





DART+ West

Iarnród Éireann

Option Selection Report

Volume 2: Technical Report

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Glossary

Abbreviation	Meaning					
BRT	Bus Rapid Transit					
CIÉ	Córas Iompair Éireann					
CRR	Commission for Railway Regulation					
DART	Dublin Area Rapid Transit (IÉ's Electrified Network)					
DCDP	Dublin City Development Plan					
DTTAS	Department of Transport, Tourism and Sport					
DU	DART Underground					
EMRA	Eastern and Midland Regional Assembly					
GDA	Greater Dublin Area					
GHG	Greenhouse gas					
GSWR	Great Southern & Western Railway					
IÉ/IR	larnród Éireann / Irish Rail					
KCDP	Kildare County Development Plan					
LAP	Local Area Plan					
MASP	Metropolitan Area Strategic Plan					
MCA	Multi-Criteria Analysis					
MDC	Multi-Disciplinary Consultant (i.e. IDOM)					
MGWR	Midlands Great Western Railway					
NAPSI	National Action Plan for Social Inclusion					
NDP	National Development Plan 2018–2027					
NHA	Natural Heritage Area					
NIAH	National Inventory of Architectural Heritage					
NMI	National Museum of Ireland					
NPF	National Planning Framework					
NSO	National Strategic Outcomes					
NTA	National Transport Authority					
PLUTO	Planning Land Use and Transport Outlook 2040					
pNHA	proposed Natural Heritage Area					
PPT	Phoenix Park Tunnel					
QBC	Quality Bus Corridor					
RO	Railway Order					
RPG	Regional Planning Guidelines					
RPS	Record of Protected Structures					
RRV	Rail Road Vehicles					
RSES	Regional Spatial and Economic Strategy					
SDRA	Strategic Development and Regeneration Area					



Abbreviation	Meaning				
SDZ	Strategic Development Zone				
SIFLT	Strategic Investment Framework for Land Transport				
SMR	Sites and Monuments Record				
SPA	Special Protection Area				
TII	Transport Infrastructure Ireland				
TOD	Transit Oriented Development				
WHO	World Health Organisation				



1. Review of Planning and Policy Documents

1.1 Policy Context

The DART+ Programme is central to the delivery of planning and transportation policy objectives at EU, national, regional and local level. The policy hierarchy and some of the relevant policy documents are listed in Table 1-1.

Table 1-1 Planning and Policy documents

EU Level

EU White Paper on Transport: Roadmap to a single European Transport Area - Towards a competitive and resource efficient transport system

National Level

Project Ireland 2040: National Planning Framework – Ireland, Our Plan 2040, and;

National Development Plan 2018-027

Smarter Travel: A Sustainable Transport Future; 2009-2020

Strategic Investment Framework for Land Transport (SIFLT)

Planning Land Use and Transport Outlook 2040 (PLUTO)

National Mitigation Plan 2017

Climate Action Plan 2019

Regional Level

Eastern and Midland Regional Spatial and Economic Strategy 2019-2031

Transport Strategy for the Greater Dublin Area 2016-2035

Greater Dublin Area Cycle Network Plan

Integrated Implementation Plan 2019-2024

Local Level

Dublin City Development Plan 2016–2022 (under review)

North Lotts and Grand Canal Dock SDZ Planning Scheme 2014

Ashtown-Pelletstown Local Area Plan 2014

Fingal County Development Plan 2017 – 2023

Hansfield Strategic Development Zone Planning Scheme 2006

Barnhill Local Area Plan 2018

Kellystown Local Area Plan 2020

Kildare County Development Plan 2017 - 2023

Maynooth Local Area Plan 2013-2019

Kilcock Local Area Plan 2015-2021

Leixlip Local Area Plan 2020-2023



Local Level

Collinstown Local Area Plan 2010

Meath County Development Plan 2013- 2019

Dunboyne, Clonee & Pace Local Area Plan 2009 - 2015

A review of these policy documents has been undertaken from the perspective of the project. The detail of the review is presented in the subsequent sections of this Document.

1.2 EU Policy

1.2.1 EU White Paper on Transport: Roadmap to a single European Transport Area - Towards a competitive and resource efficient transport system

In 2011, the European Commission adopted the White Paper Roadmap to a Single European Transport Area - Towards a competitive and resource efficient transport system in the context of the Union's 2020 growth strategy. The vision of the White Paper spans four decades, up to 2050, but also sets earlier goals for 2020 and 2030. The Commission's vision for a competitive and sustainable transport system involves transport that uses cleaner energy, better exploitation of modern infrastructure and a reduction in its negative impact on the environment.

The strategy defines ten goals designed to guide actions and measure progress to achieve a 60% reduction in CO₂ emissions and comparable reduction in oil dependency. Goals to which the DART+ Programme is aligned:

- 1. Halve the use of 'conventionally fuelled' cars in urban transport by 2030; phase them out in cities by 2050; achieve essentially CO₂ free city logistics in major urban centres by 2030.
- 4. By 2050, complete a European high-speed rail network. Triple the length of the existing high-speed rail network by 2030 and maintain a dense railway network in all Member States. By 2050 the majority of medium-distance passenger transport should go by rail

1.3 National Policy

1.3.1 Project Ireland 2040

Project Ireland 2040 was launched in February 2018 and comprises the National Planning Framework, Our Plan 2040, the National Development Plan 2018 – 2027. Project 2040 is a long-term overarching strategy which aligns investment decisions with a clearly defined development strategy and ten National Strategic Outcomes (NSO), as shown in Figure 1-1.

1.3.1.1 National Planning Framework 2040

The National Planning Framework (NPF) will guide development and exchequer investment up to 2040. It is a blueprint to guide public and private investments to promote and enhance opportunities and infrastructure for an increasing population and sets out the development principles that subsequent plans must follow. The Framework provides each region with a set of objectives and key principles from which detailed plans are to be developed.

