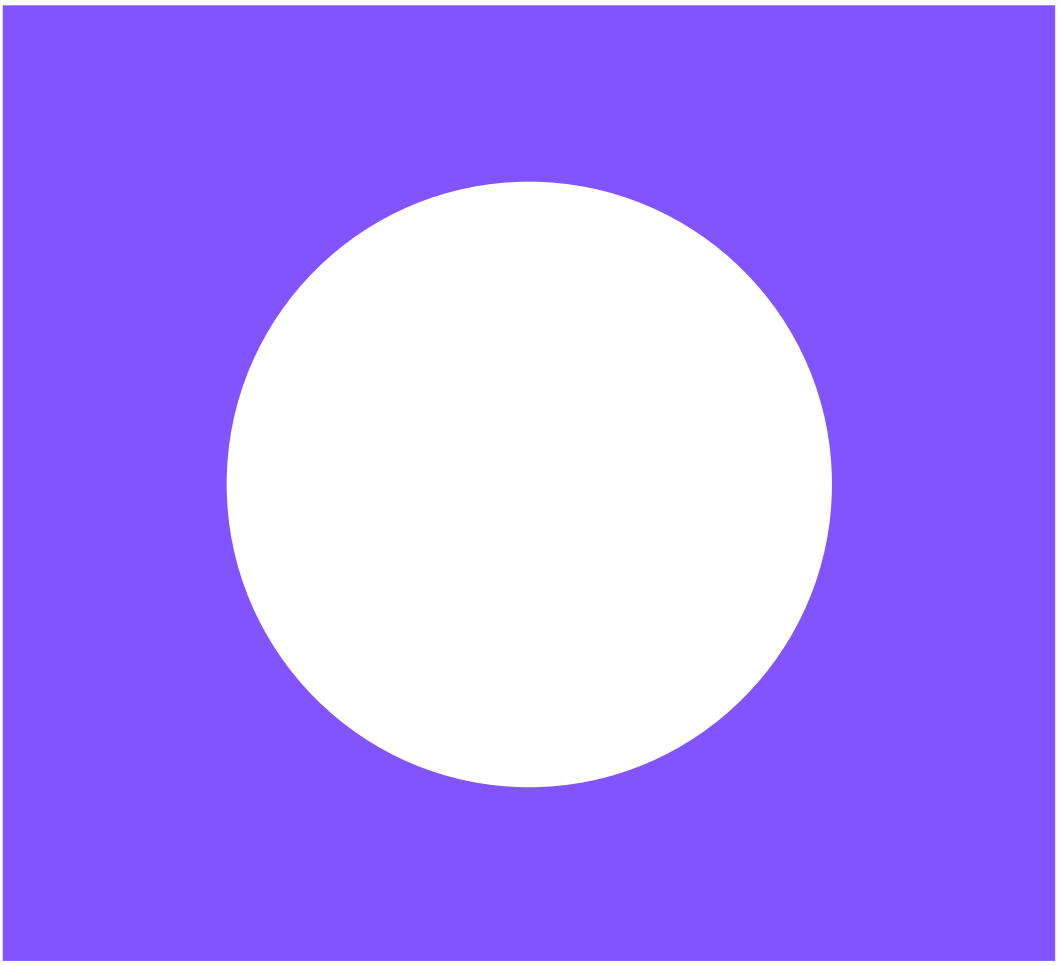

# Walterstown 110 kV Substation

## CEMP Appendix B - Construction Phase Traffic Management Plan

January 2026

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# Walterstown 110 kV Substation

## CEMP Appendix B - Construction Phase Traffic Management Plan

January 2026

# Issue and Revision Record

| Revision | Date | Originator | Checker | Approver | Description |
|---|---|---|---|---|---|
| PL1 | January 2026 | C. Harris | J. Dooley | J. Dooley | For planning issue |
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**Document reference:** PL1 | 229101684-MMD-01-XX-RP-C-005

# Contents

## Tables



## Figures

# 1 Introduction

## 1.1 Overview

Mott MacDonald Ireland Limited (Mott MacDonald) has been appointed by the Electricity Supply Board (ESB) to prepare this construction Phase Traffic Management Plan (TMP) to accompany a planning application for a new 110 kV/38 kV/MV Gas Insulated Switchgear (GIS) substation located in the townland of Walterstown, Dunboyne, County Meath.

