Chapter 02
Need for the Proposed Scheme

Contents

2. Need for the Proposed Scheme

2.1 Introduction

This Chapter of the Environmental Impact Assessment Report (EIAR) outlines the need for the Lucan to City Centre Core Bus Corridor Scheme (hereafter referred to as the Proposed Scheme).

Sustainable transport infrastructure assists in creating more sustainable communities and healthier places to live and work while also stimulating our economic development and contributes to enhanced health and well-being when delivered effectively.

The key radial traffic routes into and out of Dublin City Centre are characterised by poor bus and cycle infrastructure in places. Effective and reliable bus priority depends on a combination of continuous bus lanes and signal control priority at pinch-points and junctions. Currently bus lanes are available for 67% (outbound) and 76.6% (inbound) of the Lucan to City Centre route, with no signal control priority for buses. Cyclists must typically share space on bus lanes or general traffic lanes with only 9.9% (outbound) and 9.9% (inbound) of the route providing segregated cycle tracks.

Private car dependence has resulted in significant congestion that has impacted on quality of life, the urban environment and road safety. The population of the Greater Dublin Area (GDA) is projected to rise by 25% by 2040 (National Planning Framework, 2018), reaching almost 1.5 million. This growth in population will increase demand for travel necessitating improved sustainable transport options to facilitate this growth.

Without intervention, traffic congestion will lead to longer and less reliable bus journeys throughout the region and will affect the quality of people's lives. The Proposed Scheme is needed in order to enable and deliver efficient, safe, and integrated sustainable transport movement along the corridor through the provision of enhanced walking, cycling and bus infrastructure on this key access corridor in the Dublin region. The objectives of the Proposed Scheme are to:

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

The objectives outlined above relating to enhancing capacity of the public transport system and enhancing safe infrastructure for cycling are underpinned by the central concept and design philosophy of 'People Movement'. People Movement is the concept of the optimisation of roadway space and / or the prioritisation of the movement of people over the movement of vehicles along the route and through the junctions along the Proposed Scheme. The aim is to reduce journey times for modes of transport with higher person carrying capacity (bus, walking and cycling), which in turn provides significant efficiencies and benefits to users of the transport network and the environment.

The need for the Proposed Scheme is to respond to current deficiencies in the transport system at a Regional and Local level as set out in Section 2.2.

The delivery of the Proposed Scheme is supported by International, European Union, National, Regional and Local strategies, policies and plans. The key policy and planning documents are described in Section 2.3, including the manner in which the need for the Proposed Scheme is supported by the relevant policies and objectives.

Finally, Section 2.3.5.8 describes the benefits that will accrue from the provision of the Proposed Scheme.

Investments in high quality public transport infrastructure and systems have been proven to result in significant modal shift. Indeed, in Dublin, the Canal Cordon Report (NTA 2019a) outlined that in 2019 (prior to COVID-19 restrictions) travel by sustainable modes accounted for 72% of all trips into Dublin City, compared to 59% in 2010. This positive improvement in sustainable mode uptake was facilitated by investment in walking, cycling and bus infrastructure, Luas Cross City and the re-opening of the Phoenix Park Tunnel in addition to investments in systems such as Leap Card and Real Time Passenger Information.

The COVID-19 pandemic brought about a short-term change in travel patterns in the Greater Dublin Area (which led, for example, to fewer people using public transport and more people working from home). Travel demand and patterns of travel have now started to return to pre-pandemic levels and are anticipated to grow in line with population growth. The impacts on travel demand and patterns of travel are still dependent on the quality of the transport system, in particular the reliability of a bus service that is not constrained by general traffic congestion.

2.2 The Transport Need for the Proposed Scheme

Addressing the challenges, as outlined in Section 2.1, and resulting need to develop an integrated sustainable transport system for the GDA, formed part of the assessment process leading to the preparation and subsequent adoption of the Transport Strategy for the Greater Dublin Area 2016-2035 (hereinafter referred to as the GDA Transport Strategy). The need for the Proposed Scheme to respond to current deficiencies in our transport system in the context of the wider GDA transport-needs is outlined in this Section of the EIAR. The reasonable alternatives considered as part of this process are addressed in Chapter 3 (Consideration of Reasonable Alternatives).

2.2.1 The Regional Transport Need

2.2.1.1 Context

An appraisal of the existing transport system in the GDA was undertaken to inform the GDA Transport Strategy in terms of current deficiencies and needs into the future. The following trends which contribute to a mismatch between transport service provision and demand were identified in the GDA Transport Strategy:

- *'Frequently uncompetitive bus and rail journey times compared to the car;*
- *Improved but still overly complex bus network;*
- *A Public transport fare structure that is overly complex;*
- *Perception of poor value for money on public transport;*
- *Frequent disruptions to rail services;*
- *Improved but insufficient integration between modes and service providers;*
- *Insufficient provision of passenger facilities, such as shelters and waiting areas;*
- *Inadequate level of passenger information;*
- *Major delays in the provision of new infrastructure;*
- *Congestion on the strategic road network;*
- *Severe local congestion in certain locations;*
- *Substandard – and in places dangerous – cycling environment; and*
- *Substandard provision for pedestrians, particularly in central areas.'*

A Strategic Environmental Assessment (SEA) was undertaken on the GDA Transport Strategy. A number of alternative strategies were determined and assessed, taking into account the objectives and the geographical scope of the strategy. The provisions of the GDA Transport Strategy (including bus-based transport modes), were

evaluated for potential significant effects, and measures integrated into the Strategy on foot of SEA recommendations in order to ensure that potential adverse effects were mitigated. In considering the alternative modes on a corridor basis, the environmental assessment undertaken considered that bus-based projects could contribute towards facilitating the achievement of Ireland's greenhouse gas emission targets in terms of reducing emissions per passenger per kilometer travelled.

In preparing the GDA Transport Strategy a number of studies were undertaken by the NTA to assess the transport options within broad corridors and to examine a number of supporting transport policy measures. In these studies, transport demand and supply issues were examined, and the transport interventions required to meet future demand were derived. The recommendations from these studies were taken on board in the formulation of the GDA Transport Strategy. The GDA Transport Strategy identified the need for higher capacity public transport provision such as light rail, Metro and heavy rail, complemented by a 'Core Bus Network'.

2.2.1.2 The Pedestrian Network

The GDA Transport Strategy identified deficiencies in the existing pedestrian network, comprising of footpaths and pedestrianised areas catering for pedestrian movement throughout the GDA. Specifically, at many junctions across the GDA, pedestrian crossings are not provided, or are provided only on some arms. The amount of time given to pedestrians to cross, and the time they must wait to cross, also renders the walking experience suboptimal. While these issues affect all parts of the GDA, they are particularly critical in Dublin City Centre where the number of pedestrians is highest.

In order to address this, the GDA Transport Strategy seeks to:

- *'Provide a safer, more comfortable and more convenient walking environment for those with mobility, visual and hearing impairments, and for those using buggies and prams;*
- *Develop, in collaboration with the local authorities, a strategic pedestrian network plan, encompassing the main urban centres of the region, which will identify the key pedestrian linkages in those areas;*
- *Enhance pedestrian movement along the strategic pedestrian routes by widening footpaths where appropriate, providing better surfacing and by removing unnecessary poles, signs, street cabinets, advertising and other street clutter;*
- *Support local authorities in the implementation of pedestrianisation schemes, particularly in central areas of high pedestrian footfall, such as shopping streets;*
- *Revise road junction layouts, where appropriate, to provide dedicated pedestrian crossings, reduce pedestrian crossing distances, provide more direct pedestrian routes, and reduce the speed of turning traffic;*
- *Reduce waiting time for pedestrians at crossings in Dublin City Centre and other urban centres;*
- *Liaise with local authorities to deliver pedestrian information and wayfinding signage in urban centres across the GDA;*
- *In conjunction with local authorities and An Garda Síochána, evaluate, and where appropriate seek the introduction of, lower speed limits on residential streets and in urban centres;*
- *Cooperate with other agencies in the enforcement of laws in relation to parking on footpaths;*
- *Support pedestrian permeability provision in new developments, and the maintenance, plus enhancement where appropriate, of such arrangements in existing developments; and*
- *Ensure that permeability and accessibility of public transport stops and stations for local communities is maintained and enhanced.'*

The need for the Proposed Scheme is supported by the GDA Transport Strategy in regard to improving the pedestrian environment along the Proposed Scheme, while taking cognisance of and supporting pedestrian and public realm planning objectives locally.

2.2.1.3 The Cycle Network

The GDA Cycle Network Plan (hereafter referred to as the GDACNP) (NTA 2013), was adopted by the NTA in early 2014 following a period of consultation with the public and various stakeholders. This plan forms the strategy for the implementation of a high quality, integrated cycle network as set out in the GDA Transport Strategy. This is further discussed in Section 2.3.4.5.

The predominant provision for cycling in the Dublin City Council (DCC) area, including the areas associated with the Proposed Scheme, is by means of either on street cycle lanes (both advisory and mandatory) or bus lanes. These facilities are generally of a low Quality of Service (QoS) in the city area mainly due to the lack of width for cyclists, lack of segregation and the consequent discomfort caused by large volumes of vehicular traffic sharing the road space. The GDACNP found that typically the cycle lanes achieve a QoS score of B, C or D in the SDCC Area (QoS scores are assigned on a five-point scale from A+ to D). In addition, it found that in general the QoS of many of the existing facilities within the South Dublin County Council (SDCC) area, including the areas associated with the Proposed Scheme, is moderately good at C. More information on the QoS cycling assessment criteria can be found in Chapter 6 (Traffic & Transport). It is however noted that since the production of the GDACNP several interventions have taken place – both permanent and temporary. In the case of the Proposed Scheme however only 9.9% (outbound) and 9.9% (inbound), respectively, of the route is currently providing segregated cycle tracks.

For cyclists, segregated facilities should be provided where practicable to do so. The GDACNP proposes a network of cycle links throughout the GDA, categorised as follows:

- **Primary Routes:** Main cycle arteries that cross the urban area and carry most cycle traffic;
- **Secondary Routes:** Link between principal cycle routes and local zones;
- **Feeder Routes:** Cycle routes within local zones and/or connections from zones to the network levels above;
- **Inter Urban Routes:** Links the towns and city across rural areas and includes the elements of the National Cycle Network within the GDA; and
- **Green Route Network:** Cycle routes developed predominately for tourist, recreational and leisure purposes but may also carry elements of the utility cycle route network above. Many National Cycle Routes are of this type.

Extracts from the GDACNP are shown in Image 2.1 and Image 2.2, which highlight the Proposed Scheme in the context of the planned cycle network. There are primary (Routes 6, SO5) and secondary (Routes SO4, SO6, NO5) cycle routes identified along the Proposed Scheme. The route also interchanges with the Liffey Greenway and N06 Greenway. During the course of the analysis carried out to identify the Proposed Scheme, the provision of these cycle routes was considered at all stages.

Primary Route 6 follows the route of the Proposed Scheme from Lucan to the western end of the Chapelizod bypass and Secondary Route 6A follows the route of the Proposed Scheme from Con Colbert Road to Heuston station.

Other routes that interact with the Proposed Scheme are:

Primary Routes:

- S05 which intersects with the Proposed Scheme at Liffey Valley

Secondary Routes:

  - S06 intersects with the Proposed Scheme at Ballyowen Road;
  - NO5 intersects with the Proposed Scheme at Liffey Valley;
  - 6A intersects with the Proposed Scheme at Con Colbert Road and then runs along the full length of St John's Road West;
  - C3 intersects with the Proposed Scheme at Dr Steeven's Lane.

- Feeder Routes:

- The Feeder route along Kennelsfort Road crosses the Proposed Scheme at Palmerstown;
- The Feeder route along Woodfarm Avenue meets the Proposed Scheme at The Oval junction in Palmerstown;

- Greenways:
  - the Liffey Greenway is connected to the Proposed Scheme via Secondary Route NO5 at Liffey Valley;
  - NO6 intersects with the Proposed Scheme at Memorial Road and provides another connection to the Liffey Greenway; and
  - the River Camac Greenway intersects with the Proposed Scheme at Military Road.

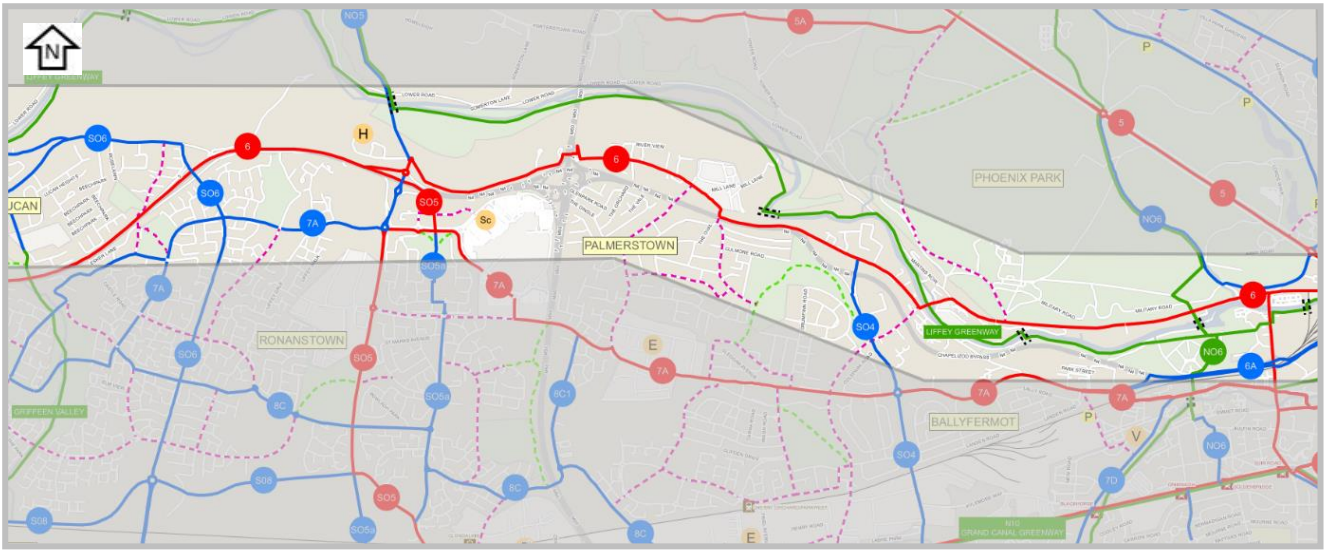

Image 2.1: Extract from GDA Cycle Network Plan (Proposed Scheme Highlighted for information)

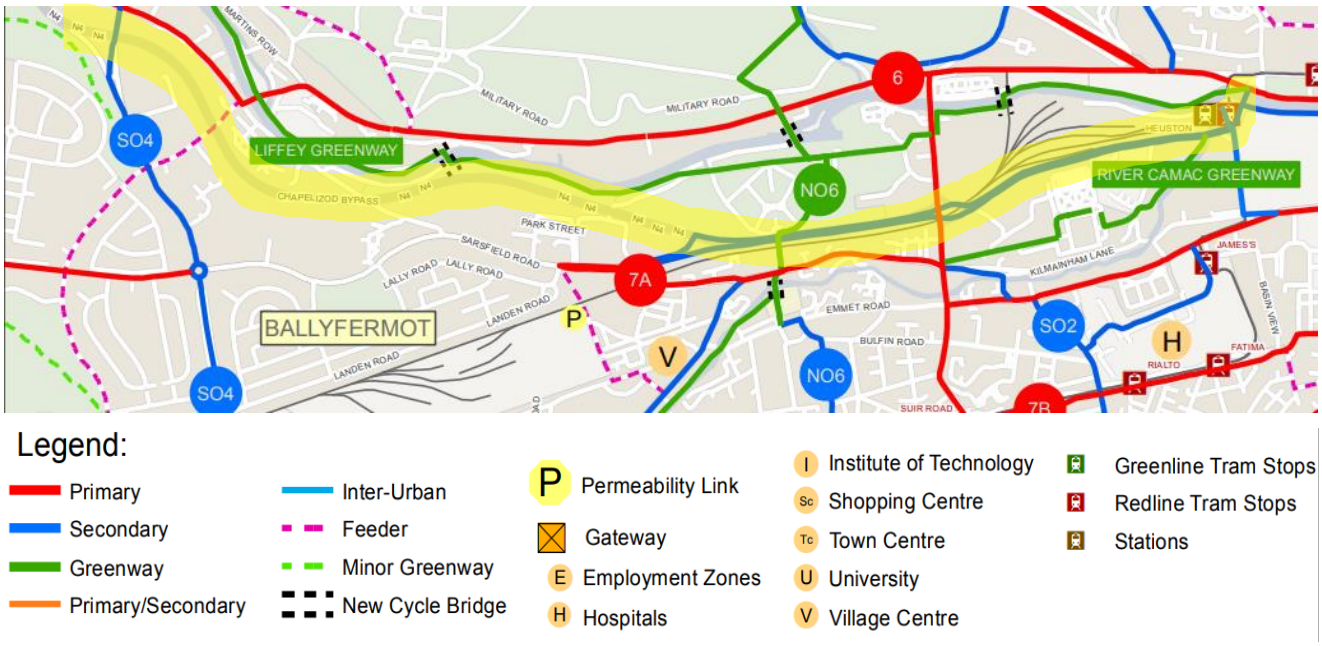

Image 2.2: Extract from GDA Cycle Network Plan (Proposed Scheme Highlighted in yellow for information)

Suitable protected junction designs have been proposed at the locations where the Proposed Scheme interfaces with the following GDA cycle routes as can be seen in:

- R136 Ballyowen Road/ R835 Lucan Road with the S06 Secondary Route;
- N4 Junction 2 with Primary Route 6 and Secondary Route NO5;
- R148 Chapelizod bypass/ R148 Con Colbert Road with Secondary Route 6A;
- R148 Con Colbert Road/ R839 Memorial Road NO6;
- R148 Con Colbert Road/ R111 South Circular Road with Primary Route SO1 and Secondary Route 6A;
- R148 St John's Road West/ Military Road - River Camac Greenway;
- R148 St John's Road West/ Heuston Station with the Camac Greenway and Secondary Route 6A; and
- R148 St John's Road West/ Victoria Quay with the Liffey Cycle Route, Camac Greenway, and Secondary Routes 6A and C3 SE.

The Proposed Scheme, which is supported by the GDACNP for the area, is needed to address the significant deficiency in the very limited segregated cycling infrastructure currently available on this corridor.

2.2.1.4 The Bus Network

To inform the preparation of the GDA Transport Strategy, the NTA prepared the Core Bus Network Report (NTA 2015) for the Dublin Metropolitan Area, which identified those routes on which there needed to be a focus on high capacity, high frequency and reliable bus services, and where investment in bus infrastructure should be prioritised and concentrated. The Core Bus Network is defined as a set of primary orbital and radial bus corridors which operate between the larger settlement centres in the Dublin Metropolitan Area.

The development and implementation of priority infrastructure on the Core Bus Network is to ensure that delays are minimised, reliability is improved through peak and off-peak periods and mode shift from the private car is made more attractive.

The reason for focusing on the Core Bus Network is to maximise the return on future investment in bus infrastructure and to facilitate efficient operation of bus services, thereby improving the attractiveness of public transport for a large proportion of the population of the Dublin Metropolitan Area and beyond.

The Core Bus Network Report focused on the overall existing bus service network and identified locations where the bus network is operating sub-optimally. The network is dominated by a radial network to/from Dublin City Centre, supplemented by low frequency orbital and local bus routes serving larger destinations outside of the City Centre core.

The following methodology was employed to determine the need for the future core bus infrastructure network:

1) The existing bus network and bus infrastructure in the Dublin Metropolitan Area was analysed, including the identification, mapping and categorising of the existing bus infrastructure. This analysis identified all roads that have dedicated road space for bus, and other bus priority infrastructure such as Bus Gates, junction bus priority and bus only through routes;
2) Journey time delays of the bus network in the Dublin Metropolitan area were examined;
3) The frequency of bus services between stops during the peak period was examined to help identify where the highest volume of bus traffic is on the network; and
4) A demand analysis, including a broad understanding of trip demand was undertaken; and
5) Using the above analysis, specific corridors where investment is to be prioritised in the network were identified and mapped.

Overall, at the time the Core Bus Network Report was prepared, there were approximately 213km of dedicated bus lanes in the GDA, of which 93km can be categorised as outbound and 120km can be categorised as inbound (City Centre or lower order centre as destination).

Bus lanes vary by quality, level of continuity, quality of treatment at junctions and operational times. Generally, all lanes are currently at least operational for their peak hours (i.e. morning peak for inbound and evening peak for outbound). Many are operational in both directions at both peak periods, some from 7am to 7pm and others on a 24-hour basis. Some corridors benefit from a high degree of continuity whereby bus lanes are present for long sections and are not truncated at junctions. This occurs mostly in locations where a previous full lane of traffic or a pre-existing hard shoulder has been designated as a bus lane.

The GDA Transport Strategy concluded that this high-quality Core Bus Network would form an integral part of the improved public transport infrastructure measures for the Dublin Metropolitan Area. The final resulting Core Bus Network presented in the GDA Transport Strategy represents the most important bus routes within the Dublin Metropolitan Area, generally characterised by high passenger volumes, frequent services and significant trip attractors along the routes.

It comprises of 16 radial corridors, three orbital corridors and six regional corridors. The radial core corridors, as extracted from the GDA Transport Strategy, are shown in Image 2.3 (reproduced from Figure 5.5 in the GDA Transport Strategy - routes presented are indicative only).

During the non-statutory public consultations and the route selection process, the 16 radial routes had been considered separately. However, in certain instances a number of radial routes were then combined where they were considered to have geographical associations or where it was considered to be a functional interdependence that would be best addressed by the combining of routes. This combining of routes resulted in the 16 radial routes being brought together to form the 12 BusConnects schemes, which are listed below in Section 2.2.1.6.

The GDA Transport Strategy recognised that these corridors are generally characterised by discontinuity, whereby the corridors currently have dedicated bus lanes along less than one third of their lengths on average which means that for most of the journey, buses and cyclists are sharing space with general traffic and are negatively affected by the increasing levels of congestion. This results in delayed buses and unreliable journey times for passengers.

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

The Lucan to City Centre corridor currently has a high portion of inbound and outbound bus infrastructure. Currently there is bus infrastructure provision along 76% and 67% of the corridor (inbound and outbound respectively). There are shared cycle/bus lanes along parts of the route where no dedicated cycling infrastructure is available.

The Core Bus network study included a recommended route from Lucan to the City Centre on the basis of the need to serve significant demand along this entire corridor and the need to address service deficits (lack of bus priority and associated journey time reliability) for a high level of scheduled bus services already operating along this corridor.

Despite the relatively good provision of bus lanes along the road links, bus services are regularly delayed due to congestion arising from the lack of bus priority at key locations, such as the M50 interchange, Kennelsfort Road junction and the South Circular Road junction. This leads to journey time unreliability being experienced along the corridor at certain times during the day.

During design development, information obtained from the bus journey time data over a typical period in 2019 indicated that there is a reasonably consistent journey time along the majority of this corridor, which reflects the presence of existing bus lanes. However, as noted above there is some noticeable variation in journey time, for example between the N4 Junction 2 (Hermitage Clinic) and the R148 Palmerstown bypass / The Oval junction, at certain times during the day. This is consistent with observations on site and the lack of bus priority across the M50 and through the highly congested junctions on the Palmerstown bypass.

While there is a high level of bus service provision along this corridor, despite the relatively good provision of bus lanes along the road links they are regularly delayed in congestion arising from the lack of bus priority at key locations, such as the M50 interchange, Kennelsfort Road junction and the South Circular Road junction. This leads to journey time unreliability being experienced along the corridor.

