Chapter 16 Material Assets and Land











Chapter 16

Material Assets and Land

16.1 Introduction

The Material Assets and Land chapter assesses the impact of the proposed development on material assets which are defined as physical resources in the environment, which may be either of human or natural origin such as built services, residential and commercial property, development land or maritime businesses within the study area. A development may also affect material assets if it involves any of the following:

- Acquisition of land; and
- Changes to existing services and infrastructure.

16.2 Methodology

16.2.1 Guidelines

The following EPA guidance and guideline documents have informed the assessment process:

- Draft Guidelines on the Information to be contained in Environmental Impact Assessment Reports (EPA, 2017);
- Draft Advice Notes for Preparing Environmental Impact Statements (EPA, 2015);
- Advice notes on Current Practice in the Preparation of Environmental Impact Statements (EPA, 2003); and
- Guidelines on the information to be contained in environmental impact statements (EPA, 2002).

16.2.2 Scope

This chapter will describe the receiving environment and determine the significance of the impact of the proposed development on:

- Land use and ownership an examination of impacts on housing, severance, loss of rights of way or amenities, conflicts, or other changes likely to ultimately alter the character and use of the surroundings;
- Local economy, businesses, and community facilities an assessment of the
 effect on the operation of local businesses and community at construction and
 operation phases of the proposed development.
- Transport Infrastructure; and,
- Existing services and utilities

16.2.3 Study Area

There is no official guidance on the appropriate geographical scope (i.e. study area) to apply in the assessment of impacts on material assets and land. Since this assessment considers the impacts on a variety of different aspects of the environment, the geographical scope of the assessment will be applied on a case-by-case basis for each of the headings of the assessment, using professional judgement.

16.2.4 Sources of Information

In order to complete this assessment, a baseline study of the existing material assets environment has been undertaken. The sources of information contained in Table 16.1 were consulted in the process of this assessment.

Table 16.1 Information Used in Assessment and Sources

Information	Source
Landowner Information	Waterford City and County Council
Land Use	 Waterford City Development Plan 2013 – 2019 (as extended) Draft Waterford City and County Development Plan 2022 - 2028 Kilkenny City and County Development Plan 2021 - 2027 Corine Landcover, (2018)
Mapping and project information	Roughan & O'Donovan

In addition to the sources listed above, aerial photography, OSI maps, Google Maps and a site layout plan of the existing area and proposed development have been reviewed.

The Material Assets and Land Chapter should be read in conjunction with the following chapters:

- Chapter 4 Description of the Proposed Development;
- Chapter 5 Traffic Analysis;
- Chapter 6 Population and Human Health;
- Chapter 10 Hydrology; and
- Chapter 12 Noise and Vibration.

16.3 Description of Receiving Environment

16.3.1 Land Use and Ownership

Corine 2018 landcover data¹ was consulted to categorise the land use within the study area of the proposed development. The land use is classified as 'artificial surfaces' by Corine 2018 landcover data, consisting of industrial, commercial and transport units which corresponds to the land use patterns observed on desktop mapping tools such as aerial photography and Google Earth satellite maps. The land use adjacent to the proposed flood defences consists of the live railway infrastructure serviced by Plunkett Station and the Sallypark Industrial Estate which are under the ownership of Córas Iompair Éireann (CIÉ) and operated by Iarnród Éireann (IÉ). Waterford City and County Council has been in consultation with IÉ since the beginning of the proposed development to gain access into the site across the live railway line.

The River Suir bounds the proposed development to the south. Elements of the proposed development, such as riverside installation of sheet piles and drainage works will be carried out within the foreshore of the River Suir.

¹ EPA Maps. Source: https://gis.epa.ie/EPAMaps/

The proposed development is also located on lands not in the ownership of CIÉ or WCCC and mainly constitute existing road network, including section of the Rice Bridge roundabout and its approach roads: R680 Rice Bridge, R447 Terminus Street and R711 Dock Road.

Unregistered lands are also present within the site boundary of the proposed development as shown in Figures 16.1 – 16.6 in Volume 3 of this EIAR.

16.3.2 Local Economy and Businesses

Waterford City is recognised as a Gateway City in the South East of Ireland and is the largest economic centre in the South East. The economic activity of the city is dominated by the commercial, retail, industrial and tourism industries. Additionally, major sources of employment within the city include the Health Service Executive (HSE), government offices, the Department of Education and Waterford Institute of Technology (WIT).

