-speed street environment as set out in Section 4.5.2.1, thereby changing the character of the route for all those moving along or across it, particularly pedestrians and cyclists.

Full details of the landscape proposals are set out in Drawings BCG-LA-00-01/02, with extracts for illustration provided in Diagram 4.12 and Diagram 4.13 (photomontage) respectively.



**Diagram 4.12: Landscape Proposals along R863 University Road**



**Diagram 4.13: View of Proposed Scheme from R863 University Road**

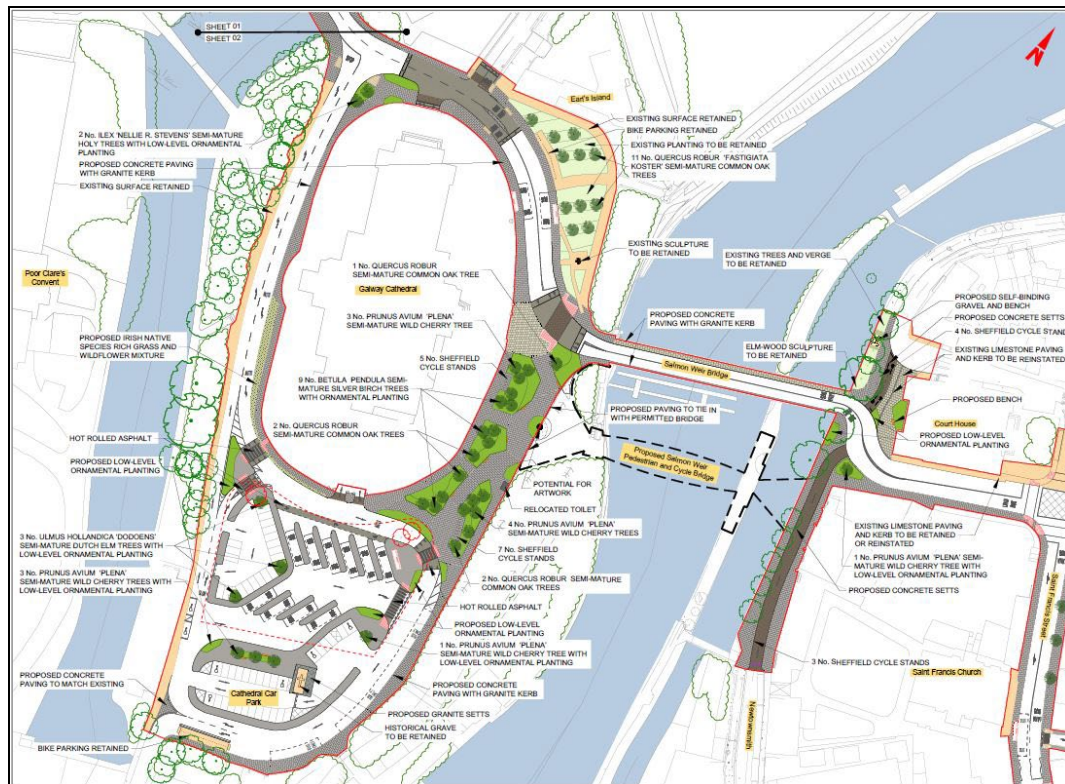
## Galway City Cathedral

The closure of Gaol Road to the east of Galway Cathedral will allow for creation of a new Civic Plaza with high quality hard and soft landscaping, tree planting, bicycle cycling. The proposed public realm will extend and connect to the Salmon Weir pedestrian and cycle bridge currently under construction.



The new Civic Plaza and bridge will facilitate a seamless and natural flow for pedestrians and cyclists from either side of the river, while creating an iconic focal point for locals and tourists alike to take in the views of the River Corrib, the Salmon Weir, the Cathedral, natural and built heritage in the area, providing high quality public amenity space and transport infrastructure

The car park to the south of the Cathedral is retained and reconfigured and will accommodate bus and car parking. Refer to Diagram 4.14 and photomontage views Diagram 4.15 and Diagram 4.16.



**Diagram 4.14 : Landscape Proposals at Galway City Cathedral**





**Diagram 4.15 : View of Proposed Scheme from R863 University Road/Gaol Road**



**Diagram 4.16 : View of Proposed Scheme from Gaol Road**

#### **4.6.2.9 Structures**

There are no structures proposed along this sub-section of the Proposed Scheme route.

#### 4.6.2.10 Land Acquisition and Accommodation Works

This section of the Proposed Scheme route traverses adjoining mixed land uses, comprising residential housing along R863 University Road, recreational and amenity lands at Millennium Children's Park and Playgrounds and Community, Cultural and institutional lands at NUIG, Galway Cathedral, Galway Court House and the Franciscan Abbey.

In order to construct the Proposed Scheme, permanent and temporary land take is required within this section at the following locations:

- Entrance to NUIG adjacent to the Quadrangle to facilitate the construction of a raised entry treatment
- Entrance to NUIG at Canal Road Upper to facilitate the construction of a raised table junction
- Entrance to NUIG at Earl's Island to facilitate the construction of a raised entry treatment

In addition to this land acquisition the Proposed Scheme will require the acquisition or restriction or otherwise interference, either temporary or permanent to private rights associated with the land acquisition at the following locations:

- Entrance to NUIG at Canal Road Upper affecting private rights to a residential property.
- Entrance to NUIG at Earl's Island affecting private rights.
- Vehicular exit to the Cathedral on the Eastern side near the Salmon Wier Bridge will be restricted due to the private realm and landscaping in front of the Cathedral which requires vehicular exit to be moved to another location. This affects the private rights of the Cathedral.

There are no additional accommodation works associated with land take requirements to facilitate the Proposed Scheme along this section of the route.

### 4.6.3 Sub-Section 2 - R866 St. Francis Street and R866 Eglinton Street

#### 4.6.3.1 Overview

The interventions proposed are summarised as follows:

- R866 St. Francis Street to include a time-plated bus lane inbound;
- R866 Eglinton Street to be a time plated bus lane inbound;
- Footpath widening on R866 Eglinton Street;
- Signal controlled pedestrian crossing on R866 St. Francis Street;
- Signalisation of the junction of R866 St. Francis Street / R866 Eglinton Street / Mary Street / Daly Place;
- New bicycle parking on R866 St. Francis Street and R866 Eglinton Street.

### 4.6.3.2 Bus Lane Provision and General Vehicular Impacts

The proposed scheme involves converting the inbound lane of both R866 St. Francis Street and R866 Eglinton Street into a time plated bus lane while maintaining the outbound lanes as all-traffic lanes. The scheme also proposes reversing the one-way direction of traffic on Daly's Place from Woodquay to R866 Eglinton Street.

All traffic from Mary Street, will be required to turn left onto R866 St. Francis Street unless permitted to enter into a bus lane, while all traffic from Daly's Place will be required to turn right unless permitted to enter into a bus lane. Local access to R866 Eglinton Street will remain possible via Eyre Street and R866/R336 Eyre Square, however R866 Eglinton Street outbound will effectively be removed as a through route, thereby providing bus priority over general traffic.

R866 St. Francis Street inbound and R866 Eglinton Street inbound will operate as bus lanes during the hours of operation of the bus lane which are proposed to be 07:00-10:00 and 13:00-19:00, while R866 St. Francis Street will be open to general traffic to permit local traffic from Woodquay to access R866 St. Francis Street and return to the Headford Road and traffic from Mary Street to access the Headford Road.

### 4.6.3.3 Bus Stops

The principles of bus route rationalisation, as stated in Section 4.5.4.4 were employed on this sub-section. Table 4.11 below states how existing bus stops shall be affected by the Proposed Scheme.

**Table 4.11: Proposed Changes to Bus Stops**

Inbound/ Outbound	Bus Stop Name/No.	Bus Stop Type	Location	Retained/ Relocated/ Removed/ New	Existing Facilities	Proposed Facilities	Reason for moving / locating stop
Eastbound	Franciscan Friary No. 522591	Inline	Osteria Italia Restaurant R863 St. Francis Street	Retained	Bus Stop Pole Paper timetable	Bus Shelter with Seating	N/A
Westbound	Francis Street No. 523021	Inline	Franciscan Abbey R863 St. Francis Street	Retained	RTPI Bus Stop Pole	Bus Shelter with Seating	N/A

#### 4.6.3.4 Cycling Provision

Virtual bus priority in the outbound direction, and full bus priority in the inbound direction, on R866 Eglinton Street and R866 St. Francis Street, will enable safer and more efficient cycling, due to traffic reduction effects. No segregated cycle lanes are proposed along this section.

#### 4.6.3.5 Pedestrian Provision

Footpaths along R866 Eglinton Street and parts of R866 St. Francis Street in the vicinity of the new signalised junction will be replaced and widened. All footpaths will be replaced with new materials, with a natural stone surface proposed along R866 Eglinton Street and a concrete paving surface proposed along R866 St. Francis Street. A raised table will be installed at the junction of R866 Eglinton Street and Williamsgate Street to improve pedestrian movement between R866/R336 Eyre Square and Shop Street areas. A loading bay, semi-recessed into the footway along R866 Eglinton Street inbound is proposed, which will be utilised as a footway outside of designated loading times (i.e. during hours of operation of the bus lane).

#### 4.6.3.6 Junctions

Table 4.12 (Signalised) and Table 4.13 (Non-Signalised) summarises the junction upgrade works to be provided along this section of the Proposed Scheme route.

**Table 4.12: Signalised Junctions**

Name	Summary
R866 St. Francis Street / Mary's Street / R863 Eglinton Street / Daly's Place	<p><b>Overview</b></p> <p>Proposed Signal Controlled Crossroads Junction.</p> <p>The design rationale was to ensure buses will have more priority at the junction and to reduce potential impacts arising from local access to Mary's Street and Daly's Place and surrounding areas.</p> <p>This is achieved using a mix of Full and Virtual Bus Priority. Inbound along R866 St. Francis and R866 Eglinton Street have full bus priority during the hours of operation of the bus lanes. Outbound along R866 St. Francis and R866 Eglinton Street have virtual bus priority through traffic reduction. Mary's Street will be turn left only while exiting Daly's Place will be turn right only.</p> <p>This junction will be connected to Galway City Council's Urban Traffic Control System which has the capability to provide appropriate bus priority through signal operation.</p>

**Table 4.13: Minor/Non-Signalised Junctions**

Name	Summary
R866 St. Francis St / St. Anthony's Place	<b>Overview</b> Existing T-junction is to remain, though St Anthony's Place is to become one-way (westbound)
Court Lane / St. Anthony's Place	<b>Overview</b> Existing T-junction is to remain, however Court Lane to become exit only with a right turn onto St. Anthony's Place
R866 Eglinton Street / William St / Williamsgate Street	<b>Overview</b> Existing T-junction is to remain, with raised table across intersection

### 4.6.3.7 Parking and Loading Bays

With the proposed scheme in place, there is an associated need to remove some parking space to provide improved facilities for pedestrians, cyclists, and buses – which inevitably requires some reallocation of parking road space. The proposed changes in parking and loading provision along the Cross-City Link are summarised in Table 4.14 and Table 4.15.

**Table 4.14: Summary of Parking Changes**

Location	Baseline		Proposed		Change
	Corridor	Adjacent	Corridor	Adjacent	
Salmon Weir Bridge to R866/R336 Eyre Square	9	1,298	0	1,298	-9

**Table 4.15: Summary of Loading Changes**

Location	Loading Bays		Change
	Baseline	Proposed	
Salmon Weir Bridge to R866/R336 Eyre Square	6	4	-2

### 4.6.3.8 Landscape Design

Due to the constrained nature of this section of the proposed scheme, limited landscape design measures are proposed. Footpaths will be replaced with higher quality materials, with concrete paving slabs proposed along R866 St. Francis Street and natural stone paving proposed along R866 Eglinton Street.

