Lucan to City Centre Core Bus Corridor Scheme

Environmental Impact Assessment Screening Report

BUS CONNECTS

SUSTAINABLE TRANSPORT FOR A BETTER CITY.

Contents

1. Introduction

1.1 EIA Screening Report

1.1.1 Introduction

This report is the Environmental Impact Assessment (EIA) Screening Report for the Lucan to City Centre Core Bus Corridor Scheme (hereafter, Proposed Scheme). This report has been prepared in accordance with the applicable provisions of the Environmental Impact Assessment Directive.[1] This EIA Screening Report has been prepared so as to enable the National Transport Authority ("NTA") to consider whether the Proposed Scheme is to be subject to an environmental impact assessment, in accordance with the provisions of the EIA Directive.

Certain projects, listed in Annex I to the EIA Directive require mandatory EIA, due to those projects always having the potential for significant environmental effects. Other projects which fall below the relevant thresholds for mandatory EIA (i.e. "sub-threshold development") may require EIA if it is considered that the development is likely to have a significant effect on the environment. Significant effects may arise due to the nature of the development, its scale or extent and its location in relation to the characteristics of the receiving area, particularly, sensitive environments.

This report documents the methodology employed to prepare this EIA Screening Report, having regard to and applying the relevant legislation and guidance documents, especially:

- Ministerial Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (Department of Housing, Planning and Local Government, 2018);
- Implementation of the EIA Directive 2014/52/EU (European Commission 2018); and
- Environmental Impact Assessment of Projects - Guidance on Screening (European Commission, 2017).

As set out in the "Ministerial Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment", screening is the initial stage in the EIA process and determines whether or not specified public or private developments are likely to have significant effects on the environment and, as such, require EIA to be carried out prior to a decision on a development consent application being made. A screening determination is a matter of professional judgement, based on objective information relating to the proposed project and its receiving environment. Environmental effects can, in principle, be either positive or negative. For the Proposed Scheme, the EIA Screening stage involved the following:

1) Review of the Proposed Scheme against the classes of project set out in Annex I of the EIA Directive. Annex I projects meeting or exceeding the thresholds set out therein require mandatory EIA and, as such, there is no screening determination required; and

2) Review of the Proposed Scheme against the thresholds for road development as identified in section 50 of the Roads Act 1993, as amended ("the Roads Act"). Where those thresholds are met or exceeded, once again, EIA is mandatory and no screening determination is required. However, for "sub-threshold" road development, a screening determination is required to be undertaken in order to ascertain whether by virtue, inter alia, of its nature, size or location, road development should be subject to EIA.

The Proposed Scheme does not fall under the list of projects identified in Annex I of the EIA Directive. Moreover, the Proposed Scheme does not meet or exceed the thresholds under section 50 of the Roads Act, such that it would automatically trigger the requirement for an EIA. The purpose of this EIA Screening Report, in accordance with section 50(1)(c) of the Roads Act, is to consider whether the Proposed Scheme would be likely to have significant effects on the environment.

1.1.2 Overview of the Proposed Scheme

The Proposed Scheme will commence 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 Proposed

[1] Directive (2011/92/EU) of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment as amended by Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014.

Scheme runs east down the R835 Lucan Road to the roundabout serving the Lucan Retail Park and also the N4 Lucan Road eastbound slip. The Proposed Scheme continues 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 at Frank Sherwin Bridge.

Cycle facilities are provided along the Proposed Scheme commencing at Junction 3 on the N4 and continuing to Junction 2 where it starts to follow the Old Lucan Road. The cycle facilities continue over the M50 and through Palmerstown on the Old Lucan Road, connecting to existing cycle facilities adjacent to the R148, immediately east of Palmerstown village. These will connect to future cycle facilities through Chapelizod village. Cycle facilities are also provided between Con Colbert Road and the end of the corridor at Heuston Station.The Proposed Scheme is described in detail in Section 3.2 and is shown on the drawings contained in Appendix A.

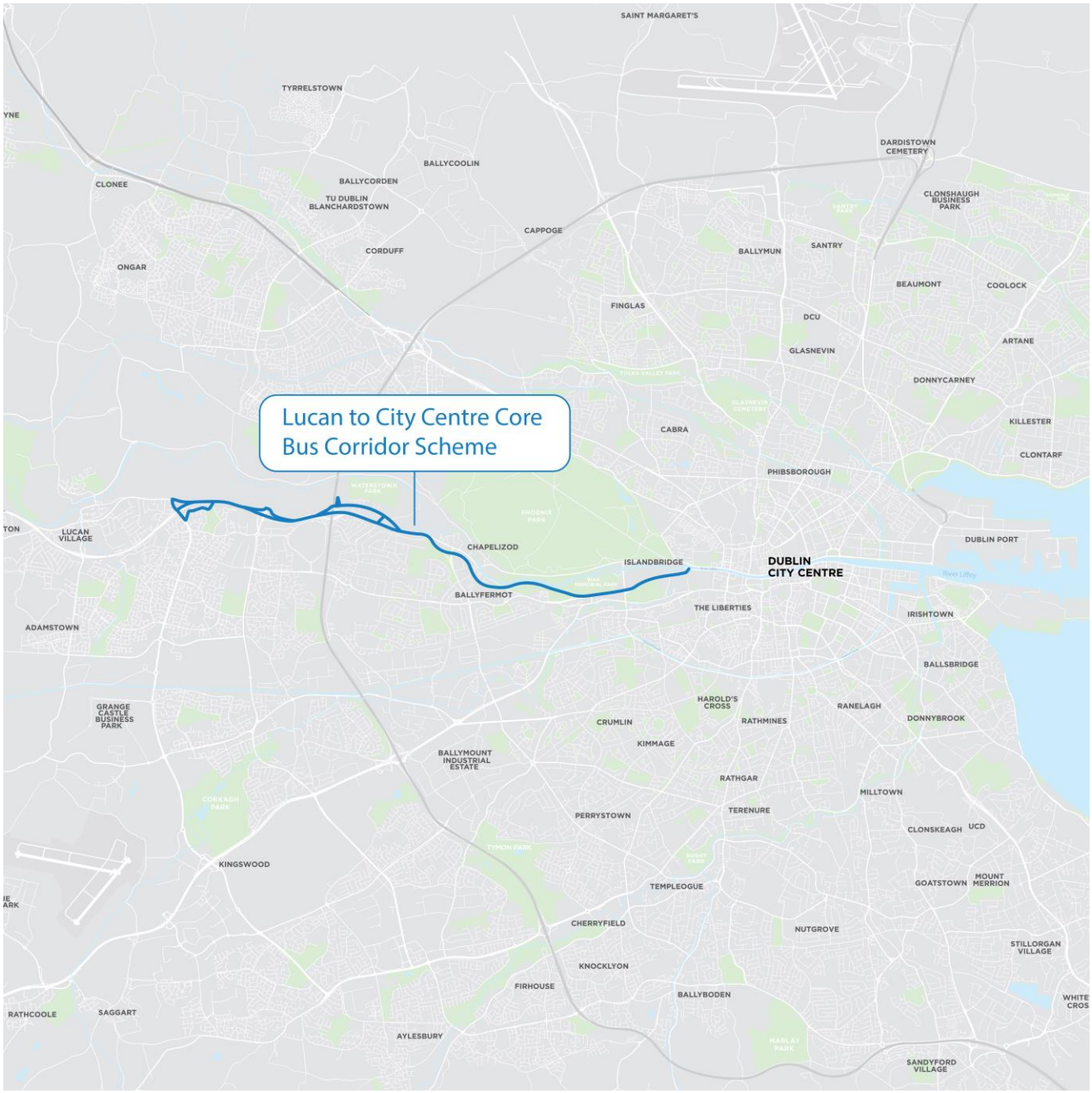

Image 1.1: Lucan to City Centre Core Bus Corridor Scheme

1.2 BusConnects Dublin – Core Bus Corridor Infrastructure Works

The Proposed Scheme is one of the 12 Schemes that make up the BusConnects Dublin – Core Bus Corridor Infrastructure Works, which is being planned with the aim of providing enhanced walking, cycling and bus infrastructure on key access corridors in the Dublin region. The delivery of the BusConnects Dublin – Core Bus Corridor Infrastructure Works will enable and deliver efficient, safe and integrated sustainable transport movement along these corridors.

1.3 Objectives for the BusConnects Dublin – Core Bus Corridor Infrastructure Works (including the Proposed Scheme)

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

1.4 Policy Context

1.4.1 National Policy Documents

1.4.1.1 Project Ireland 2040: National Planning Framework (NPF) (Government of Ireland 2018)

Project Ireland 2040 National Planning Framework (hereafter referred to as the NPF) (Government of Ireland 2018a) is the Government's strategic framework to guide development and investment to enhance the wellbeing and quality of life of Irish people. The NPF sets out a number of National Strategic Outcomes (NSO) to shape and grow development in Ireland, a number of which are relevant to the Proposed Scheme.

The most relevant NSOs include NSO1 (Compact growth), NSO2 (Enhanced regional accessibility) and NSO4 (Sustainable mobility). NSO1 covers integrating transport, promoting regeneration, improving accessibility and transitioning towards more sustainable forms of transport. NSO2 covers maintaining the strategic capacity and safety of national roads, planning for future capacity and enabling more effective traffic management. It includes the re-allocation of inner city road-space in favour of bus-based public transport and walking/cycling facilities. NSO4 specifically refers to the delivery of BusConnects as part of the objectives of the Transport Strategy for the Greater Dublin Area (GDA). Under the heading '*Key future growth enablers for Dublin include*', the NPF highlights that:

> '*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*.'

As part of the NPF, a Strategic Environmental Assessment (SEA), Appropriate Assessment (AA) and Nature Impact Statement (NIS) were produced. The results of the SEA indicated a number of significant potential positive and negative environmental impacts (including cumulative impacts) from the implementation of the NPF. It also identified a number of mitigation measures to reduce the negative impacts such as ensuring that Flood Risk Management informs place-making and integrating Sustainable Drainages Systems (SuDS) to create safe places. The results of the SEA have been taken into account when considering the likely significant effects of the Proposed Scheme.The Proposed Scheme complies with the NPF goals by delivering infrastructure that will facilitate a high quality sustainable public transport network not only facilitating buses but also active travel in cycling and pedestrian infrastructure. The Proposed Scheme will help the transition towards a low carbon and climate resilient society.

1.4.1.2 Project Ireland 2040: National Development Plan (NDP) 2018-2027 (Department of Housing, Planning and Local Government 2018)

The National Development Plan (hereafter referred to as the NDP) (Government of Ireland 2018b) is the national capital investment strategy plan that is integrated and aligned with the NPF. Its sets out the framework of expenditure commitments to secure the Strategic Investment Priorities to the year 2027 and support the delivery of the NSOs identified in the NPF.

Within the NDP, BusConnects is specifically identified as one of the three 'Major National Infrastructure Projects' for appraisal and delivery that aligns with NSO4 of the NPF. Table 3.2 of the NDP shows a significant commitment of an indicative €2.4 billion of Exchequer funding for the delivery of the BusConnects Programme.

BusConnects is identified as a 'Major National Infrastructure Project', with an associated investment commitment, which has been determined as central to the delivery of the NPF vision. Under the heading 'Major National Infrastructure Projects' the NDP sets out a selection of National infrastructure projects included in the Plan for '*appraisal and delivery'*. 'BusConnects for Ireland's Cities' is highlighted under the heading 'Sustainable Mobility'.

The Proposed Scheme is an integral part of Ireland's efforts to reduce carbon, it will help to facilitate continued growth by meeting existing and future travel demand. The Proposed Scheme will provide the infrastructure to help facilitate a modal shift to bus and active travel options.

1.4.1.3 Climate Action Plan 2019 (Government of Ireland 2019)

The Climate Action Plan sets out how Ireland is to meet its European Union (EU) greenhouse gas emission targets. The obligations include reducing carbon emissions by 30% by 2030 and laying the foundations for achieving net zero carbon emissions by 2050. The BusConnects programme is highlighted as a major sustainable-mobility project that will support a modal shift to more sustainable forms of transport.

In regard to modal shift the Climate Action Plan 2019 sets out that:

> '*We want to make sure that we provide good public transport, cycling and walking infrastructure, so people are less reliant on their cars, and we can cut congestion. We have already committed to an additional 500,000 public transport and active travel journeys daily by 2035*.'

The Climate Action Plan 2019 further sets out under modal shift that it will:

- *'Implement major sustainable-mobility projects such as DART Expansion, Metro Link, and the BusConnects programme. BusConnects targets a 50% increase in bus passenger numbers over the lifetime of the project in our major cities';*
- *'Expand sustainable-travel measures, including a comprehensive cycling and walking network for metropolitan areas of Ireland's cities, with a particular emphasis on safety of cyclists. We shall also expand greenways, and develop over 200km of new cycling network under BusConnects'; and*
- *'Promote compact growth and greater integration of policies for land use and transport planning, which will reduce the demand for commuter travel and support more efficient patterns of development and travel'.*

The delivery of BusConnects (of which the Proposed Scheme is a key part), is itself a key action of the Climate Action Plan 2019. The proposed transport infrastructure will expand, enhance, and connect to pedestrian and cycle networks and will assist in facilitating the delivery of compact growth on lands zoned in proximity to the Proposed Scheme.

1.4.1.4 Energy White Paper, Ireland's Transition to a Low Carbon Energy Future 2015-2030 (Department of Communications, Energy and Natural Resources 2015)

The Energy White Paper is a statement of Government policy in the energy sector. It sets out an energy policy framework up to 2030 and outlines a transition to a low carbon energy system for Ireland by 2050. It includes the commitment to supporting energy efficient and renewable transport.

In relation to transport, the renewable energy actions that commit to supporting energy efficiency and renewable transport are as follows:

> *'To support energy efficient and renewable transport, we will: …*
>
> - *…'support transport modal shift through better alignment of land use and transport planning and a continuation of smarter travel programmes administered by the Department of Transport, Tourism and Sport….*

The Proposed Scheme is fully compliant with the renewable energy actions of the Energy White Paper as it will support and facilitate a modal shift to sustainable transport options by providing the infrastructure required for same.

1.4.1.5 Transport – Climate Change Sectoral Adaptation Plan (Department of Transport, Tourism and Sport 2019)

This plan sets policy on adaptation strategies for transport, helps to build adaptive capacity within the sector's administrative structures and assists organisations to better understand the implications of climate change for Ireland and how it may impact on transport infrastructure and services. The overarching goal is to ensure that the transport sector can fulfil its continuing economic, social, and environmental objectives by ensuring that transport infrastructure is safeguarded from the impacts of climate change. Both SEA and AA screening was undertaken and it was determined that neither an SEA or AA was not required for the Plan.

The Proposed Scheme complies with the objectives and actions set out in the plan.

1.4.1.6 Smarter Travel: A Sustainable Transport Future: A New Transport Strategy for Ireland 2009–2020 (Department of Transport, Tourism and Sport 2009)

This is the National planning policy document to deliver an integrated transport policy for Ireland. 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..

To achieve a shift to sustainable transport, the document identifies a series of 49 actions that will have complementary impacts in terms of travel demand and emissions and can be grouped into four overarching goals.

Action 12 outlines efforts to '*implement more radial bus priority and traffic management*' and to ensure '*re-design of bus services*' and Action 13 seeks to create a '*reliable bus service in significant urban areas*.'

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*.'

The Proposed Scheme will help to enhance the effectiveness / efficiency of future bus services required by the Strategy. The Proposed Scheme will maximise the efficiency of the transport network through the integration of cycling and public transport modes and alleviate reliance on car-based journeys.

1.4.1.7 Smarter Travel: Ireland's First National Cycle Policy Framework 2009-2020 (Department of Transport, Tourism and Sport 2009).

This is is Ireland's cycling policy framework. The vision is to create a strong cycling culture in Ireland. This policy framework outlines a breadth of interventions to make cycling easier and safer. It includes interventions related to integrating cycling and public transport and designing / retrofitting cyclist-friendly road infrastructure and management.

The interventions specific to the Proposed Scheme are:

- *'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. We will also ensure that intercity and suburban trains have proper provision for the carriage of bikes – either on all services or (in the case of sub-urban trains) on off peak (counter-peak) services.';*
- *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.'; and*
- *Objective 8: 'Ensure proper integration between cycling and public transport' will assist in increasing the uptake in cycling across the region.*

The Proposed Scheme will facilitate sustainable modes of transport and fully complies with the NCPF through the provision of safe cycling infrastructure segregated from general traffic wherever practicable.

1.4.2 Regional Policy Documents

1.4.2.1 Transport Strategy for the Greater Dublin Area (GDA) 2016-2035 (NTA 2016)

The Transport Strategy for the GDA provides a framework for the planning and delivery of transport infrastructure and services. As part of the 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 Transport Strategy highlights 16 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*.'

A SEA, AA and NIS have been undertaken as part of the Transport Strategy for the GDA. In line with legislation governing SEA, a number of reasonable alternative strategies have been devised and assessed, taking into

account the objectives and the geographical scope of the strategy. The provisions of the Transport Strategy (including bus-based transport modes), were evaluated for potential significant effects. The SEA identified that the Transport Strategy had the potential to result in significant adverse effects including habitat loss, disturbance and displacement of protected species and effects on riparian zones where watercourses are crossed. The SEA and the AA identified recommendations which are integrated into the Transport Strategy to mitigate potential adverse effects including the preparation of Construction Environmental Management Plans and Construction Waste Management Plans. The results of the SEA have been taken into account when considering the likely significant effects of the Proposed Scheme.

The Proposed Scheme will provide the 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 Transport Strategy by providing the enhanced bus lanes, removing 'bottlenecks' and making the bus a more attractive option to commuters than car based transport. The Proposed Scheme is fully compliant with and complementary to the Transport Strategy.

1.4.2.2 Integrated Implementation Plan 2019 – 2024

The National Transport Authority (NTA) Integrated Implementation Plan 2019 - 2024 (hereafter referred to as the Implementation Plan) (NTA 2019) was prepared to be aligned with the Government's review on capital spending. The Implementation Plan identifies the key objectives and outputs to be followed by the NTA over the period of the NDP and actions taken to ensure effective integration of public transport infrastructure. The key objectives of the Implementation Plan include:

- *'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'; and*
- *'Improve the environmental performance of the bus fleet'.*

Specifically, in regard to BusConnects Dublin, the Plan's stated aim is to *'overhaul the current bus system 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;*
- *Completely redesigning the network of bus routes to provide a more efficient network, connecting more places, and carrying more passengers'*;
- *'Implementing a new bus livery providing a modern look and feel to the new bus system;*
- *Rolling out new bus stops with better signage and information and increasing the provision of additional bus shelters'*; and
- *'Transitioning to a new bus fleet using low emission vehicle technologies.'*

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 Implementation Plan has been accompanied by the consideration of environmental issues identified in a SEA and Appropriate Assessment. The results of these assessments identified a number of schemes with the potential

negative impacts on the environment in relation to the bus and cycle networks due to land take, habitat loss and disturbance. Mitigation measures identified within the SEA include best practice construction measures and timing and replacement of lost habitats. The results of the SEA have been taken into account when considering the likely significant effects of the Proposed Scheme.

The Proposed Scheme will provide the infrastructure to facilitate the transformational change of the current bus network required to meet objectives such as, greater efficiency, reduction in journey times and improving environmental performance. The Proposed Scheme design takes account of policy objectives in the Integrated Implementation Plan and other Transport strategies.

1.4.2.3 Regional Spatial and Economic Strategy (RSES) for the Eastern and Midland Region 2019-2031 (Eastern & Midland Regional Assembly (EMRA) 2019)

The principal purpose of the Eastern and Midlands Regional Assembly (EMRA) Regional Spatial and Economic Strategy for the Eastern and Midland Region 2019 - 2031 (hereafter referred to as the RSES) (EMRA 2019) 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. The RSES supports the implementation of Project Ireland 2040 by providing a long-term strategic planning and economic framework for the development of the Region. The RSES provides key principles for environmental, economic, and social aspects of the region, with specific objectives related to Healthy Placemaking, Climate Action and Economic Opportunity. In the RSES, the policy responses are known as Regional Policy Objectives (RPOs). Among the relevant RPOs are:

> *RPO 5.2: Support the delivery of key sustainable transport projects including Metrolink, DART and LUAS expansion programmes, Bus Connects 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.'*

The Dublin Metropolitan Area Strategic Plan (hereafter referred to as the Dublin MASP) (EMRA 2019) 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'.*

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'*.

A SEA, AA and a Regional Flood Risk Assessment have been undertaken as part of the RSES. The results of these assessments identified a number of potential regional concerns including deterioration of habitats and water

quality. Mitigation measures identified in the SEA state that all applications for development consent for projects emanating from any policies will be accompanied by an Environmental Impact Assessment Report and Natural Impact Statement where necessary, The results of the SEA have been taken into account when considering the likely significant effects of the Proposed Scheme.

BusConnects 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 Metropolitan Area Strategic Plan area. The RSES not only seeks an improved and enhanced bus network but also places cycling at the core of its transport objectives. The Proposed Scheme provides a significant investment in cycling and active travel infrastructure running largely parallel to the bus corridor.

1.4.2.4 Greater Dublin Area Cycle Network Plan (GDACNP) (NTA 2013)

The GDACNP (NTA 2013) is a regional-level plan for an integrated cycle network across the seven local authorities in the GDA. It sets out proposals for three types of network: the Urban Network (including primary corridors which carry most traffic, supported by secondary corridors providing links between principal cycle routes and local zones), Inter-Urban Network (which links sections of the urban network and National Cycle Network), and a Green Route Network (which is primarily used for tourist, recreational and leisure purposes).

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*.'

The Greater Dublin Area Cycle Network Plan has been subject to a SEA to identify options for mitigating adverse effects and opportunities for enhancing or improving the Plan in terms of the environment and the principles of sustainable development. The SEA presented results of the assessment of routes located on existing cycle routes and each individual Greenways route within the GDA. The findings identified potentially significant effects from various greenway routes particularly on biodiversity, landscape and cultural heritage. The SEA identifies mitigation measures such as good construction practice to reduce potential effects during construction. The results of the SEA have been taken into account when considering the likely significant effects of the Proposed Scheme.

The Proposed Scheme complies with the Greater Dublin Area Cycle Network Plan as it will provide infrastructure to facilitate safe cycling segregated from general traffic wherever practicable.

1.4.3 Local Policy Documents

The Proposed Scheme is located within the local authority areas of Dublin City Council (DCC) and South Dublin County Council (SDCC).

Dublin City Council (DCC)

1.4.3.1 Dublin City Development Plan 2022 - 2028

Dublin City Council is currently reviewing the current Dublin City Development Plan 2016-2022 and are preparing the new City Development Plan up to 2028. Public consultation is ongoing on the future plan, and it completed public consultation on the Pre-Draft Stage of the Plan on 22nd February 2021. The Public Consultation Strategic

Issues Paper sets out under Section 5 (Sustainable Movement and Transport - promoting and using more environmentally-friendly transport options) that the emerging Plan is seeking views on '*How do we encourage more people to walk and cycle and to use more public transport?*'. It also sets out that '*The Plan will also need to consider how further public transport network projects such as* (inter alia*) BusConnects will impact on the development of the City*.' It further continues '*A core focus of the Plan will be to further improve accessibility to important destinations such as our hospitals, universities and sports facilities and to continue to encourage people to walk, cycle and use public transport.'*

A SEA, AA and Strategic Flood Risk Assessment (SFRA), have been undertaken as part of the Dublin City Development Plan. The SEA indicated the potential for significant adverse impacts as a result of policies/objectives to facilitate additional population, economic growth and development, increasing densities and generally facilitating intensification of the city. The results of the SEA identified potential residual adverse effects from the plan on biodiversity, water, architectural heritage, archaeological heritage and landscape. The SEA and AA identified key mitigation measures to be integrated into the Dublin City Development Plan including developing policies to promote green infrastructure network throughout the city, policies to promote modal shift from private car to more sustainable transport modes and policies promote and improve water and air quality in the city. The results of the SEA have been taken into account when considering the likely significant effects of the Proposed Scheme.