## 1.2 Purpose

The TMP provides details of proposed traffic management measures and associated interventions which are to be implemented during the construction phase of the Proposed Development to minimise disruption and improve safety.

This TMP will remain a ‘live’ document which will be updated in response to any relevant conditions of planning, in collaboration and agreement with the relevant Planning and Roads Authority. It will be reviewed regularly and revised as necessary to ensure that the measures implemented are effective and remain within the parameters assessed in the Planning and Environmental Considerations Report (PECR) submitted with the application for approval of the Proposed Development.

## 1.3 Document Structure

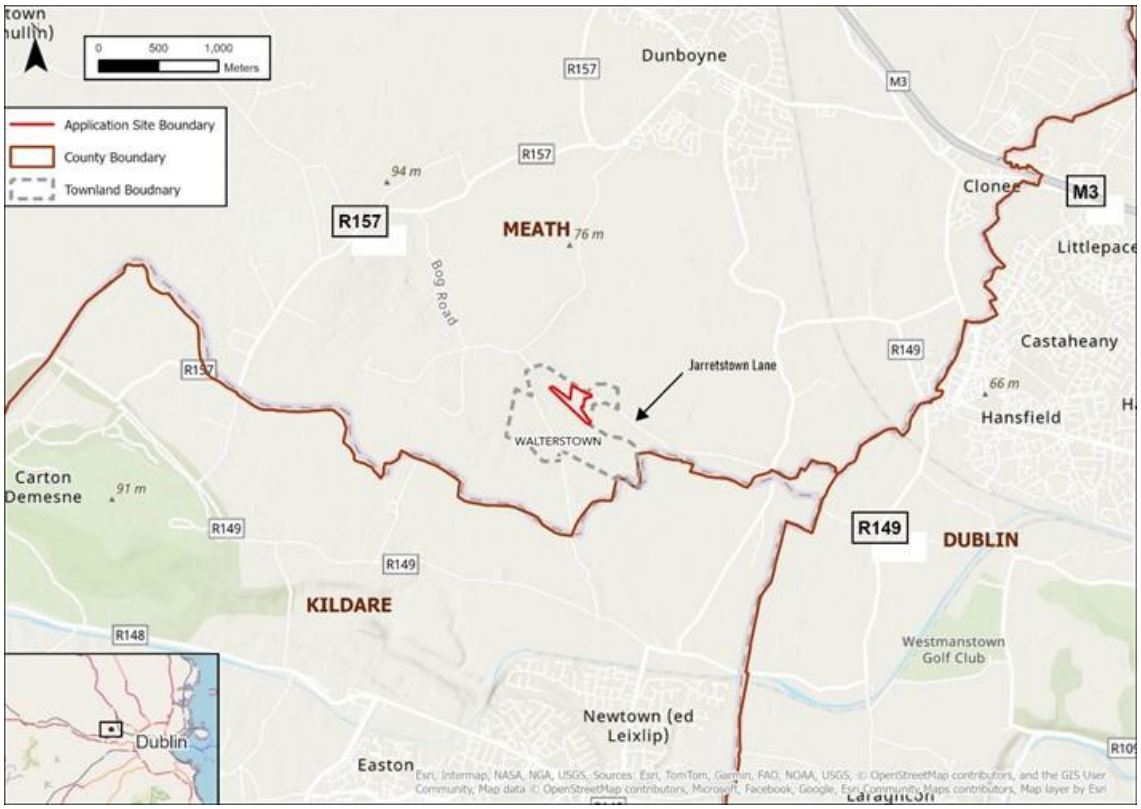
- Section 2 outlines Proposed Development including details of construction phase.
- Section 3 lists the measures to minimise traffic impacts over the course of the construction phase of the Proposed Development.
- Section 4 outlines the implementation and monitoring associated with the TMP.
- Section 5 provides a summary statement for the TMP.