As one of the ten National Strategic Outcomes identified within the framework, **NSO 4**: Sustainable Mobility is identified as being central to enhancing competitiveness, sustaining economic progress and enabling mobility choices for citizens. This key NSO is supported by the DART+ Programme where under NSO 4, the Framework aims to expand the range of public transport services available and to



reduce congestion and emissions. Under NSO 4 the policy also commits to invest in key transport projects such as the DART+, BusConnects and Metro link.

The DART+ Programme will also support other NSOs identified within the Framework such as **NSO 1**, Compact Growth and **NSO 8**, Transition to a Low Carbon and Climate Resilient Society. NSO 1 identifies the need to deliver a greater proportion of residential development within existing built-up areas and the role that an integrated transport network will play in the regeneration and revitalization of urban areas while NSO 8 includes the electrification of transport fleets as a requirement to support a move away from polluting and carbon intensive propulsion systems.



Figure 1-1 National Strategic Outcomes

The Framework points to an increase in population of one million people from 2016 figures, bringing the total to 5.7 million by 2040; 2.85 million of which will be located within the Eastern and Midlands region. It highlights the impact that this population increase will have on transport along the motorway and railway corridors connecting the region with Dublin, where it is recognised that the provision of a well-functioning, integrated public transport systems is essential to maintain economic development and enhance competitiveness.

1.3.1.2 National Development Plan 2018 – 2027

Project Ireland 2040's National Development Plan 2018–2027 (NDP) is the most recent infrastructure investment plan adopted by the government. The Plan sets out the investment priorities of the State from 2018 to 2027 within the context of a changing demographic, the need for Ireland to move to a low carbon society, Brexit and the sustainable growth opportunities brought about by a growing population. The Plan supports the delivery of Project Ireland 2040 through public capital investment over the next ten years and guides national, regional and local planning and investment decisions in Ireland over the next two decades. The NDP provides government departments with greater visibility of their investment capacity over the term of the Plan. The Plan caters for an increase in population of over 1 million people



by 2040 and identifies €116 billion for investment in capital projects targeted at enhancing regional development and driving economic growth.

Between September 2015 and the publication of the National Development Plan (NDP) in February 2018, larnród Éireann and the NTA worked collaboratively in the assessment of lower cost technical solutions. A number of studies were undertaken including Transport Assessments including the Maynooth Line Transport Study (2019), the DART Expansion Rail Electrification Assessment (2019), the DART Underground Western Tie-In Study (2017) and Tunnel Configuration Study for new Metro North and DART Underground (NTA/IÉ/TII 2017). The outcome of these studies influenced the formulation of the NDP and the decision to proceed with DART Expansion (now DART+ Programme) with non-tunnel elements and to maximise the use of the Phoenix Park Tunnel branch line.

The NDP expands on the objectives of NSO 4, Sustainable Mobility and outlines how increases in passenger demand are to be catered for by a sustainable public transport system significantly less reliant on vehicles. As shown in Figure 1-2 DART+, along with BusConnects and Metrolink, are included in the NDP 2018-27 (under NSO 4) as a major national infrastructure project for appraisal and delivery and has been allocated €2 billion Exchequer funding for the development and delivery of the programme.

The NDP outlines the scope of the DART+ Programme to include investment in new rolling stock, new infrastructure and the electrification of the Sligo line to Maynooth and M3 parkway, the Northern line to Drogheda and the Kildare line to Celbridge/Hazelhatch to create a full metropolitan area DART network with all lines linked and connected as shown in Figure 1-2.





Figure 1-2 NDP Public Transport Network (including DART+)



1.3.2 Smarter Travel: A Sustainable Transport Future 2009-2020 (DTTAS, 2009)

This National Government policy outlines clear targets to:

- Address the current unsustainable transport and travel patterns and to reduce the health and environment impacts of current trends.
- To deliver a sustainable transport system in line with climate change targets.
- Reduce work related commuting by car from a current modal share of 65% down to 45% by 2020.
- Increase commuting by alternative sustainable modes to 55% by 2020.

The document outlines five key goals necessary for achieving sustainability in transport. These are:

- Reduce overall travel demand and commuting distances travelled by car.
- Improve economic competitiveness through maximising the efficiency of the transport network and alleviating congestion and infrastructure bottlenecks.
- Reduce reliance on fossil fuels and thus improve security of energy supply.
- Minimise the negative impacts of transport on the local and global environment by reducing air pollutants and greenhouse gas emissions attributed to travel.
- Improve accessibility to transport and improve quality of life with an emphasis on people with reduced mobility and those experiencing isolation as a result of reduced accessibility.

DART+ West is aligned and supports this National Government policy.

1.3.3 Strategic Investment Framework for Land Transport (SIFLT)

The Department of Transport, Tourism and Sport's (DTTAS) Strategic Investment Framework for Land Transport (2015) lays out the role of transport in the future development of the Irish economy. It estimates the appropriate level of investment in the land transport system and sets out the priorities for the allocation of investment to best develop Irelands land transport network. The Framework considers the objective of transport investment in light of current and projected transport demand and spells out the key issues for policy makers when investing in land transport.

The Framework identifies the rationale for investment in transport networks, citing their role in driving economic growth, and supporting the delivery of economic development objectives by enabling efficiency and competitiveness across the economy. The framework highlights Ireland's obligations regarding the reduction of carbon emissions and identifies the need for radical transformation within the transport sector if the targeted reduction in carbon emissions of 80% by 2050 is to be achieved. The need for investment now is also established by illustrating that the existing land transport systems cannot cater for the projected increases in population and a 35% increase in commuting trips by 2040.

The Framework's priorities outlined below echo the Project Ireland 2040 National Strategic Outcomes (NSOs) and guide investment decisions for transport schemes:

Address Urban Congestion: The need to address urban congestion is prioritised within the Framework to improve the efficiency and sustainability of the urban transport system. This is to be achieved by improving and expanding public transport capacity, the expansion of walking and cycling infrastructure and the wider use of technology within transport systems; and



Maximise the contribution of Land Transport to National Development: Transport systems should aim to enhance the efficiency of the existing network, improve connections to key ports and airports and support national and regional spatial planning priorities.

