

Public Consultation No. 2 Brochure

Preferred Option

10.00





Ardan Platform 2 = i

Baile Adaim

Adamstown



Ardan 3 Piatform 3 Piat

Next DART Hozelhatch & Celbrid

TABLE OF CONTENTS

1	Introduction to DART+ Programme	1
2	DART+ South West	5
3	Public Consultation Process	7
4	Current Design Status	10
5	Key Infrastructural Elements of DART+ South West	12
6	Benefits of DART+ South West	16
7	Option Selection Process	19
8	Considerations since Public Consultation 1	21
9	The Preferred Option	23
10	Transport Integration	38
11	Issues to Consider	40
12	Next Steps	43
13	How to Engage	45
14	Alignment Figures	47

Introduction to DART+ Programme

01

CY 93

1. Introduction to DART+ Programme

The current DART network is 50km long, extending from Malahide / Howth to Greystones. The DART+ Programme will increase the length of the DART network to 150km of railway corridor through the electrification and upgrade of existing lines transforming commuter train travel in the Greater Dublin Area.

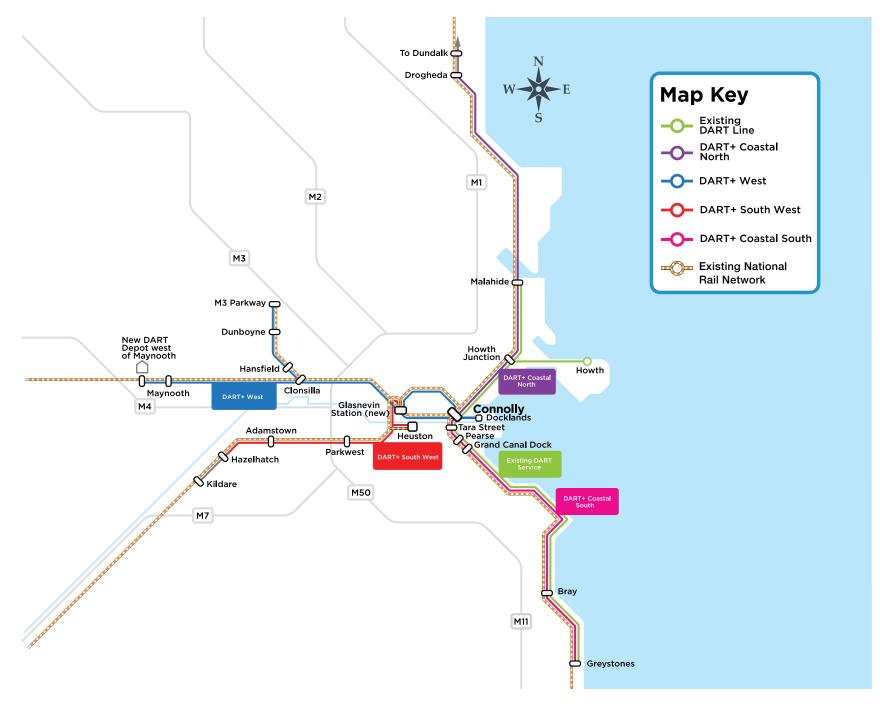
The DART+ Programme also includes the purchase of new train fleet. The DART+ Programme will deliver frequent, modern, electrified services from Dublin City Centre to:

- Maynooth, M3 Parkway
- Hazelhatch & Celbridge
- Drogheda; and
- Greystones

The DART+ Programme is a key transportation improvement to form a high quality and integrated public transport system. It will have benefits for the residents of the Greater Dublin Area and also those living in the other regions. It will assist in providing a sustainable transport system and a societal benefit for current and future generations.

The DART+ Programme will seek to maximise use of the existing railway corridors and implement a modernisation programme to achieve the increased capacity necessary to meet current and future demands.





Schematic diagram of DART+ Programme extent

Why investment in DART+ Programme is needed

Provides Sustainable Transport Options

- Over-reliance on private car use and increasing congestion in Greater Dublin Area.
- DART trains are more sustainable and cleaner to operate than the current diesel trains.

Achieve Climate Change Targets

- Will help reduce the transport sector's greenhouse gas emissions which continue to rise.
- Supporting the Government's Climate Action Plan.



Supporting Economic and Population Growth

- Congestion in Greater Dublin Area is increasing.
- Cost of Time Lost in the Dublin Region is ~
 €350 million/annum and forecast to rise to
 €2,000 million/annum by 2033.
- Sustainable public transport infrastructure (pedestrian, cycling, bus and rail) will sustain economic and population growth while reducing emissions.

Integration of Land-use & Transport Planning

- Co-ordination and integration of spatial planning with rail transport.
- Supporting compact growth and increased densities in the Greater Dublin Area.
- Supports the implementation of Project Ireland 2040 and the National Planning Framework.

Facilitates Integration with other modes of transport

- Improves integration of rail services with active modes of travel (walking and cycling).
- Enables greater cross-modal journeys through improved integration with other modes – Bus, Luas, proposed MetroLink and Dublin Bikes.

DART+ South West

1.14

02

2. DART+ South West

The second of the infrastructural projects of the DART+ Programme to be delivered will be the DART+ South West Project.

DART+ South West is seeking to significantly increase rail capacity on the Cork Mainline from Hazelhatch & Celbridge Station to Heuston Station, and to Glasnevin via the Phoenix Park Tunnel Branch Line. This will be achieved by implementing an electrified railway network with high capacity DART trains, increasing the frequency of trains and providing a new station at Heuston West.

Delivery of this project will support existing communities along the railway and support future sustainable development. It will serve all existing stations along the railway corridor from Hazelhatch & Celbridge Station to Heuston Station and Heuston Station to Glasnevin using electrical power that has a lower carbon footprint than the existing diesel trains. The frequency and quality of service will provide a viable transport alternative to communities along the route and help encourage people to migrate from private car use. This will assist Ireland in reducing greenhouse gas emissions from transport and help combat climate change.

The electrification of the rail line will predominantly follow the existing railway corridor. Works outside of Córas Iompar Éireann lands will be required at a number of locations for some of the scheme elements such as:

- Widening of the railway corridor for four-tracking between Park West & Cherry Orchard Station and Heuston Station;
- Bridge reconstruction and/or improvements;
- Construction of substations (to facilitate the provision of power to the line); and
- Use of land for temporary construction/storage compounds and all ancillary works required for the project.





03

Public Consultation Process

Testing -

Anna ta tan

Supervised and the second

A HOLE

的影響的

a its

3. Public Consultation Process

Public participation during the design process is a key element to the delivery of major infrastructure projects such as DART+ South West.

This project has a two stage non statutory public consultation process. The first public consultation on DART+ South West 'Emerging Preferred Option' was held between May and June 2021. This current public consultation has considered the feedback received, to advance the design. Feedback is now requested on the **'Preferred Option'** for the DART+ South West project.

Public Consultations are our way of asking you, as potential users of the improved services or those likely to be affected by its development, for your views on our plans, whilst the design process is active. Your local knowledge and comments will further inform the design of the proposed development to be included in the Railway Order application and ensure it will be a success for you and the communities it will serve.

Public participation is welcomed and encouraged throughout the design development process, which will provide you with the opportunity to learn about the design as it develops and provide feedback to inform the next stage as appropriate. The main public participation/feedback stages as part of the project development are illustrated in graphical form overleaf and include:

- Public Consultation No. 1 on the Emerging Preferred Option
 Completed (Summer 2021)
- Public Consultation No. 2 on the Preferred Option Current stage (Winter 2021)
- Statutory Consultation Period as part of the Railway Order application process (Summer 2022/ Autumn 2022)

Public feedback will be accepted during all stages of the design development and can be submitted through the project website, e-mail address, phone line or by written correspondence. For further details see the **'How to Engage'** section.

larnród Éireann invites the public to engage in the design process and all feedback is welcome.

COVID 19 Due to the COVID-19 restrictions this consultation on the '**Preferred Option**' will be predominantly a digital public consultation.

		Studies & Research		Publications & Milestones		Public Participation	
Completed	Summer 2021	Options development and appraisal to support identification of 'Emerging Preferred Option'		Preliminary Option Selection Report and identification of 'Emerging Preferred Option'		Non-statutory public consultation on the 'Emerging Preferred Option'	
We are here	Winter 2021	Options Selection Report & identification of 'Preferred Option'		Option Selection Report and 'Preferred Option' identification		Non-statutory public consultation on the 'Preferred Option'	
	Spring 2022	Complete design appraisal and statutory documents		Design freeze & planning submission preparation		Stakeholder engagement	
	Summer 2022 / Autumn 2022	Subject to Government approval, submit Railway Order		Issue of planning submissions & Railway Order documents		An Bord Pleanála statutory consultation	

Graphic showing public participation as part of the option selection, design and Railway Order application process



4. Current Design Status

This brochure explains the current design status of the project, its benefits, potential impacts, and how you can send us your queries, thoughts and ideas.

The design and environmental impact assessment process for the DART+ South West has commenced, and we are at a key early stage in the project.

Before we proceed any further, we would like your views on the DART+ South West 'Preferred Option' which is being put forward by larnród Éireann as part of this Public Consultation No. 2.

The '**Preferred Option**' is the preferred combination of design options that have been identified for each of the elements of the project. Following the completion of Public Consultation No. 1 and the feedback received, additional studies and surveys have been undertaken which have assisted the project team in updating and completing the

option selection process. The identification of the **'Preferred Option'** is to ensure that the project, when delivered, will be a success for you and the communities it will serve.

Further studies, assessments, design development and a review of your feedback on the preferred option will enable the **'Preferred Option'** to be refined and developed into the project, which will be the subject of the Environmental Impact Assessment (EIA) and Railway Order (RO).

The project will culminate with a Railway Order application to An Bord Pleanála, in accordance with the Transport (Railway Infrastructure) Act 2001 (as amended). This is essential to secure building consent. It is currently anticipated that the Railway Order application will be submitted to An Bord Pleanála for approval in 2022.

Your participation and feedback are an essential part of this stage in the design and assessment process.





05

Key Infrastructural Elements of DART+ South West

TILV

11 III

Tramanno EXCEPT TRAMS

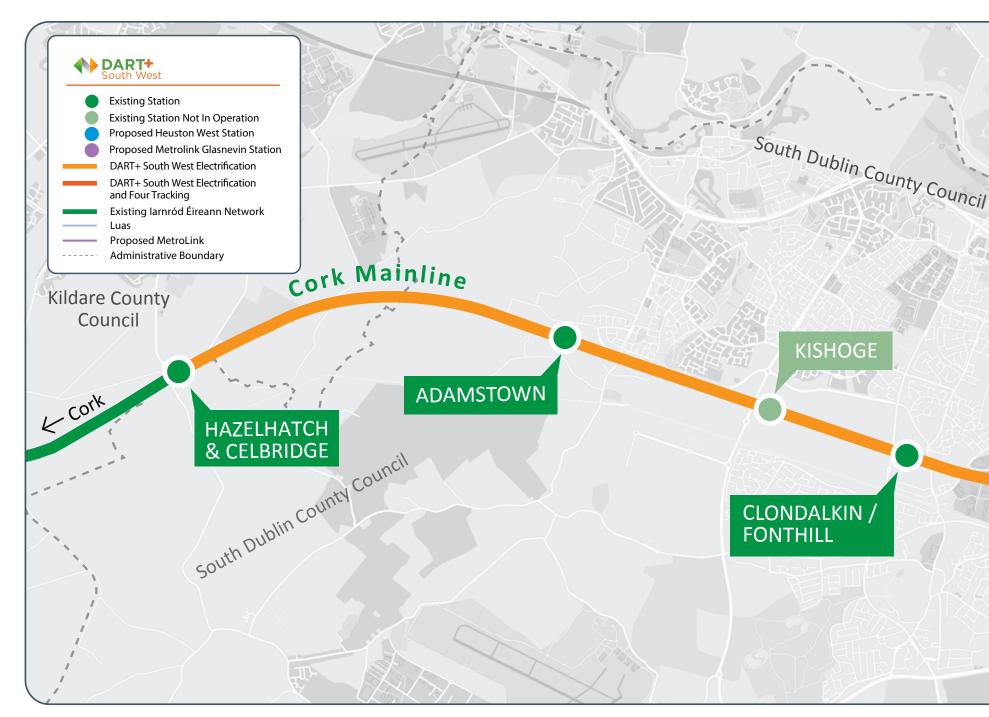
5. Key Infrastructural Elements of DART+ South West

