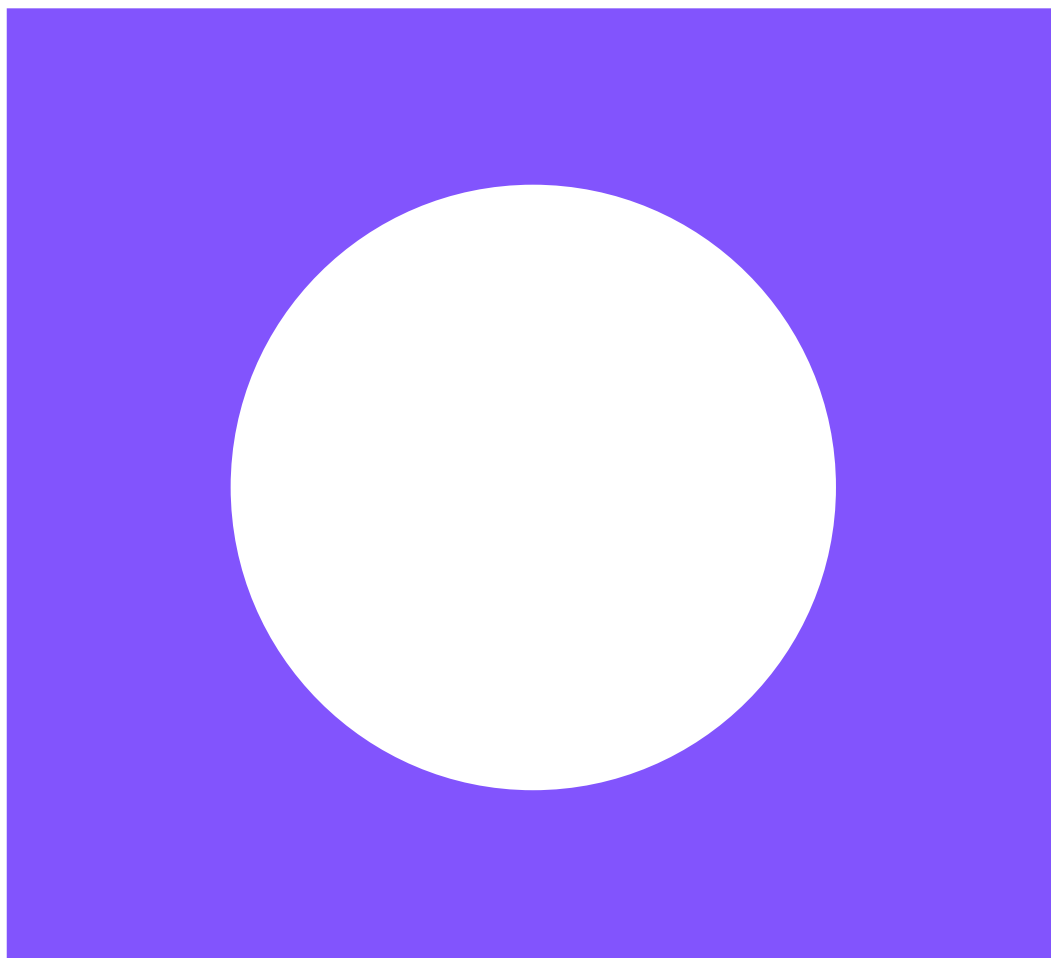




Donore 110 kV Substation

CEMP Appendix B - Construction Phase Traffic Management Plan

July 2026

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CEMP Appendix B - Construction Phase Traffic Management Plan

July 2026

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1 Introduction

1.1 Overview

Mott MacDonald Ireland Limited (Mott MacDonald) has been appointed by the Electricity Supply Board (ESB) to prepare this construction Traffic Management Plan (TMP) to accompany a planning application for a new 110 kV/38 kV/MV distribution station on a c. 1.64 ha site north of the Drogheda Business and Technology Park, within the townland of Rathmullan, off the Donore Road, Drogheda, Co. Meath.

1.2 Purpose

The construction 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 construction 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 construction TMP.
- Section 5 provides a summary statement for the construction TMP.

2 Development Proposals

2.1 Site Location

The proposed site is located north of the existing development within the Drogheda Business and Technology Park, immediately north of Drogheda College. The M1 is located approx. 400m due west of the site, while the Meath/Louth County border is approx. 300m east. The primary land uses in the surrounding area comprise of agricultural, residential, educational and industrial. Access to the site is proposed to be from the existing Business Park access road at the Donore Road and the existing roundabout at Drogheda College. The Amazon Data Centre and Oldbridge 110 kV substation site are located to the south/south-west of the subject site within the Business Park.

