

## East Meath - North Dublin Grid Upgrade Environmental Impact Assessment Report (EIAR): Volume 2

Chapter 14 – Traffic and Transport

EirGrid

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## 14. Traffic and Transport

### 14.1 Introduction

This Chapter presents the assessment of the likely potential impacts of the East Meath - North Dublin Grid Upgrade (hereafter referred to as the Proposed Development) on traffic and transport as a result of the Construction Phase and Operational Phase of the Proposed Development. The sequencing of the Construction Phase is split into five phases:

- Phase 0 (site establishment and advanced works);
- Phase 1 (installation of Joint Bays and Passing Bay structures);
- Phase 2 (excavation and installation of cable ducts);
- Phase 3 (installation and jointing of cables); and
- Phase 4 (substation works).

A full description of the Proposed Development is provided in Chapter 4 (Proposed Development Description) in Volume 2 of this Environmental Impact Assessment Report (EIAR).

This Chapter includes a review of the existing baseline conditions of the traffic and roads environment in the study area identified in Section 14.2.1. For this purpose, the road network has been reviewed and traffic counts have been undertaken. An analysis based on this information, and consideration on how to minimise impacts resulting from the Proposed Development and any proposed mitigation measures are presented in this Chapter. Throughout this Chapter, the factual consequences of the Proposed Development and its construction and operation are referred to as 'effects', while the significance they are deemed to have on the baseline environment is referred to as 'impacts'.

Consistent with advice set out in the Institute of Environmental Management and Assessment (IEMA) Guidelines: Environmental Assessment of Traffic and Movement (hereafter referred to as the IEMA Guidelines) (IEMA 2023) and the Transport Infrastructure Ireland (TII) Traffic and Transport Assessment Guidelines (PE-PDV-02045) (hereafter referred to as the TII Guidelines) (TII 2014), this Chapter assesses the impacts of the Construction Phase of the Proposed Development and details the levels of construction vehicles generated and their most likely construction access routes to the respective construction locations. This Chapter is supported by the Construction Traffic Management Plan (CTMP) which forms Appendix B of the Construction Environmental Management Plan (CEMP) (which is included as a standalone document in the planning application pack).

The estimates within this Chapter of construction duration and construction traffic are based on professional judgement in addition to a range of assumptions relating to the Proposed Development.

### 14.2 Methodology

#### 14.2.1 Study Area

The study area for the traffic and transport assessment is the existing road network that will potentially be impacted by the Proposed Development which comprises the two substations (Woodland and Belcamp Substations), Temporary Construction Compounds (TCCs) / Horizontal Directions Drilling (HDD) Compounds and the proposed cable route. The construction access routes, identified in Section 14.3.1, determined the extent of the assessed study area.

The Proposed Development at Woodland Substation and Belcamp Substation will consist of new electricity transmission infrastructure at the existing substation sites which will be expanded over an adjacent area. TCCs

and HDD Compounds, required to facilitate the Construction Phase of the Proposed Development are detailed in Section 4.5.6 of Chapter 4 (Proposed Development Description) in Volume 2 of this EIAR.

The proposed cable route will traverse a number of regional and local roads which are predominantly rural in nature. Three motorways, the M1, M2 and M3, and the M3 Parkway rail line cross the study area but will not be directly impacted by the Proposed Development due to the proposed implementation of trenchless techniques at these particular crossing locations (HDD). For road and rail crossings, this means that there will be minimal impact as a machine bores under the road that the cable is then pulled through with operation of these roads unaffected.

To assess the traffic and transport impacts, the proposed cable route has been split into 30 Temporary Traffic Management (TTM) sections, as shown in Figure 14.1 in Volume 4 of this EIAR. For 18 of these TTM Sections, which comprise a length of approximately 24.4km (kilometres), the proposed cable route will run in-road. The remaining 12 TTM Sections, comprising approximately 13.2km of the proposed cable route, will be off-road and will run predominantly through agricultural land. There will be 19 sections of road that will be affected by TTM, most of which are regional roads, and are listed in Table 14.1. Diversion routes associated with the full road closures are shown in Figure 14.2 in Volume 4 of this EIAR.

In terms of public transport, 34 bus routes interact with these TTM impacted roads. These services, and the likely potential impacts resulting from the Construction Phase of the Proposed Development are outlined in more detail in Section 14.4.2.1.13 and in the Temporary Traffic Management Plan (included as Appendix A to Appendix B (CTMP) of the CEMP (included as standalone documents in the planning application pack). The likely potential impacts of the Operational Phase of the Proposed Development are discussed in Section 14.4.3.

**Table 14.1: Summary of Lane and Road Closures due to Proposed TTM**

TTM Sections	Length (km)	Road	Joint Bay	Position	Road Width (m)	Phase 1 (Joint Bay and Passing Bay Installation) and Phase 3 (Installation and Jointing of Cables)		Phase 2 (Excavation and Cable Duct Installation)		Diversion Route Length (km)
						Traffic Measures	Approximate Duration – Phase 1 / Phase 3 (days)	Traffic Measure	Approximate Duration (days)	
1.02	7.2	R156 Regional Road (west of R157 Regional Road)	JB5	In-road	6.5	Passing Bay – two lane closures	23 / 47	Full road closure	134	24.1
			JB6	In-verge	6.5	Single lane closure	10 / 45			
			JB7	In-verge	7.0	n/a	12 / 47			
			JB8	In-verge	6.7	Single lane closure	22 / 46			
			JB9	In-road	6.5	Full Road closure	5 / 51			
			JB10	In-road	7.0	Passing Bay – two lane closures	13 / 42			
			JB11	In-road	6.3	Full Road Closure	7 / 42			
			JB12	In-verge	6.9	Single lane closure	12 / 48			
			JB13	In-verge	6.5	Single lane closure	14 / 46			
			JB14	In-verge	8.0	n/a	15 / 47			
1.03	1.5	R157 Regional Road (south-west of M3 Motorway Junction 5 (J5))	JB15	In-verge	15.0	Hard shoulder closure	15 / 48	Hard Shoulder Closure	44	n/a
1.05	0.3	R147 Regional Road (north-west of M3 Motorway J5)	n/a	n/a	14.5	n/a	n/a	Two lanes closure	9	n/a
1.06	1.6	L5026 Pace (east of R147 Regional Road)	JB18	In-road	12.0	Two lane closures	7 / 48	Full road closure	50	3.3
			JB19	In-road	3.6	Full road closure	5 / 48			
1.07	0.7	L1010 Nuttstown Road (south of Newbridge)	JB20	In-road	5.0	Full road closure	9 / 46	Full road closure	19	20.9
1.09	0.3	L1010 Nuttstown Road (west of Nuttstown Crossroads)	JB22	In-road	5.3	Full road closure	5 / 50	Full road closure	11	21.3
1.10	1.4	L1010 Nuttstown Road (west of Belgree Court)	JB23	In-road	5.3	Full road closure	7 / 48	Full road closure	42	20.2
1.12	0.9	Priestown Road (west of Kilbride Road)	JB24	In-road	5.5	Passing Bay – two lane closures	15 / 49	Full road closure	26	20.7

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TTM Sections	Length (km)	Road	Joint Bay	Position	Road Width (m)	Phase 1 (Joint Bay and Passing Bay Installation) and Phase 3 (Installation and Jointing of Cables)		Phase 2 (Excavation and Cable Duct Installation)		Diversion Route Length (km)
						Traffic Measures	Approximate Duration – Phase 1 / Phase 3 (days)	Traffic Measure	Approximate Duration (days)	
			JB25	In-road	5.3	Passing Bay – two lane closures	15 / 46			
1.14	1.1	Kilbride Road (south of Priestown Road)	JB26	In-verge	5.8	Single lane closure	14 / 56	Full road closure	34	13.8
1.16	0.7	Kilbride Road (north of Kilmartin Lane)	JB27	In-road	5.7	Passing Bay – two lane closures	17 / 56	Full road closure	20	14.2
1.18	0.7	R121 Regional Road (north-east of Kilnamonagh)	n/a	n/a	5.8	n/a	n/a	Full road closure	20	6.5
1.20	0.9	R121 Regional Road (west of R135 Regional Road)	JB32	In-road	6.5	Full road closure	7 / 47	Full road closure	36	6.3
1.21	1.6	R121 Regional Road (east of R135 Regional Road)	JB33	In-road	5.9	Passing Bay – two lane closures	15 / 45	Full road closure	50	8.5
			JB34	In-road	4.8	Passing Bay – two lane closures	18 / 48			
1.23	0.8	R121 Regional Road (west of R122 Regional Road)	JB35	In-road	5.3	Passing Bay – two lane closures	15 / 45	Full road closure	24	9.2
1.24	1.2	R122 Regional Road (south of R121 Regional Road)	JB36	In-verge	6.5	n/a	12 / 49	Full road closure	37	8.7
			JB37	In-verge	5.8	Single lane closure	15 / 42			
1.25	0.05	Kilreesk Lane	n/a	n/a	6.5	n/a	n/a	Full road closure	2	2.5
1.27	1.6	R108 Regional Road (west of Naul Road)	JB39	In-road	7.4	Passing Bay – two lane closures	15 / 46	Single lane closure	55	11.7
			JB40	In-road	7.4	Passing Bay – two lane closures	15 / 44			
1.28	2.5	Naul Road (east of R108 Regional Road)	JB41	In-road	7.4	Passing Bay – two lane closures	15 / 45	Single lane closure	56	10.9
			JB42	In-road	8.0	Passing Bay – two lane closures	14 / 46			
			JB43	In-road	7.5	Passing Bay – two lane closures	13 / 45			

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TTM Sections	Length (km)	Road	Joint Bay	Position	Road Width (m)	Phase 1 (Joint Bay and Passing Bay Installation) and Phase 3 (Installation and Jointing of Cables)		Phase 2 (Excavation and Cable Duct Installation)		Diversion Route Length (km)
						Traffic Measures	Approximate Duration – Phase 1 / Phase 3 (days)	Traffic Measure	Approximate Duration (days)	
			JB44	In-verge	7.5	n/a	14 / 45			
1.29	0.8	Stockhole Lane (east of R132 Regional Road)	JB45	In-road	7.6	Passing Bay – two lane closures	15 / 48	Single lane closure	28	11.7

## 14.2.2 Relevant Guidelines, Policy and Legislation

Table 14.2 outlines the relevant policies and guidance which have been applied in the assessment of the traffic and transport effects of the Proposed Development. They are referenced where they are applied throughout this Chapter.

**Table 14.2: Relevant Transport Policies and Guidance**

Guidance Document	Source and Year	Guidance Detail
Fingal Draft Development Plan 2023-2029, Chapter 14: Development Management Standards	Fingal County Council 2022	<p>Guidance states that “developments shall have regard to the TII Traffic and Transport Assessment Guidelines, 2014 and any subsequent updated guidelines, where applicable.”</p> <p>Requirement for “...the provision of a Traffic and Transport Assessment where new development is likely to have a significant effect on travel demand and the capacity of the surrounding transport network including the road network and public transport services network.”</p> <p>Securing access onto the road network is a key issue, particularly in rural areas therefore the use of existing access is normally preferable to the creation of new access onto a rural road. “Where new entrances are necessary, the relevant road design standards will be applied (DMRB in rural situations and DMURS in urban situations).”</p> <p>“Promote road safety measures in conjunction with relevant stakeholders and avoid creating traffic hazards.”</p>
Meath Adopted County Development Plan 2021-2027, Chapter 11: Development Management Standards and Land Use Zoning Objectives	Meath County Council 2021	<p>“Traffic and Transport Assessment (TTA), Road Safety Audits and Road Safety Impact Assessments are required to accompany planning applications for major developments with significant potential to generate traffic and or which could create a significant hazard or safety performance impact on a major road, particularly national roads. When preparing the TTA’s regard should be had to the provision of the ‘Design Manual for Urban Roads and Streets and the ‘Traffic Management Guidelines, 2012’.”</p> <p>“The requirement for a TTA is at the discretion of the Council but the following thresholds can be used for guidance purposes only:</p> <ul style="list-style-type: none"> <li>• Traffic to and from the proposed development exceeds 10% of the traffic flow on the adjoining road;</li> <li>• Traffic to and from the proposed development exceeds 5% of the traffic flow on the adjoining road where congestion exists;</li> <li>• Residential development in excess of 100 dwellings (Applications for 100 or more dwellings are decided by An Bord Pleanála as an SHD);</li> <li>• Retail and leisure development in excess of 1,000 sq.m;</li> <li>• Industrial development in excess of 5,000 sq.m, and;</li> <li>• Distribution and warehousing in excess of 10,000 sq.m”</li> </ul>
Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (hereafter referred to as the EPA Guidelines)	Environmental Protection Agency (EPA) 2022	<p>The EPA Guidelines provide advice of best practice and principles for those developing an environmental impact assessment. Specific reference to transportation includes:</p> <p>“The provision of new access facilities (e.g., links to motorways) or the upgrading of existing roads (e.g., road widths, bridges and junctions) carried out by other parties can give rise to significant environmental effects”.</p>
Environmental Impact Assessment of Projects, Guidance on the preparation of the Environmental Impact Assessment Report	European Commission (EC) 2017	<p>This guidance provides a checklist of what should be covered in environmental impact assessment, including the following relating to traffic and transport:</p> <ul style="list-style-type: none"> <li>• Description of traffic flows, type, volume, temporal pattern and geographical distribution generated or diverted as a result of the Proposed Development;</li> <li>• Description of transportation of resources (including natural resources) and raw materials to the Proposed Development site, and the number of traffic movements involved;</li> <li>• Description of access arrangements and estimate of the number of traffic movements involved in bringing workers and visitors to the Proposed Development site;</li> <li>• Description of risks associated with the Proposed Development, including risks of traffic accidents; and</li> <li>• Description of the effects on the environment caused by activities ancillary to the main Proposed Development.</li> </ul>



Guidance Document	Source and Year	Guidance Detail
Institute of Environmental Management and Assessment (IEMA) Guidelines: Environmental Assessment of Traffic and Movement (hereafter referred to as the IEMA Guidelines)	IEMA 2023	Description of transportation of resources (including natural resources) and raw materials to the Proposed Development site, and the number of traffic movements involved.
Transport Infrastructure Ireland (TII) Traffic and Transport Assessment Guidelines (PE-PDV-02045) (hereafter referred to as the TII Guidelines)	TII 2014	Description of traffic flows, type, volume, temporal pattern and geographical distribution generated or diverted as a result of the Proposed Development.
Transport Infrastructure Ireland (TII) Rural Road Link Design (DN-GEO-03031)	TII 2017	Description of road definitions and design standards applying to single and dual carriageway roads (including motorways) in rural areas and single and dual carriage way roads (not including urban roads and streets) in urban areas.
Traffic Signs Manual	Department of Transport (DoT) 2019	Chapter 8 (Temporary Traffic Measures and Signs for Roadworks) outlines the TTM to be used at work sites on public roads to warn, instruct and guide road users safely.
United Kingdom (UK) Design Manual for Roads and Bridges (DMRB)	Standards for Highways various dates	The UK DMRB sets out current design standards relating to the design, assessment and operation of motorway and trunk roads in the UK. The DMRB may also be applied to local authority roads. This UK based document is used as guidance due to the withdrawal of any Irish specific DMRB. The now withdrawn National Roads Authority (NRA) DMRB guidance was an adapted version of the UK guidance.
The National Transport Model (NTpM) Update, Travel Demand Forecasting Report (NTpM Volume 3)	TII 2019	A detailed discussion on the background data and methodologies used to inform the estimates of future travel demand. Provides growth rates for Ireland.
Project Appraisal Guidelines for National Roads (hereafter referred to as PAG)	Unit 5.2: TII 2023 Unit 5.3: TII 2021 Unit 16.0: TII 2016a Unit 16.1: TII 2016b	Various units of the PAG were used to provide guidance on data collection, processing and factoring survey data, and the preparation of future travel demand projections. The PAG is applicable for the modelling and appraisal of national road schemes, although the guidance is equally applicable to traffic on regional and local road schemes.

### 14.2.3 Data Collection and Collation

A desk-based study was undertaken using Google Earth (Google Earth 2023) and Google Maps (Google Maps 2023) to review traffic conditions within the study area. This process also determined the potential construction and operational access routes to the Proposed Development and the locations that traffic count surveys would be required. Sensitive road sections and constraints were identified, such as locations that are likely to be more vulnerable to change in traffic flow or profile (e.g., areas in close proximity to schools or areas with traffic restrictions).

Information on existing traffic volumes in the study area was obtained through both Automatic Traffic Count (ATC) and Junction Turning Count (JTC) traffic surveys commissioned by Jacobs and undertaken by Nationwide Data Collection (NDC). Figure 14.3 in Volume 4 of this EIAR shows the location of these counters. These traffic surveys were commissioned to gain an understanding of baseline traffic conditions within the study area and along the proposed diversion routes.

A total of 28 JTCs and 32 ATCs were completed by NDC between Tuesday, 6 May 2023 and Thursday, 1 June 2023. The traffic on these survey days is representative of neutral traffic conditions, as defined by PAG Unit 5.2 (TII 2023), since there were no public holidays, school holidays or special events in the area during this period.

Three additional JTCs (no ATCs) were completed on Tuesday, 20 June 2023, and an additional eight JTCs and five ATCs were undertaken between Thursday, 10 August 2023 and Wednesday, 16 August 2023. Although undertaken during a period not defined as neutral, the application of monthly factors, as defined in PAG Unit 16.1 (TII 2016b), ensured that these counts remain representative of typical traffic flows.

The observed traffic data was factored to Annual Average Daily Traffic (AADT) in line with the PAG Unit 16.0 (TII 2016a) and PAG Unit 16.1 (TII 2016b) for baseline and future year reporting. This data is presented in Section 14.3.2.

## **14.2.4 Appraisal Method for the Assessment of Impacts**

### **14.2.4.1 Overview**

The following key tasks were undertaken to facilitate the assessment of key issues and potential impacts:

- A review of the relevant transport policies (Section 14.2.2);
- Determining the baseline traffic and transport conditions via:
  - The collection of traffic data (Section 14.2.3);
  - Construction access route review (Section 14.3.1);
  - Public transport review (Section 14.3.4); and
  - Active travel review (Section 14.3.5).
- Determining construction traffic volumes, in consultation with the wider design team, for use in the assessment (Section 14.3.2);
- Identifying sensitive receptors (Section 14.3.3);
- Establishing the need for a cumulative assessment with any nearby committed developments, and the determination of committed development traffic flows (refer to Chapter 20 (Cumulative Impacts and Environmental Interactions) in Volume 2 of this EIAR);
- An assessment of the potential magnitude of impacts and significance of impacts on identified receptors in accordance with the methodology described in Section 3 of the IEMA Guidelines (IEMA 2023) (Section 14.4);
- A proposal of mitigation works where necessary (Section 14.5); and
- An assessment of predicted residual impacts, following the implementation of the proposed mitigation measures (Section 14.6).

### **14.2.4.2 Impact Assessment**

The EPA Guidelines (EPA 2022) and IEMA Guidelines (IEMA 2023) are used to assess the environmental impact of road traffic associated with major new developments, excluding projects such as new trunk roads or railways which have separate and established procedures. These guidelines are intended to complement professional judgement and the experience of trained assessors, as the perception of changes in traffic is dependent upon a wide range of factors including volume, speed, function, and composition, (e.g., percentage of heavy goods vehicles (HGVs)). It is important to acknowledge that the significance of impact associated with certain traffic loads can vary depending on the location and characteristics of the Proposed Development.

The assessment of the environmental impacts of traffic involved a staged approach including:

- Determining existing and forecast traffic levels and characteristics;
- Determining the period suitable for assessment;
- Determining the year of assessment; and
- Identifying the geographical boundaries of assessment study area.

The predicted construction vehicle trips were generated from the programme for the Proposed Development, a summary of which is included in Chapter 4 (Proposed Development Description) in Volume 2 of this EIAR. These have been compared to baseline traffic flows to identify if there are likely to be periods where the increase in traffic exceeds standard thresholds.

The following IEMA Guidelines rules were used as a screening framework to define the roads identified within the study area that were considered further in the impact assessment:

- Rule 1 – include road links where traffic flows are predicted to increase by more than 30% (or where the number of HGVs is predicted to increase by more than 30%); and
- Rule 2 – include any other specifically sensitive areas where traffic flows are predicted to increase by 10% or more (IEMA Guidelines: Sensitive areas include 'accident blackspots, conservation areas, hospitals, and links with pedestrian flows').

Based on the EPA Guidelines, IEMA Guidelines and best practice, it is considered that Major and Moderate magnitude of impacts are 'Significant', whereas Minor and Negligible magnitude of impacts are 'Not Significant'. Based on this, the criteria for identifying the roads within the study area that may be impacted by increases in traffic volumes as a result of the Proposed Development has been categorised in Table 14.3.

**Table 14.3: Traffic Impact Significance**

Significance of Impact	Percentage Increase in General Traffic
Major (Significant)	Above 90%
Moderate (Significant)	Between 60% and 90%
Minor (Not Significant)	Between 30% and 60%
Negligible (Not Significant)	Below 30%

Where existing traffic levels are exceptionally low, on some unclassified roads for example, any increase in traffic flow may result in a predicted increase in traffic levels which equals or exceeds these Moderate or Major thresholds. Where this situation is identified, it is important to consider any increase, both in terms of its relative increase in respect of existing traffic flows, as well as the overall total flow in respect of the available capacity of the section of road being considered.

For example, a 30% increase in traffic flow on a road which currently only carries 1,000 vehicles AADT flow could potentially indicate a major significant impact if it was considered simply in terms of the IEMA Guidelines rules. However, a 7.3m wide single carriageway road can accommodate an average of up to approximately 11,600 vehicles per day (AADT), as indicated by the thresholds contained in the TII Rural Road Link Design (DN-GEO-03031) (TII 2017), and as summarised in Table 14.4. Therefore, an element of professional judgement is also applied as good practice regarding the carrying capacity of the roads being considered, which is an acceptable and well utilised approach for this type of assessment, as such an increase in this example would be unlikely to have a significant impact, given the road's overall capacity.