# 2 Development Proposals

## 2.1 Site Location

The proposed application site is located in the townland of Walterstown, approximately 2km south of Dunboyne Town Centre and approximately 1.9km north of Leixlip. Walterstown falls within the jurisdiction of Meath County Council (MCC). The site is a greenfield site, currently in use for agriculture. Access to the site is from the local road, Jarretstown Lane, to the northern extent of the application site boundary. There are a number of residential dwellings and agricultural uses located in the surrounding area along the local road. Hansfield Rail Station is located approximately 3km to the east of the site and Leixlip (Confey) Rail Station is located approximately 2.5km to the south.

**Figure 2.1: Location of Proposed Development**




Source: Mott MacDonald

## 2.2 The Proposed Development

The Proposed Development is located off Jarretstown Lane, in the townland of Walterstown, Dunboyne, County Meath.

The Proposed Development will consist of the construction of a 110 kV/ 38 kV/ Medium Voltage (MV) electrical substation and will include the following:

- Construction of 1 no substation compound (c. 5650sqm) securely enclosed` with 2.6m high palisade fencing and gates, containing:

  - 1 no. 110 kV Gas Insulated Switchgear (GIS) building (c. 707sqm footprint; c. 12m in height);
  - 1 no. 38 kV Gas Insulated Switchgear (GIS) building (c. 232sqm footprint; c. 7m in height);
  - 2 no. Bunded 110 / 38 kV Transformers (c. 5m in height) with associated electrical equipment, 2 no. Bunded 38 kV/ MV Transformers (c. 5m in height) with associated electrical equipment;
  - 2 no. fire walls (c. 5.5m height by c. 5m length) separating the 110 / 38 kV Transformers and 38 kV/ MV Transformers;
  - 3 no. bunded Arc Suppression Coils (c. 4m high) with associated electrical equipment;
  - Neutral earth resistor (c. 2m height) and neutral earth switch (c. 3.9m high);
  - 2 no. 110 kV double circuit Line Cable Interface Masts (LCIM) (c. 17m high);
  - Concrete post and rail fence (1.4m high);
  - Underground cabling between the 110 kV GIS building and the new Line Cable Interface Masts (LCIM);
- Dismantling of 1 no. existing 110 kV Overhead Line timber poleset (c. 20m height);
- Diversion of the existing 110 kV Dunfirth-Kinnegad-Rinawade overhead line to connect to the new Line Cable Interface Masts (LCIM) and,
- All associated site development works including provision of new site entrance, internal access, lighting poles (c. 4m height), 3 no. lightning monopoles measuring c.15m high, 1 no. Emergency, stand-by Diesel Generator, telecommunications, landscaping, site services including drainage and all other ancillary works.

The existing Dunfirth-Kinnegad-Rinawade 110 kV transmission circuit, to the south of the site, will loop into the new Walterstown 110 kV substation.

## 2.3 Construction Programme

The construction of the Proposed Development will generate additional traffic within Walterstown and its environs. Construction is expected to commence in 2027. The construction works will include site preparation works, construction of the main building and structures and site finishing works. It is envisaged that the civil works will take approximately 12 months to complete. Following this, electrical installation and commissioning will take place for approximately 18 months. This is subject to availability of required outages of the existing 110 kV overhead line from the electrical transmission system, operator, EirGrid and the time of year, weather conditions and the availability of specialised equipment.

**Table 2.1: Outline Construction Schedule**

| Phase | Activity | Approximate Timeline | Total |
|---|---|---|---|
| Civil Construction | Site Preparation | 8 weeks | 52 weeks |
| | Civil Construction | 44 weeks | |
| Electrical Installation | Electrical Installation | 52 weeks | 78 weeks |
| | Electrical Commissioning | 26 weeks | |

Source: ESB

## 2.4 Construction Traffic

### 2.4.1 Construction Personnel

The total number of construction personnel on-site will vary during the construction of the Proposed Development but is expected to peak at 45.

It is conservatively assumed that the average vehicle occupancy for construction personnel travelling to/from the study area (i.e. to/from a home location) will be 1.25 persons. This will result in 36 additional vehicles using the surrounding road network on a daily basis during the peak of construction, equivalent to 72 vehicle movements per day.