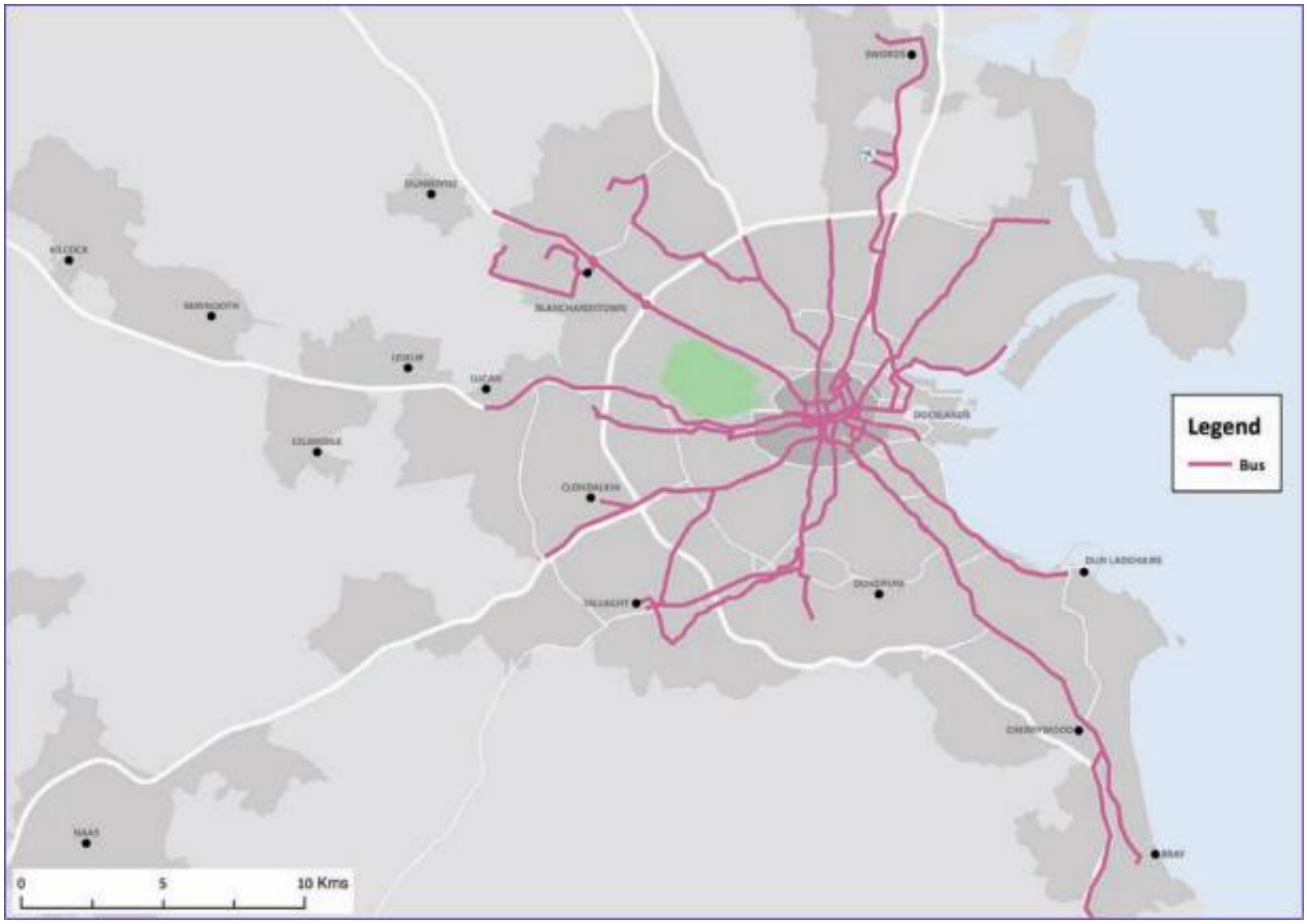

Image 2.3: 2035 Core Bus Network – Radial Corridors (NTA 2016a)

The need for the Proposed Scheme is supported by the objective of the GDA Transport Strategy to provide continuous bus priority, as far as is practicable, along the core bus route, that supports a more efficient and reliable bus service with lower journey times.

2.2.1.5 The BusConnects Programme

The BusConnects programme seeks to greatly improve bus services in Irish cities, including Dublin, so that journeys by bus will be fast, reliable, punctual, convenient and affordable. As set out in later section below, BusConnects is part of the Government's policy to improve public transport and address climate change in Dublin and other cities. BusConnects is included as a specific policy objective of Project Ireland 2040 – The National Development Plan 2018 – 2027 (Government of Ireland 2018); and the Climate Action Plan 2021 (Government of Ireland 2021b).

The full programme for BusConnects Dublin includes a range of interlinked and complementary proposals including:

- Management elements: Redesigning the network to increase the number of homes, jobs and services with coverage, improving orbital accessibility and restructuring radial routes into spines;
- Technological elements: Introducing new ticketing systems to improve convenience and reduce dwell time at bus stops;
- Fleet elements: Replacing the bus fleet with low emission vehicles, introducing branding and livery to give a new "look and feel";
- Policy elements: Introducing a 90-minute ticket to remove the financial penalty for interchanging between buses or changing mode during trips; and

- Infrastructure elements: Creating infrastructure to separate buses and cyclists from other traffic to make sustainable travel a faster, safer and more reliable choice. Developing interchange hubs. Improving pedestrian facilities around bus stops.

BusConnects Dublin is a suite of transformative changes to the bus system, intended to make it more efficient, faster, reliable and easier to use. The BusConnects Dublin programme contains nine elements, one of which is the BusConnects Dublin – Core Bus Corridor Infrastructure Works (the CBC Infrastructure Works). The nine elements are:

- Core Bus Corridor Infrastructure Works;
- Dublin Area Bus Network Redesign;
- Transitioning to a new low emissions bus fleet;
- State of the art ticketing system;
- Cashless payment system;
- Simpler fare structure;
- New Park and Ride sites in key locations;
- New bus livery providing a common style across all operators; and
- New bus stops and shelters with better signage and information.

The CBC Infrastructure Works are needed because they will provide enhanced walking, cycling and bus infrastructure on this key access corridor in the Dublin region, which will enable and deliver efficient, safe, and integrated sustainable transport movement along the corridor.

Each of the other elements individually brings its own benefits, but there are cumulative benefits that are dependent on the completion of the entire programme, given the network interdependencies between measures. The effectiveness of the programme is more than the sum of its parts. For example, some additional bus patronage will be attracted by simply adding new services and redesigning the network, but it will take an increase in speed and reliability to reach a wider segment of the market. Addressing fares and making the system easier to use will bring another market segment on board. Additionally, bringing all these changes to people's attention so that they can take advantage of the new opportunities would be difficult without refreshing the information system, the bus livery and the waiting environment.

The implementation of these other elements will progress independently of the CBC Infrastructure Works element.

The CBC Infrastructure Works brings a range of benefits as an element in its own right. However, the CBC Infrastructure Works is also integral to realising the fullest potential of the other elements.

In the absence of the Proposed Scheme, bus services will operate in a more congested environment, leading to higher journey times for bus and lower reliability which will lead to reduced levels of public transport use, making the bus system far less attractive and less resilient to higher levels of growth. The absence of walking and cycling measures that the Proposed Scheme provides will significantly limit the potential to grow those modes into the future.

2.2.1.6 The Core Bus Infrastructure Works

The radial Core Bus Corridors identified in the GDA Transport Strategy, as modified in the light of more detailed assessment, are to be delivered under the CBC Infrastructure Works. The CBC Infrastructure Works will deliver approximately 230km of dedicated bus lanes and 200kms of cycle tracks along 12 stand-alone Core Bus Corridors Schemes, which includes the Proposed Scheme.

The 12 stand-alone Core Bus Corridor Schemes to be delivered under the CBC Infrastructure Works are shown in Image 2.4 and are listed here:

- Clongriffin to City Centre Core Bus Corridor Scheme;
- Swords to City Centre Core Bus Corridor Scheme;
- Ballymun / Finglas to City Centre Core Bus Corridor Scheme;

- Blanchardstown to City Centre Core Bus Corridor Scheme;
- **Lucan to City Centre Core Bus Corridor Scheme (the Proposed Scheme)**;
- Liffey Valley to City Centre Core Bus Corridor Scheme;
- Tallaght / Clondalkin to City Centre Core Bus Corridor Scheme;
- Kimmage to City Centre Core Bus Corridor Scheme;
- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme;
- Bray to City Centre Core Bus Corridor Scheme;
- Belfield / Blackrock to City Centre Core Bus Corridor Scheme; and
- Ringsend to City Centre Core Bus Corridor Scheme.

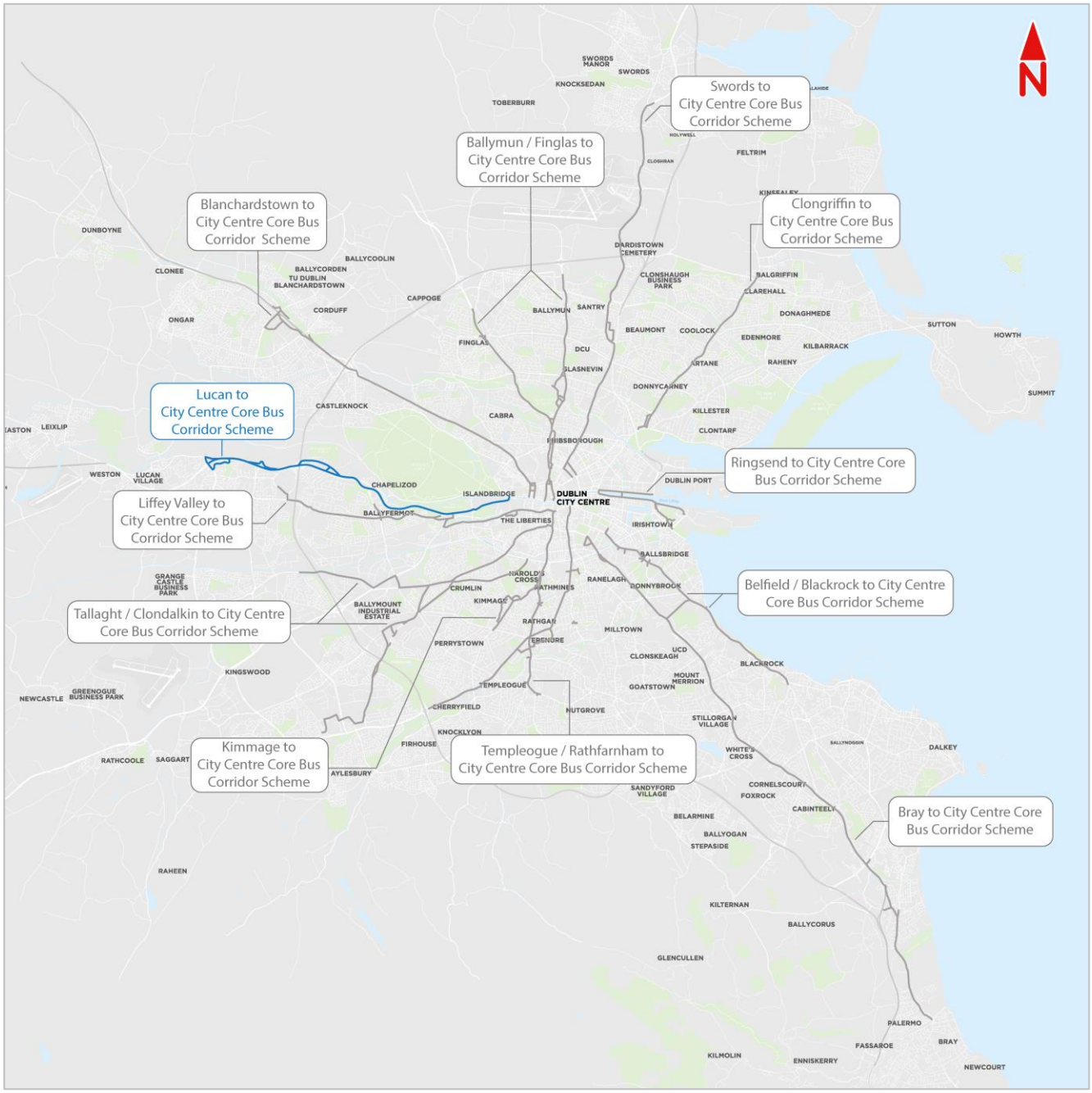

Image 2.4: CBC Infrastructure Works

The CBC Infrastructure Works will typically run along existing trunk bus routes, connecting residential suburbs, retail and village areas and metropolitan urban centres along the route and the City Centre.

Section 5.5.4 of the GDA Transport Strategy (NTA 2016) it states that *'[a] number of the Core Radial Bus Corridors are proposed to be developed as Bus Rapid Transit routes, where the passenger numbers forecast on the routes are approaching the limits of conventional bus route capacity.'*

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

Across the Core Bus Network, the corridors are generally proposed along established radial corridors into and out of the city. However, in developing the Core Bus Network a significant demand was identified for travel along this entire corridor and the need to address service deficits (lack of bus priority, in particular at signalised junctions, and associated journey time reliability) for a high level of scheduled bus services already operating along this corridor.

The Proposed Scheme connecting Lucan to the City Centre serves a significant public transport demand between these locations.

The Dublin Area Bus Network Redesign Revised Proposal (October 2019) (NTA 2019) presented information on 'patterns of demand'. Image 2.5 is an extract of the Combined Activity Density map for areas local to the Proposed Scheme, which combines residential, employment, and student enrolment densities to approximate the total effect of all densities in representing potential demand for public transport. Image 2.6 is an extract from the Average Daily Patronage Heatmap, which presents information on daily average weekday boardings along the Proposed Scheme route. Note these images are based on current patronage levels in 2019. The Proposed Scheme is superimposed on the images for context.

Image 2.5 and Image 2.6 demonstrate the catchments which are proposed to be served by the sustainable transport infrastructure within the Proposed Scheme, including connecting key nodes such as Lucan, Liffey Valley Shopping Centre, Palmerstown, Chapelizod and Heuston Station. Further detail is provided in Chapter 6 (Traffic & Transport) on the modelling and transport analysis carried out as part of the EIAR, which assesses the impact of the Proposed Scheme against key metrics and comparatively between Do Minimum and Do Something (i.e. with the Proposed Scheme) scenarios.

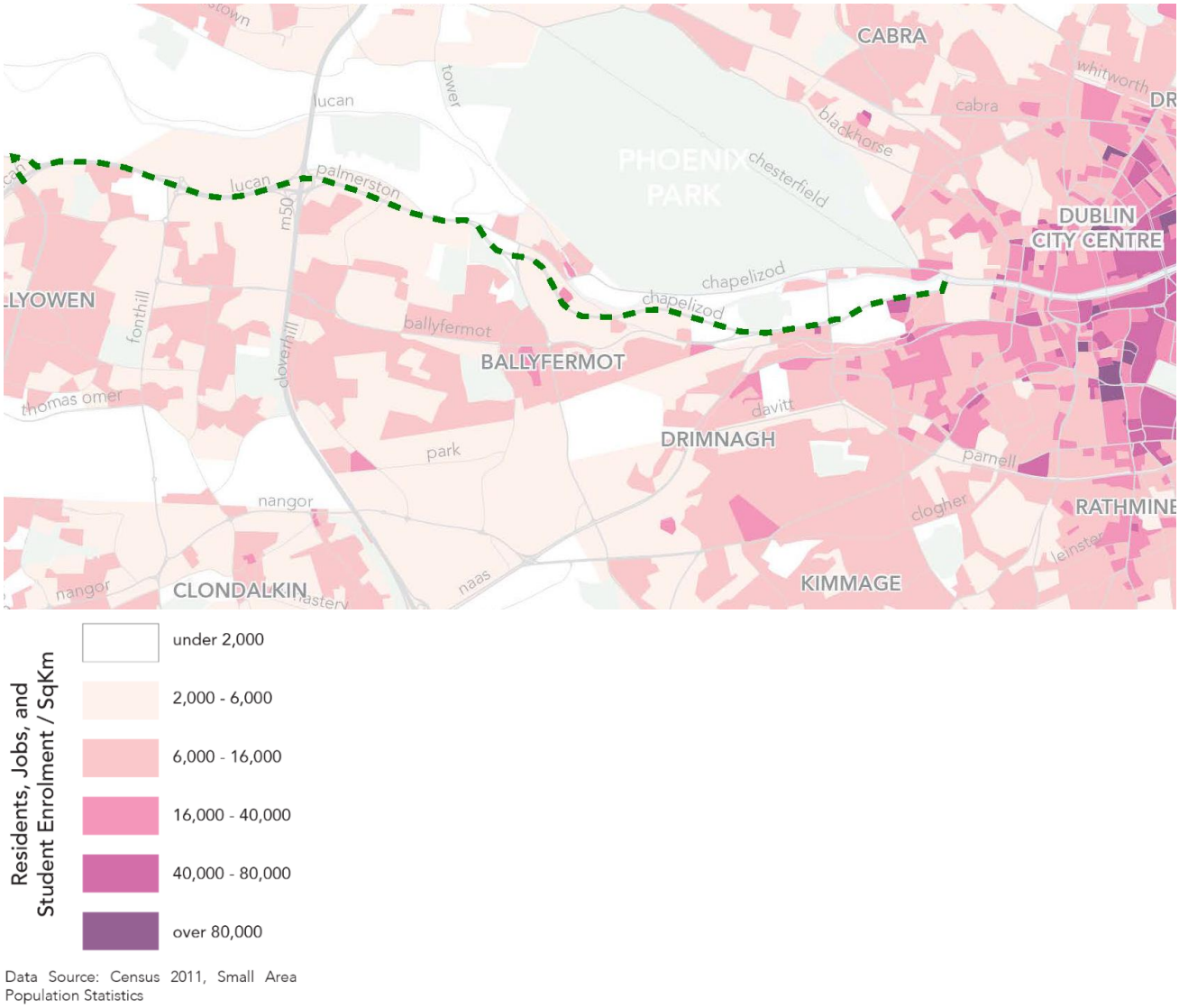

Image 2.5: Combined Activity Density Map (Dublin Area Bus Network redesign Revised Proposal) (NTA 2019). Proposed Scheme Highlighted in Green for Information

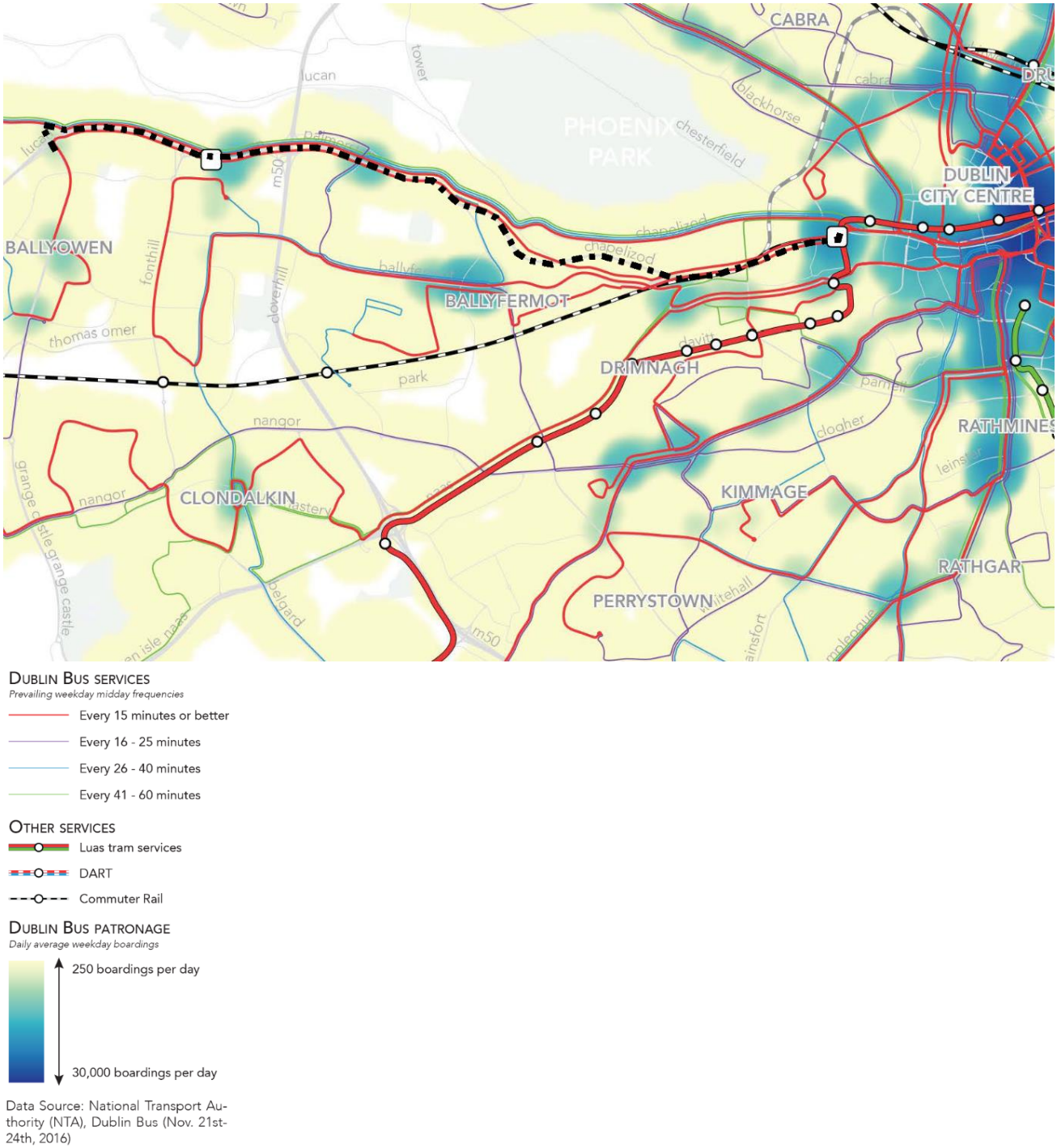

Image 2.6: Average Daily Patronage Heatmap (Dublin Area Bus Network Redesign Revised Proposal) (NTA 2019). Proposed Scheme Highlighted in Black for Information

2.2.2 The Local Transport Need

The local transport need supporting the Proposed Scheme is summarized in this Section, with the existing baseline transport environment presented in further detail in Chapter 6 (Traffic & Transport). There are sections along the route of the Proposed Scheme with poor bus priority resulting in poor journey time reliability particularly at peak times. Automatic Vehicle Locator (AVL) data from existing bus services operating along the Proposed Scheme corridor has been used to examine the current standard deviation for bus services along the corridor, as shown in Table 2.1.

Table 2.1: Current Bus Journey Time Standard Deviation (Minutes)

Corridor	AM peak inbound	PM peak inbound	AM peak outbound	PM peak outbound
Lucan to City Centre	9.82	7.65	4.20	7.92

The AVL data indicates that current bus journey times have a standard deviation of approximately 10 minutes along the route of the Proposed Scheme and with any further increase in traffic levels these issues are expected to be exacerbated. In addition to impacting on bus passengers, longer and less reliable bus services also require operators to use additional buses to maintain headways to fill gaps in the timetable. Aligned to this, remaining sections of un-prioritised network can lead to clustering of buses which, in turn, means stops can become overcrowded, creating delays in boarding and alighting and the imbalanced use of bus capacity.

Within the extents of the Proposed Scheme approximately 10% of the route has a form of segregated cycling. The majority of the existing cycling facilities consist of non-segregated cycle lanes with approximately 1.6km inbound and 2.3km outbound. This infrastructure would not comply with the Proposed Scheme objectives for the most part and has been significantly enhanced along the corridor with up to 90.5% of segregated cycle facilities proposed along the corridor consisting of approximately 6.7km inbound and 6.7km outbound. The western end of the Proposed Scheme also provides a quiet road treatment for cycling through Hermitage Park, along Hermitage Road to Ballyowen Road. Cycling infrastructure will be offline along quieter routes in locations such as Palmerstown Village, which will provide cyclists with a higher-quality environment, and is deemed to be an improved intervention from the existing conditions.

One of the key objectives of the Proposed Scheme is to enhance interchange between the various modes of public transport operating in the city and wider metropolitan area. The CBC Infrastructure Works, including the Proposed Scheme, are developed to provide improved existing or new interchange opportunities with other existing and planned transport services, including:

- DART stations;
- Existing Dublin Bus and other bus services;
- The Greater Dublin Area (GDA) Cycle Network Plan;
- Future public transport proposals such as the DART+ Programme and MetroLink; and
- Supporting the Dublin Bus Network Re-design.

The Proposed Scheme commences at Junction 3 of the N4 Lucan Road / Lucan Bypass and is directed east towards the City Centre. From the R136 Ballyowen Road junction with the R835 Lucan Road the route runs east down the R835 Lucan Road to the roundabout serving the Lucan Retail Park and also the N4 Lucan Road eastbound slip. It is then routed via the N4 (passing the Liffey Valley Shopping Centre) as far as Junction 7 (M50) and via the R148 along Chapelizod Bypass, Con Colbert Road, and St John's Road West, where it will join the prevailing traffic management regime or a separate project, the Liffey Cycle Route Scheme currently proposed by Dublin City Council (DCC), on the South Quays.

Along the route of the Proposed Scheme, there are a number of amenities, village and urban centres which experience high pedestrian usage such as Ballyowen Road, Liffey Valley Shopping Centre, Palmerstown, Chapelizod, South Circular Road, and Heuston Station. In order to. In order to improve accessibility to jobs, education and other social and economic opportunities through the provision of an integrated sustainable transport system, there needs to be a high-quality pedestrian environment.

The Proposed Scheme includes significant improvements to the pedestrian environment along the entirety of its route in terms of footpath improvements and through upgrading facilities for pedestrians at junctions and crossings, thereby addressing existing level of service deficiencies and enhancing the pedestrian environment. In terms of the need to improve facilities for cyclists as referenced in Section 2.3.4.5, as part of the GDA Cycle Network Plan there is one primary cycle routes (Cycle Route 6), as well as Secondary Cycle Routes (including

SO6, NO5 and 6A) along the route of the Proposed Scheme. The route also interchanges with the Liffey Greenway and N06 Greenway.