Waterford City is the largest urban area in the South East of Ireland and is an important tourism centre with good transport linkages for both public and private transport. Waterford City is located within Ireland's Ancient East which is a Fáilte Ireland tourism initiative, see Plate 16.1. The aim of the initiative is to attract visitors to areas in Ireland which are renowned for historical features. It is expected that tourism will increase in Waterford City and County as a result of this investment and promotional drive.



Plate 16.1 Image Presenting Ireland's Ancient East. Source: www.irelandsancienteast.com

The closest commercial enterprises, the Swan Plastics Limited and the Paving Yard are located within the Sallypark Industrial Estate adjacent to the proposed development. Similarly, the area on the south bank of the River Suir, parallel to the proposed flood defences primarily contains commercial and industrial enterprises, such as the Waterford Distillery, Fastnet Shipping and Heritage Irish Crystal.

16.3.2.1 Community Facilities

In terms of community facilities, Waterford City offers a large selection of restaurants, cafes, hotels, bars and shops along with visitor attractions such as museums. These facilities have developed in the area over many years and provide important attractions to potential visitors. Additionally, a number of shopping centres of regional importance are located in close proximity to the study area including City Square Shopping Centre and George's Court Shopping Centre. The study area of the proposed development is located in an isolated area on the north quays of Waterford City, characterised by the historically heavy industrial usage, whereas the majority of the aforementioned community facilities are located on the south quays of the city.

16.3.3 Transport Infrastructure

The transport infrastructure within the extents of the Waterford north quays area is shown in Plate 16.2 and discussed below.

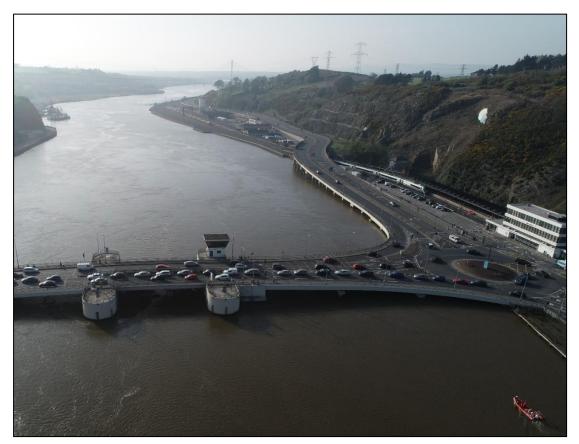


Plate 16.2 Transport Infrastructure within the north guays of Waterford City

Road Infrastructure

Waterford City is connected to major surrounding regions, towns and cities through the existing road network and through bus and train services. There is a high concentration of commuting traffic to, from and through Waterford City.

The road transport network within the study area consists of the R680 regional road which carries traffic across the River Suir via Rice Bridge to and from Waterford South Quays. The Rice Bridge roundabout (as shown in Plate 16.2) located on the north quays provides a connection to the regional road network and the wider area, for the city of Waterford. To the east of the roundabout, the R711 Dock Road serves the Ferrybank/Belview area before joining the N29. From the west of the roundabout, the R448 dual carriageway carries traffic to and from the city providing a connection to the N25. The R448 dual carriageway is located to the north of the proposed development.

Rail Infrastructure

The study area of the proposed development contains the Waterford Railway corridor serviced by Plunkett Station.

Presently, Plunkett Station serves as a significant interchange point for Intercity services from Dublin Heuston and from Limerick Junction, which provides onward connections to Cork, Limerick and Galway. Before the Covid-19 pandemic, seven train services operated each way between Waterford and Dublin from Monday to Saturday inclusive, while only four services were provided each way on Sundays. Only two train services operated each way between Waterford and Limerick Junction on Mondays to Saturdays inclusive.

Train timetables for both railway lines have been revised on 21st of March 2021 as a result of the Covid-19 pandemic and are subject to updates which are dependent on the level of restrictions. The most up to date timetables are included in Appendix 16.1.

Until 18th September 2010, there was one daily service provided each way between Waterford and Rosslare, however due to low passenger numbers and competition with the road network, the rail corridor was suspended (NTA, 2010). The rail service was replaced by bus services to provide connection to Waterford City from Rosslare. This railway corridor is currently out of service and maintained by larnród Éireann. Freight and engineering trains still operate fortnightly between the Waterford to Belview Port section of the rail corridor for deliveries.