**Table 14.4: Road Types / Capacities (Two-Way AADT)**

Type of Road	Edge Treatment	Capacity (AADT) for Level of Service D
Type 3 Single (6.0m) Carriageway (National Secondary Roads Only)	0.5m hard strip. Cycle Facilities/Footways	5,000
Type 2 Single (7.0m) Carriageway	0.5m hard strips. Cycle Facilities/Footways	8,600
Type 1 Single (7.3m) Carriageway	2.5m hard shoulders	11,600
Type 3 Dual Divided 2+1 Lanes (7.0m + 3.5m) Carriageways	0.5m hard strips. Cycle Facilities/Footways where required.	14,000
Type 2 Dual Divided 2+2 Lanes (2x7.0m) Carriageways	0.5m hard strips Cycle Facilities/Footways	20,000
Type 1 Dual Divided 2+2 Lanes (2x7.0m) Carriageways	2.5m hard shoulders	42,000
Motorway Divided 2+2 Lanes (2x7.0m)	2.5m hard shoulders	52,000
Wide Motorway Divided 2+2 Lanes (2x7.5m)	3m hard shoulders	55,500

The vehicle flows represent the approximate two-way flows corresponding to Level of Service (LoS) D in reasonably level terrain. At LoS D, speeds begin to decline slightly with a slight increase of flows and density beginning to increase somewhat more quickly. Freedom to manoeuvre within the traffic stream is more noticeably limited, and the driver experiences reduced comfort levels.

The impact of traffic management, in particular full road closures, have been determined in conjunction with the duration of effects outlined in the EPA Guidelines, as outlined in Section 14.2.4.2.2.

The potential impact of the Proposed Development's Construction Phase and Operational Phase on public transport routes is also estimated. The bus routes which run through the study area have been collected along with the service frequency and operator information. Any overlaps with the in-road portions of the proposed cable route were then identified. Where there are overlaps, TTM measures along the relevant road section are identified.

Train services are also reviewed by finding railway lines that the proposed cable route will traverse or stations within close proximity to the Proposed Development that could be used by workers. The train services are identified, and the potential impacts to them are assessed on an individual basis; the chosen construction methods to facilitate the cable crossing across the railway line determines how, if at all, train services would be affected.

In addition, any potential environmental impacts, including severance, driver delay, pedestrian delay, pedestrian amenity, fear and intimidation, and road safety, are considered on a case-by-case basis using professional judgement and reasoned argument. The following sub-sections describe the impacts of potential importance outlined in the IEMA Guidelines.

#### 14.2.4.2.1 Severance

Severance is the perceived division that can occur within a community and access to the services and facilities therein (e.g., separation by impacts associated with construction and improvement projects resulting from the difficulty of crossing a heavily trafficked road or a physical barrier created by the road itself).

Changes in journey times and amenity for pedestrians and cyclists may be such that they affect, adversely or beneficially, the degree to which a locality is subject to 'community severance'. In considering the impacts of the Proposed Development, community severance is defined as the separation of residents from facilities and services they use within their community caused by changes in traffic flows. However, the correlation between the degree of severance and the physical barrier of the road and its traffic is not straightforward.

Factors that need to be considered in determining whether severance is likely to be an important issue include road width, traffic flow and composition, traffic speeds, the availability of crossing facilities and the

number of movements that are likely to cross the affected route. Different groups may also be more impacted, specifically vulnerable groups such as older age, younger age, and health issues, as they may be more sensitive to traffic conditions than others.

Table 14.5 outlines, in line with the traffic impact significance highlighted in Table 14.3, that the IEMA Guidelines (IEMA 2023) identify that “changes in traffic flow of 30%, 60% and 90% are regarded as producing ‘slight’, ‘moderate’ and ‘substantial’ changes in severance respectively”.

**Table 14.5: Severance Significance**

Significance of Severance	Percentage Increase in General Traffic
Major (Significant)	Above 90%
Moderate (Significant)	Between 60% and 90%
Minor (Not Significant)	Between 30% and 60%
Negligible (Not Significant)	Below 30%

#### 14.2.4.2.2 Driver Delay

Driver delay impacts are likely to be significant when the traffic on the network surrounding the Proposed Development is already at, or close to, the capacity of the system. To inform the assessment of driver delay, the total vehicles during of the Construction Phase or Operational Phase, as well as the theoretical capacity of the roads, has been considered by referencing the capacity information presented in Table 14.4.

Identifying the TTM measures along the relevant road sections is also an important part of this assessment and has been assessed separately in Section 14.4.2.1.12. The effect of lane closures and full road closures are different, and their impact on traffic depends on the number of days these TTM measures are active:

- Hard shoulder closures are unlikely to cause any delay effect on traffic, as traffic will still be free-flowing and existing traffic lane widths will be maintained;
- Single lane closures have a potential delay effect on traffic: a stop-and-go or traffic light system will be implemented at the single lane closures and queues may form at these locations if traffic levels are sufficiently high;
- Two-lane closures with Passing Bays have a potential delay effect on traffic: a stop-and-go or traffic light system will be implemented at the Passing Bays and queues may form at these locations if traffic levels are sufficiently high; and
- Full road closures will require traffic to temporarily follow a diversion route, increasing journey time. The diversions taken are assumed to be that identified in Appendix A (Temporary Traffic Management Plan) to Appendix B (CTMP) of the CEMP, which are included as standalone documents in the planning application pack) and as shown on Figure 14.2 in Volume 4 of this EIAR.

The IEMA Guidelines (IEMA 2023) and EPA Guidelines (EPA 2022) do not give specific thresholds to determine significance associated with driver delay due to both construction traffic and traffic management diversions, and as such, professional judgement has been applied, and Driver Delay Impact Significance thresholds have been developed as outlined in Table 14.6.

**Table 14.6: Driver Delay Impact Significance Matrix**

Significance of Impact	Increase in Journey Time
Major (Significant)	31-40 minutes
Moderate (Significant)	21-30 minutes
Minor (Not Significant)	11-20 minutes
Negligible (Not Significant)	0-10 minutes

#### 14.2.4.2.3 Pedestrian Delay (Incorporating Delay to all Non-Motorised Users)

Pedestrian delay, as with driver delay, is likely to be significant when the traffic on the network surrounding the Proposed Development is already at, or close to, the capacity of the system. To inform the assessment of pedestrian delay, the theoretical capacity of the roads has been considered by referencing the capacity information presented in Table 14.4.

Pedestrian Delay (Incorporating Delay to all Non-Motorised Users) and severance are closely related effects. Changes in the volume, composition or speed of traffic may affect the ability of people to cross roads. In general, increases in traffic levels are likely to lead to greater increases in delay. Delays will also depend on the general level of pedestrian activity, visibility, and the general physical conditions within the study area.

As part of this assessment, it has been noted where the construction of the Proposed Development has the potential to affect leisure routes, including hiking paths, cycle lanes, and greenways.

The IEMA Guidelines (IEMA 2023) and EPA Guidelines (EPA 2022) do not give specific thresholds to determine significance associated with driver delay due to both construction traffic and traffic management diversions, and as such, professional judgement has been applied, and Pedestrian Delay Impact Significance thresholds have been developed as outlined in Table 14.7.

**Table 14.7: Pedestrian Delay Impact Significance Matrix**

Significance of Impact	Percentage Increase in General Traffic
Major (Significant)	Above 90%
Moderate (Significant)	Between 60% and 90%
Minor (Not Significant)	Between 30% and 60%
Negligible (Not Significant)	Below 30%

#### 14.2.4.2.4 Pedestrian Amenity (Incorporating Non-Motorised User Amenity)

Pedestrian amenity is broadly defined as the relative pleasantness of a journey, and is considered to be affected by traffic flow, traffic composition and pavement width / separation from traffic. The magnitude of the impact on pedestrian amenity is considered in terms of the 'threshold' described in the IEMA Guidelines (IEMA 2023), which suggests that a meaningful change in amenity would be where traffic flow (or its HGV component) is halved or doubled.

As part of this assessment, it has been noted where the construction of the Proposed Development has the potential to affect leisure routes, including hiking paths, cycle lanes, and greenways.

#### 14.2.4.2.5 Fear and Intimidation

The magnitude of the impact on fear and intimidation has been considered in reference to the IEMA Guidelines (IEMA 2023), which advise that any impact is dependent on the total volume of traffic, the HGV composition, vehicle speeds, proximity of traffic to people or the lack of protection caused by such factors as narrow pavement widths, and conclude that there are no commonly agreed thresholds for estimating levels of danger, or fear and intimidation from known traffic and physical conditions. Professional judgement has therefore been used to determine the impact of construction and operational traffic based on these factors.

#### 14.2.4.2.6 Road Safety

The increase in traffic volume associated with the Proposed Development is the main factor in the potential increase in risk regarding accidents and safety, as is the transfer of dirt and debris from the site and associated vehicles onto the surrounding road network.

The IEMA Guidelines (IEMA 2023) state that through calculating the expected increase in vehicle-kilometres on different classes of road, it will be possible to make an initial simple statistical assessment of the likely

increase (or decrease) in the number of accidents resulting from changes in traffic flows and composition. The following impact criteria set out in Table 14.8 is based on IEMA Guidelines and good practice.

**Table 14.8: Road Safety Impact Significance Matrix**

Significance of Impact	Change in Annual Collision Rate and Percentage Increase in General Traffic
Major (Significant)	A change in annual collision rate of at least one collision and above 90% increase in general traffic
Moderate (Significant)	A change in annual collision rate of at least one collision and between 60% and 90% increase in general traffic
Minor (Not Significant)	A change in annual collision rate of at least one collision and between 30% and 60% increase in general traffic
Negligible (Not Significant)	A change in annual collision rate of less than one collision and below 30% increase in general traffic

However, the IEMA Guidelines also state that where a development is expected to produce a change in the character of the traffic (e.g., HGV movements on rural roads), then data on existing accident levels may not be sufficient. As such, professional judgement is needed to assess the implications on the local road network.

Impacts that may arise for transport users affected by changes in traffic flows could be, for example, frustration associated with delays that may arise because of potential large increases in traffic movements or changes in route.

The Road Safety Authority (RSA) road traffic collision data (RSA 2023) is currently unavailable (last checked 22 February 2024) with their website stating:

*“We are in the process of reviewing our road traffic collision (RTC) data sharing policies and procedures. Record-level RTC data can’t be shared until this review is complete but we expect this to be finalised in the coming months”.*

As the RSA has removed all accident data from its website while it reviews its data privacy guidelines, a baseline review of relevant collision data, and the corresponding analysis of potential increases in collisions related to the Construction Phase of the Proposed Development, cannot be undertaken. Professional judgement will therefore be used to make a final determination on the impacts to road safety during the Construction Phase and Operational Phase.

#### 14.2.4.2.7 Public Transport Impacts

The potential impact of the Proposed Development’s Construction Phase and Operational Phase on public transport routes has also been estimated. The bus routes which run through the study area were collated along with the service frequency and operator information. Any overlaps with the in-road portions of the proposed cable route were then identified. Where there are overlaps, TTM measures along the relevant road section are identified. The effect of lane closures and full road closures are different, and their impact on bus routes depends on the number of days these TTM measures are active:

- Hard shoulder closures are unlikely to cause any delay effect on traffic as traffic will still be free-flowing and existing traffic lane widths will be maintained;
- Single lane closures have a potential delay effect on the buses: a stop-and-go system will be implemented at the single lane closures and queues may form at these locations if traffic levels are sufficiently high;
- Two-lane closures with Passing Bays have a potential delay effect on traffic: a stop-and-go or traffic light system will be implemented at the Passing Bays and queues may form at these locations if traffic levels are sufficiently high; and
- Full road closures will require the bus route to temporarily follow a diversion route, which may affect the bus route by causing a cessation of service to some bus stops and increasing journey

time. The diversion taken by the bus is assumed to be that identified in the Temporary Traffic Management Plan in the CTMP (Appendix B of the CEMP, which is included as a standalone document in the planning application pack) and shown in Figure 14.2 in Volume 4 of this EIAR. The impact of full road closures has been determined in conjunction with the duration of effects outlined in the in Section 14.2.4.2.2.

Train services are also reviewed by finding railway lines that the proposed cable route will traverse or stations within close proximity to the Proposed Development that could be used by workers. The train services are identified, and the potential impacts to them are assessed on an individual basis; the proposed construction methods selected to facilitate the cable crossing across the railway line determines how, if at all, train services will be affected.

### 14.2.4.3 Assessment of Impacts

The method for identifying the sensitivity or importance of receptors, the impact magnitude and the assessment of significant impacts is set out in this Section and is based on best practice and professional judgement.

#### 14.2.4.3.1 Sensitivity / Importance

The receptors that may be affected by traffic effects arising from the construction and / or operation of the Proposed Development are likely to exist within the study area as identified in Section 14.2.1. The sensitivity of these receptors is typically classified in accordance with good practice and professional judgement by size and function (in terms of settlements, the presence of school and community facilities, traffic calming or traffic management measures, vehicle speed limits and position on the roads hierarchy) using criteria identified in Table 14.9. The classification is based upon professional judgement and relative sensitivity to the potential traffic effects of the Proposed Development.

**Table 14.9: Receptor Sensitivity**

Sensitivity	Description
High	Receptors of high importance at the international or national scale and with limited potential for substitution. Includes large rural settlements containing a high number of community and public services and facilities, areas with traffic control signals, waiting and loading restrictions, traffic calming measures and minor rural roads, not constructed to accommodate frequent use by HGVs.
Medium	Receptors with high or medium importance at the regional scale and with limited potential for substitution. To include intermediate sized rural settlements containing some community or public facilities and services, areas with some traffic calming or traffic management measures and local A or B class roads, capable of regular use by HGV traffic.
Low	Receptors with low or medium importance and rarity on a local scale (on-site or neighbouring the site). To include small rural settlements with few community or public facilities or services, areas with little or no traffic calming or traffic management measures and trunk or A-class roads, constructed to accommodate significant HGV composition.
Negligible	Receptors with little importance. To include roads with no adjacent settlements including new strategic trunk roads or motorways that would be hardly affected by additional traffic and are suitable for abnormal loads.

#### 14.2.4.3.2 Significance of Impact

To determine the overall significance of the impacts, the results from the receptor sensitivity, identified in Table 14.9, and impact magnitude classifications are correlated and classified using the scale summarised in Table 14.10.

The matrix provides a best practice guide subject to professional judgement. The significance of the impacts ascribed within the matrix are defined as follows:

- **Negligible** – impact is only very slightly detectable / noticeable or is undetectable and of no significance;



- **Minor** – impact is slightly detectable / noticeable; likely to be of temporary duration; local influence;
- **Moderate** – impact is easily detectable / noticeable; could have either a temporary or permanent duration; unlikely to exceed local influence; and
- **Major** – impact is easily detectable / noticeable; likely to be of a long-term or permanent duration; could have irreversible implications; influence exceeds the local area.

**Table 14.10: Significance of Impacts Matrix**

		Sensitivity			
		Negligible	Low	Medium	High
Magnitude	Major	Minor	Moderate	Major	Major
	Moderate	Negligible	Minor	Moderate	Major
	Minor	Negligible	Negligible	Minor	Moderate
	Negligible	Negligible	Negligible	Negligible	Minor

#### 14.2.4.3.3 Duration of Effect

It should be noted that the likely duration of an effect is also a relevant consideration and the EPA Guidelines have categorised duration of effects (EPA 2022). Of relevance in respect to the Proposed Development are the following categories:

- Brief Effects – Effects lasting less than a day;
- Temporary Effects – Effects lasting less than a year; and
- Short-Term Effects – Effects lasting one to seven years.

The analysis conducted in this Chapter is based on data sourced from the construction programme and proposed operational / maintenance activities for the Proposed Development, the proposed cable route, and traffic surveys conducted at a series of key locations within the study area as outlined in Section 14.2.3.

#### 14.2.4.3.4 Assumptions

Until contractors have been appointed and materials sources have been identified, it is not possible to determine exactly how many vehicles would reach the site using the proposed construction access routes. Hence in the interests of robustness, the assessment has assumed a precautionary approach to determine construction traffic and the routes they will use. If, for example, two routes were identified to the desired destination based on whether the origin was from the north or south, then both routes were assessed for all traffic. Once contractors have been appointed and materials sourced, it is expected that generated construction traffic will be within the parameters assessed in this EIAR and will arrive at site using various construction access routes, and would disperse prior to reaching some of the sensitive receptors, and is not predicted to adversely affect the assessed levels of significance. Consequently, the information presented in this Section is deemed robust and in accordance with good practice and professional judgement. The proposed construction access routes, vehicles and other arrangements provided are based on the study area assessment, baseline assessment, current construction projections, the CEMP for this Proposed Development and Jacobs' experience of construction and operation of similar projects.

For the purposes of this EIAR, the key parameters set out in Table 14.11 were applied, taking a precautionary approach. These items should be read in conjunction with the assumptions and methodology outlined in the Temporary Traffic Management Plan and Abnormal Load Assessment, which are included as Appendix A and B to the CTMP, which itself is included as Appendix B to the CEMP and are included as standalone documents in the planning application pack.

**Table 14.11: Key Parameters of the Proposed Development**

Item	Assumptions
1. Construction activities included in traffic demand.	All construction activities for the development site and supporting infrastructure including utilities, site offices and welfare facilities.
2. Duration of construction works.	Estimated to be 42 months in line with Chapter 4 (Proposed Development Description) in Volume 2 of this EIAR.
3. Requirement for Abnormal Loads.	Abnormal loads are anticipated for the delivery of some large components (e.g., cable drums). An Abnormal Load Assessment has been completed separately and included as Appendix B within the CTMP (Appendix B of the CEMP).
4. Working hours	<p>Precise working hours will be subject to agreement with the local planning authority. It is anticipated that construction will occur during normal working hours (i.e., Monday to Friday: 07:00 – 19:00 and Saturday: 08:00 – 14:00) in line with Chapter 4 (Proposed Development Description) in Volume 2 of this EIAR.</p> <p>Sunday working may be required; environmental mitigation and plant maintenance only. No civils works without prior agreement with the local planning authority.</p> <p>Where impact to local receptors (i.e., residents, wildlife etc.) is anticipated, there may be a requirement for 24hour working. The ability to work 24hours would minimise impact during construction of the Proposed Development and facilitate more efficient operations.</p> <p>The ability for 24hour working would not affect the proposed Traffic Management, but rather reduce the implementation duration, reducing in turn disruption to the road network. This would only be recommended under a full road closure scenario. A full environmental impact assessment will be required if this strategy is to be taken forward, as well as necessary consents to the extra disruption caused to neighbouring properties by working overnight.</p>
5. Hourly profile of traffic.	<p>It is anticipated that construction workers will arrive in the hour before the working day and depart in the hour after the working day.</p> <p>All other traffic will be spread approximately evenly throughout the working day.</p>
6. Interaction of traffic between TCCs, HDD Compounds and substations/working areas along the public highway.	It is predicted that this will primarily be transport of crew in site/minibus vehicles and HGVs transporting construction materials. Construction materials will be transported directly to where they are required as far as practicable to avoid double handling.
7. Location of workforce.	Both local resource and with people housed in temporary accommodation (rented houses and hotel spaces).
8. Construction access route principles.	It is the proposed that routes will look to avoid/minimise time spent on the local road network, routing via national and regional roads as much as possible.
9. Construction worker travel.	Anticipated to be by car and van. Car sharing will be encouraged where it is practicable.
10. Use of car parks for construction activities (e.g., TCCs).	Worker vehicles will park on site at the nearest TCCs to working area, avoiding use of local roads/car parks.
11. Transport of workers to work sites (TTM Sections).	Transport of workers from main TCCs to the work sites has been proposed to be by minibus (assumed six workers per minibus).
12. Length of cable trench dug per day when along the highway (duration of required temporary traffic management along a length of highway).	Estimated to be 50 metres per day as agreed with EirGrid based on previous projects of a similar nature.
13. Cable duct laid per day when along the highway (duration of required temporary traffic management along a length of highway).	Estimated to be 50 metres per day as agreed with EirGrid based on previous projects of a similar nature.
14. Definition of an HGV.	Any vehicle exceeding 3.5 tonnes gross weight.
15. Definition of Abnormal loads.	Any vehicle exceeding a width of 2.75 metres, exceeding a length of 16.5 metres, exceeding a height of 4.65m, or exceeding a weight of 44 tonnes.

#### 14.2.4.3.5 Limitations

As mentioned in Section 14.2.4.2.6, all detailed road traffic collision data has been removed from public access, including historic road traffic collision data. Therefore, quantitative analysis of this data will not be conducted.

Notwithstanding this, professional judgement is used to determine the magnitude of impact to road safety based on the level of construction and operational traffic impact and so while a limitation of a complete assessment it will be sufficient to draw the required conclusions and opinions needed to complete this EIAR.

Additionally, as mentioned in the CTMP (refer to Appendix B of the CEMP), the appointed contractor of the Proposed Development will carry out a Road Safety Audit of the CTMP prior to the commencement of works, if the Proposed Development has been consented. This will ensure a high safety standard in relation to the traffic management measures implemented.

## **14.3 Baseline Environment**

The identification of appropriate baseline conditions for the traffic, transport and access assessment is defined by the approach adopted in Section 14.2. The baseline traffic and transport conditions have been formed based on a desk-based assessment, the collection of baseline traffic data, construction access route review, public transport review and active travel review.

### **14.3.1 Construction Access Routes**

It was important to identify the likely construction access routes that construction traffic will use to / from the TCCs, HDD Compounds and working areas during the Construction Phase of the Proposed Development so that potential impacts and sensitive receptors could be defined. Based on a desk-based review of the surrounding road network and professional judgement, routing predictions have been identified and relied upon for the purpose of this assessment. The extent of this indicative construction access route network is illustrated in Figure 14.4 in Volume 4 of this EIAR.