1.4.3.2 Dublin City Development Plan 2016-2022

The Dublin City Development Plan 2016-2022 (DCC 2016) includes Objective MT04 which states that it is an objective of DCC:

> *'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 government's 'Smarter Travel' document' (DCC 2016, p.125).*

Within the DCC Local Authority Area, the development plan is supported by area based plans, comprising Strategic Development Zones and Masterplans, giving more refined and detailed policies and objectives, including those relating to improved public transport infrastructure and connectivity.

In addition to the local policy context for the Proposed Scheme, the following national and regional policy documents support the BusConnects Programme and its aims and objectives and a summary of these is provided in the following sections.

1.4.3.3 DCC Climate Change Action Plan 2019-2024

Dublin City Council's Climate Change Action Plan (CCAP) was adopted in May 2020. It is a collaborative response to the impact that climate change is having on the Dublin Region, and their commitment to lead by example in tackling this global issue. Dublin City Council CCAP 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.*

The CCAP focuses on the sustainable transport measure to reduce pollutants and to achieve modal shift from private car to public transport. One of the Public Transport actions number T22 is specifically related to the Proposed Scheme; '*DCC to liaise with NTA on BusConnects programme'.*

A SEA and AA were produced as part of the CCAP which identified potential adverse effects on cultural heritage and potential significant cumulative effects on resource management. The SEA identified a number of potential positive effects as a result of the CCAP, for example positive effects on human health around modal shift and green infrastructure. Mitigation measures identified within the SEA include best practice in drainage design and

natural flood measures. The results of the SEA have been taken into account when considering the likely significant effects of the Proposed Scheme.

1.4.3.4 LAPs within the Dublin City Area Relevant to the Proposed Scheme

The Proposed Scheme is within the Liberties LAP 2009 (DCC 2009) from R810 James Street to R108 High Street. The overarching aim of the LAP is:

> *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.*

1.4.3.5 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.

South Dublin County Council (SDCC)

1.4.3.6 South Dublin County Council Development Plan (SDCCDP) 2016 - 2022

The South Dublin County Council Development Plan 2016 – 2022 (hereafter referred to as the SDCCDP) (SDCC 2016) sets the strategy for proper planning and sustainable development for the jurisdiction of South Dublin County Council. The overarching considerations of the plan are quality of life, prosperity, sustainability, health and wellbeing, social inclusion, and climate change adaptation. The transport element of the strategy states that:

> *'The Transport Strategy for South Dublin County seeks to ensure an integrated strategy for transport and mobility that enhances access and movement within and through the County, while promoting change, in favour of sustainable modes. The strategy addresses all types of traffic including pedestrian, cyclist, public transport, private vehicle and economic through traffic. The settlement, employment and transport strategies are aligned with the aim of strengthening the integration between employment, population and transport services.'*

The SDCCDP sets out an extensive number of policies and objectives relevant to the Proposed Scheme. The SDCCDP establishes a number of zoning objectives to regulate and manage future land uses and the Proposed Scheme will pass through lands subject to zoning objectives.

A SEA and SFRA have been undertaken as part of the South Dublin County Council Development Plan. A Stage One Appropriate Assessment Screening was also completed and concluded that an AA was not required for the South Dublin County Council Development Plan. The SEA identified a number of potential significant negative impacts of the SDCCDP including capacity of wastewater treatment within the council region and development of open space and greenfield areas could impact on landscape character and disturbance of habitat networks and protected species. The SEA identified mitigation measures in order to prevent, reduce and, as fully as possible, offset any significant adverse impacts of the SDCCDP. The mitigation measures within the SEA have been integrated from various assessments including the SEA, SFRA and AA Screening processes. The mitigation measures include various polices which protect and enhance various environmental aspects including biodiversity, water, flooding, landscape, air, noise, transportation and climatic factors. The results of the SEA have been taken into account when considering the likely significant effects of the Proposed Scheme.

1.4.3.7 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. The plan covers

five key areas, Energy & Buildings, Transport, Flood Resilience, Nature-Based Solutions and Resource Management, it 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.*
4. *To actively engage and inform citizens on climate change.*

The Plan focuses on the sustainable transport measure to reduce pollutants and to achieve modal shift from private car to public transport.

A SEA, AA and NIS were prepared as part of the plan. The results of the assessment indicated that in the absence of mitigation, a number of the strategic objectives have the potential to result in adverse effects particularly on human health which is influenced by a range of factors including air quality and noise. Mitigation measures include enhancement of green infrastructure and using nature-based solutions to enhance flood resilience. The results and mitigation measures identified in the SEA and AA have been taken into account when considering the likely significant effects of the Proposed Scheme.

2. Legislative Context

2.1 EIA Directive

Directive (2011/92/EU) of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment was amended by Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 (hereinafter referred to as "the EIA Directive"). The EIA Directive requires that projects likely to have significant effects on the environment are made subject to an assessment with regard to their effects on the environment before development consent is given for such projects.

Annex I of the EIA Directive (as amended) lists the projects that must be subject to environmental impact assessment. For projects listed in Annex II of the EIA Directive (as amended), these projects should be subject to environmental impact assessment where it is determined that they are likely to have significant effects on the environment.

Where EIA Screening is required, the developer is to provide information on the characteristics of the project and its likely significant effects on the environment. A detailed list of information to be provided is specified in Annex IIA of the EIA Directive. The relevant selection criteria to be considered when determining whether an EIAR is required is contained in Annex III to the EIA Directive.

2.2 Roads Act

2.2.1 Requirement for EIA under the Roads Act

Section 50 of the Roads Act makes provision for environmental impact assessment (EIA) for certain proposed "road development". Section 50(1)(a) provides as follows:

> *'(1)(a) A road development that is proposed that comprises any of the following shall be subject to an environmental impact assessment:*
>
> *(i) the construction of a motorway;*
>
> *(ii) the construction of a busway;*
>
> *(iii) the construction of a service area;*
>
> *(iv) any prescribed type of road development consisting of the construction of a proposed public road or the improvement of an existing public road.'*

Under article 8 of the Road Regulations 1994 [S.I. No. 119 of 1994], as amended ("the 1994 Regulations") the prescribed type of *"road development"* for the purposes of section 50(1)(a)(iv) of the Roads Act are:

> *'(a) the construction of a new road of four or more lanes, or the realignment or widening of an existing road so as to provide four or more lanes, where such new, realigned or widened road would be eight kilometres or more in length in a rural area, or 500 metres or more in length in an urban area;*
>
> *(b) the construction of a new bridge or tunnel which would be 100 metres or more in length.'*

The Proposed Scheme does not fall within a category of "road development" under section 50(1)(a) of the Roads Act or under article 8 of the 1994 Regulations.

However, section 50(1)(c) of the Roads Act states:

> *"Where a road authority or, as the case may be, the Authority considers that a road development that it proposes (other than development to which paragraph (a) applies) consisting of the construction of a proposed public road or the improvement of an existing public road would be likely to have significant*

effects on the environment, it shall inform An Bord Pleanála in writing prior to making any application to the Bord for an approval referred to in section 51(1) in respect of the development."

In accordance with the above, consideration is given in this EIA Screening Report as to whether the Proposed Scheme is likely to have significant effects on the environment. In the event that the NTA considers that the Proposed Scheme is likely to have significant effects, it is required to inform An Bord Pleanála in writing prior to making any application to the Board for approval under section 51 of the Roads Act in respect of the Proposed Scheme.

2.3 Content of EIA Screening under the Roads Act

Under section 50(1)(c) of the Roads Act, where consideration is being given as to whether a road development would be likely to have significant effects on the environment, the relevant selection criteria specified in Annex III to the EIA Directive must be taken into account. The relevant selection criteria set out in Annex III of the EIA Directive (as amended) are as follows: -

1. Characteristics of projects

The characteristics of projects must be considered, with particular regard to:

(a) the size and design of the whole project;

(b) cumulation with other existing and/or approved projects;

(c) the use of natural resources, in particular land, soil, water and biodiversity;

(d) the production of waste;

(e) pollution and nuisances;

(f) the risk of major accidents and/or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge;

(g) the risks to human health (for example due to water contamination or air pollution).

2. Location of projects

The environmental sensitivity of geographical areas likely to be affected by projects must be considered, with particular regard to: (a) the existing and approved land use; (b) the relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground; (c) the absorption capacity of the natural environment, paying particular attention to the following areas:

(i) wetlands, riparian areas, river mouths;

(ii) coastal zones and the marine environment;

(iii) mountain and forest areas;

(iv) nature reserves and parks;

(v) areas classified or protected under national legislation; Natura 2000 areas designated by Member States pursuant to Directive 92/43/EEC and Directive 2009/147/EC;

(vi) areas in which there has already been a failure to meet the environmental quality standards, laid down in Union legislation and relevant to the project, or in which it is considered that there is such a failure;

(vii) densely populated areas;

(viii) landscapes and sites of historical, cultural or archaeological significance.

3. Type and characteristics of the potential impact

The likely significant effects of projects on the environment must be considered in relation to criteria set out in points 1 and 2 of this Annex, with regard to the impact of the project on the factors specified in Article 3(1), taking into account:

(a) the magnitude and spatial extent of the impact (for example geographical area and size of the population likely to be affected);

(b) the nature of the impact;

(c) the transboundary nature of the impact;

(d) the intensity and complexity of the impact;

(e) the probability of the impact;

(f) the expected onset, duration, frequency and reversibility of the impact;

(g) the cumulation of the impact with the impact of other existing and/or approved projects;

(h) the possibility of effectively reducing the impact.

Annex IIA of the EIA Directive (as amended) sets out a detailed list of information to be contained in an EIA Screening Report. Contained in the left hand column of Table 2.1 is the list of the information set out in Annex IIA of the EIA Directive (as amended) to be contained in an EIA Screening Report and in the right hand column where that information can be located in this EIA Screening Report. This EIA Screening Report meets the requirements of Annex IIA of the EIA Directive (as amended), as identified in Table 2.1.

Table 2.1: Content of EIA Screening Report

Annex IIA of EIA Directive (as amended)	EIA Screening Report Section
1) A description of the project, including in particular: a) a description of the physical characteristics of the whole project and, where relevant, of demolition works; b) a description of the location of the project, with particular regard to the environmental sensitivity of geographical areas likely to be affected.	Section 3 - Characteristics of the Proposed Scheme Section 4 - Location of the Proposed Scheme
2) A description of the aspects of the environment likely to be significantly affected by the project.	Section 5 - Description of Likely Significant Effects
3) A description of any likely significant effects, to the extent of the information available on such effects, of the project on the environment resulting from: a) the expected residues and emissions and the production of waste, where relevant; b) the use of natural resources, in particular soil, land, water and biodiversity.	Section 5 - Description of Likely Significant Effects
4) The criteria of Annex III shall be taken into account, where relevant, when compiling the information in accordance with points 1 to 3.	Section 3 - Characteristics of the Proposed Scheme Section 4 - Location of the Proposed Scheme Section 5 - Description of Likely Significant Effects

3. Characteristics of the Proposed Scheme

3.1 Introduction

Paragraph 1 of Annex III of the EIA Directive sets out the criteria relating to the characteristics of projects which should be considered. This includes the following:

- The size and design of the whole project;
- Cumulation with other existing and/or approved projects;
- The use of natural resources, in particular land, soil, water and biodiversity;
- The production of waste;
- Pollution and nuisances;
- The risk of major accidents having regard in particular to substances or technologies used and/ or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge;
- The risks to human health (for example due to water contamination or air pollution).

The following sections describe the characteristics of the Proposed Scheme with reference to the criteria listed in Annex III

3.2 Description of the Proposed Scheme

3.2.1 Overview

The Proposed Scheme will commence 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 Proposed Scheme runs east down the R835 Lucan Road to the roundabout serving the Lucan Retail Park and also the N4 Lucan Road eastbound slip. The Proposed Scheme continues 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 at Frank Sherwin Bridge.

Cycle facilities are provided along the Proposed Scheme commencing at Junction 3 on the N4 and continuing to Junction 2 where it starts to follow the Old Lucan Road. The cycle facilities continue over the M50 and through Palmerstown on the Old Lucan Road, connecting to existing cycle facilities adjacent to the R148, immediately east of Palmerstown village. These will connect to future cycle facilities through Chapelizod village. Cycle facilities are also provided between Con Colbert Road and the end of the corridor at Heuston Station.

The Proposed Scheme is shown on drawings contained in Appendix A.

3.2.2 Section 1: N4 Junction 3 to M50 Junction 7 – N4 Lucan Road

The Proposed Scheme will commence at Junction 3 on the N4 Lucan Road. On the Ballyowen Road bridge over the N4, a two-way segregated cycle track is proposed on the east side of Ballyowen Road between Lucan Road and Hermitage Road, including a new pedestrian and cycle bridge across the N4, which will replace the existing pedestrian bridge.

At the R136 Ballyowen Road junction with the R835 Lucan Road, the Proposed Scheme will amend the existing road layout to remove the existing left-turn slip lane, which will be replaced with a fully controlled left turn lane.

On the N4 Lucan Road, the existing continuous eastbound and westbound bus lanes will be maintained. At the merges of the eastbound on-slip at N4 Junction 3, the Proposed Scheme will install a signalised bus gate to ensure the N4 Lucan Road eastbound bus lane will not be blocked by general traffic queuing at any time. The bus lane on the westbound off-slip at Junction 3 will be extended to ensure buses are provided priority as far as the junction with R136 Ballyowen Road at the top of the existing off ramp.

A new segregated two-way cycle track is proposed on the northern side of the N4 which will connect to the existing footbridge over the N4 adjacent to the Mount Andrew estate / St Loman's Hospital access. The new segregated two-way cycle track aligns with the Primary Cycle Route set out in the NTA's Greater Dublin Area Cycle Strategy. This proposed cycle facility will require land acquisition along the northern side of the R835 Lucan Road between the R136 Ballyowen Road junction and the roundabout serving the Lucan Retail Park. Land acquisition will also the northern boundary of the N4 Lucan Road, between Junction 3 and Junction 2. The two-way cycle track then runs along the eastbound off-ramp at Junction 2, and east of this location it is proposed to provide the two-way cycle track along the full length of Old Lucan Road by reallocating road space and connecting to the existing foot/cycle bridge that crosses over the M50. Traffic calming will also be introduced to this section of the Old Lucan Road.

On the south side of the N4 Lucan Road (between Junction 2 and 3) a Pedestrian Priority Zone is provided between existing footbridge over the N4 Lucan Road adjacent to the Mount Andrew estate and Ballyowen Lane. From there a quiet cycle way (quietway) is proposed through Hermitage Park, along Hermitage Road to Ballyowen Road.

The proposed scheme provides a significant improvement to the bus stop provision in the vicinity of the Liffey Valley Shopping Centre (LVSC). The bus stops themselves will be moved some 150m further west, segregated from the adjacent N4 Lucan Road carriageway and increased in length. To better serve the increased bus stop capacity a new pedestrian only bridge is proposed adjacent to the new bus stop locations, some 200m further west from the existing foot/cycle bridge. The position of this new bridge aligns with the proposed public transport interchange within the LVSC site. Changes to the layouts around both the existing and proposed bridges have been proposed to encourage/discourage cyclists/pedestrians in certain locations to improve the accessibility and level of service for all. The existing foot/cycle bridge at LVSC is to be retained to continue to provide access to Palmerstown and the Kings Hospital School.

The relocation of the bus stops allows for an increased weaving length for all eastbound traffic approaching the M50 interchange and for all westbound traffic exiting the M50 interchange.

Over Junction 7 of the M50 it is proposed to provide two general traffic lanes and a continuous buss lane in both directions.

3.2.3 Section 2: M50 Junction 7 to R148 Con Colbert Road – Chapelizod Bypass

Between the M50 junction and Kennelsfort Road junction, it is proposed to maintain a single bus lane and two general traffic lanes in the eastbound direction, and two general traffic lane (one for N4 west and one for M50) and a bus lane in the westbound direction. This arrangement allows for a continuous westbound bus lane from the Kennelsfort Road junction and through the M50 interchange.

On the R148 Palmerston Bypass modifications are proposed to both the Kennelsfort Road and the Old Lucan Road/The Oval junctions to remove the existing left turn slip lanes. In addition, the left turn movement from Kennelsfort Road Lower to the R148 Palmerstown Bypass eastbound is to be prohibited to facilitate a new Toucan crossing on the east side of the Kennelsfort Road junction to serve pedestrian demand and cater for the proposed two-way cycle track that crosses the R148 Palmerstown Bypass at this location. In addition, at the signalised junction with the Old Lucan Road / The Oval a new westbound, bus only, right turn lane is provided on the R148 Palmerstown Bypass to facilitate new bus services serving Palmerstown village. A small area of land acquisition will be required from the western edge of the petrol filling station at this location to accommodate this new layout.

The existing bus stops on the R148 Palmerstown Bypass at Kennelsfort Road and The Oval are to be lengthened and relocated to allow the provision of a bus layby in all cases. In addition, it is proposed to rationalise the bus stops within Palmerstown village with new bus stops provided on the Old Lucan Road immediately west of Mill Lane/Stewarts Hospital.

Between the junction with The Oval and the R833 Con Colbert Road junction, it is proposed to maintain a continuous bus lane and two general traffic lanes in each direction, as per the existing arrangement. The speed limit for the bus lanes along the full length of the R148 Chapelizod bypass will be reduced from 80km/hr to 60km/hr. New bus stops with laybys are proposed where the R148 Chapelizod Bypass crosses over the

Chapelizod Hill Road to provide access to the higher frequency buses for residents of Chapelizod. These will be connected to Chapelizod Hill Road via a combination of steps and ramps to provide access for all.

3.2.4 Section 3: R148 Con Colbert Road to Frank Sherwin Bridge – St John's Road West

At the R833 Con Colbert Road junction with the R148 Chapelizod Bypass the existing left turn slip lane from R833 Con Colbert Road to the R148 Chapelizod Bypass is removed. Between the R833 Con Colbert Road junction and the R111 South Circular Road junction the existing continuous bus lanes and two general traffic lanes are maintained but narrowed to facilitate the introduction of a segregated cycle track in each direction.

At the junction of the R148 Con Colbert Road and Memorial Road an eastbound right-turning lane is proposed to facilitate the changes to Memorial Road included in the Liffey Valley to City Centre Core Bus Corridor Scheme. As a consequence of this additional turning lane it is proposed to relocate the existing pedestrian crossing facility to the east side of the junction.

At the R111 South Circular Road junction, there are a number of changes to existing traffic management arrangements. On the eastbound and westbound approaches to the junction the existing left turn slip lanes are removed. On the R111 South Circular Road northbound a short right turn lane is provided to compensate for the introduction of turning bans and other restrictions included in the Liffey Valley to City Centre Core Bus Corridor Scheme. The R111 South Circular Road itself is widened along the western side through the junction to facilitate the inclusion of segregated cycle facilities.

On the R148 St John's Road West between the R111 South Circular Road junction and the junction into the Heuston South Quarter, the existing configuration of continuous bus lanes and general traffic lanes will be maintained, with one general traffic lane eastbound and two lanes westbound. Between the Heuston South Quarter junction and Heuston Station the existing eastbound lane configuration of one bus lane and one single general traffic lane is maintained. In the westbound direction a continuous bus lane is to replace one of the two general traffic lanes. Segregated cycle tracks are also proposed in each direction along this section. The existing taxi waiting lane on the eastbound direction will be shortened to facilitate the provision of the eastbound cycle track.

Along the section of the R148 St Johns Road West between the Heuston South Quarter junction and Heuston Station some trees will need to be removed so that the facilities for both taxis and cycles, described above, can be provided. An urban realm landscaping improvement is therefore proposed along this section of the road, which will include the planting of new trees.

In the immediate vicinity of Heuston Station continuous bus lanes and segregated cycle tracks are provided in both directions. In addition, enhanced bus stop provision is provided on St John's Road West outside the south elevation of Heuston station. The improved bus stop for westbound buses will impact the green space to the front of Dr Steevens' Hospital, with an urban realm improvement included at this location. These bus stops are required to promote interchange between LUAS and mainline rail services at this location.

3.2.5 Construction Phase

Construction of the Proposed Scheme is anticipated to take approximately 24 months. In order to mitigate the disruption to traffic and the community, the construction programme will be split into phases and construction activities undertaken within sub-sections of the Proposed Scheme.

Enabling works to existing facilities will be undertaken in order to provide space or access for the main Construction Phase. Enabling works include demolition works, fencing, vegetation clearance and establishing site compounds. At EIA Screening stage it is anticipated that there will be three temporary construction compounds along the Proposed Scheme at the following locations:

- Old Lucan Road (north of the N4 Junction 2);
- Chapelizod Bypass (at the junction with The Oval); and
- Chapelizod Bypass (at the junction with Con Colbert Road at Liffey Gaels GAA Club Grounds).

During the main Construction Phase, the Contractor will take possession of the main working area, establish fencing, lighting, signage and implement traffic diversions as necessary. The Contractor will then clear the working area and proceed to excavate to formation level. Existing buried services within the excavation areas will be diverted or protected as necessary and new drainage pipes, service ducts and chambers will be installed as required.

Construction of the Proposed Scheme will include the following activities:

- Construction of footpaths, cycle tracks and reallocation of road space across the Proposed Scheme;
- Installation of ancillary road furnishings, including street furniture, signage, lighting, bus stops (platforms, shelters, ticket vending machines, CCTV, information displays etc.) and communication systems;
- Demolition of existing pedestrian bridge at Ballyowen Road over the N4 and construction of a new pedestrian and cyclist bridge;
- Demolition of a section of the boundary wall at Hermitage Golf Club and Hermitage Hospital and construction of a new wall along a revised alignment;
- Construction of a new pedestrian footbridge over the N4 to facilitate access to Liffey Valley Shopping Centre; and
- Construction of new pedestrian access ramps between Chapelizod Hill Road and the R148 Chapelizod Bypass.

3.2.6 Operational Phase

Once operational, the Proposed Scheme is anticipated to deliver the following benefits:

- A reduction in journey times for bus services;
- Improved accessibility to Dublin for those dependent on public transport, elderly and mobility impaired;
- Approximately 15km of proposed cycle facilities including approximately 11.5km of new segregated cycle facilities (inbound and outbound); and
- Improved and enhanced footpaths, walkways and pedestrian crossings plus urban realm upgrades where feasible.

3.3 Cumulative effects

There is the potential for significant cumulative environmental effects as a result of the construction and operation of the Proposed Scheme acting in combination with one or more of the other 11 schemes that make up the BusConnects Dublin – Core Bus Corridor Infrastructure Works and other major infrastructure and development projects.

The following sources were considered in order to identify potential projects which may give rise to likely significant cumulative environmental impacts:

- Dublin City Council – (https://webapps.dublincity.ie/swiftlg/apas/run/wphappcriteria.display) for local planning applications;
- South Dublin County Council – (https://sdcc.ie/en/services/planning/planning-applications/planning-applications.html) for local planning applications;
- National Planning Application Database (https://data.gov.ie/dataset/national-planning-applications) – for downloadable list of planning applications sent from Local Authorities;
- National Transport Authority website (https://www.nationaltransport.ie/planning-and-investment/transport-investment/projects/) – for details of major transport programmes;
- An Bord Pleanála website (http://www.pleanala.ie/index.htm) – for details of strategic infrastructure developments and strategic housing developments; and
- The EIA Portal (https://www.housing.gov.ie/planning/environmental-assessment/environmental-impact-assessment-eia/eia-portal) maintained by the Department of Housing, Planning and Local Government – for applications for development consent accompanied by an EIAR.