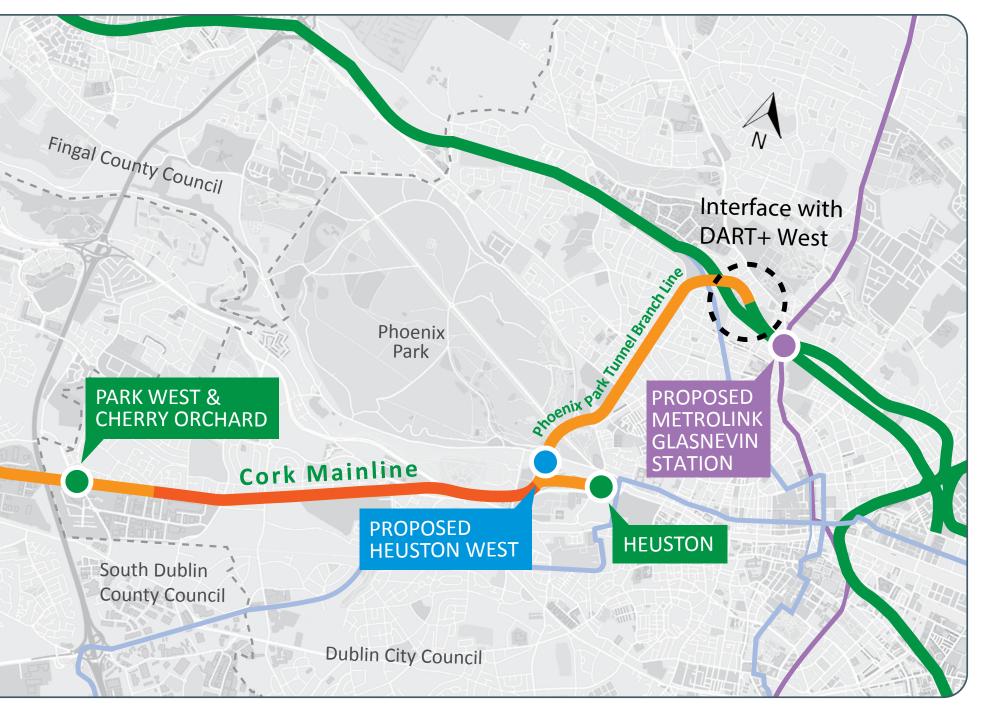
The following is a high-level summary of the key infrastructural elements of the DART+ South West Project:

- Completion of four-tracking from Park West & Cherry Orchard Station to Heuston Station, extending the works completed on the route in 2009.
- Electrification and re-signalling of the line from Hazelhatch & Celbridge Station to Heuston Station and also from Heuston Station to Glasnevin, via the Phoenix Park Tunnel Branch Line, where it will link with the proposed DART+ West
- Undertaking improvements/reconstructions of bridges to facilitate movement of electrified train services.
- Remove rail constraints along the Phoenix Park Tunnel Branch Line.
- Delivery of a new Heuston West Station.

The **'Preferred Option'** will be compatible with future stations at Kylemore and Cabra, although the construction of these stations is not part of the DART+ South West Project.









6. Benefits of DART+ South West

The DART+ South West Project will have far reaching positive transportation effects for communities along the railway corridor. It will facilitate increased train services and passenger capacity which is currently constrained on the network. It will transport passengers in high quality trains that are designed to best suit the needs of growing communities, providing all day capacity, but most especially during peak morning and evening commuter periods.

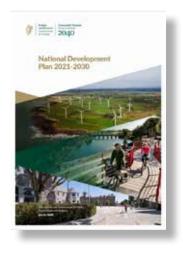
The project will link good quality public transport to sustainable land use management and can also assist in local regeneration, economic development and support the development of new communities along the route. This is a key objective of Project Ireland 2040 and the National Planning Framework. The integration of public transport with sustainable land use planning will reduce the dependency on private car use and ultimately support reductions in greenhouse gas emissions from the transport sector.

Availability of good quality rail transport, which is integrated with other public transport modes (Bus, Luas, and the future MetroLink) as well as walking and cycling infrastructure will have a positive effect on transport patterns and lifestyle factors. The provision of a sustainable transport network supports sustainable options for where people live, work, study and access services and amenities. It can promote more active and healthy modes of travel by supporting people to walk or cycle to public transport links for onward transfer to their end destinations.

The DART+ Programme is consistent with Project Ireland 2040, the National Development Plan 2021 to 2030, the National Planning Framework, the Transport Strategy for the Greater Dublin Area 2016-2035, the Climate Action and Low Carbon Development (Amendment) Act 2021 and the Climate Action Plan 2019.

The DART+ Programme is a key deliverable measure in the Climate Action Plan 2019 and supports the achievement of targets for mode shift from private car to public transport.







National Policy Drivers

Benefits of DART+ South West



Increase peak passenger capacity from 5,000 to 20,000 per hour per direction and increase train frequency between Dublin City and Hazelhatch & Celbridge Station – facilitating frequent and reliable transport to the surrounding communities.



Enhance public transport opportunities for work, education or leisure purposes.



Facilitate the development and future growth of existing and new communities that will greatly benefit from the connectivity that the DART+ South West will deliver.



Alleviate road congestion.



Build a sustainable and connected city region, supporting the transition to a low carbon and climate resilient society.



Facilitate people to make sustainable travel choices by encouraging a move away from private cars to a reliable, efficient and safe public transport network.



Improve multimodal transport connectivity through interchange with the Luas at Heuston Station, Bus Connects and the proposed MetroLink.

-Who

Improve journey time reliability.

Option Selection Process

7. Option Selection Process

To assist the design development process and to consider various options to determine the **'Preferred Option'** for DART+ South West, a structured optioneering process has been followed:

- Stage 1 Preliminary Assessment of Options (Sifting) followed by
- Stage 2 Multi-Criteria Analysis of short-listed options.

This structured process evaluates a number of different options and is based on 'Guidelines on a Common Assessment Framework for Transport Projects and Programmes' (CAF) published by the Department of Transport March 2016 (updated 2020), Project Approval Guidelines, published by the National Transport Authority December 2020, and larnród Éireann's Project Approval Guidelines.

Development of Options

The engineering design will electrify and enhance the existing railway network to meet train capacity requirements to cater for current and future projected passenger demand. Many elements of the scheme require option assessment at a local level prior to incorporation into the end to end preferred option. Options were developed for the individual components including:

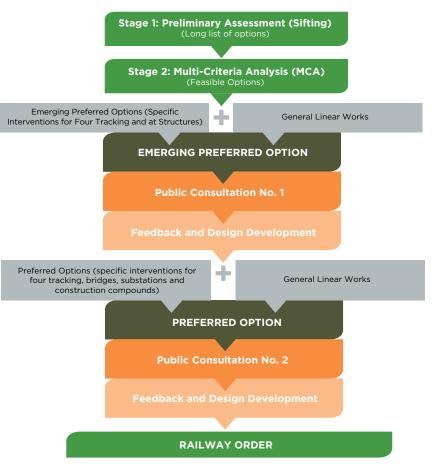
- Track alterations and four-tracking.
- Bridge alterations/reconstructions.
- Signalling, electrification and telecommunications.
- Electrical substations.
- Construction compounds.

Assessment Methodology

Stage 1 – Preliminary Assessment (sifting process) comprised of the assessment of a long list of options against engineering, economics and environmental criteria to evaluate the 'feasibility' of each option to meet the project objectives / requirements. This approach allowed for the long list of options to be filtered to a shorter list of feasible options. All feasible options were brought forward to Stage 2 where they could be explored in greater detail.

Stage 2 - The Multi-Criteria Analysis process comprised of a more detailed multidisciplinary comparative analysis of the feasible options that passed through Stage

1. The feasible options were assessed against the six appraisal criteria set out in the NTA's Common Appraisal Framework (CAF), namely: economy, safety, environment, accessibility and social inclusion, integration and physical activity. Options were then compared to each other based on whether an option had 'some' or 'significant' advantage or disadvantage over other options or whether all option were 'comparable / neutral' leading to the determination of a preferred option for the intervention required. The various preferred options in respect of particular elements or interventions were then combined with general linear works needed to upgrade and modernise the railway to make up the end-to-end **'Preferred Option'**.



Graphic showing the assessment methodology

Considerations since Public Consultation No. 1

8. Considerations since Public Consultation No. 1

Public Consultation No. 1 - Emerging Preferred Option

Non-Statutory Public Consultation No. 1 (PC1) commenced on 12th May 2021 and ran for 6 weeks until its formal closure on 23rd June 2021. The public were given an additional week up to 30th June 2021 where they could still engage and submit feedback on the 'Emerging Preferred Option' as part of PC1. The purpose of PC1 was to inform the public of the developing design at the Emerging Preferred Option stage for the DART+ South West Project and to request their views.

All submissions received either via post, telephone communication, online form feedback or email were analysed, with issues, comments and suggestions logged and considered by the design team as appropriate. A summary of key issues or concerns raised during PC1 are described in the Public Consultation No. 1 Findings Report, Volume 4, which is available on **www.dartplus.ie**.

The project team has analysed the submissions and considered all relevant information in re-evaluation and further development of design options leading to the selection of the **'Preferred Option'**.

Actions following Public Consultation No. 1 feedback

Having completed PC1, contributions from stakeholders led to a number of design changes which are evident in the 'Preferred Option' presented as part of Public Consultation No. 2. The principal changes include the following:

- The inclusion of the new Heuston West Station in the scope of the project to be brought forward for Railway Order (RO).
- Design changes at Inchicore Works to avoid impacting on the Turret (National Inventory of Architectural Heritage)

Design development has brought forward further locations through the optioneering process relating to the required electrical substations along the route and necessary temporary compounds to support the construction phases of the project.

Cognisant of the level of feedback relating to construction and operational environmental impacts we have also sought to provide additional information relating to the construction methodology and scope of the Environmental Impact Assessment Report (EIAR); so that the public may understand the approach being considered. It is acknowledged that this information is based on information and level of design available at this time and it will continue to be developed as part of the Railway Order package and supporting documentation including EIAR.

In addition, a significant number of submissions during PC1 called for new railway stations along the railway line including at Kylemore, Cabra and Heuston West to provide greater access to the rail network.

The principal objective of the Project is to provide the necessary railway infrastructure to enable increased rail capacity and the transition to electrical power.

Whilst the provision of stations, including at Kylemore and Cabra, does not form part of the project scope, the design takes into consideration the potential provision of future stations along the line.

Stakeholder feedback in relation to the provision of new railway stations along the railway line has been fed back through the Project Team to the larnród Éireann DART+ Programme Board and the NTA.



9. The Preferred Option

This section of the brochure will present a high-level overview of the main elements of the project in a linear manner working from Hazelhatch and Celbridge Station in the west to Glasnevin Junction in the east. To avoid repetition, some elements common to all sections of the project are listed in the "General Linear Works" section below and are not repeated at each location along the scheme. The starting principle for the project is to upgrade the existing railway corridor and undertake all work, where possible, within the existing railway corridor.

9.1 General Linear Works

Given that much of the general linear works manifest along the full extent of the scheme, these elements are described first in this section to avoid the need for repetition. In addition, elements of the scheme which, although arising at discrete locations throughout the scheme, are proposed to be provided with common treatment are also described in this section (for example, additional signalling).

The elements of the Preferred Option that are relevant to the entire length of the railway corridor are:

- Overhead electrification equipment which will be required along the full extent
 of the railway line from Hazelhatch & Celbridge Station to Heuston Station and
 through the Phoenix Park Tunnel Branch Line up to Glasnevin Junction, where it
 will link with the proposed DART+ West Project. The equipment will be similar
 to the overhead electrification equipment currently used on the existing DART
 network.
- Signalling upgrades and additional signalling infrastructure.
- Telecommunications infrastructure including buildings.
- Ancillary equipment cabins.
- Works to the Permanent Way (or track or railway corridor) including all ancillary installations such as rails, sleepers, ballast interfaces with existing utilities, boundary treatments, drainage works, vegetation management and other ancillary works.

There are a number of discrete Project elements, which are required along the full length of the Project. These are addressed in more detail in the following sections and include:

- Six electrical substations will be required at intervals along the rail line to provide power to the network.
- Where existing bridges do not provide the necessary clearance for overhead electrification of the lines or lateral clearance for four tracking, options are being considered on a case-by-case basis, these include:
 - Provision of specialist electrical solutions for the OHLE with reduced clearance;
 - Lowering the rail track under the bridge;
 - Modification of the existing structure;
 - Removal of the existing structure and provision of a replacement structure; or
 - A combination of the above.
- Retaining walls supporting widening of the rail corridor and replacement bridges.
- Overhead electrified line protection works at bridges.
- Construction compounds.

Overhead Electrification Equipment (OHLE)

It is a project requirement to provide an electrification system that is compatible with the existing DART system and other electrification projects associated with the DART+ Programme.

The DART+ Programme will adopt a 1,500V Direct Current (DC) system which provides synergy with the existing DART network with traction power provided to the train by Overhead Line Equipment (OHLE).



Sample Existing DART Overhead Line Equipment

Electrical Substations

The OHLE system will be supplied with electrical power from the ESB distribution network at regular intervals, at locations known as substations. These substations will receive power from the local power distribution network at voltages up to 110 kV AC and transform this into the required 1,500V DC for distribution along the OHLE system. The specific voltage to be adopted will be determined at a later date in discussions with the ESB. The footprint of the substation compound will generally be 50m (length) x 20m (wide). The substation building dimensions will generally be 35m (length) x 10m (width) and 6m (height).

A DART system-wide Power Study identified that six substations will be required at various locations along the length of the DART+ South West Project to provide power to the network. The location for each of the substations was identified following a two-step optioneering process, Preliminary Assessment, followed by Multi-Criteria Analysis (feasible options), where appropriate. This led to the identification of the Preferred Options in respect of each of the required substation locations.