Within the extents of the Proposed Scheme there are mandatory cycle lanes provided on only approximately 12.5% and 0.6% of the route outbound and inbound respectively, while advisory cycle lanes are provided on only approximately 8.1% and 10.8% of the route outbound and inbound respectively, with segregated facilities provided on 9.9% and 9.9% of the route outbound and inbound respectively. The remaining extents have no dedicated cycle provision or cyclists must cycle within the bus lanes provided. Cycle facilities, comprising cycle tracks and cycle lanes in the Proposed Scheme will increase to approximately 90.5% (inbound and outbound), approximately 87% being segregated inbound and 85% segregated outbound. There are also several uncontrolled crossings along the route of the Proposed Scheme, particularly at side roads where they are generally of poor standard, including lack of provision for the mobility and visually impaired. These are all proposed to be upgraded as part of the Proposed Scheme. The Proposed Scheme will therefore provide safe, segregated cycling infrastructure throughout and as such is greatly enhancing the potential for cycling and addresses many of the deficiencies in the existing network.

The Lucan to City Centre Corridor comprises one of the busiest bus routes in Dublin, carrying over 9,000 passengers in the peak periods (NTA 2017). The primary bus routes (prior to implementation of the revised Bus Network) along the corridor are listed below:

- Route 4 – Dublin to Waterford;
- Route 18 – Palmerstown to Sandymount;
- Route 20 – Dublin Airport to Galway;
- Route 22 – From Ballina to Dublin;
- Route 23 – From Sligo to Dublin;
- Route 25 – From Lucan to Merrion Square;
- Route 25A – From Lucan to Merrion Square;
- Route 25B – From Adamstown to Merrion Square;
- Route 25D – From Adamstown Rail Station to Merrion Square;
- Route 25X – From Lucan to University College Dublin (Express);
- Route 26 – Liffey Valley Shopping Centre to Merrion Square;
- Route 51D – Clondalkin to Aston Quay (Express);
- Route 66A – From Leixlip to Merrion Square;
- Route 66B – From Castletown to Merrion Square;
- Route 66X – Maynooth to University College Dublin;
- Route 67 – From Maynooth to Merrion Square;
- Route 67X – From Celbridge to University College Dublin;
- Route 79A – Parkwest to Aston Quay;
- Route 115 – From Dublin to Mullingar;
- Route 120 – Edenderry to Dublin;
- Route 126 – Rathangan to Dublin;
- Route 145 – Ballywaltrim to Heuston Station;
- Route X8 – Cork to Dublin;
- Route X12 – Limerick to Dublin; and
- Route X20 – Galway to Dublin.

Despite the relatively good provision of bus lanes along the road links, bus services are regularly delayed due to congestion arising from the lack of bus priority at key locations, such as the M50 interchange, Kennelsfort Road junction and the South Circular Road junction. This leads to journey time unreliability being experienced along the corridor.

During design development, information obtained from bus journey time data over a typical period in 2019 indicated that there is a reasonably consistent journey time along this corridor, which reflects the presence of existing bus lanes. However, as noted above there is some noticeable variation in journey time, for example between the N4 Junction 2 (Hermitage Clinic) and the R148 Palmerstown bypass / The Oval junction during both peak periods. This is consistent with observations on site and the lack of bus priority across the M50 and through the highly congested junctions on the Palmerstown bypass. Within the extents of the Proposed Scheme route, bus lanes are currently provided on approximately 67% and 77% of route outbound and inbound respectively.

In November 2021 BusConnects Dublin introduced high frequency public bus services along the route which will be improved by the provision of the Proposed Scheme, including the proposed C-Spine (C1, C2, C3, C4), and existing bus routes including the 52 bus route, as well as regional bus services. In addition to this there are multiple other bus services which run along this corridor intermittently, providing interchange opportunities with other bus services. The Proposed Scheme interventions will seek to make these services more reliable, particularly in peak times, thus providing a more attractive and sustainable alternative mode of transport. The introduction of segregated cycle facilities that help achieve optimum bus speeds to improve on the punctuality and reliability of the bus service. Similarly, the use of active bus signaling measures will improve continuity of bus journey times through certain junctions along the route.

The Proposed Scheme will facilitate the ongoing Dublin Area Bus Network Redesign which will see continued investment in bus services into the future, which will improve journey-time reliability for all bus services, and therefore improve their attractiveness as an alternative to private car usage.

As part of the BusConnects revised bus network proposals, the Proposed Scheme will serve the C-Spine bus services. Image 2.7 is an extract from New Dublin Area Bus Network Map (NTA 2020) and shows the C-Spine interface with the Proposed Scheme. Demand for travel by bus is anticipated to continue to grow in this corridor into the future, in line with population growth. The bus priority measures forming part of the Proposed Scheme are required to accommodate this growth in travel demand and to facilitate the revised bus network (C-Spine) by providing journey time savings and reliability for passengers. This will ensure that the projected growth in passenger demand is facilitated and protected from increasing congestion, providing resilience which can in the future cater for additional bus service provision.

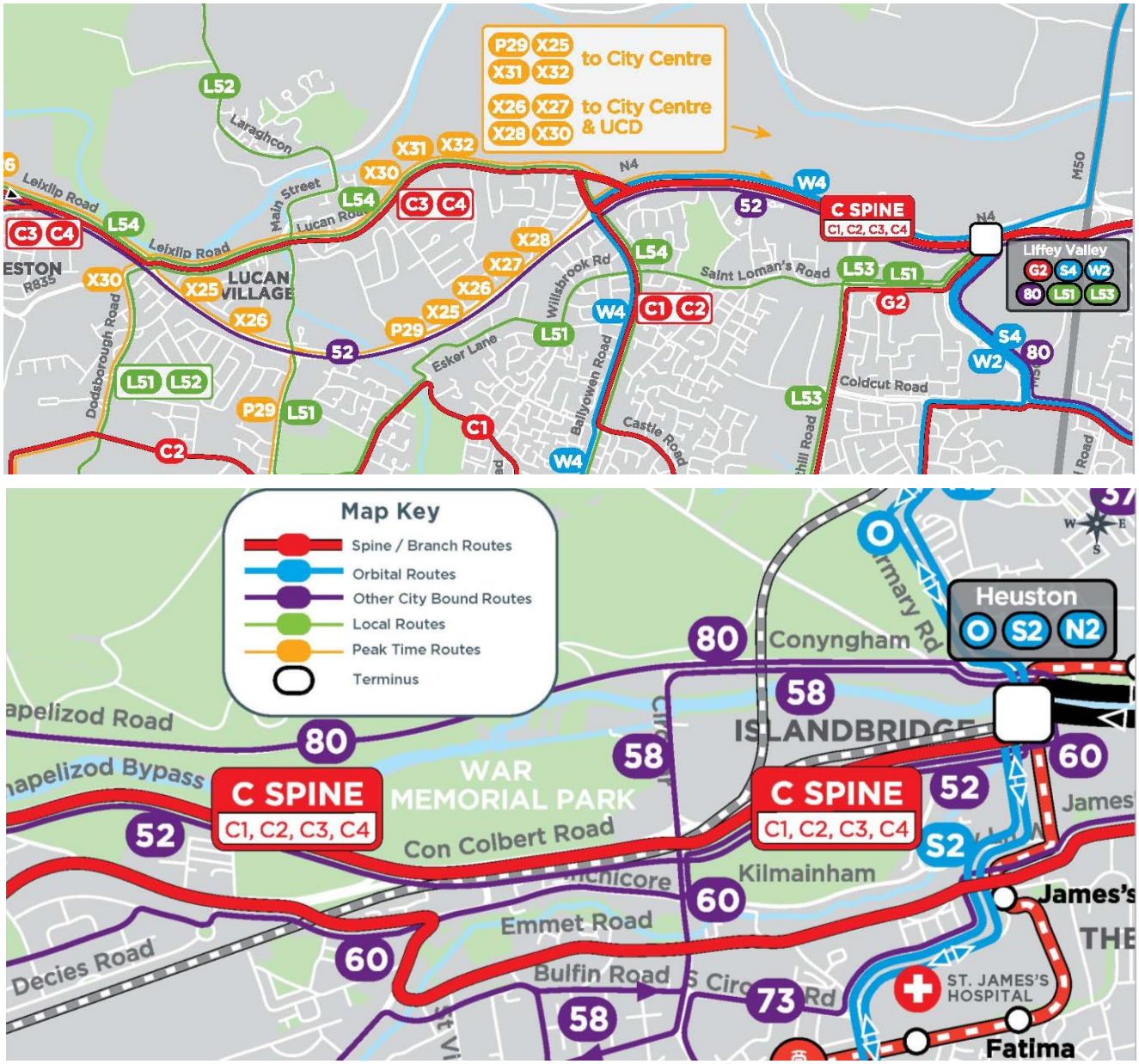

Image 2.7: Extract from New Dublin Area Bus Network Map (NTA 2020)

2.3 Policy Context

The Proposed Scheme, which is part of the BusConnects Dublin Core Bus Corridor (CBC) Infrastructure Works, is a key measure that delivers on commitments within the National Development Plan (2021 - 2030), Transport Strategy for the Greater Dublin Area (2016 - 2035), Climate Action Plan (2021) and the Climate Action and Low Carbon Development (Amendment) Act 2021 (the 2021 Climate Act).

Further information on the planning and policy context for the Proposed Scheme is provided in the Planning Report which is included as Appendix A2.1 Planning Report in Volume 4 of this EIAR.

2.3.1 International Policy

2.3.1.1 United Nations 2030 Agenda

In September 2015, Transforming Our World, the 2030 Agenda for Sustainable Development (the 2030 Agenda) was adopted by all 193 Members States of the United Nations (UN). The 2030 Agenda aims to deliver a more sustainable, prosperous, and peaceful future for the entire world, and sets out a framework for how to achieve this by 2030. This framework is made up of 17 Sustainable Development Goals (SDGs) which cover the social, economic, and environmental requirements for a sustainable future which are shown in Image 2.8.

Image 2.8: The 17 Sustainable Development Goals (Source: United Nations)

The SDGs are integrated—they recognise that action in one area will affect outcomes in others, and that development must balance social, economic and environmental sustainability. Sustainable Development Goals 9.1 and 11.2 are relevant to the Proposed Scheme and described in Table 2.2.

Table 2.2: Sustainable Development Goals relevant to the Proposed Scheme.

Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	
Target 9.1	Develop quality, reliable, sustainable, and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human wellbeing, with a focus on affordable and equitable access for all
Goal 11: Make cities and human settlements inclusive, safe, resilient, and sustainable	
Target 11.2	By 2030, provide access to safe, affordable, accessible, and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.

The need for the Proposed Scheme is supported by the goals and targets set out in the relevant SDGs. It will provide for enhanced walking, cycling and bus infrastructure, which will subsequently enable more efficient, safe and integrated sustainable transport movement along this corridor.

In Ireland, the SDGs are being implemented through the National Implementation Plan 2018-2020 (DCCAE 2018), which is in direct response to the 2030 Agenda for Sustainable Development. It provides a whole-of-government approach to implement the 17 SDGs – see brief description later in the National Policy section (Section 2.3.3).

2.3.2 European Union Law & Policy

2.3.2.1 Sustainable and Smart Mobility Strategy 2020

The Sustainable and Smart Mobility Strategy (European Commission 2020) sets out a number of goals as to how people will move within and between cities in the future. It has identified 82 initiatives which have been categorised into 10 'flagships.'

The flagship relevant to the Proposed Scheme is '*Flagship 3 – Making interurban and urban mobility more sustainable and healthy*'. It states that:

> *'increasing the modal shares of collective transport, walking and cycling, as well as automated, connected and multimodal mobility will significantly lower pollution and congestion from transport, especially in cities and improve the health and well-being of people. Cities are and should therefore remain at the forefront of the transition towards greater sustainability.'*

A target of the strategy relevant to the Proposed Scheme is to double safe bike lanes in cities within the European Union to 5,000km in the next decade.

The need for the Proposed Scheme is supported by the objectives of the EU's Sustainable and Smart Mobility Strategy through significant investment in cycle and pedestrian infrastructure, in addition to bus priority, along the route of the Proposed Scheme, thereby supporting and encouraging growth in active travel and sustainable public transport usage.

2.3.2.2 European Green Deal 2019

The European Green Deal (EDG) (European Commission 2019) sets out ambitious policies aimed at cutting emissions and preserving the natural environment. Pursuant to Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999, the binding EU 2030 climate target shall be a domestic reduction of net greenhouse gas emissions (emissions after deduction of removals) by at least 55% by 2030, compared to 1990 levels. In addition to binding legislation and other initiatives adopted at EU level, all sectors of the economy – including transport – must play a role in contributing to the achievement of climate neutrality within the European Union by 2050.

As indicated in the European Green Deal, on 9 December 2020, the European Commission adopted a communication entitled 'Sustainable and Smart Mobility Strategy – putting European transport on track for the future'. The strategy sets out a roadmap for a sustainable and smart future for European transport, with an action plan towards an objective to deliver a 90% reduction in emissions from the transport sector by 2050.

This Strategy has the objective of *'accelerating the shift to sustainable and smart mobility' and requires that, '[t]he EU transport system and infrastructure will be made fit to support new sustainable mobility services that can reduce congestion and pollution, especially in urban areas'. It is noted that pollution is concentrated the most in cities and that a combination of measures is needed which includes 'improving public transport and promoting active modes of transport such as walking and cycling.'*

The Proposed Scheme is necessary, in conjunction with a range of other initiatives, to attain the objectives of the European Green Deal, through significant investment in cycle and pedestrian infrastructure, in addition to bus priority, thereby supporting and encouraging growth in active travel and sustainable public transport usage.

2.3.3 National Policy

2.3.3.1 Project Ireland 2040 - National Development Plan (NDP) 2021 - 2030

The Project Ireland 2040 is the government's long-term overarching strategy to make Ireland a better country for all its people. The National Development Plan (hereafter referred to as the NDP) (Government of Ireland 2021a) and the National Planning Framework (hereafter referred to as the NPF) (Government of Ireland 2018b) combine

to form Project Ireland 2040. The NDP 2018 – 2027 and the NPF were adopted in May 2018. The review of the NDP was originally planned for 2022 but this was brought forward in an effort to stimulate the economy and bring about an 'Infrastructure-led recovery' and 'green recovery' in the wake of COVID-19. The revised NDP 2021-2030 was adopted in October 2021.

The NDP is the National capital investment strategy plan. It sets out the framework of expenditure commitments to secure the Strategic Investment Priorities to the year 2030 and support the delivery of the 10 National Strategic Outcomes (NSOs) identified in the NPF and described in Section 2.3.3.4 as applicable to the Proposed Scheme. The NDP under Section 4.1 (National Strategic Outcomes) sets out *'This National Development Plan will incorporate a total public investment of €165 billion over the period 2021-2030.'*

Under the heading 'Major investments the NDP' sets out that *'This NDP will be the largest and greenest ever delivered in Ireland, with a particular focus on supporting the largest public housing programme in the history of the state. While many of the investments in his NDP are already well known and have been progressing through planning for some time (e.g. BusConnects), there are a range of investments which are new or enhanced in the NDP. A selection of these are listed below.'* This includes under NSO4 'Sustainable Mobility' *'BusConnects for Ireland's Cities'.*

In Section 3.9 *'Catalysing the shift towards accessibility-based mobility systems' it comments that 'The greenhouse gas emissions associated with public transport will be addresses by replacing diesel buses with lower emitting alternatives under the BusConnects programme.'*

Figure 5.4 'Selection of Major Regional Investments Planned in the National Development Plan' includes in the section entitled 'Selection of investments for the Eastern and Midland Region'. Inter alia: BusConnects.

The NDP sets out a programme of investment that includes indicative Exchequer allocations. BusConnects is specifically identified as one of the five 'Strategic Investment Priorities' that aligns with NSO4 (Sustainable Mobility) of the NPF. The NDP outlines under the heading 'Sustainable Mobility' that; *'The National Planning Framework (NPF) recognises the importance of significant investment in sustainable mobility (active travel and public transport)' networks if the NPF population growth targets are to be achieved. Investing in high quality sustainable mobility will improve citizens' quality of life, support our transition to a low-carbon society and enhance our economic competitiveness.'*

It continues:

> *'Improved and expanded sustainable mobility services and infrastructure can also act as an enabler of the NPF's commitment toward the compact growth of the cities, towns and villages within their existing urban footprint.'*

It further states:

> *'….transport led development will become an increasingly important area of investment focus for the sustainable mobility programme over the period of the NDP.'*

It also highlights that:

> *'The NDP provides for significant investment in active travel, bus and rail infrastructure over the next ten years in terms of expanding sustainable mobility options in our cities, towns and villages.'* It continues *'In the previous NDP, the Transport sector had an allocation of approximately €21 billion for the period 2018-2027. The revised NDP sets out further ambitious plans to enhance public transport, active travel options and the connectivity of communities throughout Ireland. Transport projects by their nature are delivered over a multi-year horizon. The scale of the Transport-related requirements under the revised NDP amounts to c. €35 billion in total over 2021-2030.'*

Under the heading 'Sectoral Strategies' it makes reference to the Climate Action Plan (CAP) and recognises *'that Ireland must achieve a significant modal shift from car to active travel and public transport if we are to achieve our target of a 51% reduction in Green House Gas emissions by 2030 and ultimately net zero by 2050.'*

In regard to 'Active Travel', the NDP comments:

> *'This NDP represents a step-change in the approach towards funding active travel in Ireland. Over the next 10 years approximately €360 million per annum will be invested in walking and cycling infrastructure in cities, town and villages across the country, including Greenways.' It continues 'The investment proposed for the major urban centres over the next 5 years will target over 700km of improved walking and cycling infrastructure delivered across the five cities.'*

Specifically in regard to BusConnects, the NDP outlines the following:

> *'Transformed active travel and bus infrastructure and services in all five of Ireland's major cities is fundamental to achieving the overarching target of 500,000 additional active travel and public transport journeys by 2030.'*

It also sets out that:

> *'BusConnects will overhaul the current bus system in all five cities by implementing a network of 'next generation' bus corridors (including segregated cycling facilities) on the busiest routes to make journeys faster, predictable and reliable. BusConnects will enhance the capacity and potential of the public transport system by increasing and replacing the bus fleets with low emission vehicles and introducing a new system of ticketing known as Next Generation Ticketing and cashless payments. Increasing the attractiveness of the bus systems in the cities will encourage modal shift away from private car use, leading to a reduction in congestion and associated costs in the major urban areas. Over the lifetime of this NDP, there will be significant progress made on delivering BusConnects with the construction of Core Bus Corridors expected to be substantially complete in all five cities by 2030.'*

The Proposed Scheme forming part of the CBC Infrastructure Works within the overall BusConnects Programme is therefore identified as a component of a 'Strategic Investment Priority', with an associated investment commitment, which has been determined as central to the delivery of the NPF vision. The Proposed Scheme is an integral part of Ireland's policy to reduce carbon by providing the infrastructure necessary to deliver a sustainable transport network. The Proposed Scheme will facilitate continued planned and forecasted population growth in the GDA and along the route of the Proposed Scheme by meeting existing and future travel demand through investment in a sustainable transport network and services. As required in the NDP, the Proposed Scheme will provide the infrastructure needed to help facilitate a modal shift from private car to public transport, cycling and walking. It will also bring to fruition a 'Strategic Investment Priority' of the NDP to help deliver the full *'BusConnects programme'*.

2.3.3.2 Revised National Development Plan

It is noted that the explanatory text under each National Strategic Outcome (NSO) within the NPF has not been fully replicated within the revised NDP. Table 2.3 sets out some changes in the explanatory wording of each applicable NSO between the NPF and the revised NDP.

Table 2.3: NSO Objective Differences NPF and NDP

NPF National Strategic Outcome (NSO)	Revised NDP NSO Explanatory Text	Consideration of Explanatory Text Changes Between NPF and Revised NFP
NSO1 Compact Growth '*Carefully managing the sustainable growth of compact cities, towns and villages will add value and create more attractive places in which people can live and work. All our urban settlements contain many potential development areas, centrally located and frequently publicly owned, that are suitable and capable of re-use to provide housing, jobs, amenities and services, but which need a streamlined and co-ordinated approach to their development, with investment in enabling infrastructure and supporting amenities, to realise their potential. Activating these strategic areas and achieving effective density and consolidation, rather than more sprawl of urban development, is a top priority.'*	**NSO1 Compact Growth** *'Carefully managing the sustainable growth of compact cities, towns and villages will add value and create more attractive places in which people can live and work. All our urban settlements contain many potential development areas, centrally located and frequently publicly owned, that are suitable and capable of being developed to provide housing, jobs, amenities and community services, but which need a streamlined and co-ordinated approach to their development, with investment in enabling infrastructure and supporting amenities, to realise their potential. Activating these strategic areas and achieving effective density and consolidation, rather than more sprawl of urban development, is a top priority.'*	The explanatory text in the revised NDP mostly mirrors that within the NPF. The only change is the insertion of the word 'community' when it refers to services that have the potential to be developed within urban settlement 'potential development areas'.
NSO2 Enhanced Regional Accessibility *'A co-priority is to enhance accessibility between key urban centres of population and their regions. This means ensuring that all regions and urban areas in the country have a high degree of accessibility to Dublin, as well as to each other. Not every route has to look east and so accessibility and connectivity between places like Cork and Limerick, to give one example, and through the Atlantic Economic Corridor to Galway as well as access to the North-West is essential.'*	**NSO2 Enhanced Regional Accessibility** The revised NDP does not fully replicate the explanatory text as set out under the NPF. However, it does comment (inter alia), as follows: *'This National Strategic Outcome seeks to enhance intra-regional accessibility through improving transport links between key urban centres of population and their respective regions, as well as improving transport links between the regions themselves.'*	The revised NDP maintains the objectives of NPF NSO2 and emphasises improving transport links as a means to enhancing intra-regional accessibility.
NSO4 Sustainable Mobility *'In line with Ireland's Climate Change mitigation plan, we need to progressively electrify our mobility systems moving away from polluting and carbon intensive propulsion systems to new technologies such as electric vehicles and introduction of electric and hybrid traction systems for public transport fleets, such that by 2040 our cities and towns will enjoy a cleaner, quieter environment free of combustion engine driven transport systems.'*	**NSO4: Sustainable Mobility** The revised NDP does not fully replicate the explanatory text as set out under the NPF. However, it does comment (inter alia), as follows: *'The National Planning Framework (NPF) recognises the importance of significant investment in sustainable mobility (active travel and public transport) networks if the NPF population growth targets are to be achieved. Investing in high-quality sustainable mobility will improve citizens' quality of life, support our transition to a low-carbon society and enhance our economic competitiveness.'*	The revised NDP maintains the objectives of NPF NSO4 and includes added emphasis on active travel and public transport as a means to support Ireland's transition to a '*low-carbon society and enhance our economic competitiveness.*'
NSO5 A Strong Economy supported by Enterprise, Innovation and Skills *'This will depend on creating places that can foster enterprise and innovation and attract investment and talent. It can be achieved by building regional economic drivers and by supporting opportunities to diversify and strengthen the rural economy, to leverage the potential of places. Delivering this outcome will require the coordination of growth and place making with investment in world class infrastructure, including digital connectivity, and in skills and talent to support economic competitiveness and enterprise growth.'*	**NSO5 A Strong Economy supported by Enterprise, Innovation and Skills** The revised NDP does not fully replicate the explanatory text as set out under the NPF. However, it does comment (inter alia), as follows: *'A competitive, innovative and resilient enterprise base is essential to provide high-quality jobs and employment opportunities for people to live and prosper in all regions. The next decade will see profound changes in our economy and society. While the impacts of Brexit and the COVID-19 pandemic will continue to challenge businesses in the first part of the decade, the digitisation of entire sectors and the transition to a low-carbon economy will be even more transformative.'*	The revised NDP maintains the objectives of NPF NSO5 and places added emphasis on providing high quality jobs and employment opportunities. In addition, it acknowledges the impacts of Brexit, COVID-19, digitisation and the transition to a '*low carbon economy*'.