The operation of the rail infrastructure in Waterford City has been impacted by recurring flood events. Over the past 15 years, flooding at and in the vicinity of Plunkett Station has been reported in news articles² and observed by the larnród Éireann (IÉ) Inspection Staff – the latest being in October of 2020 (see Plate 16.3 below). It has been found that large sections of the existing quay walls which separate the rail infrastructure from the River Suir are of inadequate height and are below the design flood level of +4.0mOD, rendering them ineffective at protecting IÉ lands and the associated rail infrastructure against flooding. The flood waters frequently enter into larnród Éireann (IÉ) property and affect the railway infrastructure.

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² www.journal.ie published an article on the 17th of Oct. 2012 entitled 'Waterford train station is flooded... very flooded".

www.theirishindependant.ie published an article on the 11th of March 2008 entitled "Escaping in the eye of the storm" and describes that rail services at the existing Plunkett train station were affected due to flooding resulting in bus transfers to be put in place.



Plate 16.3 Flooding at the Plunkett Station in October 2020

River Navigation

The River Suir is a popular navigational channel for recreational and commercial vessels. On the south quays approximately 300m downstream of the proposed development is the location of Waterford City Marina (parallel to Meagher's Quay at the Clock Tower) that is owned and operated by Waterford City and County Council (WCCC). The marina contains both a pontoon, and a floating jetty.

The pontoon is 238m in length and is capable of berthing vessels on both the river side and the land side. The pontoon is used all year round and is busiest during the summer months. The floating jetty is designed to accommodate 40 vessels. The floating jetty is a popular berthing area as the River Suir is deep at this section and is not affected by silting. It is also popular as it is close to the city centre and has a number of adjacent facilities for boat owners including wifi, showers, toilets and laundry facilities.

Two commercial maritime companies are located on the south quays of the city, upstream of Rice Bridge; Fastnet Shipping Ltd. and South East Tug Services Ltd. Furthermore, during storms, fishing trawlers moor upriver, just below Rice Bridge on both the north and south wharfs.

16.3.4 Utilities

A Ground Penetrating Radar (GPR) survey was carried out in October 2018 between Ch.300 and Ch.1090 (see Figures 16.7 to 16.12 in Volume 3 of the EIAR for chainage references) which encompasses the lands adjacent to the existing quay wall and the river embankment where construction works are to take place. The aim of the survey was to determine the nature and condition of existing rail network services. Figures 16.7 to 16.12 in Volume 3 of the EIAR show the existing utilities within the site boundary

of the proposed development based on the findings of the survey, and are outlined below:

Overhead Power Lines: There is a large concentration of overhead power lines spanning the River Suir from the Waterford 110kV Substation located on Waterford south quays. A section of the site boundary is located directly below these power lines.

<u>Water Mains/Fire Mains</u>: Two water main 25mm pipes, two hydrants and a sluice valve were found within the study area.

Underground power lines: One electrical line was found within the study area.

<u>Eircom, UPC (Virgin), BT and other Comms</u>: No evidence of the Eircom, BT, and UPC networks was found within the study area.

Gas, Oil and Fuel mains: Two oil pipes were found with the study area entering and exiting ground from a tank and the nearby signal cabin building at Ch.1150 (see Figure 16.7 – 16.12 for chainage reference points). No evidence of gas pipes was found within the study area.

<u>Unknown Cables/Empty Ducks and Services:</u> Multiple unknown cables were found within the study area, most of these were running along the railway track with some of them crossing the track. See Figures 16.7 – 16.12 in Volume 3 for their location.

16.3.5 Utilities within the Irish Rail Car Parking Area

It is proposed to construct a shallow underground impermeable trench (1m in width and up to 3m in depth) within the car parking areas of Waterford (Plunkett) Station as part of the proposed development to cut-off groundwater flows during high tide events from Ch.0.0 to Ch.300 (refer to Figure 4.2 in Volume 3 of this EIAR). The car parking areas likely contain a number of buried/underground IÉ utilities. They mainly consist of signalling electrical cables, the location of which will be confirmed at detailed design using GPR surveys. Drainage gullies have also been identified during site inspections which discharge directly to the River Suir through multiple outlets through the existing quay wall.

