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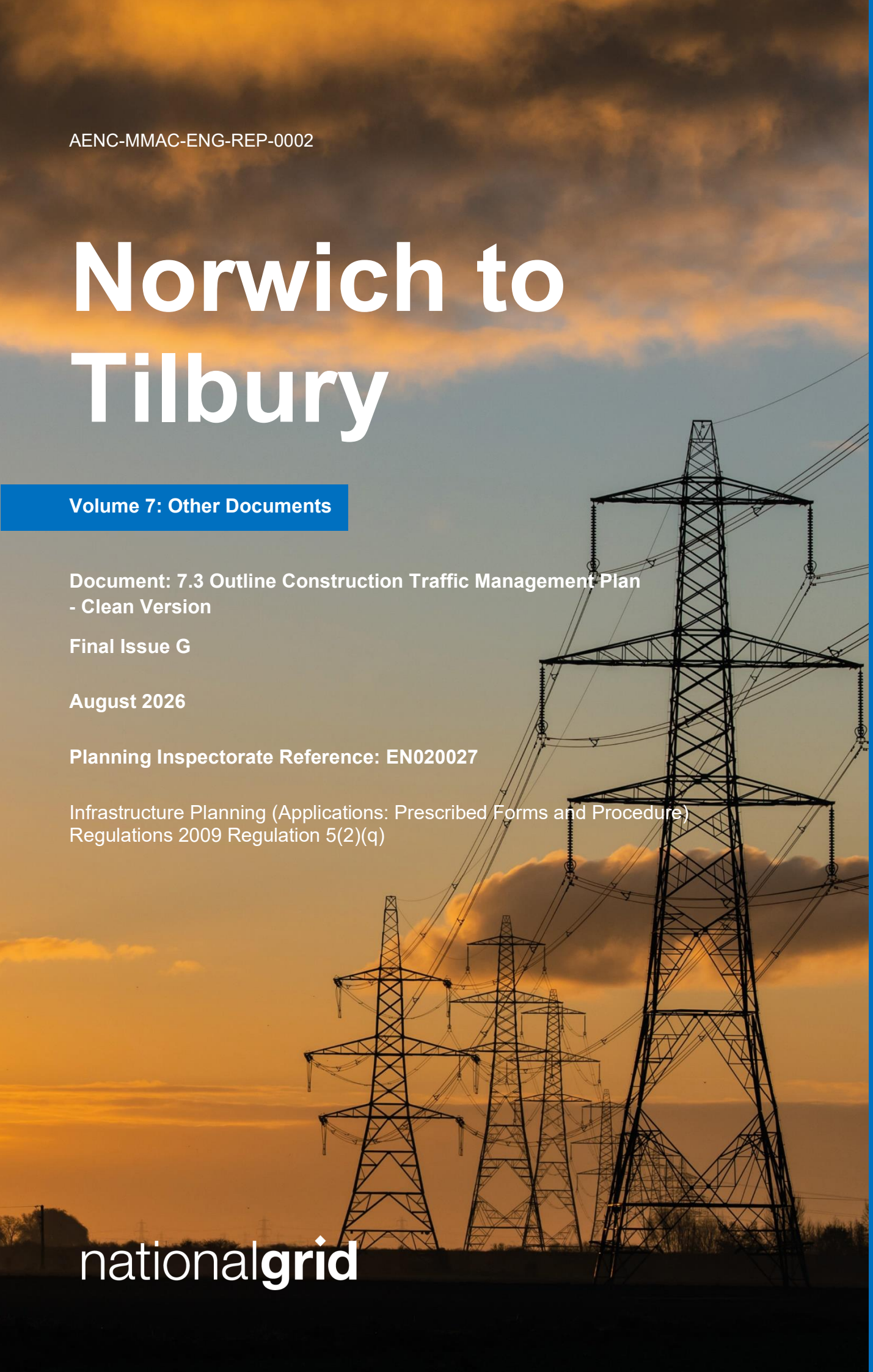

nationalgrid

Revision History

Date	Issue	Status	Description/Changes
August 2025	A	Final	For DCO Submission
April 2026	B	Final	Updates identified in responses received at Deadline 1 and 2
May 2026	C	Final	Updates for Deadline 4
May 2026	D	Final	Updated for Deadline 5 to include Tilbury North Scenario and comments received by LHAs during examination.
July 2026	E	Final	Updates following comments received at Deadline 5 from Local Highway Authorities
July 2026	F	Final	Updates to capture Errata Updates and commitments requested by Local Highway Authorities
August 2026	G	Final	Updates to capture additional commitments detailed at Deadline 7 and commitments requested by Local Highway Authorities.

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Executive Summary

The purpose of this Outline Construction Traffic Management Plan (Outline CTMP), which forms application document 7.3 Outline CTMP, is to set out the proposals for the management of construction related traffic along the local highway network within the vicinity of the construction route during the construction period of the Project, in order to limit any potential disruptions and implications on the overall transport network. It identifies the management of Heavy Good Vehicles (HGVs). The management of construction staff vehicles are included within Appendix B of this Outline CTMP in the Outline Construction Worker Travel Plan (Outline CWTP). Details on the AIL Access Strategy are detailed in Appendix A.

This Outline CTMP has been informed by feedback received form stakeholders as part of the Statutory Consultation. It should be noted that this is an outline document, certain details will remain to be developed as the Project progresses into detailed design. The full details of all measures may not be available until after consent for the Project to be determined and these will be provided within the CTMP as necessary. However, the CTMP will need to be in accordance with this Outline CTMP.

A number of additional documents have been prepared alongside this Outline CTMP:

- Environmental Statement Chapter 16 Traffic and Transport (document reference 6.17) and Transport Assessment (document reference 7.11): These include the assessment of the residual effects of the proposed construction (including noise and air quality measures) and associated mitigation throughout the construction programme
- Outline CoCP (document reference 7.2): Contains embedded, standard and additional mitigation measures, including standard approaches and actions to be implemented on construction sites, intended to reduce or avoid effects on the environment. They are general or topic specific but are typically available across the whole Project.
- Outline Public Rights of Way Management Plan (document reference 7.6): This management plan details the strategy and measures where PRoW are affected by the Project.
- Outline Construction Worker Travel Plan (Outline CWTP) (Appendix B): This document sets out targets in principles and management processes for construction staff travelling to the project.
- Indicative Highway Mitigation Plans (Appendix C): These plans detail the routes and access options to be used by construction vehicles. These plans are referenced throughout the Outline CTMP, where required. These are included within Appendix C of the Outline CTMP.
- AIL Access Strategy (Appendix A): This document sets out the strategy and routes proposed for AIL movements.

1. Introduction

1.1 Overview

1.1.1 National Grid Electricity Transmission plc ('National Grid') owns and maintains the national high voltage electricity transmission network throughout England and Wales.

1.1.2 The transmission network connects the power from where it is generated to the regional Distribution Network Operators who then supply businesses and homes.

1.1.3 National Grid holds the Transmission Licence for England and Wales, and its statutory duty is to develop and maintain an efficient, coordinated and economical system of electricity transmission and to facilitate competition in the generation and supply of electricity, as set out in the Electricity Act 1989.

1.1.4 National Grid has developed plans for Norwich to Tilbury (referred to as the 'Project' in this report). The Project would support the UK's net zero target through the connection of new low carbon energy generation in East Anglia and by reinforcing the transmission network.

1.1.5 The Project comprises reinforcement of the transmission network between the existing Norwich Main Substation in Norfolk and Tilbury Substation in Essex, via Bramford Substation, the new East Anglia Connection Node (EACN) Substation and the new Tilbury North Substation.

1.1.6 The reinforcement is needed because the existing transmission network, even with current upgrading, will not have sufficient capacity for the new renewable energy (a substantial proportion of which would be generated by offshore wind) that is expected to connect to the network over the next 10 years and beyond. Completion of the Project, together with other new reinforcements across the country, will meet this future energy transmission demand both in East Anglia and across the UK.

1.1.7 The Project is a Nationally Significant Infrastructure Project (NSIP), and National Grid is seeking development consent under statutory procedures set by government. NSIPs are projects of certain types, over a certain size, which are considered by the government to be of national importance, hence permission to build them needs to be given at a national level, by the relevant Secretary of State (in this case the Secretary of State for Energy Security and Net Zero). Instead of applying to the local authority for planning permission, the developer must apply to the Planning Inspectorate for a Development Consent Order (DCO) that would grant development consent.

1.1.8 National Grid has submitted an application for development consent to the Planning Inspectorate. The Examining Authority (consisting of one or more examining inspectors), after a period of public examination, would make their recommendation to the Secretary of State for Energy Security and Net Zero, who in turn would decide on whether development consent should be granted for the Project.

1.1.9 The Project is identified as critical to delivering a network which supports the clean power pathways for 2030 delivery.

1.2 Summary

1.2.1 This Outline Construction Traffic Management Plan (Outline CTMP) has been prepared to support the DCO submission and has been submitted alongside an Environmental Statement (ES). This Outline CTMP will be adopted by the Main Works Contractor(s) appointed and will inform the CTMP, a comprehensive and overarching management procedure which they will follow.

1.2.2 The Outline CTMP details National Grid's proposals for reducing disruption from construction activities to existing users on the public highway network and properties adjacent to it. As agreed in the Environmental Impact Assessment Scoping Opinion (document reference 6.20), the operation, maintenance and decommissioning impacts relating to traffic and transport have not been included.

1.2.3 This Outline CTMP has been produced following engagement with the relevant highway and planning authorities, additional stakeholders and emergency services.

1.2.4 The Outline CTMP sets out the strategy and measures which will be adopted by National Grid and the Main Works Contractor(s), subject to agreement with the Local Highway Authorities (LHAs) and National Highways. Compliance with the Outline CTMP is intended to be secured through a requirement in Schedule 3 of the DCO, with the intention that a detailed CTMP is to be agreed prior to the commencement of each stage of the authorised development. The purpose of the CTMP is to:

- Facilitate the site access points and routes for the delivery of construction materials, equipment and movement of construction workers, along the Primary Access Routes (PAR)
- Provide temporary access routes within the site working areas
- Manage the impacts arising from temporary road closures that are required for various stages of the Project, including the provision of diversion routes where appropriate
- Maintain communication with the local authorities and residents throughout construction activities
- Monitor the structural condition of the public highway.

1.3 The Project

1.3.1 The Project is a proposal by National Grid to upgrade the electricity transmission system in East Anglia between Norwich and Tilbury, comprising:

- A new 400 kilovolt (kV) electricity transmission connection of approximately 180 km overall length from Norwich Main Substation to Tilbury Substation via Bramford Substation, a new East Anglia Connection Node (EACN) Substation and a new Tilbury North Substation, including:
  - Approximately 159 km of new overhead line supported on approximately 509 pylons, either standard steel lattice pylons (approximately 50 m in height) or low height steel lattice pylons (approximately 40 m in height) and some of which would be gantries (typically up to 15 m in height) within proposed Cable Sealing End (CSE) compounds or existing or proposed substations

  - Approximately 21 km of 400 kV underground cabling, some of which would be located through the Dedham Vale National Landscape (an Area of Outstanding Natural Beauty (AONB[1])
- Up to seven new CSE compounds (with permanent access) to connect the overhead lines to the underground cables
- Modification works to connect into the existing Norwich Main Substation and a substation extension at the existing Bramford Substation
- A new 400 kV substation on the Tendring Peninsula, referred to as the EACN Substation (with a new permanent access). This is proposed to be an Air Insulated Switchgear (AIS) substation
- A new 400 kV substation to the south of Orsett Golf Course in Essex, referred to as the Tilbury North Substation (with a new permanent access). This is proposed to be a Gas Insulated Switchgear (GIS) substation
- Modifications to the existing National Grid Electricity Transmission overhead lines to facilitate the connection of the existing network into the new Tilbury North Substation to provide connection to the Tilbury Substation
- Ancillary and/or temporary works associated with the construction of the Project.