### 2.4.2 HGVs

It is anticipated that the peak daily number of HGVs required to facilitate construction activity will be 30, resulting in a maximum of 60 additional HGV movements on the study area road network.

### 2.4.3 Construction Vehicle Movements

Peak construction personnel movements combined with the peak number of anticipated HGV movements could generate a total of 132 additional vehicle movements per day during the peak of construction which is anticipated to be a duration of two months.

### 2.4.4 Abnormal Loads

Vehicles transporting an abnormal load must adhere to the maximum weight limits set down by Road Traffic (Construction and Use of Vehicles) Regulations 2003, S.I. 5 of 2003 and the maximum height limit set down in Road Traffic (Construction and Use of Vehicles) (Amendment) Regulations 2008, S.I.366 of 2008. If any of these thresholds are exceeded, then the load is considered abnormal.

It is understood that there will be a requirement for the movement of abnormal loads during the development. The precise load arrangements and delivery methods will not be known until the construction tender stage is completed. Accordingly, specific traffic management requirements and localised arrangements for the delivery of abnormal loads will be identified through the completion of an Abnormal Load Assessment; to be undertaken by the appointed Contractor(s) and agreed with in advance of construction with the appropriate reviewing authorities.

Where practical, abnormal loads will be transported overnight, and it is therefore, in conjunction with the low number of movements, considered that associated disruption to road network operation will be minimal.

## 2.5 Access Routes

The M3 is located to the north of the Proposed Development and provides access from the wider strategic road network. The regional road network provides onwards connections from the M3, via the R157 and R149. There are a number of local roads which provide connection from the site access to the regional road network. The appointed Contractor will work with the relevant roads authorities to agree the most suitable haulage routing strategy to minimise impacts on other road users.

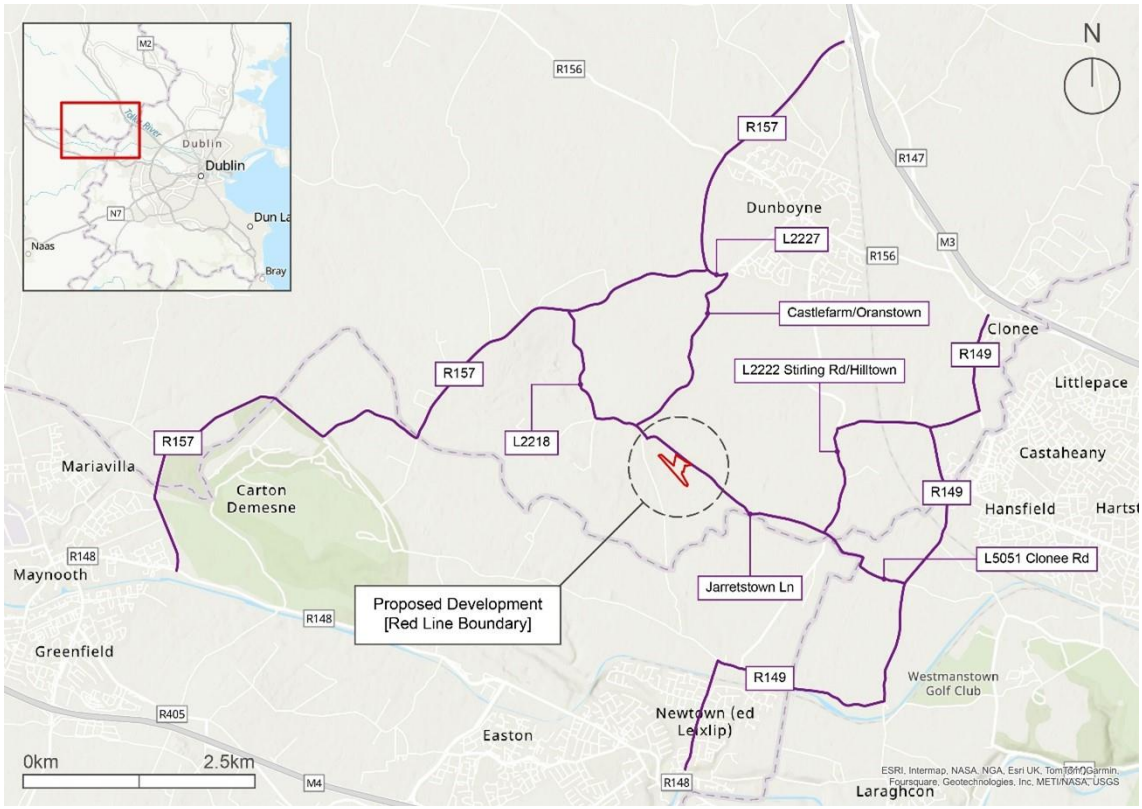
The potential regional and local roads that can be used to access the Proposed Development are summarised and visualised in Table 2.2 and Figure 2.2 respectively.

