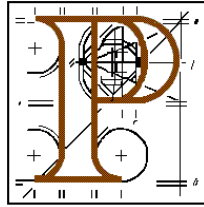


An Bord Pleanála



Inspector's Report

Proposed Development

DART+ West Railway Order - Dublin City to Maynooth and M3 Parkway,
Counties Dublin, Meath and Kildare

Applicant:

Córas Iompair Éireann

Planning Authority:

Dublin City Council

Fingal County Council

Meath County Council

Kildare County Council

Type of Application:

Section 37 of the Transport (Railway
Infrastructure) Act, 2001, as amended

Inspector:

Kevin Moore

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1.0 DESCRIPTION OF THE PROPOSED DEVELOPMENT

1.1 Overview

- 1.1.1 The DART+ West project is proposed to commence in Dublin City and extend westwards towards Kildare and Meath in the Greater Dublin Area (GDA). The project would electrify a combined total of approximately 40 kilometres of the Great Southern & Western Railway (GSWR) and the Midland Great Western Railway (MGWR) rail lines from Dublin City centre extending west of Maynooth as far as a proposed depot to the east of Kilcock, and separately to the M3 Parkway Station in County Meath. The works would extend across four administrative areas, namely: Dublin City Council, Fingal County Council, Kildare County Council and Meath County Council.
- 1.1.2. The Dart+ West project would begin at a new Spencer Dock station and travel west, stopping at Connolly, Drumcondra, Glasnevin, Broombridge, Pelletstown, Ashtown, Navan Road Parkway, Castleknock, Coolmine, and Clonsilla. The M3 Parkway line would continue from Clonsilla, stopping at Hansfield, Dunboyne and M3 Parkway. The Maynooth line would continue from Clonsilla, stopping at Leixlip Confey, Leixlip Louisa Bridge and Maynooth before proceeding to the new depot site.
- 1.1.3. The depot would be located west of Maynooth and immediately east of Kilcock.
- 1.1.4. There would be an interchange at Glasnevin with the planned Metrolink.
- 1.1.5. The DART+ West project is seeking to significantly increase rail capacity on the Maynooth and M3 Parkway lines. This would be achieved by changing from diesel powered trains to electrified, high-capacity DART trains and increasing the frequency of trains from 6 to 12 trains per hour per direction. Passenger capacity is proposed to increase from 5,000 to 13,200 passengers per hour per direction.

1.1.6. The electrification of the rail line would be located predominantly within the existing railway corridor within Irish Rail / CIÉ owned lands. However, some works would involve works outside the CIÉ boundary and would require the acquisition of private lands to facilitate the project.

1.2. **Scheme Characteristics**

1.2.1. The principal components of the project include:

- Signalling, Electrification and Telecommunication (SET) works;
- Construction of overhead line equipment (OHLE) along the railway;
- Structural alterations to existing rail overbridge structures;
- Modification works to existing bridge structures;
- Linear railway permanent way works;
- Closure of six existing level crossings at Ashtown, Coolmine, Porterstown, Clonsilla, Barberstown and Blakestown and the construction of replacement access infrastructure, with the exception of Blakestown;
- Station alterations at Connolly Station (to include modifications to junctions and the station to facilitate increased train and passenger numbers), including the provision of a new entrance at Preston Street via Connolly Station vaults (connecting to platforms 6 and 7) and associated public realm works on Preston Street.;
- Construction of a new station at Spencer Dock, improving interchange with the Luas;
- Construction of 12 substations, supporting technical buildings and electricity connections along the line;
- Construction of temporary construction compounds;
- Construction of permanent maintenance compounds at Navan Road Parkway and the proposed depot;

- Off-line track realignment in the vicinity of Rail Overbridge 23 (OBG23 Jackson's Bridge) and associated roadworks;
- Construction of a depot east of Kilcock for the maintenance and parking (stabling) of trains, provision of access infrastructure including a new overbridge, roadworks and flood compensation storages areas; and
- Drainage works and all ancillary works.

1.2.2. A Main Storage and Distribution Centre is required to provide materials to construction compounds which would be located along the line. The chosen site for this centre is 20km north-west of Dublin Airport. This does not form part of the proposed development although it is examined and considered as part of the project in the applicant's EIAR. This is an established facility which is intended to be utilised by the developer.

1.3. **Geographical Zoning**

1.3.1. The overall scheme has been divided into six geographical zones. These are as follows:

Zone A	Loop Line Bridge to Phibsborough/Glasnevin (on GSWR line) and East Wall Junction (on Northern line)
Zone B	Spencer Dock Station to Glasnevin Junction
Zone C	Glasnevin Junction/Phibsborough to Clonsilla Station/Junction
Zone D	Clonsilla Station/Junction to M3 Parkway Station
Zone E	Clonsilla Station/Junction to Maynooth Station
Zone F	Maynooth Station to Depot.

2.0 SUBMISSIONS RECEIVED

- 2.1. Submissions were received by the Board from the following:

Local Authorities

Fingal County Council

Dublin City Council

Meath County Council

Kildare County Council

Public and Prescribed Bodies

Transport Infrastructure Ireland

Department of Housing, Local Government and Heritage – DAU

National Transport Authority

Geological Survey Ireland

Inland Fisheries Ireland

National Disability Authority

Irish Water

An Taisce

Public Representatives

Richard Boyd Barrett TD

Senator Emer Currie & Cllr Siobhan Shovlin

Cllr John Walsh

Leo Varadkar TD

Cllr Natalie Treacy

Paul Donnelly TD

Cllr Tania Doyle

Cllr Ted Leddy

Cllr Joe Neville

Cllr Tim Durkan

Cllr Nuala Killeen, Cllr Aidan Farrelly & Cllr Bill Clear

Catherine Murphy TD

Bernard J Durkan TD

Third Parties

***Zone A Loop Line Bridge to Phibsborough/Glasnevin (on GSWR line)
and East Wall Junction (on Northern line)***

Landowners

Eoin Healy

Colette Maguire and David Conroy

Liam Ball, Bodycraft Repairs Limited

Alan Costello

Patrick Lawlor

Laura MacDarby

Tracey Carabini

Davina Fitzpatrick

Eileen Reilly

Propmaster Ventures Limited

Zone B Spencer Dock Station to Glasnevin Junction

Landowners

Spencer Place Development Company

Páirc an Chrócaigh Teoranta

Other Submissions

Kenneth Pierce

Beatrice Vance

Denis M Baker IWAI Royal Canal Branch

**Zone C *Glasnevin Junction/Phibsborough to Clonsilla Station /
Junction***

Ashtown

Landowners

Christopher Reid

Gráinne Reid

Kevin Reid

Burke Brothers

Gowan Group Limited

John & Grainne Malone

John & Noelle Keenan

Castlethorn and Chartered Land Group (Lintwell Ltd.)

Aviva Life and Pensions Ireland DAC

Other Submissions

Rathborne Village Management Company

Anna Lalor

Rathborne Village Residents Association

Rathborne Community Association

Pat Allison

Tony Mooney & Others

Navan Road Community Council

Musgrave Operating Partners Ireland Limited

Síocha Costello

Amy Lewis

Aoife Webb

Catherine Thorpe

Liane Roberts

Rachel Byrne

Sharon Weldon

Emer Rafter

Navan Road Parkway

Landowners

Flynn and O'Flaherty Construction

Castleknock

Landowners

Castleknock Mews Residents' Association

Ashleigh Residents

Porterstown

Landowners

Brian Lynam

Porterstown Owners Management Company

St. Mochta's Football Club

Cathal Ross

Maribel Martin

Castleknock/Porterstown/Clonsilla Public Submissions

Blanche Retail Nominee Limited

Brian O'Connor

Ciara O'Neill

Mary Keane

Mark Allen & Josephine Reilly

John Devitt

Kieran O'Callaghan

Patrick Lynch

Bill Fordyce

Michael O'Connor

Delwood Residents Association

Brendan O'Brien

Helena & John Coggins

Dara Coyne

Conor Casey

Jane McKevitt

Niamh Digan & Others

Anne Mooney & Others

Imelda Bermingham

Shay Cox

Kevin O'Ceallaigh

Kieran O'Neill

Christine Moore & Louis Watters

St. Mochta's National School Board of Management and Parents Association

Residents of St. Mochta's Estate

St. Mochta's Residents Association

Desmond Brown & Anna Keane

Kirkpatrick Rockfield Coolmine Residents' Association (KRCRA)

Fred Rogers

Castlefield Park Residents Association

Bláthnaid & Pádraig Mac Criostail

Richard Dixon

Lucy Flint

Zone D Clonsilla Station/Junction to M3 Parkway Station

Landowners

Alanna Homes, Dragonglen & Alcove Ireland Eight Ltd.

McGarrell Reilly

Other Submissions

AZRA Property Company Limited

Zone E Clonsilla Station/Junction to Maynooth Station

Barberstown

Landowners

Joan, Edel, Madeline & Francis Anthony Reynolds

Seamus Ross

Other Submissions

Catherine Day & Alan Rudden

Conor O'Malley

Leixlip Convey

Landowners

Confey GAA Club

Other Submissions

Andy Grehan, David Slattery & Eoghan O'Connell

Brian Conlan

Sean & Monica Quigley

Stephanie Rock

Stephen Gartland & Others

John Kane

Stella Barrett

Michael & Áine O'Connor

Kay & John Brennan

Sonja Brennan

Karl & Alana Pawley

Stephanie Rock

Leixlip Louisa Bridge

Public Submissions

Blakestown Residents

Zone F Maynooth Station to Depot

Maynooth

Landowners

St. Patrick's College Maynooth

Sherwood Homes Limited

Other Submissions

Maynooth Community Council

Depot

Landowners

Carlos Clarke

Eamonn & Joseph Kelly

Patrick Walsh

Eileen & James Foley

Peter Maher

Other Submissions

Gary Harpur

Patrick Comerford

Cathleen Herbert

Patrick Fallon

Peter J & Eimer Fallon

Gheel Autism Services CLG

Stephen & Gail Collins

Brian & Anne Marie O'Hara

William J. Smith

Miscellaneous

Irish Cycling Advocacy Network

Dublin Commuter Coalition

Ruadhán Mac Eoin

3.0. SCHEME-WIDE ISSUES

- 3.1. My assessment includes consideration of a number of scheme-wide issues raised by landowners and observers. Reference is made to the nature of the issue and the applicant's written responses. Where issues were raised at the Oral Hearing these were noted.

4.0. AREA-BASED ISSUES

- 4.1. My assessment includes consideration of a number of area-based issues raised by landowners and observers. Reference is made to the nature of the issue and the applicant's written responses.

5.0. LANDOWNER AND OBSERVER SUBMISSIONS

- 5.1. The submissions from local authorities, prescribed and public bodies, public representatives, landowners and observers are synopsised and considered in my

assessment of these submissions. Synopses of the applicant's written responses to these submissions are also provided. Details of contributions given at the Oral Hearing are also noted.

6.0. OVERVIEW OF THE PLANNING AND ENVIRONMENTAL ASSESSMENT PROCESS

6.1. My assessment of the Railway Order application is divided into a number of parts as follows:

The first part comprises a Planning Assessment. This seeks to address a range of some of the key planning issues arising from the development of the proposed project.

This is followed by an assessment of the landowner and observer submissions made to the Board. Therein, I seek first to address scheme-wide issues that were raised, common zone-by-zone (area-based) issues, and then an assessment of individual submissions. It is noted that the Planning Assessment has addressed a number of issues referred to by individual landowners and observers and these are not subject to assessment where they arise in the landowner and observer assessment.

Following these assessments, an Environmental Impact Assessment is then undertaken, which has been informed by the applicant's Environmental Impact Assessment Report, supporting documentation, third party written submissions, and submissions at the Oral Hearing.

Finally, an appropriate assessment is undertaken with due regard given to the applicant's Natura Impact Statement, the updated Natura Impact Statement

submitted at the Oral Hearing, supporting documentation, third party written submissions, and submissions at the Oral Hearing.

7.0. COMPULSORY PURCHASE ORDER

- 7.1. The matters that the Board must consider before confirming the compulsory acquisition of lands are not clearly prescribed in legislation. Case law indicates that the Board must be satisfied that the applicant has demonstrated that the CPO "*is clearly justified by the common good*" (Para. [52] of judgement of Geoghegan J in *Clinton v An Bord Pleanála* (No. 2) [2007] 4 IR 701).
- 7.2. It is understood that this phrase requires the following minimum criteria to be satisfied:
- There is a community need that is to be met by the acquisition of the lands in question,
 - The particular lands are suitable to meet that community need,
 - Any alternative methods of meeting the community needs have been considered but are not demonstrably preferable (taking into account environmental effects, where appropriate), and
 - The works to be carried out should accord with or at least not be in material contravention of the provisions of the statutory development plan.
- 7.3. The Board will note that these criteria will be referred to in the planning and environmental assessments of this report, notably with regard to landowner submissions and public policy considerations. Following the planning and environmental assessment processes, I will seek to provide an overview of the relevant criteria to determine if the minimum criteria have been met in this instance.

8.0 PLANNING ASSESSMENT

8.1. Compliance with Public Policy

The following is noted:

8.1.1. **NATIONAL**

Project Ireland 2040

National Planning Framework

There are ten National Strategic Outcomes (NSOs) identified within the National Planning Framework. NSO 4 relates to ‘Sustainable Mobility’ which promotes the need to progressively electrify the State’s mobility systems, moving away from polluting and carbon intensive propulsion systems to new technologies.

With regard to Dublin, the NPF states that the city’s continued performance is seen as critical to Ireland’s competitiveness. Improving the strategic infrastructure required to sustain growth is identified as a key priority as part of the Metropolitan Area Strategic Plan (MASP) and the NPF states that it will include expansion and improvement of the bus, DART and Luas/Metro networks.

Key future growth enablers identified for Dublin include:

“Delivering the key rail projects set out in the Transport Strategy for the Greater Dublin Area including Metro Link, DART expansion and the Luas green line link to Metro Link.”

National Development Plan 2021-2030

The National Development Plan supports the delivery of Project Ireland 2040 through public capital investment over the next decade and guides national,

regional and local planning and investment decisions in Ireland. The NDP supports NSO 4 of the National Planning Framework.

DART+ is one of the ‘Strategic Investment Priorities’ applicable to NSO 4 Sustainable Mobility. The NDP refers to the DART+ programme as a cornerstone of rail investment within the lifetime of Project Ireland 2040 and states that it represents the single biggest investment in the Irish rail network. The programme is seen to comprise a number of infrastructural projects – DART+ West, DART+ South West, DART+ Coastal North to Drogheda via Balbriggan, and DART+ Coastal South – and also a significant expansion of fleet, both battery-electric (BEMUs) and electric multiple units (EMUs). The NDP further acknowledges that public consultation had already taken place in relation to DART+ West and the procurement process had been completed in respect of DART+ Fleet. It is further noted that a Preliminary Business Case has been submitted for analysis and would be presented to Government for its approval as required under the Public Spending Code. It was stated that approval would allow DART+ West to move into the statutory planning process (i.e. the Railway Order application) and it would also allow for finalisation of the fleet contract.

National Sustainable Mobility Policy

Published by the Department of Transport in April, 2022, the purpose of the Policy is “To set out a strategic framework to 2030 for active travel and public transport to support Ireland’s overall requirement to achieve a 51% reduction in carbon emissions by the end of this decade”.

The provisions under this Policy relating to supporting Safe and Green Mobility include:

- Expanding electrification of the rail network in the Greater Dublin Area under the DART+ programme.

National Investment Framework for Transport in Ireland

The National Investment Framework for Transport in Ireland (NIFTI), published in December, 2021, is the Department of Transport's framework for prioritising future investment in the land transport network to support the delivery of the National Strategic Outcomes of the National Planning Framework. The Framework notes that, in terms of infrastructure supply, for the coming decade the National Development Plan has identified a range of transport projects that will be commenced, subject to compliance processes such as the Public Spending Code, and which includes DART+.

The Climate Plan 2023

The Plan, published by the Department of the Environment, Climate and Communications in December, 2022, implements the carbon budgets and sectoral emissions ceilings and sets a roadmap for taking decisive action to halve the State's emissions by 2030 and reach net zero no later than 2050. It calls for a significant cut in transport emissions by 2030 in order to meet the sectoral emission ceiling. Fleet electrification, along with the use of biofuels, are seen to provide the greatest share of emissions abatement in the medium term.

Table 15.7 of the Plan sets out the 'Key Actions' to deliver abatement in transport for the period 2023-2025. Within this Table and under the heading 'Major Public Transport Infrastructure Programme', the advancement of the DART+ programme is scheduled.

8.1.2. **REGIONAL**

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

The RSES forms a strategic plan and investment framework and provides regional policy objectives for the Dublin, Eastern and Midlands Region, addressing Project Ireland 2040 at a regional level.

With reference to connectivity and the transport strategy for the Region, proposals to help to achieve the National Strategic Outcomes outlined in Project Ireland 2040 and the Regional Strategic Outcomes of the Strategy are set out. Under ‘Transport Investment Priorities’ relating to rail, it is noted that the primary function of the rail network in the Region is to provide commuter rail services to Dublin City, and major employment locations within the Metropolitan Area and in large towns. Intercity rail services are also seen to play a key role in offering sustainable travel alternatives for longer distance trips, providing improved interregional connectivity. The relevant Regional Policy Objective is as follows:

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 first project in the Table is “*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 improve DART services on the South-Eastern Line as far south as Greystones*”.

With regard to the Dublin Metropolitan Area Strategic Plan, one of the ‘Guiding Principles’ for the area’s growth is:

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

Strategic residential and employment development corridors are identified in the MASP. Strategic development corridors include:

North - West Corridor

(Maynooth/Dunboyne line and DART expansion)

Strategic development areas along the Dunboyne/M3 parkway line include the Dublin Enterprise Zone (linked to improved bus connections), Hansfield lands and the sequential development of lands in Dunboyne served by the M3 Parkway station. The proposed electrification of the main Maynooth line, to be delivered by 2027, will support sequential growth in Leixlip and Maynooth.

The Regional Policy Objective for MASP relating to ‘Sustainable Transport’ is RPO 5.2. This is as follows:

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.

Greater Dublin Area Transport Strategy 2022-2042

This Strategy, published by the National Transport Authority, builds on the Transport Strategy for the Greater Dublin Area 2016-2035 and addresses the

transportation requirements to support continued development within counties Dublin, Meath, Kildare and Wicklow. In relation to Public Transport and DART in particular, the Strategy notes that the DART+ Programme seeks to increase the electrified network to 150km, in order to facilitate increased train capacity to meet current and future demands which will be achieved through a modernisation of the existing railway corridors. It is acknowledged that this will also contribute to Ireland's transition to a low carbon and climate resilient society. Noting the DART+ Programme comprises 4 main projects based on corridors, the components of the proposed development forming DART+ are outlined. The Strategy sets out a range of Measures to be implemented and includes:

Measure RAIL1 – DART+

The DART+ Programme will be implemented, providing electrified services to Drogheda in the north and Maynooth plus Celbridge in the west, in addition to an enhanced level of service to Greystones. The programme will include additional fleet, aligned with higher passenger demand, and a higher frequency of service on all lines.

8.1.3. LOCAL

Dublin City Council

Dublin City Development Plan 2022-2028

The main policies relevant to the DART+ Programme are as follows:

SMT14 - City Centre Road Space

To manage city centre road-space to best address the needs of pedestrians and cyclists, public transport, shared modes and the private car, in particular, where

there are intersections between DART, Luas and Metrolink and with the existing and proposed bus network.

SMT22 - Key Sustainable Transport Projects

To support the expeditious delivery of key sustainable transport projects so as to provide an integrated public transport network with efficient interchange between transport modes, serving the existing and future needs of the city and region and to support the integration of existing public transport infrastructure with other transport modes. In particular the following projects subject to environmental requirements and appropriate planning consents being obtained:

- DART +
- Metrolink from Charlemount to Swords
- BusConnects Core Bus Corridor projects
- Delivery of Luas to Finglas
- Progress and delivery of Luas to Poolbeg and Lucan

SMT-23 - The Rail Network and Freight Transport

- (i) To work with Iarnród Éireann/Irish Rail, the NTA, 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.
- (ii) To facilitate and support the needs of freight transport in accordance with the NTA's Transport Strategy for the Greater Dublin Area 2022 – 2042 and enhance the capacity on existing rail lines and services to provide

improved facilities promoting the principles of sustainable transport to cater for the movement of freight by rail.

- (iii) To support the outcomes of the Iarnród Éireann/Irish Rail Rail Freight 2040 Strategy

The main objectives relevant to the DART+ Programme are as follows:

SMT01 - Transition to More Sustainable Travel Modes

To achieve and monitor a transition to more sustainable travel modes including walking, cycling and public transport over the lifetime of the development plan, in line with the city mode share targets of 26% walking/cycling/micro mobility; 57% public transport (bus/rail/Luas); and 17% private (car/van/HGV/motorcycle).

SMT017 - Additional Interchanges and Rail Stations

- (i) To promote and seek the development of a new interchange station at Cross Guns Glasnevin, subject to environmental requirements being satisfied and appropriate planning consents being obtained, as part of the DART+ and MetroLink projects.
- (ii) To promote the provision of a station at Croke Park Stadium.
- (iii) To promote and seek provision of additional stations as part of the DART+ projects in consultation with Iarnród Éireann/Irish Rail.

Strategic Development Regeneration Areas (SDRAs)

SDRA 6 - Docklands

Movement and Transport provisions include:

- To support the extension of LUAS light rail, a DART Interconnector and improvements to Irish Rail's network including Dart+ projects

With regard to 'Guiding Principles for Key Opportunity Sites' and those relating to Connolly Station, it is stated that a new pedestrian entrance to the station from Preston Street should be provided through an existing rail arch to link to a central concourse and to the wider pedestrian network.

SDRA 10 – North East Inner City

This relates to lands beside and west of Connolly Station. Guiding Principles are set out for a range of sites in the vicinity.

North Lotts and Grand Canal SDZ Planning Scheme 2014

Objectives relating to 'Movement' within the Scheme 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 modes, 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.

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

Ashtown – Pelletstown Local Area Plan 2014

In reference to Movement and Transport Strategy, the key aims include:

- To improve accessibility and maximise public transport use, taking account of planned rail and light rail developments which will benefit the area.
- To prioritise planned infrastructure that supports public transport, and secondly to ensure the land use strategy is informed by, and integrated with, transportation objectives.
- To seek the interconnection of walking and cycling routes with key public transport and amenity destinations (both existing and planned)

Policies of the Plan include:

MA1 To improve accessibility throughout the plan area, facilitate the completion of a 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.

Objectives include:

MA07 To encourage and facilitate, in cooperation with Fingal County Council and Iarnród Éireann, the replacement of the existing manually operated rail level crossing at Ashtown Road, with a 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 and cycle networks both within and surrounding the LAP area.

Fingal County Council

Fingal Development Plan 2023-2029

The Plan recognises that Maynooth and PACE railway lines (Dunboyne/M3 Parkway rail line) and Dart and suburban rail form critically important elements of the existing transport network within Fingal which connects to Dublin City Centre and Country wide rail and bus networks (Section 6.2). It is also acknowledged that Fingal is set to benefit from major rail and bus projects such as DART+ under the National Development Plan 2021–2030. It is noted that this project, along with others, are identified as key growth enablers for Fingal in the NPF and will significantly increase capacity and allow more services to operate across the region, facilitating Fingal’s vision for compact growth and sustainable mobility, serving key destinations and facilitating opportunities along the route for high-

density residential development, mixed-use and employment generating activities.

Policies and Objectives of the Plan include:

Objective CMO6 – Improvements to the Pedestrian and Cyclist Environment

Maintain and improve the pedestrian and cyclist environment and promote the development of a network of pedestrian/cycle routes which link residential areas with schools, employment, recreational destinations and public transport stops to create a pedestrian/cyclist environment that is safe, accessible to all in accordance with best accessibility practice.

Policy CMP18 – Public Transport

Support the provision of a high-quality public transportation system that is accessible to all to serve the needs of the County and to enable a significant shift from car-based travel to public transport.

Objective CMO23 – Enabling Public Transport Projects

Support the delivery of key sustainable transport projects including MetroLink, BusConnects, DART+ and LUAS expansion programme so as to provide an integrated public transport network with efficient interchange between transport modes to serve needs of the County and the mid-east region in collaboration with the NTA, TII and Irish Rail and other relevant stakeholders.

Objective CMO24 – NTA Strategy

Support NTA and other stakeholders in implementing the NTA Strategy including MetroLink, BusConnects, DART +, LUAS and the GDA Cycle Network.

Objective CMO25 – Level Crossings and Public Transport

Ensure that appropriate measures are put in place to mitigate the impacts of level crossing closures on the Maynooth rail line including protection measures for public transport and increased priority for cycling and walking.

Hansfield Strategic Development Zone Planning Scheme 2006

The Scheme, located in the south-west Blanchardstown area close to the border with Meath, was approved in 2006 and its development continues. With reference to rail, the Scheme noted DTO/larnród Éireann improvement plans for the Maynooth – Dublin Connolly line to increase capacity. Specific improvements identified included improvement of Clonsilla Station by the provision of a new pedestrian bridge over the Royal Canal, alteration of Connolly Station to increase inbound capacity, a new station at Spencer Dock, electrification of the line, removal of level crossings, and provision of new stations.

Barnhill Local Area Plan 2019

The Plan area relates to lands directly south of the Dunboyne to Clonsilla rail line, the Royal Canal and the Dublin-Maynooth rail line. Trains using the Dunboyne–Clonsilla rail line serve Barnhill from the Hansfield train station. The station is located on the northern border of the lands. The Plan notes that the Barnhill area benefits from a location close to the Dunboyne (Pace) - Clonsilla rail line and that access from the north is constrained by the Dunboyne-Clonsilla train line, with the existing bridge being narrow and without the benefit of footpaths.

The Movement and Transportation Strategy of the Plan includes the following objectives:

- MT1** Improve accessibility throughout the plan area, through the completion of a hierarchical road infrastructure network to serve the development, and encourage links to existing and proposed public transport nodes both within and beyond the LAP boundary.
- MT3** Promote increased cycling and pedestrian activity within the development through a network of routes that connect to public transport routes, centres of employment, amenities, and community and retail destinations.
- MT4** Implement an integrated and sustainable movement and transport strategy for Barnhill which supports the effective management of sustainable travel patterns across the site with good connections to the greater Blanchardstown network.
- MT6** Prioritise sustainable modes of transport including walking, cycling and public transport and reduce the reliance on the use of private cars within Barnhill.

Kellystown Local Area Plan 2021

The Plan area lands are located to the south of the Royal Canal and the Dublin-Maynooth railway line, the Diswellstown Road to the east, and Clonsilla Road to the west. The nearest train station to Kellystown lands is Clonsilla. The Plan acknowledges that the DART Expansion Programme is an integral part of the National Transport Authority's Transport Strategy for the Greater Dublin Area 2016-2035. It notes that this includes increasing service frequencies to support the existing and future demand for rail travel, closing level crossings along the Maynooth railway line, new vehicular bridges (with pedestrian and cyclist facilities) to the east of the site at Coolmine and to the west of the site at

Barberstown, and provision of new pedestrian/cyclist bridges at Clonsilla and Porterstown to facilitate development in the area.

Under the Plan's Movement and Transport Strategy, it is stated that, with respect to Fingal Development Plan 2017-2023 Local Objective 137 (*To preserve the existing vehicular right of way at Old Porterstown Road level crossing*), the findings of the Maynooth Line Transport Study report have concluded that there is no need to retain a vehicular right of way at this location. The Kellystown Draft LAP continues to support Objective 137 of the Fingal Development Plan. With regards Development Plan 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), the Plan notes that the Maynooth Line Transport Study concluded that the crossing of the railway line and Canal at Clonsilla should accommodate pedestrians and cyclist only at this location. To facilitate vehicular movements traversing the railway line to the west of Kellystown, a new grade-separated crossing is proposed at Barberstown. This crossing will link the Kellystown link road to the proposed Ongar Barnhill Distributor Road.

Objectives include:

Objective 7.5 Provide safe walking and cycling links to Clonsilla Rail Station and liaise with Irish Rail in providing additional cycle parking at the station.

Objective 7.6 Provide appropriate pedestrian/cyclist facilities at the Porterstown level crossing.

Meath County Council

Meath County Development Plan 2021-2027

The Movement Strategy of the Plan includes the following objectives:

MOV OBJ 4 To improve, in conjunction with the NTA and Irish Rail, facilities at existing stations.

MOV OBG6 To facilitate and encourage the upgrading of existing railway stations, and protect, as required, lands necessary for the upgrading of existing railway lines or stations or the provision of new railway stations throughout the County.

With regard to Economic Areas within the Metropolitan Area and to Maynooth in particular, objectives include:

ED OBJ 10 In accordance with RPO 4.33 of the Regional Spatial and Economic Strategy, to support the continued development of Maynooth, co-ordinated with the delivery of strategic infrastructure including pedestrian and cycle linkages within the town and to the Royal Canal Greenway, DART expansion and road linkages forming part of the Maynooth Outer Orbital Route in a manner which supports future development and population growth and builds on synergies with Maynooth University promoting a knowledge-based economy.

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. The Plan noted at that time that Phase 1 of the Clonsilla to Navan Railway Line, Clonsilla to Pace, was due to

open in 2010 and that the service would operate between Pace Interchange and Connolly Station, with a stop at Hansfield, south of Dunboyne.

Relevant policies include:

MOV POL 4 To facilitate and protect the operation of the railway in conjunction with Iarnród 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 Iarnród Éireann/CIE for comment.

Kildare County Council

Kildare County Development Plan 2023-2029

With regard to Sustainable Mobility and Transport, the key policy of the Plan of relevance to the DART+ Programme is as follows:

TM 01 Support the NTA Draft Transport Strategy for the Greater Dublin Area (2022-2042) and facilitate and secure the implementation of projects identified within the Strategy.

Objectives include:

TM 010 Facilitate and secure the delivery/implementation of the public transport projects that relate to County Kildare as identified within the Integrated Implementation Plan (2019-2024), (or any superseding document), including the DART+ programme (Including DART+ West and DART+ South West), BusConnects and the light rail investments. The DART+ projects present an opportunity to improve journey time, reliability, and train frequency.

- TMO 50** Facilitate and support the extension of the DART+ line to Kilcock, the extension of the DART+ Southwest line to Naas/Sallins (and promote a future extension to Newbridge and Kildare Town in the next DART + programme / GDA Transport Strategy Review) and the extension of the LUAS network, in co-operation with Irish Rail, the Department of Transport and the National Transport Authority.
- TM 051** Support the electrification of intercity routes.
- TM 054** Support and facilitate, in co-operation with Irish Rail and the National Transport Authority the delivery of the following proposed new facilities to connect to the existing and proposed rail network;
...
- A second Maynooth railway station/depot sited to the west of Maynooth ...

Maynooth Local Area Plan 2013-2019

I note that a new Plan has commenced preparation for Maynooth. It was clarified at the Oral Hearing by Kildare County Council that the Maynooth Local Area Plan 2013-2019 remains the statutory plan for the town.

With regard to Movement and Transport, the Plan notes that traffic congestion is a major problem in Maynooth and states that this will be addressed when the Maynooth Outer Orbital Route is completed.

Under 'Public Transport', it is stated that the level of rail service may be upgraded to include a greater frequency of commuter services by way of electrification of the line from Maynooth to Connolly Station.

Policies include:

PT 2: To support the enhancement of facilities at the Maynooth train station including additional car parking.

With regard to 'Road Infrastructure', it is noted that congestion remains a significant problem in the town centre and one of the key elements of this Plan is the provision of various objectives, particularly the outer orbital road to alleviate congestion problems. It is stated that it is also necessary to investigate the capacity of the existing M4 Interchange to ascertain whether the interchange needs to be upgraded or if an additional interchange linked to the existing one is required. The Roads Objective Map shows the new roads objectives, which includes the outer orbital roads provisions to the west and south-west of the town. Road objectives of the Plan include:

TRO 2: To facilitate the future construction of the following roads and in the interim protect these routes from development: ...

(e) Between the Kilcock Road (F) and the Rathcoffey Road (G) ...

Leixlip Local Area Plan 2020-2023

This Plan is extended to 30th March 2026. Under Movement and Transport, it acknowledges that 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 refers to electrification of the rail line likely having design implications for Confey Station and, subject to detailed design, the replacement of Cope Bridge. The relevant policy of the Plan is as follows:

Policy MT2 – Public Transport

It is the policy of the Council to promote the sustainable development of Leixlip by supporting and guiding the relevant national agencies in delivering improvements to the public transport network and to public transport services.

The Plan supports the proposed DART+ Programme through Objective MT2.2, which states:

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.

Kilcock Local Area Plan 2015-2021

It was clarified at the Oral Hearing by Kildare County Council that this Plan remains the statutory plan for the town.

With regard to Integrated Land Use and Transportation, the policies include:

MT 1 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.

Regarding public transport, the Plan notes that rail services are due to be improved with the upgrading of station facilities under the national 'Transport 21' investment programme and that the National Transport Authority had prepared a draft Transport Strategy 2011-2030 for the Greater Dublin Area. It was acknowledged that the draft strategy included proposals for the electrification of the line between Maynooth and Bray/Greystones and that beyond the period of the Strategy, there is potential for further rail electrification west of Maynooth.

Having regard to the above, I am satisfied that it is reasonable to conclude that the proposed scheme is compatible in principle with national, regional and local policies and objectives. The project's need is well informed by public policy. It is reasonable to determine that the proposed development is consistent with applicable planning policy and is supported by policies and objectives of the Dublin City, Fingal, Meath and Kildare Development Plans. In addition, the proposed development and the positive effect it will have on increased services, efficiency, public transport reliability and safety are also consistent with the applicable transport policies at national level.

8.2. Public Consultation

8.2.1. I note the numerous third party submissions made to the Board that have referenced poor public consultation to date on the proposed development. I acknowledge the timing of the preparation of the application now with the Board where it coincided with the restrictions arising from Covid 19. This created significant difficulties, disallowing face-to-face engagement with individuals and the wider community who are potentially affected by the proposed development. Much of the engagement took the form of digital / online consultations. This appears to have potentially curtailed the extent of public engagement with the

processes and many observers were dissatisfied with the form of and allowance for public participation in engagement.

8.2.2. The applicant's public engagement primarily took the form of different stages of public consultation prior to the lodgement of the application. There were three parts to this as follows:

- Consultation on the Emerging Preferred Option,
- Consultation on the Preferred Option, and
- Localised consultation on the Revised Ashtown Preferred Option.

8.2.3. Appendices A3.1 and A3.2 of the EIAR provide details on these processes and the findings resulting from the engagements. The Board will note that these were non-statutory public consultations.

8.2.4. I submit that the extent of public engagement was substantial and meaningful, notwithstanding the clear and imposing restrictions of Covid 19. Sections 2.1 of both Appendix A3.1 and A3.2 indicate the range of the processes, from ministerial launch and media briefings to elected member engagement, project website launch, brochures/leaflets/letters, webinars, and direct contacts.

8.2.5. While I appreciate and understand the third party concerns raised about the constraints of public consultation, I must acknowledge the period in which this occurred (during Covid 19) and the wide range of methods of engagement made by the applicant. Further to this, I must note the statutory public notification of the application and the significant number of third party submissions made to the Board in response to the Railway Order application. I accept that there may have been difficulties for different members of the public to engage with the process online and in a digital format. I acknowledge that the non-statutory consultation was restricted. However, the non-statutory public consultation process sought to apply processes that were appropriate for that time, while the public notices with

the application clearly informed the public on how, where and when to make submissions to the Board in direct response to the application itself. An Oral Hearing followed the receipt of submissions to the Board which facilitated further engagement in the planning process.

8.3. Consideration of Alternatives

8.3.1. I first acknowledge that the applicant's consideration of alternatives included 'Do Nothing', 'Do Minimum' and 'Do Something Preferred Option'. In the 'Do Nothing' scenario the proposed development does not go ahead. In the 'Do Something' scenario it is assumed that all level crossings along the rail line are closed to vehicular traffic and there would be no replacement road infrastructure provided. In the 'Do Something Preferred Option' scenario, the development as is currently proposed is considered. The applicant has set out details on the option selection process from which the preferred option derived, including details of the Multi-Criteria Analysis (MCA) used to inform the option selection process. The EIAR notes that the MCA was informed by the Common Appraisal Framework (CAF) for Transport Projects and Programmes (Department of Transport, Tourism and Sport, March 2016 and updated October 2020).

8.3.2. The applicant's assessment of alternatives gave an overview of the reasonable preferred option alternatives that were considered and outlined the process involved in selecting the preferred alternative. The key infrastructural elements that were looked at were:

- Electrification, re-signalling and telecommunications
- Structures
- Permanent way

- Level crossings
- Stations
- Depots
- Depot access
- Main Storage Distribution Centre, and
- Construction compounds.

8.3.3. I consider that the process for consideration of alternatives that was undertaken by the applicant included a robust assessment of alternative options having regard to a significant array of planning and environmental considerations, safety, economic and social factors, and the stated project need and objectives. I consider that the applicant's approach to the consideration of alternatives was extensive and rigorous. In many instances, I generally concur with the reasons for choosing the preferred options for different components of the overall scheme. The Board will note that detailed consideration of options aligned with some of the alternatives are undertaken below as part of my assessments where significant planning and environmental issues arose from landowner and observer submissions. These include bridge works, level crossing closures, tunnel provision, and the depot site.

8.4. Impact on Architectural Heritage

8.4.1. I consider that the principal components of the proposed development that would likely have impacts on architectural heritage are those potentially affecting Connolly Station vaults, railway bridges of historical and architectural merit, the

demesne of Ashton House, Ashtown Old Mill, and the Old Schoolhouse, Porterstown. The bridges directly affected would include Broombridge, Castleknock and Cope Bridges. I acknowledge that direct impacts by works would arise for Connolly Station vaults, the attachment of structures and cables to structures of heritage value to facilitate OHLE, the removal of a signal box of heritage value in the vicinity of the bridge at Sheriff Street Upper, modifications to bridges along the route, and demolition and replacement works at the entrance to Ashton House. Indirect impacts would also arise on the setting of structures of architectural heritage value, including the Old Schoolhouse in Porterstown and canal bridges adjoining the route corridor. I note the concerns about the impact of the proposed development on Jackson's Bridge, a protected structure to the west of Maynooth, and the proposed scheme providing for the diversion of the route to the south of this bridge. What follows is an assessment of the effect on the principal features of architectural heritage referenced above which are potentially impacted by the proposed development.

8.4.2. Connolly Station Vaults

The proposed development includes the provision of a new entrance from Preston Street to Connolly Station. The arch at the end of the street would be converted into a station entrance and passengers would enter the vaults at this location which would lead to the vault area's central corridor. Part of this area would be converted into a new station concourse. The development would include the provision of stairs, lifts and escalators. The intent would be to pedestrianise Preston Street, with the exception of providing vehicular access to the Parcels Post Office building. The new Preston Street façade would open to a second vault that would provide bicycle parking. There are 75 vaults of which it is estimated that around 20 would be partially refurbished to provide the proposed new access and concourse. A smart-card-reader pole system is proposed

because the geometry of the vaults does not permit the inclusion of a number of ticket validation gates. The proposal also includes the capacity to provide retail units in the arches that are located on either side of the central corridor. These are not part of the application to the Board. Emergency exits would be provided through the staff car park to Amiens Street and towards Fáilte Ireland's car park to Seville Place via a right of way.

Connolly Station, including all the 19th century elements of the main railway station complex, is on the Record of Protected Structures in the current Dublin City Development Plan. The brick and limestone masonry arched vaults running under the railway lines form part of the protected structure. It is acknowledged that the vaults are generally in a poor state of repair. They are subject to water penetration, differential movement and contamination and the existing drainage system is inadequate. It is reasonable to determine that their reuse would constitute a viable and functional use for the station complex in the interest of protecting these features of architectural heritage. Whilst acknowledging the need to cut part of the vaults to create accesses to Platforms 5, 6 and 7, it is also apparent that the applicant's general approach to their redevelopment seeks to minimise physical intrusion and loss of historic fabric, whilst using sympathetic materials to maintain the character of this area of the station.

I note the restoration, cleaning, and waterproofing strategies, as well as the materials and finishes proposed to be used in the vaults' redevelopment as set out in Appendix A4.1 of the EIAR. These are necessary and practical interventions in the redevelopment process of the vaults.

Overall, I am satisfied to conclude that the proposed redevelopment of the vaults to provide access and a new concourse would be a significant beneficial addition to this main railway station and necessary to the functionality of the DART + West project. Appropriate measures are being taken to minimise the impact on the architectural heritage fabric of the vaults.

8.4.3. Proposed Reconstruction of Broome Bridge, Castleknock Bridge, and Cope Bridge

I note Appendix A3.3 of Volume 4 of the EIAR. This comprises an ‘Option Selection for Overhead Line Equipment (OHLE) Intervention at OBG5, OBG11 and OBG14’, namely Broome Bridge, Castleknock Bridge, and Cope Bridge. This includes Technical Notes on the reconstruction of these bridges and Architectural Heritage Impact Assessments for each. I further note for the Board that issues relating to bridge reconstruction at these locations were discussed at the Oral Hearing on 11th October, 2023. The applicant reiterated its findings for the optioneering process and the impacts arising from the options considered as set out in Appendix A3.3.

Broome Bridge (OBG5)

I note Appendix A following the Technical Note for Broome Bridge comprises an architectural heritage impact assessment of Broome Bridge. I acknowledge that the applicant refers to the bridge over the railway at this location as being an extension to the older canal bridge which it abuts. The canal bridge dates from 1790 and the extension over the railway line dates from c.1846. Broome Bridge is a protected structure (RPS No. 909) in Dublin City Development Plan, with the description of the bridge making reference only to the section spanning the canal. I note, however, the applicant’s considerations in its assessment of significance (Page 12 of Appendix A), wherein it is stated:

“It is important to note that while the canal and railway bridges are individually a typology of their own, in this instance their compositions and significance must be

read together due to their co-dependency and the fact that both are experienced as essentially one symbiotic bridge.”

According to the applicant, Broome Bridge is acknowledged as being of architectural, historical, social and technical significance. Its architectural merit is premised upon the masonry craftsmanship. The historical significance relates to its transport and industrial heritage value, as well as its association with the astronomer and mathematician William Rowan Hamilton. The bridge is significant as a feature of social infrastructure and it is significant technically by the manner in which it was extended over the canal.

The proposed works would include the demolition of the section of the bridge over the railway line to allow for electrification of the rail system, i.e. to provide clearance required for the OHLE to run under the bridge. The extent of demolition would be confined to the section of bridge between the stone piers. The applicant acknowledges that the removal of this section of bridge is an irreversible loss of historic fabric, permanently altering the structure and the surrounding setting. It has been submitted that it will not be possible to reconstruct the span to match the existing bridge due to the raising of the bridge that will be required to accommodate the OHLE. The applicant proposes to employ a contemporary solution using modern materials. Reuse of original facing stone has been ruled out due to technical constraints and concerns that it would read as modern stone cladding. It is proposed to use a board marked concrete finish on all faces and to select a concrete colour that complements the original stonework. The design would include a solid metal panel from the top of the parapet up to 1200mm with an expanded metal mesh continuing up to 1800mm. Photomontages 12 and 13 in Volume 3B of the EIAR represents existing and proposed views in easterly and westerly directions towards Broome Bridge. The applicant's conclusions are:

“It is clear from a conservation perspective that the demolition of the section of bridge over the railway is a major loss to the overall structure and surrounding setting. However, the proposal to reconstruct the arch with a carefully designed and detailed concrete finish should sit comfortably with the remaining canal bridge and reflect a high quality contemporary design.”

I submit to the Board that the architectural heritage impact on Broome Bridge would constitute a significant adverse environmental impact. The railway bridge is an integral part of the bridge infrastructure at Broome Bridge. Indeed, I consider that the applicant correctly views it as an extension to the older canal bridge and not an independent structure. I am of the opinion that, at such a significant location, where it adjoins the Royal Canal, the canal greenway, the historic canal bridge, and it being an important point of interchange with Luas as well as with the proposed Luas Finglas, it is critically important to provide the highest quality of design and finish to bridge infrastructure at this most sensitive location and to recognise the importance of historic fabric. Therefore, it should be an objective to seek to retain the existing railway bridge in the first instance.

Appendix A3.3 of the EIAR comprises the Option Selection for OHLE Intervention. The options considered were: reduced height OHLE, vertical track lowering, bridge reconstruction, and track realignment. *Technical note for OBG5 Broome Bridge* details the optioneering for this bridge. The applicant’s option is for bridge reconstruction. Due to the urban setting, the constrained nature of this location with the canal and Luas station and associated established infrastructure, it is accepted that track realignment is not a realistic option for this location to avoid the impact on the bridge. Reduced height OHLE was deemed not to be feasible by the applicant due to the existing clearance from top of rail to bridge soffit. Track lowering was acknowledged as minimising the impact on the historic railway bridge but disruption to rail users and operations during construction is seen by the applicant to be significant, as well as the cost and

programme impacts. The applicant acknowledges that a pumped drainage solution could be employed to mitigate the risk of track flooding. Therefore, there is a clear and functional approach to dealing with flooding concerns that may potentially arise at this location.

It is my submission to the Board that the failure to opt for vertical track lowering, combined with reduced height OHLE, is unwarranted. The loss of a significant part of the historic railway bridge is unnecessary. The bridge would be completely distorted by the changes proposed. This option is not being pursued because of the construction programme being lengthened, the effects on rail users during the construction period, and cost. It is accepted that there would have to be modifications to existing station infrastructure, including to platforms and accesses and this would affect cost and the construction period. It is accepted that utilities would have to be diverted and/or protected and that a pumped drainage system would have to be implemented to mitigate against flood risk. These are not exceptional provisions in the context of the overall scheme being proposed. Opting to demolish a structure of architectural heritage importance, when track lowering combined with reduced height OHLE is evidently a technically feasible solution (and is recognised by the applicant as such), cannot be reasonably favoured in this instance. Effectively losing a structure, which is evidently an integral part of the historical fabric of the bridge at Broome Bridge, is unnecessary and would result in significant loss of fabric of notable architectural heritage value. The applicant's own findings show that the retention of the existing bridge is a functional option. There are no technical reasons for not retaining this structure. In the interests of cost cutting and an extension of the construction period, what would be irreversibly lost cannot be permissible in the interest of the proper planning and sustainable development of this location and in seeking to protect the valued historic canal and rail infrastructure.

I am aware of the extent of the bridge structure that is referenced as a protected structure at this location in the current Dublin City Development Plan, namely the bridge over the Royal Canal. I further observe that the National Inventory of Architectural Heritage includes the railway and canal bridges (Ref. 50060126), with both being assigned a 'National' significance for their architectural, historical, social and technical interest. Both of the bridges are also listed in the Dublin City Industrial Heritage Record. I note the Architectural Heritage Protection Guidelines for Planning Authorities. Therein it is stated:

“Proposals to reinforce, widen or infill sections of a protected bridge will require alterations to the character and quality of the structure. Where the impacts are likely to be substantial and would damage the character and integrity of the protected structure to an unacceptable extent, alternative solutions should be explored.”

I first submit that the railway bridge is an extension of the canal bridge and, as a result, it would not be correct to seek to disassociate it physically from the canal bridge. The proposal to reconstruct the railway bridge would clearly adversely alter the character and quality of the overall bridge infrastructure at this location and would, therefore, damage the character and integrity of the protected structure. It is reasonable to determine from this that the significant adverse environmental impact on architectural heritage arising would not adhere to the guidance offered in the Architectural Heritage Guidelines.

In conclusion on the option selection, I firmly submit to the Board that bridge reconstruction is unnecessary and should be avoided at Broome Bridge. There is no sustainable reason for avoiding vertical track lowering, combined with reduced height OHLE, in this instance and to retain the existing railway bridge and the overall bridge infrastructure of architectural heritage value at Broome Bridge.

While I consider that it should be sufficient to clearly determine that the applicant's option for bridge reconstruction is unsustainable, I further submit that the actual bridge reconstruction proposal itself is wholly unacceptable in design, form and character with regard to what it seeks to replace, its immediate linkage with the canal bridge, and its sensitive siting on the Royal Canal Greenway. The change in levels between the two spans and the parapets and the interface between the new and old greatly distorts the visual presentation of the bridge infrastructure. The applicant proposes to use a board marked concrete finish on all faces and to select a concrete colour that compliments the original stonework. I submit that this reads as an engineer-led design approach, not architectural heritage led, and that the design lacks greatly in architectural quality. It presents as an option with little regard to the adjoining protected structure and other integral historical canal bridge infrastructure which is common along the canal corridor. At such a significant location, where it adjoins the Royal Canal, the canal greenway, the historical bridge, and it being an important point of interchange with Luas as well as with the proposed Luas Finglas, I consider that it is critically important to provide the highest quality of design and finish to any new bridge infrastructure at this most sensitive location. This is not being achieved with the incongruity of materials proposed to be used and the poor integration with the canal bridge. In my opinion, it does not read as being complementary to the existing structure. Visually it becomes the main focus of the overall structure and is not read as an extension to the canal bridge. Further to the new bridge structure itself, I submit that the solid metal panel from the top of the parapet and the expanded metal mesh over this exacerbate the incongruity that is achieved by this option. Finally, there has been no attempt to seek to demonstrate how the reuse of original facing stone could present itself with the bridge reconstruction option. It is noted that the original stone may weather in time and may prove to be compatible with the canal structure. I would question why technical constraints could not reasonably be overcome.

Overall, I submit to the Board that the loss of the historic fabric of the railway bridge at Broome Bridge is unsustainable and should be avoided. The applicant should be required to provide an alternative option which protects and retains the railway bridge component of the overall bridge structure at Broome Bridge.

Finally, having regard to the above, I consider that the proposed demolition and reconstruction of that part of Broome Bridge over the railway line could not be seen to be compatible with the following policies of Dublin City Development Plan 2022-2028:

Policy BHA2

Development of Protected Structures

That development will conserve and enhance protected structures and their curtilage and will:

(a) Ensure that any development proposals to protected structures, their curtilage and setting shall have regard to the Architectural Heritage Protection Guidelines for Planning Authorities (2011) published by the Department of Culture, Heritage and the Gaeltacht.

(b) Protect structures included on the RPS from any works that would negatively impact their special character and appearance.

(c) Ensure that works are carried out in line with best conservation practice as advised by a suitably qualified person with expertise in architectural conservation.

(d) Ensure that any development, modification, alteration, or extension affecting a protected structure and/or its setting is sensitively sited and designed, and is appropriate in terms of the proposed scale, mass, height, density, layout and materials.

(e) Ensure that the form and structural integrity of the protected structure is retained in any redevelopment and ensure that new development does not adversely impact the curtilage or the special character of the protected structure.

Policy BHA5

Demolition of Regional Rated Building on NIAH

That there is a presumption against the demolition or substantial loss of any building or other structure assigned a 'Regional' rating or higher by the National Inventory of Architectural Heritage (NIAH), unless it is clearly justified in a written conservation assessment that the building has no special interest and is not suitable for addition to the City Council's Record of Protected Structures (RPS); having regard to the provisions of Section 51, Part IV of the Planning and Development Act, 2000 (as amended) and the Architectural Heritage Protection Guidelines for Planning Authorities (2011).

Policy BHA17

Industrial Heritage of Waterways, Canals and Rivers

To support and promote a strategy for the protection and restoration of the industrial heritage of the city's waterways, canals and rivers, including retaining features such as walls, weirs, millraces, and the graving dock structures at Ringsend.

The conclusion on incompatibility with Dublin City Development Plan policy is considered reasonable and an alternative option to deliver on the retention of the rail bridge structure is merited.

Castleknock Bridge (OBG11)

Appendix B of Appendix A3.3 of Volume 4 of the EIAR comprises the Technical Note for OBG11 Castleknock Bridge and Appendix A to this Appendix forms the Architectural Heritage Impact Assessment for the proposed reconstruction of this bridge.

Granard Bridge is a road bridge over the Royal Canal at Castleknock. Castleknock Bridge is a masonry bridge which lies to the south of this bridge and it was constructed to span over the railway line. The bridges are physically separated by a raised embankment but are connected on their surface by the regional road running over the embankment. Granard Bridge is included in the Record of Protected Structures in Fingal County Development Plan (RPS No. 0696). Castleknock Bridge is not a protected structure and it is not recorded in the NIAH. It remains a bridge of architectural interest, having notable high quality stonework and decorative features. It is also of historical value, being constructed with the development of the Great Western Railway in the 1840s. I note that the applicant acknowledges its social and technical value also, the latter because the vault of the bridge is skewed, allowing the arch to be constructed at an angle due to the positioning of the approaching road. I acknowledge that the applicant's assessment recommends that Castleknock Bridge be included in the NIAH and that it be entered into the Record of Protected Structures.

The applicant's proposal is to demolish the section of Castleknock Bridge over the railway line because the existing bridge does not provide adequate clearance to allow OHLE to run under the bridge and then to re-build the bridge at a higher level. The options considered also included redirecting the tracks around the bridge and lowering the tracks. The applicant acknowledges that the chosen option forms an irreversible loss of important historic fabric which permanently alters the historic structure and surrounding setting. The proposal is the same as that set out above for Broome Bridge, namely a replacement bridge which uses a

board marked concrete finish on all faces and to select a concrete colour that complements the original stonework. It includes a solid metal panel from the top of the parapet up to 1200mm with an expanded metal mesh continuing up to 1800mm.

Appendix A3.3 of the EIAR comprises the Option Selection for OHLE Intervention. The options considered were: reduced height OHLE, vertical track lowering, bridge reconstruction, and track realignment. *Technical note on OBG11 Castleknock bridge reconstruction* details the optioneering for this bridge. The applicant's option is for bridge reconstruction, which the applicant notes is the most economical option. Due to the urban setting, the constrained nature of this location with the canal, and established residential development, it is accepted that track realignment is not a realistic option for this location to avoid the impact on the bridge. Reduced height OHLE was deemed not to be feasible by the applicant due to the existing clearance from top of rail to bridge soffit. Track lowering was acknowledged as minimising the impact on the historic railway bridge but disruption to rail users and operations during construction is seen by the applicant to be significant, as well as the cost and programme impacts. The applicant acknowledges that a gravity drainage system could be employed to mitigate the risk of track flooding. It is apparent, therefore, that there is a clear and functional approach to dealing with any potential flooding concerns that could arise at this location, albeit there is no record of flooding here.

It is notable from the applicant's own assessment that the architectural heritage impact on Castleknock Bridge would constitute a significant adverse environmental impact. Once again, I must query the failure to opt for vertical track lowering combined with reduced height OHLE. The loss of this historic railway bridge would be undesirable and unnecessary. As with Broome Bridge, track lowering is not being pursued because the construction programme would be lengthened, there would be effects on rail users during the construction

period, and because it is more costly. Where there is a reasonable alternative such as this (“technically feasible” as determined by the applicant) which secures the retention of this important bridge structure, the preferred option must be viewed as inappropriate. I note and accept that it would require some modifications to Castleknock train station which would have cost implications and which would lengthen the construction period at this location. Such necessary works are stated by the applicant to include retaining wall works, rebuilding of platforms, rebuilding of a footbridge, and reassembling of the station building. No diversion of utilities is anticipated. There are no known flooding issues at this location. As with Broome Bridge, the provisions required to be made are not exceptional in the context of the overall scheme being proposed.

Opting to demolish a structure of architectural heritage importance, when track lowering is evidently a technically feasible solution (and is recognised by the applicant as such), together with reduced height OHLE, cannot be reasonably favoured in this instance. Once again, losing a structure that is an integral part of the historical fabric of the bridge infrastructure at Castleknock is unnecessary and would result in significant loss of fabric of notable architectural heritage value. There are no technical reasons for not retaining this structure. I repeat that, in the interests of cost cutting and an extension of the construction period, what would be irreversibly lost cannot be permissible in the interest of the proper planning and sustainable development of this location and in seeking to protect the valued historic canal and rail infrastructure.

While Castleknock Bridge is not a protected structure it is particularly notable that the applicant’s architectural heritage impact assessment determines that it should be. This assessment has provided reasonable architectural, historical, technical and social reasons as to why it should be. This bridge, along with Granard Bridge, are viewed as being co-dependent. With due regard to the Architectural Heritage Protection Guidelines for Planning Authorities, it is

reasonable to determine that the significant adverse environmental impact on architectural heritage arising out of the demolition and reconstruction of this bridge would not adhere to the guidance therein. It would clearly damage the character and integrity of this bridge of significant merit.

I again submit to the Board that bridge reconstruction is unnecessary and should be avoided at Castleknock Bridge. Its demolition is not sustainable when the option of vertical track lowering is viable.

For the reasons I have set out above in relation to Broome Bridge, I submit that the actual bridge reconstruction proposal itself is wholly unacceptable in design, form and character with regard to what it seeks to replace. The replacement fails in visual terms at a sensitive location adjoining Granard Bridge and the Royal Canal. The proposed modification is of no architectural merit and conflicts with the form and character of the neighbouring historical bridge structure. If one had not the reasonable alternative option of track lowering with reduced height OHLE and was restricted to replacing Castleknock Bridge one would be seeking to provide a replacement which would achieve the highest quality in terms of design and finish. This is not the current proposal.

I conclude, as with Broome Bridge, that the loss of the historic fabric of the railway bridge is unsustainable and should be avoided. I further submit that the proposed demolition and reconstruction at this location also conflicts with Policies HCAP8, HCAP9 and HCAP10 of Fingal Development Plan 2023-2029 which seek to protect, re-use and retain architectural heritage. In particular, it clearly conflicts with Objective HCAO48 – Historic Bridges of the Plan which seeks the retention and appropriate repair/maintenance of the historic road and rail bridges of the County whether Protected Structures or not.

Cope Bridge (OBG14)

Appendix C of Appendix A3.3 of Volume 4 of the EIAR comprises the Technical Note for OBG14 Cope Bridge and Appendix A to this Appendix forms the Architectural Heritage Impact Assessment for the proposed reconstruction of this bridge. Photomontage 31 in Volume 3B of the EIAR represents the existing and proposed view in a south-westerly direction towards Cope Bridge.

Cope Bridge spans the Royal Canal and it dates from 1794. It was extended to the south c.1846 to span the railway line that formed part of the Great Western Railway. The extended section forms a similarly shaped arch but its crown is raised higher to accommodate trains. There is a continuous string course and parapet. The bridge terminates to the north and south with wing walls which curve away from the bridge. The applicant notes in the Appendix that the bridge is not in the NIAH and was a proposed protected structure in the Draft Kildare County Development Plan 2023-2029. I note for the Board that there is no record of it in the Record of Protected Structures in the adopted Kildare County Development Plan 2023-2029 and it was confirmed at the Oral Hearing that it is not a protected structure.

I note that the applicant acknowledges the historical, architectural and social value of the bridge. I acknowledge that the applicant's assessment recommends that Cope Bridge be included in the NIAH and its proposed protected structure status in the Draft Kildare County Development Plan is recognised.

The applicant's proposal is to demolish the section of Cope Bridge over the railway line because the existing bridge does not provide adequate clearance to allow OHLE to run under the bridge and then to re-build the bridge at a higher level. The options considered also included redirecting the tracks around the bridge and lowering the tracks. The applicant acknowledges that the chosen option forms an irreversible loss of important historic fabric which permanently

alters the historic structure and surrounding setting. The proposal is the same as that set out above for Broome Bridge, namely a replacement bridge which uses a board marked concrete finish on all faces and to select a concrete colour that complements the original stonework. It includes a solid metal panel from the top of the parapet up to 1200mm with an expanded metal mesh continuing up to 1800mm. It is proposed to retain the bridge for road traffic and to provide two lanes. In addition, it is proposed to provide pedestrian and cycle routes on both sides of the bridge, separated from the established bridge on both sides by two metres. It is proposed to use a weathered steel for these two bridges.

Appendix A3.3 of the EIAR comprises the Option Selection for OHLE Intervention. The options considered were reduced height OHLE, vertical track lowering, and bridge reconstruction. *Technical note on OBG14 Cope Bridge reconstruction* details the optioneering for this bridge. The applicant's option is for bridge reconstruction. The applicant submits that this option limits the disruption to Leixlip Convey station and rail users, does not require the closure of the canal, has a shorter construction programme, reduces impacts on residents, does not increase track flood risk, and is an economically advantageous option. Reduced height OHLE was deemed not to be acceptable by the applicant due to the additional safety measures that would need to be implemented during the inspection and maintenance activities and the higher lifecycle costs. Track lowering was acknowledged as minimising the impact on the historic railway bridge but disruption to rail users and operations and the impact at the construction stage on the Royal Canal, as well as the cost and programme impacts, were seen to be greater for this option. The applicant acknowledges that a gravity drainage system could be employed to mitigate the risk of track flooding.

It is notable from the applicant's own assessment that the architectural heritage impact on Cope Bridge would constitute a significant adverse environmental

impact. In looking to alternative options, I note the applicant's reduced height OHLE solution in Section 3.2 of the Technical Note. I accept that there would be increased frequency of inspections, more frequent replacement of wires, and speed restrictions resulting from the implementation of this option. However, this option would clearly retain the historic bridge structure and I consider this presents as a technically achievable preferred option in the interest of protecting important historical bridge infrastructure at this location. Very clearly there are small deviations from established norms but the potential for a Signalling, Electricity and Telecommunications (SET) standard derogation should not go unnoticed and, indeed, should be pursued in this instance, in my opinion. As with Broome Bridge and Castleknock Bridge, track lowering is not being pursued because the construction programme would be lengthened, there would be effects on rail users during the construction period, and because it is more costly. I note the applicant submits that this option would require the reconstruction of Leixlip Convey Station. This is recognised as being a "technically feasible" solution, which also would retain the important bridge structure. I note and accept that it would require modifications to the train station which would have cost implications and which would lengthen the construction period at this location. These provisions should not be considered to be exceptional in the context of the overall scheme being proposed and the necessity to maintain important historic built fabric as part of such a development.

Opting to demolish a substantial part of a structure of architectural heritage importance, when there are the options of a reduced height OHLE solution and/or track lowering, should not be favoured in this instance. Once again, losing a structure that is an integral part of the historical fabric of the bridge infrastructure at Leixlip is unnecessary and would result in significant loss of fabric of notable architectural heritage value. There are no technical reasons for not retaining this structure. I repeat that, in the interests of cost cutting and an extension of the construction period, what would be irreversibly lost cannot be

permissible in the interest of the proper planning and sustainable development of this location and in seeking to protect the valued historic canal and rail infrastructure.

While Cope Bridge is not a protected structure it is particularly notable that the applicant's architectural heritage impact assessment recognises its architectural heritage value. With due regard to the Architectural Heritage Protection Guidelines for Planning Authorities, it is reasonable to determine that the significant adverse environmental impact on architectural heritage arising out of the demolition and reconstruction of this bridge would not adhere to the guidance therein. It would clearly damage the character and integrity of this bridge of significant merit.

I again submit to the Board that bridge reconstruction is unnecessary and should be avoided at Cope Bridge. Its demolition is not sustainable when there are two feasible alternative options (or a combination of both) which would retain this structure.

For the reasons I have set out above in relation to Broome Bridge and Castleknock Bridge, I submit that the actual bridge reconstruction proposal itself is wholly unacceptable in design, form and character with regard to what it seeks to replace. I do, however, offer the view that the pedestrian/cycle bridges on both sides of it would mask the incongruity of the proposed reconstruction to some degree.

I conclude, as with Broome Bridge and Castleknock Bridge, that the loss of the historic fabric of the railway bridge is unsustainable and should be avoided. Furthermore, having regard to the above, I consider that the proposed demolition and reconstruction of that part of Cope Bridge over the railway line could not be seen to be compatible with the following policy of Kildare County Development Plan 2023-2029:

Policy AH P6

Protect, conserve and manage the archaeological and architectural heritage of the county and to encourage sensitive sustainable development in order to ensure its survival, protection and maintenance for future generations.

Conclusion

In conclusion, I submit that the proposed development is required to be revised to ensure the conservation and protection of Broome Bridge, Castleknock Bridge and Cope Bridge. The option of reduced height OHLE and/or track lowering at Cope Bridge and a combination of reduced height OHLE and track lowering at Broome Bridge and Castleknock Bridge must be viewed as preferred options which are accepted as being technically feasible and which clearly address the potential loss of important bridge structures of architectural heritage value.

8.4.4. Jackson's Bridge

The Board will note my considerations which follow in this assessment on the development of the project west of Maynooth and in the vicinity of Jackson's Bridge and the depot site in particular. If the Board considers that the development in the vicinity of Jackson's Bridge is acceptable, including the proposed new depot access road and the depot itself, then I offer some considerations below.

I note that the applicant's proposal to realign the railway line in the vicinity of Jackson's Bridge would result in the development avoiding physical impact on this protected structure. This would clearly isolate this bridge from the functioning line. The principal concern for the bridge structure is that if a programme of

protection is not developed and carried through for this important structure of architectural heritage value then it mostly likely would fall into a state of disrepair in a short period, distinctly undermining its heritage value. I consider that due consideration would need to be given to such a programme of protection and, furthermore, to the future use of the leftover land that would adjoin it. This could reasonably be a condition of an approved Railway Order.

8.4.5. Ashton House, Ashtown

Ashton House is on the Record of Protected Structures in Fingal Development Plan 2023-2029 (RPS No. 690). Its description includes the house, outbuildings, gate lodge and gates. The gateway on Mill Lane is a central vehicular gateway which is flanked by pedestrian gates on both sides. Each of the three gates is flanked by limestone piers. The gates are of wrought iron. The assemblage is set back slightly with curved wing walls. There is a dense belt of trees around the boundaries with the public road. The gate lodge, a three-bay single-storey structure, lies a short distance north-west of the gateway.

The proposed development would include the removal of the gateway to construct the realigned Mill Lane close to the proposed tunnel at Ashtown. It is intended to reinstate the gateway in a different location further back into the property when the realignment works would be completed. A section of the demesne wall would also be taken down and rebuilt as part of the works. The construction phase of the proposed development would include the provision of a construction compound within the property parkland.

The landowner is supportive of the upgrade of Ashtown Road in principle but is concerned with the impact on level change on the access arrangements to Ashton House and the entrance. It proposes the replacement of the entrance adjoining the gate lodge with the provision of a cycle and pedestrian access,

including steps, ramps and landscaping, and the development of an alternative vehicular access provided at a point further north along its boundary with Ashtown Road and opposite Rathborne Avenue. It is proposed that the roundabout at that location be replaced by a four-way junction.

The landowner has concerns with regard to the impact of the proposed development on access arrangements to Ashton House and the impact on the character and setting of the gate lodge which forms part of the protected structure. As part of its submissions to the Board the landowner provided an Architectural Heritage Impact Assessment. In response, the applicant has submitted that the EIAR recognises that there would be a significant negative effect on the entrance and gate lodge arising from the proposed development. It is argued that the project has attempted to retain the access arrangements and minimise the change as much as possible. It is contended that the alternative put forward in the submission would sever the historic vehicular access through the gateway, requiring a new vehicular access through the existing demesne wall to be created which would also represent a significant negative effect.

I note for the Board that there were substantial submissions (including visual representations) and discussions on the proposed development and the alternative proposals at the Oral Hearing, with the applicant and Lintwell Ltd. each submitting opinions on the reasons why their preferred option was most appropriate. I also note for the Board that the landowner's alternative option would fall within lands that would lie within the railway order land take and lands controlled by the landowner, Fingal County Council and Dublin City Council. I note that the local authorities have not directly opposed the landowner's option and this option could be considered as an alternative arrangement at this location. However, I acknowledge the closing submission by Fingal County Council which considers the applicant's proposal to represent a more appropriate

response having regard to the potential impact of the alternative option on the existing ecological corridor in the area.

I first acknowledge that if the proposed development is to include a tunnel at Mill Lane arising from the closure of Ashtown level crossing then the likelihood is that there would be a substantial material impact on the property of Ashton House. It is apparent from the landowner's submission to the Board that there is an understanding of this, albeit the proposals by the applicant are not regarded as acceptable by the landowner. I note that the landowner has submitted revised proposals for consideration by the Board. These are significantly and materially different from the proposed development at this location. The applicant has responded to this and is seeking the pursuit of its own proposal, countering that the alternative being presented would also sever the historic vehicular access. I submit that the Board is primarily required to consider the proposal before it in the application and to assess the environmental and planning impacts arising from it. The landowner's proposal is one alternative option for development at this location and there could reasonably be others. I submit that the Board should primarily focus its considerations on what is proposed.

The status of Ashton House as a protected structure is recognised. There is no question that the proposed development would result in a significant adverse impact on the protected structure because it would materially alter the gateway and its relationship with the gate lodge, which is an integral part of the protected structure. It is evident also that the removal and setting back of walls and removal of screening along roadside boundaries would have significant impacts on the attendant grounds and curtilage of the protected structure. It is clear that if the development of the tunnel on Mill Lane is to proceed to replace the existing level crossing then significant impacts on the gates, the entrance, roadside boundary, and the relationship with the gate lodge are inevitable. Therefore, it is accepted that such changes are required.

I note the conservation principles set out in the *Architectural Heritage Protection Guidelines for Planning Authorities*. These include protecting the special interest, promoting minimum intervention, promoting honesty of repairs and alterations, and using appropriate materials and methods. It is my submission that the applicant's proposal seeks to comply with these key principles. There is no direct impact on the principal buildings which form the protected structure, albeit the impact on the gateway is accepted as significant and negative but unavoidable. The gateway is to be rebuilt as part of the works.

With regard to the curtilage and attendant grounds of Ashton House, it is reasonable to determine that these have evolved over time and have adapted to physical change within the property. I note what features are identified as being the protected structure in the planning authority's Record of Protected Structures. The entrance and the gate lodge are clearly the relevant features in this instance. The land, the roadside boundary wall (punctured in parts by modern construction), and other features such as the landscaping along the roadside boundary are not part of the protected structure. While this is the case, it is apparent that these existing features make a significant contribution to the character of the protected structure in their own ways. The proposed development, while making physical changes to the gate and its relationship with the gate lodge, does not distort any relationship the entrance has with the main house. I note that boundary changes and vegetation removal would inevitably expose greater parts of the curtilage in the short to medium term.

Acknowledging that changes to the gates, entrance and roadside boundary are required if the tunnel is pursued at this location, I must also note that the formal relationship between the principal buildings on the holding would remain the same. While the entrance and gates would be altered, their relationship with the main house would not be significantly altered. The change to the entrance gates relative to the gate lodge is accepted but the redevelopment would follow the

relevant conservation principles set out in the Architectural Heritage Protection Guidelines. Visually, I do not consider that the impact on views of Ashton House and its curtilage by the works associated with a necessary tunnel would be substantially altered. Overall, I submit that the changes to the location of the gates and the entrance would not separate these features irrevocably from their setting. They would remain appropriately in their established context. I accept also that this outcome can be construed as an exceptional circumstance in this instance in the context of change to a protected structure.

Offering some consideration on the landowner's alternative, I first submit that the proposed change to the vehicular entrance adjoining the gate lodge would be a substantial change, altering the principal entrance such that it would form effectively a secondary and more minor entrance, incorporating pedestrian and cycle access only. Secondly, I submit that the proposed alternative at the gate lodge would constitute a complicated entrance, with an array of steps, ramps, gates, etc. which is far removed from the simplicity and basic functionality of the existing entrance. In my opinion, the simplicity of the applicant's proposals is more in keeping with, and more respectful of, the entrance at the gate lodge. I do not consider the development of two entrances and the setting of a new main entrance distinctly separate from the gate lodge are desirable and the landowner's proposal would clearly disassociate the principal entrance from the gate lodge.

Further to the above, I note the submission to the Board from the Development Applications Unit of the Department of Housing, Local Government and Heritage. The DAU did not include any submission on architectural heritage, including any concerns relating to the proposed development on and in the vicinity of Ashton House.

Finally, I submit to the Board that sufficient details have been provided on the accommodation works proposed and treatment and I do not have concerns about

the proposed ramped access into the lands. I also acknowledge that visibility splay details were provided at the Oral Hearing to address safety concerns at the entrance. The applicant has submitted that the road provisions at this location would be in accordance with DMURS. I am satisfied that sufficient clarity has been provided on the widening of Ashtown Road to the north of the gate lodge and entrance. While I note that there would be increased traffic volumes on this road at this location, I must also note that this is an entrance into a single residential property. I accept that there will be a requirement to adapt to access and egress for this property with the ensuing change in traffic and road design.

8.4.6. Ashtown Old Mill

The disused mill on Mill Lane in Ashtown, a nineteenth century five-storey four-bay former oil mill, is on the Record of Protected Structures in Fingal Development Plan 2023-2029 (RPS No. 691). It lies on the west side of Mill Lane just south of the railway line and the Royal Canal.

The proposal at Ashtown would include the development of a new road and tunnel. The new road would run to the rear of the mill and the cutting for the tunnel would run through the site of the mill pond and would sever the headrace from the mill. It would include the partial or whole demolition of an existing building just south of the railway line.

It is apparent that the setting of the mill would be affected, with the potential for significance of effect from construction works being defined as 'Very significant' by the applicant. The operational phase of the development is also recognised by the applicant as adversely impacting on the setting of the mill. Mitigation proposed includes the production of a written and photographic record of the structure that is proposed to be demolished in the vicinity and the provision of landscaping to screen the mill from the road.

It is accepted that the development of the tunnel would adversely affect the setting of the protected structure. There is no opportunity to provide additional mitigation over that which is proposed and the acceptance of the development as proposed at this location, i.e. a new road and tunnel, is an acceptance of the negative impact on this feature of architectural heritage.

8.4.7. Old Schoolhouse (Former Clonsilla School), Porterstown Road

The Former Clonsilla School, a mid-nineteenth century three-storey former national school, is on the Record of Protected Structures in Fingal Development Plan 2023-2029 (RPS No. 700). This structure lies to the north-west of Porterstown level crossing and is a structure that is in a poor state of repair.

Railway Order Application

The proposed development at this location would include the closure of the level crossing and the provision of a pedestrian and cycle bridge over the Royal Canal and railway line. The western extremity of the new bridge set out in the Railway Order application would extend close to the building's curtilage. The ramp of the new bridge would be located some two metres above the present ground level at its nearest point to the school, at a distance of approximately 20 metres.

There would be no direct impact on the protected structure based on the separation from the proposed works area. The indirect impact that would arise would relate to the effect on the setting of the structure. The scale, proximity and prominence of the new bridge structure would form a significant intrusion on the rural-type setting of the former school. The applicant also notes that the indirect construction impacts prior to mitigation could include potential damage to the school during the construction of the new bridge. It is accepted that the proposed mitigation measure at the construction stage of erecting hoardings to protect the

school from damage should address direct impact concerns from works. If the pedestrian and cycle bridge is permitted there is no opportunity to introduce mitigation measures to limit the impact on the protected structure's setting. Therefore, it must be accepted that the proposed development would result in an adverse impact on the setting of this protected structure. The issue is whether the new bridge structure to serve pedestrians and cyclists at this location requires to be of the form and scale so proposed. Accepting the proposed bridge is accepting the adverse impact. The applicant openly recognises in the EIAR that the new bridge to replace the level crossing would have a negative impact on this structure of architectural heritage and that there is no opportunity for mitigation at the operational stage.

Revised Bridge Proposal

At the Oral Hearing, the applicant provided an alternative bridge design at Porterstown. The Board will note that the Railway Order application proposal would comprise a precast concrete bridge, being a two-span bridge over the canal and railway line. The bridge length would be 367m, with a bridge clearance of 5.30m. The alternative bridge design presented at the Hearing comprises a Corten steel structure, using the same material proposed at Ashtown and Coolmine. The proposed length of this structure would be 321m (a reduction of 46m) and bridge clearance of 5.30m would remain. The land take on the south side of the bridge would be reduced due to shorter ramps. An additional land take of 31m² would be required on the north side. The applicant's submission at the Hearing included a construction strategy for the bridge and provided an environmental appraisal which determined that environmental effects would be reduced. Drawings of the proposed alternative bridge structure were also provided. Castlethorn and Chartered Land Group confirmed at the Hearing that it owns this additional land and that they agree to its acquisition by the applicant. The landowner also stated that it supports the revised bridge proposal. The

applicant confirmed that this additional land would be accommodated in the Schedule.

Conclusion

I concur with the applicant's findings that the proposed alternative would reduce the environmental impact of this structure at Porterstown when compared with that proposed in the original Railway Order application. It would also be more consistent with the bridge designs for Ashtown and Coolmine and would not be any more intrusive on the Old Schoolhouse. In the event of the application being approved, the alternative option should be accepted and a condition be attached requiring its development in place of the original proposal.

8.5. Substations

- 8.5.1. High voltage power would be supplied to Dart+ West at electrical substation buildings located at intervals along the railway line. I note from Section 3.6.1.2 of the EIAR that the distribution of substations along the line is dictated by the availability of adequate power from the electrical power network and the power draw of each section of the railway. It is further stated that the optimal selection of sites for substations is dictated by the availability of suitable locations within CIÉ property (where possible) or in third party lands, and local considerations of access, security and visibility. The design of substations is to be to the requirements of ESB technical standards. There are twelve substations proposed along the route.
- 8.5.2. Planning and environmental issues primarily arise in relation to the siting of two substations, namely on the GAA pitch at St. Vincent's School, Glasnevin and on a principal open space in the residential estate of Glendale in Leixlip. Generally,

no particular planning and environmental concerns arise for the siting of the other ten substations. My considerations on the remaining two are as follows:

8.5.3. Glasnevin Substation

This substation is proposed to be sited in a greenfield area adjacent to playing pitches north of the railway line within the landholding of St. Vincent's School in Glasnevin. The EIAR acknowledges that Light-bellied Brent Geese have been recorded feeding on the amenity grasslands of the school. Due to their speed of flight, poor eyesight and poor manoeuvrability, this SCI species for a number of Special Protection Areas in the wider Dublin area is vulnerable to collision with overhead lines and OHLE.

The applicant's EIAR recognises that without mitigation the proposed development has the potential to have significant impacts on birds at an international level. Section 8.9 of the EIAR sets out an array of mitigation measures at the construction and operational stages of the proposed development, which include specific measures to address impacts on birds. It is proposed that the construction phase set-up, use and decommissioning of the construction compound at St. Vincent's School would take place between the months of May and September to avoid disturbing wintering birds at this location. Furthermore, it is proposed that there would be no daytime OHLE construction shifts between October and April at feeding sites adjacent to the railway line to mitigate for the risk of disturbance to Brent Geese.

The applicant's NIS notes the conservation objectives for Light-bellied Brent Goose in the relevant SPAs and the potential impacts arising by way of habitat loss, disturbance and collision risk. Section 5 of the NIS sets out the proposed mitigation measures reflecting those set out in the EIAR and proposing the installation of deflectors along the boundaries of St. Vincent's School.

I note the submission from DAU to the Board. It is recommended that the mitigation measures set out in the NIS to avoid injury or disturbance to light-bellied brent geese during the construction and operational phases of the proposed development be implemented in full.

I am satisfied to conclude that the siting of the proposed substation at this location at the periphery of the grasslands, together with the specific mitigation measures to be applied at this location to address adverse impacts on Brent Goose, are reasonable. In light of the submission from DAU, I have no objection to the proposed Glasnevin substation.

8.5.4. Glendale Substation

There are extensive numbers of objections from residents in the Glendale estate in Leixlip opposing the siting of a substation on a principal open space within the estate. Section 3.6.1.5.9 of the EIAR discusses the two options considered for the siting of the substation in this area. Option 1 within CIÉ lands was the initial preferred option. However, the option selection was changed to Option 2, i.e. within Glendale estate, because the applicant submits that the ESB floorplan was required to be increased in size, where there was a new requirement for a 360 degree walkway around the substation and a 4.5m wide access road for vehicles to enter into the substation area.

I note from the applicant's written response to observations (Section 2.6.1 of the response) that it is submitted that the pathway around the substation building perimeter is required for substation access and maintenance. It is also submitted that in other proposed substation locations exceptions to reduce this pathway have been sought due to the limited area around the building.

At the Oral Hearing, following my questions, clarification was provided on a number of matters as follows:

- The applicant's initial understanding was that ESB supply could be supplied at 20kV at the substations but further consideration determined that a 38kv supply was required. This was the reason why all substations increased in size and they were to be consistent with other substations in the Irish Rail network.
- Regarding a 360-degree walkway around the substations, this is a requirement of Irish Rail for maintenance purposes. There are two exceptions – at Ashtown where the station platform performs as the northern walkway and at Maynooth where there is no physical space available. An exception was not sought at Leixlip Convey because there was enough space available at the location.
- The 4.5m access road is a requirement from ESB to provide emergency access and is applicable at all the substations.
- The change from a single storey building to a two-storey building would change the building height from 5m to 10m and it was submitted that it would have an adverse visual impact.
- There would be no change in terms of noise impact from a two-storey building.
- The main driver for the change from Option 1 to Option 2 was the constrained access and not because it would require to be a two-storey building. The station location option was discarded once the design was developed. It was submitted that ESB and the Fire Authority were not satisfied with Option 1 at the station. Concerns about vehicle manoeuvrability within the station were raised.

Having regard to the siting of the proposed substation within this residential estate, I note this would be within a principal open space and would constitute a substantial permanent loss of this public space. It would also be in close proximity to residential properties. It, thus, would raise understandable concerns relating to the loss of the amenity space, the impact on residential amenity and potential health and safety concerns. Notwithstanding this, it is now apparent that it is at the behest of ESB and the Fire Authority that the change of location was required and that there were distinct restrictions at Leixlip Convey station. With due regard to this and to mitigation proposed, including siting and the screening provisions proposed, I accept that the siting of the substation in this instance has been justified by the applicant. The suitability of the chosen site, the need for this component of the development to be located at the proposed location, and the community need and benefits arising are justified.

8.6. Construction Compound Siting at Glendale

8.6.1. As with the proposed substation, there were also significant numbers of objections to the proposed siting of a large construction compound within Glendale estate.

8.6.2. The applicant's written response to the observations is summarised as follows:

- The compound will be temporary and will be in place for the duration of the bridge and substation works.
- Section 15.6.2 of the EIAR provides the mitigation measures proposed during the construction phase. All construction works will be managed by the implementation of a Construction Environmental Management Plan.

- In terms of the impact on biodiversity, the habitats recorded at the greenspace in Glendale are not significant for biodiversity and the loss of habitat will be limited to the footprint of the compound.
- In terms of the noise impacts, Section 14.6.1 of the EIAR details the noise mitigation measures that will be implemented to minimise the impact of temporary compounds to stay within the noise thresholds.
- A designated community liaison / noise liaison is to be appointed by the Contractor for the duration of the construction works to engage the occupants of neighbouring properties and notify them of any works forecast to generate appreciable levels of noise, explaining the nature and duration of the works.
- Iarnród Éireann acknowledges that the compound will be in close proximity to existing residential development, therefore it is proposed to take mitigation measures to minimise the impact on local communities, such as timing of the delivery of construction materials to the site to be outside of commute/school rush hours. The appointed Contractor's Construction Traffic Management Plan (CTMP) will include measures for managing traffic accessing and egressing the construction compound. The Contractor's CTMP will include measures for appropriate signage and communication to direct construction traffic to appropriate routes. The appointed contractor will monitor the haulage routes for dirt and debris generated by the construction traffic and take appropriate action, such as road sweeping.

8.6.3. This matter was also discussed following my questions at the Oral Hearing relating to why the compound was not located to the north-west of the canal on agricultural lands. The applicant clarified that the compound is proposed to be located as close as possible to the construction works at the bridge and to be on

the track side of the bridge instead of crossing the canal. This is considered particularly important for the crane lifting works and in order to minimise the impact on the historic Cope Bridge. The construction access route via the road network to Glendale was also seen to be shorter than from the north, considering the bridge would be closed for a period of 15 weeks during the construction phase at this location.

8.6.4. Having regard to the applicant's explanation, it is now understood why the location within Glendale estate was chosen. This compound would be for the construction period only and would, therefore, be temporary in nature. It is acknowledged that the construction period for arched bridges, including Cope Bridge, would be approximately 40 weeks. The open space would return to its original use after the cessation of the works.

8.6.5. In conclusion, while it is understood that the impact on Glendale estate by the provision of a substation and a construction compound would be significant, the necessity to site the infrastructure and compound facility is understood and accepted for the delivery of the project at Leixlip Convey. The range of mitigation measures proposed to control noise, dust and nuisance likely to arise, traffic management proposals, and adherence to the Construction Environmental Management Plan provisions are key to the construction phase of the proposed development. The role of a liaison officer with the local community and the local authority would be integral to the construction process at this location.

8.7. Development on and in the Vicinity of the Depot

8.7.1. Description of the Proposed Development at and in the Vicinity of the Depot

The proposed development includes the diversion of the railway line away from, and south of, Jackson's Bridge west of Maynooth, the provision of a new road providing access to the proposed depot and new bridge linkage to the R148 over the railway line and Royal Canal, and construction of the depot east of the town of Kilcock. The following is noted from the EIAR:

Jackson's Bridge

A new off-line alignment, south of the existing track, would begin at Ch 91+000, just outside the Maynooth urban area. This off-line solution is proposed to prevent any works to OBG23 Jackson Bridge, a protected structure (RPS no. B05-36) with insufficient OHLE clearance. This new alignment would end at Ch 92+500, after the eastern entrance to the depot, with a total length of 1.5 km. At Ch 92+600, the mainline would return to the current footprint, using the existing track as the Up track with a new track being developed on the southern side. The double-track would end at Ch 93+040. The proposed parallel track is around 440 m in length.

CCE Compound

A new CCE (Chief Civil Engineering) compound would be located next to the depot. The main purpose of the CCE Compound would be to provide storage areas for ballast and track elements such as sleepers or rails. It would also contain space to stable maintenance vehicles and accommodation and facilities for the maintenance workers. The CCE compound building is proposed in the southern part of the depot and would be provided with a road access from the

L5041. It would have parking spaces on its east side (capacity for 32 cars). Dimensions of the compound building are 33 m x 19 m and 5 m high.

New Bridge

A new bridge, OBG23A, would be constructed to access the depot crossing the Royal Canal from the R148 Kilcock Road. This new OBG23A would provide separate road access to the depot and would connect to the existing road network, i.e. R148 and L5041. South of the track, the alignment is constrained by the connection to the depot access road. Due to geometrical constraints, a roundabout would be incorporated to achieve a reasonable gradient in the road alignment. The northern side of the bridge would connect to the R148. Due to similar constraints here, a roundabout has also been proposed to achieve a reasonable gradient. The proposed bridge solution is a 5-span precast concrete beam deck. The total length of the bridge would be approximately 107.5 m, consisting of 5 spans of 21.5 m each. Total width would be 16.80 m. The bridge would have two lanes, two segregated cycleways of 2 m width and two footways of 2 m width.

L5041 Diversion

The L5041 local road extends from the L5042 local road at its southern end to the R148 Maynooth-Kilcock road at the north, crossing the existing M4 motorway and bridging over the Royal Canal and rail line at Jackson Bridge (OBG23) at its northern end.

The proposed road diversion would start at a T junction 70 m south of Jackson's Bridge on the L5041 and would turn off to the west. The new route would head west approximately 900 m where a new roundabout (Roundabout 1) would take

traffic to the new depot entrance or over the new bridge OBG23A where it would connect to the R148 via another new roundabout system (Roundabout 2).

There are two primary constraints in connecting the L5041 diversion with the R148 running to the north of the Royal Canal and parallel to it. The first is the height that must be reached to pass over the railway tracks and the second is the flooding problem that exists in the area. Due to these restrictions, the proposed solution is to raise the road (by up to 10 metres in some locations) with respect to the existing alignment.

The L5041 diverted road would have an 8 m wide carriageway (0.5 m hard shoulder on each side and two 3.5 m lanes) and 4 m wide grass verges on both sides of the road. The severed section of the L5041 north of the T junction would provide local access to lands. The depot access road (also 8 m wide cross-section) would provide pedestrian and cyclist facilities (2 m wide cycle track and 2 m wide footpath) to the north of the road to facilitate access for vulnerable road users travelling to work at the new depot. At the south lane, a 4 m wide grass verge would be provided. For the new bridge section, a 2 m wide cycle track and 2 m wide footpath would be provided at both sides. At the northern end of the bridge, a new roundabout would tie in the L5041 with the R148, diverted at both sides of the roundabout. Pedestrian and cyclist facilities (2 m wide cycle track and 2 m wide footpath) would be provided on both sides of this R148 road diversion.

Further to the above, access for pedestrians and cyclists would be provided to the greenway north of the Royal Canal from the roundabout. Due to the railway diversion south of Jackson's Bridge, the existing L5041 would be severed at this location. Therefore, in order to provide continuity for both pedestrians and cyclists and to maintain the use of Jackson's Bridge (a protected structure), a route would be provided below UBG22A to allow pedestrians and cyclists to pass through.

The Depot

The depot site would lie south of, and parallel to, the Royal Canal and railway line and would be some 2.58km in length. It would have two railway connections to the existing line and access to the new road to the east onto the R148. It would occupy an area of 32.6 hectares.

The road layout for the depot has been designed to allow HGVs around the site. Consideration has been given to special HGVs required to transport rolling stock around the depot. Road access would be provided to all facilities for servicing and maintenance.

The depot would be provided with a carpark for staff and visitors. To determine the number of parking spaces needed for the depot, the working shift with the highest number of people working simultaneously was taken into consideration. The carpark outside the main building provides space for 125 vehicles.

The service slab building has a carpark with capacity for 15 vehicles. 12 additional parking spaces for visitors have been provided near the main access.

The access control building is located close to the depot entrance gate to provide security control for access/egress to the depot facilities. Adjacent to this zone, there is a space reserved for the electrical substation.

The current topography of the site ranges in elevation from approximately +65.9 m OD on the western side to +60.3 m OD at the eastern connection.

Consequently, along the length of the complex, the TOR (Top of rail level) will be adapted to the facilities and the track configuration of the depot. This will be achieved by providing some platforms at a 0% gradient. The representative levels of these platforms are:

- AWP and Service Slab: +62.8 m OD
- Stabling area/Main building: +65.3 m OD

There are seven main facilities at the depot as follows:

- Access building
- Main depot building
- Stabling area
- The service slab facility
- The automatic washing plant
- The electrical substation
- The CCE compound area.

The following is noted:

The access building would be located at the entrance to the depot.

The main depot building would be in the southern part of the complex, parallel to the stabling yard. It would be composed of three main areas. The northern side for drivers and cleaners' facilities is proposed to be accessed by an underpass corridor from the main lobby of the building. The central part of the building consists of the maintenance shed with all the maintenance tracks, and the southern part of the building contains the workshops, storages, administration and staff amenities. The maintenance shed would have train access from both sides of the building. Consequently, the road and staff access to the building is by the road and pedestrian paths to the facility's south side. There is space reserved for a recreation area with trees, landscaping, benches, and walking paths on the western side. At the eastern side of the building, connected to the

heavy maintenance tracks, there is the unloading bay for train carriages, with an exterior yard of 34 m x 110 m for the manoeuvring of delivery vehicles. The wheel lathe equipment is not centred in the building but offset 30 m to the west. This is to allow 170 m of the track to have a 0% gradient at both sides of the wheel lathe.

The stabling area would be placed parallel to the main building and the test track. The dimensions are 354 m in length and 82.5 m wide. The length of the stabling area is considered for berthing two FLU (Full Length Units or 10-car units) with additional aprons at both sides of concrete slab track to allow the passing of vehicles. The stabling yard would be composed of a ballast track and platforms for accessing the trains. Access to the trains would be provided through ladders and ramps on the platforms. The stabling area would have direct access from the drivers and cleaner's facility on the northern side of the main building. In addition, future provision has been made for a second washing plant to be installed in a track between the bypass track and the test track, parallel to the stabling yard, with a road connection for deliveries. Moreover, an area for more AVI equipment is provided if necessary.

The service slab facility would be an enclosed building with the eastern and western façades opened to allow trains to pass through the facility. The dimensions are 186 m in length and 28 m in width. The southern margin of the building would contain the staff amenities and the technical rooms and equipment. There would be staff access to the building from the road and pedestrian paths to the south side of the building.

The automatic washing plant (AWP) would be at the depot entrance, on the main ingress route for the trains. It would be located after the AVI facility. The AWP would be 42 m long and 9.5 m wide. The AWP would have an adjacent control room for the control panel, equipment, tanks, etc. There would be staff access to the building from the road and pedestrian paths to the facility's south side. The

geometry would allow HGVs to turn around for deliveries in the AWP and the service slab area.

The CCE compound area is an independent design and is outside of the depot footprint. A fence would be provided between both areas. Its function is described above.

Depot Drainage

The EIAR states that the depot area consists of gently sloping terrain towards the south-east of the site. Sub-catchments of the site have been investigated, and the area is stated to drain to a stream south of the depot, which connects to the Lyreen River, east of the depot. The existing stream connecting to the Lyreen River is proposed to be diverted via the perimetral ditch around the depot. The approximate width of the existing stream is stated to be around 4.5 m and the diversion would have a length around 600 m.

Seven separate surface water sub-catchments have been identified, each of them leading to a discharge point. Sub-catchment 1 would discharge into the perimetral ditch before passing through filter strips. Sub-catchments 2,3, 4 and 5 would discharge into a main attenuation pond, and sub-catchments 6 and 7 would discharge into an eastern attenuation pond. CCE compound surface drainage would also discharge to the eastern pond. Once in the ponds, the surface water runoff is proposed to be discharged into the existing water stream south of the depot at a controlled flow rate, which is to be the greenfield runoff rate. The two attenuation ponds would have a permanent pool of water that would provide both attenuation and treatment of surface water runoff. Runoff from each rainfall event would be detained and treated in the pool. The pool would act as the main treatment zone.

The drainage network is proposed to incorporate Sustainable Drainage Systems (SuDS), including filter strips, pervious pavements, and attenuation ponds.

Compensatory Storage Areas

The EIAR notes that the lands between Maynooth and Kilcock have a significant history of flooding that effects the existing rail line at Jackson's Bridge (OBG23), the M4 motorway and lands southeast of Kilcock, i.e. the proposed depot site. It is stated that the DART+ West project requires the realignment of the rail line to the south to address the complex hydraulic constraints present at OBG23. This is proposed to ensure that the proposed development can achieve an appropriate standard of flood protection while maintaining the existing flood regime upstream and downstream of the development. Compensatory storage is stated to be required to manage displaced flood waters and flood risk. It is submitted that the provision of "like for like" compensatory storage is a requirement of The OPW Guidelines (2009) and the 2017-2023 Kildare County Development Plan Strategic Flood Risk Assessment. Existing ground levels are proposed to be adjusted (lowered) to provide the required volumes at defined locations.

The estimated required compensatory volumes are:

- Adjacent to OBG23: ~38,800 m³ + 24,200 m³ over excavation
- Depot lands: ~45,800 m³ + 13,700 m³ over excavation

The provision of these volumes of compensatory storage are stated to require an excavation of ~123,000 m³ of overburden.

Compensatory storage is proposed as follows:

Flooding adjacent to OBG23

The proposed compensatory storage at this location comprises making amendments to existing floodplain levels. The provision of the “like for like” compensatory storage seeks to ensure that the minimum area of land is inundated in each flood event, i.e. less area is flooded in the 1 in 10 year event than the 1 in 100 year event. The area of the compensatory storage areas at this location would total approximately 9 hectares.

Flooding within the proposed depot lands

The interaction of the existing flood regime and proposed development at this location would necessitate both the provision of compensatory storage for displaced flood waters and the realignment of the watercourse itself. To minimise future maintenance requirements and potential for flooding due to blockages the watercourse would be diverted and kept in open channel. Due to the generally flat topography at the depot lands, a larger land take is required to compensate for a smaller volume in comparison to the proposed measures at OBG23.

According to the EIAR, the most suitable lands for compensatory storage are identified as the lands between and adjacent to the historic channel and the current route of the channel. A minor bund is to be provided along the eastern and southern boundary of the compensatory storage area adjacent to the depot with a height no greater than 1m above existing ground levels. The total area of the compensatory storage area at the depot would be approximately 16.5 hectares.

Flood conveyance culverts are proposed through the new road (L5041) and rail embankments (in the OBG23 area) to ensure that flow paths through the floodplain are maintained and impacts to the existing flood regime are minimised. The maximum width of these elements is 6 m, with heights ranging 0.5m to 2.7m.

Utility Connections

Sewerage

Two different sewerage networks are proposed - one for the industrial drainage from workshop building utilities, which would also collect the water from the AWP and service slab, and the other for the sewage effluent from other buildings. Waste (grey) water produced during the washing of the trains in the automatic washing plant would be recycled for reuse (up to 80%), leaving the rest for discharge into the industrial drainage system. Industrial wastewater generated in the workshop would be collected and treated in the water treatment plant. The wastewater discharged from the water treatment plant in the depot would be collected for discharge into the public sewerage network.

Water Supply

The water supply system would be connected from the public supply network by Irish Water to deliver potable water to storage provided by two separate water tanks.

Gas

The gas network for the depot area would connect to the gas network west of the depot in Kilcock.

External Lighting

Outdoor lighting would be LED type. The minimum lighting levels would be the following (horizontal illuminance unless otherwise stated):

EXTERNAL AREAS	ILLUMINANCE	U0
Tracks, railway yards and marshalling area	10 lux	0.4
Stabling (walking, floor)	10 lux	0.4
Stabling (train servicing, floor)	20 lux	0.4
Stabling (train vertical side)	20 lux	0.25
Storage areas	20 lux	0.25
Car, road and walkways	15 lux	0.4
Car parking	10 lux	0.25

8.7.2. **Understanding the Development at the Depot Location from the Application**

Building Dimensions at the Depot

Table 4-24 of the EIAR provides details of the buildings proposed at the depot, including details on building dimensions and height. The buildings making up the workshop, drivers and cleaners area, the administrative area and general storage are each stated as being to a building height of 10.5 metres. The larger structures on the depot site would include the workshop with a floor area of some 16,632m² (1.6632 ha.) and the service slab with an area of 4360.8m² (0.436 ha.).

Construction Strategy

Chapter 5 of the EIAR sets out the construction methodology for the project, with Section 5.9 addressing the construction works from Maynooth Station to the depot. The following is noted:

New Double Track Diversion at Jackson's Bridge

It is noted again that this would consist of a double-track alignment offline of Jackson's Bridge (i.e. to the south), starting just outside the Maynooth urban area and extending for a distance of approximately 1.5 km to the west, and past the turnout for the proposed depot. Construction works would include earthworks, installation of utilities, and track works.

New Underbridges UBG22A and UBG22B

Before connection with the depot the railway alignment would cross the Lyreen River where two structures would be constructed - UBG22A and UBG22B. The former would be a new underbridge crossing over the Lyreen River and the latter would be a new underbridge crossing over the Reach 1 Stream.

UBG22A would provide an in-situ reinforced concrete frame section, orthogonal to the railway line and would support the double-track railway line that runs over it. One of the spans would allow pedestrians and cyclists to pass through. The existing ground level would be maintained to ensure sufficient conveyance through the structure.

UBG22B would similarly provide an in-situ reinforced concrete frame section, orthogonal to the railway line and would support the double-track railway line that runs over it.

L5041 Diversion

It is again noted that the L5041 would be diverted approximately 850 m to the west and onto the new OBG23A bridge to cross over tracks and the Royal Canal and connect to the R148 road, as well as access to the depot.

Works would include utilities diversion, site clearance and excavation, soil compaction, fine grading, laying an aggregate base for the road, and laying the pavement and finishes.

Overbridge OBG23A

It is proposed to construct a precast concrete beam deck of 5 spans. The total length of the bridge would be approximately 107.5 m, consisting of 5 spans of 21.5 m each. The required deck thickness is approximately 1.0 m with a 0.2 m top slab. The width of the bridge is 16.8 m. A piled foundation solution is proposed for the Pier-1 to avoid any impact on the adjacent Royal Canal and the rest of the piers and abutments are assumed to be founded on piled foundations.

CCE Compound

The construction works would include site clearance and enabling works, earthworks, foundations, structure of the building, utilities, mechanical/electrical/plumbing, architecture, façade and finishes, urban development and landscaping (pedestrian pavements, road network, etc.), and fencing and gates.

Depot

The major construction activities at the depot site would include site clearance, power line diversions, earthworks for the depot embankment, track works, building construction, signalling/electricity/telecom works, landscaping, and fencing. The construction works would commence after OBG23A is built. The

volume of material required for construction of the depot embankment is estimated to be 280,000 m³.

The depot is phased in two construction stages. In Phase 1, the depot would be built with half of the stabling tracks considering an initial stage of 300 EMU. The final design stage considers 15 tracks for 30 FLU. Consequently, this first phase would consider 8 tracks for 16 FLU. In the future when the fleet increases its size, Phase 2 would consist of building the rest of the stabling tracks.

Compensatory Storage Areas

The proposed depot is located close to tributary watercourses of the Lyreen River. Therefore, a perimeter ditch at the southern boundary is needed to divert these elements. The hydraulic assessment has identified areas liable to flooding in the vicinity of OBG23 and the depot lands. Development of the project within these lands will displace flood waters which could potentially increase the severity of flooding in lands adjacent to the development including the M4 motorway if not mitigated. Compensatory storage in conjunction with flood relief culverts are required to manage flood risk and maintain the existing flood regime.

Maximum depth of excavation is to be 3.4 m at OBG23 Jackson's Bridge while maximum depth of ~1 m is required at the depot lands. Embankments along the perimeter of the compensatory storage areas would be at a maximum of 1:1 slope. The provision of the compensatory storage will require excavation of ~123,000 m³ of overburden.

Wetland habitats would be incorporated into the design of the flood compensatory storage areas. The wetlands are stated to not affect the primary flood storage function of these areas. Further excavation below the 1 in 2-year

flood level and the outlet levels would ensure that water is allowed to pool which will encourage wetland habitats to establish.

Flood conveyance culverts through the new road (L5041) and rail embankments (in the OBG23 area) would have maximum width of 6 metres, with heights ranging from 0.5 m to 2.7 m.

The Drawings in the Railway Order Application

The Board will note the drawings submitted as part of the Railway Order application. The following is noted:

Book 1 Railway Works Plan Part 2

Works Layout Plan Nos. WP037 – WP041 show the layout of the details of the proposed development from the track realignment to the west of Maynooth as far as the western end of the depot facility. These are layout plans for this western end of the project that are superimposed on the maps of the existing field and road systems and do not indicate ground levels or other details.

Book 2 Property Plans Part 2

Property Plan Nos. DW.037 – DW.041 show the permanent and temporary land acquisition and rights of way proposals from the track realignment to the west of Maynooth as far as the western end of the depot facility. These overlie the maps of the existing field and road systems and do not indicate ground levels or other details.

Book 3 Structures Plans

These provide details on the proposed structures associated with the proposed development. They include:

- General Arrangements – fencing typologies and OHLE cross sections
- Linear Works – Permanent Way Design
- Specific Locations

The Linear Works drawings show the proposed development permanent way design laid out on maps where contours are visible. They also include longitudinal sections showing a range of features, including ground levels, groundwater levels, flood levels, top of rail design and the Royal Canal. They relate to the permanent way design and do not include the structures development at the depot. They also show the road and bridge provisions providing access to the depot. Drawing Nos. MAY-MDC-TRK-SC07-DR-C-0003-D - MAY-MDC-TRK-SC07-DR-C-0004-D show the permanent way design from Maynooth to the depot site.

The Specific Location drawings provided for the depot are:

Drawing Title

Drawing No.

Depot Civil Design - General Arrangement –

Location, Boundaries & Scope Limits - Sheet 1 of 1

MAY-MDC-CIV-DEPM-DR-Y-0001-D

Depot Civil Design - General Arrangement –

Buildings Layout - Sheet 1 of 1

MAY-MDC-CIV-DEPM-DR-Y-0002-D

Depot Civil Design - General Arrangement-

Sections - Sheet 1 of 1

MAY-MDC-CIV-DEPM-DR-Y-0006-D

Structure Design - OBG23A - Plan, Elevation &

Section Detail - Sheet 1 of 1

MAY-MDC-STR-SC07-DR-C-0001-D

Set Technical Buildings - Maynooth Depot

(Inside Depot Area) - Sheet 1 of 1

MAY-MDC-SET-DEPM-DR-Z-0003-D

Set Technical Buildings - Depot Buildings Detail –

Sheet 1 of 1

MAY-MDC-SET-ROUT-DR-Z-0010-D

Set Technical Buildings - Maynooth Depot Entrance

+CCE Compound - Sheet 1 of 1

MAY-MDC-SET-DEPM-DR-Z-0004-D

Set Technical Buildings - Depot Entrance –

CCE Compound Buildings Detail - Sheet 1 of 1

MAY-MDC-SET-ROUT-DR-Z-0010-D

Set Technical Buildings - Millerstown – Sheet 1 of 1

MAY-MDC-SET-RS21-DR-Z-0003-D

Set Technical Buildings - Millerstown Buildings Detail –

Sheet 1 of 2

MAY-MDC-SET-RS21-DR-Z-0010-D

Set Technical Buildings - Millerstown Buildings Detail –

Sheet 1 of 2

MAY-MDC-SET-RS21-DR-Z-0010-D

The following is noted:

MAY-MDC-CIV-DEPM-DR-Y-0001-D: This is a layout drawing superimposed on a map showing the main features of the development at and in the vicinity of the depot.

MAY-MDC-CIV-DEPM-DR-Y-0002-D: This is a layout plan of the depot development showing the various structures. Levels are shown on the road network in the vicinity of the depot site.

MAY-MDC-CIV-DEPM-DR-Y-0006-D: This shows three sections through the depot site. Section A-A is through the main depot area from the Royal Canal to the embankment on the southern edge of the site. This indicates existing ground levels and the platform level for the depot. Section B-B is through an eastern section of the depot and includes the railway line, test track, service slab, and access road. Section C-C shows UBG23A from the access road crossing over the canal, railway line, access track, service slab track, and access road. The Detail -A- shows the southern side of the main building, car park area, and the embankment on the southern perimeter. This includes the levels at which the bases of the sewage and drainage networks would be located. Detail -B- relates to the southern side of Section B-B and shows the service slab structure and

road, indicating the levels for the industrial sewage network and for the base of the drainage network.

MAY-MDC-STR-SC07-DR-C-0001-D: This shows a plan, section and elevation of OBG23A. The elevation details include existing ground levels and structure heights.

MAY-MDC-SET-DEPM-DR-Z-0003-D: This is a layout plan of the SET technical buildings within the depot.

MAY-MDC-SET-ROUT-DR-Z-0010-D: This is the elevation and plan view of the SET technical buildings.

MAY-MDC-SET-DEPM-DR-Z-0004-D: This is a layout plan of the SET technical buildings depot entrance and CCE compound.

MAY-MDC-SET-ROUT-DR-Z-0010-D: This shows a plan, section and elevation of the switch room.

MAY-MDC-SET-RS21-DR-Z-0003-D: This is a layout drawing showing the SET buildings and the proposed secondary access at the western end of the depot site.

MAY-MDC-SET-RS21-DR-Z-0010-D: This shows a plan, section and elevation of the SEB building.

MAY-MDC-SET-RS21-DR-Z-0010-D: This shows a plan, section and elevation of the PSB building.

Having regard to the above, the Board will note the limited number of drawings provided at the depot in the application to the Board. Thus, for example, there were no plans, sections and elevations of the main structures on the depot site

such as the access building, the main depot building, the service slab facility, or the automatic washing plant. Table 4-24 of the EIAR sought to show in tabular form the depot buildings' dimensions, heights, materials, and types of foundations. There were no clear longitudinal sections through the site showing development on the depot platform relative to adjoining land and other development. There was no clear understanding of the proposed road access, including its height over ground level. There was no clear understanding of the new bridge structure height over adjoining lands. There was no clear understanding of the embankments relative to existing and adjoining ground levels. Details on existing and proposed levels in drawings were at best scarce.

8.7.3. **Drawings and Details Received at the Oral Hearing**

The following was received at the Oral Hearing:

Errata submitted on Day 1

EIAR

These included details of the compensatory storage area in Chapter 4 as follows:

- Compensatory storage excavation volumes adjacent to OBG23 were increased from $\sim 38,800\text{m}^3$ to $49,100\text{m}^3 + 24,200\text{m}^3$ over excavation
- Compensatory storage excavation volumes at the depot lands were increased from $\sim 45,800\text{m}^3$ to $70,100\text{m}^3 + 28,700\text{m}^3$ over excavation
- The total volume of compensatory storage requiring an excavation of $173,000\text{m}^3$ up from $\sim 123,000\text{m}^3$ of overburden.

They also included amendments to Chapter 5 with regard to the compensatory storage areas as follows:

- Maximum depth of excavation at OBG23 Jackson's Bridge to remain at 3.4m while maximum depth at the depot lands to increase from ~1m to ~2.8m.
- The increase of excavation of compensatory storage areas from ~123,000m³ to 173,000m³ of overburden.

They further included amendments to Table 2-11 of Chapter 9 (Land and Soils) with regard to the estimated earthworks balance at the depot, compensatory storage areas, and the access road (L5041 and OBG23A). There were notable increases in estimated arisings, reused volumes, and disposed volumes.

Site Specific Flood Risk Assessment

Changes in text and water level information were provided. Flooding is discussed below and this information is considered in the assessment.

Drawings received on Day 3

A set of 9 drawings of the structures at the depot was received on Day 3. These provided sections, roof plans and elevations of the main building, the services slab, the automatic washing plant, the permanent way maintenance building, the electrical substation, and the main access and security structure.

Drawings received on Day 7

Firstly, two drawings were received on Day 7. The first was a layout plan relating to the new road from south of Jackson's Bridge westwards as far OBG23A. This showed spot levels at and adjoining the development at this location. The second

drawing showed the alignment of the route in plan format and a longitudinal section showing existing ground levels and proposed ground level changes.

A set of 9 drawings was received on Day 7 also. Each drawing was titled 'Permanent Way Design L5041 and R149 Diversion Road Alignment'. These were as follows:

- A layout plan of the road indicating various alignment sections.
- Eight drawings of longitudinal sections relating to the various alignments and the roundabouts referred to in the layout plan.

Drawings received on Day 8

A set of 10 drawings was received on Day 8. Nine of the drawings presented as similar to those plans, sections and elevations of depot structures presented on Day 3. The one additional drawing comprised the ground and first floor plans of the main depot building.

Details received on Day 9

A revised Table 4-24 of the EIAR (titled Table 2-24 in the new Table submitted) was received on Day 9. This provided two columns on height as opposed to one in the EIAR – 'Height from top of rail level to ceiling' and 'Height from top of rail level to highest point on roof/parapet'. The former related to the original heights provided in Table 4-24 of the EIAR.

A set of four drawings was also received on Day 9. Each drawing was titled 'Depot Civil Design Utilities Surface Water Drainage'. The four drawings together

comprised a composite layout of the overall depot development. Contours were shown as were some details on levels.

A set of five drawings was also received on Day 9. Each drawing was titled 'Depot Civil Design Layout Levels'. Two showed details of levels within and along the perimeter of the depot site and a longitudinal section profiling the road level, existing ground, earthworks level and top of rail level and showing the main building on the proposed platform. A third was an update of Drawing MAY-MDC-CIV-DEPM-DR-Y-0006-D showing Section -D- and Section -E- which show proposed and existing ground levels and flooding levels 1 in 1000 + CC. The fourth drawing comprised elevations and sections of the main building.

A further set of five drawings was also received on Day 9 showing the Main Building's plan areas identifying use of spaces and ceiling finishes.

8.7.4. **Flooding at the Depot Location**

The principal issue of concern to landowners and observers in the area of the depot relates to flooding. The site of the proposed development in the depot area and in the vicinity of Jackson's Bridge leading to the depot area is in Flood Zone A. These lands are subject to extensive flooding.

The Planning System and Flood Risk Management Guidelines for Planning Authorities

I note the provisions of *The Planning System and Flood Risk Management Guidelines for Planning Authorities* published in November 2009 by the Department of the Environment, Heritage and Local Government. Issued under

section 28 of the Planning and Development Act 2000, as amended, the Board is required to have regard to these Guidelines in carrying out its functions.