Standard procurement practice means that a contractor and supply-chain for materials will not be selected prior to the Proposed Development being consented. Given that material sources are unknown at this time, the construction access routes are not definitive, but professional judgement and a precautionary approach has been used to select the most likely routes. It is predicated that all traffic will arrive via the primary and secondary road network and exit via the nearest junction to the local road network for access to the relevant working areas, HDD Compounds and TCCs.

Each construction access route has been reviewed through a desk-based study for constraints such as weight restrictions, low bridges, and HGV restrictions. All proposed construction access routes are based on the routing principles set out in the CTMP (refer to Appendix B of the CEMP), which includes the Abnormal Load Assessment. This assessment engages with a specialist abnormal load supplier and considers routes from both Belview Port and Dublin Port to facilitate the transportation and installation of the reactors, transformers, and cable. It is noted that an element of engagement works will be required such as vegetation trimming and raising low hanging overhead cables. Once the abnormal loads reach the study area via the national road network, they will utilise the same construction routes as identified for general construction traffic (LGVs and HGVs). The delivery of the 400kV transformer directly from port to Belcamp Substation may require an escort along the motorway network, subject to local authority and / or ministerial authorisation, due to its length (40m), although this will only be a one-off delivery. Any additional traffic management requirements / restrictions will be in place for abnormal loads upon agreement with the appointed contractor and consenting authority.

In practice, light vehicles are likely to be more widely distributed and the approach that they use a defined set of construction access routes means that the assessment provides a robust approach.

### **14.3.2 Traffic Volumes**

The traffic volumes from the commissioned 2023 ATC and JTC traffic surveys, as described in Section 14.2.3, are reported in Table 14.13 and Table 14.14, The Construction Phase is expected to last from Q2 2026 until Q4 2029, which gives four possible future forecast years. Given the duration of the proposed Construction

Phase, baseline traffic flows have not been projected beyond the anticipated commencement of the Construction Phase. To maintain a precautionary approach to the assessment, 2026 is chosen as the forecast year for the Construction Phase and Operational Phase assessments.

Since the forecast traffic during the Construction Phase will be lowest during 2026, the percentage impact of construction traffic against forecast traffic will be highest in this year and therefore showcase the largest relative impact that has the potential to occur. Operational traffic generated from planned and committed developments has also been excluded from the assessment. Consideration of these elements would reduce the assessed impacts by increasing the baseline traffic flows, and therefore, reducing the percentage impacts. As such, the adopted assessment methodology is considered robust. The cumulative impacts of construction traffic from other nearby proposed developments have been considered in Chapter 20 (Cumulative Impacts and Environmental Interactions) in Volume 2 of this EIAR.

The future year traffic volumes have been forecast using growth rates from Table 7.4 of the NTpM Volume 3 Travel Demand Forecasting Report (TII 2019). These growth rates are applied to the traffic on each link, because the network is sufficiently small and any significant changes in flow distribution are only expected to be localised. This is in line with the Section 5 of PAG Unit 5.3 (TII 2021).

PAG Unit 5.3 requires the application of the 'Central Growth Scenario' for project appraisal, which is therefore taken as the correct scenario for this assessment. This is in line with professional judgement of the nature of traffic growth in the study area: albeit generally rural, the roads considered here are in close enough proximity to Dublin, particularly towards the eastern section of the study area, that somewhat elevated, but not high, traffic growth is a reasonable expectation.

The growth rates from the Travel Demand Forecasting Report used in this Chapter, are shown in Table 14.12.

**Table 14.12: Traffic Growth Rates vs 2023**

Year	Growth vs 2023
2024	1.50%
2025	3.02%
2026	4.57%
2027	6.14%
2028	7.73%
2029	9.35%

The recorded and forecast AADT values for each location are provided in Table 14.13 and Table 14.14, where the ATCs are the sum of two-way traffic, and the JTCs are the sum of two-way traffic on each arm of the junction.

**Table 14.13: Recorded and Projected Automatic Traffic Counts (AADT)**

Count	Location	2023	2026
ATC 1	R125 Regional Road, between R154 and R156 Regional Roads	1,417	1,482
ATC 2	R156 Regional Road, east of R125 Regional Road	3,762	3,934
ATC 3	The Red Road, south of R154 Regional Road	214	223
ATC 4	R154 Regional Road, east of Batterstown	5,562	5,816
ATC 5	R156 Regional Road, east of L2215 Local Road	4,267	4,462
ATC 6	M3 Parkway	1,857	1,942
ATC 7	R155 Regional Road, at Fairyhouse Racecourse	8,175	8,549
ATC 8	L1007 Local Road, at Fidorfe Solar Farm	2,274	2,378
ATC 9	Nuttstown Road, west of Belgree Court	1,711	1,789
ATC 10	L1007 Local Road, at Forge Cross	3,729	3,899
ATC 11	L1007 Local Road, south of Kilbride Lane	3,476	3,635

Count	Location	2023	2026
ATC 12	Kilbride Lane, south of Sutton Farm Road	986	1,031
ATC 13	R135 Regional Road, north of L2023 Local Road	5,688	5,948
ATC 14	R130 Regional Road, south of R125 Regional Road	1,327	1,388
ATC 15	R125 Regional Road, between R122 and R130 Regional Roads	5,862	6,130
ATC 16	R122 Regional Road, south of Kilcoskan	1,459	1,526
ATC 17	R121 Regional Road, west of R122 Regional Road	2,351	2,458
ATC 18	R122 Regional Road, south of St. Margaret's Golf and Country Club	2,881	3,013
ATC 19	Kilreesk Lane	2,120	2,217
ATC 20	R122 Regional Road, north of Kilreesk Lane	1,105	1,156
ATC 21	R122 Regional Road, west of L3132 Local Road	4,267	4,462
ATC 22	R108 Regional Road, south of R125 Regional Road	4,912	5,136
ATC 23	R125 Regional Road, east of Rowlestown	6,307	6,596
ATC 24	R125 Regional Road, west of New Dairy Lane	7,405	7,743
ATC 25	R132 Regional Road, north of R106 Regional Road	29,910	31,278
ATC 26	R106 Regional Road, east of M1 Motorway	16,942	17,717
ATC 27	R107 Regional Road, north of Feltrim Road	9,828	10,278
ATC 28	R107 Regional Road, south of Feltrim Road	15,079	15,769
ATC 29	Baskin Lane, west of Rahulk Lane	7,398	7,736
ATC 30	Stockhole Lane, north of Baskin Lane	8,888	9,294
ATC 31	Stockhole Lane, north of R139 Regional Road	9,157	9,778
ATC 32	R139 Regional Road, east of Clonshaugh Road	39,507	39,371
ATC 33	Hollywood, west of Chapelwood Drive	849	887
ATC 34	R135, south of Broughan Lane	6,180	6,462
ATC 35	R122, north of R108	11,895	12,439
ATC 36	R108, north of Harristown Road	8,153	8,525
ATC 37	R132, north of Old Airport Road	23,600	24,679

**Table 14.14: Recorded and Projected Junction Turning Counts (AADT)**

Count	Arm	2023	2026
JTC 1	Drumree Road (N)	720	753
	R154 Regional Road (NW)	9,212	9,634
	R154 Regional Road (SE)	5,376	5,622
	R125 Regional Road (NE)	6,630	6,934
JTC 2	R154 Regional Road (NW)	7,880	8,240
	R125 Regional Road (SW)	2,033	2,126
	R154 Regional Road (SE)	9,259	9,683
JTC 3	R156 Regional Road (NW)	3,390	3,545
	R125 Regional Road (SW)	939	982
	R156 Regional Road (SE)	3,914	4,093
	R125 Regional Road (NE)	1,456	1,523
JTC 4	R157 Regional Road (NE)	13,710	14,337
	R156 Regional Road (NW)	5,225	5,463
	R157 Regional Road (SW)	8,484	8,872
	L2228 Local Road(E)	5,672	5,932
JTC 5	M3 Motorway On/Off Slips (N)	2,309	2,414
	R157 Regional Road (W)	14,547	15,212
	M3 Motorway On/Off Slips (S)	19,678	20,578

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	R157 Regional Road (E)	17,779	18,592
JTC 6	R147 Regional Road (N)	20,530	21,469
	R157 Regional Road (W)	17,695	18,504
	R147 Regional Road (S)	6,551	6,850
JTC 7	R147 Regional Road (N)	18,706	19,562
	R147 Regional Road (S)	20,498	21,435
	L5026 Local Road Piercetown (E)	3,072	3,213
JTC 8	R147 Regional Road (NW)	8,521	8,910
	R154 Regional Road (W)	5,668	5,927
	R147 Regional Road (SE)	17,934	18,754
	R155 Regional Road (NE)	7,202	7,531
JTC 9	Woodland Road (NW)	5,039	5,269
	Somerville (SW)	1,529	1,599
	R155 Regional Road (S)	8,626	9,020
	R155 Regional Road (NE)	4,389	4,590
JTC 10	R125 Regional Road (W)	7,779	8,134
	R155 Regional Road (S)	4,359	4,559
	R125 Regional Road (E)	10,210	10,677
JTC 11	Skryne Road (NW)	5,067	5,299
	R125 Regional Road (W)	8,511	8,900
	R125 Regional Road (S)	12,468	13,038
	Glebe Lane (NE)	101	106
JTC 12	Main Street (NW)	12,905	13,495
	The Avenue (SW)	7,446	7,787
	Ratoath Childcare Access (SE)	338	353
	R125 Regional Road (E)	16,909	17,682
JTC 13	R125 Regional Road (W)	11,175	11,686
	Kilbride Road (E)	2,585	2,703
	Main Street (S)	9,083	9,498
JTC 14	R135 Regional Road (N)	6,337	6,627
	R135 Regional Road (S)	7,348	7,683
	R130 Regional Road (NE)	3,266	3,416
JTC 15	R135 Regional Road (N)	7,298	7,632
	R121 Regional Road (W)	2,968	3,104
	R135 Regional Road (S)	6,081	6,359
	R121 Regional Road (E)	2,819	2,948
JTC 16	R121 Regional Road (N)	2,711	2,835
	Kilbride Road (W)	6,212	6,496
	R121 Regional Road (S)	3,191	3,337
	Kilbride Road (E)	5,269	5,510
JTC 17	Kilbride Road (NW)	5,638	5,895
	Roundabout Link Road (W)	5,710	5,971
	Corduff Road (S)	13,142	13,743
	Roundabout Link Road (NE)	12,924	13,514
JTC 18	N2 National Road On/Off Slip (NW)	5,738	6,001
	Roundabout Link Road (SW)	14,234	14,884
	N2 National Road On/Off Slip (SE)	10,636	11,122

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Count	Arm	2023	2026
	Roundabout Link Road (NE)	6,171	6,454
JTC 19	R135 Regional Road (N)	5,804	6,069
	Roundabout Link Road (W)	6,183	6,465
	R135 Regional Road (S)	6,108	6,387
JTC 20	R108 Regional Road (N)	13,467	14,083
	Kilreesk Road (W)	3,297	3,448
	L3132 Local Road (S)	12,423	12,991
	R108 Regional Road (E)	1,050	1,098
JTC 21	R108 Regional Road (N)	10,956	11,456
	R108 Regional Road (SW)	13,691	14,317
	Naul Road (E)	11,093	11,600
JTC 22	R132 Regional Road (NE)	22,917	23,964
	Naul Road (NW)	14,991	15,676
	N132 National Road (S)	28,252	29,543
	Stockhole Lane (SE)	9,619	10,059
JTC 23	R836 Regional Road (N)	12,666	13,245
	R132 Regional Road (SW)	18,246	19,080
	R125 Regional Road (S)	17,428	18,225
	R132 Regional Road (E)	26,307	27,509
JTC 24	R125 Regional Road (N)	7,118	7,443
	R125 Regional Road (W)	14,460	15,121
	Rathbeale Road (E)	11,402	11,923
JTC 25	Balheary Road (N)	16,104	16,841
	Castlegrange Green (W)	942	985
	R125 Regional Road (S)	7,661	8,011
	R125 Regional Road (E)	17,863	18,680
JTC 26	R132 Regional Road (N)	34,589	36,170
	R125 Regional Road (W)	22,562	23,593
	R132 Regional Road (S)	31,462	32,900
	Local Road (E)	3,995	4,178
JTC 27	R132 Regional Road (N)	31,402	32,838
	Seatown Road (W)	8,524	8,914
	R132 Regional Road (S)	30,556	31,953
	Seatown Road (E)	9,548	9,985
JTC 28	R132 Regional Road (N)	30,573	31,971
	R106 Regional Road (W)	14,336	14,992
	R132 Regional Road (SW)	25,705	26,880
	Drynam Road (S)	4,204	4,396
	R106 Regional Road (E)	17,976	18,798
JTC 29	Applegreen Access (N)	4,031	4,215
	R106 Regional Road (W)	17,794	18,608
	Mountgorry Way (S)	16,422	17,173
	R106 Regional Road (E)	18,140	18,969
JTC 30	R106 Regional Road (N)	11,051	11,556
	R106 Regional Road (W)	12,817	13,403
	R107 Regional Road (S)	11,112	11,620
JTC 31	Clonshaugh Road (N)	12,685	13,265

Count	Arm	2023	2026
	R139 Regional Road (W)	52,387	54,782
	Unused Arm (S)	7	8
	R139 Regional Road (E)	52,311	54,702
JTC 32	R147(N)	5,265	5,424
	R147(S)	4,367	4,499
	Bracetown Business Park	2,702	2,783
JTC 33	R135(N)	6,814	7,021
	L3120(W)	9,967	10,268
	R135(S)	8,871	9,139
	L3120(E)	11,856	12,214
JTC 34	R122	12,856	13,245
	L3120	10,538	10,857
	R108(S)	11,505	11,853
	R108(E)	866	892
JTC 35	R108(N)	12,463	12,840
	R122	9,144	9,421
	R108(E)	6,862	7,069
JTC 36	R108	8,538	8,796
	Harristown Road	5,619	5,789
	R108	18,362	18,917
	Old Airport Road	16,000	16,484
JTC 37	R132	25,284	26,049
	Old Airport Road	17,160	17,679
	Swords Road	19,925	20,528
	Cemetery	1,164	1,199
JTC 38	R132(N)	22,440	23,118
	Corballis Road S	14,678	15,122
	R132(S)	25,265	26,029
	Eastland's Road	10,471	10,788
JTC 39	R132(N)	32,661	33,649
	Airport Exit	23,659	24,375
	Airport Access	21,172	21,813
	R132(S)	23,502	24,213
	M1 Link Road	56,521	58,231

### 14.3.3 Sensitive Receptors

The potential sensitive receptors that have been identified, because of the traffic and transport impacts associated with the Proposed Development, include the following:

- Road network and the people using it, most importantly the emergency services, but also including those using public transport – potential delay, severance, and disruption impacts;
- Pedestrians and cyclists on surrounding footways and cycleways – potential delay, severance, and disruption impacts;
- Residents – potential disruption due to local intrusion, dust, and dirt;
- Local businesses and employees – potential disruption due to potential temporary road closures, local intrusion, dust, and dirt;
- Construction vehicle drivers – potential safety concerns; and



- Meath County Council, Fingal County Council, daa, TII and/or their agents, and other landowners – potential deterioration of local road surfaces.

### 14.3.4 Public Transport

Figure 14.5 in Volume 4 of this EIAR shows the rail and bus services that have the potential to be impacted by the Construction Phase and Operational Phase of the Proposed Development.

#### 14.3.4.1 Bus Services

Bus services that have the potential to be directly impacted by Construction Phase or Operational Phase traffic, or that have the potential to be used by construction or operational staff, are listed in Table 14.15.

Table 14.15: Bus Service Overview

Service Number	Route Summary	Service Operator	Daily Services
33	Lower Abbey Street – Balbriggan	Dublin Bus	<ul style="list-style-type: none"> <li>• 22 services per day from Dublin to Skerries (12 of which continue to Balbriggan); and</li> <li>• 25 services per day from Skerries (13 of which originate from Balbriggan) to Dublin.</li> </ul>
33A	Dublin Airport – Balbriggan	Go-Ahead Ireland	<ul style="list-style-type: none"> <li>• 25 services per day from Swords to Skerries (13 of which originate at Dublin Airport and 12 which continue to Balbriggan); and</li> <li>• 25 services per day from Skerries to Swords (12 of which originate at Balbriggan and 12 which continue to Dublin Airport)</li> </ul>
33E	Lower Abbey Street – Portrane – Skerries	Dublin Bus	<ul style="list-style-type: none"> <li>• One morning service per day from Dublin to Skerries</li> </ul>
33n	Dublin City South, Westmoreland Street – Balbriggan	Dublin Bus	<ul style="list-style-type: none"> <li>• Four late night services from Dublin to Balbriggan (Saturday and Sunday only)</li> </ul>
40B	Parnell Street – Toberburr	Dublin Bus	<ul style="list-style-type: none"> <li>• Six services per day from Dublin to Kilsallaghan; and</li> <li>• Six services per day from Kilsallaghan to Dublin.</li> </ul>
41	Lower Abbey Street – Swords Manor	Dublin Bus	<ul style="list-style-type: none"> <li>• 63 services per day from Dublin to Swords; and</li> <li>• 67 services per day from Swords to Dublin.</li> </ul>
41B	Rolestown – Lower Abbey Street	Dublin Bus	<ul style="list-style-type: none"> <li>• Five services per day from Dublin to Rolestown (one late night service also serves Swords); and</li> <li>• Four services per day from Rowlestown to Dublin.</li> </ul>
41C	Lower Abbey Street – Swords Manor	Dublin Bus	<ul style="list-style-type: none"> <li>• 43 services per day from Dublin to Swords; and</li> <li>• 42 services per day from Swords to Dublin.</li> </ul>
41D	Swords Business Park – Lower Abbey Street	Dublin Bus	<ul style="list-style-type: none"> <li>• Two morning services from Dublin to Swords Business Park; and</li> <li>• One morning and one evening service from Swords Business Park to Dublin.</li> </ul>
41X	Swords – UCD Belfield	Dublin Bus	<ul style="list-style-type: none"> <li>• Seven morning services from Swords to UCD Bellfield; and</li> <li>• Three evening services from Bellfield UCD to Swords.</li> </ul>
88n	Dublin City South, Westmoreland Street – Ashbourne	Dublin Bus	<ul style="list-style-type: none"> <li>• Three late night services from Dublin to Ashbourne (Saturday and Sunday only).</li> </ul>
101	Dublin – Airport – Drogheda	Bus Éireann	<ul style="list-style-type: none"> <li>• 46 services per day from Dublin to Drogheda; and</li> <li>• 45 services per day from Drogheda to Dublin.</li> </ul>
101X	Wilton Terrace – Drogheda – Termon Abbey	Bus Éireann	<ul style="list-style-type: none"> <li>• Five early morning services from Drogheda to Dublin; and</li> <li>• Four PM services from Dublin to Drogheda.</li> </ul>
102	Dublin Airport – Sutton Station	Bus Éireann	<ul style="list-style-type: none"> <li>• 37 services per day from Dublin Airport to Sutton Station; and</li> <li>• 37 services per day from Sutton Station to Dublin Airport.</li> </ul>
103	Dublin – Ashbourne – Ratoath – Emerald Park	Bus Éireann	<ul style="list-style-type: none"> <li>• 52 services per day from Dublin to Ratoath (four of which continue to Emerald Park); and</li> </ul>

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Service Number	Route Summary	Service Operator	Daily Services
			<ul style="list-style-type: none"> <li>53 services per day from Ratoath (four of which originate from Emerald Park) to Dublin.</li> </ul>
105	Blanchardstown – Ashbourne – Drogheda	Bus Éireann	<ul style="list-style-type: none"> <li>30 services per day from Blanchardstown to Drogheda; and</li> <li>33 services per day from Drogheda to Blanchardstown.</li> </ul>
105X	UCD – M3 – Ratoath – Ashbourne	Bus Éireann	<ul style="list-style-type: none"> <li>Three evening services per day from Dublin to Ratoath (one of which originates from University College Dublin (UCD) Bellfield); and</li> <li>Three morning services per day from Ratoath to Dublin (one of which continues to UCD Bellfield).</li> </ul>
109	Dublin – Navan – Kells – Cavan	Bus Éireann	<ul style="list-style-type: none"> <li>29 services per day from Dublin to Kells (one of which continues to Virginia); and</li> <li>30 services from Dunshaughlin to Dublin (21 of which originate from Kells and one that continues to UCD Bellfield).</li> </ul>
109A	DCU – Airport – Ratoath – Navan	Bus Éireann	<ul style="list-style-type: none"> <li>24 services per day from Dublin Airport (six of which originate from Dublin Bus Station) to Kells; and</li> <li>24 services per day from Kells to Dublin Airport (six of which continue to Dublin Bus Station).</li> </ul>
109B	Dublin – Dunshaughlin – Trim	Bus Éireann	<ul style="list-style-type: none"> <li>Seven services per day from Dublin to Trim; and</li> <li>Seven services per day from trim to Dublin.</li> </ul>
111	Wilton Terrace – Trim – Granard – Cavan	Bus Éireann	<ul style="list-style-type: none"> <li>19 services per day from Dublin to Athboy (three of which continue to Delvin); and</li> <li>19 services per day from Athboy to Dublin (three of which originate from Delvin and one that continues to UCD Bellfield).</li> </ul>
111X	Dublin Express – Athboy – Clonmellon	Bus Éireann	<ul style="list-style-type: none"> <li>Two evening services per day from Dublin to Clonmellon and one evening service per day from Dublin to Trim; and</li> <li>Two morning services per day from Clonmellon to Dublin and one evening service per day from Trim to Dublin.</li> </ul>
196	Knocksedan – Swords	Transport For Ireland (TFI) Local Link Louth Meath Fingal	<ul style="list-style-type: none"> <li>14 services per day eastbound within Swords (four of which originate in St. Margaret's); and</li> <li>14 services per day westbound within Swords (four of which continue to St. Margaret's).</li> </ul>
501X	Swords Shopping Centre – Dublin	Swords Express	<ul style="list-style-type: none"> <li>Two services per day from Swords to Dublin.</li> </ul>
505X	Dublin, Eden Quay – Malahide Road	Swords Express	<ul style="list-style-type: none"> <li>Seven evening services per day from Dublin to Swords.</li> </ul>
506X	Broadmeadow – Dublin	Swords Express	<ul style="list-style-type: none"> <li>Three morning services per day from Swords to Dublin.</li> </ul>
741	Dublin Airport – Swords	Ashbourne Connect	<ul style="list-style-type: none"> <li>36 services per day from Dublin Airport to Swords; and</li> <li>39 services per day from Swords to Dublin Airport.</li> </ul>
DY01	Navan – Bennetstown, Dunboyne College	McCaffrey Coaches Limited	<ul style="list-style-type: none"> <li>One morning service per day from Navan to Dunboyne College; and</li> <li>One evening service per day from Dunboyne College to Navan.</li> </ul>
KL01	Phibsborough – Dunbro Keelings Retail	Keelings Retail	<ul style="list-style-type: none"> <li>Five services per day from Pitsborough to Dunbro Keelings Retail; and</li> <li>Five services per day from Dunbro Keelings Retail to Pitsborough.</li> </ul>
KL02	Briarleas – Dunbro Keelings Retail	Keelings Retail	<ul style="list-style-type: none"> <li>Three services per day from Briarleas to Dunbro Keelings Retail; and</li> <li>Three services per day from Dunbro Keelings Retail to Briarleas.</li> </ul>
KL03	Santry Hazelwood – Dunbro Keelings Retail	Keelings Retail	<ul style="list-style-type: none"> <li>Three services per day from Santry Hazelwood to Dunbro Keelings Retail; and</li> <li>Three services per day from Dunbro Keelings Retail to Santry Hazelwood.</li> </ul>
UM03	Dundalk – Maynooth University	Streamline Coaches	<ul style="list-style-type: none"> <li>One service per day from Dundalk to Maynooth University and one service per day from Drogheda to Maynooth University; and</li> <li>One service per day from Maynooth University to Dundalk and one service per day from Maynooth University to Drogheda.</li> </ul>

Service Number	Route Summary	Service Operator	Daily Services
UM05	Cathedral – University Campus	Streamline Coaches	<ul style="list-style-type: none"> <li>One service per day from Lavey to Maynooth University and one service per day from Kells to Maynooth University; and</li> <li>One service per day from Maynooth University to Kells and one service per day from Maynooth University to Cavan.</li> </ul>
UM10	Carrickmacross - College	Streamline Coaches	<ul style="list-style-type: none"> <li>One morning service per day from Carrickmacross to Maynooth University; and</li> <li>One evening service per day from Maynooth University to Carrickmacross.</li> </ul>

#### 14.3.4.2 Rail Services

The only railway station within the study area is M3 Parkway, located towards the western extent of the Proposed Development. The railway siding to the north of the M3 Parkway Service railway line will be crossed by the proposed cable route through trenchless techniques (HDD).