**Table 2.2: Summary of Access Roads**

| Road | Speed Limit (km/h) | Description |
|---|---|---|
| R157 | 50/60/80 | The R157 is a single carriageway with one lane in each direction connecting the R148 to the M3 at Junction 5. The road runs along the west and north boundary wall of Carton House and bypasses Dunboyne. No pedestrian footpath or streetlighting is present. No schools, hospitals or other sensitive receptors are present along the section of the route that would be utilised by construction HGVs. |
| L2227 | 50/60 | The L2227 is a single carriageway with one lane in each direction connecting the R157 with Maynooth Road. The road is bounded by agricultural land but also provides access to some residential properties. A pedestrian footpath and minimal streetlighting is present on one side of the carriageway on the exit arm of the L2227/R157 roundabout. No schools, hospitals or other sensitive receptors are present along the section of the route that would be utilised by construction HGVs. |
| Castlefarm/ Oranstown | 50/60 | Castlefarm/Oranstown is a narrow two-way single carriageway rural road connecting the L2227 to the L2218. The road is bounded by agricultural land but also provides access to some residential properties and farms. No pedestrian footpaths or street lighting is present. No schools, hospitals or other sensitive receptors are present along the section of the route that would be utilised by construction HGVs. |
| L2218 | 60 | The L2218 is a narrow two-way single carriageway rural road connecting R157 to Jarretstown Lane. The road is bounded by agricultural land but also provides access to some residential properties and farms. No schools, hospitals or other sensitive receptors are present along the section of the route that would be utilised by construction HGVs. |
| Jarretstown Lane | 60 | Jarretstown Lane is a narrow two-way single carriageway rural road connecting the L2218 to the L5051. The road is bounded agricultural land but provides access to some residential properties and farms. No pedestrian footpaths or street lighting is present. Access to the Proposed Development will be taken from Jarretstown Lane. No schools, hospitals or other sensitive receptors are present along the section of the route that would be utilised by construction HGVs. |
| R149 | 60/80 | The R149 is a single carriageway with one lane in each direction connecting the R156 (and further the M3 at Junction 4) to the M3 to the R148. The road runs in a north to south direction and bypasses Clonee and Williamstown. Pedestrian footpaths and street lighting are sparsely present as the road passes through Clonee but aren't present for the majority of the route. No schools, hospitals or other sensitive receptors are present along the section of the route that would be utilised by construction HGVs. |
| L2222 Stirling Road / Hilltown | 60 | The L2222 Stirling Road/Hilltown is a narrow two-way single carriageway rural road connecting R149 to Jarretstown Lane. The road is bounded by agricultural land but also provides access to some residential properties and farms. No pedestrian footpaths or street lighting is present. No schools, hospitals or other sensitive receptors are present along the section of the route that would be utilised by construction HGVs. |
| L5051 Clonee Road | 60 | The L5051 Clonee Road is a narrow two-way single carriageway rural road connecting R149 to Jarretstown Lane. The road is bounded by agricultural land but also provides access to some residential properties and farms. No pedestrian footpaths or street lighting is present. No schools, hospitals or other sensitive receptors are present along the section of the route that would be utilised by construction HGVs. |

Source: Mott MacDonald

**Figure 2.2: Access Routes to the Proposed Development**




Source: Mott MacDonald

# 3 TMP Measures

## 3.1 General

Traffic management measures are proposed to maintain safety and minimise potentially disruptive impacts associated with construction traffic

### 3.1.1 Time Control

It is proposed that construction activities will occur over a 12-hour working day on Monday to Friday from 07:00 – 19:00 and a 6-hour working day on Saturday from 08:00 – 14:00. Some activities may occasionally occur outside of these core hours, however they will be limited to abnormal load delivery, inspection, testing and if necessary, emergency works. The appointed Contractor will plan and manage deliveries and collections from the site to minimise potential disruption on the surrounding road network and to minimise the impact on local community day-to-day life particularly during network peak traffic hours.