16.3.6 Existing Drainage

There are existing drainage networks within the site boundary of the proposed development which carry the upper catchment drainage and the local depot drainage to the River Suir. The existing drainage network has been described in Chapter 4 of this EIAR and is shown in Figures 16.7 to 16.12 in Volume 3 of this EIAR.

16.4 Description of Potential Impacts

16.4.1 Impact on Land Use and Ownership

The permanent footprint of the proposed development is largely located within the railway corridor which is in the ownership of Córas lompair Éireann (ClÉ) and operated by larnród Éireann (IÉ), with whom the project team have been in consultation throughout the development of the project to agree consent to site access. ClÉ have consented to the proposed development and support the use of their lands for construction of the proposed flood protection measures.

The permanent footprint of the proposed development is also located within areas of the foreshore and on lands not in the ownership of either WCCC or CIÉ. These lands

and areas of the foreshore will be obtained by WCCC through the Compulsory Purchase Order (CPO) process. WCCC or CIÉ will also pursue title to the unregistered lands within the permanent footprint of the proposed development for the purpose of this planning application.

A temporary works area for the proposed development is located within the foreshore. An application for Foreshore Licence consent will be made to the Marine Planning and Foreshore Section of the Department of Housing, Local Government and Heritage for the temporary works area.

During operation, the proposed development will have a positive impact on land use by protecting lands against potential flood events, thereby protecting existing material assets within the area.

16.4.2 Local Economy, Businesses and Community Facilities

Construction

The majority of construction works associated with the proposed development will be confined to the north banks of the River Suir which is dominated by the transport infrastructure and industrial land uses. It is not likely that the proposed development will significantly impact the local businesses and community facilities due to the isolated location of the proposed development site. Businesses located within the Sallypark industrial site may be subject to temporary indirect impacts during construction as a result of noise and vibration increases from activity of machinery and transport vehicles, see Chapter 12 Noise and Vibration of this EIAR for more details.

Overall, the local economy will benefit from the construction phase of the proposed development through purchases of materials for construction, and the expenditure of construction workers in the area.

The riverside sheet-pile wall installation works will be carried out from a barge positioned within the River Suir in the vicinity of the northern bank, and as such, the proposed riverside works are not likely to obstruct the navigational passage of commercial and recreational vessels during the construction phase. However, the construction works at the site may cause annoyance or nuisance to maritime recreational users of the River Suir over the duration of the construction phase, specifically during day-time piling activities which are estimated to occur intermittently throughout the day over approx 3 months, and have the potential to generate negative, moderate and temporary noise levels to commercial properties at Sallypark Industrial Site on the northern bank of the River Suir. Negative, not significant to slight and temporary noise impacts are predicted during daytime for properties at Grattan Quay on the southern bank of the River Suir (see Chapter 12 Noise and Vibration of this EIAR for more details). As such, the construction phase has the potential for *negative*, *slight to moderate*, *temporary* effects on maritime recreational users.

Operation

The proposed development will permanently reduce a small section of the River Suir channel through the installation of the riverside sheet piles in front of the existing quay wall. However, this change to the width of the river channel is very minor in nature, and will have a *neutral*, *permanent* impact on the maritime commercial and recreational activities within the River Suir.

The proposed development is likely to have *direct*, *significant*, *positive*, *long-term effects* on the economy of Waterford City by eliminating the costs associated with potential flood damage to existing built assets, particularly the rail infrastructure to the

west of Plunkett Station and the road infrastructure, specifically Rice Bridge roundabout. The proposed Flood Defences West will also form a continuation of flood protection measures by connecting to the Flood Defences East, which was granted planning approval as part of the SDZ Transport Hub Part VIII planning application. The proposed development will thus, facilitate the development of infrastructure of Waterford City on the northern bank in a sustainable way, including the regeneration of the SDZ lands which aims to drive economic development in Waterford City.

16.4.3 Traffic Infrastructure

16.4.3.1 Rail Infrastructure

Construction

No construction works will take place on the rail line itself, temporary possession of the rail line during night-time works will be required in order to construct specific elements of the proposed flood defence measures such as the underground isolation structure at Ch.1090, c.50m of the landside sheet pile wall and the landside drainage works. This may have an impact on the scheduling of larnród Éireann engineering freight trains. However, all works will be carried out in consultation with IÉ, and no significant impacts are envisaged on the movement of freight trains. The construction of proposed flood protection measures will be carried out with no impact on the passenger rail services.