The proposed substation locations along the line, are:

- Heuston / Islandbridge
- Kylemore

Adamstown

Park West

Hazelhatch

Kishoge



Example of a typical substation

Signalling

In order to achieve the necessary capacity enhancements and performance required for the introduction of the new DART+ Fleet, it will be necessary to upgrade the existing signalling system as well as replacing some of the legacy signalling system. This will include the provision of Signalling Equipment Rooms, Low Voltage Rooms and Relocatable Equipment Buildings where required along the route in order to accommodate signalling equipment and associated power supplies and backup.



Typical Signalling Infrastructure

Ancillary Equipment Cabins

Additional infrastructure will be required including a number of equipment cabins to support the signaling, electrical and telecommunication infrastructure. These will be located within existing Córas Iompair Éireann land where possible and will be typically in stations where similar cabins are currently evident.

The various cabins required along the works are:

- Signaling Equipment Rooms
- Principal Supply Points
- Telecommunication Equipment Rooms

The cabins are typically fenced off as they need to be secure.



Typical Equipment Cabin

Permanent Way Requirements

The Permanent Way (PW) is a term used to describe the track or railway corridor and includes all ancillary installations such as rails, sleepers, ballast as well as lineside retaining walls, fencing and signage. The DART+ South West Project includes:

- Widening of the railway corridor and completing four-tracking between Park West & Cherry Orchard Station and Heuston Station.
- Track lowering arising from electrical clearance requirements.
- Improvements, including realignment works, to the Phoenix Park Tunnel Branch Line to support the increased capacity.

A key aspect of the permanent way is where intervention is required, e.g., at bridge locations, as it has knock on issues extending beyond the area of intervention of the bridge location itself, with implications for track alignment, road levels on adjoining roads, other bridges, etc.; hence the need for a solution to be considered more holistically.

Construction Compounds

Works on this linear scheme will require Construction Compounds at specific locations. The sites will need to accommodate offices for the contractor and client teams, storage facilities, recycling facilities, parking for cars and plant and potentially fabrication areas. It is a prerequisite that the construction compounds are located close to and ideally with direct access to the respective work site. The sites must be fully serviced with electricity, water, sewerage and telecoms and must have good access to the public road network.

The compounds are required at specific construction sub-sites and also distributed along the scheme by geographical features. For example, compounds will be required at each of the bridge reconstruction locations, they will also be required for material processing and storage of construction components. The construction compounds will be used to support earthworks, enabling works, site clearance, utility diversions work, civil works, the demolition of bridges, OHLE, track installation, signalling and telecoms equipment and all ancillary works.

The majority of the compounds will be temporary in nature. The compound locations are identified within the alignment figures in Section 14 of this brochure. Many of the compound locations would need to be temporarily acquired for the duration of the works.

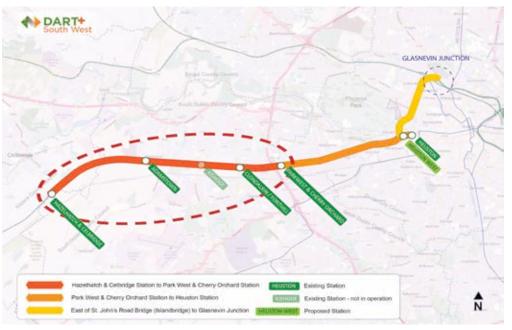
9.2 Hazelhatch & Celbridge Station to Park West & Cherry Orchard Station

General Description

This section of the railway extends between Hazelhatch & Celbridge Station and Park West & Cherry Orchard Station. The works carried out under the original Kildare Route Project between 2006 and 2009 provided the main groundwork for DART+ South West Project, including the installation of the four track section which commences to the west of Hazelhatch Station where the two running lines diverge into four lines. The four lines continue on through Park West & Cherry Orchard Station. As part of the works, the two northern existing railway lines will be electrified with the installation of overhead electrical equipment.

The line passes through a number of stations including Hazelhatch & Celbridge Station, Adamstown Station, Kishoge Station (not currently in use) and Park West & Cherry Orchard Station. No works are envisaged to these stations as part the Project.

There are also a number of structures on this section of the route, including ten road overbridges and footbridges. A number of these structures were upgraded or replaced as part of the original Kildare Route Project, and the electrification works can therefore be run under the existing bridges with no / minimal intervention to the bridge structures. Only minor localised track lowering works are necessary to achieve the required clearance.



Hazelhatch & Celbridge Station to Park West & Cherry Orchard Station

Permanent Way Requirements

To facilitate the proposed increase in train frequency it is proposed as part of the DART+ South West Project to modify the trackwork with additional crossovers and adjustments to track alignment.

Localised track modifications works are required at Hazelhatch & Celbridge Station to facilitate the proposed DART services. To the west of the station, track modifications include the installation of a new a turnback siding (approx. 350m in length, to accommodate two full length train units). A new crossover on the slow lines will provide access into the siding from both Up and Down directions.

At Adamstown Station the track layout requires modification to meet future operational requirements.

The lines continue on from Adamstown and converge with the new four tracking section to the west of Le Fanu.

Substations

The Power Study identified the requirement for four new substations on this section of the scheme, at the following locations:

- Hazelhatch
- Adamstown
- Kishoge
- Park West

Hazelhatch Substation - The Preferred Option for the location of the Hazelhatch Substation is a brownfield site, which includes a disused residential dwelling in the ownership of Córas lompar Éireann. The site is located adjacent to the Hazelhatch Station carpark and other disused dwellings also owned by Córas lompar Éireann. It is situated to the east of Hazelhatch Station with direct access to the local road network. As the proposed location is within existing Córas lompar Éireann boundaries, no land acquisition is envisaged.

Adamstown Substation - The Preferred Option for the location of the Adamstown Substation is a green field site located to the south of the railway. There is an existing access track that runs adjacent / parallel to the railway providing an established access route between the proposed site and the public road network to the west. The proposed location is within existing Córas lompar Éireann boundaries, therefore no land acquisition is envisaged.

Kishoge Substation - The Preferred Option for the Kishoge Substation location is to the east of the R138 regional road, on the southern side of Kishoge Station. It is located within the existing carpark. Access to the road network would be via the carpark entrance. The proposed location is within existing Córas lompar Éireann boundaries, therefore no land acquisition is envisaged.

Park West Substation - The Preferred Option for the location of the Adamstown Substation is to the north of the railway and immediately east of the M50 motorway. This is a brownfield site with direct road access via Park West Avenue to the east. The existing Park West & Cherry Orchard Station is located to the east and existing housing developments in the Cherry Orchard area are located further east of Park West Avenue. The existing ESB 38kV network is located immediately east of Park West Avenue. The proposed location is not within existing Córas lompar Éireann boundaries, therefore land acquisition is envisaged.

9.3 Park West & Cherry Orchard Station to Heuston Station

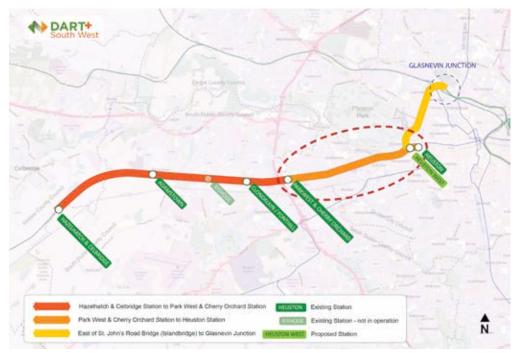
General Description

The section from Park West & Cherry Orchard Station to Heuston Station requires electrification and the provision of four tracks. Extending to four tracks in this area requires an increase in the width of the existing rail corridor, potentially interfering with the property rights (on a permanent and / or temporary basis) of third parties bordering the rail corridor. The line runs through a relatively dense urban environment with a mix of residential and commercial properties bordering the rail corridor.

An option selection process has included developing and evaluating a number of options at each key intervention, before the Preferred Option was established.

Due to the complexity of the works and number of interventions on this section of the scheme, this section of the line is broken down into the following areas:

- Park West to Le Fanu Road Bridge
- Le Fanu Road Bridge to Kylemore Road Bridge
- Kylemore Road Bridge to Sarsfield Road Underbridge (including Inchicore Works)
- Sarsfield Road Underbridge to Memorial Road Bridge
- Memorial Road Bridge to South Circular Road Junction
- Heuston Station and Environs



Park West & Cherry Orchard Station to Heuston Station

Park West to Le Fanu Road Bridge

General Description

The rail corridor on the Cork Mainline between Cherry Orchard Footbridge and Le Fanu Road Bridge initially comprises of three existing tracks and at Le Fanu Road Bridge narrows to two existing tracks. The rail corridor is primarily in cutting (i.e. the rail level is below the surrounding ground level).

There are two overbridges in the area, Cherry Orchard Footbridge, which is a singlespan pedestrian overbridge and Le Fanu Road Bridge, which is a single-carriageway road bridge carrying road traffic over the rail corridor in a north-south direction.

Increasing to four tracks requires the realignment of the existing tracks and an increase in the overall railway corridor width. Cherry Orchard Footbridge has sufficient span length and height for both the four tracks and electrification infrastructure. However, Le Fanu Road Bridge is a narrow arch structure and is inadequate in both span length and height for the four tracks and electrification infrastructure.

Permanent Way

The proposed layout realigns the existing two track layout on the south side of the rail corridor to become the fast lines (to facilitate the operation of Intercity services), with two new tracks provided to the north and serving as the electrified slow lines (to facilitate the operation of new DART services). Retaining walls are required to both the north and south sides of the rail corridor as the four track corridor enters the cutting.

Le Fanu Road Bridge Replacement

The Preferred Option replaces the bridge with a longer span or spans to facilitate the additional width required for the additional tracks. To overcome the lack of height available for the electrification infrastructure, the road level will be raised in combination with lowering the rail track. Retaining walls are required to the north and south of the corridor adjacent to the new bridge to allow the widening of the corridor while minimising the impact on the adjacent properties. The raising of the road level will also mean that retaining walls will be required along the road to the north of the railway.

The proposed replacement bridge will be a modern structure that will provide segregation for pedestrians, cyclists and improved sightlines and will be a significant improvement on the existing situation for all road users.

The proposed new bridge is presented below in sectional elevation looking east.



Preferred Option for Le Fanu Road Bridge

Le Fanu Road Bridge to Kylemore Road Bridge

General Description

This section of the railway comprises two existing tracks and one bridge structure (Kylemore Road Bridge). The bridge does not have adequate span length to fit four tracks and is not high enough for the DART line electrification infrastructure to pass under. There are a number of constraints in this area including:

- The railway corridor is bounded on both sides by soil slopes.
- To the north and south of the bridge are road junctions and access points that significantly restrict alterations that may be required to the road geometry.
- Kylemore Road is a potential route for a future LUAS line. Therefore, the design must consider this potential new infrastructure.
- The west of Kylemore Road Bridge has been identified for a potential future railway station (not part of the DART+ South West Project scope). The bridge designs for this area must not prejudice its delivery in the future.

Permanent Way

The proposed layout realigns the existing two track layout on the south side of the rail corridor to become the fast lines, with two new tracks provided to the north, serving as the slow lines, these two lines will be electrified as part of the DART+ South West Project.

The steep nature of the existing cutting slopes, proximity of the adjacent domestic and industrial properties and height of the cutting slope to be retained, necessitates a retaining wall solution along both the north and south sides of this section of the rail corridor.

Additional minor retaining or earthwork structures may be required at road level surrounding Kylemore Road Bridge to facilitate the proposed road level raising. Further details in relation to these structures will be provided as part of the Railway Order application.

The west of Kylemore Road Bridge has been identified for a potential future railway station (not part of the DART+ South West Project scope). The permanent way designs for this area must not prejudice its delivery in the future.

Kylemore Bridge Replacement

The Preferred Option for Kylemore Road Bridge is for a bridge reconstruction that replaces the existing bridge with a longer span to facilitate the additional track width. To overcome the lack of height available for the electrification infrastructure, the road level will be raised in combination with lowering the rail track. The Preferred Option is designed to include passive provision for a potential future railway station at this location. However, the delivery of a railway station at this location is not within the scope of the DART+ South West Project.

Retaining walls are required to the north and south of the corridor to allow the widening of the corridor while minimising the impact on the adjacent properties. The raising of the road level will also mean that retaining walls will be required along the road to the north and south of the railway.

The proposed new bridge is presented below in sectional elevation looking east.



Preferred Option for the Kylemore Road Bridge

Substation

The Preferred Option for the location of the Kylemore substation is to the south east of Kylemore Bridge, adjacent to the rail corridor. The preferred location outside of existing Córas lompar Éireann lands is in an industrial area on a brownfield site which is in the possession of private landowners, therefore land acquisition is envisaged.

Kylemore Road Bridge to Sarsfield Road Underbridge (including Inchicore Works)

General Description

The railway in this area (between Kylemore Road Bridge and Sarsfield Road Bridge) comprises two mainline tracks which are joined by an additional short track (or siding) connected to the Inchicore Depot. This section also includes the Khyber Pass footbridge which is located in Inchicore Depot. The existing tracks through the area would not provide the required four tracking while maintaining the functionality of the depot. Therefore, the laying of additional tracks is required, which in turn requires the realignment of the existing tracks and an increase in the railway corridor width in this area.

The Preferred Option focuses this enhancement of the corridor to the south, requiring the demolition / modification of some larnród Éireann facilities within the Inchicore Depot, minimising the impact to third party properties to the north of the rail corridor. There is potential interference to third party property rights, but further design development and construction related solutions will seek to minimise this impact.