The DART+'s objectives are aligned with these SIFLT priorities.

1.3.4 National Investment Framework for Transport in Ireland (NIFTI)

In March 2021, the Department of Transport published the draft National Investment Framework for Transport in Ireland (NIFTI). The Framework will be used by the Department for prioritising future investment in land transport network to support of the delivery of the ten National Strategic Outcomes (NSOs) of the National Planning Framework. Through the transport investment priorities identified it will contribute to Ireland's decarbonisation efforts, support vibrant and successful communities, deliver high performing transport systems, and promote a strong and balanced economy.

As part of the future network analysis completed to support investment priorities, NIFTI identifies consistent congestion as an issue in the five major cities in the country: Dublin, Cork, Galway, Limerick, and Waterford. It supports the development of new urban infrastructure supply across the five cities including the development of BusConnects and comprehensive cycle networks, while Dublin will also see heavy rail improvements in the form of DART+ and MetroLink among other things. The continued support of the DART+ programme demonstrates the substantial investment in sustainable mobility being delivered under the National Development Plan 2018-2027.

The future network analysis undertaken to inform NIFTI has reiterated the importance of the DART+ programme for the GDA as it will address existing congestion issues, cater for rising travel demand, and support sustainable public transport options across the GDA. The DART+ programme will also encourage compact growth, transport-orientated development (TOD) and the decarbonisation of the sector to include the purchasing electric powered trains. The project also supports improvements and maximisation of existing transport infrastructure assets.

To address the transport challenges, NIFTI establishes four investment priorities namely:

- 1. Decarbonisation
- 2. Protection and Renewal
- 3. Mobility of People and Goods in Urban Areas, and
- 4. Enhanced Regional and Rural Connectivity

Projects must align with these priorities to be considered for funding. Moreover, as the NSOs are embedded in NIFTI future investment made in accordance with the priorities will support the delivery of the National Planning Framework over the coming decades. The DART+ Programme is fully aligned with these priorities and is supported under the draft NIFTI.

1.3.5 National Mitigation Plan 2017

The National Mitigation Plan was published by the Department of Communications, Climate Action and Environment in 2017 outlined a series of medium and long-term measures to be undertaken to facilitate the transition to a low carbon, climate resilient and environmentally sustainable economy by 2050. However in July 2020 the National Mitigation Plan was quashed by the Supreme Court. The basis for the quashing was that the Plan was non-compliant with the Climate Action and Low Carbon Development Act, 2015 and it lacked the specificity required for appropriate transparency to comply with the Act.

Subsequently, in October 2020, the Government published the draft text of the Climate Action and Low Carbon Development (Amendment) Bill 2020. This Bill commits Ireland to net zero carbon emissions



by 2050 through a 'National 2050 Climate Objective' in which Ireland commits the transition to a climate resilient and climate neutral economy by the end of the year 2050.

The Bill includes the following key elements:

- Establishment of a 2050 emissions target.
- Introduction of a system of successive 5 year, economy wide carbon budgets starting this year.
- Strengthened role of the Climate Change Advisory Council to advise and propose carbon budgets to Government.
- Introduction of a requirement to annually revise the Climate Action Plan and prepare a National Long Term Climate Action Strategy at least every decade.
- Local authorities to prepare individual Climate Action Plans which will include both mitigation and adaptation measures.
- The provision of a stronger oversight role for the Oireachtas through and Oireachtas Committee.

The objectives of the DART+ Programme are aligned with the Bill and will assist Ireland in becoming a climate neutral economy.

1.3.6 Climate Action Plan 2019

The Climate Action Plan published by the Department of Communications, Climate Action and Environment in 2019 includes measures to guide Ireland towards achieving the European Union's net zero greenhouse gas (GHG) emissions target by 2050. These measures are detailed in the roadmaps developed for each public sector with an objective to deliver a cumulative reduction in GHG emissions over the 2021 to 2030 period.

In relation to the Transport sector, the Plan identifies that electrification of transport, namely of private vehicles, bus and rail services is the most cost-effective approach in reducing the sector's GHG emissions. Concerning the rail network, this is reflected in the following Actions:

Action Number 92 "Commence the transition to hybrid trains to allow extended electrification of rail services"

Action Number 93 "Extend the Dublin area railway electrification for the Maynooth Line (to Maynooth), Kildare Line (to Celbridge), and Northern Line (to Drogheda)"

In March 2021, the Government published the Climate Action and Low Carbon Development (Amendment) Bill 2021 whereby the Bill has been informed by and strongly reflects the provisions set out in the 2019 Climate Action Plan. The Bill contains a National Climate Objective which commits the county to pursue and achieve no later than 2050, the transition to a climate resilient, biodiversity-rich, environmentally-sustainable and climate neutral economy.

DART+ Programme aligns with and supports the Climate Action Plan.

¹ https://www.gov.ie/en/publication/984d2-climate-action-and-low-carbon-development-amendment-bill-2020/