At EIA Screening Stage, the other significant development projects which are considered to have the potential to overlap (either temporally and/or spatially) or involve works in proximity to the Proposed Scheme and therefore have the potential to give rise to significant cumulative effects are the following:

- The other 11 schemes that make up the BusConnects Dublin – Core Bus Corridor Infrastructure Works;
- DART+ Programme: South West Project;
- MetroLink (to Charlemont);
- Lucan LUAS;
- LUAS Red Line at Heuston Station;
- LUAS Cross City incorporating LUAS Green Line Capacity Enhancement - Phase 1;
- LUAS Green Line Capacity Enhancement - Phase 2;
- Rail and Bus based P&R provision;
- Greater Dublin Area Cycle Network Plan Primary Cycle Network Route 06;
- Reconfiguration of the N4 from its junction with the M50 to Leixlip to rationalise accesses and to provide additional capacity at the Quarryvale junction;
- Porterstown Distributor Link Road;
- Liffey Valley Shopping Centre Expansion, adjacent to the Proposed Scheme immediately south east of the N4 Junction 2; and
- Major housing development at Palmerstown, in the north west corner of the R148 Palmerston Bypass / Kennelsfort Road junction; and
- Approximately 20 other local authority planning applications which are approved by South Dublin County Council including residential schemes, hotels, nursing homes and mixed-use developments.

The construction of the Proposed Scheme, when considered in combination with the construction of the other projects listed above, is likely to have significant cumulative effects. Further consideration of the assessment of likely significant cumulative effects is provided in Section 5.13 below.

3.4 Use of Natural Resources, in particular Land, Soil, Water and Biodiversity

Construction of the Proposed Scheme will require the use of natural resources such as soil and land and water. The Proposed Scheme will aim to reuse site-won material where possible. However, there will be a need for resources and materials (e.g., aggregate, concrete etc.) to be imported for the construction and maintenance of the Proposed Scheme. It is anticipated that the Proposed Scheme will be connected to the existing drainage infrastructure where possible and further consideration of the effects on the water environment is provided in Section 5.7.

3.5 Production of Waste

Construction activities will include the excavation of materials within and adjacent to the existing road boundary. These construction activities are likely to generate waste from excavated material (asphalt, concrete, made ground and topsoil), demolition of existing infrastructure and road resurfacing. Through the design development process, the Proposed Scheme will aim to avoid or minimise generation of waste through re-use of site-won material where feasible (subject to it meeting the appropriate engineering standard). Further consideration of likely significant effects is provided in Section 5.11.

3.6 Pollution and Nuisances

As with any infrastructure project of this type, there is the potential for pollution and disturbance during Construction Phase. Potential impacts during construction and operation include effects on the local water environment (i.e. as a result of run-off), air quality, traffic and nuisances and disruption caused by construction such as noise, vibration and dust. Further consideration of the likely significant effects is provided in Section 5.

3.7 Risk of Major Accidents and Disasters

The EIA Directive introduced the requirement to assess the '*expected effects deriving from the vulnerability of the project to risks of major accidents and/or disasters that are relevant to the project concerned*'.

There is currently no clear definition of the term 'major accident and / or disaster' has been outlined in the context of the EIA Directive. The Institute of Environmental Management and Assessment (IEMA) Major Accidents and Disasters in EIA: A Primer (hereafter referred to as the IEMA Primer) (IEMA 2020) includes the following definitions:

- Disaster – a natural hazard (e.g. earthquake) or a man-made / external hazard (e.g. act of terrorism) with the potential to cause an event or situation that meets the definition of a major accident;
- Major Accident – events that threaten immediate or delayed serious environmental effects to human health, welfare and / or the environment and require the use of resources beyond those of the client or its appointed representatives to manage. Whilst malicious intent is not accidental, the outcome (e.g. train derailment) may be the same and therefore many mitigation measures will apply to both deliberate and accidental events; and
- Significant environmental effect (in relation to a major accident and / or disaster assessment) – includes the loss of life, permanent injury and temporary or permanent destruction of an environmental receptor which cannot be restored through minor clean-up and restoration.

Construction activities to be undertaken are well understood and are commonly undertaken in the Dublin region. During operation, the Proposed Scheme is likely to result in changes in traffic patterns and increase in modal shift and public transport services.

It is not considered likely that there are major accidents and / or disasters risk events which would occur as result of the Proposed Scheme that present a sufficient combination of risk and consequence that would lead to significant residual environmental effects. The Proposed Scheme does not fall within the consultation zone for any Seveso site (i.e., a site subject to Directive 2012/18/EU of the European Parliament and of the Council of 4 July 2012 on the control of major-accident hazards), with the nearest Upper Tier Seveso site approximately 2km away. During the construction phase, there will be appropriate management plans implemented to manage and minimise risk, for example a Construction Environmental Management Plan, a Construction Traffic Management Plan and an Incident Response Plan. Therefore, in the context of major accidents and disasters, significant environmental effects are considered unlikely at EIA Screening Stage and not considered further in Section 5.

3.8 Impacts on Population and to Human Health

The 2014 EIA Directive has introduced the requirement to consider the '*direct and indirect significant effects of a project* on…population *and human health'*. The Proposed Scheme has the potential to impact on health due to the direct and indirect effects associated with construction activities such as noise, vibration and air quality. Potential operational impacts include direct effects on air quality or noise and indirect impacts on access to public facilities and community services and positive effects on population and human health. Further consideration of the likely significant effects on human health are considered in Section 5.5.

4. Location of the Proposed Scheme

4.1 Introduction

Paragraph 2 of Annex III of the EIA Directive sets out the criteria with regard to the location of the Proposed Scheme to be taken into account in determining whether an EIA is required. This section considers the environmental sensitivity of geographical areas likely to be affected by the Proposed Scheme with particular regard to the following:

(a) 'the existing and approved land use;

(b) the relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground; and

(c) the absorption capacity of the natural environment, paying particular attention to the following areas:

(i) wetlands, riparian areas, river mouths;

(ii) coastal zones and the marine environment;

(iii) mountain and forest areas;

(iv) nature reserves and parks;

(v) areas classified or protected under national legislation; Natura 2000 areas designated by Member States pursuant to Directive 92/43/EEC and Directive 2009/147/EC;

(vi) areas in which there has already been a failure to meet the environmental quality standards, laid down in Union legislation and relevant to the project, or in which it is considered that there is such a failure;

(vii) densely populated areas;

(viii) landscapes and sites of historical, cultural or archaeological significance'.

The following section describes the relevant details of the location of the Proposed Scheme by reference to the criteria set out in paragraph 2 of Annex III. The Proposed Scheme and its location have previously been described in Section 3.

4.2 Existing and Approved Land Use

The Proposed Scheme will pass some community and recreational receptors but will largely follow the N4 National Road and R148 Chapelizod Bypass. Existing land use within community areas which are either intersected by or may experience displaced traffic as a result of the Proposed Scheme, is typical of an urban setting with a range of community and recreational facilities as identified in Table 4.1.

Table 4.1: Community Receptor Type by Community Area (OSI 2020)

Community and Recreation Receptors	Schools	Hospital / Health Centre	Place of Worship	Recreation
Lucan	11	7	7	8
Rowlagh - Quarryvale	4	0	1	2
Palmerstown	5	2	3	4
Ballyfermot Upper	4	3	2	5
Chapelizod	3	5	4	14
Ballyfermot	5	1	1	2

Community and Recreation Receptors	Schools	Hospital / Health Centre	Place of Worship	Recreation
Inchicore (Mary Immaculate)	2	2	2	1
Inchicore (St Michael's)	3	2	4	4
James's Street	5	3	3	1
Halston Street	4	0	4	2
Total	**46**	**25**	**31**	**43**

As identified in Table 4.1, there is a high concentration of recreational resources in Chapelizod which includes Phoenix Park, the largest park in Dublin stretching over 700 hectares. Other notable community receptors along the Proposed Scheme which draw a large number of users include:

- Hermitage Golf Club, Lucan;
- St Loman's Hospital, Lucan;
- St Joseph's Nursing Home, Chapelizod; and
- Heuston Station, James's Street.

Approved land use is identified in the relevant local development plans. Within Dublin City Council's (DCC) Dublin City Development Plan 2016-2022 (DCC 2016), Ballyfermot is identified as a Key District Centre (KDC) with zoning areas along the Proposed Scheme to provide, protect and improve residential, industrial and employment areas.

Furthermore, the Proposed Scheme will pass through the Strategic Development and Regeneration Areas of Heuston Station and Environs, and The Liberties (including Newmarket and Digital Hub), as described in the DCC Dublin City Development Plan 2016-2022 (DCC 2016). These sites are capable of delivering significant quanta of homes and employment for the city, either through the development of greenfield sites or through the regeneration of the existing built city.

In terms of existing and approved land use, the Proposed Scheme will represent a continuation of the immediate land use as a transport corridor which will pass through, or in close proximity to a number of receptors, namely residential, industrial, commercial / employment centres and tourism amenities.

4.3 Abundance, Quality and Regenerative Capacity of Natural Resources

Natural resources are considered to include soil, land, water and biodiversity. The Proposed Scheme will be located along an existing transport corridor which is currently connected with natural resources via existing infrastructure. It is anticipated that the Proposed Scheme will tie into the existing drainage were feasible.

The existing transport corridor and thus the Proposed Scheme is located immediately adjacent to Liffey Valley proposed Natural Heritage Area (pNHA). The Proposed Scheme extends to Heuston Station in proximity to the Frank Sherwin Bridge and the River Liffey which is hydrologically connected with downstream waterbodies such as the South Dublin Bay and River Tolka Estuary Special Protection Area (SPA). Details of the status of these waterbodies is provided in Table 4.2. Many of the waterbodies are at risk of not achieving WFD 'good' status[2] by 2027.

4.4 Absorption Capacity of Natural Resources

This section considers the natural environment as outlined in Paragraph 2(c) of Annex III of the EIA Directive (as amended) and identified in Section 4.1 above.

The Proposed Scheme is located in Dublin City which is densely populated and will be located along a well-established transport corridor between west Dublin and Dublin City Centre. OPW mapping (OPW 2021) indicates

[2] In accordance with the EU Water Framework Directive (Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (as amended)).

low risk of coastal and fluvial flooding along the Proposed Scheme.The watercourses and waterbodies identified in Table 4.2 are within 500m of the Proposed Scheme.

Table 4.2: Water Framework Directive (WFD) status

Watercourse	WFD Sub-Catchment	Waterbody ID	Heavily Modified?	Type	Status (2013 to 2018)	Key Pressures: Elements Causing or with Potential to Cause Less Than Good Status	Risk Categorisation
River Liffey	Liffey_SC_090	Liffey_180	Unknown	River	Unassigned	Storm Water Overflows (SWOs) and urban runoff	At Risk
	Liffey_SC_100	Liffey_190	Unknown	River	Moderate		At Risk
Liffey Estuary Upper	N/A	Liffey Estuary Upper	No	Transitional	Good	Urban Wastewater (SWOs)	At Risk
River Camac	Liffey_SC_090	Camac_040	Unknown	River	Poor	Urban runoff; Urban Wastewater (SWOs) and hydromorphology	At Risk

The Proposed Scheme will be located in proximity to the ecological and geological protected sites identified in Table 4.3.

Table 4.3: Designated Sites

Designation Type	Designated Site
Proposed Natural Heritage Area	Liffey Valley
County Geological Site	Phoenix Park
County Geological Site	Lucan Esker

The Proposed Scheme will upgrade an existing well-established transport corridor, through a heavily developed suburban and urban landscape. There are six recorded archaeological sites (RMP/SMR) a number of regional and scheduled monument records within 50m of the Proposed Scheme as identified in Table 4.4. There are no National Monuments or sites under preservation order located along the Proposed Scheme.

Table 4.4: Monument Records

RMP/SMR No.	Name / Type	Townland / Street Address	ITM
DU018-029	House - 16th century / 17th century	Chapelizod Bypass	711473, 733930
DU018-302	Burial	St John's Road West	712726, 733966
DU018-020255	House - 18th/19th century	Royal Hospital Kilmainham (adjacent St John's Road West)	713148, 734099
DU018-020528	Designed landscape feature	Royal Hospital Kilmainham (adjacent St John's Road West)	713164, 734025
DU018-020292	Hospital (Royal Hospital Infirmary)	Military Road	713510, 734125
DU018-020341	Hospital (Dr Steevens' Hospital)	St John's Road West	713715, 734155
DU018-020272	Burial	War Memorial Gardens	712011, 733902

RMP/SMR No.	Name / Type	Townland / Street Address	ITM
DU018-020283	Ecclesiastical site	Bully's Acre, St John's Road West	712793, 733810
DU018-020477	Mill - unclassified	South of St John's Road West	713618, 734138

A review of the National Inventory of Architectural Heritage (NIAH) building survey for Dublin (NIAH 2020a) has shown that in addition to the recorded monuments and protected structures identified in Table 4.4, there are 10 structures or sites located within the receiving environment of the Proposed Scheme, as identified in Table 4.5.

Table 4.5. National Inventory of Architectural Heritage Structures

Section	ID	Location	Class / Description
N4 Junction 3 to M50 Junction 7	NIAH 11202017	1 Fonthill Road	Semi-detached four-bay single-storey house, c.1910
	NIAH 11202018	2 Fonthill Road	Semi-detached four-bay single-storey house, c.1910
	NIAH 11202021	Old Lucan Road, Quarryvale	Detached three-bay single-storey with attic house, c.1910
M50 Junction 7 to Con Colbert Road	NIAH 50080353	688-698 Old Lucan Road, Chapelizod	Group of six pairs of semi-detached two-bay two-storey houses, built c.1915. (Chapelizod ACA)
	NIAH 50080360	1 - 4 Chapelizod Hill Road	Terrace of four four-bay houses with gabled entrance porch and associated front railings (Chapelizod ACA)
Con Colbert Road to Frank Sherwin Bridge	NIAH 50080049	St John's Gardens, 685- 697, South Circular Road	Terrace of seven two-storey two-bay houses c.1900
	NIAH 50080051, 50080052, 50080054	Military Cemetaries, Royal Hospital Kilmainham	Graveyard with about seventy headstones dating from 1764 to 1832, some having 'IHS' motif. Incorporating earlier burials, from c.1200 onward. Granite shaft of high cross set on granite plinth, with carvings to each elevation (DU018-020284). Remains of brick lean-to structure to south-west of site (DU018-020283). Military cemetery for Royal Hospital Kilmainham, established 1880 and used until 1905. Military cemetery for occupants of Royal Hospital Kilmainham, established 1905, in use until 1931
	NIAH 50080032	Quay	Tooled cut granite quay wall, built c.1850, having rounded profile to top. Round arch to culvert to north elevation, dressed granite voussoirs.

Air quality, while not considered explicitly in EIA Directive Annex III requirements is considered within this EIA Screening Report due to the potential for reductions in air quality to impact human receptors and also habitats. As part of the implementation of the Air Quality Standards Regulations 2011 (S.I. No. 180 of 2011) (as amended), four air quality zones have been defined in Ireland for air quality management and assessment purposes by the EPA. Dublin is defined as Zone A and air quality is generally good. Long-term Nitrogen dioxide (NO_2) trends have generally been below both the annual and 1-hour limit values. With respect to Particulate Matter (PM_{10} and $PM_{2.5}$), continuous monitoring has been carried out at a number of the monitoring stations with long-term data showing a general flat to downward trend.

With regard to NO_2, continuous monitoring data from the EPA at locations in close proximity to the Proposed Scheme was reviewed (EPA 2020). There is sufficient data available for suburban monitoring stations in Rathmines, Ballyfermot and Swords to observe long-term trends over the period 2015 to 2019. Results average between 13µg/m^3 to 22µg/m^3 for the annual mean concentrations between 2015 to 2019 at each location compared to the annual limit value of 40µg/m^3 with no exceedances of the one-hour limit value of 200µg/m^3 in

2019. The Blanchardstown monitoring station is located at an urban traffic location within 10m of the N3 National Road one exit north on the M50 from the Proposed Scheme. Long-term annual average levels at urban traffic Blanchardstown location range from 25µg/m^3 to 31µg/m^3 over the period 2015 to 2019, with an average concentration of 31µg/m^3 in 2019.

A colocation has been set up for the Proposed Scheme at St John's Road West EPA monitoring location, which was opened on 28 November 2018 and hence no long-term information has been published by the EPA. The average concentration in 2019 was 43µg/m^3.

4.5 Summary of Natural Environment Aspects

Natural resources aspects are summarised in Table 4.6.

Table 4.6: Summary of Natural Resources

EIA Directive Annex III (2c)	Summary
Wetlands, riparian areas, river mouths	The Proposed Scheme is located adjacent to the River Valley pNHA and is in proximity of watercourses including River Camac and River Liffey. There are indirect connections with the Tolka Estuary and Dublin Bay.
Coastal zones and the marine environment	Dublin Bay is the nearest marine environment which is located approximately 7km east of the Proposed Scheme.
Mountain and forest areas	There are no known mountain or forest areas.
Nature reserves and parks	Liffey Valley is a known pNHA. The Proposed Scheme is located adjacent to the Irish War Memorial Park.
Areas classified or protected under national legislation; Natura 2000 areas designated by Member States pursuant to Directive 92/43/EEC and Directive 2009/147/EC	The following EU Designated Sites are located along the east coast of Dublin City: Special Protection Area (SPA): South Dublin Bay and River Tolka Estuary (4.5km) Special Areas of Conservation (SAC): South Dublin Bay (5km), North Dublin Bay (7.5km)
Areas in which there has already been a failure to meet the environmental quality standards, laid down in Union legislation and relevant to the project, or in which it is considered that there is such a failure	A number of the waterbodies are At Risk of achieving Good status by 2027: Camac_040 Liffey_180 Liffey_190 Liffey Estuary Upper
Densely populated areas	The Proposed Scheme is located in Dublin City and has an extensive linear route to Dublin City Centre.
Landscapes and sites of historical, cultural or archaeological significance	There are a number of archaeological, architectural and cultural heritage assets along the Proposed Scheme. These include monuments, Architectural Heritage and Protected Structures.
Other - Air Quality	Air quality in Dublin is generally good with long term trends below the limit values. In the local context around the Proposed Scheme, air quality trends are below the limit values for PM_{10} and $PM_{2.5}$ and NO_2.

5. Description of Likely Significant Effects

5.1 Introduction

This Section of the EIA Screening Report provides a description of the potential significant effects of the Proposed Scheme during construction and operation. The likely significant effects identified in this section have taken into account, where relevant, the available results of other relevant assessments of effects on the environment, including SEA, AA and SFRA. In addition, Section 5.13 considers the likely significant cumulative effects during construction and operation in combination with other development projects.

5.2 Traffic and Transport

The Proposed Scheme is designed to promote travel by sustainable modes such as walking, cycling and bus while reducing the need to travel by private car. The characteristics of the Proposed Scheme are such that road space in some instances is reallocated from private car for the provision of sustainable modes. Although these characteristics will contribute to broader environmental positive impacts as both the share of public transport and active travel modes (walking and cycling) increase, there is the potential for negative impacts along the Proposed Scheme and along the adjacent road links, as a result of the reallocation of existing road space, reduction in capacity, and redistribution of traffic during both the construction and operation of the Proposed Scheme.

Construction of the Proposed Scheme has the potential to impact people's day-to-day travel activities. Temporary traffic diversions, and in some instances temporary lane or road closures, may be required to undertake construction activities necessary to complete the Proposed Scheme. Temporary traffic diversions and road closures may also reduce traffic capacity. Furthermore, during construction of the Proposed Scheme there will be a requirement to remove both excavated material and deliver construction materials resulting in HGV movements which may increase traffic congestion. Construction may also result in temporary footpath diversions and closures which may have a temporary negative impact on local amenities such as bus stops, traffic crossings, private dwelling and business. Impacts during Construction Phase have the potential to result in likely temporary significant negative effects.

During operation, the Proposed Scheme will result in improvements in terms of cycling, walking and public transport facilities which are likely to result in permanent significant positive effects, including to population and human health. However, the reallocation of the road space may lead to changes in traffic patterns, redistribution of traffic and a reduction in parking and loading along the Proposed Scheme which have the potential for permanent significant negative effects.

5.3 Air Quality

Emissions to air during construction and operation have the potential to impact sensitive receptors (human and ecological receptors), both within the immediate vicinity and wider distances from the Proposed Scheme.

Construction activities such as utility diversions, road excavation and road resurfacing works will result in dust and particulate emissions which may be exacerbated by winds and dry weather. Dust emissions have the potential for temporary significant negative effects, particularly on road users and sensitive receptors adjacent to construction sites and compounds. Due to vehicle emissions as a result of traffic diversions and from construction vehicles delivering materials to/from site, there is the potential for temporary significant negative effects on air quality during Construction Phase.

Potential impacts to air quality during operation relate to alterations to traffic patterns. For example, the introduction of a new bus lane or where bus or traffic lanes are moving closer to sensitive receptors. During operation there may be permanent changes to traffic patterns along the Proposed Scheme. Depending on the extent and nature of these changes, there is the potential for permanent significant (positive and negative) effects on air quality at sensitive receptors along the Proposed Scheme and the adjacent road links.

5.4 Noise and Vibration

Noise and vibration can be a source of disturbance at sensitive receptors. Given the urban context of the Proposed Scheme, sensitive noise and vibration receptors include buildings (residential, medical and educational dwellings) and road users in the immediate vicinity of the existing road boundary. Noise sensitive locations along the Proposed Scheme include St Loman's Hospital, Hermitage Medical Clinic, St Dominic's College Ballyfermot, De La Salle National School, St John of God School, Gaelscoil Inse Chor and residential properties located along the N4, R148 and Chapelizod Hill.

A variety of noise and vibration emitting construction plant will be used during construction such as excavators, lifting equipment and dumper trucks. Construction activities are considered to be temporary in duration, however the Proposed Scheme has the potential for temporary significant negative noise and vibration effects, particularly during intense periods of construction such as road resurfacing.

During operation, the Proposed Scheme may lead to changes in traffic patterns due to the reconfiguration of the road carriageway. These changes may occur along the Proposed Scheme and the adjacent road links. Depending on the extent and nature of these changes, there is the potential for permanent significant noise effects (both positive and negative).

5.5 Population and Human Health

The Proposed Scheme represents a continuation in use of an existing transport corridor. Sensitive human receptors include residential, community and recreational facilities, commercial (existing business and development lands), educational and medical developments along the Proposed Scheme.

During the Construction Phase of the Proposed Scheme, community facilities such as Hermitage Golf Club, Hermitage Medical Clinic and Liffey Gaels G.A.A. Club may be negatively impacted due to disruption associated with construction activities. Increases in traffic during construction have the potential for temporary significant negative effects due to increased levels of stress and disruption, particularly on vulnerable road users and members of the public living, working, or commuting through the area.

Operation of the Proposed Scheme will facilitate a greater public transport reliability, reduce journey times and improve facilities for pedestrians and cyclists. These operational benefits have the potential for permanent significant positive effects on the local community through improved access to walking and cycling, increased safety for vulnerable road users. However, the Proposed Scheme may lead to changes in traffic patterns during operation which may impact on amenity value. Therefore, the Proposed Scheme has the potential for likely permanent significant effects (both positive and negative).

5.6 Biodiversity

The Proposed Scheme is located in close proximity to a number of waterbodies and the Liffey Valley proposed Nature Heritage Area (pNHA). The following EU designated sites are located east of the Proposed Scheme:

- Special Protections Areas (SPAs): South Dublin Bay and River Tolka Estuary; and
- Special Conservation Areas (SACs): South Dublin Bay, North Dublin Bay.

Direct impacts on EU designated sites are not anticipated. Indirect impacts may occur via hydrological connectivity between the Proposed Scheme and the EU designated sites. For example, a pollution event, introduction of invasive species, or changes to the hydrological regime during Construction Phase have the potential for negative impacts (both temporary and permanent) on aquatic / wetland habitats downstream.

The EU designated sites in proximity to the Proposed Scheme are designated for Special Conservation Interest (SCI) species which may forage or roost at a number of inland sites in proximity to the Proposed Scheme. Therefore, construction activity associated with the Proposed Scheme may disturb / displace SCI populations, which has the potential for negative impacts on SCI species.