Permanent Way

The proposed layout realigns the existing two track layout on the south side of the rail corridor to become the fast lines, with two new tracks provided to the north which would serve as the electrified DART lines. Multiple crossovers will provide the necessary train pathways to access Inchicore Works.

Sections of the line are in a cutting with steep slopes. The proximity of the adjacent domestic and industrial properties, and the height of the cutting slope to be retained, necessitates a retained wall solution along sections to the north and south sides of the rail corridor.

Design development has resulted in a permanent way solution which avoids the requirement to remove a turret associated with a locomotive shed to the south of the line. This structure is listed in the National Inventory of Architectural Heritage (NIAH) (Reg. No. 50080417). It is not a Protected Structure. It will, however, still be necessary to remove a signal box on the north side of the line.



View of Locomotive Shed and Turret (right) and Signal Box (left)

The Preferred Option includes a new drainage system which will be put in place as part of the new track arrangement to collect and drain all surface water runoff. Additional retention structures will also be provided to attenuate the peak runoff flows and meet the necessary discharge requirements. Two sites have been identified in this area for proposed attenuation facilities, the first is located within Inchicore Works and the location for the second proposed attenuation facility is to the west of Sarsfield Road Underbridge. The locations for the proposed attenuation facilities are identified on the alignment figures in Section 14 of this brochure.

Khyber Pass Footbridge

Khyber Pass Footbridge is an existing pedestrian overbridge linking Inchicore Works to Sarsfield Road to the north. The existing structure has three tracks beneath it and is not wide enough to safely accommodate an increase to four tracks.

The Preferred Option provides a new pedestrian bridge with sufficient height and width to meet the requirements for four-tracking and electrification. The extent of works may potentially interfere with property rights in the immediate area, but further design development and construction related solutions will seek to minimise this impact.

The proposed new pedestrian bridge is presented overleaf in sectional elevation looking east towards Heuston Station.



Preferred Option for Khyber Pass Footbridge

Sarsfield Road Underbridge to Memorial Road Bridge

General Description

This section of the railway between Sarsfield Road Underbridge and Memorial Road Bridge consists of three tracks. It is proposed to increase the number of tracks at this location to four tracks and to electrify two tracks on the northern side of the corridor. This will require the replacement of the existing bridges in this area.

Permanent Way

The railway corridor transitions from being at grade at the east side of Sarsfield Road bridge to a cutting (tracks at a lower level than the surroundings). The rail corridor will need to be widened to accommodate the increase from three tracks to four tracks. The track will also need to be lowered to provide sufficient clearance under the new Memorial Road Bridge. The modifications to railway corridor will necessitate the construction of retaining structures along sections to the north and south of the corridor.

It is proposed that a new track drainage system would be installed and connected to a proposed attenuation facility located near Heuston Station, before discharging to the River Liffey.

Sarsfield Road Deck Replacement

Sarsfield Road underbridge carries the railway over Sarsfield Road. Both the bridge and the railway corridor in this area comprise three mainline tracks which are not wide enough to carry the fourth track that is required.

The Preferred Option involves the replacement of the existing bridge deck with two parallel bridge decks, one for the Intercity service and one for the DART service. The existing abutments and supporting structures below deck level will be retained. This Preferred Option also avoids works to the road alignment by increasing the track and deck levels to achieve required clearance underneath.

Heading east of the bridge the corridor will predominantly be widened to the north to add a fourth track (into the embankment between the railway and Con Colbert Road). There is potential interference to third party property rights but further design development and construction related solutions will seek to minimise this impact.

The proposed bridge is presented below in sectional elevation looking east towards Heuston Station.



Preferred Option for Sarsfield Road Underbridge

Memorial Road Bridge Replacement

The existing Memorial Road Bridge is too short in span length to accommodate the additional fourth track, so a longer span bridge is required. The existing bridge also does not have the height required to accommodate the electrification infrastructure beneath the bridge. The bridge is very close to the Con Colbert dual carriageway so any increases in the height of the road would have an impact on the dual carriageway.

The Preferred Option replaces the bridge with a longer span bridge. In addition, the rail tracks will be lowered to facilitate the electrification infrastructure beneath the new bridge. The masonry retaining walls on the southern side would need to be strengthened due to the lowering of the track and new retaining walls would be required along the northern side.

The permanent way boundary wall along Con Colbert Road will need to be reconstructed to a higher containment standard and height, as it will be removed to provide retaining wall construction access. The proposed bridge is presented below in sectional elevation looking east towards Heuston Station.



Preferred Option for Memorial Road Bridge

Memorial Road Bridge to South Circular Road Junction

General Description

This area extends from Memorial Road Bridge to the South Circular Road Junction. There are two major bridge structures in this area which are part of the junction namely South Circular Road and St. John's Road Bridge. St. John's Road Bridge has an adequate span length to enable a layout with the minimum four tracks requirement and is high enough for the electrification infrastructure required for DART. South Circular Road Bridge does not have adequate span length to fit four tracks and is not high enough for the electrification infrastructure to pass under.

The Preferred Option leaves South Circular Road Bridge in place and includes the construction of a new structure to the north of the existing bridge. The new structure would be for the new DART tracks and the existing Intercity service would continue under the existing South Circular Road Bridge. The new structure requires retaining walls to be constructed on both sides beyond the junction area to the west.

The South Circular Road Junction is extremely busy and frequently has traffic queues, so any works in this area are likely to impact traffic. In order to minimise impact on traffic during the works, the construction will be carried out in phases, utilising all available road space to safely divert all road users around the affected area.

The new structure will accommodate DART trains. This means that the existing South Circular Road Bridge would not need to be electrified and the track levels can be left as they are currently.

The proposed intervention is presented below in sectional elevation looking east towards Heuston Station.



Preferred Option for South Circular Road Bridge



Aerial View of Preferred Option for South Circular Road Junction

Permanent Way

It is proposed to increase the number of tracks from three to four tracks and electrify the two tracks on the northern side of the corridor.

It is not practically feasible to add an additional track on the south side of the rail corridor due to the density and proximity of commercial and residential properties between Memorial Road Bridge and South Circular Road Bridge. As such, all options include widening the corridor to the north to avoid the impact of the reconstruction of the existing retaining wall on the south properties. The existing tracks will also be realigned to meet design standards.

The additional track will be placed on the north side by installing a retaining structure along the cutting slope between South Circular Road Bridge and Memorial Road Bridge. The track will be placed between the existing rail line and the Chapelizod Bypass which runs parallel.

Heuston Station and Environs

General Description

This area encompasses Heuston Station, including the associated servicing sidings, and extends to the east side of St John's Road. The Permanent Way in this area consists of tracks serving platforms 1 to 8, valet sidings, carriage sidings, carriage wash siding, in close proximity to adjacent running lines on either side. There is a subway providing access for larnrod Éireann personnel to the valeting plant at Heuston Yard. The specific requirements for this area are:

- Provide access to platforms and sidings within the Heuston area, as required for the DART+ services.
- Modification of the connections to running lines due to four tracking modifications.
- Provide Electrification of platforms and sidings within the Heuston area, as required for the DART+ services (Platform 6, 7 and 8, and sidings to the north).
- Maintain current functionality of the other platforms and station services.
- Track alignment and drainage requirements.
- Delivery of a new station at Heuston West.

Permanent Way

Platforms 6, 7 and 8, as well as additional sidings to the north, are to be electrified to receive the DART+ fleet, with one of the sidings requiring lengthening, whilst retaining the existing functionality of Heuston Station Yard. The track layout follows the existing station footprint as far as possible, remaining within the existing rail corridor and retaining the existing functionality of the station platforms and train servicing facilities.

The three tracks which run from St. John's Road Bridge to the Liffey Bridge and then converge to two tracks which run through the Phoenix Park Tunnel are also to be electrified. These lines will pass through the proposed new Heuston West Station, which is located adjacent to the Clancy Quay Development and the existing platform 10.

The proposed track drainage system will include filter drains to collect surface water runoff from the ballast and surrounding areas, and carrier pipes to convey collected runoffs to a proposed attenuation tank and discharge point. The attenuation tank will be located on Córas lompar Éireann lands between the proposed Heuston West Station and the Islandbridge / Clancy Barracks development.

Islandbridge/Heuston Station

The Preferred Option for the location of the Islandbridge/Heuston Substation is located within the Heuston Yard area along the R148 (St John's Road). It is a brown field site on the southern side of the railway yard. The proposed location is within existing Córas lompar Éireann's property boundaries, therefore no land acquisition is envisaged.

Heuston West Station

A new Heuston West Station is proposed as part of the DART+ South West Project. The proposed site for the new station is located to the north west of the greater Heuston Station complex adjacent to the Liffey Bridge and the Clancy Quay Development.

The design for the station takes into consideration the current development strategy and masterplan for the wider Heuston Station site and surrounding environs. The Masterplan area stretches some 500m along the south bank of the River Liffey and includes the Córas lompar Éireann owned site on the north bank at Conyngham Road. The urban design proposals are to facilitate development of a new city quarter on the western edge of the city centre, incorporating an integrated inter-modal transport hub centred on the existing station, a new retail and commercial core, and a residential neighbourhood all with a high level of focus on open space provision and the public realm.

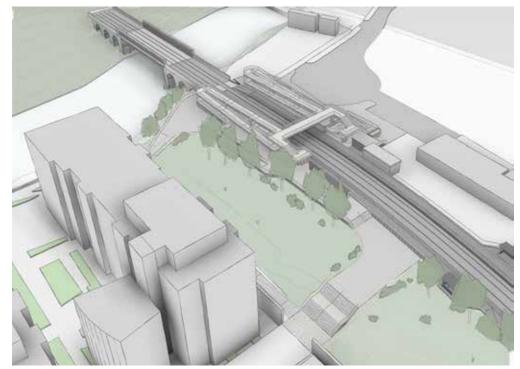
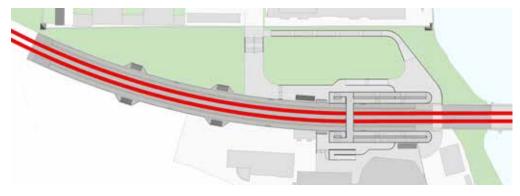


Image of Proposed Heuston West Station

The new Heuston West Station will be the first station on the branch line from Glasnevin, which extends the route of the DART+ South West on to Conolly Station. The Glasnevin Junction and Glasnevin station will connect the South Western and the Western Line routes both to Connolly and the new Spencer Dock station at Docklands.

The preferred station design option incorporates two open platforms, 174 m long. The station will be accessible by road, including a set-down area for vehicles, access to be provided for emergency services vehicles. Access for the public to cross the rail line to be provided by means of a footbridge; in accordance with accessibility requirements, access to the footbridge will also incorporate a ramp.

A new pedestrian access route to the Clancy Quay Development will also be provided on the western side of the station.



Preferred Heuston West Station Layout

9.4 East of St John's Road Bridge (Islandbridge) to Glasnevin Junction

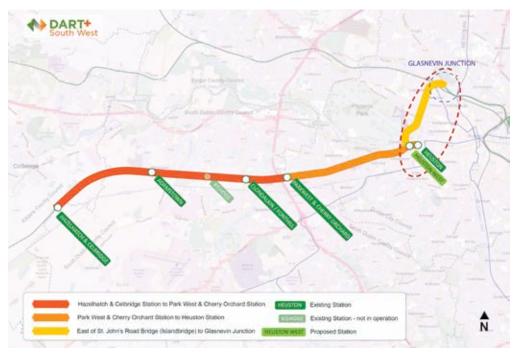
General Description

This area extends from the east of St John's Road Bridge and northwards over the River Liffey via the Liffey Bridge and under Conyngham Road Overbridge where it enters the Phoenix Park Tunnel.

Close to the junction of the Cabra Road and Navan Road the line exits the Phoenix Park Tunnel and continues north under several road bridges as follows:

- McKee Barracks Bridge,
- Blackhorse Avenue Road Bridge,
- Old Cabra Road Bridge,
- Cabra Road Bridge,
- Faussagh Avenue Bridge,
- Royal Canal and Luas Twin Arch,
- Maynooth Line Twin Arch
- Glasnevin Cemetery Road Bridge.

The line then continues east and connects with the proposed DART+ West at Glasnevin Junction.



East of St. John's Road Bridge to Glasnevin Junction

Permanent Way

The Permanent Way for this section of the railway corridor consists of two tracks from St. John's Road Bridge to the Liffey Bridge and then two tracks running through the Phoenix Park Tunnel and the remaining length of the scheme to connect with the DART+ West at Glasnevin junction.

The track alignment through Phoenix Park Tunnel will be realigned horizontally and vertically to ensure that structural and passing clearances are achieved, whilst providing the necessary headroom for the installation of new OHLE equipment required to electrify the lines. Due to the constrictive nature of the tunnel a careful balance has been struck to optimise the outcome of fitting the track with the new OHLE equipment.

The Preferred Option for the existing twin tracks along the remaining section of the Phoenix Park Tunnel Branch will follow the existing rail corridor and involves track lowering at certain locations to achieve the height requirements for electrification. Horizontally, the track corridor will need to be widened in some areas, to ensure passing

clearance for the new DART+ fleet. Retaining structures are required at certain points to both the north and south sides of the rail corridor, which is in cutting to the east of Phoenix Park Tunnel.