1.3.2 In addition, third party utilities diversions and/or modifications would be required to facilitate the construction of the Project. There would also be land required for environmental mitigation and Biodiversity Net Gain (BNG).

1.3.3 As well as the permanent infrastructure, land would also be required temporarily for construction activities including, for example, working areas for construction equipment and machinery, site offices, welfare, storage and temporary construction access.

1.3.4 The Project would be designed, constructed and operated in accordance with applicable health and safety legislation. The Project will need to comply with design safety standards including the Security and Quality of Supply Standard (SQSS), which sets out the criteria and methodology for planning and operating the National Electricity Transmission System (NETS). This informs a suite of National Grid policies and processes, which contain details on design standards required to be met when designing, constructing and operating assets such as those proposed for the Project.

1.4 Geographical and Regional Information

1.4.1 The alignment passes through the counties of Norfolk, Suffolk and Essex (which includes Thurrock Council) in addition to rural villages along the proposed corridor. The proposed alignment is close to a number of towns and cities, including:

- Norwich
- Diss
- Stowmarket
- Needham Market
- Ipswich
- Hadleigh

[1] National Landscape is the rebranded name of an Area of Outstanding Natural Beauty (AONB) from 22 November 2023

- Manningtree
- Colchester
- Coggeshall
- Witham
- Braintree
- Chelmsford.

1.4.2 The existing road network for the region comprises a number of major roads between the large population centres, with smaller settlements and rural areas being serviced by a network of rural roads.

1.5 River Stour and River Waveney

1.5.1 Both the River Stour and the River Waveney intersect the Project alignment, and the underground cables will need to cross underneath both of these. A trenchless construction method will be applied for both crossings. Trenchless installation may be required in areas where open trench is not feasible, for example where the alignment crosses an existing railway line, or other drivers such as for environmental mitigation. The environmental cable would be installed using a drilling or boring method (or a suitable alternative method) to pass beneath features. Trenchless crossing is detailed in Chapter 4 of the Environmental Statement (document reference 6.4).

1.5.2 The River Stour is navigable within the Order Limits. Unpowered craft (i.e. those that are paddled, rowed or sailed) are permitted to travel the whole length of the Stour Navigation, from Brundon Mill (Sudbury) to Cattawade (on the Stour Estuary). Powered craft, with certain specified exceptions, such as the River Stour Trust trip boats, are restricted to the stretch between Ballingdon Bridge (Sudbury) and Henny Street. The Environment Agency is the navigation authority for this section of the river.

1.5.3 The River Waveney is not navigable within the draft Order Limits. The River Waveney is currently navigable between Geldeston Lock (Beccles) to the River Yare (Great Yarmouth).

1.5.4 Due to the absence of effects on the River Stour and River Waveney, the Outline CTMP does not include further details in relation to these rivers. Mitigation to guard against pollution to watercourses is detailed within the Code of Construction Practice (COCP) (document reference 7.2).

1.5.5 Neither of the waterways are considered feasible at this stage of Project development to be used as construction routes.

1.6 Purpose of the Outline CTMP

1.6.1 The purpose of the Outline CTMP is to outline the approach to managing construction traffic impacts on the local road network (LRN), major road network (MRN) and strategic road network (SRN) (referenced in Section 5.1) during works to roads and public access, for example during the construction of pylons and haul roads. The appointed Main Works Contractor(s) will be responsible for implementing the measures outlined in the CTMP.

1.6.2 Construction phase measures relevant to traffic and transport are secured within this Outline CTMP and the Outline Code of Construction Practice (CoCP) (document

reference 7.2). A number of additional documents and plans have been submitted alongside this Outline CTMP for the DCO submission:

- Environmental Statement Chapter 16 Traffic and Transport (document reference 6.17) and Transport Assessment (document reference 7.11): These include the assessment of the residual effects of the proposed construction (including noise and air quality measures) and associated mitigation throughout the construction programme.
- Outline CoCP (document reference 7.2): Contains embedded, standard and additional mitigation measures, including standard approaches and actions to be implemented on construction sites, intended to reduce or avoid effects on the environment. They are general or topic specific but are typically available across the whole Project.
- Outline Public Rights of Way Management Plan (document reference 7.6): This management plan details the strategy and measures where PRoW are affected by the Project.
- Outline Construction Worker Travel Plan (Outline CWTP) (Appendix B): This document sets out targets in principles and management processes for construction staff travelling to the project.

1.6.3 Additional documents have been appended to this Outline CTMP, which will not be resubmitted in instances where the Outline CTMP is required to be submitted for approval.

- Indicative Highway Mitigation Plans (Appendix C): These plans detail the routes and access options to be used by construction vehicles. These plans are referenced throughout the Outline CTMP, where required. These are included within Appendix C of the Outline CTMP.
- AIL Access Strategy (Appendix A): This document sets out the strategy and routes proposed for AIL movements.

1.6.4 The above documents are referenced in this Outline CTMP where appropriate.

1.7 Process of the CTMP

1.7.1 This Outline CTMP is the initial CTMP submitted as part of the Project. As the Project develops, the CTMP is reviewed and amended based on the stages below:

- Draft Outline CTMP: Submitted at Section 42. Reviewed and commented on by stakeholders and LHAs.
- Outline CTMP: Submitted as part of the application for development consent. This incorporates comments from the LHAs and stakeholders where appropriate and reflect additional Project information. The Outline CTMP will be applicable to the pre-commencement operations.
- CTMP: Compliance with the Outline CTMP is intended to be secured through a requirement in Schedule 3 of the DCO, with the intention that a detailed CTMP is to be agreed prior to the commencement of each stage of the authorised development. Any changes will be made in agreement with the relevant LHA in consultation with National Highways, following the change process in Section 6.8.

1.7.2 The Outline CTMP (and each CTMP) is intended to be a working document that evolves during the construction phase. The Outline CTMP (and each CTMP) only applies to the construction phase of the Project, not including operation, maintenance or decommissioning.

1.7.3 Should there be any changes to the Outline CTMP (and each CTMP) this will follow the change process detailed in section 6.8.

1.8 Pre Commencement Operations

1.8.1 As noted in the Outline CoCP (document reference 7.2) some pre-commencement operations will be undertaken in advance of the main construction, prior to the approval of detailed requirements. The Outline CTMP will be applicable to the pre-commencement works. Some of this is development work necessary to inform the detailed design and therefore needs to be carried out ahead of the design being completed and approved. Other non-development activities can be carried out in advance to prevent delay in commencing development or to enable seasonally constrained activities to be completed in the correct season.

1.8.2 A Construction Traffic Management Plan, which is substantially in accordance with this Outline Construction Traffic Management Plan, must be submitted to, and approved by, the relevant Local Highway Authorities (LHAs) prior to the commencement of any stage of the authorised development to which the Construction Traffic Management Plan is relevant.

1.8.3 Therefore, and unless otherwise agreed:

1) All pre-commencement operations (as defined in Article 2(1) of the dDCO) must be carried out in accordance with this Outline Construction Traffic Management Plan. In doing so, where any measures referenced in this Outline Construction Traffic Management Plan are to be agreed with the relevant LHA, National Grid and / or its MWC must seek the agreement of the relevant LHA before carrying out any pre-commencement operations to which those measures are relevant. with the various aspects of the Project to demonstrate a planned approach to the management of traffic during construction. The key aim is to maintain public safety while minimising disruption to users.

2) All construction works forming part of any stage of the authorised development to which the Construction Traffic Management Plan is relevant must be carried out in accordance with the Construction Traffic Management Plan.

1.8.4 Paragraph 1 of Schedule 3 to the dDCO specifies the process which must be followed where any matters are to be otherwise agreed.

1.8.5 Pre-commencement operations include:

- Engineering investigations and surveys
- Environmental (including archaeological) investigations and monitoring
- Surveys and monitoring investigations associated with assessing ground conditions
- Diversion and laying of third party services, protection works including utilities protection works or fencing and protection slabs, demolition of existing buildings
- Site clearance

- Environmental mitigation measures
- Remediation associated with contamination or other adverse ground conditions
- Set up works associated with the establishment of construction compounds and temporary laydown areas, receipt and erection of construction plant and equipment
- Temporary accesses
- Erection of temporary means of enclosure or temporary demarcation fencing marking out site boundaries and the temporary display of site notices or advertisements.

1.9 Structure of the Outline CTMP

1.9.1 The Outline CTMP structure is set out in Table 1.1.

Table 1.1 Structure of the CTMP

Chapter	Content
1. Introduction	This sets out the purpose of the Outline CTMP and how it is structured.
2. Project Overview	This references the construction schedule, working hours and the consents, licences and permits anticipated to be used for some aspects covered within the Outline CTMP.
3. Project Team Roles and Responsibilities	This sets out the roles and responsibilities relevant to the Outline CTMP and the training that will be completed.
4. Engagement	This summarises the engagement on the Outline CTMP undertaken at this stage of the Project.
5. Road Network	This describes the road network potentially affected by the Project during construction. It describes the measures to reduce effects from works to the road network, such as the installation of site access points or how the electricity transmission infrastructure will cross the road network. It also describes measures to reduce the potential effects on the road network from the additional vehicles generated during construction.
7. Implementation	This sets out the site checks that are anticipated to be undertaken to monitor and manage compliance with the Outline CTMP during construction. It also outlines the change process.

2. Project Overview

2.1 Project Commitments

2.1.1 The embedded, standard and additional mitigation measures that are proposed by National Grid that are relevant to the road network and Public Rights of Way (PRoW) network are primarily included within the Outline CoCP (document reference 7.2). The PRoW diversions are included within the Access, Rights of Way and Public Rights of Navigation Plans (document reference 2.5), and mitigation and management requirements are detailed within the Outline Public Rights of Way Management Plan (PRoWMP) (document reference 7.6). The mitigation and management of the construction traffic is primarily included within the Outline CTMP. The strategies associated with construction staff worker management are detailed within the Outline CWTP (Appendix B of the Outline CTMP).

2.2 Construction Schedule

2.2.1 In common with other Nationally Significant Infrastructure Projects, the detailed construction programme will be subject to change from factors such as procurement, system access requirements (outages), resource and material availability, weather and ground conditions.

2.2.2 The construction schedule is presented in the Outline CoCP (document reference 7.2) and as outlined within the ES Chapter 4: Project Description (document reference 6.4).

2.2.3 Should consent be granted in 2027, it is anticipated that construction of the Project would commence in 2027, likely starting with site clearance activities, the installation of temporary construction compounds and access roads. It is expected the main construction works would continue through to 2031 (four years) (with only demobilisation and snagging works in 2031), although it is proposed that energisation of the Project would be in 2030.