NPF National Strategic Outcome (NSO)	Revised NDP NSO Explanatory Text	Consideration of Explanatory Text Changes Between NPF and Revised NFP
NSO6 High-Quality International Connectivity *'This is crucial for overall international competitiveness and addressing opportunities and challenges from Brexit through investment in our ports and airports in line with sectoral priorities already defined through National Ports Policy and National Aviation Policy and signature projects such as the second runway for Dublin Airport and the Port of Cork - Ringaskiddy Redevelopment.'*	**NSO6 High-Quality International Connectivity** The revised NDP does not fully replicate the explanatory text as set out under the NPF. However, it does comment (inter alia), as follows: *'As an island, continued investment in our port and airport connections to the UK, the EU and the rest of the world, is integral to underpinning international competitiveness. It is also central to responding to the challenges as well as the* opportunities arising from Brexit.' It also comments '*Plans for strengthening surface connectivity to ports and airports will continue to be prioritised.*'	The revised NDP maintains the objectives of NPF NSO6 and includes in the explanatory text not only aims to improve international connections via airports and ports but also the need to enhance the '*surface connectivity'* to same.
NSO7 Enhanced Amenity and Heritage *'This will ensure that our cities, towns and villages are attractive and can offer a good quality of life. It will require investment in well-designed public realm, which includes public spaces, parks and streets, as well as recreational infrastructure. It also includes amenities in rural areas, such as national and forest parks, activity-based tourism and trails such as greenways, blueways and peatways. This is linked to and must integrate with our built, cultural and natural heritage, which has intrinsic value in defining the character of urban and rural areas and adding to their attractiveness and sense of place.'*	**NSO7 Enhanced Amenity and Heritage** The revised NDP does not fully replicate the explanatory text as set out under the NPF. However, it does comment (inter alia), as follows: *'Investment in our heritage has the dual benefit of protecting our natural and historic built environment while improving health, wellbeing and providing a catalyst for the economy through the development of recreational activities and the expansion of tourism as appropriate within heritage sites. Keeping this national tourism product intact, enhanced, developed and promoted will help secure the long-term viability of sustainable tourism incomes and will need to be a priority going forward.'*	The revised NDP maintains the objectives of NPF NSO7.
NSO8 Transition to a Low Carbon and Climate Resilient Society *'The National Climate Policy Position establishes the national objective of achieving transition to a competitive, low carbon, climate-resilient and environmentally sustainable economy by 2050. This objective will shape investment choices over the coming decades in line with the National Mitigation Plan and the National Adaptation Framework. New energy systems and transmission grids will be necessary for a more distributed, renewables-focused energy generation system, harnessing both the considerable on-shore and off-shore potential from energy sources such as wind, wave and solar and connecting the richest sources of that energy to the major sources of demand.'*	**NSO8 Transition to a Climate-Neutral and Climate-Resilient Society** The revised NDP does not fully replicate the explanatory text as set out under the NPF. However, it does comment (inter alia), as follows: *'The next 10 years are critical if we are to address the climate crisis and ensure a safe and bright future for the planet, and all of us on it. In Ireland we have significantly stepped up our climate ambition. The Climate Action and Low Carbon Development (Amendment) Act 2021 commits us to a 51% reduction in our overall greenhouse gas emissions by 2030, and to achieving net zero emissions no later than by 2050.'* *'The investment priorities included in this chapter must be delivered to meet the targets set out in the current and future Climate Action Plans, and to achieve our climate objectives. The investment priorities represent a decisive shift towards the achievement of a decarbonised society, demonstrating the Government's unequivocal commitment to securing a carbon neutral future.'*	The revised NDP has changed the NPF wording for NSO8 and replaces 'low carbon' with 'climate neutral'. Climate neutral implies removing all greenhouse gases to zero which appears to be a greater government commitment than to aspire to a 'low carbon' society'. The revised NDP refers to the 'climate crisis' and the carbon reduction commitments made within the Climate Action and Low Carbon Development (Amendment) Act 2021. This new legislation places a greater sense of urgency and importance on addressing climate change.

NPF National Strategic Outcome (NSO)	Revised NDP NSO Explanatory Text	Consideration of Explanatory Text Changes Between NPF and Revised NFP
NSO9 Sustainable Management of Water, Waste and other Environmental Resources *'Ireland has abundant natural and environmental resources such as our water sources that are critical to our environmental and economic wellbeing into the future. Conserving and enhancing the quality of these resources will also become more important in a crowded and competitive world as well as our capacity to create beneficial uses from products previously considered as waste, creating circular economic benefits.'*	**NSO9 Sustainable Management of Water and Other Environmental Resources** The revised NDP does not fully replicate the explanatory text as set out under the NPF. However, it does comment (inter alia), as follows: *'In a Circular Economy, the inherent value of products, materials and our natural resources is maintained for as long as possible. Additionally, the NPF highlights the centrality of our sustainable water resources to the implementation of the NPF to underpin our environmental and economic well-being into the future which is against the backdrop of the significant deficits in water services capacity and quality reflecting historic underinvestment.'*	The revised NDP omits the word 'waste' from NSO9 but otherwise maintains the objectives of NPF NSO9. The need for a circular economy is re-emphasised within the revised NDP.
NSO10 Access to Quality Childcare, Education and Health Services *'Good access to a range of quality education and health services, relative to the scale of a region, city, town, neighbourhood or community is a defining characteristic of attractive, successful and competitive places. Compact, smart growth in urban areas and strong and stable rural communities will enable the enhanced and effective provision of a range of accessible services.'*	**NSO10 Access to Quality Childcare, Education and Health Services** The revised NDP does not fully replicate the explanatory text as set out under the NPF. However, it does comment (inter alia), as follows: *'Access to quality primary education, health services and childcare, relative to the scale of a region, city, town, neighbourhood or community is a defining characteristic of attractive, successful and competitive places.'*	The revised NDP maintains the objectives of NPF NSO10.

In summary, it is considered that the revised NDP brings up to date the explanatory text associated with the NSOs under the NPF. The enactment of the Climate Action and Low Carbon Development (Amendment) Act 2021 has placed greater emphasis on tackling climate change and utilising government policy as a means to bring about a climate neutral society and economy. The Proposed Scheme will provide the infrastructure required to deliver sustainable public transport that will assist in the drive towards a carbon / climate neutral future for Ireland.

2.3.3.3 Department of Transport: Statement of Strategy 2021 - 2023

The Statement of Strategy (DoT 2021a) sets out goals and a strategic approach which are designed to support continuing economic recovery, fiscal consolidation, job creation and social development. It notes that *'Aligned with the National Planning Framework and the National Economic Plan we will maintain and develop high quality sustainable road, public transport and active travel networks to enable economic activity, essential services and social connections between and within our cities, regions and communities.'*

The Statement of Strategy includes a commitment to *'support any necessary adaptation of our critical transport infrastructure and services in response to Ireland's changing climate.'*

The Statement of Strategy mission is *"To deliver an accessible, efficient, safe and sustainable transport system that supports communities, households and businesses".*

In regard to connectivity, the Strategy sets out that:

'Aligned with the National Planning Framework and the National Economic Plan we will maintain and develop high quality sustainable road, public transport and active travel networks to enable economic activity, essential services and social connections between and within our cities, regions and communities.'

The Proposed Scheme will provide the infrastructure necessary to support a high quality and sustainable road, public transport and active travel network along the route. It will contribute towards economic recovery through enhanced connectivity by improving both bus and cycle infrastructure allowing for greater modal choices. This supports the need for the Proposed Scheme.

2.3.3.4 Project Ireland 2040 - National Planning Framework (NPF)

The NPF's ambition is to create a single vision and a shared set of goals for each community to shape the growth and development of Ireland by providing a framework up to the year 2040. These goals are expressed as National Strategic Outcomes (NSO), shared benefits which the NPF will deliver if implemented according to the objectives of the NPF. Some of the NPF NSOs relevant for the Proposed Scheme are set out in Table 2.4 with a corresponding statement on how the Proposed Scheme meets each respective NSO objective.

Table 2.4: National Strategic Outcomes (NSO) of the NPF

National Strategic Outcome	How the Proposed Scheme meets the NSO objective
NSO1 Compact Growth '*Carefully managing the sustainable growth of compact cities, towns and villages will add value and create more attractive places in which people can live and work. All our urban settlements contain many potential development areas, centrally located and frequently publicly owned, that are suitable and capable of re-use to provide housing, jobs, amenities and services, but which need a streamlined and co-ordinated approach to their development, with investment in enabling infrastructure and supporting amenities, to realise their potential. Activating these strategic areas and achieving effective density and consolidation, rather than more sprawl of urban development, is a top priority.'*	The Proposed Scheme will facilitate the sustainable growth of Dublin through delivering transport infrastructure necessary to provide a bus network that works for a growing city. The Proposed Scheme is designed to provide a better, more reliable and more efficient bus service for everyone. The Proposed Scheme will support the creation of an attractive, resilient, equitable public transport network better connecting communities and improving access to work, education and social activity. The Proposed Scheme will bring greater accessibility to the City Centre and better connect communities and locations along its route for people to avail of housing, jobs, amenities and services. The Proposed Scheme will support enhancing the capacity of sustainable transport network, and as a consequence will help to achieve greater land use densities that will encourage compact growth in compliance with the objectives of NSO1.
NSO2 Enhanced Regional Accessibility *'A co-priority is to enhance accessibility between key urban centres of population and their regions. This means ensuring that all regions and urban areas in the country have a high degree of accessibility to Dublin, as well as to each other. Not every route has to look east and so accessibility and connectivity between places like Cork and Limerick, to give one example, and through the Atlantic Economic Corridor to Galway as well as access to the North-West is essential.'*	NSO2 recognises the importance of accessibility to Dublin for all regions and urban areas in Ireland. Dublin is clearly a vital artery in Ireland's transport network and the Proposed Scheme in enhancing links to regional bus, rail and roads infrastructure to meet the objectives of NSO2.
NSO4 Sustainable Mobility *'In line with Ireland's Climate Change mitigation plan, we need to progressively electrify our mobility systems moving away from polluting and carbon intensive propulsion systems to new technologies such as electric vehicles and introduction of electric and hybrid traction systems for public transport fleets, such that by 2040 our cities and towns will enjoy a cleaner, quieter environment free of combustion engine driven transport systems.'*	The Proposed Scheme will provide infrastructure to support a sustainable transport network that will facilitate a modal shift from private car usage to sustainable transport. It will reduce journey times and increase journey time reliability and increase the attractiveness of active travel and public transport for travel, which will in turn reduce fossil fuel usage in private travel. The Proposed Scheme will support integrated sustainable transport usage through infrastructure improvements for active travel (both walking and cycling), and the provision of enhanced bus priority measures for existing (both public and private) and all future services who will use the corridor.
NSO5 A Strong Economy supported by Enterprise, Innovation and Skills *'This will depend on creating places that can foster enterprise and innovation and attract investment and talent. It can be achieved by building regional economic drivers and by supporting opportunities to diversify and strengthen the rural economy, to leverage the potential of places. Delivering this outcome will require the coordination of growth and place making with investment in world class infrastructure, including digital connectivity, and in skills and talent to support economic competitiveness and enterprise growth.'*	The Proposed Scheme is a high-quality development that will provide the infrastructure required to facilitate sustainable transport options which will service the current and future transport needs of Dublin. Accessibility to jobs and education that underpin the economy is of fundamental importance. The Proposed Scheme will bring enhanced access to housing, employment opportunities, education and social / amenity services for the communities along the route of Proposed Scheme through supporting improved transport services.
NSO6 High-Quality International Connectivity *'This is crucial for overall international competitiveness and addressing opportunities and challenges from Brexit through investment in our ports and airports in line with sectoral priorities*	The Proposed Scheme will provide the infrastructure required to facilitate enhanced sustainable transport onward access to key international points of entry to Ireland in compliance with the objectives of NSO6.

National Strategic Outcome	How the Proposed Scheme meets the NSO objective
already defined through National Ports Policy and National Aviation Policy and signature projects such as the second runway for Dublin Airport and the Port of Cork - Ringaskiddy Redevelopment.'	
NSO7 Enhanced Amenity and Heritage *'This will ensure that our cities, towns and villages are attractive and can offer a good quality of life. It will require investment in well-designed public realm, which includes public spaces, parks and streets, as well as recreational infrastructure. It also includes amenities in rural areas, such as national and forest parks, activity-based tourism and trails such as greenways, blueways and peatways. This is linked to and must integrate with our built, cultural and natural heritage, which has intrinsic value in defining the character of urban and rural areas and adding to their attractiveness and sense of place.'*	The overall landscape and urban realm design strategy for the Proposed Scheme aims to create attractive, consistent, functional and accessible places for people alongside the core bus and cycle facilities. It aims to mitigate any adverse effects that the proposals may have on the streets, spaces, local areas and landscape through the use of appropriate design responses. In addition, opportunities have been sought to enhance the public realm and landscape design where possible. Furthermore, built and natural heritage have been key considerations in the design of the Proposed Scheme in compliance with the objectives of NSO7.
NSO8 Transition to a Low Carbon and Climate Resilient Society *'The National Climate Policy Position establishes the national objective of achieving transition to a competitive, low carbon, climate-resilient and environmentally sustainable economy by 2050. This objective will shape investment choices over the coming decades in line with the National Mitigation Plan and the National Adaptation Framework. New energy systems and transmission grids will be necessary for a more distributed, renewables-focused energy generation system, harnessing both the considerable on-shore and off-shore potential from energy sources such as wind, wave and solar and connecting the richest sources of that energy to the major sources of demand.'*	The Proposed Scheme comprises transport infrastructure that supports the delivery of an efficient, low carbon and climate resilient public transport service. The primary objective of the Proposed Scheme therefore, through the provision of necessary bus, cycle, and walking infrastructure enhancements, is the facilitation of modal shift from car dependency, and thereby contributing to an efficient, integrated transport system and a low carbon and climate resilient City in compliance with NSO8 The Proposed Scheme will provide the advantage of segregated cycling facilities. These high-quality cycle tracks will be typically 2m in width offering a high level of service and help to reduce dependency on private car use for short journeys in compliance with the objectives of NSO8. Furthermore, all drainage structures are designed with a minimum return period of no flooding in 1:30 years with a 20% climate change allowance.
NSO9 Sustainable Management of Water, Waste and other Environmental Resources *'Ireland has abundant natural and environmental resources such as our water sources that are critical to our environmental and economic wellbeing into the future. Conserving and enhancing the quality of these resources will also become more important in a crowded and competitive world as well as our capacity to create beneficial uses from products previously considered as waste, creating circular economic benefits.'*	The Proposed Scheme has been designed to minimise the amount and extent of major construction works required, and therefore minimise the quantities of construction materials required. The Proposed Scheme has taken into consideration the objectives of a circular economy and aims to re-use materials, where possible. Consideration has been given to the sustainability of material being sourced for the construction of the Proposed Scheme. Insofar as is reasonably practicable, materials required for the construction of the Proposed Scheme will be sourced locally in order to reduce the amount of travelling required to transfer the material to the site. Construction materials will be managed on-site in such a way as to prevent over-ordering and waste. A Construction and Demolition Resource and Waste Management Plan (CDRWMP) will be developed by the appointed contractor. In regard to water during the construction phase, the EIAR includes details on guidance documents and control measures for site clearance, construction compound, silty water runoff, storage of materials, working in-stream or in close proximity to watercourses, fuel storage, use of concrete and monitoring. Mitigation for the operational phase has been built into the design of the Proposed Scheme. The Proposed Scheme is compliant with the objectives of NSO9.
NSO10 Access to Quality Childcare, Education and Health Services *'Good access to a range of quality education and health services, relative to the scale of a region, city, town, neighbourhood or community is a defining characteristic of attractive, successful and competitive places. Compact, smart growth in urban areas and strong and stable rural communities will enable the enhanced and effective provision of a range of accessible services.'*	The Proposed Scheme provides infrastructure to support the delivery of sustainable transport that will benefit the entire community in terms of greater accessibility, capacity and speed of service improvements. The infrastructure improvements are along key arterial routes which include many of Dublin's childcare, educational and health care services in compliance with the objectives of NSO10.

Specifically, in regard to the Dublin City and Metropolitan Area, the NPF states that:

> '*Dublin needs to accommodate a greater proportion of the growth it generates within its metropolitan boundaries and to offer improved housing choice, transport mobility and quality of life.'* It further outlines that *'Dublin's continued performance is critical to Ireland's competitiveness. Improving the strategic infrastructure required to sustain growth will be a key priority as part of the Metropolitan Area Strategic Plan (MASP), and will include enhanced airport and port access and capacity, expansion and improvement of the bus, DART and Luas/Metro networks*…'

Under the heading '*Key future growth enablers for Dublin include*' it highlights:

> '*The development of an improved bus-based system, with better orbital connectivity and integration with other transport networks'* and *'Delivery of the metropolitan cycle network set out in the Greater Dublin Area Cycle Network Plan inclusive of key commuter routes and urban greenways on the canal, river and coastal corridors*.'

The need for the Proposed Scheme is supported by the goals of the NPF by delivering infrastructure that will facilitate high quality sustainable active travel and public transport networks. In doing so, the Proposed Scheme will facilitate an accelerated shift and the urgent transition needed towards a low carbon and climate resilient society. The proposed Scheme also includes localised urban realm improvements that will ensure a more attractive, liveable urban place for the local community living adjacent to the Proposed Scheme.

The Proposed Scheme supports the outcome of the NPF related to Compact Growth. The NPF describes how the careful management and sustained growth of compact cities, towns and villages will add value and create more attractive places in which people can live and work. A key NPF priority involves achieving effective density and consolidation, rather than more sprawl of urban development. One of the overall objectives of BusConnects is to enhance compact growth, regeneration opportunities and more effective use of land in Dublin, for present and future generation through the provision of safe and efficient sustainable transport networks. The Proposed Scheme supports this objective.

2.3.3.5 National Sustainable Mobility Policy

The National Sustainable Mobility Policy (Department of Transport 2022) sets a framework for active travel and public transport to support the 51% reduction in greenhouse gas emissions by 2030. The vision for the policy is: 'To connect people and places with sustainable mobility that is safe, green, accessible and efficient.'

The Policy includes three key principles, as follows:

1. Safe and Green Mobility;
2. People Focused Mobility; and
3. Better Integrated Mobility.

The principles are supported by 10 'high level goals' and those considered relevant to the Proposed Scheme are set out further below.

The foreword of the policy document comments, as follows:

> *'Increased funding under the National Development Plan will allow us to improve and expand walking, cycling and public transport options across the country to enable access to education, health care, work, cultural and public life by sustainable modes of travel. This will include commencing delivery of BusConnects programmes in our five cities, DART+ and Metrolink in Dublin along with increased investment in the inter-urban and regional rail network.'*

In regard to walking and cycling infrastructure the Introduction section states:

> *The design of walking and cycling infrastructure, as well as areas in the vicinity of public transport services, are important safety factors. Well-designed, well-maintained, appropriately-lit, continuous and better integrated infrastructure can help people feel safe and encourage them to choose these options*

over the private car…..Expanding walking and cycling options to promote greater use of active travel can support our climate targets to reduce emissions as well as improving fitness levels and public health, and reducing congestion and private car use. Diverting short car trips to active modes will have a particular benefit in reducing air pollution' It further comments: *'There is a need to rebalance transport movement in metropolitan areas and other urban centres away from the private car and towards active travel and public transport. This will require a greater allocation of available road/street space to be given to sustainable mobility. In addition, a rebalancing of traffic light signaling at junctions to better facilitate walking, cycling and public transport is required. The overarching objective in urban centres should be to focus more on the movement of people rather than the movement of the private car.'*

Under the heading 'Implementation, monitoring and review' it sets out that:

'The Leadership Group will report to the Minister for Transport on a quarterly basis and progress on implementation of the Policy will be overseen In order to measure progress'. It further outlines that part of the reporting will include (inter alia):

- *'Kilometres of active travel infrastructure developed annually; and*
- *Kilometres of bus lanes/bus priority developed annually.*'

The Policy supports 'Safe and Green Mobility' by (inter alia):

'Expanding bus capacity and services through the BusConnects Programmes in the five cities of Cork, Dublin, Galway, Limerick and Waterford; improved town bus services; and the Connecting Ireland programme in rural areas'.

Under the heading 'Expand availability of sustainable mobility' it comments, as follows:

'Improving active travel infrastructure in both urban and rural areas together with improved and expanded public transport services across the country is needed to reduce car dependency. Increased investment in walking and cycling infrastructure will provide a safe and connected network to those who wish to travel by active means. Implementation of public transport projects such as (inter alia): BusConnects.'

Projects such as BusConnects are identified as key priorities to deliver an improved and expanded bus service. It sets out under Goal 3 'Expand availability of sustainable mobility in metropolitan areas' the following:

'BusConnects programmes comprise a number of different elements including the network redesign of bus services and the development of core bus corridors infrastructure, including segregated cycling facilities, on the busiest routes to make journeys'.

It also outlines that:

'Our bus system carries by far the greatest number of passengers across the public transport system and improvements to it are vital in the context of improving people's accessibility and increasing modal shift. Improved and expanded bus services and infrastructure are a key priority, and in the five metropolitan areas, these improvements and expansions will be delivered through BusConnects programmes in each.'

It further comments that:

'BusConnects will enhance the capacity and potential of the public transport system by increasing and replacing the bus fleets with low emission vehicles and introducing a new system of Next Generation Ticketing and cashless payments.'

Table 2.5 sets out how the Proposed Scheme meets the Principles and Goals of the National Sustainable Mobility Policy.

Table 2.5: National Sustainable Mobility Policy Principles and Goals

Principle	Goal	Goal	Proposed Scheme Response
Safe and Green Mobility	*'Improve mobility safety.'*	*'Goal 1 aims to improve the safety of all mobility options including active travel, road and rail to prioritise the safety and security of those working on / travelling by sustainable mobility.'*	Signage and road markings will be provided along the extents of the Proposed Scheme to clearly communicate information, regulatory and safety messages to the road users. The Proposed Scheme will also generally include segregated cycling and enhanced at grade junctions improving overall safety along the corridor.
	'Decarbonise public Transport.'	*'Goal 2 aims to reduce emissions by transitioning the bus, rail and small public service vehicle (SPSV) fleet across the country to low/zero emission vehicles in line with available technology. The actions under this goal are aligned with the actions in the Climate Action Plan 2021 to reduce emissions in the sustainable mobility sector.'*	The Proposed Scheme aligns with the goal as it will make public transport and active travel a key component to the solution. The Proposed Scheme will comprise transport infrastructure that supports the delivery of an efficient, low carbon and climate resilient public transport service.
	'Expand availability of sustainable mobility in metropolitan areas.'	*'Goal 3 aims to expand the capacity and availability of sustainable mobility in our five cities (Cork, Dublin, Galway, Limerick and Waterford). This will be done through improved walking, cycling, bus and rail infrastructure, improved transport interchange and expanded public transport services. Transformed active travel and bus infrastructure and services in all five cities is fundamental to achieving the targets of 500,000 additional daily active travel and public transport journeys and a 10% reduction in kilometres driven by fossil fuelled cars by 2030.'*	The Proposed Scheme aligns with the goal as BusConnects Dublin – Core Bus Corridor Infrastructure Works is the NTA's programme to greatly improve bus services in the GDA, of which the Proposed Scheme is part. The Proposed Scheme will provide the advantage of segregated cycling facilities along the preferred route in both directions, where possible. These high-quality cycle lanes will help to reduce dependency on private car use for short journeys. The design of each junction has given priority to pedestrian, cycle and bus movements, where possible. Junctions have been designed to ensure a high level of comfort and priority for sustainable modes of travel (e.g., walking, cycling and public transport) by prioritising the space and time allocated to these modes within the operation of a junction. Along the Proposed Scheme route, improvements and enhancements will be made to footpaths, walkways and pedestrian crossings.
	'Expand availability of sustainable mobility in regional and rural areas.'	*'Goal 4 aims to expand the capacity and availability of sustainable mobility in a regional and rural context. This will be done through the delivery of improved active travel infrastructure, expansion of regional bus and*	The Proposed Scheme aligns with the goal as it will expand the capacity of the public transport network within Dublin. The Proposed Scheme will also enhance interchanges between

Principle	Goal	Goal	Proposed Scheme Response
		rail services and local bus networks, and improved connectivity between different transport modes.'	the various modes of public transport operating in Dublin City and its wider metropolitan area. The design has been developed with this in mind and, in so far as possible, is seeking to provide for improved existing or new interchange opportunities with other transport services.
	'Encourage people to choose sustainable mobility over the private car.'	*'Goal 5 aims to encourage modal shift to more sustainable options across all ages through behavioural change and demand management measures.'*	The Proposed Scheme will promote a modal shift from private car use to more sustainable forms of transport. It will enhance active travel networks and thus will encourage the use of these modes, reducing reliance on the private car.
People Focused Mobility	*'Take a whole of journey approach to mobility, promoting inclusive access for all.'*	*'Goal 6 aims to support a whole of journey approach from planning a journey to arriving at the final destination and make sustainable mobility accessible and affordable to everyone. A whole of journey approach is also supported under Goals 7 and 10 through implementing a universal design approach to the design of new and retrofitted infrastructure; adherence to the Design Manual for Urban Roads and Streets; and promoting integrated mobility through innovative technologies.'*	The Proposed Scheme aligns with the goal as it has considered the Design Manual for Urban Roads and Streets (Department of Transport formerly known as Department of Transport, Tourism and Sport 2013) and the National Cycle Manual (NTA 2011). In addition, a disability audit has been undertaken for the Proposed Scheme and has informed the design thereby promoting access for all.
	'Design infrastructure according to Universal Design Principles and the Hierarchy of Road Users model.'	*'Goal 7 aims to support enhanced permeability and ensure that the universal design principle and Hierarchy of Road Users model is used to inform future investment decisions to reduce inequalities, support a whole of journey approach, and prioritise sustainable mobility.'*	The Proposed Scheme aligns with the goal as Chapter 6 (Traffic & Transport) has considered the Permeability best practice guide (NTA 2015) as part of the Proposed Scheme.
	'Promote sustainable mobility through research and citizen engagement.'	*'Goal 8 aims to improve research and citizen engagement around sustainable mobility and collaboration with other government departments, agencies and stakeholders in delivering the Policy.'*	A consultation exercise has been undertaken and has helped to inform the design and layout of the Proposed Scheme. The NTA is also working in partnership with various government departments and third parties to deliver a high quality sustainable transport scheme for Dublin.
Better Integrated Mobility	*'Better integrate land use and transport planning at all levels.'*	*'Goal 9 aims to support compact growth and transport – oriented development through better integrated land use and transport planning.'*	The Proposed Scheme will enhance the capacity of sustainable transport infrastructure as well as the efficiency of Dublin's road network. The enhanced sustainable transport provision along the scheme corridor can help to achieve greater land use densities that will promote compact sustainable growth.