Portals to the Phoenix Park Tunnel and View of Inside Tunnel

The provision of a new station at Cabra does not form part of the scope of DART+ South West Project. However, passive provision for a potential station has been assessed. The proposed location for the future station is located adjacent to the track between Carnlough Road and Cabra Road. The proposed site is located beside a new residential development which is currently under construction.

The future Cabra Station is sited on a length of horizontal straight track, which is ideal for constructing the platform to standard offsets to facilitate passengers stepping onto the train. The track alignment has been designed to take into account the future provision of a station at this location.

Structures

The Preferred Option for Liffey Railway Bridge features electrification and retention of the existing fixed track system.

Proposals regarding the diversion of the existing sewer pipe bridge located south of Blackhorse Avenue Bridge are under development and subject to ongoing consultation with Irish Water. As the sewer serves McKee Barracks, the Department of Defence at Blackhorse Avenue Bridge have also been contacted. The likely diversion of this sewer comprises a pumping station on the west side of the rail corridor connected to a pipe crossing through Cabra Road Bridge from west to east, and a connection point east of the bridge to the sewer network. Proposals in relation to the diversion of combined sewers north and south of Cabra Road bridge are also under development.

There are four existing structures on this section of the line where the existing clearance beneath the bridges is insufficient to allow the installation of a standard OHLE solution. At these locations, track lowering, installation of a reduced height OHLE solution or a combination of both shall be employed to allow a suitable solution to be achieved. This work will have minimal effect on the existing bridges and the works will be undertaken predominantly within the existing rail corridor.

The bridges in question are:

- Cabra Road Bridge
- Faussagh Avenue Bridge
- Royal Canal and Luas Twin Arches
- Maynooth Line Twin Arch

The clearance beneath Glasnevin Cemetery Road Bridge is also insufficient to accommodate the new OHLE system. The preferred option for this bridge to meet the necessary OHLE requirements, involves the partial reconstruction of the bridge. This option proposes to replace the bridge deck at a higher soffit level. The existing abutments would be retained, and the abutment seats would be raised as required to accommodate the new deck. The bridge parapets would be upgraded for pedestrian protection.



View from the east, of Glasnevin Cemetery Road Bridg



Glasnevin Cemetery Road Bridge Preferred Option

As this bridge is the main entrance to this section of the cemetery, the timing and sequencing of this work will be carefully coordinated to minimise disruption. An option under consideration is to provide a temporary pedestrian footbridge for the duration of the works.

Substations

There are no substations proposed for this section of the line.

9.5 Conclusion

The DART+ South West Project will deliver an electrified network, with increased passenger capacity and enhanced train service between Hazelhatch & Celbridge Station to Heuston Station (circa 16km) on the Cork Mainline, and Heuston Station to Glasnevin via Phoenix Park Tunnel Branch Line (circa 4km).

DART+ South West will complete four tracking between Park West & Cherry Orchard Station and Heuston Station, in addition to re-signalling and electrification of the entire route. The completion of the four tracking will remove a significant existing constraint on the line (i.e., where the rail corridor reduces to two tracks), which is currently limiting the number of train services that can operate on this route. DART+ South West will also deliver track improvements along the Phoenix Park Tunnel Branch Line, which will allow a greater number of trains to access the city centre.

The Preferred Option for the DART+ South West Project is presented in Option Selection Report Volume 1, with summary details of the public consultation process. Option Selection Report Volume 2 presents the detail of the option selection process which leads to the choice of the Preferred Option.

On completion of this non-statutory public consultation, the public submissions received will be considered in further development of the Preferred Option design, as part of the statutory planning process.

13

-

Transport Integration

10. Transport Integration

The DART+ South West Project will provide high frequency electrified railway transit services running from Hazelhatch & Celbridge Station to Heuston Station, and to Glasnevin via the Phoenix Park Tunnel Branch Line.

The project will link larnród Éireann, DART, Dublin Bus, Luas, MetroLink and Dublin Bike services to create a fully integrated public transport system in the Greater Dublin Area.



Public Transport Integration

Public Transport Links

DART+ South West is planned to enhance access and the movement of pedestrian and cyclists and reduce reliance on private cars. DART+ South West will integrate with the Metropolitan Cycle Network where potential interfaces are identified.

DART+ South West will form a high-capacity spine of a fully integrated public transport system with links to the other public transport modes including Dublin Bus, Bus Éireann and Luas. In addition to linking major transport hubs, the project will provide public transport interchanges at:

- Heuston Station to the Luas Red line: and
- Glasnevin / Phibsborough to the proposed MetroLink and BusConnects schemes.

The project will provide significant improvement in city centre travel via the Phoenix Park Tunnel. Passengers will be able to travel to Connolly/Spencer Dock/Grand Canal Dock in addition to Heuston. The project will also secure enhanced passenger access to several of Dublin's higher education institutions as well as enhancing passenger access to other major city attractions, such as the Guinness Storehouse.



Increase peak passenger capacity from 5,000 to 20,000 per hour per direction and increase train frequency





11. Issues to Consider

All possible efforts will be made to sensitively address issues and challenges associated with the project at the earliest stages of the design process and public consultation. Several potential issues are detailed below, and the public consultation and stakeholder engagement phases will help us to better understand some of the issues and challenges we face.



Property Acquisition

The DART+ South West Project will predominantly seek to confine the railway improvement works within the existing railway corridor. However, where works and modifications are required outside of the existing corridor, some land acquisition may be required i.e. widening of the railway corridor for four-tracking between Park West & Cherry Orchard Station and Heuston Station and the provision of new electrical substations.

We have commenced an extensive programme of consultation with the potentially affected property owners and if your property is likely to be directly affected by the works you should already have heard from us. Our Community Liaison Officer will be available throughout the process to ensure you are regularly updated on the current proposals and your views are taken into consideration as we progress to the design development and environmental impact assessment.





Environmental Impacts

The project will involve changes to the local environment during both the construction and operation stages. These will bring both positive and negative, temporary and permanent impacts. In order to maintain daytime passenger services during the construction programme night-time works will be necessary. The design process will make every effort to ensure that negative impacts are avoided, reduced or mitigated as far as practicable, and positive impacts are maximised.



Bridge Improvements/Reconstruction

In the section between Hazelhatch & Celbridge Station and Park West & Cherry Orchard Station, all bridges have been identified as having sufficient height clearance to accommodate the electrification requirements. Only two overbridges near Adamstown Station require minor works to the tracks to achieve the electrification requirement.

In the section between Park West and Heuston Station, several bridges have been identified as insufficient height and width to accommodate the electrification and four track requirements. To achieve these requirements, these bridges require reconstruction or major modifications.

In the section between St. John's Road Bridge (Islandbridge) to Glasnevin Junction, several bridges have been identified as having insufficient height to accommodate the electrification requirement. For these bridges, it is proposed to lower the track locally to achieve the required clearance. However, a deck replacement has been proposed for the Glasnevin Cemetery Bridge.

At all bridges, parapet wall heights have been assessed and improvements have been proposed as necessary.



Electrification of the Line

- Overhead line electrification equipment (OHLE) will be required to provide electrical power to the DART trains. This will involve considerations such as:
- The supply of power from the grid which will need to be agreed and assessed as part of the Railway Order application process.
- The development of substations along the line to provide the power over the proposed circa 20km of electrification, with associated land and access requirements.
- The equipment carrying the power lines require certain vertical height clearances from the trains. Several bridges on the existing line have been identified as having

insufficient height for this electrical equipment. Options with varying degrees of intervention have been proposed to ensure the OHLE is provided.

- Boundary walls and fencing along the existing railway may need to be upgraded. Bridge parapet wall heights may also be increased to prevent any potential that the public could come into contact with the OHLE.
- The additional space required for the development of overhead electrification equipment, to provide the power to the lines, and associated landscape, visual and heritage impacts.



Next Steps

12. Next Steps

Further Design Development & Option Selection

The option selection and design development that has been undertaken has led to the development of the preferred option that is the focus of this public consultation stage.

Once the public consultation process is complete, all feedback and submissions received will be reviewed and assessed as part of the finalisation of the design development. Following a full appraisal of the feedback, a Consultation Findings Report on Public Consultation No.2 will be prepared and published to document this process.

All information gathered by the project team will be used to inform the design development of the project which will be the subject of the Environmental Impact Assessment (EIA) and Appropriate Assessment (AA) as part of the Railway Order application that will be submitted to An Bord Pleanála.

Public feedback will be accepted during all stages of the design development and can be submitted through the project website, e-mail address, phoneline or by written correspondence. For further details see the **'How to Engage'** section.

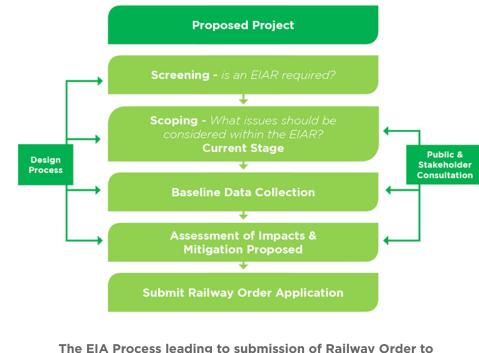
The Railway Order Process

The application to An Bord Pleanála for a Railway Order is broadly similar to the planning process with which most people are familiar.

The Railway Order application process is set out in the Transport (Railway Infrastructure) Act 2001 (as amended) and the application will be made to An Bord Pleanála. The Environmental Impact Assessment Report (EIAR) will detail the nature and extent of the proposed project and identify and describe the impacts on the environment. It will also detail measures which will be taken to avoid, reduce and/or monitor these impacts. Following the submission of the Railway Order application to An Bord Pleanála, the public will be invited through public notices to make submissions which will be duly considered by An Bord Pleanála as part of the decision making process.

We expect that An Bord Pleanála will conduct an oral hearing, to provide the public with further participation in the decision making process for this project. At an oral hearing the larnród Éireann project team will provide responses to submissions and will be available for questioning. Any person or body may make a submission or observation in writing to the Board in relation to the Railway Order application including the EIAR and the Compulsory Purchase land requirements.

We expect to make the application to An Bord Pleanála in Summer 2022 / Autumn 2022.



The EIA Process leading to submission of Railway Order to An Bord Pleanála

How to Engage

13

Collchoill & Cill Droichid Hazelhatch & Celbridge

Ā

13. How to Engage

The project team would like to hear your views on the DART+ South West preferred option to inform us in the development of the project. This consultation is our way of asking you, as potential users of the service or those likely to be affected by its development, for your views on our plans. Your local knowledge will inform the emerging design, help us to improve the scheme and ensure it will be a beneficial for you and the communities the route will serve.

The consultation period is now open, full details including closing dates for receipt of submission are available on the project website.

Please contact us via the following means:

Website | www.dartplus.ie

Email | DARTSouthWest@irishrail.ie

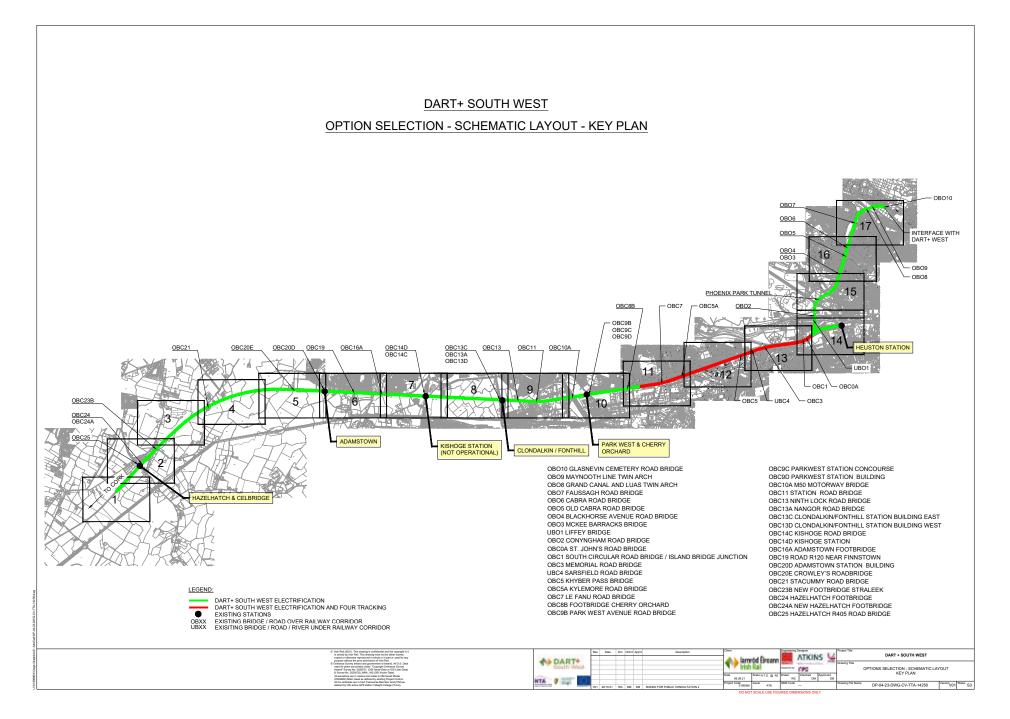
Phone line | (01) 284 1029

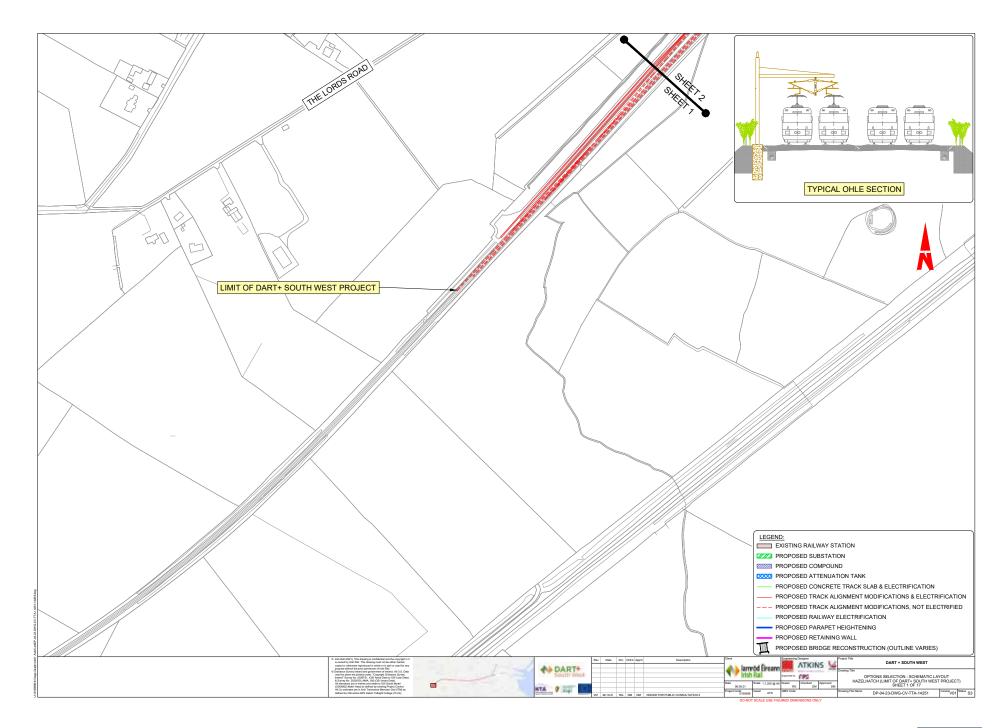
Postal Address

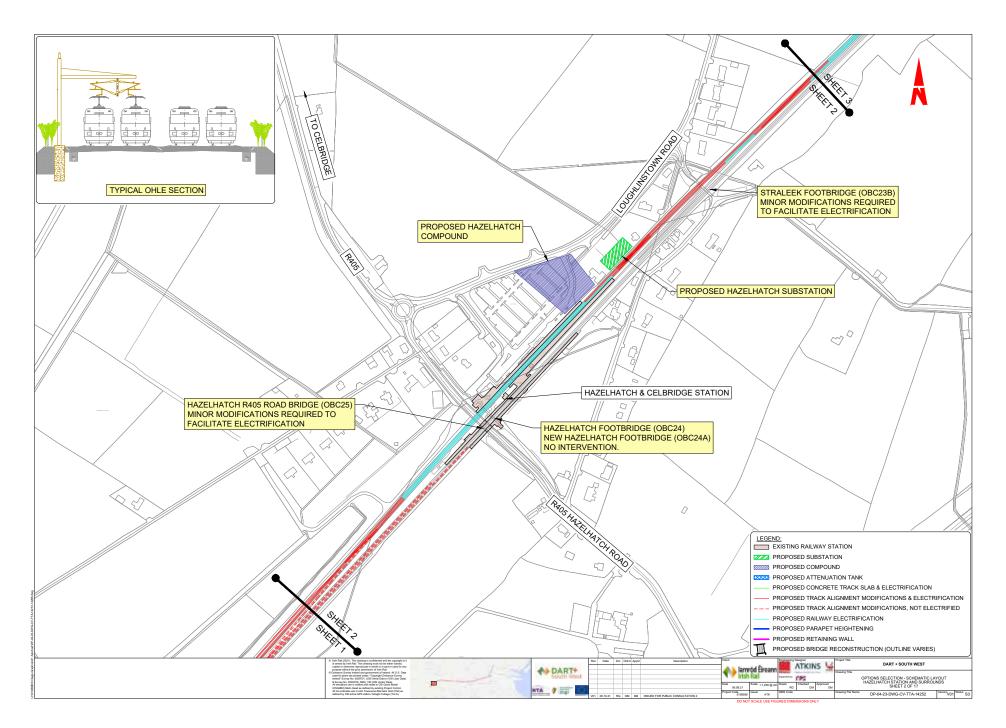
If you would prefer to write to us, please send it or any correspondence to: Community Liaison Officer, DART+ South West, larnród Éireann, Inchicore Works, Inchicore Parade, Dublin 8. D08K6Y3