2.2.4 Certain pre-commencement operations would take place in advance of the main construction phase in 2027, including:

- Engineering investigations and surveys
- Environmental (including archaeological) investigations and monitoring
- Surveys and monitoring investigations associated with assessing ground conditions
- Diversion and laying of third party services, protection works including utilities protection works or fencing and protection slabs, demolition of existing buildings
- Site clearance
- Environmental mitigation measures
- Remediation associated with contamination or other adverse ground conditions

- Set up works associated with the establishment of construction compounds and temporary laydown areas, receipt and erection of construction plant and equipment
- Temporary accesses
- Erection of temporary means of enclosure or temporary demarcation fencing marking out site boundaries and the temporary display of site notices or advertisements.

2.2.5 Due to the nature of works, and as some aspects need to take place during agreed outage windows, some haul roads and temporary fencing may need to remain on site until after testing has been completed to allow any snagging matters to be addressed before reinstatement takes place. The schedule of works will be communicated with local communities (via newsletters/emails), and they will be updated on amendments to the schedule during construction.

2.3 Working Hours

2.3.1 It is assumed that the core working hours for construction (as set out within the requirements of the dDCO [document reference 3.1]) would be:

- Mondays to Fridays: 07:00 –19:00
- Saturdays, Sundays, and Bank Holidays: 07:00 –17:00

2.3.2 Percussive piling and deliveries by Heavy Good Vehicles (HGV), unless otherwise agreed with the relevant LHA, will be limited to:

- Mondays to Fridays: 07:00 –19:00
- Saturdays: 07:00 –17:00

2.3.3 The following operations may take place outside of the core working hours:

- Trenchless crossing operations including at landfalls and beneath highways, railway lines, woodlands, nature reserves, Sites of Special Scientific Interest or watercourses
- The installation and removal of conductors, pilot wires and associated protective netting included but not limited to across highways, railway lines or watercourses
- The jointing of underground cables
- The continuation of any work activity commenced during the core working hours to a point where they can securely and or safely be paused
- Any highway works requested by the highway authority to be undertaken on a Saturday or Sunday or outside the core working hours
- The testing or commissioning of any electrical plant installed as part of the authorised development including undertaking of any identified corrective activities
- The completion of works delayed or held up by severe weather conditions which disrupted or interrupted normal construction activities
- Activity necessary in the instance of an emergency where there is a risk to persons or property

- Security monitoring
- Non-intrusive surveys
- Intrusive surveys
- Oil processing of transformers or reactors in substation sites
- Delivery to the transmission works of abnormal loads and any highway works requested by the highway authority to be undertaken outside the core working hours
- Mechanical and electrical installation works within buildings once erected and enclosed

2.3.4 The core working hours exclude start up and close down activities, which can take place up to one hour either side of the core working hours

2.3.5 There are two instances where a PAR goes directly past a school: Freeman Primary School (Stow Upland) and Margaretting Church of England Primary School (Margaretting). At these two locations, HGVs will travel outside the weekday school drop-off/pick-up times. A further review will be undertaken and agreed with the Local Highway Authority prior to construction to consider restrictions on routes where any new schools have been built.

Heavy Goods Vehicle Timings

2.3.6 It is proposed that Heavy Goods Vehicles (HGVs), not associated with the operations detailed above which could occur outside of core working hours, would not be permitted to arrive at site before 07:00 or depart after 19:00 (Monday to Friday) or before 07:00 or after 17:00 (Saturday, Sunday and Bank Holidays). However, this would mean that HGVs could be travelling to or from the site outside of the working hours. Any HGVs which are projected to arrive on site prior to 07:00 would be required to park at an appropriate lorry park, services or other designated overnight parking locations until they can complete their journey within the appropriate restrictions. These locations would be agreed with the relevant highway authorities (LHA) prior to the commencement of construction and would be communicated to drivers within their delivery instructions.

2.3.7 HGVs will not be able to travel through Diss during the network peak hours, with 100% of HGV traffic to be routed via Thetford in those times. Outside of peak hours, HGV traffic will be split 50/50 between Diss and Thetford.

2.4 Consents, Licences and Permits

Permit Schemes

2.4.1 Part 3 of the Traffic Management Act 2004 introduced Permit Schemes as an alternative framework to the notification system under the New Roads and Street Works Act 1991 for highway maintenance and improvements works. The Permit Scheme would work alongside the street works powers set out in Part 3 Article 11 of the draft DCO (application document 3.1).

2.4.2 In accordance with Article 12 of the draft DCO (application document 3.1) National Grid is proposing to use the Permit Scheme in place and operated by Norfolk CC, Suffolk CC, Essex CC and Thurrock, in order to best coordinate the street works required for the Project.

2.4.3 Permits for street works issued under a Permit Scheme will therefore cover many of the aspects detailed below in this CTMP. Due to the enforceable nature of Permit Schemes and the role of the relevant highway authorities in considering and issuing the permits, compliance with permit conditions will, subject to Article 12 of the draft DCO, take precedence over the CTMP in the case of any conflict between the application for and subsequent terms of a permit and the requirements of the Outline CTMP.

Traffic Regulation Orders

2.4.4 Traffic Regulation Orders (TROs) and Temporary Traffic Regulation Orders (TTROs) will be required for regulating traffic on roads in proximity to the Project, including if a street needs to be closed or diverted temporarily during construction. These could include:

- Temporary speed limits
- On-street parking restrictions
- Temporary road closure
- Temporary traffic lights
- Other works on the public highway. This could include:
  - Cut back/clearance of vegetation
  - Utility diversion works in the locations of bellmouth accesses
  - Use of stop/go boards instead of temporary traffic lights
  - Construction of the highway mitigation measures, or site accesses points, or haul road crossing points.

2.4.5 Other licences and permits may be required, where necessary.

2.4.6 Article 49 of the draft Development Consent Order (DCO) (document reference 3.1) allows National Grid and its Main Works Contractor(s) to introduce TROs for the purposes specified in Schedule 13 or to any other extent that is expedient or necessary, with the consent of the traffic authority, for the purposes of the authorised development or for purposes ancillary to the construction or maintenance of the authorised development.

2.4.7 During detailed design, the Main Works Contractor will engage with the relevant highway authority to agree the form, content and timing of information required to support the highway authority's assessment of the proposed TROs.

Parking Restrictions

2.4.8 Part 1 of Schedule 13 to the DCO contains a list of TROs prohibiting the waiting (parking) of vehicles on specific roads. The Main Works Contractor(s) will identify the detail on the timings and durations of these restrictions in consultation with local residents, emergency services, the relevant highways authorities and other appropriate parties. This approach will allow potentially conflicting requirements to be appropriately considered. Appropriate community liaison will also be undertaken following the approach set out in Section 6.5 of this document.

3. Project Team Roles and Responsibilities

3.1 Project Responsibilities

3.1.1 The Main Works Contractor(s) will undertake the construction work in accordance with the DCO and its associated documents including this Outline CTMP, the detailed CTMP will be in effect during construction. The relevant aspects of the CTMP will be notified to the workforce at commencement of works to highlight the relevant commitments and responsibilities to those undertaking the work.

3.1.2 Overall roles and responsibilities relevant to the CTMP are presented in Table 3.1. The appointed Main Works Contractor(s) are responsible for developing and adopting the CTMP, National Grid is held responsible for any breach of compliance with the CTMP. The CTMP will be managed and enforced by the roles as set out in Table 3.1.

Table 3.1 CTMP Roles and Responsibilities

Roles	Organisation	Responsibilities
Environmental Managers	Main Works Contractor(s)	The Environmental Manager will be responsible for the maintenance of all environmental plans and registers, including monitoring that the environmental measures and mitigation are implemented on site and as recorded within the CTMP. It is assumed that they will be the main point of contact for all environmental matters on the Project. They will also develop good working relationships with external stakeholders such as the relevant highway authorities.
Transport Coordinators	Main Works Contractor(s)	The Transport Coordinators will be responsible for the monitoring and management of measures recorded within the CTMP. The transport coordinator would liaise with the Travel Plan Coordinator (TPC) to help identify initiatives to limit vehicle movements. They would also liaise with the LHAs to provide monitoring reports for the CTMP.
Environmental Clerk of Work (EnvCoW)	National Grid/Main Works Contractor(s)	The EnvCoW will monitor that the works proceed in accordance with relevant environmental DCO requirements and adhere to the required mitigation measures. The EnvCoW will be supported as necessary by appropriate technical specialist advisors depending on the location and potential impacts.
Permits and Consent Managers	National Grid/ Main Works Contractor(s)	The Permits and Consents Manager will work with the Environmental Manager to draft and submit permits and consents on behalf of the Project, track the progress, provide updates and communicate approvals.

Roles	Organisation	Responsibilities
Works Supervisors	Main Works Contractor(s)	The Works Supervisor will be responsible for delivering the site works in accordance with the requirements of the CTMP and implementing good environmental practices required by the Environmental Manager. They are responsible for managing operatives, plant and their areas of work in accordance with the principles of good environmental practice.
Technical specialist advisors	Main Works Contractor(s)/ National Grid	These will have the relevant experience to supervise the relevant aspects of the works, which might include an arboriculturist, land contamination specialist, soil specialist, ecologist, and archaeologist.

3.2 Information Training and Awareness

3.2.1 In accordance with measures GG05 and T08 in the Outline CoCP (document reference 7.2), all staff and operatives working on the Project will undergo a site-specific induction (additional information on implementation is included in Section 6), which will include the following topics relevant to the CTMP:

- General traffic management requirements on the Project
- Car parking arrangements
- Good practice measures for commuting, such as car sharing and sustainable transport options
- How to find out about approved construction routes for HGV and Light Goods Vehicle (LGV) movements
- Driver information pack
- Expected behaviour on site (e.g. switching off machinery when not in use).

3.2.2 Regular toolbox talks will be provided by the Main Works Contractor(s). These will give targeted information about site-specific issues or activities taking place at that time.

3.3 Community Engagement and Public Information

3.3.1 The Main Works Contractor(s) will implement a system to provide information to local residents and stakeholders about the works. A community relations team will be appointed to provide dedicated community relations and external communication support during construction. The information to be provided to local residents will be specific to the works to be carried out, describing the nature of the works, the location and extent of the works, the duration of works and the hours to be worked.

3.3.2 Local residents will be informed of the commencement and likely duration of the construction activities through a letter drop/email notifications. The letter(s)/email(s) will be tailored to a specific area, reflect the works to be carried out and the duration of works. The letter/email will include the contract telephone number for public information. These letters/emails will be shared with the LHA in advance of them

being issued to residents, alongside the applicable Parish Council and will be issued up to two weeks in advance of the construction activities are being undertaken on site.

3.3.3 The name and contact details for the Project will be displayed at the entrance to each site compound. This will include an emergency telephone number. Details of the works, including contact details, will be provided to the relevant community groups, such as local parish councils, local highway authorities, and landowners before work commences. In the instance this number may be updated throughout construction, the contact details at each site entrance will be updated and circulated to the local parish councils, local highway authorities and landowners.

3.3.4 A freephone Project helpline and Project website will be maintained by the National Grid community relations team. The Project helpline and website information will be visible on boards placed in appropriate locations where they will be visible to the public. The telephone number and Project website details will be provided to the relevant local authorities and other relevant parties. This will be updated in the instance of contact details changing throughout the project construction.

3.3.5 The community relations team will record the details of the any complaints and how these are to be investigated and appropriately managed. Further details about the complaints procedure can be found in Section 6.7 of the Outline CTMP.

4. Engagement

4.1 Introduction

4.1.1 This chapter sets out the engagement that has been undertaken to date, the comments provided by stakeholders on the Draft Outline CTMP during statutory consultation and how these comments have been considered when developing the Outline CTMP.