I consider that it is important to set out some of the key considerations of these Guidelines. Later in this assessment I will seek to measure the proposed development against them.

The following is noted:

Overview of the Guidelines

Planning authorities are required to introduce flood risk assessment as an integral and leading element of their development planning functions.

Planning authorities are required to assess planning applications for development in accordance with the provision of the Guidelines following the guidance of their own or any OPW Strategic Flood Risk Assessment and the application of the sequential approach and, if necessary, the Justification Test required by the Guidelines.

Planning authorities are required to ensure that development is not permitted in areas of flood risk, particularly floodplains, except where there are no suitable alternative sites available in areas at lower risk that are consistent with the objectives of proper planning and sustainable development. Where such development has to take place the type of development has to be carefully considered and the risks should be mitigated and managed through location, layout and design of the development to reduce flood risk to an acceptable level.

Planning authorities are required to ensure that only developments consistent with the overall policy and technical approaches of these Guidelines will be approved and permission will be refused where flood issues have not been, or cannot be, addressed successfully and where the presence of unacceptable

residual flood risks to the development, its occupants or users and adjoining property remains.

Background and Objectives

The frequency, pattern and severity of flooding are expected to increase as a result of climate change. Development can exacerbate the problems of flooding by accelerating and increasing surface water run-off, altering watercourses and removing floodplain storage.

The core objectives of the Guidelines are:

- Avoid inappropriate development in areas at risk of flooding;
- Avoid new developments increasing flood risk elsewhere, including that which may arise from surface water run-off;
- Ensure effective management of residual risks for development permitted in floodplains;
- Avoid unnecessary restriction of national, regional or local economic and social growth;
- Improve the understanding of flood risk among relevant stakeholders; and
- Ensure that the requirements of EU and national law in relation to the natural environment and nature conservation are complied with at all stages of flood risk management.

The key principles required to be adopted are:

- Avoid the risk, where possible,
- Substitute less vulnerable uses, where avoidance is not possible, and

- Mitigate and manage the risk, where avoidance and substitution are not possible.

Flood Risk

The Guidelines recommend a staged approach to flood risk assessment that covers both the likelihood of flooding and the potential consequences.

Transport infrastructure is seen by the Guidelines to be particularly vulnerable to flooding because interruption of its function can have widespread effects well beyond the area that is flooded. It is stated that this reinforces the need for decisions to locate development in areas at risk of flooding to be fully justified with regard to wider proper planning and sustainable development considerations.

Flood Zones

Flood Zone A is where the probability of flooding from rivers and the sea is highest (greater than 1% or 1 in 100 for river flooding).

Floodplains

The Guidelines note that floodplains have a valuable function both in attenuating or storing floodwater and through their ability to convey floodwater in a relatively controlled and safe way. It is stated that areas of floodplain and wetlands should, therefore, be recognised and preserved to the extent possible as natural defences against flood risk.

Key Principles

The key principles of a risk-based sequential approach to managing flood risk in the planning system are stated to be:

- **Avoid** development in areas at risk of flooding; If this is not possible, consider substituting a land use that is less vulnerable to flooding. Only when both avoidance and **substitution** cannot take place should consideration be given to **mitigation and management of risks**.
- Inappropriate types of development that would create unacceptable risks from flooding should not be planned for or permitted.
- **Exceptions** to the restriction of development due to potential flood risks are provided for through the use of a **Justification Test**, where the planning need and the sustainable management of flood risk to an acceptable level must be demonstrated.

Further planning principles include:

- Development should only be permitted in areas at risk of flooding when there are no alternative, reasonable sites available in areas at lower risk that also meet the objectives of proper planning and sustainable development.

Sequential Approach

A sequential approach to planning is seen as a key tool in ensuring that development, particularly new development, is first and foremost directed towards land that is at low risk of flooding.

For **Zone A – High probability of flooding**, the Guidelines state:

“Most types of development would be considered inappropriate in this zone. Development in this zone should be avoided and/or only considered in exceptional circumstances, such as in city and town centres, or in the case of essential infrastructure that cannot be located elsewhere, and where the Justification Test has been applied. Only water-compatible development, such as

docks and marinas, dockside activities that require a waterside location, amenity open space, outdoor sports and recreation, would be considered appropriate in this zone.”

Table 3.1 of the Guidelines provides a classification of vulnerability of different types of development. The Vulnerability Class 'Highly vulnerable development' includes essential infrastructure such as primary transport infrastructure.

Table 3.2 comprises a matrix of vulnerability versus flood zone to illustrate appropriate development and that require to meet the Justification Test. Highly vulnerable development within Flood Zone A is required to meet the Justification Test.

Justification Test

In considering the Justification Test, the Guidelines, while acknowledging the need for future development to avoid areas at risk of flooding, allude to recognising the existing urban structure of the country and the targeting of centres for growth at the national, regional and city and county levels. It is stated:

“The Justification Test has been designed to rigorously assess the appropriateness or otherwise, of particular developments that, for the reasons outlined above, are being considered in areas of moderate or high flood risk.”

It is understood from this that ‘the reasons outlined above’ clearly relate to the recognition of the existing urban structure of the country, targeting of centres for growth, and recognising the importance of compact and sequential development of urban areas.

The Development Management Justification Test is stated to be used at the planning application stage where it is intended to develop land at moderate or

high risk of flooding for uses or development vulnerable to flooding that would generally be inappropriate for that land.

Application of the Justification Test in Development Management

The Guidelines state:

“Where a planning authority is considering proposals for new development in areas at a high or moderate risk of flooding that include types of development that are vulnerable to flooding and that would generally be inappropriate as set out in Table 3.2, the planning authority must be satisfied that the development satisfies all of the criteria of the Justification Test as it applies to development management outlined on Box 5.1 below.”

Box 5.1 is titled ‘Justification Test for development management (to be submitted by the applicant)’. It states:

“When considering proposals for development, which may be vulnerable to flooding, and that would generally be inappropriate as set out in Table 3.2, the following criteria must be satisfied:

- 1. The subject lands have been zoned or otherwise designated for the particular use or form of development in an operative development plan, which has been adopted or varied taking account of these Guidelines.*
- 2. The proposal has been subject to an appropriate flood risk assessment that demonstrates:*
 - (i) The development proposed will not increase flood risk elsewhere and, if practicable, will reduce overall flood risk;*
 - (ii) The development proposal includes measures to minimise flood risk to people, property, the economy and the environment as far as reasonably possible;*

- (iii) *The development proposed includes measures to ensure that residual risks to the area and/or development can be managed to an acceptable level as regards the adequacy of existing flood protection measures or the design, implementation and funding of any future flood risk management measures and provisions for emergency services access; and*
- (iv) *The development proposed addresses the above in a manner that is also compatible with the achievement of wider planning objectives in relation to development of good urban design and vibrant and active streetscapes.*

The acceptability or otherwise of levels of residual risk should be made with consideration of the type and foreseen use of the development and the local development context.”

Further to the above, I note the Technical Appendices of these Guidelines. Appendix A relates to the identification and assessment of flood risk. Appendix B refers to addressing flood risk management in design of development.

Site Specific Flood Risk Assessment

I consider that it is important to acknowledge some significant details from the applicant's Site Specific Flood Risk Assessment to allow for appropriate consideration of the proposed depot development relative to the Flood Management Guidelines. The following is noted from the applicant's document:

STAGE 1: FLOOD RISK IDENTIFICATION

Vulnerability of the Proposed Site

- *“As per the OPW Guidelines, the proposed development is classified as “highly vulnerable” development as it comprises essential transport infrastructure. The guidelines stipulate that typically highly vulnerable developments are only appropriate within Flood Zone C (low risk areas).”*
(Section 3.2)

Primary Sources of Baseline Data

(i) Catchment Flood Risk Assessment and Management Study

The development area is covered within the Eastern CFRAM study area ... The published Final CFRAM mapping indicates that multiple locations within the development area are predicted to flood in extreme fluvial, coastal and pluvial events. These include: ...

- The Lyreen River and its tributaries flood between Maynooth and Kilcock directly south of the rail line ...
- The CFRAM mapping indicates pluvial flooding in various areas of the development lands ...

(vii) OPW National Flood Hazard Mapping

The OPW National Flood Hazard Mapping Web Site (www.floodmaps.ie) was examined to identify any recorded flood events within the vicinity of the development site. Flood events have been recorded as follows: ...

- The Lyreen River Flood Relief Scheme, Preliminary Report indicates flooding on the rail track at Jackson Bridge and on site of the proposed depot at Bailey’s Bridge in November 2000. The extreme event was calculated to be approximately a 1 in 70 years event. Aerial photos show ponding water on these lands.

Secondary Sources of Baseline data

The following sources were also examined to identify areas that may be liable to flooding: ...

(vii)GSI Maps GSI

Teagasc subsoils map shows the multiple areas within the development lands are underlain by Alluvial materials indicating the locations of historic floodplains. Notable locations include Barberstown crossing and the proposed depot site.

Source – Pathway – Receptor Model

Table 3-2 notes the likelihood, consequence and risk of fluvial flooding for the rail track from overbank flow from the Lyreen River at Jackson's Bridge and at the proposed depot to be 'High'.

Regarding groundwater flooding, it is stated that no indication of historic or predicted groundwater flooding was identified within the study area and, therefore, the risk of groundwater flooding was classified as low and no further assessment was required.

STAGE 2: INITIAL FLOOD RISK ASSESSMENT

Fluvial Flooding

There are three distinct flooding locations between Maynooth and Kilcock - Maynooth Train station, Jackson's Bridge, and Bailey's Bridge – Proposed Depot Site. The following is noted:

Jackson Bridge – Rail Track

The area directly south of the Royal Canal between Maynooth and Kilcock has a history of flooding and has been subject to CFRAMS hydraulic assessment reflecting the same. The Lyreen River flows under the canal and railway via an

inverted syphon (UBG22) ~100 m south-east of Jacksons Bridge (OBG23). UBG22 appears to have insufficient capacity and causes flooding upstream, inundating the tracks and area proposed for the depot. This appears to occur in relatively frequent events ($\leq 10\%$ AEP). Jacksons Bridge is a local low point and according to the CFRAMS, floodwaters are likely to reach track level in a 10% AEP event and reach ~400 mm in depth in a 0.1% event. CFRAMS flood levels including an allowance for climate change are not publicly available at this location but it is anticipated that these would increase significantly. The sites at Jackson Bridge are considered to require a stage 3 detailed flood risk assessment with respect to fluvial flooding.

Bailey's Bridge - Proposed Depot Site

Further north-west of Jackson Bridge at Bailey's Bridge (the location of the proposed depot) OPW flood records (in the form of post flood aerial photography) indicate that this area is also liable to flood from a minor watercourse (Ballycaghan stream) that was not modelled as part of the CFRAMS. Given the history of flooding and lack of information available for the area, the proposed depot lands are considered to require a stage 3 detailed flood risk assessment with respect to fluvial flooding.

I note that the applicant proceeded to a detailed Site-Specific Flood Risk Assessment.

Consideration of the Proposal Against the Provisions of the Flood Risk Management Guidelines

From the outset, I note for the Board that the considerations relating to the 'Depot' must reasonably include the depot site where the main depot structures

are proposed, the CCE compound to the east of this, the realigned railway track from Jackson's Bridge leading to the depot, and the proposed depot access road from Jackson's Bridge. These are inter-related features, integral to the functioning of the depot, and should be understood as such.

The Guidelines state that Flood Zone A is where the probability of flooding from rivers and the sea is highest (greater than 1% or 1 in 100 for river flooding). The applicant's Site Specific Flood Risk Assessment acknowledges that the Lyreen River Flood Relief Scheme, Preliminary Report indicated flooding on the rail track at Jackson Bridge and on the site of the proposed depot at Bailey's Bridge in November 2000. This event was calculated to be approximately a 1 in 70 years event. I note also from the applicant's hydraulic modelling for the existing environment for both the depot and Jackson's Bridge (OBG23), as set out in its Site Specific Flood Risk Assessment, that a large portion of the subject area, including lands within the footprint of the proposed depot and the footprint of the proposed road and rail embankments are within Flood Zone A. At no time at the Oral Hearing was it otherwise understood that the proposed depot development from Jackson's Bridge westwards is within Flood Zone A. The Board will also note the extent of photographic information provided both by the applicant and observers relating to flooding in the vicinity of Jackson's Bridge and the depot site. The applicant alluded to flooding in November 2000. There is further photographic information from the Jackson's Bridge, Ballycurraghan and depot site areas dating from November 2017, January 2021, February 2021, July 2023, and August 2023.

Table 3.1 of the Guidelines provides a classification of vulnerability of different types of development. The Vulnerability Class 'Highly vulnerable development' includes essential infrastructure such as primary transport infrastructure. Transport infrastructure is seen by the Guidelines to be particularly vulnerable to flooding because interruption of its function can have widespread effects well

beyond the area that is flooded. It is stated that this reinforces the need for decisions to locate development in areas at risk of flooding to be fully justified with regard to wider proper planning and sustainable development considerations. The applicant's Site Specific Flood Risk Assessment acknowledges that the proposed development is classified as "highly vulnerable" development as it comprises essential transport infrastructure. Furthermore, it notes that typically highly vulnerable developments are only appropriate within Flood Zone C. One then queries why would one plan major strategic transport infrastructure in such a vulnerable location.

A core objective of the Guidelines is to avoid inappropriate development in areas at risk of flooding. A key principle of the Guidelines is to avoid the risk, where possible. With regard to objectives and principles, it begs the question as to why one would plan highly vulnerable transport infrastructure in an area prone to flooding, recognised as being within Flood Zone A.

The Guidelines require planning authorities to ensure that development is not permitted in areas of flood risk, particularly floodplains, except where there are no suitable alternative sites available in areas at lower risk that are consistent with the objectives of proper planning and sustainable development. The Guidelines refer to the key principles of a risk-based sequential approach to managing flood risk in the planning system to include avoiding development in areas at risk of flooding and not planning or permitting inappropriate types of development that would create unacceptable risks from flooding. It is a further planning principle, as set out in the Guidelines, that development should only be permitted in areas at risk of flooding when there are no alternative, reasonable sites available in areas at lower risk that also meet the objectives of proper planning and sustainable development. The Board will note Chapter 3 of the EIAR relating to alternatives and the consideration of other locations for the depot. I will revert to this in due course.

For Zone A – High probability of flooding, the Guidelines state:

“Most types of development would be considered inappropriate in this zone. Development in this zone should be avoided and/or only considered in exceptional circumstances, such as in city and town centres, or in the case of essential infrastructure that cannot be located elsewhere, and where the Justification Test has been applied. Only water-compatible development, such as docks and marinas, dockside activities that require a waterside location, amenity open space, outdoor sports and recreation, would be considered appropriate in this zone.”

In considering the Justification Test, the Guidelines, while acknowledging the need for future development to avoid areas at risk of flooding, allude to recognising the existing urban structure of the country and the targeting of centres for growth at the national, regional and city and county levels. It is stated:

“The Justification Test has been designed to rigorously assess the appropriateness or otherwise, of particular developments that, for the reasons outlined above, are being considered in areas of moderate or high flood risk.”

It is understood from this that ‘the reasons outlined above’ clearly relate to the recognition of the existing urban structure of the country, targeting of centres for growth, and recognising the importance of compact and sequential development of urban areas. Thus, one is considering ‘particular developments’ which recognise the existing urban structure and which target centres for growth. This does not refer to the development of strategic transport infrastructure, such as a main depot to serve the Dart+ Programme, in a rural location beyond an urban centre targeted for growth.

Even if one was to accept that the site could be considered for the proposed development of a strategic railway depot and move to a stage where it is subject

to a Justification Test, one must first offer due regard to the Guidelines which state:

“Where a planning authority is considering proposals for new development in areas at a high or moderate risk of flooding that include types of development that are vulnerable to flooding and that would generally be inappropriate as set out in Table 3.2, the planning authority must be satisfied that the development satisfies all of the criteria of the Justification Test as it applies to development management outlined on Box 5.1 below.”

Box 5.1 is titled ‘Justification Test for development management (to be submitted by the applicant)’. It states:

“When considering proposals for development, which may be vulnerable to flooding, and that would generally be inappropriate as set out in Table 3.2, the following criteria must be satisfied:

- 1. The subject lands have been zoned or otherwise designated for the particular use or form of development in an operative development plan, which has been adopted or varied taking account of these Guidelines ...*
- 2. The proposal has been subject to an appropriate flood risk assessment that demonstrates:*
 - (i) The development proposed will not increase flood risk elsewhere and, if practicable, will reduce overall flood risk;*
 - (ii) The development proposal includes measures to minimise flood risk to people, property, the economy and the environment as far as reasonably possible; ...*

It is critically important to note that the site of the proposed depot has not been zoned for this use nor has the site otherwise been designated for the depot use

in any operative development plan. While I note Objective TM 054 of the current Kildare County Development Plan, which supports and facilitates, in co-operation with Irish Rail and the National Transport Authority, the delivery of a second Maynooth railway station/depot sited to the west of Maynooth, it is apparent that the site in question is not zoned nor has it been designated. This site east of Kilcock fails the first criterion.

I draw the attention of the Board to my considerations which will follow later in this assessment on the delivery of the proposed depot development and the flood management measures which the applicant intends to provide. I am satisfied to conclude that the Board cannot be assured that the applicant's proposals for compensatory storage, without any containment measures, increasing the regularity of flooding of the lands and expanding the floodplain beyond existing flood area, would not result in increased risk to lands in the vicinity and beyond the depot site, access road and Jackson's Bridge areas. Furthermore, it has been made clear by the applicant that the proposed development at this location will not reduce flooding in this area, notably beyond the site footprint.

With due regard to the above, it is evident that the selection of the site for the proposed depot, which is primary transport infrastructure that is a highly vulnerable development and which is proposed to be located on lands prone to regular flooding, is contrary to the provisions of *The Planning System and Flood Risk Management Guidelines for Planning Authorities*. From the outset, when there was a clear understanding that the lands west of Jackson's Bridge to be developed for the main access to the depot and for the depot itself, were subject to regular and extensive flooding, this site should have been avoided. This site should never have progressed to being the preferred site for the depot and to

have proceeded to being part of the application to the Board for Dart+ West. This is not proper planning and sustainable development.

I revert to the Guidelines. The Board is required to assess planning applications for development in accordance with the provisions of the Guidelines. The Board is required to ensure that development is not permitted in areas of flood risk, particularly floodplains, except where there are no suitable alternative sites available in areas at lower risk that are consistent with the objectives of proper planning and sustainable development. The Board is required to ensure that only developments consistent with the overall policy and technical approaches of the Guidelines will be approved. The principle of avoidance of inappropriate development in areas at risk of flooding, particularly for primary transport infrastructure that is highly vulnerable development, is required to be applied.

One cannot reasonably come to any other conclusion other than the development of the depot on this site contradicts the Guidelines and could not be seen to constitute proper planning and sustainable development. Furthermore, the depot location is not one where such development has been planned for in any plan. This development also poses a significant flood risk to lands and property in the vicinity. I am clearly of the opinion that this site should have been rejected early in the consideration of location options for a depot of such strategic significance. It should never have proceeded as far as a detailed site specific flood risk assessment and been subject to any Justification Test. A depot of such strategic transport infrastructure significance did not need to be sited on lands that extensively and regularly flood at the geographical end of one of the Dart+ Programme projects. The depot does not need to be at this location. I cannot come to any reasonable understanding as to why the applicant has chosen to pursue the depot development at this location when it is evident that the lands are prone to extensive and regular flooding. The risks to this important strategic infrastructure and the potential for this very substantial development to pose significant flood risk beyond the depot lands in order to alleviate flood risk of this

infrastructure cannot be acceptable. This is not proper planning and sustainable development.

Reinforcing this determination, I must briefly return to the issue of alternative depot sites. Chapter 3 of the applicant's EIAR refers to alternatives. Section 3.6.6 refers to alternatives for the depot and Section 3.6.7 refers to alternatives for the depot access.

The applicant's Depot Location Assessment included an initial analysis which considered 13 alternative locations based on the capacity of these locations to accommodate the proposed depot. A second stage was subject to Multi-Criteria Analysis (MCA) for four chosen location options. The considered criteria included access, operation, availability of the land, neighbouring environment, and the impact on the DART+. The four location options were Drogheda environs, Maynooth environs, M3 Parkway environs and Hazelhatch environs. Each of these had two options, either north and south or east and west. It is evident, therefore, that the options selection process clearly indicates that the depot was not required to be sited east of Kilcock for any logistical or planning reasons.

Table 3-48 Aggregated Summary of Site Appraisal of the EIAR sets out the criteria and how each of the eight options fared. There is no reference to flooding, albeit I note the limited flooding considerations set out in Appendix A3.4 of Volume 4 of the EIAR comparing flooding issues at the depot site with Hazelhatch and Parkway North locations.

An EMU Depot Location Feasibility Study Report undertook a feasibility study to review the proposed locations for the new depot and to recommend the best site. It reviewed and analysed three proposed sites that were considered most suitable to contain the depot –

- Option 1 McLoughlin Canal Bridge at 21 ¼ M.P.: this option is placed west of Kilcock in a plot of land mostly occupied by agricultural fields. The site has an area of 46 acres.
- Option 2 Bailey Bridge at 16 ¾ M.P.: this option is placed west of Maynooth in a plot of land mostly occupied by agricultural fields. The site has an area of 83.1 acres.
- Option 3 Collins Bridge at 9 ¼ M.P.: this option is placed west of Clonsilla in a park plot of land. The site has an area of 47.5 acres.

The report concluded that Option 2: Maynooth West, Bailey's Bridge at 16 ¾ M.P. is the preferred option for the site of a proposed depot for DART+ West. It is important to note the latter. From what is stated, this report appeared to be seeking to determine the preferred option for a depot site for DART+ West, not for the DART+ Programme. In reference to advantages of this site over the other two, it is stated:

"There is no evidence of fluvial flooding on the proposed site based on examination of publicly available mapping although there is some historical evidence of localised pluvial flooding. Some other prospective sites exhibit the presence fluvial flooding and OPW managed watercourses which represent a significant obstacle to development of the sites."

In reference to disadvantages of this site over the other two, it is stated:

"There is evidence of historical localised pluvial flooding on the site. In addition, there is evidence of significant downstream pre-existing fluvial flooding associated with the Lyreen river and its tributary which flow into the Rye Carton SAC downstream. The presence of flooding issues is common along the railway as they have historically been constructed in low lying flat areas along rivers or canals. Many of the potential sites manifest this issue."

Such comment, in my opinion, downplays and does not adequately detail the nature and extent of the flooding problems associated with the lands west of Jackson's Bridge on which the depot and its supporting infrastructure are proposed to be placed. I repeat: these lands are subject to significant regular flooding, much of which is Flood Zone A.

I appreciate and understand the relevant advantage which states that the delivery of DART+ West exhibits the strongest passenger growth characteristics of projects on the DART+ Programme and consequently the best return for investment. Although, I must query the latter in relation to the depot as flood risk and flooding impacts are a real consequence of pursuing a depot development at this location. I also note that, in providing the train services to DART+ West, it is necessary to construct a depot. However, while the site chosen may be seen to deliver on providing a physically large enough area that may accommodate desired train service specification, it is first noted that a depot does not need to be at this location east of Kilcock. Secondly, the DART+ Programme depot does not need to be on the Dublin-Sligo line. Thirdly, and critically important, it should not be on lands that are proven to be prone to extensive and regular flooding, posing a risk to the transport infrastructure itself and a potential flood risk beyond the site.

It is of further interest to note from the applicant's considerations on this chosen option that there is acknowledgement of the matter of fluvial flooding needing to be addressed downstream of the depot due to concurrent issues at Jackson's Bridge where the railway currently floods on occasion. There is further acknowledgement that although the proposed site of the depot is higher than that at Jackson's Bridge, some fluvial flooding is evident along the alignment of an historic watercourse and that this watercourse historically flowed through the area of the proposed depot but was realigned to the south of its natural flow path. The applicant notes that detailed flood modelling indicates that, during extreme

flood events, flood waters return to the historic channel and are conveyed through the proposed depot location.

It is my submission to the Board that, in considering the selection of a depot for the DART+ Programme, flooding was not a matter that was given appropriate weighting. From the details provided on the Depot Location Assessment, it appears that flooding was not a matter which was subject to any significant scrutiny at Drogheda, Maynooth, M3 Parkway or Hazelhatch. There then appears to have been an assessment of alternative locations on the DART+ West line, with the preferred site being chosen, notwithstanding the clear knowledge of this location being prone to flooding. The site selection process presents as being inadequate on flood risk assessment for the Depot Location Assessment and to have somewhat downplayed the significance of the flooding of the lands west of Jackson's Bridge, with little if any regard to the Flood Risk Management Guidelines in the EMU Depot Location Feasibility Study Report.

Regarding the consideration of alternatives for the depot access, I note that the road access to the depot site was studied to determine a suitable route for access for depot staff, delivery of stock or equipment and HGV routing. Four options were considered - two western accesses originating at Exit 8 of the M4 from Kilcock, one eastern access originating at Exit 7 of the M4 from Maynooth, and one northern access linked to R148 that requires the construction of a new bridge. The final option was that which was selected. The benefits of this option were seen to be economic (providing clear improvements in journey time), integration with the existing road network, accessibility & social inclusion, safety and physical activity. The disbenefits were seen to relate to construction and long-term maintenance costs and environment where excavations and works required for the new bridge pose a higher potential risk to groundwater quality and soils. No reference is made to the disbenefit of placing the proposed access

to the depot at a location west of Jackson's Bridge which is a known area for extensive and regular flooding.

Having regard to the consideration of alternative sites for the depot and the access thereto, I put it to the Board that flooding was not in any way satisfactorily considered as being pertinent to the site selection process and it was significantly downplayed as a factor of environmental importance when assessing and concluding on a preferred site. However, it is evident from the clear understanding of the nature and extent of flooding west of Jackson's Bridge that flooding and flood risk are very significant and combine to be a most important environmental consideration when determining the suitability or otherwise of the proposed depot location. This reinforces the conclusions already drawn that, in seeking to plan for strategic transport infrastructure such as the depot for the DART+ Programme, the chosen site for the depot and access thereto, should never have proceeded to a site specific flood risk assessment and a Justification Test as such site selection fails against the basic provisions of the Flood Risk Management Guidelines. At the early stages of the alternative site selection process, the depot location east of Kilcock and the access road from west of Jackson's Bridge to it should have been eliminated and the consideration of Hazelhatch, Drogheda or elsewhere should have been further investigated to allow for the provision of a depot to serve the Dart+ programme in a manner where proper planning and sustainable development could be attained.

I submit to the Board that one could reasonably conclude at this stage that any further consideration of the depot at the location chosen is not necessary and that this part of the DART+ West project should be rejected. This ultimately is what must be my recommendation to the Board for this component of this project as this is a site which does not accord with proper planning and sustainable development because of flooding and flood risk. However, to be comprehensive in my considerations of this feature of the proposed development, I propose to

refer to the applicant's site specific flood risk assessment and to the submissions received on the issue of flooding at the Oral Hearing.

The Applicant's Site Specific Flood Risk Assessment

Section 5.4 of the applicant's Site Specific Flood Risk Assessment addresses the depot and OBG23 Jackson's Bridge. The following is noted:

- Key structures in the area include the inverted syphon masonry arch culvert under the canal (UBG22), which it is stated appears to be a significant restriction to flow in even minor events.
- The OBG23 Hydraulic Model Existing Environment indicates:
 - The Lyreen River has been subject to relatively significant modifications in the vicinity of Jackson's Bridge as a result of rail, canal and motorway crossings. Landowners have indicated that it has also been dredged during the course of the motorway (i.e. M4) construction.
 - Lands downstream of the canal culvert appear to have been a deposition area during the motorway construction, resulting in increased levels and removal of floodplain area.
 - The lands directly upstream of UBG22 flood first with flood waters spreading upstream.
 - The culvert under the M4 exhibits out of bank flooding that builds up south of the M4 before overtopping the road and flowing north towards the railway and east along the motorway. Having overtopped the M4, flood waters flow overland parallel to the Lyreen. Flood Waters overtop the existing rail line in ~10% AEP event and flow east along

the canal. In the 0.1% AEP event flood depths upstream of UDG22 are in excess of 1.5 m.

- A large portion of the subject area, including lands within the footprint of the proposed road and rail embankments, are within Flood Zone A.
- In the climate change scenario the flood sources, pathways and receptors are very similar to those seen in the current climate scenario with an overall increase of flood extents in all directions.
- The OBG23 Hydraulic Model – Post Development indicates:
 - Flood risk management measures include flood conveyance culverts through the new offline rail embankment and the provision of level for level compensatory storage. Proposed crossings have been sized as to maintain existing flood levels. Bridge soffits are to maintain a freeboard of >300 mm above the 1% AEP (+ climate change) flood level while the minimum rail level will maintain a freeboard of >500 mm above the 0.1% AEP (+ climate change) events.
 - The post development model shows flood pathways are maintained by the provision of flood conveyance culverts while displaced volumes are accommodated in the compensatory storage areas. The development results in a minor increase in flood levels south of the proposed embankments. Effects are localised to the lands between the proposed development and the N4, with no discernible effect on flood levels at the point where the Lyreen is culverted under the M4 motorway.
 - The Board will note from the Errata submitted to the Oral Hearing that the OBG23 Model Water Levels Summary was altered and that the above was changed to:

“... Effects are localised to the lands between the proposed development and the southern extent of the proposed compensatory storage area with no discernible effect on flood levels outside the site boundary ...”

- Effects on the 1 in 100 year flood event (including climate change) are <10 mm throughout the study area. In the 1 in 1000 year (plus climate change scenario) levels were estimated to increase by 70 mm in the immediate vicinity of the proposed watercourse crossings. Nonetheless the overall impact is seen as negligible the existing flood regime at OBG23.

- The Depot Model - Existing Environment indicates:
 - The Ballycaghan Stream has been significantly altered and straightened compared to its original course.
 - The lands upstream of the Depot appear to flood first along a route that may have been the historic channel corridor. Field crossings are generally undersized along this reach and are overtopped in relatively frequent events.
 - Overall flood depths are generally low with the deepest ponding in the vicinity of Bailey bridge at a depth of 0.5 m where flood waters appear to be confined by the rail embankment to the north. (Note: The Errata submitted at the Oral Hearing adds the following: *“A culvert (UBG24B) drains a portion of these lands to the Royal Canal which has been incorporated in the model.”*)
 - A large portion of the subject area including lands within the footprint of the proposed Depot is within Flood Zone A.

- In the climate change scenario, the flood sources, pathways and receptors are very similar to those seen in the current climate scenario with an increase in flood extents further downstream towards the Ballycaghan Stream confluence with the Lyreen.
- The Depot Model – Post Development indicates:
 - The proposed flood risk management measures include flood conveyance culverts through the new road and rail embankments and the provision of like for like compensatory storage. The Ballycaghan Stream would be diverted. Depot levels would be a minimum of 300mm above the 0.1% AEP flood level (+ climate change). A minor bund is to be provided along the eastern and southern boundary of the compensatory storage area adjacent to the depot with a height no greater than 1m above existing ground levels.
 - Flood pathways are maintained by the realigned channel around the proposed depot. Displaced volumes are accommodated in the compensatory storage areas.
 - The development results in a minor increase in flood levels to the west of the depot along the realigned channel section though these are seen as negligible overall. (Note: The Errata submitted at the Oral Hearing changes the last sentence as follows: *“The development results in a minor increase in flood levels within the realigned channel only and are therefore seen as negligible overall.”*)
 - The Board will note from the Errata submitted to the Oral Hearing that the Depot Model - Water Levels Summary was altered also.

Having regard to the applicant's hydraulic modelling and to its own conclusions, it is understood from the existing environment:

- The area surrounding OBG23 Jackson's Bridge is low lying and flow is significantly constrained by the canal culvert UBG22. Extreme fluvial events result in considerable flooding in lands south of the canal and subsequent inundation of the rail line. The model indicates that a large portion of the subject area, including lands within the footprint of the proposed rail embankment and access road, are within Flood Zone A.
- Out of bank flow paths flow through the depot site in multiple locations. Flooding is generally shallow with localised areas of ponding. The model indicates that the proposed depot is within Flood Zone A.

The Board will further note from the Errata submitted to the Oral Hearing that a new Appendix of Stage Hydrographs was also added.

I acknowledge the following caveat from the applicant's own conclusions (Section 5.6):

"Although great care and modern widely-accepted methods have been used in the preparation and interpretation of the hydraulic model, there is inevitably a range of inherent uncertainties and assumptions made during the estimation of design flows and the construction of flood models. The inherent uncertainty necessitates a precautionary approach when interpreting the flood extent and flood depth mapping."

It is pertinent to note that the applicant's own findings reinforce the concerns arising from such a significant component of the Dart+ West project being sited within Flood Zone A. This further reinforces the view that this location should have been avoided in adherence to Flood Management Guidelines. This is not a location for which development of this nature has been planned for in any

development plan. The development at this location could not be viewed as proper planning and sustainable development.

Finally, I note Section 7 of the applicant's Site Specific Flood Risk Assessment relating to the Justification Test. The applicant concludes that the assessment has determined that the proposed development will have a negligible impact on the existing flood regime. The one exception is the development of the proposed depot and crossing of the Lyreen floodplain where the hydraulic assessment has indicated that approximately 50,000m³ of flood waters will be displaced. The same amount of compensatory storage is proposed to be provided to mitigate this impact and flood relief culverts are proposed to be provided through the road and rail embankments to ensure flow paths are maintained. It is my submission to the Board that the measures required to not worsen the flooding situation at the depot site and in the vicinity of Jackson's Bridge completely misses the point when one is considering the provision of highly vulnerable primary transport infrastructure. One should be avoiding Flood Zone A in the delivery of such important strategic infrastructure, not just settling for not making things any worse either on the site or for adjoining lands. I repeat that the proposed depot and its associated rail and road access provisions at this location should never have proceeded to the application stage.

The Oral Hearing

The principal focus at the Oral Hearing on the depot site and the Jackson's Bridge area related to flooding. I acknowledge the detailed submissions made at the Hearing by the applicant, landowners and observers in the area of the depot, notably Carlos Clarke, Stephen Collins and Patrick Comerford. Concerns about flooding of lands adjacent to the depot, lack of details provided on the site/platform levels relative to adjacent lands, loss of lands for flood attenuation

and consequent flooding of neighbouring land, and other issues were raised. The one most significant observation to make is that there was inadequate information provided in the application to allow any reasonable understanding of the proposed depot development and an assessment of the impact of the proposed depot, not alone in terms of flooding, but in terms of its scale and operation.

The Hearing spent the best part of three days discussing the depot. These discussions highlighted the deficiencies in information and resulted in the applicant having to provide a wide range of information much of which should ultimately have been in the application documentation in the first instance. The most basic details, such as plans, sections, and elevations of the very large structures proposed, plans of the development showing the layout relative to adjoining lands, and sections showing the proposed development, finished floor levels, drains, and neighbouring lands had to be acquired to gauge a basic understanding of the proposed depot site and the access road thereto. Lack of information on foundations, confusion over drains, over the extent of flooding, and over basic levels across the site, and lack of information on the extent of the impervious area of the site to gauge an understanding of the applicability of intended SuDS measures were some of the matters which remain somewhat unclear. It was most unsatisfactory having to seek to acquire such details and even more so when incorrect information was provided and new details had then to be provided at later times. This left interested parties with a very significant degree of confusion over what proposed development was ultimately being sought. Ongoing questioning and regular acquisition of drawings and other documentation from the applicant arising from this lack of information was necessary to obtain some degree of clarity on what is intended at the depot site.

What is most concerning is that it is wholly accepted by the applicant that the site for the proposed depot is on Flood Zone A. For the landowners and observers

there was evident concern about siting strategic infrastructure of this nature on Flood Zone A. I fully concur with the position of the landowners and neighbouring property owners. I must seriously question why the applicant considered this location for a depot when it was accepted as being in Flood Zone A. Knowing this should have resulted in this site's avoidance. This would have been in accordance with the Flood Management Guidelines and would concur with proper planning and sustainable development. One does not proceed to try and engineer out the evident problems with a site which regularly floods when consideration of alternative locations should have been paramount. The applicant has reviewed several alternative sites about which there is no understanding if any of these alternative locations had any significant flooding issues or concerns. An alternative location for the depot is a fundamental requirement for this railway development and ultimately for the DART+ Programme. Developing the wrong site at the outset must be avoided.

There are many examples from the Hearing which demonstrated confusion. An example included discussions on the new access road to the site, the issue of levels, the bridge height over ground levels, and the railway track level on the approach to the depot, which was initially presented as being more or less at ground level. The realigned railway line at Jackson's Bridge is intended to be on an embankment above the 1 in 1000 flood level. Further to this, there was no clear representation of how the depot, approach road and railway track would look in elevational terms from the south, showing the access road height, railway embankment, catenary, the peripheral berm, the proposed structures, etc. to allow neighbouring properties gauge an understanding of how the development would present itself beyond the site. Only some sections from within the site were provided.

The photographs presented by the landowner and neighbouring observers showed very extensive flooding, including in the recent past and recent times.

The applicant wholly accepted these events of extensive and deep floodwaters in the vicinity of Jackson's Bridge and of the railway line on the approach to the depot site. The applicant openly stated that it knew that flooding at Jackson's Bridge can be up to 2.5m in depth and that the railway line floods between the 1 in 10 and the 1 in 100-year event. In my opinion, it is most concerning that one would then proceed to seek to engineer out the evident problems when avoidance should have been pursued.

The applicant wholly contends that it will provide compensatory storage in the form of level-for-level storage and that no flooding would occur outside the lands being acquired for the project. It is understood that these storage areas are intended to provide for the displaced floodwaters arising from the proposed development. The applicant intends to create new floodplains and to lower existing floodplains. The applicant proposes that there would be no increased risk of flooding to lands beyond its land take. Lands that flood in the vicinity and not being acquired are intended to flood to the same depth and the same frequency, and they are expected to flood for the same duration post the depot construction as they do at present. It is evident that several of the compensatory storage areas themselves are prone to significant flooding and there must be concern about how these areas could reasonably function as intended. The lowering of the existing floodplains is intended to allow them to flood more often. The new areas evidently would create other areas for compensatory storage that currently do not flood. The storage areas are intended to fill by gravity and recede and discharge back to the river channel over time. It is apparent from this part of the project that the proposal presents as extending/changing the floodplain in this area. With the extent of flooding which is accepted to occur at this location (as evidenced by the photographs) and the lack of containment of floodwaters by way of any substantial berms, the displacement of waters beyond the compensatory storage areas within the applicant's intended landholding remains a concern. My concerns are increased with the intended excavation of

some 172,000m³ of material (Errata - increased from the original 123,000m³) on a site which has a propensity to regularly flood. Containment of floodwaters must be of concern and the need for substantial embankments to enclose the flood areas is a feature which has not been considered throughout the depot site.

A critically important feature relating to the drainage of the lands in the area of the depot is the inverted syphon under the Royal Canal at Jackson's Bridge (UBG22). There is a significant restriction to flow at this location. As a result, water attenuates upstream of UBG22 and floodwaters extend upstream on both the Lyreen River and the Ballycaghan Stream. The flood level in the vicinity is dependent on the capacity of UBG22. The railway embankment acts as a dam. The nature of the backflows arising from this, the understanding of its current functioning, the degree of analysis on it, the modelling to predict what is occurring at this critical location, etc. were consistently queried and there remains significant uncertainty and confusion about how it does and would function.

There was a considerable number of issues where there remained some degree of dissatisfaction with the applicant's proposals. These included:

- The volume of filling likely to be required to be brought onto the depot site;
- Significant confusion over existing drainage at the southern perimeter of the site;
- Impacts arising for the M4 Motorway, given its propensity to flood and its relationship with these lands;
- Flooding levels at the main depot location;
- Validity of surveying and accessibility to survey locations;
- Disagreement over what waters flow to the Royal Canal at the depot location;

- Approaches taken to flood modelling; and
- Disagreement over water overtopping the existing bund between the railway and the canal in the depot area.

Overall, the Oral Hearing afforded the applicant the opportunity to provide a lot of basic information that should have been provided in the application.

Notwithstanding a clearer understanding of what is proposed at the depot site, there remains a significant degree of confusion. From the details provided, there is, however, a reinforcement of the understanding that this site should not be pursued as a site for this most important strategic transport infrastructure facility.

Conclusion on Flooding in the Depot Area

It is my submission to the Board that the development of primary transport infrastructure within Flood Zone A should be avoided. There is no doubt that the applicant understood that the development on and in the vicinity of the proposed depot would lie within Flood Zone A. The rational approach would have been to avoid this location. This the applicant did not do.

The proposed development of very large structures placed on a very large, filled platform (estimated to require some 280,000 m³ of material) on a floodplain could not be seen to constitute proper planning and sustainable development. The necessity to deliver some 25.5 hectares of compensatory storage area at the depot and in the vicinity of Jackson's Bridge to seek to accommodate displaced floodwaters must be a serious concern. These areas would be excavated to a depth of up to 2.8m at the depot site and up to 3.4m in the vicinity of Jackson's Bridge, an excavation of some 173,000m³ of material. There would be some relatively minor bunding at the westernmost compensatory storage area but, in the main, these areas would not be contained. It appears that it is intended to

expand the floodplain area and increase the regularity of flooding in this area. There are serious concerns about the displacement of floodwaters beyond this site, the constraints on flows to watercourses to allow the escape of floodwaters, and the effects on properties, road infrastructure, and lands in the area in which the depot and its supporting infrastructure would be placed.

Critically, this depot proposal runs contrary to *The Planning System and Flood Risk Management Guidelines for Planning Authorities*. The Board is required to ensure that development is not permitted in areas of flood risk, particularly floodplains, except where there are no suitable alternative sites available in areas at lower risk. The Board is required to refuse permission where flooding issues have not been, or cannot be, addressed successfully and where the presence of unacceptable residual flood risks to the development, its occupants or users and adjoining property remains. The Guidelines recognise that the frequency, pattern and severity of flooding are expected to increase as a result of climate change. Thus, flooding is expected to worsen not improve. The Guidelines place a distinct emphasis on avoidance. Avoidance is a core objective and key principle. One must avoid development in areas at risk of flooding and not permit inappropriate types of development that would create unacceptable risks from flooding. The depot was not planned for at this location. There are evidently alternative locations in other areas at lower risk of flooding. The Guidelines specifically note that transport infrastructure is particularly vulnerable to flooding and the depot and its associated infrastructure constitute a highly vulnerable development.

The depot and its associated infrastructure in the vicinity of Jackson's Bridge do not constitute proper planning and sustainable development and should be omitted from the DART+ West project. A reasonable alternative should be provided elsewhere. A depot serving the DART+ Programme does not require to be east of Kilcock at the end of the DART+ West railway line.

8.7.5. Other Issues Relating to the Depot Site

I wish the Board to note that later in my assessment I address a range of scheme-wide issues and issues relating to Zone F which directly and indirectly apply to the development on and in the vicinity of the proposed depot. What follows below is an assessment of other issues, many of which were considered at the Oral Hearing. While there may be some limited degree of overlap later, I consider it appropriate to offer an assessment of the following at this time.

Planned Use of the Depot Site

I draw the attention of the Board to the details received at the Oral Hearing on the structures which are intended to be provided at the depot site. A number of these are very large structures. These include the workshop with a floor area of some 16,632m² (1.6632 ha.) and the service slab with an area of 4,360.8m² (0.436 ha.). On the final day of the Hearing, the applicant produced drawings of the main building showing the various uses within this structure. The extent of office-type spaces at ground and first floor levels within this very large structure is notable. I understand that it is intended to be a state-of-the-art facility and it is proposed to serve the DART+ Programme. However, one would query the extent of office space when this building's primary purpose would relate to maintenance of fleet. There is no clear understanding of the need for the scale of office provision within this structure and the future intent for the uses beyond servicing the fleet. The Board will also note that there are large spaces with no assigned function, such at first floor level, which provide some further confusion as to what the main building's range of functions would ultimately include. There are also office space provisions in a number of the other structures proposed for the depot location.

Parking

I note that the proposed development at the depot site includes the provision of car parking for 125 cars outside the main building, a car park with 15 spaces at the service slab building, 12 parking spaces for visitors near the main access, and 32 parking spaces at the CCE compound. This provides a total of 184 car parking spaces at this location. This is a very significant number of car parking spaces for a depot facility providing for a limited number of workers over any given shift and which is not making provision for public access to the rail service at this location. It aligns with the concerns relating to the intended uses for the main building (i.e. office use). Furthermore, it poses a concern that a railway provider is siting a depot facility at a remote location where its employees will primarily be accessing a workplace by road and where it does not facilitate access by rail. One queries the sustainability of disjointed approaches to such provisions.

Loss of Oak Trees

In describing the habitats along the development corridor for the proposed development, Chapter 8 of the EIAR on biodiversity states that the most significant treelines within the proposed development are at the proposed depot and consist of 400 m of mature Oak and Ash trees that are more than 15 m tall. Further on in this chapter it is stated that the depot will result in the loss of 32.6 hectares of mainly mixed agricultural land including approximately 800 m of hedgerows and 1000 m of mature treelines.

It is acknowledged that the proposed development of a depot at the location proposed would result in a significant loss of trees and hedgerow. The loss of mature oak trees cannot be mitigated and this is noted by the applicant. In reality, the development of a depot of this form and scale could not avoid substantial tree

and hedgerow loss if such development was to proceed in a rural area such as that proposed. One must accept this outcome and seek to ease the impact by generous screening and boundary planting if such a depot is to be developed at this location. This is accepting that there would be a notable biodiversity loss with the deliverance of a project of this nature on a rural landholding and this cannot be avoided.

Impact on Archaeology

I note from Appendix A20.4 Geophysical Survey Report of the EIAR that there are two Recorded Monuments on the depot site - KD005-003: a ring ditch and KD005-033: Barrow. The former is located at the north-western end of the site and the latter is located south-east of this in the main part of the depot site. KD005-003 appears to be on the route of the proposed road leading to the secondary access into the depot site. KD005-033 lies within the footprint of the new train depot. It is apparent that the proposed development of the depot would result in direct adverse impacts on Recorded Monuments based upon what is presented in the application. The applicant acknowledges that the impact would be very significant and negative. In addressing the depot location in general, it is proposed to undertake a geophysical survey on lands that were not previously accessible at this location and to carry out archaeological test excavations in advance of construction. I note from Appendix A20.4 that KD005-033 is in an area where there was no access to the applicant. Thus, it would be understood that a geophysical survey would be required at this location. Where archaeological remains are confirmed, the applicant proposes that further archaeological mitigation, such as preservation in situ or full archaeological preservation by record (excavation), would be required.

I note that the Department of Housing, Local Government and Heritage raised concerns relating to a Recorded Monument in the Clonsilla area and did not raise any concerns relating to the Recorded Monuments on the depot site. I acknowledge that a condition relating to archaeology was recommended to be attached with any grant of permission.

I submit to the Board that the direct impact on Recorded Monuments by the delivery of the depot at this location constitutes a significant adverse environmental impact. It reinforces the determination that this is a site which should have been avoided in the depot selection process.

Impact on Residential Amenity

The proposed depot site is some 2.58km in length and is relatively narrow in form. It comprises a land area of approximately 32.6 hectares. The depot would be developed on a filled platform above the 1 in 1000 + climate change flood level. From the revised Table 4-24 of the EIAR submitted to the Oral Hearing, the following is noted about the proposed depot structures:

<u>Building</u>	<u>Area</u>	<u>Height</u>
Workshop	16,632m ²	11.4m
Drivers and Cleaners Area	1,408m ²	11.4m
Administrative Area	2,448m ²	11.4m
General Storage Area	1,440m ²	11.4m
Service Slab	4,360.8m ²	9.57m

Automatic Washing Plant Building	348m ²	8.15m
Electrical Substation	528m ²	6.70m
Access Control Building	25m ²	3.70m

This indicates that the area of the buildings to be developed at the depot would total 27,189.8m². This equates to almost 2.72 hectares of built area on this relatively narrow linear plot. This is a development which could reasonably be understood to have a very large footprint. Several of the structures are very large in area and would exceed the prevailing height of structures in the vicinity of the site. The Board will also note that there is a CCE Compound proposed on the east side of the depot lands. Furthermore, the depot would have an access road to it rising on the approach from the east which would include a bridge crossing over the railway line and Royal Canal, and there would be a railway line on an embankment which would enter the depot at the platform level. I also note that there would be a circulatory road system within the site. The development within the depot site would require to be illuminated at night. The depot site would operate 24 hours per day over 365 days in a year. It would function in an area a short distance east of the town of Kilcock at a rural location.

It is apparent from the scale and operation of the proposed development that it would bring significant change to this rural location, with its 24/7 operations changing the rural environment for its neighbouring landowners and sporadic residential properties, notably to the south of the depot site. It is reasonable to discern that these operations are likely to have significant impacts on these property owners because the industrial nature of the activities over a 24-hour period would certainly change the rural character of the area and would likely result in changes to the established noise environment. The illumination of this large site at night would also introduce significant change for those residing close to the facility. These changes are likely to be understood as being negative by

the residents and landowners and the observations made to the Board by many of them confirm this. The scale and height of the proposed depot development would exacerbate the negative impacts as the prominence of a development of this scale is unlikely to be wholly masked, with a distinct visual presence discernible at the construction stage and early years of its operation when vegetative screening has not yet fully developed to minimise the physical presence of the structures and the operation. The landowner and residents of the Ballycurraghan area emphasised the likely adverse visual impact arising from the proposed depot and associated road infrastructure at the Oral Hearing.

I submit to the Board that the above considerations of likely impacts are reasonable and that these could generally be seen to be negative impacts on property owners in the immediate area, resulting in adverse impacts on residential amenity. However, I consider that it is also reasonable to determine that the siting of a depot to serve the DART+ Programme would most likely be appropriately sited in the vicinity of a rail line and be of such a scale with a range of operations that would necessitate it being located in a suitable area, i.e. where the adequate land area and land form is available and away from the build-up areas of residential development aligned with urban population centres.

Acknowledging that the intended form of development proposed at the depot may be perceived as a missed opportunity to serve the needs of the population of Kilcock and road users on the M4 motorway, it is reasonable to determine that the principle of the siting of a depot in the immediate vicinity of an urban settlement could be seen to be acceptable with the understanding that there would be some degree of limitation on the extent of effects on residential amenity as housing would be expected to be more sporadic in nature in the urban fringe/rural edge of an urban centre. Thus, if the Board was considering approving the depot, it is understood that such development is likely to bring with it a degree of adverse impact on the residential amenity of some properties, notwithstanding its siting. In effect, I am suggesting that it is highly unlikely that a

development of this nature and scale would be undertaken without some degree of adverse impact on some residential properties. The proposed siting of the depot at this location would have its impacts in a similar manner. Such impacts could not be avoided. The mitigation measures seeking to minimise effects, such as controls on lighting, noise containment, visual screening, etc., would aid in limiting the extent of effects but, ultimately, the rural character would alter and the effects would change the baseline rural environment for its residents.

Impact on the Royal Canal

The Royal Canal is a greenway linking Dublin with the River Shannon and it is a proposed Natural Heritage Area (pNHA).

In the same way that the delivery of the depot would bring distinct visual changes for the residents of the area, it would do the same for users of the greenway. It is apparent that the use of the greenway as an amenity space would not be physically curtailed and it would continue to function as a primary national amenity. The experience of the rural character of this area from the greenway would alter with the introduction of what presents as a large industrial complex. I submit to the Board, however, that, given its immediate proximity to the town of Kilcock, it may be understood as an extension to the urban fabric of the town for those passing through and along the canal greenway.

Regarding the impact on the proposed Natural Heritage Area, the scale of the depot development and its proximity to the waterway are noted, along with the significant loss of trees and vegetation resulting from its delivery. The introduction of a new road, a bridge crossing, and a 24/7 functioning large depot clearly would have direct, negative impacts on biodiversity. Once again, I submit that such negative impacts could not be avoided when pursuing a development of this nature at this location. Habitat loss, particularly trees, treelines and

hedgerow, across a site some 2.58km in length in close proximity to the pNHA would be significant. This would have distinct negative impacts on bats, badger, otter, and birds. Clearly, the construction phase of the proposed depot would also bring with it disturbance and nuisance by way of noise, dust, lighting, etc. and potentially adverse impacts on water quality. I acknowledge the range of mitigation measures proposed to address potential effects on water quality and the mitigation measures set out in Section 8.9 of the EIAR. These include providing for mammal passage, lighting controls, landscaping, clear span bridge design, timing of tree felling, installation of bird deflectors at Jackson's Bridge, and construction of a sand martin wall adjacent to a flood compensatory storage area. While such measures would seek to minimise the adverse impacts, this large industrial-type development could not avoid significant effects for biodiversity and, thus, adverse consequences for the pNHA at the depot location. In providing such infrastructure of this nature and scale at such a location one must accept the loss of natural environment and likely indirect effects on the biodiversity of the Royal Canal at this location. Disturbance and displacement would be a likely outcome for many species present from the construction and operational phases and must be accepted when accepting a depot of this nature and scale at this location.

Drainage from Washing Facility

I note landowner and observer concerns relating to the disposal of wash waters from the automatic washing plant at the depot. It is intended that waste (grey) water produced during the washing of the trains in the automatic washing plant would be recycled for reuse (up to 80%), leaving the rest for discharge into the industrial drainage system. No concerns were raised by Uisce Éireann relating to the proposed discharge to the industrial drainage system.

Traffic Impact on the L5041 Access to Maynooth Access

At the Oral Hearing, the issue of traffic congestion on the L5041 was raised. Local residents indicated the significance of the road as a vehicular approach to Maynooth and the effects the closure of access via Jackson's Bridge would have. I acknowledge this but note that the new access road to the depot would provide access to Regional Road R148 and onto Maynooth via a new bridge. It is apparent that vehicular road users approaching Maynooth from the south along the L5041 would have their journey time marginally increased and I do not consider that there would be any particular traffic safety or additional congestion issues arising as the new access road would provide a higher quality of road over the narrow road that exists at present. It is a matter of road users getting used to the new road layout, which would be understood in the short-term.

Impact on Water Supplies at Ballycurraghan

I note that observers in the Ballycurraghan area raised concerns in their written submissions to the Board relating to the impact of the proposed depot development on their water supplies. This is a matter which was also discussed at the Oral Hearing. Arising from my questioning, it was clarified that the neighbouring wells in the vicinity of the depot at Ballycurraghan had been missed in the EIAR. It was acknowledged that there is no public water supply on the road in this area and that the residential properties and farms are supplied by private wells. In my opinion, this was a significant oversight by the applicant, given the reliance on private wells in the area and the potential impact on essential water supplies to serve residential and farm holdings. The applicant's assessment of the likely environmental impact on local water supplies took place following its

receipt of the observations. This afforded the applicant the opportunity to assess potential sources, pathways and receptors.

I note from the EIAR that potential effects on the groundwater environment would relate to pollution from all activities on the depot site including washing and maintenance, reduced recharge to groundwater from increased areas of impermeable hard standing, and increased vulnerability of the aquifer through the construction of the compensation storage area and regrading of the site.

Mitigation measures to address these potential effects include discharges from activities being routed through a treatment pond, the application of a SuDS system, and incorporation of wetland habitats in the flood compensatory storage areas. I further acknowledge the range of general mitigation measures set out in Section 11.6 of the EIAR proposed to apply to the construction and operational phases.

It is apparent that the potential effects on local wells would derive from water pollution and from changes in groundwater levels. With regard to the former, I note the range of mitigation measures proposed within the depot development, including the SuDS system, wash water discharge routing through a treatment pond, and the provision of wetland habitats. The applicant has determined that pollution to groundwater would be negligible. It is also noted that the Ballycaghan Stream separating the depot lands from neighbouring lands would act as a local groundwater divide, with water from lands on both sides flowing towards the stream. Thus, there is a separation of flow from the depot lands to neighbouring lands. I acknowledge that the applicant submitted at the Oral Hearing that it proposes groundwater monitoring of neighbouring boreholes before and through the construction period and for a year after construction would be finished. With regard to changes in groundwater levels, I note that the applicant submits that, with the delivery of the compensatory flood storage areas, there would be minor changes in local groundwater flow paths and that the flow paths would not

change on the other side of the Ballycaghan Stream. In my opinion, in the event of the depot being permitted, the monitoring of the construction works, followed by a response to address any consequent adverse impacts on water quality and supply issues, would be paramount to maintain adequate local supplies. There remain concerns with flooding and risk to neighbouring properties.

8.8. Pedestrian/Cycle Bridges

8.8.1. Arising from proposed level crossing closures, the applicant proposes the provision of pedestrian/cycle bridges at Ashtown, Coolmine, Porterstown and Clonsilla. The proposed structures have resulted in many objections relating to their excessive form and scale, their impact on ecology and vegetation, and severance.

8.8.2. The following were proposed in the original Draft Railway Order:

- At Ashtown, a Corten steel bridge with ramps was proposed to allow crossing between platforms. The bridge length would be 387m and its clearance would be 6.5m. It would have a 2.0m pedestrian path and a 2.9m cycle path.
- At Coolmine, a Corten steel bridge with ramps was proposed to allow crossing between platforms. The bridge length would be 413m and its clearance would be 6.57m. It would have a 2.0m pedestrian path and a 2.9m cycle path.
- At Porterstown, a two-span bridge over the Royal Canal and railway with precast concrete finish ramps was proposed. The bridge length would be 367m and its clearance would be 5.3m. It would have a 2.0m pedestrian path and a 3.0m cycle path.

- At Clonsilla, a two-span bridge over the Royal Canal and railway with precast concrete finish ramps was proposed. The bridge length would be 372m and its clearance would be 5.3m. It would have a 2.0m pedestrian path and a 3.0m cycle path.

8.8.3. At the Oral Hearing, in response to the many objections received, the applicant submitted design changes for the Board's consideration to seek to address concerns raised. These are as follows:

- At Ashtown, the proposed bridge would consist of the same steel structure. The bridge clearance would be reduced to 5.3m and the bridge length to 329m. Two lifts would be incorporated and there would be slight amendments to the stair access. It is also intended to improve transparency on parapets.
- At Coolmine, the proposed bridge would consist of the same steel structure. The bridge clearance would be reduced to 5.3m and the bridge length to 361m. Two lifts would be incorporated and there would be slight amendments to the stair access. It is also intended to improve transparency on parapets.
- At Porterstown, a Corten steel bridge similar to those at Ashtown and Coolmine is proposed. The bridge clearance would be 5.3m and the bridge length would be reduced to 321m. There would be slight amendments to the stair access and improvements to transparency on parapets. A small additional land take of 31m² is required on the north side and the landowner (Castlethorn and Chartered Land Group) confirmed at the Oral Hearing that it has agreed the acquisition with the applicant and is in favour of the new bridge proposal. The applicant confirmed that this additional land would be accommodated in the

Schedule. Overall, there would be a footprint reduction of 922m² at this location.

- At Clonsilla, a Corten steel bridge similar to those at Ashtown and Coolmine is proposed. The bridge clearance would be 5.3m and the bridge length would be reduced to 340m. Two lifts would be incorporated. There would be slight amendments to the stair access and improvements to transparency on parapets. Overall, there would be a footprint reduction of 934m² at this location.

8.8.4. The applicant confirmed that Waterways Ireland had no objections to the proposed revisions. Drawings were provided of the bridge changes and an environmental appraisal was provided on the proposed bridges which concluded that there would not be any material environmental impact and that there were benefits over the original proposals.

8.8.5. A number of observations can be made on the proposed changes. It is first noted that the proposed changes bring a consistency of approach in pedestrian/cycle bridge design, with each comprising similar form, finishes and height. Reductions in each of the bridge lengths reduce impacts on natural vegetation affected. The changes at Porterstown and Clonsilla significantly reduce the footprint of the bridges and, therefore, the physical impact at the sensitive canal locations, including habitat loss within the Royal Canal pNHA. The rotunda shape for the ramps would reduce the area impacted by the construction works. The use of the steel structures would reduce the extent of earthworks by removing sections of ramps. The change in design reduces the notable bulky physical presence of the original precast structures. At Clonsilla, the number of foundations on the edge of the canal would be reduced from four to two. It is also noted that the need for damming and dewatering of the canal at Clonsilla would not be required. The construction period for the bridges at Porterstown and Clonsilla would be

reduced. Finally, I submit the proposed introduction of lifts at the revised bridges would greatly aid in accessibility for young, old and mobility-impaired.

8.8.6. Overall, the reductions in clearance and bridge lengths can be seen to be positive changes with less physical impacts, thus reducing environmental effects, as well as reducing walking times for pedestrians. I concur with the applicant's appraisal. In the event of the Railway Order being approved, the proposed bridge design changes should be adopted. Finally, while I note that objections remain to the closure of level crossings, the effect of severance, and to the provision of bridges, there were no specific objections raised at the Oral Hearing to the proposed bridge design changes.

8.9. The Principle of Level Crossing Closures

8.9.1. The applicant acknowledged in its written response to observations the objections to level crossing closures and the request to consider improved signalling. I note that a number of options was developed and examined in respect of the treatment of each level crossing. The options broadly included the following:

- Keep the level crossing in place with future Train Service Specification in operation;
- Implement CCTV control on the level crossing with the full Train Service Specification in place;
- Close the level crossing without providing alternative infrastructure irrespective of the consequent severance and road traffic impact;

- Close the level crossing with provision of appropriate alternative bridge crossing infrastructure proximal to the level crossings to replace vehicular, pedestrian and cycle access;
- Close the level crossing and construct a pedestrian and cycle bridge local to the level crossing to replace access for non-motorised users and divert vehicular traffic onto the local road network with or without corresponding capacity enhancement dependent on the scale of traffic diversion;
- Lower the railway in the vicinity of the level crossing sufficient to provide clearance for the electrified railway to pass under proposed bridge infrastructure at the level crossing.

8.9.2. In the written response from the applicant to submissions, the following is noted:

- The level crossings proposed to be closed constrain train frequency. For example, Coolmine level crossing is closed for approximately 40 minutes between 08.00-09.00 each weekday for 6 trains per hour per direction. In order to achieve the project objectives of significantly higher train frequencies it is not viable to retain the level crossings (i.e. increasing from 6 trains per hour per direction to 12 trains per hour per direction).
- The removal of the level crossings will improve train efficiencies, will enhance safety, and will remove the delays caused by the road / rail interface. Their closure will also remove the periodic blockages on the road system, which are currently very pronounced, especially in the morning and evening peak commuter periods.
- A number of options was developed and examined in respect of the treatment of each level crossing. The design team has examined the feasibility of meeting the project objectives while keeping the existing level

crossings in place and it has concluded that the project objectives cannot be delivered on this basis.

- The removal of interfaces between road and railway traffic has had a strong mandate from government, the Commission for Railway Regulation and Iarnród Éireann for many years. Measures implemented to remove level crossings from the network have resulted in some of the strongest safety enhancements across the network over the last 20 years. The mandate to enhance safety by the removal of level crossings remains today.
- The ‘automatic’ type of railway worked level crossing is used in other countries across Europe. This type of level crossing operates faster than attended or CCTV controlled alternatives, resulting in shorter closure times, as it removes the direct control from the signaller or gatekeeper. The train passes through the level crossing whether it is clear or not. This type of level crossing has poorer safety characteristics than alternatives and has consequently never been adopted by Iarnród Éireann for use in Ireland.
- Where existing usage patterns of the level crossings exhibit significant activity, alternative equivalent access is proposed in the form of bridges and roadworks.

8.9.3. I acknowledge the provisions being made at individual crossings as follows:

- Ashtown level crossing – Permanent closure with provision of a new vehicular underpass beneath the canal and railway together with a new universal accessible bridge for pedestrians, vulnerable users and cyclists at Ashtown Station;

- Coolmine level crossing – Permanent closure with diversion of vehicular traffic to existing bridge crossings of the railway and canal at Castleknock Road (east of Coolmine) and Diswellstown Road (west of Coolmine) with associated road junction improvements. A new pedestrian and cyclist footbridge will be provided at the existing level crossing;
- Porterstown level crossing - Permanent closure with diversion of vehicular traffic to existing crossing points at Diswellstown Road and the new road bridge at Barberstown with associated road junction improvements. A new pedestrian and cyclist footbridge will also be provided at the existing level crossing;
- Clonsilla level crossing - Permanent closure with diversion of vehicular traffic to existing crossing points at Diswellstown Road and the new road bridge at Barberstown with associated road junction improvements. A new pedestrian and cyclist footbridge will also be provided at the existing level crossing;
- Barberstown level crossing – Permanent closure with provision of a new vehicular bridge over the canal and railway linking the Barnhill – Ongar Link Road to the R121 Kellystown Road;
- Blakestown level crossing – Permanent closure. Levels of pedestrian and vehicular traffic do not justify provision of replacement infrastructure.

8.9.4. The issue of level crossing closures was also discussed in detail at the Oral Hearing arising from my questions to the applicant and from observers. The applicant gave an overview of the need for the closure of level crossings on Day 2. Documentation submitted included copies of overheads presented on the need for their removal, a copy of “Railway Safety Performance in Ireland 2020” by the Commission for Railway Regulation, and a copy of “Enhancing Level Crossing Safety 2019-2029” by Network Rail. Details provided included the following:

- Ireland has just over 2000km of passenger railway line. There are approximately 917 level crossings.
- An incident at a level crossing in 1997 at Knockcroghery (County Roscommon) led to a safety review and coming out of that a programme on safety enhancement on level crossings. At that time there were just over double the number of level crossings that there are now. Between 1999 and 2013 approximately 750 level crossings were removed.
- From the findings in the “Railway Safety Performance in Ireland 2020” by the Commission for Railway Regulation, Ireland’s safety rate is well out in the lead on the lowest level crossing incident rates.
- There are approximately 140 CCTV level crossings in Ireland and these are perceived to be the safest type of level crossing.
- Level crossings represent about 30% of all railway risk across the EU.
- The only method of increasing speed of opening and closing of level crossings is by moving to automated level crossings and this means taking away the CCTV supervision. Instead, a train would come through a crossing no matter what. Iarnród Éireann have never moved to implementing automatic controls at level crossings because of the level of risk associated. CCTV is in operation at Coolmine, Porterstown, Barberstown and Blakestown level crossings on the line and there are two manned crossings at Ashtown and Clonsilla.
- At three of the level crossings there is a train station beside them. The strike-in point is when a train is first detected coming to a station. This could be an express train which may not be stopping and is coming at speed or a train stopping. The core control is that the train must be able to stop before it passes through the level crossing if there is a safety incident

at the crossing. Line speed, trains passing through and trains stopping all impact. There may be one, two or three trains passing through on a single cycle.

- Table 2-3 “AM Peak Railway Stats for the Level Crossings” presented at the Hearing shows the current numbers of closures at each of the level crossings proposed to be closed in the AM Peak, the projected number of closures, the current average closure duration per hour, and the projected total closure duration for the scheme at each of the level crossings. This demonstrates that Coolmine would be closed for the full hour when the scheme would be functioning in full service, as would Ashtown, Porterstown, and Clonsilla, while Blakestown and Barberstown would be closed for most of the peak hour with the proposed service in place. It is submitted that it is unsustainable to leave the level crossings open.
- The peak period is estimated to occur over six hours in the day (three hours in the morning and three hours in the evening). A 70% level of service is anticipated at the off-peak period with the full scheme in place.
- It is not practical to implement a staged closure of level crossings because there would be need for road clearance and electrified lines taken higher to 6.5m, thus raising proposed bridges to accommodate overhead lines. It is also noted that the Railway Order would have a life of 10 years and this would require level crossings to be closed within this period. It is further submitted that existing pedestrian and cycle infrastructure could not be provided in the short term where there are existing constraints.
- The applicant submits that the Draft Railway Order makes provision for enhanced pedestrian, cycle and vehicular improvements where level crossing closure is proposed. Delaying their removal would increase

environmental impact, would prolong construction activity, and would expose the public and the railway to unnecessary risk.

- 8.9.5. Having regard to the above, I concur with the applicant that the closure of the level crossings as proposed would evidently improve train efficiencies, enhance rail safety, and remove delays caused by the road / rail interface. Closing level crossings would remove periodic blockages on the road system at these level crossing locations and this would be particularly notable in the morning and evening peak commuter periods. The knock-on effect for the road system and for local access is the key issue. It is apparent that the applicant has sought to make alternative provisions, with the exception of Blakestown level crossing. The closure of the latter is accepted due to its low usership and the alternative road network available to accommodate alternative road access. The applicant's provisions otherwise include alternative pedestrian and cycle access over the railway line and new vehicular access arrangements at Ashtown and Barberstown. I note the additional road improvements to be carried out at Castleknock, Diswellstown Road, etc.
- 8.9.6. I have no doubt that the initial period of adaptation to level crossing closures will result in some inconvenience and severance. The initial period after closure will demand time to adapt and there may be a requirement for further road improvement works to accommodate road-based traffic. At this time, there is no known additional requirements. I note the responses by the planning authorities and these have not sought to highlight notable additional needs at this time.
- 8.9.7. In conclusion, I note the alternative signal upgrading options that could have been pursued by the applicant and which are promoted by observers. However, if the applicant is realistically seeking to increase services from 6 trains per hour per direction to 12 trains per hour per direction (alongside a 70% level of service

at off-peak times) then this can only be attained by the closure of the level crossings as proposed. Leaving some or all open and applying a new signalling system will ensure that there are delays at these crossings (notwithstanding the likelihood of shorter delays), which will undermine the potential to meet with the goals of this project. Retaining any or all of the level crossings would reduce the level of service being sought. Adaptation of road users' route options and road accommodation works to facilitate the changes invariably are the knock-on effects of providing an enhanced rail service.

8.10. Severance

8.10.1 I first note that the railway network is already established along the corridor relating to the proposed development. In many ways, the railway lines already form a distinct barrier to movement by pedestrians, cyclists and motor vehicle users, with the road network developed to accommodate movement across the railway line via overbridges and underpasses, level crossings, etc. Thus, it may reasonably be stated that severance of links between residential properties, community facilities, etc. on either side of the railway line is already commonplace in some areas along the route of the proposed development.

8.10.2 The principal issues relating to severance arising from the proposed development are impediments to, and curtailment of, the crossing of the railway line by the closure of level crossings. The alternative provisions for vehicular movement at Ashtown and Barberstown and the proposed road improvement works are noted and the proposals to provide pedestrian/cycle bridges where level crossings are proposed to be closed are also acknowledged. As a result, severance *per se* is avoided where alternative arrangements are put in place to maintain connectivity with either side of the railway line.

8.10.3 Restriction of access in urban areas, where there are established access arrangements to community, retail and other services, is a significant issue arising from the project. There is no doubt that the proposed development would lengthen journey time for motor users where there are level crossing closures and where no alternative arrangements are provided at those locations, i.e. at Coolmine, Porterstown, Clonsilla and Blakestown. For pedestrians and cyclists, the established arrangements, whereby they currently use the level crossing at road level in the same manner as motor vehicles, are notably more convenient both for able-bodied, the young, old and those who are mobility-impaired when reliable and functional pathway infrastructure is in place. This is limited in most locations. Removing such ease of access and developing large pedestrian and cycle bridges with steep slopes and lengthy ramps discourage the young, old and mobility impaired from using the bridges and, therefore, distinctly create the perception that severance occurs. It is reasonable to determine that for such road users severance would, indeed, result. For able-bodied, it is also reasonable to determine that severance does not arise but that some level of inconvenience is created.

8.10.4 From my considerations of the proposed level crossing closures, it is apparent that there would be substantial impacts at Ashtown for residents south of the crossing, such as from Martin Savage Park seeking to cross the short journey to the centre of Ashtown and on return. There would also be significant impacts for residents moving from Carpenterstown Road to residential areas off Coolmine Road and visa versa at Coolmine. In addition, there would be increased severance for those travelling south along Porterstown Road in the direction of St. Mochta's FC to the south of Porterstown level crossing and northwards to St. Mochta's National School, albeit the understanding of the level of pedestrian and cycle movements at this location indicates limited usage. In considering impacts on pedestrians and cyclists, it must first be acknowledged that the applicant is proposing alternative arrangements where level crossings are proposed to be

closed, with the exception of Blakestown. The latter is not a location understood to be significantly used by pedestrians and cyclists. While the proposed bridges may prove challenging because of steep ramps and concerns about safety, it must be accepted that pedestrian and cyclist movements are being accommodated in the project. The impediments to the old, young and mobility impaired would remain as the proposed structures would not openly entice usage by these more vulnerable groups.

8.10.5 An important revision to the form and function of some of the bridges was presented at the beginning of the Oral Hearing. This is noted in my assessment above under the heading 'Pedestrian/Cycle Bridges'. It is my opinion that the shorter revised bridges aid in the alleviation of some of the severance concerns raised by many observers. Furthermore, I now note that revisions have been provided such that at established stations, such as at Ashtown, Coolmine and Clonsilla, the introduction of lifts is now proposed to address the limitations clearly arising from the original bridge proposals. These revisions now incorporate lifts on either side of the footbridges at Ashtown, Coolmine and Clonsilla. I submit that this addresses many of the severance concerns of observers residing in these areas. Clearly, the management and maintenance of the lifts must, however, become a priority in the delivery of the scheme and the minimisation of lift outages must be pursued to meet basic needs of the local communities affected.

8.10.6 In my opinion, the severance arising for motor vehicle users would be more emphasised at Porterstown and Clonsilla than for other road users. It is also my opinion that the applicant has identified alternative vehicular routes for motor vehicles and is seeking to improve the road network where increased congestion is anticipated to arise. Thus, for example, the proposals in the vicinity of Diswellstown Road seek to improve movement at and in the vicinity of the main junctions at this location.

8.10.7 The severance arising from the closure of Blakestown level crossing would be localised in my opinion. While it would increase journey times for some local residents at this western end of Leixlip, the necessity to retain this crossing based on the demand for crossing at this location is not merited. The outcome of pursuing this crossing closure is that local residents will be required to adapt and to utilise a different section of the public road network.

8.10.8 In conclusion, I submit to the Board that to attain an efficient level of service and to allow for the increase in train services proposed, particularly at peak times, level crossing closures are required. While their closure will inconvenience many, requiring alternative access arrangements for motor vehicles and alternative bridge crossings for pedestrians and cyclists, ultimately people will be required to change habits, to adapt to a new road network, sometimes increased journey times, and likely longer walking and cycling networks from those currently experienced. Increased perception of severance would arise but the changes are required to be absorbed if the proposed development is to function as intended. The consequences of retaining the level crossings are at the cost of a significantly less efficient service, putting the value of the scheme in jeopardy.

8.11 Traffic Impact

8.11.1 Clarity on Traffic Modelling

I note from Chapter 6 of the EIAR that the Future Years 2028 (Opening Year) and 2043 (Design Year) include several schemes that are planned as part of the Greater Dublin Area Strategy. This includes BusConnects and MetroLink which are stated to be planned to be developed in advance of DART+ West. At the Oral Hearing, I sought clarity on the traffic modelling and the relationship with other proposed projects. The applicant clarified that the project is assessed against the likely 'Do Minimum' scenario to allow for the cumulative impacts to be assessed

in order to understand the wider impacts and to inform the design. It was further clarified that the various projects in the GDA Strategy are not dependent on each other but there is an allowance for the understanding of their cumulative impacts from a transport perspective.

8.11.2 Road Improvement Works

The applicant notes in the EIAR (Section 6.5.2.2) that the impact of the proposed development during the operational phase on routing of vehicular trips would occur at and in the vicinity of the areas where bridge and road interventions are taking place and where changes are proposed to the level crossings. To address the closure of level crossings the applicant has proposed road improvement works at a number of locations. These are proposed to occur notably at Porterstown on Blanchardstown Road, Diswellstown Road and Porterstown Road. There are also some improvement works proposed on the Castleknock Road. These proposed works were also the subject of discussion at the Oral Hearing.

The applicant acknowledges that the changes to Coolmine, Porterstown and Clonsilla level crossings would result in traffic flows occurring at other locations on the local road network due to re-routing. Vehicular diversion route lengths are set out in Table 6-13 of the EIAR and indicate that the diversion route length for Coolmine would be 3.4 - 5km, for Porterstown 1.7km, and for Clonsilla 4.1 - 5.9km. I acknowledge that the applicant proposes pedestrian/cycle bridges where the level crossings are proposed to be closed and that this would likely reduce conflict between these road users and motor vehicles in these areas.

I note Appendix A6.2 in Volume 4 of the EIAR. Section 7.3 of this Appendix sets out the junction modelling results. Capacity assessments were carried out at nine junctions within the study area with results showing that generally junctions

would continue to operate within maximum theoretical capacity. There were, however, two junctions that were shown to operate over capacity, namely Blanchardstown Road / Clonsilla Road / Diswellstown Road junction and the Diswellstown Road / School Access junction.

As mitigation, the applicant proposes a number of road improvement works comprising upgrading to cater for increased traffic into the future. The required upgrading is stated to include the following:

- Diswellstown Road junction – Upgrade the existing four-arm signalised Diswellstown junction and the link road between the junction and the existing roundabout. Facilities for pedestrians and cyclists are to be provided.
- Coolmine Road junction – Junction form to change from a roundabout to a four-arm signalised junction with pedestrian, cyclist and bus facilities provided.
- Porterstown Road junction – Upgrade the northern and eastern arms of the existing signalised three-arm junction along with provision for facilities for pedestrians and cyclists.

I also note that the applicant considers that upgrading of the Castleknock Road junction from an existing signalised four-arm junction and approach road with pedestrian and cycle facilities are also required there.

It is evident from the proposed closure of the level crossings at Coolmine, Porterstown and Clonsilla that there would be knock-on impacts on the road network in the vicinity. While the network continues to facilitate pedestrians and cyclists at the level crossing locations, and indeed may well increase pedestrian and vehicular movement in these areas, the increases in vehicular traffic in the wider area is inevitable as traffic is dispersed in search of routes over the railway

line. The greatest impacts are estimated to be at the junctions identified above as set out in the applicant's junction capacity assessments. It is my submission that these network changes are necessary to help reduce congestion at these junctions. While it is accepted that increased traffic volumes would inevitably arise in the above referenced locations, it was not demonstrated by observers how this would result in increased congestion to undermine the functioning road network and how it would pose public safety concerns. It is particularly pertinent to note that Fingal County Council, as the Roads Authority, are supportive of the changes proposed to be made and that it, ultimately, will be responsible for the road network at the operational phase of the project. It is accepted that agreement will be required between the applicant and the roads authority on matters including optimising signal staging, optimal junction design, etc.

8.11.3 Traffic Impact from the Development of the Proposed Depot

There are significant changes in traffic flows anticipated at the construction phase on the road network in the vicinity of the new depot which is proposed to be sited east of Kilcock. The depot would have a significant construction programme. It is estimated that the duration for the principal construction elements of the depot would be three years. Due to the depot being offline of the existing railway line, it is expected that construction works would take place during the daytime. I acknowledge "Table A-3 Construction Impact 2028 – Traffic Flow Change" in Appendix A6.1 in Volume 4 of the EIAR. This shows estimated substantial impacts for the R148, notably westbound in the AM Peak and eastbound in the PM Peak. It would be anticipated that construction traffic would have an adverse impact on the road network due to the extent of earthworks and the provision of the substantial infrastructure associated with a functioning depot.

I note the applicant's road proposals west of Maynooth relating to the development and functioning of the depot. The existing L5041 local road extends from the L5042 at its southern end to the R148 Maynooth-Kilcock road at its northern end, crossing the existing M4 motorway and bridging over the Royal Canal and railway line at Jackson's Bridge (OBG23) at its northern end. The proposed development includes the realignment of the existing tracks south of Jackson's Bridge. It is also proposed to divert the L5041 850m to the west and use a new bridge (OBG23A) to cross over the tracks and canal and connect to the R148. This would result in the scheme having no direct impact on Jackson's Bridge, which is a protected structure. The L5041 diversion would commence with a "T" junction and run west to a proposed southern roundabout. The severed section of the L5041 north of the "T" junction would provide local access to lands. The southern roundabout would provide access to the west to the depot, which would be the main vehicular entrance to the depot, and to a new link northwards over the tracks and canal via OBG23A to connect to the R148 from a new roundabout where roads would be diverted at both sides to the regional road. A secondary road access would be provided from a local road at the north-western end of the depot site.

Regarding construction compounds and haulage routes relating to the depot, new roads, and bridges in the vicinity, I note the following:

- The main compound for UBG22A and UBG22B would be Millfarm structures compound (CC-STR-S7-91880-B), with vehicles delivering to the site via the R148 and the M4 motorway.
- OBG23A structure main compounds (CC-STR-S7-92850-U and CC-STR-S7-92900) would be located at both sides of the canal beside OBG23A layout. Delivery vehicles would use the R148 to connect to the compound on the north side and Newtown Road / L5037 / Straffan Road to connect to the compound on the south side.

- The L5041 road diversion compound would be the same as for the OBG23A construction site.
- The two main construction compounds for the depot are related to the Track compound (CC-DEP-S7-UP-93370-U) and SET compound (CC-DEP-S7-UP-93060-D) which would be located adjacent to the depot. Delivery vehicles would access from the R148 from the M4 motorway.
- The compound and haulage routes for the compensatory storage areas would be the same as those for the depot.

In mitigating the impact at the construction stage, it is understood that the depot construction would take place after the new access road/OBG23A would be completed. It is also noted that the construction programme for the depot and the other road and bridge works in the vicinity would likely result in an intense period of impact on the road network. I acknowledge that the construction traffic would be subject to a Construction Traffic Management Plan and a Mobility Management Plan. It is understood that the CTMP will seek to reduce impacts during peak hours on the road network. There would also be a Construction and Demolition Waste Management Plan and an Environmental Operating Plan. I further note that access to compounds would be via the regional and motorway network in the area, thus seeking to avoid potential significant impacts on the local road network. I acknowledge that the construction of the depot would not be reliant on HGV traffic passing through the centre of Maynooth. I note that the intended accesses to construction compounds using the motorway and regional road network in the vicinity of Maynooth and Kilcock are documented in the EIAR. It is the town of Kilcock, not Maynooth, that will be subject to the adverse traffic impacts arising from the construction of the depot and the new road network in the vicinity (see Drawing MAY MDC RGN SC07 DR Y 001 of Appendix A of Appendix A6.3 of Volume 4 of the EIAR). The construction period in this area would be lengthy and, while necessary measures are being proposed

to minimise traffic impacts, the impacts from construction traffic passing through Kilcock would be significant. Due to access constraints, these impacts on Kilcock could not be avoided if the depot and associated infrastructure are permitted at this location.

As the principal access to the depot at the operational stage is by road and not by rail, it is anticipated that this would bring with it increases in traffic volumes on the R148. The applicant estimates that the depot would generate approximately 81 two-way staff trips associated with 72 arrivals and nine departures to and from the depot in the AM peak period of 0700-1000 and 72 two-way staff trips associated with 14 arrivals and 58 departures to and from the depot in the PM peak period of 1600-1900, on an average working day. It is my submission to the Board that this impact would not be significant on the established regional road network, M4 motorway, and beyond to Maynooth and Kilcock. As an aside and final consideration on this, I draw the attention of the Board to my considerations on parking at the depot as referenced earlier in this Planning Assessment and the concerns about the extent of parking provisions being made and the unknown intent for the use of extensive building spaces, offices in particular.

8.11.4 Construction Compounds

Construction compounds are necessary at different locations in order to support the development of the project. They would generally be sited at locations such as at the level crossings and where modification works to structures are intended to take place. They would also be at various locations along the railway corridor to facilitate linear works such as SET installation. They would be used for the delivery and storage of materials, accommodation of welfare facilities, parking, etc. These would be temporary facilities dictated by the programme of works for the area in which they would be located. They may function around the clock,

with lighting facilitating works at night. Many would be of short-term duration. However, it is understood that those associated with the new station at Spencer Dock and the depot east of Kilcock would be in place for a number of years. Table 5-2 of the EIAR provides details of the location and function of each of the proposed compounds. There are 52 construction compounds required. Four permanent compounds are proposed also to facilitate maintenance of the railway during the operational phase. Appendix A6.3 provides details of the haulage routes proposed to each of the compounds.

I note that a Main Storage and Distribution Centre (MSDC) would be provided to supply materials to the construction compounds. It would cover an area of some 25 acres and would be sited approximately 20km north-west of Dublin city centre. This facility is intended to be operational for approximately 39 months to service the SET construction activities and it would operate 24 hours a day, 7 days a week. Some 50-60 staff would be working on the site per shift. Haulage routes from this facility to the compounds are proposed via the road network. An access route to the N2 National Primary Road is proposed and is shown in Figure 5-5 of the EIAR. It was clarified at the Oral Hearing that this facility is established and that the applicant would be seeking to make use of it during the construction period.

The applicant acknowledges that, during the construction phase, the proposed development would result in a potentially significant negative change at junctions identified in Ashtown and at links located in Zone F at the proposed depot. The likely effects on other locations have been determined to be slight negative, occurring over a temporary period.

I first acknowledge that the programme of works would be phased and, as a result, the construction impact of the project would likely be limited to specific areas for specific times. I also observe that the applicant seeks to use the shortest routes to compounds via local, national, regional and motorway roads. I

note the EIAR describes the construction works on a zone-by-zone basis. Details provided include the works proposed, the locations of compounds, and access arrangements. The applicant's mitigation measures to address concerns at Ashtown and the depot locations take the form of a Construction Environmental Management Plan and a Mobility Management Plan. The provision of the Construction Environmental Management Plan would include a traffic management plan which would address the routing of construction traffic, programmes of vehicle arrivals, parking, etc. Section 2.4 of Appendix 6.3 of Volume 4 of the EIAR identifies specific locations where traffic management would apply, including road closures and diversions. Temporary traffic management plans would be provided for each phase of the construction activities impacting on the public road network.

It is accepted that the delivery of a project of this nature and scale would incur significant short-term negative traffic-related impacts at the construction phase via the construction compounds. I would draw the attention of the Board particularly to the haulage route to Mill Farm which would be from the M4 onto the R148 and would route through Kilcock. The applicant confirmed from my questioning at the Oral Hearing that the construction traffic would travel through this town. This has potentially significant adverse traffic impacts over a lengthy construction period on Kilcock. The provision of a MSDC, the designation of specific haul routes, and the provision of management plans for the construction phase would generally aid in the reduction of the potential impacts on the areas affected.

8.12. Treatment of Waste Materials

8.12.1 I note the following tables from the EIAR:

- Table 19-10 showing the indicative quantities of key materials estimated to be required for the proposed development;
- Table 19-11 showing the estimated quantities of demolition waste, identifying volumes to be reused/recycled/recovered and the quantities to be sent for disposal;
- Table 19-12 showing the estimated excavated material quantities for disposal; and
- Table 19-13 giving a summary of the quantity of C&D waste classified as hazardous, non-hazardous, and inert.

8.12.2 Treatment of waste materials were subject to discussion at the Oral Hearing and errata were submitted at the beginning of the Hearing relating to the volumes of materials to be handled at the construction stage. Edits were made to the tables relating to the estimated earthworks balance at Spencer Dock, the estimated earthworks balance at the proposed depot, and the estimated earthworks balance Zones A to F.

8.12.3 I note from the EIAR that the total estimated excavated material quantities for disposal are stated to be 415,150 tonnes. The predicted estimated quantity of hazardous waste for disposal is 54,985 tonnes, for non-hazardous waste is 408,951 tonnes, and for inert waste is 2,325 tonnes.

8.12.4 I acknowledge that the exact quantities of material classified as hazardous waste has not been determined at this stage but note that Zones A and B would likely to have the highest levels of contamination. The applicant has assumed that 15% of arisings from these zones (22,778 tonnes) would be contaminated. I further note

that the foundations for the OHLE and the track lowering would result in railway line ballast requiring to be disposed of and this is estimated at 47,368 tonnes, with 65% of this requiring to be treated at a hazardous landfill site.

8.12.5 The applicant has submitted that there is significant scope for re-use and recycling of materials and waste from the proposed development. It is stated that the quantity achievable would be dependent on the contractor. Therefore, the volumes cannot be accurately determined at this stage. An example is provided in the EIAR where it is assumed that 35% of the material excavated at Spencer Dock for the new station could be reused in the depot embankment construction, which would be transported to the depot site by road.

8.12.6 I note from Chapter 19 of the EIAR that the applicant has identified soil recovery licensed facilities in the counties surrounding the proposed development, licensed waste transfer stations, waste facility permit holders, landfill licensed capacities, and waste facilities permitted to accept asbestos. The applicant estimates that the proposed development would result in more than 1% reduction or alteration in the regional inert and non-hazardous landfill capacity. It is also acknowledged that the 54,985 tonnes of hazardous waste would need to be disposed of outside of the Eastern Midland Region and possibly exported. Regarding the availability of existing facilities to take the non-hazardous and inert waste for disposal, I consider that it is reasonable to conclude that the applicant has demonstrated that capacity exists to accommodate waste materials generated by the proposed development requiring disposal.

8.13. Utilities

8.13.1 I note Section 18.6 of the EIAR identifies, on a zone-by-zone basis, the works which are anticipated to impact on utilities. The affected utility, utility owner and

locations are indicated, while those requiring diversion are identified. Table 18-48 gives a summary of the utility diversions required.

8.13.2 I note that consultations have been undertaken with all known service providers, with their requirements being identified and incorporated into the design in order to limit disruption that would be caused. The applicant seeks to divert utility services away from the alignment where necessary. It is intended that all utilities that cross the alignment would have appropriate protection measures installed as agreed with the utility owners. Service disruptions are intended to be minimised. All impacted utilities are proposed to be reinstated in accordance with standards and specifications for the relevant utility.

8.13.3 I submit that the applicant's methodology to address affected utilities is acceptable and residual impacts are not anticipated to be significant for existing utilities within the route corridor.

8.14. Flooding

I note the following from the details presented in the application to the Board:

8.14.1 A. Fluvial / Coastal Flooding

A flood risk assessment was prepared to support the proposed development. The key areas with potentially elevated levels of flood risk are Docklands/Newcomen, Leixlip Convey Station, Barberstown level crossing, between Maynooth and Kilcock, and the Tolka Valley at Dunboyne and south of the M3 Parkway. The Board will note my earlier considerations on the lands between Maynooth and Kilcock, i.e. the depot lands. I do not propose to revisit the flooding issues relating to those lands.

Docklands/Newcomen Area

This area is in close proximity to the Liffey and Tolka Rivers and the Royal Canal. The Liffey and Tolka are tidally dominated at this location. Therefore, the most prevalent flood risk is from extreme tidal inundation events or tidal events in combination with extreme fluvial events. Taking account of flood defence infrastructure, CFRAMS flood mapping shows that no flooding is indicated within the site of the proposed development in the 0.1% AEP coastal event. The Docklands / Newcomen area is within Flood Zone A in accordance with the Flood Risk Guidelines but when existing flood risk management measures are considered the lands are defended to the design standard 0.5% AEP coastal flood event and the 0.1% AEP event when freeboard allowances are accounted for. With the inclusion of climate change factors as per the OPW mid-range future climate scenario, the development lands are indicated to be liable to flood in the 0.5% AEP event and much of the land is liable to have flood depths of >2m above existing ground levels. The provision of underground platforms at Spencer Dock Station and track lowering to accommodate the OHLE are proposed in this area. There is potential in future extreme events for the site to be inundated by tidal flooding.

Leixlip Convey Station

Flooding at this location emanates from minor tributaries of the Ryewater River, crossing under the canal and railway where two culverts act as a minor restriction to flow in the fluvial 0.1% AEP event. Leixlip Convey Station is within Flood Zone C as per the Flood Risk Guidelines. The station is protected by a >1m high wall / embankment along its length and the track extending east and west is also elevated. The EIAR notes that it is highly unlikely that, when climate change is considered, flood waters could build up within the canal so as to inundate the rail line to the south. Further assessment is not required.

Barberstown Level Crossing

The applicant's modelling indicates that flooding is not seen to affect the proposed road layout and bridge abutment at this location and that none of the proposed footprint is within the 0.1% AEP flood extents (including climate change). It is concluded that the proposed development at Barberstown is within Flood Zone C.

Dunboyne Tolka River Valley – South of M3 Parkway

There are multiple crossings of the river valley by the railway. The area has been subject to a flood alleviation scheme which upgraded many of the rail and road crossings that restricted flow. The EIAR notes that the hydraulic assessment of completed measures shows that there is significant flooding of the river valley either side of the rail line in flood events as frequent as 1 in 10 years but that no flooding is indicated between Bennetstown and Dunboyne, including Dunboyne and the M3. A review of flood levels and track levels indicates that in a 1 in 1000 year flood event the tracks are a minimum of 1.4m above flood level. The rail line from Dunboyne to the M3 Parkway is determined to be within Flood Zone C in accordance with the Flood Risk Guidelines. The climate change mapping shows no indication of flooding of the track or M3 Parkway in the 0.1% AEP.

8.14.2 B. Surface Water Flooding

The EIAR notes the following:

Broombridge Station

Reference is made to one flooding event at the station in 2011 and that there had been no evidence of previous or subsequent flooding. It has been determined that road drainage may have been blocked or had its capacity exceeded at the

time of the one flood event and the station and adjacent rail line are determined to be in Flood Zone C.

Clonsilla Level Crossing

Reference is made to flooding recorded at the crossing between 2000 and 2002, caused by inadequate capacity in the drainage network. Interim measures were carried out by the local authority and there have been no subsequent flooding events. The level crossing and adjacent rail line are determined to be in Flood Zone C.

Glendu Park, Cabra

Reference is made to one flooding event at this location in 2011 caused by extreme rainfall. The railway is >1m above Glendu Park and flood risk is considered low. The rail infrastructure at this location is determined to be in Flood Zone C.

M50-M3 Interchange, Railway and Royal Canal cross over the M50

Reference is made to one flooding event at this location in 2002 confined to the carriageway and caused by insufficient hydraulic capacity of the surface water drainage network. The location is considered low risk and the rail infrastructure at this location is determined to be in Flood Zone C.

Leixlip Louisa Station

Reference is made to historic flooding from drainage in the vicinity of the station but that there is no indication that the track was previously affected. The station and rail infrastructure at this location is determined to be in Flood Zone C.

It is apparent from the above that the greatest flood risk arises for Docklands / Newcomen. The applicant has indicated that specific flood risk management measures form an inherent part of the design of the project. I note the following:

Docklands / Newcomen

Established municipal defences managed by the local authority and the OPW will require adaptation to reduce the impact of climate change in the future. Tidal flooding is envisaged to be managed at this location by the adoption of flood resilient design and materials, flood warning systems, and flood emergency response planning and implementation. On receipt of a flood warning, it is intended that the Spencer Dock Station flood emergency response plan would be enacted, which may include suspension of services. It is accepted that the likely effects of flood risk at this location are negative and long-term and would be slight in effect.

8.15 Accommodating Residents at the Construction Stage

8.15.1 Having examined the applicant's EIAR and the extensive range of other documentation in the application prior to the Oral Hearing, I noted the potential significant impacts relating to noise, vibration, dust, lighting, etc. on residential properties in the vicinity of the construction works. I also noted the applicant's proposed mitigation measures. I formed the opinion that there was the potential for significant nuisance arising for residents who would be in the immediate vicinity of the construction works and/or construction compounds. On the first day of the Hearing, I asked had it been considered by Iarnród Éireann to identify the most sensitive residential properties which would be affected by the construction works, particularly at night-time, and would they be following up by providing alternative accommodation for residents during particularly intrusive stages of the

works. The applicant informed me that it was not proposed to provide such a scheme.

8.15.2 Following this, on the second day of the Hearing I requested the applicant to set out the environmental effects at the construction stage on a residential property likely to be affected by the proposed development. I selected the property of John and Gráinne Malone, landowners affected by the proposed land take, at Station House on Ashtown Road beside the level crossing and the Royal Canal. At this location, there would be a range of works taking place for up to a three-year period and construction compounds would be located in the vicinity to accommodate these works. I note that at the Oral Hearing an agreement between these landowners and the applicant was received by the Board. Notwithstanding this, I considered that this location provided an appropriate point of assessment to demonstrate how construction works, and noise in particular, may potentially affect residential properties when there are substantial works being undertaken beside them and sought the details requested. On the seventh day of the Hearing the applicant provided details to me on the construction impacts on this property. The applicant agreed that this was a reasonable example. The source noise levels are set out in Appendix 14.3 of Volume 4 of the EIAR and the mitigation measures are set out in Section 14.6 of Volume 2. The details provided included:

Baseline noise levels at Station House

The noise levels at this property would be between 70 and 75 decibels when trains are passing, with peaks of up to 80 decibels. Between trains, noise levels drop back to 55-60 decibels or 65-70 decibels peak with passing road traffic.

The Underpass and new road construction

The underpass would be 75m from Station House.

- Phase 1 – Demolition of some buildings taking place at daytime. Noise levels, including screening of works, would be 55-60 decibels at the property. The character of the noise would be mostly from machinery operating but some concrete may need to be broken.
- Phase 2 – Piling around the underpass. This would take place at day and night-time. Augured piling is proposed. Noise levels would be from 50-65 decibels, mostly engine noise. There may be momentary impact noise. This is repeated for Phase 4 where there would be additional piling close to the track.
- Phase 5 – Installation of the new rail track over the underpass – There would be a single weekend possession in order to do this work. It would take place over a day and night-time period. Noise levels without mitigation could be up as high as 75 decibels. Screening would be applied which could reduce noise by between 5 and 10 decibels. It is intended that most of the work would be undertaken during the day.

The remainder of the work would be daytime work. This would comprise construction of the road and construction of piling underneath the track. This would be screened and noise levels would be between 50 and 65 decibels at the property.

Footbridge, Substation and Station works at Ashtown

Works at the western end of the station would be 20m from the property and would extend to 80m at the eastern end of the station. The works would take

place over a five-month period. It is understood that there would be short night-time possessions between 1am and 5am by the contractor. There may be weekend possessions to shorten the duration.

Phase 1 – Dewatering of the canal and installation of piles on the northern and southern boundaries of the station. The piling would be for four weeks, using bored piling. Noise levels at Station House would range from 65-70 decibels depending on how close the work is to the property. The character of the noise would be predominantly engine and machinery noise.

Phase 2 – Extending the platform. This work needs to be done at night because access is only available at night. Noise levels, with screening, would be between 65 and 75 decibels at the property. The higher levels relate to cutting or breaking needing to be done.

Phase 3 – Piling on the platform. This would also be done at night. Noise levels would range from 62 decibels down to less than 55 decibels at the property. Works would be done over successive night-time possessions but may be done more quickly by weekend possessions.

Phase 4 – Lifting the prefabricated bridge into place and some welding. This would also be night-time work. Noise levels would be between 55 and 65 decibels and the character of the noise would be mostly engine noise.

Phase 5 - Demolition of the existing footbridge – Noise levels at the property would be in the range of 60 to 70 decibels with screening. This would be done over a single weekend possession.

Phase 6 – Architectural finishes, fittings, landscaping, etc. This would be daytime works. Noise levels would be less than 60 decibels and would reduce as the works progress down the platform.

Works on Ashtown Road

This would be carried out during the daytime. At the nearest point of works to the property at 25m, noise levels would be in the range of 60 to 70 decibels with screening and would diminish over distance.

OHLE Installation

This would be done at night in a linear fashion and would be for a short period before moving on. Noise levels with screening would be in the range of 70 to 75 decibels at the property when the piling rig is in operation. There would be at least one night where there would be short-term significant impacts when that is occurring. Works would progress the following night.

Substation

The works would be during the day and would be 90 metres from Station House. The noisiest activities would be excavation and concrete works. Noise levels would be in the order of 60 decibels at the property.

Compound and Construction Traffic

The property is 10m from the road. Noise levels from a HGV passing would be in the order of 82 decibels.

8.15.3 In discussion with the applicant at the Hearing, it was agreed that some of these works would result in sleep disturbance. I acknowledge that there would also be

vibration from piling works at times and that at night-time lighting would be required to facilitate the works and the functioning of the construction compounds.

8.15.4 I submit to the Board that the impacts set out above could reasonably be determined to be significant or even profound at times for persons seeking to reside in a property such as this over the three years of the construction works at Ashtown. While this property is in a sensitive location there are clearly other properties along the route corridor which would be directly affected also by the construction works for short or medium terms and which would potentially be subject to significant nuisance, particularly at night-time. For example, OHLE works would likely cause significant nuisance for residents in various locations, particularly in the inner city locations. These works would adversely affect residential properties most likely over a single night in each instance. These works would result in sleep disturbance as works are proposed to be undertaken for several hours beyond midnight.

8.15.5 I submit that a practical approach to address the likely impacts on residential properties (short-term for the vast majority) would be the provision of temporary rehousing for those likely to be significantly affected. This would only arise where construction noise and vibration levels would be such that noise and vibration mitigation would not provide sufficient attenuation to prevent disturbance or interference with everyday activities and/or sleep. It is anticipated that residents affected would be temporarily re-housed away from the construction activities for the period necessary.

8.15.6 It is my opinion that such a rehousing scheme should be viewed as an integral part of the construction environmental management of a scheme of this nature and scale. Indeed, such provisions are commonplace for the construction phase

of transport developments, including rail, metro, and road projects. This is a practical solution to addressing impacts which cannot, and will not, be adequately alleviated by the applicant's mitigation measures. A scheme of this nature could readily be required by way of a condition attached to the Railway Order.

8.16 Property Owners Protection Scheme

8.16.1 I note the applicant's commitment to vibration monitoring proposals for the construction phase as set out in Chapter 14 of the EIAR. I submit that the commitment to providing pre- and post-condition surveys for sensitive structures along the route corridor, premised upon an orderly programme of monitoring, should be an integral part of the development process of a project such as this. There is a need to put such a provision on a firm footing by way of the delivery of a structured property owners protection scheme where it is applicable. I do not foresee that this requires to be a scheme which would apply to an extensive number of properties but that it should apply to structures of historical value, such as those on and in the vicinity of the underpass works at Ashtown, including the old mill, Station House, and canal structures, and residential and other properties, notably in built-up urban areas, where there would be substantial piling works. Monitoring should be an integral part of the environmental management of this project before, throughout and after the construction phase and the construction works should be adaptable to respond to potential foreseen adverse impacts on adjoining properties. The purpose of the condition surveys would be to ascertain the condition of properties before, during, and after the completion of the proposed development in order to determine whether there has been any deterioration of any of the surveyed properties and whether this deterioration resulted from the proposed works.

8.16.2 I submit that a requirement to provide such a property owners protection scheme could form a condition with the approval of the Railway Order. Such a condition would require the identification of how to access and register for such a scheme, the types of condition surveys to be undertaken, how and by whom surveys would be undertaken, etc. In the event that the construction of the scheme culminates in the identification of adverse structural impact on any sensitive property, it would be expected that compensation would then likely be provided through the Compulsory Purchase Order process. Premised upon the applicant's likely anticipated effects on properties and the adherence to vibration limits advocated by the applicant, I again state that it is assumed that it is not likely that this scheme would apply to a large number of properties. However, provision needs to be made for those buildings and infrastructure that would be structurally impacted by the construction works.

9.0. ASSESSMENT OF LANDOWNER AND OBSERVER SUBMISSIONS

9.1. Scheme-Wide Issues

9.1.1. I note the range of common issues submitted by landowners and observers. The written responses by the applicant to these scheme-wide issues are also acknowledged. The majority of these issues were also discussed in some detail at the Oral Hearing. I propose to examine these issues at the outset.

9.1.2. Footbridge Design & Aesthetics

Many observations have been submitted on this issue. There are evidently significant concerns relating to the design and scale of these proposed structures, the visual impact, and the need for lifts.

The applicant's written response to submissions included:

- Concrete bridges over the railway lines on the IÉ network are the preference of Iarnród Éireann. At the non-statutory public consultations there was significant commentary on the aesthetics of the concrete bridges in built up areas. The footbridges at Ashtown and Coolmine were redesigned as part of the works proposed at those station developments and proposed CORTEN steel bridges.
- During the localised Ashtown Consultation event there were requests from the public to include lifts for those people who have mobility issues. The response provided sets out how lifts had previously been proposed but had been removed following negative feedback from the public in relation to the reliability and availability of lifts for a public thoroughfare. Where ramps are technically feasible it is the preference of Iarnród Éireann to provide those over provision of lifts.
- EIAR Chapter 7 Population includes mitigation that at detailed design stage the design team will ensure safety is integrated into the design and maintenance of public spaces with a focus on promoting a sense of safety and comfort for all users particularly the young, old and people with disabilities. The perspectives from trained professionals relating to designs affecting these user groups shall be included as part of the design team.
- The pedestrian bridge designs adhere to the following standards:
 - Building Regulation 2010 – Technical Guidance Documents;

- Design Criteria for Footbridges (DN-STR-03005-02);
 - Requirements for Track and Structures Clearances, I-PWY-1101 (IÉ);
 - National Cycle Manual (National Transport Authority);
 - Network Rail-Station Capacity Planning Guidance 2016;
 - Building for Everyone (ADA-The National Disability Authority).
- Where ramps are technically feasible it is the preference of Iarnród Éireann to provide those over provision of lifts. This ensures that the crossing remains open at all times (24/7) and is not subject to interference by mechanical faults (i.e. lift faults). Therefore, the proposed development submitted as part of the Draft Railway Order application has not included lifts with the footbridges although it is technically feasible to include them.
 - The proposal for the parapet heightening on bridges is explained in the EIAR Chapter 4 Description of the proposed Development, Section 4.5.15.5 “Parapets heightening.” The proposals were developed in collaboration with a Grade 1 Conservation Architect to find a solution that can be implemented on each different type of bridge with a consistency of approach across the full scheme. At Broombridge (OBG5) where transparent parapets have been queried, the proposal is to provide a steel mesh to the required protection height of 1.8m. The design approach for the parapet heightening was presented to each of the Local Authority Conservation Architects to ensure their feedback was considered. Further engagement will continue at detailed design stage.

I acknowledge the pedestrian and cyclist bridge design revisions presented by the applicant at the Oral Hearing. The Board will note my considerations in my Planning Assessment on this issue. I consider the revised bridge designs at Ashtown, Coolmine, Porterstown, and Clonsilla should be accepted.

Regarding the provision of lifts, I note that this issue was addressed by the revised bridge designs submitted at the Hearing. These provisions will greatly aid in reducing severance at these locations.

9.1.3. Lack of Consultation

This issue has been addressed in my Planning Assessment.

9.1.4. Closure of Level Crossings Not Required (Signalling Upgrade)

Significant numbers of submissions were made requesting upgrading of the signalling system at level crossings in place of crossing closures.

The applicant's written response to this issue included:

- The level crossings constrain train frequency. In order to achieve the project objectives of significantly higher train frequencies it is not viable to retain the level crossings. The removal of the level crossings will improve train efficiencies, will enhance safety, and will remove the delays caused by the road / rail interface. Their closure will also remove the periodic blockages on the road system, which are currently very pronounced, especially in the morning and evening peak commuter periods.

- The design team has examined the feasibility of meeting the project objectives while keeping the existing level crossings in place and it has concluded that the project objectives cannot be delivered on this basis.
- The ‘automatic’ type of railway worked level crossing is used in other countries across Europe. This type of level crossing operates faster than attended or CCTV controlled alternatives, resulting in shorter closure times, as it removes the direct control from the signaller or gatekeeper. The train passes through the level crossing whether it is clear or not. This type of level crossing has poorer safety characteristics than alternatives and has consequently never been adopted by Iarnród Éireann for use in Ireland.
- The option of retention of the level crossings was included in the MCA process so it can be assessed across the full spectrum of criteria in a similar way to other options considered. This is presented in Chapter 3 Alternatives of the EIAR.
- Where existing usage patterns of the level crossings exhibit significant activity, alternative equivalent access is proposed in the form of bridges and roadworks.

This issue was discussed in detail at the Oral Hearing.

The Board will note my considerations on this issue in my Planning Assessment.

9.1.5. Loss of Trees/Vegetation

The loss of trees and other vegetation with the proposed development of infrastructure has raised many concerns from observers about impacts on amenity areas, on the Royal Canal and on trees of amenity value.

The applicant submits:

- In terms of vegetation removal for OHLE, for safety and operational reasons on electrified railway lines, trees, shrubs and climbers are not permitted within 4 m of the rail or within 1.5m from the catenary poles, depending on which is greater. This is in line with Vegetation Clearance Requirements for Electrified Lines. I-ETR-4006. Version 1.0 (Iarnród Éireann, 2021). Regarding the trees to be retained, these are shown on Volume 3A of the EIAR, Chapter 5, Site Clearance drawings: MAY-MDC-LMA-SC00-DR-Y-0001 to SC06-DR-Y-0001.
- In terms of vegetation removal to accommodate new infrastructure (e.g. substations, junction upgrades, access routes) vegetation will be retained where practicable. Chapter 15 Landscape and Visual Amenity of Volume 2 of the EIAR has assessed the impacts of localised tree and vegetation removal and Section 15.6 provides the mitigation measures for the construction phase impacts:
 - Prior to commencement of the works an Arboricultural Impact Assessment will be produced for the area of the proposed development, as well as for any adjoining areas where trees are likely to be impacted by the works, in accordance with British Standard Institution (BSI) British Standard (BS) 5837:2012 'Trees in relation to in relation to design, demolition and construction - Recommendations' (BSI 2012);
 - All trees and vegetation to be retained within and adjoining the works area will be protected in accordance with the British Standard Institution (BSI) British Standard (BS) 5837:2012 'Trees in relation to in relation to design, demolition and construction - Recommendations' (BSI 2012). Works required within the root protection area (RPA) of

trees to be retained will follow a project-specific arboricultural methodology for such works, which will be prepared by a professional qualified arborist;

- Wherever possible, trees and vegetation will be retained within the proposed development. Trees and vegetation identified for removal will be removed in accordance with 'BS 3998:2010 Tree Work – Recommendations' (BSI 2010) and best arboricultural practices as detailed and monitored by a professional qualified arborist. Details of trees and vegetation to be removed will be included in the Arboricultural Impact Assessment Report (and associated Tree Protection Plans);
- The Arboricultural Assessment to be prepared as part of mitigation for the proposed development will be fully updated at the end of the construction phase and made available, with any recommendations for on-going monitoring of retained trees during the operational phase; Where properties are subject to permanent and / or temporary acquisition (as noted in Sections 15.5.1.2.8 and 15.5.2.2.8 of the EIAR), an inventory of existing boundary details and accesses, planting, paving, and other features that may be disturbed or removed will be prepared prior to commencement of construction works;
- Where properties are subject to permanent and / or temporary acquisition, appropriate measures will be put in place to provide for protection of features, trees and vegetation to be retained, and for continued access during construction, for adequate security and screening of construction works. All temporary acquisition areas will be decommissioned and reinstated at the end of the construction phase.

- Aside from the above measures a substantial programme of landscape planting will be provided. This will be most focussed where there are lands available for planting such as at the level crossing replacements at Ashtown and Barberstown, at the substations and most specifically at the proposed depot. This is set out in Section 15.6.3 of the EIAR Volume 2 and in the Landscape Mitigation plans MAY-MDC-LAN-ROUT-DR-U-15100-D to 15041- D in Volume 3A of the EIAR.

I first note the impact the proposed pedestrian/cycle bridges would have on trees and vegetation. My considerations on the impacts of these bridges are set out in my Planning Assessment.

I acknowledge the requirements relating to the provision of the OHLE and the health and safety issues which require to be addressed. With the electrification of the line, it is inevitable that this would require tree and vegetation removal based on sound health and safety grounds. There can be no reasonable objection to this.

Regarding the impact of other infrastructure such as substations or at junctions, I submit that, given an acceptability of the siting of support infrastructure or the need for road improvement works in the first instance, there should not be any particular concerns about significant effects on existing trees and vegetation. Where there are requirements for tree and vegetation removal, it is apparent that provisions are being made to screen such infrastructure or to enhance junction works by way of planting programmes. Clearly, retention of established vegetation should be a priority where feasible and it is apparent that this is the preferred option of the applicant.

Finally, I note the potential significant impacts on trees and other vegetation at the depot site. These matters have been addressed in my Planning Assessment when considering this component of the proposed development.