The assessment of likely significant effects on designated sites will be considered further in the Appropriate Assessment (AA) Screening Report and Natura Impact Statement which will be submitted as part of the development consent application for the Proposed Scheme.

The Proposed Scheme will require construction works in close proximity of the Liffey_180 watercourse however direct impacts on waterbodies are not anticipated. Construction activities have the potential to indirectly impact watercourses due to contaminated or heavily silted surface water runoff, pump discharges and/or an accidental spillage or pollution events. There may be indirect negative impacts on aquatic fauna and riparian bird species, particularly if construction activity is undertaken during bird breeding season, which has the potential to result in significant negative effects.

Urban vegetation provides habitat corridors for protected species, for example tree lines provide foraging and commuting habitat for bats. The Proposed Scheme may have direct and permanent impacts on private property, trees and habitats during construction. The loss of habitats including trees and other vegetation has the potential for significant negative effects (both temporary and permanent).

There may be non-native invasive species present along the Proposed Scheme, or in close proximity to the Proposed Scheme. During construction and operation, management and maintenance of the Proposed Scheme has the potential to introduce or spread non-native invasive species which would undermine the conservation objectives of downstream EU designated sites which has the potential to result in significant negative effects (both temporary and permanent) on existing habitats.

5.7 Water

Construction activities such as diversion of utilities, road excavation and road widening have the potential to create pathways for pollutants to enter watercourses and indirectly impact on water quality. Soil compaction during construction has the potential to increase the rate of surface water runoff. For example, the Proposed Scheme will require the de-construction and reconstruction of the boundary wall of Hermitage Golf Club and resurfacing works. The construction works are likely to require resurfacing and road widening adjacent to an internal access track within Hermitage Golf Club and works have the potential to indirectly impact an unnamed stream which is part of the Liffey_180 watercourse which is flows northwards to the River Liffey. There is potential for an increase in sediment in surface water runoff during construction works to the boundary wall of Hermitage Golf Club. Therefore, construction works have the potential to result in significant negative effects (both temporary and permanent) in relation to hydrology and water quality.

During operation, increased areas of hardstanding may increase the rate of runoff of pollutants and sediment loads from widened roads resulting in the deterioration of water quality. Likewise, increased runoff may alter and disturb the riverbed and the riverbanks of nearby watercourses. Therefore, operation of the Proposed Scheme has the potential to result in significant negative effects (both temporary and permanent) on the watercourses which are hydrologically connected with the Proposed Scheme.

5.8 Land, Soils, Geology and Hydrogeology

The majority of soils in Dublin City are classified as ‘made ground’, with areas of alluvial, estuarine and marine deposits present that may be associated with recent and ancient waterbodies. The Proposed Scheme is underlain by a locally important aquifer which is moderately productive only in local zones, and a poor aquifer, which is generally unproductive except for local zones. The ‘Lucan Formation’ and ‘Malahide Formation’ forms the majority of the bedrock and although groundwater vulnerability is variable, it is typically rated as low. Considering its urban nature, there may be sources of contamination within the made ground.

Construction activities will require the excavation of existing made ground and the existing roadbed. Construction activities may create pathways between contaminants from the existing made ground and the local environment and groundwater resources which has the potential to result in significant negative effects (both temporary and permanent).

During operation, the Proposed Scheme may lead to pollution of soils and geology from accidental spillages on the road which has the potential to result in significant negative effects (both temporary and permanent).

5.9 Archaeology, Architectural and Cultural Heritage

The Proposed Scheme will pass through an area which includes numerous protected structures, national monuments, sites of archaeological and cultural heritage merit, archaeological conservation areas and conservation areas. There are a number of archaeological, architectural and cultural heritage records / assets along the Proposed Scheme including Royal Hospital Kilmainham, Irish War Memorial Gardens, and Heuston Railway Station.

The Proposed Scheme interfaces with the Chapelizod and Environs Architectural Conservation Area (ACA) where it extends along the south side of Chapel Hill Road. The ACA comprises the historic core of Chapelizod Village with outlying houses developed through the eighteenth and nineteenth centuries. Furthermore, the Proposed Scheme traverses through a number of Conservation Areas (CA) as identified in the Dublin City Development Plan 2016 to 2022 (DCC 2016a).

Construction activities such as excavation may directly impact on heritage assets and may indirectly impact on the fabric and setting of heritage assets, ACAs and CAs. Potential direct impacts include where the construction activity encroaches the curtilage of a heritage asset or disturbance of below ground archaeological remains. Indirect impacts include the visible impact of construction activities and hoarding in the vicinity of historic monuments and other elements of architectural heritage. Furthermore, the potential construction compounds locations on Chapelizod Bypass at the junction with The Oval and Liffey Gaels GAA, would be located on greenfield areas where there is the potential that previously unknown archaeological features or deposits may be present below ground.

Given that the Proposed Scheme is located in an area with a large number of archaeological, architectural and cultural heritage assets, construction activities have the potential for significant negative effects.

During operation, the Proposed Scheme will lead to changes within the road boundary which may indirectly impact on the sense of place. There is the potential for permanent significant negative effects on the setting of architectural and cultural heritage assets during Operation Phase.

5.10 Landscape (Townscape) and Visual

The Proposed Scheme is located within an existing built-up area which includes various land uses from residential suburbs to inner city high rise residential developments, industrial, community and recreational facilities and commercial land uses. There are a number of Architectural Conservation Areas (ACA) and Conservation Areas located at Chapelizod Hill including The Royal Hospital Kilmainham, Military Road and Dr. Steeven's Hospital. There are a number of Protected Structures located along the Proposed Scheme including the Deadman's Inn, a milepost and houses at Quarryvale, Heuston Station and Dr. Steeven's Hospital. The Proposed Scheme will require part permanent and part temporary land acquisition from a number of residential and non-residential properties.

During construction, there will be temporary direct impacts along the N4 boundary with Hermitage Golf Course and Hermitage Clinic with the removal of an existing stone wall, trees and vegetation. This existing boundary provides screening and a safety buffer between the N4 and the Golf Club. There may be direct impacts on residential and non-residential properties located at Chapelizod Hill, Heuston South Quarter. Construction of the Proposed Scheme will require removal of existing trees and other plantings at specific locations along the road corridor and impact on the landscape at the front of Dr Steeven's Hospital. Overall, Construction Phase is likely to result in temporary significant negative townscape and visual effects due to construction activities, removal of trees, and direct and indirect impacts on private property.

The Proposed Scheme includes changes to areas around at Chapelizod Hill Road, Dr. Steeven's Hospital and at the eastern front of Heuston Station which are located within conservation areas. The Proposed Scheme may lead to localised changes during operation which have the potential for significant negative on the streetscape. Permanent impacts on private property (residential and non-residential) have the potential for significant negative effects. During operation, the Proposed Scheme is likely to result in significant negative effects on public realm due to the following:

- Alterations in the physical and visual character of the corridor of the existing road / street;

- Changes in traffic, pedestrian and cycle movements;
- Modification of areas of private property / gardens / boundaries; and
- Adjustments to other areas / boundaries.

5.11 Waste and Resources

The Construction Phase is currently estimated to generate more than 85,000 tonnes of construction and demolition waste during excavation of the existing carriageway, trenches, piled foundations and tree pits and excavation to facilitate construction of new carriageway, footpaths and works to bridges. The material generated is anticipated to be typical of a road improvement project and may include contaminated and uncontaminated material such as concrete, bituminous mixtures and soils. There is the potential for significant negative effects (both temporary and permanent) as a result of the waste arisings during construction of the Proposed Scheme. As identified in the Traffic and Transport Section 5.2, HGV movements may increase due to the removal and delivery of materials which may increase congestion which has the potential for temporary significant negative effects during construction.

During operation, the Proposed Scheme will require material as part of road maintenance however this is unlikely to have a significant effect.

5.12 Material Assets

There are a number of utilities in place along and crossing the existing road within the Proposed Scheme, the majority of which are buried within and along the roadways. These utilities include gas, electricity, water and telecommunication lines and associated infrastructure. The Proposed Scheme will require materials to be imported from outside the Proposed Scheme including plant and machinery, the main construction materials (e.g. metals, cement, road coursing materials) and finishing materials (e.g. paving, surfacing, street furniture).

During construction, the Proposed Scheme has the potential for significant negative effects (both temporary and permanent) on major public utilities due to the requirement to divert or modify existing infrastructure.

During operation, the Proposed Scheme is unlikely to have a significant effect on material assets such as major public utilities.

5.13 Cumulative Effects

The construction of the Proposed Scheme, when considered in combination with the construction of the other projects listed below, has the potential is to result in significant cumulative effects:

- The other 11 schemes that make up the BusConnects Dublin – Core Bus Corridor Infrastructure Works;
- DART+ Programme: South West Project;
- MetroLink (to Charlemont);
- Lucan LUAS;
- LUAS Red Line at Heuston Station;
- LUAS Cross City incorporating LUAS Green Line Capacity Enhancement - Phase 1;
- LUAS Green Line Capacity Enhancement - Phase 2;
- Rail and Bus based P&R provision;
- Greater Dublin Area Cycle Network Plan Primary Cycle Network Route 06;
- Reconfiguration of the N4 from its junction with the M50 to Leixlip to rationalise accesses and to provide additional capacity at the Quarryvale junction;
- Porterstown Distributor Link Road;
- Liffey Valley Shopping Centre Expansion, adjacent to the Proposed Scheme immediately south east of the N4 Junction 2; and

- Major housing development at Palmerstown, in the north west corner of the R148 Palmerston Bypass / Kennelsfort Road junction; and
- Approximately 20 other local authority planning applications which are approved by South Dublin County Council including residential schemes, hotels, nursing homes and mixed-use developments.

As can be seen from the above list there are a range of projects types ranging from large scale transport infrastructure projects to large retail, residential and mixed-use developments. All of these projects are located in the heavily urbanised Dublin area in proximity to sensitive receptors and therefore the construction of these projects has the potential to give rise to significant environmental effects including:

- Traffic impacts associated with the construction activities for the projects;
- Noise and vibration impacts;
- Air quality impacts;
- Visual impacts associated with the introduction of new infrastructure;
- Archaeology, architectural and cultural heritage impacts;
- Water quality impacts on watercourses hydrologically connected to the construction of the projects;
- Amenity and community severance impacts; and
- Waste management impacts.

Where the Construction Phase of the Proposed Scheme overlaps with the construction of the other projects there is potential for significant negative effects due to the combination of effects listed above.

At EIA Screening Stage, it is considered that there is the potential for the following significant cumulative effects during construction of the Proposed Scheme and other development projects:

- Increased severance and driver/pedestrian/cyclist delay as a result of congestion caused by construction vehicles and temporary diversions/closures of footpaths and roads;
    - For example, the cumulative effect of the Proposed Scheme in combination with the GDA Cycle Network Route 06 has the potential to create community severance due to the increase in linear infrastructure particularly where the Cycle Network Route 06 deviates from the N4. In this scenario, there is the potential for significant effects on pedestrian, mobility impaired and vulnerable community users.
- Increased dust emissions and noise and vibration effects associated with construction activities, such as excavation, demolition and road re-surfacing;
    - For example, the cumulative effect of the Proposed Scheme in combination with the Strategic Housing Development at Palmerstown there is the potential for significant effects on noise and air quality.
- Pollution and contamination caused by construction activities, which cumulatively effect soils, waterways and groundwater;
    - For example, the cumulative effect of the Proposed Scheme in combination with GDA Cycle Network Route 06 particularly along the Chapelizod Bypass where there is the potential to increase land take and increase areas of hard standing in proximity to the River Liffey. In this scenario, there is the potential for significant effects on water quality and flood risk.
- Cumulative effects on archaeology, architectural heritage and cultural heritage;
    - For example, the cumulative effect of the Proposed Scheme in combination with GDA Cycle Network Route 06 particularly at the Irish National War Memorial Park where new land take is required for the GDA Cycle Network. The construction activities have the potential to directly impact on the setting of this area and in this scenario, there is likely significant effects on cultural heritage.
- Cumulative effects on materials and waste resource due to demolition, excavation and transportation (removal and delivery) of materials;
    - For example, the cumulative effect of the Proposed Scheme in combination with a new Lucan West Park and Ride Facility due to the increase in land take and area of hard standing. In this scenario, there are likely significant effects due to the cumulative volume of materials required during construction.

- The other projects will generate significant quantities of excavation, construction and demolition wastes. When considered in conjunction with the excavated material generated by the Proposed Scheme there is the potential for significant effects.

At EIA Screening Stage, it is considered that there is the potential for the following cumulative effects during operation of the Proposed Scheme and other development projects:

- Cumulative effects on air quality and noise as a result of changes to junctions, traffic levels and traffic patterns.
  - For example, the cumulative effect of the Proposed Scheme in combination with the reconfiguration of the M50 Junction 7 and the Liffey Valley Shopping Centre expansion has the potential to increase levels of traffic and increased traffic congestion. In this scenario, there is the potential for significant effects on air quality and noise on the surrounding sensitive receptors such as the King's Hospital School and residential properties on Fonthill Road.

Overall, there are likely significant effects on the environment due to the cumulative effects associated with the temporal and spatial overlap of the Proposed Scheme with one or more of the other development projects.

6. Conclusion

An EIA for the Proposed Scheme is not automatically triggered under section 50(1)(a) of the Roads Act. This EIA Screening Report considers whether, in accordance with section 50(1)(c) of the Roads Act, the Proposed Scheme is likely to have significant effects on the environment such that an Environmental Impact Assessment Report (EIAR) should be prepared and an Environmental Impact Assessment (EIA) carried out.

For the reasons set out in detail in this EIA Screening Report, it is considered that the Proposed Scheme is likely to have significant effects on the environment and, as such, requires EIA to be carried out prior to a decision being made to grant development consent. This EIA Screening Report identifies the following likely significant impacts:

- Cumulative effects (during construction and operation) as a result of the overlap of the Proposed Scheme and other development projects;
- Effects on the environment during Construction Phase of the Proposed Scheme, including the following:
    - Increased congestion as a result of traffic diversions and movement of construction related traffic;
    - Air quality effects as a result of dust emissions from construction activities, emissions from construction vehicles and diverted traffic adjacent to construction works;
    - Noise and vibration effects arising from construction activities, particularly during intense periods of construction;
    - Increased levels of stress and disruption, particularly on vulnerable road users and members of the public living, working, or commuting through the area;
    - Biodiversity effects due to the loss of habitats including trees/other vegetation, spread of non-native invasive species;
    - Water quality effects should a pollution event occur adjacent to a watercourse during construction;
    - Soils and geology and contamination effects on groundwater resources as a result of excavating made ground and the existing roadbed;
    - Archaeological and cultural heritage effects and disturbance of below ground archaeological remains arising from excavation activities;
    - Townscape and visual effects due to general construction activity from removal of trees, impacts on property boundaries and streetscape disturbance;
    - Impacts as a result of material arising from the excavation of the roadbed; and
    - Effects on utilities due to diversions and modifications of utility infrastructure.
- Effects on the environment as a result of the Operation Phase of the Proposed Scheme, including the following:
    - Reallocation of the road space leading to changes in parking and loading provision;
    - Air quality and noise impacts due to changes in traffic patterns along the Proposed Scheme and adjacent road links;
    - The potential to introduce or spread non-native invasive species during maintenance activities;
    - Water quality and flooding impacts due to increases in area of hardstanding which may increase the rate of runoff;
    - Soils and geology and potential contamination impacts as a result of accidental spillages;
    - Impacts on the setting of cultural heritage assets due to changes within the road boundary; and
    - Changes to the transport corridor effecting the sense of place, townscape and visual amenity due to the new features within the streetscape, changes in traffic flows, lighting, signage, new boundaries and landscape planting treatments.

The EU Guidance on Screening (2017) contains an EIA Screening Checklist which has been completed for the Proposed Scheme. The completed EIA Screening Checklist (Appendix B) supports the conclusion that the Proposed Scheme is likely to have significant effects on the environment and, as such, requires an EIA to be carried out prior to a decision being made to grant development consent.

7. References

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Directives and Legislation

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Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora

Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds

Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy

Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment

Roads Act 1993 (No. 14 of 1993)

Roads Regulations 1994 (No. 119 of 1994)

Planning and Development Regulations 2011 (600 of 2001)

European Union (Roads Act 1993) (Environmental Impact Assessment) (Amendment) Regulations 2019

European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018

Appendix A. Scheme Drawings

CBC06-RW06 BOUNDARY WALL.
FOR DETAILS REFER TO DRAWING
BCIDA-ACM-SPW_SQ-0006_RW_00-DR-CR-0001

EXISTING BIKE PARKING
TO BE RELOCATED

REVISED
BUS STOP 2234
ARRANGEMENT

PROPOSED LOCATION
FOR BIKE RACK /
STORAGE FACILITY

PROPOSED TOUCAN

EXISTING JUNCTION LAYOUT
TO BE MODIFIED TO
ACCOMMODATE BUS LANE
AND CYCLE FACILITIES

EXISTING LEFT TURN SLIP
LANES REMOVED

EXISTING WELCOME TO LUCAN
SIGN & PLANTING AREA TO BE
RELOCATED AND ENHANCED

EXISTING PEDESTRIAN
ENTRANCE RETAINED

EXISTING BIKE
LOCKERS TO BE
RELOCATED

EXISTING BUS
STOP 2217
RETAINED

TRANSITION TO EXISTING
CARRIAGEWAY ON
LUCAN ROAD

SUBJECT TO DESIGN DEVELOPMENT.

PROPOSED SCHEME
Tie in to Existing

CAR PARK

LUCAN RETAIL
PARK

EXISTING SAFETY BARRIER
TO BE RETAINED

EXISTING TURN
BAN RETAINED

EXISTING TURN
BAN RETAINED

EXISTING TURN
BAN RETAINED

EXISTING TURN
BAN RETAINED

EXISTING LEFT TURN
SLIP LANE REMOVED

TIE IN TO EXISTING
CYCLE TRACK ON
SLIP ROAD

N4 JUNCTION 3

PROPOSED SCHEME
Tie in to Existing

LUCAN ROAD

BALLYOWEN ROAD

WOODVILLE AVENUE

WOODVILLE CLOSE

NO ENTRY

SHEET 2
SHEET 1

INSET "A"
SHEET 1

INSET "A"

0 5.0 10.0 20.0 30.0 40.0 50.0m

SCALE 1:500 @ A1; 1:1000 @ A3

LEGEND:

- BUS LANE
- CYCLE TRACK
- FOOTPATH
- CARRIAGEWAY
- GRASS AREA / VERGE
- PEDESTRIAN PRIORITY ZONE
- RAISED TABLE
- BUS STOP LOCATIONS
- BUS SHELTER
- TREE (EXISTING AND PROPOSED)
- HERITAGE FEATURES
- SITE BOUNDARY LINE
- TEMPORARY LAND ACQUISITION

NOTES:

1. FOR SITE LOCATION MAP SEE DRAWINGS SERIES SPW_KP.
2. FOR SITE LOCATION PLAN SEE DRAWING SERIES SPW_ZZ.
3. FOR TYPICAL CROSS SECTION SEE DRAWINGS SERIES GEO_CS.
4. FOR PLAN AND PROFILE SEE DRAWING SERIES GEO_HV.
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7. WHERE PROPERTY LINE ADJUSTMENTS ARE PROPOSED, NEW BOUNDARY WALLS ARE PROPOSED TO MATCH EXISTING UNLESS OTHERWISE AGREED WITH THE LANDOWNER.

INSET "A"

QUIET CYCLE ROUTE SHARED
WITH LOCAL TRAFFIC

HERMITAGE ROAD

HERMITAGE
VALLEY

SUBJECT TO DESIGN DEVELOPMENT.

BALLYOWEN
ROAD

PROPOSED SCHEME

Tie in to Existing

Project Ireland 2040
Building Ireland's Future

Rev	Date	Drn	Chk'd	App'd	Description
L02	01/04/21	MG	CA	JS	FOR INCLUSION IN PRO REPORT

Client: NTA Údarás Náisiúnta Iompair National Transport Authority
Engineering Designer: AECOM / MOTT MACDONALD

Date	Scale	Drawn	Checked	Approved
01/04/21	1:500 @ A1 1:1000 @ A3	M.GALEZA	C.ACTON	J.SEYMOUR

Project Code	Originator Code	QMS Code
BCIDA	ACM	

Programme Title: BUSCONNECTS DUBLIN
CORE BUS CORRIDORS INFRASTRUCTURE WORKS

Drawing Title: CBC 06
LUCAN TO CITY CENTRE
GENERAL ARRANGEMENT

Drawing File Name	Sheet Number	Status	Rev
BCIDA-ACM-GEO_GA-0006_XX_00-DR-CR-0001	01 of 31	S4	L02

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CBC06-RW06 BOUNDARY WALL.
FOR DETAILS REFER TO DRAWING
BCIDA-ACM-SPW_SQ-0006_RW_00-DR-CR-0001

PROPOSED TIE-IN TO N4
CYCLE TRACK

EXISTING TURN
BAN RETAINED

QUIET CYCLE ROUTE SHARED
WITH LOCAL TRAFFIC

EXISTING BOUNDARY
WALL RELOCATED

EXISTING BUS LANE
TO BE EXTENDED

TRANSITION TO PROPOSED
BUS LANE/ CYCLE LANE ON N4

EXISTING N4
CYCLE TRACK

BOLLARDS

SPLITTER ISLAND DIVERTED
FROM THIS POINT

ROAD WIDENING REQUIRED IN
TO EXISTING EMBANKMENT

QUIET CYCLE ROUTE SHARED
WITH LOCAL TRAFFIC

PROPOSED RELOCATED
BUS STOP

EXISTING BUS STOP
4599 RELOCATED

CAR PARK

HERMITAGE
GARDENS

HERMITAGE ROAD

HERMITAGE
VALLEY

HERMITAGE GARDEN

HERMITAGE MANOR

N4

R835

SHEET 1
SHEET 2
SHEET 3

GEO_CS-0002 A
GEO_CS-0002 B
GEO_CS-0003 C

0 5.0 10.0 20.0 30.0 40.0 50.0m

SCALE 1:500 @ A1; 1:1000 @ A3

NOTES:

1. FOR SITE LOCATION MAP SEE DRAWINGS SERIES SPW_KP.
2. FOR SITE LOCATION PLAN SEE DRAWING SERIES SPW_ZZ.
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7. WHERE PROPERTY LINE ADJUSTMENTS ARE PROPOSED, NEW BOUNDARY WALLS ARE PROPOSED TO MATCH EXISTING UNLESS OTHERWISE AGREED WITH THE LANDOWNER.

LEGEND:

- BUS LANE
- CYCLE TRACK
- FOOTPATH
- CARRIAGEWAY
- GRASS AREA / VERGE
- PEDESTRIAN PRIORITY ZONE
- RAISED TABLE
- BUS STOP LOCATIONS
- BUS SHELTER
- TREE (EXISTING AND PROPOSED)
- HERITAGE FEATURES
- SITE BOUNDARY LINE
- TEMPORARY LAND ACQUISITION

Project Ireland 2040
Building Ireland's Future

Rev	Date	Drn	Chk'd	App'd	Description
L02	01/04/21	MG	CA	JS	FOR INCLUSION IN PRO REPORT

Client: NTA Údarás Náisiúnta Iompair / National Transport Authority

Engineering Designer: AECOM / MOTT MACDONALD

Programme Title: BUSCONNECTS DUBLIN
CORE BUS CORRIDORS INFRASTRUCTURE WORKS

Drawing Title: CBC 06
LUCAN TO CITY CENTRE
GENERAL ARRANGEMENT

Date	Scale	Drawn	Checked	Approved
01/04/21	1:500 @ A1 1:1000 @ A3	M.GALEZA	C.ACTON	J.SEYMOUR

Project Code	Originator Code	QMS Code
BCIDA	ACM	

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Sheet Number: 02 of 31 | Status: S4 | Rev: L02

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0 5.0 10.0 20.0 30.0 40.0 50.0m

SCALE 1:500 @ A1; 1:1000 @ A3

TREE REMOVAL REQUIRED TO PROVIDE PROPOSED CYCLE TRACK

Hermitage Golf Club

HERMITAGE GOLF COURSE

ENTRY LAYOUT TO BE REVISED SUBJECT TO CONSULTATION WITH THE OCCUPIERS/ LANDOWNERS

PROPOSED GATE ARRANGEMENT TO BE CONFIRMED

PROPOSED 2-WAY CYCLEWAY & FOOTWAY

CBC06-RW07 RETAINING WALL. FOR DETAILS REFER TO DRAWING BCIDA-ACM-SPW_SQ-0006_RW_00-DR-CR-0001

EXISTING BUS LANE TO BE MAINTAINED

CBC06-RW01 HERMITAGE GOLF CLUB RETAINING WALL. FOR DETAILS REFER TO DRAWING BCIDA-ACM-STR_GA-0006_RW_01-DR-CB-0101

CBC06-RW08 RETAINING WALL. FOR DETAILS REFER TO DRAWING BCIDA-ACM-SPW_SQ-0006_RW_00-DR-CR-0001

SUBJECT TO DESIGN DEVELOPMENT.