4.1.2 Since the first iteration was produced and shared, several elements have been added through detailed consultation with stakeholders. These include but are not limited to:

- Emergency services including the police, fire and ambulance services
- AILs
- Management and enforcement measures.

4.2 Engagement

4.2.1 Discussions on the Outline CTMP and its contents have been held between National Grid, National Highways and LHAs to seek feedback on the contents and structure before producing the Outline CTMP. The discussions were held with:

- Thurrock Council
- Essex County Council
- Suffolk County Council
- Norfolk County Council
- National Highways.

4.2.2 A summary of discussions held with relevant consultees where the CTMP was discussed is shown in Table 4.1.

Table 4.1 Outline CTMP Stakeholder Engagement

Organisation and Date	Summary of Issues Raised	Project Response and Consideration in CTMP
LHA Thematic Group Meeting (Essex, Norfolk, Suffolk, and Thurrock), July 2022	LHAs confirmed their comments raised at non-statutory consultation. This included considering cumulative effects, AIL routes, agreement on the sensitivity of roads/area, commitments for effects resulting from operation and decommissioning, and appropriate mitigation measures.	• An Outline CTMP has been prepared, to support the application for development consent, to include traffic control and mitigation measures. A Draft Outline CTMP accompanied the statutory consultation • The Outline CTMP submitted with the DCO application will include an AIL Access Strategy document (Appendix A to the

Organisation and Date	Summary of Issues Raised	Project Response and Consideration in CTMP
		Outline CTMP). The Outline CTMP references the routes that have been discussed with the highway authorities • The assessment of cumulative transport effects has been included within ES Chapter 16: Traffic and Transport (document reference 6.16) and the Transport Assessment (document reference 7.11) • The assessment of traffic and transport effects during operation (and maintenance) and decommissioning has been scoped out of the ES (and the Transport Assessment) as per the Scoping Opinion (document reference 6.20).
LHA Thematic Group Meeting, August 2023	LHAs requested an early agreement on link sensitivity, traffic counts, AILs, compounds and data and underlying assumptions behind traffic and workforce calculations.	• The Outline CTMP includes an AIL Access Strategy (Appendix A) which details all AIL mitigation including a schedule of movements and routes/mitigation that has been agreed with the relevant highway authority • Details on the traffic and workforce calculations are included within the Transport Assessment (document reference 7.11).
Transport Working Group Regional Meetings, September 2023	Meetings were held with Suffolk, Essex and Norfolk County Councils and Thurrock Council. A review of the PARs was undertaken and areas of concerned were highlighted.	• Areas of concern noted along the primary construction route have been taken into consideration. The Outline CTMP details the mitigation for construction vehicles • The Outline CTMP refers to the PARs and haul roads which have been presented to local authorities.
Transport Working Group Meeting (Norfolk, Essex, Suffolk	Meetings held with Norfolk, Essex, Suffolk and Thurrock to discuss the CTMP at drafting stage.	The Outline CTMP refers to: • Pre- and post-construction condition surveys LHA

Organisation and Date	Summary of Issues Raised	Project Response and Consideration in CTMP
and Thurrock) January 2024	LHAs provided high-level feedback on proposed CTMP structure and content, including lessons learned from previous projects. Feedback has been recorded for consideration throughout the development of the CTMP, including: • Pre- and post-construction highway condition surveys and any remedial measures to be agreed with LHA • Additional consideration given to working hours • Consideration for the process that the CTMP will follow before being applicable, including reviews by stakeholders and local authorities • Any variations to the CTMP must seek prior agreement with the relevant LHA and the Local Street Authority • Request to manage road closures so the road is closed for the minimal possible duration, no excess closures • Request for measures to be in place to monitor assumptions and effects.	• Details on the core working hours, and the permitted activities which can occur outside of these hours • Details on the process that the development of the CTMP following development consent and the LHA and Local Planning Authority input into any variations of the CTMP • Details on the process for recording activity against the mitigation measures and the compliance procedure.

4.2.3 As a direct result of engagement, a number of changes were made to the construction approach which reduced the envisaged construction impacts.

4.2.4 Table 4.2 highlights some key considerations which were identified through this engagement.

Table 4.2 Key considerations as a result of technical engagement with LHAs

Location	Issue	Outcome
Wymondham Road, near Bracon Ash, Norfolk	Impacts of construction traffic on Wymondham Road south of the B1113.	Proposal for temporary closure of the impacted section of Wymondham Road, and the provision of a diversion route for general traffic via Flordon Road.
A1066, through Diss, Norfolk	Cumulative impact of construction traffic and existing congestion issues on the local highway network around the A1066 through Diss.	Investigation of alternative PAR utilising the A1066 from the A11 through Thetford, considering impacts of construction traffic on both towns and an appropriate division of vehicle movements such as not to cause an overly onerous impact on either location. The approach is no HGV traffic through Diss throughout the construction period in the network peak hours. 100% of HGVs will travel via Thetford within the Diss network peaks. Outside of peak hours, HGV traffic will be split 50/50 between Diss and Thetford.
B1113, near Bramford, Suffolk	Concern on the initial AIL access through Washbrook to National Grid Bramford Substation	AIL route for Project amended from the previously recorded heavy load route for the site through Washbrook. It now utilises the A1214 and A1071, avoiding impacts on the village.
B1068 and B1070, near Holton St Mary, Suffolk	Suitability of existing junctions for the B1068 and B1070 off the A12; concerns raised around construction traffic impacts in Holton St Mary.	The PAR from the A12 through Holton St Mary (B1070) has been modified as follows: • The on-slip from the B1070 onto the A12 is to be improved as part of the Project. • A bypass haul road is proposed from the B1070 (to the west of Holton St Mary) to route construction traffic to the north of the village. • The B1068 is not proposed to be used as a PAR.
A120 Colchester Road, near Surrex, Essex	Concern on the direct access from the SRN to the construction corridor.	Engagement was carried out with National Highways to explain the rationale for the proposal for direct access from the SRN, and agreement was reached over a safe and appropriate access design.

4.3 Feedback on the CTMP

4.3.1 The list below summarises the key themes that came out of the statutory consultation and have influenced the Project's approach to access and construction traffic. Additional information on the consultation responses is detailed in the Consultation Report (document reference 5.1).

- Suitability of construction routes: As part of the assessment of suitable construction routes, site visits and drive-through surveys have been undertaken. Feedback received on the construction routes has been considered when developing the proposed construction routes on the Project
- Cyclist safety: Where necessary, additional access arrangements and improved interactivity, improving safety between PARs and cycle paths have been achieved
- Pedestrian and equestrian safety and safety near schools: Where necessary, considerations have been made to mitigate the level of construction traffic during school arrival and departure times. Additionally, every construction vehicle driver will receive a driver information pack which will provide information on nearby pedestrian crossings and locations where pedestrians or equestrians may be in the highway, alongside the appropriate actions
- Management and routeing of AILs: National Grid has engaged with all relevant LHAs and police constabularies on the proposed AIL movements and routes. Their inputs have led to amending AIL routes and developing an AIL Access Strategy outlined within Appendix A
- Coordination with Lower Thames Crossing (LTC): Consents, licences and permits will be obtained where required. National Grid has been coordinating with LTC to mitigate against detrimental impacts, and to ensure that AIL and HGV routes consider any new and/or modified structures proposed by LTC. AIL and HGV routes have been developed with consideration for LTC and regular engagement has been undertaken
- Coordination with North Falls and Five Estuaries: Consents, licences and permits will be obtained where required. National Grid has been coordinating with North Falls and Five Estuaries to mitigate against detrimental impacts and this is noted in the Outline CTMP.
- Route enforcement: As part of the design of the access proposals National Grid has agreed specific prescribed routes, known as PARs, which the Main Works Contractor(s) will be required to use. These would be noted in the driver information pack which all vehicles attending site will be required to follow. Additionally, the majority of HGV vehicles are to be fitted with GPS. Details on non-compliance are included in Section 6.3.

5. Road Network

5.1 Introduction and Terminology

5.1.1 This section sets out the pre-construction surveys and embedded, standard and additional mitigation measures that are anticipated to be implemented in relation to the road network. It considers potential impacts caused by proposed works to the road network, for example creating site access points for access to the working area and works where the proposed transmission line is anticipated to cross the highway. It also includes impacts that may be caused by the additional traffic that will be generated during the construction phase of the Project.

5.1.2 The following terminology is used to describe the construction routes:

- Strategic road network (SRN): Comprises the motorway and trunk road network, managed by National Highways, as defined by the Department for Transport
- Major road network (MRN): Routes in the middle tier of the road network (between the SRN and LRN), as defined by the Department for Transport. MRNs are managed by the LHAs. For the Project, the LHAs are Thurrock Council and Essex, Suffolk and Norfolk County Councils
- Local road network (LRN): Comprising the local roads managed by relevant LHAs
- Primary Access Routes (PARs): Access routes on the public highway designated for use by construction vehicles (typically for HGVs) to travel from the SRN/MRN to the site access point. PARs form part of the wider access route strategy, discussed in Section 5.4.
- Secondary Access Routes: Access routes which will be considered for specific movements of light vehicles (cars and vans) only moving between adjacent haul road sections, where the haul road is not continuous due to a river, main road, railway or other obstruction
- Haul road: Temporary roads provided outside of the existing public highway. These routes will be managed by National Grid and link the site access points to the working areas
- Site access point: The location on a PAR where construction vehicles will transition between the public highway and haul roads/working areas
- Access tracks: Temporary access to a smaller scale, isolated works area, typically provided for erection of scaffold and netting at locations the overhead line crosses features such as roads and railways
- Crossover points: Locations where haul roads cross the public highway, but are not proposed for construction HGVs to transition to or from the public highway (except in emergency situations)
- Site compounds: The proposed locations provided for the overhead line, underground cabling, Cable Sealing End (CSE) compounds and substations temporary construction compounds.

5.2 Pre- and Post-Construction Surveys

5.2.1 Pre-construction assessment of highway structures has been undertaken on the routes which are anticipated to be used by AILs. The results of these structural assessments are provided in the AIL Access Strategy (Appendix A). The routeing of AILs is included within Appendix A of the Outline CTMP.

5.2.2 Pre- and post-construction condition surveys of the existing highway network are proposed to be undertaken on AIL and HGV routes. The scope of these surveys (in terms of the routes covered and the methodology of these surveys) is to be agreed with each LHA, prior to the start of the pre-commencement works. The results of these pre-condition surveys will be shared with the LHA prior to works commencing, including pre-commencement works relating to the highway. The Applicant will also undertake targeted condition surveys on the PARs on a quarterly basis during construction, where the scope of surveys will be agreed with the LHA in advance.

5.2.3 Prior to works commencing, the Main Works Contractor(s) will undertake a drive through survey of all PARs with the relevant LHA (unless agreed otherwise), with a focus on highway condition including pre-existing issues; road user safety including signage; vegetation clearance and locations where 'siding out' to remove debris/dirt/mud overspill could be used to increase the effective width of existing narrow footways. It is anticipated that the rural routes will be the focus of the drive through survey. This drive through survey will form the basis of any agreements for further mitigation measures – such measures to be necessary to the Project, reasonable; and contained within the highway boundary – along with the parties responsible for delivery of any measures. The final mitigation measures will be agreed with the LHAs as part of the final CTMP.