9.1.6. Parking in Residential Estates

This is an issue which has been raised by a number of observers and was discussed at the Oral Hearing. It is clearly an ongoing issue for many residential estates beside railway stations along the route. Parking in nearby residential estates is clearly a result of the dearth of parking at some stations and is also likely to be associated with parking charges at car parks at stations. It is reasonable to take the view that, if one is seeking to increase the level of rail services and to increase passenger demand for such services by the scheme proposed, then the adequacy of parking at stations should have been a consideration for the proposed scheme. However, this does not form part of the scheme before the Board.

I submit that there is a responsibility on Iarnród Éireann to seek to address this issue at local level. It is a matter that needs to be resolved between Iarnród Éireann, the local authority and An Garda Síochána. Liaison with local communities is integral to the understanding of where and to what extent parking issues arise. The Board could potentially consider including a condition in any approval requiring a programme of community liaison on parking in residential estates coinciding with the construction period of the development which could then feed into the considerations of the NTA and CIÉ on parking along the route, which it is understood is ongoing (see reference to the Multimodal Interchange Project below). While I would promote the need for such a programme, its extent and timing would most likely not tie in with the Multimodal Interchange Project and would, therefore, be difficult to enforce.

9.1.7. Additional Bicycle Parking

In response to requests for additional bicycle parking at stations along the route the applicant has submitted that alterations to existing stations, except where required to facilitate the DART+ West project, are not within the scope of the project. Where alterations to stations are being implemented to facilitate the DART+ West, increased cycle parking is being included in the project. The locations include Spencer Dock station, Connolly station, Ashtown station, and Coolmine station. The applicant also notes that, separate to the DART+ West project, Iarnród Éireann is progressing a number of projects, including a Multimodal Interchange Project which will assess all stations throughout the network with a view to implementing strategies at stations where there is need for modifications that will have an impact on multimodal travel and station access. This project will assess a variety of multimodal options at stations including, but not limited to, the provision of secure bicycle parking and shared mobility services.

It is my submission that this brings clarity to the extent of cycle parking being provided as part of the scheme. However, given that this is a public transportation project which seeks to promote sustainable transportation, it is somewhat limited in its infrastructural works to accommodate parking for those who may seek to sustainably get to the stations to avail of their service by way of cycling. This contrasts greatly with the infrastructure works which seek to deliver significant bridge structures at closed level crossings which seek to accommodate cycle movement over the closed level crossing. The critical issue of relevance to these inter-related matters is the lack of a comprehensive network to accommodate cyclists or an understanding in this project on the delivery of a comprehensive safe cycle network with linkage to sustainable rail transportation. This is not an issue which should be seen as diverging from the

project at hand because the proposed development of significant bridge structures is being developed to accommodate cyclists and because they are presented by the applicant as integral features of the project. Under this project, one is getting a small component of cycle infrastructure with significant environmental impact (i.e. large bridge structures to accommodate cyclists), while the cycle linkages to these stations as part of the cycle network are not fully known and the basic supports (such as cycle parking) being provided are minimalistic at best and are not components of all stations along the route.

9.1.8. Impact on the Royal Canal pNHA & Wildlife

The Board is in receipt of many submissions which raise concerns about the likely adverse impacts the proposed development would have on the Royal Canal and on wildlife. Significant concerns were raised about the impacts of the proposed bridges at Clonsilla and Porterstown on biodiversity.

The applicant's response is synthesised as follows:

Impact of lighting and darkening on the Royal Canal

The applicant refers to the potential impact of lighting on wildlife across the scheme. It is submitted that the proposed lighting arrangements at the pedestrian and cycle bridges have been designed with this in mind. The bridges would have solid CORTEN steel parapets with lighting incorporated into the parapet, avoiding any lighting spill onto the Royal Canal. New pedestrian bridges at Ashtown, Coolmine, Porterstown and Clonsilla are to maintain a clearance of at least 5.3m above the railway line. The bridges at Ashtown and Coolmine are to span the railway line but not the Royal Canal, while the bridges at Porterstown and Clonsilla will span the railway and the canal and are located in or adjacent to the existing stations / level crossings. At all four bridges, the ramps are adjacent to

the canal on one side only, with the canal not being bridged at all in the cases of Ashtown and Coolmine, or one ramp set back from the canal beyond the railway line in the case of Porterstown and Clonsilla. Therefore, any increase in shading as a result of the 5m deck and the ramps on one side would not be significant in terms of the effect this could have on biodiversity / the Royal Canal pNHA.

Disturbance to wildlife during construction

The potential impacts of the proposed development on biodiversity, if unmitigated, are presented in Section 8.8 of the EIAR. The habitat loss at Clonsilla and Porterstown is described in Section 8.8.2.1. The EIAR acknowledges that the construction of these bridges will result in the loss of 75m and 90m of treeline respectively.

The potential for construction impacts (noise, vibration, lighting, visual disturbance, etc.) are identified as a potential impact on biodiversity in the EIAR Biodiversity Chapter Section 8.8 (Description of Potential Impacts (unmitigated)). Table 8-25 presents the unmitigated construction and operational phase impacts on each Key Ecological Receptor. The Key Ecological Receptors include the Royal Canal pNHA, Badger, Otter, Bats and Birds. Mitigation measures are presented in Section 8.9. The residual impacts on the Key Ecological Receptors, following the application of the mitigation measures, are presented in Section 8.10. Although it has not been possible to eliminate all impacts on biodiversity on an infrastructure project of this magnitude, the impacts on Key Ecological Receptors are stated as not being significant.

I note that the significance of impact arising from the project on the Royal Canal and associated wildlife primarily relates to the construction and functioning of the depot and the large pedestrian/cycle bridges. These are addressed in my Planning Assessment.

I wish to acknowledge that this is an established railway line. It is a rail corridor that aligns with the Royal Canal for much of the route. Therefore, the railway's impact on the canal is itself well established. Both the canal and railway line are man-made infrastructure and the waterway, the tree lines and planting, and the rural nature and isolation of many sections of the routing have facilitated the creation of a natural habitat and corridor of biodiversity value.

It is inevitable that construction works associated with a development of this nature and scale would introduce noise, vibration, lighting, visual disturbance, and nuisance such that there would be adverse impacts on the established wildlife and their habitats along the canal. I note that this is a linear development and as the construction works progress the impacts generally would move. These impacts, while potentially significant by way of disturbance, would be short-term and would not be continuous at particularly sensitive locations throughout the construction period. It is, therefore, concluded that the applicant's mitigation measures are reasonable and necessary to minimise effects and that to deliver on a project of this nature some degree of disturbance is unavoidable at the construction phase.

At the operational phase, I submit that generally the development would not add in any significant manner to the disturbance arising for wildlife and the Royal Canal habitats along the railway corridor. This established corridor will have to facilitate OHLE and alterations to bridges. However, the actual effects on habitats and wildlife would not generally be substantial, in my opinion.

Regarding the new pedestrian/cycle bridges, the Board will note from my Planning Assessment that I consider the proposed revisions are acceptable both in design terms and because they would reduce the likely impacts of such structures on the Royal Canal. I acknowledge that the bridges at Ashtown and Coolmine would span the railway line and would not span the Royal Canal. The bridges at Porterstown and Clonsilla would span both. I note that the bridges at

Ashtown, Coolmine and Clonsilla are in the immediate vicinity of the established railway stations and are in urban locations. The impacts by the encroachment on tree lines and vegetation with the delivery of the Clonsilla bridge are reduced by the revised design and the revised bridge design at Porterstown reduces the impact on the rural character of the area into which the bridge would be superimposed there. It is accepted that at all four bridges, the ramps would be adjacent to the canal on one side only and that one ramp would be set back from the canal beyond the railway line at Porterstown and Clonsilla.

9.1.9. Lifts at Footbridges

Significant numbers of observers have raised the issue of the provision of lifts at the proposed Ashtown, Coolmine and Clonsilla footbridges.

The applicant's written response to this issue noted that at the public consultations, there was significant negative feedback received in relation to the reliability and availability of lifts for a public thoroughfare. In the subsequent design development of the overbridges, it has been possible to incorporate a bridge with stairs and ramps, to ensure full accessibility for pedestrians, vulnerable users and cyclists. Where ramps are technically feasible it is the preference of Iarnród Éireann to provide those over provision of lifts. This ensures that the crossing remains open at all times (24/7) and is not subject to interference by mechanical faults (i.e. lift faults). Therefore, the proposed development has not included lifts with the footbridges.

This was a matter of concern raised early at the Oral Hearing. The applicant followed up by proposing revised design changes to the pedestrian and cyclist bridges which incorporated lifts. In my opinion, such provisions clearly increase accessibility. The failure to provide basic infrastructure of this nature would be a significant issue of concern for those pedestrians with accessibility restrictions.

This issue appears to have presented itself as a matter of reliability for the applicant, with the concern focusing on outage and mechanical fault. The number of objections received on this issue appears to have been a reflection of public dismay and frustration at the failure to provide and maintain such basic infrastructure. The initial bridge designs would have deterred many with accessibility concerns from using the alternative crossings being provided. I consider that this issue has now been satisfactorily addressed. This issue is also referred to in my Planning Assessment.

9.1.10 Train Demand Figures

Several submissions were received which questioned the validity of the demand figures used in the project. In particular, the following aspects are mentioned:

- Passenger demand is cited as the reason to increase the capacity on the line. However, the most recent figures available from the NTA show a reduction in total daily demand on the Maynooth line from 2017 to 2019;
- The pre-pandemic demand figures could be no longer valid given that research indicates that attendance at the workplace has been reduced after COVID;
- Off-peak trains are rarely full so a requirement for any increase in service would need to be demonstrated.

The applicant's response to the issues raised are:

- While increase in passenger demand is one of the reasons that called for an increase in the capacity on the line, it is not the only one.
- A correct analysis of passenger demand trends requires observation over long periods of time. Annual or biannual fluctuations do not necessarily

reflect actual changes in long-term trends. For this reason, future projections are adjusted based on regional demand models and not on specific values in a given year. Future changes in the usage trends of different modes of transport, new projects being planned (included in certain analysed scenarios in the model) and the implementation of Project Ireland 2040 mean that the use of the rail network will increase in the coming years.

- By providing a more frequent and reliable system, the project aims to promote a change on transport tendencies. This is represented in the transport model used in the project.
- The 12 trains per hour per direction used as the basis for the project will be implemented using a phased rollout and depending on demand figures, and represent the peak hour target number for design and environmental impact analysis. During off-peak hours, the timetable will be adjusted based on different aspects, rail census being one of them.

I submit to the Board that the applicant's response ably demonstrates the validity of the demand figures provided. I further observe that there is a definitive return to usership of the rail network following Covid-19. Demand has been re-established and there is significant pressure on rail services. In addition, it is clearly a primary objective of this project to seek to increase the demand for public rail use and to reduce the demand for car-based use of the road network in the vicinity of the rail corridor. A regular quality service would entice increased demand.

9.1.11 Further Photomontages

A number of observers requested further photomontages, notably at the gate entrance at Ashton House, at the proposed pedestrian/cycle bridge from the perspective of Rathborne village / Martin Savage Park, at Coolmine Road junction, from north of the Coolmine level crossing to the new bridge, and of the proposed Leixlip Confey substation without the green screening and the substation railing.

The applicant notes that forty-six photomontages were provided in the EIAR. These views are considered representative of the proposed development and are seen as sufficient to inform the landscape and visual impact assessment.

I consider that Volume 3B of the EIAR provides an adequate and representative collection of montages which demonstrate the nature and extent of the proposed development along the route, notably at the most visually sensitive locations. I do not consider that there is any necessity to now seek to expand upon the collection provided. I acknowledge the array of drawings provided in this application which show the infrastructural components associated with the scheme. An understanding of the proposed development is ably gauged from the drawings. The photomontages can reasonably be seen as complementary additions to the detailed drawings.

In addition to the above, I note the additional drawings, photographs and photomontages (including at Ashton House) provided at the Oral Hearing. These facilitate a greater understanding of the project, its context, and the potential environmental impacts of the development.

9.1.12 Electromagnetic Effects

A number of observers have raised concerns about health effects from electromagnetic radiation and concerns relating to the interference with electrical appliances.

The applicant's response included:

- In relation to the health effects from electromagnetic radiation, electromagnetic fields from the proposed development are classed as non-ionising, meaning the fields do not have enough energy to cause damage to human or animal cells in the same way ionising radiation does. Despite being non-ionising there exists the EU Council recommendation on the limitation of exposure of the general public to electromagnetic fields (0Hz – 300GHz) 1999/519/EC. The levels being emitted from the proposed development will be orders of magnitude below the guideline limits set out in this recommendation at the frequencies concerned and will therefore have no negative impacts on human health.
- In relation to the interference with electrical appliances, standard electrical and electronic equipment that would be found in domestic, commercial and industrial environments are required by the European Communities (Electromagnetic Compatibility) Regulations 2016 and 2017 to be CE marked. Appliances bearing a CE mark indicate that they are in conformance with the relevant European Directives (the EMC Directive being one), and therefore should not experience interference from the proposed development. Also, the proposed development itself is required to meet the EMC Directive (2014/30/EU) for both immunity from, and emissions of, electromagnetic radiation.

The Board will note my considerations on this issue in the section of my report entitled Environmental Impact Assessment.

9.1.13 Property Valuation

I note that there have been a number of concerns relating to the acquisition of land and the impact on property values.

The applicant's written response to this issue noted that, subject to the confirmation of the Railway Order by An Bord Pleanála, compensation will be addressed in accordance with statute and Compulsory Purchase practice and procedure as and when statutory notices are served.

I acknowledge this. Financial compensation is not a matter for the Board's consideration in its deliberations.

9.1.14 Noise, Vibration & Dust

Numerous observers have raised concerns that the proposed railway works would result in significant noise, dust and vibration over a prolonged period and that this would interfere with the enjoyment of their property.

I note the applicant submits that the noise and vibration impact of the proposed electrification project, following the adoption of mitigation, is that the project is not expected to change the noise or vibration climate significantly during operation. The increased frequency of trains is seen to be offset by the quieter operation of electric DART compared to diesel commuter units. I observe that noise and vibration monitoring during construction is included as part of the mitigation

measures. Vibration limits are specified and these are to ensure that no damage occurs to properties. Lower vibration values are specified for sensitive buildings. Prior to construction and subject to written agreement with the property owner, property condition surveys will be undertaken in relation to sensitive properties.

The EIAR states that the noise impact of the catenary system installation will likely be significant at individual properties close to the tracks for periods of brief duration (i.e. up to 4 hours) while the works are occurring. Works that occur within 300 m of a property that is located along the track with a direct line of sight to the works, have the potential to cause a significant impact. However, as the works progress, the likely effects will become less significant at that property and the effects will follow the work progress linearly along the track. The specific noise level generated by the work will depend on the type of piling adopted. Mitigation measures are limited for these works due to the nature of the sites being temporary worksites for a 4-hour period each night and the plant involved is difficult to mitigate. A designated community liaison / noise liaison is to be appointed by the Contractor for the duration of the construction works to engage the occupants of neighbouring properties and notify them of any works forecast to generate appreciable levels of noise, explaining the nature and duration of the works. Night-works in particular have the potential to generate the most significant noise effects. All affected sensitive locations are to be notified of planned works in advance of the works progressing. The notification should include a description of the works, the expected duration and details of how to contact the Contractor to log complaints.

With respect to dust nuisance, a sensitivity assessment was completed as referenced in Section 12.4.3 of the EIAR and an assessment of the potential dust generation due to construction was completed in Section 12.5.1.4 of the EIAR, this includes Connolly station and North Strand Works. Guidance for this assessment was taken from the Institute of Air Quality Management (IAQM).

Guidance on the Assessment of Dust from Demolition and Construction V1.1. In addition to the sensitivity assessment and impact assessment in the main body of the EIAR, two appendices were prepared with respect to dust, one to review activities which have the potential to generate dust (Appendix 12.2. Potential Dust Generating Activities) and a second to document the mitigation measures that are to be applied across the project to minimise and suppress dust generation (Appendix 12.4. Dust Mitigation). This assessment concluded that when the dust minimisation measures detailed in the mitigation section of this chapter are implemented, fugitive emissions of dust from the site are not predicted to be significant and pose no nuisance, human health or ecological risk to nearby receptors. Thus, it is estimated that there will be no residual construction phase dust impacts.

The dust minimisation plan is seen to ensure that a stakeholder communications plan and monitoring is in place to ensure dust mitigation measures are working and if residents have any concerns about dust that a line of communication is available. Through this element, and others listed in the Dust Mitigation Plan (see Appendix A12.4 of the EIAR) to ensure residual dust is minimised, the proposed project is seen to ensure local residents are not impacted by dust and if any dust impacts do occur, there is a line of communication to raise it with an appropriate person on site who can implement further mitigation immediately.

With regard to landowners potentially affected by noise, vibration and dust, I draw the attention of the Board to my considerations in the following sections of this assessment. This addresses likely direct effects on individual property owners who are subject to land take.

It is apparent from the applicant's response that there are going to be short periods during the construction phase of the proposed development when there

would be significant disturbance by way of noise and vibration for some residents who are in the immediate vicinity of the railway line. These impacts would be compounded by such works taking place at night-time. I submit to the Board that there would likely be a necessity for the applicant to take appropriate precautions in some such instances and seek to accommodate significantly affected residents elsewhere during the likely very short periods when works would be most intrusive. The Board will note my recommendation in my Planning Assessment relating to the provision of a scheme to accommodate severely affected residents for temporary periods away from the works where they would cause difficulties with occupancy, particularly at night-time. This would not be an unusual arrangement for a project of this nature and it would be a reasonable requirement to be met. It is evident that, where adequate screening and noise and vibration attenuation cannot be provided, piling and other construction works would result in significant disturbance impacts that cannot be reasonably alleviated, necessitating such action. The Board will note the short timeframe for catenary works as the linear project is developed and the limited extent of those likely effected within the built-up urban area of the city. Those requiring suitable accommodation elsewhere during periods of significant disturbance are likely to be few in number.

With specific reference to vibration, I acknowledge that, prior to construction and subject to written agreement with the property owner, property condition surveys would be undertaken in relation to sensitive properties. These surveys, followed by meaningful measures to curtail impacts, should primarily address concerns for the owners and occupiers of these sensitive properties. The Board will note my recommendation in my Planning Assessment relating to the provision of a property owners protection scheme to address vibration concerns on properties where impacts from vibration pose structural concerns.

Regarding dust impacts, these are likely to compound the nuisance element of the construction works for those residents most affected by noise and vibration. In general, however, the applicant's dust minimisation plan would encapsulate good work management practice. The provision of a meaningful liaison should aid in the reduction of resident and business concerns on this issue.

With regard to the operational phase, I accept that increased services are likely to increase noise and vibration concerns for those living in the immediate vicinity of the rail line. However, I recognise that this is an established railway line where residents are subject to rail activities. Furthermore, I also observe that the impacts of the increased service would likely be offset by the quieter operation of electric DART compared to existing diesel commuter units on this established line.

9.1.15 Additional Station at Croke Park

There have been requests by some observers for a new station at Croke Park. The applicant has referred to some physical and operational constraints on the existing railway lines in the Ballybough area that would reduce the potential for an additional station as follows:

On the GSWR line (northern line crossing the Ballybough Road)

The railway is in a restricted area heading east of Ballybough Road towards Connolly and is elevated on a series of bridges and arches and not suited for location of a station. West of Ballybough Road the current gradient and tight curvature of the existing track geometry is not in accordance with standards for the provision of a station. Siting stations and platforms on tight curves introduces large stepping gaps and creates accessibility issues. Furthermore, the elevated nature of the existing railway, which is on a 4-metre high embankment in this

area, would raise issues regarding overlooking and visual impact on adjacent residential properties.

On the MGWR line (line closer to the city and adjacent to the Royal Canal)

The railway east of Ballybough Road is in a tight cutting parallel to the Royal Canal alongside Clonmore Terrace where there is limited space to the railway boundary and is not a suitable place to locate a station. West of Ballybough Road and towards Croke Park there is again a steep gradient issue identified. Impact on surrounding properties would also be an issue with limited space available.

Operational Constraints

This section of the railway is a highly congested area with services from the Sligo line, Maynooth line, M3 Parkway line and Phoenix Park tunnel lines all converging on the city centre and it would be particularly disruptive to place a suburban stop in this area on the approach to the city. While some trains currently get held here on approach to the station to stop all suburban services so close to Connolly, an area where there are capacity issues would cause operational disruption impacting on other movements around the Connolly area, for example on the northern line.

I note that there is no comprehensive assessment undertaken to determine the demand for an additional station or to determine the most suitable location. While I consider that there may be merit in investigating the need for an additional station in this area, it is clear that the proposed development would not prohibit the development of an additional station at some stage in the future. I accept that there are constraints at the locations identified by the applicant in terms of the siting of any such station and the additional congestion likely to arise with the

convergence of train traffic in the Connolly Station area. This is not an option that can be readily superimposed as part of the Railway Order.

9.1.16 Extension to Kilcock

A significant number of observers have requested that the electrification of the line should be extended to Kilcock station.

The applicant submits that the Transport Strategy for the Greater Dublin Area (2016-2035) has concluded that DART+ will extend to Maynooth / M3 Parkway. The outer areas of the Greater Dublin Area and the outer Regions will continue to be served by diesel train services, albeit at increased frequency. These train services are to be augmented by the M4 / N4 regional bus network. The applicant notes that, at present, Kilcock Station is a single platform station. Continuation of the DART+ West to Kilcock would require construction of double track along a very narrow railway corridor, overbridge modifications (where appropriate), and the reconstruction of Kilcock Station to provide the necessary train infrastructure. It is submitted that the NTA has recently published the Greater Dublin Area Transport Strategy 2022-2042. Measure RAIL3 – DART Extension included in the Strategy states:

“The NTA and Irish Rail will, over the lifetime of the Strategy, extend the DART to deliver electrified rail services to the following towns:

- *Sallins / Naas;*
- *Kilcock; and*
- *Wicklow.”*

It is stated that the works proposed along the Maynooth Line as part of the DART+ West project will not preclude future electrification of the line to Kilcock and further west.

It is my submission to the Board that it is a distinct failure of the proposed development not to deliver a railway station serving Kilcock and, indeed, the M4. The proposed development provides for the electrification of the line to the depot. The depot would lie immediately east of Kilcock, just east of recently developed large residential schemes in the town. Kilcock is clearly a targeted urban centre for residential expansion. Many of the residents will be reliant on Dublin City primarily for employment and the residential expansion of Kilcock is directly supporting commuting to the city. What is occurring as result of the proposed development is that Kilcock is effectively getting the depot and all of the negative impacts associated with such large infrastructure (construction traffic, 24/7 industrial-type operations, etc.) but is getting no rail passenger benefits. The failure to extend the service to Kilcock station and to provide support infrastructure, inclusive of a park & ride facility, is at best short-sighted. This failure demonstrates a clear lack of ambition when one is delivering the electrification of the line to the east side of Kilcock and the service does not serve Kilcock itself. In reality, Kilcock is the western end of the route (not Maynooth) for the proposed electrification of the railway line but it is not being served. In the overall scheme of the works being undertaken to deliver this project, the construction of a short section of double track along the railway corridor, overbridge modifications (if and where appropriate), and the reconstruction of Kilcock Station are not excessive additional works. In my opinion, this should have been coupled with the development of a park & ride facility in the immediate vicinity which would serve the M4 traffic, potentially taking significant numbers of car users off this road to use the new service. Instead, this opportunity is being

lost at this time under this project as there will be no additional facilities to take traffic off the M4 in the Maynooth area and congestion and inadequate parking provision will remain at Maynooth. There is no value in putting this issue at arms length by offering the position that such infrastructure is being examined elsewhere and a report will be provided on additional provisions at some other time in the future. I must repeat that this is a very significant missed opportunity to at least start improving the services of the ever-expanding communities west of Maynooth.

In conclusion, the Board is left to determine the proposed development which is now before it. The servicing of Kilcock, never mind the doubling of the railway line further and electrification of the route further west into the commuter belt that lies beyond County Kildare, should have been a basic component of the proposed scheme. The distinct lack of ambition in developing improved rail services is stark. To consider the project before the Board in a positive light, it may in some manner be viewed as a first step in delivering some progress in the electrification of the Dublin-Sligo line, which will serve some of the commuter customers of this railway line.

9.1.17 Need for the Increase in Frequency and Capacity

A number of observers have queried why an increase in frequency and / or capacity of the rail network has been planned.

The applicant refers to the rail network legacy, to the objectives of CIÉ, transport plans, and the provisions of the NPF and NDP in support of the project. It is submitted that DART+ West is a cornerstone transport project and it will assist with supporting both the European Green Deal, and the Sustainable and Smart Mobility Strategy and climate action commitments. The project is seen to be fundamental to supporting the economic and social growth that has been

highlighted by the National Planning Framework and County Development Plans. It is stated that it will also facilitate multi-modal journeys through the improved integration with other modes including LUAS, the proposed MetroLink, proposed BusConnects, proposed LUAS Finglas, the Royal Canal Greenway and other sustainable mobility infrastructure. The proposal is seen to cater for a shift towards a low carbon emission passenger service through the introduction of a modernised electrified fleet, with the improved frequency and quality of service providing a viable transport alternative to existing and future communities along the route. The increase in capacity of the network (by both increasing the train frequency and enhancing the network functionality) is the primary objective of the DART+ West project.

This project aims to cope with a maximum capacity of 12 trains per hour per direction and the applicant submits that this has been the basis of the model detailing the train movements during the peak hours. This target capacity is used to design all the elements of the project, from the signalling scheme to the stabling facilities. The increase of frequency will be implemented in subsequent phases until the maximum is reached. During off-peak hours, the timetable will be adjusted based on different aspects, rail census being one of them.

It is evident that this project is well supported at national, regional and local levels. I have considered this in my Planning Assessment. The need for the increased services is accepted. The phased increase in the frequency of services is a rational approach to the overall delivery of the project.

9.1.18 Community Infrastructure and Severance

Severance was an issue raised by many observers in the written submissions.

The applicant's written response to this issue included:

- Under the 'Do-Nothing' scenario, the ongoing conflict at the road rail interface at level crossings will worsen, increasing congestion levels for all modes (vehicles, walking and cycling) and will cause the greatest level of perceived community severance which would have a negative impact on all populations, particularly vulnerable groups, including the young, old, and people with reduced mobility or disabilities.
- The construction works will result in some temporary diversions across the study area, particularly during works associated with the level crossing replacement works and a number of the rail-overbridge modifications, resulting in temporary road closures. This will create temporary diversions for road users including pedestrians and cyclists during these localised construction phases which will consequently affect the ease of access to social, economic and community facilities including transport infrastructure. Alternative routes/diversions and access to properties will be made available throughout and therefore, there will be no severance.
- Access to community infrastructure and amenities will be maintained as far as practicable during the short-term construction periods.
- Operational stage severance impacts are assessed in Chapter 7 of the EIAR. By removing the road and rail interface at the existing level crossings there will be positive significant long-term effects on journey characteristics, journey amenity, reduced perceived community severance and improvements in safety.
- The proposed modernised electrified rail fleet and capacity enhancements will provide greater access by rail to existing community infrastructure including educational, community, medical, etc. by increasing the

frequency of commuter services at train stations along the Maynooth and M3 Parkway rail lines.

- The project will connect existing and new communities in the vicinity of the rail network and beyond to services, employment and amenities in conjunction with walking and cycling facilities ensuring integration between the rail network and other modes of transport is maintained and communities are supported to grow sustainably.

This issue was also addressed at the Oral Hearing.

The Board will note my considerations in my Planning Assessment.

9.1.19 Anti-Social Behaviour and Safety Concerns at Level Crossing Locations

Extensive numbers of observers have raised concerns about anti-social behaviour and safety due to level crossing closures. The applicant's written response to this issue included the following:

- To combat the increase in anti-social behaviour, IÉ have devised a security strategy which incorporates the proactive support of its security contractor and An Garda Síochána. This security strategy will be implemented across the DART network, including the DART+ West project once operational.
- While it is recognised that isolated incidents can occur, the proposed development is generally located on existing CIÉ land located in Dublin City and suburban locations. As a result, it is unlikely that the proposed development would promote significant additional anti-social behaviour. CCTV is included as part of the design at the proposed Ashtown underpass and at existing Stations, the new Spencer Dock Station and

plaza. These measures will help monitor and deter anti-social behaviour and potential anti-social loitering in these areas

- The complete closure of the level crossings and provision of replacement infrastructure is expected to improve safety and reduce these incidents and safety issues occurring.
- There is potential for anti-social behaviour in the form of trespass and theft to arise on construction sites. All areas will be provided with suitable fencing/hoarding and appropriate security which will be monitored by the contractors.
- The public realm designs shall encourage passive surveillance of public spaces and on transport infrastructure. Detailed design will integrate public safety design measures to reduce opportunities of anti-social behaviour and loitering at Spencer Dock Station, Connolly/ Preston Street, existing stations, and Ashtown underpass and will utilise attractive design measures, lighting and public realm enhancements particularly as part the level crossing replacements works.

Anti-social behaviour is an ongoing concern with the existing rail service. The delivery of the enhanced service will not definitively address these ongoing concerns. However, the development of appropriate programmes, provision of relevant infrastructure and liaison with An Garda Síochána at local level should aid in the minimisation of these concerns. Provisions such as CCTV at stations, suitable fencing, lighting, public realm enhancements, increased footfall with increased services, ease of access to allow reporting of anti-social behaviour, etc. will all aid in the reduction of anti-social behaviour in problematic areas. It is evident that this is a community-wide issue and is not solely an issue resulting from the delivery of the proposed development. Clearly, elements of the

proposed development could potentially intensify such behaviour. However, the range of provisions being made should go some way in the reduction in effects from the project. I submit that the approaches being pursued by the applicant are reasonable. It is reasonable to determine that public disorder is a nuisance which requires a suitable response but a response that the applicant is unequipped to give. Its design and security provisions, however, can aid in minimising and monitoring of the effects of this scheme.

Finally, with the closure of the level crossings, it is my submission that it is apparent that safety at the road / rail interface would improve.

9.2. Area-Based Issues

9.2.1. I note a wide range of issues submitted by landowners and observers within the various defined zones along the route. The written responses by the applicant to these area-based issues are also acknowledged. The majority of these issues were also discussed in some detail at the Oral Hearing.

9.2.2. Zone A and Zone B Issues

Property Impacts and Valuation

At properties where new or replacement overhead electrical poles attached to the existing viaduct are to be constructed, the property owners are concerned that the Railway Order may result in CIÉ seeking to acquire part of their property which will reduce the footprint of the property or otherwise negatively affect its value.

The applicant has submitted that at these locations the acquisition of a Right of Way and lands for the construction of a pole are proposed. The permanent

acquisition of property is limited to the acquisition required to allow for the construction of the overhead line electrification pole mounted to the existing rail viaduct. Permanent land acquisition at ground level is not proposed at these properties as part of the Railway Order. With regard to valuation, the applicant submits that, if the Railway Order is confirmed, compensation will be addressed in accordance with statute and Compulsory Purchase practice and procedure as and when statutory notices are served.

Regarding the provision of electrical poles, it is noted that the acquisition is to facilitate the construction of these electricity poles. The poles would be mounted to the rail viaduct. There are no proposals to permanently acquire lands from property owners at ground level and the rights of way being sought are to allow construction, access, maintenance and repair. The provisions being made are essential to the delivery of the project. Regarding the matter of compensation, I note that there is no role for the Board in determining the matter of compensation following the approval of a Railway Order.

Disturbance of Vermin and Pests

Concerns have been raised that the construction works and running of trains will dislocate vermin and other pests who may seek to relocate to their property.

The applicant noted that the proposed DART+ West will not be creating any new railway lines in the city centre area and will only result in increased frequency. It is further submitted that the contractor will be required to prepare a Construction Environmental Management Plan which will address the construction management on the site.

I acknowledge that the proposed development would apply to an established railway network within the city. There is no particular reason why problems with vermin would intensify. Good work practices should ensure that adequate controls and procedures are put in place.

Privacy

Concerns have been expressed in written submissions that once the works are complete, the increased frequency of passenger trains passing alongside properties will negatively affect privacy. This matter was also referred to in submissions at the Oral Hearing.

The applicant submits that the locations adjacent to the existing railway viaduct within the city centre currently experience significant passenger train movements. Accepting that these movements would be more frequent, it is suggested that they will not have any greater height or increased visual access to the property.

The first observation that must be made is that the routes of the proposed development within the city follow established railway lines. The main line in the North Strand area is on an embankment and is a busy commuter and inter-city route, i.e. the Dublin-Sligo line. There is a separate section of existing line on an embankment forming a spur aligned to the rear of Northbrook Avenue and Northbrook Terrace and coming close to properties also at Strandville Avenue and Bessborough Avenue. This would lead to the new Spencer Dock station. This spur is used at present by freight trains. The proposed development would introduce regular passenger trains. The proposed increase in services along the section of line in the North Strand area in the vicinity of Bessborough Avenue, Strandville Avenue, and Northbrook Terrace is a concern to residents. I

particularly note the submissions by Kenneth Pierce and Beatrice Vance at the Oral Hearing and the clarity of information provided which demonstrated the proximity of the railway line to these properties and to the likelihood of a significant impact on privacy arising from increased passenger services at these locations. While accepting that there would be an increase in services along the main Dublin-Sligo route arising from the proposed development, it is not anticipated that there would be greater degrees of visibility from trains to properties adjoining that line.

Regarding the impacts on properties from the spur leading to Spencer Dock in the North Strand area, including those of Kenneth Pierce and Beatrice Vance from Northbrook Terrace, I first acknowledge that they have submitted that they are used to train line works at day and night-time at this location. Rooms at first floor level in these properties are at rail level and they are only a couple of metres back from the railway line. I understand the concerns arising from the change to passenger trains on the line, the substantially increased level of service, the potential for overlooking, and noise and health concerns. The electrification of the line and change to a passenger line would bring with it significant changes for the occupants of these properties. These residents seek track form change to lessen noise impacts and request consultation on how to address overlooking and the avoidance of the potential for trains to be sitting outside their properties while waiting on the approach to the station.

The applicant has submitted that it does not propose to change the track form at this location. It would remain a ballasted track on an embankment with masonry walls on either side. It is submitted that this location does not meet the threshold where a noise barrier is required. It has been suggested that a translucent screen could be provided to help address concerns. I acknowledge that vegetation is proposed to be retained along the track corridor which would aid in addressing

overlooking concerns from the more distant train track (Dublin-Sligo line) at this location.

I note that some residents in this location are not affected by way of compulsory purchase of any part of their properties but would be affected by the introduction of the passenger services and the impact this brings. I note also that the applicant accepts that there would be a substantial change to the noise environment for the residents given the regularity of passenger trains proposed. I accept that the change to passenger trains and the proximity of the rail line to the properties would bring significant change and potential nuisance by way of noise, disturbance and overlooking from passing trains (and potentially sitting trains). Addressing these concerns is problematic at this location. Seeking to raise the masonry wall along this section or providing an opaque screen above the wall to prevent overlooking would cause difficulties resulting in overshadowing and loss of light to the residential properties close to the line. This is not desired by the residents either. Provision of a translucent screen along sections at this location could enable light to pass through while obscuring views into these properties. Such screens would also obscure views from the properties, which would not be desired by residents also. These screens would require to be kept clean for them to function appropriately and the long-term maintenance could prove to be an issue of concern. There are no proposals to change the track form, with the applicant proposing to retain the ballasted track form throughout. Ultimately, there are no easy solutions to the issues of noise and loss of privacy without introducing some type of barrier that would produce different problems for the properties.

The Spencer Dock station and the delivery of increased passenger train services are an integral part of the proposed project. These bring with them significant impacts on residential amenity at this location. One must again note that this is a long-established rail line and its use as a rail line, whether for freight or

passenger traffic, must reasonably be accepted in principle, in my opinion. There should be a mechanism in scenarios such as this where the applicant is required to engage with property owners and agree on what can and cannot be reasonably achieved to minimise impacts. The Board could attach a condition requiring the applicant to directly engage with property owners along this spur with the aim of providing an agreed approach to delivering a practical agreed programme to reducing impacts. It is my understanding that the residents seek such engagement and have been somewhat disappointed in the lack of engagement to date. The role of the applicant's Community Liaison Officer (as the person to whom the community engages with in matters pertaining to maintenance) is particularly relevant at the operational phase and community engagement to deliver on agreed practical responses to the issues at this location would be important in seeking to meet residents' basic needs to allow occupancy to be maintained with a reasonable standard of residential amenity.

9.2.3. **Zone C Issues**

The Option Selection Process and the Lowering of the Railway Line at Ashtown

Lowering of the railway line at Ashtown in place of closure of the level crossing is requested by a number of observers.

The applicant's response to this request may be synthesised as follows:

- The Multi-Criteria Analysis (MCA) technique used to inform the option selection process that has been applied to determine the end-to-end preferred option of the proposed development has been informed by the Common Appraisal Framework (CAF) for Transport Projects and Programmes. The CAF Guidelines require projects to undergo a MCA under a common set of six CAF criteria referred to as parameters. The

assessment undertaken is of a comparative nature (options compared against each other), leading to a Preferred Option. A comparative assessment was undertaken for each option developed, where in general, for each positively scored option there must be an opposing negatively scored option.

- Stakeholder engagement and consultation during the design process and development of alternatives was a key element to the delivery of DART+ West. After each stage of public consultation all options were re-evaluated in light of submissions received from the public and stakeholders. In many instances the review led to alternative options emerging as preferred from the selection process.
- An extensive list of options was considered as part of the multi-criteria analysis for option selection at Ashtown. Additional options were added as feedback was received from the non-statutory public consultation process. The final list of options amounted to 13 in number in addition to the Do Nothing and the Do Minimum options. The analysis was carried out in two stages.
- The option of lowering of the railway vertical alignment (Option 9) was analysed during the Ashtown level crossing replacement option selection process. Option 9 had a significant disadvantage over other options due to its construction-related impacts on sensitive noise and air receptors, and the potential impact to water quality of the Royal Canal pNHA. Option 9 also had a significant disadvantage over other options in terms of economy due to the cost and difficulties associated with constructing the rail line below the level of the canal in such close proximity.

I first note that the delivery of that part of the project to be undertaken in the Ashtown area appears to have been subject to more assessment and review than any other area along the length of the route corridor. This has included several public consultations, the consideration of many options, and the undertaking of several assessment processes. In many ways, the assessment process at this location has almost been exhaustive. The lowering of the track (Option 9) was assessed by the applicant and has been dismissed. I acknowledge the environmental and other impacts that would result from the lowering of the railway line on the approach, within and beyond Ashtown to deliver on the lowering of the railway line.

In response to many submissions to the applicant and to several public consultations, the applicant proposes an underpass, road improvements, and a pedestrian/cycle bridge at Ashtown, as well as a level crossing closure. It is evident that not alone is the railway to be served at this location by closure of the level crossing but all road users are proposed to be accommodated by new infrastructure in Ashtown. This is in contrast to Coolmine and Clonsilla, for example. The underpass intends to accommodate motorised vehicles, pedestrians and cyclists and yet a pedestrian / cycle bridge is also proposed.

It is my submission that the applicant's approach to facilitating all road users by its proposals at Ashtown is in stark contrast with other locations. Its approach and conclusions on option selection have been adequate and the selection of the preferred option is understood. The underpass provision could reasonably be seen to erode a need for a pedestrian/cycle bridge at the level crossing, although the bridge provision is accepted to address severance and community need. It may be determined that a simple pedestrian bridge may suffice which could be accommodated over the railway line in the vicinity of the station / level crossing. However, with due regard to the degree of assessment of alternatives undertaken and the need for an alternative vehicular crossing, it is considered

that the full range of infrastructure proposed is acceptable. Improvements by way of the provision of lifts are welcome.

It is acknowledged that the various changes to the emerging preferred options through the process would have profound impacts on several properties. Thus, for example, in seeking to minimise impact on the Ashtown Stables property and by seeking to deliver a tunnel to the west of Ashtown Road to avoid Martin Savage Park because of its importance as a feeding site for Brent Geese, business premises such as Burkes Bros are to be profoundly affected by the preferred option. While the comprehensive options assessment process for Ashtown is acknowledged, it is also noted that the choices in minimising land take impacts or environmental impacts at particular locations have the impact of effectively dissolving a business premises elsewhere.

Impact on Brent Geese at Ashtown Stables

I note that a number of concerns have been raised in relation to the use of the paddocks at the Ashtown Stables by Light-Bellied Geese and the impact of the proposed development on the species and their habitat. It is also queried as to why the inland feeding sites were contained in a confidential set of drawings.

The applicant's response to these issues may be synthesised as follows:

The use of the paddocks at Ashtown Stables by Light-bellied Brent Goose

- The use of inland feeding sites by Brent Goose is referenced in the EIAR Biodiversity Chapter. The inland feeding sites are presented in the Natura Impact Statement (Appendix F). The inland feeding sites were identified from the desk study, in particular the results of a Dublin-wide Brent Goose Survey. The main source of the locations of inland feeding sites for the study was provided by the Irish Brent Goose Research Group. Since the

lodgement of the draft Railway Order application, another Dublin-wide Brent Goose Survey was published. No additional inland feeding sites are identified in the vicinity of Ashtown Stables.

- Martin Savage Park (playing fields) is assessed as being of 'Major' Importance for brent geese, with a peak count of 835 birds recorded during the 2011/12 season, and more recently a peak count of 565 in the in the 2016/17 season. More recent surveys confirm the importance of Martin Savage Park (playing pitches) as an inland feeding site for Brent Geese. All suitable inland feeding sites within 550m of the proposed development were considered in the assessment.
- The use of the paddocks at the Ashtown Stables by Brent Geese was highlighted in submissions at public consultation no. 2 and investigated by Iarnród Éireann. A desk-based assessment was undertaken to assess the suitability of the grasslands at the Ashtown Stables for Brent Goose. The suitability of inland feeding sites by Brent Goose depends on a number of factors. Studies have shown geese to preferentially select grassland with sward heights of approximately 6 cm. Other factors determining the suitability of an inland feeding site include the size of grazing area, type of grassland management, visibility and disturbance. Brent Geese prefer large, open sites where they have clear sightlines. The need for safety is more important than food supply in influencing where geese feed, with birds feeding mostly in large, open areas and avoiding closed situations or sources of frequent disturbance such as at the Martin Savage Park playing fields. Although it is not disputed that Brent Goose may use the grasslands at the Ashtown Stables from time to time, it is considered that the Ashtown Stables lands do not provide what is considered suitable inland feeding habitat for Brent Goose. The site is approximately 50m x

150m, intersected by fences and surrounded by treelines on all but the north side thereby not providing the desired security and visibility.

- Mitigation is provided for potential impacts on Brent Goose in Section 8.9.3.7 of the EIAR Biodiversity Chapter. This addresses potential disturbance during construction and the potential for collisions with OHLE during the operational phase.
- In relation to habitat loss at the Ashtown Stables lands, the proposed development will result in minimal land take along the edge of the site, which will not change the overall character of the grassland and not diminish its suitability as a potential feeding site for Brent Goose.

Queries regarding the reasoning that the inland feeding sites were contained in a confidential set of drawings.

- In the meeting held with the NPWS in April 2022, the NPWS requested IÉ that the locations of protected species be provided in a confidential appendix to the EIAR. This request is documented in Vol. 2 Chapter 8 Biodiversity, Section 8.3.8, Table 8-4. As the body with responsibility for nature conservation, this request was adhered to and the published EIAR therefore did not contain drawings relating to protected species including badger, otter, amphibians, and the locations of inland brent geese feeding sites. The locations of the inland Brent Geese feeding sites used in the assessment, which is already in the public domain and not considered sensitive data, were published in Appendix F to the Natura Impact Statement (NIS).

Direct mortality of certain species which goes against EU law in relation to Brent Geese.

- Direct mortality is listed as a potential impact on protected species, including Brent Geese in the EIAR Vol. 2 Chapter 8 Biodiversity Section 8.8.2.2. Reference is made specifically to Geese and their vulnerability to collision with OHLE. Without mitigation measures, it is stated that this impact could lead to a permanent significant negative impact at the international level. Vol. 2 Chapter 8 Biodiversity Section 8.9.3.7 of the EIAR presents the mitigation measures for Birds, including design level measures such as the avoidance of cables on structures, and the provision of deflectors in sensitive areas including adjacent to Brent Geese inland feeding sites. The EIAR Vol. 2 Chapter 8 Biodiversity Section 8.10, Table 8-28 presents the impacts following the application of the mitigation measures. The impact of collision risk to birds including Geese is stated as a permanent imperceptible negative impact at the international level. Research has demonstrated the efficacy of deflectors at significantly reducing bird strike, and as stated in the NPWS submission on the proposed development “Line marking has become the preferred mitigation option in such situations worldwide”.

I note that this issue was also discussed at the Oral Hearing. Further to this, I note that an update to the applicant’s Natura Impact Statement was submitted and this made specific reference to the use of Ashtown Stables paddocks by Brent Goose. The applicant repeated its considerations set out above and submitted that the loss of c. 3% of the habitat at the southern end of the paddock, constituting poor quality Brent Goose habitat, and temporary disturbance of habitat during the construction phase would not constitute an adverse effect on European sites.

I first submit that the observers have not provided any information to confirm that the lands at Ashtown Stables are regularly used by Brent Goose. I then note the

small land take proposed at Ashtown Stables and there is no evidence to suggest that this would affect any use of the land for foraging by Brent Goose. I do not consider that there are significant concerns relating to the impact of the proposed development on Brent Goose at Ashtown Stables and I cannot comprehend how the proposed development could, therefore, have any adverse effect on any European site or its conservation objectives.

The applicant's explanation that the NPWS requested that IÉ provide the locations of protected species in a confidential appendix to the EIAR is accepted. I understand that this was done on the request of NPWS in order not to deliberately reveal sensitive locations for protected species.

I submit that the applicant is proposing to provide suitable mitigation measures to address potential direct mortality for Brent Goose along the corridor, including in the Ashtown area.

Impacts on Bats at Ashtown Stables

Observers have made submissions on the presence of bats, including Daubenton's bat roosts, at the Ashtown Stables.

The applicant submits:

- There will be no direct impact on any buildings on the Ashtown Stables property.
- Scheme-wide mitigation measures in relation to bats, including Daubenton's Bat, are presented in Section 8.9.3 of the EIAR, including mitigation measures relating to light pollution, provision of bat boxes, planting, and provision of ponds and wetlands.

In response to the third party submission, I first note that there is an established functioning railway line and station at Ashtown. I also note that there are a number of old structures in the vicinity of the railway line and I acknowledge their potential as bat roosts. I acknowledge the sensitivity of Daubenton's Bat to light, their feeding over waterbodies and the alignment of the Royal Canal adjoining the railway line. I then note that there would be no direct physical impact on structures at Ashtown Stables. I acknowledge the applicant's proposed mitigation measures. I do not consider that the proposed development has the potential to significantly impact on Daubenton's Bat at Ashtown.

Impact on Horses and Stables

A large number of observations have been submitted in relation to the impacts of the proposed development on Ashtown Stables. Concerns include the reduction of grazing land at the stables, construction works threatening the safety of the horses, people, and the enjoyment of this amenity, construction works rendering the stables inoperable, and the proposed planting schedule and oak toxicity to horses.

The applicant's response to these concerns may be synthesised as follows:

- The Railway Order will involve total land take of 0.1686ha from this property of 1.2ha. Land take is comprised of 0.0426ha permanent agricultural lands, 0.0211ha temporary agricultural lands and 0.1049ha temporary public road. During certain construction activity, it may be prudent to restrict access to the horses and ponies to the paddocks but this is very manageable and no different than the management used when paddocks are sprayed, harrowed or even in inclement weather. When construction activity is complete, a 3.5% reduction in available paddock land is of slight significance.

- The significance of the impact is deemed by the applicant to be 'Moderate'. It has considered the impact of land take, the reduction in the area of agricultural lands and the temporary construction impacts on the operation of the equine enterprise. Mitigation measures are set out in Section 16.6 of the EIAR and include the reinstatement of temporarily acquired lands, boundary treatment and construction work mitigation. The significance of the residual impact, following the implementation of mitigation measures and the completion of construction works, is deemed to be 'Not Significant'.
- The construction works will likely generate significant nuisance due to the scale of the significant infrastructure works required during the associated construction durations. However, these effects will be temporary and short term in nature. Prior to any demolition, excavation or construction, a Construction Environmental Management Plan (CEMP) will be produced. The CEMP will set out the Contractor's overall management and administration of the construction project. The key environmental aspects associated with the construction of the DART+ West project, the appropriate mitigation and monitoring controls are identified in the CEMP.
- Ashtown Stables is located in a busy urban setting. The sand arena is adjacent of the main Sligo - Dublin railway line with a variety of rail traffic and associated wide range of visual and auditory stimuli. Ashtown Road (L3101) passes in close proximity to the sand arena and when the level crossing is currently closed to traffic, there is significant traffic queueing with a variety of engine noises and exhaust fumes. The horses and ponies that are used to provide the trekking experience in the Phoenix Park have to travel a distance of approximately 550m involving a journey along the Ashtown Road, crossing the N3 and traversing the R806 to access the Phoenix Park. The horses and ponies resident in Ashtown stables have

shown remarkable adaptability to date and would be expected to continue to adapt. These horses and ponies live and work in an urban landscape with continually changing visual and auditory stimuli. They have been bred over many generations to deal with the hustle and bustle of urban living. They have been excellently brought along by the experienced horsemen and women in Ashtown Stables and with the continuation of the skilled management of horses and ponies in a continually challenging environment, the current horses and ponies in Ashtown Stables will adjust to the new stimuli associated with the construction activity as they have done so many times before. In relation to the works associated with the underpass there is significant anecdotal data that shows that it is the combination of noise and visual stimuli which have the most profound impact on sudden unpredictable equine behaviour. The old mill, ancillary buildings and stable complex are very well located to minimise the construction activity at the northern end of the proposed construction works and the two areas that are exposed are the proposed roundabout at the southern end of Mill Lane and the proposed footbridge and Ashtown Road redevelopment at the north-eastern aspect of the sand arena. Appropriate screening has been shown in previous infrastructural construction projects to be effective at reducing or even minimising the visual and aural stimuli which could have the potential to have adverse impacts on equine activity and behaviour. Piling activities associated with the construction of the proposed footbridge at Ashtown Station can be scheduled in advance with Ashtown Stables to take place on certain days and times to mitigate the impact. These phases of work are not continuous and often will take place over weekends or by arrangement.

- Oak toxicity in horses is uncommon but possible. Oak trees are a common sight in Ireland and often present in traditional equine thoroughbred farms. The parts of the tree that can cause trouble are the immature leaves that

appear in the spring, and green unripe acorns, which have the highest level of toxins. The leaves and acorns that fall in the autumn are not as toxic and horses tend to stay away from them. Horses would have to eat these leaves and acorns steadily over days to weeks to experience toxicity. However, in an abundance of caution the planting schedule in immediate proximity to Ashtown Stables and other established equine holdings will avoid the use of English Oak and Pin Oak.

I first submit that the permanent land take associated with the proposed development would have a minimal impact on the operation of the stables at the operational period of the railway project. The land take would result in the acquisition of approximately 3.5% of permanent agricultural lands. The remaining land take would be temporary and would be returned to the stables' operator after construction of the project is complete at this location. The impact could not reasonably be seen to be significant and observers' concerns appear misplaced. I, therefore, concur with the applicant's conclusions.

I understand the concerns about the construction impact of the proposed development on horses and the degree of sensitivity that would arise. However, the stables are sited immediately adjoining a functioning railway line and it must be accepted that there has been, and continues to be, a degree of adaptability to the urban setting and an established railway line and nearby railway station. I further note that the stables have been a facility in this location for many years. I also observe that Ashtown is a location that in recent years has been subject to significant urban development in the immediate vicinity of the stables, in particular immediately north of the railway line. This again demonstrates that the environment in which the equine premises is located has been subject to extensive construction activities associated with the development of this urban centre.

The works proposed at Ashtown, including a new tunnel, bridge structure, OHLE, etc., are integral to the delivery of the proposed railway project. The construction of the proposed development would have significant impacts on people living in the immediate vicinity of the railway line, on businesses adjoining the tunnel, on biodiversity (birds, bats, etc.) at and in the vicinity of the Royal Canal, as well as on animals (including horses) who occupy the agricultural lands in the vicinity of the railway line. To build the proposed development at this location would result in disturbance to many, including horses at the stables. However, the construction of the development at this location, while extensive and intense, would be short-term. Further to this, the applicant is seeking to provide mitigation measures to minimise the impacts of the construction phase on people, birds, bats, and other animals, including horses. Many of these measures are founded upon good construction work practices. Many would be used in major infrastructure developments throughout the city and beyond.

I submit to the Board that there would be periods of intense construction activity at Ashtown which would result in significant nuisance and disturbance to many and that the applicant is seeking to apply measures to minimise impacts. The management of the stables' facility would have to make changes to its current operations at times of greatest disturbance to horses during the construction period in the same way that occupiers of houses adjoining the works would likely be required to so do to adapt at times of significant disturbance, such as during piling works. I submit that the construction of the proposed development should be subject to the measures proposed and that the adaptability of the CEMP to meet specific needs of property owners in the vicinity of the works, together with timely notice on the nature and extent of intense construction activities, is paramount to minimising impacts on people, businesses, and animals, including horses.

Regarding oak toxicity, it is clear that the applicant, in revising the planting schedule at this location to eliminate the planting of oak in proximity to the stables, has addressed this concern.

Loss of Trees and Vegetation at Ashtown

Observations have been submitted alluding to tree and hedgerow removal from the southern portion of Ashtown Stables and along Ashtown Road, the need for mitigation for protected species, and the landscape and visual impact caused by the removal of trees on Ashtown Stables, Ashtown Mill and Aston House.

The applicant's response may be synthesised as follows:

- An underbridge is proposed at Ashtown which will result in the loss of one hectare of agricultural and built land and approximately 400 m of treelines/hedgerows. To facilitate the construction of the underbridge and aqueduct, approximately 50 m of canal will be dewatered. Mitigation measures include measures to avoid or reduce the impacts on birds, bats, mammals and their habitats. The landscape mitigation drawings, Volume 3A Landscape and Visual Amenity, Drawing: MAY-MDC-ENV-ROUT-DR-U-15108- D show the landscape plans for this area which includes planting of trees to compensate for habitats to be removed.
- The loss of trees and hedgerows is acknowledged in the EIAR. The sensitivity of the streetscape / townscape in this local area of Ashtown is 'high'. The magnitude of change will be 'very high' and the likely effects in the construction phase will be very significant, negative, short-term. Replacement planting will be provided to mitigate the loss of this vegetation. Trees and hedgerows to be retained will be protected. Drawing number MAY MDC LAN ROUT DR U 15108 D Sheet 9 of 42 in Volume 3A

of the EIAR shows the proposed landscape mitigation at Ashtown. Prior to commencement of the works an Arboricultural Impact Assessment will be produced for the area of the proposed development.

The development as proposed at Ashtown cannot be provided without the loss of trees and vegetation. The applicant seeks to remove the trees and vegetation necessary to provide the infrastructure that is integral to the scheme and to retain trees and vegetation where possible. The applicant seeks to compensate for the tree and vegetation loss by providing landscaping and replacement planting. I note the proposed revisions to the bridge design submitted at the Oral Hearing. This would reduce the overall footprint of the structure, with a reduction in the bridge and ramp length by 58m. As a consequence, there would be a reduction in the loss of a treeline on the south side of the Royal Canal by approximately 15m. I submit that the delivery of the tunnel is accepted as part of the scheme and that the loss of trees and vegetation along this tunnel corridor, together with a period of dewatering of the canal, is inevitable if the tunnel component of the scheme is to be delivered. Finally, I am not aware that the trees, hedgerows and other vegetation in the Ashtown area are recognised as being of particular amenity value which would merit their protection and retention. The development plans for this location do not afford any particular protection to the vegetation of this location.

Anti-Social Behaviour in the Underpass

A large number of observations refer to concerns about anti-social behaviour that would occur in the proposed underpass at Ashtown.

The applicant's response may be synthesised as follows:

- The safety concerns raised by the public during the public consultation stages have been considered as part of the design of the underpasses. Every opportunity has been taken to make the environment of the underpass visually open and sympathetic to the local environment. Specific measures include providing enhanced vertical clearance where practicable through the structure and widening and opening the southern approach to the underpass to the maximum degree practicable with a 1 in 3 batter provided east of the road approach. The degree to which visual openness can be achieved is curtailed by the close proximity of the Mill, Ashton House Lodge and the newer commercial development on the northern approach to the underpass.
- Public lighting will be required on the road and this will be carried through the underpass. It is also proposed that CCTV cameras be installed at the underbridge with oversight by Iarnród Éireann personnel. These measures will help monitor and deter anti-social behaviour and potential anti-social loitering in these areas. Additionally, a number of mitigation measures is to be provided, including:
 - Design and maintain landscaping and public realm infrastructure that promotes safety for all users and create a sense of place.
 - At detailed design stage, the design team will ensure safety is integrated into the design and maintenance of public spaces with a focus on promoting a sense of safety and comfort for all users particularly the young, old and people with disabilities.
 - The public realm designs shall encourage passive surveillance of public spaces and on transport infrastructure, e.g. through appropriate lighting, pleasant surroundings and design that discourages anti-social behaviour, graffiti, etc.

- As far as practicable measures shall include the use of active and passive surveillance measures, consultation with An Garda Síochána and the respective local authority at the detailed design stage, and appropriate safety lighting on bridges and cul-de-sac at closed level crossings to ensure safety of all road users.

I consider that it is understandable that there would be anti-social behaviour concerns related to the proposed tunnel and the closure of the level crossing. However, it is clear that the applicant is aware of these concerns and appropriate design measures are being proposed in response to the concerns. In the event of anti-social behaviour being a regular issue, a suitable response to curb such activities would rely upon policing controls. Ultimately, the latter would be beyond the scope of this project.

Mitigation of Cultural Heritage at Ashtown

There have been a number of concerns raised about the impact of the proposed development on cultural heritage in the Ashtown area.

The applicant's response may be synthesised as follows:

- The principal impacts on architectural heritage at Ashtown relate to the demesne of Ashton House, the gate lodge at Ashton House, Ashtown Mill and the Royal Canal. There will be a profound effect on the gateway to Ashton House and part of the demesne wall due to the alignment of the proposed new road and a construction compound is to be located within the grounds. This will also have an impact on the setting of the gate lodge. This impact will be mitigated as far as is possible through the careful dismantling of the wall and gateway and their reconstruction in

accordance with best conservation practice. The residual impact will, however, be very significant.

- The cutting for the proposed underpass beneath the canal at Ashtown will pass close to the disused oil mill at Ashtown and will cut through the site of the former millpond, now backfilled and in use as a car park. This will have a very significant effect on the site of the millpond and the new road will also have a moderate effect on the setting of the rear of the mill.
- The construction of the proposed road will necessitate the closure of a section of the Royal Canal at Ashtown with a very significant impact on the canal during construction. The canal will be fully reinstated resulting in a moderate negative impact.
- In relation to the Ashtown Stables, the buildings on the property are not included in the Record of Protected Structures (RPS) nor in the National Inventory of Architectural Heritage (NIAH). The proposed development would have no direct impact on the buildings.

The Board will note my considerations in my Planning Assessment as they relate to impacts on architectural heritage, including Ashton House and gate lodge. I do not propose to repeat these considerations. I note that the proposed development would not have direct physical impacts on Ashtown Stables or Ashtown Mill. I note that the stables do not comprise a protected structure and they are not listed in the NIAH. The provision of the tunnel would likely have some impact on the setting of mill and its curtilage but its existing context must be understood. The delivery of the underpass is likely to improve the physical context for the mill over that which exists at present. Regarding the impact on the canal, it is apparent that the dewatering and other works at the canal are necessary to deliver the project at this location. The impacts would be short-term

and the canal would be reinstated. With the exception of the impacts on Ashton House and gate lodge, I do not consider that the proposed development would significantly impact on architectural heritage in Ashtown.

Increased Traffic Congestion

I note the observer concerns relating to the impact of the level crossing closures on traffic congestion in the Dublin 15 area and on the impact of the level crossing closures on the ability of emergency services to respond.

The applicant's response to these issues may be synthesised as follows:

- The majority of junctions around the rail line are inadequate for the volume of traffic using them and do not have adequate provision for vulnerable road users. From a level crossings perspective long closures of barriers cause long delays for vehicular traffic and queuing vehicles grid lock all junctions around them, which in turn also have an impact on emissions, noise and air quality in the local environment.
- By eliminating level crossings, the congestion at adjoining junctions due to level crossing barrier closures is removed, significantly improving air quality around those areas. Furthermore, by eliminating level crossings, vehicular traffic is removed or significantly reduced from those roads, thereby creating safer routes for vulnerable road users.
- The new designs for junctions impacted provide for increased capacity to cater for the re-distribution of traffic and improved facilities for pedestrians and cyclists, in particular around schools and train stations, which will significantly improve the quality of local journeys for local communities.

- The existing level crossings will not be closed until capacity improvements on other routes is completed. Much of the capacity enhancement works can be constructed off-road while maintaining traffic on the roadway. This will facilitate phased capacity enhancement prior to the implementation of road closures.
- The Contractor will be required to ensure access for emergency vehicles at all times during construction. During the operational phase access by emergency services to the north and south of the rail will be maintained. Ambulance services from Connolly Hospital Blanchardstown will continue to be able to access emergencies to the area north of the rail via the N3 and R843 / Ongar Distributor Road and to the south of the rail via the N3 and Navan Road. Access for fire services from Blanchardstown Fire Station to the south of the rail line will be via the Diswellstown Road or the Castleknock Road. Capacity enhancements are proposed on the local network to facilitate diverted traffic and to ensure access.

The Board will note my considerations in my Planning Assessment as they relate to traffic impacts, notably in relation to road improvement works. I have concluded that the network changes are necessary to help reduce congestion at the junctions in the vicinity of the proposed level crossings in the Blanchardstown area and I have noted that Fingal County Council, as the Roads Authority, are supportive of the changes proposed to be made. While traffic congestion is likely to increase as vehicular traffic is required to seek alternative crossings over the railway line, the applicant is proposing reasonable mitigation measures, agreed with by the Roads Authority, to limit these congestion impacts.

Regarding emergency vehicles, it is reasonable to observe that they would not be in any way more affected than other road users by the proposed development

in the Blanchardstown area. Following level crossing closures, established and new links would be available in the same manner as with other road users.

Community Severance due to Level Crossing Closures

This issue was raised by a large number of observers in this area.

The applicant's response included:

- Due to the 24/7 access that will be permitted by the replacement infrastructure across the level crossing locations there will be improved access for the community travelling by foot and bicycle which will not be restricted by the level crossing closures. Routes and journeys by vehicles will be changed which may result in lengthening of journeys resulting in perceived severance. However, access to all properties and communities will be maintained.

The Board will note that severance has been addressed in my Planning Assessment.

Road Safety at Junctions

This issue was raised by a large number of observers.

The applicant's response included:

- The proposed junctions will be designed as signalised protected junctions, based on the recommendations included in the NTA Preliminary Design Guidance Booklet, September 2020 and which was developed for the

BusConnects Programme and is being implemented across the proposed BusConnects Core Bus Corridors. This promotes the hierarchy of movement through the junctions with pedestrian and cyclist safety at the forefront.

- A Road Safety Audit Stage 1 was undertaken on all major interactions with the existing road network. Only minor amendments were required to address any minor observations raised.

The Board will note my considerations on the proposed road improvement works in my Planning Assessment.

Cycling and Pedestrian Facilities at Castleknock Bridge

Some observers have requested provision of cycling and pedestrian facilities at Castleknock Bridge.

The applicant's response included:

- The provision of cycle and pedestrian facilities on the bridge is outside the scope of works of the DART+ West project. The pedestrian and cyclist facilities on approach to the bridge have been designed to future proof any future Phoenix Park Cycle Route without prejudice its possible location and design.
- The proposed structure is designed with the same current width, 9.15 m between parapets, like the protected Granard Bridge crossing the Royal Canal.

I first observe that there are proposed changes to be made to the road network in the vicinity of Castleknock Bridge as part of the road improvement works programme. It could reasonably be determined that changes should be undertaken at this stage in relation to pedestrian and cyclist provisions at the bridge in a similar manner to that proposed at Cope Bridge. However, it is apparent that there is no definitive understanding of the plans for the cycle network at this location. I acknowledge that there is an established footpath network at this location and cyclists are required to share the road with other users.

Flooding at the Underpass and at Martin Savage Park

Observers have raised concerns about management of flood risk in the vicinity of the proposed Ashtown underpass, while residents in Martin Savage Park refer to concerns about the likely effects of the proposed development on existing flood risk.

The applicant's response may be synthesised as follows:

- The proposed tunnel at Ashtown is outside the floodplain of the river Tolka. Subsequent to the Tolka flooding in 1954 significant modifications have been made to the main channel floodplain and estuary to reduce flood risk throughout the catchment. Flooding (in a 1 in 1000 year event) from the Tolka is ~80m away from any works proposed for the DART+ West project. As such, fluvial flood risk is estimated to be low at this location.
- A new carriageway drainage network is to be provided and connected to the existing surface water drainage network. The preliminary design assessment of the existing and proposed surface water drainage networks

has found that the proposed drainage will be able to discharge by gravity to the existing surface water drainage network to the north. The carriageway drainage network has been designed in accordance with the appropriate standards to remove excess water from the carriageway for a specified storm duration and prevent ponding or additional rainwater collecting at the bottom of Mill Lane. Following completion of the works, the carriageway and associated infrastructure will be handed over to the local authority for operation and maintenance.

- Regarding the existing flooding at Martin Savage Park, information contained within the SSFRA was collated from various sources including the OPW's record of historic flood events and consultations with Dublin City Council drainage division. No indication of flooding at Martin Savage Park was presented in the consulted sources. The flooding appears to be derived from deficiencies in the surface water drainage network within Martin Savage Park. Irish Rail will liaise with Dublin City Council during the detailed design stage to confirm cause of flooding and facilitate remedial measures by Dublin City Council.

I first note that there is no information provided by observers to determine that the proposed underpass would result in increased flood risk at that location. The applicant has referenced long-established works to address flooding of the Tolka River and has noted the separation distance from the flood plain. I have no reason to determine that there would be an increased flood risk in the vicinity of the underpass.

I acknowledge the proposed surface water drainage provisions being made at Ashtown. The planning authorities have raised no particular concern about the

provisions being made or about any increased risk from storm water management.

Regarding Martin Savage Park, there is no information submitted by observers which demonstrate that surface water-related issues at this estate arise from flooding. The applicant has referenced problems with the surface water drainage network. Addressing existing problems with the public drainage network is a responsibility of the local authorities.

9.2.4. **Zone D Issues**

There are no common issues within this zone.

9.2.5. **Zone E Issues**

Location and Scale of Substation at Leixlip Convey

Significant numbers of observers in the Leixlip area have raised concerns relating to the location and scale of the proposed Leixlip Confey substation, including the loss of the open space on which it is intended to be located and the associated visual impact.

The applicant's response may be synthesised as follows:

- Two alternative locations were assessed using the Multi-Criteria Analysis technique informed by the Common Appraisal Framework for Transport Projects and Programmes. The preferred option for the location of the proposed substation at Public Consultation 2 was southwest of existing canal bridge (Leixlip Confey Bridge). However, following further design development and discussions with ESB, the preferred option location had

to change to accommodate ESB design requirements. Due to the unsuitability of this site, the preferred option was then identified as being south of the railway, to the east of the existing Leixlip Confey Station and OBG14 (Cope Bridge) on the amenity lands within the Glendale area.

- The size of all substations has been optimised to suit all electrical equipment needed to electrify the line. This includes transformers, a generator, UPS and batteries, staff facilities, etc.
- The design of the layout and access along with the landscaping proposals have been cognisant of the value of all green space to the residents of Glendale. Furthermore, following discussions with ESB a pathway around the substation building perimeter is required for substation access and maintenance. In other proposed substation locations, exceptions to reduce this pathway have been sought due to the limited area around the building.
- Specific mitigation measures to reduce the visual impact of the substation have been included in EIAR Chapter 15 Landscape and Visual Amenity, Section 15.6.3.

The Board will note that I have assessed this issue in my Planning Assessment. I accept that the siting of the substation outside of the applicant's landholding has been justified. There are specific access and safety needs to be met and these can be met within the existing open space area. Appropriate screening is proposed to minimise the visual impact arising.

Cope Bridge - Excessive Bridge Design and Impacts on Traffic and Biodiversity

Observers have raised concerns about the excessive bridge design for Cope Bridge, including the cycle lane design, the impact on traffic congestion as a result of the two-way traffic, and the loss of biodiversity.

The applicant's response may be summarised as follows:

Excessive bridge design (including cycle lane design)

- Deck reconstruction of OBG14 (Cope Bridge) is proposed, as well as parapet heightening. Two new pedestrian and cycle bridges are proposed alongside the existing historic bridge to allow two lane traffic to flow over the bridge. The addition of the new pedestrian and cycle bridges has been proposed to meet requirements of Kildare County Council, to accommodate future development plans for the area, and to take the opportunity to benefit the wider community by removing the existing traffic restrictions on the bridge whilst also limiting the impacts on the heritage structure itself.
- The requirement for cycle/pedestrian pathways on either side of Captain's Hill Road (R148) and Cope Bridge was requested by Kildare County Council. The proposed footway and cycle bridges will be constructed to limit the impact on the existing hedgerows in the surrounding area.
- The footway/cycle lane has been designed adjacent to the road to minimise impacts on the greenspace. To separate the footway/cycle lane from the road would entail the need to occupy a greater area of the green, leaving a space between the road and the pathway/cycle lane that would be a 'dead space'. Provisions for a cycleway have been provided, however the extension of these beyond what is set out in this Draft

Railway Order application are not currently within the scope of the DART+ West project.

Impact of two-way traffic on the bridge and contradiction of Leixlip LAP future plans and objectives

- It is proposed to widen the road to accommodate two lanes of traffic without the need to provide a shuttle system. The proposal will not increase traffic at this location. The design is not considered to undermine the Leixlip LAP and the design for two-way traffic was requested by and developed in consultation with Kildare County Council. The preliminary design guide for the future development of lands at Confey – Confey Urban Design Framework includes for an upgraded bridge crossing, which would be provided through the LAP even if the DART+ West would not go ahead. Including the widening of this bridge within the DART+ West proposal will limit the disruptions and inconveniences for all local residents.

Loss of Biodiversity

- The impact of the bridge deck reconstruction at Leixlip Confey will result in the loss of 2 no. semi mature trees, several immature trees and a small area of scrub along the railway line. This is not considered to be significant in terms of biodiversity.

I first understand the desire to make provisions for a two-way road at and in the vicinity of Cope Bridge to improve conditions for road users. I query why this is required as part of a railway project which is seeking to promote sustainable public transport. I accept that this is an aim of the Roads Authority for this location but question why it is being pursued by CIÉ. The electrification of the

railway line should not necessitate the accommodation of road improvements for road-based vehicular traffic which are distinctly separate from the railway scheme impacts. An upgraded bridge crossing should be the responsibility of the Roads Authority. This could and should also reasonably address the needs of all road users, including pedestrians and cyclists, at the time the Roads Authority completes its plans and carried out the works.

I am satisfied to conclude that the applicant's proposals would not have any significant impact on biodiversity arising from the loss of vegetation at and in the vicinity of Cope Bridge.

Finally, I draw the attention of the Board to my Planning Assessment and my considerations on architectural heritage as they relate to Cope Bridge. The lowering of the track and minimising any impacts on Cope Bridge should be the primary objective at this location. The development of road-based solutions to existing limitations of the road network in this area should fall to the Roads Authority and not CIÉ.

Construction Stage Access across Cope Bridge

A number of observers have raised concerns about access across Cope Bridge at the construction stage of the project.

The applicant's response may be synthesised as follows:

- Modification works for OBG14 Cope Bridge will require the complete closure of the bridge to vehicular and non-vehicular users for 15 weeks and a partial road closure (one lane open) for 19 weeks. Significant diversions for vehicular traffic will be in place for those travelling from the north wishing to enter Leixlip and they will be redirected to Collins Bridge along L3005, connecting to Leixlip Road through Lucan. The potential

impact on journey characteristics and journey amenity for vehicular users is negative, significant, and temporary. Pedestrian and cyclist access over the bridge will be completely closed for 13 weeks having negative, profound and temporary effects on pedestrians and cyclists.

- During the construction phase, mitigation measures will be required to be developed and implemented by the Contractor to address all modes of transport during the construction stage and will be agreed with Iarnród Éireann and the respective local authority prior to the commencement of the construction phase.

In the event the Board approves the project as proposed at Cope Bridge, I submit that the proposed construction stage would be short-term and temporary and the proposals would be necessary to allow these works to be undertaken. There would be appropriate diversions in place to provide for alternative access in this area. A traffic management plan and mobility management plan would be put in place to address movement in this area. There would be a return to the provision of suitable access arrangements for all road users when the construction stage is complete in this area.

Closing of Blakestown Level Crossing

The residents in the vicinity of this level crossing have raised concerns about its closure and the lack of provision of alternative access.

The applicant's response may be synthesised as follows:

- A number of options was developed and examined in respect of the treatment of each level crossing. Due to the existing low levels of use by

both vehicles and active modes the proposed development will permanently close the existing Blakestown level crossing. The project has determined that it does not require the provision of alternative infrastructure at this location. There is existing vehicular access available to properties that will be severed via the R449 and R418 Regional Roads. Access will be maintained to the future Collinstown employment lands via the R449 Regional Road which will provide direct access. Further access improvements are likely to be proposed as part of the Masterplan (once it is prepared).

- Chapter 23 of the EIAR states that Chapter 6 Traffic and Transportation assessment found that the level crossing does not indicate sufficient demand for replacement infrastructure. However, the loss of the access will result in severance and loss of access to those who walk or cycle and particularly those who access the Royal Canal towpath at this location. These effects are likely to result in a negative, moderate, long-term impact for those users.

The Board will note my Planning Assessment and considerations on severance as they relate to Blakestown. The impact would be at a local level and would require those residents in the vicinity of this crossing to adapt to new approaches to and from Leixlip, thus resulting in significant inconvenience for these road users. Journey times would be increased. However, I accept that the applicant has demonstrated that there is not a significant usership of the level crossing, that its retention is not merited, and that there are alternative road accesses available in this area.

Finally, I note the provisions of Leixlip Local Area Plan 2020-2023 (extended to March 2026). I acknowledge Map 1 Leixlip Transport Map of the Plan which

shows in an indicative manner proposed pedestrian/cycle bridges within the Plan boundary. I acknowledge Policy MT1.7 of the Plan which states:

MT1.7 To provide appropriate new pedestrian linkages to improve access to the Louisa Bridge Station and to the Intel campus, including the provision of a new pedestrian/cycle bridge to provide direct access to the Royal Canal greenway and nearby amenities.

At the Oral Hearing, I sought clarity from the planning authority as to whether this applies to the Blakestown level crossing area. This was not clarified. However, it is apparent from Map 1 that the indicative locations for such bridges do not include the location of Blakestown level crossing. I acknowledge objectives for roads and footpath improvements and a proposed roads objective which are applicable to lands immediately north of the Royal Canal and railway line in the vicinity of Blakestown. I further acknowledge the Plan's designation of the Collinstown Strategic Employment Lands, which includes lands immediately to the north-east and south-east of the existing Blakestown level crossing. These lands are zoned 'Enterprise and Employment'. I submit that any orderly, planned access to, and permeability through, the lands would likely be subject to the delivery of a masterplan to oversee any future development of the lands. I note that this is a specific objective of the Plan (Objective COL 1.1). I conclude that I can find no direct conflict between the proposed closure of Blakestown level crossing and any objectives for the development of lands in the vicinity of this crossing as set out in the Local Area Plan.

Impact of the Construction Compound Location on Greenspace at Glendale

A substantial number of observers raised concerns about the impact of this proposed construction compound.

The applicant's response included:

- All construction works will be managed by the implementation of a Construction Environmental Management Plan.
- The habitats at the greenspace are not significant for biodiversity and the loss of habitat will be limited to the footprint of the compound.
- Noise mitigation measures will be implemented to minimise the impact of temporary compounds to stay within the noise thresholds. A designated community liaison / noise liaison is to be appointed by the Contractor for the duration of the construction works.
- It is proposed to take mitigation measures to minimise the impact on local communities, such as timing of the delivery of construction materials to the site to be outside of commute/school rush hours. The appointed Contractor's Construction Traffic Management Plan will include measures for managing traffic accessing and egressing the construction compound. The Contractor's CTMP will include measures for appropriate signage and communication to direct construction traffic to appropriate routes. The appointed contractor will monitor the haulage routes for dirt and debris generated by the construction traffic and take appropriate action.

The Board will note that I have considered this issue in my Planning Assessment.

9.2.6. **Zone F Issues**

Depot Site Selection Process

Observers have raised concerns about the transparency and robustness of the site selection process for the depot, particularly in relation to why the site was chosen ahead of Hazelhatch West. The viability of timely and synchronous construction of the depot, while routing construction traffic through either Kilcock or Maynooth (with the current HGV ban through the centre of Maynooth) was also questioned.

An objector noted that the options assessment did not address the issue of storm water drainage and also suggested that an option involving supporting the whole of the depot on a suspended platform was feasible and economical and had not been considered in the options assessment.

The applicant's written response to these submissions may be synthesised as follows:

- The site selection process is described in EIAR Volume 2 Chapter 3 Alternatives and in Volume 4 Appendix A3.4 which provides more detailed consideration of the selection process. It also includes detailed consideration on why the location at Maynooth West was selected over other options.
- A proposal to support the whole of the depot on an elevated structure is not considered economical or practicable.
- The decision to choose one option over others is based on a balanced assessment across the full spectrum of the Common Appraisal Framework criteria. It is not the case that access or project delivery were deciding factors.

- Environmental concerns were given appropriate consideration in each of the supporting studies. Each option received equal rating to Economy, Integration, Physical Activity, Safety and Accessibility & Social Inclusion.
- The traffic impact assessment produced for the scheme assessed the impact of traffic associated with the construction of the proposed depot. HGV access for construction of the depot and associated infrastructure will not be through the centre of Maynooth.
- Mitigation measures, including traffic management, a Construction Traffic Management Plan, and a Mobility Management Plan, including detail on how construction workers will be managed, will be implemented to reduce the impact of the construction phase on road users over the course of the construction period.
- Surface water drainage characteristics are not considered pertinent to the site selection process as the works would implement SuDS principles in design and consequently the impacts on adjacent lands would be equally mitigated. All sites would be equivalent in this regard.

I note that the applicant has set out its case for the siting of the depot east of Kilcock instead of in the vicinity of Hazelhatch. The following observations are made:

- Maynooth West: The delivery of DART+ West exhibits the strongest EMU passenger growth characteristics of projects on the DART+ Programme and consequently the best modal shift in support of project objectives. There is advantage to delivery of the DART+ West project first. A depot on the Maynooth line, consequently, best suits the effective delivery of the proposed train service specification.

- Hazelhatch West: The Kildare Line exhibits weaker EMU passenger growth characteristics than the Maynooth Line.
- Maynooth West: Based on the current train service specification, electrification of the Maynooth Line would displace 9 ICR/DMU trains which will be cascaded to other non-electrified lines.
- Hazelhatch West: Based on the current train service specification, electrification of the Kildare Line would displace 4 ICR/DMU trains which will be cascaded to other non-electrified lines.
- Maynooth West: The railway fronting the site is straight on plan for a length of 2.5km. The site configuration is better suited to installation of the depot with associated stabling than is Option 4 Hazelhatch West.
- Hazelhatch West: The railway fronting the site is approximately 1.7km long. The site configuration is less well suited to installation of the depot with associated stabling than is Option 2 Maynooth West.
- Maynooth West: The R148 runs parallel to the railway, north of the proposed site and the M4 is located to the south of the site. The site is well located for staff access from Maynooth or Kilcock;
- Hazelhatch West: Access to the site is more constrained than for the Maynooth West site, being located remote from both the M4 and the M7 motorways;
- Maynooth West: There are no houses within the site of the proposed depot.
- Hazelhatch West: There are three houses within the site of the proposed depot. These will constrain the layout of a proposed facility, or some may need to be acquired.

- These two options received equal rating to Economy, Integration, Physical Activity, Safety and Accessibility & Social Inclusion.

Thus, it is effectively submitted:

- DART+ West exhibits stronger EMU passenger growth characteristics,
- The electrification of the Maynooth line would displace more ICR/DMU trains which would be cascaded to other non-electrified lines,
- The site configuration is better suited to installation of the depot,
- The site is better located for staff access, and
- There are no houses on the site, while there are at the Hazelhatch option site.

When considering this issue, I must first draw the attention of the Board to my Planning Assessment of the depot. The applicant's depot site selection process was, in my opinion, a failed process because its siting on Flood Zone A defies proper planning and sustainable development. This location should have been dismissed from the outset. There is evidently a number of other options which could be determined to be more appropriate and are not known to be locations within floodplains. The depot does not need to be located immediately east of Kilcock at the end of the line for the DART+ West project. This is the appropriate time to give a clear indication that the proposed siting of the depot on a floodplain is not acceptable, must be avoided, and another more suitable location needs to be selected. There is no planning gain in supporting the wrong site. One can draw out the other comparators between the preferred site, Hazelhatch,

Drogheda, etc. and seek to come to a decision based on what may present as sound planning and environmental reasons. However, the delivery of such primary transport infrastructure on Flood Zone A must be avoided in the first instance and this, as a basic tenet relating to proper planning and sustainable development, must immediately rule out the depot location east of Kilcock.

Impacts on Flood Risk in Vicinity of Depot

I note substantial numbers of concerns about flood risk from landowners and observers on and in the vicinity of the depot location.

The applicant's written response on this issue included:

- The site-specific flood risk assessment for the scheme has considered flood risk within the subject area including the lands between Jackson's Bridge and Kilcock. The assessment has concluded that flooding can be appropriately managed at these locations.
- The level for compensatory storage areas has been designed to control flood waters in extreme weather events up to the 1 in 1000 year event (+ climate change). The depth of excavation required varies and the excavation of higher areas will not result in a higher flood level at that location. The compensatory storage shall ensure that there is no increased risk of flooding upstream or downstream outside of the lands acquired, in all events up to and including the 1 in 1000 year (+ climate change).
- Groundwater levels are being continuously logged. Groundwater monitoring will continue to construction. The design currently assumes that there will be some groundwater ingress into the compensation area

and will incorporate measures to shed this water across the ground surface into the watercourse.

The Board will note that I have addressed this issue in my Planning Assessment.

Impact on Ballycurraghan Right of Way

A number of observers residing in the vicinity of the depot site have raised concerns that CIÉ are ignoring their rights of way that have been in existence for years at Ballycurraghan and that the alteration of private road layouts, without consultation or agreement, is unacceptable. There are also concerns that the introduction of an additional entrance onto a private lane from the new link L5041 would create security concerns for their farms and properties.

The applicant's response may be summarised as follows:

- No Right of Way is proposed to be acquired at this location. Access to the L5041 is to be maintained, albeit there would be modifications to the local road network. The existing registered Right of Way does not currently extend to the L5041 based on information from the Property Registration Authority of Ireland obtained in advance of the publication of the Railway Order or the post publication (29/03/2023).
- Two accesses are proposed connecting the lane to the proposed realigned L5041. The first and primary access replacing the current access to the L5041 is to the east with a second access on to the lane to the west.
- The access to the west is being provided in addition to the eastern access onto the L5041 to reduce the journey length for users wishing to access

the R148 once Jackson's Bridge is closed to vehicular traffic. The newly constructed accesses and realigned L5041 will be maintained by Kildare County Council.

I note that submissions were made at the Oral Hearing reiterating local property owner concerns. I first note that I have no information from any of the observers which categorically demonstrate that any right of way is proposed to be acquired at Ballycurraghan. However, notwithstanding the status of this road, it is evident that the road provides the means of access to a number of residential and farm properties. From this, it can be reasonably determined that there has been, and continues to be, a right of access to properties in this area from the road. There has been no viewpoint expressed by the applicant that the road forming the access to the houses and other properties along this road does not provide this primary means of access.

It is apparent that the delivery of the access to the depot and the bridge crossing to the regional road to the north would have a direct impact on the established road users. There is a clear understanding as to why two accesses are proposed to the L5041. While there was some discussion at the Hearing on the deliverability of the access from this road to the new road proposed to be developed, it is reasonable to determine that such access is necessary to allow residents and other road users gain access to the regional road with the prohibition of vehicular access being proposed at Jackson's Bridge. In the event the depot was permitted, the proposal for access from Ballycurraghan onto the new road would be essential and would be an orderly approach to accommodating vehicular movement in this area when Jackson's Bridge is closed to vehicular traffic. I do not have concerns about the proposed connectivity between roads in terms of the proposed gradient and construction works to permit the necessary linkage.

Regarding security concerns, I do not consider that there would be any particular additional concerns arising from providing necessary linkage to the new road. In the event concerns remain, traffic management access provisions could readily be employed at a local level (such as barrier height restrictions, gates, etc.) to restrict access to the private road if required.

Surplus Land Acquisition

Landowners consider that the lands to be acquired in the depot area are surplus to requirements.

The applicant submits the land to be acquired is required for the construction of the depot and elements forming it, including associated emergency access and access roads, internal access roads, test track, flood compensation area, substation, parking, earthworks, drainage, utility diversions and screen planting and landscaping. They are all considered necessary components for the proposed depot and project.

I submit that, if the Board considers that the depot is suitably located east of Kilcock, this location requires the extent of land proposed to be acquired. Not alone are the extensive lands required for the infrastructure associated with the depot, along with its supporting infrastructure such as new roads, but the works to address flooding at this location also require substantial land acquisition (16.5 hectares at the depot alone). Therefore, I consider that the lands to accommodate the depot and its flood prevention measures are necessary for the purposes for which they are being acquired.

Drainage Details

Observer concerns have been raised about inadequate drainage details at the depot site, including a risk that the retained lands would be negatively impacted by the development. It is noted that a large attenuation area is being constructed on the land to be acquired. There is also a concern that the impermeable surfaces of the stabling, platforms, maintenance and other buildings, would reduce infiltration over these areas to zero, so increasing stormwater runoff rates and volumes. It is submitted that none of the available SuDS techniques to allow percolation to the ground and to attenuate the runoff from the impervious surfaces have been employed.

The applicant's response may be synthesised as follows:

- The detailed provisions can be seen in in Section 4.11.12.7 of the EIAR on depot drainage. SuDS elements are proposed for the depot and include filter strips, pervious pavements and attenuation ponds. This section assesses the use of the SuDS elements proposed for the depot. The specific detail of these systems will be finalised during Detail Design stage. Drainage calculations according to the standards consider the permeability and infiltration rates of each of the surfaces (ballast, green areas and impermeable areas such as buildings) at the depot. Most of the time the ground will be saturated and the groundwater levels will be high so the entire drainage system cannot rely on percolation. The attenuation ponds will retain the runoff rate to equate the current one and abate the runoff to the stream during flood events.
- The Flood Risk Assessment considered the potential effects on flooding and has proposed mitigation measures including compensatory storage areas. In the proposed development, the drainage flows towards the stream and the depot embankment will be intercepted by the southern

perimeter ditch without increasing the flooding impact to the adjacent properties.

- The proposed attenuation features have been sized to maintain existing discharge conditions from the site up to the 1 in 100 year (plus climate change factor) storm event. The proposed surface water drainage network has also incorporated measures in the form of SuDS and pollutant interceptors to restrict any potential pollutants from leaving the site during operation. Attenuation ponds have been arranged to meet the flow rate requirements and to attenuate the peak flows.

I note the content of Section 4.11.12.7 of the EIAR. This includes the proposed methodology for the containment and discharge of surface waters and the provision of SuDS. I note the intent that the SuDS provisions for the drainage network would be designed following the relevant sections of the Building Regulations, BS EN 752, and the CIRIA SUDS Manual. The main elements of the system are stated to be filter strips, pervious pavements, and attenuation ponds. The Board will note my considerations in my Planning Assessment on the depot and my considerations relating to drainage, flooding and flood risk.

Noise

A number of observers in the vicinity of the depot consider that inadequate information has been provided on mitigation measures that are being proposed to control noise pollution at the depot.

The applicant's response may be synthesised as follows:

- The majority of the construction work associated with the depot is remote from sensitive locations such as dwellings, and therefore noise impacts are minimised. However, some activity is identified as having a potentially significant impact for short periods of time. Mitigation measures are outlined in Section 14.6.1 of the EIAR to reduce these impacts.
- Section 14.5.4.6.8 of the EIAR assesses the noise impact as a result of the depot operation. This assessment includes maintenance, cleaning and stabling activities as well as fixed plant serving the depot and movement of EMU's within the depot area. The assessment has concluded that the noise levels beyond the boundary of the depot are not significant and therefore do not require mitigation.

I submit to the Board that the proposed depot sited east of Kilcock would be located in a rural area where baseline noise levels would be relatively low. Noise associated with industrial activities would not be prevalent. The existing environment would be subject to notable noise from sources such as occasional farm machinery, occasional passing trains, low level traffic movements on the local road network, etc.

There would be significant construction activities over a large area forming the depot site. These construction works would take place over a lengthy period of some three years. They would encroach on the noise environment of residents and farm holdings in the immediate vicinity. For the construction stage, there would be significant changes in the noise environment arising from site clearance, earthworks, piling, utility diversions, track works, excavation of foundations, building construction, provision of SET, HGV traffic, etc. I note the mitigation measures proposed in the EIAR, including communication with the public, monitoring, noise control audits, working hours, use of quiet plant, and

screening. I submit to the Board that the reality of the adverse impact from a three-year construction period for those residing and working in the vicinity of the depot should be recognised as a significant impact in terms of the change to the baseline noise environment. It would be incorrect to assume that the impacts would not be significant in terms of the change to the noise environment due to the wide range of construction activities generating significant noise at this large building site. If the principle of the siting of the depot at this location is accepted, I note that the applicant is providing best practice noise control measures in seeking to reduce noise impacts. Residents and farmers at this location would, however, be subject to significant nuisance arising from the construction activities. The construction of a development of this nature in such a rural location would adversely impact on properties in the area by way of noise.

Regarding the operational phase, I first observe that the depot is proposed to operate 365 days of the year on a 24/7 basis. In many ways, the nature of the activities of a functioning depot are best described as being of an industrial nature. The type of activities would include maintenance at the maintenance building, functioning substation and mechanical plant, train washing, stabling, etc. There would be extensive train movements within the site. The proposed depot would be sited in a rural area and, therefore, the provision of a depot of this nature and scale in such a location would significantly change the noise environment where the baseline noise levels are low. This would be a permanent impact on the local residents and farmers in this area. It is reasonable to determine that the operating depot would bring a significant change to the generally low noise environment of this area. This would be a significant adverse impact on the local community. I acknowledge the applicant concludes that the noise levels beyond the boundary of the depot are not significant and therefore do not require mitigation. I consider that there would be significant site clearance and tree and hedgerow removal which would provide a more open and expansive cleared site where the depot would then be developed. Until screening

and the landscaping programme are completed and well-established the noise impacts beyond the site boundaries would be substantial and reduction in noise levels would not be as effective on such an open site. Furthermore, adapting from the change of the low baseline noise environment to a functioning depot 24/7 in the vicinity of properties will bring noticeable changes to the noise environment beyond the site. If one accepts the principle of the siting of the depot at this location, there must be a reasonable expectation that there would be an adverse impact on the existing noise environment and the local community would be required to adapt to these changes.

Screening and Planting

Observers in the area have raised concerns relating to the inadequacy of screening and planting in the depot area.

The applicant submits that the boundary treatment will be a combination of palisade fencing and timber post and rail fencing along the boundary. In addition, mitigation measures include new planting to replace that which is removed, the establishment of new native tree, shrub and hedgerow planting to the boundaries of the proposed double track connecting to the depot, and new hedgerows to the perimeters of the attenuation ponds adjacent to the depot.

I acknowledge the requirement for extensive site clearance of trees and hedgerow if the depot is to be located at the site proposed. This cannot be avoided if the extent of development proposed is to proceed. The applicant's proposals are reasonable to address the vegetation loss arising and to provide initial fencing in my opinion.

Boundary Treatment

Observers have submitted that there are inadequate details provided on the type of boundary treatment proposed.

The applicant has clarified that the boundary treatment will be a combination of palisade fencing and timber post and rail fencing along the boundary. In addition, a 4m band of tree/shrub planting would be provided to the boundaries of the proposed depot/ CCE compound to aid screening of the operational areas, buildings and fencing.

I consider sufficient clarity is now provided on boundary treatment.

Lighting

Observers in this area have submitted that insufficient detail has been provided regarding the artificial lighting proposals of the project.

The applicant has submitted that information given in Section 4.11.12.10 of the EIAR highlights all the technical information related to external lighting of the depot (control measures, illuminance, uniformity, etc.). It is also submitted that IÉ will liaise with the relevant Kildare County Council Departments during detailed design and preparation of construction documents in terms of the lighting design. A lighting monitoring report is proposed to be provided to the planning authority after 6 months of operation.

I consider that sufficient clarity is now provided on lighting provisions. However, I must impress upon the Board that there would be significant lighting impacts at

the construction and operational stages of the proposed development on residents, farm holdings in this area, and on the Royal Canal and its habitats. The depot is a very substantial part of the overall project on a large linear site. The lighting at night-time during the construction phase and ongoing with the 24/7 operations of the depot would be a significant change to the background light levels of this rural location. In accepting the principle of the depot at this location, one must reasonably accept that there would be a significant change to the local environment by way of artificial lighting and this would extend beyond the depot site, being highly visible from the Royal Canal greenway, from adjoining lands and from residential and farm properties. In the same way as there would be a change to the noise environment, lighting would have an ongoing impact which people and wildlife would be required to adapt to.

Impact of Noise and Light on Horses

A number of observers in the vicinity of the depot have raised concerns relating to the noise and lights associated with construction and operational phases of the depot, the disruption to horses, and impact on breeding mares and foals.

The applicant acknowledges that the building of the proposed rail development has the potential to create a significant amount of abnormal noise and visual stimuli that may be quite intrusive to horses in the immediate vicinity. It is stated that the horses currently resident in Ballycurraghan are exposed to rail traffic, approximately 200 metres from their northern boundaries and constant motorway traffic, day and night from the M4 motorway, in some instances, no more than 100 metres from their southern boundaries. It is further submitted that horses are normally very adaptive to environmental changes and very quickly become receptive to the aural and visual stimuli associated with normal rail and traffic flow. The applicant contends that, given the amount of pre-existing natural

screening through mature treeline and hedgerows on these lands and the proposed additional screening proposed on the southern boundaries of the depot, there should be adequate screening to reduce the stimuli, both auditory and visual, associated with the proposed development.

I first submit to the Board that the proposed depot would be significantly closer to horses located on farms at Ballycurraghan than the M4 motorway or the existing railway track. Thus, the construction and operational phases would be notably greater in adverse impact than the motorway or the existing functioning railway line.

The construction phase would bring with it different levels of noise, disturbance and nuisance which could reasonably be understood to be volatile for farm animals and which are likely to cause some degree of disturbance to animals both within fields in proximity to the depot site and housed in farm buildings close by. It is clear, in my understanding of the impacts of the proposed development, that measures would be required by landowners to manage their animals, including horses, to minimise effects on them. Clearly, liaison by the depot contractor with the local farming community would be essential to inform them of intrusive activities at the construction stage.

At the operational stage, I submit there would be some degree of adaptation of farm management and practices to seek to minimise impacts on animals. While I note the proposed planting and screening as part of the project at the depot site, one must again acknowledge the loss of significant lines of trees and hedgerow and the likely period over which new planting would take to develop to function at a maximum level as screening to reduce noise and lighting impacts.

Overall, in the same way that local people would be affected by the construction and operational phases, it is reasonable to determine that effects would also

arise for farm animals, including horses. Management and adaptation for farmed animals would be required as environmental conditions change.

Noise, Light and Security Concerns at the Depot

An observer submits that the construction phase would create serious noise and disruption to their animals, family and property. In relation to operational noise, it is submitted that the depot will cause noise and disruption to their breeding farm on a daily basis and that tuition and teaching lessons will not be possible due to continuous noise and heavy plant operating.

An observer is also concerned about the introduction of an additional entrance onto a private lane from the new link L5041 and the impact it will have on the security of their property. It also states that privacy and security of Ballycurraghan will be compromised while DART+ West will have 24-hour security and CCTV cameras.

The applicant's written response included:

- The work site associated with the depot is located a significant distance from nearby residential buildings and as a result the noise and vibration impacts are not expected to be significant. The majority of the construction work associated with the depot is not expected to generate sudden loud noises and will instead be characterised by engine noise from construction machinery. However, some activity is identified as having a potentially significant impact for short periods of time. Mitigation measures are outlined in Section 14.6.1 of the EIAR. Depot construction hours will be during daytime hours for all works not adjacent to the existing rail track.

- Any security cameras will focus on the depot facilities which will be separated from private lands by palisade fencing and a dense regime of landscape planting around the site perimeter.

I submit that the issues of disturbance and nuisance to farm animals has been dealt with in the previous section of this assessment. I consider that the applicant has adequately clarified the matter relating to the functioning of security cameras. There should not be privacy concerns if the cameras function in the manner proposed.

Impacts on Habitat and Biodiversity

The applicant's EIAR notes that the development of the depot would result in the loss of 32.6 hectares of mainly mixed agricultural land, including approximately 800 m of hedgerows and 1000 m of mature treelines, and that a 400 m section of the Ballycaghan Stream would also be diverted. It is further noted that the most significant treelines within the proposed development are at the proposed depot and consist of 400 m of mature oak and ash trees that are more than 15 m tall. Mitigation measures are presented in Section 8.9 of the EIAR and the residual impacts of the proposed development are presented in Section 8.10. In some cases, including the loss of mature trees such as oak at the depot lands, the negative impact cannot be mitigated. The residual impacts on the habitats along the 'Railway Ecological Corridor' is described as follows: "The loss of habitat along the railway corridor is considered to constitute a short-term and permanent moderate negative impact at the local level."

It is evident that, if the depot development is proposed to be sited at this location and is to incorporate the different components that this entails, there would be a significant loss of treelines and hedgerow at this site. Such habitat cannot be retained. Negative impacts arise for biodiversity and the sole meaningful response to reduce impact is to seek to introduce new planting. It must be understood, however, that the land use would change significantly with the establishment of a depot and the building footprint and industrial type uses would greatly alter the biodiversity value at and in the immediate vicinity of the depot site.

Dust and Water Pollution Impacts from Construction

There are observer concerns that the construction of the depot adjacent to paddocks will give rise to pollution of the lands and to air from air borne dust.

The applicant's response may be synthesised as follows:

- Iarnród Éireann has a specification for track ballast document and all ballast must also meet the governing standard I.S. EN 13450: 2003 Aggregates for Railway Ballast. Due to the grading of the ballast required in these standards, the risk of dust is extremely low during installation and operation.
- The dust assessment undertaken concluded that, when the dust minimisation measures are implemented, fugitive emissions of dust from the site are not predicted to be significant and pose no nuisance, human health or ecological risk to nearby receptors. Thus, there will be no residual construction phase dust impacts.
- Erosion control and sediment management measures have been incorporated within the Construction Environmental Management Plan for

the scheme. The measures proposed for the scheme were subsequently assessed as part of the Environmental Impact Assessment which included impacts to water and air quality. When the proposed measures were considered the resultant impacts to water and air quality during construction were seen to be minor.

I consider that the applicant has clarified the issues relating to airborne dust as it applies to the use of ballast.

Provision of a Second Train Station at Maynooth

Observer requests have been made for the provision of a second train station for Maynooth and for the project not to impact on its future delivery.

The applicant notes that the Issues Paper informing the preparation of the Maynooth and Environs Joint Local Area Plan (LAP) 2024-2030 presents a conceptual drawing of a 'proposed train station indicative location' and also the Maynooth Outer Orbital Road (MOOR), both of which are indicative locations and are subject to further studies, including public road access at this area. It is stated that the location of all infrastructure, including a second train station, will be considered as part of the forward planning and development management process. The applicant states that the DART+ West project does not preclude the development of this infrastructure and it is outside of the scope of the project to consider such proposals at this time.

I acknowledge the intended forward planning provisions for the Maynooth Outer Orbital Route and a second railway station for Maynooth. I acknowledge that it is

submitted by the applicant that the proposed development would not undermine the potential future development of these infrastructure projects. The Board will note my considerations on individual observer submissions and to Sherwood Homes Limited and St. Patrick's College in particular. The development of flood compensatory storage areas in the vicinity of Jackson's Bridge could potentially impact on the deliverability of these other transport projects at this location.

9.3 Individual Submissions

9.3.1. I propose to offer considerations on the potential impacts of the proposed development on individual landowners, residents and other interested parties raised in the submissions to the Board.

9.3.2. ***Zone A - Loop Line Bridge to Phibsborough/Glasnevin (on GSWR line) and East Wall Junction (on Northern line)***

Landowners

Eoin Healy (Ref. DW.002.R.203)

The landowner's residential property is No. 16 Bessborough Avenue, North Strand, Dublin 1. This is a dormer dwelling whose curtilage immediately abuts the west side of the raised railway line at UBLL4. The landowner raises concerns relating to the impact on the structural stability of his property and the need for a proper supporting wall, provisions for access via the property at the construction phase, noise and pollution mitigation, loss of rental income, the making of the house uninhabitable, and property devaluation.

The applicant's response to the landowner's concerns includes:

- The frequency of trains will increase but it will not increase the load on the existing railway supporting structures.
- Vibration levels to be achieved during both construction and operation of the project is set out in the EIAR. Noise and vibration monitoring during construction is included as part of the mitigation measures.
- The outcome of the applicant's assessment following the adoption of mitigation is that the project is not expected to change the noise or vibration climate significantly during operation. Increased frequency of trains is offset by the quieter operation of electric DART compared to diesel commuter units.
- Vibration limits are specified to ensure that no damage, even cosmetic, occurs to properties. Lower vibration values are specified for any sensitive buildings.
- Prior to construction and subject to written agreement with the property owner, property condition surveys will be undertaken in relation to the property.
- The noise impact of the catenary system installation will likely be significant at individual properties close to the tracks for periods of brief duration (i.e. up to 4 hours) while the works are occurring. Works that occur within 300 m of a property that is located along the track with a direct line of sight to the works have the potential to cause a significant impact. However, as the works progress, the likely effects will become less significant at that property and the effects will follow the work progress linearly along the track.
- The specific noise level generated by the work will depend on the type of piling adopted. Mitigation measures are limited for these works due to the nature of the sites being temporary worksites for a 4-hour period each night and the plant involved is difficult to mitigate.

- A designated community liaison / noise liaison is to be appointed by the Contractor for the duration of the construction works to engage with the occupants of neighbouring properties and notify them of any works forecast to generate appreciable levels of noise, explaining the nature and duration of the works. Night-works in particular have the potential to generate the most significant noise effects. All affected sensitive locations are to be notified of planned works in advance of the works progressing.
- The acquisition of a Right of Way and lands for the construction of a pole are proposed. The permanent acquisition of property is limited to the acquisition required to allow for the construction of the overhead line electrification pole mounted to the existing rail viaduct and are referenced in the Second Schedule – Part 2 with a Right of Way referenced in Schedule 5 for construction and accessing the pole, for maintenance and inspection. Permanent land acquisition at ground level, is not proposed at this property as part of the Railway Order. The proposed poles will be similar to the existing poles on the current electrified DART line.
- With regard to valuation, if the Railway Order is confirmed, compensation will be addressed in accordance with statute and Compulsory Purchase practice and procedure as and when statutory notices are served.
- Any debris resulting from the construction or maintenance is to be cleaned and cleared by CIÉ and / or agents acting on their behalf.

I accept that the works in the immediate vicinity of the landowner's house would cause a significant nuisance. It is apparent that the nuisance would be exacerbated by the timing of the works which would occur at night-time. However, such works would be short term and would evidently dissipate as the line works proceed. Such works are essential for the delivery of the project at this location and are unavoidable. A designated community liaison / noise liaison

would be appointed and the role of liaison would be critical to appease concerns relating to the works by providing essential information on the nature, extent and progress of these works.

Regarding structural impacts arising from the works, the applicant has submitted that vibration limits are specified to ensure that no damage, even cosmetic, occurs to properties. Furthermore, a property condition survey would be undertaken at this residence prior to the commencement of construction works. The outcome of this should appropriately inform the setting of limits to be applied at this location to ensure that adverse structural impacts would be avoided. I also note that ongoing noise and vibration monitoring is proposed during the construction phase. The Board will note my recommendation in my Planning Assessment on the provision of a property owners protection scheme to address potential structural concerns arising from the construction works. This would relate to properties such as No. 16 Bessborough Avenue.

I note that the applicant acknowledges that the frequency of trains would increase but the load on the existing railway supporting structures would not increase. I further note that it is submitted that the increased frequency of trains would be offset by the quieter operation of electric DART compared to diesel commuter units. Both of these outcomes would be significant in terms of mitigating operational noise and vibration concerns. The Board will observe that the landowner property lies immediate adjacent to and below the railway line. This is a property which already adjoins an operating rail line. The proposed development is intended to increase the frequency of rail services and this invariably increases the potential nuisance arising. However, it would be mistaken not to acknowledge the baseline noise and vibration environment at this location. If one is to seriously consider the delivery of improved public transport projects such as that proposed the adverse outcome for residential properties adjoining the line by increasing the frequency of services must be accepted.

Compensation provisions are there to address adverse impact which cannot be avoided.

In conclusion, with the proximity of the proposed construction works to this residential property and the increased level of service proposed at the operational phase, there can be no doubt that the noise, vibration and other nuisance effects that exist from the provision, maintenance and functioning of the established railway line would be compounded at this location. This is unavoidable if the project is to be delivered. Access to provide and maintain these services is necessary. There is very limited mitigation that can be applied at such a location. Compensation arising from these impacts are not a matter for the Board to deliberate on. If there are particular concerns about the adverse impacts of noise, vibration and other nuisance at night-time at the construction stage for this or any other residential property, the Board could reasonably require the applicant to set up a scheme which identifies the most sensitive residential properties and provides alternative accommodation for residents during intrusive stages of the construction works in the inner city area. This I have recommended earlier in my Planning Assessment. This would not be an exceptional requirement for a development of this nature and an appropriate condition could be attached with the granting of a railway order.

Finally, I submit that there is a community need to be met by the acquisition of the lands in question, these particular lands are suitable to meet that community need, alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and the works to be carried out would not be in material contravention of the provisions of Dublin City Development Plan.

The landowners' residential property is No. 28 Bessborough Avenue, North Strand, Dublin 1. This is a single-storey, terraced dwelling whose curtilage immediately abuts the east side of the raised railway line at UBLL4. The applicant proposes to use the location beside the viaduct as a right of way and to erect a pole, ancillary fixtures and cables. The landowners raise concerns relating to health and safety risks and request deviation of the pole away from the house. Violation of their privacy rights is also raised, as well as increased noise and vibration from the increased number of trains using the line, increased flood risk, maintenance of the railway, property devaluation concerns, and the impacts the development would have on the family home. These concerns were reiterated by Colette Maguire at the Oral Hearing. Reference was made to the allowance of potential deviation of the pole location and fixtures at this property and the removal of the need for a right of way. Lack of clarity on the functioning of the right of way, control of train numbers and speeds, and the need for noise mitigation and structural protection of the property were also raised. It was submitted that under development proposals the three railway lines which intersect at the lower end of Bessborough Avenue are intended to accommodate 62 trains per hour passing by the Avenue. As well as the concerns raised above, the other issues raised included flood risk, maintenance of the railway line, devaluation of property, and impact on a family home.

The applicant's written response to the landowners' concerns include:

- Electromagnetic fields from the proposed development are classed as non-ionising and the fields do not have enough energy to cause damage to human or animal cells in the same way ionising radiation (such as ultraviolet or X-ray) does. The levels being emitted from the proposed development will be orders of magnitude below the guideline limits set out

in the EU Council recommendation on the limitation of exposure of the general public to electromagnetic fields (0Hz – 300GHz) 1999/519/EC at the frequencies concerned and will therefore have no negative impacts on human health.

- Currently there is an existing pole within the land. It is at this location due to the allowable technical requirements of lengths between spans. The proposal is to replace this existing pole in the same or similar location which will still comply with technical requirements of allowable lengths between spans.
- At this location the acquisition of a Right of Way and lands for the construction of a pole are proposed. The permanent acquisition of property is limited to the acquisition required to allow for the construction of the overhead line electrification pole mounted to the existing rail viaduct and are referenced in the Second Schedule – Part 2 with a Right of Way referenced in Schedule 5 for construction and accessing the pole, for maintenance and inspection. Permanent land acquisition at ground level is not proposed at these properties as part of the Railway Order.
- The scope of the DART+ West project does not involve any alterations to the track works or drainage in this area and thus will have no impact on existing drainage. Prior to construction works commencing, condition surveys of the surrounding properties will be undertaken to ensure no adverse impact. Concerns over maintenance issues have been notified to the relevant asset maintenance team with CIÉ.

At the Oral Hearing, the applicant referred to the need for upgrading from Connolly Station to the North Strand junction. It was submitted that the pole at this location would be changed and its appearance would remain the same. The change in equipment would allow for two wires at this location instead of one. It was stated that the pole at this location would be the first one in this stretch and that the works are expected to be done from the track. It was submitted that the

right of way is needed to ensure maintenance and this would be undertaken following previous notice being given to the owner. It was clarified that there is a permanent speed restriction from Connolly Station to the junction of 20 miles per hour and it was conformed that this speed limit would be kept. It was further clarified that there would be 24 trains per hour in this area, although there would be 8 trains per hour per direction in this branch. The construction works would take place between midnight to 4am. It was clarified that the scope of the project does not require any change to drainage in the area and, from a flood risk perspective, there would no increased risk of flooding.

I first note that the proposed works at this location would include a replacement pole at the same or similar location of the existing pole. The need for this has been clarified. This is considered reasonable and would not in itself cause any increased concern relating to intrusiveness by its siting. I accept the applicant's submission relating to EMF and again there should be no increased health and safety concerns arising from the works and operation of the electrified line. The provision of a right of way is essential for the works and ongoing maintenance. There are no drainage proposals at this location and increased flooding concerns should not arise.

Similar to the considerations relating to Eoin Healy's concerns, I submit that increased noise, vibration and other nuisance effects, including increased loss of privacy, would result from the provision, maintenance and functioning of the proposed development. The more frequent services would compound impacts, although the trains would not have any greater height or any increased visual access to the property below the line. These impacts cannot be avoided due to the proximity of the proposed construction works to this residential property and the increased level of service proposed at the operational phase. There is very limited mitigation that can be applied at this location. Compensation arising from adverse impacts would result but is not a matter for the Board to deliberate on.

My considerations on providing a scheme to accommodate those adversely affected by the construction stage at the property at night-time would also apply here, as would the application of a property owners protection scheme.

Finally, I submit that there is a community need to be met by the acquisition of the lands in question, these particular lands are suitable to meet that community need, alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and the works to be carried out would not be in material contravention of the provisions of Dublin City Development Plan.

Liam Ball (Bodycraft Repairs Limited) (Ref. DW.002.R.201(A)(B))

The landowner's business premises is at No. 29 Bessborough Avenue, North Strand, Dublin 1. The curtilage of the premises abuts the west side of the raised railway line at UBLL4. Concerns relate to increased frequency of trains and associated works affecting the business and impact on property value due to reduction in the area used for the storage and movement of cars.

The applicant's response includes the following:

- The acquisition of a Right of Way and lands for the construction of a pole are proposed. The permanent acquisition of property is limited to the acquisition required to allow for the construction of the overhead line electrification pole mounted to the existing rail viaduct and are referenced in the Second Schedule – Part 2 with a Right of Way referenced in Schedule 5 for construction and accessing the pole, for maintenance and inspection. Permanent land acquisition at ground level is not proposed at these properties as part of the Railway Order.