The railway station is served by trains to and from both Clonsilla and the Docklands, operating approximately hourly or half hourly, dependant on the time of day. The M3 Parkway is the current terminus station of the railway line and although a future extension to Navan is proposed in the Greater Dublin Area Transport Strategy 2022-2042 (NTA 2023a), this work is not expected to begin until 2031 at the earliest (Meath Chronicle 2023).

The railway station could serve as a means of travel to the Proposed Development if a shuttle bus service was provided between the M3 Parkway and TCCs.

#### 14.3.5 Active Travel

The construction access routes will be largely rural in nature, and therefore, the roads do not generally have footways. However, it is noted that there is the potential for conflict with vulnerable non-motorised users on rural lanes where, for example, children may use them for walking or cycling to school.

Figure 14.6 in Volume 4 of this EIAR shows the existing cycling network within the study area although it is sparse within the County Meath and Fingal regions. However, there is a comprehensive proposed cycling network, as set out in The National Cycle Network (TII 2022) and the 2022 Greater Dublin Area Cycle Network Plan (NTA 2023b). These routes have gone through several public consultations and various design iterations. However, it highlights the desire to create many additional interconnected routes between Dublin and the surrounding rural areas. Horse riders may use rural lanes and walking / cycling routes, but these would be in small numbers.

Table 14.16 highlights the existing and proposed routes that have the potential to be affected by the implementation of the Proposed Development.

**Table 14.16: Local Walking and Cycling Routes**

Route Type	Route Description / Location	Existing / Proposed
Walking / Cycling	Stockhole Lane Shared-use path / Inter-Urban Route (GDA Cycle Network)	Existing / Proposed
Cycling	R157 Inter-Urban / Feeder Route (GDA Cycle Network)	Proposed
Cycling	R147 Inter-Urban Route (GDA Cycle Network)	Proposed
Cycling	R155 Secondary Route (GDA Cycle Network)	Proposed
Cycling	R125 Secondary Route (GDA Cycle Network)	Existing / Proposed
Walking / Cycling	Woodland Road Feeder Route (Meath County Council / NTA Pedestrian and Cycle Network)	Proposed
Walking / Cycling	Meadowbank Hill / The Avenue Feeder Route (Meath County Council / NTA Pedestrian and Cycle Network)	Proposed
Walking / Cycling	Ratoath Road Shared-use path / Feeder Route (GDA Cycle Network)	Existing / Proposed
Walking / Cycling	Cherryhound Tyrrelstown Secondary Route (GDA Cycle Network)	Existing / Proposed
Cycling	R121 Inter-Urban Route (GDA Cycle Network)	Proposed
Cycling	R135 Secondary Route (GDA Cycle Network)	Proposed
Cycling	N2 junction 2 to R122 Secondary Route (GDA Cycle Network)	Proposed
Cycling	R122 Inter-Urban Route (GDA Cycle Network)	Proposed
Cycling	Kilshane Road Secondary Route (GDA Cycle Network)	Proposed
Cycling	Kilreesk Lane Inter-Urban Route (GDA Cycle Network)	Proposed
Cycling	Kilreesk Road Inter-Urban Route (GDA Cycle Network)	Proposed
Cycling	L3132 Secondary Route (GDA Cycle Network)	Proposed
Cycling	R108 Secondary Route (GDA Cycle Network)	Proposed
Cycling	Naul Road Secondary Route (GDA Cycle Network)	Proposed
Cycling	Forrest Road Secondary Route (GDA Cycle Network)	Proposed
Cycling	Old Airport Road Secondary Route (GDA Cycle Network)	Proposed
Cycling	R132 Primary Route (GDA Cycle Network)	Proposed
Cycling	R106 Swords Road Primary Orbital Route (GDA Cycle Network)	Proposed
Cycling	R106 Dublin Road Secondary Route (GDA Cycle Network)	Proposed
Cycling	R107 Malahide Road Primary Route (GDA Cycle Network)	Proposed
Walking / Cycling	Malahide Park and Castle Loop / Malahide Castle and Gardens Greenway (GDA Cycle Network)	Existing / Proposed
Cycling	Back Road Secondary Route (GDA Cycle Network)	Proposed
Cycling	Feltrim Road Secondary Route (GDA Cycle Network)	Proposed
Cycling	Chapel Road Secondary Route (GDA Cycle Network)	Proposed
Cycling	Clonshaugh Road Secondary / Greenway / Feeder (GDA Cycle Network)	Proposed
Cycling	R139 Greenway Route (GDA Cycle Network)	Proposed
Walking / Cycling	R156 Summerhill Road Feeder Route (Meath County Council Dunboyne and Clonee Pedestrian and Cycle Network)	Proposed
Walking / Cycling	L2228 Summerhill Road Primary Route (Meath County Council Dunboyne and Clonee Pedestrian and Cycle Network)	Proposed
Walking / Cycling	Maynooth Road / Main Street Primary Route (Meath County Council Dunboyne and Clonee Pedestrian and Cycle Network)	Proposed
Walking / Cycling	Navan Road Primary Route (Meath County Council Dunboyne and Clonee Pedestrian and Cycle Network)	Proposed
Walking / Cycling	R157 Greenway (Meath County Council Dunboyne and Clonee Pedestrian and Cycle Network)	Proposed

### **14.3.6 Road Safety**

As mentioned in Section 14.2.4.2.6 and Section 14.2.4.3.5, all detailed road traffic collision data has been removed from public access, including historic road traffic collision data.

For the purposes of this assessment, a desk-based review alongside professional judgement has been used when reviewing the proposed TCCs, HDD Compounds, Joint Bay, and Passing Bay and access locations to ensure cognisance of road location, composition, visibility, and sensitive receptor locations. A desk-based review was also performed to assess the suitability of the predicted construction access routes, as highlighted in Section 14.3.1, to ensure that vehicle access will avoid sensitive receptors, vehicle restrictions, pinch points, and congested areas.

While professional judgement is utilised to draw conclusions for this EIAR for the time being to determine the effect on road safety from the level of construction and operational traffic impact, analysis of accident data will be conducted once available, in line with the methodology presented in Section 14.2.4.2.6.

### **14.3.7 Trip Generators / Attractors**

Within the vicinity of the Proposed Development and associated construction access routes, key trip generators / attractors include travel between residential areas, retail centres, public transport stops / hubs, active travel routes, local services, education sites, health / medical care sites and local amenities.

The main residential areas within the study area include Dunboyne, Hollystown, Hollywoodrath, Kinsealy, Mountgorry, Ratoath, Swords, and Yellow Walls.

More specific trip generators and attractors are illustrated in Figure 14.7 in Volume 4 of this EIAR.

## **14.4 Potential Impacts**

### **14.4.1 'Do Nothing' Scenario**

If the Proposed Development does not go ahead, traffic volumes are expected to increase along existing roads due to natural traffic growth, as demonstrated in Section 14.3.2. Additional impacts due to the Proposed Development will, however, be avoided and the impact in this case will be Neutral.

### **14.4.2 Construction Phase**

#### **14.4.2.1 Road Traffic**

The road traffic impact of the Proposed Development will be as a result of temporary additional traffic volumes associated with the construction activities (both staff and HGV movements), on the existing road network, and affecting users of that road network (including drivers, and those walking, wheeling, cycling, or travelling by public transport).

Chapter 4 (Proposed Development Description) in Volume 2 of this EIAR includes the estimated works timetable for the proposed construction programme.

##### **14.4.2.1.1 Staff Movements**

Construction of the Proposed Development will require the movement of workers to and from various points along the proposed cable route, throughout the entire Construction Phase. Due to the general rural nature of the study area, it is expected that all workers will use private vehicles to travel to and park at a TCC. It is predicted that from here they will generally consolidate to a smaller number of LGVs to travel to specific

construction locations. The appointed contractor will also be required to ensure that their staff may not park on public roads (except within the work areas).

Summing projections for required personnel for the entire Construction Phase of the Proposed Development, the total average estimated number of daily workers at any time does not exceed 215, as shown in Table 14.17. The workforce attracted by any of the TCCs is highest at TCC3, with an estimated 80 workers.

**Table 14.17: Average Daily Workforce Numbers**

TCC	2026		2027				2028				2029			
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
TCC0	0	0	0	0	0	0	0	0	6	33	45	14	8	0
TCC1	32	50	46	22	24	30	13	5	5	5	5	5	5	8
TCC2	20	7	27	54	6	5	7	16	16	7	5	5	5	8
TCC3	45	80	20	34	52	5	5	7	11	15	17	16	9	8
TCC4	24	25	54	26	19	21	16	17	5	5	5	5	5	8
TCC5	25	17	5	55	48	14	5	7	17	16	17	20	7	8
TCC6	12	5	5	24	45	45	45	45	24	6	5	5	5	8
Total	158	184	157	215	194	120	91	97	84	87	99	70	44	48

The movement of workers and HGVs will have minimal overlap since the workers generally need to arrive and depart at their respective locations before and after goods vehicles are in use at the TCCs or working areas.

Due to the very low number of vehicles expected to be required for the movement of construction workers, and the dispersed locations of the work sites, the traffic resulting from worker movements is relatively insignificant when compared to the numbers of HGVs, and therefore, deemed to have a minimal impact on their own.

#### 14.4.2.1.2 Construction Traffic

The Construction Phase of the Proposed Development will require the delivery and removal of various construction materials and equipment including excavated material, asphalt, engineered fill, concrete and facility equipment. The vehicles used for this purpose will be HGVs and ready mixed trucks, and their volumes are estimated based on the Construction Phase programme requirements to deliver and remove these various materials from along the proposed cable route. Table 14.18 shows the peak construction traffic associated with each of the TTM Sections.

**Table 14.18: Peak Construction Traffic at Each TTM Section**

TTM Sections	HGV Movements	LGV Movements	Total Movements	Number of Peak Days
1.01	75	134	209	2
1.02	107	117	224	2
1.03	55	7	62	2
1.04	77	5	82	2
1.05	14	1	15	13
1.06	64	9	73	6
1.07	22	5	27	3
1.08	64	7	71	2
1.09	24	2	26	16
1.10	37	6	43	3
1.11	20	3	23	4
1.12	71	7	78	6
1.13	13	3	16	3
1.14	31	4	35	2
1.15	40	0	40	40
1.16	62	6	68	3
1.17	52	153	205	2
1.18	14	1	15	16
1.19	94	9	103	5
1.20	23	2	25	18
1.21	86	8	94	6
1.22	14	1	15	13
1.23	49	10	59	1
1.24	74	8	82	4
1.25	12	1	13	17
1.26	41	4	45	2
1.27	89	9	98	6
1.28	117	11	128	6
1.29	56	7	63	3
1.30	155	177	332	3

Standard procurement practice means that a contractor and supply-chain for materials will not be selected prior to the Proposed Development being consented. Given that material sources are unknown at this time, the proposed construction access routes are not definitive, but professional judgement and a precautionary approach has been used to select the most likely routes. It is predicted that all traffic will arrive via the national primary and secondary road network and exit via the nearest junction to the local road network for access to the relevant construction working area and TCCs.

The routing predictions for construction workers, other light vehicles and HGVs are provided in Section 14.3.1. Each proposed construction access route has been reviewed through a desk-based study for constraints such as weight restrictions, low bridges, and HGV restrictions. In practice, light vehicles are likely to be more widely distributed and the assumption that they use a more concentrated set of construction access routes means that the assessment provides a precautionary approach.

### 14.4.2.1.3 Impact Assessment

During the peak period of the Construction Phase programme, it is forecast that a total of 634 (273 HGV) construction vehicle trips will be made per day associated with the following TTM Sections:

- TTM Section 1.01;
- TTM Section 1.11;
- TTM Section 1.12;
- TTM Section 1.13;
- TTM Section 1.14;
- TTM Section 1.19; and
- TTM Section 1.30.

In order to undertake as comprehensive an assessment of the traffic impacts as possible, the impact of construction vehicles at each traffic counter during its peak Construction Phase has been assessed, rather than only assessing the overall peak Construction Phase when not every TTM Section and proposed construction access route is being impacted. This is a very robust approach and ensures that the peak construction impacts at each counter location within the study area are considered.

Construction vehicles associated with each of these sites have been collectively distributed across the study area network with the absolute and percentage increases when compared with the baseline, as outlined in Table 14.19 and Table 14.20 for each of the traffic survey locations in the study area.

**Table 14.19: Peak Construction Phase Traffic at Each ATC Location**

Count	2026 Base		Peak Two-Way Daily Construction Traffic		2026 Base + Peak Two-Way Daily Construction Traffic		2026 Base + Peak Two-Way Daily Construction Traffic (% Increase)		Estimated Number of Peak Days
	Total	HGV	Total	HGV	Total	HGV	Total	HGV	
ATC 1	1,482	177	161	77	1,643	254	10.85%	<b>43.41%</b>	6
ATC 2	3,934	566	173	77	4,107	643	4.40%	13.57%	6
ATC 3	223	25	92	2	315	27	<b>41.25%</b>	7.97%	15
ATC 4	5,816	641	92	2	5,908	643	1.58%	0.31%	15
ATC 5	4,462	578	204	119	4,666	697	4.57%	20.63%	3
ATC 6	1,942	122	0	0	1,942	122	0.00%	0.00%	-
ATC 7	8,549	788	0	0	8,549	788	0.00%	0.00%	-
ATC 8	2,378	206	0	0	2,378	206	0.00%	0.00%	-
ATC 9	1,789	204	110	99	1,899	303	6.14%	<b>48.64%</b>	2
ATC 10	3,899	305	20	2	3,919	307	0.51%	0.75%	33
ATC 11	3,635	312	71	71	3,706	383	1.96%	22.89%	6
ATC 12	1,031	113	71	71	1,102	184	6.93%	<b>63.20%</b>	6
ATC 13	5,948	845	71	71	6,019	916	1.20%	8.45%	6
ATC 14	1,388	221	0	0	1,388	221	0.00%	0.00%	-
ATC 15	6,130	725	0	0	6,130	725	0.00%	0.00%	-
ATC 16	1,526	277	0	0	1,526	277	0.00%	0.00%	-
ATC 17	2,458	300	198	113	2,656	413	8.06%	<b>37.80%</b>	6
ATC 18	3,013	274	108	98	3,121	372	3.59%	<b>35.63%</b>	4
ATC 19	2,217	192	102	98	2,319	290	4.58%	<b>50.85%</b>	4
ATC 20	1,156	122	98	98	1,254	220	8.45%	<b>80.03%</b>	4
ATC 21	4,462	578	98	98	4,560	676	2.19%	16.89%	4
ATC 22	5,136	650	0	0	5,136	650	0.00%	0.00%	-



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	Total	HGV	Total	HGV	Total	HGV	Total	HGV	
ATC 23	6,596	698	0	0	6,596	698	0.00%	0.00%	-
ATC 24	7,743	727	0	0	7,743	727	0.00%	0.00%	-
ATC 25	31,278	3,247	0	0	31,278	3,247	0.00%	0.00%	-
ATC 26	17,717	922	0	0	17,717	922	0.00%	0.00%	-
ATC 27	10,278	655	0	0	10,278	655	0.00%	0.00%	-
ATC 28	15,769	1,033	0	0	15,769	1,033	0.00%	0.00%	-
ATC 29	7,736	612	55	47	7,791	659	0.71%	7.68%	15
ATC 30	9,294	654	171	77	9,465	731	1.84%	11.76%	1
ATC 31	9,778	672	248	77	10,026	749	2.53%	11.44%	3
ATC 32	39,371	4,087	41	41	39,412	4,128	0.10%	1.00%	50
ATC 33	887	78	210	76	1,097	154	23.62%	<b>97.29%</b>	2
ATC 34	6,462	1,457	111	111	6,573	1,568	1.72%	7.65%	2
ATC 35	12,439	2,032	111	111	12,550	2,143	0.90%	5.48%	2
ATC 36	8,525	1,805	0	0	8,525	1,805	0.00%	0.00%	-
ATC 37	24,679	3,622	0	0	24,679	3,622	0.00%	0.00%	-

**Table 14.20: Peak Construction Phase Traffic at Each JTC Location**

Count	Arm	2026 Base		Peak Two-way Daily Construction Traffic		2026 Base + Peak Two-way Daily Construction Traffic		2026 Base + Peak Two-way Daily Construction Traffic (% Increase)		Estimated Number of Peak Days
		Total	HGV	Total	HGV	Total	HGV	Total	HGV	
JTC 1	Drumree Road (N)	753	54	0	0	753	54	0.00%	0.00%	-
	R154 Regional Road (NW)	9,634	724	161	77	9,795	801	1.67%	10.61%	6
	R154 Regional Road (SE)	5,622	404	92	2	5,714	406	1.64%	0.49%	15
	R125 Regional Road (NE)	6,934	430	161	77	7,095	507	2.32%	17.87%	6
JTC 2	R154 Regional Road (NW)	8,240	629	0	0	8,240	629	0.00%	0.00%	-
	R125 Regional Road (SW)	2,126	150	161	77	2,287	227	7.56%	<b>51.22%</b>	6
	R154 Regional Road (SE)	9,683	723	161	77	9,844	800	1.66%	10.63%	6
JTC 3	R156 Regional Road (NW)	3,545	278	0	0	3,545	278	0.00%	0.00%	-
	R125 Regional Road (SW)	982	74	0	0	982	74	0.00%	0.00%	-
	R156 Regional Road (SE)	4,093	287	161	77	4,254	364	3.93%	26.77%	6
	R125 Regional Road (NE)	1,523	83	161	77	1,684	160	10.56%	<b>92.57%</b>	6
JTC 4	R157 Regional Road (NE)	14,337	955	282	119	14,619	1,074	1.97%	12.49%	3
	R156 Regional Road (NW)	5,463	390	258	119	5,721	509	4.72%	<b>30.57%</b>	3
	R157 Regional Road (SW)	8,872	475	0	0	8,872	475	0.00%	0.00%	-
	L2228 Local Road(E)	5,932	373	0	0	5,932	373	0.00%	0.00%	-
JTC 5	M3 Motorway On/Off Slips (N)	2,414	126	310	158	2,724	284	12.84%	<b>125.34%</b>	2
	R157 Regional Road (W)	15,212	795	300	144	15,512	939	1.97%	18.14%	2
	M3 Motorway On/Off Slips (S)	20,578	1,543	310	158	20,888	1,701	1.51%	10.24%	2
	R157 Regional Road (E)	18,592	1,404	189	99	18,781	1,503	1.02%	7.07%	2
JTC 6	R147 Regional Road (N)	21,469	1,425	189	99	21,658	1,524	0.88%	6.96%	2
	R157 Regional Road (W)	18,504	1,401	189	99	18,693	1,500	1.02%	7.08%	2
	R147 Regional Road (S)	6,850	560	99	99	6,949	659	1.45%	17.72%	2
JTC 7	R147 Regional Road (N)	19,562	1,174	92	2	19,654	1,176	0.47%	0.17%	15
	R147 Regional Road (S)	21,435	1,424	189	99	21,624	1,523	0.88%	6.97%	2
	L5026 Local Road Piercetown (E)	3,213	328	99	99	3,312	427	3.09%	<b>30.25%</b>	2