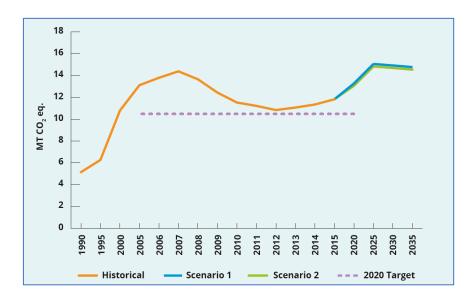


Figure 1-3 Projections of greenhouse gas emissions from the transport sector²

1.4 Regional Policy

1.4.1 Eastern and Midland Regional Spatial and Economic Strategy 2019 – 2031

The Eastern and Midland Regional Assembly's (EMRA) 2019 Regional Spatial and Economic Strategy (RSES) provides regional specific policy objectives for the Midlands, Eastern and Dublin regions. The RSES address the implementation of Project Ireland 2040 at the regional level. It considers spatial and economic factors which relate to the future of the region and ensures that employment opportunities, services, ease of travel and the overall wellbeing of citizens is being addressed. The Strategy highlights the DART+ and its role in the consolidation of Dublin City and the regeneration of locations such as Dublin Docklands and Poolbeg. Along the North-West corridor, the DART+ West to Maynooth will enhance rail services on the Dublin - Sligo line. The RSES also emphasizes the role of DART+ in increasing capacity to support the ongoing development of lands adjacent to the line at Leixlip and Maynooth. Eastern and Midlands RSES supports the project through Regional Policy Objective RPO 8.8 "The RSES supports delivery of the rail projects set out in Table 8.2, subject to the outcome of appropriate environmental assessment and the planning process". The DART+ Programme is listed as one of the rail projects in Table 8.2 "DART Expansion Programme - new infrastructure and electrification of existing lines, including provision of electrified services to Drogheda or further north on the Northern Line, Celbridge-Hazelhatch or further south on the Kildare Line, Maynooth and M3 Parkway on the Maynooth/ Sligo Line, while continuing to provide DART services on the South-Eastern Line as far south as Greystones".

The Strategy highlights the importance of provision of enabling infrastructure for growth in Maynooth, identifying that the "DART+ project and proposed electrification of the rail line to Maynooth represents a significant opportunity for sequential growth in Maynooth".

² Source, EPA



Dublin Metropolitan Area Strategic Plan (MASP)

The requirement for the development of MASP for Dublin City as part of the RSES is outlined in Project Ireland 2040. The objectives of the MASP are complementary to the objectives of the RSES. Strategy requires the development of the Dublin MASP and include the management of sustainable and compact growth of Dublin City and better use of under used lands. One of the Guiding Principles for the growth of the Dublin MASP is **Integrated Transport and Land use** which includes the following:

The MASP contains a number of objectives for the Dublin Metropolitan Area, including Sustainable Transport Objective to include:

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

To focus growth along existing and proposed high quality public transport corridors and nodes on the expanding public transport network and to support the delivery and integration of 'BusConnects', DART expansion and LUAS extension programmes, and Metro Link, while maintaining the capacity and safety of strategic transport networks.

The priorities of the Eastern and Midland RSES align with and support the DART+.

1.4.2 Transport Strategy for the Greater Dublin Area 2016 – 2035

This document published by the National Transport Authority (NTA) lays out the transport strategy for the Greater Dublin Area (GDA) up to 2035. The Strategy which was adopted by Government and is now Government Policy is modally balanced and designed to cater for the future needs of the Greater Dublin Area and enable people to move efficiently around the Dublin region. It integrates short, medium and long-term plans for rail, bus, cycling, walking and roads as shown in Figure 1-4 it sets out the transport provisions necessary to 'contribute to the economic, social and cultural progress of the GDA by providing for the efficient, effective and sustainable movement of people and goods."





Figure 1-4 NTA Multi modal Transport Strategy for Greater Dublin Area

In developing the Strategy, the NTA have considered alternative options for the provision of transport services along the six radial corridors into Dublin and found heavy rail to be the most appropriate solution to meet the transport needs of the high-density population centres across several of the corridors identified. Consequently, with regards to Heavy Rail Infrastructure the Strategy intends to:

- Implement the DART Expansion Programme, which will provide DART services as far north as Drogheda; to Hazelhatch on the Kildare Line (including a tunnel connection from the Kildare Line to link with the Northern / South-Eastern Line); to Maynooth in the west and to the M3 Parkway.
- Develop a new train control centre to manage the operation of the rail network.
- Construct additional train stations in developing areas with sufficient demand.
- Implement a programme of station upgrades and enhancement.
- Ensure an appropriate level of train fleet, of an appropriate standard, to operate on the rail network.

The Strategy also outlines its objectives for Transport Services and Integration, including bus and rail services, in relation to the rail service, the Strategy proposes the following:

The DART services will operate to a high frequency with adequate capacity to cater for the passenger demand. It is anticipated that DART services in the city centre section of the network will operate to a regular ten minute service frequency in the peak hours from 2016 and will transition to a five minute service frequency following the completion of the DART Expansion Programme.

The objectives of the Transport Strategy for the GDA align with and support the DART+ Programme.

The GDA Transport strategy includes objectives in respect of specific modes of transport. A selection of pertinent objectives is included below:

• 5.7 Walking: Provide a safer, more comfortable and more convenient walking environment for those with mobility, visual and hearing impairments, and for those using buggies and prams.



- 5.7 Walking: Revise road junction layouts, where appropriate, to provide dedicated pedestrian crossings, reduce pedestrian crossing distances, provide more direct pedestrian routes, and reduce the speed of turning traffic.
- 5.7 Walking: Ensure that permeability and accessibility of public transport stops and stations for local communities is maintained and enhanced.
- 5.8.2 Regional and Local Roads: Enhance orbital movement, outside of the M50 C-Ring, between the N3, the N4 and N7 national roads, by the widening of existing roads and the development of new road links.
- 5.8.2 Regional and Local Roads: Develop appropriate road links to service development areas.
- 5.8.2 Regional and Local Roads: Enhance pedestrian and cycle safety through the provision of safer road junctions, improved pedestrian crossing facilities and the incorporation of appropriate cycle measures including signalised crossings where necessary.
- 5.8.3 Principals of Road Development: There will be no significant increase in road capacity for private vehicles on radial roads inside the M50 motorway.
- 5.8.3 Principals of Road Development: That the road scheme, other than a motorway or an express road proposal, will be designed to provide safe and appropriate arrangements to facilitate walking, cycling and public transport provision.

1.4.3 Greater Dublin Area Cycle Network Plan

The Greater Dublin Area Cycle Network Plan sets out a 10-year strategy to expand the urban cycle network from 500 km to 2,480 km. The overarching ambition of the scheme is, by 2021, to increase the numbers who commute by bike to be the same amount as those who commute by bus.