5.2.4 There are existing traffic calming measures on Spa Road, Witham (PAR 43), approximately 100m north of the Spa Road/Humber Road junction. The Main Works Contractor(s) will monitor on a weekly basis the condition of the road, kerbs and traffic calming features at this location and immediate approaches and report back to Essex Highways. Where any damage is identified that is attributable to Project-related HGV movements, the Main Works Contractor(s) will consult with Essex County Council regarding necessary and appropriate remedial measures and responsibility for their implementation. Such measures may include localised repairs or amendments to the layout.

5.2.5 The Main Works Contractor(s) will use the Electronic Service Delivery for Abnormal Loads (ESDAL) process for planning AIL movements. This will include a review of the suitability of structures along AIL routes prior to AIL movements.

5.2.6 In accordance with mitigation measure GG06 in the Outline CoCP (document reference 7.2), a record of condition will be carried out (photographic and descriptive) of the working areas that may be affected by construction activities. This record will be available for comparison following reinstatement after the works have been completed to enable the standard of reinstatement to meet the condition in the pre-condition survey. The specific locations of these records of conditions will be captured on a plan.

5.3 Vehicle Classification

Abnormal Indivisible Load Vehicle Deliveries

5.3.1 Special Types General Orders are a set of regulations which allow unusual vehicles to be driven on UK highways. Under normal circumstances, a vehicle and its load must not exceed the weight (44 tonnes) and dimensions (a width of more than 2.9 m and a rigid length of more than 18.65 m) contained within the Road Vehicles (Construction and Use) Regulations 1986 and the Road Vehicles (Authorised Weight) Regulations 1988. These regulations are set by the Driver and Vehicle Standards Agency.

5.3.2 A detailed AIL Access Strategy (Appendix A) has been prepared in collaboration with LHAs.

5.3.3 Where PARs and site access points are anticipated to be used by AILs, specific considerations would be made to determine suitable routeing and facilities to accommodate these movements. Infrastructure deliveries anticipated to require AILs include:

- Shunt reactors and super grid transformers to substations at Bramford, EACN and Tilbury North. It is assumed that the use of both private escort vehicles and a police escort will be required
- Cable drums to site access points for underground cabling sections. Traffic management and escort requirements for cable drum deliveries are anticipated to vary. Discussions will be held with National Highways, the relevant highway authorities, and the police forces to confirm requirements once the number and date of AIL deliveries is clarified
- Mobile cranes and piling rigs for construction of pylons, temporary bridges, and substations. While both the crane and the piling low-loader are anticipated to fall within the criteria of the Special Types General Orders regulations, these vehicles are not anticipated to require a police escort.

5.3.4 While the number of AILs is small compared to the number of HGVs, they would be of a size which may require temporary works to accommodate the loads. All temporary works, such as removal of street furniture, will be subject to engagement with the LHAs, National Highways and the police and form part of a delivery plan for each AIL, which will also consider:

- Locations of laybys or other such holding areas
- Potential diversion routes.

5.3.5 Each delivery will be planned in advance, escorted and managed such that any impacts are minimised. Such arrangements will be procured through a standard process at the appropriate time.

5.3.6 The police, fire and ambulance services (referred to as ‘blue light services’) and other key stakeholders will be given written notification of AIL deliveries and kept fully informed throughout the delivery period.

5.3.7 The Network Rail Abnormal Loads team will be notified of the routes and specific bridges to be used prior to the agreed use for construction traffic.

5.3.8 The movement of AILs will be outside of the restrictions (routes and times) contained within the CTMP and will be subject to separate agreement with the relevant highway authorities and police through the Electronic Service Delivery for Abnormal Loads (ESDAL) system. This includes notifications to stakeholders (relevant highway authorities, police and Network Rail) and advising of timings, routes and any asset protection measures appropriate to the type of road.

5.3.9 Where blue light services have a local embargo on AIL movements, these hours will be adhered to for AIL movements associated with the Project, unless agreed otherwise.

5.3.10 Should delivery of AILs be required outside of the core working hours (Section 2.3), prior notice for AIL movements will be given to the relevant highway authority 72 hours in advance before such traffic movements commence.

5.3.11 There are a number of structures, i.e. bridges, along the allocated AIL routes which will need to undergo further assessment work to confirm their suitability for AIL vehicles following grant of development consent. A detailed list has been provided within the AIL Access Strategy (Appendix A).

5.3.12 The Project will keep residents fully informed of the details in relation to the timing of the delivery of AILs. Ahead of any delivery, the Community Liaison Officer (CLO) will communicate, where appropriate, information via local notice boards, email updates to stakeholders and those who have registered for updates. The communication could also include notifications issued to the local press and, where appropriate, notification letters/emails to local residents and business that may be impacted.

5.3.13 Variable Messaging Sign (VMS) boards will be implemented at locations agreed with the Local Highway Authority and National Highways to communicate upcoming AIL movements and/or other disruptions to PARs.

5.3.14 Notification letters/emails will contain the following information:

- Name and contact details of relevant Project personnel
- Estimated commencement date for deliveries
- Duration of delivery period
- Estimated times of deliveries
- Any details of the route (where appropriate)
- Request to keep the highway clear of parked cars during the delivery period (where appropriate).

5.3.15 Information will be made available to the wider community on what AILs are, why they are needed and how they impact the local/strategic road network along with links to find further information.

5.3.16 The Project will make effort to work with local stakeholders to ensure disruption caused by AIL deliveries is minimised. Groups include, but are not limited to:

- Schools
- Local bus operators, including school bus operators
- Local doctors, surgeries or health providers
- Holiday accommodation developments
- Royal Mail
- Leisure centres
- Places of Worship.

5.3.17 Contact with these service providers will be made in advance of planning AIL deliveries.

5.3.18 Table 5.1 details the most onerous vehicles considered in the access assessments undertaken for each PAR, and the assumed infrastructure they will be providing construction access to, based on the Project alignment.

Table 5.1 Anticipated vehicles per PAR

PAR	Section(s)	Road Access	Pylon Numbers	Cabling	Substation/ CSEC	Cabling Compound	Compound	Standard Vehicles	Most Onerous Anticipated AIL/Special Order Vehicles
H01-A1	A	A140	RG: 1-11	-	Norwich Main Substation		RG-SC01	HGV/LGV	Large Mobile Crane (250 t)
H01-A2	A	B1135	RG: 12-24	-	-	-	-	HGV/LGV	Large Mobile Crane (250 t)
H02-A1	A	B1135	RG: 25-28	-	-	-	-	HGV/LGV	Large Mobile Crane (250 t)
H03-A1	A	B1135	RG: 29-42	-	-	-	-	HGV/LGV	Large Mobile Crane (250 t)
H03-A2	A	B1134	RG: 43-57	-	-	-	RG-SC01	HGV/LGV	Large Mobile Crane (250t)
H04-A1	A	B1134	RG: 58-70	-	-	-	-	HGV/LGV	Large Mobile Crane (250t)
H04-A2	A	A1066	RG: 71-83	-	-	-	-	HGV/LGV	Large Mobile Crane (250 t)
H05-A1	A	A1066	RG: 84-87	-	-	-	-	HGV/LGV	Large Mobile Crane (250 t)
H05-A2	B	A143	RG: 88-95	-	-	-	-	HGV/LGV	Large Mobile Crane (250 t)
H06-A1	B	A143	RG: 96-109	-	-	-	RG-Main	HGV/LGV	Large Mobile Crane (250 t)
H06-A2	B	B1113/ Major Lane	RG: 110-124	-	-	-	-	HGV/LGV	Large Mobile Crane (250 t)

PAR	Section(s)	Road Access	Pylon Numbers	Cabling	Substation/ CSEC	Cabling Compound	Compound	Standard Vehicles	Most Onerous Anticipated AIL/Special Order Vehicles
H07-A1	B	B1113	RG: 125-136	-	-	-	-	HGV/LGV	Large Mobile Crane (250 t)
H07-A2	B	A1120	RG: 137-153	-	-	-	-	HGV/LGV	Large Mobile Crane (250 t)
H08-A1	B	A1120	RG: 154-161	-	-	-	RG-Sate2	HGV/LGV	Large Mobile Crane (250 t)
H09-A1	B	A1120	RG: 162-165	-	-	-	-	HGV/LGV	Large Mobile Crane (250 t)
H10-A1	B	B1113 (A1120)	RG: 166-186	-	-	-	-	HGV/LGV	Large Mobile Crane (250 t)
H10-A2	B	B1113 (A1156)	RG: 187-210	-	Bramford Substation		RG-SC02	HGV/LGV	Large Mobile Crane (250 t) Transformer Delivery AIL
H11-A1	B	B1113 (A1156)	JC: 1-6	-	-	-	-	HGV/LGV	Large Mobile Crane (250 t)
H11-A2	C	A1071 (A1214)	JC: 7-16	-	-	-	-	HGV/LGV	Large Mobile Crane (250 t)
H12-A1	C	A1214	JC: 17-35		-	-	-	HGV/LGV	Large Mobile Crane (250 t)
H12-A2	C	B1070	-	Area 1	Wenham Grove		JC-BC01 JC-CC02	HGV/LGV	Cable Drum Delivery Vehicle Large Mobile Crane (250 t)
H13-A1	C	B1070	-	Area 1			-	HGV/LGV	Cable Drum Delivery Vehicle

PAR	Section(s)	Road Access	Pylon Numbers	Cabling	Substation/ CSEC	Cabling Compound	Compound	Standard Vehicles	Most Onerous Anticipated AIL/Special Order Vehicles
H14-A1	C	A12 (Ipswich)		Area 2			JC-CC03 JC-BC02	HGV/LGV	Cable Drum Delivery Vehicle
H15-A1	D	Birchwood Road		Area 2			-	HGV/LGV	Cable Drum Delivery Vehicle
H16-A1	D	Birchwood Road		Area 3			JC-CC04	HGV/LGV	Cable Drum Delivery Vehicle
H17-A2	C	Bentley Road	TB: 1-8	Area 4	EACN Substation		JC-CC05 JC-SC06 JC-SC07 JC-BC03	HGV/LGV	Large Mobile Crane (250 t) Cable Drum Delivery Vehicle Transformer Delivery AIL
H18-A1	C/D	Wick Lane	TB: 9-20	-	-	-	-	HGV/LGV	Large Mobile Crane (250 t)
H19-A1	C/D	Old Ipswich Road	TB: 21-29	-	-	-	-	HGV/LGV	Large Mobile Crane (250 t)
H19-A2	D	A1341 /A134	TB: 30-34	Area 5	Great Horkesley - EACN Side		TB-SC01 TB-CC02 TB-BC01	HGV/LGV	Cable Drum Delivery Vehicle Large Mobile Crane (250 t)
H20-A1	D	A1341/ A134	TB: 35-42	Area 5	Great Horkesley - Tilbury Side	-	TB-CC03 TC-SC04	HGV/LGV	Cable Drum Delivery Vehicle Large Mobile Crane (250 t)