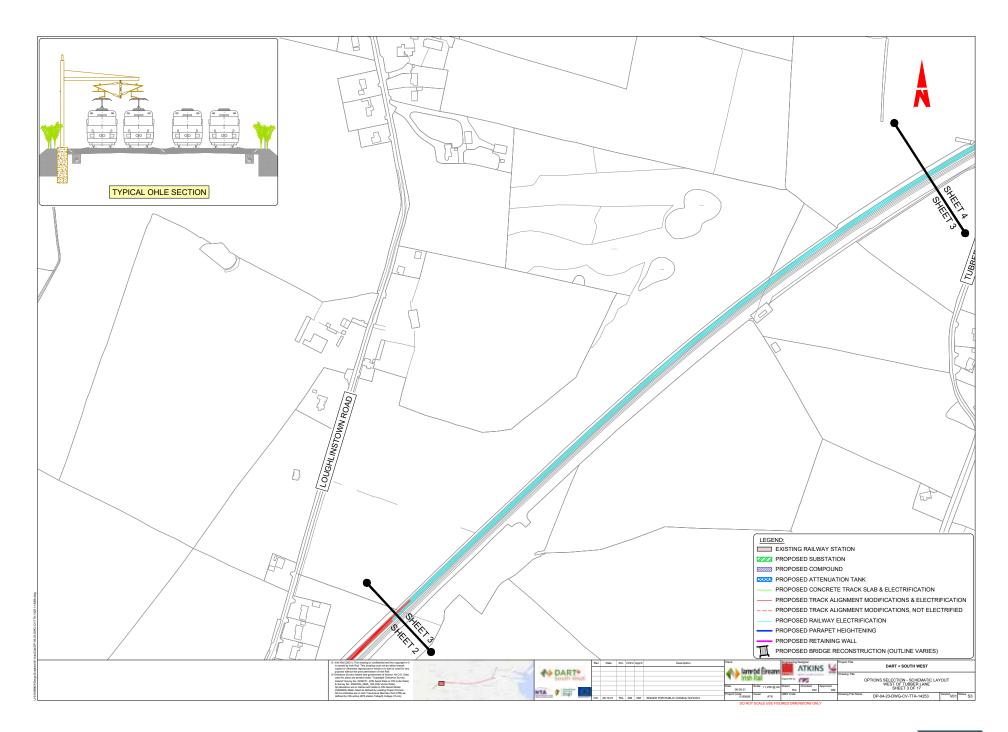


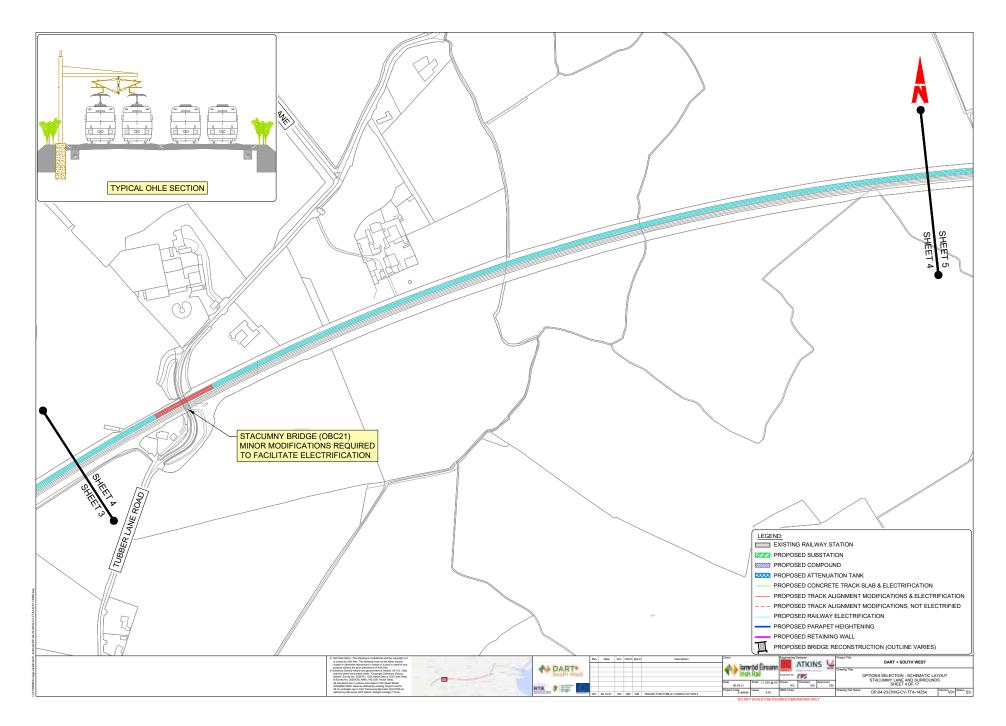


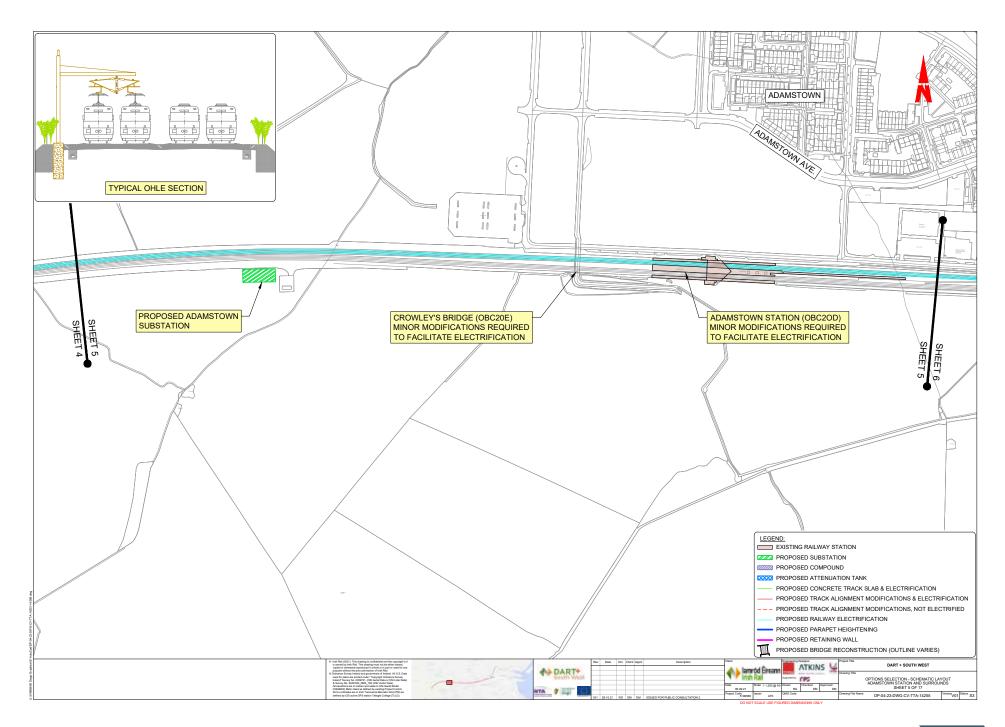


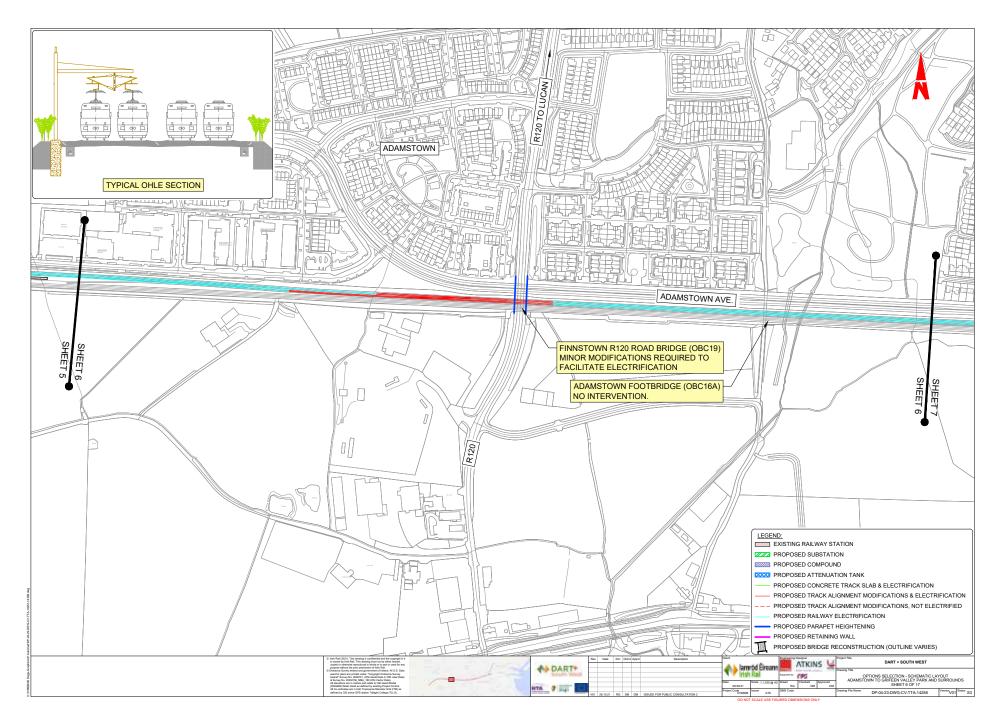


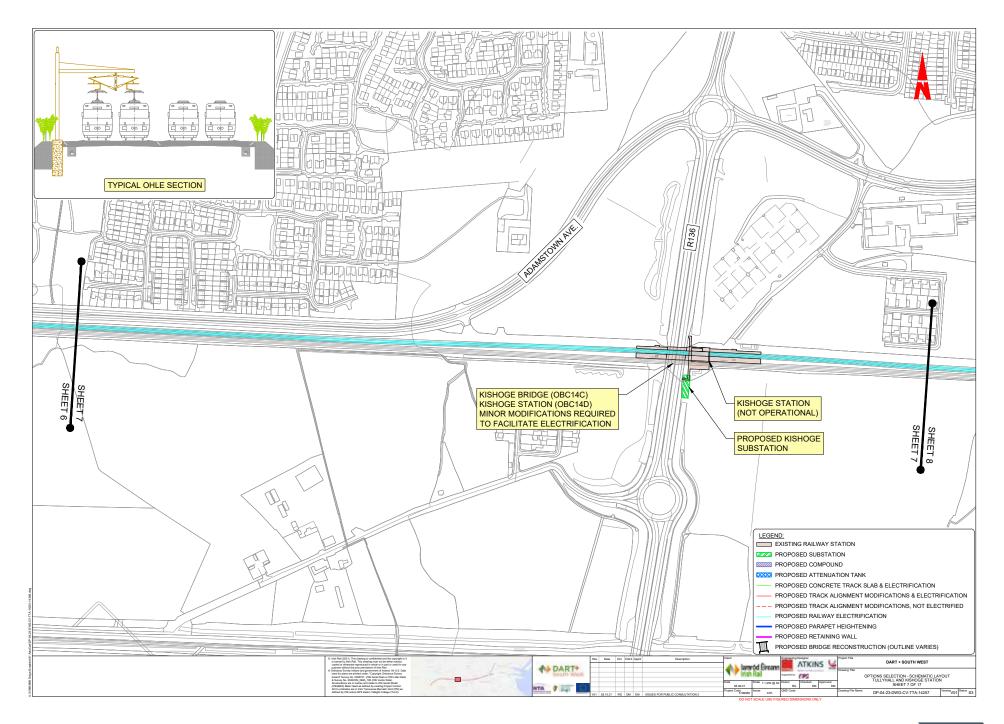


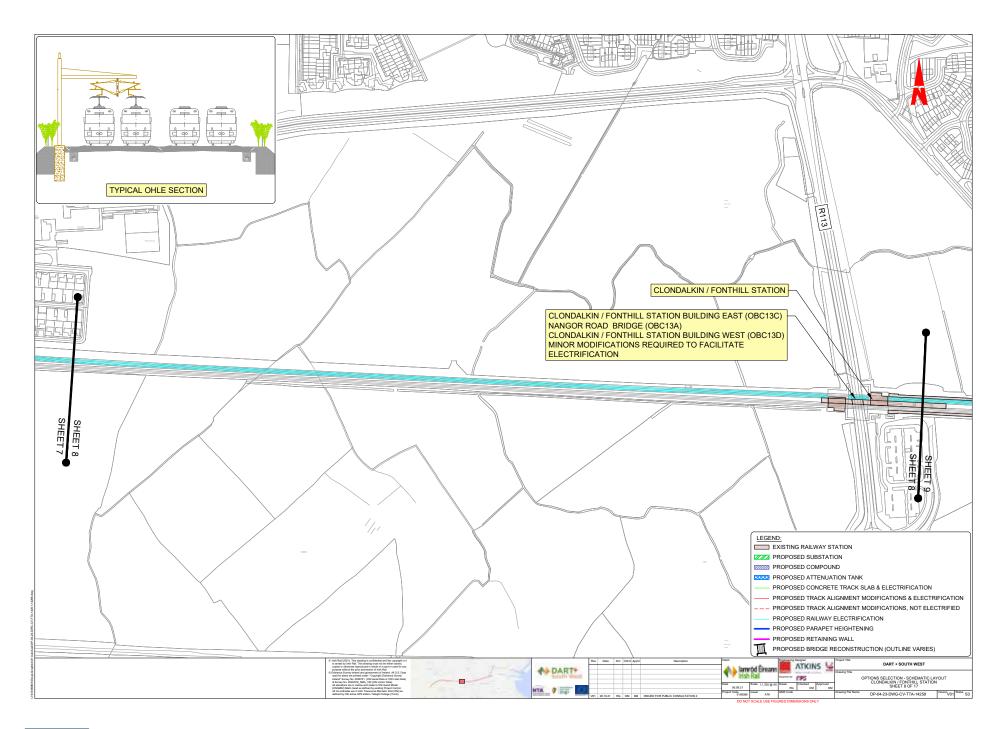


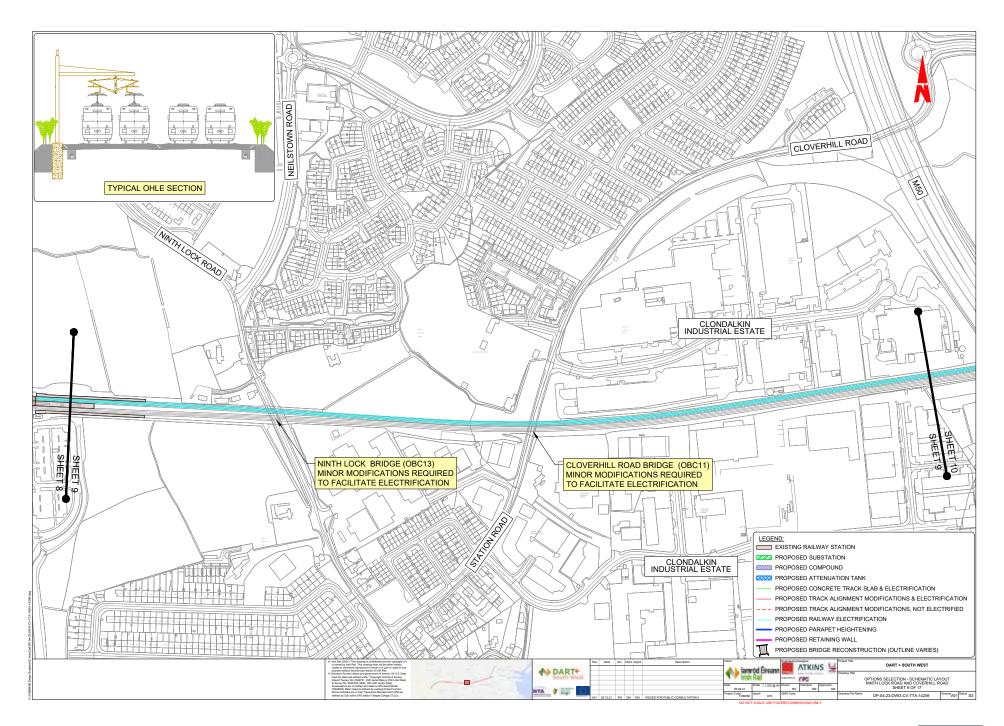


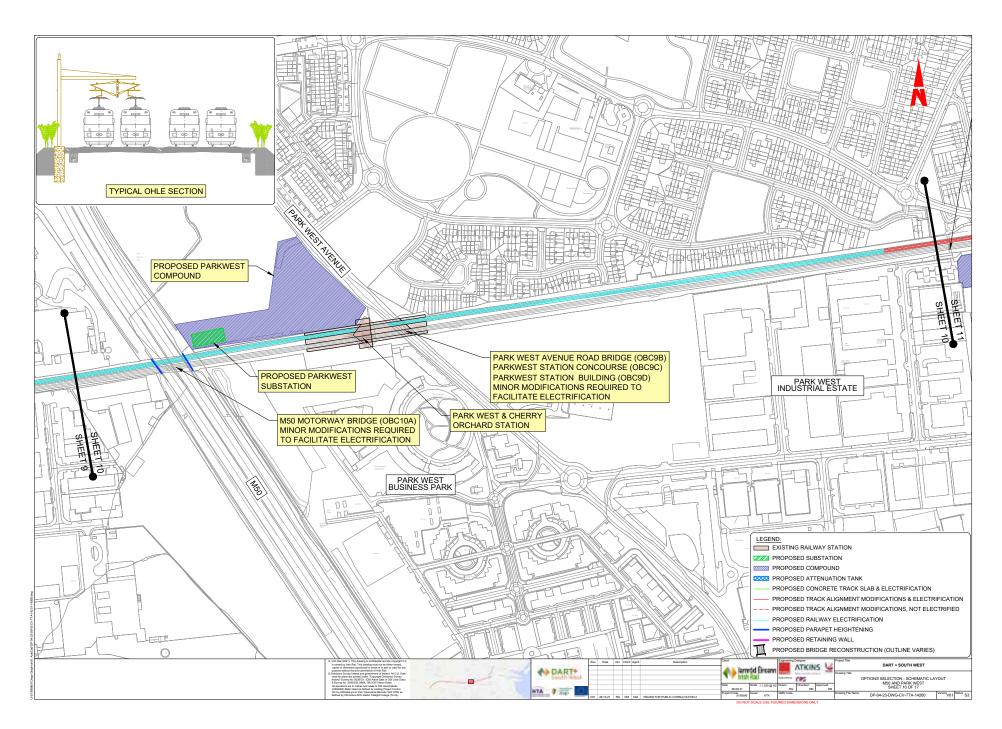


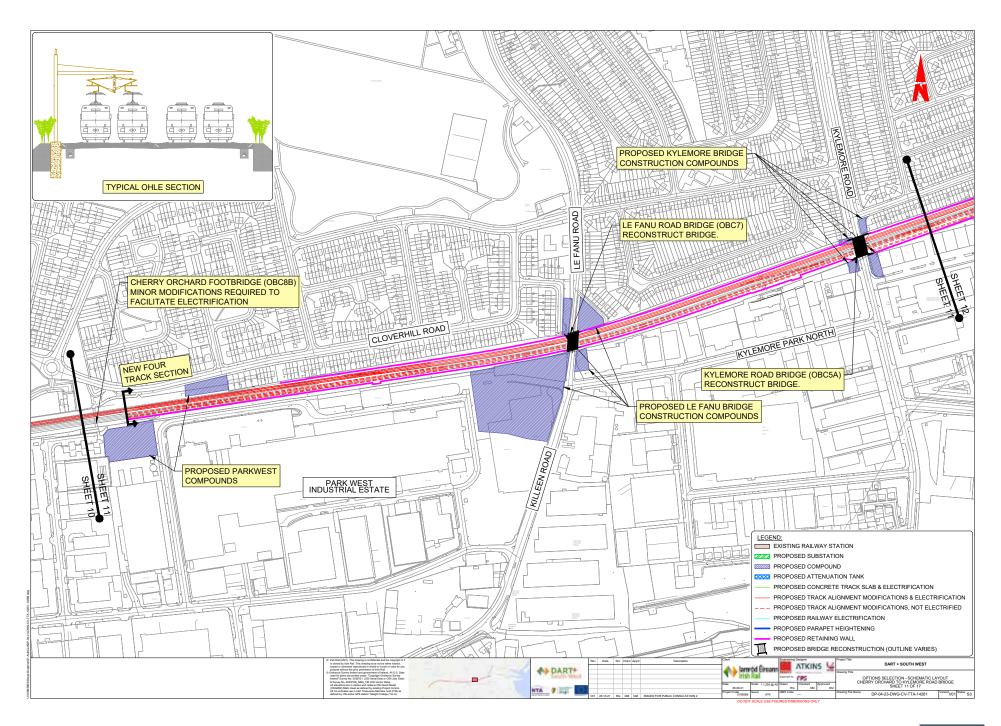


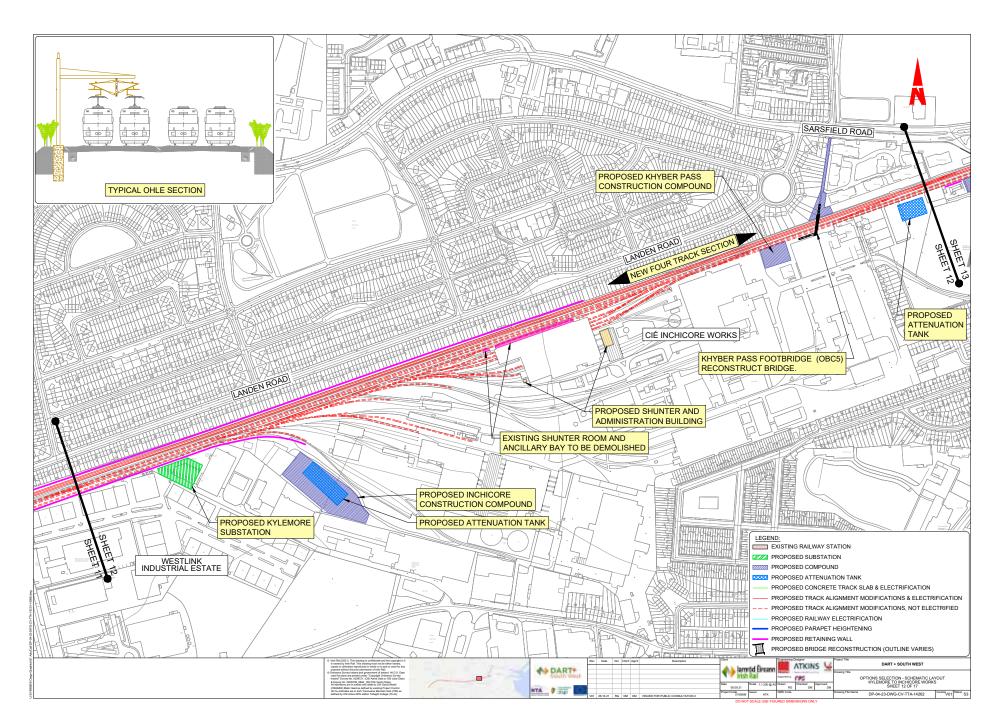