Principle	Goal	Goal	Proposed Scheme Response
	'Promote smart and integrated mobility through innovative technologies and development of appropriate regulation.'	*'Goal 10 aims to make the use of sustainable mobility and the interchange between different modes easier through investment in smart digital solutions. Alongside better integrated land use and transport planning, technological advances in transport can enable people to move seamlessly from one mode to another and support a whole of journey approach.'*	The Proposed Scheme aligns with the goal as it will enhance interchanges between the various modes of public transport operating in Dublin City and its wider metropolitan area, both now and in the future.

The Proposed Scheme is supported by the National Sustainable Mobility Policy. The Proposed Scheme as part of the BusConnects Programme is identified as a key project to help deliver Irelands climate commitments and reduction of greenhouse gas emissions from the transport sector. The implementation of the Proposed Scheme will contribute to modal shift towards sustainable transport options, it will expand, enhance and connect to pedestrian and cycle networks.

2.3.3.6 Smarter Travel – A Sustainable Transport Future: A New Transport Policy for Ireland 2009 - 2020

The Department of Transport, Tourism and Sport (DTTAS) Smarter Travel - A Sustainable Transport Future: A New Transport Policy for Ireland 2009 – 2020 (hereafter referred to as Smarter Travel) (DTTAS 2009a) is the National planning policy document to deliver an integrated transport policy for Ireland as supported by Government. A Strategic Environmental Assessment (SEA) and Appropriate Assessment (AA) were carried out as part of Smarter Travel.

It sets out a series of actions and measures covering infrastructural and policy elements to promote and encourage the vision of a sustainable travel and transport system for the period 2009 to 2020. The Smarter Travel Policy also provides funding over the lifetime of the Policy to provide information and improve facilities for cyclists, walkers, and public transport users.

The vision presented in Smarter Travel is summarised by five key goals:

- *'Improve quality of life and accessibility to transport for all and, in particular, for people with reduced mobility and those who may experience isolation due to lack of transport'*;
- '*Improve economic competitiveness through maximising the efficiency of the transport system and alleviating congestion and infrastructural bottlenecks'*;
- '*Minimise the negative impacts of transport on the local and global environment through reducing localised air pollutants and greenhouse gas emissions*';
- '*Reduce overall travel demand and commuting distances travelled by the private car*'; and
- '*Improve security of energy supply by reducing dependency on imported fossil fuels*'.

In regard to Public Transport, it sets out that:

> '*We estimate that by 2020 we will need to provide public transport to meet the needs of an additional 90,000 commuters on top of the 140,000 likely to be catered for by Transport 21. The bus will be at the heart of moving these additional people*.'

It further comments that:

> '*Bus use is particularly important for those without access to a car, the young, older people and people with mobility issues. If we are to encourage the use of public transport in Ireland, the availability of a safe, accessible, integrated and reliable service for 18+ hours of the day is essential in any attempts to increase patronage and gain more users*.'

Table 2.6 set out how the Proposed Scheme meets the key goals of Smarter Travel.

Table 2.6: Key Goals Smarter travel

Key Goals	How the Proposed Scheme Meets the Key Goals of Smarter Travel
'Improve quality of life and accessibility to transport for all and, in particular, for people with reduced mobility and those who may experience isolation due to lack of transport'	More bus shelters, seating, accessible footways and bus infrastructure to make the bus transit experience more accessible for users of all abilities and ages. Provision and enhancement of cycling facilities along the Proposed Scheme, creating routes that are safe, accessible and attractive for people of all abilities and ages.
'Improve economic competitiveness through maximising the efficiency of the transport system and alleviating congestion and infrastructural bottlenecks'	Accessibility to jobs and education that underpin the economy is of fundamental importance. The Proposed Scheme will bring enhanced access options to Dublin's employment and educational centres by improving bus speeds, reliability and punctuality through the provision of bus lanes and other measures.
'Minimise the negative impacts of transport on the local and global environment through reducing localised air pollutants and greenhouse gas emissions'	The Proposed Scheme comprises transport infrastructure that supports the delivery of an efficient, low carbon and climate resilient public transport service. The EIA assessment has been carried out according to best practice and guidelines relating to climate and greenhouse gas (GHG) emissions, and in the context of similar large-scale transport infrastructural projects. Following the application of mitigation measures, it is expected that there will be a short-term, negative and significant residual impact on climate as a result of the Construction Phase of the Proposed Scheme. The operational traffic GHG emissions associated with the Operational Phase of the scheme is predicted to be positive, significant and permanent. In addition, the Proposed Scheme will improve the modal share for public transport and lower greenhouse gases. Thus, the residual Operational Traffic Phase impact with regard to air pollutants and greenhouse gas emissions of the Proposed Scheme will align with this Goal.
'Reduce overall travel demand and commuting distances travelled by the private car'	The Proposed Scheme aligns with the objective as it will promote modal shift from private car to a more sustainable forms of transport. It enhances active travel networks and thus encourages the use of these modes reducing reliance on the private car
'Improve security of energy supply by reducing dependency on imported fossil fuels'	The Proposed Scheme aligns with the goal as it is providing the infrastructure necessary to facilitate sustainable transport.

The need for the Proposed Scheme is supported by what Smarter Travel states in relation to public transport in that it is recognized that a safe, accessible service is essential to increase patronage. The Proposed Scheme will maximise the efficiency of the transport network through the integration of cycling and public transport modes and support the provision of sustainable transport alternatives to reliance on car-based journeys.

2.3.3.7 The National Cycle Policy Framework (NCPF) 2009 - 2020

The National Cycle Policy Framework 2009-2020 (hereafter referred to as the NCPF) (DTTAS 2009b) is Ireland's cycling policy framework. The vision is to create a strong cycling culture in Ireland, stating that '*Cycling will be a normal way to get about, especially for short trips'*. The NCPF outlines 19 specific objectives, so that by the year 2020 10% of all journeys made were intended to be by bike. This policy framework outlines a number of interventions to make cycling easier and safer.

The interventions specific to the Proposed Scheme are set out in Table 2.7.

Table 2.7: NCPF Interventions and Objectives

Interventions and Objectives	How the Proposed Scheme meets the Interventions and Objectives
'*We will pay special attention to integrating cycling and public transport (PT). As commuting distances are lengthening, the importance of combining the bicycle with the bus, tram or train grows. We will provide state-of-the-art cycling parking at all appropriate PT interchanges and stops*.	The Proposed Scheme aligns with the objective as it will enhance the interchange between the various modes of public transport operating in the city and wider metropolitan area, both now and in the future. Bus Infrastructure as well as cycle and pedestrian infrastructure largely run in parallel proximate to each other which improves the potential for interchange between the modes. Furthermore, bike parking will generally be provided where practicable at Bus Stops. .
Objective 2: 'Ensure that the urban road infrastructure is designed/retrofitted so as to be cyclist-friendly and that traffic management measures are also cyclist friendly'	The design of each junction has given priority to pedestrian, cycle and bus movements. Junctions have been designed to ensure a high level of comfort and priority for sustainable modes of travel e.g. walking, cycling and public transport by prioritising the space and time allocated to these modes within the operation of a junction.

Interventions and Objectives	How the Proposed Scheme meets the Interventions and Objectives
Objective 8: 'Ensure proper integration between cycling and public transport' will assist in increasing the uptake in cycling across the region.'	The Proposed Scheme aligns with the objective as it will provide improved travel times combined with increased services which will promote an efficient, reliable and frequent public transport service as well as provide the advantage of segregated cycling facilities along the preferred route in both directions. Also, as set out above, bus stops will include bike parking where possible to encourage / facilitate interchange between modes.

The NTA's Canal Cordon Count measures the number of trips into Dublin City Centre on a typical morning in November of each year. Data is collected for all common modes of transport including walking and cycling.

Transport Trends 2020 (DoT 2021) states that data for 2019 shows an increase in the number of cyclists recorded entering the city to 13,131, up from 12,227 in 2018. It should be noted that the 2019 data represents the last Canal Cordon Count dataset prior to the effects of the COVID-19 pandemic on travel patterns and volumes entering Dublin City Centre.

The need for the Proposed Scheme is supported by the objectives set in the NCPF through the provision of safe cycling infrastructure segregated from general traffic, wherever practicable. In addition the Proposed Scheme provides bike parking adjacent to bus stops to encourage interchange between bus and cycle modes in accordance with the objectives of the NCPF.

2.3.3.8 Road Safety Strategy 2021 – 2030.

The Road Safety Strategy 2021 – 2030 (RSA 2021) works towards achieving 'Vision Zero' which is to achieve the long term goal of eliminating deaths and serious injuries in road traffic collisions by 2050. The strategy *'involves the promotion of the safer modes (e.g., public transport, such as bus and rail travel), and the promotion and provision of safe road environments for otherwise healthy, active modes. This includes walking and cycling, where the risks of death and serious injury in the event of a collision are higher than for protected in-vehicle road users.'*

The Strategy acknowledges that '*The promotion and increased uptake of public transport can greatly contribute to fatality and serious injury reductions over the course of the 2021-2023 strategy'. It continues 'The substantial societal benefits of increased active travel (i.e. walking or cycling) must also be acknowledged in light of Ireland's climate objectives, including reduced emissions, traffic congestion and noise pollution, and increased physical activity and its related health benefits.'*

A key action of Phase 1 of the strategy, during the 2021 – 2025 period is to '*construct 1,000km of segregated walking and cycling facilities to provide safe cycling and walking arrangements for users of all ages'.*

The Proposed Scheme will provide the infrastructure necessary to facilitate a public transport network which the Strategy acknowledges is a 'safer mode' of travel.

The Proposed scheme will contribute to improved road safety through improvement works at junctions and upgrades to the pedestrian and cycling infrastructure along the route. The Proposed Scheme provides for significant additional segregation between active travel users and the public road to help enhance safety.

2.3.3.9 Climate Action and Low Carbon Development (Amendment) Act 2021

The Climate Action and Low Carbon Development (Amendment) Act 2021 sets out the central objective relating to emission reductions. It legally binds Ireland to have net-zero emissions no later than 2050 and to a 51% reduction in emissions by the end of the decade (2030), against a base of 2018 emissions. The Act sets out the following:

> *'The first two carbon budgets proposed by the Advisory Council shall provide for a reduction in greenhouse gas emissions such that the total amount of annual greenhouse gas emissions in the year ending on 31 December 2030 is 51 per cent less than the annual greenhouse gas emissions reported for the year ending on 31 December 2018, as set out in the national greenhouse gas emissions inventory prepared by the Agency.'*

The implementation of the Proposed Scheme will deliver transport infrastructure required to support a significant shift towards sustainable transport options that will in turn support the targets set out in the Climate Action and Low Carbon Development (Amendment) Act 2021. This supports the need for the Proposed Scheme.

2.3.3.10 Climate Action Plan 2021

The Climate Action Plan 2021 (Government of Ireland 2021b) sets out at a National level how Ireland is to halve its emissions by 2030 (51% reduction) and reach net zero no later than 2050. The Climate Action Plan is a road map to delivering Irelands climate ambition. There are 475 actions identified that extend to all sectors of the economy aiming to transform Ireland into a low carbon nation over the next three decades.

In regard to modal shift the Climate Action Plan 2021 sets out that:

> *'The proposed pathway in transport is focused on accelerating the electrification of road transport, the use of biofuels, and a* ***modal shift*** *to transport modes with lower energy consumption (e.g. public and active transport)'* (emphasis added).

Promoting more sustainable travel modes is seen as critical for climate policy. It offers an opportunity to *'improve our health, boost the quality of our lives, meet the need of our growing urban centres and connects our rural, urban and suburban communities'.*

The key targets to meet the emissions reduction include:

- '*Provide for an additional 500,000 daily public transport and active travel journeys';*
- *'Develop the required infrastructural, regulatory, engagement, planning, innovation and financial supports for improved system, travel, vehicle and demand efficiencies'; and*
- *'Reduce ICE [Internal Combustion Engine] kilometres by c. 10% compared to present day levels'*.

ICE reduction measures include:

- '*Reallocating road space from the private car to prioritise walking, cycling and public transport';*
- *'Enhancing permeability for active travel'; and*
- *'Delivering safer walking and cycling routes to encourage greater uptake of active transport.*'

BusConnects is referenced as a major transport project that will help to deliver the 500,000 additional sustainable journeys. A key goal of the plan is to provide citizens with reliable and realistic sustainable transport options. The Climate Action Plan further states:

> *'The new approach to public transport will be based on a vision of an integrated public transport network, enabling short, medium and long distance trips for people in every part of Ireland. This will mean increasing the frequency of existing rail and bus services, and expanding the bus network through the Connecting Ireland approach.'*

Table 2.8 describes the Actions and how the Proposed Scheme meets the specific action.

Table 2.8: Climate Action Plan Transport Actions

Action Number	Action	How the Proposed Scheme Meets the Action
225	*'Continue the improvement and expansion of the Active Travel and Greenway Network'*	The Proposed Scheme will promote active travel through the provision of enhanced cycle and pedestrian infrastructure.
227	*'Construct an additional 1,000km of cycling and walking infrastructure'*	The Proposed Scheme aligns with the action as it will provide segregated cycling facilities along the Proposed Scheme in both directions.
228	*'Encourage an increased level of modal shift towards Active travel (walking and cycling) and away from private car use'*	The Proposed Scheme will provide the infrastructure required to promote modal shift from private car to a more sustainable forms of transport and increased bus priority which are key actions in the plan.
233	*'Commence delivery of BusConnects Network Redesign Dublin'*	BusConnects Dublin Programme is the National Transport Authority's programme to greatly improve bus services in the Greater Dublin Area of which the Proposed Scheme is part.
235	*'Commence delivery of BusConnects Core Bus Corridor Infrastructure Works'*	BusConnects Dublin Programme is the National Transport Authority's programme to greatly improve bus services in the Greater Dublin Area of which the Proposed Scheme is part.
256	*'Deliver sustainable bus priority measures on the National Road Network'*	The Proposed Scheme will provide the infrastructure required to increase bus priority which is a key action of the plan. The Proposed Scheme includes the provision of enhanced bus priority measures for existing (both public and private) and all future services who will use the corridor.

The delivery of the Proposed Scheme will deliver the transport infrastructure required to provide sustainable transport options that will support the key actions set out in the Climate Action Plan 2021. The Proposed Scheme will expand, enhance and connect to pedestrian and cycle networks and will assist in facilitating the delivery of modal shift.

BusConnects will support the delivery of an efficient low carbon and climate resilient public transport service, contributing to emission reduction target achievement. BusConnects will contribute to Ireland's journey to a low carbon / carbon neutral, energy efficient and reliable transport system which aligns with Government net zero policy commitments and enable customers to make sustainable choices.

Acknowledging that various policy initiatives are required to deliver national targets that are aligned to the Paris Agreement, BusConnects can facilitate services that are beneficial to communities. While mandated reductions are not required at an individual scheme level, carbon must be invested wisely. EIAR Chapter 8 (Climate) contains an assessment of the greenhouse gas emissions associated with the Proposed Scheme.

2.3.3.11 Programme for Government – Our Shared Future 2020

The Programme for Government – Our Shared Future 2020 (hereafter referred to as the Programme for Government) (Government of Ireland 2020) sets out the Government's plan for the next five years. It states, '*Develop and implement existing strategies for our cities such as 'the greater Dublin Area Transport Strategy'.* The key objectives of the programme include:

- '*Address pinch points for buses and expand priority signalling for buses and real time information;* and
- *Give greater priority to bus services by expanding quality bus corridors and consider the introduction of Bus Rapid Transport services.'*

Specifically, in regard to BusConnects, the Programme for Government states it will also *'prioritise plans for the delivery of…BusConnects in Dublin'.*

The BusConnects Programme, with the Proposed Scheme forming an important part, continues to be identified as a key project to help deliver Ireland's long-term growth aspirations and climate commitments. The need for the Proposed Scheme supports the delivery as part of the Programme for Government (Government of Ireland 2020) and fully complies with the key objectives of same.

2.3.3.12 Building on Recovery: Infrastructure and Capital Investment 2016 – 2021

The Building on Recovery: Infrastructure and Capital Investment Plan (Department of Public Expenditure and Reform 2015) (hereafter referred to as the Capital Plan) was published by the Department of Public Expenditure and Reform in September 2015. It presented the findings of a Government-wide review of infrastructure and capital investment policy and outlined the Government's commitment to ensuring that the country's stock of infrastructure is capable of facilitating economic growth.

This report identifies the need to improve public transport facilities noting:

> *'It is therefore essential that road, rail and public transport networks are developed and maintained to the standard required to ensure the safe and efficient movement of people and freight. In addition, getting people out of cars and onto public transport has a key role to play in reducing Ireland's carbon emissions, by providing a viable, less polluting alternative to car and road transport for many journeys.'*

The transport capital allocation in this Capital Plan is largely framed by the recommendations and priorities set out in the 2015 DTTAS Strategic Investment Framework for Land Transport (DTTAS 2015), which centre on:

- Maintaining and renewing the strategically important elements of the existing land transport system;
- Addressing urban congestion; and
- Maximising the contribution of land transport networks to our national development.

The Capital Plan incorporates the following key objectives relevant to this Proposed Scheme:

- €3.6 billion of Public Transport Investment including further upgrading of Quality Bus Corridors.

The need for the Proposed Scheme is supported by these recommendations, priorities and objectives as set out in the Strategic Investment Framework for Land Transport (DTTAS 2015), and the Capital Plan. The Proposed Scheme is a significant investment in the improvement of public transport facilities including bus, cycle and pedestrian network enhancements and extensions.

2.3.3.13 The Sustainable Development Goals National Implementation Plan 2018 – 2020

As set out in Section 2.3.1.1, the UN's 2030 Agenda aims to deliver a more sustainable, prosperous, and peaceful future for the entire world. The Sustainable Development Goals National Implementation Plan 2018 - 2020 (DCCAE 2018) is in direct response to the 2030 Agenda for Sustainable Development and provides a whole-of-government approach to implement the 17 SDGs.

The Sustainable Development Goals National Implementation Plan also sets out 19 specific actions to implement over the duration of this first SDG National Implementation Plan. Goals 9 and 11 are particularly relevant to the Proposed Scheme. These are set out in Table 2.9.

Table 2.9: Sustainable Development Goals and Targets Aligned with the Proposed Scheme

Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation	
Target 9.1	Develop quality, reliable, sustainable, and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human wellbeing, with a focus on affordable and equitable access for all.
Goal 11: Make cities and human settlements inclusive, safe, resilient, and sustainable	
Target 11.2	By 2030, provide access to safe, affordable, accessible, and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.

The need for the Proposed Scheme is supported by the goals and targets set out in the Sustainable Development Goals National Implementation Plan as it provides infrastructure that will support sustainable transport and will improve the safety of road users through the segregation of road vehicles and active travel modes.

2.3.3.14 Investing in Our Transport Future – Strategic Investment Framework for Land Transport 2015

Investing in Our Transport Future – Strategic Investment Framework for Land Transport (DTTAS 2015) (hereafter referred to as SILFT) sets out the priorities to guide the allocation of future investment to develop and manage Irelands transport network. It establishes:

- *'High level priorities for future investment in land transport; and*
- *Key principles, reflective of those priorities, to which transport investment proposals will be required to adhere'.*

Addressing urban congestion and maximizing the contribution of land transport networks to our national development are key priorities of the SILFT Measures to address both, including:

- *'Improved and expanded public transport capacity';*
- *'Improved and expanded walking and cycling infrastructure'*; and
- '*Support identified national and regional spatial planning priorities'*.

The key principles for land transport investment proposals are:

- *'The foremost priority for land transport funding should be the maintenance and renewal of identified strategically important elements of the existing land transport system, so as to protect earlier investment and maintain essential functioning';*
- *'The second key priority for investment involves measures to address current and future urban congestion including, in particular, improved public transport and additional transport capacity, better and additional walking and cycling infrastructure, improving efficiency and increased use of Intelligent Transport Systems';* and
- *'To receive funding, transport projects must be implemented in conjunction with the implementation of supportive national and regional spatial planning policies, along with other demand management measures where appropriate'.*

The SIFLT states that the overall outcomes of transport investment, as governed by these principles, should maintain and improve the quality of life of citizens and be consistent with environmental, climate and biodiversity objectives, imperatives and obligations, including those arising from the EU Habitats Directive.

The need for the Proposed Scheme is supported by the 'priorities' set out by the SIFLT as the infrastructure will support the improvement and expansion of public transport capacity and provide significantly improved facilities for active travel. The Proposed Scheme will improve the efficiency of public transport and encourage mode shift through delivering journey time savings and reliability on the corridor.

2.3.3.15 National Investment Framework for Transport in Ireland

The Department of Transport (DoT) has finalised the transport framework, the National Investment Framework for Transport in Ireland (hereafter referred to as NIFTI) (DoT 2021) to ensure alignment with the policies of the NPF. NIFTI sets out the DoT's strategy for the development and management of Ireland's land transport network (roads, public transport, walking and cycling) over the next two decades. The NPF and its projections around population and settlement patterns are central to the development of NIFTI. The purpose of NIFTI is to enable the delivery of Project Ireland 2040 and the ten National Strategic Objectives (NSOs) by guiding the appropriate investment in Ireland's roads, active travel and public transport infrastructure.

To invest sustainably, NIFTI establishes hierarchies which prioritise environmentally sustainable and proportional solutions to a given transport need or opportunity. In combination, it is intended that these hierarchies will ensure that we tackle the right problems with the right solutions.

NIFTI sets out the types of positive outcomes transport investment can deliver, including:

- Delivering clean, low carbon and environmentally sustainable mobility;
- Supporting Successful Places and Vibrant Communities;
- Facilitating Safe, Accessible, Reliable and Efficient Travel on the Network; and
- Promoting a Strong and Balanced Economy.

NIFTI was published by the DoT on 21 December 2021 and includes investment hierarchies that ensure strategic alignment of future transport investment and to support the NPF. The investment priorities are based on two hierarchies; Modal and Intervention which are set out below:

Modal Hierarchy

NIFTI Modal Hierarchy is:

1. Active Travel;
2. Public Transport; and
3. Private Vehicles.

The plan states that future transport planning will prioritise sustainable modes and

'……sets out a hierarchy of travel modes to be accommodated and encouraged when investments and other interventions are made. Sustainable modes, starting with active travel and then public transport, will be encouraged over less sustainable modes such as the private car.

Active travel is the most sustainable mode of travel. Increasing the share of active travel can reduce the carbon footprint of the transport sector, improve air quality, reduce urban congestion, and bring about positive health impacts as a result of increased physical activity. The attractiveness of this mode is dependent on infrastructure — for example, dedicated footpaths, segregated cycle lanes and the quality and priority of road crossing points all impact upon the number of people engaging in active travel.'

Intervention Hierarchy

NIFTI Intervention Hierarchy is:

1. Maintain;
2. Optimise;
3. Improve; and
4. New.

'To support the delivery of the NPF, and to make best use of our existing assets, a hierarchy of these intervention types will be applied. Maintaining the existing transport network will be given first priority, followed by maximising the value of the network through optimising its use. Infrastructural investments will only be considered after these two categories have been assessed as inappropriate for the identified problem, with upgrades to existing infrastructure to be considered before new infrastructure.'

De-carbonising the transport sector is a key priority for reaching Ireland's climate change targets. NIFTI supports sustainable mobility and encourages active travel and public transport. It supports projects that will reduce urban congestion, particularly those that include new sustainable mobility infrastructure and optimises the existing infrastructure to prioritise sustainable transport modes.

The need for the Proposed Scheme is supported by the NIFTI (DoT 2021) as it will facilitate accessible and reliable public transport. It supports sustainable transport modes including active travel modes. NIFTI recognises that active travel is the most sustainable mode of travel and acknowledges that the attractiveness of this mode is dependent on infrastructure—for example, dedicated footpaths, segregated cycle lanes and the quality and priority of road crossing points all impact upon the number of people engaging in active travel. The Proposed Scheme will provide improved infrastructure for active travel modes.