PAR	Section(s)	Road Access	Pylon Numbers	Cabling	Substation/ CSEC	Cabling Compound	Compound	Standard Vehicles	Most Onerous Anticipated AIL/Special Order Vehicles
H20-A2	D	A1124/Mill Road	TB: 43-50	-	-	-	-	HGV/LGV	Large Mobile Crane (250 t)
H21-A1	D	A1124	TB: 51-52	-	-	-	-	HGV/LGV	Large Mobile Crane (250 t)
H22-A1	D	A1124	TB: 53-59	-	-	-	-	HGV/LGV	Large Mobile Crane (250 t)
H23-A1	D	Great Tey Road	TB: 60-71	-	-	-	TB-Sate1	HGV/LGV	Large Mobile Crane (250t)
H24-A1	E	A120	TB: 72-85	-	-	-	-	HGV/LGV	Large Mobile Crane (250 t)
H24-A2	E	B1018	TB: 86-99	-	-	-	-	HGV/LGV	Large Mobile Crane (250 t)
H25-A1	E	Hartfield Road	TB: 100-116	-	-	-	-	HGV/LGV	Large Mobile Crane (250 t)
H25-A2	E/F	A131	TB: 117-133	Area 6	Fairstead - EACN Side Fairstead - Tilbury Side	-	TB-Main TB-SC05 TB-CC06 TB-CC07	HGV/LGV	Large Mobile Crane (250 t) Cable Drum Delivery Vehicle
H26-A1	E/F	A131	TB: 134-135	-	-	-	-	HGV/LGV	Large Mobile Crane (250 t)
H27-A1	E/F	A131	TB: 136-139	-	-	-	-	HGV/LGV	Large Mobile Crane (250 t)
H28-A1	E/F	A131	TB: 140-150				-	HGV/LGV	Large Mobile Crane (250 t)

PAR	Section(s)	Road Access	Pylon Numbers	Cabling	Substation/ CSEC	Cabling Compound	Compound	Standard Vehicles	Most Onerous Anticipated AIL/Special Order Vehicles
H28-A2	F	A1060	TB: 151-161	-	-		-	HGV/LGV	Large Mobile Crane (250 t)
H29-A1	F	A1060	TB: 162-165	-	-		-	HGV/LGV	Large Mobile Crane (250 t)
H29-A2	F	A414	TB: 166-168	-	-		-	HGV/LGV	Large Mobile Crane (250 t)
H30-A1	F	A414	TB: 169-175	-	-		-	HGV/LGV	Large Mobile Crane (250 t)
H30-A2	F/G	B1002	TB: 176-185	-	-		-	HGV/LGV	Large Mobile Crane (250 t)
H31-A1	F/G	B1002	TB: 186-204	-	-		-	HGV/LGV	Large Mobile Crane (250 t)
H32-A1	F/G	B1002/ Local Road	-	-	-		-	HGV/LGV	Large Mobile Crane (250 t)
H32-A2	F/G	B1002/ Local Road	-	--	-	-	-	HGV/LGV	Large Mobile Crane (250 t)
H33-A1	G	A129/A176	TB: 205-213	-	-		-	HGV/LGV	Large Mobile Crane (250 t)
H33-A2	G	Dunton Road	TB: 214-224	-	-		TB-Sate2	HGV/LGV	Large Mobile Crane (250 t)
H34-A1	G	West Mayne	TB: 225-231	-	-			HGV/LGV	Large Mobile Crane (250 t)
H35-A1	H	A128	TB: 232-254	-	-		-	HGV/LGV	Large Mobile Crane (250 t)

PAR	Section(s)	Road Access	Pylon Numbers	Cabling	Substation/ CSEC	Cabling Compound	Compound	Standard Vehicles	Most Onerous Anticipated AIL/Special Order Vehicles
H36-A1	H	A1013	TB: 255-264	Tilbury North cable section	Tilbury North Substation		TB-SC08	HGV/LGV	Large Mobile Crane (250 t) Transformer Delivery AIL Cable Drum Delivery Vehicle
H36-A2		A1013		Tilbury North cable section	Tilbury North Substation Tilbury CSE Compounds		TB-SC08	HGV/LGV	Large Mobile Crane (250 t) Transformer Delivery AIL Cable Drum Delivery Vehicle
H37-A1		A1013	YYJ:120-129	Tilbury North Cable Section	Tilbury CSE Compounds		YYJ-SC01 YYJ-CC01 YYJ-CC02 YYJ-CC03	HGV/LGV	Large Mobile Crane (250 t)
H37-A2		Mucking-ford Road		-	-	-	-	LGV	

Other Construction Vehicles

5.3.19 A range of other construction vehicles will be required on the Project that will use the public highway network. The majority of construction materials will be transported to the construction sites by HGVs. This will include LGVs, including vans, to deliver smaller items and the workers to the site. It will also include other HGVs, such as low-loader units used to deliver larger items such as excavators, construction mats, and welfare units.

5.3.20 In accordance with measure GG19 in the Outline CoCP (document reference 7.2), plant and construction vehicles (not including construction worker private vehicles) will conform to relevant applicable standards for the vehicle type which are defined in the Outline CoCP (document reference 7.2).

5.3.21 It is assumed that all plant and vehicles will switch off their engines when not in use and when it is safe to do so.

5.4 Construction Traffic

General Construction Routeing Strategy

5.4.1 Construction traffic will use the SRN and MRN to access the region. From the MRN and SRN, and subject to the limited exceptions addressed in Paragraph 5.4.2 below, construction traffic will be routed along a PAR to the site access points. From these site access points, traffic will be routed off the public highway along haul roads to access the construction sites.

5.4.2 In certain limited instances, certain construction vehicles may use roads which are not designated as Primary Access Routes (PARs). Table 5.2 sets out the anticipated construction activities where this is likely to be the case. For the avoidance of doubt, and unless otherwise agreed, all other elements of the CTMP would apply to vehicle movements in respect of the construction activities listed in Table 5.2.
The construction vehicles cannot use the PARs in this instance, due to the isolated works away from the haul road and/or because the activities may need to be completed prior to the installation of the internal haul road, e.g. to assess ground conditions and undertake surveys. There are some isolated locations, such as scaffolding erection, where a haul road will not be available to access the final location. Once the haul road is constructed and operational, it is intended that the majority of construction vehicles will utilise this, along with the PARs, rather than the non-PAR routes.

Table 5.2 Non-Primary Access Routes Construction Movements

Construction Activity	Indicative Vehicle Types
Engineering Investigations and Surveys	LGV (Site vehicle 4x4 and trailer)
Environmental (including archaeological) investigations and monitoring	LGV (Site vehicle 4x4 and trailer)
Surveys and monitoring investigations associated with assessing ground conditions	LGV (Site vehicle 4x4 and trailer)

Construction Activity	Indicative Vehicle Types
Diversion and laying of third-party services, protection works including utilities protection works or fencing and protection slabs, demolition of existing buildings	HGV (low loader/HIAB Wagon) / LGV (Site Vehicle 4x4)
Site Clearance (including temporary removal of vegetation)	HGV (Low Loader) / LGV (Site Vehicle 4x4)
Environmental Mitigation Measures (including cutting back overhanging vegetation)	HGV (low loader)/ LGV (Site vehicle 4x4 and trailer)
Remediation associated with contamination or adverse ground conditions	HGV (low loader)/ LGV (Site vehicle 4x4 and trailer)
Temporary Accesses (such as cross over bellmouths or UKPN accesses)	HGV (low loader/Stone delivery lorries/grab wagon)/ LGV (Site Vehicle 4x4/Welfare Van)
Erections of temporary means of enclosure or temporary demarcation fencing site boundaries and the temporary display of site notices or advertisement	HGV (tractor mounted post driver, lorry mounted crane delivery) / LGV (Site Vehicle 4x4/Welfare Van)
Scaffolding for Overhead Line stringing activities	HGV (Low loader/Trackway laydown lorry &trailer)/ LGV (Site Vehicle 4x4/Welfare Van)
Directional Drilling for the cabled sections.	HGV (tractor trailer/ low loader)/ LGV (Site Vehicle 4x4)
Works associated with drainage	HGV (low loader/ 40ft flatbed lorry/Tipper truck)/ LGV (Site Vehicle 4x4)

5.4.3 Access to the proposed overhead lines and underground cable alignment construction corridors would be via the haul road, accessed from the PARs. The haul roads are proposed to be constructed adjacent to the underground cable corridor or to provide a continuous access route between overhead lines pylons.

5.4.4 The proposed haul roads are only discontinuous at major obstructions along the underground cable and overhead line corridor such as major roads, railways, areas of environmental or historical significance, and major watercourses. Each obstruction has been assessed on a case-by-case basis.

5.4.5 A number of haul roads are proposed to be provided in accordance with this strategy, serving the proposed transmission alignment and associated works.

5.4.6 The haul roads are proposed to be used for construction movements and will generally be removed once the construction phase has been completed. The haul road arrangement as described above is considered to present a favourable solution for access as it offers the following benefits:

- Haul roads enable materials and the workforce to be moved along the overhead lines and underground cabling construction corridor minimising the use of public highways, avoiding (where possible) sensitive areas such as villages, schools and minor roads
- The strategy reduces the number of construction related vehicles impacting the public highway network in the vicinity of the construction corridor
- The strategy reduces the total number of construction routes (PARs) from the MRN to the construction corridor, and hence the number of local, rural roads impacted by the Project
- The strategy reduces the number of site access points on the public highway network, and therefore temporary junctions with the public highway
- Longer haul roads enable a high percentage of construction traffic to be routed to the site predominantly via 'A' and 'B' roads, with reduced distances travelled via minor roads
- The haul road generally reduces journey distances for site staff travelling between construction areas, accommodation, and compounds.

5.4.7 In some locations, overhead line construction corridors will require access from the underground cabling alignment corridors. In these locations, a haul road may be constructed adjacent and parallel to the underground cabling construction corridor to access the overhead lines. This would be provided to separate the overhead line construction vehicle movements from the works associated with the underground cable corridor construction. At Fairstead, the overhead line temporary haul road will be used to access the short section of underground cable.

5.4.8 A PAR has been identified for access to each section of haul road, with additional PARs proposed for longer sections of continuous haul road where appropriate roads for designation as a PAR have been identified. Generally, PARs are proposed to access each end of a haul road section, allowing construction traffic to enter the haul road at one end, travel along the haul road and exit the other end (if required). Dead-end haul roads have been avoided as far as practicable. However, due to site-specific constraints, there are some instances of haul roads with only one PAR.

5.4.9 Secondary Access Routes will be considered for specific movements of light vehicles (cars and vans) only moving between adjacent haul road sections, where the haul road is not continuous due to a river, main road, railway or other obstruction.

5.4.10 In discussions with LHAs, a list of highway schemes that are planned on PARs and the associated MRN/SRN have been provided. These include the following (subject to change) (additional information on the highway schemes (excluding Wix Bypass, which was not confirmed prior to DCO submission) is detailed in the Transport Assessment (document number 7.11):

- Chelmsford North East Bypass (CNEB)
- The Long Stratton Bypass
- Wix Bypass Concrete Road Renewal Scheme
- New link road between the existing A120 and A133
- B1018 Braintree Road/Millenium Way Roundabout

- Urbis Romanae / United Way Roundabout into a Signalised junction, as well as junction improvements on the A12 Junction 28
- Work on the Lower Thames Crossing (LTC) project, linking Essex and Kent, was on course to begin in 2024 and be completed by 2029

5.4.11 The timescales for the implementation of these schemes is subject to change. The CTMP will need to be reviewed and amended in engagement with the relevant LHA should planned highway works have a material effect on the agreed construction routeing strategy.

Multi-Modal Routing

5.4.12 The Main Works Contractor(s) will pursue the exploration and implementation (where feasible, commercially viable and operationally reasonable) of alternative transport modes to deliver materials and large and/or heavy items. The contractor will review and discuss ways of reducing freight by road with each Local Highway Authority, with a coordinated approach where feasible and practicable. This will include (but not restricted to):

- Consolidation centres;
- Wider considerations of the Multi-Modal Strategy using rail and port facilities to replace long distance road freight; and
- Review of “just in time” scenario (Scenario 2), set out in Appendix G of the Transport Assessment.