The construction of an impermeable trench within the car parking areas in front of Plunkett Station is likely to temporarily restrict the number of available parking spaces for users. The construction works will be carried out in a phased approach, whereby the eastern section of the car park will be open while the works to the western section are carried out and vice versa, ensuring that the car park remains open to the public throughout the construction phase.

Operation

The proposed development is likely to have *indirect, significant, positive, long-term effects* on the rail infrastructure during its operation phase by protecting the railway line against existing and future flood risk.

16.4.3.2 Road Infrastructure

Construction

The majority of construction works for the proposed development will be carried out within CIÉ lands and the foreshore and will have an imperceptible impact on the road infrastructure. Installation of flood defence glass parapets for the existing Rice Bridge roundabout are likely to result in diversions for pedestrians utilising the footpaths, with potential to have *negative*, *localised*, *temporary*, and *slight* impacts.

Operation

The proposed development is likely to have *indirect*, *significant*, *positive*, *long* – *term effects* on the transport infrastructure during its operation phase by protecting the Rice Bridge roundabout and associate road infrastructure against existing and future flood risk.

16.4.4 Utilities

Construction Phase

Utilities

While some diversions of utilities will be required during the construction phase of the proposed development, no interruptions to the associated services are anticipated as a result of the construction or operation of the proposed development. The construction of underground impermeable trench within the car parking area(s) in front of Plunkett Station will be carried out in agreement with IÉ to minimise any potential interruptions to IÉ utilities and insofar, the operation of the rail service. The construction of the proposed development is likely to have *negative*, *temporary*, *imperceptible* to *slight effects* on the existing IÉ utilities.

Drainage

There is potential for the build-up of excess silts in the existing drainage networks derived from construction runoff that could limit the network capacity. However, standard pollution control measures will be implemented along with the mitigation measures proposed as part of Chapter 7 Biodiversity and Chapter 10 Hydrology so as to manage contaminated runoff and ensure the existing drainage pathways are maintained during the construction phase. Refer to Chapter 10 Hydrology for details of pollution control measures to be used during the construction phase. The construction of the proposed development is likely to have *temporary imperceptible to neutral effects* on the existing drainage networks.

Operation Phase

Drainage

The proposed development will have a positive impact on the existing drainage network located within the site boundary by upgrading the existing infrastructure as follows:

- Where necessary, extending the drainage pipes to the new sheet pile wall;
- Upgrade the existing surface water outfalls by providing headwalls and erosion control measures to enable future maintenance;
- Provide sealed manhole covers on these existing drainage networks within the railway corridor.

Furthermore, the proposed development entails retrofitting existing and new surface water outfalls within the study area with non-return valves. This will limit tidal ingress during extreme coastal events and reduce coastal flood risk. The development will also require the implementation of surface water pumping stations to discharge surface water in the aforementioned extreme coastal events. This will increase the capacity of the existing surface water drainage network and significantly reduce the risk of flooding from surface water sources. The new pumping stations and pipe work will incur minor additional operational and maintenance costs. The proposed development is likely to have *permanent*, *significant positive effects* on the surface water drainage networks within the study area.

16.5 Mitigation Measures

16.5.1 Construction

During construction, the following mitigation measures are proposed for the Waterford Flood Defences West:

- Measures to control the production of dust will be put in place by the Contractor (refer to Chapter 13 Air Quality and Climate which presents a series of measures to control dust):
- Noise mitigation will be provided during construction of the development.
 Measures to mitigate noise impacts on sensitive receptors are detailed within
 Chapter 12 Noise and Vibration. The Contractor will work within stringent
 construction limits and guidelines to protect residential and commercial
 amenities.
- The upgrade works to the existing drainage system along the railway corridor west of Plunkett Station will be designed to ensure that the current drainage situation will not be impacted and there will be no increased risk of flooding as a consequence of the proposed development;
- Prior to any excavation works, a segment of the ground will be surveyed via a CAT scan and a shallow slit trench will be excavated in order to confirm the position of utilities.
- Any services that are interfered with as a result of the proposed development will be repaired / replaced without unreasonable delay.
- A site plan will be prepared showing the location of all surface water drainage lines and proposed discharge points to surface water. This will also include the location of all existing and proposed surface water protection measures, including best practice measures such as monitoring points, sediment traps, settling basins, interceptors etc.