2.3.4 Regional Policy

2.3.4.1 Transport Strategy for the Greater Dublin Area 2016 - 2035

The National Transport Authority's (NTA) Transport Strategy for the Greater Dublin Area 2016 - 2035 (hereafter referred to as the GDA Transport Strategy) (NTA 2016) has been prepared in accordance with Section 12 of the Dublin Transport Authority Act 2008 (as amended) and was approved in April 2016 by the then Minister for Transport, Tourism and Sport. The GDA Transport Strategy is an essential component for the orderly

development of the GDA over the next 20 years. The purpose and primary objective of the GDA Transport Strategy is '*to contribute to the economic, social and cultural progress of the Greater Dublin Area by providing for the efficient, effective and sustainable movement of people and goods'*.

The GDA Transport Strategy sets out the necessary transport provision, for the period up to 2035, to achieve the above objective for the region.

As part of the GDA Transport Strategy the Core Bus Network is to be developed to achieve a continuous priority for bus movement on sections of the Core Bus Network with the Metropolitan area. This is to be achieved through enhanced bus lane provisions, the removal of delays along the routes and enable the bus to provide a faster mode of transport to cars along these routes.

The GDA Transport Strategy highlights Core Radial Bus Networks and under the heading '*Bus Infrastructure'* sets out that:

> '*In order to ensure an efficient, reliable, and effective bus system, it is intended, as part of the Strategy, to develop the Core Bus Network to achieve, as far as practicable, continuous priority for bus movement on the portions of the Core Bus Network within the Metropolitan Area. This will mean enhanced bus lane provision on these corridors, removing current delays on the bus network in the relevant locations and enabling the bus to provide a faster alternative to car traffic along these routes, making bus transport a more attractive alternative for road users. It will also make the overall bus system more efficient, as faster bus journeys means that more people can be moved with the same level of vehicle and driver resources*.'

Section 5.6 of the GDA Transport Strategy sets out cycle policy in the Region. The routes identified in the Transport Strategy are those established in the GDACNP (NTA 2013).

The provisions of the Transport Strategy (including bus-based transport modes) were evaluated for potential significant effects, and measures integrated into the Strategy on foot of SEA recommendations in order to ensure that potential adverse effects were mitigated.

The need for the Proposed Scheme is supported by the GDA Transport Strategy in so far as it will provide infrastructure required to facilitate *'a continuous priority for bus movement on sections of the Core Bus network within the Metropolitan area.'* The Proposed Scheme will realise the objectives of the GDA Transport Strategy by providing the enhanced bus lanes, removing 'bottlenecks' and making the bus a faster and more reliable option to commuters than car-based transport.

The Draft Greater Dublin Area Transport Strategy 2022- 2042 has now been published for consultation and this is reviewed in Section 2.3.4.3 .

2.3.4.2 GDA Transport Strategy Integrated Implementation Plan 2019 - 2024

The NTA is required to prepare a series of 'Integrated Implementation Plans' (for the GDA Transport Strategy) (NTA 2016) under Section 13(1) of the Dublin Transport Authority Act 2008 (as amended). These plans set out the transport planning investment priorities over a six-year period. The most recent Integrated Implementation Plan 2019 – 2024 (hereafter referred to as the 2019 Implementation Plan) (NTA 2019) was published in December 2019. A SEA and AA were carried out as part of the Implementation Plan process.

An Integrated Implementation Plan is required to comprise among other things:

- *An infrastructure investment programme, identifying the key objectives and outputs to be pursued by the Authority over the period of the Plan; and*
- *The actions to be taken by the Authority to ensure the effective integration of public transport infrastructure over the period of the Plan.*

The 2019 Implementation Plan was prepared to be aligned with the Government's review on capital spending. As such, the 2019 Implementation Plan identifies the key objectives and outputs to be followed by the NTA within the

corresponding period of the NDP (Government of Ireland 2018a) and the actions to be taken to ensure effective integration of public transport infrastructure. The key objectives of the 2019 Implementation Plan include to:

- '*Provide a well-designed and effective bus network that optimises routes and services to meet passenger demand;*
- *Ensure the efficient use of available resources in delivering bus services;*
- *Seek to reduce overall journey times and improve the reliability of bus services;*
- *Improve service patterns by enhancing services in off-peak periods, in the evenings, and at weekends. 24-hour bus services will be introduced on key cross-city corridors in Dublin;*
- *Develop greater interchange with other transport modes;'*
- *'Provide an attractive, comfortable, clean, accessible and modern bus fleet'*;
- *'Improve the environmental performance of the bus fleet'* and
- *'Building a network of new bus corridors on the busiest bus routes to make bus journeys faster, predictable, and reliable.'*

The Implementation Plan also sets out under the heading *'Strategic Framework for Investment in Land Transport'* that:

> *'it is not just the bus system that will be transformed under BusConnects Dublin. The same corridors that are important for buses are also the main cycling routes in the city. BusConnects Dublin will see safe cycling facilities provided along each corridor, segregated as far as practicable from other traffic. The cycling infrastructure delivered under this programme will form the core of the regions cycling network and deliver a radical step change in cycling facilities.'*

The background to the 2019 Implementation Plan was Irelands continuing emergence from the severe economic recession experienced for a period from 2008 onwards. The 2019 Implementation Plan acknowledged the strong growth in the economy in the years leading up to 2019, with more and more people at work and the number of visitors to the country at record levels. However, alongside the recovery, there were growing challenges identified, with traffic and transport among the key issues facing the Dublin region.

Congestion was identified in the 2019 Implementation Plan as being one of the most significant challenges facing the State, and as we plan for significant population growth, and associated economic, social, cultural and recreational activity, we must provide a transport system that not only addresses this challenge but supports and fosters further sustainable development.

The 2019 Implementation Plan recognised the significance of the need for action to reduce the use of fossil fuels and diminish the generation of greenhouse gases. Transport, as a major producer of greenhouse gases, requires transformation to contribute to the achievement of these objectives.

The NTA therefore seeks to ensure primacy for transport options which provide for unit reductions in carbon emissions. This can most effectively be done by improving public transport, walking and cycling infrastructure that can lead to reduced car use dependence in circumstances where alternative options are available.

The overall findings of the SEA of the plan, include that the 2019 Implementation Plan will facilitate a mode shift away from the private car to public transport, walking and cycling and associated positive effects.

It is an objective of the 2019 Implementation Plan to build on the work already achieved in the GDA with respect to catering for greater bus movement. The intention set out in the 2019 Implementation Plan is to progress the development of the Core Bus Corridors (the CBC Infrastructure Works) to achieve, as far as practicable, continuous priority for bus movement.

The need for the Proposed Scheme is supported by the 2019 Implementation Plan's stated aim to *'overhaul the current bus system in the Dublin region by* (inter alia):

- *Building a network of new bus corridors on the busiest bus routes to make bus journeys faster, predictable, and reliable.*

The Proposed Scheme will provide the infrastructure necessary to deliver the transformational change of the current bus network required to meet objectives such as, greater efficiency, reduction in journey times and improve environmental performance. The Proposed Scheme design has been developed by NTA and takes account of policy objectives in the Implementation Plan. This supports the need for the Proposed Scheme.

2.3.4.3 Draft Greater Dublin Area Transport Strategy 2022 – 2042

The Draft NTA Transport Strategy for the Greater Dublin Area 2022-2042 (NTA 2021a) (hereafter described as the Draft GDATS) was published for consultation on the 9 November 2021 and has been prepared in accordance with Section 12 of the Dublin Transport Authority Act 2008 (as amended). It will replace the previous Transport Strategy for the Greater Dublin Area 2016-2035. Under the Dublin Transport Authority Act 2008, the NTA must review its Transport Strategy every six years. The Draft GDATS is considered to be an essential component for the orderly development of the GDA for the next 20 years. The overall aim of the strategy is *"To provide a sustainable, accessible and effective transport system for the Greater Dublin Area which meets the region's climate change requirements, serves the needs of urban and rural communities, and supports economic growth."* A key focus of the strategy is to enable increased use of other transport modes to meet environmental, economic and social objectives related to emissions, congestion and car dependency.

The Transport Objective is: *'To deliver a high quality, equitable and accessible transport system, which caters for the needs of all members of society.'*

The Draft GDATS sets out the necessary transport provision, for the period up to 2042, to achieve the above objective for the region.

The Draft GDATS considers that due to the dispersed nature of development in the GDA the bus system represents the most suitable public transport solution across much of the region.

The Draft GDATS comments that the NTA in recent years have introduced a '*step change in the quality of the overall bus system*' through different programmes one of which being BusConnects., The main objective of these programmes is increasing the share of people using public transport. The Draft GDATS also comments that the NTA intends to have submitted applications to An Bord Pleanála for the 12 Core Bus Corridor Schemes in the early months of 2022. The Draft GDATS further comments:

> *'Subject to obtaining statutory planning approvals, the NTA will proceed to construct these key bus arteries within the Dublin area. They will facilitate faster and more reliable bus journeys on the busiest bus corridors in the Dublin region, making the overall bus system more convenient and useful for more people. In addition, key elements of the Cycling Network Plan for the GDA will be delivered as part of these corridors.'*

The revised GDA Cycle Network forms part of the Draft GDATS, (See Section 2.3.4.5 below).

The Draft GDATS aims to:

- Increase Cycle Mode Share to 12% by 2042;
- Provide 322km of Primary Cycle network,
- Include 1,060km of Secondary Cycle Network; and
- Promote an additional 450,000 daily cycling trips.

The Draft GDATS sets out a range of measures and those of relevance to the Proposed Scheme are outlined in Table 2.10.

Table 2.10: Draft GDA Transport Strategy 2022 – 2042 Measures

Measure Number	Measure	How the Proposed Scheme Meets the Measure
PLAN12 - Urban Design in Major Infrastructure Projects	*'The NTA will incorporate a high standard of urban design and placemaking into the planning and design of all major public transport infrastructure schemes and will consider how greater biodiversity could be fostered.'*	The overall landscape and urban realm design strategy for the Proposed Scheme aims to create attractive, consistent, functional and accessible places for people alongside the core bus and cycle facilities. In addition, opportunities have been sought to enhance the urban realm and landscape, where possible. All the plants and trees selected will be appropriate to the urban location. The enhancement opportunities include key nodal locations which focus on locally upgrading the quality of the paving materials, extending planting, decluttering of streetscape and general placemaking along the route
Measure PLAN13 – Urban Design in Walking and Cycling Projects	*'In the design, planning and prioritisation of walking and cycling schemes, the NTA and the local authorities will ensure the incorporation of urban design and placemaking considerations.'*	The overall landscape and urban realm design strategy for the Proposed Scheme aims to create attractive, consistent, functional and accessible places for people alongside the core bus and cycle facilities Along the route of the Proposed Scheme, improvements and enhancements will be made to footpaths, walkways, and pedestrian crossings. Additional landscaping and outdoor amenities will be provided, to from including junction reconfiguration, reinforcement of existing vegetation areas and the establishment of new urban realm and landscape opportunity areas. The enhancement opportunities include key nodal locations which focus on locally upgrading the quality of the paving materials, extending planting, decluttering of streetscape and general placemaking along the route.
Measure PLAN14 – Reallocation of Road Space	*'The NTA, in conjunction with the local authorities, will seek the reallocation of road space in Dublin City Centre, Metropolitan towns and villages, and towns and villages across the GDA to prioritise walking, cycling and public transport use and prioritise the placemaking functions of the urban street network.'*	The Proposed Scheme will support integrated sustainable transport usage through road space reallocation in support of infrastructure improvements for active travel (both walking and cycling), and the provision of enhanced bus priority measures for existing (both public and private) and all future services who will use the corridor. Along the Proposed Scheme road space has been reallocated to provide increased transport options for example: M50 Junction to Chapelizod Bypass section.
MEASURE PLAN16 – The Road User Hierarchy	*'The NTA, in the decision-making process around the design, planning and funding of transport schemes in the GDA, will be guided by the priority afforded to each mode in the Road User Hierarchy as set out in the Transport Strategy.'*	The Proposed Scheme aligns with the measure as it will promote modal shift from private car to a more sustainable forms of transport. It enhances active travel networks and thus encourages the use of these modes reducing reliance on the private car.
Measure INT1 – Integration of all Modes in Transport Schemes	*'It is the intention of the NTA, in the design and planning of transport schemes, to ensure that the needs of all transport modes are considered, as appropriate, based on the objectives of the scheme and on the road user hierarchy.'*	The Proposed Scheme aligns with the measure as it will service the current and future transport needs of Dublin. It enhances active travel networks and thus encourages the use of these modes reducing reliance on the private car.
Measure INT5 - Interchange	*'It is the intention of the NTA, in conjunction with local authorities and transport operators, to ensure that passengers wishing to change between services on the transport network are provided with as safe, convenient and seamless interchange experience.'*	The Proposed Scheme aligns with the measure as it will enhance the interchange between the various modes of public transport operating in the city and wider metropolitan area, both now and in the future. The design has been developed with this in mind and, in so far as possible, is seeking to provide for improved existing or new interchange opportunities with other transport services. These include: • GDA Cycle Network (Primary, Secondary and feeder routes); • The Luas Red Line at Heuston Station; • The Kildare rail line at Heuston Station; • Liffey Valley to City Centre Core Bus Corridor at three locations;
Measure INT14 – Walking and Cycling at Night	*'The NTA and local authorities will ensure that personal security and safety for those travelling at night by walking and cycling are carefully considered in the design process for new schemes and in retrofitting existing schemes where such issues arise.'*	The Proposed Scheme has considered security and safety in its design, and it provides lighting as appropriate to the end use. The Proposed Scheme will include upgrades to existing public lighting.

Measure Number	Measure	How the Proposed Scheme Meets the Measure
Measure INT15 – Accessible Infrastructure	*'During the period of the Transport Strategy, the NTA will ensure that public transport infrastructure, and facilities in the GDA are made accessible for all users.'*	The Proposed Scheme has been designed to include: • More bus shelters, seating, accessible footways and bus infrastructure to make the bus transit experience more accessible for users of all abilities and ages; • Provision and enhancement of cycling facilities along the Proposed Scheme, creating routes that are safe, accessible and attractive for people of all abilities and ages.
Measure WALK3 – Improved Junctions	*'The NTA, in conjunction with local authorities, will implement junction improvements across the GDA as follows:* *• To enhance safety at junctions, a programme of "narrowing" junctions by reducing kerb-line radii will be undertaken as a means of managing vehicular speeds; and* *• To enhance movement by pedestrians and cyclists, a programme of removal of slip lanes will be undertaken at appropriate locations, together with consideration of junction signalling changes to better balance the use of the junction between motorised and vulnerable modes.'*	The Proposed Scheme provides infrastructure that will support sustainable transport and will improve the safety of road users through junction improvement and the segregation of road vehicles and active travel modes. The design of each junction has given priority to pedestrian, cycle and bus movements. Junctions have been designed to ensure a high level of comfort and priority for sustainable modes of travel e.g. walking, cycling and public transport by prioritising the space and time allocated to these modes within the operation of a junction.
Measure WALK8 – Persons with Disabilities	*'Local authorities in the GDA and the NTA will take full account of people with disabilities and pedestrians with mobility impairments when delivering transport schemes which affect the pedestrian environment; and will implement improvements to existing facilities where appropriate and encourage the enforcement of the Road Traffic Laws in this regard.'*	An Accessibility Audit of the existing infrastructures provided for people with disabilities along the Proposed Scheme was carried out in 2020 to identify any existing issues for mobility-impaired persons. This audit has informed the design of the Proposed Scheme. The audit assessed footpaths, crossings / junctions, bus stops, parking and access for users with disabilities. Traffic signal layout design included accessibility considerations for the mobility impaired. Potential areas of conflict with other non-motorised users were considered to provide suitable separation where possible. It has been designed to include: • More bus shelters, seating, accessible footways and bus infrastructure to make the bus transit experience more accessible for users of all abilities and ages; and • Provision and enhancement of cycling facilities along the Proposed Scheme, creating routes that are safe, accessible and attractive for people of all abilities and ages.
Measure CYC1 – GDA Cycle Network	*'It is the intention of the NTA and the local authorities to deliver a safe, comprehensive, attractive and legible cycle network in accordance with the updated Greater Dublin Area Cycle Network.'*	The Proposed Scheme aligns with the measure as it provides segregated cycling facilities along the route of the Proposed Scheme in both directions. The full route accords with Primary and Secondary routes identified in the updated GDA Cycle Network. These high-quality cycle tracks will generally be 2.0m in width offering a high level of service and help to reduce dependency on private car use for short journeys
Measure PT2 – Climate Proofing New Public Transport Infrastructure	*'The NTA will ensure that all new public transport infrastructure is proofed against the potential impacts arising from climate change.'*	The Proposed Scheme aligns with the measure as it comprises transport infrastructure that supports the delivery of an efficient, low carbon and climate resilient public transport service.
Measure BUS1 – Core Bus Corridor Programme	*'Subject to receipt of statutory consents, it is the intention of the NTA to implement the 12 Core Bus Corridors as set out in the BusConnects Dublin programme.'*	The Proposed Scheme is part of the BusConnects programme to enhance bus services and active travel options in the Greater Dublin Area.
Measure BUS10 – New Bus Stops and Shelters	*'It is the intention of the NTA to continue to roll-out the program of bus stop and shelter provision, and to monitor potential for further expansion and upgrade during the lifetime of the strategy.'*	The Proposed Scheme includes additional bus shelters, seating, accessible footways and bus infrastructure to make the bus transit experience more accessible for users.

Measure Number	Measure	How the Proposed Scheme Meets the Measure
Measure TM2 – Management of Urban Centres	*'The NTA and relevant local authorities, in collaboration, will deliver the public transport, cycling and walking networks, and public realm that are required to serve local centres, and to facilitate a post-COVID recovery based on sustainable transport.'*	The Proposed Scheme aligns with the measure as it will support sustainable transport modes through infrastructure improvements for active travel (both walking and cycling). The Proposed Scheme will bring greater accessibility to the city centre and other strategic areas for people to avail of housing, jobs, amenities and services. It aims to mitigate any adverse effects that the proposals may have on the streets, spaces, local areas and landscape through the use of appropriate design responses. In addition, opportunities have been sought to enhance the urban realm and landscape design where possible.

The Draft GDA Transport Strategy is currently undergoing consultation and is subject to change. Nonetheless, the Draft Strategy puts the delivery of Dublin BusConnects, of which the Proposed Scheme is part, at the heart of its objectives. There is added emphasis on the delivery of public transport, active travel and enhanced accessibility to sustainable modes of transport, all of which the Proposed Scheme will help to deliver.

2.3.4.4 Regional Spatial Economic Strategy for the Eastern and Midland Region 2019 - 2031

The principal purpose of the Eastern and Midlands Regional Assembly (EMRA) Regional Spatial Economic Strategy for the Eastern and Midland Region 2019 – 2031 (hereafter referred to as RSES) (EMRA 2019a) is to support the implementation of Project Ireland 2040 by providing a long-term strategic planning and economic framework for the development of the Region. An SEA and AA were carried out prior to the adoption of the Strategy.

The RSES represents the Regional tier for planning policy and provides a vision; a spatial plan and investment framework to shape future development of the Eastern and Midland Region to the year 2031. There are also Sub-Regional planning functions; Strategic Planning Areas. The RSES was formally adopted in June 2019 by EMRA and replaces the previous Regional Planning Guidelines for the Greater Dublin Area 2010 – 2022 (Regional Planning Guidelines Office 2010).

The RSES provides key environmental, economic, and social principles for the region. These principles are:

- Healthy Placemaking – to create healthy and attractive places to live, work and study;
- Climate Action – to enhance climate resilience and accelerate a transition to a low carbon economy; and
- Economic Opportunity – to create the right conditions and opportunities for the region to realise sustained economic growth and employment that ensures good living standards for all.

The RSES develops Regional Strategic Outcomes (RSOs) that are aligned to the principles above. These are aligned to the United Nations SDGs (UN 2015), EU thematic objectives (EU 2014) and the NPF (Government of Ireland 2018b).

The RSOs relevant to the Proposed Scheme and the principles to which each is aligned, are:

- Number 2 - Compact Growth and Urban Regeneration - 'Healthy Placemaking';
- Number 4 - Healthy Communities - 'Healthy Placemaking';
- Number 6 - Integrated Transport and Land Use - 'Climate Change';
- Number 9 - Support the Transition to Low Carbon and Clean Energy - 'Climate Change';
- Number 14 - Global City Region - 'Economic Opportunity'; and
- Number 15 – Enhanced Strategic Connectivity - 'Economic Opportunity'.

In the RSES, the policy responses are known as Regional Policy Objectives (RPOs). Those RPOs that relate to the Proposed Scheme are as follows:

> *'RPO4.2: Infrastructure investment and priorities shall be aligned with the spatial planning strategy of the RSES. All residential and employment developments should be planned on a phased basis in*

collaboration with infrastructure providers so as to ensure adequate capacity for services (e.g. water supply, wastewater, transport, broadband) is available to match projected demand for services and that the assimilative capacity of the receiving environment is not exceeded'

The Dublin Metropolitan Area Strategic Plan (hereafter referred to as the Dublin MASP) (EMRA 2019b) is contained within the RSES and identifies the strategic planning and investment framework to enable growth. The Dublin MASP is aligned with the RSOs in the RSES to allow integrated transport and land use. The vision for the MASP is as follows:

'Over the years to 2031 and with a 2040 horizon, the Dublin metropolitan area will build on our strengths to become a smart, climate resilient and global city region, expanding access to social and economic opportunities and improved housing choice, travel options and quality of life for people who live, work, study in or visit the metropolitan area'.

To achieve the vision, the Dublin MASP sets Guiding Principles. Those most relevant to the Proposed Scheme are set out below.

'Compact sustainable growth and accelerated housing delivery – To promote sustainable consolidated growth of the Metropolitan Area, including brownfield and infill development, to achieve a target to 50% of all new homes within or contiguous to the built-up area of Dublin City and suburbs, and at least 30% in other settlements. To support a steady supply of sites and to accelerate housing supply, in order to achieve higher densities in urban built up areas, supported by improved services and public transport.

*Integrated Transport and Land use – To focus growth along existing and proposed high quality public transport corridors and nodes on the expanding public transport network and to support the delivery and integration of '**BusConnects**', DART expansion and LUAS extension programmes, and Metro Link, while maintaining the capacity and safety of strategic transport networks* (emphasis added).

Increased employment density in the right places – To plan for increased employment densities within Dublin City and suburbs and at other sustainable locations near high quality public transport nodes, near third level institutes and existing employment hubs, and to relocate less intensive employment uses outside the M50 ring and existing built-up areas.

Alignment of growth with enabling infrastructure – To promote quality infrastructure provision and capacity improvement, in tandem with new development and aligned with national projects and improvements in water and wastewater, sustainable energy, waste management and resource efficiency.

Metropolitan Scale Amenities – To enhance provision of regional parks and strategic Green Infrastructure, to develop an integrated network of metropolitan scale amenities, and to develop greenways/blueways along the canals, rivers and coast, as part of the implementation of the National Transport Authority's Cycle Network Plan for the Greater Dublin Area.'

A number of RPOs are relevant to the Proposed Scheme:

'RPO 5.2: Support the delivery of key sustainable transport projects including Metrolink, DART and LUAS expansion programmes, BusConnects and the Greater Dublin Metropolitan Cycle Network and ensure that future development maximises the efficiency and protects the strategic capacity of the metropolitan area transport network, existing and planned'.

'RPO 5.3: Future development in the Dublin Metropolitan Area shall be planned and designed in a manner that facilitates sustainable travel patterns, with a particular focus on increasing the share of active modes (walking and cycling) and public transport use and creating a safe attractive street environment for pedestrians and cyclists.'

'RPO 5.6: The development of future employment lands in the Dublin Metropolitan Area shall follow a sequential approach, with a focus on the re-intensification of employment lands within the M50 and at

selected strategic development areas and provision of appropriate employment densities in tandem with the provision of high-quality public transport corridors.'

'RPO 5.8: Support the promotion and development of greenway infrastructure and facilities in the Dublin metropolitan area and to support the expansion and connections between key strategic cycle routes and greenways as set out in the NTA Greater Dublin Area Cycle Network Plan.

The Dublin MASP sets out a list of key transport infrastructure investments in the metropolitan area as supported by National policy.

'RPO 8.7: To promote the use of mobility management and travel plans to bring about behaviour change and more sustainable transport use'.

'RPO 8.9: The RSES supports delivery of the bus projects set out in Table 8.3 subject to the outcome of appropriate environmental assessment and the planning process'.