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		Total	HGV	Total	HGV	Total	HGV	Total	HGV	
JTC 8	R147 Regional Road (NW)	8,910	512	0	0	8,910	512	0.00%	0.00%	-
	R154 Regional Road (W)	5,927	413	92	2	6,019	415	1.55%	0.48%	15
	R147 Regional Road (SE)	18,754	1,140	92	2	18,846	1,142	0.49%	0.17%	15
	R155 Regional Road (NE)	7,531	408	0	0	7,531	408	0.00%	0.00%	-
JTC 9	Woodland Road (NW)	5,269	173	0	0	5,269	173	0.00%	0.00%	-
	Somerville (SW)	1,599	30	0	0	1,599	30	0.00%	0.00%	-
	R155 Regional Road (S)	9,020	238	0	0	9,020	238	0.00%	0.00%	-
	R155 Regional Road (NE)	4,590	91	0	0	4,590	91	0.00%	0.00%	-
JTC 10	R125 Regional Road (W)	8,134	197	0	0	8,134	197	0.00%	0.00%	-
	R155 Regional Road (S)	4,559	91	0	0	4,559	91	0.00%	0.00%	-
	R125 Regional Road (E)	10,677	225	0	0	10,677	225	0.00%	0.00%	-
JTC 11	Skryne Road (NW)	5,299	236	0	0	5,299	236	0.00%	0.00%	-
	R125 Regional Road (W)	8,900	198	0	0	8,900	198	0.00%	0.00%	-
	R125 Regional Road (S)	13,038	423	0	0	13,038	423	0.00%	0.00%	-
	Glebe Lane (NE)	106	16	0	0	106	16	0.00%	0.00%	-
JTC 12	Main Street (NW)	13,495	431	0	0	13,495	431	0.00%	0.00%	-
	The Avenue (SW)	7,787	209	0	0	7,787	209	0.00%	0.00%	-
	Ratoath Childcare Access (SE)	353	4	0	0	353	4	0.00%	0.00%	-
	R125 Regional Road (E)	17,682	615	0	0	17,682	615	0.00%	0.00%	-
JTC 13	R125 Regional Road (W)	11,686	378	0	0	11,686	378	0.00%	0.00%	-
	Kilbride Road (E)	2,703	61	0	0	2,703	61	0.00%	0.00%	-
	Main Street (S)	9,498	344	0	0	9,498	344	0.00%	0.00%	-
JTC 14	R135 Regional Road (N)	6,627	621	0	0	6,627	621	0.00%	0.00%	-
	R135 Regional Road (S)	7,683	759	0	0	7,683	759	0.00%	0.00%	-
	R130 Regional Road (NE)	3,416	243	0	0	3,416	243	0.00%	0.00%	-
JTC 15	R135 Regional Road (N)	7,632	755	0	0	7,632	755	0.00%	0.00%	-

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		Total	HGV	Total	HGV	Total	HGV	Total	HGV	
	R121 Regional Road (W)	3,104	169	143	136	3,247	305	4.61%	<b>80.67%</b>	5
	R135 Regional Road (S)	6,359	796	210	136	6,569	932	3.31%	17.13%	5
	R121 Regional Road (E)	2,948	206	194	113	3,142	319	6.58%	<b>55.04%</b>	6
JTC 16	R121 Regional Road (N)	2,835	159	257	75	3,092	234	9.08%	<b>46.93%</b>	9
	Kilbride Road (W)	6,496	204	191	191	6,687	395	2.93%	<b>93.45%</b>	2
	R121 Regional Road (S)	3,337	179	198	40	3,535	219	5.93%	22.29%	40
	Kilbride Road (E)	5,510	284	201	191	5,711	475	3.65%	<b>67.12%</b>	2
JTC 17	Kilbride Road (NW)	5,895	283	349	191	6,244	474	5.91%	<b>67.36%</b>	2
	Roundabout Link Road (W)	5,971	421	0	0	5,971	421	0.00%	0.00%	-
	Corduff Road (S)	13,743	2,062	0	0	13,743	2,062	0.00%	0.00%	-
	Roundabout Link Road (NE)	13,514	2,201	349	191	13,863	2,392	2.58%	8.66%	2
JTC 18	N2 National Road On/Off Slip (NW)	6,001	1,003	369	191	6,370	1,194	6.14%	19.01%	2
	Roundabout Link Road (SW)	14,884	2,571	349	191	15,233	2,762	2.34%	7.41%	2
	N2 National Road On/Off Slip (SE)	11,122	1,914	369	191	11,491	2,105	3.31%	9.96%	2
	Roundabout Link Road (NE)	6,454	1,143	210	136	6,664	1,279	3.26%	11.93%	5
JTC 19	R135 Regional Road (N)	6,069	767	210	136	6,279	903	3.47%	17.78%	5
	Roundabout Link Road (W)	6,465	1,153	210	136	6,675	1,289	3.25%	11.82%	5
	R135 Regional Road (S)	6,387	1,087	0	0	6,387	1,087	0.00%	0.00%	-
JTC 20	R108 Regional Road (N)	14,083	1,472	122	111	14,205	1,583	0.87%	7.57%	2
	Kilreesk Road (W)	3,448	238	111	111	3,559	349	3.23%	<b>46.82%</b>	2
	L3132 Local Road (S)	12,991	1,427	111	111	13,102	1,538	0.86%	7.81%	2
	R108 Regional Road (E)	1,098	82	0	0	1,098	82	0.00%	0.00%	-
JTC 21	R108 Regional Road (N)	11,456	755	0	0	11,456	755	0.00%	0.00%	-
	R108 Regional Road (SW)	14,317	1,349	122	111	14,439	1,460	0.85%	8.26%	2
	Naul Road (E)	11,600	1,149	128	117	11,728	1,266	1.10%	10.20%	6
JTC 22	R132 Regional Road (NE)	23,964	1,364	0	0	23,964	1,364	0.00%	0.00%	-

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		Total	HGV	Total	HGV	Total	HGV	Total	HGV	
	Naul Road (NW)	15,676	1,584	128	117	15,804	1,701	0.82%	7.40%	6
	N132 National Road (S)	29,543	2,196	279	173	29,822	2,369	0.94%	7.88%	1
	Stockhole Lane (SE)	10,059	262	173	91	10,232	353	1.72%	<b>34.62%</b>	4
JTC 23	R836 Regional Road (N)	13,245	382	0	0	13,245	382	0.00%	0.00%	-
	R132 Regional Road (SW)	19,080	980	0	0	19,080	980	0.00%	0.00%	-
	R125 Regional Road (S)	18,225	433	0	0	18,225	433	0.00%	0.00%	-
	R132 Regional Road (E)	27,509	1,092	0	0	27,509	1,092	0.00%	0.00%	-
JTC 24	R125 Regional Road (N)	7,443	193	0	0	7,443	193	0.00%	0.00%	-
	R125 Regional Road (W)	15,121	450	0	0	15,121	450	0.00%	0.00%	-
	Rathbeale Road (E)	11,923	333	0	0	11,923	333	0.00%	0.00%	-
JTC 25	Balheary Road (N)	16,841	581	0	0	16,841	581	0.00%	0.00%	-
	Castlegrange Green (W)	985	31	0	0	985	31	0.00%	0.00%	-
	R125 Regional Road (S)	8,011	334	0	0	8,011	334	0.00%	0.00%	-
	R125 Regional Road (E)	18,680	848	0	0	18,680	848	0.00%	0.00%	-
JTC 26	R132 Regional Road (N)	36,170	1,780	0	0	36,170	1,780	0.00%	0.00%	-
	R125 Regional Road (W)	23,593	1,116	0	0	23,593	1,116	0.00%	0.00%	-
	R132 Regional Road (S)	32,900	1,632	0	0	32,900	1,632	0.00%	0.00%	-
	Local Road (E)	4,178	74	0	0	4,178	74	0.00%	0.00%	-
JTC 27	R132 Regional Road (N)	32,838	1,622	0	0	32,838	1,622	0.00%	0.00%	-
	Seatown Road (W)	8,914	122	0	0	8,914	122	0.00%	0.00%	-
	R132 Regional Road (S)	31,953	1,417	0	0	31,953	1,417	0.00%	0.00%	-
	Seatown Road (E)	9,985	748	0	0	9,985	748	0.00%	0.00%	-
JTC 28	R132 Regional Road (N)	31,971	1,407	0	0	31,971	1,407	0.00%	0.00%	-
	R106 Regional Road (W)	14,992	513	0	0	14,992	513	0.00%	0.00%	-
	R132 Regional Road (SW)	26,880	1,045	0	0	26,880	1,045	0.00%	0.00%	-
	Drynam Road (S)	4,396	97	0	0	4,396	97	0.00%	0.00%	-

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		Total	HGV	Total	HGV	Total	HGV	Total	HGV	
	R106 Regional Road (E)	18,798	727	0	0	18,798	727	0.00%	0.00%	-
JTC 29	Applegreen Access (N)	4,215	79	0	0	4,215	79	0.00%	0.00%	-
	R106 Regional Road (W)	18,608	754	0	0	18,608	754	0.00%	0.00%	-
	Mountgorry Way (S)	17,173	729	0	0	17,173	729	0.00%	0.00%	-
	R106 Regional Road (E)	18,969	558	0	0	18,969	558	0.00%	0.00%	-
JTC 30	R106 Regional Road (N)	11,556	405	0	0	11,556	405	0.00%	0.00%	-
	R106 Regional Road (W)	13,403	461	0	0	13,403	461	0.00%	0.00%	-
	R107 Regional Road (S)	11,620	353	0	0	11,620	353	0.00%	0.00%	-
JTC 31	Clonshaugh Road (N)	13,265	868	244	77	13,509	945	1.84%	8.86%	3
	R139 Regional Road (W)	54,782	3,209	282	118	55,064	3,327	0.51%	3.67%	3
	Unused Arm (S)	8	-	0	0	8	-	0.00%	0.00%	-
	R139 Regional Road (E)	54,702	2,784	41	41	54,743	2,825	0.07%	1.47%	50
JTC 32	R147(N)	5,853	602	99	99	5,952	701	1.70%	16.48%	2
	R147(S)	4,855	284	0	0	4,855	284	0.00%	0.00%	-
	Bracetown Business Park	3,003	481	99	99	3,102	580	3.30%	20.63%	2
JTC 33	R135(N)	6,209	1,133	0	0	6,209	1,133	0.00%	0.00%	-
	L3120(W)	9,082	1,835	0	0	9,082	1,835	0.00%	0.00%	-
	R135(S)	8,083	2,059	111	111	8,194	2,170	1.38%	5.41%	2
	L3120(E)	10,803	1,710	111	111	10,914	1,821	1.03%	6.52%	2
JTC 34	R122	12,728	1,465	111	111	12,839	1,576	0.88%	7.61%	2
	L3120	10,433	1,597	111	111	10,544	1,708	1.07%	6.98%	2
	R108(S)	11,391	1,147	0	0	11,391	1,147	0.00%	0.00%	-
	R108(E)	857	104	0	0	857	104	0.00%	0.00%	-
JTC 35	R108(N)	11,350	1,145	0	0	11,350	1,145	0.00%	0.00%	-
	R122	8,328	982	0	0	8,328	982	0.00%	0.00%	-
	R108(E)	6,249	1,188	0	0	6,249	1,188	0.00%	0.00%	-

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		Total	HGV	Total	HGV	Total	HGV	Total	HGV	
JTC 36	R108	7,182	1,305	0	0	7,182	1,305	0.00%	0.00%	-
	Harristown Road	4,727	1,541	0	0	4,727	1,541	0.00%	0.00%	-
	R108	15,445	2,166	0	0	15,445	2,166	0.00%	0.00%	-
	Old Airport Road	13,458	1,580	0	0	13,458	1,580	0.00%	0.00%	-
JTC 37	R132	20,011	1,776	0	0	20,011	1,776	0.00%	0.00%	-
	Old Airport Road	13,581	1,575	0	0	13,581	1,575	0.00%	0.00%	-
	Swords Road	15,769	2,075	0	0	15,769	2,075	0.00%	0.00%	-
	Cemetery	921	10	0	0	921	10	0.00%	0.00%	-
JTC 38	R132(N)	17,759	1,427	0	0	17,759	1,427	0.00%	0.00%	-
	Corballis Road S	11,617	1,645	0	0	11,617	1,645	0.00%	0.00%	-
	R132(S)	19,995	1,774	0	0	19,995	1,774	0.00%	0.00%	-
	Eastland's Road	8,287	542	0	0	8,287	542	0.00%	0.00%	-
JTC 39	R132(N)	25,849	2,091	279	173	26,128	2,264	1.08%	8.28%	1
	Airport Exit	18,725	951	0	0	18,725	951	0.00%	0.00%	-
	Airport Access	16,757	748	0	0	16,757	748	0.00%	0.00%	-
	R132(S)	18,600	1,472	0	0	18,600	1,472	0.00%	0.00%	-
	M1 Link Road	44,733	2,855	279	173	45,012	3,028	0.62%	6.06%	1

The following points have been considered when assessing the potential impact of these increases:

- The predicted daily average increase in traffic has been based on the estimated maximum Construction Phase traffic at each counter location on the proposed construction access routes to that TTM Section or TCC. This situation would not realistically occur as the peak construction traffic is only programmed to ever occur simultaneously at two or three counter locations rather than at all of them at once. This approach is therefore extremely robust;
- No traffic growth or additional traffic as a result of future development has been applied to the baseline traffic used in the assessment. Therefore, through best practice, the assessment can be deemed to be robust (i.e., if the existing traffic flows were factored to future year levels, the calculated percentage increases would be less (e.g., an increase of 100 vehicles to a nominal existing flow of 5,000 vehicles means a percentage increase of 2%, whereas an increase of 100 vehicles to a nominal future year flow of 6,000 vehicles means a percentage increase of 1.7%);
- The increase in traffic during the Construction Phase is temporary;
- The one instance where a high percentage increase in total traffic is highlighted in bold is due to the low number of existing traffic on the proposed construction access route recorded at the count location;
- All instances where a high percentage increase in HGV traffic is highlighted in bold are due to the low number of existing HGVs on the proposed construction access routes recorded at the count locations;
- The predicted temporary percentage of HGV proportion is still relatively comparable with existing HGV proportions at each location;
- The maximum estimated increase in HGVs is a total of 191, on average, per day, where some construction activities overlap. This is equivalent to approximately 19 HGV movements per hour (averaged over an assumed 10-hour delivery period); and
- The maximum estimated increase in all traffic is a total of 369 vehicles, on average, per day. This is equivalent to approximately 37 vehicle movements per hour (averaged over an assumed 10-hour delivery period).

The percentage increase in total traffic flows as a result of the additional construction traffic is below the 30% threshold value at all survey locations in the study area, with the exception of one in close proximity to Woodland Substation and TCC0. It is acknowledged that there may be occasions when there are localised impacts during periods of construction which are linked to other TTM Sections which this robust approach of assessing each counter location at its peak has intended to capture.

It should also be noted that the maximum number of construction vehicle trips made on the network (i.e., 634 trips per day) projected under the Construction Phase programme, will only last for a period of two days. The total daily volume of construction vehicles on the network on any other day over the course of the construction programme is projected to be less than this volume. Based on the assessment above it is apparent that the maximum number of total construction vehicles impacting a particular location is 369, and for a period of only two days. It is therefore considered that this assessment represents a precautionary approach in terms of the potential network-wide construction vehicle impacts. In addition, these impacts are considered to be Negligible / Minor (Not Significant) and Temporary.

#### 14.4.2.1.4 Receptor Sensitivity

Consideration has been given to the existing condition, ability to accommodate HGV traffic and characteristics identified during the desk-based study, for the roads identified in Section 14.4.2.1.2 as experiencing either a Minor, Moderate or Major impact (based on Table 14.3) for Total or HGV construction traffic and are summarised in Table 14.21.



**Table 14.21: Receptor Sensitivity**

Ref.	Receptor Description	Receptor Sensitivity	Rationale
ATC 1	R125 Regional Road, between R154 and R156 Regional Roads	Negligible	<ul style="list-style-type: none"> <li>Receptors with very low importance and rarity.</li> <li>Roads with no adjacent settlements.</li> </ul>
ATC 3	The Red Road, south of R154 Regional Road	Negligible	<ul style="list-style-type: none"> <li>Receptors with very low importance and rarity.</li> <li>Roads with no adjacent settlements.</li> </ul>
ATC 9	Nuttstown Road, west of Belgree Court	Negligible	<ul style="list-style-type: none"> <li>Receptors with very low importance and rarity.</li> <li>Roads with no adjacent settlements.</li> </ul>
ATC 12	Kilbride Lane, south of Sutton Farm Road	Negligible	<ul style="list-style-type: none"> <li>Receptors with very low importance and rarity.</li> <li>Roads with no adjacent settlements.</li> </ul>
ATC 17	R121 Regional Road, west of R122 Regional Road	Negligible	<ul style="list-style-type: none"> <li>Receptors with very low importance and rarity.</li> <li>Roads with no adjacent settlements.</li> </ul>
ATC 18	R122 Regional Road, south of St. Margaret's Golf and Country Club	Negligible	<ul style="list-style-type: none"> <li>Receptors with very low importance and rarity.</li> <li>Roads with no adjacent settlements.</li> </ul>
ATC 19	Kilreesk Lane	Negligible	<ul style="list-style-type: none"> <li>Receptors with very low importance and rarity.</li> <li>Roads with no adjacent settlements.</li> </ul>
ATC 20	R122 Regional Road, north of Kilreesk Lane	Negligible	<ul style="list-style-type: none"> <li>Receptors with very low importance and rarity.</li> <li>Roads with no adjacent settlements.</li> </ul>
ATC 33	Hollywood, west of Chapelwood Drive	Low	<ul style="list-style-type: none"> <li>Small rural settlement with few community or public facilities or services.</li> <li>Route which has fallen into disuse through past severance, or which is scarcely used because they do not currently offer a meaningful route for either utility or recreational purposes.</li> </ul>
JTC 2	R125 Regional Road (SW)	Negligible	<ul style="list-style-type: none"> <li>Receptors with very low importance and rarity.</li> <li>Roads with no adjacent settlements.</li> </ul>
JTC 3	R125 Regional Road (NE)	Negligible	<ul style="list-style-type: none"> <li>Receptors with very low importance and rarity.</li> <li>Roads with no adjacent settlements.</li> </ul>
JTC 4	R156 Regional Road (NW)	Medium	<ul style="list-style-type: none"> <li>Receptors with high or medium importance at the regional scale and with limited potential for substitution.</li> <li>Intermediate sized settlements containing some community or public facilities and services, areas with some traffic calming or traffic management measures and local A or B class roads, capable of regular use by HGV traffic.</li> <li>Public rights of way and other routes close to communities which are used for recreational purposes (e.g., dog walking), but for which alternative routes can be taken. These routes are likely to link to a wider network of routes to provide options for longer, recreational journeys. Surfaced.</li> <li>Rights of way for WCH crossing roads at grade with &gt;4000-8000 vehicles per day.</li> </ul>
JTC 5	M3 Motorway On/Off Slips (N)	High	<ul style="list-style-type: none"> <li>Receptor of high importance at the international or national scale and with limited potential for substitution.</li> <li>Motorway junction.</li> <li>Close proximity and access to transport hub – M3 Parkway railway station with large park and ride capacity.</li> </ul>
JTC 7	L5026 Local Road Piercetown (E)	Low	<ul style="list-style-type: none"> <li>Receptors with low or medium importance and rarity on a local scale.</li> </ul>

Ref.	Receptor Description	Receptor Sensitivity	Rationale
			<ul style="list-style-type: none"> <li>• Small settlements with few community or public facilities or services, areas with little or no traffic calming or traffic management measures and trunk or A-class roads, constructed to accommodate significant HGV composition.</li> <li>• WCH crossing road at grade and low number of vehicles per day (&lt;4,000).</li> <li>• Bus route with a service frequency of fewer than one bus every 30 minutes.</li> </ul>
JTC 15	R121 Regional Road (W)	Negligible	<ul style="list-style-type: none"> <li>• Receptors with very low importance and rarity.</li> <li>• Roads with no adjacent settlements.</li> </ul>
	R121 Regional Road (E)	Negligible	<ul style="list-style-type: none"> <li>• Receptors with very low importance and rarity.</li> <li>• Roads with no adjacent settlements.</li> </ul>
JTC 16	R121 Regional Road (N)	Low	<ul style="list-style-type: none"> <li>• Receptors with low or medium importance and rarity on a local scale.</li> <li>• Small settlements with few community or public facilities or services, areas with little or no traffic calming or traffic management measures and trunk or A-class roads, constructed to accommodate significant HGV composition.</li> <li>• Minor arm of junction.</li> <li>• WCH crossing road at grade and low number of vehicles per day (&lt;4,000).</li> </ul>
	Kilbride Road (W)	Medium	<ul style="list-style-type: none"> <li>• Receptors with high or medium importance at the regional scale and with limited potential for substitution.</li> <li>• Intermediate sized settlements containing some community or public facilities and services, areas with some traffic calming or traffic management measures and local A or B class roads, capable of regular use by HGV traffic.</li> <li>• Public rights of way and other routes close to communities which are used for recreational purposes (e.g., dog walking), but for which alternative routes can be taken. These routes are likely to link to a wider network of routes to provide options for longer, recreational journeys. Surfaced.</li> <li>• Rights of way for WCH crossing roads at grade with &gt;4000-8000 vehicles per day.</li> </ul>
	Kilbride Road (E)	Medium	<ul style="list-style-type: none"> <li>• Receptors with high or medium importance at the regional scale and with limited potential for substitution.</li> <li>• Intermediate sized settlements containing some community or public facilities and services, areas with some traffic calming or traffic management measures and local A or B class roads, capable of regular use by HGV traffic.</li> <li>• Public rights of way and other routes close to communities which are used for recreational purposes (e.g., dog walking), but for which alternative routes can be taken. These routes are likely to link to a wider network of routes to provide options for longer, recreational journeys. Surfaced.</li> <li>• Rights of way for WCH crossing roads at grade with &gt;4000-8000 vehicles per day.</li> </ul>
JTC 17	Kilbride Road (NW)	Medium	<ul style="list-style-type: none"> <li>• Receptors with high or medium importance at the regional scale and with limited potential for substitution.</li> </ul>

Ref.	Receptor Description	Receptor Sensitivity	Rationale
			<ul style="list-style-type: none"> <li>Intermediate sized settlements containing some community or public facilities and services, areas with some traffic calming or traffic management measures and local A or B class roads, capable of regular use by HGV traffic.</li> <li>Public rights of way and other routes close to communities which are used for recreational purposes (e.g., dog walking), but for which alternative routes can be taken. These routes are likely to link to a wider network of routes to provide options for longer, recreational journeys. Surfaced.</li> <li>Rights of way for WCH crossing roads at grade with &gt;4000-8000 vehicles per day.</li> </ul>
JTC 20	Kilreesk Road (W)	Low	<ul style="list-style-type: none"> <li>Receptors with low or medium importance and rarity on a local scale.</li> <li>Small settlements with few community or public facilities or services, areas with little or no traffic calming or traffic management measures and trunk or A-class roads, constructed to accommodate significant HGV composition.</li> <li>Minor arm of junction.</li> <li>WCH crossing road at grade and low number of vehicles per day (&lt;4,000).</li> </ul>
JTC 22	Stockhole Lane (SE)	Medium	<ul style="list-style-type: none"> <li>Receptors with high or medium importance at the regional scale and with limited potential for substitution.</li> <li>Intermediate sized settlements containing some community or public facilities and services, areas with some traffic calming or traffic management measures and local A or B class roads, capable of regular use by HGV traffic.</li> <li>Public rights of way and other routes close to communities which are used for recreational purposes (e.g., dog walking), but for which alternative routes can be taken. These routes are likely to link to a wider network of routes to provide options for longer, recreational journeys. Surfaced.</li> <li>Rights of way for WCH crossing roads at grade with &gt;4000-8000 vehicles per day.</li> </ul>

#### 14.4.2.1.5 Severance

The IEMA Guidelines (IEMA 2023) note that “*severance is the perceived division that can occur within a community when it becomes separated by a major traffic artery*”. The assessed magnitude of the severance impact is presented in Table 14.22 based on the methodology outlined in Section 14.2.4.2.1. This considers that a temporary increase of up to 191 HGV two-way movements and up to 183 non-HGV two-way movements (i.e., equivalent to approximately 19 HGV movements and 18 non-HGV movements per hour), at these locations will only have Negligible or Minor (Not Significant) impact on severance and a Temporary duration.