Full details of the landscape proposals are set out in Drawings BCG-LA-00-02/04.

### 4.6.3.9 Structures

There are no structures proposed in this sub-section.



#### 4.6.3.10 Land Use and Accommodation

This section of the scheme includes Community, Cultural and institutional lands at the Franciscan Abbey and the Mercy School. The remainder of this section of the route is zoned for city centre uses and this is reflected on the numerous retail units, hospitality offerings and offices located along this section.

No permanent or temporary land take is required through this section to facilitate the scheme, as all lands are in the ownership or control of Galway City Council.

### 4.6.4 Sub-Section 3 - R866/R336 Eyre Square to R339 Forster Street

#### 4.6.4.1 Overview

The interventions proposed are summarised as follows:

- Williamsgate Street and R866 Eyre Square North to become a time-plated bus lane;
- R336 Eyre Square East to be two-way time-plated bus lane between St. Patricks Avenue and R866 Eyre Square North;
- R339 Forster Street to become two-way time-plated bus lanes;
- Junction of R336 Eyre Square East and R339 Forster Street to be signalised for all movements;
- Raised table on R866 Eyre Square North connecting Rosemary Avenue and Eyre Square West;
- R866 Eyre Square North to be upgraded to a landscaped pedestrianised plaza area;
- Vehicular access to Rosemary Avenue, and Eyre Street to be restricted to permitted hours only;
- R336 Prospect Hill between Bóthar na mBan and R866 Eyre Square North to be made a cul-de-sac with restricted access to R866 Eyre Square North to permitted hours only;
- New bicycle parking on R339 Forster Street.

#### 4.6.4.2 Bus Lane Provision and General Vehicular Impacts

The proposed scheme involves converting R339 Forster Street and R336 Eyre Square East into two-way streets, operating as bus-lanes during peak hours, with R866 Eyre Square North (currently operating as two-way) and Williamsgate Street also becoming time-plated bus lanes (heading eastbound only). The westbound route along R866 Eyre Square North and Williamsgate Street will not be designated as bus lanes, in order to facilitate loading and delivery access to Shop Street via Williamsgate Street.

As part of this scheme, R336 Prospect Hill will also become a two-way route, to facilitate loading/delivery and taxi access from the north-east. However, there will be restricted connectivity through to R866 Eyre Square North from R336 Prospect



Hill (there will be a looped route which will allow vehicles to enter and exit from the north-eastern approach).

Access for vehicular traffic from R336 Prospect Hill to Eyre Square will be permitted during specific hours to allow for loading and access to the Shop Street area. Loading/delivery vehicles approaching from the south will use Eyre Square West (which is open for a portion of the morning) to access Williamsgate and Shop Street.

Access to R866 Eglinton Street and Eyre Square North Plaza and Rosemary Avenue can be achieved via Eyre Street onto R866 Eyre Square North. Rosemary Avenue access will also be restricted to specific permitted hours to coincide with delivery and casual trading times permitted at Eyre Square.

Between R336 Eyre Square South and St. Patrick's Avenue, no bus lanes are proposed, in order to maintain vehicular access to St. Patrick's Avenue which is the sole access to residential properties and parking. However, this is extremely limited and therefore no impact on bus operation is anticipated along this section.

R339 Forster Street is proposed to be converted into a two-way bus only street (07:00-10:00 and 13:00-19:00, with access permitted during the 10:00-13:00 period to facilitate deliveries/loading, etc.). Existing parking will be converted to loading bays and public realm improvement areas. The junction of R339 Forster Street / Bóthar Uí Eithir / Fairgreen Road / R339 College Road will be reconfigured to facilitate altered movements, including the removal of left slip lanes, shorter pedestrian crossings and crossings on all arms of the junction.

Due to the conversion of R336 Eyre Square East and R339 Forster Street to two-way movements and the restricted geometry at the corner, the junction of R336 Eyre Square / R339 Forster Street / Ceannt Station and Frenchville Lane will be signalised for all movements, this will include controlled pedestrian crossings on all arms of the junction.

Existing shared loading bays / taxi ranks will be retained along R336 Eyre Square East with the directions being reversed, however the taxi rank and disabled parking along R866 Eyre Square North will be removed with an alternative loading bay on Rosemary Avenue, shared taxi rank / loading bays on R336 Prospect Hill, disabled parking spaces on R336 Prospect Hill and Bóthar Irwin. The existing loading bay on Williamsgate Street will be retained. An eastbound loading bay is proposed at the eastern end of R339 Forster Street at Saint Patrick's Church. This will in turn lead to on-street parking being removed at this location. One existing bus bay and shelter along R866 Eyre Square North will be removed to facilitate access from Eyre Street.

#### 4.6.4.3 Bus Stops

The principles of bus route rationalisation, as stated in Section 4.5.4.4 were employed on this sub-section. Table 4.16 below states how existing bus stops shall be affected by the Proposed Scheme.

**Table 4.16: Proposed changes to Bus Stops**

Inbound/ Outbound	Bus Stop Name/ No.	Bus Stop Type	Location	Retained/ Relocated/ Removed/ New	Existing Facilities	Proposed Facilities	Reason for moving / locating stop
Eastbound	Eyre Square Stop 1	Lay-by	North of Eyre Square parallel to the plaza.	Removed	RTPI Bus Shelter with Seating	Bus Shelter with Seating	Removed due to amendment s to road layout from Eyre Street
Eastbound	Eyre Square Stop 2	Lay-by	North of Eyre Square parallel to the plaza.	Retained	RTPI Bus Shelter with Seating	Bus Shelter with Seating	N/A
Eastbound	Eyre Square Stop 3	Lay-by	North of Eyre Square parallel to the plaza.	Retained	RTPI Bus Shelter with Seating	Bus Shelter with Seating	N/A
Eastbound	Eyre Square Stop 4	Lay-by	North of Eyre Square parallel to the plaza.	Retained	RTPI Bus Shelter with Seating	Bus Shelter with Seating	N/A
Westbound	Eyre Square Stop 5	Lay-by	East of Eyre Square Parallel to playground	Retained	RTPI Bus Shelter with Seating	Bus Shelter with Seating	N/A
Westbound	Eyre Square Stop 6	Lay-by	East of Eyre Square Parallel to playground	Retained	RTPI Bus Shelter with Seating	Bus Shelter with Seating	N/A
Westbound	Eyre Square Stop 7	Lay-by	East of Eyre Square	Retained	RTPI Bus Shelter	Bus Shelter with Seating	N/A

Inbound/ Outbound	Bus Stop Name/ No.	Bus Stop Type	Location	Retained/ Relocated/ Removed/ New	Existing Facilities	Proposed Facilities	Reason for moving / locating stop
			Parallel to playground		with Seating		
Westbound	Eyre Square Stop 8	Lay-by	East of Eyre Square Parallel to playground	Retained	RTPI Bus Shelter with Seating	Bus Shelter with Seating	N/A
Westbound	Eyre Square Stop 9	Lay-by	South of Eyre Square Beside AIB Building	Removed	RTPI Bus Shelter with Seating	N/A	Removed as bus stop is now obsolete
Westbound	Forster Street No. 524361	Inline	Outside Forster Court	Removed	Bus Stop Pole Paper Timetable	Bus Shelter with Seating	Removed due to Proximity to Eyre Square

#### 4.6.4.4 Cycling Provision

Bus priority on R866/R336 Eyre Square and R339 Forster Street and the removal of through traffic will enable safer and more efficient cycling in the inbound and outbound directions, due to traffic calming effects. No segregated cycle lanes are proposed along this section.

#### 4.6.4.5 Pedestrian Provision

Footpath widening and reconstruction is proposed along Williamsgate Street and R339 Forster Street and all surface materials on the reconstructed footpaths and plazas in this area will be natural stone. Surfaces which have a shared pedestrian and vehicle loading including Rosemary Avenue, Eyre Street, Loading and taxi bays on R336 Eyre Square East, and raised tables will have a stone paving sett surface. The northern section of the cul-de-sac of R336 Prospect Hill will also have a stone paving sett surface to provide continuity and connectivity for pedestrians from R866 Eyre Square North to Bóthar na mBan.

The existing streetscape to the north of the main carriageway at R866 Eyre Square North will be re-purposed to create a larger, open plaza area with urban landscaping features. The existing public bike share station will be relocated, and the Liam Mellows Statue will be retained in its current location with the plinth to be redesigned.

#### 4.6.4.6 Junctions

Table 4.17 (Signalised) and Table 4.18 (Non-Signalised) summarises the junction upgrade works to be provided along this section of the Proposed Scheme route.

**Table 4.17: Signalised Junctions**

Name	Summary
R336 Eyre Square East / R336 Eyre Square South / R339 Forster Street / Galway Bus Station / Frenchville Lane	<p><b>Overview</b></p> <p>Proposed Signal Controlled 5-arm Junction.</p> <p>The design rationale was to ensure buses will have priority at the junction and to reduce potential impacts on local access to R336 Eyre Square and Frenchville Lane and surrounding areas.</p> <p><b>Permitted Movements</b></p> <p>Exiting R336 Eyre Square East, general traffic can turn right onto R336 Eyre Square South or continues straight on to Frenchville lane. Buses can turn left onto R339 Forster Steet which is full bus priority.</p> <p>Exiting R336 Eyre Square South, general traffic can turn left onto R336 Eyre Square East or turn right onto Frenchville lane. Buses can continue straight onto R339 Forster Street.</p> <p>Exiting R339 Forster Street, buses can turn right onto R336 Eyre Square East, or continue straight onto R336 Eyre Square South. Only buses or authorised vehicles can exit from R336 Forster Street.</p> <p>Exiting Frenchville lane, general traffic can continue straight on to R336 Eyre Square East or turn left onto R336 Eyre Square South.</p> <p>Exiting Galway Bus Station, buses can turn left onto Eyre Square south, continues straight on to R336 Eyre Square East, or turn right onto R339 Forster Street.</p>

**Table 4.18: Minor/Non-Signalised Junctions**

Name	Summary
R866 Williamsgate Street / Rosemary Avenue	<b>Overview</b> Existing T-junction is to remain, with intersection on raised table. Rosemary Avenue is to become egress controlled
Bóthar Irwin / Rosemary Avenue	<b>Overview</b> Existing T-junction is to remain, with access control
R866 Eyre Square North / Eyre Street	<b>Overview</b> Existing T-junction is to remain and extend onto R866 Eyre Square North, with intersection on raised table. Eyre Street is to become access controlled and one-way (southbound)
Bóthar Irwin / Eyre Street	<b>Overview</b> Existing T-junction is to remain, with access control
R866 Eyre Square North / R336 Prospect Hill	<b>Overview</b> Existing T-junction is to remain, with access control
R336 Eyre Square East / St. Patrick's Avenue	<b>Overview</b> Existing T-junction is to remain
R336 Eyre Square South / Eyre Square West	<b>Overview</b> Existing T-junction is to remain

#### 4.6.4.7 Parking and Loading Bays

With the proposed scheme in place, there is an associated need to remove some parking space to provide improved facilities for pedestrians, cyclists, and buses – which inevitably requires some reallocation of parking road space. The proposed changes in parking and loading provision along the Cross-City Link are summarised in Table 4.19 and Table 4.20.