The bus projects include:

- *'Core Bus Corridors comprising 16 radial routes and 3 orbital routes in Dublin'*;
- '*Regional Bus Corridors connecting the major regional settlements to Dublin'*; and
- '*Improvements to bus waiting facilities.*'

The cycling objectives include:

- *'Delivery of the cycle network set out in the NTA Greater Dublin Area Cycle Network Plan inclusive of key commuter routes and urban greenways on the canal, river and coastal corridors'*;
- *'Investment priorities for cycleways feasibility and route selection studies for cycleways shall identify and subsequently avoid high sensitivity feeding or nesting points for birds and other sensitive fauna'*; and
- *'Delivery of the National Cycle Plan within the Region inclusive of the Greenway and Blueway projects*.'

The need for the Proposed Scheme is supported by the RSES. BusConnects (of which the Proposed Scheme is part) is identified as a key infrastructure project to deliver on the principles of Healthy Placemaking, Climate Action and Economic Opportunity, which will support the regional growth strategy for the Eastern and Midlands Region including the Dublin MASP area. The Proposed Scheme will support continued improved integration of transport with land use planning. The delivery of improved high-capacity Core Bus Corridors will enable and support the delivery of both residential and economic development opportunities, facilitating the sustainable growth of Dublin City and its metropolitan area. The dedicated bus lanes proposed will significantly increase bus travel speeds and reliability while the cycle lane infrastructure will promote modal shift from private car to a more sustainable forms of transport. The RSES not only seeks an improved and enhanced bus network but also places cycling at the core of its transport objectives.

2.3.4.5 Greater Dublin Area Cycle Network Plan (GDACNP) 2013

The NTA's GDACNP 2013 (NTA 2013) is a Regional level plan for an integrated cycle network across the seven Local authorities comprising the GDA. It includes an Urban Network, Inter-Urban Network, and a Green Route Network for the GDA. A SEA and AA were produced as part of the GDACNP. The context for the GDACNP is given as '*The Irish Government, the NTA and various State Agencies are committed to ensuring that cycling as a transport mode is supported, enhanced and exploited, in order to achieve strategic objectives and reach national goals*.'

The following are the networks identified in the GDACNP:

- '*The Urban Cycle Network at the Primary, Secondary and Feeder Level*':
  - '*Primary corridors are the main cycle arteries that cross urban area and carry most of the traffic;*
  - *Secondary corridors links between the principal cycle routes and local zones; and*

- *Feeder corridors are connections from zones to the network levels above and / or cycle routes within local zones.*'

- '*The Inter-Urban Cycle Network linking the relevant sections of the Urban Network and including the elements of the National Cycle Network within the GDA. It shall also include linkages to key transport locations outside of urban areas such as airports and port'*; and
- '*The Green Route Network being cycle routes developed predominately for tourist, recreational and leisure purposes*.'

There are primary (Routes 6, SO5) and secondary (Routes SO4, SO6, NO5) cycle routes identified along the Proposed Scheme. The route also interchanges with the Liffey Greenway and N06 Greenway.

The need for the Proposed Scheme is supported by the GDACNP as it will provide infrastructure that will support and enhance cycling as a transport mode, including the delivery of infrastructure for specific routes identified as part of the cycle network plan.

2.3.4.6 Draft Greater Dublin Area Cycle Network Plan 2021

The Draft GDA Cycle Network Plan (NTA 2021b) is a Regional-level plan for an integrated cycle network across the GDA. The Draft Plan is an update to the 2013 GDA Cycle Network Plan. The 2013 Plan sought to identify the links needed to provide for an adequate cycling network. The Draft Plan aims to strengthen access and local permeability and offer greater cycling connectivity between Dublin and GDA Towns.

The vision of the plan is set out, as follows:

> *'The Greater Dublin Area Cycle Network seeks to be an inclusive cycling environment that is safe for all cycling abilities and ages with strong functional and recreational connectivity between homes and key destinations'*

The main goals of the Draft Plan are:

- *'To increase participation,*
- *Improve safety and accessibility,*
- *Improve connectivity; and*
- *Create a navigable and coherent network.'*

The following are the networks identified and classified in the Draft Plan:

- *'Primary Arterial - Main cycling arterials enabling high levels of utility movements among town centres and Dublin City in a radial manner;*
- *Primary Orbital - Main cycling arterials enabling high levels of utility movements orbitally among Dublin's suburban town centres;*
- *Secondary - Moderately trafficked cycling connections between local zones and other network classifications, and provides resilience to the Primary Networks;*
- *Greenway – Utility - Parkland, coastal or waterway links providing utility functions for commuting, education, community service access and onward transport connections;*
- *Greenway – Leisure - Parkland, coastal or waterway links providing recreational and leisure functions; • Inter Urban - Routes which connect towns and urban centres over longer distances throughout the GDA; and*
- *Feeder - Localised cycling connections providing access among residential areas and local zones as well as providing access onto other classifications.'*

It outlines that projects that may interact / impact with the Draft Plan include BusConnects and comments, as follows:

> *'BusConnects Dublin is a 10-year programme to improve the quality, speed and reliability of bus service in the Dublin area. As part of its delivery 16 Core Bus Corridors (CBCs) are proposed, each with*

segregated cycle lanes and/or tracks. A limited number of quiet routes for cycling are proposed in parallel to some sections of the CBCs'.

The Draft Plan is subject to change, however, it demonstrates a further commitment by the NTA to provide an enhanced cycle network within the GDA. BusConnects Dublin, of which the Proposed Scheme forms part, will deliver the infrastructure necessary to expand and enhance the cycle network in line with the objectives of the Draft Plan. This supports the need for the Proposed Scheme.

2.3.5 Local Policy Context

The Proposed Scheme is located within two Local authority areas; Dublin City Council (DCC) and South Dublin County Council (SDCC) functional areas.

2.3.5.1 South Dublin County Council Development Plan (SDCCDP) 2022 - 2028

The South Dublin County Council Development Plan 2022-2028 (hereafter referred to as the SDCCDP 2022-2028) (SDCC 2022) sets the strategy for the proper planning and sustainable development of South Dublin County. A SEA, AA, FRA and NIS were produced as part of the plan. All aspects of the development plan were adopted on the 3rd August 2023 with the exception of two sections which are subject to a Ministerial Direction by the Minister of State at the Department of Housing, Local Government and Heritage, the sections are as follows;

- *'Omit the Enterprise and Employment zoning and the specific local objective which requires site-specific flood alleviation measures introduced as Material Amendments 2.20 and 9.4 from the lands to the 2 north and east of the existing Greenogue Business Park and retain the Rural RU zoning objective.'*

- '*Amend the land use zoning objectives in tables 13.4, 13.8 and 13.10 to reinstate data centre use class as an 'open for consideration' use class in the REGEN, Enterprise & Employment (EE) and Major Retail Centre (MRC) zoning objectives.'*

At the time of writing, the above parts of the Plan have not come into effect. Observations in respect of the Draft Ministerial Direction were made to the council for a period of 2 weeks from 10th August 2022 to 23rd August 2022. Observations submitted during this time will be considered by the Office of the Planning Regulator before it makes its recommendation to the Minister. At the time of writing, the minister's decision is expected by the end of 2022.

Those parts of the SDCCDP 2022-2028 (as outlined above) which are due to be amended do not materially have an impact on the Proposed Scheme. The plan includes '*a vision for the County's growing communities, places, housing, jobs, sustainable transport and the delivery of services in a manner which promotes climate action and efficient patterns of land use, paying particular attention to the physical, cultural, environmental and social identities that define areas within the County and support their ongoing evolution and integration with each other*'. The transport element of the Strategy sets out that it seeks to:

'rebalance transport and mobility within the County by promoting ease of movement by sustainable modes (including walking, cycling and public transport). This will provide for the freeing up of road space for essential functions such as, public transport and emergency vehicles. It will also allow for commercial transport which is essential to economic growth. In doing so, the Council will continue to provide for all elements of the transportation network that are within its remit and will engage with external agencies including the National Transport Authority (NTA) and Transport Infrastructure Ireland (TII) to assist the delivery of sustainable transport projects that are provided at a regional or national level'.

In addition to the above, it is clear that SDCC has recognised the importance of BusConnects to improving transport and movement within SDCC, as outlined under the heading 'Travel Mode Share':

'*Transition to public transport will be aided by improvements in the pipeline including the roll-out of BusConnects which will include proposals for six new dedicated bus routes through the County. BusConnects will provide a redesigned more efficient bus network with high frequency spines, new orbital routes and increased bus services.'*

Furthermore, the SDCCDP 2022-2028 identifies BusConnects as a strategic project '*that will have the potential over the coming years to have a transformative impact on travel by shifting the dominance of car-based transport towards public transport'*.

The key policies are set out below in **Table 2.11**.

Table 2.11: SDCC Transport Policies and Objectives

Transport Policies	How the Proposed Scheme meets the Policy
Policy SM1: Overarching – Transport and Movement: *'Promote ease of movement within, and access to South Dublin County, by integrating sustainable land-use planning with a high-quality sustainable transport and movement network for people and goods'.*	The Proposed Scheme will promote the ease of movement within and throughout South Dublin County through the provision of improved bus services and enhanced opportunities for walking and cycling. The Proposed Scheme promotes sustainable transport and movement network through infrastructure improvements for active travel (both walking and cycling), and the provision of enhanced bus priority measures for existing (both public and private) and all future services that will use the corridor. The Proposed Scheme is therefore compliant with Policy SM1.
SM1 Objective 1: *'To achieve and monitor a transition to more sustainable travel modes including walking, cycling and public transport over the lifetime of the County Development Plan, in line with the County mode share targets of 15% Walk; 10% Cycle; 20% Bus; 5% Rail; and 50% Private (Car/Van/HGV/Motorcycle)'.*	The Proposed Scheme will support integrated sustainable transport usage through infrastructure improvements for active travel (both walking and cycling), and the provision of enhanced bus priority measures for existing (both public and private) and all future services that will use the corridor. The Proposed Scheme will support the mode share targets as outlined.
SM1 Objective 2: *To ensure consistency with the NTA's Transport Strategy for the Greater Dublin Area (2016-2035) and any superseding document, as required by RPO 8.4 of the RSES.*	The Proposed Scheme is being promoted by the NTA as part of the BusConnects Dublin Programme and has considered the NTA's Transport Strategy for the Greater Dublin Area (2016-2035) as part of its development. The Proposed Scheme therefore compliant with Policy SM1 Objective 2 in accordance with RPO 8.4 of the RSES.
SM1 Objective 3: *To support the delivery of key sustainable transport projects including DART and Luas expansion programmes, BusConnects and the Greater Dublin Metropolitan Cycle Network in accordance with RPO 5.2 of the RSES/MASP.*	The Proposed Scheme is being promoted by the NTA as part of the BusConnects Dublin Programme and is therefore compliant with Policy SM1 Objective 3 in accordance with RPO 5.2 of the RSES / MASP.
SM1 Objective 4: *To ensure that future development is planned and designed in a manner that facilitates sustainable travel patterns, with a particular focus on increasing the share of active modes (walking and cycling) and public transport use and creating a safe and attractive street environment for pedestrians and cyclists, in accordance with RPO 5.3 of the RSES/MASP.*	The Proposed Scheme aligns with the objective as it will provide the infrastructure to deliver a modal shift from private car usage to sustainable transport including walking, cycling and public transport. The Proposed Scheme will support integrated sustainable transport usage through infrastructure improvements for active travel (both walking and cycling), and the provision of enhanced bus priority measures for existing (both public and private) and all future services that will use the corridor. The Proposed Scheme will be designed to create a safe and attractive street environment with improvements and enhancements to footpaths, walkways, and pedestrian crossings. The Proposed Scheme is therefore compliant with RPO 5.3 of the RSES / MASP.
SM1 Objective 5: *To ensure that future development is planned and designed in a manner that maximises the efficiency and protects the strategic capacity of the metropolitan area transport network, both existing and planned, and to protect and maintain regional accessibility, in accordance with RPO 8.3 of the RSES.*	The Proposed Scheme aligns with this objective as it is designed to provide a better, more reliable and more efficient bus service for everyone in compliance with RPO 8.3 of the RSES. The Proposed Scheme will support the creation of an attractive, resilient, equitable public transport network better connecting communities and improving access to work, education and social activity. The Proposed Scheme will bring greater accessibility to the City Centre and better connect communities and locations along its route for people to avail of housing, jobs, amenities and services.
SM1 Objective 6:	The Proposed Scheme aligns with this objective as it will support integrated sustainable transport usage through infrastructure improvements for active travel (both walking and cycling), and the

Transport Policies	How the Proposed Scheme meets the Policy
To safeguard the County's strategic road network and to improve the local road and street network in a manner that will better utilise existing road space and encourage a transition towards more sustainable modes of transport.	provision of enhanced bus priority measures for existing (both public and private) and all future services that will use the corridor.
SM1 Objective 7: *To engage with relevant agencies including the National Transport Authority (NTA) and Transport Infrastructure Ireland (TII) in relation to strategic and local transportation issues including delivery of transport projects and to encourage consultation with local communities.*	The Proposed Scheme is being promoted by the NTA as part of the BusConnects Dublin Programme which seeks to address strategic transportation issues in the County. Extensive Non-Statutory Public Consultation on the Proposed Scheme has been undertaken. The Proposed Scheme is therefore compliant with Policy SM1 Objective 7.
Policy SM2: Walking and Cycling *'Re-balance movement priorities towards sustainable modes of travel by prioritising the development of walking and cycling facilities and encouraging a shift to active travel for people of all ages and abilities, in line with the County targets'.*	The Proposed Scheme aligns with the objective as it will provide the infrastructure to deliver a modal shift from private car usage to sustainable transport including walking, cycling and public transport. The Proposed Scheme will support integrated sustainable transport usage through infrastructure improvements for active travel (both walking and cycling), and the provision of enhanced bus priority measures for existing (both public and private) and all future services that will use the corridor. The Proposed Scheme will be designed to meet the needs and abilities of all users.
Policy SM3: Public Transport – General *'Promote a significant shift from car-based travel to public transport in line with County targets and facilitate the sustainable development of the County by supporting and guiding national agencies in delivering major improvements to the public transport network'.*	The Proposed Scheme aligns with the objective as it will provide the infrastructure to deliver a modal shift from private car usage to sustainable transport. The Proposed Scheme will support integrated sustainable transport usage through infrastructure improvements for active travel (both walking and cycling), and the provision of enhanced bus priority measures for existing (both public and private) and all future services that will use the corridor.
SM3 Objective 2: *'To facilitate and secure the implementation of major public transport projects as identified within the NTA Transport Strategy for the Greater Dublin Area (2016-2035), or any superseding document, including BusConnects, the DART expansion programme along the Kildare route, the opening of the new rail station at Kishogue and the Luas to Lucan'.*	The Proposed Scheme is being promoted by the NTA as part of the BusConnects Dublin Programme and is therefore compliant with Policy SM3 Objective 2.
Policy SM3: Public Transport – Bus *SM3 Objective 11:* *'To facilitate the delivery of the BusConnects Core Bus Corridors and seek additional bus corridor and orbital routes to serve the County by securing and maintaining any required route reservations and to ensure the BusConnects Corridors do not adversely affect the village life and livelihoods of any of our County Villages'.*	The Proposed Scheme is being promoted by the NTA as part of the BusConnects Dublin Programme and will seek additional and improved bus corridors to serve the County whilst protecting the village life and livelihoods of the County's villages. The Proposed Scheme is therefore compliant with Policy SM3 Objective 11.
'SM3 Objective 12: *To work with the NTA to secure the expansion of the bus network to serve new development and regeneration areas within the South Dublin County area including Tallaght, Naas Road, Adamstown, Clonburris, Fortunestown, Ballycullen and Newcastle'.*	The Proposed Scheme is being promoted by the NTA as part of the BusConnects Dublin Programme and it will provide the infrastructure necessary to support enhanced public transport / active travel options along the scheme corridor. The Proposed Scheme is a 'major improvement to the transport network' and as such it should be supported by SDCC.

In addition to the above, it further comments under the heading 'Transport Interchanges' that:

> *'Multi-modal transport interchanges increase the efficiency and flow of public transport services. A public square and transport interchange is proposed for Tallaght Town Centre, that would provide a first-class interchange between the Luas, BusConnects, taxi, cycling and walking'*.

At a strategic level, the SDCCDP 2022-2028 supports an integrated transport network that offers enhanced access and mobility throughout the county. The Proposed Scheme will help to deliver the infrastructure required to facilitate the 'integrated transport network' sought by the SDCCDP 2022-2028.

2.3.5.2 Local Area Plans within the SDCC Area Relevant to the Proposed Scheme

The following adopted Local Area Plans (LAPs) are relevant to the Proposed Scheme. The Liffey Valley LAP (SDCC 2008) was published in 2008 and extended to 2018. While it has expired, the policies and objectives within the Liffey Valley LAP are still relevant to the Proposed Scheme.

Table 2.12: SDCC LAPs

LAP	Reference / Section	Objective	Scheme Response
Liffey Valley 2008	Bus Services	• *Increase the service frequency of bus services calling directly at the Liffey Valley site;* • *Improve on site bus infrastructure, to include high quality waiting areas, real time information, disabled access and improved interchange facilities at the Liffey Valley site for buses and taxi's*	The Proposed Scheme aligns with the objective as it will provide improved travel times combined with increased services that will promote an efficient, reliable and frequent public transport service.
	Aspirations	• *Clearly defined and high-quality links that provide direct access between destinations.* • *A street network that provides a greater balance between the needs of pedestrians, public transport and private vehicles.* • *The emergence of a Public Transport hub at the Town Centre, which links into the emerging public transport network*	The Proposed Scheme directly delivers the transport objectives in the LAP lands.

At a strategic level the SDCCDP supports an integrated transport network that offers enhanced access and mobility throughout the county. The SDCCDP also sets out an extensive number of policies and objectives relevant to the Proposed Scheme. These are set out in A2.1 Appendix 1 (Local Policy Compliance, in Appendix A2.1 Volume 4 of this EIAR) of this Report.

2.3.5.3 SDCC Climate Change Action Plan 2019-2024

SDCC's Climate Change Action Plan was adopted in 2019, it was a collaborative response to the impact that climate change is having on the Dublin Region. The SDCC plan is unique to its functional area. A SEA, AA and NIS were prepared as part of the plan. The plan covers five key areas - Energy and Buildings, Transport, Flood Resilience, Nature-Based Solutions and Resource Management – and sets out 130 actions across the key areas. The four main targets of the plan are:

1. *33% better energy use by the Council by 2020;*
2. *40% reduction in the Council's greenhouse gas emissions by 2030;*
3. *To make Dublin a climate resilient region, by reducing the impacts of future (and current) climate change-related events; and*
4. *To actively engage and inform citizens on climate change.*

The SDCC Climate Change Action Plan focuses on the sustainable transport measure to reduce pollutants and to achieve modal shift from private car to public transport. The main transport specific actions related to the Proposed Scheme are:

- *'T11 Build out County Cycle Network';*
- *'T12 Development of cycle/ pedestrian greenways';*
- *'T15 SDCC will continue to seek new and expand on existing partnerships to encourage sustainable travel and safer travel behaviours.'; and*
- *'T18 Facilitate the delivery of public transport routes'.*

It is also noted that under the heading 'Air pollution and air quality adaptation actions' that actions adopted by South Dublin Council include: (inter alia) 'Transport policies to reduce pollutants. This includes the provision of cycle routes, and the expansion of Quality Bus Corridors (QBCs) and increased park and ride facilities'.

The Proposed Scheme through the provision of enhanced public transport infrastructure will help to achieve SDCC's targets as set out in the Climate Action Plan.

2.3.5.4 Dublin City Development Plan 2016 - 2022 (DCDP)

The DCDP (DCC 2016a) guides the future growth and development of the functional area of DCC. A SEA, AA and Strategic Flood Risk Assessment (SFRA) were carried out as part of the DCDP.

The vision of the DCDP is to champion compact city living, distinct character, a vibrant culture, and a diverse, smart, green, innovation-based economy. In the longer term (25 to 30 years), DCC aims to establish the city as one of Europe's most sustainable, dynamic, and resourceful city regions. The DCDP places sustainable transport as a core principle in the future development of the city.

> *'Within the next 25 to 30 years, Dublin will have an established international reputation as one of Europe's most sustainable, dynamic and resourceful city regions. Dublin, through the shared vision of its citizens and civic leaders, will be a beautiful, compact city, with a distinct character, a vibrant culture, and a diverse, smart, green, innovation-based economy. It will be a socially inclusive city of urban neighbourhoods, all connected by an exemplary public transport, cycling and walking system and interwoven with a quality bio-diverse green space network. In short, the vision is for a capital city where people will seek to live, work, experience, invest and socialise, as a matter of choice.' (Emphasis added).*

In 'Translating the Core Strategy into Development Plan Policies and Objectives', the core strategy has the following supports:

> *'Dublin City Council will work with the emerging strategy of the National Transport Authority and supplement it with supporting local improvements, particularly to the city centre environment through the implementation of the public realm strategy and locally focused objectives.'*

The DCDP recognises that increasing capacity on public transport including bus corridors is a means to promoting modal change and active travel.

Within the transport objectives of the DCDP, bus improvements are identified as projects to be supported. Key policies are set out in Table 2.13.

Table 2.13: Dublin City Development Plan 2016 – 2022

Transport Policies	How the Proposed Scheme meets the Policy
'MT3: To support and facilitate the development of an integrated public transport network with efficient interchange between transport mode, serving the existing and future needs of the city in association with relevant transport providers, agencies and stakeholders.'	The Proposed Scheme aligns with the objective as it will enhance the interchange between the various modes of public transport operating in the city and wider metropolitan area, both now and in the future. The design has been developed with this in mind and, in so far as possible, is seeking to provide for improved existing or new interchange opportunities with other transport services. BusConnects Dublin Programme is the National Transport Authority's programme to greatly improve bus services in the Greater Dublin Area of which the Proposed Scheme is part.
'MT4: To promote and facilitate the provision of Metro, all heavy elements of the DART Expansion Programme including DART Underground (rail interconnector), the electrification of existing lines, the expansion of Luas, and improvements to the bus network in order to achieve strategic transport objectives.'	The Proposed Scheme aligns with the objective as it will improve the Bus Network along the scheme corridor.
'MT04: To support improvements to the city's bus network and related services to encourage greater usage of public transport in accordance with the objectives of the NTA's strategy and the governments 'Smarter Travel' document.'	The Proposed Scheme aligns with the objective as BusConnects Dublin Programme is the National Transport Authority's programme to greatly improve bus services in the Greater Dublin Area of which the Proposed Scheme is part of. It will support the objectives in the Smarter Travel document by providing improvements to pedestrian and cycle amenities along the proposed route.
'MT05 (i): 'To facilitate and support measures proposed by transport agencies to enhance capacity on existing public transport lines and services, to provide/improve interchange facilities and provide new infrastructure.'	The Proposed Scheme aligns with the objective as BusConnects Dublin Programme is the National Transport Authority's programme to greatly improve bus services in the Greater Dublin Area.
'MT11: To continue to promote improved permeability for both cyclists and pedestrians in existing urban areas in line with the National Transport Authority's document 'Permeability – a best practice guide.'	The Proposed Scheme aligns with the objective as Chapter 6 (Traffic & Transport) of the EIAR has considered the permeability as part of the project.
MT20: To increase capacity of public transport, cycling and walking, where required, in order to achieve sustainable transportation policy objectives. Any works undertaken will include as an objective, enhanced provision for safety, public transportation, cyclists and pedestrians, and will be subject to environmental and conservation considerations.	The Proposed Scheme aligns with the objective as it will provide the infrastructure required to increase the capacity of bus, cycle and pedestrian networks along the Proposed Scheme corridor. Furthermore, the Proposed Scheme provides enhanced safety through the provision of segregated cycling facilities.

The Proposed Scheme will deliver the infrastructure necessary to enhance public transport, walking and cycling networks along the route corridor. It will facilitate a modal shift towards public transport and active travel modes which is a key objective of the DCDP.

2.3.5.5 Local Area Plans within the Dublin City Council Area Relevant to the Proposed Scheme

The Proposed Scheme is within the Liberties LAP 2009 (DCC 2009); however it is limited to a very small section of Victoria Quay.

Table 2.14: DCC LAPs

LAP	Reference / Section	Objective	Scheme Response
Liberties LAP 2009	1.2 Overarching Aims	*To promote the principles of good urban design including improving connectivity and enhancing the legibility and permeability of the Liberties in relation to the wider cityscape.* *To promote sustainable modes of transport by making them convenient and attractive including walking and cycling routes and by facilitating the provision of public transport infrastructure and optimising its use.*	The Proposed Scheme will facilitate this objective.

The Major City Quarters figure notes the area adjacent to Heuston Station as a '*Potential High Intensity Cluster*'

At a strategic level, the DCDP (DCC 2016) supports an integrated transport network that offers a greater choice of public transport and active travel. The DCDP also sets out an extensive number of policies and objectives relevant to the Proposed Scheme. These are set out in Table 2.1 in Appendix 1 (Local Policy).