D 300 A 500 A 550 A 600 A 650 A 700 A 750 A 800 A 850

A GEO_CS-0004

N4

BOLLARDS IN THE EXISTING FOOTWAY TO BE RETAINED

REVISED BUS STOP 2216 ARRANGEMENT

PROPOSED RAISED TABLE

EXISTING TURN BAN RETAINED

QUIET CYCLE ROUTE SHARED WITH LOCAL TRAFFIC

LIMIT OF PROPOSED QUIET CYCLE ROUTE

KISSING GATE REMOVED. ENTRANCE TO BE WIDENED

ENTRANCE TO BE WIDENED

QUIET CYCLE ROUTE SHARED WITH LOCAL TRAFFIC

PROPOSED SCHEME

Tie in to Existing

PROPOSED PEDESTRIAN PRIORITY QUIET CYCLEWAY LINK

PETROL STATION

HERMITAGE WAY

BALLYOWEN LANE

HERMITAGE ROAD

HERMITAGE PARK

Latouka Apts.

SHEET 2 SHEET 3 SHEET 4

LEGEND:

- BUS LANE
- CYCLE TRACK
- FOOTPATH
- CARRIAGEWAY
- GRASS AREA / VERGE
- PEDESTRIAN PRIORITY ZONE
- RAISED TABLE
- BUS STOP LOCATIONS
- BUS SHELTER
- TREE (EXISTING AND PROPOSED)
- HERITAGE FEATURES
- SITE BOUNDARY LINE
- TEMPORARY LAND ACQUISITION

NOTES:

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7. WHERE PROPERTY LINE ADJUSTMENTS ARE PROPOSED, NEW BOUNDARY WALLS ARE PROPOSED TO MATCH EXISTING UNLESS OTHERWISE AGREED WITH THE LANDOWNER.

Project Ireland 2040 Building Ireland's Future

Rev	Date	Drn	Chk'd	App'd	Description
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Engineering Designer: AECOM / MOTT MACDONALD

Programme Title: BUSCONNECTS DUBLIN
CORE BUS CORRIDORS INFRASTRUCTURE WORKS

Drawing Title: CBC 06
LUCAN TO CITY CENTRE
GENERAL ARRANGEMENT

Date	Scale	Drawn	Checked	Approved
01/04/21	1:500 @ A1 1:1000 @ A3	M.GALEZA	C.ACTON	J.SEYMOUR

Project Code	Originator Code	QMS Code	Drawing File Name	Sheet Number	Status	Rev
BCIDA	ACM		BCIDA-ACM-GEO_GA-0006_XX_00-DR-CR-0003	03 of 31	S4	L02

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TREE REMOVAL REQUIRED TO PROVIDE PROPOSED CYCLE TRACK

EXISTING FOOT AND CYCLE BRIDGE OVER N4 TO BE MAINTAINED

A 850

A 900

A 950

RELOCATED SERVICE BAY

REVISED BUS STOP 2236 ARRANGEMENT

A 1000

CBC06-RW09 RETAINING WALL. FOR DETAILS REFER TO DRAWING BCIDA-ACM-SPW_SQ-0006_RW_00-DR-CR-0001

A 1050

A GEO_CS-0005

CBC06-RW05 RETAINING WALL. FOR DETAILS REFER TO DRAWING BCIDA-ACM-STR_GA-0006_RW_02-DR-CB-0101

A 1100

A 1150

EXISTING GANTRY TO BE RELOCATED

HERMITAGE HOSPITAL

TREE REMOVAL REQUIRED TO PROVIDE PROPOSED CYCLE TRACK

B GEO_CS-0006

A 1200

SHEET 4

SHEET 3

N4

A GEO_CS-0005

REVISED BUS STOP 2215 ARRANGEMENT

EXISTING TURN BAN RETAINED

PROPOSED RAISED TABLE

B GEO_CS-0006

SHEET 5

EXISTING SHARED AREA TO BECOME CYCLE TRACK

MOUNT ANDREW COURT

MOUNT ANDREW RISE

Car Park

Dublin

Baile Átha

Cliath

LEGEND:

- BUS LANE
- CYCLE TRACK
- FOOTPATH
- CARRIAGEWAY
- GRASS AREA / VERGE
- PEDESTRIAN PRIORITY ZONE
- RAISED TABLE
- BUS STOP LOCATIONS
- BUS SHELTER
- TREE (EXISTING AND PROPOSED)
- HERITAGE FEATURES
- SITE BOUNDARY LINE
- TEMPORARY LAND ACQUISITION

0 5.0 10.0 20.0 30.0 40.0 50.0m

SCALE 1:500 @ A1; 1:1000 @ A3

NOTES:

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8. HERITAGE FEATURES TO BE RETAINED OR RELOCATED WHERE REQUIRED.

Project Ireland 2040 Building Ireland's Future

Rev	Date	Drn	Chk'd	App'd	Description
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Engineering Designer: AECOM / MOTT MACDONALD

Programme Title: BUSCONNECTS DUBLIN
CORE BUS CORRIDORS INFRASTRUCTURE WORKS

Drawing Title: CBC 06
LUCAN TO CITY CENTRE
GENERAL ARRANGEMENT

Date	Scale	Drawn	Checked	Approved
01/04/21	1:500 @ A1 1:1000 @ A3	M.GALEZA	C.ACTON	J.SEYMOUR

Project Code	Originator Code	QMS Code	Drawing File Name	Sheet Number	Status	Rev
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CBC06-RW10 RETAINING WALL.
FOR DETAILS REFER TO DRAWING
BCIDA-ACM-SPW_SQ-0006_RW_00-DR-CR-0001

TREE REMOVAL REQUIRED TO PROVIDE
PROPOSED CYCLE TRACK

REVISED BUS
STOP 5056
ARRANGEMENT

EXISTING TURN
BANS RETAINED

N4 JUNCTION 2

R113

N4

SHEET 4

SHEET 5

SHEET 6

SHEET 5

SHEET 6

Car Park

Saint Loman's Hospital

Ballydowd Special Care School

Tennis Court

FONTHILL ROAD

FONTHILL RD

0 5.0 10.0 20.0 30.0 40.0 50.0m

SCALE 1:500 @ A1; 1:1000 @ A3

LEGEND:

- BUS LANE
- CYCLE TRACK
- FOOTPATH
- CARRIAGEWAY
- GRASS AREA / VERGE
- PEDESTRIAN PRIORITY ZONE
- RAISED TABLE
- BUS STOP LOCATIONS
- BUS SHELTER
- TREE (EXISTING AND PROPOSED)
- HERITAGE FEATURES
- SITE BOUNDARY LINE
- TEMPORARY LAND ACQUISITION

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Project Ireland 2040
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Client: NTA Údarás Náisiúnta Iompair National Transport Authority

Engineering Designer: AECOM / MOTT MACDONALD

Programme Title: BUSCONNECTS DUBLIN
CORE BUS CORRIDORS INFRASTRUCTURE WORKS

Drawing Title: CBC 06
LUCAN TO CITY CENTRE
GENERAL ARRANGEMENT

Date	Scale	Drawn	Checked	Approved
01/04/21	1:500 @ A1 1:1000 @ A3	M.GALEZA	C.ACTON	J.SEYMOUR

Project Code	Originator Code	QMS Code	Drawing File Name	Sheet Number	Status	Rev
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R113

N4 JUNCTION 2

FONTHILL ROAD

CLAYTON HOTEL LIFFEY VALLEY

SHEET 5
SHEET 6

SHEET 6
SHEET 7

A 1550

A 1600

A 1650

A 1700

A 1750

E 250

E 300

E 305

F 0

F 50

F 100

F 149

G 0

G 50

G 100

Tie in to Existing
PROPOSED SCHEME

N4

PROPOSED NEW
TOUCAN CROSSING

POTENTIAL SITE
COMPOUND

EXISTING TURN
BAN RETAINED

EXISTING TURN
BAN RETAINED

NORTHBOUND M50 | CITY CENTRE PALMERSTOWN R148 | SOUTHBOUND M50

GANTRY SIGNAGE
REPLACED

PROPOSED UNCONTROLLED
CROSSING

ROAD TO BE REALIGNED AND
30KPH TO BE INSTIGATED

OLD LUCAN ROAD

GEO_CS-0008
A

GEO_CS-0008
A

PROPOSED
RAISED TABLE

50 km/h

30 km/h

50 km/h

30 km/h

LEGEND:

- BUS LANE
- CYCLE TRACK
- FOOTPATH
- CARRIAGEWAY
- GRASS AREA / VERGE
- PEDESTRIAN PRIORITY ZONE
- RAISED TABLE
- BUS STOP LOCATIONS
- BUS SHELTER
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- HERITAGE FEATURES
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0 5.0 10.0 20.0 30.0 40.0 50.0m

SCALE 1:500 @ A1; 1:1000 @ A3

Project Ireland 2040
Building Ireland's Future

Rev	Date	Drn	Chk'd	App'd	Description
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Engineering Designer: AECOM / MOTT MACDONALD

Programme Title: **BUSCONNECTS DUBLIN**
CORE BUS CORRIDORS INFRASTRUCTURE WORKS

Drawing Title: CBC 06
LUCAN TO CITY CENTRE
GENERAL ARRANGEMENT

Date	Scale	Drawn	Checked	Approved
01/04/21	1:500 @ A1, 1:1000 @ A3	M.GALEZA	C.ACTON	J.SEYMOUR

Project Code	Originator Code	QMS Code
BCIDA	ACM	

Drawing File Name: BCIDA-ACM-GEO_GA-0006_XX_00-DR-CR-0006
Sheet Number: 06 of 31
Status: S4
Rev: L02

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POTENTIAL SITE COMPOUND

OLD LUCAN ROAD

F 149

G 50

G 100

G 150

G 200

G 250

G 300

G 350

G 400

SHEET 6

SHEET 7

SHEET 8

EXISTING BUS STOP REMOVED

R113

A 1650

A 1700

A 1750

A 1800

A 1850

A 1900

A 1950

A 2000

A 2050

ROAD TO BE REALIGNED AND 30KPH TO BE INSTIGATED

PROPOSED 61.5m CHICANE

GEO_CS-0008 A

MILESTONE TO BE RETAINED

THE DEADMAN'S INN

N4

REVISED BUS STOP 2214 ARRANGEMENT

TOYOTA LIFFEY VALLEY

Open Well

BUS LANE

CYCLE TRACK

FOOTPATH

CARRIAGEWAY

GRASS AREA / VERGE

PEDESTRIAN PRIORITY ZONE

RAISED TABLE

BUS STOP LOCATIONS

BUS SHELTER

TREE (EXISTING AND PROPOSED)

HERITAGE FEATURES

SITE BOUNDARY LINE

TEMPORARY LAND ACQUISITION

LEGEND:

NOTES:

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2. FOR SITE LOCATION PLAN SEE DRAWING SERIES SPW_ZZ.
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8. HERITAGE FEATURES TO BE RETAINED OR RELOCATED WHERE REQUIRED.

0 5.0 10.0 20.0 30.0 40.0 50.0m

SCALE 1:500 @ A1; 1:1000 @ A3

Project Ireland 2040 Building Ireland's Future

Rev	Date	Drn	Chk'd	App'd	Description
L02	01/04/21	MG	CA	JS	FOR INCLUSION IN PRO REPORT

Client: NTA Údarás Náisiúnta Iompair National Transport Authority

Engineering Designer: AECOM / MOTT MACDONALD

Date	Scale	Drawn	Checked	Approved
01/04/21	1:500 @ A1, 1:1000 @ A3	M.GALEZA	C.ACTON	J.SEYMOUR

Project Code	Originator Code	QMS Code
BCIDA	ACM	

Programme Title: **BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS**

Drawing Title: CBC 06 LUCAN TO CITY CENTRE GENERAL ARRANGEMENT

Drawing File Name	Sheet Number	Status	Rev
BCIDA-ACM-GEO_GA-0006_XX_00-DR-CR-0007	07 of 31	S4	L02

DO NOT SCALE USE FIGURED DIMENSIONS ONLY

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LEGEND:

- BUS LANE
- CYCLE TRACK
- FOOTPATH
- CARRIAGEWAY
- GRASS AREA / VERGE
- PEDESTRIAN PRIORITY ZONE
- RAISED TABLE
- BUS STOP LOCATIONS
- BUS SHELTER
- TREE (EXISTING AND PROPOSED)
- HERITAGE FEATURES
- SITE BOUNDARY LINE
- TEMPORARY LAND ACQUISITION

0 5.0 10.0 20.0 30.0 40.0 50.0m

SCALE 1:500 @ A1; 1:1000 @ A3

PROPOSED UNCONTROLLED PEDESTRIAN CROSSING

EXISTING BRIDGE & RAMP TO BE RETAINED

NORTHBOUND M50 | CITY CENTRE PALMERSTOWN R1-8 | SOUTHBOUND M50

GANTRY SIGNAGE REPLACED

POTENTIAL LOCATION FOR GROUP 6 PORTAL GANTRY (IF REQUIRED)

EXISTING BUS STOP 2239 RELOCATED

OLD LUCAN ROAD

PROPOSED LOCATION FOR BIKE RACK / STORAGE FACILITY

PROPOSED UNCONTROLLED PEDESTRIAN CROSSING

PROPOSED RELOCATED BUS STOP

RETAIN AS MANY TREES AS POSSIBLE

N4

FONTHILL ROAD

SHEET 7

SHEET 8

SHEET 9

NORTHBOUND M50 | CITY CENTRE PALMERSTOWN R148 | SOUTHBOUND M50

GANTRY SIGNAGE REPLACED

PROPOSED RELOCATED BUS STOP

PROPOSED FOOTBRIDGE

NORTHBOUND M50 | CITY CENTRE PALMERSTOWN R148 | SOUTHBOUND M50

CBC06-RW01 N4 RETAINING WALL FOR DETAILS REFER TO DRAWING BCIDA-ACM-STR_GA-0006_RW_03-DR-CB-0101

SIGNAGE ATTACHED TO ADDITIONAL GANTRY

PROPOSED SCHEME

Liffey Valley To City Centre CBC

M50-N4 Junction 7-1

EXISTING BUS STOP 2213 RELOCATED

EXISTING RAMP REMOVED

Liffey Valley Shopping Centre

Car Park

CAR PARK

LIFFEY VALLEY SHOPPING CENTRE

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Client: NTA Údarás Náisiúnta Iompair National Transport Authority

Engineering Designer: AECOM / MOTT MACDONALD

Programme Title: BUSCONNECTS DUBLIN
CORE BUS CORRIDORS INFRASTRUCTURE WORKS

Drawing Title: CBC 06
LUCAN TO CITY CENTRE
GENERAL ARRANGEMENT

Date	Scale	Drawn	Checked	Approved
01/04/21	1:500 @ A1 1:1000 @ A3	M.GALEZA	C.ACTON	J.SEYMOUR

Project Code	Originator Code	QMS Code
BCIDA	ACM	

Drawing File Name: BCIDA-ACM-GEO_GA-0006_XX_00-DR-CR-0008

Sheet Number: 08 of 31 | Status: S4 | Rev: L02

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LEGEND:

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0 5.0 10.0 20.0 30.0 40.0 50.0m

SCALE 1:500 @ A1; 1:1000 @ A3

EXISTING STAIRS RETAINED

HERITAGE POST BOX TO BE RETAINED

PRIVATE ACCESS TO KINGS HOSPITAL

PROPOSED TURNING HEAD

EXISTING TWO WAY CYCLE TRACK AND FOOTWAY RETAINED

PROPOSED BOLLARDS

LUCAN ROAD

FONTHILL ROAD

CAR PARK

M50

R148

N4

SHEET 9

SHEET 10

SHEET 8

Dublin

Baile Átha

Cliath

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Drawing Title: CBC 06
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GENERAL ARRANGEMENT

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Project Code	Originator Code	QMS Code
BCIDA	ACM	

Drawing File Name: BCIDA-ACM-GEO_KP-0006_AR_00-DR-CR-0009

Sheet Number: 09 of 31

Status: S4

Rev: L02

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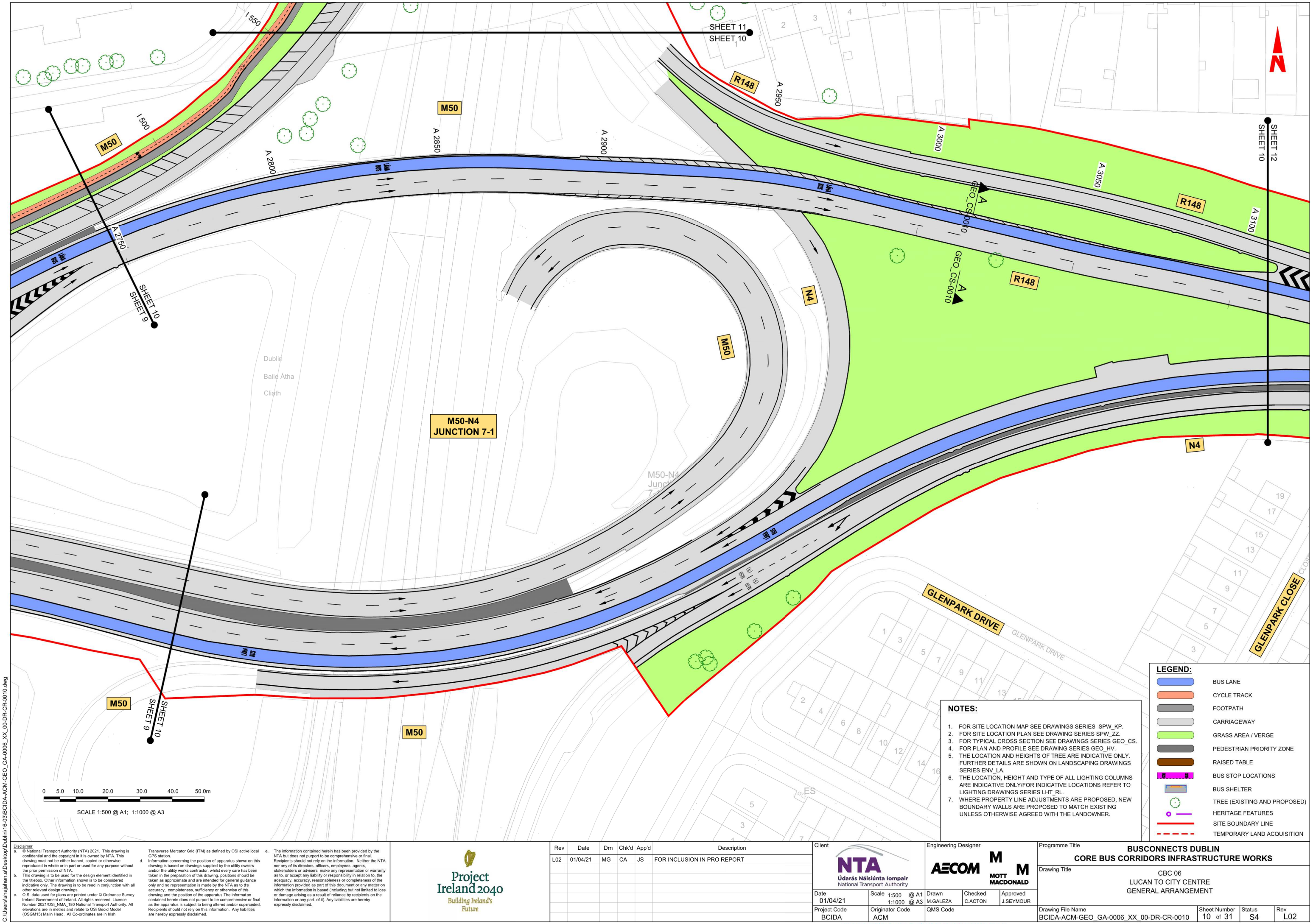

LEGEND:

- BUS LANE
- CYCLE TRACK
- FOOTPATH
- CARRIAGEWAY
- GRASS AREA / VERGE
- PEDESTRIAN PRIORITY ZONE
- RAISED TABLE
- BUS STOP LOCATIONS
- BUS SHELTER
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Project Code	Originator Code	QMS Code
BCIDA	ACM	

Drawing File Name	Sheet Number	Status	Rev
BCIDA-ACM-GEO_GA-0006_XX_00-DR-CR-0010	10 of 31	S4	L02

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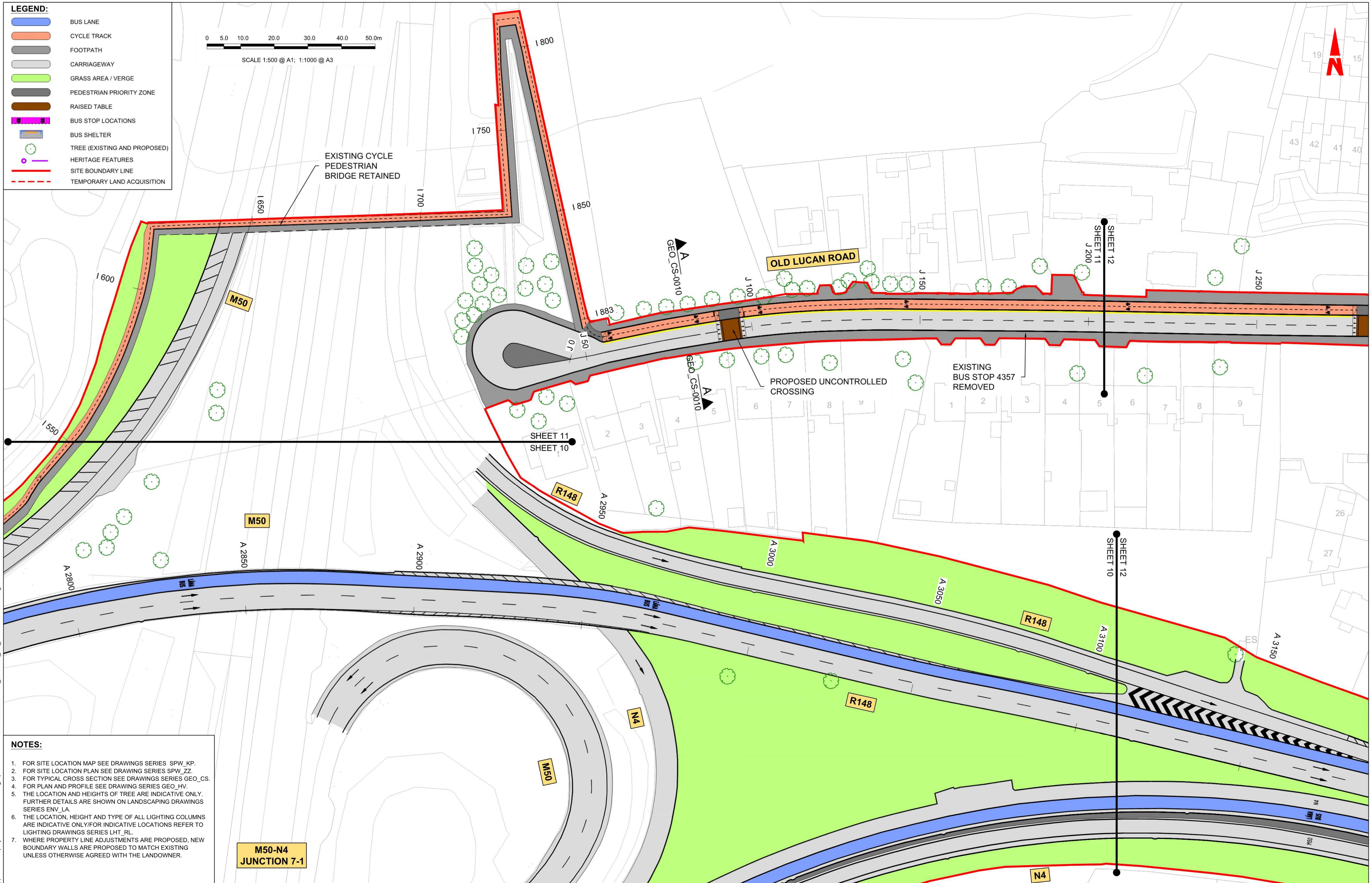