**Table 4.19: Summary of Parking Changes**

Location	Baseline		Proposed		Change
	Corridor	Adjacent	Corridor	Adjacent	
Eyre Square and R336 Prospect Hill	17	606	7	606	-10

### Table 4.20: Summary of Loading Changes

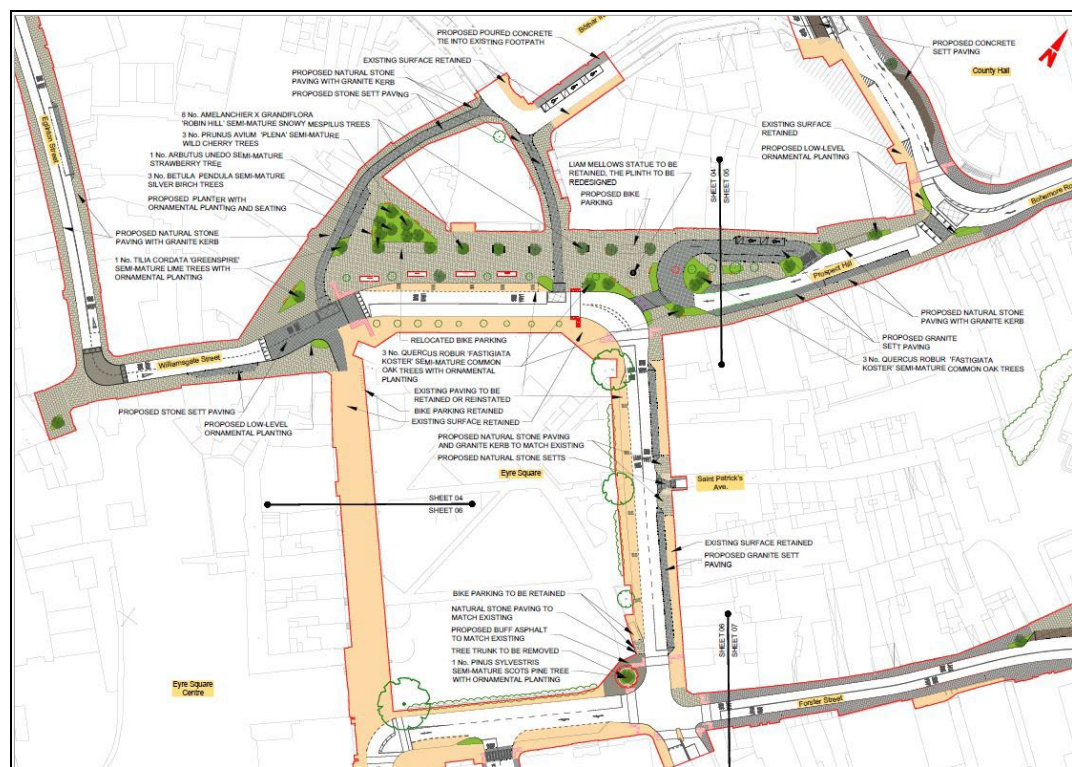
Location	Loading Bays		Change
	Baseline	Proposed	
Eyre Square and R336 Prospect Hill	21	25	+4

#### 4.6.4.8 Landscape Design

The proposed R866 Eyre Square North redesign will involve reallocating street space, creating a new public space and redesign of the public transport space in that area.

The proposed alterations will include closure of the north-eastern corner of R866/R336 Eyre Square (the connection to R336 Prospect Hill) returning this space to the people of Galway and extending the natural heart of the city from Eyre Square. Eyre Street and Rosemary Ave will be transformed into shared space environments.

Full details of the landscape proposals are set out in Drawings BCG-LA-00-04/06/07, with extracts for illustration provided in Diagram 4.17 and photomontage views in Diagram 4.18 and Diagram 4.19.



### Diagram 4.17: Eyre Square





**Diagram 4.18: Proposed view from Eyre Square**



**Diagram 4.19: Proposed view from R336 Prospect Hill**

#### **4.6.4.9 Structures**

There are no structures proposed in this sub-section.

##### **4.6.4.10 Land Use and Accommodation**

This section includes Williamsgate Street, R866 Eyre Square North, R336 Eyre Square East and R339 Forster Street and it also incorporates sections of R336 Eyre Square South, R336 Prospect Hill, Rosemary Avenue, Eyre Street and Bothar Irwin.

This section of the scheme is zoned for city centre uses and this is reflected on the numerous retail units, hospitality offerings and offices located along this section. The only exceptions to this zoning are in the middle of Eyre Square (Kennedy Park) which is zoned as recreational and amenity and at the gateway to St. Patrick's Church on R339 Forster Street, which is zoned as Community, Cultural and Institutional lands.

Permanent land take is required through this section to facilitate the scheme, as not all lands are in the ownership or control of Galway City Council.

Permanent land take is required within this section to facilitate:

- Construction of a traffic signal-controlled junction at the exit from Ceannt Station.

## **4.6.5 Sub-Section 4 - R339 College Road (R339 Forster Street to Lough Atalia Road)**

### **4.6.5.1 Overview**

The interventions proposed are summarised as follows:

- Bus Gate to be provided on R339 College Road (between City Hall and R339 Forster Street);
- Footpaths to be widened;
- On-Street Parking to be rationalised;
- Entry Treatment at junctions;
- New Pedestrian crossings;
- New storm drainage network;
- Temporary land acquisition necessary to construct the Proposed Scheme.

### **4.6.5.2 Bus Lane Provision and General Vehicular Impacts**

The proposed scheme will provide a bus gate on R339 College Road in order to restrict through-movement for vehicular traffic, whilst facilitating the movement of public transport vehicles directly to and from R339 Forster Street. This gate will permit local access to and from R339 College Road to be maintained for all vehicles, albeit only from one side or the other depending on the location along R339 College Road. For example, vehicular access to City Hall will be possible for all vehicles, but only from the Lough Atalia / Moneenageisha end of R339 College Road, while vehicle access to The Elms will be possible for all vehicles, but only from the Fairgreen Road / Bóthar Uí Eithir end of R339 College Road.

This proposal will ensure that the only vehicles on R339 College Road will be those with an origin or destination on R339 College Road and will remove this as a through route for general traffic, thereby removing the extensive queuing and delay experienced frequently on this route. Cyclist and bus priority will be achieved through the removal of general traffic.

The proposed bus gate will be a short section of bus lanes and controlled by traffic signals operating on a one-way shuttle system.

### 4.6.5.3 Bus Stops

The principles of bus route rationalisation, as stated in Section 4.5.4.4 were employed on this sub-section. Table 4.21 below states how existing bus stops shall be affected by the Proposed Scheme.

**Table 4.21: Proposed changes to Bus Stops**

Inbound/ Outbound	Bus Stop Name/No.	Bus Stop Type	Location	Retained/ Relocated/ Removed/ New	Existing Facilities	Proposed Facilities	Reason for moving / locating stop
Westbound	College Road Galway (Opp City Hall) No. 523691	Inline	Opposite Galway City Council Entrance	Relocated	Bus Stop Pole Paper Timetabl e	Bus Shelter with Seating	Relocated due to installing of new pedestrian crossing
Westbound	College Road Stop ID 523231	Inline	Yeats College Gate	Retained	Bus Stop Pole Paper Timetabl e	Bus Shelter with Seating	N/A
Westbound	Connacht Rugby No. 523681	Inline	Opposite Connacht Rugby Main Entrance	Relocated	Bus Stop Pole Paper Timetabl e	Bus Shelter with Seating	Relocated due to reconfigur ation of loading bay
Eastbound	Connacht Rugby No. 523241	Lay- by	Connacht Rugby 50m North East of Main Entrance	Retained	Bus Stop Pole Paper Timetabl e	Bus Shelter with Seating	N/A
Westbound	Loyola Park No. 523671	Inline	40m South West from Lough Atalia Road Junction	Removed	Bus Shelter Paper Timetabl e	N/A	Removed due to proximity to Connaught Rugby Stop
Eastbound	Loyola Park No. 523251	Inline	60m South West from Lough Atalia Road Junction	Removed	Bus Stop Pole Paper Timetabl e	N/A	Removed due to proximity to Connaught Rugby Stop

#### 4.6.5.4 Cycling Provision

Virtual bus priority on R339 College Road will allow for safer and more efficient cycling in the inbound and outbound travel lanes, due to reduced traffic volumes. No segregated cycle tracks are proposed along this section of the scheme.

#### 4.6.5.5 Pedestrian Provision

In conjunction with the provision of the bus gate, the scheme will also involve upgrading pedestrian footways and crossing points to improve the pedestrian accessibility to and along the route. This will include widening footways generally to at least 2.0m where possible, while ensuring the occurrence of narrower ‘pinch-points’ be kept to an absolute minimum. Pedestrian crossings will be installed in the vicinity of the Connacht Rugby sportsgrounds and in the vicinity of Yeats College (close to Galway City Hall). All footpaths on R339 College Road will be replaced with a concrete paving surface and granite kerbs.

#### 4.6.5.6 Junctions

Table 4.22 (Signalised) and Table 4.23 (Non-Signalised) summarises the junction upgrade works to be provided along this section of the Proposed Scheme route.

**Table 4.22: Signalised Junctions**

Name	Summary
R339 Forster Street/ Bóthar Uí Eithir / R339 College Road/Fairgreen Road	<p><b>Overview</b></p> <p>Proposed Signal Controlled Crossroad Junction.</p> <p>The design rationale was to ensure buses will have priority at the junction and to reduce potential impacts on local access to Bóthar Uí Eithir, R339 College Road, Fairgreen Road, and surrounding areas. This is achieved using a mix of Full and Virtual Bus Priority.</p> <p><b>Permitted Movements</b></p> <p>Exiting R339 Forster Street, only buses can exit R339 Forster Street, the options are to turn left onto Bóthar Uí Eithir, right onto Fairgreen Road, or continue straight onto R339 College Road.</p> <p>Exiting Bóthar Uí Eithir, General traffic can go left onto R339 College Road, or continue straight onto Fairgreen road. Only Buses can turn right onto R339 Forster Street.</p> <p>Exiting R339 College Road, general traffic can go left onto Fairgreen Road or right onto Bóthar Uí Eithir. Only buses can continue straight onto R339 Forster Street.</p> <p>Exiting Fairgreen Road, general traffic can only go straight onto to Bóthar Uí Eithir, or turn right onto R339 College Road.</p>
Bus Gate on R339 College Road	<p><b>Overview</b></p> <p>Proposed Signal Controlled bus gate between Galway City Council Building and Snoozles Tourist Hostel. The design rationale was to ensure buses will have virtual priority on the road, and to reduce potential impacts on local access on R339 College Road and surrounding areas.</p>

**Table 4.23: Minor/Non-Signalised Junctions**

Name	Summary
R339 Forster Street / The Elms	<b>Overview</b> Existing T-junction is to remain, with proposed raised table across access
R339 College Road / GCC Access	<b>Overview</b> Existing T-junction is to remain with proposed raised table across access
R339 College Road / Glenmore	<b>Overview</b> Existing T-junction is to remain with proposed raised table across access
R339 College Road / The Green	<b>Overview</b> Existing T-junction is to remain with proposed raised table across access
R339 College Road / Greyhound Stadium Access	<b>Overview</b> Existing T-junction is to remain with proposed raised table across access

#### 4.6.5.7 Parking and Loading Bays

With the proposed scheme in place, there is an associated need to remove some parking space to provide improved facilities for pedestrians, cyclists, and buses – which inevitably requires some reallocation of parking road space. The proposed changes in parking and loading provision along the Cross-City Link are summarised in Table 4.24 and Table 4.25.

**Table 4.24: Summary of Parking Changes**

Location	Baseline		Proposed		Change
	Corridor	Adjacent	Corridor	Adjacent	
R339 College Road (R339 Forster Street to Lough Atalia Road)	64	90	46	90	-18

**Table 4.25: Summary of Loading Changes**

Location	Loading Bays		Change
	Baseline	Proposed	
R339 College Road (R339 Forster Street to Lough Atalia Road)	4	2	-2

#### 4.6.5.8 Landscape Design

Landscape designs along this section primarily comprise of footpath replacement and the provision of street trees. Footpaths will be replaced with higher quality materials, with concrete paving slabs proposed along R339 College Road.