All construction works will be temporary and will be carried out in line with best practice guidelines, thus minimising the impacts to the receiving communities. The Contractor will work within stringent construction limits and guidelines to protect surrounding amenities.

16.5.2 Operation

During operation, the impacts to material assets and land are likely to be positive and therefore, no mitigation measures are necessary.

16.6 Residual Impacts

The operation of the development will provide many significant positive impacts to the city. Specific significant positive impacts relating to the operational phase of the proposal include the following as outlined above in section 16.4:

- Protecting the existing rail and road infrastructure such as Plunkett Station and the Rice Bridge roundabout from existing and future flood risk.
- Upgrading the existing drainage network within the extents of the proposed development by increasing its capacity to account for extreme weather events induced by climate change.
- Eliminating costs associated with flood damage on built assets, particularly the rail infrastructure at, and to the west of Plunkett Station and the road infrastructure, specifically Rice Bridge roundabout.

There are no significant negative residual impacts predicted for Material Assets as a result of the proposed development. The impacts will remain as outlined in section 16.4.

16.7 Difficulties Encountered

No difficulties were encountered.

Appendix 16.1 Train Timetables











NO SERVICE: will operate between Limerick Jctn. and Waterford on			Mon to	Mon to	Mon to		Mon to		Mon to	Mon to	Mon to	Mon to	Mon to
Sundays and Public Holidays.		Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat
DUBLIN Heuston BOA	Dep			08:00				13:15				17:00	
Athy	Dep							13:56					
Carlow	Dep							14:12					
Muine Bheag	Dep							14:25					
Kilkenny (MacDonagh)	Dep							14:47					
Thomastown	Dep							14:59					
WATERFORD (Plunkett)	Arr	07:00						15:30	40.05				
WATERFORD (Plunkett)	Dep	07:20							16:25				
Carrick-on-Suir	Dep	07:46 08:08							16:51 17:13				
Cahir	Dep	08:27							17:13				
Tipperary	Dep	08:49							17:54				
LIMERICK JUNCTION	Arr	09:03							18:08				
LIMERICK JUNCTION	Dep	09.03	09:18	09:32	09:37	-:-			10.00	18:15	18:23	18:27	
LIMERICK (Colbert)	Arr		00.10	00.02	10:03					18:43	10.20	10.27	
LIMERICK (Colbert)	Dep	- :-				12:30	14:20						19:50
Sixmilebridge	Dep					12:52	14:42						20:12
ENNIS	Arr					13:09	14:59						20:29
ENNIS	Dep						15:02						20:30
Gort	Dep						15:24						20:51
Ardrahan	Dep						15:33						21:00
Craughwell	Dep						15:41						21:09
Athenry	Dep						15:56						21:22
Oranmore	Dep						16:07						21:34
GALWAY (Ceannt) Charleville	Arr						16:15						21:42
	Dep												
Mallow	Dep			10:07*								18:59*	
CORK Kent 00	Arr			10:37								19:32	
DUBLIN Heuston BOA	Arr		10:47								20:04		







- Bus Link (Route 145) to/from Dublin City Centre
- **1** LUAS Tram Link to/from Dublin City Centre
- Bus Link (Route 747) to Dublin Airport
 Bus Link (Routes 226/226A) to Cork Airport.
- Bus Link (Route 205) to U.C.C. and C.I.T.

 ⇒ Limited Bicycle accommodation, check
 www.irishrail.ie. Station platform gates will
 dose 2 minutes prior to departure. Passengers
 should allow 1 hour transfer time between
 Connolly and Heuston Stations, when using
 LIJAS or bus services.

* Connections to Tralee available.

Baile Átha Cliath/Corcaigh/Gaillimh - Gabhal Luimnigh - Cluain Meala - Port Láirge/ Baile Átha Cliath - Luan go Satharn (gan saoire phoiblí san áireamh) - Bailí ó 21.03.2021 go bhfógrófar a mhalairt Dublin/Cork/Galway - Limerick Jctn. - Clonmel - Waterford/Dublin - Monday to Saturday (excluding public holidays) - Valid from 21.03.2021 until further notice

- Bus Link (Route 145) to/from Dublin City Centre
- ♠ LUAS Tram Link to/from Dublin City Centre
 ♠ Bus Link (Route 747) to Dublin Airport
- Bus Link (Route 747) to Dublin Airport
 Bus Link (Routes 226/226A) to Cork
 Airport.
- Bus Link (Route 205) to U.C.C. and C.I.T.