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Drawing Title: CBC 06 LUCAN TO CITY CENTRE GENERAL ARRANGEMENT

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BCIDA	ACM		BCIDA-ACM-GEO_GA-0006_XX_00-DR-CR-0011	11 of 31	S4	L02

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0 5.0 10.0 20.0 30.0 40.0 50.0m

SCALE 1:500 @ A1; 1:1000 @ A3

RIVERSDALE AVENUE

OLD LUCAN ROAD

RIVERSIDE DRIVE

HOLLYVILLE LAWN

SAINT PHILOMENA'S CHURCH

ST. THOMAS INDIAN ORTHODOX CHURCH

PALMERSTOWN VETERINARY HOSPITAL

SUPERMARKET

R148

EXISTING BUS STOP 4359 REMOVED

PROPOSED UNCONTROLLED CROSSING

PROPOSED RAISED TABLE

HERITAGE POST BOX TO BE RETAINED AND RELOCATED WHERE REQUIRED

PALMERSTOWN WELCOME SIGN TO BE RELOCATED

EXISTING BUS LANE TO BE EXTENDED

GANTRY SIGNAGE REPLACED

SHEET 10

SHEET 11

SHEET 12

SHEET 13

J 200 J 250 J 300 J 350 J 400 J 450 J 500 J 550

A 3050 A 3100 A 3150 A 3200 A 3250 A 3300 A 3350 A 3400

GEO_CS-0011

Project Ireland 2040 Building Ireland's Future

Rev	Date	Drn	Chk'd	App'd	Description
L02	01/04/21	MG	CA	JS	FOR INCLUSION IN PRO REPORT

Client: NTA Údarás Náisiúnta Iompair National Transport Authority

Engineering Designer: AECOM / MOTT MACDONALD

Programme Title: BUSCONNECTS DUBLIN
CORE BUS CORRIDORS INFRASTRUCTURE WORKS

Drawing Title: CBC 06
LUCAN TO CITY CENTRE
GENERAL ARRANGEMENT

Date	Scale	Drawn	Checked	Approved
01/04/21	1:500 @ A1, 1:1000 @ A3	M.GALEZA	C.ACTON	J.SEYMOUR

Project Code	Originator Code	QMS Code	Drawing File Name	Sheet Number	Status	Rev
BCIDA	ACM		BCIDA-ACM-GEO_GA-0006_XX_00-DR-CR-0012	12 of 31	S4	L02

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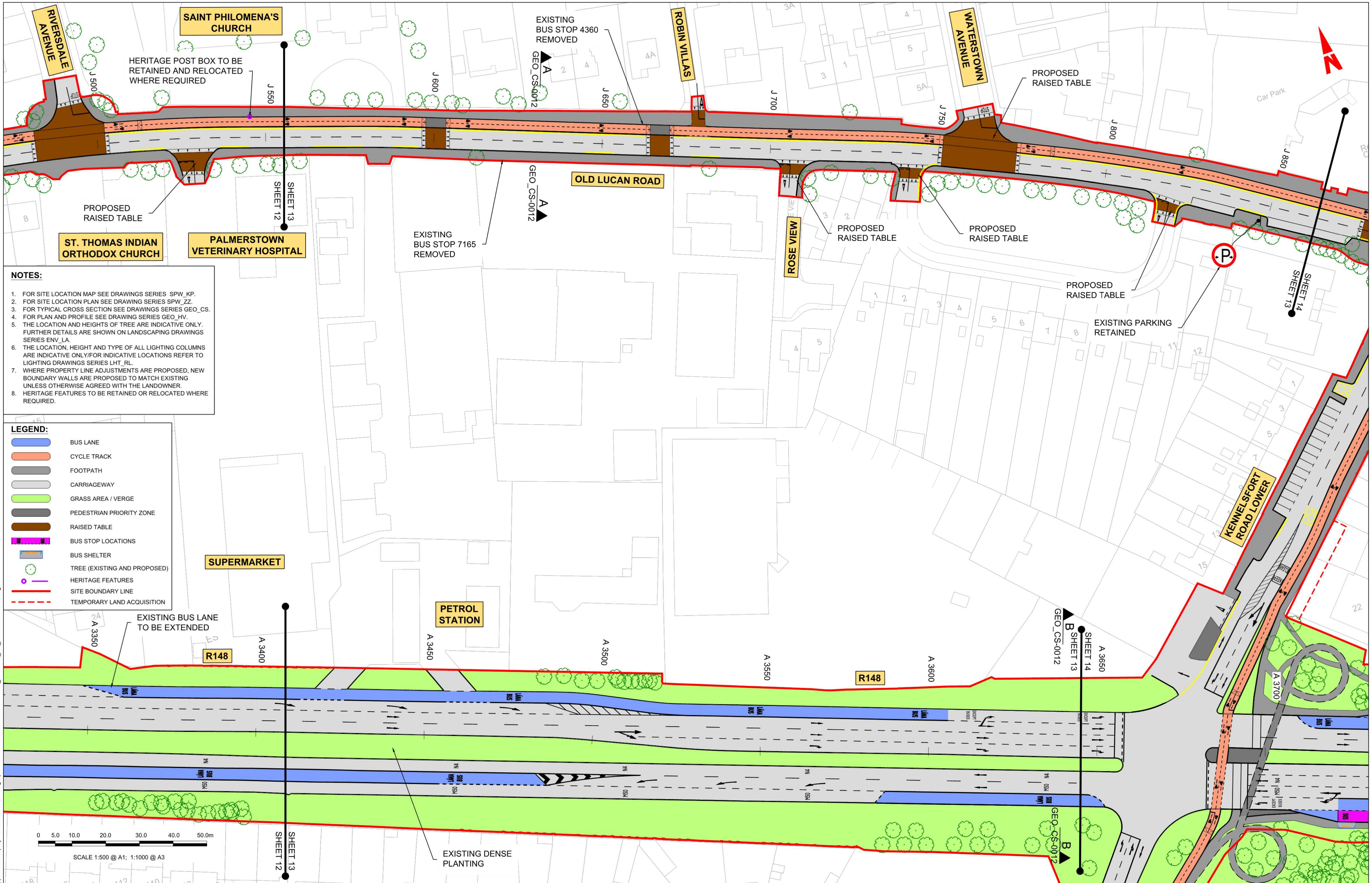

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LEGEND:

- BUS LANE
- CYCLE TRACK
- FOOTPATH
- CARRIAGEWAY
- GRASS AREA / VERGE
- PEDESTRIAN PRIORITY ZONE
- RAISED TABLE
- BUS STOP LOCATIONS
- BUS SHELTER
- TREE (EXISTING AND PROPOSED)
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Building Ireland's Future

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BCIDA	ACM		BCIDA-ACM-GEO_GA-0006_XX_00-DR-CR-0013	13 of 31	S4	L02

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0 5.0 10.0 20.0 30.0 40.0 50.0m

SCALE 1:500 @ A1; 1:1000 @ A3

KENNELSFORT ROAD UPPER

KENNELSFORT ROAD LOWER

PROPOSED SCHEME

Tie in to Existing

SHEET 13
SHEET 14
A 3650

EXISTING LEFT TURN SLIP LANES REMOVED

EXISTING PARKING RETAINED

EXISTING BUS STOP 2212 REMOVED

GEO_CS-0013

PROPOSED RAISED TABLE

J 886

K 0

PROPOSED TOUCAN CROSSING

PROPOSED ACCESSIBLE PARKING BAY

A 3700

PROPOSED TURN BAN

EXISTING BUS STOP 4316 REMOVED

EXISTING FOOT BRIDGE OVER N4 TO BE RETAINED

EXISTING GUARDRAIL RETAINED

EXISTING BIKE SHELTER RETAINED

EXISTING PARKING REMOVED TO FACILITATE NEW CYCLE FACILITIES

A 3750

PROPOSED NEW TOUCAN CROSSING

PROPOSED NEW TOUCAN CROSSING

REVISED PARKING ARRANGEMENT

OLD LUCAN ROAD

K 50

REVISED BUS STOP 2241 ARRANGEMENT

REVISED BUS STOP 4401 ARRANGEMENT

REVISED PARKING ARRANGEMENT

EXISTING PARKING REMOVED TO FACILITATE NEW CYCLE FACILITIES

Millbrook Lawns

A 3800

K 100

MILESTONE TO BE RETAINED

GANTRY SIGNAGE REPLACED

CHERRY ORCHARD L1013	M50 NORTHBOUND & SOUTHBOUND	N4 GALWAY SLIGO	PALMERSTOWN L1012

PROPOSED ACCESSIBLE PARKING BAY

EXISTING PARKING REMOVED TO FACILITATE NEW CYCLE FACILITIES

WATER PUMP TO BE RETAINED

EXISTING GUARDRAIL RETAINED

MILL LANE

REVISED PARKING ARRANGEMENT

A 3850

K 150

PROPOSED RAISED TABLE

SHEET 14
SHEET 15

R148

SHEET 14
SHEET 15

REVISED PARKING ARRANGEMENT

A 3900

K 200

Recreational Complex

LEGEND:

- BUS LANE
- CYCLE TRACK
- FOOTPATH
- CARRIAGEWAY
- GRASS AREA / VERGE
- PEDESTRIAN PRIORITY ZONE
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Engineering Designer: AECOM MOTT MACDONALD

Programme Title: BUSCONNECTS DUBLIN
CORE BUS CORRIDORS INFRASTRUCTURE WORKS

Drawing Title: CBC 06
LUCAN TO CITY CENTRE
GENERAL ARRANGEMENT

Date	Scale	Drawn	Checked	Approved
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Project Code	Originator Code	QMS Code	Drawing File Name	Sheet Number	Status	Rev
BCIDA	ACM		BCIDA-ACM-GEO_GA-0006_XX_00-DR-CR-0014	14 of 31	S4	L02

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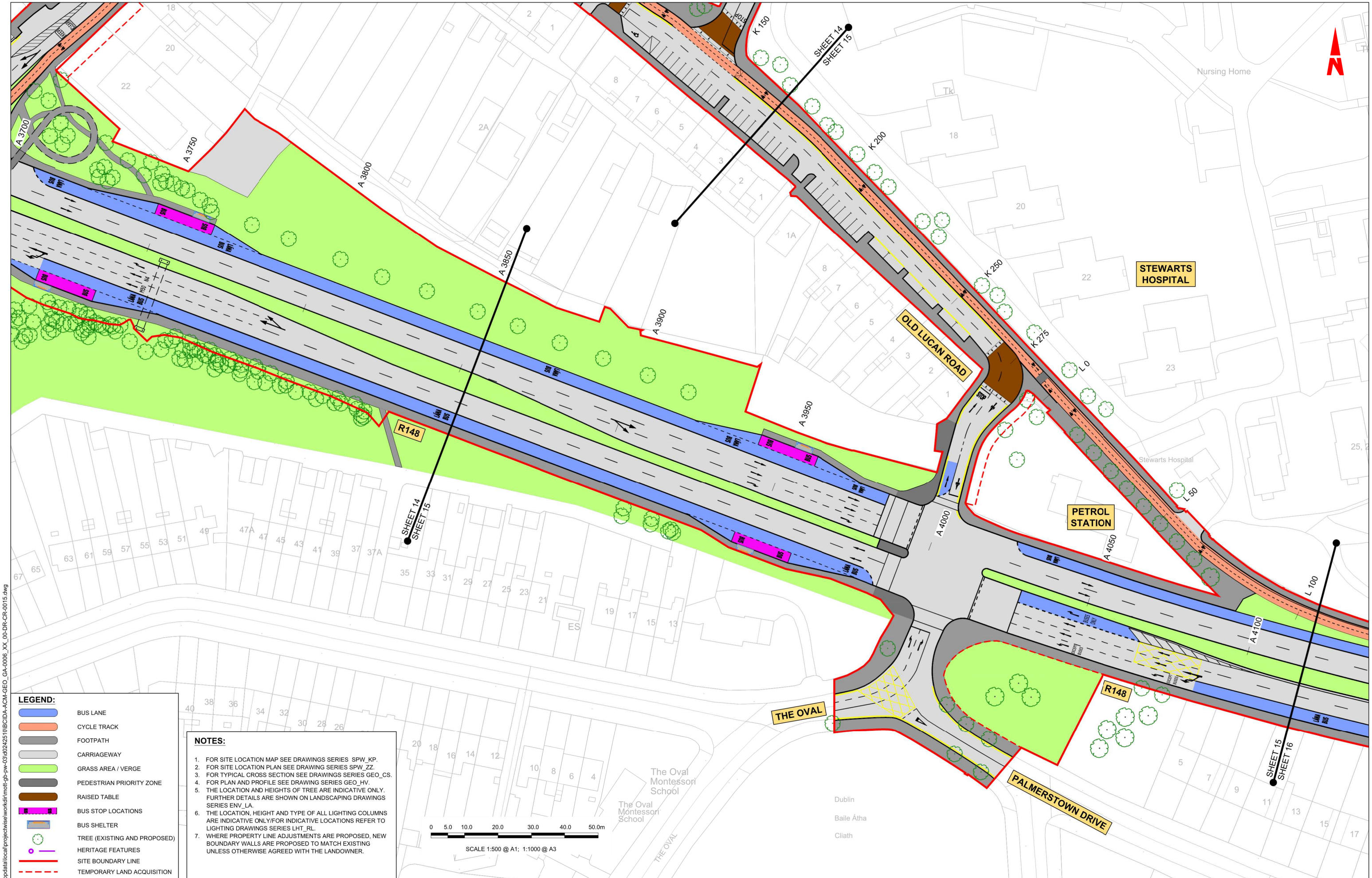

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7. WHERE PROPERTY LINE ADJUSTMENTS ARE PROPOSED, NEW BOUNDARY WALLS ARE PROPOSED TO MATCH EXISTING UNLESS OTHERWISE AGREED WITH THE LANDOWNER.

Project Ireland 2040 Building Ireland's Future

Rev	Date	Drn	Chk'd	App'd	Description
L02	01/04/21	MG	CA	JS	FOR INCLUSION IN PRO REPORT

Client: NTA Údarás Náisiúnta Iompair National Transport Authority

Engineering Designer: AECOM / MOTT MACDONALD

Programme Title: BUSCONNECTS DUBLIN
CORE BUS CORRIDORS INFRASTRUCTURE WORKS

Drawing Title: CBC 06
LUCAN TO CITY CENTRE
GENERAL ARRANGEMENT

Date	Scale	Drawn	Checked	Approved
01/04/21	1:500 @ A1 1:1000 @ A3	M.GALEZA	C.ACTON	J.SEYMOUR

Project Code	Originator Code	QMS Code	Drawing File Name	Sheet Number	Status	Rev
BCIDA	ACM		BCIDA-ACM-GEO_GA-0006_XX_00-DR-CR-0015	15 of 31	S4	L02

DO NOT SCALE USE FIGURED DIMENSIONS ONLY

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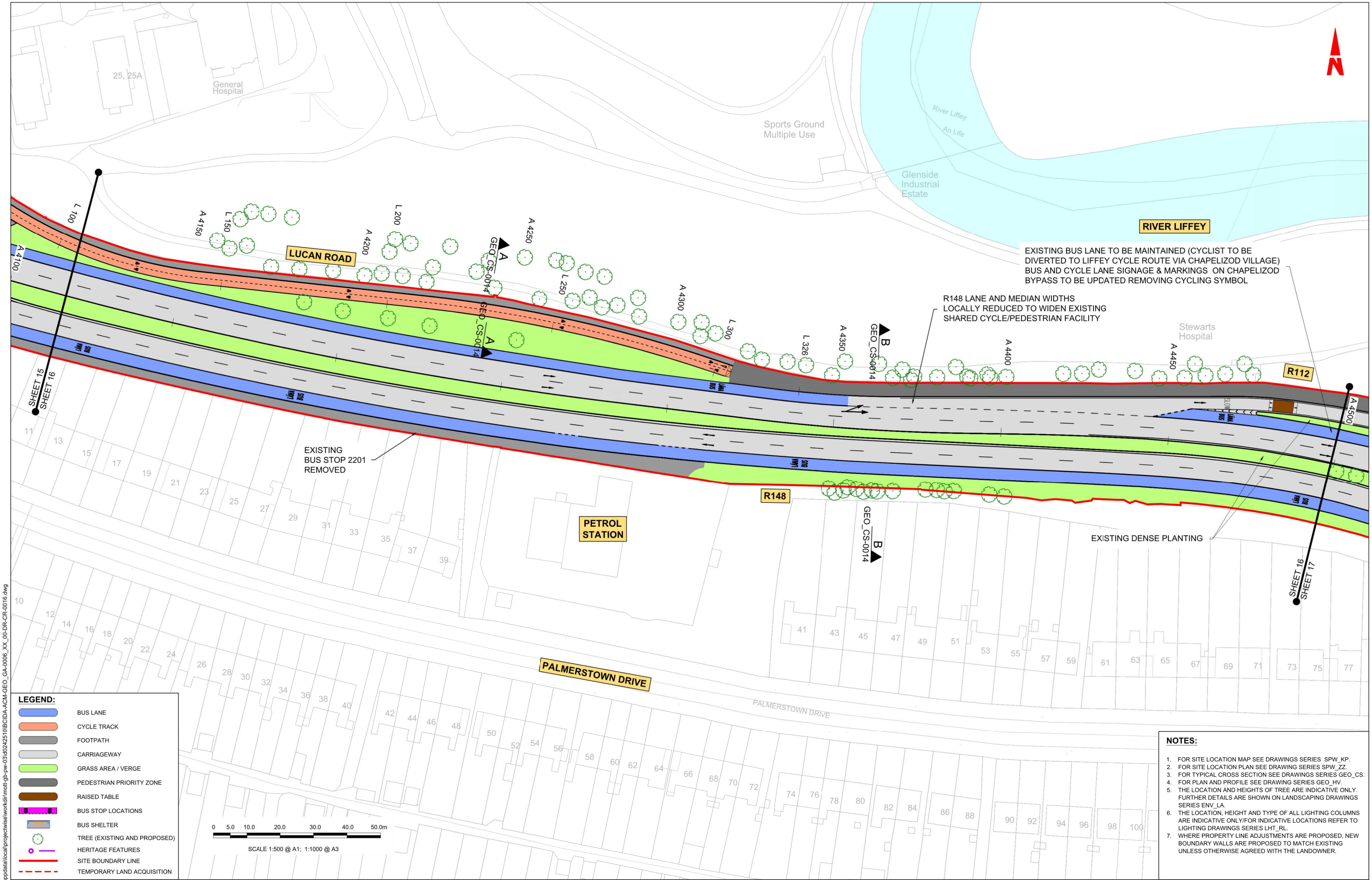

LEGEND:

- BUS LANE
- CYCLE TRACK
- FOOTPATH
- CARRIAGEWAY
- GRASS AREA / VERGE
- PEDESTRIAN PRIORITY ZONE
- RAISED TABLE
- BUS STOP LOCATIONS
- BUS SHELTER
- TREE (EXISTING AND PROPOSED)
- HERITAGE FEATURES
- SITE BOUNDARY LINE
- TEMPORARY LAND ACQUISITION

NOTES:

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Project Code	Originator Code	QMS Code	Drawing File Name	Sheet Number	Status	Rev
BCIDA	ACM		BCIDA-ACM-GEO_GA-0006_XX_00-DR-CR-0016	16 of 31	S4	L02

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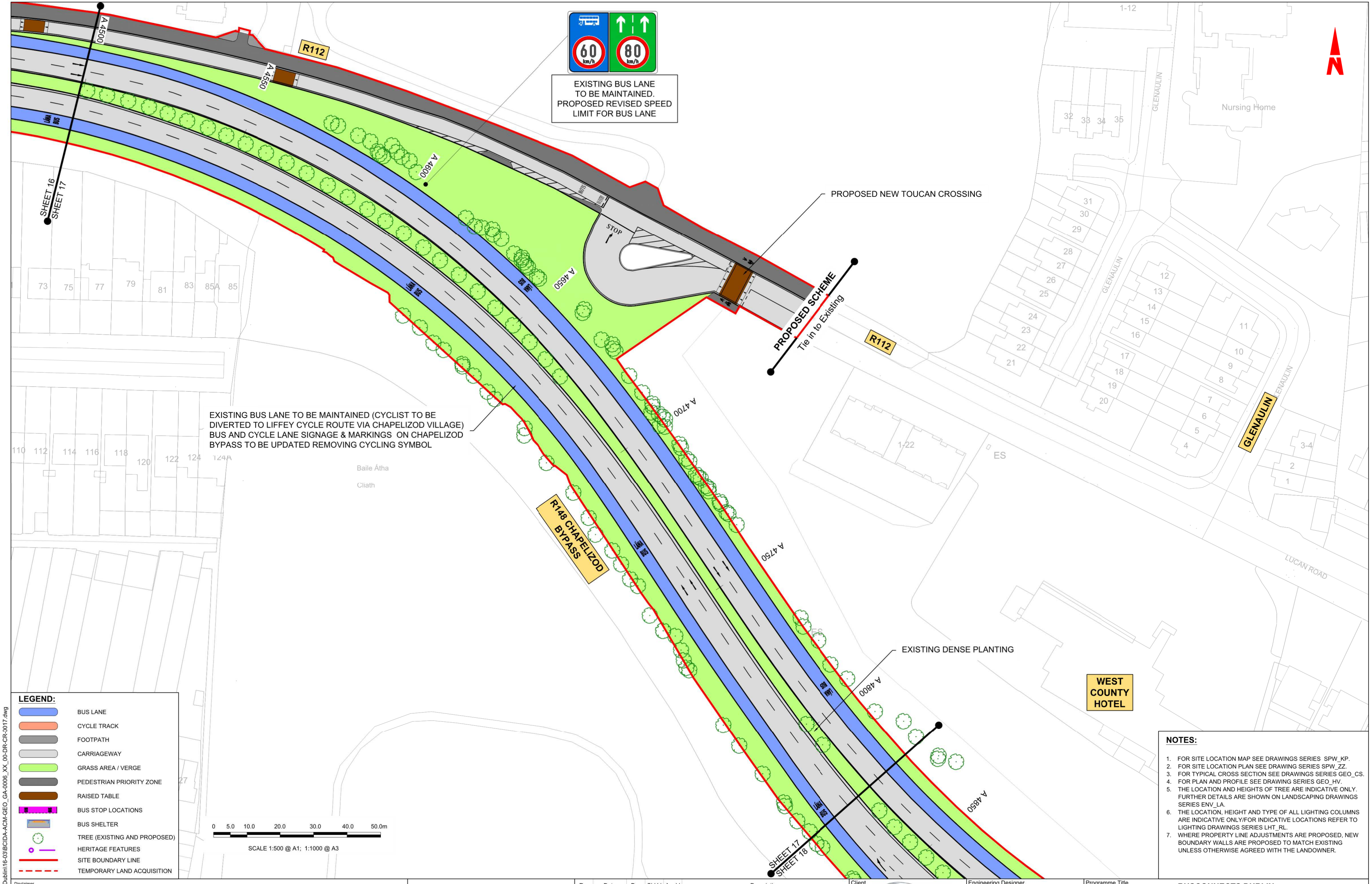