Full details of the landscape proposals are set out in Drawings BCG-LA-00-07/08/09.

#### **4.6.5.9 Structures**

There are no structures proposed in this sub-section.

#### **4.6.5.10 Land Use and Accommodation**

This section includes R339 College Road, from R339 Forster Street to its junction with Lough Atalia Road. This section of the scheme includes residential lands along R339 College Road, recreational and amenity lands at the Sportsground and Community, Cultural and institutional lands at the Magdalen Convent.

Permanent and temporary land take is required through this section to facilitate the scheme, as not all lands are in the ownership or control of Galway City Council.

In order to construct the Proposed Scheme, permanent and temporary land take is required within this section at the following locations:

- Footpath reconfiguration at raised table entry treatment at Galway Coach Station;
- Raised table entry treatment at the entrance to Glenmore

In addition to this land acquisition the Proposed Scheme will require the acquisition or restriction or otherwise interference, either temporary or permanent to private rights associated with the land acquisition at the following locations:

- Entrance to Glenmore

### **4.6.6 Sub-Section 5 - R339 College Road (Lough Atalia Road to Moneenageisha Junction)**

#### **4.6.6.1 Overview**

The interventions proposed are summarised as follows:

- Realignment of the R339 College Road / Lough Atalia Road junction;
- R339 College Road, between Lough Atalia Road and Moneenageisha Road to be widened to provide an additional inbound segregated cycle track and an outbound bus lane;
- Major amendments to Moneenageisha and Lough Atalia junctions;
- Landscaping design at new green space at R339 College Road / Lough Atalia Road junction;
- Removal of underground fuel tanks;
- Construction of a retaining wall;
- Tree removal;
- New drainage network;



- Permanent and temporary land and acquisition necessary to construct the Proposed Scheme.

#### 4.6.6.2 Bus Lane Provision and General Vehicular Impacts

The scheme proposes the provision of an outbound bus lane on R339 College Road between Lough Atalia Road and Moneenageisha junction, and an inbound segregated cycle track between Moneenageisha junction and the Lough Atalia Road junction. This will be facilitated through road widening and land acquisition on the western side of the road.

Inbound, a single traffic lane is proposed which will then flare locally to provide right-turning facilities to Loyola Park and R339 College Road. The scheme also includes the provision of an inbound, raised adjacent cycle track from Moneenageisha junction to R339 College Road/Lough Atalia Road junction.

#### 4.6.6.3 Bus Stops

There are no existing or proposed bus stops in this sub-section.

#### 4.6.6.4 Cycling Provision

An inbound, raised adjacent cycle lane is proposed on the southern side of R339 College Road between the junction at Moneenageisha and the junction at Lough Atalia Road.

In the outbound direction, cyclist can use the proposed bus lane, which will enable safer and more efficient cycling in the inbound and outbound directions.

#### 4.6.6.5 Junction Information

##### **Modifications to R339 College Road/Lough Atalia Road Junction**

Due to the proposed restriction on R339 College Road to through-traffic, at the junction with Lough Atalia Road it is therefore necessary to permit a right-turn manoeuvre from R339 College Road to Lough Atalia to allow traffic exiting R339 College Road at the eastern end to subsequently route back towards the city centre via Lough Atalia Road. It is proposed to realign the junction of R339 College Road and Lough Atalia Road, to a formal T-junction (with R339 College Road forming the minor arm and Lough Atalia Road forming the major arm).

The junction will be signalised, with pedestrian crossings across the R339 College Road arm of the junction and a toucan crossing across Lough Atalia Road on the southern side of the junction. The currently signalised Loyola Park leg of the existing junction will be converted into a priority-controlled junction with a raised table, located apart from the signalised junction.

The realignment of the junction will primarily be through the existing green space located between Lough Atalia Road and R339 College Road, and two new replacement green spaces will be formed and landscaped.

## Modifications to Moneenageisha Junction

A new toucan crossing on the R339 College Road arm is proposed, which will complement the proposed cycle track along R338 Dublin Road. At the location of the proposed toucan crossing, a new bus priority signal is proposed, to allow outbound buses to turn right on to the R338 Dublin Road bus lane or to continue straight to Wellpark Road.

On the Wellpark Road approach to the junction, the left slip lane and island is also proposed to be removed, and the exit from the junction widened to facilitate the outbound bus lane on R338 Dublin Road.

On the Moneenageisha Road approach to the junction, the right turn movement from Moneenageisha Road to R339 College Road is proposed to be reinstated to facilitate movement on the City Centre Access Network.

The scheme will require the removal of existing mature trees within Moneenageisha Court, Gleann Noinin, and in the existing green area between R339 College Road and Lough Atalia Road.

### 4.6.6.6 Junctions

Table 4.26 (Signalised) and Table 4.27 (Non-Signalised) summarises the junction upgrade works to be provided along this section of the Proposed Scheme route.

**Table 4.26: Signalised Junctions**

Name	Summary
Lough Atalia Road / R339 College Road	<p><b>Overview</b></p> <p>Proposed Signal Controlled Cross Intersection Junction. The design rationale was to ensure buses will have more priority at the junction and to reduce potential impacts on local access to R339 College Road, Lough Atalia Road, and surrounding areas.</p> <p><b>Permitted Movements</b></p> <p>Exiting R339 College Road, general traffic can turn either left or right onto Lough Atalia Road. Buses have the option of turning left onto a bus lane on R339 College Road (outbound direction).</p> <p>Exiting Lough Atalia Road, cars can continue straight on to R339 College Road (towards Moneenageisha) or turn left onto R339 College Road towards the City Centre for local access.</p> <p>R339 College Road inbound, cars can continue straight on to Lough Atalia Road, or turn right onto R339 College Road for local access.</p>
Moneenageisha Road / R338 Dublin Road / Wellpark Road / Lough Atalia Road	<p><b>Overview</b></p> <p>Proposed Signal Controlled Crossroad Junction.</p> <p>The design rationale was to ensure buses will have more priority at the junction., cyclists and pedestrians will have safer facilities and reinstate movement along the City Centre Access Network.</p> <p><b>Permitted Movements</b></p> <p>Exiting Moneenageisha Road, general traffic can continue straight on to R338 Dublin Road, turn left onto Wellpark Road, or turn</p>

	<p>right onto R339 College Road. The right turn movement is a new addition to this junction.</p> <p>Exiting R338 Dublin Road, general traffic can continue straight onto Moneenageisha Road, or turn left on to Lough Atalia Road. This exit contains full bus priority with a bus priority signal.</p> <p>Exiting Wellpark Road, general traffic can turn left onto R338 Dublin Road, turn right onto Moneenageisha Road, or continue straight onto R339 College Road.</p> <p>Exiting R339 College Road, general traffic can turn left onto Moneenageisha Road, turn right onto R338 Dublin Road, or continues straight onto Wellpark Road. This exit contains full bus priority with a bus priority signal.</p>
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**Table 4.27: Minor/Non-Signalised Junctions**

Name	Summary
R339 College Road / Loyola Park	<p><b>Overview</b></p> <p>Existing T-junction is to become non-signalised, with proposed raised table across access</p>
R339 College Road / Gleann Noinín	<p><b>Overview</b></p> <p>Existing T-junction is to remain with proposed raised table across access</p>

#### 4.6.6.7 Parking and Loading Bays

No on-street parking or loading bays are present in this sub-section of the proposed scheme.

Works required within the Moneenageisha Court residential development, due to the widening of College Road, will result in the relocation of 7 no. existing parking spaces to an alternative location within the development, located in the north western corner. No nett change in the number of parking spaces is proposed in Moneenageisha Court. The proposed widening of College Road will result in the removal of 6 no. existing parking spaces within the Gleann Noinin residential development, the removal of 4 no. existing parking spaces within the Circle K petrol station and the removal of 5 no. existing parking spaces within the Bayview B&B along College Road.

#### 4.6.6.8 Landscape Design

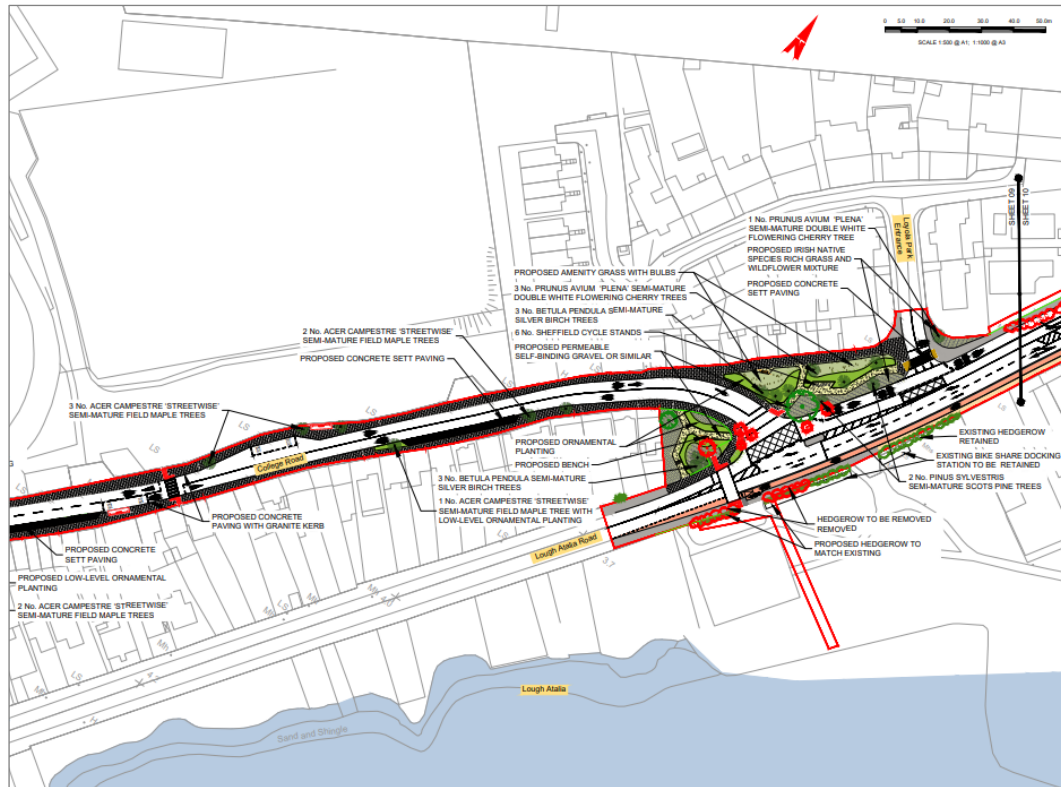
##### **R339 College Road and Lough Atalia Road Junction**

The R339 College Road and Lough Atalia Road junction rationalisation presents a public realm improvement opportunity that will enhance pedestrian amenity and public realm.

The redesigning of the junction will require localised boundary realignments including the removal of some boundaries and street trees however, the proposals include for provision of additional landscaping and tree planting.

New hard and soft landscaping with outdoor seating will be introduced to enhance the presentation, amenity and biodiversity value of the junction and to create a more pedestrian friendly and distinctive character.

Full details of the landscape proposals are set out in Drawings BCG-LA-00-09/10, with extracts for illustration provided in Diagram 4.20 and Diagram 4.23 and photomontage views in Diagram 4.21 and Diagram 4.22.