**Table 14.22: Significance of Impact on Severance at Receptor Locations**

Counter	Description	2026 Base + Peak Two-way Daily Construction Traffic (% increase)	Significance of Impact on Severance
ATC 1	R125 Regional Road, between R154 and R156 Regional Roads	10.85%	Negligible (Not Significant)
ATC 3	The Red Road, south of R154 Regional Road	4.125%	Minor (Not Significant)
ATC 9	Nuttstown Road, west of Belgree Court	6.14%	Negligible (Not Significant)
ATC 12	Kilbride Lane, south of Sutton Farm Road	6.93%	Negligible (Not Significant)
ATC 17	R121 Regional Road, west of R122 Regional Road	8.06%	Negligible (Not Significant)
ATC 18	R122 Regional Road, south of St. Margaret's Golf and Country Club	3.59%	Negligible (Not Significant)
ATC 19	Kilreesk Lane	4.58%	Negligible (Not Significant)
ATC 20	R122 Regional Road, north of Kilreesk Lane	8.45%	Negligible (Not Significant)
ATC 33	Hollywood, west of Chapelwood Drive	23.62%	Negligible (Not Significant)
JTC 2	R125 Regional Road (SW)	7.56%	Negligible (Not Significant)
JTC 3	R125 Regional Road (NE)	10.56%	Negligible (Not Significant)
JTC 4	R156 Regional Road (NW)	4.72%	Negligible (Not Significant)
JTC 5	M3 Motorway On/Off Slips (N)	12.84%	Negligible (Not Significant)
JTC 7	L5026 Local Road Piercetown (E)	3.09%	Negligible (Not Significant)
JTC 15	R121 Regional Road (W)	4.61%	Negligible (Not Significant)
	R121 Regional Road (E)	6.58%	Negligible (Not Significant)
JTC 16	R121 Regional Road (N)	9.08%	Negligible (Not Significant)
	Kilbride Road (W)	2.93%	Negligible (Not Significant)
	Kilbride Road (E)	3.65%	Negligible (Not Significant)
JTC 17	Kilbride Road (NW)	5.91%	Negligible (Not Significant)
JTC 20	Kilreesk Road (W)	3.23%	Negligible (Not Significant)
JTC 22	Stockhole Lane (SE)	1.72%	Negligible (Not Significant)

#### 14.4.2.1.6 Driver Delay

Traffic delays caused by construction vehicles have the potential to occur along the chosen construction access routes. The IEMA Guidelines (IEMA 2023) note that *“these delays are only likely to be significant when the traffic on the network surrounding the development is already at, or close to, the capacity of the system”*.

The road network surrounding the work sites / TCCs are operating comfortably within capacity, which is confirmed when comparing the baseline AADT flows in Table 14.13 with the anticipated capacity outlined within Table 14.4. For example, it is estimated that Kilreesk Road is theoretically capable of accommodating 8,600 two-way vehicle movements per day. The estimated maximum increase in traffic movements associated with the Proposed Development at this location is 111 vehicles per day in addition to a two-way baseline flow of 3,448 per day. As such, the road is currently operating below its capacity and will continue to do so with the addition of Construction Phase traffic flows. The assessed significance of impact on driver delay at these locations is presented in Table 14.23. All locations have been assessed to have a Negligible (Not Significant) impact on driver delay and a Temporary duration.

**Table 14.23: Significance of Impact on Driver Delay at Receptor Locations**

Counter	Description	Assumed Road Capacity	2026 Base + Construction Traffic	Significance of Impact on Driver Delay
ATC 1	R125 Regional Road, between R154 and R156 Regional Roads	5,000	1,643	Negligible (Not Significant)
ATC 3	The Red Road, south of R154 Regional Road	5,000	315	Negligible (Not Significant)
ATC 9	Nuttstown Road, west of Belgree Court	5,000	1,899	Negligible (Not Significant)
ATC 12	Kilbride Lane, south of Sutton Farm Road	5,000	1,102	Negligible (Not Significant)
ATC 17	R121 Regional Road, west of R122 Regional Road	5,000	2,656	Negligible (Not Significant)
ATC 18	R122 Regional Road, south of St. Margaret's Golf and Country Club	5,000	3,121	Negligible (Not Significant)
ATC 19	Kilreesk Lane	5,000	2,319	Negligible (Not Significant)
ATC 20	R122 Regional Road, north of Kilreesk Lane	5,000	1,254	Negligible (Not Significant)
ATC 33	Hollywood, west of Chapelwood Drive	5,000	1,097	Negligible (Not Significant)
JTC 2	R125 Regional Road (SW)	5,000	2,287	Negligible (Not Significant)
JTC 3	R125 Regional Road (NE)	5,000	1,684	Negligible (Not Significant)
JTC 4	R156 Regional Road (NW)	8,600	5,721	Negligible (Not Significant)
JTC 5	M3 Motorway On/Off Slips (N)	8,600	2,724	Negligible (Not Significant)
JTC 7	L5026 Local Road Piercetown (E)	5,000	3,312	Negligible (Not Significant)
JTC 15	R121 Regional Road (W)	5,000	3,247	Negligible (Not Significant)
	R121 Regional Road (E)	5,000	3,142	Negligible (Not Significant)
JTC 16	R121 Regional Road (N)	5,000	3,092	Negligible (Not Significant)
	Kilbride Road (W)	8,600	6,687	Negligible (Not Significant)
	Kilbride Road (E)	8,600	5,711	Negligible (Not Significant)
JTC 17	Kilbride Road (NW)	8,600	6,244	Negligible (Not Significant)
JTC 20	Kilreesk Road (W)	8,600	3,559	Negligible (Not Significant)
JTC 22	Stockhole Lane (SE)	11,600	10,232	Negligible (Not Significant)

#### 14.4.2.1.7 Pedestrian Delay

While there is the potential for an increase in traffic flow at all locations assessed, the level of increase up to approximately 191 HGV movements and 183 non-HGV movements per hour is such that the significance of impact on pedestrian delays is anticipated to be Negligible or Minor (Not Significant) and Temporary in duration, reflecting the methodology outlined in Section 14.2, at the receptor locations shown in Table 14.24.

**Table 14.24: Significance of Impact on Pedestrian Delay at Receptor Locations**

Counter	Description	2026 Base + Peak Two-way Daily Construction Traffic (% increase)	Significance of Impact on Pedestrian Delay
ATC 1	R125 Regional Road, between R154 and R156 Regional Roads	10.85%	Negligible (Not Significant)
ATC 3	The Red Road, south of R154 Regional Road	4.125%	Minor (Not Significant)
ATC 9	Nuttstown Road, west of Belgree Court	6.14%	Negligible (Not Significant)
ATC 12	Kilbride Lane, south of Sutton Farm Road	6.93%	Negligible (Not Significant)
ATC 17	R121 Regional Road, west of R122 Regional Road	8.06%	Negligible (Not Significant)
ATC 18	R122 Regional Road, south of St. Margaret's Golf and Country Club	3.59%	Negligible (Not Significant)
ATC 19	Kilreesk Lane	4.58%	Negligible (Not Significant)
ATC 20	R122 Regional Road, north of Kilreesk Lane	8.45%	Negligible (Not Significant)
ATC 33	Hollywood, west of Chapelwood Drive	23.62%	Negligible (Not Significant)
JTC 2	R125 Regional Road (SW)	7.56%	Negligible (Not Significant)
JTC 3	R125 Regional Road (NE)	10.56%	Negligible (Not Significant)
JTC 4	R156 Regional Road (NW)	4.72%	Negligible (Not Significant)
JTC 5	M3 Motorway On/Off Slips (N)	12.84%	Negligible (Not Significant)
JTC 7	L5026 Local Road Piercetown (E)	3.09%	Negligible (Not Significant)
JTC 15	R121 Regional Road (W)	4.61%	Negligible (Not Significant)
	R121 Regional Road (E)	6.58%	Negligible (Not Significant)
JTC 16	R121 Regional Road (N)	9.08%	Negligible (Not Significant)
	Kilbride Road (W)	2.93%	Negligible (Not Significant)
	Kilbride Road (E)	3.65%	Negligible (Not Significant)
JTC 17	Kilbride Road (NW)	5.91%	Negligible (Not Significant)
JTC 20	Kilreesk Road (W)	3.23%	Negligible (Not Significant)
JTC 22	Stockhole Lane (SE)	1.72%	Negligible (Not Significant)

#### 14.4.2.1.8 Pedestrian Amenity

Amenity is defined as the relative pleasantness of a journey. The volume and composition of traffic are very important determinants of amenity, as are other factors (e.g., footpath width and distance from traffic; any barriers between pedestrians and cyclists and vehicle traffic; the quality of any street furniture, route signing and planting, and presences of crossings).

For this assessment, based on the available information, the magnitude of the impact on pedestrian amenity has been considered in terms of the IEMA Guidelines (IEMA 2023), which suggests that *"a tentative threshold for judging the significance of changes in pedestrian amenity would be where the traffic flow (or HGV component) is halved or doubled"*. Based on the estimated two-way average daily percentage increase in Construction Phase traffic and the estimated two-way average daily percentage increase in HGV traffic, summarised in Table 14.19 and Table 14.20, it is anticipated that the Proposed Development Construction Phase traffic could see more than a two-fold increase in HGV traffic on the roads under consideration at one of the locations as identified in Table 14.25.

However, given the temporary nature of the impact, the low percentage of overall traffic increase, and the spare capacity on the roads at these receptor locations, professional judgement has been used to determine an adverse, Minor (Not Significant) significance of impact on pedestrian amenity, as shown in Table 14.25, and Temporary in duration.

**Table 14.25: Significance of Impact on Pedestrian Amenity at Receptor Locations**

Counter	Description	2026 Base + Peak Two-way Daily Construction Traffic (% increase)		Significance of Impact on Pedestrian Amenity
		Total	HGV	
ATC 1	R125 Regional Road, between R154 and R156 Regional Roads	10.85%	<b>43.41%</b>	Minor (Not Significant)
ATC 3	The Red Road, south of R154 Regional Road	41.25%	<b>7.97%</b>	Minor (Not Significant)
ATC 9	Nuttstown Road, west of Belgree Court	6.14%	<b>48.64%</b>	Minor (Not Significant)
ATC 12	Kilbride Lane, south of Sutton Farm Road	6.93%	<b>63.20%</b>	Minor (Not Significant)
ATC 17	R121 Regional Road, west of R122 Regional Road	8.06%	<b>37.80%</b>	Minor (Not Significant)
ATC 18	R122 Regional Road, south of St. Margaret's Golf and Country Club	3.59%	<b>35.63%</b>	Minor (Not Significant)
ATC 19	Kilreesk Lane	4.58%	<b>50.85%</b>	Minor (Not Significant)
ATC 20	R122 Regional Road, north of Kilreesk Lane	8.45%	<b>80.03%</b>	Minor (Not Significant)
ATC 33	Hollywood, west of Chapelwood Drive	23.62%	<b>97.29%</b>	Minor (Not Significant)
JTC 2	R125 Regional Road (SW)	7.56%	<b>51.22%</b>	Minor (Not Significant)
JTC 3	R125 Regional Road (NE)	10.56%	<b>92.57%</b>	Minor (Not Significant)
JTC 4	R156 Regional Road (NW)	4.72%	<b>30.57%</b>	Minor (Not Significant)
JTC 5	M3 Motorway On/Off Slips (N)	12.84%	<b>125.34%</b>	Minor (Not Significant)
JTC 7	L5026 Local Road Piercetown (E)	3.09%	<b>30.25%</b>	Minor (Not Significant)
JTC 15	R121 Regional Road (W)	4.61%	<b>80.67%</b>	Minor (Not Significant)
	R121 Regional Road (E)	6.58%	<b>55.04%</b>	Minor (Not Significant)
JTC 16	R121 Regional Road (N)	9.08%	<b>46.93%</b>	Minor (Not Significant)
	Kilbride Road (W)	2.93%	<b>93.45%</b>	Minor (Not Significant)
	Kilbride Road (E)	3.65%	<b>67.12%</b>	Minor (Not Significant)
JTC 17	Kilbride Road (NW)	5.91%	<b>67.36%</b>	Minor (Not Significant)
JTC 20	Kilreesk Road (W)	3.23%	<b>46.82%</b>	Minor (Not Significant)
JTC 22	Stockhole Lane (SE)	1.72%	<b>34.62%</b>	Minor (Not Significant)

#### 14.4.2.1.9 Fear and Intimidation

Traffic volume, composition and speeds, pedestrian footways and crossings all contribute to the level of general pleasantness, fear, and intimidation experienced by pedestrians and other vulnerable road users.

The identified receptor locations can accommodate regular use by HGV traffic, and as such, up to an additional 191 HGVs per day on these roads will not have a significant impact on pedestrians and other road users. Furthermore, given that these roads are operating comfortably within capacity at these receptor locations, the thresholds outlined in Table 14.4, and the Temporary duration of the impact, professional judgement has been used to determine a Negligible (Not Significant) impact on pedestrian fear and intimidation at these locations, as shown in Table 14.26.

**Table 14.26: Significance of Impact on Fear and Intimidation at Receptor Locations**

Counter	Description	Assumed Road Capacity	2026 Base + Construction Traffic	%HGV Change with Construction	Significance of Impact on Fear and Intimidation
ATC 1	R125 Regional Road, between R154 and R156 Regional Roads	5,000	1,643	3.51%	Negligible (Not Significant)
ATC 3	The Red Road, south of R154 Regional Road	5,000	315	-2.64%	Negligible (Not Significant)
ATC 9	Nuttstown Road, west of Belgree Court	5,000	1,899	4.57%	Negligible (Not Significant)
ATC 12	Kilbride Lane, south of Sutton Farm Road	5,000	1,102	5.77%	Negligible (Not Significant)
ATC 17	R121 Regional Road, west of R122 Regional Road	5,000	2,656	3.36%	Negligible (Not Significant)
ATC 18	R122 Regional Road, south of St. Margaret's Golf and Country Club	5,000	3,121	2.81%	Negligible (Not Significant)
ATC 19	Kilreesk Lane	5,000	2,319	3.83%	Negligible (Not Significant)
ATC 20	R122 Regional Road, north of Kilreesk Lane	5,000	1,254	6.97%	Negligible (Not Significant)
ATC 33	Hollywood, west of Chapelwood Drive	5,000	1,097	5.24%	Negligible (Not Significant)
JTC 2	R125 Regional Road (SW)	5,000	2,287	2.86%	Negligible (Not Significant)
JTC 3	R125 Regional Road (NE)	5,000	1,684	4.04%	Negligible (Not Significant)
JTC 4	R156 Regional Road (NW)	8,600	5,721	1.76%	Negligible (Not Significant)
JTC 5	M3 Motorway On/Off Slips (N)	8,600	2,724	5.20%	Negligible (Not Significant)
JTC 7	L5026 Local Road Piercetown (E)	5,000	3,312	2.69%	Negligible (Not Significant)
JTC 15	R121 Regional Road (W)	5,000	3,247	3.96%	Negligible (Not Significant)
	R121 Regional Road (E)	5,000	3,142	3.18%	Negligible (Not Significant)
JTC 16	R121 Regional Road (N)	5,000	3,092	1.95%	Negligible (Not Significant)
	Kilbride Road (W)	8,600	6,687	2.76%	Negligible (Not Significant)
	Kilbride Road (E)	8,600	5,711	3.16%	Negligible (Not Significant)
JTC 17	Kilbride Road (NW)	8,600	6,244	2.79%	Negligible (Not Significant)
JTC 20	Kilreesk Road (W)	8,600	3,559	2.91%	Negligible (Not Significant)
JTC 22	Stockhole Lane (SE)	11,600	10,232	0.84%	Negligible (Not Significant)

#### 14.4.2.1.10 Road Safety

As mentioned in Section 14.2.4.2.6, all detailed road traffic collision data has been removed from public access, including historic road traffic collision data. Therefore, quantitative analysis of this data will not be conducted.



Irrespective of this, the assessed cumulative peak scenario across the Proposed Development assumes up to 369 (191 HGV) movements per day and is considered to have a Minor magnitude impact on accidents and safety. Furthermore, the roads forming the core of the proposed construction access route network are either well-established haulage routes that can accommodate significant HGV composition or are routes capable of regular use by HGV traffic. As outlined in the CTMP (refer to Appendix B of the CEMP which is included as a standalone document in the planning application pack), access to TCCs, HDD Compounds, and working areas will be designed to safely accommodate the existing road and active travel users, and the type of construction traffic that will use these accesses during the Construction Phase. The appointed contractor will provide advanced warning signs, in accordance with the Traffic Signs Manual (DoT 2019), on approach to the proposed access locations, and entry and exit points throughout the live working area.

Given that anticipated construction traffic increases will be temporary and managed through the implementation of a CTMP, it is concluded that there will not be a long-term determinable increase on the risk of accidents. As mentioned in the CTMP, the appointed contractor of the Proposed Development will carry out a Road Safety Audit of the CTMP prior to the commencement of works, subject to the Proposed Development being consented. This will ensure a high safety standard in relation to the traffic management measures implemented.

Professional judgement has been used to determine that the magnitude of the accidents and safety impact is, at worst, Minor (i.e., a Not Significant impact) at the receptor locations identified, as summarised in Table 14.27, and is of a Temporary duration.

**Table 14.27: Significance of Impact on Road Safety at Receptor Locations**

Counter	Description	Significance of Impact on Road Safety
ATC 1	R125 Regional Road, between R154 and R156 Regional Roads	Minor (Not Significant)
ATC 9	Nuttstown Road, west of Belgree Court	Minor (Not Significant)
ATC 12	Kilbride Lane, south of Sutton Farm Road	Minor (Not Significant)
ATC 17	R121 Regional Road, west of R122 Regional Road	Minor (Not Significant)
ATC 18	R122 Regional Road, south of St. Margaret's Golf and Country Club	Minor (Not Significant)
ATC 19	Kilreesk Lane	Minor (Not Significant)
ATC 20	R122 Regional Road, north of Kilreesk Lane	Minor (Not Significant)
ATC 33	Hollywood, west of Chapelwood Drive	Minor (Not Significant)
JTC 2	R125 Regional Road (SW)	Minor (Not Significant)
JTC 3	R125 Regional Road (NE)	Minor (Not Significant)
JTC 4	R156 Regional Road (NW)	Minor (Not Significant)
JTC 5	M3 Motorway On/Off Slips (N)	Minor (Not Significant)
JTC 7	L5026 Local Road Piercetown (E)	Minor (Not Significant)
JTC 15	R121 Regional Road (W)	Minor (Not Significant)
	R121 Regional Road (E)	Minor (Not Significant)
JTC 16	R121 Regional Road (N)	Minor (Not Significant)
	Kilbride Road (W)	Minor (Not Significant)
	Kilbride Road (E)	Minor (Not Significant)
JTC 17	Kilbride Road (NW)	Minor (Not Significant)
JTC 20	Kilreesk Road (W)	Minor (Not Significant)
JTC 22	Stockhole Lane (SE)	Minor (Not Significant)

#### 14.4.2.1.11 Significance of Impacts Assessment

The significance of the impacts of Construction Phase traffic on the identified sensitive receptors has been assessed based on traffic volumes and professional judgement and is summarised in Table 14.28.