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Project Code	Originator Code	QMS Code
BCIDA	ACM	

Programme Title: **BUSCONNECTS DUBLIN**
CORE BUS CORRIDORS INFRASTRUCTURE WORKS

Drawing Title: CBC 06
LUCAN TO CITY CENTRE
GENERAL ARRANGEMENT

Drawing File Name	Sheet Number	Status	Rev
BCIDA-ACM-GEO_GA-0006_XX_00-DR-CR-0017	17 of 31	S4	L02

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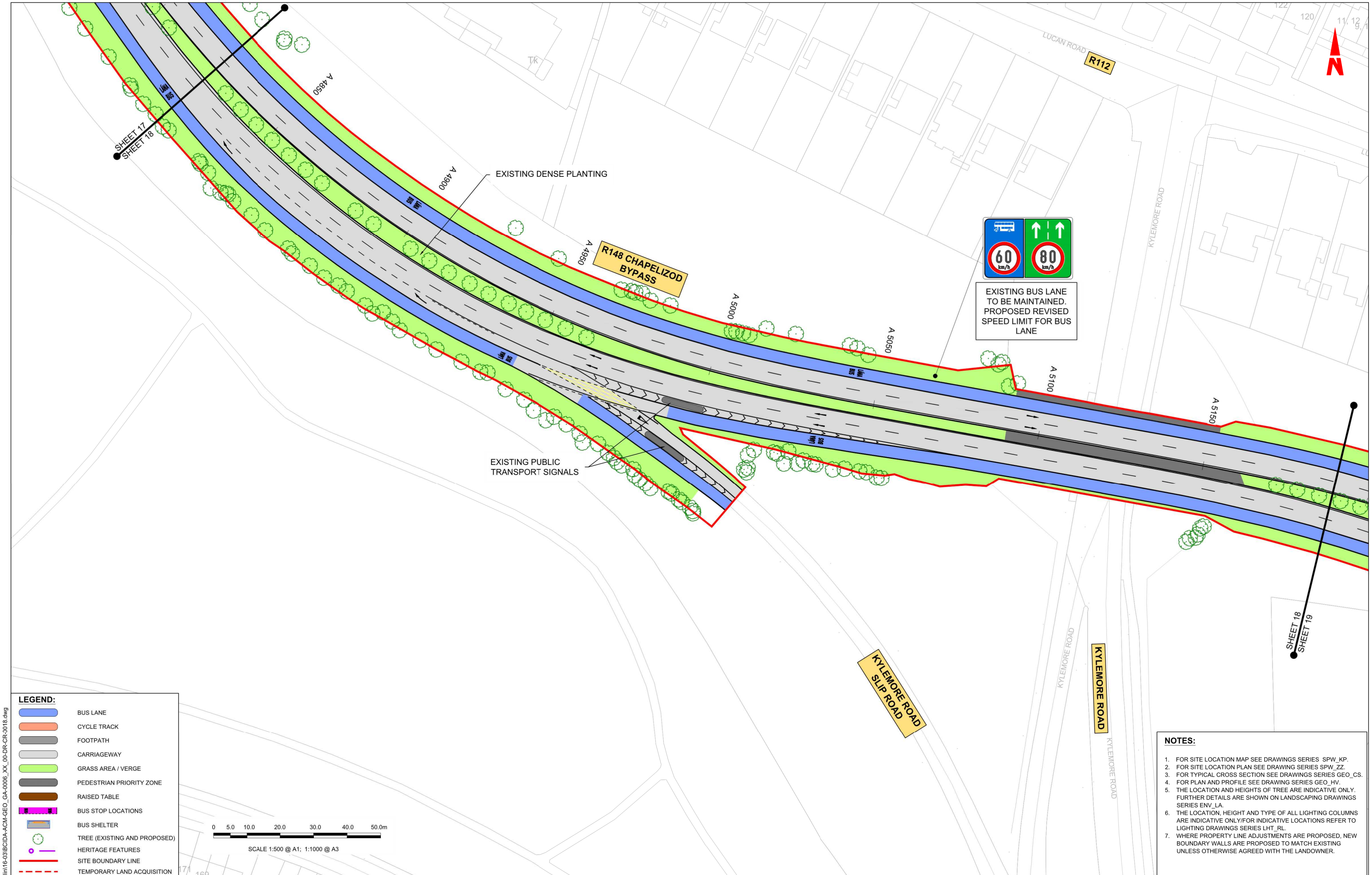

LEGEND:

- BUS LANE
- CYCLE TRACK
- FOOTPATH
- CARRIAGEWAY
- GRASS AREA / VERGE
- PEDESTRIAN PRIORITY ZONE
- RAISED TABLE
- BUS STOP LOCATIONS
- BUS SHELTER
- TREE (EXISTING AND PROPOSED)
- HERITAGE FEATURES
- SITE BOUNDARY LINE
- TEMPORARY LAND ACQUISITION

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Project Code	Originator Code	QMS Code	Drawing File Name	Sheet Number	Status	Rev
BCIDA	ACM		BCIDA-ACM-GEO_GA-0006_XX_00-DR-CR-0018	18 of 31	S4	L02

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A 5150
A 5200
A 5250
A 5300
A 5350
A 5400
A 5450
A 5500
A 5550
SHEET 18
SHEET 19
SHEET 19
SHEET 20
KNOCK RIADA
LUCAN ROAD
LAURENCE BROOK
Laurence House
River Camac
PAT O'DONNELL & CO
R148 CHAPELIZOD BYPASS
ROSSMORE DRIVE
CHAPELIZOD COURT
EXISTING DENSE PLANTING
EXISTING BUS LANE TO BE MAINTAINED. PROPOSED REVISED SPEED LIMIT FOR BUS LANE
EXISTING BUS LANE TO BE MAINTAINED. PROPOSED REVISED SPEED LIMIT FOR BUS LANE
60 km/h
80 km/h
BUS LANE
STOP LINE
0 5.0 10.0 20.0 30.0 40.0 50.0m
SCALE 1:500 @ A1; 1:1000 @ A3

LEGEND:

- BUS LANE
- CYCLE TRACK
- FOOTPATH
- CARRIAGEWAY
- GRASS AREA / VERGE
- PEDESTRIAN PRIORITY ZONE
- RAISED TABLE
- BUS STOP LOCATIONS
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CORE BUS CORRIDORS INFRASTRUCTURE WORKS

Drawing Title: CBC 06
LUCAN TO CITY CENTRE
GENERAL ARRANGEMENT

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Project Code	Originator Code	QMS Code	Drawing File Name	Sheet Number	Status	Rev
BCIDA	ACM		BCIDA-ACM-GEO_GA-0006_XX_00-DR-CR-0019	19 of 31	S4	L02

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LEGEND:

- BUS LANE
- CYCLE TRACK
- FOOTPATH
- CARRIAGEWAY
- GRASS AREA / VERGE
- PEDESTRIAN PRIORITY ZONE
- RAISED TABLE
- BUS STOP LOCATIONS
- BUS SHELTER
- TREE (EXISTING AND PROPOSED)
- HERITAGE FEATURES
- SITE BOUNDARY LINE
- TEMPORARY LAND ACQUISITION

0 5.0 10.0 20.0 30.0 40.0 50.0m

SCALE 1:500 @ A1; 1:1000 @ A3

ROSSMORE DRIVE

SHEET 19
SHEET 20

R148 CHAPELIZOD BYPASS

A 5550

LANE BUS

STR WMT

EXISTING NOISE WALLS REPLACED WHERE NECESSARY

PROPOSED NEW BUS STOP

CHAPELIZOD HILL ROAD

CHAPELIZOD ROAD

RIVER LIFFEY

A 5600

TRANSITION TO EXISTING CARRIAGEWAY ON CHAPELIZOD HILL ROAD

NO THROUGH ROAD FOR VANS AND LORRIES SIGN RETAINED

CBC06-ST02 CHAPELIZOD HILL ROAD BRIDGE WIDENING. FOR DETAILS REFER TO DRAWING BCIDA-ACM-STR_GA-0006_BR_06-DR-CB-0101

GEO_CS-0015 A

CBC06-RW03 CHAPELIZOD HILL ROAD RETAINING WALL. FOR DETAILS REFER TO DRAWING BCIDA-ACM-STR_GA-0006_RW_06-DR-CB-0101

A 5650

Car P

PROPOSED NEW BUS STOP

PEDESTRIAN BARRIERS ADDED TO CENTRAL MEDIAN

LIGHTING TO BE UPGRADED BENEATH BRIDGE

CBC06-RW04 CHAPELIZOD HILL ROAD RETAINING WALL. FOR DETAILS REFER TO DRAWING BCIDA-ACM-STR_GA-0006_RW_06-DR-CB-0111

CDETB BALLYFERMOT TRAINING CENTRE

EXISTING TREES AND PLANTING ON ROAD EMBANKMENT REMOVED UNDER EXTENTS OF RAMPS AND STEPS

Knockmaree Apartments

EXISTING TREES AND PLANTING ON ROAD EMBANKMENT REMOVED UNDER EXTENTS OF RAMPS AND STEPS

A 5700

EXISTING INTERMITTENT PLANTING ON SLOPING MEDIAN

TRANSITION TO EXISTING CARRIAGEWAY ON CHAPELIZOD HILL ROAD

BOLLARD

CHAPELIZOD HILL ROAD

60 km/h 80 km/h

EXISTING BUS LANE TO BE MAINTAINED. PROPOSED REVISED SPEED LIMIT FOR BUS LANE

EXISTING BUS LANE TO BE MAINTAINED. PROPOSED REVISED SPEED LIMIT FOR BUS LANE

EXISTING TURN LEFT SIGN TO BE RETAINED

EXISTING NO ENTRY RETAINED

A 5750

SHEET 20
SHEET 21

A 5800

Further Education

College

Car Park

Mast

SAINT LAURENCE ROAD

ST LAURENCE RD

Area Under

NOTES:

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Client: NTA Údarás Náisiúnta Iompair National Transport Authority

Engineering Designer: AECOM / MOTT MACDONALD

Programme Title: BUSCONNECTS DUBLIN
CORE BUS CORRIDORS INFRASTRUCTURE WORKS

Drawing Title: CBC 06
LUCAN TO CITY CENTRE
GENERAL ARRANGEMENT

Date	Scale	Drawn	Checked	Approved
01/04/21	1:500 @ A1, 1:1000 @ A3	M.GALEZA	C.ACTON	J.SEYMOUR

Project Code	Originator Code	QMS Code	Drawing File Name	Sheet Number	Status	Rev
BCIDA	ACM		BCIDA-ACM-GEO_GA-0006_XX_00-DR-CR-0020	20 of 31	S4	L02

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LEGEND:

- BUS LANE
- CYCLE TRACK
- FOOTPATH
- CARRIAGEWAY
- GRASS AREA / VERGE
- PEDESTRIAN PRIORITY ZONE
- RAISED TABLE
- BUS STOP LOCATIONS
- BUS SHELTER
- TREE (EXISTING AND PROPOSED)
- HERITAGE FEATURES
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Project Code	Originator Code	QMS Code	Drawing File Name	Sheet Number	Status	Rev
BCIDA	ACM		BCIDA-ACM-GEO_GA-0006_XX_00-DR-CR-0021	21 of 31	S4	L02

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LEGEND:

- BUS LANE
- CYCLE TRACK
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0 5.0 10.0 20.0 30.0 40.0 50.0m

SCALE 1:500 @ A1; 1:1000 @ A3

RIVER LIFFEY

ST. LAURENCE ROAD

SAINT LAURENCE ROAD

EXISTING BUS LANE
TO BE MAINTAINED.
PROPOSED REVISED SPEED
LIMIT FOR BUS LANE

A 6100 A 6150 A 6200 A 6250 A 6300 A 6350 A 6400 A 6450 A 6500

SHEET 21
SHEET 22

SHEET 22
SHEET 23

R148 CHAPELIZOD BYPASS

EXISTING BUS LANE
TO BE MAINTAINED.
PROPOSED REVISED SPEED
LIMIT FOR BUS LANE

ST. LAURENCE ROAD

THE STEEPLES

1-24

Car Park

THE STEEPLES

De La Salle
National
School

43 44 45 46

5 5 5

3-3A

THE STEEPLES

11

NOTES:

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CORE BUS CORRIDORS INFRASTRUCTURE WORKS

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Project Code	Originator Code	QMS Code	Drawing File Name	Sheet Number	Status	Rev
BCIDA	ACM		BCIDA-ACM-GEO_GA-0006_XX_00-DR-CR-0022	22 of 31	S4	L02

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LEGEND:

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- FOOTPATH
- CARRIAGEWAY
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- PEDESTRIAN PRIORITY ZONE
- RAISED TABLE
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- BUS SHELTER
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- TEMPORARY LAND ACQUISITION

0 5.0 10.0 20.0 30.0 40.0 50.0m

SCALE 1:500 @ A1; 1:1000 @ A3

RIVER LIFFEY

A 6500 A 6550 A 6600 A 6650 A 6700 A 6750 A 6800 A 6850

SHEET 22 SHEET 23 SHEET 24

R148 CHAPELIZOD BYPASS

ST. LAURENCE ROAD

SAINT LAURENCE ROAD

EXISTING BUS LANE TO BE MAINTAINED. PROPOSED REVISED SPEED LIMIT FOR BUS LANE

EXISTING BUS LANE TO BE MAINTAINED. PROPOSED REVISED SPEED LIMIT FOR BUS LANE

NOTES:

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Programme Title: **BUSCONNECTS DUBLIN**
CORE BUS CORRIDORS INFRASTRUCTURE WORKS

Drawing Title: CBC 06
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Drawing File Name	Sheet Number	Status	Rev
BCIDA-ACM-GEO_GA-0006_XX_00-DR-CR-0023	23 of 31	S4	L02

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A 6850
A 6900
A 6950
A 7000
A 7050
A 7100
A 7150
A 7200
SHEET 23
SHEET 24
SHEET 25
RIVER LIFFEY
R148 CHAPELIZOD BYPASS
LIFFEY STREET SOUTH
ST. MARY'S AVENUE WEST
ST MARY'S AVENUE W
FIRST AVENUE
PARK STREET
PHOENIX STREET
Nursing Home
Father Bidone Court Apartments
Tk

EXISTING BUS LANE
TO BE MAINTAINED.
PROPOSED REVISED SPEED
LIMIT FOR BUS LANE

EXISTING BUS LANE
TO BE MAINTAINED.
PROPOSED REVISED SPEED
LIMIT FOR BUS LANE

EXISTING FOOT
BRIDGE OVER R148
TO BE MAINTAINED

LEGEND:

- BUS LANE
- CYCLE TRACK
- FOOTPATH
- CARRIAGEWAY
- GRASS AREA / VERGE
- PEDESTRIAN PRIORITY ZONE
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0 5.0 10.0 20.0 30.0 40.0 50.0m

SCALE 1:500 @ A1; 1:1000 @ A3

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6. THE LOCATION, HEIGHT AND TYPE OF ALL LIGHTING COLUMNS ARE INDICATIVE ONLY/FOR INDICATIVE LOCATIONS REFER TO LIGHTING DRAWINGS SERIES LHT_RL.
7. WHERE PROPERTY LINE ADJUSTMENTS ARE PROPOSED, NEW BOUNDARY WALLS ARE PROPOSED TO MATCH EXISTING UNLESS OTHERWISE AGREED WITH THE LANDOWNER.

Project Ireland 2040 Building Ireland's Future

Rev	Date	Drn	Chk'd	App'd	Description
L02	01/04/21	MG	CA	JS	FOR INCLUSION IN PRO REPORT

Client: NTA Údarás Náisiúnta Iompair National Transport Authority
Engineering Designer: AECOM / MOTT MACDONALD

Programme Title: BUSCONNECTS DUBLIN
CORE BUS CORRIDORS INFRASTRUCTURE WORKS

Drawing Title: CBC 06
LUCAN TO CITY CENTRE
GENERAL ARRANGEMENT

Date	Scale	Drawn	Checked	Approved
01/04/21	1:500 @ A1 1:1000 @ A3	M.GALEZA	C.ACTON	J.SEYMOUR

Project Code	Originator Code	QMS Code	Drawing File Name	Sheet Number	Status	Rev
BCIDA	ACM		BCIDA-ACM-GEO_GA-0006_XX_00-DR-CR-0024	24 of 31	S4	L02

DO NOT SCALE USE FIGURED DIMENSIONS ONLY

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EXISTING BUS LANE
TO BE MAINTAINED.
PROPOSED REVISED SPEED
LIMIT FOR BUS LANE

EXISTING BUS LANE
TO BE MAINTAINED.
PROPOSED REVISED SPEED
LIMIT FOR BUS LANE

EXISTING FOOT
BRIDGE OVER R148
TO BE MAINTAINED

R148 CHAPELIZOD
BYPASS

SHEET 24
SHEET 25

A 7250
A 7300
A 7350
A 7400
A 7450
A 7500
A 7550
A 7600

EXISTING TURN
BAN RETAINED

GEO_CS-0016
A

REQUEST BUTTON
FOR CYCLE SIGNAL

EXISTING LEFT TURN
SLIP LANE REMOVED

POTENTIAL SITE
COMPOUND

GEO_CS-0016
B

GEO_CS-0016
B

GEO_CS-0016
A

PROPOSED SCHEME
Tie in to CBC7 Liffey
Valley Scheme

SHEET 25
SHEET 26

EXISTING TURN
BAN RETAINED

CON COLBERT ROAD

LEGEND:

- BUS LANE
- CYCLE TRACK
- FOOTPATH
- CARRIAGEWAY
- GRASS AREA / VERGE
- PEDESTRIAN PRIORITY ZONE
- RAISED TABLE
- BUS STOP LOCATIONS
- BUS SHELTER
- TREE (EXISTING AND PROPOSED)
- HERITAGE FEATURES
- SITE BOUNDARY LINE
- TEMPORARY LAND ACQUISITION

0 5.0 10.0 20.0 30.0 40.0 50.0m

SCALE 1:500 @ A1; 1:1000 @ A3

NOTES:

1. FOR SITE LOCATION MAP SEE DRAWINGS SERIES SPW_KP.
2. FOR SITE LOCATION PLAN SEE DRAWING SERIES SPW_ZZ.
3. FOR TYPICAL CROSS SECTION SEE DRAWINGS SERIES GEO_CS.
4. FOR PLAN AND PROFILE SEE DRAWING SERIES GEO_HV.
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7. WHERE PROPERTY LINE ADJUSTMENTS ARE PROPOSED, NEW BOUNDARY WALLS ARE PROPOSED TO MATCH EXISTING UNLESS OTHERWISE AGREED WITH THE LANDOWNER.

Project Ireland 2040
Building Ireland's Future

Rev	Date	Drn	Chk'd	App'd	Description
L02	01/04/21	MG	CA	JS	FOR INCLUSION IN PRO REPORT

Client: NTA Údarás Náisiúnta Iompair / National Transport Authority

Engineering Designer: AECOM / MOTT MACDONALD

Programme Title: BUSCONNECTS DUBLIN
CORE BUS CORRIDORS INFRASTRUCTURE WORKS

Drawing Title: CBC 06
LUCAN TO CITY CENTRE
GENERAL ARRANGEMENT

Date	Scale	Drawn	Checked	Approved
01/04/21	1:500 @ A1 1:1000 @ A3	M.GALEZA	C.ACTON	J.SEYMOUR

Project Code	Originator Code	QMS Code	Drawing File Name	Sheet Number	Status	Rev
BCIDA	ACM		BCIDA-ACM-GEO_GA-0006_XX_00-DR-CR-0025	25 of 31	S4	L02

DO NOT SCALE USE FIGURED DIMENSIONS ONLY

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LEGEND:

- BUS LANE
- CYCLE TRACK
- FOOTPATH
- CARRIAGEWAY
- GRASS AREA / VERGE
- PEDESTRIAN PRIORITY ZONE
- RAISED TABLE
- BUS STOP LOCATIONS
- BUS SHELTER
- TREE (EXISTING AND PROPOSED)
- HERITAGE FEATURES
- SITE BOUNDARY LINE
- TEMPORARY LAND ACQUISITION

0 5.0 10.0 20.0 30.0 40.0 50.0m

SCALE 1:500 @ A1; 1:1000 @ A3

N

IRISH WAR MEMORIAL GARDENS

Burial Place (Site of)

PROPOSED RIGHT-HAND TURN TO MEMORIAL ROAD

EXISTING MEDIAN TO BE NARROWED AND REALIGNED TO CREATE RIGHT-HAND TURN POCKET

PROPOSED TOUCAN CROSSINGS

PROPOSED RELOCATED BUS STOP

A GEO_CS-0017

A 7600 A 7650 A 7700 A 7750 A 7800 A 7850 A 7900 A 7950

CON COLBERT ROAD

PROPOSED SCHEME
Tie in to CBC7 Liffey Valley Scheme

EXISTING TURN BAN RETAINED

RAILWAY TRACK

MEMORIAL ROAD

INCHICORE ROAD

WOODFIELD COTTAGES

THE BELFRY

INCHICORE RD

SHEET 25 SHEET 26 SHEET 27

NOTES:

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Project Ireland 2040 Building Ireland's Future

Rev	Date	Drn	Chk'd	App'd	Description
L02	01/04/21	MG	CA	JS	FOR INCLUSION IN PRO REPORT

Client: NTA Údarás Náisiúnta Iompair National Transport Authority

Engineering Designer: AECOM / MOTT MACDONALD

Date	Scale	Drawn	Checked	Approved
01/04/21	1:500 @ A1, 1:1000 @ A3	M.GALEZA	C.ACTON	J.SEYMOUR

Project Code	Originator Code	QMS Code
BCIDA	ACM	

Programme Title: **BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS**

Drawing Title: CBC 06 LUCAN TO CITY CENTRE GENERAL ARRANGEMENT

Drawing File Name	Sheet Number	Status	Rev
BCIDA-ACM-GEO_IX-0006_XX_00-DR-CR-0026	26 of 31	S4	L02

DO NOT SCALE USE FIGURED DIMENSIONS ONLY

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LEGEND:

- BUS LANE
- CYCLE TRACK
- FOOTPATH
- CARRIAGEWAY
- GRASS AREA / VERGE
- PEDESTRIAN PRIORITY ZONE
- RAISED TABLE
- BUS STOP LOCATIONS
- BUS SHELTER
- TREE (EXISTING AND PROPOSED)
- HERITAGE FEATURES
- SITE BOUNDARY LINE
- TEMPORARY LAND ACQUISITION

0 5.0 10.0 20.0 30.0 40.0 50.0m

SCALE 1:500 @ A1; 1:1000 @ A3

EXISTING BUS STOP 7435 RELOCATED

EXISTING BUS STOP 7012 RELOCATED

EXISTING BUS STOP 2722 RELOCATED

EXISTING BUS STOP 2721 RELOCATED

PROPOSED RELOCATED BUS STOP

CON COLBERT ROAD

RAILWAY TRACK

INCHICORE ROAD

ST. JUDE'S CHURCH TOWER

KAGYU SAMYE DZONG DUBLIN

SHEET 26

SHEET 27

SHEET 28

A 7950 A 8000 A 8050 A 8100 A 8150 A 8200 A 8250 A 8300

GEO_CS-0018

Gaelscoil Inse Chor

Saint John Of God Special School

Beaconsfield Court Apts.