### Diagram 4.20: R339 College Road and Lough Atalia Road Junction



**Diagram 4.21: Proposed view from R339 College Road/Lough Atalia Road**

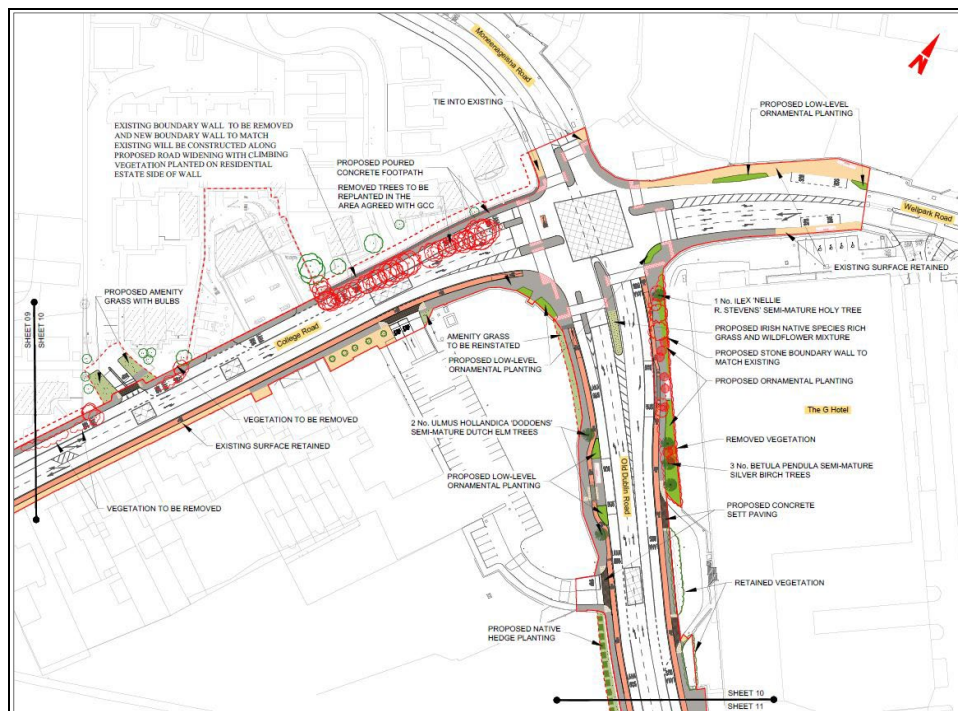
### **R339 College Road**

The proposal requires felling of the existing trees in front of Moneenageisha Court on R339 College Road. Existing boundary wall and trees will be removed in this location and new boundary wall to match existing will be constructed along proposed road widening with climbing vegetation planted on Moneenageisha Court side of wall.



**Diagram 4.22 : Proposed view from R339 College Road**





**Diagram 4.23 : R339 College Road and R338 Dublin Road Junction**

#### 4.6.6.9 Structures

One retaining wall (RW01) is proposed in this sub-section.

A cantilever, reinforced concrete wall of length 78.1m, and of approximate maximum height 2.3m, is proposed at the frontage of 21-25 Moneenageisha Court and the Bayview House B&B, up to the Moneenageisha Junction. The wall is required to overcome site grading challenges and minimize land acquisition needs.

#### 4.6.6.10 Land Use and Accommodation

This section of the proposed scheme includes R339 College Road, from its junction with Lough Atalia Road to its junction with R338 Dublin Road at Moneenageisha. This section of the scheme includes residential lands along R339 College Road, Enterprise, Light Industry and Commercial Lands at Circle K and the Huntsman Inn and recreational and amenity lands at the green area to the front of the Huntsman Inn.

In order to construct the Proposed Scheme, permanent and temporary land take is required within this section at the following locations:

- College Road/ Lough Atalia Road junction to facilitate realignment of junction;
- Green space at Lough Atalia Road to facilitate the installation of a replacement drainage pipe to Lough Atalia;
- 139 College Road to facilitate the widening of R339 College Road;
- Gleann Noinin to facilitate the widening of R339 College Road and raised entry treatment;



- Circle K to facilitate the widening of R339 College Road;
- Moneenageisha Court to facilitate the widening of R339 College Road;
- Bay View B&B to facilitate the widening of R339 College Road;
- The Huntsman Inn to facilitate the raised table entry treatment at the entrance.

In addition to this land acquisition the Proposed Scheme will require the acquisition or restriction or otherwise interference, either temporary or permanent to private rights associated with the land acquisition at the following location:

- Entrance to The Huntsman Inn.

## 4.6.7 Sub-Section 6 - R338 Dublin Road

### 4.6.7.1 Overview

The interventions proposed are summarised as follows:

- R338 Dublin Road, to be widened between Brothers of Charity and The Huntsman Inn entrance;
- A bus lane to be provided in both directions;
- A segregated cycle track to be provided in both directions;
- New footpaths to be provided on both sides of the road;
- 1 no. outbound general traffic lane to be provided. 1 no. inbound traffic lane, widening to two lanes on approach to the Moneenageisha Junction to be provided;
- New pedestrian crossing at Wellpark Retail Park;
- Widening of existing pedestrian and cycle track adjacent to Lough Atalia;
- Removal of half of an existing advertising billboard.

### 4.6.7.2 Bus Lane Provision and General Vehicular Impacts

R338 Dublin Road, between the Moneenageisha junction and the end of the proposed scheme at the entrance to the Brothers of Charity, is to be realigned and widened in order to provide a continuous bus lane in both directions, a segregated cycle track in both directions, a reconstructed footway in both directions and a general traffic lane in both directions.

The inbound general traffic lane flares to two lanes to the immediate west of the Wellpark Retail Park entrance. One of these lanes is proposed as a straight-ahead lane to Moneenageisha Road while the other is proposed as a left turn lane to R339 College Road. The existing right turn lanes on the R338 Dublin Road into the Wellpark Retail Park and to Wellpark Road at the Moneenageisha junction are to be removed. At the Moneenageisha Junction a bus priority signal is proposed on the inbound bus lane to provide priority for buses entering the junction.

The outbound bus lane will begin at the Moneenageisha junction, fully separate from the general traffic lanes. To provide adequate access and interchange opportunity, 3 no. new bus stops, 2 outbound and 1 inbound are proposed, with associated bus shelters.

#### 4.6.7.3 Bus Stops

The principles of bus route rationalisation, as stated in Section 4.5.4.4 were employed on this sub-section. Table 4.28 below states how existing bus stops shall be affected by the Proposed Scheme.

**Table 4.28: Proposed changes to Bus Stops**

Inbound/ Outbound	Bus Stop Name/No.	Bus Stop Type	Location	Retained/ Relocated / Removed/ New	Existing Facilities	Proposed Facilities	Reason for moving / locating stop
Westbound	Dublin Road (Opp G Hotel) No. 522971	Island	30m North West of Huntsman Inn Entrance	Retained	Bus Shelter Paper Timetable	Bus Shelter with Seating	N/A
Eastbound	Dublin Road (G Hotel) No. 522691	Shared Landing	60m North West of G Hotel Entrance	Relocated	Bus Shelter Paper Timetable	Bus Shelter with Seating	Relocated to improve interchang e opportunit y
Eastbound	Dublin Road (Eye Cinema)	Island	80m West of Wellpark Shopping Centre Entrance on Dublin Road	New	N/A	Bus Shelter with Seating	Access to Wellpark Grove and Brothers of Charity
Westbound	Wellpark Retail No. 523661	Inline	Opposite Galway Communit y College Main Gate	Relocated	Bus Shelter with Seating Paper Timetable	Bus Shelter with Seating	Relocated to improve interchang e opportunit y
Eastbound	Galway Communit y College No. 533261	Lay-by	Outside Galway Communit y College Main Gate	Retained	Bus Shelter with Seating Paper Timetable	Bus Shelter with Seating	N/A

#### 4.6.7.4 Cycling Provision

Inbound and outbound raised adjacent segregated cycle tracks are proposed alongside the proposed bus lanes. Cycle facilities will require localised treatments at accesses to the Huntsman and to the G Hotel. The proposed bus lanes and cycle lanes will tie back into the existing R338 Dublin Road alignment approximately 320m east of the junction at Moneenageisha.

#### 4.6.7.5 Pedestrian Provision

A new toucan crossing, to the west of the entrance to the Wellpark Retail Park is proposed, connecting the Lough Atalia Pathway and the Retail Centre.

#### 4.6.7.6 Junctions

No signalised junctions are proposed or modified as part of the Proposed Scheme in this sub-section with the exception of the Moneenageisha Junction described in Section 4.6.6.6.

Table 4.29 summarises the non-signalised junction upgrade works to be provided along this section of the Proposed Scheme route.

**Table 4.29: Minor/Non-Signalised Junctions**

Name	Summary
R338 Dublin Road / Sáilín (Wellpark Retail)	<b>Overview</b>  Existing T-junction is to remain with proposed raised table across access

#### 4.6.7.7 Parking and Loading Bays

No parking or loading bays are present or proposed in this scheme sub-section.

#### 4.6.7.8 Landscape Design

The proposed road widening shall also impact on existing landscaping and stone boundary wall to front of the G Hotel on R338 Dublin Road. The existing stone boundary wall to be reinstated on the new setback boundary wall and landscaping reinstated wherever possible.

Full details of the landscape proposals are set out in Drawings BCG-LA-00-10/11, with photomontage illustration provided in Diagram 4.24.



**Diagram 4.24: Proposed view from R338 Dublin Road**

#### 4.6.7.9 Structures

One minor retaining wall (RW02) is proposed in this sub-section.

A cantilever, reinforced concrete wall of length 38.6m, and of approximate maximum height 2.1m, is proposed on the south side of R338 Dublin Road, where the proposed toucan crossing to Wellpark Retail Park is situated. The wall is required to overcome site grading challenges and minimize land acquisition needs.

Along the Lough Atalia pathway widening, to avoid encroachment into the SPA boundary, it is proposed to retain the existing stone wall/embankment by constructing a mass concrete gravity wall in behind it.

#### 4.6.7.10 Land Use and Accommodation

The Proposed Scheme in this section includes the R338 Dublin Road from Moneenaisha junction to the end of the proposed corridor at the entrance to the Brothers of Charity. This section of the scheme includes Enterprise, Light Industry and Commercial Lands at the Huntsman Inn the G Hotel / Wellpark Retail Park, residential zoned lands at Sáilín, Community, Cultural and institutional lands at the Brothers of Charity and recreational and amenity lands at the green areas along the remainder of the R338 Dublin Road.

In order to construct the Proposed Scheme, permanent and temporary land take is required within this section at the following locations:

- Huntsman Inn to facilitate the widening of R338 Dublin Road and raised table entry treatment at entrance;

- Green area along R338 Dublin Road to facilitate the widening of R338 Dublin Road including the area containing an existing billboard, including removal of 6m of existing billboard;
- Brothers of Charity to facilitate the widening of R338 Dublin Road;
- Wellpark Retail Park to facilitate the raised table entry treatment at the entrance.

In addition to this land acquisition the Proposed Scheme will require the acquisition or restriction or otherwise interference, either temporary or permanent to private rights associated with the land acquisition at the following location:

- Entrance to The Huntsman Inn

## **4.6.8 Sub-Section 7 - Fairgreen Road**

### **4.6.8.1 Overview**

The interventions proposed are summarised as follows:

- Footpath replacement;
- New controlled pedestrian crossing;
- Entry Treatments at entrances.

### **4.6.8.2 Bus Lane Provision and General Vehicular Impacts**

The exiting two-way vehicle operation of Fairgreen Road is proposed to be retained. As Fairgreen Road intersects with the Cross-City Link at R339 Forster Street and R339 College Road, access onto the Cross-City Link will not be required for most traffic. The length of the right turn lane from Fairgreen Road to R339 College Road is proposed to be reduced and the left slip lane from Fairgreen Road onto R339 Forster Street will be removed.