Figure 2.1: Location of Proposed Development



Source: Mott MacDonald

2.2 The Proposed Development

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. 5646 sqm) with 2.6m high palisade fencing and gates, containing:
 - 1 no. 110 kV 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. Bundled 110 / 38 kV Transformers (c. 5 m in height) with associated electrical equipment,
- 2 no. Bundled 38 kV/ MV Transformers (c. 5m in height) with associated electrical equipment;
- 2no. fire walls (c. 5.5m height by c. 5 length) separating the 110 / 38 kV Transformers and 38 kV/ MV Transformers;
- 3 no. bundled Arc Suppression Coils (c. 4m in height) with associated electrical equipment;
- Neutral earth resistor (c. 2m height) and neutral earth switch (c. 3.9m high);
- Concrete post and rail fence (1.4m high).
- All associated site development works including provision of new site entrance, internal access, lighting poles (c. 4m high), 1 no. Emergency, stand-by Diesel Generator, 3 no. lightning monopoles (c.15m high), telecommunications, landscaping, site services including drainage, trenching and ducting and all other ancillary works.

The proposed Donore substation will be tail fed from (i.e. power fed from one direction only) from the new Oldbridge 110 kV substation which is connected to the 110 kV transmission line.

2.3 Construction Programme

The construction of the Proposed Development will generate additional traffic within Drogheda 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 20, resulting in a maximum of 40 additional HGV movements on the study area road network.

On average across the construction programme, this is anticipated to reduce to 20 HGV movements per day (equivalent to 10 HGVs accessing the site per day and 10 HGVs egressing the site per day).

2.4.3 Construction Vehicle Movements

Peak construction personnel movements combined with the peak number of anticipated HGV movements could generate a total of 112 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 Proposed Development will be accessed via the existing IDA Business and Technology Park access road on Donore Road and the existing roundabout at Drogheda College, located immediately at the southern boundary of the Proposed Development. This route connects to the M1 Motorway to the southwest. 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
M1	120	The M1 is a motorway which connects Ballinahattin, in County Louth, to the north with the M50 to the south. In the vicinity of the site, the M1 provides two traffic lanes in each direction.
Donore Road	50	Between Junction 9 of the M1 and the existing IDA Business and Technology Park access road, Donore Road is a two-lane dual carriageway. Street lighting is present on either side of the carriageway, and a pedestrian footpath is present along the northern edge of the eastbound lane. To the east of the IDA Business and

Road	Speed Limit (km/h)	Description
		Technology Park access road, Donore Road is a two-way single carriageway with street lighting and pedestrian footpaths present on either side of the carriageway as the area becomes more residential towards Drogheda. No schools, hospitals or other sensitive receptors are present along the short section of Donore Road from the M1 to the IDA Business and Technology Park access road.
IDA Business and Technology Park Access Road	30	The IDA Business and Technology Park access road is a two-way local road located directly to the south of the Proposed Development. The road intersects with Donore Road to the southeastern end via a 4-arm roundabout. The first 100m of the IDA Business and Technology Park access road (from the roundabout with Donore Road) accommodates two traffic lanes in each direction. A central island is provided to separate the northbound and southbound traffic movements. Bidirectional off-road cycle lanes are also provided in this section of road, adjacent to the southbound lane. Pedestrian footpaths and street lighting are also present on each side of the carriageway. Approximately 100 m to the north of the junction with Donore Road, another 3-arm roundabout junction is formed, with the western arm providing access to other existing developments on the site. Approximately 200 m to the north of the 3-arm roundabout, another 3-arm roundabout is formed, with the to-be-developed northern arm forming the access to the Proposed Development. The western arm provides access to Drogheda College. Pedestrian footpaths and street lighting remain present on each side of the carriageway.

Source: Mott MacDonald

Figure 2.2: Access Routes to the Proposed Development



Source: ESB & Mott MacDonald

3 Construction 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 six-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 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 Construction 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 construction TMP; and
- Not deliberately wait or stack on any public road.

3.1.3 Wheel Wash and Road Cleaning / Sweeping

To reduce the potential for mud and other debris being deposited onto the local and national 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 Donore Road and the existing Business Park access 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 Manual¹ 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.

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

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.

4 Construction TMP Implementation and Communications

4.1 General

The implementation and monitoring of the construction TMP will be the responsibility of the appointed Contractor. Further evolution of this construction TMP will be required during later 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 construction TMP and therefore sub-contractor personnel and sub-contractor managed construction vehicle drivers will have an obligation to adhere to the construction 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 construction TMP and to record any complaints arising.

Non-compliance with the construction 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 (Traffic 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

The Client will nominate a Community Liaison Contact to act as a point of contact with the local community.

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.

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 Construction TMP Review

The TMP, as a 'live document', will be reviewed on a regular basis by the appointed Contractor prior to and during the construction phase of the Proposed Development. The construction 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.

5 Summary Statement

This construction 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 the potential for 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.