**Table 14.28: Summary of Receptor Sensitivity and Magnitude of Impacts**

Counter	Description	Receptor Sensitivity	Magnitude of Impact					
			Severance	Driver Delay	Pedestrian Delay	Pedestrian Amenity	Fear and Intimidation	Road Safety
ATC 1	R125 Regional Road, between R154 and R156 Regional Roads	Negligible	Negligible	Negligible	Negligible	Minor	Negligible	Minor
ATC 3	The Red Road, south of R154 Regional Road	Negligible	Minor	Minor	Minor	Minor	Negligible	Minor
ATC 9	Nuttstown Road, west of Belgree Court	Negligible	Negligible	Negligible	Negligible	Minor	Negligible	Minor
ATC 12	Kilbride Lane, south of Sutton Farm Road	Negligible	Negligible	Negligible	Negligible	Minor	Negligible	Minor
ATC 17	R121 Regional Road, west of R122 Regional Road	Negligible	Negligible	Negligible	Negligible	Minor	Negligible	Minor
ATC 18	R122 Regional Road, south of St. Margaret's Golf and Country Club	Negligible	Negligible	Negligible	Negligible	Minor	Negligible	Minor
ATC 19	Kilreesk Lane	Negligible	Negligible	Negligible	Negligible	Minor	Negligible	Minor
ATC 20	R122 Regional Road, north of Kilreesk Lane	Negligible	Negligible	Negligible	Negligible	Minor	Negligible	Minor
ATC 33	Hollywood, west of Chapelwood Drive	Low	Negligible	Negligible	Negligible	Minor	Negligible	Minor
JTC 2	R125 Regional Road (SW)	Negligible	Negligible	Negligible	Negligible	Minor	Negligible	Minor
JTC 3	R125 Regional Road (NE)	Negligible	Negligible	Negligible	Negligible	Minor	Negligible	Minor
JTC 4	R156 Regional Road (NW)	Medium	Negligible	Negligible	Negligible	Minor	Negligible	Minor
JTC 5	M3 Motorway On/Off Slips (N)	High	Negligible	Negligible	Negligible	Minor	Negligible	Minor
JTC 7	L5026 Local Road Piercetown (E)	Low	Negligible	Negligible	Negligible	Minor	Negligible	Minor
JTC 15	R121 Regional Road (W)	Negligible	Negligible	Negligible	Negligible	Minor	Negligible	Minor
	R121 Regional Road (E)	Negligible	Negligible	Negligible	Negligible	Minor	Negligible	Minor
JTC 16	R121 Regional Road (N)	Low	Negligible	Negligible	Negligible	Minor	Negligible	Minor
	Kilbride Road (W)	Medium	Negligible	Negligible	Negligible	Minor	Negligible	Minor

Counter	Description	Receptor Sensitivity	Magnitude of Impact					
			Severance	Driver Delay	Pedestrian Delay	Pedestrian Amenity	Fear and Intimidation	Road Safety
	Kilbride Road (E)	Medium	Negligible	Negligible	Negligible	Minor	Negligible	Minor
JTC 17	Kilbride Road (NW)	Medium	Negligible	Negligible	Negligible	Minor	Negligible	Minor
JTC 20	Kilreesk Road (W)	Low	Negligible	Negligible	Negligible	Minor	Negligible	Minor
JTC 22	Stockhole Lane (SE)	Medium	Negligible	Negligible	Negligible	Minor	Negligible	Minor

Based on the sensitivity of the receptors and the summary of magnitude of impacts (Table 14.28), the significance of impacts of the additional traffic movements during the Construction Phase are provided in Table 14.29, classified using the significance of impacts matrix shown in Table 14.10.

**Table 14.29: Significance of Construction Phase Traffic Impacts**

Counter	Description	Severance	Driver Delay	Pedestrian Delay	Pedestrian Amenity	Fear and Intimidation	Road Safety
ATC 1	R125 Regional Road, between R154 and R156 Regional Roads	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant
ATC 3	The Red Road, south of R154 Regional Road	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant
ATC 9	Nuttstown Road, west of Belgree Court	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant
ATC 12	Kilbride Lane, south of Sutton Farm Road	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant
ATC 17	R121 Regional Road, west of R122 Regional Road	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant
ATC 18	R122 Regional Road, south of St. Margaret's Golf and Country Club	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant
ATC 19	Kilreesk Lane	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant
ATC 20	R122 Regional Road, north of Kilreesk Lane	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant
ATC 33	Hollywood, west of Chapelwood Drive	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant
JTC 2	R125 Regional Road (SW)	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant
JTC 3	R125 Regional Road (NE)	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant
JTC 4	R156 Regional Road (NW)	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant
JTC 5	M3 Motorway On/Off Slips (N)	Not Significant	Not Significant	Not Significant	Significant	Not Significant	Significant

Counter	Description	Severance	Driver Delay	Pedestrian Delay	Pedestrian Amenity	Fear and Intimidation	Road Safety
JTC 7	L5026 Local Road Piercetown (E)	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant
JTC 15	R121 Regional Road (W)	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant
	R121 Regional Road (E)	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant
JTC 16	R121 Regional Road (N)	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant
	Kilbride Road (W)	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant
	Kilbride Road (E)	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant
JTC 17	Kilbride Road (NW)	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant
JTC 20	Kilreesk Road (W)	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant
JTC 22	Stockhole Lane (SE)	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant
<b>Note: Negligible and Minor are considered Not Significant impacts</b>							

The predicted increase in traffic caused by the activities for the Proposed Development during the Construction Phase will result in increases of traffic flows on the surrounding roads leading to the work sites, HDD Compounds and TCCs. Overall, on the basis that the predicted traffic increases are peak values of Temporary duration, the assessment is deemed to be robust with a precautionary approach, the general traffic volume increases are assessed to have a Negligible / Minor magnitude of impact, and based on professional judgement, the estimated increases in traffic increases are assessed to have a Moderate (Significant) or Negligible / Minor (Not Significant) impact on the identified sensitive receptors.

#### 14.4.2.1.12 Temporary Traffic Management Assessment

Approximately 26km of the proposed cable route length will run in the road network. The CTMP (refer to Appendix B of the CEMP which is included as a standalone document in the planning application pack) has identified a series of lane and full road closures throughout the construction process with the proposed cable route split into a series of TTM Sections. The closures planned for each TTM Section (in-road) during the three phases of the Construction Phase will still allow for local access and are summarised in Table 14.1. Each full road closure has an associated diversion route that is identified in the CTMP and shown in Figure 14.2 in Volume 4 of this EIAR. The expected journey time impacts, and diversion route lengths are summarised in Table 14.30. It should be noted that the durations quoted are the total days across the Construction Phase and are not necessarily concurrent days.

The diversion routes identified are in accordance with Chapter 8 of the TII Guidelines (Temporary Traffic Measures and Signs for Roadworks) (TII 2014), which states in Section 8.2.4.6:

*“Characteristics of the roads on the diversion route should be similar to the road to be closed. If this is not achievable, then it may be appropriate to consider the use of a single lane diversion for one direction of traffic only or two separate diversions for the traffic in each direction.”*

In each case, where a diversion is required, there are suitable alternative routes available.

**Table 14.30: Summary of Lane and Road Closures with Associated Diversions**

TTM Sections	TTM Length (km)	Position of Works	Phase 1 and 3 Traffic Measures	Phase 2 Traffic Measures	Diversion Route Length (km)	Diversion Journey Time Increase	Driver Delay Significance	Diversion Duration (Days)
1.02	7.2	In-road and in-verge	Two-lane closures with Passing Bay and single lane closure	Full road closure	24.1	22 minutes	Moderate (Significant)	227
1.03	1.5	In-verge	Hard shoulder closure	Hard shoulder closure	n/a	n/a	n/a	n/a
1.05	0.3	In-road	n/a	Two-lane closures	n/a	n/a	n/a	n/a
1.06	1.6	In-road	Full road closure and two-lane closures with Passing Bay	Full road closure	3.3	4 minutes	Negligible (Not Significant)	98
1.07	0.7	In-road	Full road closure	Full road closure	20.9	21 minutes	Moderate (Significant)	65
1.09	0.3	In-road	Full road closure	Full road closure	21.3	21 minutes	Moderate (Significant)	61
1.10	1.4	In-road	Full road closure	Full road closure	20.2	20 minutes	Minor (Not Significant)	90
1.12	0.9	In-road	Two-lane closures with Passing Bay	Full road closure	20.7	21 minutes	Moderate (Significant)	26
1.14	1.9	In-road and in-verge	Single lane closure	Full road closure	13.8	15 minutes	Minor (Not Significant)	34
1.16	0.7	In-road	Two-lane closures with Passing Bay	Full road closure	14.2	15 minutes	Minor (Not Significant)	20
1.18	0.7	In-road	n/a	Full road closure	6.5	7 minutes	Negligible (Not Significant)	20
1.20	0.9	In-road	Full road closure	Full road closure	6.3	7 minutes	Negligible (Not Significant)	83
1.21	1.6	In-road	Two-lane closures with Passing Bay	Full road closure	8.5	9 minutes	Negligible (Not Significant)	50
1.23	0.8	In-road	Two-lane closures with Passing Bay	Full road closure	9.2	10 minutes	Negligible (Not Significant)	24
1.24	1.2	In-road and in-verge	Single lane closure	Full road closure	8.7	10 minutes	Negligible (Not Significant)	37
1.25	0.05	In-road	n/a	Full road closure	2.5	2 minutes	Negligible (Not Significant)	2
1.27	1.6	In-road	Two-lane closures with Passing Bay	Single lane closure	n/a	n/a	n/a	n/a
1.28	2.5	In-road and in-verge	Two-lane closures with Passing Bay	Single lane closure	n/a	n/a	n/a	n/a
1.29	0.8	In-road	Two-lane closures with Passing Bay	Single lane closure	n/a	n/a	n/a	n/a

The in-road TTM Sections will have impacts of driver's route choice and cause a degree of delay to diverted traffic.

To circumvent the full road closures where they are implemented, drivers can follow the diversions outlined in Table 14.30. These are routed in accordance with TII Guidelines, and as such, ensure that the diversion routes follow roads of an appropriate standard. The driver delay impact is assessed as a Negligible and Minor (Not Significant) for most diversions and all of these will be either of Brief or Temporary duration. For four TTM Sections, the potential impact is assessed as a Moderate (Significant). However, this impact will be of Temporary duration, with only extreme cases expected when the full length of the diversion route would be required for travel. It is likely that a significant proportion of diverted traffic will only use portions of each diversion route and will dissipate throughout several alternative localised routes.

#### 14.4.2.1.13 Public Transport Assessment

Within the vicinity of the Proposed Development, several public transport routes have been identified, as outlined in Section 14.3.4. Many of the routes are local routes only since the study area is generally rural. The routes identified within or near the study area are predominantly bus routes but there is also one railway station (M3 Parkway) and associated section of railway line.

The M3 Parkway is a Park and Ride railway station, located on the R157 Regional Road adjacent to Junction 5 of the M3 Motorway, between TTM Sections 1.03 and 1.04. Closure of the hard shoulder on TTM Section 1.03, south of the car park access, for a total duration of 92 days, will occur across all three phases of the Construction Phase, which combined, may slightly impact journey times to and from the station. However, access will still be maintained throughout the Construction Phase.

To the north of the M3 Parkway railway station, between the M3 Motorway and R157 Regional Road, off-road TTM Section 1.04 will involve the use of HDD to route the cables underneath the track. This section of track is railway siding beyond the current line terminus at M3 Parkway, and combined with the use of trenchless techniques and the scheduling of these works to occur when trains are not in service, will ensure that there will be no disruption to operational services.

Table 14.31 outlines potential impacts to the bus / coach routes identified within or in close proximity to the proposed cable route.

**Table 14.31: Construction Impacts to Local Bus Routes**

Service Number	Route Summary	Service Operator	TTM Sections	Phases 1 and 3 Impacts	Phase 2 Impact
33	Lower Abbey Street – Balbriggan	Dublin Bus	1.28 / 1.29	Bus route cuts across sections of two-lane closures with Passing Bays – bus routing maintained, potential impact to journey times.	Bus route cuts across sections with single lane closures – bus routing maintained, potential impact to journey times.
33A	Dublin Airport – Balbriggan	Go-Ahead Ireland	1.28 / 1.29	Bus route cuts across sections of two-lane closures with Passing Bays – bus routing maintained, potential impact to journey times.	Bus route cuts across sections with single lane closures – bus routing maintained, potential impact to journey times.
33E	Lower Abbey Street – Portrane – Skerries	Dublin Bus	1.28 / 1.29	Bus route cuts across sections of two-lane closures with Passing Bays – bus routing maintained, potential impact to journey times.	Bus route cuts across sections with single lane closures – bus routing maintained, potential impact to journey times.
33n	Dublin City South, Westmoreland Street – Balbriggan	Dublin Bus	1.28 / 1.29	Bus route cuts across sections of two-lane closures with Passing Bays – bus routing maintained, potential impact to journey times.	Bus route cuts across sections with single lane closures – bus routing maintained, potential impact to journey times.
40B	Parnell Street – Toberburr	Dublin Bus	1.25	No impact.	Full road closure will require diversion of bus routing.

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Service Number	Route Summary	Service Operator	TTM Sections	Phases 1 and 3 Impacts	Phase 2 Impact
41	Lower Abbey Street – Swords Manor	Dublin Bus	1.28 / 1.29	Bus route cuts across sections of two-lane closures with Passing Bays – bus routing maintained, potential impact to journey times.	Bus route cuts across sections with single lane closures – bus routing maintained, potential impact to journey times.
41B	Rolestown – Lower Abbey Street	Dublin Bus	1.28 / 1.29	Bus route cuts across sections of two-lane closures with Passing Bays – bus routing maintained, potential impact to journey times.	Bus route cuts across sections with single lane closures – bus routing maintained, potential impact to journey times.
41C	Lower Abbey Street – Swords Manor	Dublin Bus	1.28 / 1.29	Bus route cuts across sections of two-lane closures with Passing Bays – bus routing maintained, potential impact to journey times.	Bus route cuts across sections with single lane closures – bus routing maintained, potential impact to journey times.
41D	Swords Business Park – Lower Abbey Street	Dublin Bus	1.28 / 1.29	Bus route cuts across sections of two-lane closures with Passing Bays – bus routing maintained, potential impact to journey times.	Bus route cuts across sections with single lane closures – bus routing maintained, potential impact to journey times.
41X	Swords – UCD Belfield	Dublin Bus	1.28 / 1.29	Bus route cuts across sections of two-lane closures with Passing Bays – bus routing maintained, potential impact to journey times.	Bus route cuts across sections with single lane closures – bus routing maintained, potential impact to journey times.
88n	Dublin City South, Westmoreland Street – Ashbourne	Dublin Bus	1.20 / 1.21	Bus route cuts across sections with full road closure (TTM 1.20) / two lane closures (TTM 1.21). The R125/R135 junction will be kept open to through traffic, if possible, with single lane closures of roundabout – bus routing maintained, potential impact to journey times.	Bus route cuts across sections with full road closures. The R125/R135 junction will be kept open to through traffic, if possible, with single lane closures of roundabout – bus routing maintained, potential impact to journey times.
101	Dublin – Airport – Drogheda	Bus Éireann	1.28 / 1.29	Bus route cuts across sections of two-lane closures with Passing Bays – bus routing maintained, potential impact to journey times.	Bus route cuts across sections with single lane closures – bus routing maintained, potential impact to journey times.
101X	Wilton Terrace – Drogheda – Termon Abbey	Bus Éireann	1.28 / 1.29	Bus route cuts across sections of two-lane closures with Passing Bays – bus routing maintained, potential impact to journey times.	Bus route cuts across sections with single lane closures – bus routing maintained, potential impact to journey times.
102	Dublin Airport – Sutton Station	Bus Éireann	1.28 / 1.29	Single lane closures – bus routing maintained, potential impact to journey times.	Single lane closures – bus routing maintained, potential impact to journey times.
103	Dublin – Ashbourne – Ratoath – Emerald Park	Bus Éireann	1.20 / 1.21	Bus route cuts across sections with full road closure (TTM 1.20) / two lane closures (TTM 1.21). The R125/R135 junction will be kept open to through traffic, if possible, with single lane closures of roundabout – bus routing maintained, potential impact to journey times.	Bus route cuts across sections with full road closures. The R125/R135 junction will be kept open to through traffic, if possible, with single lane closures of roundabout – bus routing maintained, potential impact to journey times.
105	Blanchardstown – Ashbourne – Drogheda	Bus Éireann	1.03 and 1.05	Hard shoulder closure – bus routing maintained, unlikely impact to journey times (TTM 1.03).	Hard shoulder closure (TTM 1.03) and single lane closure (TTM 1.05) – bus routing maintained, potential impact to journey times.
105X	UCD – M3 – Ratoath – Ashbourne	Bus Éireann	1.20 / 1.21	Bus route cuts across sections with full road closure (TTM 1.20) / two lane closures (TTM 1.21). The R125/R135 junction will be kept open to through traffic, if possible, with single lane closures of	Bus route cuts across sections with full road closures. The R125/R135 junction will be kept open to through traffic, if possible, with single lane closures of roundabout

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Service Number	Route Summary	Service Operator	TTM Sections	Phases 1 and 3 Impacts	Phase 2 Impact
				roundabout – bus routing maintained, potential impact to journey times.	– bus routing maintained, potential impact to journey times.
109	Dublin – Navan – Kells – Cavan	Bus Éireann	1.05	No impact.	Single lane closure – bus routing maintained, potential impact to journey times.
109A	DCU – Airport – Ratoath – Navan	Bus Éireann	1.20, 1.21, 1.27 and 1.28	Bus route cuts across sections with full road closures (1.20 and 1.21) and follows sections of two-lane closures with passing places (1.27 and 1.28) – bus routing maintained, potential impact to journey times.	Single lane closures – bus routing maintained, potential impact to journey times.
109B	Dublin – Dunshaughlin – Trim	Bus Éireann	1.05	No impact.	Single lane closure – bus routing maintained, potential impact to journey times.
111	Wilton Terrace – Trim – Granard – Cavan	Bus Éireann	1.05	No impact.	Single lane closure – bus routing maintained, potential impact to journey times.
111X	Dublin Express – Athboy – Clonmellon	Bus Éireann	1.05	No impact.	Single lane closure – bus routing maintained, potential impact to journey times.
196	Knocksedan – Swords	TFI Local Link Louth Meath Fingal	1.25	No impact.	Bus route cuts across off-road section – bus routing maintained, potential impact to journey times.
501X	Swords Shopping Centre – Dublin	Swords Express	1.28 / 1.29	Bus route cuts across sections of two-lane closures with Passing Bays – bus routing maintained, potential impact to journey times.	Bus route cuts across sections with single lane closures – bus routing maintained, potential impact to journey times.
505X	Dublin, Eden Quay – Malahide Road	Swords Express	1.28 / 1.29	Bus route cuts across sections of two-lane closures with Passing Bays – bus routing maintained, potential impact to journey times.	Bus route cuts across sections with single lane closures – bus routing maintained, potential impact to journey times.
506X	Broadmeadow – Dublin	Swords Express	1.28 / 1.29	Bus route cuts across sections of two-lane closures with Passing Bays – bus routing maintained, potential impact to journey times.	Bus route cuts across sections with single lane closures – bus routing maintained, potential impact to journey times.
741	Dublin Airport – Swords	Ashbourne Connect	1.28 / 1.29	Bus route cuts across sections of two-lane closures with Passing Bays – bus routing maintained, potential impact to journey times.	Bus route cuts across sections with single lane closures – bus routing maintained, potential impact to journey times.
DY01	Navan – Bennetstown, Dunboyne College	McCaffrey Coaches Limited	1.03	Bus route cuts across section with hard shoulder closure – bus routing maintained, potential impact to journey times.	Bus route cuts across section with hard shoulder closure – bus routing maintained, potential impact to journey times.
KL01	Phibsborough – Dunbro Keelings Retail	Keelings Retail	1.27	Two lane closures with Passing Bays – bus routing maintained, potential impact to journey times.	Single lane closure – bus routing maintained, potential impact to journey times.
KL02	Briarleas – Dunbro Keelings Retail	Keelings Retail	1.27	Two lane closures with Passing Bays – bus routing maintained, potential impact to journey times.	Single lane closure – bus routing maintained, potential impact to journey times.
KL03	Santry Hazelwood – Dunbro Keelings Retail	Keelings Retail	1.27 and 1.28	Two lane closures with Passing Bays – bus routing maintained, potential impact to journey times.	Single lane closures – bus routing maintained, potential impact to journey times.
UM03	Dundalk – Maynooth University	Streamline Coaches	1.02	One section of work will require a full road closure and will require diversion of bus routing. Other	Full road closure will require diversion of bus routing.



Service Number	Route Summary	Service Operator	TTM Sections	Phases 1 and 3 Impacts	Phase 2 Impact
				works will require single lane closure / two lane closures with Passing Bays – bus routing maintained, potential impact to journey times.	
UM05	Cathedral – University Campus	Streamline Coaches	1.03	Hard shoulder closure – bus routing maintained, unlikely impact to journey times.	Hard shoulder closure – bus routing maintained, unlikely impact to journey times.
UM10	Carrickmacross - College	Streamline Coaches	1.03 and 1.05	Hard shoulder closure – bus routing maintained, potential impact to journey times (TTM 1.03).	Hard shoulder closure (TTM 1.03) and single lane closure (TTM 1.05) – bus routing maintained, potential impact to journey times.

The majority of bus routes will be affected only by lane closures. A stop-and-go or traffic light system will be active at the single lane and two-lane (with Passing Bay) closures which may cause delays depending on the traffic flows attempting to traverse this point at the time. Buses are expected to continue to serve the same routes, although some existing stop locations may be temporarily relocated to accommodate the construction works. The impact of this and single lane closures, potentially affecting bus journey times is assessed as Negligible (Not Significant) with a Temporary duration.