Existing set-down areas in front of Galway Coach Station are proposed to be realigned and retained. The existing taxi rank is also proposed to be retained together with the loading bay on Fairgreen Road.

### **4.6.8.3 Bus Stops**

There are no existing or proposed bus stops in this sub-section.

### **4.6.8.4 Cycling Provision**

Amendments to cycle infrastructure are not proposed along this sub-section.

### **4.6.8.5 Pedestrian Provision**

Entrances to the Galmont Hotel, Ceannt Station and Fairgreen House car park are proposed to be realigned with tighter radii and raised entry treatment provided. Concrete sett paving is proposed across the exit from Galway Coach Station.

All footpaths on Fairgreen Road will be replaced with a concrete paving surface and granite kerbs. A new controlled pedestrian crossing is proposed in front of Fairgreen House, connecting Ceannt Station and Galway Coach Station.

#### 4.6.8.6 Junctions

No signalised junctions are proposed or modified as part of the Proposed Scheme in this sub-section.

Table 4.30 summarises the non-signalised junction upgrade works to be provided along this section of the Proposed Scheme route.

**Table 4.30: Minor/Non-Signalised Junctions**

Name	Summary
Fairgreen Road / Station Road	<p><b>Overview</b></p> <p>Existing T-junction is to remain with a proposed raised table across the access.</p>

#### 4.6.8.7 Parking and Loading Bays

The proposed changes in parking and loading provision along the Inner-City Access Network on Fairgreen Road are summarised in Table 4.31 and Table 4.32.

**Table 4.31: Summary of Parking Changes**

Location	Baseline		Proposed		Change
	Corridor	Adjacent	Corridor	Adjacent	
Fairgreen Road	7	858	0	858	-7

**Table 4.32: Summary of Loading Changes**

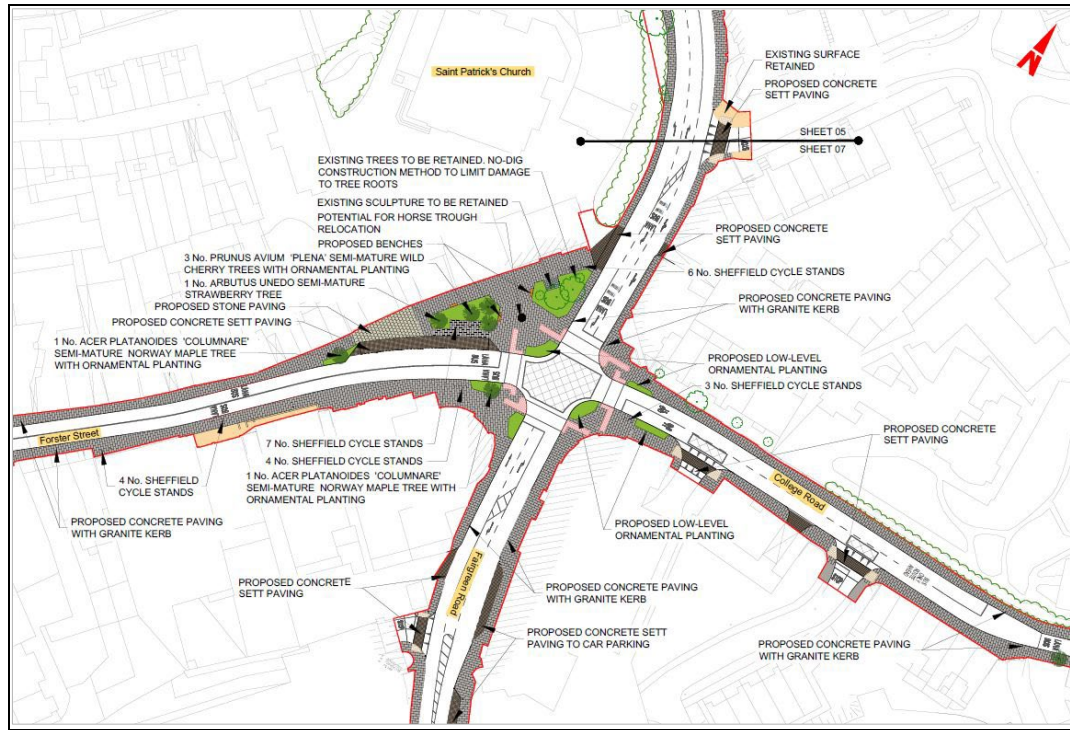
Location	Loading Bays		Change
	Baseline	Proposed	
Fairgreen Road	5	5	0

#### 4.6.8.8 Landscape Design

The Fairgreen Road and R339 Forster Street junction will be rationalised, and this provides an opportunity to improve the public realm and urban space for pedestrians. Some of the existing slip lanes will be removed and the existing car parking layout reorganized to provide opportunities to further develop the public realm and to substantially improve pedestrian and cycle facility throughout the junction. The enlarged civic plaza to the north of the junction will incorporate high quality hard and soft landscaping which will establish a distinctive landscape character at the junction that will become a new gateway landmark.



Low level shrub planting will provide a buffer between pedestrians and the junction and new trees, ornamental planting and high-quality paving will provide an attractive public space. Refer to Diagram 4.25 and photomontage view Diagram 4.26.



**Diagram 4.25 : Fairgreen Road and R339 Forster Street Junction**



**Diagram 4.26: Proposed view from Foster Street**

#### 4.6.8.9 Structures

There are no structures proposed in this sub-section.

#### 4.6.8.10 Land Use and Accommodation

The Inner-City Access Route section of the Proposed Scheme includes this section of Fairgreen Road between its junction with Lough Atalia Road and its junction with R339 Forster Street. This street is entirely zoned for City Centre uses and currently has development including a coach station, car-parks, hotel and office development.

Permanent and temporary take is required through this section to facilitate the scheme, as not all lands are in the ownership or control of Galway City Council.

In order to construct the Proposed Scheme, permanent and temporary land take is required within this section at the following locations:

- The entrance to the Galmont Hotel to facilitate the construction of a raised table entry treatment;
- The front of the Galmont Hotel to facilitate the reconstruction of the public road and footpaths;
- The entrance to Fairgreen House to facilitate a raised table entry treatment
- Galway Coach Station to facilitate alterations and reconstruction of footpaths;
- Along Fairgreen Road to facilitate the alterations and reconstruction of road, footpaths, raised table entry treatment and pedestrian crossings;
- At the entrance to the Galmont Hotel, adjacent to Geata Na Cathrach to facilitate the footpath works to tie in with raised table entry treatment.

In addition to this land acquisition the Proposed Scheme will require the acquisition or restriction or otherwise interference, either temporary or permanent to private rights associated with the land acquisition at the following:

- Fairgreen Road at entrance to Galmont Hotel;
- At the entrance to Fairgreen House;
- Fairgreen Road, between Lough Atalia Road and entrance to Galmont Hotel.

### 4.6.9 Sub-Section 8 - Bóthar Uí hEithir and R336 Prospect Hill

#### 4.6.9.1 Overview

The interventions proposed are summarised as follows:

- Bóthar Uí Eithir and R336 Prospect Hill to be converted to two-way streets;
- Junction of Bóthar Uí Eithir and R336 Prospect Hill to be signalised;
- Footpath to be widened.

#### 4.6.9.2 Bus Lane Provision and General Vehicular Impacts

Due to the creating of a two-way route along the Cross-City Link on R336 Eyre Square East and R339 Forster Street, the current one-way circulatory system around Bóthar Uí Eithir, R339 Forster Street, R336 Eyre Square East and R336 Prospect Hill will no longer be operational. In order to main access along the Inner-City Access Route, Bóthar Uí Eithir and R336 Prospect Hill (between Bothar na mBan and Bohermore) will both become two-way streets for all traffic. On Bóthar Uí Eithir, the existing 3 lanes width will be maintained. From the entrance to the Forster Court residential development to the junction with R336 Prospect Hill, there will be two traffic lanes travelling towards R336 Prospect Hill and one traffic lane travelling towards Fairgreen Road. From the entrance to Forster Court residential development to the junction with Fairgreen Road, there will be one traffic lane travelling towards R336 Prospect Hill, one traffic lane travelling towards Fairgreen Road and one bus lane travelling towards Fairgreen Road. This bus lane will be a right turn lane towards R339 Forster Street, as this facilitates permitted vehicles to enter onto the Cross-City Link.

The junction of Bóthar Uí Eithir, R336 Prospect Hill and Bohermore will be signalised with controlled pedestrian crossings on all arms of the junction. A left turn and right turn lane are proposed on the Bóthar Uí Eithir approach to the junction while a single lane approach is proposed from both Bohermore and R336 Prospect Hill.

#### 4.6.9.3 Bus Stops

The principles of bus route rationalisation, as stated in Section 4.5.4.4 were employed on this sub-section. Table 4.33 below states the how existing bus stops shall be affected by the Proposed Scheme.

**Table 4.33: Proposed changes to Bus Stops**

Inbound/ Outbound	Bus Stop Name/No.	Bus Stop Type	Location	Retained/ Relocated / Removed/ New	Existing Facilities	Proposed Facilities	Reason for moving / locating stop
Westbound	Bóthar Uí Eithir	Inline	Outside Salon de Beauté	Removed	Bus stop pole paper timetable	Bus shelter with seating	Removed as bus stop is now obsolete

#### 4.6.9.4 Cycling Provision

It is proposed to relocate the existing Bike Share station from its current location on R336 Prospect Hill to a location within the central island of this area. No segregated cycle lanes are to be provided.

Cyclists turning right onto R339 Forster Street from Bóthar Uí Eithir can use the bus lane, to access R339 Forster Street. No segregated cycle lanes are to be proposed along this section of the scheme.

#### 4.6.9.5 Pedestrian Provision

The existing footpath on the western side of Bóthar Uí Eithir will be widened between the Forster Court entrance and R336 Prospect Hill. An entry treatment is proposed across the entrance to the Forster Court residential development and new concrete sett paving proposed across the existing entrance to St. Patrick's Church.

A proposed controlled pedestrian crossing is situated at the R336 Prospect Hill end of Bóthar Uí Eithir, in front of County Hall.

#### 4.6.9.6 Junctions

Table 4.34 (Signalised) and Table 4.35 (Non-Signalised) summarises the junction upgrade works to be provided along this section of the Proposed Scheme route.

**Table 4.34: Signalised Junctions**

Name	Summary
Bohermore Road, Bóthar Uí Eithir	<p><b>Overview</b> Proposed Signal Controlled 3-arm Junction.</p> <p><b>Permitted Movements</b> Exiting R336 Prospect Hill, general traffic can continue straight on to Bohermore Road or turn right onto Bóthar Uí Eithir. Exiting Bohermore Road, general traffic can continue straight on to R336 Prospect Hill or turn left onto Bóthar Uí Eithir. Exiting Bóthar Uí Eithir, general traffic can turn either left or right onto R336 Prospect Hill or Bohermore Road.</p>

**Table 4.35: Minor/Non-Signalised Junctions**

Name	Summary
Bóthar Uí Eithir / Forster Court	<p><b>Overview</b> Existing T-junction is to remain with proposed raised table across access.</p>

#### 4.6.9.7 Parking and Loading Bays

There are no existing or proposed parking and loading bays along this sub-section of the proposed scheme.

#### 4.6.9.8 Landscape Design

Landscape designs along this section primarily comprise of footpath replacement and the provision of street trees. Footpaths will be replaced with higher quality materials, with concrete paving slabs and granite kerbs proposed along Bóthar Uí hEithir and R336 Prospect Hill.