The appointed Contractor will liaise with Meath County Council (MCC) upon confirmation of the intended construction programme to ensure (as far as is reasonably practicable) that no conflict with planned road works in the vicinity of the site occurs.

Deliveries will be scheduled, as far as is reasonably practicable, in consideration of network peak hours and will follow the designated access route(s) (to be determined by the appointed Contractor and agreed with MCC).

### 3.1.2 Transportation Protocols

All Contractors will adhere to the agreed TMP and any relevant conditions of approval imposed by MCC.

All construction vehicles associated with the Proposed Development will:

- Display a unique identification number shown on a plate clearly visible;
- Be securely sealed;
- Record origin, destination, and route of the vehicle; and
- Display and ensure vehicle identifications including registration plates are clearly visible.

Drivers of all construction vehicles will:

- Access their destination worksite via an approved route (to be determined by the approved Contractor in conjunction with MCC)
- Observe speed limits;
- Drive in a safe and courteous manner with due care and consideration for other road users both vehicular and pedestrians;
- Adhere to the hours of operation detailed by the TMP; and
- Not deliberately wait or stack on any public road.

The appointed Contractor will maintain a management system whereby the following records are retained and made available on request to MCC:

- The number of vehicles arriving and leaving their destination;
- All complaints received regarding transport and resultant action taken; and
- All instances where a protocol has been breached and resultant action taken.

ESB will supply the following information to MCC which will be treated in confidence:

- Action to be taken when a protocol is breached; and
- A log of vehicle movements.

### 3.1.3 Wheel Wash and Road Cleaning / Sweeping

To reduce the potential for mud and other debris being deposited onto the local road network in the vicinity of the Proposed Development, the appointed Contractor will ensure that a truck wash is provided.

The appointed Contractor will ensure the truck wash will be placed in a remote location away from watercourses to stop any contamination of the local watercourses. This cleansing regime will minimise the amount of deleterious material deposited on the road surface and the appointed Contractor will ensure that the nearest public road will be kept clear of debris by monitoring and then utilising a road sweeper, where necessary.

### 3.1.4 Speed Restrictions

All construction personnel, including Contractor managed HGV drivers, will be briefed on the absolute requirement to adhere to posted speed limits on public roads through induction sessions and through regular briefings (toolbox talks). Other parties responsible for site deliveries will also be instructed per the requirement for compliance with posted speed limits on all roads.

The speed limit(s) posted within the worksite will be considered as mandatory and therefore will be complied with.

### 3.1.5 Temporary Signage

During the construction phase, signage will be installed at logical locations to warn road and / or recreational route users to the presence of the works access and the associated likely presence of construction traffic.

General information signage will be installed at logical locations to inform road and / or recreational route users and local communities of the nature and location of the works, including contact details should they require additional information.

Examples of temporary (during construction) traffic signage are shown in Table 3.1.

**Table 3.1: Temporary Traffic Signage Examples**

| | | | |
|---|---|---|---|
| **Sign Face** |  |  |  |
| **Sign No.** | **WK 050** | **WK 051** | **WK 052** |

Source: Department of Transport – Traffic Signs Manual Chapter 08 (Aug 2019)

Temporary signage arrangements will be formally agreed with the relevant Road Authorities prior to installation and commencement of construction traffic activities. All signing will also be

provided in accordance with current version of Traffic Signs Manual[1] Chapters 4, 5, 6 and 8 as appropriate.

### 3.1.6 Road Closures and Diversions

It is not envisaged that any road closures or diversion routes will be required.

### 3.1.7 Parking for Vehicles of Site Personnel, Operatives and Visitors

To minimise potential inconvenience to the local community in terms of obstructive parking, adequate vehicle parking and manoeuvring space for site personnel, visitors and deliveries will be provided within the temporary construction compound.