- The lands affected by the railway order relate to the installation of poles on the outside of the existing rail viaduct. The poles in the landowner's property are proposed at or near the existing electrical poles already within the property. As a result of the works, no loss of area at ground level is proposed. Access to the poles post construction will be limited to maintenance and repairs. During the construction stage of the project CIÉ and / or agents acting on their behalf will liaise with the owner to request that any vehicles below the proposed construction areas be moved temporarily so as to avoid the impacts of dust and other debris from affecting any vehicles parked below.

I first note that this car repairs premises already adjoins a busy operating rail line. I acknowledge that there would be some infrastructural works and that these would necessitate the provision of a right of way to ensure maintenance could be provided on an ongoing basis. The applicant has clarified that there would be no permanent land acquisition at ground level and that the movement of vehicles stored at the premises would be temporary during the construction phase. The works at this location would be short-term and would not constitute a significant impact on this premises. The construction and operational phases of the proposed development should not have significant impacts on this premises. Compensation arising from any adverse impacts would result but is not a matter for the Board to deliberate on.

Finally, I submit that there is a community need to be met by the acquisition of the lands in question, these particular lands are suitable to meet that community need, alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and the works to be carried out would not be in material contravention of the provisions of Dublin City Development Plan.

Alan Costello (Ref. DW.002.PG.212 / DW.002.T.212(A) / DW.002.R.205(A)(B) / DW.002.R.206(A)(B) / DW.002.R.209) / DW.002.R.212 / DW.002.R.213

The property owner owns The Arches (39A), 14, 16, 31A, 39, 41, and 42-44 Strandville Avenue and 31A Xavier Avenue in North Strand, Dublin 3. The properties adjoin the railway viaduct and there is a concern about the direct and indirect impacts on the value of the properties arising from noise, dust, vibration, land acquisition and reduction of footprint, health impacts, vermin, and increased train services.

The applicant's response includes the following:

- Direct impacts on these properties relate to the construction of OHLE poles. For all of the proposed poles within the owner's properties, except for the pole referenced as DW.002.PG.212 on Railway Order Property Plan No. DW.002, the permanent acquisition of property is limited to the acquisition required to allow for the construction of the overhead line electrification pole mounted to the existing rail viaduct and referenced in the Second Schedule - Part 2. Permanent land acquisition at ground level. Diminishing the footprint of the property is not proposed as part of the Railway Order. At the pole referenced DW.002.PG.212 on Railway Order Property Plan No. DW.002 there will be an acquisition of a permanent area for the construction of an electrical pole adjacent to the rail line viaduct referenced in the Second Schedule – Part 3, a temporary acquisition for the construction of the pole in Schedule 4, and a Right of Way referenced in Schedule 5, for accessing the pole for maintenance and inspection. The temporary acquisition is required for the construction of the pole foundations and installation of the pole.

- The responses to property valuation, noise, dust, vibration, and EMF impacts and increased services are similar to those set out in responses above.
- With regard to vermin and pests, the proposed DART+ West will not be creating any new railway lines in the city centre area and will only result in increased frequency. The contractor will be required to prepare a Construction Environmental Management Plan which will address the construction management on the site.

For clarification, I first note that the pole referenced DW.002.PG.212 on Railway Order Property Plan No. DW.002 relates to the property 39/39A Strandville Avenue which abuts the overhead rail line adjoining the west side of OB034. The construction of OHLE poles at these locations are necessary for the project and the acquisition would allow for the construction of poles while not affecting land take at ground level. A right of way at 39A is necessary for continued maintenance.

My responses on noise, dust, vibration, health impacts, and increased train services are set out in earlier responses above and are equally applicable to the residential and business premises of this landowner. I do not consider that the limited works should necessarily increase nuisance from vermin and other pests. My considerations on providing a scheme to accommodate those adversely affected by the construction stage at the relevant residential properties at night-time and to a property owners protection scheme would also apply here.

Finally, I submit that there is a community need to be met by the acquisition of the lands in question, these particular lands are suitable to meet that community need, alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and the works

to be carried out would not be in material contravention of the provisions of Dublin City Development Plan.

Patrick Lawlor (Ref. DW.002.R.214)

The landowner owns 15 Strandville Avenue, North Strand, Dublin 3. This is a single-storey terraced house immediately abutting the overhead line and UBLL2. He requests that CIÉ ensure the plans are carefully considered, people's lives are not unnecessarily disrupted, and property is not unnecessarily damaged. There is reference to concerns about loss of privacy from passing trains and the impact on renting out the property. In addition, concerns are raised about noise, vibration, subsidence and damage to the property at the construction stage.

The applicant's responses are as given previously for other landowners set out above.

My responses on the issues raised are set out in earlier responses above and are equally applicable to this residential property. My considerations on providing a scheme to accommodate those adversely affected by the construction stage at this residential property at night-time and to a property owners protection scheme would also apply here.

Finally, I submit that there is a community need to be met by the acquisition of the lands in question, these particular lands are suitable to meet that community need, alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and the works to be carried out would not be in material contravention of the provisions of Dublin City Development Plan.

Laura MacDarby (Ref. DW.002.R.215)

The landowner owns 23 Strandville Avenue, North Strand, Dublin 3. This is a single-storey terraced house immediately abutting the overhead railway line and adjoins the east side of OBG34. She raises concerns about loss of privacy from passing trains, the intrusion onto her property and loss of garden area with security and access impacts, and the impacts by way of noise, pollution, and vibration causing damage to the property at the construction stage.

The applicant's responses are as given previously for other landowners set out above.

My considerations on the issues raised are set out in earlier responses above and are equally applicable to this residential property. My considerations on providing a scheme to accommodate those adversely affected by the construction stage at this residential property at night-time and to a property owners protection scheme would also apply here.

Finally, I submit that there is a community need to be met by the acquisition of the lands in question, these particular lands are suitable to meet that community need, alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and the works to be carried out would not be in material contravention of the provisions of Dublin City Development Plan.

Tracey Carabini (Ref. DW.002.R.204(A)(B))

The landowner owns 45 Strandville Avenue, Dublin 3. This is a single-storey terraced house immediately abutting the overhead railway line and adjoins the west side of UBLL2. She submits that she has not received proper time, detail or

sufficient information to make a decision on the intended railway order and what effect it will have on her property. It is further submitted that it is not clear how work would be carried out on her property and what effect it would have on its usability and its outbuildings which are occupied at present.

The applicant's response included the following:

- The Railway Order documentation was sent to the owner in July 2022 along with revised notices dated the 14th and 19th of September 2022 informing the owner of an extension to the deadline for the statutory consultation period. Correspondence from the owner's solicitor, received during the statutory consultation period was responded to by letter dated the 30th of September 2022. The response to the solicitor's requests included the provision of a dimensioned sketch showing the extent of the proposed Right of Way and location of the proposed pole.
- The proposed right of way is to allow for the construction of the proposed overhead poles and associated cables for the DART + West Project and does not intend to interfere with the structure of the owner's house or any other associated buildings. The works involve the construction of a replacement pole located to the rear of the property ideally at the location of the existing pole, or close to it, that carries the overhead electrification of the rail line. Any disturbance over the property during construction will be limited in time and will relate to the installation of the pole and associated infrastructure. The construction is proposed to be undertaken from the track side, involving reaching over into the property from the rail to undertake the construction of the replacement pole. No impacts on any buildings are proposed from the proposed construction. In advance of any planned works or maintenance over the property CIÉ and / or agents acting on their behalf will be required to notify the property owner. The permanent acquisition of property is limited to the acquisition required to

allow for the construction of the overhead line electrification pole.

Permanent land acquisition at ground level, that would diminish the footprint of the property, is not proposed as part of the Railway Order. No change to the current usability of the property and its outbuilding will result from the proposed works.

I consider that adequate information has been provided in response to the applicant's concerns about the lack of clarity on what is proposed at her property. It is apparent that there would be no permanent land take at ground level and there would be no direct impacts on structures on this landholding. It is also apparent that the construction methodology seeks to minimise intrusion on the landholding, with pole replacement at or in the vicinity of the existing pole and construction taking place from the track side.

Regarding the potential impacts for this property arising from the construction and operational phases of the proposed development, my considerations on the issues raised by other property owners in the vicinity of 45 Strandville Avenue are equally applicable to this residential property. My considerations on providing a scheme to accommodate those adversely affected by the construction stage at this residential property at night-time and to a property owners protection scheme would also apply here.

Finally, I submit that there is a community need to be met by the acquisition of the lands in question, these particular lands are suitable to meet that community need, alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and the works to be carried out would not be in material contravention of the provisions of Dublin City Development Plan.

Davina Fitzpatrick (Ref. DW.003.R.219)

The property owner resides at 1 Xavier Avenue, North Strand, Dublin 3. This is an end of terrace two-storey house. The rear of the property extends to the elevated railway line. She raises concerns about loss of privacy from passing trains, the impact on property value by the reduction in garden area, noise and disruption from the railway works, and possible electromagnetic fields from the railway lines impacting on health. I note the applicant's response to these concerns raised earlier.

The applicant's responses are as given previously for other landowners set out above.

My considerations on the issues raised are set out in earlier responses above and are equally applicable to this residential property.

Finally, I submit that there is a community need to be met by the acquisition of the lands in question, these particular lands are suitable to meet that community need, alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and the works to be carried out would not be in material contravention of the provisions of Dublin City Development Plan.

Eileen Reilly (Ref. DW.003.R.218)

The observer is the owner of 2 Xavier Avenue, North Strand, Dublin 3. This is a mid-terrace two-storey house and the rear of the property extends to the elevated railway line. Her concerns relate to impacts on property value by the land take, noise, dust, vibration, road closures, vermin, EMF, privacy, and use of the right of way.

The applicant's response includes the following:

- With regard to privacy, the location currently experiences significant passenger train movements. These movements although more frequent will not have any greater height or increased visual access to the property.
- The proposed development will not provide access for pedestrians either along the live railway line or along Xavier Avenue which is a cul-de-sac.
- The proposed right of way is to facilitate the fixing, inspection and maintenance of an overhead line electrical pole to the outside of the elevated viaduct wall. The scope of the construction work includes:
 - Inspection and surveys of the wall to determine a suitable location for attaching the overhead line electrical pole,
 - Drilling of holes into the wall for anchors,
 - Installation of bolts into the wall and bonding and filling where necessary, installation of plates and wall fixing,
 - Installation of the poles and fixing of the poles to the walls. Fixing of wires and lines to the pole, and
 - Inspection of the completed work

The applicant anticipates that access to the pole during the construction stage will be of a short duration.

Similar responses given to other landowners to the other issues raised are included.

The extent of works at this location and the function of the right of way has now been clarified for this location. Clarity is also provided on pedestrian access. The

Board will note my considerations given above on impacts on property value, noise, dust, vibration, vermin, EMF, and privacy. These are equally applicable to this residential property.

Finally, I submit that there is a community need to be met by the acquisition of the lands in question, these particular lands are suitable to meet that community need, alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and the works to be carried out would not be in material contravention of the provisions of Dublin City Development Plan.

Propmaster Ventures Limited (Ref. DW.004.PR.234 / DW.004.R.234)

The landowner owns 31 Lower Drumcondra Road and 1-6 Fitzroy Avenue in Drumcondra, Dublin 9. The former lies immediately south of the elevated railway line and south-east of UB015. This is a site with planning permission for two houses to the rear of the property. The landowner requests that the design of the pole proposed for this location does not prejudice the ability to implement the planning permission or impact the future accessibility of the potential owners of the two properties to be developed. Clarity is requested on the necessity of the right of way to extend for the full depth of the site, on the nature and extent of the proposed pole, potential interference with the proposed development permitted on the land, any compensation for the acquisition of the right of way, and if the right of way would include for vehicles.

The applicant's response included the following:

- The proposed pole and fixings and proposed right of way will not disrupt the planning permission nor impact the future accessibility of the owners

of the two proposed properties. Although access along the right of way is proposed from the track itself for the construction, access at ground level may be required for construction, surveys, inspections and future maintenance. In advance of any planned works or maintenance over/at this property CIÉ and/or agents acting on their behalf will be required to notify the owners and occupiers to arrange access. Dublin City Council Planning Reference 4513/17, planning condition No.14 of this planning prohibits any construction within 2m of the lands within CIÉ ownership, so there will be no impact on compliance with the extant permission and future accessibility.

- Only the Right of Way shown on the Railway Order Plan and referenced in Schedule 5, highlighted in yellow is required for the construction of the works, which is proposed be undertaken from the track side. Access to the remainder of the property is not required.
- No service road or access road is proposed along the right of way. Although access along the right of way is proposed from the track itself for the construction of the pole, access at ground level may be required for construction, surveys, inspections and future maintenance. In advance of any planned works or maintenance over/at the property CIÉ and / or agents acting on their behalf will be required to notify the landowner to arrange access.

I consider that sufficient clarity is now provided on the extent of works and the function of the right of way intended for this location. It is apparent that the proposed development would not affect the construction of the permitted houses or access thereto. I note that issues of property impacts and property valuation are addressed earlier in this assessment and these equally relate to the existing and proposed residential properties at this location.

Finally, I submit that there is a community need to be met by the acquisition of the lands in question, these particular lands are suitable to meet that community need, alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and the works to be carried out would not be in material contravention of the provisions of Dublin City Development Plan.

9.3.3. *Zone B - Spencer Dock Station to Glasnevin Junction*

Landowners

Spencer Place Development Company (DW.002.P.08(A) / DW.002.S.08(A) / DW.002.T.08(B))

The landowner's property is in the area of the proposed Spencer Dock Station. The land is subject to temporary land take, permanent subterranean land take, and permanent land take. The submission refers to facilitation and impact on potential future development and construction impacts on the operation of adjoining development. In addition, difficulties with documentation submitted with the application relating to provision of dimensions on drawings, the purpose of temporary land acquisitions, and restrictions of permanent subterranean acquisitions, as well as clarity on funding for land acquisition and construction of the scheme, are raised. It is submitted:

- Clarification is required on:
 - What is the programme for delivery of the rail works and the potential for over-station development to progress in advance of the rail works?
 - What is the extent of over-station development currently envisaged?

- Is there to be a single block either side of the tracks or is an air-rights development spanning over the tracks considered?
 - How are foundations, basements, sub-floor drainage, etc. for an over-station development to be facilitated in a permanent sub-surface land take?
 - Can permanent support structures be incorporated into the track alignment design if air-rights development over the tracks was considered feasible with a view to maximising density at transport hubs?
- The lands sought for temporary acquisition adjoining the observer's lands are critical to the operation of its residential development. The use is unclear. The fire tender access route includes the new street to the west of the Spencer Place development and is required to be accessible always. The new road along the west of Spencer Place is an important servicing route. The North Lotts pumping station is within the footprint of the Spencer Place development, with Irish Water maintenance access from the street. A 400mm watermain is located within the street and its maintenance is essential. The construction phase will potentially negatively impact rental income. Clarity is requested on:
 - How is it proposed to protect existing properties from damage?
 - How is it proposed to protect existing properties from nuisance during works?
 - How will light spill / light pollution effects be mitigated?
 - How will noise / nuisance from rail be mitigated in operational times?

The applicant's written response is synopsised as follows:

Information on purpose and nature of temporary and permanent land acquisitions

- DW.002.P.08(A) - 839m² : Permanent acquisition for construction of station DW.002.T.08(A) - 924m² : Temporary acquisition for construction area to construct station

DW.002.S.08(A) - 924 m² : Permanent acquisition of substratum, required for installation of ground anchors for construction of walls for new station wall. These anchors won't compromise any excavation nor construction of structures.

DW.002.T.08(B) - 1262m² : Temporary acquisition for construction of drainage and water connections. Duration of the construction will be limited to the time required to construct the drainage and water connections.

Whether funding is in place for both land acquisition and construction

- The current National Development Plan (NDP) funding profile provides for the full delivery of DART+ West.

Over-station development

- The construction duration for Spencer Dock would be 39 months from the start of the construction contract, which will be dependent on the time required for the planning approval. Over station development does not form part of the Railway Order and would be subject to its own separate planning application in the future.

Subterranean acquisition to the east of the station building and restrictions on subterranean works

- DW.002.S.08(A) - 924m²: Permanent acquisition of substratum, required for installation of ground anchors for construction of walls for new station wall. These ground anchors can be removed during any future

development works of the property following the completion of the DART+ West project. These anchors won't compromise any excavation nor construction of structures.

Closing/restricting access for the Spencer Place development

- Access to Spencer Place for council, utility providers, emergency services and residents will be maintained while works are being undertaken.

Protecting Existing Properties from Damage

- Condition surveys of the surrounding properties will be carried out prior to any construction works. Any specific risks or hazards will be outlined in the contractor's site-specific CEMP, with construction works carried out in accordance with the industry best practices. The CEMP will also outline the monitoring plan that considers the construction works and nearby structures. Furthermore, during the construction phase vibration and diaphragm wall monitoring will be undertaken. The specific locations will be determined by the contractor. Post construction a condition survey will be carried out on the surrounding properties.

Protecting Existing Properties from Environmental Nuisance during Works

- Some phases of the work are predicted to result in significant noise impacts during the works. Mitigation measures are presented to control the impacts and these are typical of the measures that would be adopted by other large construction sites in Dublin City. The phases of construction predicted to result in the potential significant noise impacts are temporary in nature. Specific mitigation for piling work in terms of noise and vibration is provided. Noise and vibration monitoring is specified during the construction phase. It is expected that Spencer Dock will be a monitoring location. Construction of the Spencer Dock station is proposed for normal daytime construction hours.

- The implementation of the requirements of the CEMP will ensure that the construction phase of the project is carried out in accordance with the commitments made by CIE/IE in the Railway Order application process for the proposed development, and as required under the railway order.
- A liaison officer will be available to allow for members of the public or interested parties to make complaints about the construction works.

Light Spill/Light Pollution on Existing Properties

- Spencer Dock is located within the existing illuminated environment of the city centre, where both construction is on-going and road lighting is already in place. The proposed development has been designed to use the minimum lighting required and to the codes and standards set out in the Spencer Dock Station Design Report. Measures for the control of site lighting during construction are also detailed in the Construction Environmental Management Plan.

Mitigation of Noise/Nuisance Factors in Operational Times

- With respect to rail noise, the noise levels predicted are of a similar order of magnitude to the pre-existing ambient noise from road traffic which would indicate low probability of noise nuisance. Electric DART movements will be at low speed and on straight track minimising the noise emission.
- PA systems will be designed during the detailed design to ensure that volume levels are set to provide intelligible announcements within the station and not cause a nuisance to offsite locations.
- Plant selections for the station will be made such that the noise output of the plant is in compliance with the limit values specified in the EIAR.

At the Oral Hearing the landowner reiterated its concerns. Reference was particularly made to ensuring that future over-station development is not prejudiced by the proposed development and that the station development is compliant with the North Lotts and Grand Canal Planning Scheme applicable at this location. Clarity on the commencement of works was requested. The Board was requested to attach conditions requiring detailed design to facilitate future over-station development, to maintain access at Spencer Place, and to give effect to property protection and avoidance of nuisance at the construction stage. The Board was also requested to attach a condition requiring control of noise and nuisance at the operational phase.

The applicant clarified that the structure of any new over-station development would function as an independent structure and there would be no foundation support provided within the station for the building over it. It was submitted that space would be provided on both sides of the station for supports. It was noted that there is no understanding at this time of what future development is proposed and it was acknowledged that this would be subject to its own permission. The applicant stated that air space issues should appropriately be resolved at the Notice to Treat stage.

Further to this in the proceedings, the landowner updated the Board on discussions it had had with the applicant on over-station development and it was stated that CIE agreed to discuss the over-station development with the landowner once the Railway Order is granted. Reference was made to the integration of the over-station development with the station resulting in a different roof structure over the station and a request was made for an allowance for a variance of the roof structure. I clarified that the application that was before the Board was that on which the Board would be making its decision and any variation of a roof structure arising from any future development would itself require permission in the event there was a material change to the roof structure.

As a result of the landowner and applicant discussions at the time of the Oral Hearing, it is understood that the landowner is satisfied that there would be discussions on accommodating over-station development after a Railway Order is approved and that this addresses its concerns on this issue previously raised with the Board.

Further to the above, I note that this is a location which is planned for a Dart underground station under the North Lotts and Grand Canal Planning Scheme. It is also part of the DART+ programme which is fully supported at national, regional and local policy levels. The applicant is seeking to accommodate supports for new over-station development either side of the station. I must acknowledge that there is no understanding at this time as to the nature and extent of any future over-station development proposed at this location. I also recognise that the development of the proposed station would be a substantial infrastructure development in the city area. However, it would not be an exceptional project in this area in terms of likely nuisance impact arising from the construction works. I note that the construction of the station would be undertaken during normal daytime construction hours.

The following is also noted:

- The applicant's CEMP would be required to be adhered to and would, therefore, ensure construction works would be in compliance with the commitments made in the application.
- The applicant proposes that a liaison officer would be available who would accept and address complaints about the construction works.
- The station site would be located in an urban location which is illuminated at night. Measures for the control of site lighting during construction are detailed in the Construction Environmental Management Plan.

- I accept that predicted rail noise levels would be of a similar order of magnitude to the pre-existing ambient noise from road traffic and should not cause a more significant nuisance. Furthermore, it is accepted that electric DART movements would be at low speed and on straight track which would minimise noise emissions.
- The applicant commits to PA systems which would be designed to ensure that volume levels are set to provide intelligible announcements within the station and not cause a nuisance to offsite locations. This is a provision that can be readily monitored and revised where necessary to address any potential nuisance at the operational phase at the new station.
- The applicant commits to plant selections for the station being made such that the noise output of the plant would be in compliance with the limit values specified in the EIAR. Once again, this is a provision that can be readily monitored and revised where necessary to limit any potential nuisance beyond the station.

My considerations on the application of a property owners protection scheme would also likely apply to the landowner's property development at this location.

I am satisfied the landowner's concerns are being addressed by the applicant.

Finally, I submit that there is a community need to be met by the acquisition of the lands in question, these particular lands are suitable to meet that community need, alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and the works to be carried out would not be in material contravention of the provisions of Dublin City Development Plan.

Páirc an Chrócaigh Teoranta (DW.003.T.119(A) / DW.003.P.119(A))

The landowner notes the works proposed to be undertaken in the vicinity of Croke Park. Clarity is requested on the timing of the construction works and impact on Love Lane and any closure of Russell Street Bridge or Ballybough Bridge, each of which could affect event days within the stadium. It is submitted that clarity is also required on whether there is a permanent or temporary acquisition of Love Lane proposed.

The following is noted from the applicant's response:

- The presence of proposed mini pylons located within the CIÉ curtilage will not give rise to any significant visual impact.
- The majority of the land proposed to be acquired is temporary (DW.003.T.119(A)) for the construction of a noise barrier along the boundary of Croke Park. The Railway Order also includes a smaller section of permanent land acquisition (DW.003.P.119(A)) for the construction of a noise barrier.
- CIÉ Rail have met Croke Park and discussed their land concern over the permanent land acquisition leading to CIÉ agreeing to develop a technical solution that would allow the noise barrier to be constructed along the current boundary. If a suitable design can be developed that Croke Park can agree to, the permanent land acquisition could be removed and the lands in turn would then only need to be acquired on a temporary basis.
- Trackwork's are anticipated to take 2 years. Detailed phasing of the works in specific locations are ongoing with consideration being given to events such as match days or times of the year when footfall is higher. Co-ordination with Croke Park stadium will take place during detailed construction planning to ensure minimal impact to their operations.

- The appointed contractor will employ a dedicated community liaison officer and will engage with Croke Park Stadium to ensure that disruption will be kept to a minimum, particularly around the time of major events at the stadium.

It is my submission that the applicant has provided adequate clarity. It is apparent that the landowner's concerns are being addressed. There are no particular concerns arising at this location.

Finally, I submit that there is a community need to be met by the acquisition of the lands in question, these particular lands are suitable to meet that community need, alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and the works to be carried out would not be in material contravention of the provisions of Dublin City Development Plan.

Other Submissions

Kenneth Pierce

The observer's property is 6 Northbrook Terrace, North Strand, Dublin 3, an end-of-terrace two-storey house immediately east of the railway line. Concerns are raised about the proposed increase in trains and use of the line by passenger trains, loss of privacy, loss of trees as screening, increased noise and vibration, and property devaluation. Regarding mitigation and remedies, it is requested that a pre-works building and structural survey be carried out on his home and that the applicant discusses mitigating measures to reduce impact on privacy, such as efforts to lower the track and the track being laid on a silent, solid support, as well as controls on stopping to the rear of the house while waiting for signals.

Concern is also raised about the use of the lane alongside his home as a right of way.

The applicant's response includes the following:

- The commissioning of Spencer Dock Station and the increase in the frequency of trains require the line to be re-signalled, so the signal in question will no longer be used in the future. With the new signalling planned, in principle, under normal operation conditions, no train should stop in front of the property. The final position of the new signals will be identified at the detailed design stage.
- In terms of vegetation removal for OHLE, for safety and operational reasons, on electrified railway lines, trees, shrubs and climbers are not permitted within 4 m of the rail or within 1.5m from the catenary poles, depending on which is greater. This is in line with Vegetation Clearance Requirements for Electrified Lines. I-ETR-4006. Version 1.0 (Iarnród Éireann, 2021).
- Operationally it is not possible to lower the tracks. Between North Strand Jct and Ossory Rd, the GSWR tracks have a downward gradient towards Spencer Dock of 2.5%. This slope is the highest of the entire network and well above the maximum recommended by IÉ (1.67%). Given that the level of the tracks cannot be lowered at their junction above North Strand Rd, lowering the tracks further east (in the direction of Spencer Dock) would mean further increasing this already extreme slope, making the line inoperable.
- The Edilon track is a slab track system. The existing track system is ballast track. Implementing a track system like the one described would mean carrying out very significant works that are not within the scope of the work of this project. The project only contemplates this track system along the railway line where it is necessary to serve the new electrification

requirements. In general, throughout most of the project, and also in this section in particular, no track works are carried out.

- A pre-condition survey can be carried out on the property prior to construction.
- With regard to the laneway to the rear of 6 Northbrook Terrace it is not proposed to extinguish any existing rights of way along the laneway.

I further acknowledge the applicant's responses given to vibration, property value, and structural surveys.

It is my submission to the Board that the applicant has provided relevant clarity on the nature and extent of works at this location. The operating conditions of the railway at this location, need for vegetation removal, the inoperability of the railway by lowering the tracks, and the retention of the existing track system is accepted. I acknowledge the offer to carry out a pre-condition survey at this location and consider this to be relevant to determine potential construction works impacts that may require specific mitigation.

My considerations on the other issues raised are set out in earlier responses above and are equally applicable to this residential property. I draw the Board's attention to my considerations above on 'Privacy' in particular. My considerations on the application of a property owners protection scheme could also reasonably apply here.

Beatrice Vance

The observer's property is 7 Northbrook Terrace, North Strand, Dublin 3, a mid-terrace two-storey house immediately east of the railway line. The observer makes a similar submission to that received from Kenneth Pierce.

The Board will note the considerations offered on the Kenneth Pierce observation above on the issues raised.

Denis M Baker IWAIR Royal Canal Branch

The observer submits that Newcomen Bridge is strangling the potential of the Royal Canal by blocking entry or exit to it unless it is lifted. Replacement options which would allow the rail line and canal to function are requested. The proposed elevated walkways and cycleways are viewed as being of very poor design and the provision of palisade fencing on railway bridges adjacent to the canal is viewed as inappropriate and insensitive.

The applicant's written response includes the following:

- The operation of the Newcomen lifting bridge is not altered/modified by the DART + West project. Replacement options (lifting bridge, swinging bridge, drop lock) are outside the scope of the DART+ West project.
- Chapter 15 Landscape and Visual Amenity of the EIAR assesses the likely effects from construction and operational phases of the proposed bridges on landscape and visual amenity. The assessment included a review of all relevant planning policy allowing for the identification of designated and potential significant / sensitive landscape and visual areas. An overview of the landscape planning context is presented in Section 15.4.2.2 Fingal Development Plan 2017-2023 which has been taken into consideration in the assessment. Impact on Royal Canal pNHA & wildlife are addressed under Section 2.2.6 of the applicant's response report.
- The Irish Rail standards for parapets over electrified lines requires that parapets as a minimum are opaque, a vertical obstacle 1.20m high,

supplemented with an element up to 1.80m with a maximum mesh opening of 12mm. Palisade fences are not proposed over the railway bridge as it does not meet these requirements particularly with regard to limiting direct contact.

At the Oral Hearing, the IWAI reiterated its emphasis on the need for replacement options at Newcomen Bridge and set out details of potential changes that could be made. Support for IWAI's position by way of letters from Fáilte Ireland and Waterways Ireland were submitted. It was requested that, if the project is approved, a condition be attached which required the replacement of the bridge with a new one constructed to modern standards and with an operational regime that is satisfactory to Waterways Ireland.

In response, Irish Rail submitted that it would carry out an analysis of the signalling in the environs of the bridge as part of the detailed design and the intention would be to find a signalling system solution. It was repeated that the project does not require to make any structural alterations to the bridge.

I first acknowledge the constraints at Newcomen Bridge as referenced by the observer. However, the difficulties arising are not part of the rail project and the proposed works would not affect the existing bridge arrangements. This is a matter which can, and should be, addressed separate to this project to improve navigation. The observers' concerns relating to the unsightly nature of the proposed pedestrian/cycle bridges as part of the scheme are noted. The attention of the Board is drawn to my considerations on historic bridges and the revised bridge designs addressed in my Planning Assessment. The applicant submits that palisade fencing is not proposed over the railway bridge as it does not meet requirements, particularly with regard to limiting direct contact. The necessity for palisade fencing to restrict access for security reasons along the

route is accepted and is seen to be established standard practice along rail lines, including the existing route which the proposed development seeks to follow.

9.3.4. *Zone C Glasnevin Junction/Phibsborough to Clonsilla Station / Junction*

Ashtown

Landowners

I note the submissions from the family who own Ashtown Stables, namely Christopher Reid, Gráinne Reid, and Kevin Reid. I propose to summarise the concerns raised by each and to give an overview of the responses to these concerns by the applicant. I will then assess the issues raised.

Christopher Reid (DW.009.P.13(A) / DW.009.T.13(A))

The observer is the owner of Ashtown Stables and is opposed to the land take at this location. The submission includes:

- The provision of an unnecessary second cycle path,
- The impact of the development of two tunnels on bats,
- The failure by the applicant to share information on Brent Geese feeding sites, and
- The proposal will not primarily remove impacts on Ashtown Stables as it takes three parcels of the land.

The impact on the community, on the Tolka flood plain, on wildlife and horses, and the inadequacy of pedestrian and cyclist assessments are also detailed in the submission.

The landowner also made a submission to the Oral Hearing. Opposition to the level crossing closure leading to severance, to the new road development, the

provision of the tunnel, the proposed land take at Ashtown Stables, and the interference with the stables affecting its viability was reiterated. Reference was also made to reduced passenger demand, changing work patterns, impacts on horses, flood risk at Ashtown, and impact on Brent Geese. It was submitted that the landowner needs all the land he owns, that any reduction would make the stables unviable, and that it would be impossible to operate a riding stables in the middle of a construction site.

The applicant's response may be synthesised as follows:

Impact on the community

- Pedestrian and cycle bridge infrastructure will be provided in proximity to the level crossing at Ashtown which will also facilitate unimpeded 24/7 access to the Royal Canal connecting to the Tolka Valley.

Ashtown Cycle Lane & Roundabout - Impact on Brent Geese and Horses

- Detailed responses to brent geese are addressed earlier.
- Teagasc advise that 0.6 hectares (1.5 acres) is the optimal requirement per adult horse and generally, a minimum of 2.5 acres is advised for a mare and foal. In the absence of any land use information provided in conjunction with landowner engagement, it is considered unlikely that the grassland area is suitable in terms of size and location for mares with foals. A mare and foal could be grazed on the land intermittently but to properly nurture a foal, the foal should be turned out into a large paddock to allow the foal to exercise freely, away from traffic, noise and the possible pollution from the L3101. The extent of land acquisition is not considered to significantly alter the ability of these lands to function as they currently do.

National Development Plan and Provision for New Tunnelling

- The DART+ West project is consistent with the National Development Plan 2021-2030.

The underpass causing additional rainwater to build up at the bottom of Mill Lane

- The carriageway drainage network has been designed in accordance with the relevant standards to remove excess water from the carriageway for a specified storm duration and prevent ponding or additional rainwater collecting at the bottom of Mill Lane.

The underpass will flood due to flooding from the Tolka Flood Plain

- The proposed tunnel underpass at Ashtown is outside the floodplain of the River Tolka.

Elimination of green corridor that links the Phoenix Park with the Tolka Valley

- Although it has not been possible to eliminate all impacts on biodiversity on an infrastructure project of this magnitude, the impacts on Key Ecological Receptors have been reduced to sub-significant levels.

Disturbances on biodiversity during the proposed works at Ashtown

- The residual impacts on the Key Ecological Receptors, following the application of the mitigation measures, are presented in Section 8.10 of the EIAR. Although it has not been possible to eliminate all impact on biodiversity on an infrastructure project of this magnitude, the impacts on Key Ecological Receptors have been reduced to sub-significant levels.

Health Impacts from Noise and Lighting

- Although it has not been possible to eliminate all impacts on biodiversity on an infrastructure project of this magnitude, the impacts on Key Ecological Receptors have been reduced to sub-significant levels.

The need to provide a cycle track and a roundabout at Ashtown

- A suitable passenger drop-off facility is required at Ashtown Station to reduce the risk of vehicles using Martin Savage Park as a drop off area. To manage vehicles dropping passengers at Ashtown Station, a roundabout has been provided to allow vehicles to safely turn back south. In addition, access to both the Ashtown Stables, CIÉ maintenance yard and level crossing must be maintained.
- The provision of a cycle track and a roundabout at Ashtown is considered wholly aligned with the objectives and aims of the project.

Opposition to the CPO of lands at Ashtown Stables for the construction of a new cycle path

- The Railway Order will involve total land take of 0.1686ha from this property of 1.2ha. The permanent land take is required for the construction, operation and maintenance of the realigned Ashtown Road, mini roundabout and segregated cycleway. Not all of the land proposed to be acquired both temporarily and permanently is land for the construction of the cycle path. If the cycle path was removed a footpath or shared space of similar width would still need to be provided to meet pedestrian and cycle requirements.

Bat Surveys

- A desk study and field surveys were undertaken to inform the assessment of bats. Mitigation measures are presented in Section 8.9 of the EIAR, including measures' relating to bats.

Irish Rail changed their assessment of Option 2 (their previously preferred option for Ashtown) in terms of the impact this option would have on Brent Geese from Public Consultation 2 to the Public Consultation 3 (Ashtown).

- The assessment ratings for Option 2 in the two reports are not directly comparable. In both reports, Option 2 was given the least preferable rating with regards to biodiversity.

IE claim of removal of impacts on Ashtown Stables

- The preferred option which is to construct the underpass to the west of the old mill, ancillary buildings and stable complex will clearly reduce land acquisition and the construction impacts on the stable yard, buildings and property, involving a total land take of 0.1686ha from this property of 1.2ha.

Gráinne Reid

The observer's family owns and runs Ashtown Stables. The submission refers to biodiversity, animal welfare and risk to life concerns, to Irish Rail acting in bad faith, to DART West's anti-women plans (the loss of a sporting amenity and provision of a dangerous tunnel), and to the ugliness of the proposed structures, including the tunnel and foot/cycle bridge.

A written submission by Gráinne Reid was read at the Oral Hearing. The key issue raised sought clarity on how the applicant considers it viable for Ashtown Stables to continue to operate, given the risk to human and horse life, health and well-being posed by the construction work. Reference was also made to the inadequacy of the relaying of the response to Ms. Reid's submission and to the failure of the applicant to respond to a request to set out its position in writing following a request by it for a meeting.

Reference to issues not otherwise addressed above by the applicant include:

Construction works on Stables lands will destroy the agricultural land beyond repair

- The proposed development will result in some land take along the edge of the site, which will not change the overall character of the grassland and not diminish its potential suitability as a feeding site for Brent Goose.

Reduction of Grazing Land

- The Railway Order for the DART+ West project will involve total land take of 0.1686ha from this property of 1.2ha. Land take is comprised of 0.0426ha permanent agricultural lands, 0.0211ha temporary agricultural lands and 0.1049ha temporary public road. The significance of the residual impact, following the implementation of mitigation measures and the completion of construction works, is deemed to be 'Not Significant'.

Waterworks and groundworks damaging the foundations of buildings

- Detailed Ground Investigations were undertaken as part of the design process and informed the proposed design. The works have been designed to avoid, reduce and mitigate significant effects on adjacent properties. A construction management plan will be developed by the contractor prior to works commencing. It is envisaged that a condition survey will be carried out on structures and buildings adjacent to the works, prior to construction commencing, to determine the current condition. In addition to condition surveys, vibration limits will be set for vibration emitted from the construction works. Vibration emitted from the construction works will be monitored at various locations around the works.

Construction works threaten safety of horses and people and affect the enjoyment of the amenity

- There will be negative impacts during the construction phase. However, these impacts will be short-term and temporary in nature. Mitigation measures are detailed in the respective chapters of the EIAR to reduce these impacts.

Inaccurate information provided at the public consultation stage / further requests of information not provided when asked / IE processing personal data in breach of national and EU law by taking pictures of the Stables

- Every effort was made to ensure that all information that was published as part of the non-statutory public consultations that were held into DART+ West, as well as the information that was contained within the railway order application, was accurate.
- Throughout the periods of public consultation and at all other times every effort was made from the initial launch of this project, right through the non-statutory consultations and the statutory consultation to engage proactively with this landowner. The Reid family attended a number of public webinars that were held by the DART+ West project team and voiced their concerns to the team. The DART+ West project team was made available to meet in person, when public health restrictions allowed or virtually when they did not, to discuss any concerns that this landowner may have. The landowner agreed to two meetings, both of which the CEO attended. All other offers to engage were declined. Separate to this, there was prolific email communication from this landowner both to the Community Liaison Team, the CEO's office and the FOI office. All emails and FOI requests were responded to.

The proposed underpass is not safe for women

- The underpass will be well lit, heavily used and relatively short. It will also have CCTV supervision to ensure public safety concerns can be monitored.

The proposed structures at Ashtown are not in keeping with Dublin's look and feel

- The provisions at this location are in keeping with the general surroundings and endeavour to maintain the “look and feel” of the area.
- The proposed pedestrian CORTEN steel bridge was agreed upon as opposed to concrete solutions to tie in with the “look and feel” of the area. Additionally, a counterpoint between the bridge and the landscape of the canal was created that will emphasise the vegetation.

Dr Kevin Reid

The observer is the managing director of Ashtown Stables. It is submitted that the acquisition of the stables’ land would render it inoperable and force it to close. The submission includes:

- The proposal would wipe out a valuable local amenity to facilitate a cycle lane and would have significant impacts on the welfare of the horses at the stables.
- The Stables land is a feeding site for Brent Geese and the impact would contradict EU law.
- The Stables area is important for different bat species. The EIAR missed this and did not pick up on the six species prevalent here. The impact on otters and badgers is also referenced. The effect of the proposed construction site in this area is highlighted.

- Irish Rail's conduct in relation to the project has been a disgrace, with reference made to consultation, provision of information on the project, intent on land acquisition, and the analysis undertaken.
- Options were ruled out on the basis of cost and this is not shared information.
- The electricity source required to run the project has not been guaranteed and there is no specific guarantee on renewables.
- There are flooding concerns relating to the proposed tunnel, as well as concerns about safety and anti-social behaviour.
- The proposed closure of the level crossing has not been justified.
- The proposed bridge is totally incompatible with the area.
- The role of An Bord Pleanála in consultations with the applicant is queried, as is the short time provided for making a submission and the requirement for a fee.
- Other options available to the applicant do not include the closure of the stables, the segregation of the community, the impact on protected species, and the construction of the bridge and tunnel. They should stay entirely on their own land.

The landowner also made a submission at the Oral Hearing. It was reiterated that the construction of the project would render the stables inoperable and cause irreparable damage to the local environment. Reference was made to the extent of public support for the stables in response to the applicant's plans, problems relating to consultation, the impact on the stables, inappropriateness of screening, a flawed Multi-Criteria Analysis, the applicant's treatment of the effect on Brent Geese, the requirement to protect bat populations and otter, conflict with health and well-being objectives of the State, the proposal being in breach of the landowner's constitutional rights, and conflict with the Aarhus Convention.

Reference to issues not otherwise addressed by the applicant above include:

The Stables are a valuable local amenity which would be affected by the project

- The revised preferred option was selected largely in recognition of this amenity value. There will be some impact at the southern extremity of the Ashtown Stables site at Mill Lane to accommodate road widening and there will be temporary impacts due to construction activity.

At public consultation events, IÉ informed the public that objections lodged would be sent to ABP as part of the RO application

- This was never stated at any public consultation.

Other available options that would not affect the Stables

- An extensive list of options was considered as part of the multi-criteria analysis for option selection at Ashtown. Additional options were added as feedback was received from the non-statutory public consultation process. The final list of options amounted to 13 in number in addition to the Do Nothing and the Do Minimum options. Option 10 – The underpass offline to the west of the listed mill building was identified as the preferred option.

Contradiction at option selection relating to the presence of a feeding site for Brent Geese

- The Brent Goose inland feeding sites were identified from the desk study, in particular the results of the Dublin-wide Brent Goose Survey. The main source of data for the study was provided by the Irish Brent Goose Research Group. No additional inland feeding sites are identified in the vicinity of Ashtown Stables. Martin Savage Park is assessed as being of 'Major' Importance for brent geese. In the multi-criteria analysis, the importance of Martin Savage Park was noted and was material in the selection of the preferred option. Options which directly impacted on these feeding areas of major importance were scored accordingly.

- Although it is not disputed that Brent Goose may use the grasslands at the Ashtown Stables, particularly because it is situated beside a feeding site of Major importance and may have optimum sward height, it is considered that the Ashtown Stables lands do not provide ideal feeding habitat for Brent Geese.
- The proposed development will result in minimal land take along the edge of the site, which will not change the overall character of the grassland and not diminish its suitability as a feeding site for Brent Goose.

The presence of bats, otters and badgers in the area leading to direct mortality

- The residual risk of 'Direct Mortality' following the application of mitigation measures is acknowledged. It is considered that the maintenance of access for animals such as Otter across the railway corridor outweighs the habitat fragmentation that would result if the railway was fenced off securely to prevent badger and otter crossing the railway line.

Presence of two construction compounds at Ashtown is overkill

- Due to the suburban nature of the area and geometry of the works, i.e. split by the rail line, it was deemed necessary to have a number of compounds.

Contravention of the Climate Action Plan, National Biodiversity Action Plan and the Wildlife Amendment Bill (2016)

- The DART+ Programme has been identified in the Climate Action Plan as a key action required to deliver the sectoral emissions target set for transport. The negative impacts associated with the developments have been mitigated as far as practicable, in accordance with National Biodiversity Action Plan. No activities which would constitute an offence under the Wildlife Acts are proposed.

Poor communication during Public Consultation / multiple errors in the documentation presented for the public / further information requests not answered

- The majority of the public consultation for this project was virtual due to public health restrictions. Public webinars were held for communities to engage with the project team, when in-person was not permitted. There was a dedicated webinar on the Ashtown area in Public Consultation no.1 and no.2. Following on from the strong feedback that was received in Public Consultation no.2, the Project team re-examined the preferred option at Ashtown and a consultation was held on the Revised Preferred Option at Ashtown, which was held both virtually and in person to accommodate people's preference.
- Every effort was made to ensure that all information that was published as part of the non-statutory public consultations that were held into DART+ West, as well as the information that was contained within the railway order application, was accurate.
- The efficacy of the public consultation process is demonstrated by the fact the design of the project in Ashtown was substantially altered in light of the feedback and representations that were received in relation to the amenity value of Ashtown Stables during the public consultation process.

Refusal to provide basic information on the project

- Members of the DART+ West team were clearly identifiable during the public webinars that were held as part of Public Consultation No. 1 and No.2 webinars and the local Ashtown in-person consultation. Costs associated with the project were refused under FOI for commercial reasons.

Guarantee that the project will be powered via renewable energy.

- IÉ has agreed to purchase up to 80% of its operational demand from certified low or zero carbon electricity for operations.

Engagement with the Reid family

- IÉ has engaged with the Reid family over a number of years and will continue to do so over the project lifetime.

Conflicts of Interest

- The issue raised is baseless and IÉ does not propose to respond to this point.

Flooding at the Underpass

- Flood Risk at Ashtown was considered as part of the Site-Specific Flood Risk Assessment. The proposed underpass at Ashtown is outside the floodplain of the River Tolka.

Closure of the level crossings

- Level crossings are a major constraint to surrounding road networks causing congestion and increased journey times for all modes of traffic including pedestrians and cyclists. The main aim of the proposed development, and the overarching DART+ Programme, is to increase passenger capacity and train frequencies. Increased train frequencies will result in additional level crossing closures and subsequent increase in congestion and delays in the surrounding road network. The design team examined the feasibility of meeting the project objectives while keeping the existing level crossings in place and it has concluded that the project objectives cannot be delivered on this basis.

The foot bridge is not compatible with the area

- The proposed pedestrian CORTEN steel bridge was agreed upon as opposed to concrete solutions to tie in with the “look and feel” of the surrounding area.

Errors in the planning documents / ABP meeting with the project team / provision of minutes of meetings / details of staff who will be reviewing the application

- Section 47B of the 2001 Act provides that a person who proposes to apply for a railway order “shall, before making the application, enter into consultations with the Board in relation to the proposed railway works”.
- ABP is required to keep a record of any consultations under section 47B and these are listed as Records/Additional Records and may be inspected at <https://www.pleanala.ie/en-ie/case/306587>.

Using powers of the State to CPO lands 300m away from the railway line

- The lands at issue in this objection are required to facilitate the new road alignment, which is required because of the construction of the underpass.

I note for the Board that the applicant gave a comprehensive response to the landowners’ submissions at the Oral Hearing. This included matters relating to engagement with the landowners, the option selection process, noise, impact on horses, agricultural impact, biodiversity, and flooding. Reference was made to the works proposed and to a wide range of mitigation measures set out in the EIAR to address construction and operation impacts.

Consideration of Issues Raised

The Board will note that I have addressed many of the issues raised by the landowner in my Planning Assessment, assessment of scheme-wide issues, and issues relating to Zone C at Ashtown. These include public consultation, severance, the need for the closure of level crossings, provision of pedestrian/cycle bridges, the alternative options, flooding, impact on bats, impact on Brent Goose, and safety and anti-social behaviour. I do not propose to repeat my considerations.

I note that the permanent land take at Ashtown Stables is required for the construction, operation and maintenance of the realigned Ashtown Road, mini roundabout and segregated cycleway. These are inherent components of the project at Ashtown to deliver safe and orderly access for road users. The development of the tunnel is also integral to the delivery of alternative provisions for road users following the level crossing closure. It is evident that not all of the land proposed to be acquired both temporarily and permanently at Ashtown Stables is land for the construction of a cycle path. This path is part of more extensive works integral to the delivery of appropriate access arrangements.

The proposed significant impacts of the construction stage of this project at Ashtown must be placed in context. It is recognised and accepted that this would be a significant construction project at Ashtown. As with the impact on humans in the local community, the proposed development would have significant impacts over a three-year period for horses and businesses in the Ashtown area. Consideration of the compensation to be paid out as a result of the impact of the project is beyond the scope of An Bord Pleanála. Adaptation to the impacts from construction activities by people and businesses (including horses and clientele associated with a riding stables business) will be required. If the project is to proceed as proposed, including the provision of a cut-and-cover tunnel, a pedestrian/cycle bridge, an improved Ashtown Road to accommodate

pedestrians, cyclists and other road users, a roundabout at the southern end of Mill Lane, the siting of necessary construction compounds, etc., then adverse impacts will result. The applicant's proposed mitigation measures applicable to noise, vibration, lighting, retention of access, etc, and its implementation of its Construction Environmental Management Plan, Traffic Management Plan, etc. will each play a role in seeking to reduce the extent of adversity arising. The infrastructural components of this project at Ashtown will not be built without adverse impact on humans, animals (including horses), businesses, and the local environment.

Nowhere else along the route corridor does it appear that such an extensive range of options was considered and reviewed in comparison to the Ashtown area. The applicant's approach to its option selection process at Ashtown was subject to substantial questioning and consideration at the Oral Hearing by myself and a number of landowners and observers. While the process cannot be exhaustive, it is apparent that three stages of assessment were undertaken at Ashtown, with revisions arising from consultation and review of the various considered options. It is apparent that the preferred option now before the Board seeks to make provisions to accommodate all road users who would be discommoded by the level crossing closure.

Regarding physical impact on structures and the proposal by the applicant to undertake condition surveys, the Board will note my recommendation in my Planning Assessment to provide a property owners protection scheme. With regard to the electricity source required to run the project, I note the applicant's commitment to using renewables and this was reaffirmed at the Oral Hearing. I further note that the landowner queried the role of An Bord Pleanála in consultations with the applicant. The requirement for pre-application consultation under the Planning Act was correctly identified by the applicant in its response.

Finally, I submit to the Board:

- The proposed project is supported by and compatible with public policy and statutory development plans;
- The acquisition of the lands at Ashtown Stables is based on a community need to deliver this project in the interest of improved public transport and in response to the need to combat climate change;
- The acquisition of the lands at Ashtown Stables is suitable to achieving, and compatible with meeting, the community need;
- A very extensive range of alternatives was considered for Ashtown and those not selected are not demonstrably preferable to the option now before the Board for consideration; and
- The extent of the land take at Ashtown Stables is proportionate to the needs of the scheme to meet its objectives.

Burke Brothers (DW.009.P.17(A)(B) / DW.009.P.18(A)(B)(C)(D)(E)(F)(G) / DW.009.T.17(A)(B) / DW.009.T.18(A)(B)(C)(D)

The landowner queries the impact of the chosen option at Ashtown on the viability of enterprises and requests further examination of other options, with Options 4/4a (Link from River Road to Navan Parkway Station grade separate junction with pedestrian / cycle crossing in Ashtown) and 9 (lowering the railway vertical alignment) in the Dart+ West Ashtown Revised Preferred Option Report viewed as more optimal.

The applicant's written response may be summarised as follows:

- The Railway Order for the DART+ West project will involve total land take of 1.2019ha. The impact of the proposed development has been assessed

in the EIAR and the significance of this impact is deemed to be 'Profound'. The criteria for a Profound property impact on a commercial property is "an impact on the property where the use of the property cannot continue".

- A multitude of options were considered for the Ashtown level crossing replacement during the option selection process. This preferred option has now been assessed in the EIAR and the Natura Impact Statement and is the subject of this Railway Order application.
- The proposed preferred option has been developed through a multi criteria assessment and has considered feedback received from the local community, businesses and representatives at three no. public consultations including a specific localised Ashtown Public Consultation. The details of the option selection process are set out in Chapter 3 of the EIAR.
- In the DART+ West Railway Order the drawings of Ashtown are of the developed design which if approved will progress to detailed design/construction. All drawings are shown to scale so any dimension required can be obtained. The Railway Order Works Plans (specifically WP009) shows the land acquisition line overlaid in red on the OS mapping so each landowner can see the boundary of the proposed lands to be referenced for the DART+ West project which then allows landowners to identify the impact or proximity of the red line to their property boundary. The Railway Order Property Plan (specifically DW009) shows the landownership of each plot being referenced for the DART+ West with a unique ID which is referenced in the Book of Reference. This enables the landowners to see exactly which lands are being referenced from them. The Railway Order Structures Plans show drawings of the proposed footbridge, the Mill Lane road realignment, and underpass.

- The land take shown on the Railway Order – Property Plans shows the full extent of lands required for the proposed development.
- The impact on business operations is assessed in the EIAR under the heading Agriculture and Non-Agricultural. In respect of Option 10 the assessment concluded the agricultural impact will have a slight impact on Ashtown Stables, a profound impact on Burke Bros Ltd. and significant impacts on Gowans. This resulted in the option being rated Significant Disadvantage Over Other. This is the most negative rating available.
- The proposed set down area will be managed by the local authority once the DART+ West project has been completed. Illegally parked cars will be dealt with by the Local Authority Parking Enforcement Department. With regards to the proposed underpass, illegally parked cars will be similarly dealt with.
- The impact on the property will be mitigated by measures including the provision of suitable property access to the remaining area, replacement of entrance and property boundary treatment and the reinstatement of the temporarily acquired area. These measures will facilitate access to the property and allow for limited commercial use of the remaining buildings and lands following the completion of the construction period.
- Option 4 & 4a comprises closure of the level crossing, a link from River Road to Navan Parkway Station grade separated junction and the construction of a separate pedestrian/cycle and disabled access bridge under the canal and railway with ramped links to the station. This option dropped out of consideration at the MCA1 stage of the assessment due to the scale of significant negative impact the option had when compared to others.

- The Option Selection Report and the Ashtown revised Preferred Option report includes the full MCA tables. This includes items such as Biodiversity, Water resources, Cultural, Archaeological and Architectural Heritage, Non Agri impacts, Geology and Soils, Stations accessibility, impact on vulnerable groups, social inclusion, connectivity to adjoining cycling facilities, permeability and construction and land costs which would have considered impacts of utilities diversions and connections.

At the Oral Hearing, the landowner sought details on costings and the applicant provided a comparative on MCA option costs. The focus on land costs was queried. Concern was raised about the extinguishment of the business and it was contended that this was not addressed by the applicant and formed a significant gap in the application. The nature of the business was clarified, being a wholesale and distribution business with approximately 50 employees and constituting the largest hardware wholesaler in the country with over 1000 customers. Noting the property use cannot continue, the viability of the business was of concern and it was queried where it could move to and how its specific needs could be met. The Board is asked to build in some form of an accommodation whereby the landowner could consider its options in relation to movement – to identify a site, build or redevelop that site, and transfer stock and employees. It was submitted that these impacts need to be mitigated. It was contended that if this was unable to be done then there would be a complete extinguishment and the business would require to be bought in its entirety, which would be highly expensive. It was submitted that one cannot permit an open-ended CPO procedure of this nature to proceed. The Board was urged not to confirm the Order in the manner sought by the applicant.

The applicant provided details of consultation with the landowner prior to the determination of the preferred option at Ashtown and its assessment in Chapter 17 of the EIAR (Material Assets Non-Agricultural Properties). It was submitted

that permanent land take would result in a reduction in property area of 51%. It was clarified that the permanent and temporary land take would involve a direct impact on four bays of a six-bay industrial unit, a separate two-bay industrial unit, the business offices and administration area for the premises, the staff and customer parking area, a reduction in the commercial yard area, and impacts to the existing entrance and property access. It includes lands leased to the Gowan Group for parking. It was stated that the reduction in the commercial yard area would impact on HGV parking and the required turning movements when making deliveries to the premises, as well as impacts on customer collections from the premises. There would also be a loss of access to the retained lands during the period of construction and until the proposed property entrance is provided. The impact is deemed to be of profound significance. It was submitted that the use of the property cannot continue. The business could not trade during the construction period and, following the construction period, the business could not recommence trading in its preconstruction form, considering the significant reduction in warehouse capacity, the limited yard area, loss of business offices, and loss of car parking.

I note that it is determined that the provision of the proposed tunnel is a necessary component of the scheme with the removal of the level crossing at this location. The acquisition of a substantial part of the landowner's holding is necessary for the new tunnel and associated road works at Mill Lane. The alternative options process at Ashtown went through a number of stages, leading to the selection of the preferred option. This is the option that forms part of the application and which the Board is required to make a decision on. If a tunnel and new road layout option are regarded as suitable then the acquisition of the landowner's holding is required. This acquisition would be subject to compensation which is not a matter for the Board. I am satisfied that the applicant has undertaken an assessment of the impacts on this property. The applicant has determined that the impact would be profound. If the development

proceeds the business operation on these lands would cease. Its use would extinguish. There are no mitigation measures which could change this outcome. The landowner would be required to be compensated for the loss of this business.

I submit to the Board:

- The proposed project is supported by and compatible with public policy and statutory development plans;
- The acquisition of the Burke Bros property is based on a community need to deliver this project in the interest of improved public transport and in response to the need to combat climate change;
- The acquisition of the Burke Bros lands is suitable to achieving, and compatible with meeting, the community need;
- A very extensive range of alternatives was considered for Ashtown and those not selected are not demonstrably preferable to the option now before the Board for consideration; and
- The extent of the land take at the Burke Bros property is proportionate to the needs of the scheme to meet its objectives.

Gowan Group Limited (DW.009.P.16(A)(B)(C) / (DW.009.P.17(A)(B) / DW.009.T.16(A)(B)

The observer has a car showroom premises at Ashtown Grove, Navan Road. The principal concern relates to the adverse impact of the proposed development on the functionality and viability of the premises, affecting the quantum of car parking/car storage space available and vehicular movement for large car transporter vehicles. Reference is also made to the significant increase in traffic

along Mill Lane as a result of the increased capacity of the road and the effects this would have on the car display area.

The applicant's written response may be summarised as follows:

- The Railway Order for the DART+ West project will involve total land take of 0.1124ha. The impact of the proposed development has been assessed in the EIAR and the significance of this impact is deemed to be 'Significant'. The criteria for a Significant property impact on a commercial property is "impact on the property where the use of the property can continue. An impact of temporary or permanent duration resulting in a change to the character of the property".
- The preferred option is based on a number of factors, not only the impact on this property.
- Both the Property Plan and Works Drawing are presented on OS Mapping for consistency and for land referencing requirements.
- The project will increase traffic along Mill Lane. A section of the existing display area, both owned and leased, will be impacted by the project. However, the main dealership buildings will not be impacted.
- It is noted that there are concerns over access onto the public road for loading and offloading of vehicles. During the construction phase access to the property and business will be maintained. Vehicular traffic will be managed by Temporary Traffic Management. During the operations phase any deliveries and parking on the proposed road will need to be done so as not to obstruct traffic and block the road during peak times in the morning and evening. The proposed carriageway has been designed to the latest relevant road design standards and has undergone Road Safety Auditing to ensure the design is safe for all road users.

- The new road will be of a much greater standard to the current Mill Lane, will comply with visibility at junctions, and have appropriate entry radii, therefore making it safer than the existing road.

At the Oral Hearing, the landowner queried the appropriateness and sufficiency of information in the application. Emphasis was placed on the option selection process at Ashtown, with particular reference to the change from Option 2 (Underbridge on Mill Lane) to Option 10 (preferred option) being a sea change in the process. The landowner discussed the severe disruption in its operations of car sales and showrooms by the land take. The reduction in land area is seen to be detrimental to the business. Parking was stated to be already at capacity. It was noted that Mill Lane as a cul-de-sac generates no through traffic. It is used for unloading and facilitates delivery manoeuvres. It was submitted that it would not be possible to reverse out onto Mill Lane with the proposed development. The need for information on construction management was referred to, as were the effects of a prolonged construction period of two years. The Road Safety Audit was discussed and how issues arise at the roundabout at the southern end of Mill Lane. A legal submission was made which referred to the substance of the information available being of concern. It was queried whether the Board had enough information on the reasonable alternatives and if the data are available that are needed to form conclusions on the preferred option. It was noted that the Board can consider certain alterations. It was questioned if the preferred option is the right choice for the community at large. The Board was asked to review the proposal and come up with a better choice.

The applicant in response acknowledged that a significant impact would result from the proposed development. It was clarified that there would be a reduction in owned lands of 3% of land area and 5% of temporary and permanent property area. The owned and leased land area affected was stated to total 1.575ha. The

landowner had submitted that this would lead to potential loss of 42% of spaces and this was not refuted by the applicant.

I submit to the Board that the removal of car parking area owned and leased by the landowner would have a significant impact on the operations of the car sales and showroom business. This is a business premises reliant upon parking of vehicles for sale, for customer access and for delivery by large vehicles with a narrow approach via Mill Lane. Mill Lane is a cul-de-sac at present and it generates no through traffic. This road is used for facilitating unloading and other delivery manoeuvres to business premises.

There can be no doubt that the proposed development would require changes to the operations of the business as it would reduce car parking area where parking space is already stretched. The loss of parking would result in the reduction of on-site storage of vehicles for display purposes and alternative arrangements would be required. I note that the buildings at this location would not be affected. The business function would not be extinguished but its holding facility for vehicles would be reduced.

While I note that Mill Lane plays a role in the delivery to this premises in the form of accommodating vehicular manoeuvres, I must further note that there is no known entitlement of the landowner to exclusively use this road for its own operations over its use by other road users. It is apparent that the applicant's Construction Environmental Management Plan and associated Traffic Management Plan would be an integral feature of the functioning of this premises over the two and more years of the construction phase which seeks to deliver the tunnel and associated road provisions at this location. Clearly such plans evolve through the process and respond to specific needs in specific locations. It is apparent that the applicant has a distinct understanding of the effects of the

proposed development on this landholding and it is acknowledged that it is intended that this premises would be facilitated to continue functioning throughout the construction phase.

I note once again the option selection process for Ashtown. This was an evolving process following public consultation. At each stage, the emerging preferred option was changed in response to public submissions. It is apparent that the final preferred option presents as one which sought to minimise impacts on Ashtown Stables and this led to the proposed siting of the tunnel west of Ashtown Road and the provision of road works along Mill Lane. This option has resulted in significant direct effects on Gowan Motors. There is a clear understanding of why the applicant has pursued this alternative over the many other options considered at Ashtown. The assessment criteria for option selection are clearly set out in the EIAR and the information is presented which has led to the option selection.

The provision of the proposed tunnel and associated road infrastructure at Mill Lane are deemed necessary components of the overall scheme with the removal of the level crossing at Ashtown. The acquisition of those parts of the landowner's premises are necessary for the new tunnel and associated road works. Furthermore, they are proportionate to meet the needs of the project at the construction and operational phases. During the construction phase access to the premises is proposed to be maintained and temporary traffic management plans would be put in place. The delivery of the tunnel and road works on Mill Lane would bring with it improved standards to the road. However, it is accepted that deliveries and parking at this location will be required to be done in a manner that would not obstruct traffic and block the road, particularly during peak times in the morning and evening. The changes to Mill Lane would necessitate changes to management of deliveries and parking. In my opinion, this is necessary and, in light of the intent of the road works, it is reasonable.

Finally, I submit that there is a community need to be met by the acquisition of the lands in question, these particular lands are suitable to meet that community need, alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and the works to be carried out would not be in material contravention of the provisions of Dublin City and Fingal Development Plans.

John & Grainne Malone (Ref. DW.009.B.01)

The observers are residents of Station House, Ashtown Road.

It is contended that the Book of Reference describes the access to Station House as being in the ownership of Waterways Ireland but is in their ownership. It is submitted that the applicant has failed to justify the need for any part of the observers' property and that vehicular access must be maintained at all times. It is submitted:

- The proposal would interfere with common law right of access to the highway.
- The proposal would interfere with an easement of way over the towpath on the canal and no provision is made for the extinguishment of the right of way.
- The proposal would interfere with a public right of way and public road over the towpath.
- The proposal would interfere with the level crossing. There is a statutory obligation to maintain the accommodation way at all times, the level crossing is subject to a public right of way which cannot be extinguished, and the level crossing is also part of a public road which has not been abandoned.

- The authority cannot carry out the works due to the lack of sufficient legal interest and the draft Order does not make provision for the acquisition of necessary property interest relative to the observers' property. No justification has been given for the impact on the observers' property rights. It is extraordinary that the EIAR makes no mention of the interference with the observers' property rights and the resultant blight on the property.

The submission also includes:

- Access to Station House will be directly affected by the proposed works. Pedestrianising the existing canal bridge (Longford Bridge) impacts on access to the house and no mitigation measures are proposed.
- The significance, extent, proximity and timing of the proposed construction works are highlighted.
- Noise, vibration and air quality are concerns. Baseline noise and vibration surveys and impacts for Station House were not assessed. An assessment for the construction period should be carried out. Night-time effects, piling, cumulative construction impacts, and the resultant effects on the habitability of the property are noted.
- Concerns relating to potential subsidence at the property from excavation works and need for mitigation, impact on daylight and night-time glare from the proposed pedestrian and cycle bridge, and vibration levels from works are highlighted.
- Air quality impacts from the construction compounds in close proximity, the nature and the duration of the works, and the nature of dust emissions would affect the wellbeing of occupants of the house.

The applicant's written response to the submission may be summarised as follows:

Environmental Impacts at Ashtown

- The EIAR chapters provide an impact assessment on the environmental factors in accordance with EIA Directive 2011/92/EU, as amended (the EIA Directive').

Assessment of Impacts on Station House

- Section 17.6 of the EIAR outlines measures to mitigate the impact of the proposed development on property. These include the reinstatement of any temporarily acquired lands and maintaining of access during construction and operation phase.

Access to Property and Right of Way to Canal Towpath

- The EIAR states that access will be maintained to all affected property as much as possible and if interrupted will be restored without unreasonable delay. Traffic management measures will be put in place during construction where temporary or minor diversions are required.

Station House is not mentioned at all in the EIAR description of the works.

- Chapter 12 Air Quality does not identify individual properties or buildings. The construction phase study area focuses on air quality receptors adjacent to dust generating activities or roads impacted due to construction activities. Chapter 14 Noise and Vibration makes reference to Station House under Ashtown Level Crossing where it is stated that: Night works are likely to cause a significant effect at surrounding receptors, and in particular at the Station House located adjacent to the rail tracks. During the day period, the likely effects from the works will range from moderate to significant dependent on the activities undertaken. The site can implement typical mitigation measures such as a solid hoarding for the duration of the works and typical mitigation measures can be

implemented. Chapter 15, Landscape and Visual Amenity identifies 'suburban properties along, fronting and viewing the proposed development not included in land acquisition' as receptors of landscape, townscape and streetscape characteristics and visual impacts.

Vibration

- The list of properties vulnerable to vibration at Section 14.5.3.5 of the EIAR is not intended to be an exhaustive list but is a list of protected structures which were provided. Notwithstanding the list of protected structures in Section 14.5.3.5 of the EIAR any other property that is found to be vulnerable to vibration during the construction of the Project will have the lower vibration limits outlined in Table 14-23 applied. For Station House this will be determined through the condition surveys that would take place prior to construction.

Noise Measures

- Section 14.5.3.5.3 of the EIAR identifies Station House as being a sensitive receptor where there will be significant noise impacts in particular during night-works to the level crossing. The assessment does identify the possibility of installing a site hoarding which acts as noise screening. However, for works on the rail line it may be difficult to provide mitigation during the night works due to the nature of the sites being temporary worksites for a 4-hour period each night and the plant involved is difficult to mitigate. Therefore, it may not be practical to install site hoarding or permanent noise barriers to the work site.
- Section 14.6.1.2 of the EIAR discusses the noise and vibration monitoring to be undertaken during construction. The specific locations of the monitoring will be identified by the contractor based on their programme of works. However, it is expected that monitoring will take place at locations

representative of the closest locations to the major work sites. In the case of Ashtown it is likely that Station House would be selected as a monitoring location during construction for both noise and vibration.

- All construction noise calculations have been performed in general accordance with BS 5228 – 1 Code of Practice for noise and vibration control of construction and open sites - Part 1: Noise, using the plant sound power level method.
- Section 14.5.3.3 of the EIAR describes the criteria rating for construction noise significance. The criteria have been applied to the assessment of works at Ashtown and Station House is identified as being significantly impacted.
- The construction noise assessment in Chapter 14 of the EIAR takes into account the cumulative noise impact of all activities identified to take place during the construction of the Project. Appendix A14.3 of Volume 4 of the EIAR lists the noise sources considered for each phase of work and the noise output of each source. The conclusion of the assessment is that there will be significant impacts at Station House in particular when night-time construction works are ongoing. Section 14.6.1 of the EIAR outlines mitigation measures that can be implemented to reduce the impacts, however, Section 14.7.1 does identify that there will be significant residual impacts during night works at locations within Zone C where Station House is located.

Piling for the Footbridge and Underpass

- Section 14.6.1.9 of the EIAR outlines mitigation measures specific to piling work that can be implemented to reduce the impacts, however, Section 14.7.1 does identify that there will be significant residual impacts during night works at locations within Zone C where Station House is located.

Impact on Foundations and OHLE

- The OHLE proposed at this location has already taken this into consideration and the solution proposed is a Twin Track Cantilever on the south side of the rail line to avoid a clash between Station House and an OHLE pole foundation. The only new element on the north side is a new signal. Signals are however small structures that do not require deep foundations unlike OHLE poles, therefore no issues are expected between the signal and the Station House foundations. This new signal is proposed to be approx. 10m from the nearest eastern point of the existing house.

Site Boundary / Footbridge / Impact on Daylight / Night-time Glare

- Given the immediate proximity of the rail to the property there is little by way of visual screening or landscaping that can be provided. The rail lines will not be moved any closer to the property.
- The footbridge design is described and presented graphically in Section 4.8.5.4 Cycle and footbridge at Ashtown Station of Volume 2A of the EIAR. The sensitivity of the streetscape / townscape in this local area of Ashtown is 'high'. The magnitude of change will be 'very high' and the likely effects in the construction phase will be very significant, negative, short-term.

Threshold Vibration Levels

- The proposed construction works will be carried out in compliance with the recommendations in BS5228-Prt 2:2009 +A1:2014: Code of practice for noise and vibration control on construction and open sites. The proposed construction vibration limits are lower than those requested in the submission.

Air Quality during Construction

- When dust minimisation measures detailed in the mitigation section of the EIAR are implemented, fugitive emissions of dust from the site are not predicted to be significant and pose no nuisance, human health or ecological risk to nearby receptors. Thus, there will be no residual construction phase dust impacts.
- During construction monitoring will be in place to ensure dust mitigation measures are working and if residents have any concerns about dust a line of communication will be available.

Pedestrian Access and Right of Way

- Noted that the lands are private lands and do not form part of the canal towpath. The existing right of way is along the towpath between the house and canal. The Railway Order does not include any proposals to extinguish this right of way, either permanently or temporarily for access to the Malone's property or along the canal and access will be maintained.

Justification / Authority for Land Take

- IÉ was in consultation with the landowner prior to the submission of the application for the railway order in relation to the proposed temporary acquisition of the lands as part of the railway order. Unfortunately, because of a typographical error, Waterways Ireland was incorrectly listed as the owner of the lands. In view of this error, IÉ is happy that the lands be removed from the draft railway order, or that with the consent of the landowner, the draft railway order be appropriately amended to reflect the landowner's interest in the said lands.

Maintenance of Vehicular Access

- Vehicular access to Station House will be maintained during and post construction.

Road Access

- It is not proposed to remove the owners right to access either the road or right of way abutting their land.

Closure of Ashtown Level Crossing

- The level crossing along Ashtown Road is proposed to be closed as part of the scheme. The proposed extinguishment of the right of way is indicated on the Property Plan reference DW.038 and indicated in green as DW.009.B.01 which is included in Schedule 6 of the Railway Order Book of Reference.

I acknowledge that the applicant submitted correspondence from the personal representative of the late John Malone and Grainne Malone withdrawing this objection at the Oral Hearing. A copy of the Scheduled Agreement was submitted to the Board.

Further to this, the Board will note my request from the applicant at the Oral Hearing to provide details of the construction-related impacts of the proposed development on this property. This is set out in Section 8.15 of my Planning Assessment. This was considered by the applicant to be a reasonable example relating to construction impacts. The Board will note Section 10 of the submitted agreement between the parties which states the following:

“10. Grainne Malone shall have the option of availing of reasonable appropriate alternative accommodation, to be provided at the expense of CIÉ/IE, for such time as the Works and/or any associated compounds are in operation within 100m of the property, including costs of furniture removals, transport costs, travel costs etc.”

I submit that this is an acknowledgement by the applicant of the need in some instances to take appropriate measures to address severe construction-related impacts on properties close to the proposed works. There should be a standard approach to those residents in particular who are likely to be significantly affected during night-time works. I recommend that a condition should be attached with the granting of the Railway Order reflecting an appropriate response by the applicant.

John & Noelle Keenan (Ref. DW.009.P/T.105(A)(B))

The observers reside at Royal Canal Cottage in Ashtown and it is proposed to acquire part of their property. Reference is made to lack of detailed measurements outlining how much land may be permanently acquired and how much may be temporarily needed, the lack of evidence that the scheme is urgent and that CIÉ has the funding to complete the scheme, and there is a concern that their property could be sterilised for a considerable period.

The applicant's written response may be synthesised as follows:

- The lands are required to construct the scheme including the proposed underpass and regrading works on Ashtown Road. Some of the land is only required temporarily and will be returned to the owners on completion of the works. However, the lands referenced in the Book of Reference -

Schedule 2 (Part 1) - Land which may be acquired, references DW.009.P.105(A) and DW.009.P.105(B) are proposed to be acquired permanently.

- The extent of the lands required are shown on PROPERTY PLAN NO: DW.009. The permanent acquisition required from the property is 314m² , shown bounded in red and shaded grey while the temporary lands required total an additional 246m² shown bounded in dark blue and shaded light blue.
- The need for the scheme is provided within Chapter 2 of the EIAR which outlines the key policies for the delivery of the project.

I am satisfied that the necessary clarification has now been made for the landowners to gauge an understanding of their landholding that would be affected by the proposed development. Reference has been made to the appropriate documentation in the application showing the relevant plots. Regarding the urgency of the scheme and the availability of funding to complete an approved scheme, it is noted that this would be a public transportation project funded by Government which is understood to be a scheme that is an objective of public transportation policy.

Finally, I submit that there is a community need to be met by the acquisition of the lands in question, these particular lands are suitable to meet that community need, alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and the works to be carried out would not be in material contravention of the provisions of Dublin City Development Plan.

The landowner raises concerns in relation to the impact of the proposed Ashtown Road improvement works on its lands at Ashton House. Concerns are raised about the resulting access arrangements to Ashton House and the impact on the character and setting of the gate lodge and its associated piers and gates which are part of the protected structure. Alternative entrance arrangements to Ashton House are proposed. The Board is asked to seek further information from the applicant to give consideration to its suggested alternative provisions.

The applicant's written response to the submission may be summarised as follows:

Detailed Information

- Photomontages of the proposed development at Ashtown / Ashton were prepared and included in the EIAR.

Impact on access arrangement to Ashton House and on character and setting of the gate lodge

- The EIAR recognises that there would be a significant negative effect on the entrance and gate lodge arising from the proposed project. The project has attempted to retain the access arrangements and minimise the change as much as possible. The alternative put forward in the submission would sever the historic vehicular access through the gateway, requiring a new vehicular access through the existing demesne wall to be created which would also represent a significant negative effect.

Hostile Underpass

- The proposed underpass is approximately 40m in length with a gap between the railway bridge and canal bridge to allow natural light to supplement the road lighting. The walls will be finished in stone to match the character of the surrounding area. The southern approach has embankments on approach with natural landscaping. The northern approach will be similar to the existing, albeit, with a higher wall on the western side. The boundary walls will be finished in a similar stone to the existing.

Underpass provision for safe pedestrian access / egress to lands at Ashtown House

- The proposed design makes provision for an uncontrolled pedestrian crossing from the footpath and cycle track on the eastern side to the western side just south of the entrance to Ashtown House. This is deemed sufficient for the current use of the Ashtown House lands which generates very little pedestrian demand. To future proof the crossing, ducting and chambers will be included to allow for the installation of a standalone signalised pedestrian crossing or the installation of a signalised junction if future vehicular demand increases.

Extent of permanent vs temporary land take is not readily apparent

- Details of the land acquisition for both temporary and permanent acquisition for the owner's land is shown on Railway Order Property Plan (specifically DW009) while the extent of the works is shown on The Railway Order Works Plans (specifically WP009). More detailed plans showing the proposed road and bridge at Ashtown are available in the Railway Order Structures Plans under the heading of Specific Locations, for Ashtown reference MAY-MDC-HRW-LC01-DR-C-0102 to 0110.

Limited detail in drawings

- All drawings are shown to scale so any dimension required can be obtained. The drawings include the Railway Order Works Plans (specifically WP009), the Railway Order Property Plan (specifically DW009), and the Railway Order Structures Plans.

Photomontages

- Fully accurate photomontages of the proposed development at Ashtown / Ashton were prepared and included in the EIAR. The images are not cropped.

Visual severance of the gate-lodge from its piers and gates

- The EIAR recognises that there would be a significant negative effect on the entrance and gate lodge arising from the proposed project. The alternative put forward in the submission would sever the historic vehicular access through the gateway, which would also represent a significant negative effect.

Inadequate vehicular and pedestrian access arrangements.

- As the Ashton House gates form part of the protected curtilage, every effort was made to retain the character of the entrance. This included retaining the existing wrought iron gates which required the vehicular pillars to be reset to the same width, which is not consistent with 2 lanes of traffic entering. If, in the future, the lands are developed, a signalised junction can be introduced with a setback stop line within the Ashton House lands.

The safety and operational efficiency of the vehicular entrance

- The proposed entrance satisfies current design standards and visibility requirements.

Re-examination of the new at-grade vehicular entrance proposed for the existing roundabout junction

- The lands at Ashton House do not have planning permission for development and no plans indicating internal layout or use have been developed. The proposed design adequately caters for the current land use/access and attempts to replicate the current setting as much as possible to retain the character of the entrance. Development of an internal roadway would be outside the scope and need as part of DART+ West. The proposed DART+ West proposal does not prejudice future development of an additional vehicular entrance at the existing roundabout.

Pedestrian and Cyclist entrance at gate lodge

- Provision of the proposed arrangement does not provide for vehicular access to match the existing. Alternative vehicular access and internal roadway from the existing roundabout would be outside the scope of DART+ West. The design adequately provides for the current situation at Ashton House.

The impact of the proposed development on the Ashton House property was discussed in detail at the Oral Hearing. The Board will note that I have addressed the impact of the proposed development on this property in my Planning Assessment and have concluded that the applicant's proposals are acceptable.

I submit that there is a community need to be met by the acquisition of the lands in question, these particular lands are suitable to meet that community need, alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and the works to be carried out would not be in material contravention of the provisions of Fingal Development Plan.

Aviva Life and Pensions Ireland DAC (Friends First) (Ref. DW.009.P.15(A) / DW.009.T.15(A)(B))

The observer has commercial properties at Block B and D at the Ashtown Gate complex. They raise concerns relating to accessibility into Ashtown Gate car park and the need for mitigation measures, the construction period traffic disruption (including regard to the impacts of the BusConnects project in this area), and the provision of pedestrian/cyclist infrastructure improvements, notably the need for design proposals addressing the pedestrian crossing and the interaction of road vehicles and pedestrian and cyclist infrastructure at this location.

The applicant's written response to the submission may be summarised as follows:

- Vehicular traffic during construction stage will be managed by Temporary Traffic Management. Temporary Traffic Management Plans will be designed in accordance with the relevant standards and agreed with the Local Road Authority.
- In the operational phase, the proposed carriageway and access has been designed to the latest relevant road design standards and has undergone Road Safety Auditing to ensure the design is safe for all road users.

- With the roundabout in place there will be gaps in the traffic which will provide opportunities for access/ egress.
- No safety concerns are anticipated here. However, the provision of yellow boxes opposite the entrances on the northern side of the road would assist in access during peak times while a yellow box could be provided at the main entrance and for the underground parking.
- The construction period at this location is likely to take 2.5 years due to the requirements for the construction of the realigned Ashtown Road and the closure of the level crossing. However, works outside the property will not be taking place continuously over this period. Access will be maintained at all times.
- 'Other' identified NTA projects that are in the public domain/at preliminary design (i.e., not in the planning system or granted) but have the potential for cumulative effects with the project have been assessed as part of the Cumulative Environmental Assessment. The project team have been in close consultation with several of the other NTA funded projects that are currently at public consultation and/or are in the public domain.
BusConnects Blanchardstown to City Centre Core Bus Corridor No.5 has been assessed as part of the DART+ West cumulative assessment.
- Specific traffic management plans will be developed by the Contractor in advance of the contract. The traffic management plan here will need approval not only from Irish Rail but approval from Dublin City Council and Fingal County Council for the works on Ashtown Road and Mill Lane.
- It is proposed that the crossing point to the south of the roundabout will be raised thus helping slow down vehicles taking the left turn onto the roundabout. This has been agreed as part of the Road Safety Audit. In addition, the crossing will be signalised for pedestrians.

- The road design including the interactions with vehicles and other road users has been considered, with a Road Safety Audit of the design undertaken and any issues raised therein addressed. Further Road Safety Audits will address any other design issues raised at the detailed design stage, construction stage and post construction stage.

I note the applicant's response and offer consideration as follows:

- Vehicular traffic during the construction stage would be managed by temporary traffic management and temporary Traffic Management Plans would be designed in accordance with the relevant standards and agreed with the Local Roads Authorities. This should address the needs and concerns of those affected by the construction works for a development of this nature.
- In the operational phase, the proposed carriageway and access would be designed to the latest relevant road design standards. The proposal has undergone Road Safety Auditing to ensure the design is safe for all road users. The Roads Authorities have not expressed any particular concerns relating to the functioning of the proposed road provisions at this location. The proposals would be required to meet the appropriate design standards.
- With the roundabout in place there would be gaps in the traffic which would provide opportunities for access/egress. Such arrangements should readily accommodate the needs of those occupying adjoining properties.
- The provision of yellow boxes opposite the entrances on the northern side of the road would assist in access during peak times while a yellow box could be provided at the main entrance and for the underground parking.

Such traffic management provisions are considered acceptable and would further aid in providing suitable access and egress from Ashtown Gate.

- The construction period at this location is likely to take 2.5 years due to the requirements for the construction of the realigned Ashtown Road and the closure of the level crossing. It is accepted that the construction period at this location is lengthy, likely resulting in inconvenience to Ashtown Gate and other occupied buildings in this area. I observe that construction works would not be continuous over this period in the vicinity of Ashtown Gate. Continued access would be provided to this property throughout the construction phase.
- The applicant acknowledges that other NTA projects have the potential for cumulative effects with the project, including BusConnects, and that these have been assessed as part of the Cumulative Environmental Assessment. The project team have been in close consultation with several of the other NTA funded projects that are currently at public consultation and/or are in the public domain. BusConnects Blanchardstown to City Centre Core Bus Corridor No.5 has been assessed as part of the DART+ West cumulative assessment. This is accepted.
- Specific traffic management plans would be developed by the Contractor in advance of the contract. The traffic management plan would need approval not only from Irish Rail but approval from Dublin City Council and Fingal County Council for the works on Ashtown Road and Mill Lane. The requirements to be met should address concerns relating to access to and egress from this property at the construction phase.
- The applicant proposes that the crossing point to the south of the roundabout would be raised thus helping slow down vehicles taking the

left turn onto the roundabout. This has been agreed as part of the Road Safety Audit. In addition, the crossing would be signalised for pedestrians. These again are practical provisions to manage the functioning of the road at this location and access arrangements to the landowner's property.

- The road design, including the interactions with vehicles and other road users, has been considered, with a Road Safety Audit of the design undertaken and any issues raised therein addressed. Further Road Safety Audits would address any other design issues raised at the detailed design stage, construction stage and post construction stage. These follow-up assessments should inform additional necessary design which again would be expected to be subject to the requirements of the Roads Authorities.

I consider that the concerns of the landowner have been adequately addressed.

I submit that there is a community need to be met by the acquisition of the lands in question, these particular lands are suitable to meet that community need, alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and the works to be carried out would not be in material contravention of the provisions of Fingal Development Plan.

Other Submissions

Rathborne Village Management Company

The observer raises concerns relating to the impact of the proposed Ashtown Road improvement works and severing of the Ashtown Road on the core function and character of the route through the village plaza, as well as the need for a redesign of the public realm.

The applicant submits that the Rathborne Village “Main Street” is outside the scope of the DART+ West project. It is further submitted that the function of the village will be improved with the reduction of vehicular traffic through the Main Street. It is stated that access for the general public walking, cycling or driving to the village and to businesses has been retained and that the project does not impact existing on-street parking.

I submit that the proposed development is primarily a railway project. It is not intended to deliver on village improvement works. The function of the main street in Ashtown would remain as a result of the proposed development. The provision of the tunnel allows for continued access north and south of the rail line. There would likely be a significant reduction in through traffic at this location.

Anna Lalor

The observer is a resident of Rathborne Village. She raises a number of matters relating to access to local amenities (permanent public access to the pedestrian/cycle bridge and provision of a lift at the station), the potential for anti-social behaviour at the pedestrian/cycle bridge and underbridge, the need for additional photomontages of the pedestrian/cycle bridge from residential areas, integration of the design with the area by softening the appearance of the proposed bridge, the agreement of appropriate use of Ashtown Road and appropriate associated enhancements of the public realm, alternative fencing following the closure of the level crossing, and the environmental impact. The concerns about environmental impact relate to climate proofing of the project, tree removal, bicycle parking locations, the provision of an alternative location for the substation, and clarity on carbon emissions. Reference is also made to the need for greater explanation of the planned capacity increase as part of the project, the need for revision of the underbridge to eliminate pedestrian/cycle

access, reconsideration of the investment in Spencer Dock, construction works impacts on residents, and mitigation to address cumulative impacts at the construction stage with other ongoing and proposed developments in the vicinity.

The applicant's written response may be synthesised as follows:

Availability of Pedestrian and Cycle Bridge at Ashtown

- The pedestrian/cycle bridge is being constructed as relief infrastructure to replace the closure of the level crossing, therefore, it will be open to the public on a 24-hour basis.

Accessibility and Inclusion

- The bridge will be suitable for pedestrians, cyclists and mobility impaired persons and it will allow passengers to cross from the north platform to the south platform and vice versa. It will also provide a connection across the canal.

Softening Appearance of Ashtown Bridge

- The proposed bridges have been designed to tie in with the aesthetic look and feel of the surrounding area and in compliance with the regulations and standards.

Appropriate Use of Ashtown Road

- IÉ to continue engagement with affected stakeholders during detailed design and construction stage of the DART+ West project.

Fencing

- A palisade fence is proposed on the closure of the level crossings to secure the railway against trespass and vandalism. The palisade fence is

included in Irish Rail standards and provides the required security level in this location.

Climate-Proofing of Infrastructure

- Within the DART+ West EIAR an assessment of the potential impact of future climate change on the project was conducted in line with LA 114 – Climate’ (UKHA 2019).
- During detailed design further consideration will be given to the potential impact of future climate change and the mitigation of significant vulnerabilities through grey (design), green (nature-based solutions) or soft (system or behaviour management) adaptation techniques. Future assessments will include consideration of the Met Éireann research project ‘TRANSLATE’, which is aimed at standardising national climate projections for Ireland and is due to finish in early 2023.

Redistribution of Bicycle Parking

- 37 bicycle parking spaces are needed at Ashtown Station. Bicycle’s spaces provision is calculated based in the National Cycle Manual Section 5.5.7 “How much parking – Cycle Parking Guidance”. It has been considered that a space of 61 m2 is sufficient to include the required 37 bicycle parking spaces.

Moving Substation and Construction Site

- A Multi-Criteria-Analysis (MCA) has been undertaken at option selection stage to inform the selection of the preferred location for the substation at Ashtown, with the current location emerging as the preferred option. The option to have the substation to the west of Ashtown Road at the north of the stables, was explored. Land take is required to facilitate the construction of the substation as the lands within the ownership of Irish

Rail are not large enough to facilitate the construction of the substation and a new access road. With the selected option, the substation is now part of a project that it is now integrated with the bridge. During the detailed design and construction phases of the project further analysis can be carried out to try and mitigate the numbers of trees and vegetation required to be removed.

Designation of Mill Lane for Vehicular Traffic Only

- The provision of a segregated cycle track along the proposed Mill Lane provides a safe route for cyclists that wish to bypass Rathbourne Village. This route also provides future proofing for connection to the Tolka Greenway and the future link to the Phoenix Park Cycle Track.

Mitigation at Construction Phase

- Mitigation measures identified in the EIAR and NIS prepared for the DART+ West project will be applied at construction phase.

Engagement with Castlethorn Construction

- The cumulative effects arising from the proposed development with other existing and/or approved plans and projects during the construction and operational phases of DART+ West project can be found in Chapter 26 of the EIAR.

The Observer also made a submission to the Oral Hearing on her own behalf, on behalf of Rathborne Village Residents Committee, and on behalf of Rathborne Community Association. She submitted that most are supportive of the applicant's proposed option. The focus of the submission related to integration of the project design into the local area (notably Ashtown Road), environmental impact (notably the loss of trees and vegetation and a request for an arboricultural impact assessment), and cumulative construction impacts on

human health. Reference was made to the need for engagement with the local communities, the inappropriateness of palisade fencing. The applicant's response included clarification on the supply of bicycle spaces, on tree retention and loss, use of fencing, and on cumulative impact assessment with other development projects in the area. The applicant alluded to the purpose and useability of the proposed bridge, as well as its appearance, and to continued engagement with stakeholders on the use of Ashtown Road. Palisade fencing at the level crossing to secure against trespass is referenced as is consideration of climate change and associated mitigation. Bicycle parking provision, the selection process for the substation site, the function of the cycle lane along Mill Lane, and construction mitigation are noted, as well as cumulative effects with other plans and projects.

Firstly, the Board will note my earlier considerations on severance, bridge design, anti-social behaviour, the impact at Ashtown Road, health-related impacts, biodiversity impacts, and the environmental impacts at Ashtown. I acknowledge the significant changes that will arise for Ashtown with the closure of the level crossing, the provision of a tunnel and the alterations to Mill Lane. Furthermore, I echo the concerns of the observer on the pedestrian / cycle bridge design and its adverse impacts. The revisions presented at the Oral Hearing significantly addressed the bridge design aspects as referred to in my Planning Assessment. I note that there were no particular concerns highlighted at the Hearing to the revised changes. Works to Ashtown Road such as public realm enhancements and uses, other than providing access improvements, are beyond the scope of the rail project. It is understandable that there would be anti-social behaviour concerns related to the tunnel and the closure of the level crossing. However, appropriate design measures are being proposed to address concerns and, in the event of any such occurrences, these would be subject to policing controls

beyond the scope of this project. I accept that the type of fencing proposed at the level crossing is required as a security measure and to curtail trespass. Premised upon cycling counts, I consider that adequate bicycle parking provisions are being made. Assessment of cumulative effects has been undertaken by the applicant and is considered in my environmental impact assessment.

Rathborne Village Residents Association

I note that the residents reflect most of the issues raised by Anna Lalor. My considerations are set out above.

Rathborne Community Association

The observer generally supports the latest plans for Ashtown station. Key issues raised are the imposing nature of the pedestrian/cycle bridge and its form and maintenance and the need for passenger lifts. The observer supports the considerations of the Martin Savage Park Residents Association relating to the need for an alternative location west of Ashtown for the construction compound, retention of as much tree cover as possible at the set-down area on the south side of the level crossing, an alternative location further east or west of the station for the substation, and addressing flood risk at Martin Savage Park.

The applicant's written response may be summarised as follows:

- Iarnród Éireann will retain responsibility for maintenance for the bridge on completion. The material choice and the corrosion protection will be resolved as part of the detailed design so as to ensure curtailed maintenance interventions. Details will be implemented to discourage

graffiti and, where practicable, coatings will be used at vulnerable locations to facilitate the removal of same. Safety concerns related to cyclists, pedestrians and disabled people using the bridge led the designers to propose a robust concept to avoid any risk of falls and vandalism. Dublin Port is the closest example related to the application of Corten steel.

- Multi Criteria Analysis (MCA) has been undertaken at option selection stage to investigate possible locations for the construction compound. The current location has been selected as the preferred option. Going to the other side of the Royal Canal is not a good design option, as it introduces safety, operation & maintenance and environmental issues.
- A Multi-Criteria-Analysis (MCA) has been undertaken at option selection stage to inform the selection of the preferred location for the substation at Ashtown, with the current location emerging as the preferred option. The option to have the substation to the west of Ashtown Road at the north of the stables, was explored. Land take is required to facilitate the construction of the substation as the lands within the ownership of Irish Rail are not large enough to facilitate the construction of the substation and a new access road. With the selected option, the substation is now part of a project that it is integrated with the bridge.
- No indication of flooding at Martin Savage Park was presented in the consulted sources. The flooding appears to be derived from deficiencies in the surface water drainage network within Martin Savage Park. Irish Rail will liaise with Dublin City Council during the detailed design stage to confirm cause of flooding and facilitate remedial measures by Dublin City Council.

The Board will first note my considerations on the pedestrian/cycle bridge design and scale in my Planning Assessment. Regarding the issue of flooding at Martin Savage Park, I note that the deficiencies in the surface water drainage network would be a matter for the local authority to address. Multi Criteria Analyses have been applied in the selection process for the substation and the construction compound at this location. The inadequacy of the land available for the former and the safety, operation and environmental concerns relating to the observer's option are recognised. I acknowledge that the observer generally supports the latest plans for Ashtown.

Pat Allison

The observer refers to the need for retention and automation of the existing level crossing, the deficiencies of and concerns about the proposed pedestrian crossing, social exclusion and severance, impacts on school children, adverse impacts on businesses, anti-social behaviour, the tunnel impact on Ashtown Stables, the effects of tunnel closure, impact on traffic from the crossing closure, the need to consider the lowering of the rail line as an alternative option, and advocates longer trains and the lack of need for additional services in off-peak periods.

The applicant submits:

- The proposed development will result in a 24/7 pedestrian and cyclist access across the rail line as opposed to regular closure and delays caused by the closure of the level crossing particularly at the AM and PM peak times, which can be associated with school times. The proposed development will have a positive impact on journey characteristics not only for rail users but also those walking and cycling north and south across

the rail line as it will not require any wait time for barrier operation when trains are passing. The proposed footbridge will be segregated from vehicular traffic and will provide safer crossing facilities for cyclists and pedestrians, including school children.

- All three non-statutory public consultations as well as the statutory public consultation is open to all to participate.
- The length of the trains is constrained by the existing infrastructure, in particular, the platforms in the stations. Most of the stations in the network could not cope with longer trains, and 168m trains is the only available option without major interventions.

The observer reiterated her concerns at the Oral Hearing, emphasising severance impacts, loss of features of biodiversity value, and accessibility concerns and presenting details on the option to lower the railway line at Ashtown.

I acknowledge that most of the issues raised by the observer have been addressed in earlier sections of this assessment. The applicant's considerations on the implications of introducing longer trains are accepted. The ramifications for changes to platforms throughout the scheme arising from the introduction of longer trains are not fully understood and this could potentially result in the need for significant changes at many stations, potentially creating significant environmental effects.

The observer is a resident of Martin Savage Park. He raises concerns relating to severance arising from the proposed tunnel, the impact on local amenities, the loss of green space in the residential estate by the proposed substation, and the provision of a convoluted set-down point. It is submitted that the most practical solution is to lower the level of the rail line under Ashtown Road.

The applicant has indicated in its overall response to the issues at Ashtown as they relate to the provision of the tunnel, the impact on local amenities arising, and the range of options for the level crossing closure, including the lowering of the line. It is submitted that the size of the substation is small in relation to the total green area and it is located largely on IÉ owned lands and it is contended that the amenity will largely remain functional. The proposed set down configurations north and south of the railway are considered straightforward and intuitive for users.

I first note that the issues relating to the tunnel and the options considered at this location have been addressed in my assessment of issues relating to Zone C. Severance is addressed in my Planning Assessment. I accept that the substation would mainly be located on the applicant's landholding at Ashtown and should not undermine the functioning of the amenity space at Martin Savage Park, being located at the north-eastern corner of the amenity space. I do not consider that the set down areas to the north and south of the closed level crossing would be overly convoluted and they would be clearly understood from an early stage after completion of the works, with appropriate turning areas provided in the vicinity of the rail line.

The observer raises concerns relating to the impact of the project on the surrounding environment, the impact on residents, severance by the provision of a footbridge, the development of a deep tunnel, impacts on Ashton House (protected structure), and loss of woodland. Reference is made to the need for community input, inadequate public consultation, the turning of Ashtown Road to a cul-de-sac, the adverse effects of the proposed tunnel, the effects on Ashtown Stables, and the need for increased accessibility. It is requested that the railway line be lowered at this location and leaving Ashtown Road open.

The applicant submits:

- The design team has liaised and consulted with the local authorities in relation to road design and traffic flows. IE will continue to consult with stakeholders as the design progresses.
- The proposed road design is designed to current standards, National Cycle Manual and DMURS.
- The proposed development at Ashtown will facilitate all user access through an underpass connecting the two communities on either side of the level crossing. A segregated pedestrian and cyclist footbridge is also proposed at this location which will maintain access to both sides of the level crossing on a 24/7 hour basis.
- It is not envisaged that the underpass will be closed unless in an emergency, in which case, it will be a temporary closure and diversions routes are available in the vicinity.
- The underpasses proposed within DART+ West are at 38m in length and therefore pollutant concentrations will not have the same ability to build up along a long-enclosed length.

- The proposed development will result in a 24/7 pedestrian and cyclist access across the rail line as opposed to regular closure and delays caused by the closure of the level crossing particularly at the AM and PM peak times, which can be associated with school times. The proposed development will have a positive impact on journey characteristics not only for rail users but also those walking and cycling north and south across the rail line as it will not require any wait time for barrier operation when trains are passing.
- It would be expected that if the horses from Ashtown Stables can traverse the route between Ashtown Stables and the Phoenix Park, they would be able to adapt to walking through the proposed underpass to the west of the Old Mill.
- With respect to additional car journeys being brought to the area, Section 13.5.3.3 of EIAR considers the carbon footprint of potentially longer car journeys in the traffic study areas and in Section 13.5.3.2 the impact of the proposed development on rail emissions is considered. While there is an impact of longer car journeys in some areas due to level crossing closures, the impact of the change from diesel to electric trains far outweighs it. Although there may be some increased car journeys in Dublin 15, the impact of the operational phase of the proposed development as a whole will be beneficial with respect to carbon.
- Climate Chapter consultants from BusConnects and DART+ West have consulted each other regarding schemes.

The applicant's responses are noted. I acknowledge that the key planning and environmental issues raised by the observer have been addressed earlier in my assessments.

The observer is the owner of SuperValu and other premises lands on the Ashtown Road. They raise concerns relating to the effects on the operation and servicing of the premises. These include the servicing arrangement for the supermarket and the need for a revised layout. The observer submits alternative transport management arrangements for consideration. There is also concern about future expansion plans.

The applicant submits that access to the existing parking and entrances around Ashtown will be maintained during the construction period. Any works on or near the ramps will be co-ordinated to minimise disruption and maintain access. It is not proposed to alter the access / egress onto Mill Lane from the building. The level to the rear of the footpath on this road is proposed to be the same as it currently is at the vehicular access / egress points. The applicant further notes that it is proposed to maintain access to the store and warehousing facilities.

At the Oral Hearing, the observer submitted that little detail was provided on how it was intended to meet the operational needs of the store. The applicant submitted that it was satisfied to agree with the observer on how the arrangements would be put in place. It was accepted that the delivery arrangements for the supermarket were being impacted. Provisions for access were set out.

I note that there would be a significant change in the use of the road at this location as a result of the project. Clearly, detailed arrangements, mainly traffic management provisions, would be required to be agreed between the applicant and the supermarket owner. The access arrangements for the car park are not likely to result in significant constraints. It is the provisions for delivery access which is the primary issue at this location. I acknowledge that a road safety audit has been provided which is applicable to this location. I accept that there would

likely be some disruption at the construction phase of the proposed development to the delivery operations of the existing premises. The engagement between the applicant and the store owner/operator on detailed arrangements is key to resolving operational issues. The purpose of the Traffic Management Plan and the provision of a liaison officer would be to alleviate significant impact on the ongoing function of premises such as this and minimise disruption to the customers of the premises. There would be no substantive change to the operations and functioning of this premises arising from the proposed development.

Siocha Costello / Amy Lewis / Aoife Webb / Catherine Thorpe / Liane Roberts / Rachael Byrne

I note that all issues raised have been dealt with in my earlier assessments.

Sharon Weldon

The observer has raised a number of concerns relating to impact on horses during construction, anti-social behaviour at the proposed underpass, pursuing the option of lowering the track, the lack of communication with the local community, the impact on the Ashtown Stables wildlife (Brent Geese, bats, etc.), excessive construction, and the lack of consideration for flooding on Mill Lane and the south side of the canal.

I acknowledge the applicant's responses to many of these issues earlier and my considerations offered. I note the lengthy construction period at Ashtown and the location of compounds. If the proposed development is to be pursued as is

requested by the applicant at this location the lengthy construction period is inevitable to deliver on the larger components of the scheme, in particular the tunnel and bridge works. The revised bridge design changes presented at the Oral Hearing are acknowledged. Finally, I note the considerations earlier on flooding south of the railway line. I submit that the surface water drainage issues causing ponding are matters for the local authority to address.

Emer Rafter

The observer has raised concerns relating to anti-social behaviour at the underpass, the lack of communication with the community, the proposed development being contrary to Climate Action Plan maintenance of forests and trees, the impact on Ashtown Stables wildlife, and the impact on horses at Ashtown stables.

I note the applicant's responses to many of these issues and my considerations earlier in my assessment. Regarding the proposal being contrary to Climate Action Plan maintenance of forests and trees, I first note that there are no forests in Ashtown at the location of the proposed development and that trees and vegetation being removed are proposed to be substituted by landscaping and replacement vegetation. It is reasonable to determine that the proposed development would accommodate the modal shift from private car-based traffic to sustainable public transport and would be in keeping with the transport actions of the Climate Action Plan.

Navan Road Parkway

Landowners

Flynn and O’Flaherty Construction (Ref. DW.10.P.20(A) / Ref. DW.10.T.20(B)(C))

The landowner has a development site to the south of the N3 and are owners of lands to the north of the N3. Regarding the acquisition associated with Plot DW.10.P.20(A), it is submitted that the permanent maintenance compound, including the proposed building, would have a dramatic effect on the receiving environment for the future development of adjoining lands, potentially reducing their value to nil. Regarding the temporary acquisition associated with Plot DW.10.T.20(C), it is submitted that the effect of acquiring this land to establish a construction compound would render the lands undevelopable during the construction period which could be well beyond 10 years. It is stated that no justification for the selection of the lands has been given and clarity on the selection process is sought. An alternative site to the east on the landholding is proposed.

The applicant considers that the temporary acquisition by CIÉ for a construction compound beside the Navan Road Parkway station would support the development of existing land uses and provide for efficient uses and transportation of equipment along the railway line during the construction phase. The smaller land area that is required for the telecommunications equipment and the maintenance compound is considered to be consistent with existing rail-based infrastructure land uses in this area and are a permitted class of development under the high technology land use zoning objective. It is noted that if the Railway Order is confirmed compensation will be addressed in accordance with statute. The selection process for the compound option and the reason for it are referenced. The comparative advantages of the preferred option over the alternative location are referenced.

At the Oral Hearing, the landowner responded to the applicant's response and this is summarised as follows:

- The provision of a temporary and permanent compound will not add to a high quality environment. It is a service function for the Dart West services. The lands are subject to an LAP. The compounds will prevent vehicular access to adjoining lands also zoned High Technology uses, effectively landlocking the sites.
- Given its strategic location, it would be consistent with planning policies to provide for residential use at this location.
- There will be a detrimental effect by the compounds not only on the proposed site but on adjoining lands, particularly as it is in the middle of LAP lands.
- While the current Development Plan does not permit residential development, it does not prevent future plans allowing residential development.
- The fact that the compounds can be considered as 'Permitted' development under the Development Plan does not mean they are an appropriate use and are not the best use of the lands.
- The selection of the lands will have a detrimental effect on the receiving environment for any future development should the 'temporary' compound be returned to the landowner. Given the undisclosed time required for the 'temporary' compound, it will be impossible to develop these lands or plan for the land and adjoining lands. This will delay the proposed LAP.

The Board was asked to direct the applicant to accept the landowner's alternative land option.

In response, the applicant reiterated the details of its written response provided to the Board. It was clarified that the acquisition of the temporary compound would be for a period of approximately three years. Regarding the issue of landlocking, it was submitted that CIÉ would be happy to engage with the landowner in trying to come to a resolution.

The siting of the proposed compound is wedged between the railway line and the Navan Road. The alternative location submitted by the landowner falls outside of the area the subject of the Railway Order application. The alternative option has not been accepted by the applicant and the rejection of alternatives and the reason for the site selection are clearly provided in Chapter 3 of the EIAR and associated documentation. The landowner's alternative option was considered and the preferred option was selected for reasons including being on undeveloped lands, resulting in the removal of less vegetation, being located furthest from sensitive noise and visual receptors, and having the ability to provide a shorter access route, which avoids construction traffic gaining access to the compound at the Navan Road level. This is an appropriate location and is a proportionate response which would meet the scheme's needs. The lands at this location are zoned for high technology uses and the proposed development forms part of a project to provide high quality sustainable transport which would support such uses. The landowner's focus on the potential for a future change of zoning provisions to residential use is beyond the scope of this application to the Board.

I submit that there is a community need to be met by the acquisition of the lands in question, these particular lands are suitable to meet that community need, alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and the works

to be carried out would not be in material contravention of the provisions of any statutory development plan.

Castleknock

Landowners

Castleknock Mews Residents' Association (Ref. DW.011.T.121(A))

The landowner submits that the applicant does not indicate the reason for the acquisition of the piece of land within the boundary of the Castleknock Mews development, which is the only route for residents to access the Old Navan Road. It is noted that an existing private automated gate on the boundary is a security gate. It is requested that Irish Rail give the reason for the acquisition, indicate how they intend to access with the gate in place, and address the security concerns of residents if the gate is to be removed, to remain open or be controlled by others. The applicant is also asked to indicate how the residents would access refuse collection with the bridge out of service and that it should seek an agreement with the refuse service provider that collectors would come to the Old Navan Road end of the temporary access road to collect bins. It is further requested that the applicant would retain the M50 footbridge access. Clarity is also requested on reinstatement of boundaries when works are completed, if a pedestrian access will remain to Ashleigh Green from Old Navan Road when works are completed, and on how long works on the Old Navan Road Bridge will take.

The applicant's written response may be synthesised as follows:

- DW.011.T.121(A) is proposed to be acquired temporarily to allow the section off road/ access on this section to be regraded to tie in with the

Old Navan Road, which is also proposed to be regraded to facilitate the raising of the Old Navan Road to provide the necessary clearances for the electrification of the rail line. Access to and from the entrance will be maintained.

- CIÉ and their contractor will agree access arrangements with the affected residents to maintain access and security while the works are being undertaken.
- It is proposed that the gate will be reinstated as part of the accommodation works for these lands. While the works are being undertaken at this location security in terms of temporary gates will be agreed with Irish Rail and the residents.
- The construction contractor will be required to maintain access for refuse collection during the construction contract including notifying refuse companies of alternative access arrangements during this period.
- Access to the M50 Footbridge will be maintained albeit along the proposed diversion through Ashleigh Green while the Old Navan Road bridge is inaccessible to pedestrian traffic. Residents of the Castleknock Mews will continue to access the footbridge as they currently do.
- It is proposed that any walls and railings will be replaced on a like for like basis. Any green areas impacted will be reinstated by clearing and then levelled, topsoiled and grassed. Where trees are removed new trees will be planted as per the landscaping requirements in the EIAR.
- Access to Old Navan Road from Ashleigh Green is proposed to allow access to the residential properties at Castleknock Mews during the construction modifications to OBG9 Old Navan Road Rail Bridge. This access route through Ashleigh Green is not proposed to be permanent

and will be closed and affected areas reinstated once the works are completed.

- The total construction period for works on the Old Navan Road Bridge is estimated at approximately 42 weeks.

OBG9 Old Navan Road Bridge is a flat deck bridge which is proposed to be modified by deck lifting to accommodate electrification. The deck lift would be 320mm and there would not be a significant modification of the road alignment. The works would have impacts on access to the cul-de-sac providing access to Castleknock Mews. Details are provided in Section 5.6.10 of the EIAR.

It is evident that the works on and in the vicinity of the Old Navan Road Bridge affecting the residents of Castleknock Mews would be temporary. It is apparent that there would be some inconvenience caused over the 42-week period. However, the applicant is making alternative arrangements to ensure access is maintained at all times, that security provisions are to be put in place in agreement with the residents, that refuse collection provisions are to be facilitated, and pedestrian access in the vicinity would be maintained. It is further noted that affected grounds and boundaries during the construction period are to be suitably reinstated. It is my submission to the Board that the clarity sought by the residents has been adequately addressed and the provisions being made are reasonable to address the residents' principal concerns with the temporary acquisition of their lands.

I submit that there is a community need to be met by the acquisition of the lands in question, these particular lands are suitable to meet that community need, alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and the works

to be carried out would not be in material contravention of the provisions of any statutory development plan.

Other Submissions

Ashleigh Residents Association

The Board will note the applicant's provisions referred to above to address the concerns of Castleknock Mews Residents' Association. An access to Old Navan Road from Ashleigh Green is proposed to allow access to the residential properties at Castleknock Mews during the construction modifications to OBG9 Old Navan Road Rail Bridge. This access route through Ashleigh Green is not proposed to be permanent and it is intended that it would be closed, with affected areas reinstated once the works are completed.

At the Oral Hearing, Ashleigh Residents' Association were accepted as an observer. The Association submitted that it only knew of the proposals affecting the estate two weeks before the Oral Hearing. It objects to the works proposed for the estate arising from the closure of OBG9 to facilitate the modification proposed. It was submitted that the works would include a new opening of the rear walls in the estate's northern boundary to link with the Old Navan Road, the removal of the majority of mature trees which abut the rear boundary wall, and the provision of a new road through the middle of the green and its use for vehicles, pedestrians, cyclists and construction traffic and equipment. Reference was also made to having no communication from Irish Rail on what was proposed for the estate, no details on the nature of the works proposed (notably where there is a difference in levels between the Old Navan Road and Ashleigh), lack of clarity on the duration of the works and reinstatement, and to how the residents became aware of the proposals. It was submitted that the works would dramatically change the nature of the open space, would have huge implications

for the tree screen, and would undermine safety and security for residents by providing a route for traffic. It was further submitted that the EIAR did not give any weight to the impact of the works on the residential amenities of Ashleigh. The observer submitted that alternative provisions could be made which would not affect the open space. The Board is asked to omit the proposed traffic mitigation measure for Ashleigh from the Construction Traffic Management Plan. I note the concerns of residents were also raised in the submission at the Oral Hearing by Cllr Ted Leddy.

In response, the applicant commenced by setting out details of non-statutory consultation. Reference was made to the EIAR content relevant to Ashleigh Green. It was emphasised that the proposal is a temporary access and that no construction traffic would use the temporary road. It was clarified that the northern boundary trees would not be impacted and that the sole impact would be at the connection onto the Navan Road, where a couple of young trees would be replaced. It was confirmed that the open space would be reinstated after a nine-week period. The applicant agreed to outline the effects of the proposed development on the estate in a written format and to meet with the residents.

I first note that this proposal has been part of the application to the Board from the outset. I refer to Property Plans and Railway Works Plans - DW.011 and to Specific Locations drawings in the section '07. Navan Road'. Furthermore, I note the following sections of the EIAR:

- Chapter 5 Construction Strategy, Section 5.6.10 addresses the proposed OBG9 Old Navan Road Bridge modification, setting out in detail the works proposed at this location.
- Chapter 7 Population, page 38 addresses the effects of the temporary proposals at this location.

- Chapter 15 Landscape and Visual Amenity, Table 15-6 identifies the potential construction impacts at this location on the amenity space. On page 15/54 reference is made to the mitigation measures at this location.
- Chapter 17 Material Assets Non-Agricultural Properties in Table 17-6 refers to the property impact assessment at this location in Zone C (ID 22).
- Appendix A6.3 addresses the Construction Traffic Management Plan, including dealing with Ashleigh Green.
- Vol 3A relating to Chapter 15 provides drawings clarifying what is proposed to be retained and removed and the mitigation to be implemented on the amenity space.

It is therefore, concluded that the environmental impact of the proposed development at this location has been reasonably considered by the applicant in the Railway Order application. I also note the responses by the applicant in addressing a wide range of scheme-wide issues, many of which are applicable to works affecting residential estates.