Full details of the landscape proposals are set out in Drawings BCG-LA-00-04/05/07.

#### 4.6.9.9 Structures

There are no structures proposed in this sub-section.

#### 4.6.9.10 Land Use and Accommodation

This section of the Inner-City Access Route includes R336 Prospect Hill and Bóthar Uí hEithir. The R336 Prospect Hill section and a partial section of Bóthar Uí hEithir are zoned for City Centre uses. St. Patrick's Church, which fronts onto Bóthar Uí hEithir is zoned for Community, Cultural and institutional lands. The corner of Bóthar Uí hEithir with Bohermore is zoned for Enterprise, Light Industry and Commercial use while the corner of Bóthar Uí hEithir and R339 College Road has a residential use designation.

No land take is required through this section to facilitate the scheme, as all lands are in the ownership or control of Galway City Council.

### 4.6.10 Sub-Section 9 - Bóthar na mBan / St. Brendan's Avenue / R866 Headford Road / Dyke Road

#### 4.6.10.1 Overview

The interventions proposed are summarised as follows:

- Installation of a new footpath;
- Widening of an existing footpath;
- Acquisition and demolition of 2 no. residential properties and the adjoining laneway;
- New controlled pedestrian crossing;
- Entry treatments;
- Creation of a one-way circulatory around Dyke Road and Headford Road;
- Installation of a new two-way cycle track along Dyke Road.

#### 4.6.10.2 Bus Lane Provision and General Vehicular Impacts

Bóthar na mBan, which forms part of the Inner-City Access Route, is proposed to be retained as a two-way street for all vehicles. At its junction with R336 Prospect Hill, the road will be realigned in order to make the Inner-City Access Route as the priority route.



As Bóthar na mBan approaches the Headford Road, the street becomes St. Brendan's Avenue. At its junction with Headford Road, all traffic will be required to continue straight ahead onto Dyke Road or turn left towards Woodquay.

The existing alignment of Bóthar na mBan / St. Brendan's Avenue as it approaches Headford Road, has a 'swan-neck' arrangement as it travels past St. Brendan's Avenue junction, with a sharp right turn followed by a sharp left turn alignment. Between St. Brendan's Avenue and Headford there is a narrow footpath on the eastern side of 1.2m width, which is further restricted due to the presence of utility poles, leaving a passable width of 600mm along the footpath. On the western side of the road, there is also an existing 1.2m wide footpath, however, this path is discontinuous, whereby over a distance of approximately 23m, there is no footpath present.

This section of Bóthar na mBan / St. Brendan's Avenue has residential properties directly fronting both sides of the road, with 2 no. residential properties on the western side and 5 no. residential properties on the eastern side. The overall cross-section of this portion of Bóthar na mBan / St. Brendan's Avenue is approximately 8.1m.

#### **4.6.10.3 Bus Stops**

There are no existing or proposed bus stops in this sub-section.

#### **4.6.10.4 Cycling Provision**

Full bus priority on the section of Headford Road will enable safer and more efficient cycling in the inbound and outbound, due to traffic calming effects.

Dyke Road (northbound section) contains a segregated two-way cycle track, catering for both inbound and outbound routes.

#### **4.6.10.5 Pedestrian Provision**

The scheme proposes to provide a continuous footpath of minimum 2.0m width on both sides of the road.

Raised entry treatments are proposed across the junctions with Bothar Irwin and St. Brendan's Avenue and stone sett paving is proposed across the entrance to the Corrib Shopping Centre car park.



#### 4.6.10.6 Junctions

Table 4.36 (Signalised) and Table 4.37 (Non-Signalised) summarises the junction upgrade works to be provided along this section of the Proposed Scheme route.

**Table 4.36: Signalised Junctions**

Name	Summary
St. Brendans Avenue / Headford Road / Dyke Road	<p><b>Overview</b></p> <p>Existing Signal Controlled Crossroad Junction.</p> <p>The design rationale was to ensure buses on the Headford Road will have more priority at the junction while improving pedestrian safety and vehicle movement along the ICAN.</p> <p><b>Permitted Movements</b></p> <p>Exiting St. Brendan's Avenue traffic must continue straight on to Dyke Road or turn left towards Woodquay.</p> <p>Existing Woodquay, traffic must turn left onto Dyke Road, except buses which can continue straight onto Headford Road.</p> <p>Exiting Headford Road, traffic can turn left onto St. Brendan's Avenue, continue straight towards Woodquay or turn right onto Dyke Road.</p>
Dyke Road / Dyke Road	<p><b>Overview</b></p> <p>Proposed Signal Controlled T Intersection Junction.</p> <p><b>Permitted Movements</b></p> <p>Exiting Dyke Road (northbound), cyclists have priority as their lane allows them pass traffic and have priority when the lights change. General traffic has the option to continue straight on or turn right onto Dyke Road (Eastbound).</p> <p>Exiting Dyke Road (southbound), cyclists have the option to turn left onto Dyke Road (Eastbound) or continue straight onto a contraflow cycle lane on Dyke Road (southbound). General traffic must turn left onto Dyke Road (Eastbound).</p>
Dyke Road / Headford Road / St. Bridget's Place	<p><b>Overview</b></p> <p>Proposed Signal Controlled Crossroad Junction.</p> <p>The design rationale was to ensure buses will have more priority at the junction and to reduce potential impacts on local access to Dyke Road and St. Bridgets Place and surrounding areas.</p> <p><b>Permitted Movements</b></p> <p>Exiting Dyke Road general traffic and turn either left or right onto Headford Road.</p> <p>Exiting Headford Road general traffic can continue straight on, or turn left onto St. Bridgets Place. Buses can avail of bus lane on Headford Road.</p> <p>Exiting St. Bridget's Place, general traffic must turn left only.</p>

**Table 4.37: Minor/Non-Signalised Junctions**

Name	Summary
Bóthar na mBan / Bóthar Irwin	<b>Overview</b> Existing T-junction is to remain with proposed road table across the minor arm
Bóthar na mBan / St. Brendans Avenue	<b>Overview</b> Existing T-junction is to remain with proposed road table across the minor arm
Dyke Road / The Plots	<b>Overview</b> Existing T-junction is to remain proposed road table across the access

#### 4.6.10.7 Parking and Loading Bays

The proposed changes in parking and loading provision along this section of the Inner-City Access Route are summarised in Table 4.38 and Table 4.39 below:

**Table 4.38: Summary of Parking Changes**

Location	Baseline		Proposed		Change
	Corridor	Adjacent	Corridor	Adjacent	
Headford Road (St. Bridget's Place to St. Brendan's Avenue)	2	106	0	106	-2
Dyke Road Car-Park	510	0	500	0	-10
St. Brendan's Avenue	48	106	46	106	-2

**Table 4.39: Summary of Loading Changes**

Location	Loading Bays		Change
	Baseline	Proposed	
Bothar na mBan	3	3	0

#### 4.6.10.8 Landscape Design

Landscape designs along this section primarily comprise of footpath replacement and the provision of street trees. Footpaths will be replaced with higher quality materials, with concrete paving slabs and granite kerbs proposed along Bothar na mBan, St. Brendan's Avenue and Headford Road. At the junction of St. Brendan's Avenue and Headford Road a planted area with trees, ornamental planting and a bench is proposed utilising residual land from property demolition.

Full details of the landscape proposals are set out in Drawings BCG-LA-00-03/05.

#### 4.6.10.9 Structures

There are no structures proposed in this sub-section. Two residential properties are proposed to be acquired and demolished to facilitate improvements to the Inner-City Access Route.

#### 4.6.10.10 Land Use and Accommodation

The Inner-City Access Route section of the Proposed Scheme proposes alterations to the existing street network on Bothar na mBan and St. Brendan's Avenue. St. Brendan's Avenue and a small section of Bothar na mBan are residential development. The remainder of Bothar na mBan is zoned for city centre uses and is currently developed with County Hall and the Corrib Shopping Centre and car-park and a retail development.

In order to construct the Proposed Scheme, permanent and temporary land take is required within this section at the following locations:

- Acquisition of 20 St. Brendan's Avenue to facilitate the widening of St. Brendan's Avenue;
- Acquisition of 5/6 Headford Road to facilitate the widening of St. Brendan's Avenue;
- Partial acquisition of the existing laneway between 5/6 Headford Road and 20 St. Brendan's Avenue to facilitate the widening of St. Brendan's Avenue;
- County Hall to facilitate the realignment of Bothar na mBan onto R336 Prospect Hill;
- At County Hall, to facilitate amendments to the car-park access junction.
- Dyke Road car park to facilitate the widening of Dyke Road;
- Dyke Road adjacent to The Plots to facilitate a two-way cycle track and access junction realignment.

In addition to this land acquisition the Proposed Scheme will require the acquisition or restriction or otherwise interference, either temporary or permanent to private rights associated with the land acquisition at the following locations:

Laneway to the rear of 5/6 Headford Road.

### 4.6.11 Sub-Section 10 - Woodquay / Walsh's Terrace / Daly's Place / Mary Street

#### 4.6.11.1 Overview

The interventions proposed are summarised as follows:

- Woodquay to become one-way only southbound;
- Daly's Place to become one-way only westbound;
- St. Anthony's Place to become one-way only westbound;
- No entry from St. Anthony's Place to Court Lane;

- Removal of on-street parking and creation of public space;
- Relocated bus stops and shelters;
- Raised tables and entry treatment;
- Contra-flow cycle track along Woodquay northbound;
- Toucan crossing on R866;
- New drainage network.

#### 4.6.11.2 Bus Lane Provision and General Vehicle Provision

Due to the Cross-City Link on R866 St. Francis Street, St. Vincent's Avenue and over the Salmon Weir bridge, amendments to the adjoining streets are necessary to maintain access and remove through routes. Two-way traffic will be permitted along the R866 (Headford Road / Walsh's Terrace) between the St. Brendan's Avenue / Dyke Road junction and the Corrib Terrace junction. At this location a bus lane will be installed on St. Vincent's Avenue from Corrib Terrace to the R866 St. Francis Street junction to join the Cross-City Link. Inbound traffic on the R866 Headford Road can access Corrib Terrace, Waterside and Woodquay. Woodquay will be altered to a one-way traffic route southbound, with an adjoining northbound contra-flow cycle track. At the Daly's Place junction, vehicles can turn left onto Eyre Street and onto Bóthar Irwin or turn right onto Daly's Place and onto R863 St. Francis Street, maintaining access but removing through routes.

44 no. existing parking spaces at Woodquay are proposed to be removed and replaced with a public plaza incorporating urban landscaping. 22 no. on street parking spaces are proposed to be retained to facilitate local requirements.

#### 4.6.11.3 Bus Stops

The principles of bus route rationalisation, as stated in Section 4.5.4.4 were employed on this sub-section. Table 4.40 below states how existing bus stops shall be affected by the Proposed Scheme.

**Table 4.40: Proposed changes to Bus Stops**

Inbound/ Outbound	Bus Stop Name/No.	Bus Stop Type	Location	Retained/ Relocated / Removed/ New	Existing Facilities	Proposed Facilities	Reason for moving / locating stop
Westbound	Woodquay Court No. 525411	Inline	Opposite AXA Insurance parallel to Walsh's Terrace	Relocated	Bus Shelter Paper timetable	Bus Shelter with Seating	Relocated due to road realignme nt
Eastbound	Headford Road No. 523711	Inline	Fronting Walsh's Terrace	Retained	Bus Shelter Paper timetable	Bus Shelter with Seating	N/A

#### 4.6.11.4 Cycling Provision

A segregated cycle lane is proposed to be provided in the northbound direction along Woodquay adjacent to the one-way traffic route. The removal of through traffic in this area will also provide a safer and more efficient cycling environment.