The network will consist of a series of primary, secondary and feeder routes as well as greenways routes. These routes will comprise of a mix of cycle tracks and lanes, cycleways and infrastructure-free cycle routes in low traffic environments. To compliment the investment in the cycle network, the cycle network plans also provide for:

- The expansion of the bike share scheme in Dublin City and the introduction of similar schemes across the Greater Dublin Area.
- The implementation of a comprehensive cycle route signage programme in conjunction with the development of the cycle network.

The proposed network of primary, secondary and greenway routes that will help support cycling in the vicinity of the study area is shown on the Figure 1-5.

The Plan includes the development of the Royal Canal Greenway route. The Sligo line is immediately parallel to the Royal Canal extending from Dublin city centre to Maynooth. The canal towpath is paved from North Strand Road as far as Ashtown, with a good quality gravel surface from there to Blanchardstown. This path is in use by cyclists as a de facto cycleway at present. A number of design studies are underway to develop a high-quality cycle track along the canal westward to Maynooth, as the Royal Canal Urban Greenway emerging preferred route which was presented at the Non statutory Public Consultation held in March 2019.



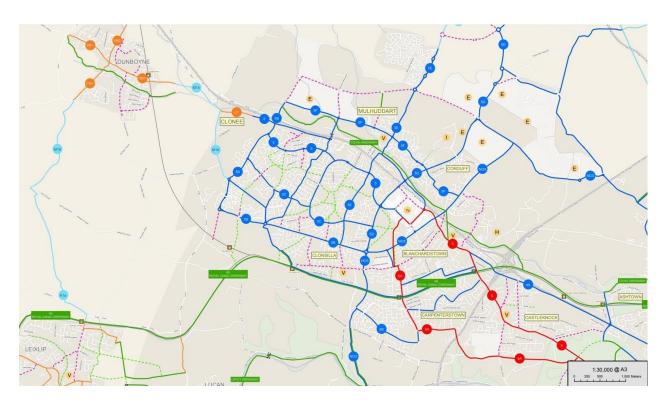


Figure 1-5 Greater Dublin Area Cycle Network Plan

1.4.4 Integrated Implementation Plan 2019-2024

The NTA's Integrated Implementation Plan 2019-2024 (currently in draft) supports the delivery of the Transport Strategy for the Greater Dublin Area 2016-2035 and is aligned with the objectives of the NDP. The Plan sets out the central infrastructure investment programme and overall funding provision over the six-year period. It identifies the key investment areas with respect to bus, light rail, heavy rail and integration and sustainable transport investment.

The Plan provides further detail on the sequencing and allocation of the €4.6b available to the NTA across Bus, Light Rail, Metro and Heavy Rail projects up to 2024. Table 1-2 shows the expenditure profile for heavy rail projects which includes the DART+ Programme and other heavy rail projects such as City Centre Re-signalling, the National Train Control Centre and fleet and other network developments.

Table 1-2 Expenditure profile for heavy rail projects

	2019	2020	2021	2022	2023	2024	Total
Heavy Rail investment (€m)	67.7	108.0	167.0	166.0	225.8	315.0	1,049.5

1.5 Local Policy

1.5.1 Dublin City Development Plan 2016–2022

The Dublin City Development Plan (CDP) provides an integrated, coherent spatial framework to ensure Dublin City is developed in an inclusive way which improves the quality of life for its citizens, while also being a more attractive place to visit and work. The Dublin CDP remit includes the areas between the Docklands and Ashtown level crossing.



The main policies and objectives stated in the Development Plan which are of specific relevance to the DART+ Programme:

Policy MT1: To support the sustainability principles set out in The National Transport Authority's Transport Strategy for the Greater Dublin Area

Policy MT4: To promote and facilitate the provision of Metro, all heavy elements of the DART Expansion Programme including DART Underground (rail interconnector), the electrification of existing lines, the expansion of Luas, and improvements to the bus network in order to achieve strategic transport objectives.

Policy MT3: To support and facilitate the development of an integrated public transport network with efficient interchange between transport modes, serving the existing and future needs of the city in association with relevant transport providers, agencies and stakeholders.

Policy MTO5: (i) To facilitate and support measures proposed by transport agencies to enhance capacity on existing public transport lines and services, to provide/improve interchange facilities and provide new infrastructure.

Policy MT6: (i) To work with larnród Eireann, the NTA, Transport Infrastructure Ireland (TII) and other operators to progress a coordinated approach to improving the rail network, integrated with other public transport modes to ensure maximum public benefit and promoting sustainable transport and improved connectivity.

Policy MT6: (ii) Subject to a station layout assessment, to promote the re-instatement of station entrance at Amiens Street/Buckingham Street Junction.

The current Dublin City Development Plan is currently under review. A central policy tenant in the forthcoming plan will be Transit Oriented Development (TOD) which DART+ West would support.

North Lotts and Grand Canal Dock SDZ 2014

Dublin City Council successfully prepared and adopted a SDZ Scheme for the Docklands area of North Lotts and Grand Canal Dock in 2014. The Docklands Station is located with the SDZ. The main objectives within the North Lotts and Grand Dock SDZ that support the DART+ Programme include:

MV1: To continue to promote the modal shift from private car use towards increased use of more sustainable forms of transport such as cycling, walking and public transport and to implement the initiatives contained in the Government's 'Smarter Travel, A Sustainable Transport Future 2009-2020'

MV2: To support and facilitate the development of an integrated public transport network with efficient interchange between transport nodes, to serve the existing and future needs of all ages in association with relevant transport providers, agencies and stakeholders and to facilitate the integration of walking and cycling with public transport.

MV10: To promote best practice mobility management and travel planning to balance car use to capacity and provide for necessary mobility via sustainable transport nodes.

MV16: To support and facilitate the reservation strip as shown in City Blocks 2 & 7 for the provision of the DART Underground Station. All proposals within the zone of influences will demonstrate to IE how



the proposal relates to the DART Underground design. In the interim period until DART underground is in place, temporary uses and/or pavilion structures will be considered on a short term basis, subject with the DART Underground Office.