Contractor personnel and visitor car parking will not be permitted on any public road adjacent to the Proposed Development site so that sight lines are maintained and to minimise potential for obstruction and delay for other road users. The requirement for construction personnel not to park their private vehicles on public roads will be a mandated requirement and advised to all construction personnel prior to commencement of works and reinforced via ‘toolbox talks’.

Vehicle sharing will be promoted to construction personnel by the Contractor during the induction process.

[1] Department for Transport | Current Traffic Signs Manual (Accessed September 2025) available at: https://www.roadguidelines.ie/traffic-signs/manual/

# 4 TMP Implementation and Communications

## 4.1 General

The implementation and monitoring of the TMP will be the responsibility of the appointed Contractor. Further evolution of this TMP will be required during the detailed Proposed Development planning stages and potentially during the construction phase.

The appointed Contractor may employ several sub-contractors, and in such circumstances sub-contractors' traffic related activities will fall under the requirements of the TMP and therefore sub-contractor personnel and sub-contractor managed construction vehicle drivers will have an obligation to adhere to the TMP. This obligation will form part of the procurement process and will be written into any relevant employment or commissioning contract.

Compliance will be monitored by the Contractor's Project Manager, to ensure that vehicles follow the measures set out in the TMP and to record any complaints arising.

Non-compliance with the TMP will constitute a breach of contract, and action will be taken against the Contractor should repeated non-compliance continue. Details of the proposed monitoring and enforcement regime will be supplied to MCC upon request.

## 4.2 Transport Co-ordination

The appointed Contractor will be responsible for the co-ordination of all elements of HGV transport to and from the worksites. The appointed Contractor (or their appointed agents) will be responsible for co-ordination and liaison with sub-contractors, MCC, TII (Transport Infrastructure Ireland) and emergency services.

The appointed Contractor will inform MCC (or agents thereof) of any important matters that could affect traffic movement by means of reports issued at regular intervals or by day-to-day reports of any substantial, essential changes to transport plans necessitated by circumstances.

## 4.3 Communication and Consultation

ESB will appoint a designated point of contact to deal with community queries and complaints during the construction period.

The appointed Contractor will utilise local media channels to circulate information regarding traffic management where necessary.

Signs will be erected on fences surrounding the construction compound to provide contact details of the appointed Contractor's Project Manager. These contact details will also be provided directly to the emergency services.

## 4.4 Liaison with Other Developers/Contractors

It is recognised that the construction phase, associated with the Proposed Development, could coincide with the construction of other proposed developments, whereby construction related traffic will utilise sections of the same public roads.

A review of other proposed developments is presented in the PECR and concludes that the cumulative construction phase, transport related, effects on both the local and regional public

roads will be at worst minor (temporary) and therefore not significant. However, if the construction phase of any notably sized development(s) appears likely to overlap with the Proposed Development, the appointed Contractor will seek to liaise with the appropriate developer organisation regarding the scheduling of deliveries to identify potential means of reducing the effects of combined construction.

Prior to commencement of construction, and during the construction phase, engagement with the proponents of other developments will continue and where there is potential for works to be carried out in parallel, appropriate mitigation measures will be implemented including the scheduling of works and regular liaison meetings between project teams to ensure that plans are co-ordinated and impacts on population and human health are minimised.

## 4.5 TMP Review

The TMP, as a 'live document', will be reviewed by the appointed Contractor prior to and during the construction phase of the Proposed Development. The TMP will be subject to change during the Proposed Development's evolution which will confirm the efficacy and implementation of all relevant mitigation measures and commitments identified in the application documentation, which in some cases changes may require approval by MCC.

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# 5 Summary Statement

This TMP represents a commitment to satisfy reviewing authority requirements and sets out proposed traffic management and contingency planning measures to enhance road safety and limit potential of disruption associated with construction traffic on the existing road network and the communities it serves. It is anticipated that once the Contractor is appointed, further useful information will become available, including a finalised construction programme, and such details will be submitted to MCC for information and / or approval as appropriate.

# 6 References

Department for Transport (2025) *Traffic Signs Manual* Available at: https://www.roadguidelines.ie/traffic-signs/manual/