The proposed development of concern to the residents constitutes a temporary solution for residents at Castleknock Mews. The temporary road would be required for a period of nine weeks. It would provide an access route close to the northern end of the estate's green space. The construction compounds and haulage routes associated with the development at this location would be located to the north of the railway line and away from the estate. There would be no construction traffic using the temporary road. The access road would serve the four houses and waste vehicles serving these houses, as well as pedestrians and cyclists. There would not be a significant impact on the trees and hedgerow. The open space would be reinstated after the nine-week period. While this would

reduce the green space area, it is apparent that this would be for a short period and the open space would be reinstated. I do not consider that the proposed works and the use of this road would result in significant adverse impacts on the residents at Ashleigh Green.

Porterstown

Landowners

Brian Lynam (Ref. DW.014.T.37(A) / T.38(A))

The landowner is concerned about the impacts the proposed pedestrian, cycle and mobility impaired bridge/ramps would have on his home at Abbey Cottage, Porterstown Road. The impacts relate to overlooking of his house and private amenity space, the injury to visual amenity from the bridge, anti-social behaviour, and property devaluation. The Board is asked to attach conditions to protect his privacy and his property by way of permanent screening.

The applicant's response may be synthesised as follows:

- No permanent acquisition of land is proposed.
- The proposed structure is elevated and it is acknowledged in the EIAR, that it will give rise to significant impact on the local landscape and visual setting. Mitigation in terms of visual impacts is proposed as follows: "At Porterstown, the new bridge structure will be better integrated into the landscape through provision of screening native trees / and shrubs where feasible."
- The land acquisition (property) impact of the proposed DART+ West project has been assessed in the EIAR as Not Significant. The closing of

the level crossing will remove through traffic from immediately outside the property thereby improving the air quality, noise and visual aspects of the property. The provision of a pedestrian and cycle bridge at the level crossing will however introduce a significant piece of infrastructure in close proximity to the property. Landscaping will be provided but due to the required height of the bridge is unlikely to completely screen the view.

- Regarding anti-social behaviour, as far as practicable mitigation measures shall include the use of active and passive surveillance measures, consultation with An Garda Síochána and the local authority at the detailed design stage, and appropriate safety lighting on bridges and cul-de-sac at closed level crossings.
- At Porterstown, the new bridge structure will be better integrated into the landscape through provision of screening native trees / and shrubs where feasible.

I first acknowledge the revised bridge design at Porterstown submitted to the Oral Hearing and consider that it constitutes a change in design option which delivers less adverse environmental impacts as a result of its reduced footprint. I submit to the Board that the principal concern of the observer is not likely to be wholly adequately addressed, i.e. privacy concerns. There would be overlooking of his property from the new bridge structure. Landscaping would not significantly avert this impact. This must be an accepted outcome of the proposed development if the pedestrian/cycle bridge is to proceed as part of the project. Compensation for the landowner is a matter beyond the role of the Board. I do not consider that conditions requiring further particular works would likely address privacy concerns in any meaningful manner.

I submit that there is a community need to be met by the acquisition of the lands in question, these particular lands are suitable to meet that community need, alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and the works to be carried out would not be in material contravention of the provisions of Fingal Development Plan.

Porterstown Owners Management Company (Ref. DW.015.P.42(A) / DW.015.P.42(B))

The landowner's submission focuses on the ancillary road works proposed to be undertaken in the area as part of the project. Reference is made to the removal of the soft landscaping areas between surface parking spaces and the boundary wall/railing at Woodbrook Court and Woodbrook Square materially altering the visual appearance of the estate from the public road and within the estate. The removal of mature trees, loss of natural noise screening, and the reduction of the estate by acquisition of parcels of the estate affecting property values are also raised. It is requesting that it be explored if it is possible to retain a landscaping verge between Diswellstown Road and the Woodbrook parking spaces by making alterations to the Woodbrook roadway and parking areas.

The applicant's response may be synthesised as follows:

- Due to the limited space between the proposed road works and Woodbrook, the amount of landscaping that can be retained is limited, Irish Rail and its designers commit to developing a design in consultation with Woodbrook that reduces the impact on this area to retain as much as possible of this landscaping. Furthermore, should the storage building for Woodbrook Court to the southwest of the development be impacted this

building will be reconstructed at this location to take account of the new boundary.

- At this section, the Diswellstown Road is being widened to facilitate an additional lane. A 3m wide strip, at its widest, of existing landscaping is to be removed. The area to be removed tapers down to connect to the existing as it narrows heading north. The existing landscaping is approximately 20m wide. The widening will result in a 17m wide strip being retained. The difference in screening is negligible at this width. The foliage of trees only provides a small amount of attenuation to noise and only if the foliage is sufficiently dense to completely block the view along the path. For sufficiently dense foliage that is less than 20m deep there could be reductions of 1-2dB depending on frequency of sound. With regards to traffic increases on Diswellstown Road, the EIAR assesses the potential for noise increases due to increased traffic flows on the road network. This assessment concluded that noise levels would change by less than 1dB and therefore no significant noise increase will occur.

If the proposed road works are considered necessary and an integral part of the proposed development then the ability to retain the established landscaping at this location is limited. The removal of the landscaping on Diswellstown Road would ultimately thin out the level of screening afforded at present but could not be construed as significant in terms of eroding the screening effect. I accept that the changes to traffic volumes and road alterations are not likely to result in any significant additional traffic noise.

I submit that there is a community need to be met by the acquisition of the lands in question, these particular lands are suitable to meet that community need, alternative methods of meeting the community need have been adequately

considered by the applicant and are not demonstrably preferable, and the works to be carried out would not be in material contravention of the provisions of Fingal Development Plan.

St. Mochta's Football Club (DW.0014.P.03(A) / DW.0014.P.42(A) / DW.0014.T.03(G)(H) / DW.0014.T.42(E)(F))

The club is based at Porterstown Road, Clonsilla and is within the Kellystown Local Area Plan area. The area most affected by the project is to the north-west at the entrance to the facilities, removing a spectator viewing area, a parking area, and rendering a development compound inaccessible. It is submitted:

- The new cycle and pedestrian bridge is over-scaled and results in excessive land take;
- The proposal results in severance of the club's facility from its catchment;
- It compromises the viability of the facility;
- The impact is more significant than is stated in the EIAR;
- It will have a negative impact on health; and
- The loss of facilities and diminished use is contrary to national and regional planning policy and guidance.

The submission includes a transport report which documents the access and development concerns of the proposed development, alluding to vehicle security, car parking, club revenue impact, site security, emergency access, and loss of amenity. Consideration of the provision of a temporary car park for the construction period is requested.

The applicant's response may be synthesised as follows:

Parking

- At the construction stage an alternative parking area to the east of the existing parking could be provided. CIÉ will continue to engage with St. Mochta's Football Club on measures to reduce potential impacts.

Ongoing Development

- DART+ West is consistent with the national, regional, county and local (LAP) planning policies and objectives for this site. The LAP provides for the planned and phased relocation of St. Mochta's Football Club to a new location (objective 9.6). The proposed development is fully aligned and consistent with these objectives and does not compromise existing or future use of St. Mochta's FC and the delivery of the LAP.

Footbridge Impact

- The proposed design provides for new blockwork walls, railings and gates at the entrance to secure the football grounds. As the level crossing will be closed it is unlikely that vehicles will use this route unless accessing the football grounds and adjacent properties.

Relocation of Pedestrian and Cycle Ramp

- Locating the pedestrian and cyclist ramp on the western side of Porterstown Road, south of the railway line, was not included in the options selection process as it would result in the demolition of a residential property.

Understatement of Visual and Landscape Impacts

- The landscape and visual assessment in Chapter 15 of the EIAR acknowledges the significant impact of the construction phase on the local environment, and the significant impact of the proposed development in

the operation phase. Mitigation measures are set out at Section 15.6 of the EIAR and the residual post-mitigation stage impact is stated as being 'slight negative long-term'.

Disruption to Club during Construction

- The mitigation in the EIAR is to reinstate temporarily acquired lands, to reinstate the property boundary and entrance on a like-for-like basis. This work will occur during the construction phase. Construction compounds to facilitate works for the construction of the cyclist and pedestrian bridge at Porterstown level crossing and for junction upgrade works at Diswellstown Junction will be located within lands adjacent to St. Mochta's Football pitch. While there will be changes required to the site resulting in disturbance to the operation of the facility, the construction activities will not impact on the operation of the pitch during the construction phase.

Excessive Scale of Footbridge

- The proposed bridge is designed in accordance with current design standards to accommodate cyclists and mobility impaired pedestrians. The design standards provide requirements for width, gradients and landing locations which directly impact the scale of the bridge.

Community Severance

- The proposed bridge does not directly affect the playing pitches in the club. However, access may be impacted. As part of Kellystown LAP it is proposed to relocate St. Mochta's Football Club to a new location and as such, the proposed development will not have a significant effect on this amenity over the long term, once this plan is completed. The severance of the club's facility and its community is mitigated by the provision of a dedicated rail crossing for pedestrians and cyclists to minimise the impact. This will result in a safer and more child friendly approach to the sports

grounds. Following the level crossing closure vehicular traffic will access the club's premises from the south only, the closure of the level crossing results in diversion of 1.7km. The land take is required to provide a safe option for pedestrians and cyclists to cross the rail line. Porterstown crossing was reported as having the highest incident count from all at-grade crossings along the scheme. The incidents involved all modes of transport and included near misses for cyclists and pedestrians. By providing a safer crossing the use of more sustainable transport options will be supported to access the club.

Overlooking

- The property is currently overlooked by Dr Troy Bridge / Diswellstown Road. Compliance with the design standards and ensuring the safety of cyclists, pedestrians and mobility impaired users are key drivers of the bridge designs.

Health Impact

- The sporting grounds will remain open and operational throughout the construction phase which is recognised as promoting positive health outcomes for the community.

Conflict with National and Regional Planning Policy and Guidance

- The DART+ Programme (inclusive of the DART+ West project) is consistent and supported by national and regional policy. Furthermore, the proposed development is consistent with local planning policy. The project supports the Kellystown LAP by providing safer and improved walking and cycling infrastructure at the level crossing. Additionally, the LAP will relocate St. Mochta's Football Club to a new location. The new site will accommodate a full-sized soccer pitch along with new sports facilities in the form of multi-use games areas (MUGAs) which will be accessible by

the new schools. The planned relocation of St. Mochta's Football Club will facilitate the development of residential units within Development Area 1. This project supports the club's continued operation in its current location.

I again note the revised bridge design at Porterstown submitted to the Oral Hearing and consider that it constitutes a change in design option which delivers less adverse environmental impacts as a result of its reduced footprint. I acknowledge that the construction phase of the proposed development seeks to maintain access such that the use of the sports grounds will remain. I further note that it is the intent of the Kellystown LAP which applies to these lands to provide for the relocation of this facility. It appears, therefore, that the life of this facility at the existing location may be short-term, with its future secured but in a different location. I consider that the appropriate measures are being applied to maintain it until its relocation. Regarding the impact of the proposed bridge, the Board will note that the original proposal had a more extensive physical impact on the parking area to the north of the playing pitches. Requiring less land would result in a reduced impact on this property. I recognise that there is the potential to accommodate parking further eastwards. With vehicular access to the club being available from the south only, the diversion of 1.7km from the north via Diswellstown Road and Porterstown Link Road will cause some degree of severance from the northern catchment, while pedestrian and cycle access will remain available. The vehicular diversion is unavoidable with the closure of the level crossing. This property is currently overlooked by roads to the east and the overlooking from the proposed bridge will intensify the degree of overlooking but will not be a unique feature of this location. Finally, it is evident that the proposed development is supported by national, regional and local policy and it is worth reiterating that the sports ground is intended to be relocated under the LAP provisions.

I submit that there is a community need to be met by the acquisition of the lands in question, these particular lands are suitable to meet that community need, alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and the works to be carried out would not be in material contravention of the provisions of any statutory development plan.

Cathal Ross (Ref. DW.015.T.50(A))

The observer submits that he may be affected by temporary acquisition proximate to his dwelling at Astagob House, Porterstown Road. He requests that CIÉ liaise with him prior to carrying out works and to ensure the lands are restored appropriately.

I note that the applicant proposes to consult with the landowner with regard to the finalised layout at the detailed design stage to ensure that the verge/edge treatment and works are sympathetic to the existing walls and gate/entrance at the junction. It is submitted that if any modifications to the boundary wall are required these will be undertaken in consultation with the landowner.

I am satisfied that such proposals would likely address the landowner's concerns.

I submit that there is a community need to be met by the acquisition of the lands in question, these particular lands are suitable to meet that community need, alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and the works to be carried out would not be in material contravention of the provisions of any statutory development plan.

The observer resides in Greenmount adjacent to Clonsilla railway station. Concerns raised relate to being cut off from Clonsilla village, the siting and period of use of the temporary compound at Greenmount, reinstatement of the land after the compound use, and the effect of the works on residential properties.

The applicant's response may be summarised as follows:

- Vehicular traffic will be redirected via the existing road network creating a 4.1 km to 5.9 km diversion. There will be a 'moderate' impact on vehicular traffic. The likely effect on journey amenity of these vehicular users is negative, moderate, and long-term. The proposed development will improve the journey amenity of cyclists and pedestrians through the provision of a dedicated pedestrian and cycling footbridge over the Royal Canal, which will provide a much safer crossing than it currently is.
- There is a potential for anti-social behaviour in the form of trespass and theft to arise on construction sites. All areas will be provided with suitable fencing/hoarding and appropriate security which will be monitored by the contractors.
- Compound locations have been considered during the multi-criteria analysis of the project. The Clonsilla compound, located in a greenfield, serves the improvement and extension works of the existing siding, located to the south of the tracks, parallel to the proposed compound. The compound's location on land to the north of the railway line and the Royal Canal is not compatible with the location of the work to be carried out on the siding. Work on the tracks requires materials, rails, sleepers, ballast, track devices, and pre-assemblies of these assets that must be located

adjacent to the tracks. The chosen location is deemed the most suitable in terms of access and safety.

- Locating the compound on the other side of the road would result in inconveniences both for construction work and for mobility and safety as construction vehicles would constantly have to cross the R121 road.
- The successful contractor will be required to reinstate the area on a like for like basis.
- Prior to construction and subject to written agreement with the relevant property owners, property condition surveys will be undertaken in relation to all buildings / structures in use located within 50 metres of the extents of the land take boundary.

I first note the range of works required to be undertaken at this location. This includes the improvement and extension works of the existing siding, located to the south of the tracks and parallel to the proposed compound. Work on the tracks would require materials, rails, sleepers, ballast, track devices, and pre-assemblies of these assets. Locating them adjacent to the tracks and the siding appears reasonable and the location chosen meets the project's construction stage requirements. Security provisions for such works compounds would be standard practice and would not be exceptional, reducing trespass concerns. I note the condition surveys proposed and this is considered best practice in this instance. I accept that the vehicular diversion arising from the level crossing closure would be significant. This is unavoidable when the level crossing closure forms an integral part of the scheme. The provision of compensation for negative impact is not a matter for the Board.

I submit that there is a community need to be met by the acquisition of the lands in question, these particular lands are suitable to meet that community need, alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and the works to be carried out would not be in material contravention of the provisions of any statutory development plan.

Castleknock/Porterstown/Clonsilla Public Submissions

Blanche Retail Nominee Limited

The observer is the owner and operator of Blanchardstown Shopping Centre. They request that the Railway Order should be subject to a condition requiring a good frequency local bus link from Coolmine Station to Blanchardstown Town Centre, funded by CIÉ in consultation with TII and the NTA.

The applicant notes that the provision of bus services/links is outside the scope of the DART+ West project.

I agree with the applicant. The precedent of requiring bus services to a private retail outlet arising from a new public railway project must be avoided. This is not the role of public transportation services.

Brian O'Connor

The observer raises concerns about the closure of the level crossings at Coolmine, Porterstown Road and Clonsilla and the inadequacy of proposals to compensate by way of improvements at the Park Lodge/Castleknock Road intersection at one end and the Dr Troy Bridge/Diswellstown Road intersection at

the other. The upgradings are seen to be inadequate, with additional stacking lanes viewed as tinkering with the intersections where they are already at capacity with long delays at peak times. Traffic delays, severance, the effect of the proposed new development at Kellystown, existing school impacts on traffic, the unacceptability of the foot/cycle bridge at Coolmine, and safety are referenced. The upgrading of the signalling system is submitted as an alternative to crossing closures.

The applicant's written responses to issues raised by other observers relating to the issues raised are noted.

At the Oral Hearing, the observer reiterated concerns relating to public consultation, the closure of the three level crossings and the potential of upgrading the signalling system, the road improvement proposals, anti-social behaviour, and severance.

The applicant referred to the objectives of the new Fingal Development Plan to ensure pedestrian and cycle connectivity is provided across the railway line and canal at Coolmine and Porterstown and the objective to prohibit any road bridge at River Court. It was noted that a traffic impact assessment is provided in the application and clarification was provided on the extent of the proposed road improvements proposed. The need for the level crossing closures was also alluded to.

I note that all issues raised have been dealt with in my earlier assessments.

Ciara O'Neill

The observer has raised a number of concerns that have been addressed earlier in this assessment. These include the effect on emergency services, traffic

effects from level crossing closures, severance, anti-social behaviour, adequacy of bridges for mobility impaired, estimated passenger numbers, upgrading the signalling system, and functioning of the current DART network. Reference is also made to construction nullifying any environmental benefits of the scheme, the proposal conflicting with the Fingal Development Plan, the effect on bus routes, and the failure to adopt the recommendations made by the European Road Safety Observatory on enhanced safety measures at level crossings and to address safety concerns on the assumption that the level crossing will be closed.

The applicant's written response may be summarised as follows:

- The proposed projects embodied carbon is sizeable. However, Iarnród Éireann is committed to the minimisation of this figure during detailed design where opportunities to mitigate the impacts using the IEMA hierarchy will be available. Project designers have already raised potential sources of mitigation that they will investigate during detail design as possible avenues to reduce the projects embodied carbon. The proposed development is operationally beneficial with regards climate and is even specifically mentioned in the Climate Action Plan as a key project to assist in Ireland's transition to net zero by 2050.
- DART+ West does not affect local Objective 141 of Fingal County Development Plan 2017–2023 “To prohibit any road bridge at this location” across the train line and canal at Riverwood/Station Court. It is not possible to maintain the level crossing or the right of way in its current form. This affects local Objective 142 ‘Preserve the existing pedestrian and vehicular right of way’. The Draft Fingal CDP 2023-2029 proposed to replace Objective 142 with the draft Objective 91 of the Draft Fingal CDP 2023-2029 which stated “Ensure pedestrian and cyclist connectivity is provided across the canal and rail line at this location.” This was adopted as Objective 113 of the Fingal DP 2023-2029. Objective 137 of Fingal

County DP 2017–2023 states “Preserve the existing pedestrian and vehicular right of way at the level crossing at Porterstown” level crossing which would be affected. The Draft Fingal County DP 2023-2029 proposed to replace Objective 137 with draft Objective 88 “Ensure pedestrian and cyclist connectivity is provided across the canal and rail line at this location”. This was adopted as Objective 110. Therefore, DART+ West in its current form would support the emerging local planning policy objectives.

- During construction the temporary relocation of stops and routes will be agreed with Dublin Bus. Every effort will be made to mitigate the impact. In the operational phase no routes are affected by the proposed works.
- Iarnród Éireann monitors the safety of level crossings on an ongoing basis and is satisfied that level crossings on the railway network in Ireland are safe.

At the Oral Hearing, the observer submission in response to the applicant’s response to the written observation made to the Board was read into the record on behalf of the observer. This reiterated many of the issues raised by several landowners and observers throughout the course of the Hearing and the concerns raised in the original submission by the Observer. It was requested that Coolmine level crossing is not closed permanently.

I first note my considerations on the range of issues addressed earlier in this assessment. Regarding construction impacts and environmental benefits, it is reasonable to accept concerns relating to embodied carbon from the scale of development proposed. It is, however, acknowledged that the project is wholly

supported by the Climate Action Plan and that the long-term environmental benefits must be taken into consideration. I note that the recently adopted Fingal Development Plan has removed objectives which seek to maintain level crossings in the Blanchardstown area. I am satisfied that the effects on Dublin Bus operations at this location have been duly taken into consideration and suitable provisions are being made at the construction phase. The determination of the safety of level crossings is clearly informed by the applicant's assessment based on monitoring of such crossings and the safety concerns raised by the observer are not merited.

Mary Keane

The observer raised concerns relating to traffic congestion arising from the closure of Coolmine level crossing, deterioration in safety as a result of the new bridge, the bridge being an eyesore, effects on emergency services, and the effects on the improvements made on the canal.

The applicant noted its considerations given previously on a number of the issues raised. Regarding the aesthetic of the proposed bridge, reference is made to the EIAR provisions and mitigations measures.

The Board will note my earlier considerations on the issues raised.

Mark Allen & Josephine Reilly

The observers raise concerns relating to safety at the Coolmine pedestrian / cycle bridge and its visually unattractive appearance, the impact on biodiversity by the new bridges, the impact on emergency services by the closure of Coolmine level crossing, and the adverse traffic impacts arising. The Board is

asked to request the applicant to undertake a capacity assessment of the line, improve signalling to reduce waiting times at the Coolmine level crossing, and introduce safety measures along Coolmine and Carpenterstown Road and the approach to the level crossing.

The applicant noted its considerations given previously on a number of the issues raised. Regarding safety measures, it is submitted that these have been incorporated into the junction design.

The Board will note my earlier considerations on the issues raised. I acknowledge the road improvements proposed as part of the proposed development and note that the Roads Authority raises no concerns relating to safety impacts arising from these works and the functioning of the road network from a safety perspective.

John Devitt

The observer requests a capacity assessment before a final decision is made, that the applicant engages in meaningful public consultation, signalling is improved to reduce waiting times at Coolmine level crossing, and appropriate safety measures are introduced, in collaboration with Fingal County Council, along Coolmine and Carpenterstown Road and the approach to the level crossing. Reference is made to the impact on emergency services, severance, and increased traffic congestion in the area. The observer also alludes to a number of the applicant's assumptions which are considered flawed.

The applicant's written response included:

- The train capacity assessment is complete and has informed the DART+ West of the required trains per direction per hour. IE will however, hold

consultation of the upcoming construction works during the construction stage of the project.

- Safety measures have been incorporated into the design of the proposed structures at level crossings and the associated road works.
- An assessment was conducted in Section 12.5.1.7 of the EIAR regarding the air quality impact of traffic during the operational phase of the project as a result of the level crossing closures. This included an assessment in the Coolmine and Clonsilla areas, including in proximity to Stationcourt View. This assessment found that concentrations of NO₂ at modelled receptor locations were, at worst, considered to have small increases in concentrations. All increases of PM₁₀ and PM_{2.5} were considered to be negligible. The impact of the proposed development, which takes into account the background pollutant concentrations, in terms of NO₂, PM₁₀ and PM_{2.5} is considered negligible.

At the Oral Hearing, the observer reiterated concerns relating to severance, the impact on the emergency services, and the inadequacy of consultation.

Emphasis was placed on those not served by the railway service, notably travelling north/south or south/north over the line, and rail demand outside of peak hours. The Board was asked to allow for the upgrading of Coolmine level crossing, the improvement of signalling, the introduction of enhanced safety measures, and the construction of a pedestrian bridge to the east of the level crossing. It was further requested that a capacity assessment be undertaken to evaluate demand for services that would justify the level crossing closures at peak times and the impact on the local community.

The applicant clarified matters relating to its consultation process, its transport modelling and future population projections, access for emergency services, the

need for level crossing closures, and addressed severance and comparisons with the existing Dart service.

The Board will note my earlier considerations in my assessments on the issues raised. Regarding concerns relating to air pollution, I accept that the closure of the level crossing would result in road traffic being displaced to other roads in the area, thus likely increasing traffic along certain sections of the local distributor road network. The applicant has assessed the impact in the EIAR. The observer has not demonstrated how the proposed development would significantly increase air pollution. It is evident that the closure of the level crossing would decrease pollution arising from traffic at that location. There is no reason to determine that the changes would give rise to significant deterioration of air quality on the road network elsewhere as traffic is dispersed away from the level crossing.

Kieran O'Callaghan

The observer has raised issues relating to the need for capacity assessment after electrification and before the level crossing closure at Coolmine, the option of improved signalling, the need for appropriate road safety measures, impact on emergency services, severance, increased road traffic congestion, and increased air pollution. Issues were also raised about working from home affecting passenger numbers, bridge design alternatives, potential safety measures at the level crossing, level crossings remaining open elsewhere where electrification / upgrades have taken place, and waiting times at the level crossing remaining unchanged with reduced closure times.

The applicant's written response included:

- All design solutions proposed by the DART+ West project will propose suitable safety measures in line with current guidance and best practice. The DART+ West project team have been in consultation with Fingal County Council regarding the proposed design for the scheme, which included the proposed road works at Coolmine and Carpenterstown Road.
- In relation to walking, the proposed development will improve the journey amenity and journey characteristics through a purpose built pedestrian and cycle bridge over the Royal Canal and railway always allowing unrestricted access over the railway line improving journey times, amenity, and safety. Furthermore, the junction upgrade works will ensure that there is continuation of existing cycling facilities by providing dedicated lanes on approach to the new roundabouts. The segregated cycling and pedestrian facility may also encourage the uptake of active travel modes in the area, having a positive and long-term effect on journey characteristics.
- The proposed scheme is predicted to have a likely beneficial impact on the air quality for the residents of Riverwood Court due to predicted lower traffic volumes on local roads, including Riverwood Road. On roads where increases in traffic do occur, such as the Diswellstown Road, the assessment found that concentrations of NO₂ at modelled receptor locations were, at worst, considered to have small increases in concentrations. All increases of PM₁₀ and PM_{2.5} were considered to be negligible.
- The closure times for barriers at level crossings are unrelated to the use of diesel power. Each level crossing has its own particular constraints which may result in differing closure durations and the level of service may affect the closure duration throughout the day. The design team has examined the scope for retention of the level crossings once the planned level of

service is implemented and have concluded it is not practicable. The level crossings need to be closed.

The Board will note my considerations earlier on the range of issues raised.

Patrick Lynch

The observer is opposed to the closure of the level crossings without proper assessment for capacity and consideration of the introduction of a fully automated rapid drop barrier system as is used for the existing DART line. Traffic congestion arising from the closure of Coolmine level crossing, severance north and south of the line, the lack of lift provision at Coolmine station, and poor public consultation are also referenced.

The applicant's response included:

- The provision of cycle routes through the local area is a matter for the local authority. The objector is referred to the Fingal County Development Plan for objectives in respect of the provision of cycle networks in the local area.
- A traffic impact assessment was carried out in support of the project. It included a local area model of vehicular traffic in the Blanchardstown area both north and south of the railway. It concluded that with the proposed junction enhancements no significant changes are predicted in traffic congestion consequent on the project.
- Detailed response in relation to impacts on traffic is provided in Section 2.4.8. EIAR Chapter 5 Traffic and Transportation identified that there will

be no significant changes on traffic in the Blanchardstown area to warrant an upgrade to Dr Troy Bridge as suggested in this submission. This work will also be outside the scope of the DART+ West project.

At the Oral Hearing, the observer submission in response to the applicant's response to the written observation made to the Board was read into the record on behalf of the observer. This reiterated many of the issues raised by several landowners and observers throughout the course of the Hearing, including severance and impact on the emergency services.

The Board will note the various considerations on traffic-related issues earlier in my assessments. Regarding the provision of cycle routes, I accept that the provision of a cycle network is primarily the responsibility of the Roads Authority. However, I do understand the raising of the issue as the applicant seeks to develop parts of a cycle network with its proposed bridge crossings at level crossings which do not appear to relate to the provision and further development of an existing or known planned cycle network. They are, therefore, piecemeal development which it is understood will ultimately form part of the delivery of an orderly cycle network by the local authority at some stage in the future. The Board will note my considerations earlier in my Planning Assessment on severance and on the closure of level crossings.

Bill Fordyce

The observer emphasises the provision of a system of automated level crossings to address the proposed level crossing closures in this area. It is submitted that moving the Coolmine westbound platform to the opposite side of the road crossing would further reduce closure times for Maynooth bound trains. Traffic

problems for rail users from the Coolmine side seeking to use the car park and for drop-and-go are referenced, as are school-related issues and children's safety. The creation of 'no-go' areas and anti-social behaviour around stations is also alluded to and maintaining accessibility for all users by maintaining the current crossings in place of the proposed daunting pedestrian bridges.

The applicant acknowledged previous considerations on the issues. It was submitted that the proposed set down area would be managed by the local authority once the project has been completed and that illegally parked cars would be dealt with by the Local Authority Parking Enforcement Department.

My considerations on the range of issues raised have been set out earlier in my assessments. I note the responsibility of the local authority in relation to the management of the roads network, including enforcement and the management of the new set down area at Coolmine.

Michael O'Connor

The observer's submission centres on the severance caused for the community of Dublin 15 by the closure of three level crossings. Increasing motorised transport for residents because of closures and the traffic impacts of reducing the crossings in the area to two, where bottlenecks exist with all crossings, are of concern. It is queried why Ashtown and Barberstown are being provided with alternate forms of crossing and this is not being done in Dublin 15.

I note that the applicant's responses given earlier refer to the issues raised.

I note the issues raised have each been considered earlier in my assessments.

Delwood Residents Association

The observer refers to the inadequacy of public consultation and is in favour of retaining the level crossings, Coolmine in particular. Reference is made to upgrading the signalling system, decrease in passenger demand on the line, severance, increased traffic congestion, parking concerns, anti-social behaviour, safety concerns, and impact on biodiversity.

I note the applicant's response to the range of issues raised in its written response.

At the Oral Hearing, the observer reiterated the concerns made in the written submission and highlighted where it was considered inadequate responses were given by the applicant to its submission. The Board was asked to disallow the closure of Coolmine level crossing.

The applicant's response referred to the consultation process, the traffic and transportation assessment, emergency services access, level crossing closure, and to the issue of anti-social behaviour.

I note the range of issues raised have each been considered earlier in my assessments.

Brendan O'Brien

The observer's concerns relate to the closure of Coolmine level crossing. Reference is made to severance, the approach taken on the Howth to Bray DART line, impact on road congestion, the inappropriate proposed pedestrian/cycle crossings, the lack of local area traffic studies on the impact of closures, the limited effects of junction improvements, and impact on emergency

services. The submission also refers to flawed assumptions, use of new technologies at crossings, moving of the south platform to reduce the impact on the crossing, closure of the crossing at peak times only, the option of tunnelling, the inadequacy of the multi criteria analysis, conflict with the objectives of Fingal Development Plan, and queries the objectivity of the revised selection report.

The applicant's response to issues not otherwise considered earlier include:

- It is not possible to maintain the level crossing or the right of way and achieve the project objectives. The community connectivity will be maintained through a new pedestrian and cycle bridge providing safer and unhindered connectivity to the communities north and south of the railway line.
- The proposed development does not divide this mature community. Instead, it will improve the journey amenity and journey characteristics for rail users as well as walkers and cyclists travelling north and south of the railway.
- A wide range of options have been considered at option selection at this location. The criteria used to assess each option follows the 2016 Department of Transport's Common Appraisal Framework for Transport Projects and Programmes (updated in 2021).
- The option referred to as the original plan was one of 10 options presented at non statutory public consultation no.1 and identified then as the emerging preferred option. Following each stage of consultation options were re-evaluated taking account of submissions from the public. The design team is satisfied that the design proposed in the Railway Order represents the optimal option.

- The Multi-Criteria Analysis (MCA) technique used to inform the option selection process that has been applied to determine the end-to-end preferred option of the proposed development has been informed by the Common Appraisal Framework (CAF) for Transport Projects and Programmes (Department of Transport Tourism and Sport, March 2016 and updated October 2020). The CAF Guidelines require projects to undergo a MCA under a common set of six CAF criteria.
- In August 2019 CSEA / Systra completed the Maynooth Line Transport Study Final Report. The traffic outcomes of this study have been used in the MCA process to determine the preferred option at the selected level crossings. The methodology applied to this study involved a road-based assessment and a pedestrian and cyclist assessment. The options were developed to identify what extent of replacement road infrastructure, if any, is required to allow the level crossings to be closed without having significant impacts on network performances. Based on the results of the road-based assessment undertaken, it was recommended that Ashtown, Coolmine and Barberstown would require road-based replacement infrastructure to facilitate the closure all level crossings on the Maynooth rail line to vehicular traffic. The findings of the pedestrian and cyclist assessment concluded that pedestrian and cycle access be provided for Ashtown, Coolmine and Clonsilla. For Barberstown, it is envisaged that the replacement road infrastructure at this location will be sufficient to cater for future pedestrian and cyclist movements and that due to the low usage level at Blakestown level crossing, it is recommended that no replacement infrastructure for pedestrians and cyclists is required. The design team has carried out a review of, and has accepted, the conclusions of the above report and the design development was advanced on the basis of the conclusions and project data included in the report.

- Section 6.3.2.1 in EIAR Chapter 6 Traffic and Transportation describes the traffic counts carried out to inform the traffic analysis. Baseline road traffic surveys undertaken in January 2019 include the following: Automatic Traffic Counts (ATC) at 35 locations, Pedestrian and cyclist count at two locations, Junction Turning Counts (JTC) at 48 locations, Supplementary counts by Fingal County Council, Journey time information from the NTA database. Some supplementing traffic counts were also carried out in November 2021.
- The EIAR is based on Fingal County Development Plan 2017-2023. It does not take into account the updated and now adopted Fingal County Development Plan 2023-2029.

The Board will note my earlier considerations on level crossing closures, the appraisal system and option selection, the traffic impacts, the need for the scheme, compatibility with development plans, and severance.

Helena & John Coggins

The observers, residents of Delwood, express concerns about the closure of Coolmine level crossing and the severance that would result. It is requested that the level crossing remains open and it is submitted that the proposed traffic adjustments are not practical to absorb traffic from Coolmine. Preventing access to the car park is seen to result in the use of local estates for parking.

I note the applicant's responses in earlier submissions to the issues raised.

I acknowledge that the issues raised have each been considered earlier in my assessments.

Dara Coyne

The observer objects to the closure of the Coolmine, Clonsilla and Porterstown level crossings, the insufficient provisions being made for people with mobility, medical and physical challenges (including toilet facilities, luggage racks, and inappropriate bridge alternatives), impacts on emergency services on the road infrastructure, and the increase in the train service having a severe adverse effect on the rail network between Connolly and Pearse in the absence of DART underground or other solutions. It is submitted that much of the increase in frequency is dependent on Phase 4 of the city centre re-signalling project. Severance, safety, traffic congestion, architectural conservation impact at Clonsilla and the old school at Porterstown, impacts of future development on the road network, accessibility issues across proposed pedestrian bridges, and conflict with Fingal Development Plan objectives are referred to. Alternatives to the closure of levels crossings are provided in an appendix to the submission, including fully upgrading the signalling system.

I note the applicant's responses in earlier submissions to the issues raised.

I acknowledge that the issues raised have each been considered earlier in my assessments.

Conor Casey

The observer refers to the effects of the closure of level crossings in the area, noting severance and the increase in road traffic on Granard and Dr Troy Bridges and certain roads as a result. Emphasis is placed on a modern signalling system at crossings and upgrading of train stations as alternative provisions.

I note the applicant's responses in earlier submissions to the issues raised.

I acknowledge that the issues raised have each been considered earlier in my assessments.

Jane McKevitt

The observer objects to the closure of the level crossing at Coolmine due to severance arising from shopping and recreation areas, the inadequacy of feeder roads to take increased traffic volumes, and the undoubted requirement for a crossing in the future. Reference is made to an alternative to level crossing closure at Coolmine with a humpback bridge located at the station similar to one at Castleknock Station.

The applicant submitted that it is not technically practicable to provide a bridge similar to the one at Castleknock Station at Coolmine because there is a significant embankment on the approaches to Castleknock Station which is not present at Coolmine.

I note the different context for Coolmine when compared with Castleknock and I concur with the applicant's position.

Niamh Digan & Others

The observers raise concerns relating to the public consultation process and refer to the option of increasing the train capacity instead of increasing frequency. Reference is also made to the need to reduce carbon generation in train usage and construction provisions. The need for crossing closures to be justified in planning terms and not based on operational convenience is

requested. The observers also refer to traffic implications from level crossing closures, impact on buses, parking in residential estates, restrictions on access to amenities, inadequate accessibility for pedestrians, and adverse visual impact from bridge proposals. Light pollution at the Deep Sinking on the canal and anti-social behaviour at Coolmine station are also referred to. A schedule of conditions is provided which sets out matters of concern needing to be addressed.

The applicant's written response included:

- The need to optimise the current service capacity is one of the reasons of the project. The current system needs a complete change of the existing signalling and operational functionalities to be able to cope with a major number of trains, Connolly station being the current bottleneck of the network.
- The proposed DART+ West project includes for station capacity improvements at Connolly Station to facilitate the running of additional fleet that, with the new signalling system, changes in the operation of the network and a new track crossover on the northern throat of the station, will allow for more effective timetabling and better services. The proposed development will also provide new access / egress at Connolly Station to facilitate better movement of additional passengers within the station.
- Section 13.5.1.2 of the EIAR quantifies the construction phase embedded carbon, this includes steel and concrete within the bridges using the TII Carbon Toolkit V2.1. This toolkit has the ability to quantify carbon in infrastructure projects using Ireland-specific emission factors and data.

- Section 13.5.3.3 considers the carbon footprint of potentially longer car journeys in the traffic study areas and in Section 13.5.3.2 the impact of the proposed development on rail emissions is considered.
- During construction the temporary relocation of stops and routes will be agreed with Dublin Bus. Every effort will be made to mitigate the impact. In the operational phase no routes are affected by the proposed works in Coolmine.
- It is not proposed to provide additional lanes on the existing bridges. The traffic assessment documented in Chapter 6 of the EIAR has determined that no additional road space is needed on the bridges. Rather additional capacity is needed at the junctions on the approaches to the bridges. Capacity enhancements and additional lanes are proposed for the junctions.
- Parking control in adjacent housing estates is a matter for the local authority. IÉ will engage with the local authority.
- A traffic impact assessment has been carried out. The assessment concludes that once the junction improvements have been implemented and the level crossing closed the network wide statistics from Blanchardstown LAM indicate that the impact of the development across the modelled area would be positive in terms of travel time, travel distance and average speed.

The Board will note my considerations in my assessments on the wide range of issues raised. I note the significant implications for the railway infrastructure throughout the railway corridor if the applicant sought to pursue longer trains. This does not present as a solution to addressing capacity issues. The Board will

note my considerations on the impacts and concerns arising for capacity at Connolly Station to accommodate the additional services proposed as part of the project. I acknowledge the applicant's comprehensive assessment on carbon footprint impacts arising from the construction and operation of the proposed development. I submit that the proposed development is not likely to have any significant impacts on bus routing. I note the findings of the traffic impact assessment undertaken and concur with the need for road improvement works as proposed. I note that the local authority is not seeking the delivery of particular works to bridges serving road traffic. Finally, I accept that the proposed junction configurations are intended to mitigate the risk to vulnerable road users such as pedestrians and cyclists, including children travelling to and from school in this area.

Anne Mooney & Others

The observers live close to Coolmine level crossing. Reference is made to inadequate public consultation. The matters which the observers consider should be addressed relate to further information on the traffic impact of the development on the wider Dublin 15 area, the examination of the permanent closure of crossings, and the provision of bridges for non-vehicular access when crossing closure is not required. It is submitted that, in the interim, electrification of the line and the automation of barriers should proceed as per existing DART services. Consideration is given in the submission to possible effects of the current proposal on Dublin 15, including severance, traffic, amenity, access, biodiversity and safety impacts. Increasing train capacity, problems at Connolly Station, carbon generation effects from a service not based on demand, and cost saving are also referenced.

The applicant's written response included:

- The IÉ project team has consulted extensively and agreed the proposed design with the LA. Illegal parking outside of the IÉ property is the responsibility of the LA and An Garda Síochána.
- The proposed pedestrian bridge designs adhere to the design standards described in Section 2.2.1 of this Response Report.
- Photomontages have been prepared from key or illustrative viewpoints across the full extent of the proposed development. These views assist in providing an indication of the changes and potential effects resulting from the proposed development during the operational phase after the implementation of the scheme. The Photomontages are prepared as accurate verified photo-realistic views.
- The size of the substation is small in relation to the total green area, and it is located at one side (not in the middle). As the amenity will largely remain functional, the potential effect was determined to be negative, slight, and permanent.
- The proposed scheme is predicted to have a likely beneficial impact on the air quality for the residents of Luttrellpark View due to predicted lower traffic volumes on local roads. The proposed development has the potential to improve air quality in the long-term by reducing diesel emissions from rail stock. The noise assessment concluded that noise levels would change by less than 1dB and therefore no significant noise increase will occur.
- The proposed development also aims to reduce the energy demand with passive architectural strategies, reducing energy consumption with energy-efficient equipment and producing energy with renewable technologies. Energy is also related to CO2 emissions and IÉ's future Carbon Neutrality goal. The use of building design to maximise natural

lighting and solar gain, use of motion-controlled lighting systems and LEDs will reduce building energy requirements. Potable water consumption will be minimised using low consumption fixtures and recycling and reuse of greywater. In addition, Iarnród Éireann will prioritise the use of environmentally friendly materials and the use of recycled and recyclable materials during the operation of the proposed development. A Depot Sustainability Strategy has been produced with an objective to design a functional, efficient and comfortable building with a minimum environmental impact, being an nZEB, Nearly Zero Energy Building and achieving EXEED certification. This will mitigate operational phase energy demand and ensure it is minimised.

At the Oral Hearing, the observer reiterated the concerns relating to the permanent closure of Coolmine level crossing. The range of effects including severance, supporting those living and working in their local community, traffic congestion at the bridge crossings, and air pollution impacts were addressed. The observer queried matching demand with frequency and the issue of energy demand arising. It was questioned why piloting of level crossing closure could not be pursued. Addressing lengthy level crossing closure by use of technology was referred to. The poor level of public consultation was noted. The Board was asked to approve the electrification of the line but was requested to consider if the applicant's proposal was the best way to do it.

I first note my considerations in my assessments on the level crossing closures, traffic and impacts on emergency services, and severance, and my environmental impact assessment relating to air quality and climate. I note the positioning of the proposed Coolmine substation to the north-east of a large open space serving a large residential area. This is adjoined by a proposed construction compound which encroaches on this space. The latter would be

temporary. While the substation would border the open space, I do not consider that it would encroach in a significant manner and the space would continue as a functioning amenity space during the operation of the railway development. I accept that the diversion of vehicular traffic in this area is likely to result in improved air quality in the residential areas east of Coolmine station. Noise impacts would not be significant from road traffic and the applicant's noise assessment has demonstrated this. The associated support infrastructure for the proposed development seeks to utilise technology to minimise energy consumption and applies architectural methodologies to minimise environmental impact. I also acknowledge the revised bridge design submitted to the Oral Hearing, which includes lift provision.

Imelda Bermingham

The observer is opposed to the closure of the Coolmine, Porterstown and Clonsilla level crossings because of the traffic problems that would result and the severance that would be caused. Installation of cameras to address accidents at crossings is suggested and the need for alternative crossings for Dublin 15 is referenced.

I note the issues raised have each been considered earlier in my assessments on the issues raised by Delwood residents.

Shay Cox

The observer raised issues relating to car park access and cycle provisions, school/shopping access, health, safety and security associated with the bridge, and a preferred bridge location option.

I note the applicant has previously considered the issues raised. It is further submitted that an objective approach was made for the bridge option and that 165m² has been allocated for the provision of bicycle parking at Coolmine station.

I note the issues raised have each been considered earlier in my assessments.

Kevin O’Ceallaigh

The observer’s principal concerns relate to the closure of Coolmine level crossing. Reference is made to the inadequacy of public consultation and the observer’s submissions during the consultations are attached for consideration by the Board. Provision of automatic DART standard level crossings, increased safety measures, and increasing train lengths are requested as alternatives. It is submitted that permanent closure of level crossings should only arise when passenger demand actually exists. Concerns raised relate to severance impacts, increased traffic on congested routes, the visual intrusiveness of the pedestrian / cycle bridge, anti-social behaviour at underpasses and bridges, and the impact on the canal and biodiversity. A schedule of conditions for the approval of the Railway Order, reflecting the issues raised, is set out.

The applicant’s written response included:

- The proposed development is considered a sustainable development and is specifically mentioned in the Climate Action Plan. The proposed development is a public transport project which aims to facilitate the shift from private car use by providing more capacity and frequent services and also changes the fuel use from a fossil fuel to electricity, which can be sourced from renewable sources. While there is an impact of longer car

journeys in some areas due to level crossing closures, the impact of the change from diesel to electric trains far outweighs it.

- The new designs for junctions impacted by the re-distribution of traffic provide much more priority for pedestrians and cyclists, in particular around schools and train stations, which will significantly improve the quality of local journeys for local communities getting around for education, medical, employment and other purposes by all modes.
- The proposed pedestrian CORTEN steel bridges were agreed upon as opposed to concrete solutions to tie in with the “look and feel” of the area. It is pointed out that it is a maintenance-free material because corrosion is stopped at the factory.
- The assessment of the operational phase concluded that the overall traffic impact is neutral to slight negative. Long term maintenance and management of the road network is not the role of IÉ.
- Monitoring measures proposed in Section 6.7 of EIAR Chapter 6 Traffic and Transportation will be implemented at the operation phase of the proposed development.

At the Oral Hearing, the observer focused on addressing the efficiency of the Coolmine level crossing, reopening of the level crossing at off-peak times, congestion caused by the closure, the lack of safety measures being employed at the crossing, and anti-social behaviour. The Board was asked to direct that the level crossing remain open to vehicular traffic.

The applicant’s response was provided in a combined response to the observer along with those submissions from Anne Mooney, Ciara O’Neill and Patrick Lynch’s submissions.

The Board will note my consideration of the issues raised in my earlier assessments.

Kieran O'Neill

The observer, noting the closure of Coolmine level crossing would restrict access to shopping centres, supports the closure due to the traffic impact its retention would have at Carpenterstown Road, Carpenterstown Park Avenue and Luttrellpark Road.

I note that the applicant has previously addressed the issues raised in responses to other submissions.

I acknowledge that the issues raised have each been considered earlier in my assessments.

Christine Moore & Louis Watters

The observers reference poor public consultation, and the need to provide post-Covid data to demonstrate demand. It is contended that the level crossings need to be kept open for local journeys and that there would be major traffic implications with their closure. Reference is made to provision of automated level crossings. Concerns are raised about anti-social behaviour with the closure of Coolmine crossing, the poor design of proposed pedestrian crossings, the need for lifts at Coolmine station, and the wildlife impact on the canal.

I note that the applicant has previously addressed the issues raised in responses to other submissions.

I acknowledge that the issues raised have each been considered earlier in my assessments.

St. Mochta's National School Board of Management and Parents Association

The school is located on the Porterstown Road in Clonsilla. It is submitted that the upgrading of level crossings must be considered instead of permanent closure, with installation of automatic level crossings, in conjunction with accompanying road safety and traffic calming measures in the vicinity of level crossings to ensure the safety of the school going population in the area. Reference is made to severance, increased road traffic congestion, inadequate road measures, congestion and access issues at the school, discouraging students to cycle to school due to safety concerns, and additional traffic arising from proposed development in the area. A schedule of conditions for approval of the Railway Order is set out.

The applicant's response to the submission included:

- With respect to journey characteristics and journey amenity for non-motorised users at Porterstown, EIAR Chapter 7 Population, Section 7.5.4.4.2 states the proposed development will improve the journey amenity of cyclists and pedestrians through the provision of a dedicated pedestrian and cycle bridge over the Royal Canal and railway in proximity to the existing level crossing.
- The closure of Porterstown Road might increase safety and efficiency at the current one-way set up at the school drop off. Traffic travelling from the direction of the railway line accessing the school drop off area (turning right to access the entry) is blocking vehicles exiting the drop off area,

which in turn disrupts the operation of the drop off and smooth exiting of vehicles from the school.

- St. Mochta's National School was included as a sensitive receptor (Area2_R34) during the modelling operational road traffic impacts, detailed in Section 12.5.1.7.2 of the EIAR. The school was chosen as a sensitive receptor to model sensitive populations, such as children, and confirm that they would not be significantly adversely impacted by the proposed development.
- The cost of the bridges has been included in the options assessment process for the project. The expenditure is considered necessary to facilitate the removal of the level crossings.
- The DART+ West project is a railway infrastructure project and is only permitted to undertake works to facilitate the closure of the level crossing and associated impacts in this area.
- The pedestrian's overbridges provide a safe crossing of the railway once the level crossings have been removed as part of the project delivery. The overbridges are intended to provide a sustainable travel link over the railway to ensure that the local community can retain access to amenities and facilities on either side of the railway line.
- The requirement to close the level crossing to facilitate the efficient operation of the DART service and safety of users has been set out in detail in numerous reports available on the DART+ West website. In most instances alternative access across the railway line has been provided.

My considerations on the range of issues raised have been set out earlier in my assessments. I note my considerations on the principle of level crossing closures to deliver on the aims of the project. I acknowledge that cycle and pedestrian facilities are provided at the level crossing. I also note the rural nature of lands south of the railway line at this location and remoteness from any in-depth residential development. Adaptation to alternative vehicular access to the school from the south will be a consequence of the proposed development taking place. My comments on piecemeal cycle infrastructure may be repeated for this location. However, it is accepted that the local authority as roads authority is responsible for the delivery of a cycle network in this area. One may query the need to deliver a cycle crossing of the railway line when there is no quantifiable demand demonstrated for such infrastructure. While one may, therefore, question the need for the large bridge structure proposed and acknowledge its impacts visually and from a biodiversity perspective, I must acknowledge the revised design option for Porterstown presented at the Oral Hearing and its considered acceptability.

Residents of St. Mochta's Estate

The observers raise concerns relating to the closure of Coolmine level crossing and the provision of the pedestrian/cycle bridge. Reference is made to road traffic impacts, facilitation of anti-social behaviour, and the unsightly appearance of the proposed bridge, its impact on wildlife, and inaccessibility for mobility impaired.

I note that the applicant has previously addressed the issues raised in responses to other submissions.

I acknowledge that the issues raised have each been considered earlier in my assessments.

St. Mochta's Residents Association

The residents submit that public consultation has been inadequate to date and that the applicant has been reliant on out-of-date data, i.e. pre-dating Covid. It is contended that the level crossings need to be kept open for local journeys and that there would be major traffic implications with their closure. Reference is made to provision of automated level crossings. Concerns are raised about anti-social behaviour with the closure of Coolmine crossing, inaccessibility of the proposed pedestrian crossing, the wildlife impact on the canal, and the visual impact from the proposed bridges.

The applicant's response to the submission included:

- The following specific mitigation is proposed in Section 15.6.3 of Volume 2A of the EIAR at the three locations mentioned:
 - At Coolmine Station there will be the provision of a high-quality urban realm with block paving to shared pedestrian / cycle access, new seating, street furniture, street tree planting, raised planters, ornamental planting, native trees / shrub planting, and species-rich grassland. Water management will be integrated into the landscape with planted bioswales taking runoff from the car park and road.
 - At Porterstown, the new bridge structure will be better integrated into the landscape through provision of screening native trees / and shrubs where feasible.

- At Clonsilla there will be the provision of high-quality urban realm to the junction of Hansfield Road and Clonsilla Road, with block paving to shared pedestrian / cycle access and pedestrian crossings, new seating, street furniture, street tree planting, raised planters, ornamental planting, native trees / shrub planting. There will be native tree / shrub planting to the area surrounding the southern ramp of the proposed bridge to aid in integrating the structure into the landscape, and to aid in compensating for trees removed during construction.

I acknowledge that the issues raised have each been considered earlier in my assessments.

Desmond Brown & Anna Keane

The observers object to the proposed type of foot/cycle bridge at Keenan Bridge (Porterstown Road) in terms of its elevation, density/height, bulk and massing. Reference is made to the need to limit development impacting on open spaces and amenity areas along the canal, as well as to overlooking, security, severance, and accessibility concerns. Protection of protected structures adjoining the canal at this location is requested. With the proposed closure of the level crossing, it is requested that Porterstown Road is confined to residential access only and that parking and school drop-off points are addressed. It is further requested that the level crossings at Ashtown, Coolmine, Porterstown, Clonsilla and Barberstown be retained following the development of the project because the preferred option for traffic management is not adequate to manage vehicular traffic and will cause massive disruption to local communities. The observers ask that the railway gate is opened for local/residential access at off-peak times and school traffic is diverted from Diswellstown Road.

The applicant's response to the submission included:

- Several different options were initially considered for pedestrian/cycle crossing at Coolmine. These options were assessed in a Multi Criteria Assessment.
- Four options, in addition to the DoMinimum and Do-Nothing option, have been considered at Porterstown at Stage 1 MCA. Detailed description of these options is available in EIAR Chapter 3. Three options have been brought forward from Stage 1 MCA into Stage 2 MCA. Funding is available to take the project through the planning phase, subsequent funding for undertaking the construction and delivery of the project will be at the discretion of the funding authority (NTA) and Government. As this is the key project for the delivery of the DART + Programme and in turn a major investment in rail for Project Ireland 2040 and is a priority project for delivery by Irish Rail.
- Public consultations have been held for the proposed development as described in Section 2.2.2. Submissions from private individuals or organisations have been reviewed and taken into consideration during the planning and design stage of the proposed development.
- Pedestrian and cyclist counts were undertaken between November 2015 and February 2020.

I acknowledge that the issues raised have each been considered earlier in my assessments.

Kirkpatrick Rockfield Coolmine Residents' Association (KRCRA)

The residents request that, before any level crossings are closed, a range of actions are taken, including the carrying out of a revised capacity assessment reflecting post-Covid working and the delay in the delivery of new developments, as well as the ability to deliver the predicted level of service. The capacity of Connolly Station to accommodate the increase in services and the option of shorter level crossing closure times to reflect existing DART operations are also raised. Regarding proposed pedestrian bridges, issues raised include the need for more photomontages at Coolmine, the need for standardisation of bridge type, improved accessibility, the need to address public safety and anti-social behaviour, landscape mitigation measures be conditioned, and the application of an anti-graffiti coating and maintenance. The need for an agreed parking management plan before level crossing closure and for the upgrade of Castleknock Bridge for pedestrians and cyclists are also referenced.

The applicant's written response included:

- The current train frequency along the Maynooth line on average is 6 trains per hour per direction which equates to arrival of a train every 10 minutes.
- The proposed DART+ West project includes for station capacity improvements at Connolly Station to facilitate the running of additional fleet, which will allow for more effective timetabling and better services.
- The increase in train frequency and capacity proposed as part of the scheme is to meet the future passenger demand which is anticipated to increase from 5,000 in 2019 to 13,200 passengers in 2025.
- The DART+ West team have made every effort to make the documentation as easy to navigate as possible. The Photomontages are

included within the Environmental Impact Assessment Report (EIAR) as Volume 3B.

- Mitigation measures proposed in EIAR Chapter 15 Landscape and Visual Amenity will be adhered to during construction and operation phase of proposed development, as appropriate.
- Iarnród Éireann will retain responsibility for maintenance for the bridge on completion. The material choice and the corrosion protection will be resolved as part of the detailed design so as to ensure curtailed maintenance interventions.
- The IÉ project team has consulted extensively and agreed the proposed design with the LA. Illegal parking outside of the IÉ property is the responsibility of the LA and An Garda Síochána.

At the Oral Hearing, the observer queried the predictions on passenger numbers and the failure to address its concerns. The need to close the level crossings was questioned and concerns were raised on passenger demand. The Board was asked to accept the standardisation of bridges and the provision of lifts in the revisions provided at the Hearing. The observer reiterated anti-social behaviour and security concerns and parking concerns, requesting an agreed parking management plan be drawn up. Comparisons were made with the existing Dart service (Howth to Bray) with the proposed Dart+ West.

The applicant responded by providing proposed details on Dart+ service levels in the area and clarified that there would be gradual upgrading of service provisions. Clarification was also provided on overhead line clearance at bridges. Reference was made to the process of public consultation and clarity was provided on psycho-social effects. Parking in residential estates and the applicant's response were provided and reference was made to parallel projects of the NTA and that ongoing monitoring of parking is proposed.

My considerations on the range of issues raised have been set out earlier in my assessments. I note the clarity provided on the frequency of the existing service, the anticipated demand in 2025, and the gradual roll-out of the proposed service. I consider that the maintenance of bridge structures should be well within the control of the applicant but it clearly depends on the selection of bridge finishes and a commitment to monitoring and taking effective action to address their presentation on an ongoing basis. I submit that there should not be a particular concern about maintenance having regard to how the applicant appears to adequately address maintenance of bridges throughout its rail network. The applicant is correct in stating that the control of parking outside of its property lies with the local authority but the implications of parking arising from avoiding parking at stations must be acknowledged as an ongoing problem likely exacerbated by the development of the project. I acknowledge that the local authority has not raised objections to the drop-off facility at Coolmine. Parking would become an issue requiring monitoring and a response to issues particularly for estates on the north side of the line because parking for the Coolmine station is on the south side of the line. Finally, the Board will note that there are concerns about the capacity of Connolly Station to deal with the increase of services proposed by the scheme. There are very significant delays with trains seeking to access Connolly Station. The station capacity improvements proposed at that location are noted. This would be a particularly challenging component of the scheme if it is seeking to meet its objectives. The observers are correct to raise this issue as a concern.

Fred Rogers

The observer requests consideration of the following in the granting of the railway order – inadequacy of public consultation, errors arising from the Multi Criteria Analysis, the need for a revised capacity assessment after the pandemic, upgrading of level crossings, provisions of lifts in stations, and the need for an agreed parking management plan at Coolmine station. Reference is also made to post-construction reinstatement relating to vegetation affected, provision of a footbridge at Dr Troy Bridge, provisions to reduce anti-social behaviour, provision of a suitable access road to Castleknock station, avoidance of interference and damage to bridges that are protected structures, and querying the need for a tunnel at Ashtown.

The applicant's response to the submission included:

- EIAR Chapter 3 Alternatives provides an accurate description and methodology undertaken during the Multi-Criteria Analysis undertaken.
- The IÉ project team has consulted extensively and agreed the proposed design with the LA. Illegal parking outside of the IÉ property is the responsibility of the LA and An Garda Síochána.
- Regarding conditions being attached that Irish Rail construct footbridge at Troy Bridge realigned junction to ensure children accessing schools have safe crossing space, this is not a matter for IÉ.
- The redesign of station access roads in this instance is outside the scope and funding of the DART+ West project.
- Three options have been assessed to construct the OHLE beneath the protected bridges: reduced height OHLE solution, track lowering, and bridge reconstruction Multi-criteria analysis has been undertaken to

consolidate the quantifiable and non-quantifiable impacts of each option on the bridges. EIAR Chapter 21 assessed the potential impacts on protected structures and prescribed mitigation measures, as appropriate to reduce the potential negative effects.

I accept that a number of the observer's requests lie outside of the scope of this project and are matters to be addressed by the local authority. I have otherwise addressed the remaining issues in earlier assessments.

Castlefield Park Residents Association

The residents' principal concern relates to the proposed closure of the level crossings at Coolmine station, Porterstown Road, and Clonsilla station and the building of bridges at Porterstown and Clonsilla which are considered unsightly, with adverse impacts on adjoining protected structures, on the Greenway and the proposed Natural Heritage Area. The Board is asked to compel the applicant to consider upgrading the level crossings instead of closure. Reference is made to increased traffic congestion in Clonsilla and on Dr Troy Bridge. A schedule of conditions to be met is submitted. Other issues raised relate to alternative infrastructure upgrades such as tunnels, impact on bus routes, and the failure of the new Barberstown bridge to serve Clonsilla.

The applicant's response to the submission included:

- At Clonsilla, an underbridge option was discounted prior to optioneering as the layout of the existing roadway and properties on the north side of the railway were not conducive to an underpass.

- DART + West proposals impact directly on one current and one future Bus route at Clonsilla level crossing, while the changes in travel patterns around Blanchardstown area will alter following the implementation of the proposed scheme, the proposed changes to existing junctions as part of DART+ West have been designed to minimise impact on both traffic and ped/cyclists and in many cases implemented/reinstated the right vehicular traffic vs pedestrian / cyclist balance and priority. This change will have an impact on vehicular traffic, which was assessed in the TIA.
- The proposed bridge at Barberstown will serve the existing population catchment. The proposed bridge, and associated road infrastructure will also serve future population at Kellystown Local Area Plan (LAP) and Barnhill LAP.
- Section 2.2.1 of the response report provides a description of the footbridge design and its aesthetics. Chapter 15 Landscape and Visual Amenity of the EIAR assesses the likely effects from construction and operational phases of the proposed development on the landscape and visual amenity.

I acknowledge that the closure of Clonsilla level crossing is an integral part of the project. An underbridge option was discounted by the applicant and I accept the difficulties that would arise if such a proposal was pursued, notably for properties. I also accept that bus routes would be affected by the level crossing closure and would be required to use alternative routing in this area in the same way as other vehicular traffic. No issues have been identified by Dublin Bus in relation to the impact on routing. I note the road improvement works proposed in this area to address the anticipated changes to traffic movement in this area. The applicant's traffic assessment is acknowledged and the local authority has raised no concern

on the changes proposed in relation to impacts on bus routing and the road changes. Finally, it is evident that the proposed scheme has been designed to tie in with the Local Area Plan provisions relating to Kellystown and Barnhill and the road infrastructure proposals indicate this, notably the relationship with the proposed Ongar to Barnhill distributor road. The bridge at Barberstown would be expected to serve the catchment as exists along with future development at this location. My earlier considerations on the proposed option changes to bridges at Porterstown and Clonsilla presented at the Oral Hearing are noted.

Bláthnaid & Pádraig Mac Criostail

The observers' principal concern relates to the proposed closure of the level crossings at Coolmine station, Porterstown Road, and Clonsilla station and the building of bridges at Porterstown and Clonsilla which are considered unsightly and in sensitive locations. Reference is also made to the inadequacy of the consultation process, the alternative of upgrading the level crossings as an interim measure and tunnelling as a permanent solution, and to traffic gridlock that will result from the proposal, including increased traffic congestion in Clonsilla and on Dr Troy Bridge. Cycling safety concerns are expressed, as is anti-social behaviour on pedestrian bridges. A schedule of conditions to be met are submitted.

The applicant's response to the issues raised included:

- Both the tunnel at Stationcourt/Riverwood and road bridge west of Clonsilla Station were considered in the option selection process and were set aside in favour of the proposed design.
- As the project is now before An Bord Pleanála, there is a design freeze so having a meeting at this time would not be appropriate. Webinars for the

Clonsilla area were held during both rounds of public consultation and the project team was available at all other times to answer specific questions.

- It is intended to construct the road diversions before the level crossing is closed.

My considerations on the range of issues raised have been set out earlier in my assessments. I note the range of alternative options that were considered by the applicant, including those favoured by the observer. I also acknowledge that webinars were held for the Clonsilla area but I understand why the observer would consider Ashtown and Coolmine appear to have been treated differently from other communities, with engagement levels appearing greater. My earlier considerations on the proposed option changes to bridges at Porterstown and Clonsilla presented at the Oral Hearing are noted.

Richard Dixon

The observer refers to the effects of the closure of the Coolmine and Clonsilla level crossings, traffic congestion impacts on Dr Troy Bridge, public consultation inadequacy on alternative infrastructure upgrades, effects on buses, the lack of consideration of proposed development in the Kellystown LAP area, and severance impacts from the crossing closures. The proposed pedestrian/cycle bridge at Clonsilla is considered unsightly in proximity to protected structures. It is requested that Coolmine and Clonsilla level crossings should not be closed without adequate grade-separated replacements and that a more sympathetic foot/cycle bridge be put in place and not within 250m of any protected structure.

I note that the applicant has previously addressed the issues raised in responses to other submissions.

I acknowledge that the issues raised have each been considered earlier in my assessments.

Lucy Flint

The observer requests that the history of the level crossings be retained, in particular the signal box at Clonsilla station. It is further requested that some or all of the level crossings be retained.

The applicant's response to the submission included the following:

The applicant submits that it is not possible to retain any level crossing as a means of crossing the railway. It is observed that the majority of level crossings within the scheme do not have gates of historic value, being served by modern automatic lifting metal barriers. Noting that the crossing at Ashtown is manually operated with a single timber bar as a barrier and the crossing at Clonsilla has the traditional timber truss gates hung on cylindrical metal posts, the applicant has stated that consideration will be given to leaving these in place, permanently closed, as a historic memory.

I submit to the Board that the applicant's response is reasonable to protect the historic features of Ashtown and Clonsilla level crossings. It may be appropriate to attach a condition requiring the retention of these features, subject to provisions not interfering with the rail line.

9.3.5. Zone D - Clonsilla Station/Junction to M3 Parkway Station

Landowners

Alanna Homes, Dragonglen & Alcove Ireland Eight Ltd. (Ref. DW.017.T.60(A)(B) / DW.018.T.62(A)(B)(C)(D) / DW.025.T.62(A)(B))

The observer is proposing a strategic housing development at Barnhill and raises issues relating to the interface between the residential development and the proposed development. A memorandum detailing agreement in principle to alternatives which allows both projects to be developed concurrently is attached with the submission. In addition, the observer seeks to review proposals for a temporary construction compound on lands to the north-west of the SHD project, with alternative options potentially including phasing of the SHD project to facilitate temporary access for the rail project or an alternative location for the compound.

The following is noted from the agreed memorandum:

- Plot DW.018.P.62(B) would be omitted as part of the corrigenda submission to the Board.
- The acquisition of Plot DW.018.P.62(A) would not be acquired permanently but a Right of Way would be established in favour of Irish Rail and CIÉ. It would be shown as part of the corrigenda submission to the Board.
- Property Ref. DW.018.P.62(A) and DW.018.P.62(B) would be removed as part of the corrigenda submission. The existing right of way or the alternative access shown on the attached Drawing 16_053_102 would be used for the construction works required for the rail project.
- CIÉ has no objection to the proposals for Barnhill Ongar Road and tie in to Barberstown Lane shown on Drawing 16_053_034.

In its written response, the applicant noted that it has met with the developers to discuss the issues raised in their submission and will continue to liaise with the developers to address the issues raised in their submission, subject to planning conditions that may arise in relation to either project.

At the Oral Hearing, the landowners referred to the agreement reached between the landowners and the applicant relating to accommodation works and amendments to the scheme. It was stated that there is not a formal agreement between the parties. The amendments proposed, however, were set out in the landowners' submission to the Hearing. This included a 'Record of Meetings' which provided specific details of the proposed changes. This was clarified as being the agreement. I note that the Errata submitted by the applicant at the beginning of the Hearing incorporated the changes proposed. The applicant confirmed for me at the Hearing that the proposed changes fall wholly within the red line boundary of the railway order application.

I note that the agreement relates to lands to the south of the railway line at Hansfield. Planning permission was granted by the Board in 2023 under ref. ABP-314125-22 for 1,243 residential units and new school facilities. The agreement provides for the relocation of a turning facility for emergency services accessing the proposed substation and associated building south of Hansfield railway station and a proposal not to acquire Property Ref. DW.018.P.62(A) and to show it alternatively as a Right of Way. Property Ref. DW.018.T.62(A) & DW.018.P.62(B) would be removed. This existing right of way or the alternative access shown in submitted Drawing Ref. 16_053_102 would be used for the construction of the works required for the Dart+ West project. Finally, the landowners' proposals for the Barnhill Ongar Road and tie-in to Barbertstown Lane shown on CSEA Drawing Ref. 16_053_034 are found by the parties to be compatible with the project pending final detailed proposals.

I note again that these changes fall wholly within the red line area associated with the Railway Order application. I have no objection to these proposed changes and do not consider that they undermine the delivery of the project.

I submit that there is a community need to be met by the acquisition of the lands in question, these particular lands are suitable to meet that community need, alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and the works to be carried out would not be in material contravention of the provisions of any statutory development plan.

McGarrell Reilly (Ref. DW.023.T.132(A)(B)(C)(D))

The applicant proposes the temporary acquisition of the observer's lands at Bennettstown, Dunboyne for a construction compound within the M3 Parkway car park. It is noted that the access road to the car park is not being temporarily acquired but that all construction traffic accessing the compound would use this road. There is no objection to the project subject to:

- Access to the observer's remaining landholding to the south and east (which are zoned residential) remaining open at all times, and
- A condition survey of the access road being carried out before and after construction works and remediation in any deterioration in the road condition being completed. A condition attached to the Railway Order is requested to reflect this.

The applicant submitted that Irish Rail currently accesses the station through the road and commits to repairing any damage to the road as a result of the contract. The applicant also commits to maintaining access to the observer lands, as well

as committing to undertaking the required precondition and post construction surveys, remediation and construction period maintenance.

It is apparent from the applicant's response that the issues raised by the observer have been adequately addressed.

I submit that there is a community need to be met by the acquisition of the lands in question, these particular lands are suitable to meet that community need, alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and the works to be carried out would not be in material contravention of the provisions of any statutory development plan.

Other Submissions

AZRA Property Company Limited

The observer controls approximately 15.5 ha. of land in Dunboyne, which shares its western boundary with the rail line and on which it intends to undertake a residential development. Reference is made to a proposed distributor road extension southwards and then eastwards over the rail line and to the road design, including the bridge spanning the line, having taken account of the planned electrification of the line as now proposed. The observer is supportive of the project.

The applicant's response is that there are no points to be addressed.

I acknowledge that the observer's lands adjoin the established rail line, that they are zoned for residential use in the Meath County Development Plan, and the observer is proposing a residential development on these lands. I further note that the development of a bridge over the rail line as part of the Dunboyne

Distributor Road is stated to be the responsibility of Meath County Council. This new bridge should not affect the railway development as it will be required to take into account the planned electrification of the existing line.

9.3.6. *Zone E Clonsilla Station/Junction to Maynooth Station*

Barberstown

Landowners

Joan, Edel, Madeline & Francis Anthony Reynolds (Ref. DW.025.P61(A))

The observers submit:

- The Railway Order should not be approved until the Board is satisfied that there is an urgent need for the scheme and CIÉ has the funding to complete it.
- The Railway Order should not be approved until CIÉ has provided drawings to an appropriate scale and the observers have the opportunity to consider them.
- The Works Layout Plan No. WP025 shows the scheme connecting to the proposed Ongar to Barnhill Distributor Road which is to be constructed by others. The observers withdrew their objection to that scheme on foot of an agreement and the CPO was confirmed and a Notice to Treat was served in May 2010. The observers have been unable to submit a claim for compensation because Fingal has not provided any drawings for the scheme reflecting the works that were agreed. It is stated that it is unclear if the Ongar scheme on the CIÉ drawings is the same scheme for which a Notice to Treat was served. It is submitted that there is no certainty that CIÉ can build the proposed scheme. The observers further submit that their

lands have been sterilised for 12 years and consider a second CPO on the remainder of their lands would sterilise them well into the future. It is stated that the Board has some duty of care towards the landowners and should not approve the CPO until an urgent need for the scheme is established and capable of completion.

The applicant's response to the submission included:

- The need for the scheme is provided within Chapter 2 of the EIAR. DART+ West is a key element for the implementation of the overall DART+ Programme and therefore this project is a major investment to comply with Project Ireland 2040 and a priority for delivery by Iarnród Éireann. The current National Development Plan (NDP) funding profile provides for the full delivery of DART+ West.
- Drawings detailing the design are shown within the draft Railway Order and EIAR. Railway Order Property Plans and Railway Works Plans were issued with the server packs for the Railway Order. Further design drawings providing more detail of the proposed works near the property at an appropriate scale and level of detail are included within the Railway Order Drawings, Book 3 Structures Plans, Specific Locations, Barberstown.
- The Ongar to Barnhill Distributor Road has received planning approval and is currently at tender stage with site clearance and fencing commenced. The project being delivered by Fingal County Council is due to be completed by Q3 2025. The DART+ West project will tie in to the Ongar to Barnhill Distributor Road which is proposed to be built in advance of the DART+ West construction being completed. However, should anything arise to prevent the completion of the Ongar to Barnhill Distributor Road, it is feasible for the DART+ West proposals at this

location to tie in to the existing Barberstown Lane within the lands to be acquired as part of the DART+ West Railway Order.

- Agreements with Fingal County Council as part of the Ongar to Barnhill Distributor Road are outside the scope of the DART+ West project.
- The design of the Ongar Barhill Distributor Road that the DART+ West project will tie into at this location is based on the latest design information provided by Fingal County Council. The Ongar Barhill Distributor Road is a separate project to DART+ West being delivered by Fingal County Council and is outside the scope of the DART+ West project. The proposed road at Barberstown as part of the DART+ West is proposed to be built subject to any conditions of the planning.

The delivery of the proposed Ongar Barhill Distributor Road is outside the scope of the proposed railway project. The delivery concerns of that roads project should effectively be directed at Fingal County Council. The applicant has acknowledged the proposal for the new road and its current status and acknowledges that the proposed railway scheme seeks to make appropriate provisions based on the most up-to-date road scheme drawings. The need for the railway scheme is clearly provided for in national, regional and local policy and is a public transportation priority. The difficulties with the delivery of a road scheme should not undermine the delivery of the public transportation scheme. The applicant can undertake the railway works in the event the road scheme is not delivered. I acknowledge the impact of the sterilisation of the landholding by the proposed road scheme and the likely frustration arising from that. The delivery of the proposed railway scheme should not necessarily be undermined by this other scheme.

I submit that there is a community need to be met by the acquisition of the lands in question, these particular lands are suitable to meet that community need, alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and the works to be carried out would not be in material contravention of the provisions of any statutory development plan.

Seamus Ross (DW.025.T.58(A)(B)(C))

The proposed works at Barberstown level crossing include the construction of a new road bridge with pedestrian and cycling facilities some 200m west of the level crossing. The approach roads would be on raised embankment and would tie in to the proposed Barnhill to Ongar Road Scheme.

The landowner uses the lands for the keeping of horses. He submits that consultation is required in order to ensure that the works, both temporary and permanent, are carried out sensitively and proper restoration takes place. It is further submitted that the proposed roundabout may not be required as railway works would be accessed from the other side of Barberstown Lane where there is an existing compound and that leaving public access to this stretch of laneway may result in anti-social behaviour. It is suggested that it may be prudent to extinguish the right of way and provide controlled, dedicated access for the observer directly from Kellystown Lane at the junction. It is also requested that any new boundaries should be maintenance free.

The applicant's written response to the submission included:

- Draft Accommodation Works can be discussed with the landowner and their agent in advance of the approval of the scheme. Once the scheme is

approved the landowner will be able to agree the finalised accommodation works with Irish Rail and CIÉ regarding accommodation works including boundary treatment and other restoration works to the property.

- Noted that this land is used for horses and has been assessed accordingly within the EIAR.
- Currently Irish Rail propose to close the level crossing but maintain access to the rail from this location for track access and maintenance.
- Should the owner wish to extinguish the right of way along this lane for the public this would be for the owner to agree with Fingal County Council as part of a separate request, noting that as part of this process Irish Rail would seek to maintain its right of way to access the rail along the existing Barberstown Lane / Milestown Road, south of the existing level crossing.
- Boundary treatment is proposed on a like for like basis, noting that flexibility exists in the accommodation works which will recognise the mature nature of the existing hedgerow boundary and the loss of existing screening that will result from the proposed scheme.

At the Oral Hearing, the landowner's concerns addressed the impact on the southern portion of his lands, with the need for a gated underpass through the embankment to avoid severance and for landscaping of the road and embankment. The lasting effect of the proposed temporary compound on the usability of the southern field and access to the compound from the Lucan-Clonsilla Road was referred to as the major issue of concern. The removal of mature hedgerow at the house and the effects on the setting of the house and the replacement boundary in terms of security, finishes and maintenance were also referenced. Conditions were stated to be required to address the issues raised. These related to the installation of an adequate underpass through the embankment and high-quality landscaping, locating the temporary compound at

an alternative location outside of the southern holding, and replacing the existing boundary in the vicinity of the house by a 2m high wall with a stone finish. The landowner noted the provision of the roundabout to the south and the closure of the crossing which would result in the local road becoming a cul-de-sac. It was requested that this element be a matter for later detailed design by condition and this may obviate the need for large scale modifications to the boundary of the house.

The applicant referred to the boundary proposals for this location as set out in the EIAR. This included the proposal to fully plant the embankments of the new road and to establish a new boundary hedgerow at the base of it. Regarding the compound, the applicant stated that the space was needed in proximity to the works relating to the proposed road and that it sought to minimise that space. It was submitted that the underpass provisions are made as requested (details provided in Chapter 16 of the EIAR), that drainage design fronting boundaries will be provided in accordance with the request, and that lands temporarily acquired will be reinstated to existing agricultural condition. It was stated that the Board could condition the removal of the topsoil of the compound at the end of the works and require full replacement of the topsoil and the ground to be reseeded.

I acknowledge the concerns of the landowner as they relate to the closure of the level crossing and the exposure of the short section of laneway to anti-social behaviour. This would be a matter for Fingal County Council and if general public access is to be prohibited then the requirement for the extinguishment of the right of way is for Fingal County Council to address. I accept the landowner's submission that the extinguishment of the right of way along the local road could potentially address concerns relating to the loss of the mature hedgerow boundary at the house. It is understood that the applicant would require to be able to gain access to the railway line at this location. It is clear that the applicant

seeks to provide accommodation works in agreement with the landowner and that due consideration is also being given over to appropriate boundary replacement. I consider that the applicant is addressing the likely impacts on this landholding in a suitable manner. The siting of the compound at the southern end of the holding would be required to accommodate the road works at this location. This is a reasonable choice for the site to address the functionality of the works. There is no known alternative location in the immediate vicinity to provide the temporary compound close to the southern end of the works. I submit that the methodology for restoring the lands, including fencing, could reasonably be agreed between the parties as part of the accommodation works. The applicant's suggestion that the Board could condition the removal of the topsoil of the compound at the end of the works and require full replacement of the topsoil and the ground to be reseeded could be included in the Railway Order to reinforce the securing of appropriate land treatment after the construction works in order to address the landowner's main concern. However, I consider that agreement of accommodation works at the construction phase for this holding should satisfactorily address the landowner's requirements without the attachment of a condition seeking to set out specific requirements which themselves could be subject to variation at the time of the accommodation works.

Finally, I submit that there is a community need to be met by the acquisition of the lands in question, these particular lands are suitable to meet that community need, alternative methods of meeting the community need have been adequately considered by the applicant and are not demonstrably preferable, and the works to be carried out would not be in material contravention of the provisions of any statutory development plan.

Other Submissions

Catherine Day & Alan Rudden

The observers note that their house and a number of other houses back onto the yard and rail line at Westmanstown and are concerned about noise and vibrations with the increase in train traffic and at the construction phase and light impacts and disruption to residents and wildlife.

The applicant's response to the submission included:

- During construction, the contractor will be required to prepare a Construction Environmental Management Plan (Appendix 5.1 of Volume 5 of the EIAR) which presents the proposed approach and application of environmental management and mitigation for the construction of the proposed development. The implementation of the requirements of the CEMP will ensure that the construction phase of the project is carried out in accordance with the commitments made by CIE/IÉ in the Railway Order application process for the proposed development, and as required under the railway order.
- A liaison officer will be available to allow members of the public or interested parties to participate in advance of works and make observations over issues during the construction period.

I note the issues raised have each been considered earlier in my assessments.

Conor O'Malley

The observer considers the DART+ programme objectives are diluted by the failure to increase access to the rail network, specifically with the provision of a

railway station serving Lucan North. Reference is made to reinstating the railway station formerly located close to Collins Bridge and adjacent to the Royal Canal.

The applicant submits that this is outside the scope of the DART+ West project.

At the Oral Hearing, the observer set out the reasons why the provision of the railway station is required and would be consistent with public planning policy.

The applicant re-emphasised the scope of the project.

I note the extent of the proposed development before the Board. It is apparent that, with the exception of Spencer Dock, no new stations are proposed as part of the scheme. I understand that the proposed project is primarily focused on the electrification of the line and the provision of supporting infrastructure to achieve this. The future development of new stations along the railway corridor is not prohibited by the development proposed. I understand the observer's reasons for determining that the timing on delivery of a new station at this location would be more efficient if it coincided with the delivery of this project. I am of the opinion that consideration of a new station at this stage of the process can reasonably be seen as being beyond the consideration of the Board.

Leixlip Convey

Landowners

Convey GAA Club (Ref. DW.028.P.66 / DW.028.T.66)

The landowner objects to the confirmation of the Railway Order due to surplus land acquisition, inadequate drainage details, inadequate noise mitigation, safety concerns for children, and the direct impact on pitches. The objection also refers to lack of clarity on access, bridge works, paths and cycleways, on road closures,

on the length of construction works, on responsibility for the works, on screening and boundary treatment, on finished levels, and on lighting.

The applicant's response to the submission included:

Acquisition is surplus to requirements

- Land Acquisition is limited to what is required for the construction of the project.

Inadequate Drainage Details

- Drainage from the works will discharge to the road drainage system, this will discharge away from the landowner's property. This drainage design will be further detailed during the detailed design stage and will comply with all relevant standard and guidance.

Noise Mitigation

- The nearest receptor to Confey GAA club is N31 which is located at Glendale Meadows directly opposite the train line from Confey GAA Club and is therefore the closest representative assessment location. At this location a slight noise impact of 1dB is reported, therefore no specific mitigation measures are required at this location as the scheme does not change the noise environment significantly.

Access

- The new pedestrian and cycle bridges will be built before the reconstruction of Cope Bridge, therefore ensuring access for pedestrians/cycles during construction works.

Health and Safety for Cyclists

- Cycleways and footpaths beyond what is shown is outside the scope of DART + West project. Signage to advise the end of the cycleway will be provided.

Timeframe of Works

- There is an indicative Construction Programme for the entire project of approximately 47 months, with the structural works near Confey commencing approximately a year after the award of the contract. The OBG14 Cope Bridge deck reconstruction and widening details the construction duration of 46 weeks for the two pedestrian bridges and 40 weeks for the road bridge reconstruction (to be done after footbridges construction). A total road closure is required of 15 weeks. A partial closure (one lane open) is required for 19 weeks.

Direct Impacts on the Club

- Measures to mitigate the impact of the proposed development on property include the reinstatement of temporarily acquired lands, the replacement of property boundaries on a like for like basis and the maintenance of access during the construction and operation phases. Accommodation works, which may involve the provision of boundary treatment and other works to mitigate the impacts on the property, will be agreed after the confirmation of the Railway Order.
- The impact of the proposed development on this property has been assessed in the EIAR and the significance of this impact is deemed to be 'Significant'. The impact is of such a scale that the mitigation required to continue operations is considered as significant.

Responsible Entity

- On completion the permanently acquired lands will belong to CIÉ / Iarnród Éireann, while the temporarily acquired lands will revert back to the current owners. The maintenance of the road, footpaths and cycle path will become the responsibility of Kildare County Council.

Hedging, Screening and Boundary Treatment

- The existing pitch will be adjusted, a safety net reinstated and the permanent boundary will be established at the new boundary line. Hedging, screening, walls and other details can be agreed as part of the overall accommodation works.

Finished Road Level Details

- Drawings showing the proposed and existing road levels are provided in the Draft Railway Order Book 3: Structures Plan, showing the details for the road works at Leixlip Confey. The proposed road levels will be similar to the existing road levels north of the rail and canal.

New Lighting

- Lighting is already provided along the existing carriageway. New and replacement lighting will be provided to light the existing road and new pedestrian and cycle facilities. Lighting and other details will be designed and agreed with Kildare County Council during the detailed design phase once the scheme has received approval.

At the Oral Hearing, the landowner referred to the proposals for providing a footpath north of Cope Bridge beside the pitch. It was submitted that this footpath should have been brought to the road junction to the north of this. Another issue raised was the land take impacting on a playing pitch.

The proposed development at Leixlip Convey would include deck reconstruction and widening of Cope Bridge, including the provision of two 4m wide footbridges for pedestrians and cyclists adjacent to it and structurally independent of it. Most works would be undertaken during the project construction working hours. Deck reconstruction as stated above is estimated to take 40 weeks and the two footbridges are each estimated to take 46 weeks (both being carried out simultaneously).

The Board should first note the considerations set out in my Planning Assessment on the impact of the proposed development on Cope Bridge, a bridge of historical and architectural significance. I consider that there should be alternative arrangements to avoid inappropriate works to this historic bridge, namely lowering of the track and/or a reduced height OHLE solution. In the event the Board accept this recommendation, there would likely be significant changes to the development works at this location with much more limited impact on the landowner's property. With regard to the impacts on the landowner's property in the context of the current proposal, I observe that much of the land to be acquired would be temporary, with permanent land take on the western edge of the holding along the road edge. Such a take would be necessary if the applicant's option is pursued. I consider the landowner's proposal to bring the footpath to the junction of the regional road to the north could reasonably be considered excessive and beyond the scope of the railway project. Footpath provision is the responsibility of the Roads Authority. Furthermore, such a proposal would still result in a shortfall in footpath network if it is intended to serve the GAA grounds as the access to this property lies east of this junction on the regional road. I consider that each of the landowner's other issues that have been raised have been adequately clarified in the applicant's response.

If the Board is satisfied with the proposals at this location, I submit that the Board could determine that there is a community need to be met by the acquisition of the lands in question, these particular lands are suitable to meet that community need, and the works to be carried out would not be in material contravention of the provisions of any statutory development plan.

Other Submissions

Andy Grehan, David Slattery & Eoghan O'Connell

The observers refer to a wide range of impacts of the proposed development at Cope Bridge affecting Convey GAA sports facility. These include drainage impacting on pitches, noise, access, construction road closures, safety for children at the works stage, and a lack of clarity on the timeframe for works. There is concern also about the impact on training facilities, reinstatement works, and disruption to the bar and sports hall which is a source of revenue. It is considered that there is a lack of detail on who is responsible for the works, screening provisions, boundary treatment, finished levels, lighting, and footpaths and cycle paths.

I note the applicant's response reflects the response given to the Convey GAA Club submission. I consider that my considerations offered on the Convey GAA Club submission equally apply to this submission.

Brian Conlan

The observer refers to the impacts on Glendale estate, namely on the open space, the loss of hedgerow and the potential for a cycle lane / pathway along the existing green space, as well as the impact of the proposed compound in terms of the loss of open space and the impacts of its use on residents and the effects of the proposed substation on the space.

The applicant's response included the following:

- Two pedestrian/cycle crossings are planned across the main road at either end of the new footbridges. On the south side, a crossing is planned from Glendale green to the access road to the station. Likewise, on the north side, another crossing is located in front of the access to the GAA Confey Club.
- Alterations to existing stations, except where required to facilitate the DART+ West project, are not within the scope of the project. Where alterations to stations are being implemented to facilitate the DART+, increased cycle parking has been included in the Project (Spencer Dock, Connolly Station, Ashtown and Coolmine).
- Additional car parking facilities are not within the scope of the DART+ West project. However, Iarnród Éireann's Network Enhancement Division and the National Transport Authority's Park & Ride Development Submission on Observations to the Draft Railway Order Application Page 208 Office are working on other projects to deliver enhanced parking at stations, for cars and bicycles in parallel to DART+ West.

- Separate to the DART+ West project, Iarnród Éireann are progressing a number of projects including a Multimodal Interchange Project. The multimodal project will assess all stations throughout the network with a view to implementing these strategies at stations where there is need for modifications that will have an impact on multimodal travel and station access.

Seán and Monica Quigley

The observers' concerns relate to the siting of the proposed substation, works at Glendale, the provision of cycle lanes, and the impact of a works compound on open space. They refer to alternative grounds over Cope Bridge being more suitable, the impact of the proposal on a play area and on flora and fauna, the size of the substation, the traffic impact with the opening of Cope Bridge to two-way traffic, the lack of clarity on cycle lanes in the area of Cope Bridge, and the housing of construction machinery and parking for construction workers.

Reference is also made to the condition of the estate's green area after the works and its maintenance, as well as clarity required on timing of construction works and the associated noise levels. The observer also addresses the lack of clarity on the pedestrian crossing at the entrance to Glendale estate, the need for management of parking for train users, and the construction impacts on residents by way of disturbance, timing of works and traffic management.

Stephanie Rock

The observer makes a similar submission to that received from Sean and Monica Quigley.

Stephen Gartland & Others

The observers make a similar submission to that received from Seán and Monica Quigley.

John Kane

The observer is a resident of Glendale. He raises concerns about the siting, scale and function of the proposed substation and the traffic associated with it. The observer also indicates that there are alternative locations for this substation at the station or at a site on the opposite side of the bridge. He also references the impact of the proposed compound on the green and on residents, as well as the bridge works not addressing the traffic problems of the village. The impact of an embankment, the loss of mature trees and maintenance are also referred to. The financial cost to residents from toll charges due to the bridge closure and the length of time associated with the works impacting on residents are also alluded to.

Stella Barrett

The observer is a resident of Glendale estate. Her concerns relate to the siting of the substation and the construction compound on the green area of the estate. Reference is made to there being at least two alternative sites, namely an alternative compound site to the north opposite Convey GAA Club and an alternative substation site on existing CIÉ lands either adjacent to the ticket office at Confey or at the Louisa Bridge station ticket office, with a third option alongside the construction compound and running cables under the canal. Concerns about the impacts on Glendale estate are referenced, including access and space constraints, the lengthy period of construction, traffic impacts, loss of the use of the green area, and lack of meaningful consultation.

The applicant's response to this submission included:

- The proposed substation is located on an existing 'green' open space area adjacent to a residential estate which is zoned in the Leixlip Local Area Plan (LAP) 2020 – 2023 as 'B: Existing /infill Residential - 'to protect and enhance the amenity of established residential communities and promote sustainable intensification.'" The substation and the associated access are located in a discrete location of the open space area within this zoning designation. The substation has a relatively small footprint therefore it is considered that it will not significantly affect the functionality of the overall zoning designations of the area and indeed will promote sustainable transportation services to residential communities.

Regarding the impacts of the proposed substation and construction compound at Glendale estate, I direct the Board to my Planning Assessment addressing these issues. My considerations on other matters arising from the observers in this area are as follows:

The observers above reference concerns including issues relating to pedestrian/cycle access, alterations to stations, and to parking.

The applicant notes that two pedestrian/cycle crossings are planned across the main road at either end of the new footbridges - on the south side, a crossing from Glendale green to the access road to the station and on the north side in front of the access to the GAA Confey Club. It is submitted that alterations to existing stations, except where required to facilitate the DART+ West project, are not within the scope of the project and that additional car parking facilities are not within the scope of the DART+ West project. Reference is made to Iarnród Éireann progressing a number of projects including a Multimodal Interchange Project, assessing all stations throughout the network with a view of

implementing strategies at stations where there is need for modifications that will have an impact on multimodal travel and station access.

At the Oral Hearing, Stephen Gartland referred to the limited nature of consultation and the potential use of undeveloped land to the north-west of Cope Bridge for the substation proposed for Glendale estate. The Board was asked to take into account the upcoming Council Masterplan for this area and the Local Area Plan. The proposed steel structures for the bridge were considered to be an eyesore and there is a need to consider an alternative. It was submitted that there was no need for two pedestrian/cycle bridges.

The applicant clarified the need for two pedestrian/cycleways at this location and the need to improve the profile of the bridge. It was stated that a safe provision over the bridge, segregated from traffic, is proposed. It was also noted that there is no masterplan available to the public at this time.

The Board will note my earlier considerations on the siting of the substation at this location. I acknowledge the pedestrian and cyclist provisions being made at Leixlip Convey and again refer the Board to my considerations on Cope Bridge in my Planning Assessment. The nature and extent of the proposed development is clear in this application and does not extend to parking and station alterations at this location. The applicant has provided clarity on how these matters are being assessed for potential future development. The need for accommodating all road users over the bridges at this location is understood and accepted should the Board consider the application proposals at Cope Bridge. Finally, I note that Kildare County Council's submission to the Hearing made no reference to the proposed development at this location being premature pending the provision of a masterplan.

The observers live adjacent to the location for the proposed substation and a services road. Concerns are raised relating to property devaluation, the possible upgrading of a power cable traversing their property, the conflict with the residents' green area, the construction traffic impact on the estate, and the timing and extent of the construction phase and associated impacts of this phase.

Reference is made to an alternative siting of the temporary compound, an appropriately sized station car park, a new bus terminus, the provision of an alternative power supply route, the siting of the substation at the train station, and provision of bicycle storage.

The applicant's response included the following:

- There is a power cable and pole beyond the rear of the property that is to be raised as part of the project to increase the clearance over the rail line. Clearance of trees to undertake this work are not proposed directly to the rear of the property or under the existing lines. However, some localised clearance of vegetation and undergrowth at the existing poles may be required for access to undertake this work. Note that the extent of the registered property does not extend to the rail boundary and that the pole as shown on the plan is shown beyond the registered extents of the property boundary shown as shown on the PRAI records.
- The substation and the associated access are located in a discrete location of the open space area at Glendale. The substation has a relatively small footprint therefore it is considered that it will not significantly affect the functionality of the overall zoning designations of the area and indeed will promote sustainable transportation services to residential communities.

I note the clarity provided on power cable upgrading and vegetation clearance works. These would occur outside the property of the observers and are necessary for the proposed project. I consider that the land take and functioning of a substation within the existing green area should not undermine the principal function of the open space within the estate.

Kay and John Brennan, Sonja Brennan, Karl and Alana Pawley

Kay and John Brennan

The observers are residents of Glendale estate. The concerns focus on the location of the proposed substation in the estate and the changes at and around Cope Bridge and the estate. The original option for the substation at Leixlip Convey is favoured or alternatively at Leixlip Louisa Bridge station. The construction and operational impacts of the substation on the open space of the estate are set out. The concerns relating to the planned traffic management changes and the new footbridges in the area of Cope Bridge are also outlined. The need for two footbridges is queried and alternative arrangements are recommended.

The applicant's response to this submission included:

- Parking control in adjacent housing estates is a matter for the local authority. It is proposed that parking patterns will be monitored before and immediately following closure of the level crossing. IE will engage with the local authority, providing them with the relevant information to facilitate control measures it may elect to put in place.

- The green area will be cleared, topsoiled, grassed and planted in accordance with proposed the landscaping mitigation measures.
- The EIAR Volume 2, Chapter 5, Section 5.2.1 sets out the daytime working hours for the project. The EIAR stated that the times listed are indicative and proposed working hours will be finalised at detailed design and construction planning stage.

Sonja Brennan

The observer's concerns relate to the unsuitable location of the substation and access road on the green area at Glendale estate, the proposed footbridges at Cope Bridge, the planned changes to traffic management at Cope Bridge, and the location of the construction compound on the green area in the estate. Alternative locations for the substation at the Convey train station, compound siting and foot/cycle bridge provisions are referred to. The proposed change from one-way to two-way traffic on Cope Bridge is seen to have adverse traffic impacts on road users and residents.

Karl and Alana Pawley

The observers are residents of Glendale estate. The submission reflects the submission by Kay and John Brennan.

From the above, it is noted that the observers seek clarity on a clear pedestrian crossing planned at the entrance to Glendale Estate across the main road to the public amenities and a clear plan to manage parking for train users and raise concerns about the condition the green would be left in and who will maintain it. Alternative working hours are also sought at this location.

The applicant again notes the two pedestrian/cycle crossings that are planned across the main road at either end of the new footbridges. It is submitted that parking control in adjacent housing estates is a matter for the local authority, while stating that parking patterns will be monitored before and immediately following closure of the level crossing. It is stated that the green area will be cleared, topsoiled, grassed and planted in accordance with the proposed landscaping mitigation measures. Daytime working hours for the project as set out in the EIAR are referred to. These are recognised as being indicative, with the hours being finalised at detailed design and construction planning stage.

Regarding the impacts of the proposed substation and construction compound at Glendale estate, I direct the Board to my Planning Assessment addressing these issues. My considerations on other matters arising from the observers in this area are as follows:

I acknowledge the clarity provided on pedestrian/cycle crossings and the finished condition of green areas. I accept the response on the role of the local authority in the management of parking beyond the train station. This can only go hand in hand with the delivery of increased services at stations founded upon the knock-on effects of the success of attracting road-based users to the new rail service. Thus, the monitoring of parking patterns places a distinct obligation on the applicant to deliver on its promises to address effects through the project work being considered by Iarnród Éireann's Network Enhancement Division and the National Transport Authority's Park & Ride Development Office to deliver enhanced parking in parallel to DART+ West, as well as infrastructural improvements which may arise from the Multimodal Interchange Project. I note the relatively lengthy 12-hour weekday working schedule (07.00 – 19.00) and the 07.00 – 13.00 on Saturdays. These are indicative. The Board can reasonably

attach a condition setting out daytime working hours consistent with the workings of similar infrastructure developments in the vicinity of residential communities. Furthermore, I anticipate that the role of a liaison on behalf of the contractor would be one which would seek to keep the residents of this area informed, while responding in a constructive manner to works adversely impacting on residents.

Blakestown

Public Submissions

Blakestown Residents

The residents reference the lack of communication on the project, the adverse impact of closing the Blakestown level crossing on access to leisure space, disruption, inconvenience, cost and health and safety effects. It is noted that no alternative access is being offered and severance impacts are highlighted. The retention of level crossings on the existing DART line is noted.

The applicant's response to the submission included:

- Due to the safety critical nature of level crossings for road users, there is statutory signage that must be displayed on the approach to level crossings to alert the road user, this includes signage, flashing lights and sounds. It is not recommended from a safety perspective to place any other signage at level crossings. Details of the proposed closure of Blakestown Level Crossing was included in documents published for public consultations number one and two as well as the draft Railway Order Application that was submitted to An Bord Pleanála.
- Traffic and pedestrian / cyclist counts were undertaken at the Blakestown level crossing in February 2019. Some supplementary traffic counts were

also carried out in November 2021. The Base year analysis is comparable with 2022 as traffic levels have recovered since the travel restrictions caused by the pandemic.

- As part of the Leixlip LAP 2020-2023, lands to the east of the level crossing are zoned as the 'Collinstown Strategic Employment Lands' which will be subject to a Masterplan (Objective COL 1.1) Kildare CDP 2017-2023. This Masterplan will include a study of the required transportation provisions to be developed to accommodate the future growth of the area and will be considered as part of those plans. Mitigation measures have been included in Chapter 7 and Chapter 23 Human Health, Section 23.6.2 Operation Stage Mitigation.

I note that there are no works proposed at Blakestown in respect of the level crossing other than the removal of the level crossing infrastructure and securing the railway boundary with fencing and gates for maintenance access.

I note Section 3.6.4.4.7 of the EIAR which addresses the alternative options for the Blakestown level crossing. The 'Do Nothing' option was ruled out at Stage 1 MCA, with particular regard to economy, safety and physical activity. The principle of the removal of this level crossing is accepted. While I would suggest to the Board that the provision of a pedestrian/cycle bridge would appear to provide for better accessibility and safety for these road users, I accept that there is a low usership of this location by pedestrians and cyclists and I conclude that the environmental intrusion caused by a bridge is not merited. I note that there are alternative access arrangements via the regional road network in this area to and from Leixlip.

9.3.7. Zone F - Maynooth Station to Depot

Maynooth

Landowners

St. Patrick's College Maynooth (Ref. DW.037.T.93(A)(B) / DW.038.P.93(A)(B)(C))

The landowner requests that the proposed development should demonstrate complementarity with the planned Maynooth West train station, its associated park & ride facility, and the planned Maynooth Outer Orbital Road (MOOR). It is requested that a suitably designed bridge be developed for the rail and canal crossing that also accommodates the proposed Outer Orbital Route for Maynooth. It is further requested that the existing high voltage electricity line east of Jackson's Bridge on the observer's lands be relocated such as along the route of the Outer Orbital Road. Queries raised in respect of the permanent acquisition of the observer's lands include clarity on the nature of the works, future land ownership, and the permanent acquisition of a mast. Queries raised in respect of the temporary acquisition of the observer's lands include confirmation of the return of the land and its condition on return and timing and duration of the acquisition.

The applicant's written response included the following:

New Station

- The existing project includes modifications to Maynooth train station to allow for the planned increases in capacity. This project does not preclude the provision of a new train station and or park-and-ride facility which can be progressed as part of a separate application at a later date.

Addressing New and Emerging Planning Policy

- Chapter 2 of the EIAR and the Planning Report submitted with the Railway Order application have considered the existing and emerging planning policy framework. The proposed development supports and is consistent with the previous 'draft' and now approved Transport Strategy for the Greater Dublin Area 2022-2042 and the Kildare County Development Plan 2023-2029 which took effect from January 2023.

Future Delivery of Park & Ride Facility

- The objectives of the DART+ West project is to increase capacity and electrify the line. Additional car parking facilities are not within the scope of the DART+ West project. However, Iarnród Éireann's Network Enhancement Division and the National Transport Authority's Park & Ride Development Office are working on other projects to deliver enhanced parking at stations, for cars and bicycles in parallel to DART+ West.

Flooding – New Station and Park & Ride

- The existing RO does not preclude any future infrastructure improvements and any such infrastructure improvements will need to be assessed separately including flooding and all other environmental considerations.

Delivery of MOOR

- As identified in the Maynooth Local Area Plan 2013-2019 (Amendment No.1) the location of map based Road Objective (i) – (vii) on Map 1 which cumulatively form the Maynooth Outer Orbital Road (MOOR) are 'indicative only'. The project team on the MOOR will need to be cognisant of the DART+ West project proposals, and incorporate the design of the project, where appropriate. With regard to any proposals for a road crossing of the rail along the indicative route of the MOOR the level of the

proposed rail is required to overcome the existing flood conditions. Although the preference at this location is to divert the rail offline, any future road over the existing or proposed rail at this location would need to take account of the now determined flood level and the requirements for Irish Rail with regard to minimum clearances which will include drainage, electrification, and structural clearance constraints.

Re-routing of Electricity Line

- The overhead lines will remain in the same location but heightened to achieve safe vertical clearances above the tracks.

Clarity on Nature of Works

- DW.039.P.93(A) – (Permanent Acquisition) Existing roadbed required for construction of the realigned R148.

DW.039.P.93(B) – (Permanent Acquisition) Existing lands required for construction of the realigned R148.

Future Ownership of Lands

- Other than access roads to serve Irish Rail or other private landowners, it is proposed that operation and maintenance of all other public roads and related infrastructure will revert to the local authority after construction. Where there is temporary land acquisition for roads it is proposed that the ownership will remain with the owner.

Permanent acquisition plot DW.038 - P.93(A) in relation to an ESB Pylon/Mast

- The piece of land is being acquired permanently to allow for the construction of a new 220kV tower. ESB are seeking the permanent acquisition of the land so as to avoid any issues with planning of the proposed tower which is a significant structure in its own right. This is

common practice on recent transportation schemes involving the diversion of high voltage ESBI infrastructure. The lands are being acquired by Irish Rail and could be returned to the College with a wayleave on it in favour of ESBI should this be agreeable with ESBI and the College.

Temporarily Used Lands

- All of the temporary acquisition areas will be returned to the owners in an equivalent or better state than existed prior to the works except in the following cases: DW.038.T.93(A) – (Temporary Acquisition) Required for construction area for ESBI line modifications - will require wayleave over lands for maintenance of the tower which ESBI currently has to access the power lines under statutory powers.

DW.038.T.93(B) – (Temporary Acquisition) Required for turning head – turning head will be permanent however land ownership will remain as is.

Commencement and Duration of Works on Temporary Acquisition Areas

- The temporary lands required for ESBI tower - DW.038.T.93(A) will be required for up to two months for the construction of the tower and modifications to the cables. This could be in advance of the main construction contract or during the construction contract.
- The temporary lands for the ESBI pole modifications DW.037.T.93(A) and DW.037.T.93(A) will require access for a number of days for the works to raise the existing poles. This could be in advance of the main construction contract or during the construction contract.
- The temporary acquisition for the turning area DW.038.T.93(B) and DW.038.T.93(C) will require access for up to 2 months for construction of the turning area and associated works. This will occur during the main construction contract.

At the Oral Hearing, the landowner's submissions focused on the need for an integrated approach between the project and future planned infrastructure in the Maynooth area. National, regional and local plan policy provisions were alluded to, notably with regard to the residential development of Maynooth and the provision of transport infrastructure (the MOOR, a new train station to the west of Maynooth, and a park & ride facility). An emphasis was placed on the integration of the planned infrastructure with the project now before the Board. It was noted that the proposed station is planned for east of Jackson's Bridge at the location of flood compensatory storage areas associated with the scheme and that the MOOR is planned to cross at this location also. Further design, engineering and environmental details from the applicant were sought to show how these works would be consistent with the provision of this planned infrastructure.

The applicant reiterated that there is no fixed alignment for the MOOR and that the proposed station and park and ride facility are indicative only at this stage. It was stated that the Transport Strategy for Maynooth is an ideas document at this time. It was confirmed that there is no restriction on development at these locations in relation to the corridors associated with these infrastructure developments. It was noted that the compensatory storage areas are there to provide for displaced flood waters. It was submitted that outside the lands being acquired there is no increased flood risk and that near Jackson's Bridge the storage areas are in an island surrounded by flood waters. It was stated that any future development coming through here would have to deal with this. It was further submitted that the storage areas could be readily enhanced and extended in the future subject to modelling and detailed design. It was confirmed that the realigned railway line would be on an embankment above the 1 in 1000 year + climate change flood level.

I first acknowledge that Kildare County Council clarified at the Hearing that the existing statutory development plan for Maynooth is the Maynooth Local Area Plan 2013-2019. I note that the development of the proposed Maynooth Outer Orbital Route remains at an indicative stage only. It has been acknowledged by the applicant in its application but one cannot reasonably expect the applicant to make definitive provisions such as a bridge or other infrastructure relating to a future planned road at this stage. It would be for the developers of the new road to have regard to the development of the railway project if that road project is to proceed at some time in the future. Regarding the delivery of a train station west of Maynooth and additional parking, this again comprises infrastructure that is not part of the DART+ West project and is a matter for future consideration in the context of detailed forward planning in an agreed suitable location for such development. It is premature to be considering such specific provisions at this time in this application, although the Board will note my considerations below arising from the need to relocate the depot and associated infrastructure. I note that Iarnród Éireann's Network Enhancement Division and the National Transport Authority's Park & Ride Development Office are working on other projects to deliver enhanced parking. I further note that Kildare County Council raises no particular concerns on the impact of future planned infrastructure to the west of Maynooth. I consider that the applicant has adequately clarified matters relating to the nature and extent of works likely to affect the landowner's holding, including works relating to the electricity line, and the timeframe for the temporary acquisition.

Finally, the Board will note my Planning Assessment considerations relating to the provision of the depot, the access road thereto, and the works in the vicinity of Jackson's Bridge, particularly the flooding concerns. While I accept that there is a degree of prematurity in seeking to build in provisions relating to planned, indicative infrastructure to the west of Maynooth raised by the landowner, I must again note the flooding concerns in the vicinity of Jackson's Bridge, not alone on

its west side but clearly to the east of the bridge where the landowner's holding is located. This reinforces concerns about the development west of the developed area of Maynooth as far as the depot site. I do not consider that the applicant's proposals west of the Maynooth urban area could be determined to be in accordance with proper planning and sustainable development. At this stage, the proposed development west of Maynooth requires re-evaluation in light of a clear need to provide an alternative location for a depot. A revised alternative location for a depot, which would result in the electrification of the line ending at Maynooth, would result in the proposed development not affecting the landowner's holding in the manner proposed.

Sherwood Homes Limited (Ref. DW.038.P.90(A)(B)(C))

The observer's holding of c.38 hectares is at Newtown, Maynooth. The applicant proposes to permanently acquire c.6.6 hectares at the north and north-western section. The lands are zoned for agriculture and there is a roads objective to provide the Maynooth Outer Orbital Route which traverses the site is in the current Local Area Plan. It is submitted:

- The proposal would result in permanent severance of the only existing agricultural access to the lands with no suitable compensatory access arrangement being provided, rendering the remainder of the lands unusable.
- It would impact on the delivery of the Maynooth Outer Orbital Route.
- It would impact on the delivery of the N4/M4 Maynooth to Leixlip scheme.
- It would impact on the future development potential of the lands.

- The project would obstruct the delivery of a second train station proposed in the Maynooth LAP due to the closure of all public road accesses in the area.

It is further submitted that the proposal conflicts with the Kildare County Development Plan objective for the orbital route and jeopardises the future development potential of Maynooth. The application is considered to be premature. Reference is made to inaccuracies in the EIAR. Mitigation measures and alternative options are submitted.

The submission includes two reports as follows:

- The 'Landowner Report' refers to the proposed land take, the request for consistency with the local statutory planning framework, and it identifies the unresolved site-specific issues following consultation with the applicant. The report includes alternative access options.
- The 'Impacts on Sherwood Homes Lands' report addresses the issues of access, the provision of the Maynooth Outer Orbital Route, the realignment at Jackson's Bridge, alternatives and traffic impact, the provision of a second DART station within the lands, and rights of way. This includes a range of queries addressing outstanding matters affecting the landowner's property and access thereto.

The applicant's written response to the submission included:

Land Zoned Agriculture

- The land use zoning does not preclude the development of transport infrastructure on agricultural lands.

Impact on the Lands

- The assessment of the property impact has been assessed and the significance of this impact is deemed to be 'Moderate'.
- At the time of preparation of the draft Railway Order application for the DART+ West project, the planning stage of the MOOR had not commenced (i.e. there is no options or preferred option to consider). The project team on MOOR will therefore need to be cognisant of the DART+ West, and incorporate the design of the project, where appropriate.
- The Constraints and Options non-statutory public consultation for the N4 Maynooth to Leixlip Project was held in September 2022, after the draft Railway Order application for the DART+ West was submitted. According to the information on display at the public consultation, the options considered are mainly confined to the existing N4 /M4 road corridor, and therefore this project is outside of the development boundary of the DART+ West project.

Severance

- Access to the L5041 is proposed via a new agricultural access that will replace the existing agricultural access to the south of Jackson's Bridge. The access from the east will remain unaffected.

Delivery of MOOR

- The Maynooth Local Area Plan 2013-2019 - the location of map-based Road Objective (i) – (vii) on Map 1 which cumulatively form the Maynooth Outer Orbital Road (MOOR) are 'indicative only'. At the time of preparation of the Railway Order application for the DART+ West project, the planning stage of the MOOR had not commenced. The project team on MOOR will

therefore need to be cognisant of the DART+ West, and incorporate the design of the project, where appropriate.

Impact on Future Development Potential of the Lands

- Under the Maynooth Local Area Plan 2013-2019 (Amendment No.1), lands west of Maynooth are currently zoned for agriculture.

Delivery of a Second Train Station

- This has been addressed previously.

Conflict with Policies and Prematurity

- The proposed development does not preclude the development of other planning policies. The proposed development does not preclude the future delivery of any future road projects. However, future projects will have to be cognisant of the DART+ West project.
- The Kildare County Development Plan 2017-2023 M 06 states 'Improve safety and capacity at the M4 Maynooth Interchange (Junction 7) and to investigate the provision of a future improved connection to the M4, at this location or elsewhere near Maynooth.' IE have been in discussions with Kildare County Council roads department and are aware of the development of this project which is at design stage and has not been submitted for planning. The proposed development does not preclude the achievement of this roads objectives and supports the development of safety and capacity improvements as it relates to the rail infrastructure.
- The proposed development has been designed as far as practicable online however as part of the options assessment process, offline interventions are required in certain locations such as at Jackson Bridge.

- The Pre-draft consultation Issues Paper to inform the preparation of the Joint Maynooth and Environs Local Area Plan (LAP) 2024-2030 was issued for consultation by Kildare and Meath County Councils in September 2022, after the draft Railway Order application for this proposed development was submitted to An Bord Pleanála. Having reviewed the Issues Paper, the DART+ West project supports a spatial framework for guiding the future development of Maynooth and its environs based on sustainable high quality integrated rail-based transportation services for existing and future housing, retail, heritage, employment, and social and community infrastructure in Maynooth. It does not preclude any future concepts presented in the issues paper, including a station to the west of Maynooth or roads objectives all of which will be subject to further studies and appropriate assessments.