CD14: To promote the development of street infrastructure, walking and cycling routes and public transport routes to enhance connections between residential areas and the community facilities that exist in the wider neighbourhood.

Section 4.4.4.1 of the North Lotts and Grand Dock SDZ states 'works for the provision of new public transport, or in the furtherance of existing or permitted public transport, shall be considered on their merits, in accordance with the policies and objectives of the Dublin City Development Plan'

Ashtown-Pelletstown Local Area Plan (January 2014)

The Ashtown - Pelletstown Local Area Plan (LAP) relates to the lands positioned south of the River Tolka and North of the Royal Canal within the administrative boundary of Dublin City Council. The lands of the LAP are immediately north of the existing Ashtown level crossing and train station.

The vision for Ashtown-Pelletstown LAP area is "The creation of a sustainable living and working environment with a strong urban identity, anchored by mixed-use supporting hubs and benefitting from both good permeability and quality public transport options. The area shall be characterised by a vibrant social mix, reflected in a variety of housing options and community facilities/amenities, well integrated with the wider city via improved infrastructure and green infrastructure".

The LAP Objectives that support to this study:

MA1: To improve accessibility throughout the plan area, facilitate the completion of hierarchical road infrastructure network, and encourage links to existing and proposed public transport nodes both within and beyond the LAP boundary.

MA3: To promote increased cycling and pedestrian activity through the development of a network of routes that connect to public transport routes, centres of employment, amenities and community and retail destinations.

MAO7: To encourage and facilitate, in cooperation with Fingal County Council and larnród Éireann, the replacement of the existing manually operated rail level crossing at Ashtown Road, with suitably designed alternative. The eventual design shall have regard to both existing and proposed developments in the immediate vicinity of the plan area and provide for high quality pedestrian and cycle facilities linking with existing and proposed pedestrian cycle networks both within and surrounding the LAP area.

1.5.2 Fingal Development Plan 2017-2023

The Fingal Development Plan (FDP) 2017-2023 policy remit in the context of this project includes the areas from the Ashtown level crossing west to Leixlip. The delivery of DART+ is recognised as a strategic aim of the Plan.

Strategic Aim 15: Seek the development of a high quality public transport system throughout the County and linking to adjoining counties, including the development of the indicative route for New Metro North and Light Rail Corridor, improvements to railway infrastructure including the DART



Expansion Programme, Quality Bus Corridors (QBCs) and Bus Rapid Transit (BRT) systems, together with enhanced facilities for walking and cycling.

Improving transport within Fingal is recognised as key to the future economic, social and physical development of Fingal. The Fingal Development Plan supports the project through the following objectives:

MT30: Support larnród Éireann and the NTA in implementing the DART+ Programme, including the extension of the DART line to Balbriggan, the design and planning for the expansion of DART services to Maynooth and the redesign of the DART Underground.

MT31: Design and implement measures, having regard to potential environmental impacts, to mitigate the increased congestion on the local road network caused by more frequent closures of the existing level crossings on the Maynooth Line. Ensure that well in advance of any such measures being taken, extensive direct consultation is undertaken with local communities and residents who would be directly impacted by such measures.

MT28: Facilitate, encourage and promote high quality interchange facilities at public transport nodes throughout the County.

The land use zoning objectives for the Ashtown, Coolmine, Porterstown Clonsilla and Barberstown level crossings are set down on Sheet 13, Blanchardstown South.

Relevant aims of the Plan relating to transport are as follows:

- Incorporating sustainable development, climate change mitigation and adaptation, social inclusion, high quality design and resilience are fundamental principles that underpin the Development Plan.
- To promote an appropriate balance of development across the County, by developing a hierarchy of high quality, vibrant urban centres and clearly delineated areas of growth, and favouring expansion in areas nearest to existing or planned public transport nodes.
- To promote and facilitate movement to, from, and within the County of Fingal, by integrating land use with a high quality, sustainable transport system that prioritises walking, cycling and public transport.
- To provide an appropriate level of safe road infrastructure and traffic management, in particular to support commercial and industrial activity and new development.
- To work with all relevant stakeholders to seek a reduction in greenhouse gas emissions from transport.

1.5.2.1 Hansfield Strategic Development Zone Planning Scheme 2006

The Hansfield Strategic Development Zone (SDZ) Planning Scheme comprises approximately 80.74 hectares of land in south west Blanchardstown close to the county boundary with County Meath.

The SDZ Planning Scheme was approved by An Bord Pleanála in April 2006 and a number of residential units are occupied. The site is currently active with residential units under construction namely in Zones 1, 2, 4 & 6.



The Transport Strategy for the SDZ included the opening of the old Navan Line. The first phase of the proposed railway linking Navan to Dublin opened in September 2010. Over 25 trains each way per day now run between the new M3 Parkway Station, Dunboyne and Dublin city centre. Part of the strategic infrastructure within the SDZ was to provide a new train station within the SDZ lands, and Hansfield train station was opened in 2013.

In addition, pedestrian/cyclist connection to Clonsilla Train Station will be provided as part of the SDZ strategy. Figure 1-6 illustrates the extent of the SDZ lands. The Hansfield SDZ lands are adjacent to the Barnhill LAP area.

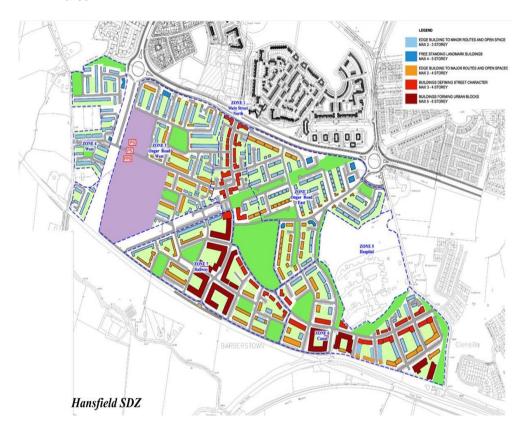


Figure 1-6 Hansfield Strategic Development Zone Boundary Area

1.5.2.2 Barnhill Local Area Plan 2018

The Barnhill LAP comprises 45.64 hectares of greenfield lands, illustrated in Figure 1-7. The designated area is located approximately 3 km from Blanchardstown Town Centre, situated directly south of the Dunboyne to Clonsilla rail Line, west of the Royal Canal and the Dublin - Maynooth Railway Line, and east of the R149.