HGV Deliveries

5.4.13 HGV movements will normally take place during the core working hours, and it is anticipated that construction LGV/HGV/AIL vehicles will be scheduled to arrive throughout the core working hours. Where required, vehicle movements for certain time-critical activities (those detailed in section 2.3) may take place outside of the core working hours. HGV deliveries for activities not listed in section 2.3 are to take place across the core working hours, with deliveries managed by the Main Works Contractor to avoid concentration of movements in any particular hour, and provide a consistent level of movements throughout the core working hours.

5.4.14 HGV movements to site are intended to be deliveries, unless associated with material removal. HGVs will not remain on site from a delivery, as a result every delivery is a two-way movement.

5.4.15 The Main Works Contractor will be responsible for monitoring and managing compliance with this strategy, particularly during road network peak periods.

5.4.16 As detailed in the Outline Construction Worker Travel Plan (Appendix B), construction worker LGV vehicles are to arrive outside the normal highway network peak periods (i.e., 08:00-09:00 and 17:00-18:00 Monday to Friday). It is assumed that admin and office workers will arrive on site within these peak hours.

5.4.17 The number of HGV movements has been calculated and assessed using a comprehensive trip generation and distribution approach which is summarised within Section 6.2 of the Transport Assessment (document reference 7.11).

5.4.18 These movements have been determined against the draft construction programme and will be therefore subject to change upon finalisation of the construction programme by the Main Works Contractor.

5.4.19 A number of figures have been produced within the Transport Assessment (document reference 7.11), to show the variation in daily peak daily movements expected within each week of the construction phase.

5.4.20 The construction vehicle and construction workforce traffic movements will be managed though the monitoring and management mechanisms outlined in Section 6. The Main Works Contractor(s) will develop a booking/scheduling system to schedule HGVs to site throughout the construction period. This system will enable a three-month look ahead, to understand the predicted HGV deliveries (movements), per site access point in advance. The construction vehicle and construction workforce traffic movements will be reviewed against the assumptions (construction traffic forecasts) detailed within the Transport Assessment (document reference 7.11) and the Environmental Statement Appendix 16.4 - Traffic and Transport Construction Effects (document reference 6.16.A4).

5.4.21 Should the three-month look ahead identify any predicted potential exceedances compared to the construction traffic forecasts reported in the above documents, the EnvCoW and Transport Coordinators will notify National Grid and the relevant local highway authority, and where appropriate National Highways. Where the EnvCoW considers that these would have the potential to introduce materially new or materially different residual effects, the Main Works Contractor(s) will discuss with National Grid and the relevant Local Highway Authority, and National Highways where appropriate, suitable steps to avoid or mitigate such effects. The Applicant and its appointed Main Works Contractor(s) will develop a monitoring framework, which will include potential mitigations, as part of the final CTMP. Given the robust arrangements that would be available to monitor and review these traffic movements, the comprehensive trip generation and distribution approach and the proposed mitigation measures, a cap on vehicle numbers is not considered necessary.

5.4.22 The Outline Construction Worker Travel Plan (Appendix B of this Outline CTMP) addresses the number and programme of the anticipated staff and visitor movements.

Contingency Routes

5.4.23 There may be circumstances, such as those listed below, where traffic movements on the road network are compromised, impacting the use of the agreed PARs and site access points.

- A traffic or other similar incident on the highway network that disrupts the normal operation of the highway network or results in the closure of the highway network
- A breakdown of an HGV enroute to the authorised access point
- Work requested to be completed out of hours by a third party such as the relevant highway authority or Network Rail
- Emergency health and safety incidents
- Planned or emergency highway works.

5.4.24 In the event of any incident occurring which impacts on the safe and efficient operation of the road network, additional mitigation measures will be considered, which could include contingency routes. Contingency routes will be provided by pre-established traffic diversions and diversions as set out by National Highways, the relevant highway authorities and the police.

5.4.25 In addition, the Main Works Contractor(s) will utilise the website OneNetwork and liaise with National Highways or the relevant LHA directly, to establish where pre-defined construction routes may be disrupted by other works or events. They will seek to establish alternative routes that, as far as practicable, are consistent with those set out above. Where required, the Main Works Contractor(s) will propose the estimated frequency of the use of the contingency routes and share information with the LHA.

Construction Route Signage

5.4.26 All signage for temporary access to construction work sites will comply with relevant standards, including Traffic Signs Manual Chapter 8: Traffic Safety Measures and Signs for Road Works and Temporary Situations (Department for Transport and Highways Agency, 2009). The signs will follow the process for Local Highway Authority approval, where required. The signs will include the name of the Project, to differentiate them from signs relating to against other projects within the area. All signage to be placed in highway land is to be agreed with the highway authority.

5.4.27 The following signage is proposed:

- **PAR and site access point signs:** Temporary signage will be erected along construction routes on the public highway to provide access (directional) routeing information. Temporary signage will be provided in the vicinity of each site access and crossover point which will provide warning to other road users of the likely presence of construction vehicles, including temporary speed limits (where appropriate). Where appropriate, public roads that are not prescribed as PARs will be signed to indicate they are not to be used by construction traffic. Signage will be provided on sections of the SRN, MRN and PARs which may be subject to temporary traffic congestion and delay at peak periods
- **Haul road signs:** Similar to the above, temporary signage will be erected along the haul roads within the working area where necessary. The signage will provide drivers with information on distances to destination and warning (hazard) information relating to potential vehicle conflict or pedestrian conflict areas (for example, crossover points of public highways and PRoWs)
- **Temporary diversion signs:** In the event that any traffic diversion routes are required, temporary signage will be installed in accordance with relevant signage design guidance.

5.4.28 The Main Works Contractor(s) will undertake regular maintenance checks to report and rectify any defects with signage.

5.5 Site Access Points

5.5.1 Site access points have been assessed based on site-specific constraints and highway safety considerations. The locations of the site access points on the public highway are generally close to the underground cabling and overhead line

construction corridors. The most suitable location for the site access point, and access to the haul roads, has been determined with consideration of road geometry, junction visibility and other site-specific constraints. Locations have, where appropriate, been chosen to minimise the impact on trees and hedgerows. Existing land/field accesses have been used where they are considered to be suitable locations as determined by the above assessment criteria. When forming site access points, connectivity for active travel users (footways and cycleways) will be preserved, where safe and practicable.

5.5.2 The site access points layouts are designed to allow for two-way HGV movements to occur; that is, an HGV can enter the junction while a second HGV is waiting to exit the bellmouth.

5.5.3 Site access points have also been assessed through a swept path analysis for the largest vehicle associated with the haul road (i.e. a crane or alternative AIL). These vehicles require the full bellmouth area to make the manoeuvre. This (infrequent) operation will take place with the appropriate traffic management, which will be agreed with the appropriate the relevant LHA and/or National Highways, in place.

5.5.4 Security fencing and gates are proposed for all site access points to secure the works area, the construction corridor and haul roads. Security gates are to be set back a minimum of 20 m from the edge of the carriageway to allow for vehicles transitioning between the works area and public highway to stop outside of the gate while not impeding the public highway. A illustrative site access point layout including tracking of construction vehicles, visibility splays and fencing arrangements can be found in the Illustrative details drawings (document reference 2.6.3). In accordance with GG29 in the Outline CoCP (document reference 7.2), working areas will be appropriately fenced.

5.5.5 All site access points (inclusive of crossover points) can be constructed from the highway with temporary traffic management, including temporary road closures where necessary. When forming site access points, the internal haul road does not need to be constructed before works commence.

Crossover Points

5.5.6 In addition to site access points, haul roads cross the public highway network at various locations. At major roads, the haul road is discontinuous. On the LRN, an ‘at grade[2]’ crossing of the public highway is proposed. Construction traffic is proposed to use these ‘crossover points’ to cross the public highway. No HGV construction traffic is proposed to use these crossover points to access the haul road from the public highway under typical operation, and vice versa. SAR are being considered for specific movements for light vehicles moving between adjacent haul road.

5.5.7 The crossover points have been designed to allow for emergency vehicles to access the haul road from the public highway. In emergency situations, access for most construction traffic will be possible at crossover points.

5.5.8 In the event that a haul road intersects a PRoW, the management of vehicles and usage of gates will be followed as per the Public Right of Way Management Plan (PRoWMP) (Document reference 7.6)

[2] ‘At grade’ means the crossing is at the same height as the public highway, with no bridges.

5.5.9 In the event that a haul road is blocked due to unforeseen circumstances, resulting in a site location becoming inaccessible from a site access point, an alternative access would be facilitated from a suitable crossover point. The haul road would be reinstated as soon as reasonably practical.

5.5.10 At crossover points, construction traffic will 'give way' to the public highway traffic. At locations where temporary traffic signals are proposed, the impact of these traffic management measures will be monitored and managed, with priority given to the flow of traffic on the public highway.

5.6 Construction Site Access

5.6.1 Site compounds include those related to works for the overhead line, underground cable, CSE compounds and substations compounds. Table 5.3 provides information about the proposed access routes to each of the compounds. The routes detailed within Table 5.3 are the proposed routes for the duration of the compound operation.

5.6.2 Compounds would be used to facilitate specific sections of the construction corridor. The scope of these works within each section of the construction corridor differs, and therefore the operational duration of each compound will be different. The duration outlined in the table below is for the indicative operational period of the compound, which includes mobilisation and demobilisation. The indicative locations for each compound are detailed within the ES Figures 4.1 (document reference 6.4 F1).

Table 5.3 Compound Site Access Points

Compound	Primary Route	Indicative Duration
Land to north of Norwich Substation, South Norfolk (RG-SC01)	A140 to Mangreen Lane (PAR H01-A1)	Q1 2028 – Q3 2028
Diss Road, near RG56, South Norfolk (RG-Sate1)	B1134 Long Row – from A140 (PAR H04-A1)	Q2 2027 – Q2 2031
Old Bury Road, near RG96, Mid Suffolk (RG-Main)	A143 Old Bury Road – from Waterloo (H05-A2)	Q4 2027 – Q2-2031
Site set back from Bells Lane, near RG155, Mid Suffolk (RG-Sate2)	A1120 to Bells Lane (PAR H07-A2)	Q3 2027 – Q2 2031
Land to the east of Bramford Substation, Mid Suffolk (RG-SC02)	B113 Lorraine Wat to Bullen Lane (H10-A2)	Q1 2028 – Q4 2029
Land east of Woodland Road, north of Raydon (JC-SC01)	Bypass haul road, Hadleigh Road (H12-A1)	Q3 2028– Q3 2030
Land off B1070, Raydon (JC-CC02 and JC-BC01)	Ipswich Road (PAR H12-A2)	Q2 2028 – Q4 2030
Land south of Dedham Road, north of Langham (JC-CC03 and JC-BC02)	Ipswich Road (PAR H14-A1)	Q2 2028 -Q3 2031
Land south of Birchwood Road, to the west of Lamb Corner, Colchester (JC-CC04)	Birchwood Road (from A12)	Q2 2028 – Q3 2030