Inaccuracy in EIAR on Assessment of Impact

- The impact of the proposed development on this property has been considered and assessed within Section 17 Material Assets: Non-agricultural property of the EIAR. The assessment of the property impact has been assessed and the significance of this impact is deemed to be 'Moderate'. This assessment has considered the area of temporary and permanent land take, the lands being zoned for agricultural use under the Maynooth Local Area Plan 2013-2019 and the current agricultural land use.

Bridging MOOR at this Location

- The MOOR is not part of the DART+ West project. However, the indicative location of the MOOR would need to take account of the level and road constraints with regard to flooding, proposed new rail levels, existing development and the existing road levels of the R148 to the north of the

rail line. The proposed DART+ West does not preclude the delivery of the MOOR.

Errors in Traffic Impact Assessment

- The impact on vehicular traffic was assessed based on distance and journey time criteria. The impact on Jackson's Bridge was assessed correctly as negative moderate. However, the 2.5km diversion at Jackson's Bridge was not included in the results in Table 6- 15 of the EIAR. The maximum % change in journey time in AM and PM peak periods should be between 95% and 94% respectively for this route. This will be addressed at Oral Hearing stage.

At the Oral Hearing, the landowner acknowledged that two submissions had been made to the Board on its behalf. Sherwood Homes withdrew the observation made to the Board by Tom Phillips & Associates. The submission from Brock McClure forms the landowner submission. The landowner restated its support for the project but wished to convey its frustration with the process. The Hearing was informed of negotiations on maintaining agricultural access to the landholding from the L5041. It sought clarity on whether the project precludes the delivery of the MOOR and the Maynooth to Leixlip N4 Scheme, the delivery of a second train station at Maynooth, and on impacts on the future development of the landowner's holding. The landowner referred to the strategic importance of the lands and failure of the applicant to acknowledge this. Regarding access, it was submitted that there is no access from the east to the landholding. Reference was made to, and details were provided on, a negotiated compensatory access arrangement. It was questioned whether it was appropriate that the project would undermine the planned delivery of statutory objectives to provide the MOOR and the N4 scheme. Reference was made to the flood lands

and the applicant's proposed engineered flood storage areas precluding the delivery of these planned projects. The landowner raised concerns that the closure of all public road accesses in the area and the impact on the delivery of the MOOR would obstruct the delivery of a second train station on the western side of Maynooth. It was again questioned whether the proposed engineered flood storage areas are precluding the delivery of the second station at this location. Further queries were raised relating to the EIAR assessment of the holding as a non-agricultural property and the conclusions on impact that were drawn.

The applicant submitted that the reason the proposal is not providing for the MOOR is because it is not within the scope of the project and the same reason is given for the station not being included. It was noted that the applicant's proposed bridge over the canal and railway line associated with the proposed access to the depot would be taken over by Kildare County Council and its use as part of the MOOR would be for it to decide upon. The applicant is satisfied to accept the landowner's proposed access to its lands from the west as described in its submission. It was confirmed that the lands affected fall within the Railway Order lands. It was submitted that the applicant has taken into account the recent policy that is in place and is satisfied that it does not undermine the implementation of the policies that have been identified. It was clarified where the assessment of the property was made in Chapter 17 of the EIAR and that Ref. ID 89 in Table 17-6 would now reflect the impact on the entire property. It was submitted that the holding was assessed as a non-agricultural holding following consultation with the landowner and as it is within the development boundary of Maynooth adjoining residential development. Regarding a typographical error in the TIA, it was noted that this was corrected in Errata submitted on the first day of the Hearing.

The landowner's holding lies immediately south-east of Jackson's Bridge. The proposed project at this location seeks to provide a new track diversion which would consist of a double-track alignment offline and to the south of Jackson's Bridge. This realignment would start just west of the Maynooth urban area and would extend for a distance of approximately 1.5km westwards. It would cross the northern end of the landowner's property in an east-west direction. Flood compensatory storage areas would also be provided in this area. Before connection with the depot the alignment would cross the Lyreen River and two new underbridges are proposed. UBG22A would be an underbridge on the landholding which would support the double-track railway line over it. A new link road would also be developed off the local road to the west of the landholding, providing access to the new depot and to the R148 Kilcock-Maynooth Road north of the Royal Canal. Due to the railway diversion south of Jackson's Bridge the local road L5041 would be severed and this alternative road provision would be made. It is noted that a route would be provided as part of UBG22A for pedestrians and cyclists to maintain the use of Jackson's Bridge.

The Board will note that many of the issues raised have been considered above relating to the submission from St. Patrick's College. I first submit that, regarding the delivery of a train station west of Maynooth, this comprises infrastructure that is not part of the DART+ West project and is a matter for future consideration in the context of detailed forward planning in an agreed suitable location for such development. It was premature to be considering such provisions at the time of the making of the railway order application. Regarding the Maynooth Outer Orbital Route and the N4 Maynooth to Leixlip Project, these projects were at the preliminary stages of planning at the time of the making of the application for the railway order. It is unreasonable to be making definitive arrangements for other projects that were not finalised at the time of the making of the application to the Board. These projects now would be required to be designed with due regard to the proposed railway project for this area if the Board accepted the siting of the

proposed depot and its associated infrastructure. Furthermore, it is my submission that the project does not preclude the planning of other development in the wider area for Maynooth and its environs. Kildare and Meath planning authorities would be required to have due regard to the DART+ West project when finalising plans for areas west of Maynooth if the Board approved the proposed development west of Maynooth. I am satisfied that the applicant is making suitable agreed alternative arrangements for agricultural access to the landowner's holding at this location.

Finally, I wish to reiterate my flooding considerations set out above with regard to the St. Patrick's College submission. The flooding concerns in the Jackson's Bridge area as far as the proposed depot are evidently a serious concern. The applicant is seeking to develop flood compensatory storage areas over significant land areas to address the difficulties with developing on a floodplain. The future development of transport infrastructure projects west of Maynooth provided for in objectives of the Development Plans potentially would have to address these storage areas now proposed on lands that are proposed for these other projects, albeit the exact siting and routing of these projects are at an indicative stage. These compensatory storage areas could potentially impact on the route and site selection processes for these other projects. It is reasonable to determine that this reinforces concerns about the development west of the developed area of Maynooth as far as the depot site. I maintain my position that, at this stage, the proposed development west of Maynooth requires re-evaluation and that a revised alternative location for a depot would result in the proposed development not affecting the landowner's holding in the manner proposed.

Other Submissions

Maynooth Community Council

The Council are generally in favour of the project and welcome the preservation of Jackson's Bridge. It is submitted:

- The closure of the bridge and diversion of traffic will increase journey times significantly for those commuting from the west of the town.
- The proximity of the proposed new bridge, the existing Jackson's Bridge and a bridge proposed for the Maynooth Outer Orbital Route are noted. A better solution could be found to reduce the number of bridges.
- Depot traffic will travel through Maynooth and Kilcock. It would make more sense to have a new M4 interchange.
- Regarding the depot, where trees and vegetation have to be removed, new planting should replace them. The canal greenway should be preserved as much as possible.
- The current pedestrian bridge at Maynooth station is not accessible for wheelchair users. The station should be made fully accessible, including the bridge and all access points.
- Pike Bridge is a protected structure. The pylons for the overhead wires are very close to it and impinge on the view and appearance. A railing would be more in keeping.
- It is inexplicable that the double track is not extended to Kilcock. More commuters will drive to Maynooth, will increase the pressure on parking and exacerbate the traffic congestion.
- Closing Blakestown Cross to pedestrians and cyclists is against all principles of active travel. People who could walk to bus stops at Intel are now forced to make car journeys. Walkers and joggers cannot access the greenway. An objective in the Draft Kildare County

Development Plan seeks a new pedestrian crossing at this location to promote active travel. This issue should be resolved.

- The latest draft of the County Development Plan refers to a park and ride facility to be sited to the west of Maynooth. The project will attract more out-of-town commuters. This facility needs to be provided in conjunction with the proposed scheme.

The applicant's response to the submission included the following:

- The realignment of the local road L5041 is not projected to impact on the volume of vehicular traffic on that road. The traffic generated by the depot was identified in the EIAR as having minimal impact as the majority of trips to and from the new depot will be made outside of rush hour due to shifts etc and will be made mainly off the R148. The diversion of the realigned L5041 will increase the journey by a maximum of 3 minutes.
- As identified in the Maynooth Local Area Plan 2013-2019 (Amendment No.1), the location of map-based Road Objective (i) – (vii) on Map 1 which cumulatively form the Maynooth Outer Orbital Road (MOOR) are 'indicative only'. At the time of preparation of the Railway Order application for the DART+ West project, the planning stage of the MOOR did not commence. The project team on MOOR will therefore need to be cognisant of the DART+ West project proposals, and incorporate the design of the project, where appropriate.
- The traffic volumes generated by the depot and the construction thereof do not necessitate the need for a new junction on the M4, however the layout of the proposed access roads to the depot could connect to a future Junction on M4 between Kilcock and Maynooth.

- The planting proposed is a mix of local species integrated into the local environment, limiting the visual impact of the depot facilities. The EIAR proposes establishment of new native tree (including fastigiate trees), shrub and hedgerow planting.
- The accessibility of Maynooth station will form part of the scope of other projects currently being progressed by Irish Rail and is outside the scope of the DART+ West project.
- The proposed parapet modifications at Pike Bridge have been developed taking into account the necessary engineering and heritage requirements.
- Parking control in Maynooth town is a matter for the local authority. IÉ will engage with the local authority, providing them with the relevant information to facilitate control measures it may elect to put in place.
- As part of the Leixlip LAP 2020 -2023, lands to the east of the Blakestown level crossing are zoned as the 'Collinstown Strategic Employment Lands' which will be subject to a Masterplan (Objective COL 1.1) Kildare CDP 2017- 2023. This Masterplan will include a study of the required transportation provisions to be developed to accommodate the future growth of the area and will be considered as part of those plans.
- DART+ West project does not preclude the development of a park & ride facility to the west of Maynooth and it is outside of the scope of this project to consider such proposals at this time. CIÉ and IÉ will continue to work with all local authorities as appropriate.

I note the nature and extent of the application before the Board. This does not provide for a new railway station to the west of Maynooth, a new park and ride facility in the Maynooth area or any distinct infrastructure provisions relating to

the delivery of the proposed Maynooth Outer Orbital Route. These are not infrastructural provisions which the Board can now readily superimpose on the project. I note, however, that these are infrastructure developments which could potentially be affected by the development of the railway project. I note that these other projects were not at a distinctly planned stage at the time of the making of the railway order application. Therefore, it is accepted that the application now before the Board could not have made definitive provisions relating to them. With regard to the impact of the changes at Jackson's Bridge, the re-routing of traffic on the local and regional roads and the impact on traffic in Maynooth, these matters have been discussed in my Planning Assessment relating to the depot area. I note that alternative vehicular arrangements are proposed with the railway line realignment and substantial sections of new roadway to standard would be developed to facilitate access to and from the depot and to serve the wider area. The local authority is required to address congestion and parking within Maynooth and will remain responsible after the completion of the rail project. I understand the parking concerns in the absence of definitive plans.

I understand the Community Council's concerns relating to a park and ride facility and the extension of the double track to Kilcock. These are clearly matters deserving consideration in order to curtail traffic coming off the M4 to utilise the new railway project at locations such as Maynooth where there is no parking being provided to accommodate significant traffic volumes. This is a matter referred to in my Planning Assessment. Regarding the impact on the closure of the crossing at Blakestown, the Board will note my earlier considerations and the acceptance of that component of the project. Finally regarding OBG18 Pike Bridge, I note that the works here would include track lowering and parapet heightening. Clearly, the existing bridge structure is being retained by the proposed track lowering. Section 5.3.12 of the EIAR details the parapet heightening works. The parapet would be placed on top of the historic stone parapet with a structural support inserted through the stone parapet and founded

in the deck at 2m spacing. Intermediate supports would be provided every 400mm which would sit on top of the existing stone parapet. The solid metal panel would be up to a height of 1.2m and would be welded to the upright supports, with mesh installed up to the required height of 1.8m. While I understand the concerns regarding the visual impact on this bridge of architectural merit, I note the distinct approach being undertaken for it to minimise structural damage. Provisions such as this will distinctively alter the character of this historic bridge but they are necessary health and safety provisions for the electrified line. I note that the works are reversible with likely minimal interference.

Depot

Landowners

Carlos Clarke (DW.039.P.99(A)-(E) / DW.040.P.99(A)(B)(C) / DW.039.T.01(D) / DW.039.T.04(C) / DW.039.T.99(A)-(E), DW.039.T.100(A))

The landowner made two written submissions to the Board. These may be synopsised as follows:

(A) Callan Tansey Submission

The submission includes the following:

- The depot site selection procedure was flawed and should be revisited. The original land requirement was 25 hectares and the application is now approximately 89 hectares.
- The Hazelhatch site ranked equal with Maynooth West in the final assessment which was made before the problems with site road access and rail access via Jacksons Bridge were identified.

- There are environmental and hydraulic problems arising from the proposed depot access and layout.
- The development will detract from the greenway and may increase flooding on the M4.
- Design details in the railway order are incomplete.
- There are no elevation or longitudinal sections of the depot.
- There are no details of the depot stormwater drainage, treatment, flow rates or discharge parameters.
- SuDs design details are omitted.
- No study was made of possible direct access to the site by the construction of new motorway exits.
- No study was made of continuing the site drainage to the Royal Canal.
- With the expansion of Kilcock, a full reassessment on the expansion of transport services is appropriate.
- There are no proposals for providing park and ride facilities accessible from the M4 to relieve congestion, increase service use, and reduce car traffic into the Greater Dublin Area.

The submission elaborates on each of the above issues and supporting reports and documentation are provided. Outline alternative proposals are referenced.

(B) Tom Phillips & Associates Submission

The proposed depot's footprint overlaps with the observer's landholding, in addition to a proposed new access road from the R148 and redundant lands created to its east. The total land take would be 25 hectares, amounting to 29% of the observer's landholding. It is submitted:

- The selection of Maynooth West as the emerging preferred depot location compared to an alternative location at Hazelhatch West is not sufficiently justified.
- The depot would materially impact on the functional integrity of the observer's valuable agricultural lands. It would also materially impact on the amenity of three dwellings on the landholding.
- The proposal's direction in the approach to mitigate impact on the environment is questioned in relation to the liability of flooding on the depot site, injury to the character of the Royal Canal Greenway, and the site selection over Hazelhatch West.

Irish Rail is urged to pursue an alternative location for the depot at Hazelhatch West.

It is further submitted:

- The depot siting will require installation of a double track and electrification for a distance of 5km beyond the designated terminus at Maynooth.
- It will result in the destruction of Jackson's Bridge, a protected structure.
- Sites and viewpoints along the Royal Canal Greenway will be despoiled contrary to Kildare County Development Plan.
- The direction of associated traffic and HGVs through the town centres of either Kilcock or Maynooth will have negative implications.
- The development will impose an industrial complex on the greenbelt separating Maynooth and Kilcock.
- Noise, air and light pollution will be produced on a 2.6km long industrial strip whose curtilage terminates 500 metres from newly developed residential neighbourhoods in Kilcock, with no provision to extend a commuter service to the town.

- Flood risk and associated mitigation are queried in relation to site selection for the depot. A large area of the depot site is within Flood Zone A. Existing flood mapping is incomplete.
- The drainage arrangements will impede the functional integrity of the drainage system of the observer's farm, notably with regard to severance from the Royal Canal.
- The location and scale of the depot is at variance with the Kildare County Development Plan provisions to preserve and protect the ecology and heritage of the region and to ensure holistic development of the county.
- Due to the splitting of the observer's lands by the depot, severe devaluation of the lands will occur. The southern lands will become inaccessible from the farmhouse and the northern lands.
- An unclassified barrow (KD005-33) is on the depot site and the neglect of considering impacts on it suggests improper analysis.
- The character and integrity of Chamber's Bridge adjacent to the depot site would be impacted.
- The depot development would impact on the flow rate of streams and in turn the Rye Water Valley / Carton SAC. During the construction stage additional soil may find its way into waterways, effecting the composition of the water and there is a risk of contamination from machinery oil and petrol. The automatic train washer also poses a potential risk of pollution.

The applicant's written responses may be summarised as follows:

(A) Response to Submission by Callan Tansey

Site Selection Process

Annex 10.1 and Annex 10.3 to the EIAR set out the depot location assessment. The depot option selection process is a robust assessment of the depot locations.

Hazelhatch v Maynooth West for Depot

The sites were not ranked equally. There are clear distinctions between the sites. Appropriate road access would be necessary for any chosen site. It was identified at the site selection stage that there were challenges associated with access to the Hazelhatch West site.

Environmental and Hydraulic Problems at Depot Access

The depot access has been designed with due regard to flood risk and an appropriate surface water drainage system.

Impact on Greenway and Flooding at M4

- The canal corridor and greenway are well screened from both the existing railway and the site of the proposed depot by boundary hedgerows between the canal corridor and the railway. The proposed depot will be visible through weaker sections of the canal-side hedge to the south of the canal corridor. Additional screening is proposed to assist in mitigating any impact to the views.
- The pre and post development flood modelling results presented in the SSFRA indicate that there is no increase in water levels at the M4 motorway.

Incomplete Design Details

- The necessary level of design has been prepared to inform the draft RO submission. Detailed design of the depot is a future stage as set out in the NTA Project Approval Guidelines 2020.

Elevation and Longitudinal Sections of Depot

- This information is provided in drawing MAY-MDC-CIV-DEPM-DR-Y-0006-D-DEPOT CIVIL DESIGN GENERAL ARRANGEMENT SECTIONS.

Stormwater Drainage

- Section 4.11.12.7 depot drainage of the EIAR presents the details of the stormwater drainage.

SuDS Design Details

- Section 4.11.12.7 depot drainage of the EIAR assesses the use of the following SUDs elements proposed for the depot: filter strips, pervious pavements and attenuation ponds. More information about these systems can be seen in the standards mentioned: Building Regulations, BS EN 752 and EN 12056, and the CIRIA SUDS Manual. The specific detail of these systems will be finalized during Detail Design stage.

Possible Direct Access from Motorway

- The existing motorway junctions on the M4 are considered appropriate for temporary access to the proposed depot site during the construction phase.

- The construction of a new interchange from the M4 to access the depot would create a greater disruption to the local network and have a more significant impact on private lands along this area.

Continuing Site Drainage to Royal Canal

- During the project design process, two culverts discharging into the Royal Canal were detected, and the possibility of their use for stormwater discharge was studied. This option was ruled out by Waterways Ireland, as it is not considered acceptable to allow the discharge of new stormwater systems into the Royal Canal.

Future Planning and Expansion of Transport Services

- Delivery of capacity will facilitate additional stations and other transport infrastructure which may be developed in the coming years. Several projects have been mooted in the Maynooth area which are yet at a very early stage of consideration. The design of such developments is outside the scope of this project. It is also not practicable to make specific provision for such as they have not been developed in sufficient detail to facilitate the design of accommodation measures.

Congestion at Kilcock and Maynooth Stations

- Upgrades to Kilcock Station and the provision of park and ride facilities are outside the scope of the DART+ West project.

Option Selection Process – Site Disadvantages

- All of the sites were examined on a comparative basis and the criteria are set out in the reports referenced. Of those matters which did arise for the Maynooth West site, the outcome of the Stage 3 flood risk assessment was the only matter warranting such a reconsideration. The option selection process was fully reviewed based on the new information and

the site confirmed. The design team is satisfied that the correct site was chosen for the proposed depot.

Site Selected Prior to Site Assessments

- The site selection process was fully re-evaluated in 2021 to take account of new information uncovered consequent on the Stage 3 flood risk assessment and to fully align the site selection process with the multi-criteria analysis process being applied to DART+ West.

Siting of Maintenance Depot

- The services referenced are listed in the 2019 assessment as key components of a depot facility. It was always intended that such would be provided for at the proposed depot site.
- Maynooth West is clearly a superior site to Hazelhatch West in respect of the criteria set out in the 2019 report.

Consideration of North East McBride Station (Drogheda)

- Two options in proximity to Drogheda were considered, one North of the station, one south. It is noted that there is already a depot in Drogheda Station. The options in the Drogheda area fell away at an early stage in the assessment.

Flood Risk

- Flood risk was considered at a high level during the optioneering process. On the basis of existing information, the Maynooth site was seen as comparable or marginally beneficial compared to other proposed locations. As part of the DART+ West scheme the flood risk assessment process identified greater flood risk on site than initially envisaged. As a

result, the optioneering process for the depot site was revisited and the outcome remained the same.

- Flow estimation was carried out using a suite of industry standard flow estimation methodologies. Methodologies specifically developed for small rural catchments (such as the Ballycaghan stream) were included in this assessment. These were compared with previous studies and gauge data where available. The flow estimation procedure is detailed in section 5 of the SSFRA. In all occurrences the most conservative estimation method defined the design flows used in the assessment.
- The DART+ West assessment differs from the CFRAMS in key ways, such as:
 - The Ballycaghan stream is modelled in 1D with floodplains represented in 2D.
 - Catchment areas have been refined to account for the canal/rail line acting as a watershed.
 - The Lyreen and Ballycaghan stream catchments have been subdivided to better estimate flow in the respective watercourses.

Surface Water Drainage and Site Selection

- Surface water drainage characteristics are not considered pertinent to the site selection process as the works would implement SuDS principles in design and consequently the impacts on adjacent lands would be equally mitigated.

Site Selection, Access and Land Take

- The geometric detail of the alignment design for the realigned R5041 and the proposed link to the R148 underwent reconfiguration at the preliminary

design stage to meet the requirements of design standards and those of Kildare County Council. The change resulted in some adjustment in the area of lands to be acquired. The design of the access roads is not related to the site selection process and was only carried out after the site had been selected.

Depot on an Elevated Platform

- It is not considered either practicable or economical to construct the full extent of the depot on an elevated platform.

Track and Canal Bank Levels at Jackson's Bridge

- The level of the rail line and canal was based upon the topographical survey conducted for the scheme. This was supported by the high-resolution Lidar also completed for the scheme.

Problem with Original CRFAMS Study

- The hydraulic assessment for the scheme is significantly more refined than that of the CFRAMS and issues relating to the CFRAMS hydraulic assessment methodology are not applicable to the assessment undertaken for the DART+ West Scheme.

Flow Estimation

- Assessing a catchment with multiple flow estimation methodologies is standard practice and aids in understanding catchment sensitivities and defining parameters. With multiple methods of assessment, a comparison can be made with an understanding that some methodologies are better suited for certain catchments than others.
- The delineation of the subject catchments (Lyreen, Ballycaghan stream and tributaries) was based on LiDAR data and slope analysis within GIS

software. This was refined by a series of site walkovers and topographic survey data. This process also informed the location, length and slope of watercourses within the subject reaches. The variation in slope and catchment area compared to previous studies was observed but can be explained as a series of constant refinements based on new topographic surveys of the catchments.

Evaluation of Compensatory Storage Areas

- The following information is provided as part of the application:
 - Topographic data has been produced for the site in a number of drawings throughout the submission.
 - Flood levels throughout the subject lands
 - Flood levels shown of the existing and proposed scenarios.
 - The displaced volumes for several flood events (return periods).

All elements of the development that are to be located within floodplains have been included in the displacement calculations including access roads and embankments.

- The compensatory storage drawings are not for construction stage. The information depicted in the flood compensatory storage drawings including plan area and tiers of excavation are of sufficient detail to appraise the likely impacts of the compensatory storage at planning stage.
- No karst outcrops were identified as part of the EIA process. Geophysical and intrusive investigations were undertaken in the vicinity of Jackson's Bridge and observed variable rock at depths of approximately 3.6m to 5.6m in the vicinity.

- The compensatory storage areas fill as water levels in the adjacent watercourses rise and discharge as they fall. No pumps are required as all base levels are above the 1 in 2 year flood level and the areas will discharge by gravity.
- Groundwater levels are being continuously logged. Groundwater monitoring is to continue to construction. The design currently assumes that there will be some groundwater ingress into the compensation areas and will incorporate measures to shed this water across the ground surface into the watercourse. Groundwater ingress will therefore be dealt with in a similar way to rainfall falling within the flood compensation area.
- The maximum depth of excavation is to be ~3.4 m at OBG23 Jackson's Bridge while maximum depth of ~1 m is required at the depot lands. (*The increased depths at the depot as set out at the Oral Hearing are noted*).
- Assessment of the likely impact of the compensatory storage on Soil, Geology and Hydrogeology has been considered in the relevant chapters of the EIA. Geophysical and intrusive investigations to confirm the ground and groundwater conditions were undertaken in the vicinity where access was granted.
- Although groundwater may enter the compensation area, there is no suggestion that there is not a way to allow this water to drain and not to pool within the compensatory storage. The rate of groundwater ingress should be lower than the designed outflow rate.
- All the necessary calculations have been undertaken to assess the main characteristics of both the drainage of the depot and the compensatory storage areas to inform the assessments undertaken.

- The proposed wetland features comprise not only ponds but a diverse wetland mosaic that is in line with natural floodplain management principles. In practice this will entail multiple different forms of depressions from very shallow “scrapes” which are predominantly dry to permeant pools of water in small ponds. The compensatory storage areas will be mainly dry with the aforementioned features dispersed throughout. As such, the effect on runoff generation is minimal.
- The compensatory storage areas have been provided outside of the 1 in 2 year floodplain. The proposed storage areas are tiered at their periphery in order to provide the required storage level. The difference in displaced area and proposed compensatory storage area is marginal with any difference accounted for in the requirement for slope stability.

Flooding

- The hydraulic model within the study area has been calibrated against historic flood data and previous assessments. The flood regime as depicted in the model is seen as representative of flood risk within the objector lands.
- The CFRAMS considered the likely effects of constraints to flow (such as culverts, weirs etc). The resultant flows are what is recorded in the final hydraulics reports and mapping of the CFRAMS. These flows were considered as part of the SSFRA for the scheme.
- The pre and post development modelling results presented in the SSFRA indicate that there is no increase in water levels at the M4 motorway. As such the required information has been provided for a complete SSFRA.
- Topographic spot levels are not shown on the flood drawings. However, spot levels are shown throughout drawings. The information included in

the documentation is sufficient to appraise the likely impacts at planning stage.

- The perimeter ditch (Ballycaghan stream diversion channel) is shown in Section 4.11.12.7 depot drainage of the EIAR.
- All flood extent drawings for the scheme are presented in the SSFRA.
- Section 11.4.2.5 of the EIAR describes the GSI Groundwater Recharge 40k mapping outputs and correctly identifies that the mapping shows Zone F contained no areas of moderate or high groundwater recharge based upon subsoils present and recharge coefficients for those areas.
- Flood relief works for Maynooth are outside the scope of the DART+ West project. It should be noted that the proposed development does not prejudice any works (e.g. modifications to the weir or flood storage provision) as part of future flood relief schemes within the Maynooth environs.

Incorporation of SuDS

- SuDS have been incorporated as part of the proposed depot and wider scheme. Longitudinal track drainage in depot area is based on SuDS, mainly open ditches with the minimum 1:500 gradient as per TII DN-DNG-03064. The proposed ditch will be in the form of a green trench as well as an earth ditch. In cutting sections, collector drains are provided that outfall to the ditches. Oil separator is placed before this discharge when it is required.

Alterations to Ballycaghan Stream

- The modifications to the Ballycaghan stream were primarily a result of the canal/railway construction which took place circa 1800. This is supported

by subsoil maps that indicate sediments derived from flooding (alluvium) throughout the depot lands though not aligning with the current route of the stream. It is likely that further modifications have been made to ensure sufficient drainage for agricultural land uses.

Problems with Drainage and Flooding Analyses

- The assessment of flooding within the proposed depot lands assumed that the existing canal culverts were prone to blockage. Where the depot lands currently flood from the Ballycaghan stream these volumes will be diverted and temporarily stored within the proposed compensatory storage areas. This ensures that peak volumes equal to or less than existing thus maintaining or slightly improving the existing flood regime downstream of Jacksons Bridge.
- The depot drainage design is based on SuDS to manage both flow and water quality emanating from the site. Attenuation ponds have been arranged to meet the flow rate requirements and to attenuate the peak flows. In extreme events the ground will likely be saturated and the groundwater levels will be high, consequently drainage cannot fully rely on the percolation to the ground. The attenuation ponds proposed discharge the drainage to the Lyreen system at a controlled flow rate which is the greenfield runoff equivalent rate.

Contaminated Water Treatment Systems

- The surface water drainage network for the depot area includes two attenuation ponds. The two attenuation ponds are features with a permanent pool of water that provide both attenuation and treatment of surface water runoff. Runoff from each rainfall event is detained and treated within the ponds. The ponds (in conjunction with filter strips and pervious pavements) will help to protect fine sediments from

resuspension. The drainage network will incorporate Sustainable Drainage Systems (SuDS).

Lowering the Track at Jackson's Bridge

- The option of lowering the railway through Jackson's Bridge was examined and set aside due to the potential for causing downstream hydrological and environmental impacts.

(B) Response to Submission by Tom Phillips & Associates

Option Selection Process for Depot

- The site selection process is described in EIAR Volume 2 Chapter 3 Alternatives and in Volume 4 Appendix A3.4 which provides more detailed consideration of the option selection process. It also includes detailed consideration on why the location at Maynooth West was selected over other options.

Depot Location compared to Hazelhatch West

The following observations are made:

Maynooth West: The delivery of DART+ West exhibits the strongest EMU passenger growth characteristics of projects on the DART+ Programme and consequently the best modal shift in support of project objectives. There is advantage to delivery of the DART+ West project first. A depot on the Maynooth line, consequently, best suits the effective delivery of the proposed train service specification.

Hazelhatch West: The Kildare Line exhibits weaker EMU passenger growth characteristics than the Maynooth Line.

Maynooth West: Based on the current train service specification, electrification of the Maynooth Line would displace 9 ICR/DMU trains which would be cascaded to other non-electrified lines.

Hazelhatch West: Based on the current train service specification, electrification of the Kildare Line would displace 4 ICR/DMU trains which would be cascaded to other non-electrified lines.

Maynooth West: The railway fronting the site is straight on plan for a length of 2.5km. The site configuration is better suited to installation of the depot with associated stabling than is Option 4 Hazelhatch West.

Hazelhatch West: The railway fronting the site is approximately 1.7km long. The site configuration is less well suited to installation of the depot with associated stabling than is Option 2 Maynooth West.

Maynooth West: The R148 runs parallel to the railway, north of the proposed site and the M4 is located to the south of the site. The site is well located for staff access from Maynooth or Kilcock;

Hazelhatch West: Access to the site is more constrained than for the Maynooth West site, being located remotely from both the M4 and M7 motorways;

Maynooth West: There are no houses within the site of the proposed depot.

Hazelhatch West: There are three houses within the site of the proposed depot. These will constrain the layout of a proposed facility, or some may need to be acquired.

Amenity Impact on 3 Dwellings

- The proposed depot will be located at least 150m from the 3 no. dwellings and on the southern side of the Royal Canal and rail line. Screening is proposed to the dwellings from the proposed depot buildings and planting

is proposed along the Royal Canal and railway line. There is a temporary impact on amenity to dwellings associated with the construction of the proposed depot access bridge and link to the R148 (Kilcock road). A Construction Environmental Management Plan will be prepared to address potential impacts during the construction phase.

Comparators between Maynooth West and Hazelhatch West

- The decision to choose one option over others is based on a balanced assessment across the full spectrum of the CAF assessment criteria. It is not the case that access or project delivery were deciding factors.

Mitigating Impact, Flooding Impact on Royal Canal Greenway

- Flood mitigation measures have been proposed so as to not adversely affect the existing flood regime within the vicinity of the development. All compensatory storage areas will be revegetated following excavation to required level. The vegetative cover will either consist of grasses in keeping with the current land cover or diverse wetland mosaic with features promoting biodiversity. The canal corridor is well screened from the site of the proposed depot by boundary hedgerows. Where existing hedgerows are required to be removed, landscape planting is proposed to assist in mitigating any impact to the views.

Land Take and Impact on Farm Viability

- The Railway Order for the DART+ West project will involve total land take of 45.7652ha from a tillage farm of 143ha. The impact of the proposed development on this agricultural holding has been assessed and the significance of this impact is considered to be 'Significant'. The level of impact is such that the farm enterprise is viable but will require considerable management changes.

Impact on Habitats and Wildlife Degradation

- The dominant habitat at the depot lands is arable farmland, with some pasture at the eastern and western sides. These habitats are not important for biodiversity themselves, but they can link areas of greater biodiversity value and act as a buffer zone. The Royal Canal, the Lyreen River, the Ballycaghan Stream, treelines and hedgerows at the depot site are of greater biodiversity value. In particular, the treelines at the eastern end of the depot site consist of mature oak and ash trees.
- Although it has not been possible to eliminate all impact on biodiversity on an infrastructure project of this magnitude, the impacts on Key Ecological Receptors have been reduced to sub-significant levels.

Dissection of the Lands

- The proposed development will directly impact on the existing private access to lands south of the Royal Canal and rail line. Mitigation of access to the remaining lands south of the Royal Canal and rail line is provided via a new bridge. Mitigation of access to the remaining area of forestry will involve alternative access via the proposed depot bridge and an access accommodation road to the remaining lands. Jackson's Bridge itself will be maintained without any direct impact.

Jackson's Bridge

- It is not proposed to carry out any works to Jackson's Bridge, in fact the railway is to be diverted away from the bridge and traffic is to be removed from it. While there will be some impact on the setting of the bridge, mitigated by planting, the bridge itself will benefit from the removal of traffic.

Barrow KD005-033

- The fact that the site is located within the depot is acknowledged in the EIAR. The impacts are defined and mitigation to reduce impacts have been provided.

Impact on Chambers Bridge Reg No. 11900504

- It is not intended that there would be any direct impact on Chambers Bridge arising from the works and the bridge will not be used by construction traffic. The EIAR recognises that there will be some effect on the setting of the bridge and it is intended to mitigate this with screen planting.

Impact on Scenic Viewpoints

- The proposed depot will be visible through weaker sections of the canal-side hedge to the south of the canal corridor. Additional screening is proposed to assist in mitigating any impact to the views. It is considered that material contravention of the Kildare CDP 2017-2023 does not arise in this regard.

Detraction of Greenway by Depot

- The proposed depot is located on unzoned agricultural lands adjacent to the Royal Canal Greenway. There are no works proposed that would impede the operation of the greenway.

Contravention of NPOs in the NPF

- The proposed depot is located on unzoned agricultural lands outside of the periphery of the Kilcock and Maynooth Local Area Plans (LAPs). The proposed development does not preclude the long-term strategic

expansion of these urban areas in accordance with national, regional and local planning policy.

Conflict with RPOs of RSES

- RPO 5.8 - There are no works proposed that would impede the operation or expansion of the greenway infrastructure at this location.
- RPOs 6.10 & 7.11 - The proposed works will have a negligible effect on the pressures of significant waterbodies and will not prevent the attainment of Good Status.
- The majority of the construction work associated with the depot is remote from sensitive locations such as dwellings and therefore noise impacts are minimised. However, some activity is identified as having a potentially significant impact for short periods of time and mitigation measures are outlined in the EIAR. At the operational phase, noise impact is noted from maintenance, cleaning and stabling activities as well as fixed plant serving the depot and movement of EMU's within the depot area. The assessment has concluded that the noise levels beyond the boundary of the depot are not significant.
- The proposed development does comply with RPO 7.7 as it has the potential to reduce harmful regional emissions.
- The assessment in the EIAR concluded that when the dust minimisation measures detailed in the mitigation section of this chapter are implemented, fugitive emissions of dust from the site are not predicted to be significant and pose no nuisance, human health or ecological risk to nearby receptors. Thus, there will be no residual construction phase dust impacts to cause a non-compliance with RPO 7.7.

- It is acknowledged in Chapter 15 of the EIAR that the proposed depot will give rise to significant impact on the local landscape and visual environment. However, this is in the manner that any such larger scale development gives rise to landscape and visual impact. The existing hedgerow between the canal and the existing railway / proposed depot will provide appropriate visual screening of the proposed depot development from the canal corridor and additional screening planting is provided to enhance this screening. New screen planting is also proposed along the southern boundary of the proposed depot lands to provide for landscape and visual integration and screening in the wider landscape.

Agricultural Land Use Zoning of the Depot Lands

- The proposed depot is located on lands used for agriculture outside the development boundaries of both the Kilcock and the Maynooth Local Area Plans. There are no land use zoning objectives identified for unzoned lands and therefore this type of development could be considered on its merits.
- The development of such a facility within an existing urban centres/ development boundary would not be compatible with residential, commercial and other uses given its operational requirements.

Noise, Air and Light Pollution

- Section 14.5.4.6.8 of the EIAR assesses the noise impact as a result of the depot operation. The assessment has concluded that the noise levels beyond the boundary of the depot are not significant.
- A Depot Sustainability Strategy has been produced with an objective to design a functional, efficient and comfortable building with a minimum environmental impact, being a Nearly Zero Energy Building and achieving

EXEED certification. This will mitigate operational phase energy demand and ensure it is minimised.

- Impact due to combustion emissions from the depot can be considered not significant.
- In accordance with the EPA Guidelines (EPA 2022) and considering the potential likely effects of emissions from the operational minor emissions at the depot, the impacts are considered overall neutral, not significant and long-term.
- The regional mass emissions modelling for the rail line found that for the proposed future operational scenario the emissions are decreased compared to the DN emissions which are currently exceeding emission limit ceilings.
- Necessary night-time lighting at the depot / CCE Compound will increase the visual presence and sense of change in the area. Nevertheless, the local landscape is flat and fields are defined by strong tree-lined hedgerows which substantially reduces visibility in the wider environment. The existing hedgerow between the canal and the existing railway / proposed depot will provide appropriate visual screening from the canal corridor and additional screening planting is provided to enhance this screening. New screen planting is also proposed along the southern boundary of the proposed depot lands. New operation phase lighting will conform to current best practice.

Water Demand and Sewerage Impacts

- Water supply and sewage connections shall be designed in coordination with KCC and utility providers to satisfy depot requirements.

Impact on Aquifer

- During construction in-situ assets will be protected from impact or damage.

Access Routing and HGVs

- HGV access during construction and in the operational phase is not planned to pass through the centre of Maynooth. Alternative routing from the M4 is incorporated into the design. Non-HGV traffic accessing the site may pass through the centre of Maynooth.

Integration of Depot with Planning and Policies

- The proposed DART+ West project is identified and supported in National, Regional and Local Planning policies. The proposed depot is located on unzoned agricultural lands outside of the development boundaries of the Kilcock and Maynooth Local Area Plans.

Effects from Earthworks

- Sediment and erosion control measures will be in place from commencement of construction in-line with TII Guidance through the requirement for a Construction Environmental Management Plan.

Water Pollution

- The entirety of the depot site surface water drainage network is to discharge through Sustainable Drainage Systems (SuDS) as to ensure that water quality is treated to an appropriate standard prior to discharge. It should be noted that two attenuation ponds are included in the proposed depot design.

Flooding

- Reviews of previous hydraulic assessments of the Lyreen and its tributaries were conducted as part of the flood risk assessment. A thorough walkover survey of the catchment was completed for the scheme that informed proper delineation of the catchment. This subsequently informed further assessments.
- The restrictions posed by upstream culverts including at the M4 were not represented in the hydraulic model for the Ballycaghan stream. This allows us to consider the potential effects of future restorative or enhancement works upstream of the subject site. Therefore, the hydraulic assessment can be considered precautionary.

Impact on Rye Water Valley / Carton SAC

- The Rye Water Valley / Carton SAC is ~3km downstream of Jacksons Bridge and ~4.5km downstream of the modifications to the Ballycaghan Stream at the proposed depot site. The Ballycaghan stream has a history of significant modifications stemming from the construction of the canal/railway and agricultural practices. The proposed depot location will require approximately 400m of the stream to be realigned. The general shape of the channel is to be maintained although local amendments may be made to improve flow heterogeneity within the reach. There will also be vegetative riparian buffer planted along the modified and unmodified sections of the Ballycaghan stream under IÉ control. Overall, the hydromorphology of the reach will likely improve with benefits to the wider catchment, extending to the Lyreen and potentially the Ryewater.
- No potential impact linkage through groundwater pathways have been identified, due to distance and the underlying geology.

- Mitigation measures for the Rye Water Valley/ Carton SAC are presented in Section 5.2.1 of the NIS. These include measures to avoid and/or reduce the negative effects of changes in water quality, hydrology, and the introduction of invasive species.
- It can be concluded beyond all reasonable scientific doubt that construction and operation of the proposed development will not adversely affect the integrity of the Rye Water Valley/Carton SAC in view of its Conservation Objectives.

Flood Zone A Lands

- On the basis of existing published OPW flood mapping for a 1 in 200 and 1 in 1000 year return period, the Maynooth site was seen as comparable or marginally beneficial compared to other proposed locations. As part of the DART+ West project the flood risk assessment process identified greater flood risk on the site than initially envisaged. As a result, the optioneering process for the depot site was revisited and the outcome remained the same. As part of the FRA process the sequential approach was applied which informed the proposed optioneering for the depot and track design.

Groundwater Flooding

- No indication of groundwater derived flooding was identified as part of the flood risk assessment. Nonetheless, groundwater levels in the vicinity of the depot have been subject to monitoring with results thus far indicating sufficiently low levels to accommodate the excavations required to provide the compensatory storage.

Incomplete Flood Mapping

- The CFRAMS and other schemes prior to this draft Railway Order did not assess the flood extents along the Ballycaghan stream. As part of the scheme flood risk assessment, flood maps have been produced that depict the 1 in 100-year (Flood Zone A) and 1 in 1000 year (Flood Zone B) flood events for areas throughout the scheme including the proposed depot lands. Additional maps have been produced for the climate change scenarios and post development scenarios (with and without climate change factors).

Flood Risk Identification Process

- The catchment areas the submission refers to are those presented in the CFRAMS. The catchment areas used as part of the scheme flood risk assessment have been delineated from site walk over surveys and are subsequently more accurate. The catchment areas are presented in Figure 5-3 of the SSFRA document. Flow estimation was carried out using a suite of industry standard flow estimation methodologies. These were compared with previous studies and gauge data where available. The flow estimation procedure is detailed in section 5 of the SSFRA. In all occurrences the most conservative estimation method defined the design flows used in the assessment

Aquifer at Flood Zone A Lands

- The likely impacts on the underlying aquifers of the proposed compensatory storage and substituting agricultural land uses with wetlands has been considered in the EIAR Hydrogeology chapter. No indication of groundwater derived flooding was identified as part of the flood risk assessment.

Source of Ballycaghan Stream

- The centre line and catchment of the Ballycaghan stream is depicted in its entirety in Figure 5-3 of the scheme SSFRA. This was delineated following extensive site visits of the area.

CAF Criteria – Environmental Concerns

- Environmental concerns were given appropriate consideration in each of the supporting studies.

Stakeholder Workshop

- The report takes account of workshops held with stakeholders in respect of the depot site selection. The outcome of those workshops is taken account of and documented in the report. Accessibility and Social Inclusion characteristics of the options were considered equivalent. While the 2019 study discounted them from the MCA, the subsequent review reinstated them in the assessment.

Flooding and Deciding on Depot Location

- Flooding was given consideration as documented in Volume 4 Appendix A3.4 of the EIAR prepared as part of the option selection process.

Criteria Out-Performing Hazelhatch

- Implementation of DART+ West as the first project on the DART+ Programme, with the necessary depot facility, best facilities achievement of the objectives of the Climate Action Plan in the earliest practicable timeline as DART+ West exhibits the strongest passenger growth characteristics of projects on the programme.

Empty Running Time

- The cost of additional trackwork throughout the depot has been accounted for in the economic assessment. The cost of the additional infrastructure is small in comparison to other economic benefits associated with the site.

Track Access for Maintenance

- Facilitating access to the railway for maintenance purposes is an important rail safety and public service obligation. The siting of the depot at Maynooth West offers superior characteristics in this regard. It was established by the study that this is a salient comparator for sites. This remains the case.

Complexity of Access and Egress

- The complexity of access to positions for timetables services was considered for the proposed electrified network for each site considered. The assessment took account of the existing and planned level of services on the relevant lines. It also took account of planned alterations to those lines and services. The assessment concluded equivalence between the Maynooth West and Hazelhatch West sites in respect of access and egress.

Availability of Suitable Lands

- The design team is satisfied that the site is a suitable development for the proposed depot. The risk of flooding is addressed as part of the Stage 3 Flood Risk Assessment and proposals for compensatory storage included in the scheme design. It is understood that reference to “a historically significant bridge” refers to the listed Jacksons’ Bridge which is to be retained as part of the scheme design.

Consideration of Neighbouring Environmental Criteria

- It is considered that the characteristics of both the Hazelhatch West site and the Maynooth West sites are equivalent in respect of water resources. Both sites are adjacent to watercourses which are subject to the risk of flooding.

Road Vehicle Routing

- The impact of construction vehicles on the network does represent likely short term, negative and moderate effects which would be mitigated and for the duration of construction before returning to normal levels once the construction is complete. Mitigation measures including traffic management, a CTMP available in Appendix A6.3 Construction Traffic Management Plan in Volume 4 of this EIAR, and a Mobility Management Plan, including detail on how construction workers will be managed, will be implemented to reduce the impact of the construction phase on road users over the course of the construction period.

Maws Farm Depot Site Risk Assessment of Flooding

- The Maws report was written prior to the publishing of the detailed site-specific flood risk assessment for the scheme. The majority of the concerns raised relate to previous flood studies. A WFD assessment demonstrating that the proposed works will not lead to a degradation of status has been completed as part of the Hydrology assessment included in the EIAR. The report states that the proposed track level will flood, however, the proposed track level in the vicinity of Jacksons bridge and the depot has been designed to be above the 1 in 1000 year + climate change factor + freeboard.

At the Oral Hearing, the landowner made a comprehensive submission addressing many of the issues raised above in response to the applicant's responses to its concerns. Much of the focus was on the location for the proposed depot being inappropriate due to flooding. Segregation of the landholding and impacts on archaeology, historic structures, and the canal were also noted. The lack of details in terms of drawings and other information was highlighted. The difference between the suitability of the site in principle and the ability of the receiving environment to absorb it was stressed. Reference was made to concerns about the site selection process and consideration of the range of alternatives. Considerations on flooding of lands on and in the vicinity of the depot site and supporting information on drainage, flooding evidence and drainage restrictions were provided. Extensive reference was also made to legal judgement relating to the inadequacy of drawings submitted in the application.

I acknowledge that the applicant made comprehensive responses to the issues raised.

The Board will note that my Planning Assessment has considered the proposed development at and in the vicinity of the proposed depot site. This assessment alludes to details of the applicant's considerations and its application documentation and the landowner submissions. The landowner has referred to a wide range of planning and environmental issues affecting its holding and the immediate environs. My Planning Assessment has sought to focus on what are considered to be the principal planning issues affecting this location.

The landowners object to the confirmation of the Railway Order due to surplus land acquisition, inadequate details on drainage, noise mitigation, screening and boundary treatment, levels, lighting, and setback distances.

I note the applicant's previous considerations on surplus land acquisition, drainage, noise mitigation, screening, and boundary treatment. Written clarification was provided on details of the location and layout of development at the depot. The applicant submitted planting details in response to the query relating to levels. Other responses in the written submission included:

- Volume 2, Chapter 5 of the EIAR proposes the establishment of new native tree, shrub and hedgerow planting. This would be a mix of local species, limiting the visual impact of the depot facilities.
- Details of setback distances for proposed buildings are provided in the drawings, technical figures and Chapter 4 of the EIAR.
- Detailed responses are provided on all other issues raised in Sections 2.7.4 – 2.7.9 of the Response.

At the Oral Hearing, clarity was provided on land areas affected by the provision of the compensatory flood storage area at this location and details were provided on the nature and extent of the flood relief area, its maintenance, and the proposed wetland habitat.

The Board will note that I have addressed the flooding issues and other issues affecting these lands relating to the depot site in my Planning Assessment.

The landowner is a farmer at Gragadder, Kilcock close to the depot site. He submits that his dairy farm will be profoundly affected as the proposed depot is planned on the same field as his farmyard. He queries how it is proposed to control stray voltage impacts on his dairy herd and how it is proposed to control sound during construction and sudden loud noises thereafter. Reference is made to the biodiversity value of the area. Flooding in the area is highlighted and concerns about putting his property under severe threat of flooding from the proposed depot is raised, with regard given to the natural flood plain and the digging out of good agricultural land. The landowner also refers to a right of way from his land into the Maws Farm and over the railway line and canal and a right of way for him to travel with farm machinery through Maws Farm to the main Maynooth/Kilcock Road.

The applicant's response included the following:

- The Railway Order for the DART+ West project will involve total land take of 6.3110ha permanent agricultural lands from a dairy farm holding with a farmed area of 93.0ha of owned and rented lands at this location. The impact of the proposed development has been assessed in the EIAR and the significance of this impact is deemed to be 'Significant'. This assessment has considered the area of land take, the reduction in lands available to the dairy herd and the temporary and permanent impacts on the operation of the dairy enterprise. The boundary of the proposed Depot is approximately 190m from the farmyard. The 'Significant' impact results from the area of land being acquired, which is of such a scale that the mitigation required to continue operations are considered as significant.
- The prevalence of stray currents is mitigated against in the system design so that the system will run more efficiently through minimising stray

currents. Stray currents are not known to have any effect on livestock. The traction system will be DC in nature and therefore will generate a DC magnetic field. The DC magnetic field levels generated by the development will be lower than the earth's magnetic field to which all livestock is continually exposed. The Depot will be supplied via the pre-existing 38 kV Kilcock-Moneycooley overhead line. Electromagnetic fields from the electricity grid are non-ionising. The 38 kV AC overhead line is already present in the area and does not pose any health risks.

- The majority of the construction work associated with the Depot is not expected to generate sudden loud noises and will instead be characterised by engine noise from construction machinery. However, some activity is identified as having a potentially significant impact for short periods of time. Mitigation measures are outlined in Section 14.6.1 to reduce these impacts. Section 14.5.4.6.8 of the EIAR assesses the noise impact as a result of the Depot operation. This assessment includes maintenance, cleaning and stabling activities as well as fixed plant serving the depot and movement of EMU's within the depot area. The assessment has concluded that the noise levels beyond the boundary of the depot are not significant.
- Although it has not been possible to eliminate all impact on biodiversity on an infrastructure project of this magnitude, the impacts on Key Ecological Receptors have been reduced to sub-significant levels. Field Maple, although a rare tree in a natural setting is considered to be an introduced species. Individual trees are not of conservation importance and are not afforded any legal protection.
- The compensatory storage areas have been designed to control flood waters in extreme weather events. Flooding will be confined to the specified areas up to the 1 in 1000 year event (+ climate change factor). It

should be noted that the depth of excavation required varies and that the excavation of higher areas will not result in a higher flood level at that location.

- The current flood regime of the Lyreen and its tributaries is a result of historic modifications to the catchment and network of watercourses (primarily the construction of the canal and railway). The result of these modifications is that flood waters are attenuated upstream of the Lyreen railway/canal culvert that would have originally reached Maynooth town downstream. As such reinstating the natural floodplain would likely increase flooding in Maynooth town centre. This would be contrary to the OPW Guidance on Flood Risk Management.
- There is no right of way in favour of Patrick Walsh registered with the PRAI (Property Registration Authority Ireland) in relation to the land into the Maws Farm and over the Railway and Canal and to travel with farm machinery through the Maws Farm out to the main Maynooth/Kilcock public roadway, or on the records obtained for Maws Farm, lands that are registered to Carlos Clarke Ltd.

The Board will note the range of issues which I have considered in my Planning Assessment which relate to the proposed depot location, its likely effects on the surrounding environment, and the issue of flood risk. My considerations are directly applicable to the issues raised by this landowner.

Eileen Foley and James Foley (Ref. DW.040.P.103(A))

The landowners object to the confirmation of the Railway Order due to surplus land acquisition, inadequate details on drainage, noise mitigation, screening and boundary treatment, and lighting. It is further submitted that the proposed development would have significant adverse effects on humans, livestock, flora and fauna, soil, water, air, climate and the landscape.

The applicant's response to the submission included:

- The EIAR assesses the potential effects of the project on the environment. The NIS assesses the potential adverse effects on designated sites. Where significant adverse effects have been identified, appropriate mitigation and monitoring measures have been developed to reduce the potential negative effects on the environment.
- Detailed responses are provided on all other issues raised in Sections 2.7.4 – 2.7.9 of the Response.

At the Oral Hearing, the landowners' representative stated that the matters addressed relating to Eamonn and Joseph Kelly applied to this landholding also.

I note the issues raised have each been considered earlier in my assessments. The Board will note my considerations on the proposed development west of Maynooth and in the depot area.

Peter Maher (Ref. DW.040.P.104(A))

The observer is a landowner at Branganstown, Kilcock close to the proposed depot location. He objects to the flooding impact of the development on his land.

The proposed reduction in levels is seen to have no impact on reducing the flood plain and effects on his land.

The applicant submits that the compensatory storage areas have been designed to control flood waters in extreme weather events, that flooding will be confined to the specified areas up to the 1 in 1000 year event (+ climate change factor), and that excavations within the proposed compensatory storage areas will reduce ground levels allowing the areas to flood at existing flood levels. It is noted that the depth of excavation required varies and that the excavation of higher areas will not result in a higher flood level at that location.

The Board will note that the impact of the depot on the surrounding environment and the issue of flood risk have been dealt with earlier in my assessment.

Other Submissions

Gary Harpur

The observer has his home and business adjacent to the proposed depot. He considers the project to be unacceptable and the application to be invalid. It is argued that the depot should be west of Kilcock where flooding issues and other difficulties would not be encountered. He submits that the site is subject to severe flooding. The observer is also opposed to the proposed development because it is in a green belt area. He submits that the proposal ignores his private rights of way and alters private road layouts without consultation or agreement. It is also seen to introduce an additional entrance onto a private lane from the new link L5041 and this will impact on the security of his farm and property. Maintenance of hedgerows is also a concern. Specific concerns

identified relate to impact on the observer's horse breeding at the construction and operation stages and habitat destruction with the loss of mature oak trees and impact on protected species. Significant emphasis is placed on flooding on the site and the impacts on the local community and environment arising from the proposed development.

It is submitted that all of the residents of Ballycurraghan have a private right of way to use the road from the L5041 over lands in Laraghbryan East to access their properties and that they have contributed to its maintenance and upkeep for over 20 years. The observer submits that it appears his right to use the lane is being extinguished and a new road arrangement is being put in place without notice or consultation.

I note the applicant's written responses to the observations have addressed the matters raised relating to the access road at Ballycurraghan, the depot location, noise, construction Impacts from dust and water pollution, security, habitat and biodiversity, insufficient details of the depot in drawings, and drainage and flooding.

At the Oral Hearing, the observer reiterated concerns about the lack of consultation with the residents of Ballycurraghan and noise and light pollution.

I note the issues raised have each been considered earlier in my assessments.

Patrick Comerford

The observer is a resident of, and has a farm in, Ballycurraghan. It is submitted that the site for the depot is in the wrong place and should be located west of Kilcock. It is further submitted that the site for the depot is in a zoned green belt which is subject to severe flooding. The proposals affecting the observer's private rights of way and altering private road layouts and without consultation are

referenced. The effects on his business are set out. He also refers to the insufficiency of archaeological assessment of the depot site. The submission reflects many of the concerns raised by Gary Harpur.

In its written response, the applicant refers to where it previously addressed a number of the issues raised. It submits that the depot site was subject to a full archaeological assessment in terms of the analysis of all relevant baseline resources and field inspections. It is acknowledged that approximately half the site was available for geophysical survey, whilst access to the remainder was not granted by the landowner. It is submitted that the additional geophysical survey, followed by a programme of archaeological testing, will be carried out prior to any construction works commencing.

At the Oral Hearing, the observer reiterated concerns about the right of way over the laneway to the L5041 at Ballycurraghan, the proposal to provide a new entrance from the new access road onto the laneway, the siting of a ballast yard on the opposite side of the access, inadequacy of drawings, and security. The inadequacy of details on levels of the new access road across the floodplain in this area was highlighted. Flooding at this location was emphasised and photographs were submitted showing the Jackson's Bridge/Ballycurraghan area and the M4 at times of flood. Concerns were also raised about the functioning of the applicant's proposed flood compensatory storage areas in light of the extensive flooding at this location. Traffic congestion on the L5041 in the vicinity of Jackson's Bridge was also referenced and photographs showing this were provided, noting its importance as an access to Maynooth College and its proposed use by construction traffic associated with the project. Concerns about drinking water were raised. Lack of consultation on mitigating impacts on drinking water supplies and on horses was alluded to and the impact on the use of the lands for equine purposes was referred to also. Loss of oak trees, the effect of

the ballast yard on residential amenity, and the depot location being on the route for migrating red deer were noted.

I note the submission from the Department of Housing, Local Government and Heritage. No concerns were raised about the archaeological assessment at the depot site or about migratory deer. The Board will note my considerations in my Planning Assessment on the development of the depot site and its proposed associated infrastructure in Ballycurraghan and the Jackson's Bridge area. The applicant's considerations on a wide range of issues raised in the observer submission are referred to and my assessment addresses the principal issues raised by the observer.

Cathleen Herbert

The observer is a resident in Ballycurraghan. Her concerns are reflected in the submissions received from Gary Harpur and Patrick Comerford.

I note the issues raised have each been considered earlier in my assessments.

Patrick Fallon

The observer has his home and farm at Ballycurraghan. He submits that access to his home and lands is via a private road and this is proposed to be partly taken over by compulsory purchase, noting that he has not been consulted. He queries whether access and security are provided for and if security gates are proposed. There are concerns about the impact on his private well from the proposed development, equine impacts, noise, drainage and flooding and he asks what the plans are for electricity lines and proposed screening.

I note that the principal issues of concern have been addressed in my Planning Assessment as it relates to the depot and this refers to the applicant's responses to the issues raised also.

Peter J & Eimer Fallon

The observers submit that no account has been taken by the applicant to try to mitigate the effects of the location of the proposed depot adjacent to their paddocks and fields that are used for equine purposes. Reference is made to noise, flashing lights, pollution, flooding, security problems, an unpleasant environment for a future residence, and the problems for housing and nursing of horses. The Board is asked to seek an alternative location for the depot.

The applicant has previously responded to the range of issues raised. It is further submitted that the observers' lands are located in proximity to the M4 motorway and that the equine expert noted during his site survey of the area that there was constant background noise of traffic from the M4 motorway, approximately 450 metres from the western end of the lane. It is submitted that the farm has a short northern boundary with the proposed rail depot and a long boundary on the western side with the proposed flood relief zone. These boundaries are noted to be covered with significant natural screening.

At the Oral Hearing, it was clarified that the submission by Patrick Comerford reflected the concerns of these observers.

The Board will note that the impact of the depot on the surrounding environment has been dealt with earlier in my assessment.

Gheel Autism Services CLG

The observer provides an adult residential autism service at Ballycurraghan in the vicinity of the depot site. Concerns are raised about noise, traffic and increased activity at this location impacting on the service, the increase in flood risk, extinguishment of rights of way without consultation and the development of a new entrance to a new link road, the size of the development in the rural location, and the scale of works effecting its service.

The applicant previously addressed the issues of access, drainage and flooding. It is further submitted:

- The scheme's hydraulic modelling indicates that the Gheel Autism centre lands are currently at risk of flooding in the 1 in 100 year flood and more severe events. Flood risk to the site will remain irrespective of the proposed development.

- The noise assessment contained in Chapter 14 of the EIAR is based on published guidance and criteria to protect the environment from noise emissions. It is acknowledged that the guidance in that regard does not take into account the potential impact on more sensitive groups. Notwithstanding this with respect to this particular location baseline noise readings have been carried out and referred to in Table 14-18 at location N56 which is immediately adjacent to Gheel Autism. The result of this indicates that existing ambient noise levels are of the order of 48dB(A) during the day and 44dB(A) at night. Section 14.5.4.6.8 of the EIAR details the assessment of noise from the depot once it is in operation. This is based on measurements taken from existing IÉ depot operations and concludes that at Gheel Autism the noise level is less than 45dB(A). This indicates a low risk of significant changes to the noise environment in the future.

- Access to the depot will not be on the existing lane serving the house which will remain as an access lane serving the properties along it. Access to the depot will be from the realigned R148 to the north and the realigned L5041 from the south. Access to the property will continue along the existing lane which will be connect to the realigned L5041.

The Board will note that the impact of the depot on the surrounding environment has been dealt with earlier in my Planning Assessment.

Stephen and Gail Collins

The observers are landowners of 18 acres at Ballycurraghan who intend to develop a thoroughbred 'pinhooking' business. The concerns relate to the development of the depot and the construction of an access road and bridge from the R148 in close proximity at the northern boundary of the land. The observers also refer to the flooding concerns at this location and increased flood risk to the land and impact on local wells. Reports on equine impacts and from agricultural consultants are attached with the submission.

It is noted that the applicant's written response to other observers addressed a number of the issues raised. It was submitted that impacts on wells in the vicinity of the depot are not anticipated. In the development of the design of the proposed depot, embedded mitigation is incorporated in the design, which is detailed in the EIAR, Chapter 11, Hydrogeology, Section 11.5.3.6. In advance of the construction contract, during construction and post construction, monitoring of boreholes and wells is proposed to be undertaken in the vicinity of the depot to monitor water quality.

At the Oral Hearing, the observer referred to impact on his lands. Flooding is of particular concern. The effects of the depot development on a floodplain on the landholding was referenced. The lack of details on the levels and elevation of the depot and associated infrastructure, impact on wells, the equine business, the siting of the depot being below the rail line, the site being on a locally important aquifer, and the extent of flooding in the area and it being fluvial in origin were noted. Photographs were submitted showing flooding in this area. The restriction of the culvert in the vicinity of Jackson's Bridge affecting flow from the Lyreen River to the Rye River is referenced. Selenium toxicity in horses is of concern arising from potential flooding of the observers' lands. Light pollution, noise pollution, security concerns, and the extinguishment of the right of way over the existing lane at Ballycurraghan were alluded to. It was submitted that no study was done in relation to direct access to the motorway for traffic associated with the construction of the depot and the unsuitability of the local road network for construction traffic was highlighted. The need for a park and ride facility being part of the project was emphasised.

The Board will note my considerations in my Planning Assessment on the development of the depot site and its proposed associated infrastructure in Ballycurraghan and the Jackson's Bridge area. The applicant's considerations on a wide range of issues raised in the observers' submission are referred to and my assessment addresses the principal issues raised by the observer. Regarding concerns relating to selenium toxicity affecting horses, the applicant submitted that, if this was to be signalled as an issue, soil samples should be taken from the farms at Ballycurraghan and that it should be monitored. The applicant submitted that it was not aware that there was an issue with selenium toxicity in the Ballycurraghan area.

The observers raise concerns about the siting of the proposed depot behind their home and its impact on residential amenity. Reference is made to its industrial nature, the lack of service to Kilcock, property devaluation, and health impacts. Mitigation requirements set out in the submission relate to addressing flooding, reduction in height of proposed screening, relocation of the proposed test track further east, the siting of SEB and PSP buildings relative to their home, adequate boundary treatment, the need to review the siting of an emergency access route onto a substandard local road. Concerns are also raised about noise levels at the construction and operational phases and night-time lighting.

The applicant's response included:

Residential Amenity and Landscape Impacts

- The landscape and visual impact assessment acknowledges that the proposed development will result in a significant change in the existing landscape, including in the vicinity of Doondara House. However, while the proposed access road is adjacent to the house, the proposed depot is located over 400m east of Doondara House and considerable areas of planting is proposed along the access road and along the western side of the main depot area. Specific screen planting is also proposed to the east and south of the house.

Noise and Health

- Noise emissions from the construction and operation of the depot are not predicted to be of a level that would be associated with significant noise impacts.

Trees and Light

- Noted that the owners would prefer a lower height of screen planting which can be provided in agreement with them.

Test Track – Noise, Light Pollution and Safety

- The test track will be used during the day once trains have been serviced to check and confirm that they are working to specification. Train movements at the western extent of the test track will be slow moving, compared to the faster movement of trains on the adjacent Dublin-Sligo rail line, therefore the noise impact of the test track when in operation is expected to be equivalent to or lower than the existing rail line adjacent to this property. During testing the trains will approach the western platform at speeds of 5-10 km/h to commence their tests. From here they will head in towards the eastern platform undertaking their test runs accelerating to a maximum speed of 90 km/h before braking to stop at the eastern platform. This is a crucial task for checking the safety of the train fleet and will not interfere with the remainder of the depot operations and it is not anticipated to be a daily operation.
- In terms of lighting, it has the same as the railway yard area (10 lux, $U_o=0.4$)
- To ensure safe operation, speeds will be limited to lower levels when travelling in a western direction while buffer stops will be placed at both ends of the track.
- Relocation of the test track within the site without disturbing other operating requirements is not feasible. The test track itself is 1.24 km length and has been placed on the west of the main railway access to the depot to take account of the remainder of the depot layout.

Location of SEB/PSB Buildings

- The location of SEB / PSP buildings and buildings dimensions are shown in the Book 3 Structures Plans / Specific Locations / 20 Depot pages 9, 10 and 11 drawings as SET Technical Buildings Millerstown

Safety of SEB / PSB Buildings

- There are two adjacent buildings (SEB and PSP). The PSP needs to be close to the SEB to provide power supply. The SEB is a signalling building. The SEB building is located at the western end of the depot, as its function is to provide the signalling interface with the line to Sligo on the western end of the depot. This SEB building, although located inside the depot boundaries, belongs functionally to the mainline. Alternative locations outside the depot, to the west and close to the tracks were considered but no other reasonably sized areas could be identified that met these criteria while also providing for a future potential western connection to the depot. Having a mainline building (maintained by IÉ-SET, maintainers of the mainline) inside a depot (maintained by IÉ-CME) requires the creation of security/organizational boundaries with independent access, something that can only be met in the practice, if the building is in one side, not in the middle of the depot, and the optimal place is in the west part of the depot. The access to the buildings is double fenced (depot external fence and additional fence for the SEB+PSP set). The SEB hosts signalling equipment and the PSP provides low-voltage power to the SEB.

Boundary Fencing / Provision of a Wall

- CIÉ will continue to engage with affected stakeholders to ensure a solution is reached that is agreeable to all parties and to agree sequence and appropriate boundary treatment.

Emergency Exit Location

- The proposed access is only for emergency service access and will not be used for general access or during the construction period other than for the construction of the access itself.

Noise and Vibration

- Section 14.5.4.6.8 of the EIAR details the assessment of noise from the depot once it is in operation. This is based on measurements taken from existing IÉ depot operations and concludes that beyond the boundary of the depot the noise level is less than 45dB(A). This indicates a low risk of significant changes to the noise environment in future.
- Train movements at the western extent of the test track will be slow moving, compared to the faster movement of trains on the adjacent Dublin Sligo rail line. Therefore, the noise impact of the test track when in operation is expected to be equivalent to or lower than the existing rail line adjacent to this property.

Construction Noise Controls

- The majority of the construction work associated with the depot is not expected to generate sudden loud noises and will instead be characterised by engine noise from construction machinery. However, some activity is identified as having a potentially significant impact for short periods of time. Mitigation measures are outlined in Section 14.6.1 to reduce these impacts. Depot construction hours will be during daytime hours for all works not adjacent to the existing rail track. Proposed working hours will be finalised at detailed design and construction planning stage.

Night-time Lighting

- Information on lighting is provided in in the EIAR Volume 2 Chapter 4 Section 4.11.12.10 External lighting. In addition, within the EIAR Volume 3B Photomontages, Part 5 View Locations 35 to 46, sheet 90 to 104 include views showing night-time conditions at the depot area. Lighting levels over the emergency access road and in the vicinity of the property will be at 10 lux, $U_o=0.4$.

The Board will note that the impact of the depot on the surrounding environment has been dealt with earlier in my Planning Assessment.

William J. Smith

The observer submits that the locational analysis leading to the selection of the depot site is flawed. He further submits that the site is wrong for reasons relating to the impacts on the greenway, on the ecology of the area, and on the green belt between Maynooth and Kilcock. Reference is also made to the site selection dating from a 2009 recommendation and the retention of this selection in isolation of the development of the Royal Canal Greenway and a residential development west of the site at Kilcock. Comment is provided on determining factors in the site selection for the depot and concerns are raised relating to “empty running” of trains, flooding, required road infrastructure provisions, and depot workforce traffic going through Maynooth.

The applicant notes that a number of the issues raised have been dealt with earlier in its other responses. It is further submitted:

- With regard to planning, the proposed depot is located on agricultural lands outside the development boundary of Kilcock Local Area Plan and

the Maynooth Local Area Plan. The Kildare County Development Plan (CDP) 2017 – 2023 was consulted and these lands are unzoned. There are no land use zoning objectives identified for this area or unzoned agricultural lands.

- The Royal Canal Greenway at this location runs parallel to and to the north of the Royal Canal and rail line. The EIAR indicates the impacts during the Construction Phase in Chapter 15, Section 15.6.2.1 and the Operational Phase under Section 15.6.3.1. In both cases the level of magnitude of impact is assessed as high and recognises the long-term impact of the depot on the landscape in this area. In the EIAR under Section 15.6.3.1, Specific Mitigation Measures, measures to screen the depot and related infrastructure are covered under points 18, 19 and 20.
- The new residential area to the west of the depot along with the existing houses adjacent to them were assessed as part of the EIAR as part of the noise and visual assessments. No specific mitigation for noise was identified while mitigation for screening the depot is provided.

At the Oral Hearing, the observer, resident of the Old Lock House at Jackson's Bridge, reiterated concerns about the depot site selection, and the effects on the Royal Canal Greenway. The MCA process was queried, notably in relation to risk. It was submitted that the depot site selection west of Maynooth was first made 15 years ago and remains so, notwithstanding the development of the greenway and the expansion of Kilcock. It was stated that Irish Rail, in its adjudication between competing sites, has not given reference to this dynamic in the past 15 years. It was submitted that, in its more recent evaluation of the depot site two years ago, Maynooth West was identified but since then the applicant has been refining the analysis, taking account of Jackson's Bridge being a protected structure and a need to construct a 5km railway line south of Jackson's Bridge that would be devoted to empty running, going from Maynooth

in the direction of Kilcock without any passengers on it. In addition, the re-evaluation has indicated that the preservation of the bridge will require the construction of a new bypass road, a bridge over the canal and railway, and a roundabout on the existing Kilcock Road, with an elaborate system of water-retaining berms also being provided. The overall effect was stated to be the doubling of the land required for the depot. It was observed that these post-selection qualifications have significant implications for the initial selection of Maynooth West and they are not retrofitted back into the selection process. It was argued that value for money is not objectively verified. It was concluded that at least three other depot locations should be re-evaluated, that there is a choice for the depot, and it is not fixed by railway corridors.

The Board will note that the matter of depot site selection and the impact of the depot on the surrounding environment have been dealt with earlier in my assessment. The site selection issues raised by the observer are acknowledged, particularly in relation to the necessary changes and infrastructural responses required to be provided west of Maynooth to facilitate the depot development, the opportunity to accommodate the depot elsewhere, and the empty running from Maynooth to the depot.

9.3.8. *Miscellaneous Submissions*

Irish Cycling Advocacy Network (Cyclist.ie)

The observer requests careful design and inclusivity for cycle parking at railway stations, particularly the railhead in North Wall, improvement at the junctions modified as part of the Order, and replacement of inadequate extended ramp designs at overpasses with wide, shallow and well-lit underpasses. Suggestions on improvements for cyclists are provided for Ashtown, Coolmine, Clonsilla,

Porterstown Road, Barberstown, Navan Road Parkway, Clonsilla Road / Diswellstown Road junction, Porterstown Link Road / Diswellstown Road, Luttrellstown Road/Porterstown Link Road junction, Hansfield Station, Dunboyne Station, the R148 at Leixlip Louisa Bridge, and Maynooth Station.

The applicant's response included:

- Currently, there is a covered parking area for 60 bicycles at Spencer Dock to the south of the Luas station. The inclusion of the DART+ station in the area will increase the demand for bicycle parking in the area. The enlargement of the existing parking is contemplated in the DART+ West project with the addition of 120 new parking spaces resulting in a covered bicycle parking of 180 spaces.
- The proposed junctions are designed to current NTA standards to improve cyclists and pedestrian safety as much as possible within the constraints of the roadway.
- The provision of underpasses for cyclists and pedestrians, in the majority of instances, was deemed not viable due to the level of the canal adjacent the railway line. Long descending approach ramps would be required. In most instances, the spatial constraints precluded this option.
- The hairpins are provided at radius that cyclists can navigate at reasonable speed. As these overbridges are shared pedestrian and cyclist bridges, the hairpins will also reduce cyclist speeds, providing a safer environment for pedestrians.
- All gradients provided in the proposed designs are within current standards and guidelines.
- An underpass at Navan Road Parkway is outside the scope and funding of the DART+ West project.

- Regarding the Clonsilla Road/ Diswellstown Road junction and Porterstown Link Road/ Diswellstown Road, the design will be reviewed at later design stages to improve cyclist safety.
- Improving the ramp arrangement at Hansfield Station, providing cycle infrastructure at Dunboyne Station, permanent physical segregation of cycle lanes at the R148 at Leixlip Louisa Bridge, and improvements to connections between the rail and Royal Canal Greenway at Maynooth Station are outside the scope and funding of the DART+ West project.

I note the requested cycle infrastructure improvements considered to be beyond the scope of the project are not significant infrastructure provisions and could be viewed as being reasonable requests. I accept, however, that the proposed development would not undermine the delivery of these improvements in the future in combination with the relevant authorities (i.e. the local authorities, Waterways Ireland, etc.). It is clear that the applicant recognises that design improvements are required at junctions in the Porterstown area. These can be undertaken in conjunction with the Roads Authority and would wholly lie within the corridor applicable to the railway order application and, thus, appropriate design changes can be made. The Board will note my considerations on the pedestrian/cycle bridges at level crossings, including the revised designs submitted at the Oral Hearing. I acknowledge the applicant's submission that the design of structures and proposed junction improvements are in compliance with current standards and guidelines.

Dublin Commuter Coalition

The observer raises a wide range of issues relating to the need for new stations, step-free access on DART, need for lifts at stations, replacement of the AV system, provision of secure bicycle parking at all stations, pedestrian safety measures, and segregation of cycling infrastructure. Reference is also made to the need for the completion of the Royal Canal Greenway, the importance of creating visually pleasing stations and platforms, maintaining the bridge at Broombridge, the provision of a cycle parking garage at Spencer Dock, the provision of pedestrian/cycle access at the tunnel in Ashtown separate from vehicular traffic, making provisions as much as possible for extending to Kilcock, upgrading Clonsilla Station, and considering the need for north inner city stations.

The applicant's response included the following:

New Stations

- The provision of additional new stations is outside the scope of the DART+ West project.

Step free access from platform to train

- Accessibility of DART carriages are outside the scope of the DART+ West project. The new carriages will prioritise independent access.

Lifts

- The provision of lifts across the IÉ network is outside the scope of the DART+ West project. Furthermore, during the public consultations, there was significant negative feedback received in relation to the reliability and availability of lifts for a public thoroughfare.

Replacement of AV System

- The provision of AV systems is outside the scope of the DART+ West project.

Secure Bicycle Parking at Stations

- Alterations to existing stations, except where required to facilitate the DART+ West project, are not within the scope of the project. Where alterations to stations are being implemented to facilitate the DART, increased cycle parking has been included in the Project.

Proper tactile paving, safe crossings and dished paving at all stations

- All upgrades to public roads and spaces have been designed with the provision of tactile paving and general DMURs design principles. Within the stations, tactile paving surfaces will be in compliance with the Irish Building Regulations TGD- Part M Access and Use.

Segregated Cycle Infrastructure

- Cycling infrastructure provided as part of DART+ West has been provided as segregated cycle tracks as much as practicable. The majority of interventions on the public roadway have been provided as segregated cycle tracks with the exception of a number of short sections of shared areas at, for example, junctions.

Safe Walking and Cycle Infrastructure

- The details of the walking and cycling finishes and textiles will be developed during the detailed design phase of the project. These will be in compliance with the relevant standards including the National Cycle Manual, DMURS and relevant Local Authority standards.

Completion of Royal Canal Greenway and Increased Permeability

- While the Royal Canal Urban Greenway (RCUG) Project is being progressed by Fingal County Council and not within the scope of DART+ West, the IÉ design team have had extensive consultations with the RCUG design team and will continue to do so through the future design stages to ensure that both projects complement each other. It should be noted that DART+ West intends to provide a shared cyclist and pedestrian ramp linking the RCUG to road level at the Canal Bridge at Clonsilla Station.

Visually Pleasing Stations and Platforms

- The proposed new station at Spencer Dock, the station enhancements at Connolly and replacement station interventions at Ashtown and Coolmine have all considered the visual and aesthetic considerations and are presented within the EIAR. Further visual details and finishes will be developed during the detailed design phase of the project.

Broombridge Replacement

- The initial preferred option was to re-use the original facing stone, but as the design was developed it became clear that this would not be feasible due to the technical constraints of the new construction. After careful assessment it was decided to proceed with a concrete finish as this will sit most comfortably with the remaining original stonework. By providing a suitable colour and finish to the concrete, this will complement, not dominate the original structure. Engagement with a Grade 1 Conservation Architect has taken place to ensure that the reconstruction is done sympathetically and in keeping with the historic canal structure that sits alongside it.

Parking at Spencer Dock

- The inclusion of the DART+ station in the area will increase the demand for bicycle parking in the area therefore 120 additional new parking spaces will be provided.

Pedestrian and Cycle Access through the tunnel at Ashtown

- Pedestrians and cyclists being taken through the proposed underbridge along a separate corridor raised above road level by approximately 2.5m would not be appropriate as access to Ashton House is required for vehicles, pedestrians and cyclists. A crossing of the road is therefore necessary at a common level.

Upgrade of Clonsilla Station

- The upgrade of the Clonsilla station is outside of the current DART+ West scope.

New Stations

- The provision of new stations at Ballybough and Croke Park have been considered previously.

I note that my assessment heretofore has considered a number of the issues raised. I also note that many of the observer's requests extend beyond the remit of the proposed development. I acknowledge that the proposed development would not undermine the deliverability of many of these requests at a later date. The purpose of the inter-connectivity with existing and proposed public transport developments is recognised, bringing with it improved service to passengers. The proposal should not undermine the delivery of the Royal Canal Greenway and the application is clearly cognisant of that project occurring alongside the railway corridor. I consider that the proposed underpass at Ashtown is making

adequate provisions for pedestrians and cyclists within this short tunnel. Changes to bridge designs at level crossings and revisions to include lifts are noted.

Ruadhán Mac Eoin

The observer provides opening considerations on the sustainability of the project and provides supporting documentation. Three areas of concern are set out which relate to project splitting from DART South-West, transport policy being based on flawed assessments and inaccurate maps and the failure to make provisions for additional rail stations, and the review of recent decisions, reports and policy amendments and the lack of provision of adequate service in the most populated areas along the route. The Board is requested to either condition the proposal to ensure service access at Croke Park, Cross Guns Bridge and other populated areas along the line to meet national policy and European standards or to refuse the scheme so that the applicant can address these matters in a reconsidered application.

The applicant notes that DART+ West and DART+ Southwest are separate projects and that the potential cumulative effects of the project and the DART+ Southwest have been assessed under Tier 4 'Other NTA Projects' in Section 26.4.4 of the EIAR. It is submitted that a new station at Cross Guns Bridge is not within the scope of the DART+ West project and that the provision of Spencer Dock station will better serve the north Docklands area and help improve the attractiveness of sustainable modes of transport while increasing connectivity to other public transport options.

I note that the primary focus of the proposed development is the electrification of the railway lines. I acknowledge that one new station would be developed at Spencer Dock. The need for and provision of additional stations along the

established rail routes do not form a part of the proposed development. All existing stations are to remain, with upgrades being provided in many. While the need for additional stations has not been examined the ability to review and offer consideration of further stations along the railway lines into the future are not undermined by the proposed development. It would be premature to be requiring additional stations without conclusive findings supporting need.

I acknowledge that the cumulative impact of the proposed development with DART+ Southwest and other infrastructure developments have been examined in the applicant's EIAR. The latter is a separate project from the current proposal and is subject to a separate application now before the Board.

9.3.10 **Local Authority Submissions**

Dublin City Council

The local authority identified the parts of the project within its administrative area, set out relevant planning history, and referenced applicable policy.

Comments relating to plan provisions include:

Ashtown-Pelletstown Local Area Plan

- At Ashtown, it is considered appropriate that the scale and design of the bridge should minimise visual intrusion and it may be appropriate to hold a design competition to achieve the optimum design solution.

North Lotts and Grand Canal Planning Scheme

- The proposal is seen to be broadly compliant with the relevant objectives of the North Lotts and Grand Canal Planning Scheme. Reference is made

to presentation of the station to the public realm and consistency of approach to treatment.

- The proposed retail units adjoining the main entrance to Spencer Dock Station would accord with the requirements for City Block 2. There is a need to minimise impacts on adjoining residential amenities during construction at Sheriff Street.
- Reference is made to DART underground provisions and the focus having shifted to non-underground tunnel elements.

SDRA 6 – Docklands

- The designation of a large open space on the site of the intended compound located north of Sheriff Street is noted.
- The content of the Development Plan's SDRAs should be considered during proposed works.

Reports from internal departments may be synthesised as follows:

Planning

- The project is supported by the RSES and it has been considered in the context of the Core Strategy of the City Development Plan.
- The findings of the EIAR are noted.
- The conclusions of the NIS are accepted.
- The project would be compatible with zoning objectives for the area.
- The elements within the Dublin City Council boundary would not have any excessive or undue impact on the amenities of the area.
- The Council is generally supportive of the improvements to rail infrastructure proposed in the context of a shift to sustainable mobility. In

this regard, the proposed scheme generally aligns with the policies of the Development Plan.

Environment and Transportation

- CIÉ should collaborate closely with DCC and TII to ensure the design of stations and the surrounding public realm has taken cognisance of the potential future development above. The new station at Spencer Dock is welcomed and the potential it provides for Transit Oriented Development (TOD). Glasnevin Station also presents an important opportunity to integrate land use and transportation at a major public transport interchange hub.
- There are locations where there will be overlap with other strategic infrastructure projects and they will need to take cognisance of these in terms of timelines, phasing and management. Providing connectivity is highlighted and it is requested that new/upgraded bridges and infrastructure should not be seen in isolation and they are future-proofed through design to consider other projects. Regard should be had to the planned new pedestrian/cycling bridge in the Docklands area at Forbes Street.
- Direct connectivity should be provided between stations and high density developments at Connolly and Spencer Dock stations. Cumulative impacts with other proposed developments, notably construction traffic, need to be assessed and appropriate Construction Management Plans put in place.
- DCC is supportive of new and/or improved footpaths and cycle lanes. Best practice bridge design needs to be implemented. All road bridges should be designed to provide necessary width and existing sub-standard overpasses and underpasses should be rectified. Cycle parking should be

included as part of the project and an aligned strategy for cycle parking with MetroLink at interchange hubs should be considered.

- The cumulative impact of construction traffic and traffic management has to be addressed in a Strategic Citywide Traffic Plan.
- Careful consideration should be given to required light level design, particularly around stations.
- A project liaison office should be established with DCC.
- The works must be carried out with regard to a Construction Management Plan.

Archaeology

- The route is partially located within the Zone of Archaeological Interest for Dublin City and for the Zone of Archaeological Constraint for Recorded Monument DU018-020 (Dublin).
- Unknown archaeology, notably at the new Spencer Dock station, may be impacted.
- DCC concurs with the proposed archaeological mitigation outlined in the EIAR.
- The appointment of a Project Archaeologist is recommended.

Conservation

- Heritage assets should be identified and denoted on all drawings and listed/described in the HIAR.
- CIÉ should engage with DCC to ensure project impacts are continuously monitored by the design team to mitigate against any adverse impacts.
- The new station at Sheriff Street requires the removal of four/five spans of the viaduct. They are to be replaced with structural elements of similar

appearance. This is of concern and clarity is required, notably in relation to raising of the parapet.

- The route of the new railway appears to run across the site of a water tower listed in the NIAH and an historic signal box may be lost. Clarity is required and mitigation measures provided.
- At Connolly Station minimal information is provided on the proposed entrance and associated infrastructure to the undercroft arches. Detailed plans, elevations and sections are required, as well as a detailed photographic record, and the impacts clearly described in the HIAR.
- Minimal information on track alignment at Connolly Station has been provided. Detailed plans, elevations, sections, proposed track alignment adjustments and additional crossovers are required, as well as a detailed photographic record, and the impacts clearly described in the HIAR.
- From the city centre to Phibsborough/Glasnevin it is proposed to alter parapets to several bridges. Many have been identified by both the NIAH and recorded on the DCIHR. A full inventory of the bridges should be carried out and proposed drawings of the bridges should be provided. A schedule of proposed works along this section is set out and concerns about proposed interventions outlined.
- Regarding the section from Phibsborough/Glasnevin to Clonsilla Junction, there is serious concern about the proposed intervention to Broombridge railway bridge, a protected structure. Its dismantling, rebuilding and lifting the bridge deck will materially alter the appearance of the bridge and have a significant impact on the adjoining canal bridge. The design and detail of any alteration should be agreed with DCC.
- At Ashtown some of the proposed interventions will have a significant and detrimental visual impact on the Royal Canal. The proposal to remove the direct link to the canal at the canal bridge (a protected structure) at Ashtown and the construction of a fence on the southern side will have an

injurious impact on permeability between Phoenix Park and the Royal Canal. While the proposed pedestrian bridge will ameliorate the impact on pedestrians the loss of direct connection at ground level is concerning. The impact on the setting of the canal, its bridge, lock and surviving lock house will be significantly impacted. Documentation demonstrating the impact of interventions from the north, north-east and east of Ashtown Station is required.

City Architects

- Cycle parking should be as set out in the NTA National Cycle Manual for Public Transport Pick-Up Points.
- Details of treatment at parapets and project design at structures of heritage importance are required.
- Requirements for City Centre enhancements at Connolly Station and Spencer Dock are set out. Restrictions arising for Over Site Development (OSD) at Spencer Dock is highlighted. Requirements for access and cycling infrastructure at Ashtown are also set out.
- Four conditions are recommended to clarify the position concerning land title, acquisitions and compensation.

Conclusion

DCC welcomes and supports the project. A schedule of conditions is set out and recommended in the event the Board approves the project.

The applicant's response may be synthesised as follows:

Road Construction Standards

- All works as part of DART+ West will be in accordance with best practice and standards or agreed with DCC. IÉ agree to liaise with DCC on final designs.

Road Safety Audits

- RSA Stage 1 has been completed and agreed. Further RSA's will be undertaken at the appropriate design stages.

Bridge Works

- All works as part of DART+ West will be in accordance with best practice and TII guidance where applicable. IÉ agree to liaise with DCC on final designs prior to commencement on site.

Works to Public Realm

- IÉ will liaise with the relevant DCC Departments during detailed design and preparation of construction documents subject to planning approval.

Independent Industrial Heritage Expert

- IÉ commit to the continued engagement of an Independent industrial heritage expert as part of the ongoing project development.

Project Archaeologist

- A Project Archaeologist will be appointed to monitor the construction phase.

Impacts on Architectural Heritage

- IÉ commit to engaging a Grade 1 Conservation Architect to advise on the design of heritage structures. IÉ will also engage with DCC Conservation Section on the design and detail of these heritage features. A suitably

qualified site supervision team will be employed to monitor all construction works and the Conservation Architect will input on the heritage features where required.

Architectural Heritage Works Requirements

- During the construction stage, works will be sympathetically implemented using best conservation practices. In relation to Sheriff Street bridge, in the cases of the piers which are not affected, these will be preserved and maintained to keep the existing appearance as much as possible. Due to the alterations to the spans during the bridge works it would not be deemed possible to preserve all the materials whilst still ensuring structural integrity. In relation to the parapets, the fabric used for this increase in height as presented in the EIAR will continue to be developed in consultation with the Conservation Section within DCC. Regarding the water tower, this is not impacted by the Spencer Dock station/tracks works.

Artworks

- CIÉ will liaise with the relevant DCC Departments during detailed design and preparation of construction documents.

DCC Land Impacts

- If the Railway Order is confirmed compensation will be addressed in accordance with statute and Compulsory Purchase practice and procedure as and when statutory notices are served.
- Where and if air rights can be maintained this will be agreed with CIE.
- Appropriate accommodation works are to be addressed as part of the overall compensation agreements.

- The current landownership of affected lands is included within the Railway Order. In general, new and altered public roads will remain or become public roads.

At the Oral Hearing, the City Council welcomed the proposal. Reference was made to its written submission to the Board and to the recommended conditions therein. It was noted that there are significant challenges, particularly relating to the bridges at Broomebridge and at Sheriff Street. Emphasis was placed on conservation, on quality design, and public realm provisions at Ashtown and Whitworth Road, as well as applying consistency in use of materials.

The Board will note that my assessments address many of the principal planning and environmental issues raised by the local authority.

Fingal County Council

Fingal County Council welcomes the application. The following is noted:

- Reference is made to the compatibility of the project with national, regional and local planning policy.
- The future development of lands at Dunsink is highlighted.
- The benefits of the closing and replacement of level crossings are acknowledged.
- It is noted from the Fingal Development Plan that there are objectives to preserve the existing pedestrian and vehicular rights of way at Porterstown and Coolmine level crossings (Local Objectives 137 and 142) and there is an objective to prohibit any road bridge (Local Objective 141). It is requested that the applicant continues to liaise with relevant stakeholders and communities towards the optimum design solutions. The

Council is supportive of pedestrian and cycle links at the level crossing locations. The removal of the vehicular road crossing at Coolmine is seen to have a likely detrimental impact on general traffic and the inclusion of robust bus priority measures and junction redesigns are considered necessary as part of the project.

- Regarding the amended junction at Diswellstown Road / Porterstown Link Road, it is submitted that its layout should be compatible with the Kellystown road project. The impacts on the neighbouring school are seen to require consideration at the construction stage. Reference is made to lane arrangements.
- The Council refers to ongoing liaison being required in relation to the amended junction at Clonsilla Road / Diswellstown Road / Blanchardstown Road South, Castleknock Road / Park Lodge, the Royal Canal Urban Greenway, and Kellystown Road.
- Road widening, parking and set-down, and tree loss is of concern at Ashtown.
- The lack of cycle parking at stations other than Ashtown and Coolmine is considered unacceptable.
- Concerns are raised relating to the construction phase, notably the closure of Castleknock Road and conflict with improvements to the Blanchardstown bus corridor.
- Further exploration and development of proposed interventions on historical fabric of protected structures and industrial heritage elements are required. The requirements of Dublin City Council's Conservation Office should be applied for the whole route.
- One consistent overbridge design should be used throughout the Fingal area, not two.
- The lowering of the track at existing bridges is preferable rather than raising the bridge decks.

- An alternative site for the proposed compound at Ashtown should be identified which is less impactful on Ashton House. Further clarity on the impact on the house and Ashtown Mill is required.
- More detailed drawings of substation buildings at Coolmine and Hansfield are required and more modest structures should be considered.
- Tree and hedgerow loss and replacement requires clarification.
- Visually screening overhead wires and the substation at Laurel Lodge need to be carefully examined.
- Surface water drainage provisions and flood risk management proposals are noted.

The applicant's response may be synthesised as follows:

Liaising with Stakeholders

- IÉ commit to continued liaison with the relevant stakeholders in Fingal County Council and communities throughout the detailed design, construction and operational stages.

Inclusion of bus priority measures in Dublin 15

- DART + West proposals impact directly on one current and one future Bus route (at Clonsilla level crossing). While the changes in travel patterns around Blanchardstown area will alter following the implementation of the proposed scheme, the proposed changes to existing junctions as part of DART West have been designed to minimise impact on both traffic and ped/cyclists and in many cases implemented/reinstated the right vehicular traffic vs ped/cycle balance and priority. This change will have an impact on vehicular traffic, which has been assessed in the TIA.

At Castleknock Road junction, a section of bus lane has been provided heading south to link with the existing bus lane south of Castleknock Bridge and further south on Castleknock Road.

Junctions upgraded to traffic signal-controlled junctions and new ITS equipment will provide increased control over traffic flows and allow implementation of bus priority if required.

IEÉ will continue to liaise with the local authority and the NTA throughout the detailed design and construction stages of the scheme.

Diswellstown Road/ Porterstown Link Road

- The proposed road design has been developed with cognisance of the future development of Kellystown LAP. The design at this junction provides for right turn lane into the Porterstown Lane from Diswellstown Road southbound. IEÉ will review the junction operation with a view to optimising signal staging during detailed design in consultation with FCC.

Clonsilla/Diswellstown Road/Blanchardstown Road South

- IEÉ have liaised with FCC throughout the design process and commit to continue to liaise at later design stages to ensure all junctions designs provided as part of the DART+ West project are optimal and provide the level of service expected by FCC.

Castleknock Rd/Park Lodge

- The IEÉ team has previously discussed cycle and pedestrian facilities at Castleknock Bridge with FCC and stated that the provision of facilities on the bridge is outside the scope of works of the DART+ West project. The proposed structure is designed with the same current width, 9.15 m between parapets, like the protected Granard Bridge crossing the Royal Canal.

Royal Canal Urban Greenway

- IÉ commit to continued liaison with FCC throughout the project development and construction with a view to facilitating the development of the Royal Canal Urban Greenway. Furthermore, the Royal Canal Urban Greenway has been considered in the assessment of Cumulative Effects with the proposed DART+ West project.

Kellystown Road

- IÉ commit to continued liaison with FCC throughout the Project development and construction with a view to facilitating the development of the Kellystown Road. Furthermore, the Kellystown Road project has been considered in the assessment of Cumulative Effects with the proposed DART+ West project.

Dedicated Active Travel Link on Ashtown Road

- Following closure of the level crossing vehicular access along Ashtown Road is required to provide access to Ashtown Stables, CIÉ Maintenance Yard, the level crossing itself for maintenance purposes and the Ashtown Train Station including emergency vehicles. Ashtown Stables is a private business which requires customers to access the premises via the Ashtown Road. It would be extremely difficult to retain access for Ashtown Stables customers while restricting general traffic from using the road to drop off passengers for the train station which would result in an unsafe environment for all users. The design team was cognisant of this and the decision was made that it was more appropriate to allow drop off with a managed arrangement that provides safety for all users including cyclists. In addition, without providing a drop off, it was likely that vehicles would enter the residential area of Martin Savage Park to drop off, which is

undesirable or stop on the proposed new Ashtown Road close to the underpass creating a road safety issue.

- A section of existing vegetation is to be removed to facilitate the creation of disabled parking and drop off set down. Indented parking and set down was deemed more desirable than in line as the proposed design makes provision for buildouts that create a give way traffic arrangement. This will act as a traffic calming measure and reduce vehicle speeds resulting in a safer environment for cyclists who are required to share the roadway with vehicles. If the set down area was inline this may result in blocking vehicles travelling south out of Ashtown Road which would subsequently congest the give way system. The Project Team will investigate, in future design phases, in consultation with FCC whether the set down area can be reconfigured to reduce impact on the existing vegetation.

Construction Phase - Castleknock Rd Closure

- The DART+ West Project Team will liaise closely with FCC and NTA to ensure the works are undertaken in a sequence and at a time which aims to minimise traffic disruption. During construction the existing level crossings will remain open until such time as the junction modifications and new bridges and roads for the level crossing replacements have been constructed. A Construction Traffic Management Plan will be in place for the duration of the construction works. Furthermore, the BusConnects Blanchardstown to City Centre Core Bus Corridor No.5 has been considered in the assessment of Cumulative Effects with the proposed DART+ West project.

Natural and built environment, architectural heritage

- Following the implementation of the mitigation measures presented in the EIAR, no significant impacts on Biodiversity are anticipated.

- Every effort has been made to avoid direct impacts on architectural heritage, though it is not possible to avoid all impacts while achieving the object of the proposal, to electrify the railway line.
- Measures for the avoidance, reduction and remediation of impacts on landscape and visual aspects, including of these features, are set out at Section 15.6 and in Tables 15.8 and 15.9 of the EIAR, with residual impacts set out at Section 15.7 and in Table 15.10 of the EIAR. Continued engagement with FCC heritage and biodiversity departments during detailed design phase will take place.

Conservation architecture

- The proposals and the issues were discussed on a number of occasions with all local authorities along the route and the designs of new bridges and raised parapets were developed by the project team which consists of project architects and heritage specialists, including a Grade 1 Conservation Architect. Engagement with the Local Authority conservation architects and the Department will continue throughout the Detailed Design and construction phases.

Overbridge designs

- The design of these footbridges will be subject to further development and refinement at detailed design stage and the FCC Conservation Office will be consulted throughout this process.

Removal of the proposed parapet alterations to OBG13 Collins Bridge

- As outlined in EIAR Chapter 4, Section 4.5.15.5.2, the proposal in Collins Bridge OBG13 is to place the heightened parapet on top of the historic stone parapet with a structural support inserted through the stone parapet and founded in the deck at 2 m spacing. There will then be intermediate

supports every 400 mm that will sit on top of the existing stone parapet. The support joints will be welded together, and the solid metal panel required up to a height of 1.2 m will also be welded to the upright supports. IP2X mesh will then be installed up to the required height of 1.8 m. Engagement with the conservation architects and the Department will continue at Detailed Design stage.

An alternative site for the proposed compound at Ashtown

- Ashtown is suburban in nature with limited land available to facilitate a construction compound. The proposed works at Ashtown are complex and will require adjoining land to facilitate construction. The project team has liaised with the owner of Ashton House where the location has been agreed.

DU03-018 ring barrow

- This site will be preserved in-situ within a fenced off buffer area. Surrounding construction will result in a short-term low impact on the setting of the monument. The buffer on site will be actively managed to ensure its efficiency. No mitigation required for the indirect impact as the construction is temporary and the site will be returned to greenfield following decommissioning of the compound.

Visual impact of Substations

- The sizing of these substations has been optimised to meet ESB and IÉ SET requirements. The description of the landscape and visual impact of the proposed development, including the proposed substations, at Coolmine and Hansfield, are provided in Chapter 15 of the EIAR. Landscape planting and screening are provided.

Visual impacts on Ashton House

- The impacts on Ashton House and the property as a whole are described under Section 15.5.1 and 15.5.2 of Chapter 15 of the EIAR and in Tables 15.6 and 15.7 of the EIAR. Mitigation measures, both general, and specific to Ashton House, are set out at Section 15.7 and Tables 15.8 and 15.9 of Chapter 15 the EIAR. Photomontages of the proposed development and its potential impact on Ashton House are included at Volume 3B of the EIAR (View 14, 15 and 16).

Impact to the Mill Complex & Mill Pond at Ashtown Mill

- The mill pond is not an extant feature. Today, the site of the pond is covered by tarmac and hardstanding associated with a car park to the north of a warehouse. The site of the pond has been assigned a medium baseline rating, and as per Table 20-35 in EIAR Chapter 20, the impact will be significant, direct and negative. This is due to the construction of the underpass, which will be cut and cover.
- The description of the landscape and visual impact of the proposed development on the Mill complex is provided in Chapter 15 of the EIAR.

Identification of Hedgerow Townland Boundaries

- The majority of townland boundaries cross the railway / canal corridor in a perpendicular manner and have been severed historically by the railway / canal. Sections of impacted townland boundary hedgerows will be replaced so as to have no net loss wherever possible.

Screening of OHLE / associated structures/substations

- Screening has been provided where appropriate and feasible, including at sub-stations and other structures / features. However, it is not always possible or necessary to provide for screening of more elevated OHLE /

associated structures and of pedestrian walkways / bridges, which are increasingly common features along railway corridors.

Laurel Lodge substation

- During the detailed the design, the incorporation of the Laurel Lodge substation into the park environment will be fully considered to ensure reduction of impact on the park and will involve consultation with the relevant departments in FCC.

At the Oral Hearing, the Council welcomed the project and noted continued engagement with the applicant. The impacts of level crossing closures were acknowledged and reference was made to the operations of bus services and to the delivery of walking and cycling networks. The strategic development potential of lands at Dunsink and at Kellystown and Barnhill was noted. Protection of natural and cultural heritage features along the route was referred to. It was submitted that the project is seen to be fully consistent with the Council's strategic objectives. It was clarified that Development Plan objectives previously applicable to Porterstown and Coolmine which sought retention of vehicular movement across the canal and railway line had been removed in the new Development Plan. It was further clarified that no masterplan has been prepared to date for the Old Schoolhouse at Porterstown and that it is an objective of the new County Development Plan to prepare this plan. With regard to the closure of level crossings and road improvement works and the potential for congestion arising for the local road network, the Council considers that every effort should be made to insulate public transport and sustainable active travel modes from that congestion.

The Board will note that my assessments address many of the principal planning and environmental issues raised by the local authority.

Meath County Council

The following is noted:

- The project is compliant with national, regional and local planning policy.
- At the construction phase, the loss of parking at Dunboyne and M3 Parkway stations is acceptable. Measures to minimise impacts on Dunboyne railway bridge from track lowering are requested. Construction impacts on sensitive receptors are considered acceptable, having regard to the short duration of works and application of appropriate planning conditions.
- Regarding the operational phase, the Board is requested to consider the requirement for additional noise barriers in Dunboyne in the area where lands are zoned for residential use south of the station.

The Council provides a schedule of conditions that are recommended.

The applicant's response may be summarised as follows:

Impacts on Dunboyne Railway Bridge

- The EIAR includes mitigation specifying that excavations to lower the track bed at Dunboyne Railway Bridge are to be designed and carried out in accordance with a method statement prepared by the Grade 1 conservation architect to ensure that the foundations of the bridge are not undermined.

Noise/Vibration Impacts on Residents

- Section 14.6.1 of the EIAR specifies mitigation measures during construction to minimise the impacts. Noise and vibration monitoring

during construction is included within the EIAR as part of the mitigation measures. Furthermore, it is a requirement that the contractor employs a designated noise liaison officer to consult with residents during the works. Vibration limits are specified to ensure that no damage, even cosmetic, occurs to properties. Lower values are specified for any sensitive buildings such as those with no or minimal foundations if that is the case here.

Additional Noise Barriers in Dunboyne

- For Zone D the assessment concentrates on existing residential development and concludes that the noise impact of the project will in this part of the scheme be slightly positive due to the quieter operation of electric DART vs diesel commuter units. This positive impact will extend to other lands zoned residential. However, future developments on zoned land will need to take into account the noise environment as part of their design. This is the case for all such development land adjacent to infrastructure including road and rail.

Appointment of Environmental Manager

- A Construction Environmental Management Plan has been prepared presenting the approach and application of environmental management and mitigation for the construction of the proposed project. (Appendix A5.1. in Volume 4 of the EIAR). Key staff have been identified including an Environmental Manager.

Waste Management Plan

- A Construction and Demolition Waste Management Plan (CDWMP) is included as Appendix E to the CEMP (Appendix A5.1 in Volume 4 of this EIAR). It sets out the Contractor's proposals regarding the treatment, storage and disposal of waste including demolition waste. The plan will be a live document.

Updated Construction and Environmental Management Plan

- Once commenced, the CEMP is considered a living document that will be updated according to changing circumstances on the project and to reflect current construction activities. The CEMP will be reviewed on an ongoing basis.

Recommended Planning Condition relating to Noise Levels

- This condition is not appropriate for construction works on the DART+ West project which necessitates construction works take place during night-time periods in order to maintain the rail service in operation. It is therefore recommended that ABP instead adopt the approach outlined in the EIAR where thresholds of significance for construction noise are identified and mitigation measures provided in the event these thresholds may be exceeded.

Waste Disposal

- A Construction and Demolition Waste Management Plan is included as Appendix E to the CEMP (Appendix A5.1 in Volume 4 of this EIAR). The Construction CDWMP has been developed to ensure that waste arising on-site during the construction and demolition phase of the DART+ West will be managed and disposed of in a way that ensures the provisions of the Waste Management Acts, 1996-2011 and associated Regulations (1996-2011). The EIAR also assessed licensed landfill and waste facilities located in the Eastern-Midlands Waste Region for management of waste from the construction industry as well as municipal sources.

New Pedestrian Access at Dunboyne Train Station from the Western Platform

- Access from the existing residential development to the west of the station is not proposed as part of the DART+ West project and has not been

assessed in terms of traffic impacts, accessibility or as part of discussions with neighbouring residents, the public or council as part of the development of the DART + West Project. Provision of an access at this location could be considered as part of future station capacity enhancement projects.

Surface Water Drainage

- The drainage design for the project has been carried out in compliance, among others, with the Greater Dublin Regional Code of Practice for Drainage Works and the Greater Dublin Strategic Drainage Study, GDSDS. Regional Drainage Policies, Vol. 2, 2005.

Permits and Importation of Stone/Topsoil

- Material will be required to comply with an appropriate specification for earthworks such as the TII Specification for Road Works Series 600 – Earthworks (TII 2013) and specification for concrete such as the Specification for Road Works Series 1700 – Structural Concrete (TII 2017). Furthermore, the CEMP (Appendix A5.1 in Volume 4 of this EIAR) Section 2.2.11 Sourcing of materials, stipulates that only those quarries that are authorised will be used in the construction phase.

Road Opening Licenses

- Any required road opening licences will be sought prior to construction works on public roads.

At the Oral Hearing, the Council referred to its written submission to the Board and to the recommended conditions. The Council welcomes the project. It was clarified that the Council would like to see improved pedestrian connectivity from residential development to Dunboyne station as set out in its report and which is in accordance with its Transportation Study for Dunboyne and its environs.

The Board will note that my assessments address many of the principal planning and environmental issues raised by the local authority.

Kildare County Council

Kildare County Council welcomes the project. The submission includes:

- The development of a second railway station west of Maynooth, as proposed in the NTA's Draft Transport Strategy, should be progressed in tandem with the project. Public realm improvements at the existing station should also be progressed.
- Two additional footbridges should be incorporated across the rail line and Royal Canal at Confey.
- Qualitative improvements to open space should be provided at Glendale as a compensatory measure for loss of open space.
- Works to Cope Bridge should be overseen by a conservation architect. The new underpass should be constructed before or during the bridge works. A signalised junction should be installed at the station entrance.
- Regarding potential effects on Rye Valley/Cartron SAC, appropriate hydrogeological and ecological expertise should provide input to the assessment of the NIS.
- Full details of the proposed parapet height increase of Louisa Bridge should be submitted for agreement.
- The Council is not in favour of the closure of the Blakestown level crossing in the absence of alternative vehicular access provisions to serve lands at Collinstown to the south.
- A full structural survey and details of the proposed parapet height increase of Pike Bridge should be provided.

- The design of the new bridge beside Jackson's Bridge needs revision due to its sensitive siting. Road layout arrangements require agreement with the Council. An overbridge for pedestrians and cyclists in place of an underpass should be provided. There is an opportunity to provide a linear park at the realigned section of rail line.
- Detailed design and finishes to the depot should be agreed with the planning authority and lighting design should ensure overspill is limited and does not impact on sensitive receptors.

The submission also sets out recommendations relating to conservation, additional stations and park and ride facilities, surface water and flood management, waste management, archaeology, invasive species, working hours, landscaping, and traffic.

The submission includes a motion adopted by Celbridge-Leixlip Municipal District relating to protection of open space at Glendale estate and reports from various sections of the local authority. The latter reports set out each Section's requirements for the development of the project and associated recommended conditions. The extension of the scheme further west to include Kilcock and the provision of a park and ride facility is requested to be examined.

The applicant's response may be synthesised as follows:

New Train Station Location

- This issue is addressed earlier on its general responses.

Works at Maynooth Train Station

- The works at Connolly and Spencer Dock are necessary to provide additional capacity for extra services. There is no such operational

requirement at Maynooth, therefore upgrades to the station are not required.

Delivery of New Train Station in Leixlip

- The provision of additional stations and the strategy on deciding their location is a matter for the National Transport Authority.

Leixlip LAP – North-South Permeability

- The provision of any infrastructure to provide access to zoned lands is outside the scope of the DART+ West project.

Condition relating to Public Open Space Improvements in Glendale

- Landscape mitigation measures are proposed as per the EIAR. CIÉ have met with the representatives from Glendale Estate and will continue to engage with affected stakeholders during the detailed design and construction stages should planning approval be granted.

Landscaping at Glendale Substation

- Landscape mitigation measures are proposed as per EIAR Volume 3A Chapter 15. CIÉ is not seeking in the RO application to permanently acquire the lands on which the proposed mitigation works would be installed and will not therefore be in a position to maintain them.

Finishes to Substation

- CIÉ will liaise with the relevant local authority departments during detailed design and preparation of construction documents. Infrastructure will be provided in line with the Railway Order application.

Conservation at Cope Bridge

- Works will be overseen by a conservation architect.

Underpass at Cope Bridge

- The underpass to be provided as part of the Royal Greenway Scheme has been considered in the design of the DART+ West project. However, this is not for delivery by the DART+ West project. Co-ordination for the construction of this underpass can be undertaken under the agreement that delivery of the underpass by others does not affect or impact the delivery of the DART+ West project.

Signalised Junction at Leixlip Convey

- Provisions have been made for a pedestrian / cyclist crossing at the entrance to the station. The design detail of this junction will be further developed at detailed design stage and will be subject to engagement with KCC and a Stage 2 Road Safety Audit.

Crossing Facility North of Cope Bridge

- The design at this location is in compliance with current design standards and a Stage 2 RSA will be carried out during the detailed design stage to ensure compliance and safety during the design development.

Sight Visibility at Railway Station Entrance

- The design at this location is in compliance with current design standards (DMURS) and a Stage 2 RSA will be carried out during the detailed design stage to ensure compliance and safety during the design development.

New Public Lighting

- New public lighting will comply with KCC standards as far as is possible however, due to OBG14 being a heritage structure, consultation with the KCC conservation architect will also be required.

Road Safety Audits

- RSA Stage 1 has been completed and agreed between IÉ and the audit team. RSA Stage 2 and Stage 3 will be carried out during the detailed design stage of the project and following substantial completion respectively.

Appropriate Hydrologist/Ecologist Expertise

- It is the role of ABP to undertake the EIA and AA for the proposed project.

Parapet Height Increase on Louisa Bridge

- The parapet height designs proposed in the Railway Order have been developed in consultation with the Grade 1 Conservation Architect. The design proposal was also presented to each of the Local Authority Conservation Architects to ensure their feedback was captured. Further engagement will continue at detailed design stage.

North-South Permeability at Blakestown Objective MT1.7 and Map 1 of the Leixlip LAP 2020-2023 (now 2026)

- At Blakestown level crossing the levels of pedestrian and vehicular traffic do not justify provision of replacement infrastructure. A comprehensive multi criteria assessment was undertaken to determine the preferred option at the Blakestown level crossing.

Structural Survey of Pike Bridge

- CIÉ will liaise with KCC departments during the detailed design and construction stage as to the required surveys.

Parapet Height Increase on Pike Bridge

- The parapet height designs proposed in the Railway Order have been developed in consultation with the Grade 1 Conservation Architect. At Pike

Bridge OBG18, the parapet is to be placed on top of the historic stone parapet with a structural support inserted through the stone parapet and founded in the deck at 2 m spacing. There will then be intermediate supports every 400 mm that will sit on top of the existing stone parapet. The support joints will be welded together, and the solid metal panel required up to a height of 1.2 m will also be welded to the upright supports. IP2X mesh will then be installed up to the required height of 1.8 m. The design proposal was also presented to each of the Local Authority Conservation Architects to ensure their feedback was captured. Further engagement will continue at detailed design stage.

Roundabouts at Jackson's Bridge

- The proposed roundabout providing access to the depot on the realigned L5041 will cater for light traffic well under the design capacity of the proposed roundabout. The second proposed roundabout on the realigned R148 Kilcock Rd provides similar capacity to two nearby existing roundabouts on the R148 some 2 km north-west and 2 km east of the proposed location. The junction proposed is in line with similar junctions along this road and does not create a bottleneck for congestion. CIÉ will provide junction capacity assessment results to KCC as requested as part of the design development.