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 www.irishrail.ie. Station platform gates will
 close 2 minutes prior to departure. Passengers
 should allow 1 hour transfer time between
 Connolly and Heuston Stations, when using
 IIAS or hus services.
- * Connections from Tralee available.

NO SERVICE: will operate between													
Limerick Jctn. and Waterford on		Mon to	Mon to	Mon to	Mon to		Mon to	Mon to					
Sundays and Public Holidays.		Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat
DUBLIN Heuston BOA	Dep			From		08:00						17:00	
CORK Kent B0	Dep		08:00	Tralee							17:25	17.00	
Mallow	Dep		08:21	08:43							17:46*		
Charleville	Dep			08:58									
GALWAY (Ceannt)	Dep	06:15		00.00					13:45				
Oranmore	Dep	06:22							13:53				
Athenry	Dep	06:37							14:08				
Craughwell	Dep	06:47							14:17				
Ardrahan	Dep	06:56							14:25				
Gort	Dep	07:11							14:34				
Ennis	Dep	07:40							15:01				
Sixmilebridge	Dep	07:57							15:19				
LIMERICK (Colbert)	Arr	08:20							15:42				
LIMERICK (Colbert)	Dep			09:18	08:55	09:32				17:50	18:23	18:27	
LIMERICK JUNCTION	Arr			09:18	09:23	09:32	00.40			18:22	18:23	18:27	18:40
	Dep						09:40 09:53						18:53
Tipperary Cahir	Dep Dep						10:16						19:16
Clonmel	Dep						10:10						19:34
Carrick-on-Suir	Dep						10:57						19:57
WATERFORD (Plunkett)	Arr						11:25						20:25
WATERFORD (Plunkett)	Dep			-:-	-:-	-:-		13:05	-:-	-:-		-:-	
Thomastown	Dep							13:25					
Kilkenny (MacDonagh)	Dep							13:45					
Muine Bheag	Dep							14:00					
Carlow	Dep							14:12					
Athy	Dep							14:25					
DUBLIN Heuston BOA	Arr			10:47	10:59			15:21	L		20:04		







Baile Átha Cliath - Port Láirge - Luan go Domhnach (gan saoire phoiblí san áireamh) - Bailí ó 21.03.2021 go bhfógrófar a mhalairt Dublin - Waterford - Monday to Sunday (excluding public holidays) - Valid from 21.03.2021 until further notice

		Mon to Sat	Mon to Sat	Mon to Sat	Mon to Sat	Fri Only	Mon to Sat	Mon to Sat	Mon to Sat	Mon to Fri
DUBLIN Heuston BOA	Dep	07:20	10:15	13:15	15:10	16:15	16:40	17:35	18:35	20:15
Park West & Cherry Orchard	Dep									20:22
Clondalkin Fonthill	Dep									20:26
Adamstown	Dep									20:31
Hazelhatch & Celbridge	Dep						16:53			20:36
Sallins & Naas	Dep						17:03	17:52		20:45
Newbridge	Dep	07:41			15:31				18:56	20:52
Kildare	Dep	07:51	10:43		15:42		17:20	18:09	19:07	21:02
Athy	Dep	08:09	10:59	13:56	15:58	17:13	17:40	18:25	19:23	21:17
CARLOW	Arr	08:22	11:11	14:09	16:10	17:25	17:53	18:38	19:36	21:31
Carlow	Dep	08:22	11:11	14:12	16:10	17:25	17:53	18:38	19:42	
Muine Bheag	Dep	08:46	11:24	14:25	16:22		18:06	18:51	19:55	
Kilkenny (MacDonagh)	Arr	09:03	11:42	14:43	16:40		18:24	19:08	20:13	
Kilkenny (MacDonagh)	Dep	09:07	11:46	14:47	16:44		18:28	19:12	20:17	
Thomastown	Dep	09:19	11:58	14:59	16:56		18:40	19:24	20:29	
WATERFORD (Plunkett)	Arr	09:44	12:23	15:30	17:21	18:15	19:04	19:48	20:54	