The Vision for Barnhill is to create a place to live that is appealing, distinctive and sustainable, maximising the opportunities provided by the surrounding natural environment for biodiversity and improved amenities. It is envisaged that Barnhill will develop as a sustainable community comprised of new homes, community, leisure and educational facilities based around an identifiable and accessible new local centre which will form the heart of the area.

Key aims of the LAP Movement and Transport Strategy are:



- Improve accessibility and maximise public transport use, taking account of the land's location adjoining Hansfield train station.
- Encourage use of sustainable transport options. Walking and cycling shall be encouraged, particularly for shorter trips.
- Prioritise planned infrastructure that supports public transport, and ensures the land use strategy is informed by, and integrated with transportation objectives.
- Seek the interconnection of walking and cycling routes with key public transport and amenity destinations (both existing and planned).
- Encourage sustainable densities of population, such that public transport is supported and sustained, and walking and cycle routes are kept active.

In order to provide for a coherent sustainable movement and transport strategy, and to maximise development capacity within the LAP lands, it is required to deliver the necessary extension of the Ongar-Barnhill road with provision of a new bridge over the Dunboyne (Pace) – Clonsilla rail line and provision of a new junction with the existing road network. This will connect the Ongar road to the existing Clonee-Lucan road (R149).



Figure 1-7 Barnhill LAP Movement Network

1.5.2.3 Kellystown Local Area Plan 2020

The Kellystown LAP was approved by Fingal County Council in January 2021. The Kellystown lands, outlined in Figure 1-8, are situated directly south of the Royal Canal and the Dublin-Maynooth Railway Line, and between Diswellstown Road to the east and Clonsilla Road (R121) to the west.

The LAP lands extends to circa. 56.4 ha (0.4 ha occupied by roads) and will provide a statutory framework for the proper planning and sustainable development of the area.



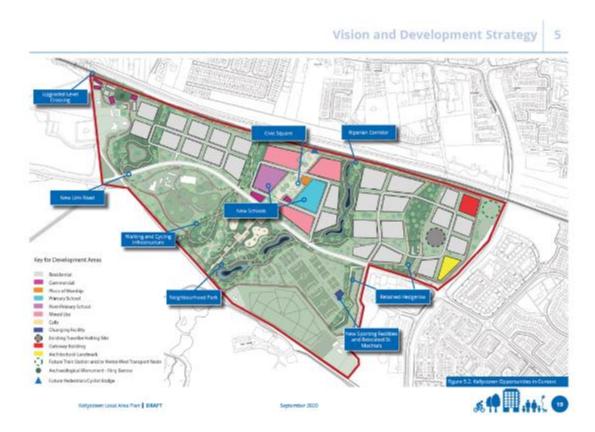


Figure 1-8 Kellystown LAP Vision and Development Strategy (Source: Draft Kellystown LAP 2020)

The LAP makes reference to the DART+ West proposals and recognises the intention to close Clonsilla and Porterstown level crossings. The LAP supports public transport and increased levels of pedestrian and cyclist movement within and around the area which DART+ West would facilitate.

The following local objectives from the Fingal Development Plan 2017-2023 are also applicable to the LAP lands:

Relevant to the Clonsilla level crossing is Local Objective 130: Prepare a feasibility study on the location of a road bridge, crossing the Royal Canal and the Dublin/Maynooth railway, connecting north to the Ongar road. This location shall be determined in advance of, or as part of the adoption of the Local Area Plan for lands at Kellystown.

The Chief Executive Report³ makes the following recommendation for the Final LAP:-

To fulfil the requirement of Objective 130, the Planning Authority as part of an examination of proposals for Kellystown Road, has undertaken a two-stage options assessment to determine the preferred route. This included the preparation of a Stage 1 Route Options phase which identified a do-nothing option together with nine alternative route options. The emerging preferred route- Option 3 providing for a crossing of the Royal Canal and the Dublin Maynooth Rail line at Barberstown provides the optimum

³ Chief Executive's Report, Draft Kellystown Local Area Plan, Fingal County Council (https://consult.fingal.ie/en/consultation/draft-local-area-plan-kellystown-dublin-15)



location for the required road bridge and an appropriate link with approved strategic road infrastructure - Barnhill Ongar road which will serve the developing areas of Barnhill and Hansfield SDZ as well as the wider hinterland.

Local Objective 137: Preserve the existing pedestrian and vehicular right of way at the level crossing at Porterstown. The CE Report states that "it should be noted that transport and movement strategy of the LAP is not predicated on the closure of this crossing to vehicular traffic."

Local Objective 144: Protect the rural character and setting of the Luttrellstown Road and enhance its use for pedestrians and cyclists.

1.5.3 Kildare County Development Plan 2017-2023

The Kildare County Development Plan (KCDP) sets out an overall strategy for the proper planning and sustainable development of the functional area of County Kildare, over the period 2017-2023 and beyond. In the context of the DART+ Programme the KCDP relates to the areas from Leixlip extending west to the proposed Depot west of Maynooth.

The main policies and objectives stated in the County Development Plan which are of specific relevance to the DART+ Programme include:

- **PT 1**: Promote the sustainable development of the county by supporting and guiding national agencies including the National Transport Authority in delivering major improvements to the public transport network and to encourage public transport providers to provide an attractive and convenient alternative to the car.
- PT 2: Generate additional demand for public transport services by strengthening development around existing and planned high capacity transport routes and interchanges throughout the county.
- **PTO 3**: Support the delivery of the NTA's Greater Dublin Area Transport Strategy (2016-2035) in Kildare.
- **PTO 5**: Investigate, in co-operation with Irish Rail and the National Transport Authority, the provision of new railway stations in the county and the upgrading/relocation of existing stations, to rectify existing constraints in the network.
- **PTO 7**: Promote and support the upgrading of the Maynooth rail line and the Kildare rail line, in accordance with the Transport Strategy for the Greater Dublin Area 2016-2035 and in co-operation with the NTA.