#### 4.6.11.5 Pedestrian Provision

A raised table is proposed on the R866, extending onto Woodquay, incorporating the junctions with Walsh's Terrace, Corrib Terrace and St. Brendan's Avenue. A raised entry treatment is also proposed at Woodquay junction with Eyre Street.

A new toucan crossing is proposed on the R866, connecting Woodquay with Corrib Terrace.

The footpaths and paved areas along the Headford Road, St. Vincent's Terrace, Woodquay, Daly's Place and Mary Street will be replaced with a concrete paving surface and granite kerbs.

#### 4.6.11.6 Junctions

No signalised junctions are proposed or modified as part of the Proposed Scheme in this sub-section.

Table 4.41 summarises the non-signalised junction upgrade works to be provided along this section of the Proposed Scheme route.

**Table 4.41: Minor/Non-Signalised Junctions**

Name	Summary
Woodquay / St. Brendan's Avenue	<b>Overview</b> Existing T-junction is to remain with proposed raised table across the junction.
Woodquay / Walsh's Terrace / Riverside / St. Vincent's Avenue	<b>Overview</b> New 4-way junction is proposed with the elimination of car park island and one-way modification to Woodquay with proposed raised table across the junction.
Corrib Terrace / St. Vincent's Avenue	<b>Overview</b> Revise existing 4-way junction, with removal of Woodquay leg due to one-way modification to Woodquay with proposed raised table across the junction.
Woodquay / Daly's Place / Eyre Street	<b>Overview</b> Revise existing junction to eliminate northbound entry to Woodquay due to one-way modification

#### 4.6.11.7 Parking and Loading Bays

With the proposed scheme in place, there is an associated need to remove some parking space to provide improved facilities for pedestrians, cyclists, and buses – which inevitably requires some reallocation of parking road space. The proposed changes in parking and loading provision along the Cross-City Link are summarised in Table 4.42 and Table 4.43.

**Table 4.42: Summary of Parking Changes**

Location	Baseline		Proposed		Change
	Corridor	Adjacent	Corridor	Adjacent	
Woodquay and Newtownsmith	83	120	38	120	-43

**Table 4.43: Summary of Loading Changes**

Location	Loading Bays		Change
	Baseline	Proposed	
Woodquay and Newtownsmith	5	8	+3

#### 4.6.11.8 Landscape Design

The Proposed Scheme will introduce traffic management measures that will substantially reduce through traffic at Woodquay and provide opportunities to develop the public realm to create a stronger pedestrian priority and urban neighbourhood character. It is planned to create new pedestrian and cyclist friendly public space at this location by aligning the carriageway to one side of Woodquay, providing pedestrian priority raised crossings, removing the majority of car parking spaces and freeing up space for new public realm for markets or events and allowing opportunities for local businesses to create outdoor seating.

The proposed high-quality public square will incorporate high quality hard and soft landscaping, street furniture, bicycle parking and tree planting and will promote a positive image of the city centre and contribute to safety, quality of life and wellbeing.

Full details of the landscape proposals are set out in Drawings BCG-LA-00-03, with extracts for illustration provided in Diagram 4.27 and Diagram 4.28 (photomontage) respectively.





**Diagram 4.27: Woodquay Square**



**Diagram 4.28: Proposed view from Woodquay**

#### 4.6.11.9 Structures

There are no structures proposed in this sub-section.

#### 4.6.11.10 Land Use and Accommodation

The Proposed Scheme proposes alterations to the existing street network from the Dyke Road to Mary Street via Woodquay. This section of the scheme includes residential development along Walsh's Terrace and parts of Woodquay. The remainder of Woodquay, Daly's Place and Mary Street are zoned for city centre uses. There is one section of the scheme zoned for Enterprise, Light Industry and Commercial Lands at the corner of Woodquay and the Headford Road.

No permanent or temporary land take is required through this section to facilitate the scheme, as all lands are in the ownership or control of Galway City Council.

### 4.6.12 Sub-Section 11 - Forthill Street / R336 Merchants Road / Queen Street

#### 4.6.12.1 Overview

The interventions proposed are summarised as follows:

- Realignment of road priority from R336 Merchants Road onto Forthill Street;
- Realignment of road priority from Forthill Street onto Dock Road;
- Footpath widening;
- Controlled pedestrian crossings;
- Entry Treatment;
- Car parking amendments.

#### 4.6.12.2 Bus Lane Provision and General Vehicular Impacts

R336 Merchants Road, Forthill Street and Dock Road form part of the City Centre Access Network. With the creation of the Cross-City Link, through traffic will no longer be permitted via Eyre Square from R336 Merchants Road. Local access will remain for vehicles to access St. Patrick's Avenue, Frenchville Lane, Ceannt Station, Queen Street etc. All non-local access traffic will be required to utilise the City Centre access Network. There are currently two-lanes on R336 Merchants Road. It is proposed that both of these lanes continue onto Forthill Street and onto Dock Road as part of the CCAN. At the junction of R336 Merchants Road with Forthill Street, the primary route for vehicles will be amended so that both lanes continue onto Forthill Street, with R336 Merchants Road towards Eyre Square becoming the minor arm of the junction. Similarly, at the Junction of Forthill Street with Dock Road, both vehicle lanes from Forthill Street will continue onto Dock Road, with Queen Street being the minor arm of this junction. These will tie-into the recently constructed footpaths and road fronting the Bonham Quay development.

Existing on-street parking along Forthill Street is proposed to be converted from perpendicular parking to parallel parking. A retained bus stop and associated shelter is proposed on R336 Merchants Road, between Forthill Street and Victoria Place, with loading and taxi ranks retained.

### 4.6.12.3 Bus Stops

The principles of bus route rationalisation, as stated in Section 4.5.4.4 were employed on this sub-section. Table 4.44 below states how existing bus stops shall be affected by the Proposed Scheme.

**Table 4.44: Proposed changes to Bus Stops**

Inbound/ Outbound	Bus Stop Name/No.	Bus Stop Type	Location	Retained/ Relocated/ Removed/ New	Existing Facilities	Proposed Facilities	Reason for moving / locating stop
Eastbound	Merchants Road No. 524501	Inline	Opposite Ross House	Retained	Bus Stop Pole Paper Timetable	Bus Shelter with Seating	N/A

### 4.6.12.4 Cycling Provision

No segregated cycle lanes or cycle priority are proposed on this section of the scheme.

### 4.6.12.5 Pedestrian Provision

Raised entry treatments are proposed at the junctions of R336 Merchants Road and Forthill Street, R336 Merchants Road and Victoria Place and Queen Street and Forthill Street. Controlled signalised crossings are proposed on Forthill Street at both the R336 Merchants Road end and at the Dock Road end. Footpath widening is proposed on Forthill Street and on R336 Merchants Road between Forthill Street and Victoria Place.

All footpaths on R336 Merchants Road (between Forthill Street and Victoria Place), on Forthill Street and on Victoria Place (between R336 Merchants Road and Queen Street) will be replaced with a stone paving surface.

### 4.6.12.6 Junctions

No signalised junctions are proposed or modified as part of the Proposed Scheme in this sub-section.

Table 4.45 summarises the non-signalised junction upgrade works to be provided along this section of the Proposed Scheme route.

**Table 4.45: Minor/Non-signalised**

Name	Summary
Victoria Place / R336 Merchants Road	<b>Overview</b> Existing T-junction is to remain with proposed raised table across the minor arm.
Forthill Street / R336 Merchants Road	<b>Overview</b> Existing T-junction is to remain with proposed raised table across the minor arm.
Forthill Street / Queen Street	<b>Overview</b> Existing T-junction is to remain with proposed raised table across the minor arm.

#### 4.6.12.7 Parking and Loading Bays

With the proposed scheme in place, there is an associated need to remove some parking space to provide improved facilities for pedestrians, cyclists, and buses – which inevitably requires some reallocation of parking road space. The proposed changes in parking and loading provision along the Cross-City Link are summarised in Table 4.46 and Table 4.47.

**Table 4.46: Summary of Parking Changes**

Location	Baseline		Proposed		Change
	Corridor	Adjacent	Corridor	Adjacent	
R336 Merchants Road / Dock Road	27	986	13	986	-14

**Table 4.47: Summary of Loading Changes**

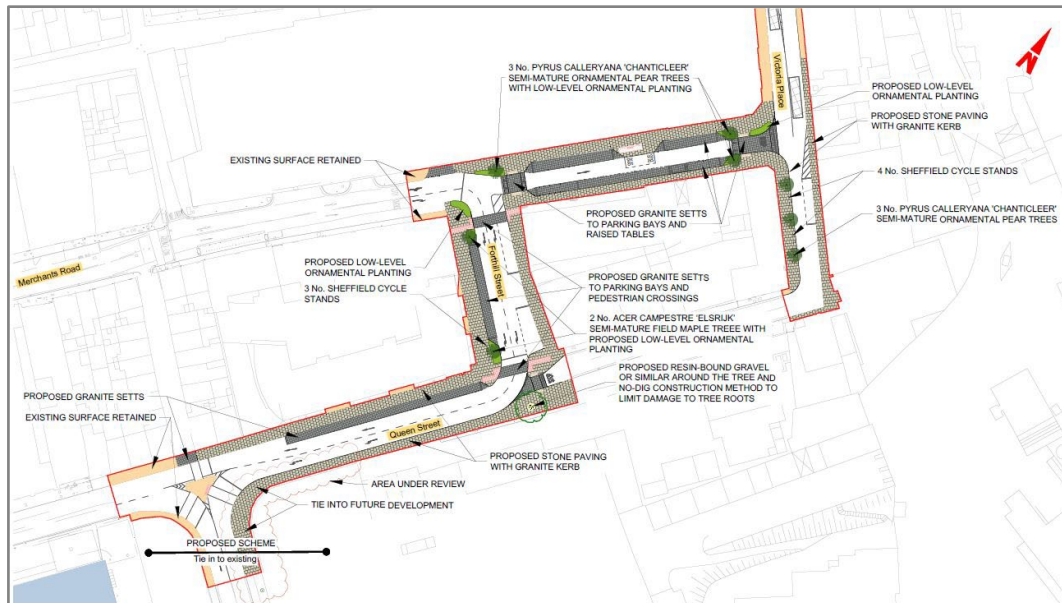
Location	Loading Bays		Change
	Baseline	Proposed	
R336 Merchants Road / Dock Road	0	0	0

#### 4.6.12.8 Landscape Design

As the Proposed Scheme will substantially reorganise through traffic, it will provide opportunities to further develop the public realm to create an even stronger pedestrian priority urban neighbourhood character. The carriageway width will be reduced in many locations and the footpaths widened to match the existing urban realm works, the revised layout will facilitate planting of additional new trees and other landscaping.



Full details of the landscape proposals are set out in Drawing BCG-LA-00-06, with extracts for illustration provided in Diagram 4.29 and Diagram 4.30 (photomontage) respectively.



**Diagram 4.29: Victoria Place, R336 Merchants Road, Forthill Street and Queens Street**



**Diagram 4.30: Proposed view from Victoria Place**

#### 4.6.12.9 Structures

There are no structures proposed in this sub-section.

#### **4.6.12.10 Land Use and Accommodation**

The proposed scheme includes the connection between the Cross-City Link at Eyre Square and the City Centre Access Network at R336 Merchants Road / Forthill Street. All of this section is zoned for City Centre uses, with the exception of the United Methodist Presbyterian Church, which is zoned as Community, Cultural and Institutional.

No permanent or temporary land take is required through this section to facilitate the scheme, as all lands are in the ownership or control of Galway City Council.



## 4.7 References

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