Overbridge at Jackson's Bridge

- At the Jackson's Bridge area, the tracks will be raised on an embanked section to protect against flooding. A footbridge over the tracks would have a very negative visual impact on the wider area including Jackson's Bridge. The pedestrian bridge over the new tracks would have a negative visual impact as it would be much higher than the current Jackson's Bridge elevation. In this area, the tracks are designed around the 62.60 mOD elevation. Considering the clearance requirements as part of the IÉ

standards (minimum 5.3 m vertical clearance between the tracks and new structures), the lower part of this footbridge would be around the 67.90 mOD. This elevation is about 3 meters above Jackson's Bridge road highest point elevation (64.8 mOD). In addition, this solution would require long ramps and 1.80 m high parapets crossing the tracks, further accentuating the negative impact on the protected Jackson's Bridge.

Continued Local Access to Jackson's Bridge

- Jackson's Bridge will be reverted to a pedestrian and cycle bridge due to the realignment of L5041 and R148 which will involve the construction of a new traffic bridge OBG23A.

Presentation of Disused Railway Line under Jackson's Bridge

- The railway line that is being decommissioned at Jackson's Bridge (91+200- 92+440) will be allowed to revegetate naturally. Native trees will also be planted in this area, outside of the flood compensatory storage areas.

Visual Character of New Bridge West of Jackson's Bridge

- CIÉ will liaise with the KCC during the detailed design phase to provide detail on the bridge design and consideration of aesthetics.

Finish of Depot Buildings

- Section 4.11.12 of the EIAR provides details of the finishes and dimensions of the buildings to be provided as part of the depot design. IÉ will continue to liaise with the relevant KCC Departments during detailed design and preparation of construction documents.

Lighting Design at Depot

- IÉ will liaise with the relevant KCC Departments during detailed design and preparation of construction documents. A review report shall also be given to planning authority after 6 months of operation. Information is given in Section 4.11.12.10 External lighting of the EIAR.

Involvement of RIAI Grade 1 Conservation Architect

- A Grade 1 conservation architect will be appointed to the scheme in line with the mitigation measures set out in the EIAR.

Parapet Alterations to Louisa Bridge and Pike Bridge

- The electrification of DART lines introduces the risk of electric shock to users of structures along the route. Where isolation distances do not meet the minimum requirements then physical barriers that prevent accidental contact with the power line are required. The proposal at Louisa Bridge OBG16 is adopting a steel mesh to the required protection height of 1.8m. The proposal at Pike Bridge OBG18 places the parapet on top of the historic stone parapet with a structural support inserted through the stone parapet and founded in the deck at 2 m spacing. There will then be intermediate supports every 400 mm that will sit on top of the existing stone parapet.

Increased Flood Risk beyond the Site

- Proposed flood risk management measures ensure that there is no increase in flood risk up to the 1 in 1000 year (+ Climate change) event as a result of the proposed development.

Nature-based SuDS

- SuDS are incorporated within the design. Development of these measures to be submitted at detailed design stage to KCC.

Impact on Delivery of Maynooth Outer Orbital Route

- At the time of preparation of the design, no route for the orbital route had been confirmed. CIÉ have liaised with KCC throughout the design process to date.

Construction Stage Surface Water Protection Plan

- During the detailed design a surface water management plan will be produced as part of the CEMP and will be in accordance with the 2016 IFI Guidelines.

Raising Ground

- The project will comply with Section 39 of the Waste Management Act.

Notification of Night-time Works

- CIÉ will liaise with KCC departments during the detailed design and preparation of the procurement documents, which will require the Contractor to liaise with KCC regarding night-time works.

Hours of Operation for Construction Stage and Deliveries

- Due to the length of the scheme and the interaction with a number of Local Authorities each with differing standard construction hours, the EIAR Volume 2, Chapter 5, Section 5.2.1 sets out the daytime working hours for the project.

Noise Impact

- Chapter 14 of the EIAR contains a detailed assessment of noise and vibration impacts associated with both the construction and operation of the proposed scheme. During the course of construction the procedures outlined in Iarnród Éireann operation procedure CCE-QMS-008-002 Noise Management – CCE Activities will be implemented.

Flood Relief in Flood Zone A

- The Ballycaghan stream adjacent to the proposed depot was not assessed as part of the CFRAMS and therefore no flood zone mapping was produced by the OPW for this floodplain. The standard of protection for the DART+ West scheme is 1 in 1000 year fluvial flood (plus 20% climate change MRFS). Therefore, the proposed level for level flood compensatory storage must ensure that there is no increased risk of flooding upstream or downstream outside of the lands acquired, in all events up to and including the 1 in 1000-year MRFS. This inevitably requires flood compensatory storage measures to be constructed outside flood zone A in accordance with the OPW Flood Risk Management Guidelines. These measures can readily be augmented with a future flood scheme (should one be promoted by the OPW).

At the Oral Hearing, the Council referred to its written submission. The project was seen to be critical infrastructure in support of development in the county. The scheme is welcomed. The Council broadly accepted the content of the applicant's response to its submission to the Board. It was submitted that the Council will engage with the applicant to identify future options relating to the level crossing closure at Blakestown. The Council did not specifically clarify that Policy MT1.7 of the Leixlip Local Area Plan (which has been extended to 2026) was directly applicable to the Blakestown level crossing, i.e. "To provide

appropriate new pedestrian linkages to improve access to the Louisa Bridge Station and to the Intel campus, including the provision of a new pedestrian/cycle bridge to provide direct access to the Royal Canal greenway and nearby amenities.” It was submitted that this will be subject to consideration in a new Collinstown masterplan. It was further clarified that Cope Bridge is not a protected structure in the new County Development Plan. It was clarified that the statutory plan for Maynooth remains the 2013-2019 Plan, as does the Kilcock Local Area Plan 2015-2021. It was further clarified on Day 2 of the Hearing regarding the Maynooth Outer Orbital Road that at the Meath boundary a developer has obtained planning consent from the Council for two small sections of the MOOR involving bridge works. It is noted that this has been appealed to the Board. It was stated that the delivery of the remainder of the MOOR will be through development lands. It was noted that the Maynooth Eastern Relief Road (MERR) is awaiting a CPO decision from the Board.

The Board will note that my assessments address many of the principal planning and environmental issues raised by the local authority.

9.3.11 **Public and Prescribed Body Submissions**

Transport Infrastructure Ireland

The submission includes the following:

National Roads

- The M50 and N/M3 are part of the national primary road network and works are proposed at Junction 6 of the M50, a critical interchange. The

construction and operation stage impacts must be carefully managed in consultation with TII. Reference is made to track lowering, parapet heightening, and drainage provisions at this location.

- Regarding the impact of the proposal at Junction 5 of the M3, compliance with TII standards is requested, along with prior consultation, and where appropriate, acquisition of necessary approvals/permits.
- Regarding haul routes relating to national roads, it is noted that separate structure approvals/permits may be required, as well as consultation with relevant PPP companies and MMarC Contractors.
- Compliance of works with TII standards is requested.
- Three conditions are recommended in the event of approval.

LUAS

- Protection of the LUAS asset and minimal service disruption is required in the vicinity of Beresford Place.
- The scheduling of service interruptions at Spencer Dock and The Point Square must be carefully co-ordinated.
- Temporary or permanent relocation or reconfiguration of Luas infrastructure will require plan preparation and agreement with TII.
- Compliance with TII Code of Practice, consideration of electrification fault scenarios, and monitoring of electromagnetic interference at Broombridge is requested. Provision of adequate pedestrian access during the construction phase is also sought.
- Compliance with TII's Code of engineering practice and the requirement to obtain a licence from the Luas operator for works at Luas infrastructure interface are noted.

Six conditions are recommended in the event of approval.

The applicant's response may be summarised as follows:

Compliance with TII Requirements

- All required consultation, requirements and protocols will be adhered to during the construction phase.

Accommodating Abnormal Loads

- A Construction Traffic Management Plan will include structural surveys that will be undertaken to ensure the defined routes are compliant. The CTMP will be agreed with Iarnród Éireann and the respective local authority prior to the commencement of the construction phase.

EIAR Revision and Identification of TII Publications

- The contract documents for the construction will reference the appropriate TII Standards and publications relevant to the interfaces with TII infrastructure.

CEMP for Written Agreement

- A Construction Environmental Management Plan will be prepared by the Contractor(s). All relevant interfaces will be discussed with TII.

Construction Traffic Management Plan

- A Construction Traffic Management Plan will be required to be developed and implemented by the Contractor(s) to address all modes of transport during the construction stage and will be agreed with Iarnród Éireann and the respective local authority prior to the commencement of the construction phase.

Impacts on Luas Infrastructure

- If there are works in close proximity to any LUAS infrastructure IÉ will update TII & Luas operators accordingly, although this is envisioned to be minimal. Prior to commencement on site all required arrangements will be agreed with TII & Luas operator.

CEMP and Luas Infrastructure

- IÉ commits to ensuring that the CEMP will be in compliance with TII Publications (Standards) in accordance with relevant TII Publications (Technical).

Electromagnetic Interference

- There are no additional mitigations proposed with respect to EMI as no significant effects are predicted. No future monitoring is proposed with respect to electromagnetic emissions.

Noise and Vibration adjacent to Luas

- Specific to works adjacent to the LUAS tracks it would be expected that monitoring will be implemented at this location in order to secure agreement with TII for the works in accordance with the TII's Code of Engineering Practice for Works on, near, or adjacent the Luas light rail system.

At the Oral Hearing, TII alluded to its written submission to the Board. It was noted that TII and the applicant have agreed a schedule of conditions for the protection of the national road and light rail networks that reflect the original TII submission and it was stated that this will be contained in the proposed Railway Order Schedules. The provisions were set out. A copy of the agreement between TII and the applicant was submitted to the Board.

Department of Housing, Local Government and Heritage – DAU

The submission may be synthesised as follows:

Archaeology

- Concerns are raised about the impact of the proposed development on a Recorded Monument in the Clonsilla area – DU013-018 (Barrow). The concerns relate to the separation distance of proposed construction works to the Monument and the siting of a construction compound thereon. It is requested that the latter be relocated.
- A condition is also recommended to be attached with any grant of permission.

Nature Conservation

- The Department accepts the conclusions of the applicant's NIS.
- There are concerns about the impact on the Royal Canal pNHA, particularly during the construction phase.
- In-combination effects with the development of greenways and cycleways are referenced.
- The extent of tree and hedgerow removal is noted, as are the lack of any breeding bird surveys and bat emergence surveys.
- No otter surveys by boat were undertaken, although it is noted from the EIAR that there is an intention to do so before commencement of works.
- The dewatering of the Canal at Ashtown for the proposed underpass and for the pedestrian/cycle bridge is acknowledged and there is a need to maintain a route for otters during these times.

- Interference with active badger setts must be regulated with regard to their treatment and the badgers inhabiting them.
- The removal of amphibians may only be carried out under licence.
- Deflectors proposed to be used to prevent bird collision with overhead lines must be effective in heavy fog and in low light conditions. A suitable monitoring regime of their effectiveness is required.
- A wildlife collision monitoring protocol should be implemented for protected species, swans and geese.
- The use of wildflower seed should be avoided and clarity is required on the landscaping proposals relating to its use.
- A schedule of conditions is set out in the event of any grant of permission.

The applicant's response included:

Archaeology

Setback from Monument DU013-018

- The recorded monument will be preserved in-situ within a fenced off buffer area, which will be actively managed to ensure the ongoing use of the surrounding area during its use as a construction compound. The buffer zone is circa 32 metres by 35 metres.

Archaeological Requirements relating to the CEMP

- This information will be included during the further development of the CEMP.

Project Archaeologist

- A project archaeologist will be appointed in the scheme.

Archaeological Geophysical Survey and Mitigation

- Regarding AAP18, 19, 20, 21, 25, 26 and 29 – this is acknowledged, although these are all relatively small areas and as such archaeological testing is a suitable method to identify previously unrecorded archaeological remains.
- Geophysical survey was not detailed as a mitigation measure in Chapter 20 within regards to AAP05, 09, 14 and 15.

Management Plan for RMP DU013-018

- The required items will be prepared and submitted prior to the commencement of works and subject to oversight from the Project Archaeologist.

Final Archaeological Report

- A final archaeological report will be made available to the planning authority & Department of Housing, Local Government and Heritage.

Ecology

CEMP

- The mitigation and monitoring measures developed in the NIS will be included in the finalised CEMP prior to commencement of site works.

Impact on Light-bellied Brent Geese

- The mitigation measures in the NIS are recommended to be included as a planning condition should permission for the proposed development be granted.

Clearance of Woody Vegetation from Sept. – Feb.

- This is included as a mitigation measure in the EIAR Vol 2 Chapter 8 Biodiversity, Section 8.9.3.7.

Tree Surveys and Bats

- The trees that are proposed to be removed to accommodate the new level crossing arrangements at Ashtown, Coolmine, Porterstown and Clonsilla were assessed as having either negligible or low potential, and therefore, surveys were not undertaken. The mitigation measures listed in the EIAR Vol 2 Chapter 8 Biodiversity, Section 8.9.3.5, include a preconstruction survey of trees with Low, Moderate and High suitability.

Lighting Design and Bats

- The requirements will be undertaken as part of the lighting design.

Otter Surveys

- The suggested condition for a preconstruction Otter survey is included as a mitigation measure in the EIAR Vol 2 Chapter 8 Biodiversity, Section 8.9.3.4. IEÉ commit to engaging with NPWS in relation to the requested survey.
- Dublin City Council, on behalf of the NTA, are in the process of procuring a boat-based Otter survey along the Royal Canal between the Liffey and Kilcock.

Ashtown Dewatering Otter Bypass Plan

- This plan will be developed and submitted as requested.

Badger Site Conservation Management Plan

- This plan will be developed and submitted as requested.

Wildflower Seed

- The proposal is to plant trees, shrubs, climbers and herbaceous species as part of the landscaping plan, particularly for screening and biodiversity enhancements and around the stations and level crossings. Areas where the ground is stripped will be allowed to revegetate naturally or by seeding with locally sourced green hay.

Type of Bird Deflectors

- It is intended that the type of bird deflectors used will be determined by availability at the time they are being procured, and that their effectiveness will have been demonstrated by research. Monitoring the effectiveness of deflectors is very difficult, as the locations are spread out across the proposed development (c. 40km), and any birds that collide with the overhead lines despite the deflectors are likely to be removed by predators (foxes) or sink in the canal. Instead, it is intended to rely on the existing research into the effectiveness of deflectors at reducing bird collision.

Protocol for Monitoring Collisions

- Wildlife collisions are recorded by train drivers and collated in a central database. Irish Rail intend to undertake a review of collision data and identify hotspots, and to provide mitigation, if practicable to avoid future collisions in these areas.

At the Oral Hearing, the Department made a submission in relation to nature conservation. It was asked that conditions of any consent given include mitigation and monitoring measures in the NIS to be included in the CEMP, the clearance of woody vegetation be carried out outside of the main bird breeding season from September to February inclusive, and a survey be completed of all trees to be

felled to identify potential bat roosts and that works be undertaken by licensed bat workers. The incorporation of measures in the finalised lighting design to minimise light pollution to be signed off by a bat specialist before submission to the relevant planning authorities was welcomed. The intended otter surveys to be undertaken were noted and it was acknowledged that a derogation to disturb otter holts and couches along the Royal Canal in the course of the Dart+ West project is currently being processed by NPWS. The proposed preservation of a route for otters past the section of the canal at Ashtown to be dewatered was welcomed, as were the applicant's proposed badger site conservation plans. It was submitted that the preparation of the latter plans should be a condition of any grant of permission. The proposals for revegetation of bare soils were welcomed. Finally, it was recommended that models of the proposed bird deflectors on overhead lines be agreed with the relevant authorities prior to the commencement of works.

The applicant submitted details of the proposed preservation in-situ of RMP DU013-018 on Day 7 of the Oral Hearing, setting out its proposed approach to addressing the Department's considerations relating to archaeology at Clonsilla.

The Board will note that there is extensive consideration given in my assessments to archaeology and nature conservation.

National Transport Authority

NTA recommends that planning consent is given for the project. Reference is made to compatibility with Government policy and national, regional and local objectives.

The applicant's response may be summarised as follows:

It is noted that the NTA recommends that An Bord Pleanála grant planning consent to Córas Iompair Éireann for the reasons and considerations set out in their submission.

The Board will note my Planning Assessment, in particular my considerations relating to national, regional and local policy.

Geological Survey Ireland

GSI refers to use of its database. It requests a copy of reports detailing site investigations carried out should the development go ahead. It is recommended that, where significant rock cuttings are created, they be designed to remain visible or that, alternatively, a digital photographic record of significant new excavations be provided.

The applicant's response may be summarised as follows:

- Although not referenced, Louisa Bridge Warm Spring CGS is contained within the same designated footprint as Louisa Bridge Cold Spring CGS. Both appear to be in disrepair and in need of attention.
- It is unlikely that any new significant rock cuttings will be created. This will be reviewed at detailed design stage.

The applicant's response is noted.

IFI notes that the DART corridor would transect many important river systems in the Greater Dublin Area. Estuary and river protection is emphasised, including minimal disturbance of riparian habitats and provisions of an undisturbed buffer zone between development and riverbanks. The following is requested:

- A CEMP to protect the Liffey estuary associated with the construction of Spencer Dock station and for the Coolmine, Porterstown and Clonsilla canal crossings;
- An agreed design and method statement for instream works at watercourse crossings;
- An agreed design and method statement for realignment of the Ballycaghan Stream;
- Directional drilling for utility diversions that cross watercourses;
- Adequate attenuation measures for drainage works;
- Avoidance of pumping contaminated water from works to watercourses and dewatering of groundwater must be pumped to an attenuation area before discharge off site;
- Agreed detailed design and method statements for surface water outfalls;
- Prohibition of entry of solids to the surface water system during connection of any pipework;
- Consultation with IFI guidelines, particularly in the vicinity of surface water features; and
- Implementation of ongoing aquatic ecological monitoring during the construction and operational phases.

The applicant's response may be summarised as follows:

Estuary/River Protection

- The mitigation measures included in Volume 2 Chapter 8: Biodiversity, Section 8.9 include the requirement for a Construction Environmental Management Plan to be prepared by the successful Contractor(s) prior to any works and, measures to protect watercourses during the construction and operation of the proposed development. The design of the two new bridges over the Lyreen River have incorporated a riparian corridor into their design.

CEMP

- A site-specific method statement will be prepared for Spencer Dock station, as well as Coolmine, Porterstown, and Clonsilla level crossing works.

In-stream Works 1st Jul – 30th Sept.

- For works during this period, Inland Fisheries Ireland will be consulted.

Utility Diversions and Realignment of Ballycaghan Stream

- IFI will be consulted during detailed design stage and prior to commencement on site.

Drainage Works

- The CEMP to be finalised prior to the commencement of all site works for the DART+ West project will include appropriate mitigation and monitoring measures related to drainage (and others) works.

Aquatic Ecological Monitoring

- A Site Environmental Manager will be appointed prior to the commencement of works. This person shall be responsible for carrying out environmental monitoring of the works and ensuring that the mitigation

measures proposed in the EIAR are adhered to. It is highly unlikely that any water quality impacts would arise during the operational phase. However, should any water quality impacts arising from the project be brought to the attention of Irish Rail as part of routine testing carried out by the EPA or Waterways Ireland, they would act accordingly in compliance with their statutory obligations.

The applicant's response is acknowledged. The Board will note my various assessments which relate to drainage, water, etc.

National Disability Authority

The submission includes:

- Noting poor accessibility at the new Pelletstown station, NDA is concerned that a similar design is being put forward for the update to Ashtown station. The proposed design should be revisited. Reference is made to alternative means of access in place of long ramps should include consideration of lifts at stations.
- Provision of accessible services is a key criterion in the provision of universally designed services.

An appendix attached with the submission refers to previous information and advice provided to Irish Rail.

The applicant's response may be synthesised as follows:

Ashtown Station

- The Bridge design is not based on British Standards guidelines specifically. The list of standards adhered to are set out in Section 4.8.5.1, Chapter 4 of the EIAR.

Universal Design Approach

- The works have been designed with accessibility service in mind ensuring compliance throughout.

Advisory Committee

- Irish Rail has a Disability User Group made up of members with a range of disabilities which are consulted regularly in accordance with the provisions of the Disability Act 2005. Use of Code of Practice on the Accessibility of Public Services and Information provided by Public Bodies.

Ticketing

CIÉ is working towards compliance with EC13/71 which regulates the availability of ticketing for passengers.

Code of Practice on the Accessibility of Public Services

CIÉ is aware of its obligations under the EU directive and is in the process of continually improving accessibility of its services to all passengers.

I note the applicant's responses. I further note the revised bridge design proposals submitted at the Oral Hearing. These include the addition of lifts. It is considered that the design changes to the bridges are acceptable as set out in my Planning Assessment.

Irish Water

Irish Water notes that the applicant engaged with it regarding assessment at a number of points on the proposed route. Locations affected by track lowering operations, diversions at rail bridge locations, and other diversions are listed. For those locations, Irish Water confirms that the development can be facilitated. At Ashtown Substation, it is submitted that available records indicate that a gravity sewer is abandoned at this location but it is requested that this be confirmed. It is noted that two pre-connection enquiries have been made for new connections at Docklands station and Maynooth rail depot. Noting that Irish Water's Spencer Dock wastewater pumping station and a road to the west that is used for access are part of the proposed temporary land acquisition, it is submitted that 24/7 access is required because it forms part of a joint fire safety plan with the building owner and it is required for emergency vehicle access. It is also noted that the generator is located underground and, in the event it needs removed, a crane will be needed. The applicant's commitments in relation to access and road closures are acknowledged. In the event of permission being granted, it is recommended that conditions are attached requiring access to the pumping station and road is maintained for Irish Water during the construction and operational phases and that the road is reinstated in the event of any damage to it. Noting the proposal passes in close proximity to the Dunboyne and Leixlip abstraction points, it is considered the proposal would not likely have a negative impact on the latter because the development is located downstream of it. Regarding the former, the requirements of meeting with Water Framework, EIA and Groundwater Directives are requested. A schedule of conditions is set out.

The applicant's response may be synthesised as follows:

Separation Distances with Irish Water Assets

- IÉ will continue to consult with IW throughout the design phases and construction to ensure proposed diversions etc. are agreed with IW.

Impact on Drinking Water

- No impact to IW Drinking Water Source / abstraction points is envisaged. Nonetheless, IÉ will engage with Irish Water prior to construction regarding measures to protect drinking water sources / abstractions.

Access to Spencer Dock Wastewater Pumping Station

- Access to the Spencer Dock Wastewater Pumping Station is to be maintained at all times.

Compliance with Standards and Codes

- Works will be carried out in accordance with Irish Water's Standards and connection and diversion agreements in place prior to undertaking the works.

I note the response given by the applicant. The Board will further note my considerations on utilities as set out in my Planning Assessment.

An Taisce

An Taisce welcomes the overall project as it is a strategic priority for the expansion and improvement of the public transport network. Alternative fencing

to palisade fencing along the Royal Canal is recommended. The reconstruction of Broombridge rail bridge is seen to be undesirable and the raising of the road height at the bridge would not be acceptable for use by cyclists, pedestrians or wheelchair users. Reconsideration of the proposals are recommended. A combination of track lowering and the installation of a reduced height overhead line equipment is recommended. This alternative is also recommended in place of the demolition and rebuild options at Castleknock and Leixlip Convey station rail bridges. It is recommended that, should bridge rebuilding proceed, high-quality, durable materials be used to raise the bridge parapet heights. Regarding Coolmine bridge, it is requested that as many mature trees as possible along the canal bank be retained and accessible lifts be provided. At Porterstown, the retention of trees and alignment of bridge ramping to allow preservation of banking up to the Old Schoolhouse site, together with regrading with a concrete retaining structure at the base, are recommended. It is further recommended that the lightweight steel structure proposed for Ashtown and Coolmine be selected as an alternative here. Noting the impact by way of clear-felling associated with the proposed Clonsilla Bridge, it is recommended that the construction detailing of the bridge should be reconsidered to avoid vertical supports cutting into the canal and its towpath and that the lightweight steel structure proposed for Ashtown and Coolmine be selected as an alternative. It is also recommended that accessible lifts be provided here. At Ashtown, the proposed tunnel is seen to be disproportionate in a lightly trafficked suburb. Existing vehicular access and public transport to the city centre are noted. It is considered that the tunnel has not been justified.

The applicant's response included:

Boundary Treatment

- Generally, there is no proposed fencing along the Royal Canal. There are some localised locations where fencing is required for security measures. Palisade fencing shall be placed along railway boundaries, around substations, at level crossing closures, around the depot area and at other locations to prevent trespass. Open mesh steel panel fencing for general purpose shall be placed in urban areas to prevent trespass or electrocution.

Reconstruction of Broombridge

- As part of this reconstruction, IÉ are not proposing to further impact on existing gradients. A reduced height OHLE solution wasn't deemed feasible due to the current clearance from the top of the rail to the bridge soffit. To achieve the required minimum 4400 mm contact wire height, a track lowering option was considered. This potential solution would require the vertical lowering of the tracks below Broombridge OBG5, which would result in lowering works for a length of approximately 600 m. Whilst this is a technically feasible solution, some substantial issues were identified - extensive modifications to the existing station infrastructure, flooding concerns, and drainage issues.

Bridge Rebuilding

- The proposal was developed in collaboration with a Grade 1 Conservation Architect to find a solution that can be implemented on each different type of bridge but following the same general procedure each time. In this way, all the affected bridges will be seen as a single intervention.

Demolition/Rebuilding of Castleknock Rail Bridge

- No reduced height OHLE solution was deemed feasible due to the existing clearance from top of rail to bridge soffit, so any potential special arrangement would need to be combined with another infrastructure intervention. To achieve the required minimum 4400 mm contact wire height, a track lowering option was considered. This potential solution would require the vertical lowering of the tracks below Castleknock OBG11, which would result in lowering works for a length of approximately 700 m. Whilst this is a technically feasible solution, some substantial issues were identified - extensive modifications to the existing station infrastructure, flooding concerns, and drainage issues.

Demolition/Rebuilding of Leixlip Convey Station Rail Bridge

- No reduced height OHLE solution was identified that was acceptable to IÉ SET and CCE department. To install the OHLE equipment beneath OBG14 and achieve the required 4700 mm contact wire height, a track lowering was considered. This potential solution would require the vertical lowering of the tracks by approximately 580 mm directly below OBG14, which would result in lowering works for a length of approximately 600 m along the tracks. Whilst this is a technically feasible solution, some substantial issues were identified - extensive modifications to the existing station infrastructure, flooding concerns, and drainage issues.

Coolmine Level Crossing

- The proposed design was determined by a multi criteria assessment and multiple public consultations. The existing footpath close to the canal will be reinstated, while as many existing trees as possible will be retained.

Porterstown Level Crossing

- The proposed design was determined by a multi criteria assessment and multiple public consultations. The accommodation works necessary to maintain access within the lands to be retained are subject to agreement between the landowner and CIE.

Clonsilla Bridge

- Due to spatial constraints the proposed northern approach is required to be constructed adjacent to the canal and roadway. The proposed DART+ West Bridge interfaces with the Royal Canal Urban Greenway (RCUG) along this section. DART+ West consulted and agreed the proposed design with Fingal Co.Co. (FCC), FCC RCUG design team and Waterways Ireland.

Ashtown Level Crossing

These issues are addressed earlier.

At the Oral Hearing, An Taisce focused on the exclusion of accessible lifts from the proposed cycling/pedestrian bridges and the impact of the proposed bridges on the Deep Sinking from Castleknock to Clonsilla. It reiterated its concerns about the use of palisade fencing along the route.

The Board will note my assessments, in particular my considerations on bridges of architectural heritage value, the bridge design changes at Ashtown, Coolmine, Porterstown and Clonsilla, trees and vegetation impacts, and on the tunnel development at Ashtown.

Waterways Ireland notes the following:

- The proposal will make significant interventions on its property forming the canal and its towpaths. Appropriate short-term licensing and longer term property arrangements will be necessary.
- All legal environmental procedures must be followed to protect the pNHA and its flora and fauna.
- Proposed changes to protected structures must take account of legal protections and further landscape character assessment is required.
- The canal and towpath access must be adequately accommodated throughout the works.
- Flood risk must be minimised or eliminated.
- Increased train frequencies will limit the operation of the Newcomen Lifting Bridge in Spencer Dock. The project must contain adequate upgrades to protect the restrictive arrangements for canal navigation in this area.

The applicant's response may be summarised as follows:

- All licensing and property arrangements will be finalised at later design phases subject to planning approval.
- Mitigation measures to avoid and reduce impacts on the Royal Canal pNHA, Otter and other protected species are presented in Volume 2, Chapter 8: Biodiversity, Section 8.9. It has been recommended that these mitigation measures be included as planning conditions should the Railway Order be granted.
- IE has been conscious of the heritage significance of canal structures and bridges when designing the proposed development. There has been consultation with the Conservation Officers of the local authorities. A

Grade 1 Conservation Architect has been engaged in the design of the three bridge reconstructions and the approach to parapet heightening. Works relating to the detailed design and construction of these three bridges will be overseen by a Grade 1 Conservation Architect.

- The existing amenity, designated, historic, landscape and visual importance of the Royal Canal is recognised and stated throughout Chapter 15 of the EIAR.
- It is the intention that boating/pedestrian/cyclist use of the towpath greenway will be accommodated at all times during daytime hours. Where temporary closures of the towpath are required such as at Ashtown, diversions will be agreed with Waterways Ireland and will be coordinated with Waterways Ireland to keep any impacts to a minimum or during periods of reduced public use.
- A Site Specific Flood Risk Assessment (SFRA) has been prepared for the proposed scheme which addresses flood risk including those relating to the Royal Canal and proposed mitigation measures where necessary.
- The DART+ West project does not have any operational impact on the Newcomen Chord route and thus there will be no impacts on the train traffic on Newcomen Lifting Bridge. Furthermore, these works will have no impact on the Royal Canal.
- All property, operational, environmental and legal issues will be agreed prior to construction on Waterways Ireland property.

At the Oral Hearing, Waterways Ireland highlighted some of the elements of its submission to the Board, including the increased limitations at Newcomen lifting bridge caused by increased rail services.

The Board will note my various assessments which address the impact of the proposed development along the Royal Canal corridor.

9.3.12 **Public Representative Submissions**

The public representative submissions are summarised below. The applicant's responses to commonly raised issues and to issues raised within various zones are acknowledged. These are not repeated below where previously addressed. What follows below is a synopsis of a range of issues raised.

Richard Boyd Barrett TD

Mr. Boyd Barrett raises the issues of:

- Absence of stations in populated areas along the route, including 1A Connolly, 1B Croke Park, 1C Phibsborough, 1D Kilcock, 1E Docklands, 1F Dublin Ferry Port, and 1G Spencer Dock.
- The relationship of the project to Dart Southwest and the lack of stations along the Dart Southwest route – including 2A Cabra, 2B Dublin Zoo, 2C Heuston, 2D Inchicore, and 2E Ballyfermot.

The applicant's response included:

- The provision of a new entrance to Connolly Station at Preston St. forms part of the Railway Order Application, which was submitted to An Bord Pleanála.
- As part of the DART+ West project, Docklands Stations is being relocated approximately 200 metres to the southeast to Spencer Dock. This will

enable the more frequent electrified DART service, improve connectivity with the Luas red line services and pedestrian access to the south city Docklands area.

- Dublin Port is currently connected by rail for freight services only. Any change to the status of this line would be a matter for the NTA. Spencer Dock Station is within walking distance of the port and interchange from Intercity services for example, Maynooth, would make connection to the port possible.
- Relocation of Docklands Station is necessary to facilitate the projected increase in services that DART+ West will deliver. It will also promote better multimodal connectivity and active travel, which are key deliverables of the NTA's public transport strategy.
- DART+ West and DART+ South West deal with two different rail lines and two different geographical areas. They are both significant infrastructure projects of national importance, therefore it is appropriate that they are taken forward as separate projects. From a planning and construction point of view, if they were to run concurrently, it would be challenging to ensure that adequate resourcing is in place and also from an operational perspective it would have major impact on the services that currently operate on both lines.

Senator Emer Currie and Cllr Siobhan Shovlin

Senator Currie acknowledges the need for the project. The closure of level crossings, the severance caused, and the need for their closure are queried. The upgrading of signalling is seen as an alternative. The traffic impacts for Dr Troy Bridge and Granard Bridge are referred to. Further concerns relate to the scale of

pedestrian/cycle crossings, the need for lifts and ramps at Coolmine, Clonsilla and Ashtown, the impact on St Mochta's FC at Porterstown and Ashtown Stables, and the inadequacy of consultation with the club and stables' owner.

The applicant's response included:

- St. Mochta's Football Club and the property owners were consulted a number of times during the development of the design and the IÉ Project Team will continue to do so. Detailed responses to the Clubs' queries are addressed earlier.
- Every effort has been made by the Project Team to engage with the owners of Ashtown Stables.

Cllr John Walsh

Cllr Walsh supports the electrification of the rail line. He raises concerns relating to accessibility in stations and failure to provide lifts, the significant visual impact of proposed bridges and effects on the canal, the provision of the Ashtown tunnel and its adverse effects, the impact on Ashtown Stables, the closure of Coolmine level crossing without a replacement, the traffic impacts as a result, and severance. The need for an updated capacity assessment following Covid, safety at Castleknock Bridge, Porterstown viaduct and Dr Troy Bridge, and overspill of commuter parking are further referenced.

The applicant's response included:

- The proposed Ashtown bridge has been designed to provide universal access for pedestrians, vulnerable users and cyclists at Ashtown Station.

- The proposed pedestrian/cycle bridges will be maintained by IÉ. Details of bridge finishes will be finalised at detailed design stage.
- Due to the limited amount of land available at Ashtown station for construction, the removal of trees is unavoidable.
- Parking control in adjacent housing estates is a matter for the local authority. It is proposed that parking patterns will be monitored before and immediately following closure of the level crossing. IÉ will engage with the local authority, providing them with the relevant information to facilitate control measures it may elect to put in place.

Leo Varadkar TD

Mr. Varadkar supports the project and requests that it should be conditional on minimal disruption to homeowners, businesses and Ashtown Stables.

The applicant's response included:

- Noted, the EIAR sets out a suite of mitigation measures to avoid, reduce or mitigate impacts where possible.

Cllr Natalie Treacy, Fingal County Council

Cllr Treacy requests:

- an upgrade is made to all level crossings,
- no level crossings are closed until upgrades are carried out and trialled,

- a capacity assessment of the line after electrification is undertaken before any level crossing is closed,
- a road safety plan is put together for Coolmine, Clonsilla and surrounding areas before the consideration of any level crossing closure.

It is further submitted that the proposal does not take into account the increased traffic volumes from Kellystown when it is developed and that the views of residents were not listened to.

The applicant's response included:

- An Option Selection Process was undertaken for all of the level crossing replacements to determine the preferred option at each location, details of the process are outlined in Chapter 4 of the EIAR and detailed in the Option Selection Report.
- Trialling of level crossing upgrades are not proposed as part of the application.
- Junction upgrades and alternative road improvement infrastructure will be in place prior to closure of the level crossing. CIÉ will continue to liaise with Fingal County Council over these proposals.
- The traffic modelling detailed in the EIAR, Volume 2, Chapter 6 – Traffic and Transportation includes the proposed development of Kellystown.

Paul Donnelly TD

Mr. Donnelly refers to the challenges of public consultation relating to the project, the lack of need to close level crossings full time, and the need for pedestrian/cycle bridges to be sympathetic to the environment, the canal and

protected structures. Reference is made to the impact on residents of Martin Savage Park in Ashtown, as well as to green space and flooding impacts, the changes to Ashtown Stables, and safety concerns around the provision of the underpass. It was further submitted in relation to Coolmine that the provision of a tunnel under the rail line and over the canal should be considered. Adverse traffic implications for the local road network are identified together with the inadequacy of road provisions being made. Anti-social behaviour concerns at the location of the level crossing closure and consideration of a pedestrian or cycle way across Granard Bridge are also raised. Level crossing closure impacts on residents at Porterstown, Clonsilla and Barberstown are referenced and the need to protect the Royal Canal and the environment adjacent to the rail line.

The applicant's response included:

- Information contained within the SSFRA was collated from various sources including the OPW's record of historic flood events and consultations with Dublin City Council drainage division. No indication of flooding at Martin Savage Park was presented in the consulted sources. The flooding appears to be derived from deficiencies in the surface water drainage network within Martin Savage Park.
- It is intended that CCTV surveillance will be provided in the Ashtown underpass.
- Every effort will be made to engage constructively with Ashtown Stables to minimise disruption.
- The preferred design for Coolmine was determined by a multi criteria assessment.
- The installation of a new pedestrian or cycle way across Granard Bridge is outside of the scope of the DART+ West project.

- The Kellystown Road project is in early design stages with no firm timeline for when construction will commence and out of the control of IÉ. IÉ intend to complete the new overbridge at Barberstown and junction upgrades prior to closure of Porterstown Level Crossing.
- CIÉ intend to construct the Barberstown overbridge and junction upgrades in the vicinity prior to closure of the level crossing. Only once this infrastructure is in place will the level crossings be closed. The traffic modelling presented in the EIAR, Volume 2, Chapter 14, undertaken as part of the project development includes the modal shift, increase in rail passengers and subsequent reduction in vehicular traffic on the road network. The full benefits of DART+ West and junction upgrades may not be seen until the DART is fully operational.

Cllr Tania Doyle

Cllr Doyle refers to the inadequacy of public consultation, that the closure of Clonsilla and Coolmine level crossings are not a prerequisite for the electrification of the line having regard to the functioning of the existing DART line, the effect of a high-level bridge crossing on residential estates, and the lack of parking provision. Data for the traffic survey is considered to be invalid given it was collected in 2019 and since a number of developments in the vicinity of Clonsilla Station have come on line and new developments at Kellystown and Barnhill have not been factored in. It is further submitted that routing traffic via the Dr Troy flyover will cause further chaos and congestion at this location, while routing traffic towards Barberstown Crossing would result in traffic going via the Old Hansfield Road, increasing traffic on a narrow road with residential estates.

The applicant's response included:

- The pedestrian bridges at Clonsilla and Coolmine have been developed to avoid impacts on amenities such as the Royal Canal Greenway, playgrounds and greenspace. In both of these cases consultation has taken place with the design team for the Royal Canal Greenway and Fingal County Council. No play areas are impacted by either of these proposals and although both proposed bridges impact vegetated areas neither impact open greenspace areas currently used by the public.
- Separate to the DART+ West project and outside this railway order, Iarnród Éireann are progressing a number of projects including a Multimodal Interchange Project, DART Station Enhancement Project and Carparks Programme.
- The traffic modelling detailed in the EIAR, Volume 2, Chapter 6 – Traffic and Transportation includes the proposed development of Kellystown and Barnhill.

Cllr Ted Leddy

Cllr Leddy expresses concerns about the public acceptance of level crossing closures. Reference is made to the closure of Coolmine level crossing and the need for further details on the upgrade of junctions in the vicinity of Troy and Granard Bridges.

The applicant's response included the following:

- The traffic impact of the level crossing closure and junction upgrades are discussed in detail in the EIAR, Volume 2, Chapter 6 – Traffic and Transportation.

Cllr Joe Neville

Cllr Neville raises concerns in relation to the proposed development in the Glendale estate in Leixlip. He references alternative arrangements for the cycle lane and path affecting the green area, the lane's purpose and extent, and replacement planting. He further submits that there would be a significant impact from the siting of the proposed construction compound. The impact of the proposed substation and access is also referred to and the opportunity for siting it on other CIÉ lands is alluded to. The management of parking for train users is also raised. It is requested that the Kilmacredock/Barrogstown crossing be kept open to avoid severance. Finally, it is requested that the project is brought to Kilcock.

The applicant noted that all issues raised had been previously addressed in other responses.

Cllr Tim Durkan

Cllr Durkan considers it an error not to deliver a dual Dart line to Kilcock. Reference is made to the obligation to retain rights of way to properties, the conservation of Jackson Bridge, the lack of need for a new bridge west of Jackson Bridge with the intended provision of one to the east associated with the Maynooth Outer Orbital Route, the impacts by construction on residents and on green spaces associated with residential estates, and traffic impacts from the construction phase on Leixlip, Maynooth and Kilcock.

The applicant's response included:

- Where rights of way are proposed to be acquired these are highlighted within the railway order drawings and schedules with the proposed alternative access within the design where applicable. Where rights of way are proposed to be acquired over private lands and if the Railway Order is confirmed, compensation will be addressed in accordance with statute and Compulsory Purchase practice and procedure as and when statutory notices are served.
- There are no proposed alterations to Jackson's Bridge.
- As identified in the Maynooth Local Area Plan 2013-2019 (Amendment No.1). the location of map based Road Objective (i) – (vii) on Map 1 which cumulatively form the Maynooth Outer Orbital Road (MOOR) are 'indicative only'. At the time of preparation of the Railway Order application for the DART+ West project, the planning stage of the MOOR had not commenced. The project team on MOOR will therefore need to be cognisant of the DART+ West project proposals, and incorporate the design of the project, where appropriate.
- Temporary lands here are being acquired at Castledawson Maynooth, Newtown Hall Maynooth, Castle Bridge Maynooth, and Parklands Maynooth for access and working space to raise ESB overhead lines to provide electrical clearances over the rail line. The impact is proposed to be of a short duration – approximately a week with no construction compounds proposed at these locations.

At Glendale Meadows Leixlip, a new substation, road realignment and two new pedestrian and cycle bridges are required. To facilitate this construction compounds and access via the existing estate are required. Detailed construction and traffic management plans will need to be

prepared by the contractor and agreed with Irish Rail and Kildare County Council in advance of the construction.

At Branganstown Kilcock there will be significant works in and around this area with the construction of the proposed Depot. Access to the local road network will be limited to the advanced works to construct the overbridge connection to the depot with construction traffic using the R148 once the bridge is in place.

- The contractor will be required to prepare a comprehensive traffic management plan for the construction phase and it will be the project contractor's responsibility to prepare a Traffic Management Plan for the approval of local authorities.

Cllrs Nuala Killeen, Aidan Farrelly and Bill Clear

The following issues are seen to have a direct impact on Kildare:

- Confey Station at Cope Bridge, Leixlip – adequate parking and providing a bus terminus, impact on residential estates, impact on the open space at Glendale, installing one foot/cycle bridge at an early stage, re-siting of compounds, need for a traffic management plan, and infrastructure for cyclists.
- Leixlip Louisa Station – access to bus services aligned with train services and lift access provided.
- Blakestown Level Crossing – provision of a pedestrian and cycle link to the Royal Canal where it is planned to site a substation.
- Kilcock Services – extending the line to Kilcock.

- Water – the need to protect the aqueduct in Leixlip, the greenway upgrade, and natural springs beyond the canal, and careful consideration of flooding.

The applicant's response included:

- Parking control in adjacent housing estates is a matter for the local authority. It is proposed that parking patterns will be monitored before and immediately following closure of the level crossing. IÉ will engage with the local authority, providing them with the relevant information to facilitate control measures it may elect to put in place.
- As part of the construction phase, the appointed contractor will be required to submit a traffic management plan. Within this plan there will be provisions to ensure that measures are in place to ensure the least disruption to the residents and that access for emergency services, utility providers and residents is maintained.
- DART+ West is an infrastructure capacity project to facilitate the expansion of the DART. Alterations to existing stations, except where required to facilitate the DART+ West project, are not within the scope of the project. Where alterations to stations are being implemented to facilitate the DART, increased cycle parking has been included in the Project.
- Likely impacts to the water quality and flows within the Royal Canal have been considered in the EIAR Hydrology and Hydrogeology Chapters. This includes an assessment with regard to requirements under the Water Framework Directive. It should be noted that a key benefit of the scheme is the reduction of potential sources of pollution (diesel locomotives). The scheme assessments concluded that impacts to water quality and

hydromorphology of the Royal Canal are neutral, imperceptible permanent.

- The site specific flood risk assessment for the scheme has considered flood risk within the subject area including the areas between Jackson's Bridge and Kilcock. The assessment has concluded that flooding can be appropriately managed at these locations.

Catherine Murphy TD

Ms. Murphy makes observations on the Kilcock services, Blakestown level crossing, and Glendale and Cope Bridge. Regarding Kilcock, it is submitted that at the very least parking and platform services should be provided at the depot. There is concern also about flooding at the depot site and the need to mitigate adverse ground, water, noise, light and habitat impacts. Regarding the proposed closure of Blakestown level crossing, concerns of the local community relating to severance, access to the canal, and the need for a bridge for pedestrians and cyclists are referenced. The impacts of the proposed substation and the construction compound on Glendale open space and the options for alternative locations are noted. Retaining and providing pedestrian access relating to the works at Cope Bridge are further referenced.

The applicant's response included:

- The scope of DART+ West does not extend to Kilcock Station. As the line is single track beyond Maynooth, significant infrastructure upgrade would be required as well as property acquisition. The depot will be an operational engineering building, from a safety and security perspective, having customers in the proximity of the depot would be inappropriate.

- The site specific flood risk assessment for the scheme has considered flood risk within the subject area including the areas between Jackson's Bridge and Kilcock. The assessment has concluded that flooding can be appropriately managed at these locations.
- Two pedestrian/cycle crossings are planned at either end of the new footbridges at Leixlip Convey. On the south side, a crossing is planned from Glendale green to the access road to the station. Likewise, on the north side, another crossing is located in front of the access to the Confey GAA Club.
- Parking control in adjacent housing estates is a matter for the local authority. It is proposed that parking patterns will be monitored before and immediately following closure of the level crossing. IE will engage with the local authority, providing them with the relevant information to facilitate control measures it may elect to put in place.

Bernard J. Durkan TD

Mr. Durkan welcomes the scheme but has concerns relating to the impact of compounds on green areas. Consideration of the extension of the service to Kilcock, Enfield and Edenderry and minimising impacts on residents in Leixlip, Maynooth and Kilcock are referenced.

The applicant's response included:

- Detailed design will integrate public safety design measures to reduce opportunities of anti-social behaviour. As far as practicable these measures shall include the use of active and passive surveillance measures while CIÉ shall consult with An Garda Síochána and Kildare

County Council at the detailed design stage to determine the most appropriate measures.

I acknowledge the additional submissions made to the Board by public representatives at the Oral Hearing. Oral submissions were made by Senator Emer Currie, Mary Donoghue on behalf of Leo Varadkar TD, Cllr Ted Leddy, Cllr Joe Neville, Cllr John Walsh, Catherine Murphy TD, Cllr Tim Durkan, and Cllr Nuala Killeen. These submissions reiterated the concerns raised in their written submissions and addressed many issues raised by landowners and other observers at the Hearing. It is not intended to repeat my considerations given to the wide range of issues raised.

10.0 Environmental Impact Assessment

10.1. Introduction

- 10.1.1. This application falls under Directive 2014/52/EU on the assessment of the effects of certain public and private projects on the environment (i.e. the 2014 EIA Directive). I have examined the information presented by the applicant, including the EIAR, and the submissions made during the course of the Railway Order application process to date. I have considered whether the information contained in the EIAR and the supplementary information provided by the applicant to date in the application process adequately identifies and describes the direct and indirect effects of the proposed development on the environment and complies with relevant legislative provisions.
- 10.1.2. I am satisfied that the EIAR has been prepared by competent experts to ensure its completeness and quality to allow consideration as to whether the information contained in the EIAR and any supplementary information provided by the applicant adequately identifies and describes the direct, indirect and cumulative

effects of the proposed development and complies with the provisions of the Transport (Railway Infrastructure) Act, 2001, as amended.

10.2. **Alternatives**

10.2.1. My considerations on alternatives are set out in the planning assessment above.

It is my submission to the Board that the applicant has undertaken consideration of reasonable alternatives in the planning application. I am satisfied to conclude that the consideration of alternatives complies with the requirements of the EIA Directive.

10.3. **Population**

10.3.1. In Chapter 7 of the EIAR, the applicant examined land use change, journey characteristics and journey amenity, community infrastructure, severance, and economic activity, including tourism and employment. It is acknowledged that the construction phase of the proposed development would likely have negative but temporary and short-term effects on the local communities which it would have an impact on, including traffic diversions, noise, and severance, while there would be short-term positive impacts arising from employment associated with the construction of the project. The operational impacts on the population are anticipated to be positive in terms of increased capacity and frequency of train services and a greater shift towards sustainable transport. It would facilitate the further development of areas along the corridor marked out for new development. An extensive range of impacts on the population in the vicinity of the railway corridor have been addressed in my planning and other assessments. This includes the significant issue of severance arising from level crossing closures, as well as other issues affecting amenity at the construction and operation phases. It is acknowledged that, with the exception of Blakestown, the applicant

proposes to make provisions for pedestrians and cyclists where level crossing closures are intended.

10.4. **Human Health**

10.4.1 *Overview*

Chapter 23 of the applicant's EIAR addresses human health relating to the construction and operational phases of the proposed development and alludes to the other chapters which interact with human health. Effects at community level rather than for individuals or properties were considered. The applicant considered relevant legislation, policy and guidance that were followed, the methodology used for human health assessment, and the potential impacts on human health. Mitigation measures and residual effects were also considered.

In general, it may first be observed that the nature of the proposed operational transport development would ensure there are community-wide health effects, providing increased sustainable transportation and reducing dependence along the route corridor on private car usage, while reducing adverse impacts on air quality. I further note that the EIAR has addressed an extensive array of health-related issues, including noise and vibration, electromagnetic effects, air quality, soil, and water impacts. It is reasonable to deduce that increased services would likely increase the level of nuisance (noise and vibration) experienced by those living in close proximity to the rail line, such as for example in Zone A north-west of Connolly Station. It is accepted that the rail line is established infrastructure in such locations. At the construction stage, I submit that the potential human health impacts, while likely negative in terms of air quality, nuisance, etc. (particularly with night-time works), would be unavoidable, short-term and temporary for the receiving environment and would be managed through an array of plans, including a Construction Environmental Management Plan, an Environmental

Operating Plan, a Construction and Demolition Waste Management Plan, an Air Quality Management Plan, and a Construction Traffic Management Plan.

10.4.2 *Electromagnetic Effects and Stray Current*

Chapter 22 of the EIAR addresses electromagnetic effects and stray current.

The EIAR considered the potential for electromagnetic interference (EMI) on local residents, domestic and industrial equipment, telecommunications infrastructure, medical and research equipment, utilities, and mainline, suburban and light rail systems. The receiving environment was outlined for each zone and baseline surveys were performed beside the railway bridge on Ossory Road, Dublin 3 and adjacent to Louisa Bridge station (Intel side of the Royal Canal).

It is accepted that electromagnetic emissions from the construction phase of the proposed development would not differ from a typical large-scale construction project. No likely significant impacts are identified for the construction phase of the project.

For the operational phase, DC and near DC magnetic field impacts, AC field impacts, radio frequency and microwave field impacts, and stray current impacts were examined. The quality of effects for each at receptors, including for the Luas Red and Green lines, Intel and Maynooth, were determined to be neutral.

I note Section 22.6 of the EIAR addresses mitigation measures. Reference is made to measures where significance of effects is classified as moderate or higher and to embedded mitigation specific to Intel.

It is anticipated that there would not be a significant effect on sensitive receptors arising from electromagnetic fields and stray current.

10.5. **Biodiversity**

10.5.1 It is noted that the established rail line adjoins the Royal Canal proposed Natural Heritage Area (pNHA) and is mainly parallel to the canal between Dublin and the depot site. The route crosses the Royal Canal, the Rye Water, the River Tolka and a tributary of the River Liffey. The route traverses the Rye Water Valley / Carton SAC between Leixlip and Maynooth, notably in the vicinity of Louisa Bridge. The potential effects of the proposed development on European sites are assessed in my Appropriate Assessment.

10.5.2 I note that no flora listed on the Flora (Protection) Order, 2015 were recorded during field surveys.

10.5.3 I note the following from Mammal Surveys undertaken:

- Six badger setts were recorded during badger surveys between February 2021 and November 2021. One main sett is on the site of the proposed depot and four are within 10 metres of proposed works. Two setts would be lost by the proposed development.
- Otter is frequently recorded on the Royal Canal and Table 8-11 of the EIAR sets out the otter records of holts and couches along the canal route adjacent to the proposed project.
- Bat roost potential is high at the depot lands where there are mature treelines of oak and a roost was confirmed at Kirkpatrick Bridge, Coolmine. The treelines identified as having high bat roost potential at the depot site are proposed to be felled to accommodate the proposed development. Some 1000 metres of mature treelines are to be removed at the depot site. Recording of bat species along transects included Common Pipistrelle, Soprano Pipistrelle, Leisler's Bat, and Daubenton's Bat (or Myotis Species).

- It is noted from the desk-based research that Common Lizard has been recorded west of Cross Guns Bridge and that Common Frog and Smooth Newt have been recorded along the canal and in ponds and ditches along the rail line. Confirmed breeding for the latter two species were confirmed within the footprint of the proposed development at Broom Bridge, the Navan Road Parkway Compound, and in a ditch at the depot.
- Light-bellied Brent Geese have been recorded feeding on amenity grasslands at St. Vincent's Primary School in Glasnevin, Martin Savage Park in Ashtown and Ashington Park in Pelletstown.

10.5.4 In general, the impacts of the proposed development would include:

- Removal of vegetation, habitat loss, fragmentation and degradation,
- Potential adverse water quality impacts,
- Adverse effects on fauna by way of disturbance, noise, lighting, and collision for birds and bats,
- Loss of badger setts,
- The development of new and modified bridge structures and provision of overhead cables leading to habitat loss within the Royal Canal pNHA in some instances and the potential effects of collision, and
- Spread of alien invasive plant species.

10.5.5 Evidently, one of the potential significant effects of the proposed development would be on the adjacent Royal Canal, which is designated a 'Key Ecological Receptor' in the applicant's EIAR. Potential effects, inclusive of tree and hedgerow loss, water pollution, noise and the impact of artificial lighting, are acknowledged.

10.5.6 Table 8-25 of the applicant's EIAR identifies the potential ecological impacts arising from the proposed development on identified Key Ecological Receptors. This provides a relatively comprehensive review of the likely impacts on biodiversity in isolation of mitigation measures.

10.5.7 I acknowledge Section 8.9 of the EIAR which sets out the range of mitigation measures proposed at the construction and operational phases to address potential impacts on biodiversity. These include construction, lighting, and landscape management plans at the construction phase. Biodiversity enhancements include the provision of compensatory flood water storage at the depot and at Jackson's Bridge to defend the depot and rail line from flooding, where some 26.5 hectares of agricultural land would be lowered to provide this compensatory flood storage and engineered to retain water in backwaters, ponds and reed beds. Specific mitigation measures are proposed for each of the identified Key Ecological Receptors, namely the Royal Canal pNHA, the Railway Line Ecological Corridor, Badger, Otter, Bats, Amphibians, Birds, and Invasive Species.

10.5.8 It is acknowledged that much of the proposed development would be located along the established rail line and in built-up, urban areas of low biodiversity value. Impacts on the Royal Canal and at the depot site are primary biodiversity concerns and are addressed in my Planning Assessment. It is apparent that the construction-related impacts would be short-term and would have localised effects throughout the length of the route. The long-term operational impacts by way of noise, vibration, lighting, etc., resulting nuisance, disturbance, displacement, habitat loss and fragmentation, are the reality of the outcome of accommodating the electrification of the line, introducing structural changes, increasing the level of train services, and providing new infrastructure adjacent to the Royal Canal and at the depot site.

10.6. **Land and Soils**

10.6.1 The applicant's considerations on impacts on land and soils were informed by desktop and ground investigations. The surveys provided details on soil condition, bedrock, and groundwater conditions.

10.6.2 I note that there are no karst features present along the route of the proposed development. There is one geological heritage site at Leixlip, where Louisa Bridge cold spring is derived from shallow bedrock or quaternary deposits and surfaces west of Louisa Station. This is a cold spring with a County Geological Site status and the EIAR refers to this as being of high importance. I acknowledge the Deep Sinking at Clonsilla where the Royal Canal has been constructed through limestone rock. This is not a designated geological heritage feature.

10.6.3 I acknowledge the information gathered on contaminated soils, and in particular the made ground (clay) layer in the Connolly and Docklands areas.

10.6.4 The potential impacts for soils include those arising from the proposed bridge structures, OHLE foundations, piling at Connolly Station, the development of the new station at Spencer Dock, new underpasses, track lowering, the depot access road and OBG23A, and the depot (inclusive of the compensatory flood storage areas). It is noted that arisings may be suitable for reuse along the route as part of the proposed development, with this being subject to meeting materials classification and specification requirements. Contaminated materials would be required to be disposed of at a suitably licensed facility. The works at Spencer Dock would require change from the existing ground level to the proposed track level and would require deep and wide excavations and it is noted that the platform level at the new station would be below the station entrance. The EIAR notes the area around Spencer Dock is underlain by extensive deposits of limestone derived gravels and that groundwater within the gravels is known to be

contaminated. The station and track lowering are estimated to require an excavation of approximately 100,200m³ of materials. The applicant submits that 50% of the volume of the track lowering earthworks and 35% of the station earthworks would be suitable for construction and is intended to be reused as embankment fill elsewhere along the route. Proposed works at the depot site, including excavation, filling and development of embankments, are acknowledged.

10.6.5 It is noted from Table 9-17 of the EIAR that there would be a net deficit of 404,280m³ of fill for the proposed development and that some 220,200m³ of excavated material would require disposal. I note that the EIAR does not indicate the actual locations where materials unsuitable for reuse would be sent nor are the specific sources of fill material identified. However, the availability of various facilities to meet the scheme's needs are identified.

10.6.6 Mitigation measures set out in Section 9.6 of the EIAR are noted.

10.7. **Water**

10.7.1 The applicant's EIAR addresses water in a chapter referencing hydrology and flood risk, while considering hydrogeology separately in the chapter that follows.

10.7.2 Hydrology and Flood Risk

The following is noted:

- The majority of the proposed development is located within the Liffey and Dublin Bay WFD catchment. The main storage and distribution centre is located within the Nanny-Delvin WFD catchment. The proposed development crosses seven WFD sub-catchments.

- The Royal Canal's risk status is currently under review but the EIAR notes that for all monitoring periods up to the 1st and 2nd WFD cycle the section of the canal adjoining the proposed development has achieved "Good Ecological Potential".
- A flood risk assessment was prepared to support the proposed development. The key areas relating to fluvial and coastal flooding with potentially elevated levels of flood risk are Docklands / Newcomen, Leixlip Convey Station, Barberstown level crossing, between Maynooth and Kilcock, and the Tolka Valley at Dunboyne and south of the M3 Parkway. There are records of surface water flooding in the vicinity of the rail line and at Broombridge, Clonsilla and Leixlip Louisa Bridge Stations. However, they were individual events where specific issues arose and where further flood events have not recurred, leading to the rail infrastructure and stations at these locations being determined to be in Flood Zone C in accordance with the Flood Risk Guidelines. The principal areas of flooding concern relate to Docklands / Newcomen and the area between Maynooth and Kilcock. The likely effects have been determined by the applicant to be negative, long-term and at worst slight prior to mitigation measures being applied. The Board will note my considerations on flood risk in my Planning Assessment.
- The key hydrological receptors identified by the applicant are European designated sites, ecologically sensitive surface water features and catchment systems, and flood risk areas.
- The potential impacts arising are identified for the construction and operational phases and include the following:
 - Construction Phase – construction works impacting on water quality, dewatering, instream works, realignment of 400m of the Ballycaghan

Stream, increased flood risk (notably at the depot site), leakage from the Royal Canal due to track lowering, and disruption to the use of the canal.

- Operational Phase – impact on surface water quality via new drainage systems and maintenance works, the potential impacts on waterbody status under the Water Framework Directive, and coastal and fluvial flooding (notably at Docklands / Newcomen and between Maynooth and the depot).
- The design features of the scheme as mitigation are referenced in consideration of impacts.
- Mitigation measures are set out in Section 10.7 of the EIAR for the construction phase. There are no mitigation measures proposed for the operational phase. At the construction stage, an Environmental Operating Plan and a Construction Environmental Management Plan would be prepared, detailing construction methodologies and responsibilities. General water protection and good work practice measures are also set out and reference is made to protecting the integrity of the Royal Canal liner during track lowering and to water quality monitoring.

Residual effects are not seen to be significant.

10.7.3 Hydrogeology

Chapter 11 of the EIAR addresses the impact of the proposed development on groundwater.

The following is noted:

- The key hydrogeological attributes examined by the applicant were groundwater supplies and their surrounding source protection areas, wells, significant hydrogeological features, and the nature of the aquifer underlying the route.
- Regarding bedrock geology, the majority of the route of the proposed development is dominated by the Lucan Formation, while also traversing over smaller areas of the Tober Colleen Formation and Waulsortian Limestones.
- The majority of the proposed works would lie on bedrock aquifers classified by GSI as being locally important.
- There is a single groundwater body that would be traversed by the proposed development, the Dublin GWB, which currently has good quantitative and chemical status.
- The GSI recharge across the six zones relating to the proposed development shows mainly low recharge areas, with several small areas of moderate and high recharge.
- The majority of the area is served by public water schemes. There is one public group scheme at Dunboyne immediately south of the M3 Parkway and its source protection area bounds the railway line.
- There are no GSI recorded karst features within 250m of the rail line.
- Groundwater vulnerability along the proposed route is shown for each of the six zones in Tables 11-2 to 11-16 of the EIAR.
- There are no areas of groundwater flooding along the proposed route corridor.

- There are tufa springs in the Rye Water Valley that are crossed by the railway line on an embankment and bridge. A single spring has also been recorded in the Deep Sinking on the northern bank of the Royal Canal. Tufa springs correspond to the priority Annex I habitat 'Petrifying springs with tufa formation (*Cratoneurion*)'.
- Potential impacts from the proposed development at the construction stage would relate to alteration in groundwater flow patterns such as by dewatering, runoff from concrete-based materials, piling that could provide vertical pathways, and discharges of contaminants.
- Potential impacts from the proposed development at the operational stage would relate to alterations of groundwater levels and flow pathways or changes to recharge, creation of new drainage routes and pollution pathways, decreasing the depth to the water table, and creation of pollution sources.

I note the following at the construction phase:

- The applicant proposes to develop a dewatering strategy at Spencer Dock Station,
- No excavation of natural ground is expected at Navan Road Parkway construction compound where earthworks would deal with ground irregularities,
- Works in the vicinity of Dunboyne public water supply would relate to overhead line equipment and a compound and these works would not occur within the source protection area of the abstractions.

- The tufa spring system forming part of the Rye Water Valley / Carton SAC and parallel to the rail line is limited to where upgrading of the overhead line equipment is proposed. The Royal Canal lies between the spring complex and the rail line and limits potential hydrogeological connectivity. There is no known impact pathway.

I note the following at the operational phase:

- The development of Spencer Dock Station will require additional data collection and analysis to assess piling and slab work impacts on groundwater flow patterns. Incorporating drainage systems, including shallow relief boreholes, may be required.
- The Ashtown underpass would alter groundwater flow paths by a piling retaining wall and provision of a concrete base slab, the development of a railway bridge and the provision of a viaduct for the canal. The viaduct would be connected into the canal and the construction of the underpass would not affect its functioning. The underpass would align with the surrounding topography and with general groundwater flow pathways. Thus, it would not likely form a significant groundwater boundary. The underpass is designed to exclude groundwater and, therefore, it would not increase groundwater vulnerability.
- Development in the vicinity of the depot could result in pollution from activities, reduce recharge due to the increase in the areas of impermeable hardstanding, and increase aquifer vulnerability by the development of the compensation storage areas and the site regrading. The proposed provision of a treatment pond for discharges, the incorporation of SuDS measures, the application of pollution containment systems, and the development of wetland habitats are proposed.

- In lengths next to the Royal Canal where track lowering is proposed, the integrity of the canal liner would be protected to limit leakage from the canal to the aquifer by the application of drainage systems at specified locations.
- While not referenced by the applicant, I acknowledge that the rail fleet would change from diesel powered to electricity powered, thus reducing fuel spillage potential.

I acknowledge the proposed mitigation measures at the construction and operational phases as set out in Section 11.6 of the EIAR. The construction measures include a wide range of standard construction practices and methodologies. I note again the proposed provision of a Construction Environmental Management Plan and Environmental Operating Plan. Mitigation by design to address the operational phase impacts (many of which are referenced above) are reiterated.

Having regard to the application of the proposed mitigation measures, it is accepted that the effects of the project on groundwater would not be significant.

Overall, on the issue of water, I note that the proposed project corridor would follow an established rail line. I submit that the principal issue of environmental concern relates to flooding. This issue is addressed in my Planning Assessment and focuses on the area west of Maynooth. My considerations on appropriate assessment are also noted.

10.8. Air

10.8.1 Air Quality

The applicant's findings on the potential impacts arising from the proposed development include the following:

At the construction phase, the potential impacts on air quality from emissions, including dust impacts, are considered to be short-term, localised and not significant. The air emission impacts would be similar for ecologically sensitive receptors, namely the Royal Canal.

The majority of the results showing the decline in emissions from a 'Do Nothing' scenario to the 'Do Something' scenario at the operational phase arise from the shift from diesel units to electric rail units. The impact is seen to be positive, significant, and long-term.

The following is noted:

- Electrified rail stock would have less of an impact on air quality than the diesel alternative. It is acknowledged that the generation of electricity to run electrified rail stock would contribute to NO_x and PM_{2.5} emissions.
- IEÉ has agreed to purchase up to 80% of its operational demand from certified low or zero carbon electricity for operations.
- The applicant's assessment has considered the effects of the redistribution of traffic arising from the closure of level crossings.

I note Section 12.6 of the EIAR which relates to mitigation measures. The application of standard dust minimisation practices is proposed at the construction phase.

10.8.2 Noise and Vibration

Baseline noise and vibration surveys were undertaken along the route and presented for each of the six zones across the project area. The background noise levels were influenced by the railway line, road traffic and residential activities. The vibration survey findings indicate a low vibration environment along the route.

The potential noise and vibration impacts are as follows:

Construction Phase

The predicted increases in noise levels for construction traffic is determined to be not significant. It is anticipated that there would be short-term adverse noise impacts on adjoining residential properties with the construction of overhead line equipment, fencing, parapet heightening and piling. Works across the six zones are identified and their duration and likely impacts are set out in Section 14.5.3.5 of the EIAR. Works such as the provision of the Ashtown tunnel, new road bridges and works including piling in close proximity to residential properties have the potential for significant adverse impacts. While most of the works would take place during daytime hours, I note that works during night-time possessions or full weekend closures may be required. Noise from construction compounds is intended to be minimised by the installation of barriers. However, it is acknowledged that many of the construction compounds are in close proximity to residential properties and their functioning will result in noise disturbance.

Vibration impacts at the construction phase would be greatest from the works at the level crossings to be closed, by track lowering and by piling, including for OHLE installation. Several properties in the vicinity of the works are considered to be vulnerable to vibration impacts and include lock keepers' cottages at North

Strand Road/Newcommen Bridge and Ashtown, Ashtown old mill, and Porterstown schoolhouse. I note the proximity of works to residential properties in the North Strand area and the potential effects arising.

Operational Phase

It must first be noted that, for the most part, the proposed route would follow an established railway line throughout the project length. I note from Section 14.5.4.6.3 of the EIAR that the validated noise model was updated to reflect the change in rail fleet as a result of the proposed development. There is a slight change in noise levels predicted as a result of the proposed development for the majority of locations measured, with some areas experiencing a neutral or positive change. Where there are significant increases in rail activity, it is determined that more negative impacts would result. The increase in noise levels associated with changes to traffic on roads and from plant, including substations, is determined not to be significant. The noise impacts from the operations of the depot are predicted to be long-term and negative but slight in impact beyond the site boundary. The permanent compounds used for maintenance support at Navan Road, the depot and the Docklands will be inactive most of the time and each will be in excess of 75m from sensitive receptors. Operational noise at the new Spencer Dock Station has been determined to be slight compared to baseline day and night-time levels.

Regarding vibration, it is noted that the degree of vibration that would be experienced at properties close to tracks would be determined by the track profile at that location, the ground conditions and the train speed and frequency. The change in fleet type associated with the project is again acknowledged. The applicant's assessment has determined that the rail vibration levels would not be significant. I acknowledge that increased frequency of service in close proximity to residential property is likely to increase the extent of vibration experienced.

I note the wide range of mitigation measures at the construction and operational phases as set out in Section 14.6 of the EIAR. Construction measures include application of Iarnród Éireann's documented operational works procedures, communication with neighbours, noise and vibration monitoring, appropriate selection of plant, screening, and acoustic and piling control measures. I note that the majority of track construction works would require to take place at night and this is likely to cause some degree of disturbance and nuisance to neighbouring properties. Works outside of the live railway corridor are proposed to take place during the day and would include bridge construction, the depot and substations. Regarding mitigation at the operational phase, measures include the provision of noise barriers, application of Iarnród Éireann's documented operational noise management procedures, procedure for the design of PA systems, and noise controls for substations and fixed plant.

Overall, it is again acknowledged that the proposed development would occur mainly within an established railway corridor. Thus, there is an established pattern of rail movements and its associated noise and vibration from the railway use and its maintenance. The construction works have the capacity to cause significant noise and vibration impacts, particularly at night-time. Night-time works are unavoidable when seeking to maintain a functioning live rail network. Generally, such impacts would be short-term and the range of mitigation measures to be applied would reduce the significance of the impacts. The operational phase of the proposed development would increase the frequency of train services, thus increasing the extent of noise and vibration, particularly for those properties in close proximity to the rail line. Again, the proposed mitigation measures to be applied, notably in the form of barriers, would reduce the significance of impacts. One must, therefore, accept that the construction and operational phases of the proposed development are likely to have potentially significant impacts on its nearest neighbours and that impacts cannot and will not be entirely eliminated. However, to provide a project of this nature, seeking to

enhance and expand sustainable public transport to the scale proposed, it is anticipated that such impacts are likely to occur and it is accepted that suitable measures to avoid and abate impacts are being proposed in this instance.

Finally, the Board will note my considerations in my Planning Assessment on the development of the depot site and its likely significant effects on neighbouring residential and farm properties.

10.9. **Climate**

10.9.1 The proposed development would include the electrification of the route affected, a significant increase in train services, and the redistribution of road traffic arising from level crossing closures. Ultimately, it would facilitate a modal shift from private road transport to electrified public transport, increasing the share of transport demand.

10.9.2 The applicant submits that the proposed development would result in a decrease in overall CO₂ emissions. The applicant's calculations assume 80% use of renewables would be met.

10.9.3 Flooding of the transport infrastructure is a potential impact of climate change. This issue has been addressed in my Planning Assessment, notably in the area west of Maynooth.

10.9.4 The applicant has estimated that, as a result of the proposed development, there is an 80% reduction on CO₂ emissions on a per carriage km for the direct operational phase rail impacts, based on 80% renewables for power.

10.9.5 Setting aside the area west of Maynooth and the serious implications arising from flooding on proposed infrastructure and projected increases in flooding occurring,

it is accepted that the development of the electrification of the railway line would bring with it significant long term positive impacts for climate.

10.10. **Material Assets**

10.10.1 I note that the effects on material assets are considered in the EIAR in four chapters relating to agricultural properties (Chapter 16), non-agricultural properties (Chapter 17), utilities (Chapter 18), and resources and waste management (Chapter 19). My considerations are as follows:

10.10.2 Agricultural Properties

I note the following:

- Impacts considered related to land take, land severance, impacts on buildings and facilities, and effects on drainage and services.
- Section 16.4.3 identifies the location and types of farms directly impacted by the proposed development within each of the zones. A total of 18 farms would be affected, 10 of which are given a 'high' baseline rating and 8 given a 'medium' rating.
- Construction phase impacts include temporary land take, noise, dust, restricted access, disturbance to drainage and disturbance to services. Operational impacts would include a total permanent land take of 93.1 hectares from the 18 farms.
- I note that the significance of residual effects at Ashtown stables. Following the provision of stockproof fencing, is determined by the applicant to be 'not significant'. The impacts on two farms at Barberstown arising from severance are determined to be 'moderate', while 'significant'

impacts on farms in Zone F between Maynooth as far as the proposed depot are prevalent.

- There is one farm where the level of impact is determined by the applicant to be 'profound' in Zone F, where it is noted that the farm cannot continue in the absence of mitigation. Seven other farms have a level of impact which the applicant has determined to be 'significant'.
- Mitigation measures are set out in Section 16.6 of the EIAR. Noise and dust measures in relevant sections of the EIAR are alluded to. The provision of a farm underpass at Barberstown is noted.

It is apparent that the proposed development would involve substantial land take for a number of farm holdings, particularly at the depot location. It is also acknowledged that the proposed works at Ashtown stables would significantly interfere with equine operations at this location at the construction stage and to a limited degree by the land take in this confined suburban location. This is acknowledged in landowner and supporting submissions. My consideration on each of these are set out in my Planning Assessment. Noise, dust and disturbance to farm animals are a given for the construction of a development of this nature and scale, particularly at the depot location and in Ashtown. Noise disturbance and lighting impacts from the depot on farm animals at the operational phase must also be acknowledged. The land take is very substantial at the depot location and implications on farming operations would be significant. The expressions of concern by farmers in this location through submissions to the Board are acknowledged.

10.10.3 Non-Agricultural Properties

I note the following:

- The EIAR examined residential (38), commercial (20) and community property (15), as well as development lands (14) and other non-agricultural lands (24), totalling 111 non-agricultural properties directly impacted by the proposed development.
- The EIAR identifies the properties, indicates the existing use, and references land use zoning provisions where applicable. 91 of the properties were deemed to have a 'High' baseline rating.
- Construction phase impacts include temporary land take, access, noise and vibration, dust, disturbance to drainage and disturbance to services. Operational impacts would include a total permanent land take of 10 hectares.
- Mitigation measures are set out in Section 17.6 of the EIAR. Noise, vibration and dust measures in relevant sections of the EIAR are alluded to.
- The significance of residual effects at the proposed Spencer Dock Station and at commercial premises in Ashtown are deemed to be 'Profound'. There is deemed to be a residual 'Significant' level of effect on three properties (one commercial, one community and one development property) following mitigation.

The impacts on commercial premises at Ashtown are noted in particular. This arises from the re-routing of Ashtown Road. Intrusion at St. Mochta's FC and by bridge modification at Convey Station are also noted. I draw the Board's attention to my consideration on properties in my earlier assessment on individual landholdings.

10.10.4 Utilities

I note the following:

- The utilities considered included the gas network, watermains, sewers, electricity, and telecommunications.
- Utilities within working areas and in the immediate vicinity are identified and where protection or diversions are required they are noted.
- It is acknowledged that the impacts would be mainly at the construction phase.
- I note that consultations have been undertaken with all known service providers and the EIAR states that their requirements have been identified and incorporated into the design, with the intent being to limit the disruption caused by the works.
- The mitigation measures set out in Section 18.8 indicate how utility interruptions are to be handled.

It is anticipated that all utilities likely to be impacted by the proposed development would be reinstated to meet with utility provider requirements.

10.10.5 Resources and Waste Management

I note the following:

- The impacts on resource use and waste would occur during the construction phase.
- The majority of the spoil arising from construction and demolition works would consist of soil and stone. Ballast would also result from track lowering.
- The EIAR identifies the licensed soil recovery facilities, waste transfer stations, waste permit holders, and licensed landfills in the counties surrounding the proposed development, indicating sufficient available

capacity in the region to handle the waste generated by the proposed development. Reference is made to hazardous waste handling and treatment of contaminated soil and asbestos.

- Table 19-10 sets out the estimated quantity of materials to be used at the construction phase. Table 19-11 refers to the estimated quantity of demolition waste. Table 19-12 refers to the estimated excavated material quantities for disposal (415,150 tonnes in total). The exact quantities of hazardous waste are not yet determined. It is assumed it would be equal to 15% of the arisings from Zones A and B, equal to 22,778 tonnes, along with 30,789 tonnes of ballast that would be potentially contaminated.
- I note Table 19-14 sets out the depot's operational waste streams and disposal quantities.
- Mitigation measures are set out in Section 19.6 and it is anticipated that residual effects would not be significant.

Note: The attention of the Board is drawn to the revisions which increase estimated excavated material quantities for disposal and predicted waste quantities which were provided as part of errata at the Oral Hearing.

10.11 **Cultural Heritage**

10.11.1 I note that cultural heritage is considered in the EIAR in two chapters relating to archaeology and cultural heritage and architectural heritage.

10.11.2 **Archaeology and Cultural Heritage**

I note the following:

- The proposed development would mainly be along an existing operational railway corridor. The principal components with the potential for cultural heritage impacts (notably archaeology) are Spencer Dock Station, the depot, new roads and tunnels, track lowering, modifications to stations, works at level crossings, new substations and other support infrastructure, and utility diversions.
- It is noted that one holding forming a large area at the proposed depot site could not be accessed for geophysical survey.
- Known archaeological heritage sites and potential sites are identified on and in close proximity to the route corridor on a county basis.
- Where there is potential for any significant archaeological impact by the proposed development, I note that the applicant proposes archaeological monitoring during construction, followed by mitigation such as preservation in situ or full archaeological preservation by record if archaeological remains are confirmed by test excavations. Geophysical surveying would be carried out in lands that were not previously accessible.

The Board will note my concerns about archaeological impact at the depot site as set out in my Planning Assessment. With the exception of this location, it is not anticipated that the proposed development would have any significant archaeological impact.

10.11.3 Architectural Heritage

I note the following:

- The proposed development would mainly be along an existing operational railway corridor. The principal components of the proposed development leading to architectural heritage impacts are those potentially affecting Connolly Station vaults, railway bridges of historical and architectural merit, the demesne of Ashton House, Ashtown Old Mill, and Clonsilla School.
- Tables 21-2, 21-4, 21-6, and 21-8 of the EIAR identify the structures of architectural heritage significance within 50m of the proposed development.
- Direct impacts by works would include those proposed for Connolly Station, the attachment of structures and cables to facilitate OHLE, modifications to bridges along the route, and demolition and replacement works at the entrance to Ashton House.
- Indirect impacts on the setting of structures of architectural heritage value (including Clonsilla School and canal bridges) would result from the siting of new bridges and other infrastructure in close proximity to such structures.
- It is noted that the route would be diverted south of Jackson's Bridge (a protected structure) to the west of Maynooth.
- Table 21-13 of the EIAR outlines the potential direct construction impacts. The potential significance of effects determined by the applicant to be 'Profound' would relate to bridge works at Broombridge, Granard Bridge, the railway bridge at Castleknock Road, Cope Bridge and Louisa Bridge, and works at Ashton demesne. Potential 'Significant' effects on other bridges are also noted.

- Table 21-14 of the EIAR outlines the potential indirect construction impacts. These include potential impacts on a water tower close to Spencer Dock Station, works in the vicinity of the disused oil mill in Ashtown, and provision of pedestrian and cycle bridges at locations for level crossing closure close to existing structures of architectural heritage value.
- Table 21-15 of the EIAR outlines potential operational impacts and notes the positive impacts arising from the new use for the vaults at Connolly Station and the street upgrade at Preston Street, as well as impacts on the appearance and setting of several railway bridges.
- Section 21.6 sets out the proposed mitigation measures and it is acknowledged that there would be no opportunity for mitigation in most cases due to the nature of the proposed development. I acknowledge that the proposed lowering of sections of track minimise the potential impacts on bridge structures in several instances. Monitoring of structural impacts by the works to ensure no damage arises to affected structures is also proposed.
- Table 21-16 of the EIAR outlines the proposed mitigation for direct impacts during construction and indicates the potential residual effects. Many residual effects for structures referenced earlier remain significant as the opportunity for meaningful mitigation is limited.

I consider that the main potential adverse effects on architectural heritage from the proposed development relate to the effects on existing bridges of historical and architectural merit, the effects on Ashton House entrance, and the impacts on structures of heritage value in the vicinity of level crossing closures by the proposed works. These impacts are addressed in my assessments earlier, with

significant adverse impacts on bridges of architectural heritage value particularly noted.

10.12 **Landscape**

10.12.1 This section of the EIAR (Chapter 15) addresses the assessment methodology and planning policy and describes the landscape/townscape and visual context of the six zones forming the overall rail corridor. Potential construction and operation impacts are identified. Mitigation measures are set out and residual and cumulative impacts are addressed.

10.12.2 It is acknowledged from the outset that the route of the proposed development is primarily an established rail corridor with associated infrastructure and this is critical to recognise in any landscape and visual impact assessment. The railway line and established structures such as stations are noted, as is established supporting infrastructure such as bridges and other crossings, substations, etc. The imposition of significant new infrastructure and material changes to historic structures and the visual effects and the effects on landscape character are the key features subject to consideration in this assessment.

10.12.3 I note the following:

- There are no protected views or prospects in the Dublin City Development Plan relating to the rail corridor from Dublin City Centre to Ashtown. The Plan makes provisions for green infrastructure (including the Royal Canal), for amenities and open spaces, and for architectural heritage. Connolly Station and a number of the bridges are protected structures. The Royal Canal is designated a Conservation Area.
- There are no protected views or prospects in the Fingal Development Plan relating to the rail corridor within Fingal County Council's administrative

area (part of Zone C west of Ashtown, part of Zone D to the Meath county boundary, and part of Zone E to the Kildare county boundary). The Plan makes provisions for green infrastructure, natural and built heritage. The canal, locks and lock keeper's cottage are listed as protected structures. Sections of the Tolka River Valley and Royal Canal are designated high amenity areas.

- The rail corridor within Kildare County Council's administrative area relates to part of Zone E west from Dublin county boundary to east of Kilcock and Zone F. The applicant's EIAR notes that Map 14.3 of the Kildare County Development Plan 2017-2023 identifies a number of protected views to and from the Royal Canal and Table 14.10 sets out the protected views to and from all bridges on the canal. The Plan makes provisions for the protection and development of the Royal Canal, architectural and natural heritage, and green infrastructure. The Royal Canal is designated a high amenity area. The Board will note that the Plan has been superseded by the 2023-2029 Plan. Chapter 13 of the new plan addresses landscape, recreation and amenity. Table 13 schedules protected views and includes an extensive list of views to and from bridges on the Royal Canal similar to the 2017-2023 Plan.
- The rail corridor within Meath County Council's administrative area relates to part of Zone D west from Dublin county boundary to M3 Parkway. There are no protected views or prospects in the Meath County Development Plan relating to the rail corridor. The Plan makes provisions for built and natural heritage and green infrastructure. The proposed development would pass through the South East Lowlands landscape character area, which is viewed as very high landscape value.

- The construction of the proposed development would result in land acquisition, removal of trees and vegetation, impacts on open spaces and green areas, intrusion on the Royal Canal corridor, and introduction of OHLE, bridges, substations and other infrastructure throughout the scheme. The new Spencer Dock Station would introduce a distinctive new feature to the streetscape and there would be substantial bridge alterations throughout the corridor. New bridges would be introduced where level crossing closures are proposed. Noise barriers would be provided. The proposed depot would comprise a large grouping of structures and infrastructure in an open rural landscape and its construction would include the loss of established hedgerow and substantial numbers of mature trees. Most of the works would occur in the immediate vicinity of the Royal Canal - a proposed Natural Heritage Area, a greenway, and designated area of significant amenity value.
- The operational impacts would include those relating to the ongoing effects of new structures, including noise barriers, and from lighting, as well as loss of trees and hedgerows and open spaces.
- I acknowledge the proposed mitigation measures at the construction and operational phases set out in Section 15.6 of the EIAR. Much of this is focused on the provision of trees and hedgerow replacement. I submit that it would be particularly difficult to ameliorate, remediate or reduce the significant visual and landscape effects of the depot and the proposed pedestrian and cycle bridges over the Royal Canal. The alterations to historic bridges would also have very significant visual impacts on the structures affected in a manner which one could not reasonably determine to be positive or neutral. The night-time impacts from extensive lighting in rural areas would have notable visual impacts. Sensitive receptors would

essentially be required to adapt to the likely negative impacts arising from the range of infrastructural changes.

- Regarding the significance of changes after the application of mitigation measures, I consider that it is not reasonable in the more sensitive locations (the depot and where new bridges are proposed) to determine impacts as being slight or moderate, i.e. small in degree or average in effect, when one has regard to the established Royal Canal landscape and visual context. The impacts would clearly be more significant than those offered by the applicant. With these exceptions, it is acknowledged that if one is to seek to provide an improved rail service of the type proposed in the DART+ West project then substantial landscape and visual change is inevitable due to the new infrastructure that is required to be introduced to support the necessary changes.
- I note the photomontages submitted as Volume 3B of the EIAR which show effects of the proposed changes arising from the proposed development. These are representative of the proposal some 10 to 15 years after the completion of the scheme and with mitigation in place. I consider it reasonable to determine that the consideration of the visual impacts is accurately reflected in my assessment above and highlights the incongruity of the bridge structures and the depot.

10.12.4 It is reasonable to acknowledge that the impact of the proposed development in the built-up, urban sections of the route would be suitably subsumed within a short period in landscape and visual terms and would be easily understood in a short time as additional components of the urban transportation fabric. The key landscape and visual impacts arising from the proposed development relate to the provision of the proposed pedestrian and cycle bridges where level crossings

are to be closed, the adjustments to existing bridge structures of heritage value, the development of the depot in open countryside, and the overall effects on the Royal Canal by the works and infrastructural changes. The landscape and visual impacts due to the provision of substations and compounds are noted as are impacts on the setting of protected structures away from the rail line.

10.12.5 I submit that the new pedestrian and cycle bridges and changes to bridges of historical value are significant changes. The design changes to new bridges presented to the Oral hearing are noted and accepted as significant improvements over the original proposals. The depot is a very substantial intrusion on the landscape character and visual presentation of the area between Maynooth and Kilcock, introducing extensive industrial-type infrastructure. My considerations on the impact on the Royal Canal and the development of the depot are set out in my Planning Assessment, as are the impacts on bridges of historic value and new bridge proposals, and the effects on amenity lands.

10.12.6 I submit that where OHLE is provided in built-up urban areas on the boundaries with residential properties, notably in the North Strand area, the impact would be visually intrusive and would not be mitigated in any meaningful manner. Furthermore, it is apparent that views along the Royal Canal will be distorted by the introduction of new infrastructure, including OHLE throughout the corridor. Lighting along the canal in rural areas and at the depot would have significant visual effects.

10.13. **Traffic and Transportation**

10.13.1 I note Chapter 6 of the applicant's EIAR addressed the issue of traffic and transportation. This issue, in the context of rail development, applies to 'Population' with regard to movement patterns, transportation costs, travel times, and severance, to 'Human Health' in relation to public safety, and to 'Material

Assets' in relation to adjustments to existing transportation infrastructure. Some of these issues are being addressed in other sections of my environmental impact assessment as well as in my Planning Assessment.

10.13.2 The applicant's considerations on traffic and transportation focused primarily on traffic movement on the existing road network, on severance and road accidents and considered the potential impact of the project on the network at the construction and operation phases. Direct and indirect impacts on the road network were considered. Vehicular, pedestrian and cyclist traffic were also considered in the applicant's assessment. Other schemes considered into the future included BusConnects and MetroLink. Traffic survey information from 2019 and the National Transport Authority's Eastern Regional Model were used to support the Local Area Models that were developed specifically for the proposed development. Acknowledgement of the impact from Covid 19 is given and the 2019 traffic surveys have been determined to be justified as 2021 permanent traffic counters indicate a return to 2019 levels. Potential effects during the construction period (47 months) are typically considered to be temporary and/or short-term and potential effects during the operation phase are typically considered to be either medium-term or long-term. It is noted that works at Spencer Dock and at the depot would each take approximately three and a half years.

10.13.3 At the construction stage, it is understood that with a project of this nature there would be temporary road and bridge closures and associated alternative access arrangements provided. The impacts of the closure of Sherriff Street Bridge, the closure of level crossings, the construction of the Ashtown tunnel, and the construction of the depot would have notable impacts on the local traffic networks. I acknowledge the proposed Construction Traffic Management Plan and Mobility Management Plan.

- 10.13.4 At the operation stage, there is a presumption that there would be a greater shift towards public transport usage as improved services are rolled out. The applicant submits that, from the Ashtown Local Area Model, the proposed development (including the removal of the level crossings) is positive in terms of queuing, travel time and average speed. It is submitted that, from the Blanchardstown Local Area Model, the proposed development (including the removal of level crossings) is positive in terms of travel time, travel distance, and average speed. The EIAR acknowledges that the impact of the proposed development on routing of vehicular trips would occur at and in the vicinity of the areas where bridge and road interventions are taking place and where level crossing changes are being made. The new depot is estimated to generate 81 two-way staff trips in the AM peak of 0700-1000 and 72 two-way staff trips in the PM peak of 1600-1900 on an average working weekday.
- 10.13.5 Section 6.6 of the EIAR refers to the proposed mitigation measures at the construction and operation phases. Junction upgrades as part of the Coolmine and Clonsilla level crossing closures arising from re-routing of vehicular traffic are particularly noted. The applicant's EIAR concludes that there are no significant impacts at the construction and operation phases after mitigation measures are provided.
- 10.13.6 It is noted in Zone A between Connolly and Drumcondra Stations that the rail line is elevated above street level and crossings with local streets are provided in the form of rail bridges. In Zone B, the rail line travels between residential areas but it is in cutting under the roads, with five bridges across the line in this zone. The four level crossings proposed for closure at Ashtown, Coolmine, Porterstown and Clonsilla are in Zone C. In Zone D, where the rail line crosses the public road network there are bridges provided. A park & ride facility is provided at the M3 Parkway station. Two level crossings at Barberstown and Blakestown are located

in Zone E. The road network to the west of Maynooth and within Zone F is primarily rural in nature.

10.13.7 I acknowledge that level crossing closures at Coolmine, Porterstown and Clonsilla would likely provide positive changes in terms of reduced volumes of vehicular traffic at those locations. However, as a consequence, it is also acknowledged that the re-routing of traffic to other locations would intensify traffic volumes at the alternative rail crossing points and on junctions and the general local road network in the vicinity. Clearly, route diversions have consequences in terms of increased journey times for road users. Particular traffic impacts arise at Diswellstown Road and at Castleknock, with negative impacts on queuing, journey times and speeds. The provision of an underpass at Ashtown would eliminate the queuing one would experience at that existing level crossing, thus likely improving traffic flow at this location.

10.13.8 It is acknowledged that the construction period for this project is lengthy. The works would be staggered, with intensive activities spread over the route length and not coinciding throughout this works period.

I draw the attention of the Board to my considerations on traffic in my Planning Assessment.

10.14. **Major Accidents and Disasters**

10.14.1 The applicant's assessment focused on hazard types that are of low likelihood but potentially high consequence events and those that are of high likelihood and high consequence events. The proposed development and any haul routes to and from it during construction were considered. Consideration was also given to Seveso sites (i.e. Intel at Leixlip).

10.14.2 The applicant undertook screening, scoping and assessment. Having screened in the project due to conceivable outcomes, the scoping stage was undertaken to identify events that could occur, and to which the proposed development is particularly vulnerable, or which the proposed development has a particular capacity to exacerbate. Table 24-5 of the EIAR provides the screening exercise undertaken for the list of events considered. The events at the construction phase ranged from transport, construction and industrial accidents to hydrological disasters. The events at the operation phase included transport accidents and disasters, geological and hydrological disasters, extreme weather events, space disasters, industrial accidents, crime/civil unrest, and disease. The scoping exercise had regard to events that were already covered elsewhere in the EIAR.

10.14.3 Those events identified in the scoping exercise for further assessment were further considered and are presented in Table 24-6 of the EIAR. Mitigation by design is indicated and a risk evaluation is presented, which indicates the level of significance. The requirement for secondary mitigation, where necessary, is highlighted in order to achieve an outcome of as low as reasonably practical (ALARP). Table 24-7 identifies the outcome for major accidents and disasters with secondary mitigation measures in place. The residual effect in each instance for those potential events carried through for secondary mitigation is determined to be 'Low'. A wide range of mitigation measures is proposed. The range of plans includes a Construction Traffic Management Plan, a Mobility Management Plan, a Construction Environmental Management Plan, an Environmental Operating Plan, an Incident Response Plan, a Fire Strategy, and a dedicated Major Incident Response Plan.

10.14.4 It is noted that the route of the railway line passes Intel at Leixlip, which is a Seveso site. The likely potential effects on this site have been adequately assessed in the application. It is noted that there is established railway

infrastructure at this location. There are no known significant effects likely to arise for this Seveso site from the proposed development.

10.14.5 It is considered that significant environmental impacts arising from major accidents and disasters is not likely.

10.15. **Cumulative Impacts**

10.15.1 I note that the chapters on the various environmental factors assessed by the applicant in its EIAR also addressed cumulative impacts. Chapter 26 provides a comprehensive overview of cumulative effects. A four-tiered approach was employed to identify and assess potential cumulative effects. Tier 1 considered cumulative effects assessed under each environmental factor. Tier 2 considered development that is functionally or legally interdependent on further development which is not included in the application for consent approval (i.e. utility provisions). Tier 3 considered existing or approved projects and plans. Tier 4 considered 'Other' identified National Transport Authority projects in the public domain or at preliminary design stage. The latter included other DART+ projects, MetroLink, BusConnects projects, Luas Finglas and the Royal Canal Greenway projects.

10.15.2 The Tier 1 cumulative assessments are provided in each of the environmental chapters of the EIAR.

10.15.3 Table 26-3 of the EIAR gives an overview of the Tier 2 cumulative effects, referring to ESB connections, substation works, and Irish Water provisions. Relevant cumulative effects for environmental factors are addressed, with mitigation and monitoring measures indicated and residual effects identified. Having regard to the nature and extent of these supporting projects, the likely

cumulative effects arising, and to the mitigation measures proposed (including the Construction Environmental Management Plan and Construction Traffic Management Plan), I do not consider that there would be residual cumulative effects which would be significant. It is accepted that if construction works for these other supporting projects coincide with the proposed development there would be increased traffic effects and nuisance arising for local communities affected. These construction impacts would be short-term, with appropriate management provisions being made through the relevant construction plans seeking to minimise disturbance effects.

10.15.4 Table 26-4 of the EIAR gives an overview of the plans and programmes considered under Tier 3, with Table 26-5 providing the cumulative assessment of these plans and programmes. It is noted that the proposed development supports, and is supported by, many of the public plans and programmes.

10.15.5 Tables 26-6, 26-7, 26-8 and 26-9 consists of the cumulative assessment of Tier 3 permitted projects within each of the four local authority administrative areas. The projects assessed were wide ranging, from cycle and pedestrian infrastructure to commercial and residential development to data storage and manufacturing. Having regard to the nature and extent of the projects, the likely cumulative effects arising, and to the mitigation measures proposed (including the Construction Environmental Management Plan and Construction Traffic Management Plan), I do not consider that there would be residual cumulative effects which would be significant.

Table 26-10 provides a cumulative assessment of the proposed development with other DART+ projects. Table 26-11 provides a cumulative assessment of the proposed development with future National Transport Authority and Transport Infrastructure Ireland projects (BusConnects projects, MetroLink, and Luas

Finglas). It also considers Royal Canal Greenway projects, the Kellystown Road Project, and Dunboyne Distributor Road. I note that the applications for several BusConnects projects and MetroLink are with the Board at present. The potential traffic effects arising from projects such as these being developed concurrently are acknowledged, albeit that physical overlap between projects would be sporadic. There would also be intensified construction-related effects by way of noise, vibration, air quality, etc. where projects overlap or are in the immediate vicinity of one another. Construction-related mitigation measures proposed should result in traffic impacts being reduced and other nuisances being lessened, albeit the cumulative effects would be negative and could potentially be over relatively lengthy construction periods.

In reality, it must be acknowledged that the development of critical public transportation infrastructure will result in adverse transportation and other disturbance/nuisance impacts by way of increased journey times, congestion, noise, dust, etc. during construction periods. The operational phases of such projects are likely to derive many positive effects for the wider community and travelling public.

10.16. Interaction of Impacts

Chapter 25 of the EIAR examined the interactions of the potential environmental impacts arising. A matrix is presented to identify potential interactions (Table 25-1).

I have considered the interrelationships between factors and whether these might affect the environment. Invariably, environmental impacts would be inter-related in some manner. I note that I have determined that there would be significant adverse environmental impacts arising from a number of components of this project, mainly the depot, its associated infrastructure west of Maynooth, and the

effects on existing bridges of historical and architectural merit. The interaction of environmental effects for the former relates to water, landscape, biodiversity, population and human health, land, soil, material assets, and cultural heritage. The interaction of environmental effects for the latter relates to cultural heritage and landscape in particular. I consider that there would be no significant impacts anticipated with the interaction of impacts for the other components of the overall development.

10.17. **Reasoned Conclusion**

10.15.6 Having regard to my planning and property assessments, the examination of environmental information contained above, and in particular to the EIAR and supplementary information provided by the applicant at the Oral Hearing, and the submissions from the planning authorities, prescribed bodies and third parties in the course of the application, it is considered that the main significant direct and indirect effects of the proposed development on the environment are as follows:

Population and Human Health:

- *Positive effects of electrification and enhanced rail services*

The electrification of the railway line and the increased services for this public transport service would aid in the delivery of climate change goals and is widely supported by public policy and statutory development plans. The proposed development and the positive effect it will have on efficiency, public transport reliability and safety would also be consistent with established transport policies and would be to the benefit of the population in the Greater Dublin Area which the proposed development would serve.

- *Enhanced rail services to the proposed Spencer Dock Station*

The proposed station constitutes significant additional railway infrastructure which greatly enhances rail services for the city and would make a significant positive contribution to the delivery of enhanced public transport services for the Greater Dublin Area. Services to and from the station would introduce increased rail traffic along a section of railway utilised by freight traffic at present and would impact on the amenity of those living adjacent to the railway line.

- *Impacts on local communities from level crossing closures*

The proposed level crossing closures would introduce severance for local communities. They would necessitate road improvement works elsewhere to accommodate the disruption to vehicular traffic movement. The proposed bridge structures at Ashtown, Coolmine, Porterstown and Clonsilla would constitute significant new infrastructure following level crossing closures. They would have distinct visual and biodiversity impacts. The crossing closures are a necessary component to deliver on the project's objectives.

- *Environmental effects of the provision of an underpass at Ashtown*

The proposed underpass seeks to address the restrictions to movement resulting from the closure of the level crossing at Ashtown. The option selection has significant and profound effects on properties affected by its alignment. The construction of this component of the development would have significant short-term, temporary effects for the local community, many businesses and the natural environment.

- *Construction Impacts*

Potential significant construction phase noise, vibration, traffic, and other construction-related effects on human health would be mitigated through

compliance with a Construction Environmental Management Plan, Construction Traffic Management Plan and best practice construction methods.

Water:

- *Flooding impacts arising from the development of the depot and its associated infrastructure west of Maynooth on a floodplain.*

The proposed depot development of large structures placed on a large, filled platform (estimated to require some 280,000 m³ of material) on a floodplain would not constitute proper planning and sustainable development. The necessity to deliver extensive areas of compensatory storage area at the depot and in the vicinity of Jackson's Bridge to seek to accommodate displaced floodwaters would be a significant environmental concern. This would expand the floodplain area and increase the regularity of flooding in the area. There are serious concerns about the displacement of floodwaters beyond the boundaries of the Railway Order application, the constraints on flows to watercourses to allow the escape of floodwaters, and the effects on properties, road infrastructure, and lands in the area in which the depot and its supporting infrastructure would be placed. The proposed infrastructure west of Maynooth would run contrary to *The Planning System and Flood Risk Management Guidelines for Planning Authorities*. Furthermore, there would be significant potential for the flooding impacts conflicting with planned transport infrastructure including Maynooth West station and the Maynooth Outer Orbital Route.

Cultural Heritage

- *Impacts on the architectural heritage of important bridge structures.*

Broome Bridge, Castleknock Bridge and Cope Bridge are acknowledged as being of architectural, historical, and social significance. The proposed removal of the sections of these bridges over the railway line would result in an irreversible loss of historic fabric, permanently altering the structures and their surrounding settings. The failure to opt for vertical track lowering, combined with reduced height OHLE, which are accepted by the applicant as being technically feasible, is unwarranted in each instance. The resulting loss of significant historic railway infrastructure would be unnecessary. The bridges would be completely physically and visually distorted by the changes proposed. The proposed development is required to be revised to ensure the conservation and protection of Broome Bridge, Castleknock Bridge and Cope Bridge.

- *Impact on Archaeology*

The development of the depot site would result in direct impact on Recorded Monuments and would constitute a significant adverse environmental impact.

Biodiversity

- *Impact on the Royal Canal pNHA*

Potential significant effects would arise during the construction phase on the Royal Canal pNHA by temporary dewatering, surface water pollution, and the spread of invasive species. These potential effects would be mitigated through standard good practice construction measures, timing of vegetation removal, water pollution prevention measures, replacement

habitat planting, and the implementation of a Construction Environmental Management Plan overseen by an Ecological Clerk of Works.

The submitted EIAR has been considered with regard to the guidance provided in the EPA documents 'Guidelines for Planning Authorities and An Bord Pleanála on Carrying out Environmental Impact Assessment' (2018), 'Guidelines on the Information to be Contained in Environmental Impact Assessment Reports' (draft August 2017), and 'Advice Notes for Preparing Environmental Impact Statements' (draft September 2015). It is noted that Article 3(2) of Directive 2014/52/EU requires that:

'The effects referred to in paragraph 1 on the factors set out therein shall include the expected effects deriving from the vulnerability of the project to risks of major accidents and / or disasters that are relevant to the project concerned'.

The submitted EIAR included considerations on the issue of major accidents or natural disasters. The nature of the development proposed does not in itself give rise to significant risks in relation to major accidents. I acknowledge that the route corridor overlaps with a major public transport terminus, namely Connolly Station, and it traverses extensive urban areas. The route passes Intel at Leixlip which is a Seveso site. This is at a location where there is established railway infrastructure and where no known significant effects would arise from the project. I am satisfied that the document presented to the Board adequately addresses the issue of major accidents and natural disasters.

In conclusion, the likely significant environmental impacts arising as a consequence of the proposed development have been satisfactorily identified, described and assessed. I am satisfied that the electrification of the railway line

and the delivery of increased rail services would not have any unacceptable direct or indirect impacts on the environment. I note that there are components of the proposed development that would require re-evaluation. These would relate in particular to the omission of the proposed depot and associated infrastructure west of Maynooth and the need to seek an alternative location for the depot, as well as the need for an alternative approach to the provision of the services affecting Broome Bridge, Castleknock Bridge, and Cope Bridge.

11.0 Appropriate Assessment

11.1. Screening for Appropriate Assessment

11.1.1 *Background*

I note that the applicant submitted an Appropriate Assessment Screening Report with the application to the Board. This Stage 1 AA Screening Report was prepared in line with current best practice guidance. It provides a description of the proposed development, identifies European sites within a possible zone of influence of the development, identifies the possibility of significant effects, addresses the likely cumulative impact, and assesses the significance of potential impacts. The conclusion of the applicant's AA Screening Report is as follows:

“This report has concluded, on the basis of objective information, that the proposed development, either individually or in combination with other plans and projects, is likely to give rise to impacts which would constitute significant effects on three European sites, namely the Rye Water Valley/Carton SAC, the South Dublin Bay and River Tolka Estuary SPA and the North Bull Island SPA, in view of their Conservation Objectives ... A Natura Impact Statement (NIS) should be

prepared to provide the Board with the scientific information upon which it will base its findings and conclusions ...”

Having reviewed the screening document and additional submissions to the Board, including the Errata submitted on the first day of the Oral Hearing which updates the details relating to the site-specific Conservation Objectives for the Rye Water/Carlton SAC, the Errata submitted on the fourth day of the Oral Hearing relating to potential air quality effects on European sites, and the “Update to the Natura Impact Statement” submitted on day seven of the Oral Hearing which screened in the North-West Irish Sea SPA, I am satisfied that the information allows for an examination and identification of potential significant effects of the development, alone or in combination with other plans and projects, on European sites.

11.1.2 Description of Development

The applicant provides a description of the project and the characteristics of the project in Section 2 of the AA Screening Report. In summary, the key infrastructural elements comprise:

- Electrification and re-signalling of the Maynooth and M3 Parkway ;lines,
- Capacity enhancements at Connolly Station,
- Provision of a new Spencer Dock Station,
- Closure of six level crossings and provision of replacement bridges and traffic management enhancements,
- Construction of a new DART depot,

- Bridge modifications and track lowering interventions at existing rail overbridges and along the alignment where there are insufficient clearances for the overhead electrification equipment,
- Substations, electrical buildings and other civil and ancillary works, and
- Main Storage and Distribution Centre.

11.1.3 *European Sites*

I note that the applicant identified and examined four Special Areas of Conservation and three Special Protection Areas in its original screening. It was determined that the South Dublin Bay SAC is not considered to be connected to the proposed development as the Great South Wall forms an effective barrier against any potential effects on the integrity of this site. This is accepted and further assessment of this European site is not required.

The European sites determined at the initial screening to be connected to the proposed development are:

Rye Water Valley/Cartron SAC (Site Code: 001398) – The existing railway line runs through the site for a distance of 400m at the Rye Water crossing east of Leixlip and in the vicinity west of Louisa Bridge and near Carton Estate.

South Dublin Bay and River Tolka Estuary SPA (Site Code: 004024) – The effective hydrological distance to the site via existing surface water drainage through the River Tolka is 1.1km.

North Bull Island SPA (Site Code: 004006) – The effective hydrological distance to the site via existing surface water drainage through the River Tolka and River Tolka Estuary is 4.3km.

North Dublin Bay SAC (Site Code: 000206) – The effective hydrological distance to the site via existing surface water drainage through the River Tolka and the River Tolka Estuary is 4.3km.

Malahide Estuary SAC (Site Code: 000205) – The effective hydrological distance to the site via the Rowelstown Stream and Broadmeadow River is 10.5km.

Malahide Estuary SPA (Site Code: 004025) - The effective hydrological distance to the site via the Rowelstown Stream and Broadmeadow River is 10.5km.

I note that the applicant identified and examined the North-West Irish Sea SPA in its “Update to the Natura Impact Statement”.

The qualifying features of conservation interest and conservation objectives for these sites are as follows:

Rye Water Valley/Cartron SAC (Site Code: 001398)

Qualifying Features

Petrifying springs with tufa formation (Cratoneurion)

Vertigo angustior (Narrow-mouthed Whorl Snail)

Vertigo moulinsiana (Desmoulin's Whorl Snail)

Conservation Objectives

To restore the favourable conservation condition of Petrifying springs with tufa formation (Cratoneurion).

To restore the favourable conservation condition of Narrow-mouthed Whorl Snail (Vertigo angustior)

To maintain the favourable conservation condition of *Vertigo moulinsiana* (Desmoulin's Whorl Snail).

South Dublin Bay and River Tolka Estuary SPA (Site Code: 004024)

Qualifying Features

Light-bellied Brent Goose (*Branta bernicla hrota*)

Oystercatcher (*Haematopus ostralegus*)

Ringed Plover (*Charadrius hiaticula*)

Grey Plover (*Pluvialis squatarola*)

Knot (*Calidris canutus*)

Sanderling (*Calidris alba*)

Dunlin (*Calidris alpina*)

Bar-tailed Godwit (*Limosa lapponica*)

Redshank (*Tringa totanus*)

Black-headed Gull (*Chroicocephalus ridibundus*)

Roseate Tern (*Sterna dougallii*)

Common Tern (*Sterna hirundo*)

Arctic Tern (*Sterna paradisaea*)

Wetland and Waterbirds

Conservation Objectives

It is noted that Grey Plover is proposed for removal from the list of Special Conservation Interests for this SPA and, as a result, a site-specific conservation objective has not been set for this species. The Conservation Objectives for the other Qualifying Features are:

To maintain the favourable conservation condition of each of the Species of Conservation Interest and wetland habitat in the SPA as a resource for the regularly occurring migratory waterbirds that utilise it.

North Bull Island SPA (Site Code: 004006)

Qualifying Features

Light-bellied Brent Goose (*Branta bernicla hrota*)

Shelduck (*Tadorna tadorna*)

Teal (*Anas crecca*)

Pintail (*Anas acuta*)

Shoveler (*Anas clypeata*)

Oystercatcher (*Haematopus ostralegus*)

Golden Plover (*Pluvialis apricaria*)

Grey Plover (*Pluvialis squatarola*)

Knot (*Calidris canutus*)

Sanderling (*Calidris alba*)

Dunlin (*Calidris alpina*)

Black-tailed Godwit (*Limosa limosa*)

Bar-tailed Godwit (*Limosa lapponica*)

Curlew (*Numenius arquata*)

Redshank (*Tringa totanus*)

Turnstone (*Arenaria interpres*)

Black-headed Gull (*Chroicocephalus ridibundus*)

Wetland and Waterbirds

Conservation Objectives

To maintain the favourable conservation condition of each of the Species of Conservation Interest and wetland habitat in the SPA as a resource for the regularly occurring migratory waterbirds that utilise it.

North Dublin Bay SAC (Site Code: 000206)

Qualifying Features

Mudflats and sandflats not covered by seawater at low tide

Annual vegetation of drift lines

Salicornia and other annuals colonising mud and sand

Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)

Mediterranean salt meadows (*Juncetalia maritimi*)

Embryonic shifting dunes

Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes)

Fixed coastal dunes with herbaceous vegetation (grey dunes)

Humid dune slacks

Petalophyllum ralfsii (Petalwort)

Conservation Objectives

To restore the favourable conservation condition of:

Annual vegetation of drift lines

Salicornia and other annuals colonising mud and sand

Embryonic shifting dunes

Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes)

Fixed coastal dunes with herbaceous vegetation (grey dunes)

Humid dune slacks

To maintain the favourable conservation condition of:

Mudflats and sandflats not covered by seawater at low tide

Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)

Mediterranean salt meadows (*Juncetalia maritimi*)

Petalophyllum ralfsii (Petalwort)

Malahide Estuary SAC (Site Code: 000205)

Qualifying Features

Mudflats and sandflats not covered by seawater at low tide

Salicornia and other annuals colonising mud and sand

Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)

Mediterranean salt meadows (*Juncetalia maritimi*)

Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes)

Fixed coastal dunes with herbaceous vegetation (grey dunes)

Conservation Objectives

To restore the favourable conservation condition of:

Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)

Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes)

Fixed coastal dunes with herbaceous vegetation (grey dunes)

To maintain the favourable conservation condition of:

Mudflats and sandflats not covered by seawater at low tide

Salicornia and other annuals colonising mud and sand

Mediterranean salt meadows (*Juncetalia maritimi*)

Malahide Estuary SPA (Site Code: 004025)

Qualifying Features

Great Crested Grebe (*Podiceps cristatus*)

Light-bellied Brent Goose (*Branta bernicla hrota*)

Shelduck (*Tadorna tadorna*)

Pintail (*Anas acuta*)

Goldeneye (*Bucephala clangula*)

Red-breasted Merganser (*Mergus serrator*)

Oystercatcher (*Haematopus ostralegus*)

Golden Plover (*Pluvialis apricaria*)

Grey Plover (*Pluvialis squatarola*)

Knot (*Calidris canutus*)

Dunlin (*Calidris alpina*)

Black-tailed Godwit (*Limosa limosa*)

Bar-tailed Godwit (*Limosa lapponica*)

Redshank (*Tringa totanus*)

Wetland and Waterbirds

Conservation Objectives

To maintain the favourable conservation condition of each of the Species of Conservation Interest and wetland habitat in the SPA as a resource for the regularly occurring migratory waterbirds that utilise it.