2.3.5.5.1 Local Area Plans within the DCC Area Relevant to the Proposed Scheme

Whilst there are no adopted LAPs relevant to the Proposed Scheme, a number of Local Environment Improvement Plans (LEIP) have been prepared in conjunction with the relevant local area committees for a small defined area. The primary focus of these LEIPs is the improvement of the urban realm and those parts of the urban neighbourhood which are for use by everyone, and includes streets, squares, parks, public buildings and accessible ground floor uses.

At a strategic level, the DCDP (DCC 2016) supports an integrated transport network that offers a greater choice of public transport and active travel. The DCDP also sets out an extensive number of policies and objectives relevant to the Proposed Scheme.

2.3.5.5.2 The Heart of Dublin – City Centre Public Realm Masterplan 2016

The Heart of Dublin – City Centre Public Realm Masterplan (DCC 2016) for Dublin City Centre was published by DCC in 2016. The overall vision is one of a pedestrian friendly core within the City Centre, so that the city can be easy, comfortable, and enjoyable to move within, the strategy will require the full completion of the planned public transport network. The Proposed Scheme is limited to a very small section of the masterplan area along the public road of Victoria Quay.

The Landscape and Urban Realm proposals for the Proposed Scheme are based on an urban context and landscape character analysis of the route. The proposals have been informed through discussions with the NTA, local authorities and stakeholders. The overall landscape and urban realm design strategy for the route aims to create attractive, consistent, functional and accessible places for people alongside the bus and cycle facilities. It aims to mitigate any adverse effects that the proposals may have on the streets, spaces, local areas and landscape through the use of appropriate design responses. In addition, opportunities have been sought to enhance the urban realm and landscape design where possible particularly by improving the cycle network and designing clutter free pavements. In the context of the above, the Proposed Scheme is therefore compliant with the Heart of Dublin – City Centre Public Realm Masterplan (DCC 2016).

A comprehensive Tree Survey was conducted which analysed the quality and character of the existing trees along the Proposed Scheme. The information from the survey was used to inform the design proposals by seeking to avoid the higher quality trees and identifying measures which will be put in place during detailed design and construction to mitigate potential effects on the trees.

2.3.5.5.3 Your City Your Space – Dublin City Public Realm Strategy 2012

The Your City Your Space – Dublin City Public Realm Strategy (DCC 2012) was published in 2012. It seeks to co-ordinate the approach to the public realm and to address its many existing challenges through a series of actions. The Your City Your Space – Dublin City Public Realm Strategy includes part of the Proposed Scheme at junction of Saint John's Road West and South Circular Road which is classed as N & S Circular Roads, Military Road which is classed as Future / Enhanced Connections, Victoria Quay is classed as a Civic Spine and Liffey Corridor and Stevens Lane which is classed as a Linking Route.

Table 2.15: City Centre Public Realm Strategy Design Policies

Public Spaces	Desired Character and Experience	Design Policies
Civic Spine and Liffey Corridor	The Liffey Corridor and the Civic Spine are the most important series of streets and spaces in the city and as such the quality of the public realm is exemplary and of the highest international standard. The public realm is coherent and consistent in design, and constructed using the highest quality materials creating a pleasant environment in which it is easy to move around. A mix of activities are accommodated which make the Civic Spine a key attraction nationally.	The Liffey Corridor will be the subject of an urban design and landscaping proposal to improve the quality of experience. Comprehensive design briefs will be developed to extend the integrated landscape of O'Connell Street through the rest of the Civic Spine. Building proposals to enclosures must protect historic character and achieve outstanding quality. An agreed standard of treatment and floral decoration for this important space will be implemented.
Linking Route	These streets are important linking routes in the city and often contain commercial and cultural attractions, as such there is a high quality public realm that is coherent and consistent in design and constructed using high quality materials leading to a pleasant environment, which it is easy to move around in with a mix of activities which make these streets important and interesting linking routes.	Improve the quality of experience by rebalancing pedestrian, cycle and vehicular movement and improve the environment through greening and de-cluttering.
N & S Circular Roads	These major routes are high quality routes for moving around and navigating the inner suburbs.	Building proposals to enclosures must protect historic character and achieve high quality, emphasising the importance of these streets in the neighbourhoods they pass through.
Future / Enhanced Connections	These are proposed improvements to street connections within districts and to destinations.	Where connections exist already the pedestrian environment will be brought up to the standard of other Linking Routes. For future routes Dublin City Council will work with stakeholders to form good quality street connections.

The landscape and public realm proposals for the Proposed Scheme are based on an urban context and landscape character analysis of the route. The proposals have been informed through discussions with the NTA, local authorities and stakeholders. The overall landscape and public realm design strategy for the proposed scheme aims to create attractive, consistent, functional and accessible places for people alongside the bus and cycle facilities. It aims to mitigate any adverse effects that the proposals may have on the streets, spaces, local areas and landscape through the use of appropriate design responses. In addition, opportunities have been sought to enhance the public realm and landscape design where possible. In the context of the above, the Proposed Scheme is therefore compliant with the Your City Your Space – Dublin City Public Realm Strategy.

2.3.5.6 Draft Dublin City Development Plan 2022 – 2028

Stage 1 (Pre-Draft Stage) has been completed by DCC and they have now commenced Stage 2. On the 25 November 2021, DCC published the Draft Dublin City Development Plan 2022 – 2028 (DCC 2021). Public consultation concluded in February 2022. The Chief Executives response to the submissions has been prepared and the recommendations have been submitted to the city council for elected members consideration.

Whilst the Board is required to have regard to the Development Plan in force at the date upon which it makes its decision on the application for approval, as opposed to any draft Development Plan, there are a number of aspects of the current Draft Dublin City Development Plan 2022 – 2028 which are of note.

The draft Plan sets out in Chapter 8 (Sustainable Movement and Transport) under the heading 'Introduction' that *'Sustainable and efficient movement of people and goods is crucial for the success and vitality of the city.'* It continues *'The policy approach promotes the integration of land use and transportation, improved public transport*

and active travel infrastructure, an increased shift towards sustainable modes of travel and an increased focus on public realm and healthy placemaking, while tackling congestion and reducing transport related CO2 emissions.'

Chapter 8 of the draft Plan further states under the heading 'Sustainable Modes' that *'Key strategic transport projects such as the proposed Metrolink, DART+, BusConnects programme and further LUAS Line and rail construction and extension will continue the expansion of an integrated public transport system for the Dublin region and have the potential for a transformative impact on travel modes over the coming years. Dublin City Council actively supports all measures being implemented or proposed by other transport agencies to enhance capacity on existing lines/services and provide new infrastructure.'*

Chapter 8 of the draft Plan also recognises under the heading 'Challenges' that *'Ireland is committed to cutting its greenhouse gas emissions by at least 51% by 2030 and to achieve this, a significant mode shift to active travel and public transport as well as decarbonised/low carbon mobility is required. Despite a positive shift in the travel behaviours of commuters, congestion and transport related CO2 emissions have continues to rise. One of the significant challenges is the need to enable and foster behavioural change to support continued mode shift to more sustainable options.'*

The Dublin City Development Plan 2022-2028 is set to be adopted in 2022. Although the draft Dublin City Development Plan 2022-2028 is subject to change, it is clear that BusConnects is an important consideration, and its development is to be considered as part of the shaping of emerging policy for the city.

2.3.5.7 DCC Climate Change Action Plan 2019 - 2024

DCC's Climate Change Action Plan (DCC 2019) was adopted in May 2020. A SEA, AA and NIS were produced as part of the plan.

This Plan is a collaborative response to the impact that climate change is having on the Dublin Region, and DCC's commitment to lead by example in tackling this global issue. DCC's Climate Change Action Plan is unique to its functional area and contains 219 actions that cover five key areas – Energy and Buildings, Transport, Flood Resilience, Nature-Based Solutions and Resource Management (waste and water). There are four key targets:

1. *33% better energy use by the Council by 2020.*
2. *40% reduction in the Council's greenhouse gas emissions by 2030.*
3. *To make Dublin a climate resilient region, by reducing the impacts of future (and current) climate change-related events.*
4. *To actively engage and inform citizens on climate change.*

DCC's Climate Change Action Plan focuses on the sustainable transport measures to reduce pollutants and to achieve modal shift from private car to public transport. One of the Public Transport actions, referenced T22, is specifically related to the Proposed Scheme; '*DCC to liaise with NTA on BusConnects programme'.*

The Proposed Scheme through the provision of enhanced public transport infrastructure will help to achieve DCC's targets as set out in the Climate Action Plan.

2.3.5.8 Heuston Masterplan 2021

In 2021 CIÉ published the Heuston Masterplan, the Heuston Masterplan is a non-statutory plan but has been framed using National and Local development plan policies. The extent of the plan is limited to the Heuston Station site and the Conyngham Road Bus Depot on the north side of the Liffey. Whilst the Proposed Scheme is not within the Masterplan lands it is nonetheless useful to highlight any aims/objectives deemed of relevance to the Proposed Scheme.

The Masterplan sets out potential development options within the masterplan site subject to securing planning and other consents. The key concept of the masterplan is Transport Orientated Development (TOD) which seeks to maximise housing, employment, public service and leisure spaces which are in close proximity to transport nodes. '*In all scenarios the aim is to build on the existing transit connectivity of the lands toward the development of an integrated transport hub that demonstrates an exemplary form of transport orientated development and sustainable, compact, urban growth.*

The masterplan notes that the site '*will also be a hub of the emerging Bus Connects plan''*

Table 2.16 Connections and Opportunities of the Masterplan

Connections and Opportunities	Proposed Scheme Response
The Heuston Masterplan Area offers the opportunity to build on the significant infrastructural improvements to the St. John's Road Corridor proposed under Bus Connects which will serve to increase activity along this currently neglected frontage.	The Proposed Scheme aligns with the objective as it has ensured that the public realm is carefully considered in the design and development of the transport infrastructure. The Proposed Scheme seeks to enhance key urban focal points where appropriate and feasible. Additional landscaping and outdoor amenities will be provided. Along the route, improvements and enhancements will be made to footpaths, walkways and pedestrian crossings. Crossing points will consist of on-demand signalised pedestrian crossing with appropriate tactile paving, push button units and LED warning studs. Appropriate signage will be used to ensure safe use of facilities by pedestrians.
The Bus Connects proposals will allow a more efficient arrangement and consolidated lay-out for buses, taxis (small public service vehicles) and cycle lanes situated adjacent to the railway station entrance	The Proposed Scheme aligns with the objective as it will provide the advantage of safe segregated cycling facilities along the preferred route in both directions. These high-quality cycle lanes help to reduce dependency on private car use for short journeys. Along the route, improvements and enhancements will be made to footpaths, walkways and pedestrian crossings. The Proposed Scheme has been designed to include: More bus shelters, seating, accessible footways and bus infrastructure to make the bus transit experience more accessible for users of all abilities and ages.
The focus will be to limit facilities for private car users as development progresses and as further public transport and active mobility improvements and linkages are delivered	The Proposed Scheme aligns with the objective as it will provide the infrastructure to deliver a modal shift from private car usage to sustainable transport. It will reduce bus journey times which will in turn reduce fuel usage and it will promote active travel through enhanced cycle and pedestrian infrastructure. The Proposed Scheme will support integrated sustainable transport usage through infrastructure improvements for active travel (both walking and cycling), and the provision of enhanced bus priority measures for existing (both public and private) and all future services who will use the corridor.

The Connections & Opportunities: Movement Strategy Options figure highlights three indicative access points onto the R148 Saint Johns Road West. These access points include St Johns Link Road, a connection to Conyngham Road Vehicular Bridge and a connection to Conyngham Road Green Bridge.

The Proposed Scheme is largely within the existing public road / pavement area. The movement objectives in relation to the provision of an integrated public transport network as well as the promotion of enhanced and expanded cycling and bus facilities will be facilitated by the Proposed Scheme.

2.4 The Benefits of the Proposed Scheme

The Proposed Scheme has been designed to facilitate improved efficiency of the transport network through the improvement of the infrastructure for active (walking and cycling) and public transport modes making them attractive alternatives to car-based journeys. Central to the design is the optimisation of roadway space with a

focus on the movement of people rather than vehicles along the route and through the junctions. A typical double-deck bus takes up the same road space as three standard cars but typically carries 50-100 times the number of passengers per vehicle. On average, a typical double-deck bus carries approximately 60-70 passengers making the bus typically 20 times more efficient in providing people movement capacity within the equivalent spatial area of three cars. These efficiency gains can provide a significant reduction in road network congestion where the equivalent car capacity would require 50 or more vehicles based on average occupancy levels. Consequently, by prioritising the movement of bus over cars, significantly more people can be transported along the limited road space available. Similarly, cyclists and pedestrians require significantly less roadway space than general traffic users to move safely and efficiently along the route. Making space for improved pedestrian and cycle infrastructure can significantly benefit these sustainable modes and encourage greater use of these modes.

The Proposed Scheme design involves the prioritisation of People Movement, focusing on maximising the throughput of sustainable modes (i.e. Walking, Cycling and Bus modes). A quantitative people-movement assessment, as part of the transport impact assessment, facilitates a comparison of the Do Minimum and Do Something peak-hour scenarios for the forecast years (2028 and 2043). The benefits resulting from the 24% in the number of people travelling by bus, an increase of 56% in people walking or cycling, and a reduction of 4% in the number of people travelling by car along the Proposed Scheme. This is summarised in Image 2.9.

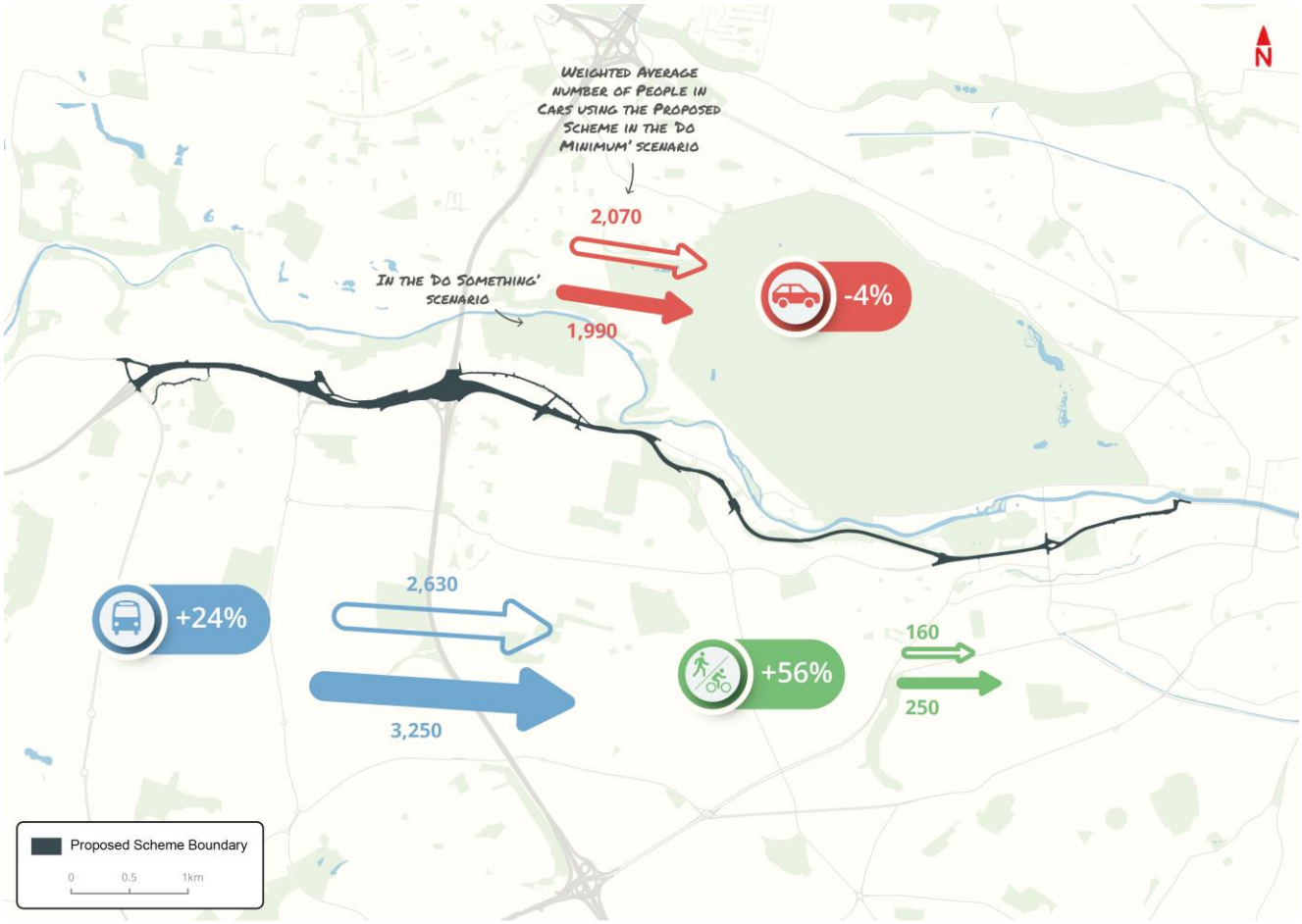

Image 2.9: Average People Movement by Mode during 2028 AM Peak Hour

The transport modelling also presents demand outputs for people movement by bus in terms of passenger loadings along the corridor. The results indicate that the improvements in bus priority infrastructure with the Proposed Scheme in place show a substantial increase in bus patronage during the peak hours.

Image 2.10 presents the passenger loading profile comparing the Do Minimum and Do Something scenarios in the 2028 AM Peak Hour in the inbound direction towards the city centre. It shows higher levels of bus passenger loadings all along the Proposed Scheme with a peak loading at the National War Memorial Garden where the volume of passengers reaches 3,500 in the AM Peak hour, compared to approximately 2,800 in the 'Do-Minimum' scenario.

The increase in bus passengers is consistent all along the Proposed Scheme with an estimated 600 to 800 additional passengers on the corridor, compared to the Do Minimum scenario.

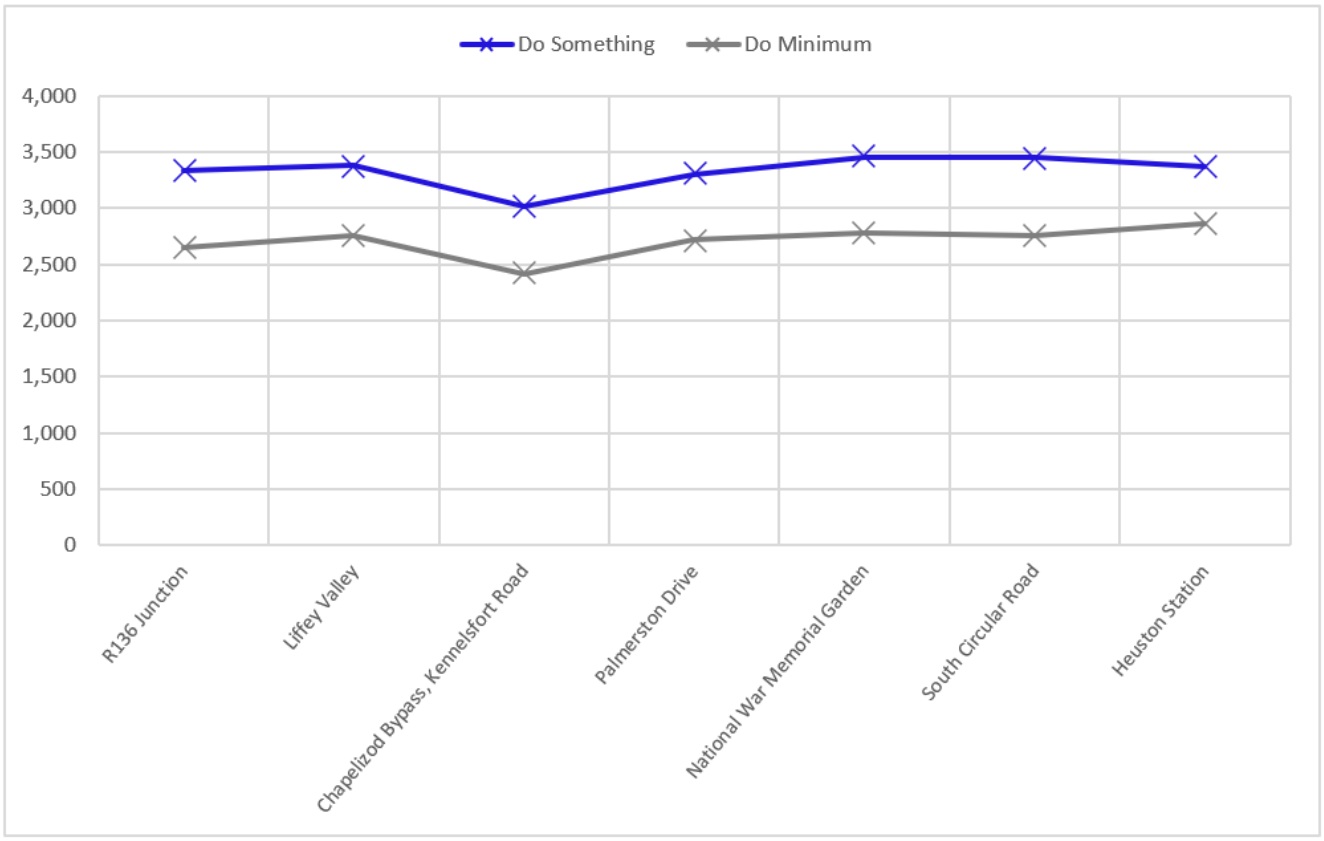

Image 2.10: 2028 AM Peak Hour Passenger Volume Along Proposed Scheme (inbound direction)

A key objective of the Proposed Scheme is to enhance the potential for cycling along the route. Without the provision of cycling infrastructure, intended as part of the Proposed Scheme the Quality of Service along the route would be insufficient to attract new cyclists. Currently within the existing extents of the Proposed Scheme there are segregated cycle tracks on approximately 9.9% and 9.9% of the route outbound and inbound respectively, while non-segregated cycle facilities are provided on only approximately 21% and 11% of the route outbound and inbound respectively. The remaining extents have no dedicated cycle provision or cyclists must cycle within the bus lanes provided. The proposed scheme is implementing safe, segregated infrastructure throughout and as such is greatly enhancing the potential for cycling. In addition to this, the significant segregation and safety improvements to walking and cycling infrastructure that is a key feature of the Proposed Scheme will further maximise the movement of people travelling sustainably along the corridor. All of these changes combined will therefore cater for higher levels of future sustainable population and employment growth.

The Proposed Scheme will make significant improvements to pedestrian infrastructure through the provision of increased signal crossings, introduction of traffic calming measures, improved accessibility, increased pedestrian directness and wider footpaths and crossings. The number of pedestrian signal crossings will increase by approximately 35% as a result of the Proposed Scheme. The scheme design has been developed in accordance with the relevant accessibility guidance. It is anticipated that the overall quality of pedestrian infrastructure will improve as a result of the Proposed Scheme. This aligns with the overarching aim to provide enhanced walking

infrastructure on the corridor. The improved walking and cycling measures that the Proposed Scheme will provide will enhance the potential to grow these modes into the future.

An assessment of transport impact arising from the delivery of the Proposed Scheme is presented in Chapter 6 (Traffic & Transport).

The Proposed Scheme will address sustainable mode transport infrastructure constraints while contributing to an overall integrated sustainable transport system as proposed in the GDA Transport Strategy. It will increase the effectiveness and attractiveness of bus services operating along the corridor and will result in more people benefiting from faster journey times and improved journey time reliability.

This in turn will facilitate the increase in the bus network capacity of services operating along the corridor and thereby further increase the attractiveness of public transport. In addition, the significant segregation and safety improvements to walking and cycling infrastructure that are a key feature of the Proposed Scheme will further maximise the movement of people travelling sustainably along the corridor and will therefore cater for higher levels of future population and employment growth. In the absence of the delivery of the Proposed Scheme, growth along this key corridor would continue to contribute to increased traffic congestion and operational issues on the road network. The Proposed Scheme delivers a reliable alternative to car-based travel that can support future sustainable growth and contribute positively towards reducing carbon emissions.

In the absence of the Proposed Scheme bus services will operate in a more congested environment, leading to higher journey times for bus and lower reliability which will lead to reduced levels of public transport use, making the bus system far less attractive and less resilient to higher levels of growth. The absence of walking and cycling measures that the Proposed Scheme will provide would significantly limit the potential to grow those modes into the future. In addition to the public transport benefits, the Proposed Scheme will also improve the existing streetscape / urban realm setting along the corridor. This will include the introduction of new and improved landscaping provisions along the corridor, and a complimentary planting regime and streetscape improvements at key locations will also enhance the character of the surrounding built environment along the corridor.

The Proposed Scheme and its objectives fit within the current planning frameworks that are described in Section 2.3. The Proposed Scheme will help deliver many of the objectives on an international, national, regional and local level.

Overall, the Proposed Scheme will make a significant contribution to the overall aims and objectives of BusConnects, the GDA Transport Strategy and allow the city to grow sustainably into the future, which would not be possible in the absence of the Proposed Scheme.

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