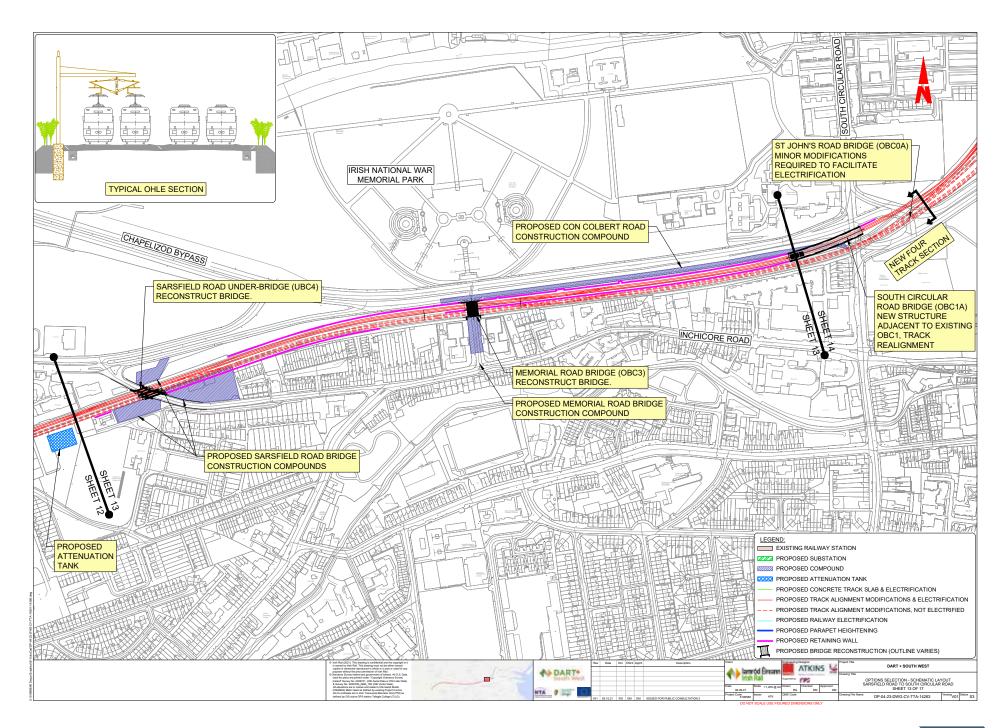


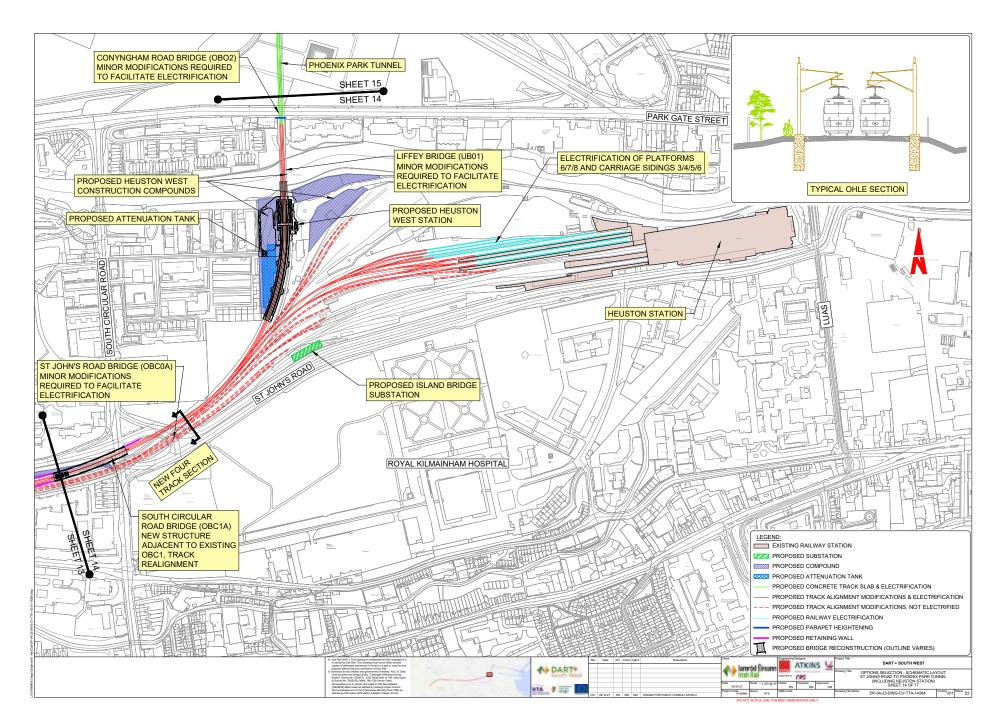


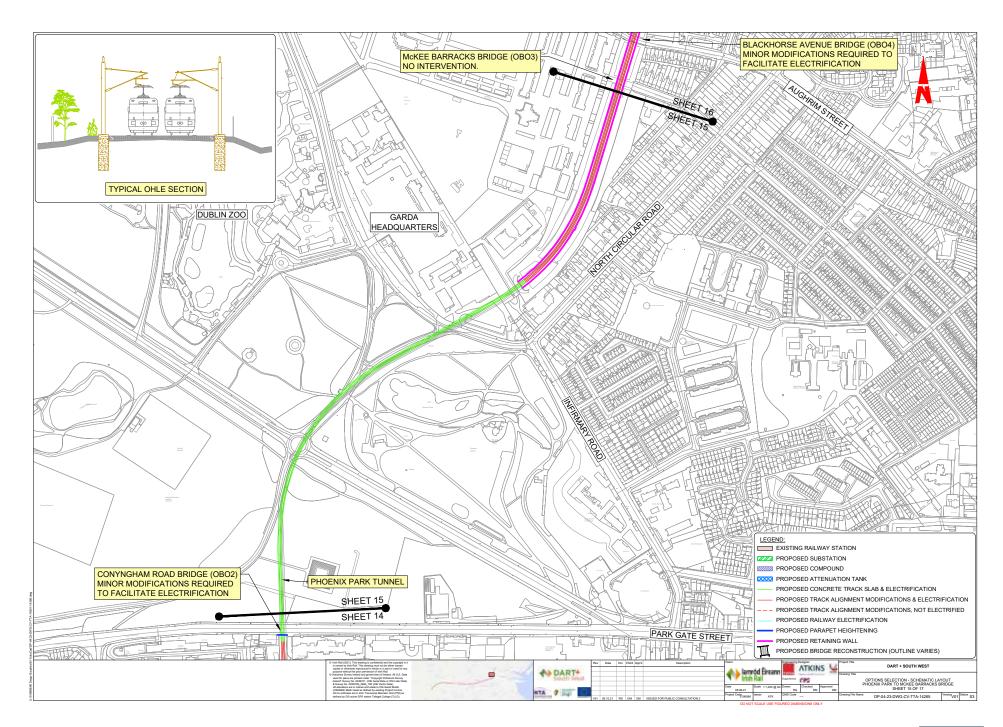


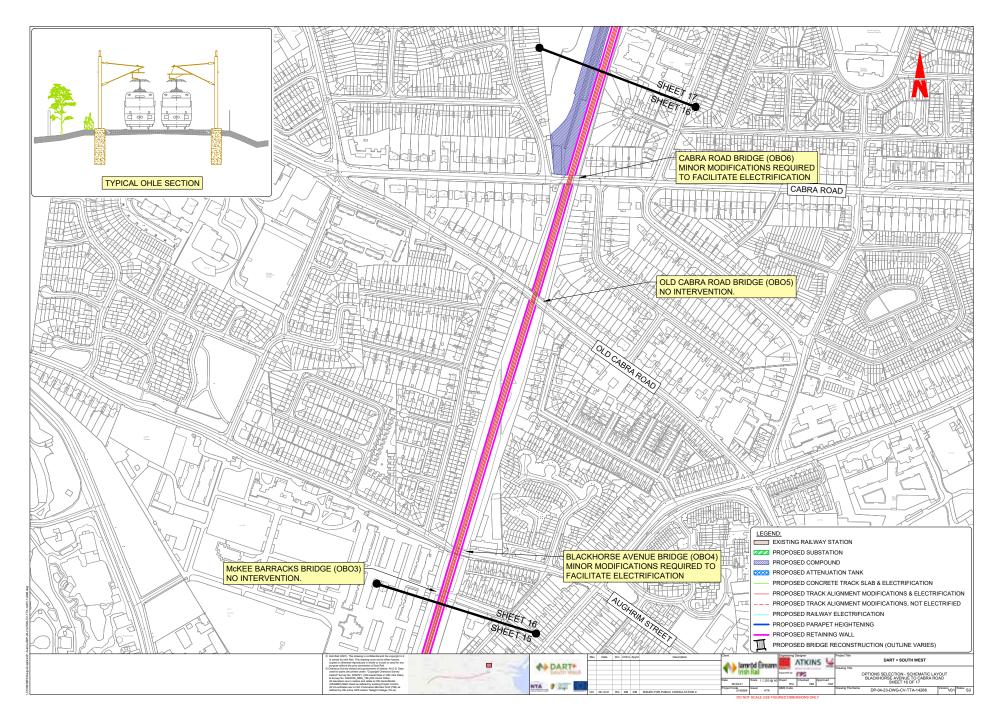


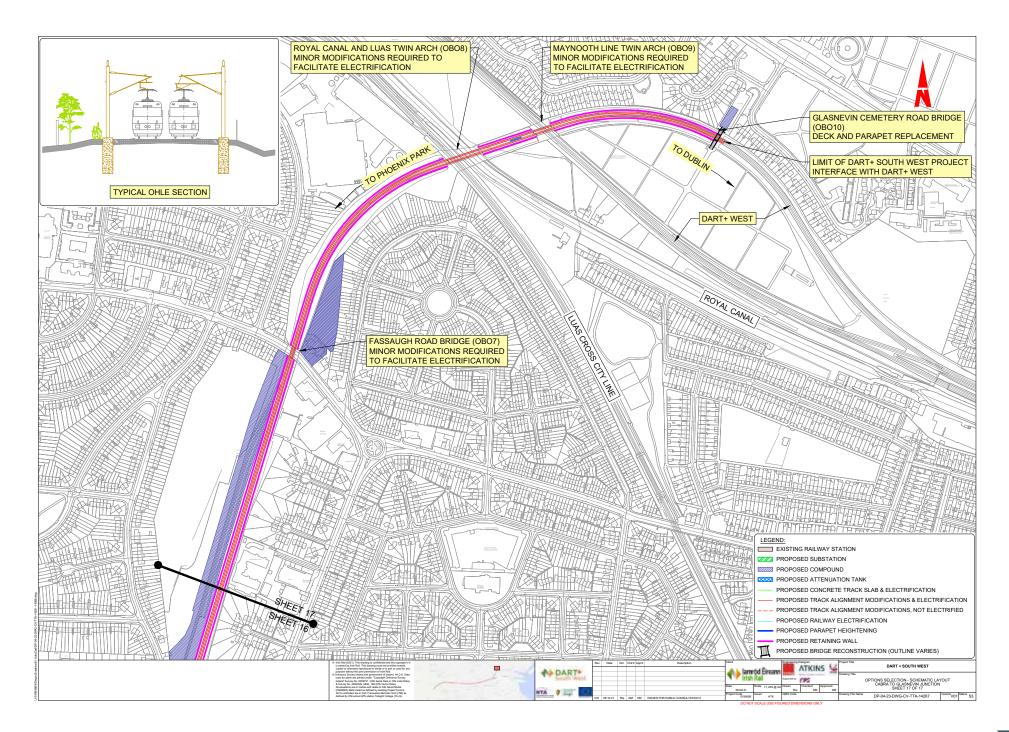




















The EU is part funding the DART+ South West design. The contents of this publication are the sole responsibility of larnród Éireann and do not necessarily reflect the opinion of the European Union.