The summary table shows that two bus routes (40B and UM03) will be impacted by full road closures and will be required to follow the diversions identified in Section 14.4.2.1.12. The impact of the diversions identified for each of the TTM Sections that affect the 40B bus route is assessed to be at worst, a Minor (Not Significant) impact, in terms of diversion significance, whereas the diversion identified for the UM03 service is assessed to be a Moderate (Significant) impact. The following increases in journey time and closure durations are expected for each of these services:

- 40B – two-minute diversion at TTM Section 1.25, where a road closure will be active for approximately 2 days; and
- UM03 – 22-minute diversion at TTM Section 1.02, where a road closure will be active for approximately 227 days.

The closure / diversion durations are based on the current understanding of the Proposed Development.

The UM03 bus service, the only one initially deemed to experience a Moderate (Significant) impact, operates twice per day in both directions between Dundalk / Drogheda and Maynooth University. Based on a desk-based review, this service is only impacted by the closure of a partial length of TTM Section 1.02 meaning that the length of impact is likely to be shorter than the 227 days quoted, as local access arrangements will be maintained as much as possible. Additionally, there are no stops served by this route on the section of the R156 Regional Road experiencing closure and based on the current service route it is anticipated that the bus would take a more informal / direct route than the full length of the recommended diversion route. As a result, along with the impact being of Temporary duration, based on professional judgement, the UM03 service will experience a Minor (Not Significant) impact.

The closures in all cases will be temporary, and according to the EPA Guidelines (EPA 2022), as presented in Section 14.2.4.2.2, all impacts are assessed as Temporary in duration, as the closures will not exceed one year.

As outlined in the CTMP (refer to Appendix B of the CEMP included as a standalone document in this planning application pack), the appointed contractor will liaise with public bus operators in relation to lane and road closures and create a communication plan for this purpose which will outline any independent decisions made by the bus operators.

### 14.4.2.2 Active Travel Assessment

The potential direct impacts on existing active travel routes have been assessed to determine any locations where a route is temporarily closed to accommodate construction works.

Increased traffic also has the potential to impact communities, especially where urban streets become busier and have the potential to increase severance. Section 14.2.4.2.1, Section 14.2.4.2.3 and Section 14.2.4.2.4 have previously assessed the impacts of the Construction Phase on severance, non-motorised user delay and amenity, respectively.

There may also be impacts on recognised cycle and pedestrian routes caused by construction and diversion routes. A desk-based study was conducted within the study area to identify such instances. Table 14.32 highlights the walking / cycling facilities that may be temporarily affected by the construction of the Proposed Development.

**Table 14.32: Affected Walking and Cycling Facilities**

TTM Section	Location	Description
1.02	R156	Road closure of TTM Section that runs parallel to proposed Feeder cycle / pedestrian facilities along the eastern side (R156). TTM Section runs adjacent to proposed Primary (L2228 Summerhill Road) and Greenway (R157) cycle / pedestrian facilities. Potential for delay due to diversion and increased traffic, particularly HGVs, on routes.
1.03	R157	Northern part of TTM Section runs parallel to proposed Inter-Urban and Feeder cycle facilities. TTM Section also runs adjacent to proposed Primary (L2228 Summerhill Road), Feeder (R156) and Greenway (R157) cycle / pedestrian facilities. Potential for increased traffic, particularly HGVs, on routes.
1.04	R147 / R157	Off-road TTM Section adjacent to proposed Inter-Urban and Feeder cycle facilities. Potential for increased traffic, particularly HGVs, on routes.
1.05	R147	TTM Section runs parallel to proposed Inter-Urban cycle facilities. Potential for increased traffic, particularly HGVs, on routes.
1.06	R147	TTM Section runs adjacent to proposed Inter-Urban cycle facilities. Road closure will lead to additional traffic on R147 due to diversion. Potential for delay due to diversion and increased traffic, particularly HGVs, on routes.
1.07	R147 / R125 / R155	Road closure of TTM Section will likely lead to additional traffic on R147 (proposed Inter-Urban / Feeder cycle facilities), R155 (proposed Secondary cycle facilities), and R125 (existing / proposed Secondary cycle facilities) due to diversion. Potential for delay due to diversion and increased traffic, particularly HGVs, on routes.
1.09	R147 / R125 / R155	Road closure of TTM Section will likely lead to additional traffic on R147 (proposed Inter-Urban / Feeder cycle facilities), R155 (proposed Secondary cycle facilities), and R125 (existing / proposed Secondary cycle facilities) due to diversion. Potential for delay due to diversion and increased traffic, particularly HGVs, on routes.
1.10	R147 / R125 / R155	Road closure of TTM Section will likely lead to additional traffic on R147 (proposed Inter-Urban / Feeder cycle facilities), R155 (proposed Secondary cycle facilities), and R125 (existing / proposed Secondary cycle facilities) due to diversion. Potential for delay due to diversion and increased traffic, particularly HGVs, on routes.
1.12	R147 / R125 / R155	Road closure of TTM Section will likely lead to additional traffic on R147 (proposed Inter-Urban / Feeder cycle facilities), R155 (proposed Secondary cycle facilities), and R125 (existing / proposed Secondary cycle facilities) due to diversion. Potential for delay due to diversion and increased traffic, particularly HGVs, on routes.
1.14	R121 / R135	Road closure of TTM Section will likely lead to additional traffic on R121 (proposed Inter-Urban cycle facilities), and R135 (proposed Secondary cycle facilities) due to diversion. Potential for delay due to diversion and increased traffic, particularly HGVs, on routes.
1.16	R121 / R135	Road closure of TTM Section will likely lead to additional traffic on R121 (proposed Inter-Urban cycle facilities), and R135 (proposed Secondary cycle facilities) due to diversion. Potential for delay due to diversion and increased traffic, particularly HGVs, on routes.
1.17	R121	Off-road TTM Section adjacent to proposed Inter-Urban cycle facilities. Potential for increased traffic, particularly HGVs, on routes.
1.18	R121 / R135 / Ratoath Road	Road closure of TTM Section that runs parallel to proposed Inter-Urban cycle facilities (R121). Road closure also likely to lead to additional traffic on R135 (proposed Secondary cycle facilities), Ratoath

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TTM Section	Location	Description
	/ Cherryhound Tyrrelstown	Road (existing shared-use path / proposed Feeder cycle facilities), and Cherryhound Tyrrelstown (existing / proposed Secondary cycle facilities) due to diversion. Potential for delay due to diversion and increased traffic, particularly HGVs, on routes.
1.19	R121	Off-road TTM Section adjacent to proposed Inter-Urban cycle facilities.
1.20	R121 / R135 / Ratoath Road / Cherryhound Tyrrelstown	Road closure of TTM Section that runs parallel to proposed Inter-Urban cycle facilities (R121). Road closure also likely to lead to additional traffic on R135 (proposed Secondary cycle facilities), Ratoath Road (existing shared-use path / proposed Feeder cycle facilities), and Cherryhound Tyrrelstown (existing / proposed Secondary cycle facilities) due to diversion. Potential for delay due to diversion and increased traffic, particularly HGVs, on routes.
1.21	R121 / R122 / R135 / Kilshane Road / N2 junction 2 to R122	Road closure of TTM Section that runs parallel to proposed Inter-Urban cycle facilities (R121). Road closure also likely to lead to additional traffic on R122 (proposed Secondary / Inter-Urban cycle facilities), R135 (proposed Secondary cycle facilities), and Kilshane Road (proposed Secondary cycle facilities) due to diversion. The diversion route also cuts across the N2 junction 2 to R122 (proposed Secondary cycle facilities). Potential for delay due to diversion and increased traffic, particularly HGVs, on routes.
1.22	R121	Off-road TTM Section adjacent to proposed Inter-Urban cycle facilities. Potential for increased traffic, particularly HGVs, on routes.
1.23	R121 / R122 / R135 / Kilshane Road / N2 junction 2 to R122	Road closure of TTM Section that runs parallel to proposed Inter-Urban cycle facilities (R121). Road closure also likely to lead to additional traffic on R122 (proposed Secondary / Inter-Urban cycle facilities), R135 (proposed Secondary cycle facilities), and Kilshane Road (proposed Secondary cycle facilities) due to diversion. The diversion route also cuts across the N2 junction 2 to R122 (proposed Secondary cycle facilities). Potential for delay due to diversion and increased traffic, particularly HGVs, on routes.
1.24	R121 / R122 / R135 / Kilshane Road / N2 junction 2 to R122	Road closure of TTM Section that runs parallel to proposed Inter-Urban cycle facilities (R122). Road closure also likely to lead to additional traffic on R121 (proposed Inter-Urban cycle facilities), R122 (proposed Secondary cycle facilities), R135 (proposed Inter-Urban cycle facilities), and Kilshane Road (proposed Inter-Urban cycle facilities) due to diversion. The diversion route also cuts across the N2 junction 2 to R122 (proposed Secondary cycle facilities). Potential for delay due to diversion and increased traffic, particularly HGVs, on routes.
1.25	R122 / L3132 / Kilreesk Road / Kilreesk Lane	Road closure of TTM Section that runs parallel to proposed Inter-Urban cycle facilities (Kilreesk Lane). Road closure also likely to lead to additional traffic on R122 (proposed Secondary cycle facilities), L3132 (proposed Secondary cycle facilities), and Kilreesk Road (proposed Inter-Urban cycle facilities) due to diversion. Potential for delay due to diversion and increased traffic, particularly HGVs, on routes.
1.26	R108 / Kilreesk Road / Kilreesk Lane	Off-road TTM Section adjacent to proposed Secondary (R108) and Inter-Urban cycle facilities (Kilreesk Lane) and crossing proposed Inter-Urban cycle facilities (Kilreesk Road). Potential for increased traffic, particularly HGVs, on routes.
1.27	R108 / R122 / R132 / L3132 / Naul Road / Old Airport Road	Road closure of TTM Section that runs parallel to proposed Secondary cycle facilities (R108). Road closure also likely to lead to additional traffic on R122 (proposed Secondary cycle facilities), R132 (proposed Primary cycle facilities), L3132 (proposed Secondary cycle facilities), Naul Road (proposed Secondary cycle facilities), and Old Airport Road (proposed Secondary cycle facilities) due to diversion. Potential for delay due to diversion and increased traffic, particularly HGVs, on routes.
1.28	R108 / R122 / R132 / L3132 / Naul Road / Forrest Road / Old Airport Road	Road closure of TTM Section that runs parallel to proposed Secondary cycle facilities (Naul Road) and crosses proposed Secondary cycle facilities (Forrest Road). Road closure also likely to lead to additional traffic on R122 (proposed Secondary cycle facilities), R132 (proposed Primary cycle facilities), L3132 (proposed Secondary cycle facilities), R108 (proposed Secondary cycle facilities), and Old Airport Road (proposed Secondary cycle facilities) due to diversion. Potential for delay due to diversion and increased traffic, particularly HGVs, on routes.
1.29	R106 / R107 / R132 / Stockhole Lane	Road closure of TTM Section that runs parallel to existing walking / cycling facilities and proposed Inter-Urban cycle facilities (Stockhole Lane). Road closure also likely to lead to additional traffic on R106 Swords Road (proposed Primary Orbital cycle facilities), R106 Dublin Road (proposed Secondary cycle facilities), R107 (proposed Primary cycle facilities), and R132 (proposed Primary cycle facilities) due to diversion. There are also accesses to several Secondary and Greenway cycle facilities along the diversion route including access to the Malahide Park and Castle Loop walking / cycle facilities). Potential for delay due to diversion and increased traffic, particularly HGVs, on routes.
1.30	Stockhole Lane / Clonshaugh Road	Off-road TTM Section adjacent to existing walking / cycle facilities (Stockhole Lane), proposed Inter-Urban cycle facilities (Stockhole Lane), and proposed Secondary / Feeder / Greenway cycle facilities (Clonshaugh Road). Potential for increased traffic, particularly HGVs, on routes.

There are no closures of walking / cycling facilities anticipated during the Construction Phase. Whilst there are still several pedestrian and cycle routes that have been identified as being potentially impacted within the study area, most of these routes are still only proposed and due to the low construction volumes and the temporary nature of the impacts, the impact is not considered to be significant. As shown in Table 14.18 and the detailed construction traffic analysis in Section 14.4.2.1.3, the levels of construction traffic are not expected to double the total traffic flow anywhere in the study area. On this basis, and in relation to the IEMA Guidelines (IEMA 2023), the impact on active travel is concluded to be Negligible / Minor (Not Significant) impact and of Temporary duration.

Notwithstanding, the CTMP (Appendix B of the CEMP) includes a commitment to provide advance warning of diversions and roadworks, as well as clear signage and physical barriers for walkers, cyclists, and horse riders to reduce risk of incursion within work zones or live traffic lanes.

### **14.4.3 Operational Phase**

The IEMA Guidelines (IEMA 2023) state that it should *“be assumed that projected changes in traffic of less than 10% create no discernible environmental impact”*. An assessment of the Operational Phase for potential impacts is therefore not considered necessary as the level of traffic resulting from the Operational Phase will result in a Negligible (Not Significant) impact and will be limited to minor regular maintenance requirements.

The Operational Phase of the Proposed Development will not result in any impacts on traffic since all roads will be restored to their original state after construction is finished, and the presence of the Proposed Development along some portions of the road in the study area will not affect traffic flows.

Where maintenance is required along the proposed cable route, or where maintenance works are undertaken at Woodland or Belcamp Substations, the traffic impacts have been assessed based on the specific circumstances of the maintenance activity. The Joint Bays and associated link boxes and communication chambers will require periodic inspection, for which, localised, temporary traffic management will be devised by the contractor that carries out the inspection, in consultation with the road authorities. Any maintenance-based traffic is therefore considered to be not significant given its Brief duration and Negligible (Not Significant) impact.

## **14.5 Mitigation and Monitoring Measures**

### **14.5.1 Construction Phase**

#### **14.5.1.1 Traffic Management Measures**

The temporary impacts that construction will have on traffic and movement through the study area will be mitigated through the adoption of a regulated and approved CTMP.

The CTMP is included as Appendix B of the CEMP (which is a standalone document in the planning application pack). It should be noted that in this regard both the CTMP and CEMP are included herewith for the purposes of this application and assessment. However, they will comprise 'live' documents insofar as they are subject to ongoing future refinement by the appointed contractor in collaboration and agreement with the Roads Authorities. However, all such refinement will occur in the context of the CTMP (and CEMP) included in this planning application pack for approval, and therefore, the subject of the assessment of the consenting authority.

In this context, the assessment of post mitigation impacts has been undertaken on the assumption that key measures set out in the CTMP will be developed as appropriate by the appointed contractor and will be implemented during the Construction Phase of the Proposed Development.

The appointed contractor will agree temporary traffic measures, and will then adopt and monitor an appropriate way of working, in consultation with Meath County Council, Fingal County Council, daa, TII and / or their agents, and An Garda Síochána, as appropriate.

Construction activity generated vehicles will travel on predefined construction access routes to and from the relevant working areas to reduce the effects on local traffic.

The CTMP will document measures to promote the efficient transportation of components and materials to site, whilst reducing congestion and disruption which might impact negatively on local communities or general traffic and in particular emergency services.

Signed diversion routes will be provided to mitigate journey disruption and to minimise potential driver delay. These are outlined in this Chapter but will be subject to final agreement with the Roads Authorities. Where practically achievable, diversion routes will not apply outside of the working area hours of operation.

During the Construction Phase, signage will be installed to warn road and recreational route users to the presence of the works access and the associated likely presence of large or slow-moving construction traffic.

To minimise inconvenience to the local community in terms of obstructive parking, adequate car parking for permanent site personnel, visitors and deliveries will be provided within the TCCs. Adequate vehicle parking is available on-site at either substation, and car parking will not be permitted on any of the public road network that bounds the respective TCC or work site, so that sight lines will be maintained and to minimise the potential for obstruction and delay for other road users.

Furthermore, only vehicles essentially required to facilitate construction will be permitted to attend proposed cable route worksites. Car sharing will be promoted to construction personnel by the appointed contractor during the induction process.

The appointed contractor will nominate a person to be responsible for the co-ordination of all elements of traffic and transport during the construction process (liaison officer). This person will liaise with the local community so that the community has a direct point of contact within the contractor organisation who they can contact for information purposes or to discuss matters pertaining to the traffic management.

#### **14.5.1.2 Railway Monitoring**

The appointed contractor that will undertake the HDD at the M3 Parkway railway will use track monitoring equipment. A detailed methodology will be determined by the appointed contractor in consultation with Irish Rail. However, it is anticipated that rail track monitoring will involve the use of survey equipment and target sights before, during and immediately following HDD operations to monitor any movements accurately. As this section of track is used as siding, beyond the terminus, there will be no disruption to rail passenger services.

There may also be the need for asset inspections before and after works take place and similarly no disruption to rail passenger services are predicted.

#### **14.5.1.3 Construction Access Arrangements**

Transportation, including deliveries to and from the Construction Phase working areas, will be on the existing public road network with access to off-road locations gained through both existing and constructed accesses and haul roads. Given the nature of construction of the proposed cable route, there will be multiple working areas along the proposed cable route throughout the Construction Phase programme. The proposed programme of working area locations will be confirmed by the appointed contractor as an integral part of their adopted CTMP. All construction vehicle drivers will be instructed to access their destination worksite via an approved construction access route.

A wheel wash facility and road sweeper will be provided to minimise any mud and debris on the surrounding public road network and to prevent the introduction and spread of non-native or invasive plant material onto the site.

## 14.5.2 Operational Phase

The impacts associated with the Operational Phase will be Negligible (Not Significant) and limited to minor regular maintenance requirements. This will be done in consultation with the road authorities, with localised, temporary traffic management used where deemed necessary, and will only have a Brief duration of impact.

To minimise inconvenience to the local community in terms of obstructive parking, adequate vehicle parking space is available on-site at Woodland and Belcamp Substations. For cable inspection, car parking will not be permitted on any part of the public road network for inspection of link boxes at each Joint Bay location, for example. Any localised, temporary traffic management will be devised by the contractor that carries out the inspection in consultation with the road authorities with consideration that sight lines will be maintained and to minimise the potential for obstruction and delay for other road users.

## 14.6 Residual Impacts

### 14.6.1 Construction Phase

There will be a Negligible / Minor magnitude of residual traffic and transport impact (i.e., Not Significant) during the Construction Phase with the successful implementation of the required mitigation measures described in Section 14.5.1 and contained within the CTMP (Appendix B of the CEMP).

It is acknowledged that inconveniences will be caused in some areas due to the diversion routes and construction of the proposed cable route. However, whilst the overall construction period will be over several months, all construction access routes will only be affected during certain periods, and therefore, any impacts will be of a Temporary duration.

Four other TTM Sections (1.02, 1.07, 1.09, and 1.12) of 9.1km in length will experience a Moderate (Significant) residual impact because of associated diversion lengths due to road closures rather than due to the volume of construction traffic. These sections along the R156 Regional Road, L1010 Nuttstown Road, and Priestown Road in County Meath will have a Moderate impact as a result of between approximately 21 and 22-minute diversions that will be signposted from the affected regional road to alternative roads of similar or better standard. While the impact will be Moderate, the impacts will be limited to the construction of the proposed cable trench, which will be a Temporary duration (typically 40m to 50m of cable trench is proposed to be constructed in one day, meaning these impacts are predicted to last for between 26 and 227 days, although not consecutively). The other sections of affected roads have been assessed to only experience a Negligible or Minor (Not Significant) residual impact.

### 14.6.2 Operational Phase

There will be a Negligible magnitude of residual traffic and transport impact (i.e., Not Significant) during the Operational Phase. The Operational Phase of the Proposed Development will not result in any significant impacts on traffic since all roads will be restored to their original state after the construction is finished, and the presence of the Proposed Development along some portions of road in the study area will not affect traffic flows.

It is expected that the only additional operational traffic associated with the Proposed Development will result from occasional maintenance at substations and monitoring of the cable at link boxes next to the installed Joint Bays (i.e., one light vehicle when required). This will be undertaken in consultation with the road authorities, with localised, temporary traffic management used where required, and will only have a Brief duration.

## 14.7 Conclusion

Traffic surveys were completed in the study area in May, June and August 2023, and these were used to inform the assessment of the Construction Phase. A full assessment has been made of the roads affected by the Proposed Development and is presented in the CTMP (Appendix B of the CEMP). This assessment of the Proposed Development comprises the works associated with Woodland and Belcamp Substations, the TCCs, HDD Compounds and the proposed cable route which has been broken down into TTM Sections and identifies how the construction works will affect each section of road (e.g., lane closures, diversions, and / or road closures with local access). The potential disruption to road users has been considered.

Of the 30 numbered TTM Sections along the approximately 37.5km proposed cable route, there is only one TTM Section that has been assessed to experience any Moderate (i.e., Significant) impact, pre-mitigation, namely for pedestrian amenity and road safety as a result of a location sensitivity of 'High' due to it being an important motorway junction (M3 Motorway Junction 5 – northern on / off slips). The impacts for pedestrian amenity and road safety were, however, both assessed as Minor (Not Significant) and in reality, the traffic increase is unlikely to have a noticeable impact and there is also unlikely to be a high number of pedestrians in this area. These effects will, however, also be mitigated as outlined in Section 14.5, particularly through the measures outlined in the CTMP.

Four other TTM Sections (1.02, 1.07, 1.09, and 1.12) of 9.1km in length will experience a Moderate (Significant) residual impact because of associated diversion lengths due to road closures rather than due to the volume of construction traffic. These sections along the R156 Regional Road, L1010 Nuttstown Road, and Prieststown Road in County Meath will have a Moderate impact as a result of between approximately 21 and 22-minute diversions that will be signposted from the affected regional road to alternative roads of similar or better standard. While the impact will be Moderate, the impacts will be limited to the construction of the proposed cable trench, which will be a Temporary duration (typically 40m to 50m of cable trench is proposed to be constructed in one day, meaning these impacts are predicted to last for between 26 and 227 days, although not consecutively). The other sections of affected roads have been assessed to only experience a Negligible or Minor (Not Significant) impact. Other effects to public transport and active travel users have been assessed to also be a Negligible or Minor (Not Significant) impact.

## 14.8 References

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