Metropolitan Apts. Block A

Metropolitan Apts. Block B

Church

NOTES:

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Project Ireland 2040 Building Ireland's Future

Rev	Date	Drn	Chk'd	App'd	Description
L02	01/04/21	MG	CA	JS	FOR INCLUSION IN PRO REPORT

Client: NTA Údarás Náisiúnta Iompair National Transport Authority

Engineering Designer: AECOM / MOTT MACDONALD

Date	Scale	Drawn	Checked	Approved
01/04/21	1:500 @ A1, 1:1000 @ A3	M.GALEZA	C.ACTON	J.SEYMOUR

Project Code	Originator Code	QMS Code
BCIDA	ACM	

Programme Title: **BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS**

Drawing Title: CBC 06 LUCAN TO CITY CENTRE GENERAL ARRANGEMENT

Drawing File Name	Sheet Number	Status	Rev
BCIDA-ACM-GEO_GA-0006_XX_00-DR-CR-0027	27 of 31	S4	L02

DO NOT SCALE USE FIGURED DIMENSIONS ONLY

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LEGEND:

- BUS LANE
- CYCLE TRACK
- FOOTPATH
- CARRIAGEWAY
- GRASS AREA / VERGE
- PEDESTRIAN PRIORITY ZONE
- RAISED TABLE
- BUS STOP LOCATIONS
- BUS SHELTER
- TREE (EXISTING AND PROPOSED)
- HERITAGE FEATURES
- SITE BOUNDARY LINE
- TEMPORARY LAND ACQUISITION

0 5.0 10.0 20.0 30.0 40.0 50.0m

SCALE 1:500 @ A1; 1:1000 @ A3

Tie in to Existing
PROPOSED SCHEME

TIE IN TO EXISTING CYCLE LANE

SOUTH CIRCULAR ROAD

EXISTING TURN BAN RETAINED

EXISTING JUNCTION LAYOUT TO BE MODIFIED TO ACCOMMODATE ADDITIONAL BUS LANE AND CYCLETRACK

RAILWAY TRACK

A 8700

A 8650

A 8600

A 8550

A 8500

A 8450

A 8400

A 8350

A 8300

SHEET 29

SHEET 28

SHEET 27

ST. JOHN'S ROAD WEST

ST. JOHN OF GOD'S SCHOOL

EXISTING LEFT TURN SLIP LANE REMOVED

GEO_CS-0019

EXISTING TURN BAN RETAINED

CON COLBERT ROAD

PROPOSED RELOCATED BUS STOP

EXISTING TURN BAN RETAINED

PROPOSED RIGHT-TURN TO ST. JOHN'S ROAD WEST

EXISTING TURN BAN RETAINED

EXISTING JUNCTION LAYOUT TO BE MODIFIED TO ACCOMMODATE ADDITIONAL BUS LANE AND CYCLETRACK

EXISTING LEFT TURN SLIP LANE REMOVED

PROPOSED SCHEME
Tie in to Existing

SOUTH CIRCULAR ROAD

Recreational Complex

Saint John of God Special School

Saint John Of God's School

Saint John Of God Special School

Tks

Bully's Acre

Royal Hospital Kilmainham

Burial Ground

697 695 693 691 689 687 685

SUBJECT TO DESIGN DEVELOPMENT.

NOTES:

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Project Ireland 2040
Building Ireland's Future

Rev	Date	Drn	Chk'd	App'd	Description
L02	01/04/21	MG	CA	JS	FOR INCLUSION IN PRO REPORT

Client: NTA — Údarás Náisiúnta Iompair, National Transport Authority

Engineering Designer: AECOM / MOTT MACDONALD

Programme Title: BUSCONNECTS DUBLIN
CORE BUS CORRIDORS INFRASTRUCTURE WORKS

Drawing Title: CBC 06
LUCAN TO CITY CENTRE
GENERAL ARRANGEMENT

Date	Scale	Drawn	Checked	Approved
01/04/21	1:500 @ A1 1:1000 @ A3	M.GALEZA	C.ACTON	J.SEYMOUR

Project Code	Originator Code	QMS Code	Drawing File Name	Sheet Number	Status	Rev
BCIDA	ACM		BCIDA-ACM-GEO_GA-0006_XX_00-DR-CR-0028	28 of 31	S4	L02

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LEGEND:

- BUS LANE
- CYCLE TRACK
- FOOTPATH
- CARRIAGEWAY
- GRASS AREA / VERGE
- PEDESTRIAN PRIORITY ZONE
- RAISED TABLE
- BUS STOP LOCATIONS
- BUS SHELTER
- TREE (EXISTING AND PROPOSED)
- HERITAGE FEATURES
- SITE BOUNDARY LINE
- TEMPORARY LAND ACQUISITION

0 5.0 10.0 20.0 30.0 40.0 50.0m

SCALE 1:500 @ A1; 1:1000 @ A3

N

RAILWAY TRACK

ST. JOHN'S ROAD WEST

THE ROYAL HOSPITAL KILMAINHAM

Dublin
Baile Átha
Cliath

Royal
Hospital
Kilmainham

A 8700
A 8750
A 8800
A 8850
A 8900
A 8950
A 9000
A 9050
A 9100

GEO_CS-0020

SHEET 29
SHEET 28

SHEET 30
SHEET 29

HSQ

EXISTING DENSE PLANTING

PROPOSED PLANTING SCHEME TO CATER FOR FORWARD VISIBILITY AND PROVIDE MAINTENANCE

EXISTING VRS BARRIER TO BE RELOCATED AS REQUIRED

PROPOSED MEDIAN WIDENING

EXISTING PARKING REMOVED TO FACILITATE NEW CYCLE FACILITIES

NOTES:

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Project Ireland 2040
Building Ireland's Future

Rev	Date	Drn	Chk'd	App'd	Description
L02	01/04/21	MG	CA	JS	FOR INCLUSION IN PRO REPORT

Client: NTA Údarás Náisiúnta Iompair / National Transport Authority

Engineering Designer: AECOM / MOTT MACDONALD

Date	Scale	Drawn	Checked	Approved
01/04/21	1:500 @ A1, 1:1000 @ A3	M.GALEZA	C.ACTON	J.SEYMOUR

Project Code	Originator Code	QMS Code
BCIDA	ACM	

Programme Title: **BUSCONNECTS DUBLIN**
CORE BUS CORRIDORS INFRASTRUCTURE WORKS

Drawing Title: CBC 06
LUCAN TO CITY CENTRE
GENERAL ARRANGEMENT

Drawing File Name	Sheet Number	Status	Rev
BCIDA-ACM-GEO_GA-0006_XX_00-DR-CR-0029	29 of 31	S4	L02

DO NOT SCALE USE FIGURED DIMENSIONS ONLY

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LEGEND:

- BUS LANE
- CYCLE TRACK
- FOOTPATH
- CARRIAGEWAY
- GRASS AREA / VERGE
- PEDESTRIAN PRIORITY ZONE
- RAISED TABLE
- BUS STOP LOCATIONS
- BUS SHELTER
- TREE (EXISTING AND PROPOSED)
- HERITAGE FEATURES
- SITE BOUNDARY LINE
- TEMPORARY LAND ACQUISITION

0 5.0 10.0 20.0 30.0 40.0 50.0m

SCALE 1:500 @ A1; 1:1000 @ A3

N

HEUSTON STATION

RAILWAY TRACK

ST. JOHN'S ROAD WEST

HSQ

CAR PARK

MILITARY ROAD

PROPOSED SCHEME

Tie in to Existing

SHEET 29

SHEET 30

SHEET 31

A 9050

A 9100

A 9150

A 9200

A 9250

A 9300

A 9350

A 9400

GEO_CS-0021

GEO_CS-0021

EXISTING MEDIAN TO BE RELOCATED AND NARROWED TO FACILITATE SEGREGATED CYCLE FACILITIES

EXISTING TURN BAN RETAINED

PROPOSED ROAD WIDENING INTO EXISTING MEDIAN

PROPOSED TOUCAN CROSSING

TAXI QUEUING LANE

PROPOSED TOUCAN CROSSING

EXISTING TURN BAN RETAINED

TAXI RANK

PROPOSED ROAD WIDENING INTO EXISTING MEDIAN

PROPOSED BOLLARDS

HERITAGE LAMP POSTS TO BE RETAINED AND RELOCATED WHERE REQUIRED

PROPOSED BOLLARDS

PROPOSED FOOTWAY TO IMPACT EXISTING PLANTERS

EXISTING TURN BAN RETAINED

EXISTING PARKING REMOVED TO FACILITATE FOOTPATH WIDENING AND NEW CYCLE FACILITIES

EXISTING PEDESTRIAN ENTRANCE AND STAIRS RETAINED

RELOCATED E-CAR CHARGE POINT

REVISED PARKING ARRANGEMENT

EXISTING LEFT TURN SLIP LANE REMOVED

EXISTING TURN BAN RETAINED

Platform

Mast

Car Park

Local Government Building

Local Gov Building

Area Under Construction

Tk

NOTES:

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8. HERITAGE FEATURES TO BE RETAINED OR RELOCATED WHERE REQUIRED.

Project Ireland 2040 Building Ireland's Future

Rev	Date	Drn	Chk'd	App'd	Description
L02	01/04/21	MG	CA	JS	FOR INCLUSION IN PRO REPORT

Client: NTA Údarás Náisiúnta Iompair National Transport Authority

Engineering Designer: AECOM MOTT MACDONALD

Date	Scale	Drawn	Checked	Approved
01/04/21	1:500 @ A1, 1:1000 @ A3	M.GALEZA	C.ACTON	J.SEYMOUR

Project Code	Originator Code	QMS Code
BCIDA	ACM	

Programme Title: BUSCONNECTS DUBLIN
CORE BUS CORRIDORS INFRASTRUCTURE WORKS

Drawing Title: CBC 06
LUCAN TO CITY CENTRE
GENERAL ARRANGEMENT

Drawing File Name	Sheet Number	Status	Rev
BCIDA-ACM-GEO_GA-0006_XX_00-DR-CR-0030	30 of 31	S4	L02

DO NOT SCALE USE FIGURED DIMENSIONS ONLY

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LEGEND:

- BUS LANE
- CYCLE TRACK
- FOOTPATH
- CARRIAGEWAY
- GRASS AREA / VERGE
- PEDESTRIAN PRIORITY ZONE
- RAISED TABLE
- BUS STOP LOCATIONS
- BUS SHELTER
- TREE (EXISTING AND PROPOSED)
- HERITAGE FEATURES
- SITE BOUNDARY LINE
- TEMPORARY LAND ACQUISITION

0 5.0 10.0 20.0 30.0 40.0 50.0m

SCALE 1:500 @ A1; 1:1000 @ A3

RIVER LIFFEY

SEÁN HEUSTON BRIDGE

FRANK SHERWIN BRIDGE

WOLFE TONE QUAY

TEMPLE STREET WEST

CIVIL DEFENCE DEPOT

INTERFACE WITH LIFFEY CYCLE SCHEME TBC

VICTORIA QUAY

LUAS STOP HEUSTON STATION

HEUSTON STATION

ST. JOHN'S ROAD WEST

ST. JAMES'S GATE BREWERY

DR. STEEVEN'S HOSPITAL

STEEVEN'S LANE

TIE IN TO LIFFEY CYCLE ROUTE SCHEME

EXISTING LEFT TURN SLIP LANE REMOVED

EXISTING CYCLE PARKING RETAINED

PROPOSED LOW STUB WALL

LUAS PLATFORM TO BE REALIGNED

EXCEPT TRAMS (EXISTING TURN BAN RETAINED)

EXISTING TURN BAN RETAINED

HERITAGE LAMP POST TO BE RETAINED AND RELOCATED WHERE REQUIRED

HERITAGE LAMP POST TO BE RETAINED

HERITAGE POST BOX TO BE RETAINED AND RELOCATED WHERE REQUIRED

REVISED BUS STOP 4413 ARRANGEMENT

HERITAGE LAMP POSTS TO BE RETAINED AND RELOCATED WHERE REQUIRED

TAXI RANK

HERITAGE LAMP POST TO BE RETAINED

PROPOSED PEDESTRIAN CROSSING

PROPOSED RELOCATED BUS STOP

EXISTING BUS STOP 2637 RELOCATED

EXISTING MEDIAN TO BE REALIGNED

HERITAGE LAMP POST TO BE RETAINED

HERITAGE LAMP POST TO BE RELOCATED

EXISTING CAR CHARGING POINTS TO BE RELOCATED

PROPOSED NEW BUS STOP

EXISTING TURN BAN RETAINED

EXISTING MEDIAN TO BE REALIGNED

PROPOSED TOUCAN CROSSING

HERITAGE LAMP POST TO BE RELOCATED

PROPOSED TOUCAN CROSSING

EXISTING MEDIAN TO BE REALIGNED

EXCEPT TRAMS (EXISTING TURN BAN RETAINED)

PROPOSED SCHEME

Tie in to Existing

Tie in to Liffey Cycle Route Scheme

PROPOSED SCHEME

Tie in to Liffey Cycle Route Scheme

A 9709

A 9700

A 9650

A 9600

A 9550

A 9500

A 9450

GEO_CS-0022

SHEET 30

SHEET 31

Parkgate Place

Croppies Memorial Park

Civil Defence

Frank Sherwin Bridge

Area Under Construction

Car Park

Local Government B

Tks

NOTES:

1. FOR SITE LOCATION MAP SEE DRAWINGS SERIES SPW_KP.
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8. HERITAGE FEATURES TO BE RETAINED OR RELOCATED WHERE REQUIRED.

Project Ireland 2040 Building Ireland's Future

Rev	Date	Drn	Chk'd	App'd	Description
L02	01/04/21	MG	CA	JS	FOR INCLUSION IN PRO REPORT

Client: NTA Údarás Náisiúnta Iompair National Transport Authority

Engineering Designer: AECOM / MOTT MACDONALD

Programme Title: BUSCONNECTS DUBLIN
CORE BUS CORRIDORS INFRASTRUCTURE WORKS

Drawing Title: CBC 06
LUCAN TO CITY CENTRE
GENERAL ARRANGEMENT

Date	Scale	Drawn	Checked	Approved
01/04/21	1:500 @ A1 1:1000 @ A3	M.GALEZA	C.ACTON	J.SEYMOUR

Project Code	Originator Code	QMS Code
BCIDA	ACM	

Drawing File Name	Sheet Number	Status	Rev
BCIDA-ACM-GEO_GA-0006_XX_00-DR-CR-0031	31 of 31	S4	L02

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Appendix B. EIA Screening Checklist

Brief Project Description Refer to Description of Likely Significant Effects (Section 5)	Yes/ No	Is this Likely to Result in a Significant Effect? Yes / No / Unknown
1. Will construction, operation or decommissioning of the project involve actions which will cause physical changes in the locality (topography, land use, changes in waterbodies, etc.)?	Yes	Yes The Proposed Scheme represents a continuation of the existing land use as a transport corridor. Receptors include the immediate surrounding areas which consist residential, educational, commercial and lands zoned for development adjacent to the road boundary. Construction activities are likely to result in significant effects where public and private property needs to be acquired to provide the infrastructure.
2. Will construction or operation of the project use natural resources such as land, water, materials or energy, especially any resources which are non-renewable or in short supply?	Yes	Yes Construction of the Proposed Scheme will require the use of construction materials, such as aggregate, concrete etc to construct road pavement where necessary. During operation there will be road upkeep required which will also consume natural resources.
3. Will the project involve use, storage, transport, handling or production of substances or materials which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health?	Yes	No Storage, transport, handling or production of materials is not considered to give rise to likely significant environmental effects.
4. Will the project produce solid wastes during construction or operation or decommissioning?	Yes	Yes Construction activities will include the excavation of materials within and adjacent to the existing road boundary. These construction activities are likely to generate waste from excavated material (asphalt, concrete, made ground and topsoil), demolition of existing infrastructure and road resurfacing. The Proposed Scheme will aim to avoid or minimise generation of waste through re-use of site-won material (subject to it meeting the appropriate engineering standard). There is the potential for a significant cumulative effect on materials during construction of the Proposed Scheme and other projects.
5. Will the project release pollutants or any hazardous, toxic or noxious substances to air or lead to exceeding Ambient Air Quality standards in Directives 2008/50/EC and 2004/107/EC?	Yes	Yes It is expected that dust will be emitted during the construction works. Emissions from construction plant and vehicles will arise during the Construction Phase. During operation there may be changes in traffic patterns as a result of the Proposed Scheme, which may give rise to air quality impacts.
6. Will the project cause noise and vibration or release of light, heat energy or electromagnetic radiation?	Yes	Yes A variety of potential noise and vibration emitting construction plant are likely to be used during construction. Construction noise and vibration impacts are anticipated to be temporary however there is the potential for significant noise and vibration impacts to arise. During operation there may be changes in traffic patterns as a result of the Proposed Scheme, which may give rise to noise impacts.
7. Will the project lead to risks of contamination of land or water from releases of pollutants onto the ground or into surface waters, groundwater, coastal wasters or the sea?	Yes	Yes Construction will require works in proximity to watercourses. Construction works will also include excavation and relocation of utilities which have the potential to create pathways for pollutants to enter watercourses and indirectly impact on water quality.

Brief Project Description Refer to Description of Likely Significant Effects (Section 5)	Yes/ No	Is this Likely to Result in a Significant Effect? Yes / No / Unknown
8. Will there be any risk of accidents during construction or operation of the project which could affect human health or the environment?	Yes	No The Proposed Scheme is unlikely to increase the risk of major accidents and disasters that could affect human health or the environment.
9. Will the Project result in social changes, for example, in demography, traditional lifestyles, employment?	Yes	Yes The Proposed Scheme is part of the BusConnects Dublin – Core Bus Corridor Infrastructure Works which will facilitate improved public transport and improve facilities for pedestrians and cyclists. It will allow for greater accessibility to sustainable modes of transport.
10. Are there any other factors which should be considered such as consequential development which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality?	Yes	Yes When considered in combination with other strategic infrastructure projects including the other 11 schemes that make up the BusConnects Dublin – Core Bus Corridor Infrastructure Works and other major projects, there is the potential for significant cumulative effects particularly during the Construction Phase arising from traffic, noise and air quality impacts.
11. Is the project located within or close to any areas which are protected under international, EU, or national or local legislation for their ecological, landscape, cultural or other value, which could be affected by the project?	Yes	Yes Proposed Scheme runs adjacent to the proposed Natural Heritage Area (pNHA) of Liffey Valley. The Proposed Scheme is located approximately 4.5km west of the South Dublin Bay and River Tolka Estuary SPA (SPA Code 004024). The site is designated due to its extensive intertidal flats which support wintering waterfowl which are part of the overall Dublin Bay population. Indirect impacts may occur via hydrological connectivity between the Proposed Scheme and the designated sites. For example, where construction works are in proximity to watercourses.
12. Are there any other areas on or around the location which are important or sensitive for reasons of their ecology e.g. wetlands, watercourses or other waterbodies, the coastal zone, mountains, forests or woodlands, which could be affected by the project?	Yes	Yes Urban vegetation provides habitat corridors for protected species, for example tree lines provide foraging habitat for bats. The Proposed Scheme is likely to have direct and permanent impacts on private property, trees and habitats during construction. It is anticipated that the loss of habitats due to construction could impact on the connectivity of habitats and foraging habitats of protected species.
13. Are there any areas on or around the location which are used by protected, important or sensitive species of fauna or flora e.g. for breeding, nesting, foraging, resting, overwintering, migration, which could be affected by the project?	Yes	Yes – as per above.
14. Are there any inland, coastal, marine or underground waters (or features of the marine environment) on or around the location that could be affected by the project?	Yes	Yes The Proposed Scheme is within proximity of a number of watercourses (such as the River Liffey). There are a number of EU Designated sites downstream of the Proposed Scheme.
15. Are there any areas or features of high landscape or scenic value on or around the location which could be affected by the project?	Yes	Yes Significant townscape and visual effects are likely due to general construction activity, impacts on property boundaries, traffic diversions and streetscape disturbance. During operation, the Proposed Scheme is anticipated to alter townscape and visual amenity due to the new features within the streetscape, changes in traffic flows, lighting, signage, new

Brief Project Description Refer to Description of Likely Significant Effects (Section 5)	Yes/ No	Is this Likely to Result in a Significant Effect? Yes / No / Unknown
		boundaries and landscape planting treatments. Significant effects on public realm are likely due to changes in the layout and the character of areas.
16. Are there any routes or facilities on or around the location which are used by the public for access to recreation or other facilities, which could be affected by the project?	Yes	Yes During construction there may be a need to divert traffic and during operation the scheme may give rise to changes in traffic patterns which may affect how people undertake their journeys when travelling by car.
17. Are there any transport routes on or around the location which are susceptible to congestion or which cause environmental problems, which could be affected by the project?	Yes	Yes Congestion is one of the most significant challenges facing the Dublin region and needs to be addressed to safeguard the growth of the Dublin region and keep people moving. The intention for BusConnects Dublin – Core Bus Corridor Infrastructure Works (which includes the Proposed Scheme), is to develop continuous bus priority, safe segregated cycling infrastructure to relieve congestion. During operation there may be changes in traffic patterns as a result of the Proposed Scheme, which may change how people take car journeys.
18. Is the project in a location where it is likely to be highly visible to many people?	Yes	Yes Significant townscape and visual effects are likely due to general construction activity, impacts on property boundaries, traffic diversions and streetscape disturbance. During operation, the Proposed Scheme is anticipated to alter townscape and visual amenity due to the new features within the streetscape, changes in traffic flows, lighting, signage, new boundaries and landscape planting treatments. Significant effects on public realm are likely due to changes in the layout and the character of areas.
19. Are there any areas or features of historic or cultural importance on or around the location which could be affected by the project?	Yes	Yes The Proposed Scheme will traverse an area which may include protected structures, national monuments, sites of archaeological and cultural heritage merit, archaeological conservation areas and conservation areas.
20. Is the project located in a previously undeveloped area where there will be loss of greenfield land?	Yes	No The Proposed Scheme is not located in a previously undeveloped area where there will be loss of greenfield land.
21. Are there existing land uses on or around the location e.g. homes, gardens, other private property, industry, commerce, recreation, public open space, community facilities, agriculture, forestry, tourism, mining or quarrying which could be affected by the project?	Yes	Yes The Proposed Scheme will require land take adjacent to Hermitage Golf Club, along the Old Lucan Road and from a small number of other commercial properties/ public land.
22. Are there any plans for future land uses on or around the location which could be affected by the project?	Yes	No By improving access to sustainable transport options and improved connectivity with Dublin City Centre, indirect impacts on land use during operation are considered to be beneficial. For example, where the Proposed Scheme improves access to areas zoned for future development.
23. Are there any areas on or around the location which are densely populated or built-up, which could be affected by the project?	Yes	Yes The Proposed Scheme is located in a densely populated urban area – in Dublin City. Significant temporary effects on noise, vibration and air quality are considered likely during construction and when the Proposed Scheme is considered in combination with other development projects.

Brief Project Description Refer to Description of Likely Significant Effects (Section 5)	Yes/ No	Is this Likely to Result in a Significant Effect? Yes / No / Unknown
24. Are there any areas on or around the location which are occupied by sensitive land uses e.g. hospitals, schools, places of worship, community facilities, which could be affected by the project?	Yes	Yes The Proposed Scheme is located in a densely populated urban area – in Dublin City and therefore may pass by sensitive land uses like schools and community facilities.
25. Are there any areas on or around the location which contain important, high quality or scarce resources e.g. groundwater, surface waters, forestry, agriculture, fisheries, tourism, minerals, which could be affected by the project?	Yes	Yes The Proposed Scheme is located in an urban area. adjacent to Hermitage Golf Club, along the Old Lucan Road and from a small number of other commercial properties/ public land. There may be direct and indirect effects as a result of the Proposed Scheme.
26. Are there any areas on or around the location which are already subject to pollution or environmental damage e.g. where existing legal environmental standards are exceeded, which could be affected by the project?	Yes	Unknown The Proposed Scheme is located in an urbanised area. There is the potential that areas within and adjacent to the Proposed Scheme may be subject to pollution from existing or historic land uses.
27. Is the project location susceptible to earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions e.g. temperature inversions, fogs, severe winds, which could cause the project to present environmental problems?	No	No OPW mapping indicates low risk of coastal and fluvial flooding.

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