		Sun Only	Sun Only	Sun Only	Sun Only
DUBLIN Heuston BOA	Dep	09:10	14:10	17:45	18:40
Park West & Cherry Orchard	Dep				
Clondalkin Fonthill	Dep				
Adamstown	Dep				
Hazelhatch & Celbridge	Dep				
Sallins & Naas	Dep				
Newbridge	Dep	09:31	14:31	18:06	
Kildare	Dep	09:42	14:42	18:17	19:09
Athy	Dep	09:58	14:58	18:33	19:29
CARLOW	Arr	10:11	15:11	18:46	19:42
Carlow	Dep	10:14	15:11	18:46	19:42
Muine Bheag	Dep	10:27	15:24	19:01	19:55
Kilkenny (MacDonagh)	Arr	10:45	15:42	19:20	20:13
Kilkenny (MacDonagh)	Dep	10:49	15:47	19:24	20:17
Thomastown	Dep	11:01	15:59	19:36	20:29
WATERFORD (Plunkett)	Arr	11:26	16:24	20:01	20:54



Bus Link (Route 145) to/from Dublin City Centre LUAS Tram Link to/from Dublin City Centre Bus Link (Route 747) to Dublin Airport Limited Bicycle accommodation, check www.irishrail.ie. Station platform gates will close 2 minutes prior to departure.

Passengers should allow 1 hour transfer time between Connolly and Heuston Stations, when using LUAS or bus services.





Port Láirge - Baile Átha Cliath - Luan go Domhnach (gan saoire phoiblí san áireamh) - Bailí ó 21.03.2021 go bhfógrófar a mhalairt Waterford - Dublin - Monday to Sunday (excluding public holidays) - Valid from 21.03.2021 until further notice

		Mon to Fri	Mon to Sat	Fri & SatOnly	Mon to Sat	Mon to Fri					
WATERFORD (Plunkett)	Dep		05:55		07:50	11:00	13:05	14:50	16:05	18:25	
Thomastown	Dep		06:16		08:11	11:21	13:25	15:12		18:55	
Kilkenny (MacDonagh)	Arr		06:31		08:26	11:37	13:41	15:26		19:11	
Kilkenny (MacDonagh)	Dep		06:35		08:30	11:43	13:45	15:30		19:15	
Muine Bheag	Dep		06:50	07:42	08:45	11:58	14:00	15:45		19:31	
Carlow	Arr		07:02	07:55	08:58	12:10	14:12	15:57	17:00	19:43	
CARLOW	Dep	06:30	07:03	07:55	08:58	12:11	14:12	16:10	17:00	19:43	21:36
Athy	Dep	06:41	07:15	08:09	09:11	12:24	14:25	16:22	17:13	19:56	21:47
Kildare	Dep	07:01	07:34		09:30	12:43	14:45	16:42	17:36	20:15	22:06
Newbridge	Dep	07:08	07:41	08:33		12:49	14:52				22:12
Sallins & Naas	Dep	07:16									22:20
Hazelhatch & Celbridge	Dep	07:27									22:31
Adamstown	Dep	07:31									22:35
Clondalkin Fonthill	Dep										22:40
Park West & Cherry Orchard	Dep										22:43
DUBLIN Heuston BOA	Arr	07:44	08:07	09:00	10:00	13:16	15:21	17:12	18:05	20:45	22:52

		Sun Only	Sun Only	Sun Only	Sun Only
WATERFORD (Plunkett)	Dep	09:05	12:40	15:10	18:05
Thomastown	Dep	09:26	13:01	15:31	18:26
Kilkenny (MacDonagh)	Arr	09:41	13:16	15:46	18:41
Kilkenny (MacDonagh)	Dep	09:45	13:20	15:50	18:45
Muine Bheag	Dep	10:01	13:36	16:06	19:03
Carlow	Arr	10:13	13:48	16:18	19:15
CARLOW	Dep	10:15	13:48	16:18	19:15
Athy	Dep	10:29	14:01	16:31	19:30
Kildare	Dep	10:49	14:21	16:51	19:49
Newbridge	Dep	10:56	14:28	16:58	19:57
Sallins & Naas	Dep				
Hazelhatch & Celbridge	Dep				
Adamstown	Dep				
Clondalkin Fonthill	Dep				
Park West & Cherry Orchard	Dep				
DUBLIN Heuston BOA	Arr	11:22	14:54	17:24	20:24