North-West Irish Sea SPA (Site Code: 004236)

Qualifying Features

Red-throated Diver (*Gavia stellata*)

Great Northern Diver (*Gavia immer*)

Fulmar (*Fulmarus glacialis*)

Manx Shearwater (*Puffinus puffinus*)

Cormorant (*Phalacrocorax carbo*)

Shag (*Phalacrocorax aristotelis*)

Common Scoter (*Melanitta nigra*)

Little Gull (*Larus minutus*)

Black-headed Gull (*Chroicocephalus ridibundus*)

Common Gull (*Larus canus*)

Lesser Black-backed Gull (*Larus fuscus*)

Herring Gull (*Larus argentatus*)

Great Black-backed Gull (*Larus marinus*)

Kittiwake (*Rissa tridactyla*)

Roseate Tern (*Sterna dougallii*)

Common Tern (*Sterna hirundo*)

Arctic Tern (*Sterna paradisaea*)

Little Tern (*Sterna albifrons*)

Guillemot (*Uria aalge*)

Razorbill (*Alca torda*)

Puffin (*Fratercula arctica*)

Conservation Objectives

To maintain the favourable conservation condition of red-throated diver, great northern diver, manx shearwater, common scoter, black-headed gull, common gull, lesser black-backed gull, great black-backed gull, roseate tern, common tern, Arctic tern, little tern, guillemot, razorbill, and little gull.

To restore the favourable conservation condition of fulmar, cormorant, shag, herring gull, kittiwake, and puffin.

11.1.4 Identification of Likely Effects

It is first acknowledged that the proposed development is not connected with or necessary for the conservation management of any Natura 2000 site.

The following is observed:

Rye Water Valley/Cartron SAC

- With regard to the qualifying interest 'Petrifying Springs', there is the potential for watercourse crossings, a stream diversion and provision of a

flood compensatory storage area 3.5km upstream to alter the hydrological regime within the SAC that could lead to significant effects on the SAC.

- With regard to the qualifying interest 'Narrow-mouthed Whorl Snail', there is the potential for watercourse crossings, a stream diversion and provision of a flood compensatory storage area 3.5km upstream to alter the hydrological regime within the SAC that could lead to a reduction in habitat quality, habitat extent, and optimal soil wetness, leading to a reduction in the distribution and occurrence of this qualifying interest. Significant effects on the SAC cannot be excluded.
- With regard to the qualifying interest 'Desmoulin's Whorl Snail', there is the potential for watercourse crossings, a stream diversion and provision of a flood compensatory storage area 3.5km upstream to alter the hydrological regime within the SAC that could lead to a reduction in habitat quality, habitat extent, and optimal soil wetness, leading to a reduction in the distribution and occurrence of this qualifying interest. Significant effects on the SAC cannot be excluded.

I acknowledge that the existing railway line crosses the SAC at Louisa Bridge and runs close to it in other short sections. The railway line is on built land. The provision of catenary poles is noted as part of the proposed development along these sections and it is accepted that there is no pathway for likely significant effects from these minor works proposed.

South Dublin Bay and River Tolka Estuary SPA (Site Code: 004024)

- It is accepted that water quality impacts associated with the proposed development would be localised and dissipated before reaching the SPA. As a result, the proposed development does not have the potential to

significantly effect Oystercatcher, Ringed Plover, Grey Plover, Knot, Sanderling, Dunlin, Bar-tailed Godwit, Redshank, and Black-headed Gull. The hydrological distance between the proposed development and the Tolka Estuary is 1.1km.

- It is accepted that the locations of breeding and roosting sites for Roseate Tern, Common Tern, and Arctic Tern are of sufficient distance from the proposed development to ensure it does not effect passage population, number of nests, productivity rate, distribution of roosting and breeding sites, availability of prey biomass, barriers to connectivity, or disturbance for these species within the SPA. It, therefore, does not have the potential to significantly effect these species.
- The proposed development would not lead to any reduction in the permanent area of Wetland and Waterbirds habitat within the site. Thus, it has no potential to affect the Conservation Objective for this qualifying interest.
- I acknowledge that Light-bellied Brent Goose feed on grasslands in Dublin City and are vulnerable to collision with OHLE. Feeding sites near the proposed development include Ashington Park, Martin Savage Park and St. Vincent's Primary School. As a result, significant effects cannot be excluded.

North Bull Island SPA (Site Code: 004006)

- It is accepted that water quality impacts associated with the proposed development would be localised and dissipated before reaching the SPA. As a result, the proposed development does not have the potential to significantly effect Shelduck, Teal, Pintail, Shoveler, Oystercatcher, Golden

Plover, Grey Plover, Knot, Sanderling, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Curlew, Redshank, Turnstone, and Black-headed Gull. The hydrological distance between the proposed development and the Tolka Estuary is 1.1km.

- The proposed development would not lead to any reduction in the permanent area of Wetland and Waterbirds habitat within the site. Thus, it has no potential to affect the Conservation Objective for this qualifying interest.
- I acknowledge that Light-bellied Brent Goose feed on grasslands in Dublin City and are vulnerable to collision with OHLE. Feeding sites near the proposed development include Ashington Park, Martin Savage Park and St. Vincent's Primary School. As a result, significant effects cannot be excluded.

North Dublin Bay SAC (Site Code: 000206)

- It is accepted that water quality impacts associated with the proposed development would be localised and dissipated before reaching the SAC. As a result, the proposed development does not have the potential to significantly effect Mudflats and sandflats not covered by seawater at low tide, Annual vegetation of drift lines, Salicornia and other annuals colonising mud and sand, Atlantic salt meadows, and Mediterranean salt meadows. These qualifying interests of the SAC occur at least 4.3km north-east of the proposed development.
- The habitats Embryonic shifting dunes, Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes), Fixed coastal dunes with herbaceous vegetation (grey dunes), Humid dune slacks, and Petalwort are

located at least 4.3km from the proposed development and are above the mean high-water mark. It is accepted that any water quality impacts from the proposed development are extremely unlikely to affect these habitats and, therefore, there is no potential to significantly effect these qualifying interests.

Arising from these observations, it is reasonable to conclude that the proposed development would not give rise to significant effects on this European site.

Malahide Estuary SAC (Site Code: 000205)

- It is accepted that water quality impacts associated with the proposed development would be localised and dissipated before reaching the SAC. As a result, the proposed development does not have the potential to significantly effect the qualifying interests of this SAC. These qualifying interests occur at least 10.5km east of the proposed development.

Arising from these observations, it is reasonable to conclude that the proposed development would not give rise to significant effects on this European site.

Malahide Estuary SPA (Site Code: 004025)

- It is again acknowledged that Light-bellied Brent Goose feed on grassland in Dublin City in areas close to the proposed development. The SPA is not within the likely zone of impact for the railway and proposed infrastructure. However, it is for the Main Storage and Distribution Centre. Notwithstanding this, it is noted that the Centre would be within an operational industrial yard. The water quality impacts associated with the proposed development would be localised and dissipated before reaching the SPA, which is

10.5km downstream. As a result, the proposed development does not have the potential to significantly effect this qualifying interest of the SPA.

- It is accepted that water quality impacts associated with the proposed development would be localised and dissipated before reaching the SAC. As a result, the proposed development does not have the potential to significantly effect the remaining bird species forming the qualifying interests of this SAC. These qualifying interests occur at least 10.5km downstream of the proposed development.
- The proposed development would not lead to any reduction in the permanent area of Wetland and Waterbirds habitat within the site. Thus, it has no potential to affect the Conservation Objective for this qualifying interest.

Arising from these observations, it is reasonable to conclude that the proposed development would not give rise to significant effects on this European site.

North-West Irish Sea SPA (Site Code: 004236)

- The proposed development does not have the potential to adversely affect the Qualifying Interests, in view of their Conservation Objectives, of wintering populations of birds, of breeding and wintering populations of birds, and of breeding populations, with the exception of Cormorant. This is due to the location, nature and scale of the proposed development, with potential water quality impacts being localised, and with many species being accustomed to disturbance.
- As the proposed development includes the heightening and lowering of cables which cross the Royal Canal and the provision of OHLE, the

potential for collision by Cormorant arises. Thus, significant effects cannot be excluded.

Having regard to the above, it is concluded that significant effects on the qualifying interests:

- Petrifying Springs, Narrow-mouthed Whorl Snail and Desmoulin's Whorl Snail within Rye Water Valley/Carton SAC,
- Light-bellied Brent Goose associated with South Dublin Bay and River Tolka Estuary SPA,
- Light-bellied Brent Goose associated with North Bull Island SPA, and
- Cormorant associated with the North-West Irish Sea SPA

cannot be excluded beyond reasonable scientific doubt.

11.1.5 *In-combination Effects*

Arising from the finding above that the proposed development individually is likely to have significant effects on three European sites, it is accepted that in-combination effects with other plans and projects would be appropriately undertaken at Stage 2 Appropriate Assessment.

11.1.6 *Mitigation Measures*

No measures designed or intended to avoid or reduce any harmful effects of the proposed development on a European site have been relied upon in this screening exercise.

11.1.7 **Screening Determination**

The proposed development has been considered in light of the requirements of Section 177U of the Planning and Development Act 2000 as amended. Having carried out Screening for Appropriate Assessment of the project, it has been concluded that the project individually would be likely to give rise to significant effects on Rye Water Valley/Cartron SAC (Site Code: 001398), South Dublin Bay and River Tolka Estuary SPA (Site Code: 004024), North Bull Island SPA (Site Code: 004006), and the North-West Irish Sea SPA (Site Code: 004236), in view of their Conservation Objectives, and Appropriate Assessment is therefore required.

This determination is based on the following:

- The nature and extent of the proposed works associated with the proposed project and the operation of the proposed development, and
- The known pathways between the site and the European sites.

11.2. **Appropriate Assessment**

11.2.1 **Background**

The proposed development is not directly connected to or necessary for the management of any European site. It is therefore subject to the provisions of Article 6(3) of the EU Habitats Directive. Following the screening process above, it has been determined that appropriate assessment is required as it cannot be excluded on the basis of objective information that the proposed development individually or in-combination with other plans or projects will have a significant effect on Rye Water Valley/Cartron SAC (Site Code: 001398), South Dublin Bay and River Tolka Estuary SPA (Site Code: 004024), North Bull Island SPA (Site Code: 004006), and the North-West Irish Sea SPA (Site Code: 004236). The

possibility of significant effects on other European sites has been excluded on the basis of objective information. Measures intended to reduce or avoid significant effects were not considered in the screening process.

11.2.2 Natura Impact Statement

The application to the Board included a *Natura Impact Statement* dating from July 2022. The NIS addresses methodologies employed, gives a description of the project, identifies the relevant Natura 2000 sites and assesses the potential significant effects thereon (inclusive of in-combination effects), details mitigation, refers to residual effects, and draws conclusions on significant effects. Potential adverse effects of the proposed development on each of the European sites were examined and assessed. The NIS had due regard to an array of desk studies, field surveys and consultations undertaken as part of the application. The NIS was prepared in line with current best practice and provides an assessment of all potential effects on the SAC and SPAs arising from the proposed development.

The NIS concluded that, given the full and proper implementation of the mitigation prescribed in the NIS, An Bord Pleanála, as the Competent Authority, may determine that the proposed development, either individually or in combination with other plans and projects, will not adversely affect the integrity of the Rye Water Valley/Carton SAC, South Dublin Bay and River Tolka Estuary SPA, the North Bull Island SPA or any other European site.

I again acknowledge the “Update to the Natura Impact Statement” submitted at the Oral Hearing. This addresses the likely significant effects on the North-West Irish Sea SPA (Site Code: 004236) and the potential significant effects on the Qualifying Feature Cormorant have been screened in. I further acknowledge the

Errata submitted at the Oral Hearing which updates the details relating to the site-specific Conservation Objectives for the Rye Water/Carton SAC.

I note the submissions received from Development Applications Unit of the Department of Housing, Local Government and Heritage, Inland Fisheries Ireland, Irish Water, and Waterways Ireland on this application, the considerations of the planning authorities, and the third party submissions.

Having reviewed the documents, submissions, reports and consultations, I am satisfied that the information allows for a complete assessment of any adverse effects of the development on the conservation objectives of the Rye Water Valley/Carton SAC, South Dublin Bay and River Tolka Estuary SPA, the North Bull Island SPA, and the North-West Irish Sea SPA alone, or in combination with other plans and projects.

11.2.3 Appropriate Assessment

Introduction

This assessment considers all aspects of the proposal which could result in significant effects and mitigation measures designed to avoid or reduce any adverse effects are considered and assessed. The assessment has had due regard to the applicant's submitted Natura Impact Statement and related update and errata, the Environmental Impact Assessment Report, the submissions received from the prescribed bodies and the planning authorities, and third party submissions.

The following guidance is adhered to in the assessment:

DoEHLG (2009) Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities.

EC (2002) Assessment of plans and projects significantly affecting Natura 2002 sites. Methodological guidance on the provisions of Articles 6(3) and 6(4) of the Habitats Directive 92/43/EC.

EC (2018) Managing Natura 2000 sites.

OPR (2021) Appropriate Assessment Screening for Development Management.

Observations on Land Use

I note the following relating to the context of the proposed development:

- The receiving environment associated with the proposed project is primarily an established railway corridor.
- The railway line runs parallel to the Royal Canal between Spencer Dock and the depot east of Kilcock.
- The proposed development would cross the Royal Canal, the Rye Water, the River Tolka, a tributary of the River Liffey, and numerous streams, ditches and drains.
- The Royal Canal is connected to watercourses via overflows.

European Sites

The following sites are subject to appropriate assessment:

Rye Water Valley/Carton SAC (Site Code: 001398),

South Dublin Bay and River Tolka Estuary SPA (Site Code: 004024), and

North Bull Island SPA (Site Code: 004006)

North-West Irish Sea SPA (Site Code: 004236)

A description of these sites and their Conservation and Qualifying Interests / Special Conservation Interests, including any relevant attributes and targets for these sites, are set out in the NIS, the Errata, and the Update to the Natura Impact Statement. Details of these European sites' Conservation and Qualifying Interests / Special Conservation Interests are set out in the Screening undertaken earlier in this report.

Relevant Aspects of the Proposed Development

Section 2 and Appendices A and B of the applicant's NIS details the characteristics of the proposed development and works associated with the project and Section 6 identifies other plans, projects and activities relating to potential in-combination effects. The main aspects of the proposed development that could give rise to risks to the natural environment include:

- The loss of habitat at the construction stage, including vegetation clearance, tree and hedgerow loss, diversion of watercourses, and dewatering of the canal,
- Habitat fragmentation by the introduction of new fencing;
- Increased train services increasing noise, vibration, lighting and visual disturbance, thus leading to potential habitat fragmentation;
- The development and functioning of the depot, new bridges and stations causing disturbance by way of noise, vibration and lighting and increase of services, with effects on birds and bats in particular;
- Direct mortality arising from site clearance, tree felling and vegetation removal, as well as from the increase in rail traffic and the provision of new structures, including bridges and OHLE; and
- Water quality impacts causing habitat degradation through accidental pollution and works within watercourses.

I note that the applicant has discounted potential effects on biodiversity as a result of electromagnetic radiation based upon an EirGrid study on the effects of high voltage overhead transmission lines on birds. In the absence of any known finding which counters this conclusion, I am satisfied to exclude potential impacts from electromagnetic radiation.

I acknowledge Section 3 of the applicant's NIS. The likely zones of impact are suitably described and are accepted as reasonable from which direct, indirect and cumulative effects on European sites may be ascertained, notably in terms of potential effects on birds and waterbodies.

Potential Effects

I acknowledge the conclusions drawn in my screening assessment that significant effects cannot be excluded beyond reasonable scientific doubt on the qualifying interests:

- Petrifying Springs, Narrow-mouthed Whorl Snail and Desmoulin's Whorl Snail within Rye Water Valley/Cartron SAC,
- Light-bellied Brent Goose associated with South Dublin Bay and River Tolka Estuary SPA,
- Light-bellied Brent Goose associated with North Bull Island SPA, and
- Cormorant associated with the North-West Irish Sea SPA

Having regard to these findings, the potential adverse effects arising from the proposed development are as follows:

Rye Water Valley/Carton SAC

Petrifying Springs

I note that in the submitted NIS the applicant had stated that a site-specific Conservation Objective for Petrifying Springs in this SAC has not been developed to date. The applicant adopted the Conservation Objective for Petrifying Springs as per the River Barrow and River Nore SAC for the purposes of the assessment. This is considered reasonable. I note, however, that the Errata submitted to the Oral Hearing on the first day clarified that the Conservation Objective is to restore the favourable conservation status for Petrifying Springs. The attributes were clarified also.

(a) Habitat Area

There are calcareous springs corresponding to this priority Annex I habitat at the location where it is crossed by the railway line at Louisa Bridge. However, the railway line is on built land and the proposed development at this location would be confined to the provision of catenary poles. Thus, there would be no direct reduction in the area of this habitat at this location as a result of the proposed development. Potential effects relate to indirect effects by changes in the hydrological regime and water quality impacts from construction. Unattenuated surface water runoff, concrete and other pollutants, fuel leaks, inadequate wastewater treatment, and in-stream works constitute the potential adverse effects on the habitat area at the construction phase. There is also the potential for invasive alien species spreading during the construction phase. Trains using oil and oil-based lubricants during the operational phase could potentially pose a risk of pollution affecting habitat area.

(b) Habitat Distribution

The habitat distribution of this priority habitat could be indirectly affected by way of changes to the hydrological regime and by water quality impacts.

(c) Hydrological Regime: Height of Water Table and Water Flow

There is potential for adverse effects on the hydrological regime arising from hydraulic changes to watercourse crossings, the diversion of the Ballycaghan Stream, and the construction of the depot and flood compensation storage areas upstream of the SAC.

(d) Physical Structure: Tufa Formations

The hydrogeological assessment undertaken concluded that the proposed development would result in imperceptible to slight impacts on the groundwater system immediately surrounding the depot and the effects would be attenuated with distance. The impact of track lowering at the location of the works was also deemed to be imperceptible. It is accepted that the proposed development would not lead to adverse effects on the SAC when considering this Attribute.

(e) Ecosystem Function: Water Quality – Nitrate Levels

The proposed development would pose a risk of pollution to watercourses connected to the SAC, with pollution having the potential to alter the nutrient and pH levels in water. Therefore, there is potential for adverse effects by preventing or interrupting the maintenance of oligotrophic and calcareous conditions at the construction and operation stages.

(f) Ecosystem Function: Water Quality: Phosphate Levels

There is potential for adverse effects by preventing or interrupting the maintenance of oligotrophic and calcareous conditions at the construction and operation stages.

(g) Vegetation Composition: Community Diversity

The vegetation composition of petrifying springs within the SAC could be affected through changes in the hydrological regime and water quality arising from the proposed development.

(h) Vegetation Composition: Positive Indicator Species

The vegetation composition of petrifying springs within the SAC could be affected through changes in the hydrological regime and water quality arising from the proposed development.

(i) Vegetation Composition: Negative Indicator Species

The vegetation composition of petrifying springs within the SAC could be affected through changes in the hydrological regime and water quality arising from the proposed development.

(j) Vegetation Composition: Algal Cover

There is potential for adverse effects as a result of the construction and operation of the proposed development on water quality, leading to an increase in algal cover.

(k) Vegetation Structure: Sward Height

The vegetation composition of petrifying springs within the SAC could be affected through changes in the hydrological regime and water quality arising from the proposed development.

(l) Physical Structure: Trampling/Dung

The proposed development does not have the potential to lead to and increase trampling or dung.

(m) Indicators of Local Distinctiveness

The vegetation composition of petrifying springs within the SAC could be affected through changes in the hydrological regime and water quality arising from the proposed development.

Narrow-mouthed Whorl Snail

I note that in the submitted NIS the applicant had stated that a site-specific Conservation Objective for Narrow-mouthed Whorl Snail in this SAC has not been developed to date. The applicant adopted the Conservation Objective for this species as per the Slieve Tooey/Tormore Island/Loughros Beg Bay SAC for the purposes of the assessment. This is considered reasonable. I note, however, that the Errata submitted to the Oral Hearing on the first day clarified that the Conservation Objective is to restore the favourable conservation status for Narrow-mouthed Whorl Snail. This species is stated to occur in marsh vegetation near Louisa Bridge.

(a) Distribution

There is the potential by the proposed development to cause a decline in sites occupied by this species by impacts on the hydrological regime and on water quality, as well as by the spread of invasive alien species at the construction stage.

(b) Occurrence in Suitable Habitat

With the hydrological connectivity between the Royal Canal and the habitats occupied by this species, there is potential to cause a reduction in the quality of habitats by way of impacts on the hydrological regime and on water quality, as well as by the spread of invasive alien species at the construction stage.

(c) Habitat Area

With the hydrological connectivity between the Royal Canal and the habitats occupied by this species, there is potential to cause a reduction in the quality of habitats by way of impacts on the hydrological regime and on water quality, as well as by the spread of invasive alien species at the construction stage.

(d) Habitat Quality: Water Levels

Given the hydrological connectivity between the proposed development and the SAC, there is the potential for adverse effects on the hydrological regime through

hydraulic changes associated with the two new watercourse crossings, the diversion of the Ballycaghan Stream, and the construction of the depot and flood compensatory storage areas 3.5km upstream of the SAC boundary.

Desmoulin's Whorl Snail

I note that in the submitted NIS the applicant had stated that a site-specific Conservation Objective for Desmoulin's Whorl Snail in this SAC has not been developed to date. The applicant adopted the Conservation Objective for this species as per the River Barrow and River Nore SAC for the purposes of the assessment. This is considered reasonable. I note, however, that the Errata submitted to the Oral Hearing on the first day clarified that the Conservation Objective is to maintain the favourable conservation status for Desmoulin's Whorl Snail. It is noted that this species occurs in marsh vegetation near Louisa Bridge.

(a) Distribution

With the hydrological connectivity between the proposed development and the sites occupied by this species, there is potential to cause a decline in sites occupied by this species by way of impacts on the hydrological regime and on water quality, as well as by the spread of invasive alien species at the construction stage.

(b) Occurrence in Suitable Habitat

With the hydrological connectivity between the Royal Canal and the habitats occupied by this species, there is potential for the proposed development to alter occurrence in suitable habitat for this species through impacts on water quality, the hydrological regime, and the introduction of invasive species.

(c) Density within Habitat

With the hydrological connectivity between the Royal Canal and the habitats occupied by this species, there is potential for the proposed development to alter the density within habitat for this species through impacts on water quality, the hydrological regime, and the introduction of invasive species.

(d) Habitat Area

With the hydrological connectivity between the Royal Canal and the habitats occupied by this species, there is potential for the proposed development to cause a reduction in habitat area through impacts on water quality, the hydrological regime, and the introduction of invasive species.

(e) Habitat Quality: Occupied Habitats in at least Suboptimal Condition

With the hydrological connectivity between the Royal Canal and the habitats occupied by this species, there is potential for the proposed development to cause a reduction in habitat quality through impacts on water quality, the hydrological regime, and the introduction of invasive species.

(f) With the hydrological connectivity between the Royal Canal and the habitats occupied by this species, there is potential for the proposed development to cause a reduction in habitat quality through impacts on water quality, the hydrological regime, and the introduction of invasive species.

South Dublin Bay and River Tolka Estuary SPA

Light-bellied Brent Goose

Light-bellied Brent Geese feed on amenity grasslands in Dublin City, including at St. Vincent's Primary School, Martin Savage Park, and Ashington Park in the vicinity of the proposed development.

(a) Population Trend

Habitat Loss

The proposed development would include the provision of a substation, a signalling equipment building and a principal supply point and a temporary construction compound on the playing fields at St. Vincent's Primary School. Due to the sighting of the proposed development within the school grounds, the applicant submits that there would be no permanent loss of amenity grassland. It is accepted that a temporary loss could occur at the construction phase.

Disturbance

The proposed development would likely result in disturbance to and avoidance by this species at the locations identified.

Collision Risk

It is accepted that there is the potential for this species to collide with new overhead lines and new bridges over the Royal Canal.

(b) Distribution

Due to the potential to disturb or displace this species at the locations identified, there is the potential for indirect effects on the range, timing and/or intensity of use of certain areas of the SPA by this species.

Habitat Loss

The temporary loss of grassland used as foraging at St. Vincent's School would potentially effect the distribution of this species within the SPA.

Disturbance

The applicant notes that Light-bellied Brent Goose is a species that is highly sensitive to noise disturbance and that it reacts in a variable manner to visual

disturbance. It is accepted that there is the potential for displacement from feeding areas during construction.

North Bull Island SPA

Light-bellied Brent Goose

(a) Population Trend

Similar to the above associated with South Dublin Bay and River Tolka Estuary SPA, the proposed development has the potential to adversely affect the population trend of this species arising from habitat loss, disturbance and collision.

(b) Distribution

Similar to the above associated with South Dublin Bay and River Tolka Estuary SPA, the proposed development has the potential to adversely affect the distribution of this species arising from displacement due to noise and visual disturbance.

North-West Irish Sea SPA

Cormorant

(a) Population Trend

Similar to the potential to significantly effect Light-bellied Brent Goose associated with South Dublin Bay and River Tolka Estuary SPA and North Bull Island SPA, the proposed development has the potential to adversely affect the breeding population of Cormorant arising from collision with new overhead lines and OHLE over the Royal Canal.

11.2.4 Mitigation

Section 5 of the applicant's NIS details the range of mitigation measures intended to be employed as part of the proposed development.

For the Rye Water Valley/Carton SAC, measures are proposed to protect water quality, to address hydrology changes, and to limit the spread of invasive species. Many of the measures consist of good work practice methodologies. The drainage network provisions, management of waste materials, provision of flood compensatory measures, and implementation of an invasive species management plan are acknowledged.

The measures to address potential effects on Light-bellied Brent Goose associated with South Dublin Bay and River Tolka Estuary SPA and North Bull Island SPA relate to reducing collision risk and disturbance. Bridge finishes, deflectors on overhead lines, timing of construction works, and controls on construction near known feeding sites adjacent to the proposed development are noted.

The mitigation measures to address collision risk for Cormorant associated with the North-West Irish Sea SPA are those intended for Light-bellied Brent Goose, including deflectors on overhead lines. This is noted.

I particularly note that a Construction Environmental Management Plan would be produced by the contractors for each element of the proposed development and this would be developed to ensure that the NIS mitigation measures would be adhered to.

In my opinion, these constitute suitable, robust, comprehensive and necessary measures to avoid any adverse impacts on the integrity of these European sites.

11.2.5 Potentially Significant Cumulative Effects

The plans and projects likely to have adverse effects on European sites in combination with the proposed development have been identified by the applicant and these are considered to be comprehensive. This includes examination of previous and current plans. The examination includes European, national and local plans. It is accepted that these are high level strategic plans which do not of themselves provide for any real effects and, therefore, would not give rise to adverse effects in combination with the proposed development. The examination also includes consideration of previous, current and future known projects. The projects that have been considered include the utilities projects intended to facilitate the proposed development as well as permitted developments, including pedestrian and cycle routing, large-scale mixed-use developments, large-scale residential schemes, commercial developments, utility infrastructure, and railway station development. I acknowledge that many of these permitted projects have themselves been subject to appropriate assessment, environmental impact assessment and/or site-specific flood risk assessment. The future projects that have been examined include BusConnects projects, Metrolink, Luas Finglas, Royal Canal Greenway projects, Kellystown Road Project, and Dunboyne Distributor Road. It is anticipated that each of these specified projects would be subject to appropriate assessment.

I note from permitted projects that have been subject to appropriate assessment that it is not anticipated that there would be adverse effects on the integrity of European sites in combination with other plans and projects. I am satisfied to submit that I have no reason to conclude that the proposed development, in combination with the above referenced individual projects and plans, would result in adverse effects on the integrity of any European sites.

11.2.6 Residual Impacts

I concur with the applicant's findings that, if the proposed mitigation measures are implemented in full, it is expected that significant effects would not result for the qualifying features of Rye Water Valley/Cartron SAC or the species of conservation interest of South Dublin Bay and River Tolka Estuary SPA, North Bull Island SPA, and North-West Irish Sea SPA.

Following my appropriate assessment of the proposed development and with due regard to consideration of the proposed mitigation measures, I am able to ascertain with confidence that the proposed development would not adversely affect the integrity of Rye Water Valley/Cartron SAC, South Dublin Bay and River Tolka Estuary SPA, North Bull Island SPA, and North-West Irish Sea SPA in view of the Conservation Objectives of these sites. This conclusion is drawn on a complete assessment of all implications of the proposed development alone and in combination with other plans and projects.

11.2.7 Appropriate Assessment Conclusion

The proposed development has been considered in light of the assessment requirements of the Planning and Development Act 2000 as amended.

Having carried out screening for appropriate assessment of the project, it was concluded that it may have a significant effect on the Rye Water Valley/Cartron SAC, South Dublin Bay and River Tolka Estuary SPA, North Bull Island SPA, and the North-West Irish Sea SPA. Consequently, an appropriate assessment was required of the implications of the project on the qualifying features of those sites in light of their conservation objectives.

Following an appropriate assessment, it has been ascertained that the proposed development, individually or in combination with other plans or projects, would

not adversely affect the integrity of Rye Water Valley/Cartron SAC (Site Code: 001398), South Dublin Bay and River Tolka Estuary SPA (Site Code: 004024), North Bull Island SPA (Site Code: 004006), and the North-West Irish Sea SPA (Site Code: 004236), or any other European site, in view of the sites' Conservation Objectives.

This conclusion is based on a complete assessment of all aspects of the proposed project and there is no reasonable scientific doubt as to the absence of adverse effects.

This conclusion is based on:

- A full and detailed assessment of all aspects of the proposed project including proposed mitigation measures in relation to the Conservation Objectives of the Rye Water Valley/Cartron SAC, South Dublin Bay and River Tolka Estuary SPA, North Bull Island SPA, and North-West Irish Sea SPA;
- Detailed assessment of in-combination effects with other plans and projects including historical projects, current proposals and future projects; and
- No reasonable scientific doubt as to the absence of adverse effects on the integrity of Rye Water Valley/Cartron SAC, South Dublin Bay and River Tolka Estuary SPA, North Bull Island SPA, and North-West Irish Sea SPA.

11.2.8 Further Considerations on Appropriate Assessment

I note again that the applicant submitted a document entitled "Update to the Natura Impact Statement" at the Oral Hearing. This document primarily updates the submitted NIS by the inclusion of the North-West Irish Sea candidate Special Protection Area. My considerations on this are set out above. It also updated the list of projects submitted for planning between February 2022 and May 2023. My

conclusions on in-combination effects remain as set out above. I have given due consideration to these additional projects which are at planning stage. The update also addresses the use of Ashtown Stables paddocks by Brent Goose. There is nothing further of note contained within this part of the update which had not been before the Board in the application heretofore. Finally, the update included a short section on hydrological effects on the Rye Water Valley/Cartron SAC relating to two culverts at the depot site (UBG24A and UBG24B) and the effect of proposed amendments to the flood compensatory storage areas on groundwater. The applicant has determined that the former would have no perceptible effect on the hydrological regime of the Lyreen River or Rye Water catchments. Regarding the latter, it was determined that the effects of the refined design of the flood compensation storage areas would be the same as that described in the NIS and would result in imperceptible to slight impacts on the groundwater system surrounding the depot, which would be attenuated with distance from the depot. Reference is made to the updated SFRA and the conclusion is drawn that the proposed development would not adversely affect the Rye Water Valley/Cartron SAC.

Following the closure of the Hearing, the applicant was requested to publish public notices informing the public of this submission and inviting submissions to be made to the Board. Following the publication of the notices, 10 no. submissions were received. These, along with the applicant's responses, may be synthesised as follows:

Dublin City Council

The Council considered that the updated material adopts a comprehensive approach, supplementing the information previously presented in the NIS. The

implementation of the proposed mitigation measures in the NIS, in conjunction with the construction management plan measures, is deemed appropriate.

The applicant submits that the local authority's view that the measures are appropriate is welcomed.

Kildare County Council

The Council stated that it reviewed the details submitted and had no further comment to add.

The applicant submits that there was no response required.

Kevin Reid

The submission includes the following:

- Irish Rail used a desktop study that did not list Ashtown Stables as justification for destroying the habitat of Brent Geese. The Irish Brent Goose Research Group is an informal group that relies on sightings from members of the public. The fields at Ashtown Stables are private, sheltered and not visible from the road and it is unsurprising that they were not reported in their survey. The private nature of the fields explains why they are frequented by Brent Geese.
- Irish Rail claims that the fences, hedgerows and treelines at Ashtown Stables make it unsuitable for Brent Geese. They do not provide any reference for these claims. An example at Maynetown, Portmarnock is referred to.

- Irish Rail claims that its plans will affect just 3% of the Stables. The permanent and temporary land take would total 14%, resulting in irreparable damage to trees, hedgerow and grassland, altering the tranquil, private feeding area for Brent Geese.
- The landowner tried repeatedly to contact NPWS and no response was received.

The Board will note that the landowner addressed a number of issues unrelated to the updated NIS and the potential effects on European sites.

The applicant submits:

- In relation to the use of a desk study to inform the assessment of Brent Goose use of the paddocks at the Ashtown Stables, Ashtown Stables refused to engage with CIÉ over the course of the project. Every effort has been made by the Project Team to engage with the owners of Ashtown Stables. Following on from the strong feedback that was received in Public Consultation No. 2, the Project team re-examined the preferred option at Ashtown, and a third local consultation was held on a new preferred option, which greatly lessened the impact of the project on Ashtown Stables. On an individual level, from the initial launch of this project, right through the non-statutory consultations and the statutory consultation the Project Team attempted to engage proactively with this landowner. The DART+ West project team were available to meet in person, when public health restrictions allowed or virtually when they did not to discuss any concerns that this landowner may have. During the local Ashtown Public Consultation, members of the project team were at the in-person consultation and were very happy to engage. Members of the Reid family attended this consultation but declined to engage. The Landowner agreed to two meetings throughout the whole project design period, both of which

the CEO of the applicant attended at the insistence of the landowner. All other offers to engage were declined over the course of the DART+ West project. The details of these communications were set out at the Oral Hearing.

- Based on a review of aerial photography and the conditions on site, the Ashtown Stables paddocks do not correspond to the type of inland feeding habitat favoured by Brent Geese, for reasons set out in the Update to the Natura Impact Statement. The proposed development would involve the temporary disturbance to, and the loss of small area of habitat within the paddocks. The submission suggests that the information on inland feeding sites was from a single study, conducted by a voluntary organisation that meets once a year. This is incorrect. The Dublin-wide Brent Goose Surveys were carried out over a number of seasons and are referenced in the NIS and the Submission on Observations to the Draft Railway Order Application (May, 2023). This included a review of existing records including the Irish Brent Goose Research Group data, and also an assessment of grasslands in Dublin City.
- The information on the Dublin-wide studies of Brent Goose on inland feeding sites, which combined were carried out over six winter seasons are contained in the following reports, which were referenced in the NIS and in the Submission on Observations to the Draft Railway Order Application:
 - Scott Cawley (2017) Natura Impact Statement – Information for Stage 2 Appropriate Assessment. Proposed Residential Development St. Paul's College, Sybil Hill, Raheny, Dublin 5. Scott Cawley Ltd., Dublin
 - Enviroguide (2022) Natura Impact Statement for Proposed Mix Use Development at Lands east of St. Paul's College, Sybil Hill Road, Raheny, Dublin 5. Report prepared for Raheny 3 Limited Partnership.

- The criteria for assessing the suitability of inland feeding sites used in the assessment was based on the scientific literature, including:
 - Riddington, R., Hassall, B. and Lane, S.J. (1997) The selection of grass swards by brent geese *Branta b. bernicla*: Interactions between food quality and quantity. *Biological Conservation* 81(1):153-160
 - Summers, R.W. and Critchley, C.N.R. (1990) Use of grassland and field selection by Brent Geese *Branta bernicla*. *Journal of Applied Ecology*:834-846.
 - Inger, R., Bearhop, S., Robinson, J.A. & Ruxton, G. (2006) Prey choice affects the trade-off balance between predation and starvation in an avian herbivore. *Animal Behaviour*, 71, 1335-1341.
- Disturbance is an important factor in relation to site selection by Brent Geese, and the Ashtown Stables is undisturbed relative to publicly accessible areas. Nonetheless, this is one factor, and the site still needs to be considered in the wider context of the birds' habitat preferences. In relation to the quiet zone in Maynestown, the "large, open nature" of the site is highlighted in the NIS for the LAP. The boundary treatment is wholly different to that present at Ashtown. At Maynestown, a 1.2m fence with low growing hedging is in place, "to retain an open space preferred by waterbirds in feeding areas as predators are more easily observed". This is in stark contrast to the field boundaries at Ashtown Stables.
- As stated in the Submission on Observations to the Draft Railway Order application dated May, 2023: "In relation to habitat loss at the Ashtown Stables lands, the proposed development will result in minimal land take along the edge of the site, which will not change the overall character of the grassland and not diminish its suitability as a potential feeding site for Brent Goose."

- The total area of the Ashtown Stables property is 1.21 ha. Within the Ashtown Stables lands, the proposed development involves the permanent land take of 0.0426ha (426m²) and an additional temporary land take of 0.0211ha (211m²). The total area of permanent land acquisition is 3.5%.
- The figure cited in the submission is the total of the permanent land take (0.0426ha), temporary land take (0.0211ha) and temporary public road acquisition (0.1049ha). Together, these add up to 0.1686ha, or 14% of the total area. It must be noted however, that the temporary acquisition of the public road accounts for 8.7% of the 14%. It should also be highlighted the area of grassland being permanently lost is at the southern end of the paddocks, where the paddocks narrow to a point, which has even more restricted sight lines than the rest of the paddocks.
- The comments on the photomontages provided in the EIAR are not relevant to the Update to the Natura Impact Statement report.
- The comment on the lack of response from the NPWS to requests from the Ashtown Stables is not relevant to the Update to the Natura Impact Statement.
- In the context of the Appropriate Assessment relating to the proposed development, Pygmy Shrew is not a qualifying interest of any of the European Sites in question and are not relevant to the Update to the Natura Impact Statement Report.
- The comments on the Fingal County Development Plan 2023-2029, which relate specifically to amenity, recreation and community, are not relevant to the Update to the Natura Impact Statement.
- The qualifications and experience of each of the specialists was provided in the EIAR and where relevant, in the NIS.

Christopher Reid

Part Two of the landowner's submission questions the scale of the land take at Ashtown Stables. He submits that removing the hedgerows that encompass the Stables will be to the detriment of the Brent Geese. The Board will note that most of this submission did not address the updated NIS or the potential effects on European sites.

The applicant submits:

- The assessment of the habitat quality of the Ashtown Stables for Brent Geese is presented in the Update to the Natura Impact Statement Report. It is based on a number of factors, primarily the fact that the area is small, has poor visibility and is intersected by fences and treelines. The forage is different to a managed amenity grassland, such as the Martin Savage Park playing fields to the east, which has a uniform sward height and a high nutritional content due to application of fertiliser. Further details on the suitability of inland feeding sites for Brent Geese were presented in the draft Railway Order application and in the Submission on Observations to the Draft Railway Order Application (May, 2023)
- As stated in the Submission on Observations to the Draft Railway Order Application dated May, 2023: "In relation to habitat loss at the Ashtown Stables lands, the proposed development will result in minimal land take along the edge of the site, which will not change the overall character of the grassland and not diminish its suitability as a potential feeding site for Brent Goose."
- The total area of the Ashtown Stables property is 1.21 ha. Within the Ashtown Stables lands, the proposed development involves the permanent

land take of 0.0426ha (426m²) and an additional temporary land take of 0.0211ha (211m²). The total area of permanent land acquisition is 3.5%.

- The figure cited in the submission is the total of the permanent land take (0.0426ha), temporary land take (0.0211ha) and temporary public road acquisition (0.1049ha). Together, these add up to 0.1686ha, or 14% of the total area. It must be noted, however, that the temporary acquisition of the public road accounts for 8.7% of this total. It should also be highlighted that the area of grassland being permanently lost is at the southern end of the paddocks, where the paddocks narrow to a point, which has even more restricted sight lines than the rest of the paddocks.
- The Ecologist who prepared the EIAR Biodiversity Chapter and NIS was present on every day of the Oral Hearing, provided evidence to the hearing and was available to answer questions from observers.
- CIÉ was aware of the presence of Brent Geese in Ashtown from the outset of the project and this is evident in the Option Selection Reports. Access to the Ashtown Stables to undertake biodiversity surveys was not permitted and the assessment relied on a desk study, using publicly available information consisting of six seasons of city-wide Brent Goose surveys and a literature review.

Navan Road Community Council

This submission addressed a number of matters not related to the updated NIS or the potential effects on European sites. Reference was made to the importance of Brent Geese throughout the Ashtown area and the importance of Ashtown Stables as an inland feeding site. The obstruction caused by the proposed pedestrian/cycle bridge is referred to. The observer's request for

placing the railway line in a shallow cutting in place of the bridge and tunnel is reiterated.

The applicant submits:

- It has been acknowledged in the EIAR and NIS that the Ashtown area is an important area for Brent Geese to feed in the winter. The importance of the Martin Savage Park playing pitches is highlighted in the NIS, EIAR and the Submission on Observations to the Draft Railway Order application.
- Access to survey the Ashtown Stables lands was not permitted and therefore the assessment and conclusions are based on a desk study, which included a review of several Dublin City wide Brent Goose surveys and the scientific literature relating to inland feeding site selection by Brent Goose. The reasons for characterising the Ashtown Stables Paddocks as low-quality feeding habitat for Brent Goose is presented in the Update to the Natura Impact Statement
- Contrary to the submissions made it was never stated that the Stables were surrounded by fences. The boundaries to the south, east and west consist of trees that are generally more the 5m in height. The paddocks themselves contain internal fences and trees.
- The NIS contained an assessment of adverse effects on Brent Goose as a Qualifying Interest of European sites in Dublin Bay, which included disturbance and habitat loss at ex-situ feeding sites. The Ashtown Stables paddocks are considered to at-best provide low quality feeding habitat for this species. The site is unsuitable for the reasons outlined in the NIS and the Submission on Observations to the Draft Railway Order Application (May, 2023), and further elaborated upon in the Update to the Natura Impact Statement (October, 2023). CIÉ has no evidence of Brent Goose using the Ashtown Stables paddocks, nor has any evidence been provided

by others of the use of these lands in any numbers let alone significant numbers.

- The proposed pedestrian and cycle bridge at Ashtown is a significant structure, however, it will replace an existing, although smaller, pedestrian bridge and it will also be lower than the apartment buildings immediately to the north. It is 100m from the Martin Savage Park playing pitches and 60m from the nearest part of the Ashtown Stables paddocks, therefore it would not obstruct the use of either site by Brent Geese.
- In the context of the appropriate assessment relating to the proposed development, bats are not a qualifying interest of any of the European Sites in question and are not relevant to the Update to the Natura Impact Statement Report.

Kay and John Brennan

This submission made no reference to the updated NIS.

The applicant notes that this submission related to the issues of climate change, tree loss and the loss of green space in Glendale, which are not relevant to appropriate assessment or the material presented in the Update to the Natura Impact Statement. It was submitted that no response is provided.

Sonja Brennan

This submission made no reference to the updated NIS.

The applicant notes that the submission refers to the proposed development having an impact on the Glendale estate environs, specifically in relation to green

space, the removal of trees, pollution as a result of increased traffic, harm to wildlife and a reduction in air quality, which are not relevant to appropriate assessment or the material presented in the Update to the Natura Impact Statement. It was submitted that no response is provided.

Sharon Weldon

This submission addressed a number of matters not related to the updated NIS or the potential effects on European sites. It was submitted that, considering Irish Rail failed to submit this additional significant environmental data as part of the initial railway order, this confirms their lack of consideration and respect to the environment on this project. It is submitted that the study on Brent Geese referenced by the applicant holds no merit in relation to Ashtown Stables.

The applicant submits:

- The EIAR and NIS contained assessments of the impact of the proposed development on Brent Geese, as a species and as a Qualifying Interest of European sites, respectively. The Update to the Natura Impact Statement does not contain a new assessment of the impact on Brent Goose but provides further clarity on the suitability of the Ashtown Stables paddocks for this species. Information on the Ashtown Stables paddocks in particular was provided in Section 2.4.1 of the Submission on Observations to the Draft Railway Order application.
- The Update to the Natura Impact Statement Report was presented to the Board at the Oral Hearing to provide the Board with the most up to date information for their appropriate assessment. Regarding Brent Goose in particular, the clarification in relation to the assessment of this species was a response to concerns raised by a number of observers during the Oral

Hearing. Although responses had been provided in the Submission on Observations to the Draft Railway Order Application (May, 2023), CIÉ decided to provide further clarity to the Board, to allay any potential remaining concerns. Regarding the timeline between the proposal to designate the cSPA in July 2023, and the Oral Hearing/presentation of the information by CIÉ in October 2023, CIÉ collated information to be included up until the Oral Hearing.

- The studies on Brent Goose in Dublin City were carried out over six winter seasons and included review of the sites being studied. The statement that none of the studies included surveys of sites in private ownership is incorrect. There are numerous examples of golf courses, sports clubs and schools in the surveys. During the preparation of the draft Railway Order, despite requests to access the Ashtown Stables paddocks for biodiversity, surveys were not permitted, and the assessment of this site and its suitability as an inland Brent Goose feeding site was based on a review of aerial photography, a literature review and a review of previous studies on Brent Goose in Dublin City. As stated in the Submission on Observations to the Draft Railway Order Application (May, 2023), the Ashtown Stables paddocks do not meet the criteria for good quality Brent Goose feeding habitat. This is due to overall size of the paddocks, the fact that the paddocks are intersected by fences and contain trees, and that the paddocks are surrounded by treelines on all but the northern boundary, which obscures the sight lines and make the Geese more vulnerable to predation. The loss of 3.5% of the area of the paddocks at Ashtown Stables, at the point where the site narrows, will not affect the site's suitability for Brent Geese.
- In the context of the appropriate assessment relating to the proposed development, Pygmy Shrew and bats are not qualifying interests of any of

the European Sites in question and are not relevant to the Update to the Natura Impact Statement Report.

Carlos Clarke Limited

The submission includes the following:

UBG24A & UBG24B

- The additional information referenced in the document relating to the two culverts is not provided in the updated NIS.
- CIÉ was asked at the Oral Hearing if the flow through these culverts was to be diverted from flowing into the Royal Canal. They replied that they were not to be diverted. Because this section of the update refers to the Rye Water Valley/Cartron SAC it is presumed that it is now proposed to divert flows because of the likely adverse effect on the ecology of the canal. Rain falling on the stabling and open rail track would wash oils, chemicals and other pollutants into waters flowing to these culverts, thus polluting the canal.
- The statement that the area currently drained by UBG24A and UBG24B is 0.28% of the entire Lyreen river catchment at the canal crossing (UBG22) is not supported with any map showing the area being drained through these culverts. As the flow through these culverts is now to be diverted to the Lyreen upstream of UBG22, a revised catchment area map and site specific flood risk assessment are required.
- The applicant's catchment map underestimates the Lyreen catchment watershed between the Liffey, Meadowbrook and the Lyreen west of Rathcoffey, as well as the catchment at Kilbride SW of Kilcock. It

overestimates it in Kilcock. A new analysis of the catchment area above submerged syphon UBG22 was made.

- The problems with the SSFRA catchment analysis, which was drawn attention to in the landowner's previous submission, is seen in the updated catchment map presented with the submission. Details of differences with the catchments are referred to.
- The catchment area of the Lyreen above the railway/canal culvert near Jackson's Bridge used in the Site Specific Flood Risk Assessment of July 2022 submitted with the Railway Order application is 62.68 sq. km. The total catchment to be drained through UBG22 is shown in the updated catchment map and has an area of 72 sq. km, a difference of 7 sq. km. This increase is 11% not 0.28% over the area used in the SSFRA as stated in the Updated NIS. This will increase the estimate flow and will have a major effect on the hydrological regime of the Lyreen River and will not have an imperceptible effect on the hydrological regime of the Lyreen River or the Rye Water catchments as stated in the Update.
- The SSFRA uses crude flood study catchment equations. Difficulties arising from their use are identified.

Amended Flood Compensatory Storage Areas

- No information on the proposed amendments to the flood compensatory storage areas was included with the Updated Report.
- It is not clear if the compensatory storage areas were impervious or not.
- The amendment does not address the issue of groundwater contamination.
- Reference is made to an updated SFRA. Is there a new report?

- Because the update relates to Natura impact it is presumed that the diversion away from the canal is to avoid polluting the canal. If so:
 - How is the Lyreen to be protected?
 - On what basis did the Hydrologist and Hydrogeologist come to their conclusion?
 - How is the diverted stream which flows from Kilcock and discharges to the Royal Canal at Chamber's Bridge to be diverted to the Ballycaghan Stream?
 - There are some combined sewers in Kilcock and it is planned to separate surface and foul sewers. Will this require additional surface water drainage to Chamber's Bridge stream?

Table 5-12 Assessment of Adverse Effects in combination with Plans

- A rail-based park & ride is recommended at a new station in Collinstown or Maynooth Depot in the Park and Ride Strategy Greater Dublin Area 2021 Plan. What will the knock-on effects be to the existing plans for the depot site?

The applicant submits:

UBG24A & UBG24B

- The additional information referred to in the submission was presented at the Oral Hearing and was also submitted in the Errata (dated September 2023) (Section 5.1, page 55) which was submitted on day 1 of the Oral Hearing. Section 4.1 of the 'Update to the Natura Impact Statement' refers to the additional information that was provided at the Oral Hearing.
- CIÉ clarified at the Oral Hearing that these culverts would no longer drain the depot lands. The submission from Carlos Clarke Ltd is based on the

assumption that the diversion is to avoid ecological impacts and a “likely adverse effect” on the Royal Canal. This assertion is also incorrect.

- The proposed depot will be isolated from the groundwater below, and any surface water will be directed through a SUDS compliant treatment system before being discharged into the Ballycaghan Stream. The diversion of surface water flow from these two culverts will help to restore the natural hydrological regime of the catchment.
- The portion of the proposed depot lands drained by Culverts UBG24A & UBG24B is 0.28% of the overall catchment of the Lyreen at UBG22.
- On 15th November 2023, the Commissioner of Public Works (Office of Public Works (OPW)) approved the hydrological assessment, hydraulic modelling and flood risk management strategy adopted for the project under Section 50 of the Arterial Drainage Act, 1945.
- The methodology adopted in determining the catchment boundaries was described in detail at the Oral Hearing and in the supporting documentation. This is fundamental to catchment hydrology and hydraulics – which has subsequently been accepted by the OPW. The hydrological assessment & methodology was discussed at length in the Oral Hearing and is described in detail in the supporting documentation.
- At no stage was it stated nor is it correct to state that the topographical survey was completed in one day. The submission may be confusing topographical surveys with walkover surveys.

Flood Compensatory Storage Areas

- The proposed amendments to the flood compensatory storage areas referred to in the submission were presented and discussed at the Oral Hearing and were also submitted in Section 2.3 of an Errata (dated

September 2023) which was submitted on day 1 of the Oral Hearing. This information is summarised in the 'Update to the Natura Impact Statement' Report.

- As presented and discussed at the Oral Hearing, the flood compensatory storage areas will not be impervious and will be allowed to fill and drain naturally, recreating a natural flood plain.
- The depot itself will be impervious. All surface water originating from the depot will be treated with a SUDS compliant treatment system to remove sediment and pollutants. Further clarification in relation to the surface water drainage system at the proposed depot was presented at the Oral Hearing and provided to the Board in writing on Day 8 of the Oral Hearing. Drawing illustrating the surface water drainage was provided to the Board on Day 9 of the Oral Hearing. The flood compensatory storage areas will be allowed to fill and empty naturally, and completely independently of the depot. The level of pollutants in the water in the flood compensatory storage areas will be identical to the Ballycaghan Stream, and therefore there is no risk of groundwater contamination.
- The Site-Specific Flood Risk Assessment (SSFRA) was updated with the information collected since the draft Railway Order was published in July 2022. The information was presented in Section 5 of the Errata (dated September 2023) which was submitted on day 1 of the Oral Hearing. The proposed amendments to the flood compensatory storage areas referred to in the submission were presented at the Oral Hearing and were provided in Section 2.3.1 of the Errata (dated September 2023) which was submitted on day 1 of the Oral Hearing. This information is summarised in the 'Update to the Natura Impact Statement'.

- The submission makes the assumption that the diversion is to avoid ecological impacts on the Royal Canal. This is incorrect. In fact, the diversion of the surface water to the Ballycaghan Stream would provide a more direct route to the Rye Water Valley/ Carton SAC. The proposed depot will be isolated from the groundwater below, and any surface water will be directed through a SUDS compliant treatment system, before being discharged into the Ballycaghan Stream. Further clarification in relation to the surface water drainage system at the proposed Depot was presented at the Oral Hearing and provided to the Board on Day 8 of the Oral Hearing ('Depot Drainage System Submission'). Drawing illustrating the surface water drainage was provided to the Board on Day 9 of the Oral Hearing. The diversion of surface water discharge from the canal (via UBG24A and 24B) to the Ballycaghan Stream will restore the natural hydrological regime of the catchment.
- The basis for the conclusions of the Hydrologist and Hydrogeologist were clearly described at the Oral Hearing and in the supporting documentation. The portion of the proposed depot lands drained by Culverts UBG24A & UBG24B is 0.28% of the overall catchment of the Lyreen at UBG22. All competent experts are named and their credentials provided in the EIAR.
- There is no proposed diversion of the stream described in the submission as flowing from Kilcock to Chambers Bridge where it flows into the Royal Canal. This culvert (UBG24A) remains in place and will continue to discharge the flow from east Kilcock to the canal. The portion of the depot lands that previously drained to this culvert will be diverted to the Ballycaghan Stream as clarified at the Oral Hearing.
- Any development of foul and surface water drainage in Kilcock is a matter for Uisce Éireann and does not arise from the Update to the Natura Impact Statement Report.

Updated in-combination assessment

- As stated at the Oral Hearing the proposed development does not preclude the provision of future infrastructure at Collinstown or Maynooth depot area and CIE will engage with the NTA in relation to any future projects.

Kilcloon Environmental Action Association

This submission made no reference to the updated NIS.

The applicant notes that this submission contains a request for a Park and Ride facility at the proposed depot and reference is made to Iarnród Éireann and the National Transport Authority working on other projects to deliver enhanced parking.

I first note that the Department of Housing, Local Government and Heritage accepts the conclusions of the applicant's NIS. It recommends that mitigation and monitoring measures in the NIS be included in the CEMP. This could reasonably be a condition of a Railway Order approval. The applicant's mitigation measures for Brent Geese set out in the NIS are noted and their implementation along the route corridor will equally apply to the Ashtown Stables area and Martin Savage Park as to other areas where applicable. I note that at no time has there been specific details, documentary or photographic information provided by landowners or observers which show the use of the lands at Ashtown Stables by Brent Geese. It is evident from the Department's submission that there were no concerns raised about the importance of Ashtown Stables as a feeding site for Brent Goose. Furthermore, there were no concerns raised about potential significant effects on the Rye Water Valley/Carton SAC arising from works and the operation of the development at the depot site.

The additional submissions and the applicant's responses are noted. I am satisfied to submit that my conclusions on appropriate assessment remain.

12.0. Compulsory Purchase Order

12.1.1 The Draft Railway Order includes a series of Schedules relevant to the issue of land acquisition including:

- Second Schedule-Part 1: Land which may be acquired
- Second Schedule-Part 2: Structures to which brackets, cables, wires, poles or other fixtures may be attached
- Second Schedule-Part 3: Land upon which pole(s) may be erected
- Second Schedule-Part 4: Airspace which maybe acquired
- Third Schedule: Substratum land which may be acquired
- Fourth Schedule: Land of which temporary possession may be taken
- Fifth Schedule: Land over which Public Rights of Way or Other Easements may be acquired
- Sixth Schedule: Public Rights, including Public Rights of Way which may be extinguished
- Seventh Schedule: Private Rights, including Private Rights of Way which may be extinguished
- Eighth Schedule: Public and Private Rights of Way which may be temporarily interrupted
- Ninth Schedule: New roads including public roads and bridges which may be constructed

- Tenth Schedule: Roads including public roads which may be altered, realigned or closed

12.1.2 Part III of the Draft Railway Order relates to ‘Acquisition and Possession of Land and Rights’ and contains a series of Articles setting out the powers of the railway undertaking to extinguish rights of way, acquire lands, easements and other rights over the lands identified in the abovementioned Schedules.

12.1.3 The affected lands are also identified in the Book of Reference and are illustrated in the series of Railway Order Schedule drawings.

12.1.4 The matters that the Board must consider before confirming the compulsory acquisition of lands are not clearly prescribed in legislation. Case law indicates that the Board must be satisfied that the applicant has demonstrated that the CPO “*is clearly justified by the common good*” (Para. [52] of judgement of Geoghegan J in *Clinton v An Bord Pleanála* (No. 2) [2007] 4 IR 701).

12.1.5 It is understood that this phrase requires the following minimum criteria to be satisfied:

- There is a community need that is to be met by the acquisition of the lands in question,
- The particular lands are suitable to meet that community need,
- Any alternative methods of meeting the community needs have been considered but are not demonstrably preferable (taking into account environmental effects, where appropriate), and
- The works to be carried out should accord with or at least not be in material contravention of the provisions of the statutory development plan.

12.1.6 The Board will note that these criteria will have been referred to in the planning and environmental assessments of this report for those properties subject to the Compulsory Purchase Order.

12.1.7 I note that matters relating to compensation for land/property acquisition are not within the remit of the Board and will be subject to separate compulsory purchase practice and procedures in the event that the Railway Order is granted by the Board.

12.1.8 From my assessment, it is reasonable to conclude:

Community Need

The need and justification for the proposed development has been adequately established in this application. The proposed electrification of the railway line and associated infrastructure as far as Maynooth will benefit the community as a whole at a local, county, regional and national level. While there will be adverse impacts for individual landowners and occupiers whose lands it is proposed to acquire and for people affected by extinguishment of rights of way and associated severance impacts, I consider that the proposed acquisition can be justified by the exigencies of the common good. I conclude, therefore, that the community need for the proposed development has been established.

Suitability of the Lands

I have reviewed the submitted drawings and application documentation, considered the submissions made, undertook a site inspection, and conducted an oral hearing. The Board will note the range of assessments undertaken earlier. Having due regard to these matters, I am satisfied that the extent of land that is proposed to be permanently or temporarily acquired is determined by the specifications for the proposed development, with additional lands also required for various purposes in connection with the proposed development (e.g. road improvement works, temporary construction compounds, etc.). I consider that the extent of lands that it is proposed to be acquired as far the railway station in

Maynooth is proportionate to the identified community need and I do not consider that the applicant is seeking to acquire lands in excess of the minimum required to achieve the project objectives. I, thus, consider it reasonable to conclude that the lands identified in the relevant Railway Order Schedules as far the town of Maynooth are required in connection with the proposed development and that they are suitable for such use.

Use of Alternative Methods

The consideration of alternatives was addressed in Chapter 3 of the EIAR. I have assessed the issues of alternatives in Sections 7.3 of my Planning Assessment and throughout several other sections of my Planning Assessment where the option selection is particularly pertinent, as well as in consideration of landowner submissions. I note the wide range of objections to the options chosen by the applicant in response to level crossing closures, works to bridges of architectural merit, the choice of depot site, etc. These were matters subject to detailed written submissions and significant debate at the Oral Hearing. I conclude that the process undertaken by the applicant when considering alternatives formed a robust assessment of alternative options having regard to planning and environmental considerations, safety, economic and social factors, and the stated project need and objectives. While I acknowledge this process, this has not excluded me from offering my views on elements of the project where I consider options alternative to those chosen by the applicant require re-examination, notably for the depot site and for alterations to bridges of particular architectural and historical merit. I consider that the options chosen for each level crossing are the ones which best satisfied the objectives of the project. I generally concur with the reasons for choosing the preferred option for each level crossing site as presented in the application.

Finally, the Board will again note that I have assessed the matters raised by individual affected landowners/occupiers or those affected by the extinguishment of rights of way.

Accordance with Planning Policy

As detailed in Section 7.1 of my Planning Assessment, I am satisfied that the proposed development is consistent with all applicable planning policy. The proposed development is supported by, and in accordance with, policies and objectives of Dublin City, Fingal, Meath County, and Kildare County Development Plans. Furthermore, the proposed development is consistent with applicable transport policies at national and regional levels.

13.0. CONCLUSION

My key findings on the proposed development may be synthesised as follows:

13.1 Overview

- The proposed development would constitute strategic rail infrastructure that is required to sustain and support the growth of the Greater Dublin Area, which would contribute to a significant share of transport emissions abatement and to Ireland's transition to a low carbon and climate resilient society, would facilitate increased train capacity to meet current and future passenger demands, and would play a key role in offering sustainable travel alternatives in the region.
- The proposed development would be compatible with national, regional and local policies and objectives. It would be consistent with, and is supported by, policies and objectives of the Dublin City, Fingal, Meath and Kildare

Development Plans. Furthermore, having a positive effect on increased rail services, efficiency, public transport reliability and safety, it would be consistent with applicable transport policies at national level.

13.2 *Public Consultation*

- The constraints of non-statutory public consultation prior to the submission of the Railway Order application due to Covid 19 and the difficulties in engagement with the processes are acknowledged. The applicant's public consultation sought to apply processes that were appropriate for that time.

13.3 *Necessary Revisions*

- The proposed development is required to be revised to ensure the conservation and protection of Broome Bridge, Castleknock Bridge and Cope Bridge.
- The depot and its associated infrastructure west of the town of Maynooth do not constitute proper planning and sustainable development arising from unacceptable flood risk and direct impact on Recorded Monuments. It should be omitted from the DART+ West project. An alternative location for a depot is required.

13.4 *Level Crossing Closures*

- The proposed closure of level crossings would improve train efficiencies, enhance rail safety, and remove delays caused by the road / rail interface, which is necessary to facilitate the intended enhanced level of service.
- The proposed development would provide for bridge crossings for pedestrians and cyclists and alternative access arrangements for motor

vehicles, thus assisting in the reduction in severance. The level crossing closures would necessitate change in movement habits, adaptation to road network changes, increasing journey times often, and producing longer walking and cycling networks at some locations.

- The proposed design and security provisions would aid in minimising and monitoring the effects of anti-social behaviour arising from the scheme.

13.5 *Bridge Changes*

- The pedestrian/cycle bridge design changes presented at the Oral Hearing for Ashtown, Coolmine, Porterstown, and Clonsilla, including the provision of lifts, would introduce a consistency in bridge design, would reduce physical impacts at the Royal Canal and associated sensitive habitats, would reduce visual impact, and would improve accessibility for young, old and mobility-impaired.

13.6 *Addressing Construction Impacts on Residents and Properties*

- A scheme of temporary rehousing / alternative accommodation is required for residential properties for such a time as the construction works and/or associated compounds are in operation in close proximity to a property, where construction noise and vibration levels would be such that mitigation would not provide sufficient attenuation to prevent disturbance or interference with everyday activities and/or sleep.
- A formal Property Owners Protection Scheme is required to be put in place throughout the construction period of the proposed development, which would assess impacts on properties arising from vibration due to construction works and would make provision for addressing adverse impacts on sensitive properties.

13.7 *Impact on the Royal Canal*

- The proposed mitigation measures are reasonable and necessary to minimise construction phase impacts on the Royal Canal corridor, while accepting that disturbance is unavoidable for key ecological receptors for a construction project of this nature and scale.
- The proposed development would not add in any significant manner to the disturbance arising for wildlife and the habitats along the Royal Canal corridor during the operation phase.

13.8 *The Spur from Spencer Dock Station to North Strand*

- The delivery of increased passenger train services on this section of railway is an integral part of the proposed project which would result in significant impacts on residential amenity. There is a requirement for the developer to engage with property owners in the immediate vicinity of the railway line along this section of the route corridor prior to the construction phase to agree on a programme of measures to minimise impacts and ensure a reasonable standard of residential amenity.

13.9 *Option Selection at Ashtown*

- An extensive list of options was considered as part of the multi-criteria analysis for option selection at Ashtown, with additional options added as feedback was received from public consultation. With due regard to the degree of assessment of alternatives undertaken and the need for an alternative vehicular crossing, the full range of infrastructure proposed at Ashtown is acceptable.

- While the application has provided for a comprehensive options assessment process, the choices in minimising land take impacts and/or environmental impacts at some locations would have significant adverse impacts at other locations, inclusive of a number of established business premises.

13.10 *Leixlip Convey Substation*

- The siting of the substation outside of the applicant's landholding, within the Glendale public open space together with appropriate screening, is justified due to specific access and safety needs requiring to be met.

13.11 *Depot Activities*

- There would be significant adverse impacts at a local level by way of noise and lighting arising from the construction and operation of the proposed depot development.

13.12 *Servicing Kilcock*

- With development of the scheme in its entirety as proposed, the failure to extend the service to Kilcock station and to provide support infrastructure, inclusive of a park & ride facility, is short-sighted for this targeted urban growth centre.

13.13 *Environmental Impact Assessment*

- The significant environmental impacts arising from the proposed development are reflected in this concluding section of my report.

13.14 *Appropriate Assessment*

- The proposed development, individually or in combination with other plans or projects, would not adversely affect the integrity of Rye Water Valley/Carton SAC (Site Code: 001398), South Dublin Bay and River Tolka Estuary SPA (Site Code: 004024), North Bull Island SPA (Site Code: 004006), and the North-West Irish Sea SPA (Site Code: 004236), or any other European site, in view of the sites' Conservation Objectives.

13.15 *Compulsory Purchase*

- I am satisfied that:
 - The need and justification for the proposed development has been adequately established in this application.
 - The lands identified in the Railway Order Schedules as far the existing Maynooth Station are required in connection with the proposed development and are suitable for such use.
 - The process considering alternatives in the Railway Order application formed a robust assessment of alternative options having regard to planning and environmental considerations, safety, economic and social factors, and the stated project need and objectives.
 - The proposed development is supported by, and is in accordance with, policies and objectives of Dublin City, Fingal, Meath County, and Kildare County Development Plans.

14.0. RECOMMENDATION

I recommend that the Railway Order be granted, subject to conditions, for the reasons and considerations set out below.

Reasons and Considerations

In coming to its decision, the Board had regard to:

- (a) the nature, scale and extent of the proposed development,
- (b) the characteristics of the route corridors, associated infrastructure sites, and of the general vicinity,
- (c) national, regional and local policy support for the proposed development, including:
 - National Planning Framework, 2018,
 - National Development Plan 2021 – 2030,
 - National Investment Framework for Transport in Ireland,
 - National Sustainable Mobility Policy,
 - National Investment Framework for Transport in Ireland,
 - Climate Action Plan, 2023,
 - Regional Spatial and Economic Strategy for the Eastern and Midlands Region 2019-2031,
 - Greater Dublin Area Transport Strategy 2022-2042
 - Dublin City Development Plan 2022 – 2028,
 - Fingal Development Plan 2023-2029,
 - Meath County Development Plan 2021-2027,

- Kildare County Development Plan 2023-2029,
- (d) The Draft Railway Order and supporting documents and drawings submitted with the application, including the Environmental Impact Assessment Report and the Natura Impact Statement, and the documentation submitted at the Oral Hearing,
- (e) the submissions on file, including those from prescribed bodies, the relevant local authorities, the observers and persons affected by the proposed land acquisition, and the submissions made at the Oral Hearing, and
- (f) the report of the Inspector.

Environmental Impact Assessment

The Board completed an Environmental Impact Assessment of the proposed development taking into account:

- (i) the nature, scale and extent of the proposed development,
- (ii) the Environmental Impact Assessment Report and associated documentation submitted in support of the application,
- (iii) the submissions made in the course of the application and at the Oral Hearing; and
- (iv) the Inspector's report.

The Board considered that the Environmental Impact Assessment Report, supported by the documentation submitted by the applicant, adequately considers alternatives to the proposed development and identifies and describes adequately the direct, indirect, secondary and cumulative effects of the proposed development on the environment.

The Board agreed with the examination, set out in the Inspector's report, of the information contained in the Environmental Impact Assessment Report and associated documentation submitted by the applicant and submissions made in the course of the application.

The Board considered, and agreed with the Inspector's reasoned conclusions, that the main significant direct and indirect effects of the proposed development on the environment are as follows:

- **Population and Human Health:**

The electrification of the railway line and the increased services for this public transport service would aid in the delivery of climate change goals and is widely supported by public policy and statutory development plans. The proposed development and the positive effect it would have on efficiency, public transport reliability and safety are also consistent with established transport policies and would be to the benefit of the population in the Greater Dublin Area which the proposed development would serve.

The proposed Spencer Dock Station would constitute significant additional railway infrastructure which would greatly enhance rail services for the city and would make a significant positive contribution to the delivery of enhanced public transport services for the Greater Dublin Area. Services to and from the station would introduce increased rail traffic along a section of railway utilised by freight traffic at present and would impact on the amenity of those living adjacent to the railway line.

The proposed level crossing closures would introduce severance for local communities. They would necessitate road improvement works in the vicinity to accommodate the disruption to vehicular traffic movement. The proposed bridge structures at Ashtown, Coolmine, Porterstown and Clonsilla would constitute significant new infrastructure following level

crossing closures. They would have distinct visual and biodiversity impacts. The crossing closures would be a necessary component to deliver on the project's objectives.

The proposed underpass at Ashtown would address restrictions to movement resulting from the closure of the level crossing at Ashtown. The option selection would have significant and profound effects on a number of properties affected by its alignment. The construction of this component of the development would have significant short-term, temporary effects for the local community, businesses and the natural environment.

Potential significant construction phase noise and traffic effects on human health would be mitigated through compliance with a Construction Environmental Management Plan, Construction Traffic Management Plan and best practice construction methods.

- **Water:**

The proposed depot development which would be placed on a large, filled platform on a floodplain does not constitute proper planning and sustainable development. The necessity to deliver extensive areas of compensatory flood storage at the depot and in the vicinity of Jackson's Bridge to seek to accommodate displaced floodwaters would be a significant environmental concern, expanding the floodplain area and increasing the regularity of flooding in the area. Concerns would arise in relation to displacement of floodwaters beyond the boundaries of the Railway Order application, the constraints on flows to watercourses to allow the escape of floodwaters, and the effects on properties, road infrastructure, and lands in the area in which the depot and its supporting infrastructure would be placed. The proposed infrastructure west of

Maynooth in the vicinity of Jackson's Bridge and at the depot site would be contrary to *The Planning System and Flood Risk Management Guidelines for Planning Authorities*. There would be significant potential for flooding impacts conflicting with planned transport infrastructure, including Maynooth West station and the Maynooth Outer Orbital Route.

- **Cultural Heritage**

Broome Bridge, Castleknock Bridge and Cope Bridge are acknowledged as being of architectural, historical, and social significance. The proposed removal of substantial sections of each bridge over the railway line would result in an irreversible loss of historic fabric, permanently altering the structures and their surrounding settings. The failure to opt for vertical track lowering, combined with reduced height OHLE (accepted by the applicant as being technically feasible) is unwarranted in each instance. The proposed development is required to be revised to ensure the conservation and protection of Broome Bridge, Castleknock Bridge and Cope Bridge.

The development of the depot site would result in direct impact on Recorded Monuments and would constitute a significant adverse environmental impact.

- **Biodiversity**

The impacts of the proposed development would include:

- Removal of vegetation, habitat loss, fragmentation and degradation,
- Potential adverse water quality impacts,

- Adverse effects on fauna by way of disturbance, noise, lighting, and collision for birds and bats,
- Loss of badger setts,
- Potential effects on the adjacent Royal Canal pNHA, inclusive of tree and hedgerow loss, water pollution, noise and the impact of artificial lighting,
- The development of new and modified bridge structures and provision of overhead cables leading to habitat loss within the Royal Canal pNHA and the potential effects of collision, and
- Spread of alien invasive plant species.

These potential effects would be mitigated through standard good practice construction measures, timing of vegetation removal, water pollution prevention measures, replacement habitat planting, and the implementation of a Construction Environmental Management Plan overseen by an Ecological Clerk of Works.

The Board completed an environmental impact assessment in relation to the proposed development and concluded that, subject to the implementation of the mitigation measures set out in the Environmental Impact Assessment Report, and subject to compliance with the conditions set out below, the effects on the environment of the proposed development, by itself and in combination with other development in the vicinity, would be acceptable. In doing so, the Board adopted the report and conclusions of the Inspector.

Appropriate Assessment - Stage 1

The Board considered the Natura Impact Statement and all the other relevant submissions and carried out both an Appropriate Assessment screening exercise and an Appropriate Assessment in relation to the potential effects of the proposed development on designated European Sites. The Board agreed with and adopted the screening assessment and conclusion carried out in the Inspector's report that the only European sites in respect of which the proposed development has the potential to have a significant effect are the Rye Water Valley/Carton SAC (Site Code: 001398), South Dublin Bay and River Tolka Estuary SPA (Site Code: 004024), North Bull Island SPA (Site Code: 004006), and the North-West Irish Sea SPA (Site Code: 004236).

Appropriate Assessment – Stage 2

The Board considered the Natura Impact Statement and associated documentation submitted with the application, the mitigation measures contained therein, the submissions on file, and the Inspector's assessment. The Board completed an Appropriate Assessment of the implications of the proposed development for the four European Sites, namely, the Rye Water Valley/Carton SAC (Site Code: 001398), South Dublin Bay and River Tolka Estuary SPA (Site Code: 004024), North Bull Island SPA (Site Code: 004006), and the North-West Irish Sea SPA (Site Code: 004236), in view of the sites' conservation objectives. The Board considered that the information before it was adequate to allow the carrying out of an Appropriate Assessment. In completing the Appropriate Assessment, the Board considered, in particular, the following:

- (i) the likely direct and indirect impacts arising from the proposed development both individually or in combination with other plans or projects,

(ii) the mitigation measures which are included as part of the current proposal, and

(iii) the conservation objectives for the European Sites.

In completing the Appropriate Assessment, the Board accepted and adopted the Appropriate Assessment carried out in the Inspector's report in respect of the potential effects of the proposed development on the aforementioned European Sites, having regard to the sites' Conservation Objectives.

In overall conclusion, the Board was satisfied that the proposed development, by itself or in combination with other plans or projects, would not adversely affect the integrity of the European Sites, in view of the sites' Conservation Objectives.

Proper Planning and Sustainable Development

It is considered that, subject to compliance with the conditions set out below, the proposed development would accord with national, regional and local planning and related transport policy, would not have an unacceptable impact on the landscape or biodiversity of the area, would not seriously injure the visual or residential amenities of the area or of property in the vicinity, and would result in improvements to railway services, safety, reliability and efficiency and to road traffic. The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area.

Conditions

1. The development shall be carried out and completed in accordance with the plans and particulars lodged with the application, except as may otherwise be required in order to comply with the following conditions.

Reason: In the interest of clarity.

2. The following modifications are made to the Railway Order:
- (i) The Book of Reference, Books 1, 2 and 3 of the Railway Order Drawings, and the First, Second, Fourth and Fifth Schedules of the Railway Order shall be updated to reflect the changes contained in “Errata to be Submitted to An Bord Pleanála” and “Errata 2 to be Submitted to An Bord Pleanála”, submitted at the Oral Hearing on the 28th September 2023 and 5th October, 2023 respectively.
 - (ii) The agreement reached between Iarnród Éireann and Transport Infrastructure Ireland, which was submitted at the Oral Hearing on the 28th September 2023, shall be included in the Thirteenth Schedule of the Railway Order.
 - (iii) The agreement reached between Iarnród Éireann and Seán Malone as personal representative of the late John Malone and Gráinne Malone, which was submitted at the Oral Hearing on the 5th October 2023, shall be included in the Thirteenth Schedule of the Railway Order.
 - (iv) A Fourteenth Schedule, entitled ‘Conditions, Modifications, Restrictions and Requirements’ shall be added to the Railway Order and shall consist of the Board’s reasoned conclusion and the conditions hereby attached to the grant of the Railway Order.

Reason: In the interests of clarity and the proper planning and sustainable of the area.

3. The western end of the proposed development shall terminate at Maynooth Railway Station (Chainage 82+600). All components of the proposed development beyond this station shall not be developed in accordance with the submitted Railway Order application drawings and details, including:
- the depot and associated infrastructure,

- the flood compensatory storage areas,
- the proposed depot access road from the L5041 and its associated bridge crossing and links to the R148, and
- the diversion of the railway line in the vicinity of Jackson's Bridge.

Alternative proposals for a depot and any associated support infrastructure shall be subject to further approval(s).

Reason: In the interest of flood prevention and to minimise archaeological impact.

4. The proposed development shall not include the demolition and reconstruction of those parts of Broome Bridge, Castleknock Bridge, and Cope Bridge over the railway line. The proposed development shall be altered to provide for reduced height OHLE and/or track lowering at Cope Bridge and a combination of reduced height OHLE and track lowering at Broome Bridge and Castleknock Bridge.

These alternative proposals shall be subject to further approval(s).

Reason: To adequately protect these important features of architectural and heritage merit.

5. The development of the proposed pedestrian and cycle bridges at Ashtown, Coolmine, Porterstown and Clonsilla shall be in accordance with the revised plans and details submitted at the Oral Hearing on 28th September 2023.

Reason: To provide for a high standard and consistency of structure design, to protect the amenities of the Royal Canal proposed Natural Heritage Area, and to provide for improved access for users.

6. All of the environmental, construction and ecological mitigation and monitoring measures set out in the Environmental Impact Assessment Report, the Natura Impact Statement and other particulars submitted with

the application shall be implemented by the developer in conjunction with the timelines set out therein, except as may otherwise be required in order to comply with the conditions of this Order.

Reason: In the interest of clarity and the protection of the environment during the construction and operational phases of the development.

7. Prior to the commencement of development, the following shall be agreed in writing with the relevant planning authorities:
 - (a) A Handover Procedure Agreement for all works to be undertaken on public lands;
 - (b) Details of roads design and construction methodologies for works on public roads, inclusive of reinstatement works; and
 - (c) Provision of public lighting around works areas at the construction stage and the provision of replacement lighting for defunct public lighting at the operation stage.

Reason: In the interest of orderly development.

8. The construction of the development shall be managed in accordance with a Construction Environmental Management Plan, which shall be prepared in consultation with the four planning authorities, National Parks and Wildlife Service, Inland Fisheries Ireland, and Waterways Ireland. This plan shall provide details of intended construction practice for the development with measures to reflect mitigation described in the submitted EIAR and NIS for the application, in addition to the following:
 - (a) No removal of vegetation shall take place between 1st March and 31st August, inclusive;
 - (b) Biosecurity measures to address the risk of introducing or spreading invasive species during construction in line with best practice guidance on this matter;

- (c) Dust Management Plans;
- (d) A communications strategy to keep the planning authorities apprised of the progression of the project through the submission of quarterly progress updates;
- (e) Location of the site and materials compounds including areas identified for the storage of construction waste, excavated materials, fuels, oils and chemicals;
- (f) Location of access points to the sites for any construction related activity;
- (g) Location of areas for construction site offices and staff facilities;
- (h) Details of site security fencing and hoardings;
- (i) Details of on-site car parking facilities for site workers during the course of construction;
- (j) Details of the timing and routing of construction traffic to and from the construction sites and associated directional signage, to include proposals to facilitate the delivery of abnormal loads to the sites;
- (k) Measures to obviate queuing of construction traffic on the adjoining road network;
- (l) Measures to prevent the spillage or deposit of clay, rubble or other debris on the public road network and for the cleaning of same;
- (m) Alternative arrangements to be put in place for pedestrians and vehicles in the case of the closure of any public road or footpath during the course of site development works;
- (n) Details of appropriate mitigation measures for noise, dust and vibration, and monitoring of such levels;

- (o) Containment of all construction-related fuel and oil within specially constructed bunds to ensure that fuel spillages are fully contained. Such bunds shall be roofed to exclude rainwater;
- (p) Off-site disposal of construction/demolition waste and details of how it is proposed to manage excavated soil;
- (q) Means to ensure that surface water run-off is controlled such that no silt or other pollutants enter watercourses, surface water sewers or drains.
- (r) A record of daily checks that the works are being undertaken in accordance with the CEMP shall be kept for inspection by the planning authorities.

Reason: To protect amenities, public health and safety.

9. The site development and construction works shall be carried out in such a manner as to ensure that the adjoining roads are kept clear of debris, soil and other material and cleaning works shall be carried on the adjoining public roads by the developer and at the developer's expense on a daily basis.

Reason: To protect the residential amenities of property in the vicinity.

10. Drainage arrangements, including the attenuation and disposal of surface water, shall comply with the requirements of the planning authorities for such works in respect of both the construction and operation phases of the proposed development.

Reason: In the interest of environmental protection and public health.

11. The applicant shall provide a Property Owners Protection Scheme throughout the construction period of the proposed development and shall be responsible for its management and operation. The Scheme shall assess impacts on properties from vibration due to construction works,

including deep excavation, soil compaction, pile driving, temporary works and enabling works. Details of the Scheme shall be submitted to Dublin City Council for written agreement prior to the commencement of development. In default of any agreement, the matter shall be referred to An Bord Pleanála for determination.

The Scheme shall include provisions for:

- The criteria defining the inclusion of properties falling within the Scheme's remit,
- The access and registration system for the Scheme,
- The categorisation of damage to structures and thresholds for taking actions,
- The nature and extent of pre-, intermediate and post-construction surveys/inspections to be undertaken, and
- The mechanism through which compensation shall be provided.

In the event that structural damage is noted to any structure falling within the Scheme while construction works are in progress and the damage corresponds with a defined category of damage determined to require modification to works, the contractor shall cease works at that location immediately and construction methods and/or equipment shall be modified to avoid further damage.

Reason: In the interest of orderly development and to minimise structural damage to vulnerable properties.

12. The applicant shall provide, at the expense of CIÉ/IÉ, a scheme of temporary rehousing / alternative accommodation for residential properties for such a time as the construction works and/or associated compounds are in operation within 100m of a property, where construction noise and vibration levels would be such that mitigation would not provide sufficient

attenuation to prevent disturbance or interference with everyday activities and/or sleep. Details of the temporary accommodation scheme shall be submitted to Dublin City Council for written agreement prior to the commencement of development and shall include eligibility criteria to determine the properties falling within the scheme's remit. In default of any agreement, the matter shall be referred to An Bord Pleanála for determination.

Reason: In the interest of residential amenity.

13. Prior to the commencement of development, the developer shall engage with residential property owners adjoining the railway line along the route between the new Spencer Dock Station and North Strand Road to agree on a programme of measures to minimise impacts on residential amenity. The process shall be agreed with, and be overseen by, Dublin City Council.

In default of any agreement, the matter shall be referred to An Bord Pleanála for determination.

Reason: In the interest of residential amenity.

I confirm that this report represents my professional planning assessment, judgement and opinion on the matter assigned to me and that no person has influenced or sought to influence, directly or indirectly, the exercise of my professional judgement in an improper or inappropriate way.

Kevin Moore
Senior Planning Inspector

31st January 2024

APPENDIX 1 - OUTLINE REPORT OF THE ORAL HEARING

An Bord Pleanála Ref.: ABP-314232-22

Development Proposal: DART+ West Railway Order - Dublin City to Maynooth and M3 Parkway, Counties Dublin, Meath and Kildare

Venues: Gresham Hotel, O'Connell Street, Dublin1
An Bord Pleanála Offices, Marlborough Street, Dublin 1

Dates: 28th September, 2023
3rd - 6th October, 2023
10th – 13th October, 2023

In Attendance:

FIRST PARTY

Córas Iompair Éireann / Iarnród Éireann

Mr. Conleth Bradley BL

Mr. Mark Kilcullen

Mr. Barry Corrigan, Railway Order Manager

Ms. Christina Chalé, Project Manager

Mr. Morgan Harte, Land Referencing

Mr. Michael Finan, Programme Manager for Dart+ West

Ms. Frances O'Kelly, Population

Mr. Stephen Smyth, Noise & Vibration

Mr. Thomas Burns, Landscape and Visual Impact

Mr. John Paul Rooney, Hydrology

Mr. Alex Jones, Hydrogeology

Mr. Patrick O'Shea, Ecology

Ms. Faith Bailey, Archaeology

Mr. Nigel Dignan

Mr. John Blythe, Land & Property

Mr. Philip Shields, Traffic & Transportation

Mr. Paul Kissane, Land & Soils

Mr. Rob Goodbody, Architectural Heritage

Mr. Kevin Blackwood, Conservation Architecture

Ms. Linda Angus, Design Manager

Mr. Michael Sadlier, Equine Consultant

Ms. Avril Challoner, Air Quality Consultant

Mr. Damien Farrell, Chief Mechanical Engineers Dept.

LOCAL AUTHORITIES

Kildare County Council – Ms. Eimear Ni Fhatharta Senior Planner, Mr. George Willoughby Senior Executive Engineer

Meath County Council – Ms. Wendy Bagnell Senior Executive Planner

Fingal County Council – Mr. Paul Carroll Senior Engineer, Ms. Imelda Hickey Executive Planner

Dublin City Council – Ms. Deirdre Scully, Acting City Planner

PRESCRIBED BODIES

Transport Infrastructure Ireland – Ms. Tara Spain

Department of Housing, Local Government and Heritage – Mr. Terry Doherty

Waterways Ireland – Mr. Mervyn Hamill

An Taisce – Mr. Andrew Davies

PUBLIC REPRESENTATIVES

Senator Emer Currie

Mary Donoghue on behalf of Leo Varadkar TD

Cllr Ted Leddy

Cllr Joe Neville

Cllr John Walsh

Catherine Murphy TD

Cllr Tim Durkan

Cllr Nuala Killeen

LANDOWNERS AND OBSERVERS

Spencer Place Development Company – Mr. John Spain, Mr. Pierce Sutton

Mr. Kenneth Pierce

Ms. Beatrice Vance

Ms. Collette Maguire

Mr. Kevin Reid

Mr. Christopher Reid

Ms. Gráinne Reid – Mr. Kevin Reid

Mr. John Danham IWA

Gowan Group Ltd. – Mr. Dermot Flanagan BL, Mr. Dermot Healy, Engineer

Ms. Anna Lalor, Rathborne Village Residents Committee

Lintwell Ltd. (Castlethorn and Chartered Land Group) – Mr. Neil Steen BL, Ms. Susan Dawson, Architect, Mr. Joe Gibbon, Consulting Engineer, Mr. James Slattery, Conservation Architect.

Burke Bros. – Mr. Oisín Collins BL

Ms. Pat Allison

Navan Road Community Council – Ms. Pat Allison

Musgrave Operating Partners Ireland Limited – Mr. Owen Munn

Flynn and O’Flaherty Construction – Mr. John Smyth, Architect, Mr. Ian Bogle, Architect

Ashleigh Residents – Mr. Con O’Toole

Mr. John Devitt

Delwood Residents Association – Mr. Larry O’Sullivan

Kirkpatrick Rockfield Coolmine Residents’ Association (KRCRA) – Ms. Anne Sheridan

Mr. Brian O’Connor

Ms. Anne Mooney & Others (Luttrell Park Residents) – Ms. Anne Mooney

Mr. Kevin O’Ceallaigh

Mr. Brian O'Connor on behalf of Ms. Ciara O'Neill

Mr. Brian O'Connor on behalf of Mr. Patrick Lynch

Mr. Conor O'Malley

Confey GAA Club – Mr. Tom Corr

Mr. Stephen Gartland

Eamonn and Josephe Kelly – Mr. Tom Corr

Eileen & James Foley – Mr. Tom Corr

St. Patrick's College, Maynooth – Mr. John Spain, Mr. Declan Hall, Mr. David Ferguson

Sherwood Homes Ltd. – Ms. Patricia Keane, Ms. Laura Brock, Mr. Declan Hall, Mr. Gerard Keane

Mr. Patrick Comerford

Mr. Stephen Collins

Mr. Gary Harpur

Mr. P.J. Fallon

Mr. William J. Smith

Carlos Clarke – Mr. Tom Phillips, Mr. Christopher Callan, Mr. Costello, Dr Franke

Alanna Homes, Dragonglen & Alcove Ireland Eight Ltd. – Mr. Oisín Collins BL

Seamus Ross – Mr. Tom Corr, Mr. Freeman

- NOTE 1:** All of the proceedings of the Oral Hearing are recorded and the recording is available on the Board's network. What follows below is a brief outline of the proceedings. This outline is proposed to function as an aid in following the recording.
- NOTE 2:** The Applicant responded to each of the landowner and observer submissions at the Oral Hearing and clarifications by the Applicant that were sought from the landowners and observers followed. Outstanding questions by landowners and observers were posed following the applicant's response to their submissions and further discussion took place where further clarity was required.
- NOTE 3:** The assessment in my main report makes reference to details submitted in evidence at the Oral Hearing.
- NOTE 4:** For a list of prepared texts and other submissions given to the Inspector at the Oral Hearing see the end of this brief outline. These submissions have been numbered and any references to same in the outline below directly relate.

DAY 1 Gresham Hotel, O'Connell Street, Dublin 1

Opening of Hearing

At the outset of the Hearing I outlined matters relating to the Railway Order Application and the extent of the submissions made by landowners and observers which were received by the Board. I referenced the Order of Proceedings and Agenda as previously forwarded to all parties.

THE PROCEEDINGS

MODULE A

The Applicant's Submission

Project Description

In accordance with the Order of Proceedings, Mr. Conleth Bradley SC gave a brief overview of the project and referred to legislative provisions relating to developments of this nature.

The Inspector raised a number of questions with the applicant, seeking further details on the application, which the applicant agreed to provide during the course of the Hearing. This included building drawings, clarity on AA screening, construction impacts, clarity on the Main Storage and Distribution Centre, ESB and EirGrid proposals, and provision of lifts at stations.

Local Authority Submissions

Kildare County Council

Ms. Eimear Ní Fhatharta gave an overview of the Council's position in relation to the project.

Meath County Council

Ms. Wendy Bagnall gave an overview of the Council's position in relation to the project.

Fingal County Council

Mr. Paul Carroll gave an overview of the Council's position in relation to the project.

Dublin City Council

Ms. Deirdre Scully gave an overview of the Council's position in relation to the project.

Prescribed Bodies Submissions

Transport Infrastructure Ireland

Ms. Tara Spain gave an overview of TII's position in relation to the project.

Department of Housing, Local Government and Heritage

Mr. Terry Doherty gave an overview of the Department's position on nature conservation in relation to the project.

Waterways Ireland

Mr. Mervyn Hamill gave an overview of the authority's position in relation to the project and its impacts on the Royal Canal.

An Taisce

Mr. Andrew Davies gave an overview of its position in relation to the project.

Clarifications to questions raised were provided by the applicant from Mr. Patrick O'Shea, Ms. Christina Chalé, Mr. Barry Corrigan, Mr. Michael Finan, and Mr. Stephen Smyth. This included footbridge design changes at Ashtown, Coolmine, Porterstown and Clonsilla.

Public Representative Submissions

The following public representatives made oral submissions to the Hearing:

Senator Emer Currie

Mary Donoghue, on behalf of Leo Varadkar TD,

Cllr Ted Leddy

Cllr Joe Neville

Cllr John Walsh

Catherine Murphy TD

Cllr Tim Durkan

Cllr Nuala Killeen

Clarifications:

Mr. Willoughby presented a briefing note on behalf of Kildare County Council in relation to the Maynooth Outer Orbital Route and the Maynooth Eastern Relief Road.

The applicant presented Errata along with an addendum on the proposed footbridge changes. Clarity was provided on the Main Storage and Distribution Centre.

MODULE B

Spencer Place Development Company

Mr. John Spain and Mr. Pierce Sutton set out the position of the landowner on the project at the proposed Spencer Dock Station.

This was followed by responses to this submission on behalf of the applicant from Ms. Chalé, Mr. Kilcullen, and Mr. Bradley.

Kenneth Pierce

Mr. Kenneth Pierce made a submission reiterating concerns relating to the impact of the railway development on his residential property at Northbrook Terrace, Dublin 3.

Beatrice Vance

Ms. Beatrice Vance made a submission reiterating concerns relating to the impact of the railway development on her residential property at Northbrook Terrace, Dublin 3.

This was followed by response to this submission on behalf of the applicant from Mr. Smyth, Mr. Kilcullen, Mr. Burns, and Mr. Corrigan.

DAY 2 Offices of An Bord Pleanála, Marlborough Street, Dublin 1

MODULE B Cont'd

Mr. Barry Corrigan provided further clarity on the Main Storage and Distribution Centre.

Discussions between representatives of Spencer Place Development Company and the applicant followed.

Further questions were posed to the applicant by the Inspector, including matters relating to waste disposal, extent of proposed works at Connolly Station, bridge platforms, noise barriers, traffic modelling, and freight use of railway lines.

IWAI Royal Canal Section

Mr. John Danham set out the position of IWAI on the project

Responses by the applicant were provided by Mr. Michael Finan, Ms. Christina Chale, and Mr. Mark Kilcullen.

Further questions were posed to the applicant by the Inspector, including matters relating to the option selection process, the cycle network associated with cycle provisions with the project, and handling of excavated materials.

Collette Maguire and David Conroy

Ms. Collette Maguire made a submission reiterating concerns relating to the impact of the railway development on his residential property at Bessborough Avenue.

This was followed by responses from the applicant to this submission from Mr. Morgan Harte, Ms. Christina Chalé, Mr. Nigel Dignan, Mr. Stephen Smyth, Mr. John Paul Rooney, Mr. Michael Finan, Mr. John Blythe, and Mr. Mark Kilcullen.

MODULE C

Mr. Kevin Reid

Mr. Reid made a submission reiterating concerns relating to the impact of the railway development at Ashtown Stables and its environs.

Mr. Christopher Reid

Mr. Reid made a submission reiterating concerns relating to the impact of the railway development at Ashtown Stables and its environs.

Ms. Gráinne Reid

Mr. Kevin Reid read into the record a submission on behalf of Ms. Reid reiterating concerns relating to the impact of the railway development at Ashtown Stables and its environs.

Responses to these submissions were made by Mr. Barry Corrigan, Mr. Mark Kilcullen, Mr. Stephen Smyth, Mr. Michael Sadlier, Mr. John Blythe, Mr. Patrick O'Shea, and Mr. John Paul Rooney.

Responses to the Inspector's questions relating to level crossing closures and the option selection process were provided by Mr. Mark Kilcullen.

Anna Lalor

Ms. Anna Lalor made a submission on her own behalf and on behalf of Rathborne Village Residents Committee reiterating concerns relating to the impact of the railway development on Ashtown.

DAY 3 Offices of An Bord Pleanála, Marlborough Street, Dublin 1

MODULE C Cont'd

The applicant continued its response to Inspector's questions relating to the option selection process, level crossing closures, the cycle network, waste, and comparative costings.

Lintwell

Mr. Neil Steen, Ms. Susan Dawson, Mr. James Slattery, and Mr. Joe Gibbons made a submission reiterating concerns relating to the impact of the railway development at Ashton House and addressing the landowner's alternative proposal.

Responses to these submissions were made on behalf of the applicant by Mr. Barry Corrigan, Mr. Mark Kilcullen, Mr. Thomas Burns, Mr. Conleth Bradley, and Mr. Rob Goodbody.

The applicant, in response to questions, provided details including the Road Safety Audit for Ashtown, cost comparisons for options at Ashtown, and the depot drawings.

The applicant provided responses to the submission by Anna Lalor.

Ms. Pat Allison

Ms. Allison made a submission reiterating concerns relating to the impact of the railway development at Ashtown.

Responses were given to this submission by Mr. Mark Kilcullen, Mr. Patrick O'Shea, and Mr. Michael Sadlier.

Navan Road Community Council

Ms. Pat Allison made a submission on behalf of the Community Council reiterating its concerns relating to the impact of the railway development.

A response to the submission was given by Mr. Mark Kilcullen.

Musgrave Operating Partners Ireland Limited

Mr. Owen Munn made a submission reiterating concerns relating to the impact of the railway development on SuperValu, Ashtown.

A response to the submission was given by Mr. Mark Kilcullen.

DAY 4 Offices of An Bord Pleanála, Marlborough Street, Dublin 1

MODULE C Cont'd

The applicant provided details on the MCA cost comparison, sightline details at Ashtion House, and a second errata document. Further clarity was provided in response to the Inspector's questions, including matters relating to waste disposal, interface with MetroLink, works at Connolly Station, bridge platforms, railway freight traffic, and transport modelling.

Gowan Group

Mr. Flanagan and Mr. Healy made a submission reiterating concerns relating to the impact of the railway development on the Gowan Group premises at Ashtown.

Clarification was provided on behalf of the applicant by Mr. Corrigan, Mr. Kilcullen, and Mr. Bradley.

Burke Bros.

Mr. Collins and Mr. Healy made submissions reiterating concerns relating to the impact of the railway development on the Burke Bros premises at Ashtown.

Responses on behalf of the applicant were provided by Mr. Blythe, Mr. Corrigan, Mr. Kilcullen, and Mr. Bradley.

Flynn and O’Flaherty Construction

Mr. Smyth and Mr. Bogle made a submission reiterating concerns relating to the impact of the railway development on the landowner’s property at Navan Road Parkway.

A response to the submission was made by Mr. Corrigan.

Ashleigh Residents

Mr. O’Toole made a submission addressing concerns about the impact of the proposed railway development at Ashleigh estate.

Responses to this submission were provided by Mr. Barry Corrigan, Ms. Christina Chalé, Mr. Thomas Burns, and Mr. Mark Kilcullen.

John Devitt

Mr. Devitt made a submission reiterating concerns relating to the impact of the railway development on the Coolmine area.

Delwood Residents Association

Mr. Larry O’Sullivan made a submission on behalf of the residents reiterating concerns relating to the impact of the railway development on the Coolmine area.

DAY 5 Offices of An Bord Pleanála, Marlborough Street, Dublin 1

MODULE C Cont'd

Responses to the submissions by Mr. Devitt and Delwood Residents Association were provided by Mr. Barry Corrigan, Mr. Shields, Ms. Chalé, Mr. Kilcullen, and Ms. O'Kelly.

Kirkpatrick Rockfield Coolmine Residents' Association (KRCRA)

Ms. Anne Sheridan made a submission on behalf of the residents reiterating its concerns relating to the impact of the railway development.

Responses to the submission were provided by Ms. Chalé, Mr. Kilcullen, and Ms. O'Kelly.

Brian O'Connor

Mr. O'Connor made a submission reiterating concerns relating to the impact of the railway development on the Coolmine, Porterstown and Clonsilla area.

Responses to the submission were provided by Mr. Corrigan and Mr. Kilcullen.

Residents of Luttrell Park

Ms. Anne Mooney made a submission on behalf of the residents reiterating concerns relating to the impact of the railway development on the Coolmine area.

Kevin O’Ceallaigh

Mr. O’Ceallaigh made a submission reiterating concerns relating to the impact of the railway development on Coolmine.

Ciara O’Neill

Mr. Brian O’Connor made a submission on behalf of Ms. O’Neill reiterating concerns relating to the impact of the railway development on Coolmine.

Mr. Patrick Lynch

Mr. Brian O’Connor made a submission on behalf of Mr. Lynch reiterating concerns relating to the impact of the railway development on Coolmine.

DAY 6 Offices of An Bord Pleanála, Marlborough Street, Dublin 1

MODULE C Cont’d

The applicant provided responses from Mr. Kilcullen, Mr. Shields, and Ms. Challoner to the submissions by Ms. Anne Mooney.

MODULE E

Conor O’Malley

Mr. O’Malley made a submission relating to a new station serving Lucan North.

Mr. Corrigan and Mr. Kilcullen on behalf of the applicant provided responses to the submission.

Convey GAA Club

Mr. Tom Corr made a submission on behalf of Convey GAA Club.

Stephen Gartland & Others

Mr. Gartland made a submission on behalf of himself and others in Glendale relating to impacts of the proposed development on the Leixlip Convey area.

Mr. Corrigan gave a response to the submission on behalf of the applicant.

MODULE F**Eamonn and Joseph Kelly**

Mr. Tom Corr made a submission on behalf of the landowners in the proposed depot area.

The applicant provided responses to the submission from Mr. Rooney, Mr. O'Shea, and Mr. Corrigan.

St. Patrick's College, Maynooth

Mr. John Spain and Mr. Declan Hall made submissions on behalf of the landowner relating to impacts of the proposed development on the College lands.

Mr. Shields, Mr. Rooney, and Mr. Corrigan provided responses to the submission on behalf of the applicant.

Sherwood Homes Limited

Ms. Laura Brock, Mr. Declan Hall, and Mr. Gerard Keane made submissions on behalf of the landowner relating to impacts of the proposed development on its holding west of Maynooth.

Mr. Bradley, Mr. Corrigan, and Mr. Kilcullen provided responses to the submissions on behalf of the applicant.

Patrick Comerford

Mr. Comerford made a submission reiterating his concerns relating to impacts of the proposed depot development and associated infrastructure.

Stephen Collins

Mr. Collins made a submission reiterating his concerns relating to impacts of the proposed depot development and associated infrastructure.

Gary Harpur

Mr. Harpur made a submission reiterating his concerns relating to impacts of the proposed depot development and associated infrastructure.

The applicant provided responses to these submissions from Mr. Kilcullen, Ms. Chalé, Mr. Rooney, Mr. Jones, Mr. Sadlier, and Mr. O'Shea.

DAY 7 Offices of An Bord Pleanála, Marlborough Street, Dublin 1

MODULE F Cont'd

The applicant provided clarification on the proposed depot road. Submissions were made by Mr. Kilcullen and Mr. Burns.

William J. Smith

Mr. Smith made a submission reiterating his concerns relating to the depot selection process and other matters.

Carlos Clarke

Mr. Phillips, Mr. Costello, and Dr Franke made submissions reiterating the landowner's concerns relating to the depot development.

MODULE E

Alanna Homes, Dragonglen & Alcove Ireland Eight Ltd.

Mr. Oisín Collins made a submission on behalf of the landowner and noted the details of an agreement made with the applicant.

Clarification was provided by the applicant from Mr. Harte.

Seamus Ross

Mr. Corr and Mr. Freeman made a submission on behalf of the landowner in the Barberstown area.

The applicant provided responses from Mr. Kilcullen and Mr. Blighe to the submissions.

Mr. Smyth on behalf of the applicant provided a response to the Inspector's questions relating to the construction impacts of the proposed development on Station House, Ashtown.

Responses were also given by Mr. Kilcullen, Mr. Burns, Ms. O'Kelly, Ms. Chalé, Ms. Angus, Mr. Blackwood, and Mr. Corrigan in answer to questions from the Inspector and submissions for the Leixlip area. These related to Barbertstown access, lighting, the masterplan for Leixlip, substation changes, Blakestown infrastructure, Cope Bridge options, Convey GAA, and park and ride facilities.

The Board received an update on the NIS from the applicant at the end of the proceedings for Day 7.

DAY 8 Offices of An Bord Pleanála, Marlborough Street, Dublin 1

MODULE F Cont'd

The applicant clarified the nature of the update to the NIS.

In response to the Carlos Clarke submissions, submissions were provided by the applicant from Ms. O'Kelly, Mr. Kilcullen, Mr. Rooney, Mr. Corrigan, Mr. Burns, Mr. Jones, Mr. Kissane, Mr. Blighe, Mr. Bradley, Mr. O'Shea, Ms. Chalé, and Mr. Farrell.

Substantial discussion followed between the landowner and the applicant on the issues relating to the development of the depot.

DAY 9 Offices of An Bord Pleanála, Marlborough Street, Dublin 1

MODULE F Cont'd

Clarification was provided by the applicant on the depot development from Mr. Kilcullen, Mr. Farrell, and Mr. Corrigan.

Further discussion on the depot development continued between the landowner and observers and the applicant.

Closing Remarks

Closing remarks were received on Day 9 from the following:

Mr. Kevin Reid

Mr. Christopher Reid

Ms. Pat Allison

Navan Road Community Council

Brian O'Connor

Kilpatrick Rockfield Coolmine Residents Association

Carlos Clark – Mr. Tom Philips

Mr. Stephen Collins

Mr. William J Smith

Fingal County Council – Mr. Paul Keane Fingal

Applicant – CIE Mr. Bradley

SUBMISSIONS TO ORAL HEARING

Day 1 – 28th September, 2023

- 1. Mr. Conleth Bradley SC - CIÉ Opening Statement**
- 2. Agreement between CIÉ/Irish Rail and Transport Infrastructure Ireland**
- 3. Ms. Tara Spain - TII Written Statement**
- 4. Mr. Terry Doherty - Submission on Behalf of Department of Housing, Local Government and Heritage**
- 5. Mr. Andrew Davies - Submission by An Taisce**
- 6. Cllr Ted Leddy – Photographs of Ashleigh Estate**
- 7. Applicant – Errata to be Submitted to An Bord Pleanála**
- 8. Applicant – Addendum – Pedestrian & Cyclist Bridge Environmental Assessment Report & Drawings**

9. **Cllr John Walsh - DART+ West Oral Hearing Submission**
10. **Mr. John Spain - Submission on behalf of Spencer Place Development Company Limited**
11. **Mr. Pearse Sutton - Submission on behalf of Spencer Place Development Company Limited**
12. **Mr. Kenneth Pierce - Noise Submission**
13. **Ms. Beatrice Vance - Speaking Notes**

Day 2 – 3rd October, 2023

1. **Mr. John Banham, IWAI - Correspondence from Fáilte Ireland**
2. **Mr. John Banham, IWAI - Correspondence from Waterways Ireland**
3. **Ms. Colette Maguire - An Bord Pleanála Oral Hearing Presentation**

4. **Ms. Colette Maguire - Oral Hearing Supplementary Information
Number 1**
5. **Ms. Colette Maguire - Oral Hearing Supplementary Information
Number 2**
6. **Ms. Colette Maguire - Oral Hearing Supplementary Information
Number 3**
7. **Dr Kevin Reid - An Bord Pleanála Oral Hearing DartWest**
8. **Mr. Christopher Reid - Document for Oral Hearing**
9. **Submission from Ms. Gráinne Reid**
10. **Mr. Christopher Reid - Document for Oral Hearing**
11. **Ms. Anna Lalor - Rathborne Village Residents Committee Dart+ West
Oral Hearing**

Day 3 – 4th October, 2023

- 1. Applicant – Depot Architectural Design Drawings**
- 2. Lintwell Ltd. - Dart+ West Oral Hearing Submission O'Mahoney Pike
(1)**
- 3. Lintwell Ltd. - Dart+ West Oral Hearing Submission O'Mahoney Pike
(2)**
- 4. Lintwell Ltd. - Proposed C & CL Group/Lintwell Ltd. Site Layout**
- 5. Lintwell Ltd. - Proposed C & CL Group/Lintwell Ltd. Site Layout with IE
Works Red Line Boundary**
- 6. Applicant – Photomontages: Views from property of Ashtown House**
- 7. Ms. Pat Allison - Photos of Whitethorn Hedge on Ashtown Road**
- 8. Ms. Pat Allison - Record of Council Meeting 14th June 201**

9. **Ms. Pat Allison - Photos of Wetland along Canal**
10. **Navan Road Community Council - Correspondence and drawing relating to lowering of railway line at Ashtown**
11. **Mr. Eoin Munn - Submission on Dart+ West Oral Hearing on behalf of Musgrave Operating Partners Ireland Limited**

Day 4 – 5th October, 2023

1. **Applicant - Dart+ West MCA Option Costs**
2. **Applicant - Level Crossing Statistics**
3. **Applicant - “Railway Safety Performance in Ireland 2020”**
4. **Applicant - “Enhancing Level Crossing Safety 2019-2029”**
5. **Applicant - Dart+ West Project Section A: Spencer Dock to M50 Stage 1 Road Safety Audit**

6. **Applicant - DMURS Visibility Requirements at entrance to Ashton House**
7. **Applicant - Errata 2 to be Submitted to An Bord Pleanála**
8. **Mr. Diarmuid Healy - Dart+ West Railway Order Dublin City to Maynooth and M3 Parkway Impact on Gowan Group Limited**
9. **Mr. Dermot Flanagan BL - Outline Legal Submission on behalf of Gowan Group**
10. **Mr. John Smyth, OMS Architects - Submission on behalf of Flynn & O'Flaherty Construction**
11. **Submission and Photographs on behalf of Ashleigh Residents' Association**
12. **Withdrawal of objection from the late Mr. John Malone and Ms. Grainne Malone**

13. **Copy of Agreement between CIÉ/Irish Rail and Mr. Sean Malone as personal representative of the late Mr. John Malone and Ms. Gráinne Malone.**
14. **Mr. John Devitt - Response to Irish Rail Submission on Observations to the Draft Railway Order Application (Slides 1)**
15. **Mr. John Devitt - Response to Irish Rail Submission on Observations to the Draft Railway Order Application (Slides 2)**
16. **Mr. John Devitt - Observations on Dart+ West Draft Railway Order**
17. **Mr. John Devitt - Oral Statement**
18. **Mr. Larry O’Sullivan - Response to IR Submission by Delwood Residents Association**

Day 5 – 6th October, 2023

1. **Ms. Pat Allison - Photos of Ashtown Post Office**

2. **Ms. Anne Sheridan - KRCRA Submission Dart West + Railway Order
Ref No 314232**
3. **Mr. Kevin O Ceallaigh - Speaking Points ABP**
4. **Ms. Ciara O'Neill - Oral Hearing Submission**
5. **Mr. Pat Lynch - Oral Hearing Submission**

Day 6 –10th October, 2023

1. **Applicant - Level Crossings Slides**
2. **Applicant - Updates to Chapter 12 Air Quality**
3. **Applicant - Updates to Chapter 13 Climate**
4. **Mr. Stephen Gartland Glendale Leixlip – Response to Submission 1**
5. **St. Patrick's College Maynooth – Submission prepared by Mr. John Spain**

- 6. St. Patrick's College Maynooth - Key policy changes and developments since lodgement of the Railway Order**
- 7. Addendum to Statement by John Spain Associates – Mr. Declan Hall on behalf of St. Patrick's College Maynooth**
- 8. Brock McClure - Oral Hearing Statement on behalf of Sherwood Homes Limited**
- 9. Mr. Patrick Comerford - Ballycurraghan Flooding Photos**
- 10. Mr. Patrick Comerford - M4 Flooding Maynooth Photos**
- 11. Mr. Patrick Comerford - Dart Plus West Traffic Management & Plans Photos**
- 12. Mr. Stephen Collins - Flooding Photos 05.08.23**
- 13. Mr. Stephen Collins - Dart Plus West Traffic Management & Plans**

14. **Mr. Stephen Collins - Letter re The effects of selenium on Bloodstock Production**

Day 7 –11th October, 2023

1. **Carlos Clarke – Slides presented by Mr. Tom Phillips**
2. **Carlos Clarke – Photos and Drainage Map – Mr. Costello**
3. **Carlos Clarke – Flood Studies Update Final Report – Mr. Costello**
4. **Response to Irish Rail Response to Submission by Mr. William J. Smyth Re Dart+ Project**
5. **Mr. Tom Corr - Dart+ West Railway Order Hearing Ross Owned Lands**
6. **Mr. Oisín Collins BL – Submission on behalf of Alanna Homes, Dragonglen Limites Alcove Ireland Four Limited**
7. **Applicant - Level Crossings Slides**

- 8. Applicant - Design Standard Drawings**
- 9. Applicant - Permanent Way on Depot Road**
- 10. Applicant - Submission by Dr Avril Challoner on Air Quality**
- 11. Applicant - Response by Mark Kilcullen to Carlos Clarke Submission**
- 12. Applicant - Response by Mark Kilcullen to Depot Location**
- 13. Applicant – Response by Cristina Chalé on Depot Drainage System**
- 14. Applicant - Updates to Chapter 8 Biodiversity**
- 15. Applicant - Updates to Natura Impact Statement**
- 16. Applicant - Updates to Chapter 26 Cumulative Effects**
- 17. Applicant - Proposed Preservation in-situ of AH04 (PMP DU013-018)**

Day 8 –12th October, 2023

- 1. Applicant - Updates to Planning Report**

- 2. Applicant - Depot Architectural Design Drawings**

Day 9 –13th October, 2023

- 1. Applicant - Depot Civil Design Utilities Surface Water Drainage Drawings**

- 2. Applicant - Depot Civil Design Layout Levels Drawings**

- 3. Applicant - Depot Architecture Design Drawings**

- 4. Applicant - Chapter 4 – Revised Table 4-24 Depot Buildings**

- 5. Dr Kevin Reid – Concluding Remarks**

- 6. Navan Road Community Council – Letter**

7. Fingal County Council – Concluding Remarks

Kevin Moore

Senior Planning Inspector

31st January, 2024