1.5.3.1 Kilcock Local Area Plan 2015-2021

The Kilcock Local Area Plan development boundary is located out of the development boundary immediately west of the proposed Depot location. The main policy and objectives stated in the LAP which would be are applicable to the DART+ Programme include:

- MT1: To support the sustainability principles set out in the National Spatial Strategy, The Regional Planning Guidelines for the Greater Dublin Area, Government's 'Smarter Travel, A Sustainable Transport Future 2009-2020' and the National Transport Authority's 'A Platform for Change', the Integrated Implementation Plan for Transport in the GDA and the Authorities Draft Transportation Strategy for the Greater Dublin Area (2011-2030) and to ensure that land use and zoning are fully integrated with the provision and development of a comprehensive, sustainable and efficient transportation network that accommodates the movement needs of Kilcock and the region.
- **MTO2:** To maximise the use of public transport infrastructure, walking and cycling and minimise car dependence.



1.5.3.2 Leixlip Local Area Plan 2020-2023

The existing Blakestown level crossing is located within the Leixlip LAP.

The LAP supports the proposed DART+ Programme through objective *MT2.2* To support and facilitate the delivery of electrification and upgrading of the Dublin – Sligo rail line from Connolly Station to Maynooth, including improvements to Cope Bridge." and recognises the requirement for the removal of level crossings and re-signalling works.

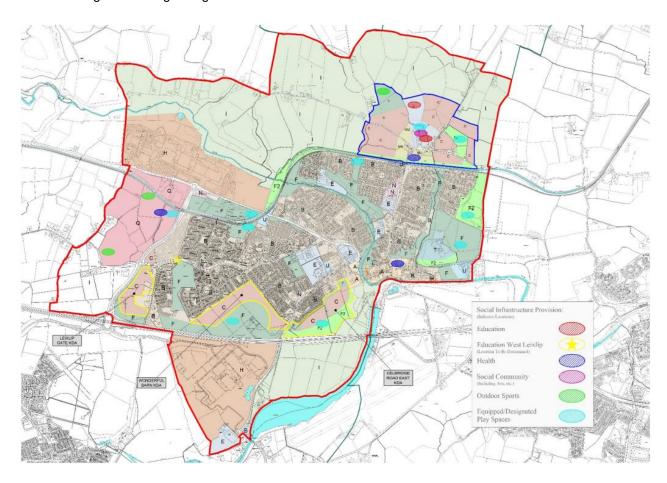


Figure 1-9 Leixlip LAP Land use Zoning (Source: LAP 2017-2023)

Section 8.2 of the LAP (Public Transport) states "The DART Expansion Programme is a key project in the delivery of an integrated rail transport network for the Dublin region and includes the electrification of the Dublin-Sligo rail line from Connolly Station to Maynooth, together with the removal of level crossings and re-signalling". It recognises that the realisation of this project will improve the number and frequency of train services in addition to improving journey times.

1.5.4 Meath County Development Plan 2013- 2019

The relevant policies contained in the Meath County Development Plan 2013- 2019 include the followings:

TRAN POL 6: To promote, facilitate and advance the development of Phase II of the Navan railway line project and rail services in co-operation with other relevant agencies.



TRAN POL 7: To support the improvement of existing rail transport infrastructure including the Dublin/Sligo route with increased suburban services to Enfield and Kilcock, the existing Dublin – Drogheda rail service which serves the urban settlements of Laytown and Gormonston and to seek to have the proposed electrification of this rail line extended to Drogheda.

1.5.4.1 Draft Meath County Development Plan 2020-2026

At the time of writing the draft Meath County Development Plan is currently at Stage two of the plan preparation process. The draft Plan supports the project through policy:

MOV POL 9 "To support the DART expansion Programme including new infrastructure and electrification of existing lines, including provision of electrified services to Drogheda, Maynooth and M3 Parkway on the Maynooth/Sligo Line and on the Dublin-Belfast/Northern Rail Line"

MOV OBJ 2 "To improve, in conjunction with the NTA and Irish Rail, facilities at existing stations"

The draft Plan also recognises the higher-level planning and transportation policy remit (e.g. Regional Spatial and Economic Strategy 209-2031) and references support for these policies (RPO 8.8) that relate to the delivery of this project which states: "The RSES 2019-2031 supports delivery of the rail projects set out in Table 8.2, subject to the outcome of appropriate environmental assessment and the planning process."

These projects include:

- Implement the extension of the Dunboyne/M3 Parkway line to Navan during the Mid Term Review of the GDA Transport Strategy;
- DART expansion Programme new infrastructure and electrification of existing lines, including provision of electrified services to Drogheda, Maynooth and M3 Parkway on the Maynooth/Sligo Line."

It goes on to state that the "Plan supports the prioritisation of these projects and will continue to support TII in the roll out of rail improvements and upgrades throughout the County."

MCDP recognises that the Transport Strategy for the Greater Dublin Area (GDA) provides a framework for the planning and delivery of transport infrastructure and services over the period 2016 - 2035.

1.5.4.2 **Dunboyne Clonee Pace LAP 2009-2015**

The existing PACE M3 Parkway Train station is located within the development boundary of the Dunboyne Clonee Pace LAP. Relevant policies include:

MOV POL 4 To facilitate and protect the operation of the railway in conjunction with larnród Éireann/CIE. To protect the Pace–Navan extension of the railway corridor from inappropriate development where all planning applications lodged within the route reservation corridor or which may impact on the future railway will be referred to larnród Éireann/CIE for comment.

MOV POL 6 To facilitate the development of Park & Rides as set out in the Railway Order NA0001 at Dunboyne Station & Pace Interchange.