Compound	Primary Route	Indicative Duration
Land south of Little Bromley Road, Bradley Hall, Tendring (JC-CC05) Land at the EACN Substation, Tendring (JC-SC06, JC-SC07 and JC-BC03)	Ardleigh Road – from A120 (H17-A2)	Q2 2028 – Q4 2030
Land south of Broad Lane, Great Horkesley (TB-SC01) Land north of Broad Lane, Great Horkesley (TB-CC02 and TB-BC01)	Nayland Road (PAR H19-A2/H20-A1)	Q3 2028 – Q3 2030
Land west of A134, Tye Green, Colchester (TB-CC03) Land west of Crabtree Lane, north of Bellmead, Colchester (TB-SC04)	Nayland Road (PAR H19-A2/H20-A1)	Q3 2028 – Q3 2030
Great Tey Road, near TB66, Colchester (TB-Sate1)	Great Tey Road (PAR H23-A1)	Q2 2027 – Q3 2031
Land east of Fairstead Road, north of Fairstead (TB-SC05) Land east of Fairstead Road, north of Fairstead (TB-CC06)	Church Hill (PAR H25-A1)	Q2 2028 – Q3 2029
Off Braintree Road, near TB134, Chelmsford (TB-Main) Land east of A131, near Sheepcotes Wood (TB-CC07)	A131 (PAR H25-A2)	Q4 2027 – Q3-2031
Off Brentwood Road, near TB223, Basildon (TB-Sate2A)	Dunton Road (PAR H33-A2)	Q3 2027 – Q3 2031
Site north of Hoford Road, adjacent to Orsett Golf Club, Thurrock (TB-SC08) Site north of Hoford Road, adjacent to Orsett Golf Club, Thurrock (ZB-SC01) Site west of Hoford Road and east of Brentwood Road (ZB-CC02) Site west of Hoford Road and east of Brentwood Road (ZB-SC03)	Buckingham Hill Road (PAR H36-A1)	Q3 2028 – Q4 2030

5.6.3 During the development of the CTMP following DCO approval, the Main Works Contractor(s) will prepare a programme of when each site access point is planned to be constructed. These site access points are likely to be constructed as pre-commencement activities, where the Outline CTMP will be applied.

5.6.4 The routes to site mentioned in this section would be adhered to as far as reasonably practicable. It is understood that under specific circumstances, with heavy disruptions or incidents on the network, vehicles may need to choose an alternative route (detailed under the 'Contingency Routes' heading in Section 5.4).

5.7 Temporary Access Information

5.7.1 The haul roads would be typically 6 m wide, with passing places (widening to 8 m) provided at typical intervals of 200 m. The frequency of passing places would be determined by site-specific conditions at the detailed design stage and the forward visibility along the haul roads.

5.7.2 For the construction of underground cables, CSE compounds and substations, the haul roads would be typically 8 m wide to allow for the delivery and movement of larger equipment using Abnormal Indivisible Load (AIL) vehicles.

5.7.3 The typical cross section of the haul road would be 21 m wide, to allow for topsoil and subsoil storage, drainage, and demarcation fencing. A standard detail showing the typical layout of the haul road is shown on the Design and Layout Plans (document reference 2.6.3-1).

5.7.4 For the assessment of haul road construction, it is currently assumed that topsoil (and some subsoil) would be stripped and aggregate (e.g. stone) placed on top of the soil, which would be delivered to site by HGVs.

5.7.5 Within the underground cable sections, the haul roads would normally be positioned central to the alignment, i.e. with cable trenches located either side of the haul roads. Therefore, no additional vegetation clearance would be required, except in some cases where the haul road deviates from the underground cable alignment to reach a site access point onto the public highway.

5.7.6 In some locations, overhead line construction corridors would need to be accessed from the underground cable corridors. In these locations, a haul road is proposed to be constructed adjacent and parallel to the underground cable corridor to access the overhead lines (this is also referred to as a 'bypass haul road'). This would be provided to separate the overhead line construction vehicle movements from the works associated with the underground cable construction.

5.7.7 For most site access points, it is expected that some vegetation clearance and traffic management will be necessary for the duration that the access is operational.

5.7.8 The potential for site access points to be made permanent as a legacy benefit has been considered within the siting of these facilities. Where deemed to be of potential benefit as a permanent facility, these will be discussed on a case-by-case basis. This will typically include, alongside other criteria, a requirement for the facility to meet the relevant design standards once temporary traffic management associated with the Project has been removed.

5.7.9 Speed limits will be enforced on all construction haul roads and access tracks. The speed limits are not defined at this stage of the Project and will vary depending on site-specific conditions. These will typically include limits up to a maximum speed of 20 mph.

Unique Access Arrangements

EACN Substation Access

5.7.10 An access appraisal to the EACN has been undertaken and the following preference for access has been determined:

- The North Falls and Five Estuaries wind farms are proposed to be located adjacent to the proposed EACN Substation. There is an opportunity to collaborate with the promoter(s) of the wind farms schemes in order to utilise the proposed temporary construction haul road associated with the wind farm cable corridors between Bentley Road and Ardleigh Road to provide temporary construction access to the sub-station site.
- The permanent operational and maintenance and AIL access route has been identified as via the A120 / Bentley Road junction, Bentley Road, a proposed permanent and private access road between Bentley Road and Ardleigh Road and Ardleigh Road.
- The permanent operational access route should be the allocated construction route if the opportunity to collaborate with North Falls and Five Estuaries is not feasible.

Access through Diss

5.7.11 An assessment of the impact of construction traffic has been completed on the roads through Diss and Thetford. Through coordination with Norfolk Highway Authority, the following preference for access has been determined:

- HGVs will not be able to travel through Diss within the network daily peak hours, with 100% of HGVs to be routed through Thetford during those times.
- Outside of peak hours, HGV traffic will be split 50/50 between Diss and Thetford.
- LGVs are expected to travel through Diss throughout the day.
- AIL movements are anticipated to travel via Thetford.

5.8 Traffic Management

5.8.1 Traffic management on the public highway and haul roads, where appropriate, will be used where required to maintain public and/or workforce safety. This will primarily occur during construction and removal of access points, when erecting or dismantling scaffolding, where the underground cables cross the highway networks, for the safe operation of site access points and crossover points, and at locations on the PAR where mitigation measures are required. Instances other than those detailed above may arise where traffic management on the public highway and haul roads is required.

5.8.2 Traffic management will be provided in accordance with Traffic Signs Manual Chapter 8 (Department for Transport and Highways Agency, 2009), proportionate to the type of road, duration of works and volume of traffic. Traffic management measures may include temporary traffic signals or manned stop and go boards. In some instances, there will be the need for road closures, particularly on narrow or single-track roads. Specific locations, timings and the specific traffic management measures will need to be agreed with the relevant highway authorities. Enforcement of traffic management and road traffic offences remains a matter for the appropriate enforcement bodies, including the Police.

5.8.3 It is anticipated that roads would only be temporarily closed where this is required for safe working. In accordance with measure AS03 in the Outline CoCP (document reference 7.2), where practicable and safe to do so, existing access to and from

residential, commercial, community and agricultural land uses will be maintained throughout the construction phase, or as agreed through landowner discussions. This may require signed diversions or temporary restrictions to access. Where this is not practicable, alternative arrangements will be made with the affected parties through the land agreements, such as instances of no through route single track roads where works are required. Where practicable and safe to do so, cyclists and pedestrians will be able to continue to use the closed roads. Alternatives for cyclist and pedestrian access will be considered in circumstances where safe operation of the works or the safe use by active travel users is compromised.

5.8.4 LHAs will be able to review and approve all traffic management measures needed on the public highway through the permit schemes. It is anticipated that this information will be publicly available on the Project website and the relevant LHA's website. This would include information on road closures, traffic management, temporary speed restrictions, and information on planned AIL movements.

5.8.5 Before carrying out any works with a potential to affect access to the Essex County Council Depot in Ardleigh, National Grid/the Main Works Contractor(s) will develop and agree with Essex County Council details of measures to ensure that access is maintained at all times to the depot; or where this is not reasonably practicable, that a suitable alternative access is provided and operational prior to any interruption of the existing access. National Grid/the Main Works Contractor(s) will provide advance notice of any proposed temporary road closures or traffic management measures that may affect access to the depot, including details of anticipated impacts on access and response times.

5.8.6 Advance notification of planned diversions and closures will be issued to relevant stakeholders (such as Royal Mail, Blue Light Services and bus operators) where these may affect their operations, to enable engagement on these at the earliest possible opportunity.

Lengths of Traffic Management Measures (in Distance and Duration)

5.8.7 To reduce the impact on local road users, the length of the traffic management measures would be kept to a minimum and left in situ for the shortest duration.

5.8.8 Where it is intended for roadworks to be left in place for defined periods without any construction work being undertaken, the Main Works Contractor(s) will assess whether it is reasonably practicable and safe to remove the traffic management equipment during this period.

5.8.9 A full list of associated traffic management is detailed in the following schedules of the draft DCO (document reference 3.1) and shown on the Access, Public Rights of Way and Public Rights of Navigation Plans (document reference 2.5) and the Traffic Regulation Order plans (document reference 2.4):

- Schedule 13 – Traffic Regulations Orders
- Schedule 5 – Streets Subject to Street Works
- Schedule 6 – Streets subject to Alteration of Layout
- Schedule 7 – Streets and PRoWs to be Temporarily Closed
- Schedule 8 – Streets and PRoWs to be Permanently Stopped Up
- Schedule 9 - Access to Works

Selection of Diversion Routes

5.8.10 Where diversions are necessary (due to temporary closure of roads), they will adopt the principle that they will use the same standard of road, or higher, where practicable and available. A full point-to-point diversion on public roads will be provided so that all vehicles that will usually and legitimately use a road can continue to use it to complete their journey, The means of access will be communicated to the relevant highway authorities and emergency and essential services.

5.8.11 Table 5.4 shows information relating to the proposed longer-term diversion routes, greater than 18 months in length, including the approximate length of closure, length of diversion route and increase in journey time.

Table 5.4 Proposed diversion route information

Name of Road	Approximate Length of Closure	Approximate length of Diversion Route	Approximate Increase in Journey Time Using Proposed Diversion Route
Wymondham Road, Norfolk	1.6 km	2.4 km (via Flordon Road and B1113 Norwich Road)	2 mins

5.8.12 Short term road closures associated with overhead line stringing, construction of highway mitigation works, construction of bellmouth junctions and the open-cut cable swathe are expected on some of the roads. Full road closures are expected to be for no more than four weeks and will require a diversion. Other roads are expected to be managed through: Managed/ Road Open/Single Lane Running/Single Lane Running with widening avoiding the need to close the road. The duration of these may vary between four to eight weeks and would retain access for vehicles on the affected roads. Minimal delay to bus services is therefore expected. If a bus stop is located on those roads, a temporary stop would be provided in a suitable location, following agreement with the relevant Local Highway Authority and the bus operators.

Table 5.5 Indicative Cable swathe short-term road closures

Name of Road	Cable Area	Management Methodology
Raydon Road	Area of Outstanding Natural Beauty (AONB) Cable Section	Road closure with diversion
Acacia Road	AONB Cable Section	Road closure with diversion
B1070	AONB Cable Section	Road closure with diversion
Raydon Road/ Bacons Green	AONB Cable Section	Road closure with diversion
Sandpits Lane	AONB Cable Section	Road closure with diversion
B1068	AONB Cable Section	Road closure with diversion
Green Lane	AONB Cable Section	Road closure with diversion
Low Lift Cottage Road	AONB Cable Section	Road closure with diversion
Docuras Farm Road	AONB Cable Section	Road closure with diversion

Name of Road	Cable Area	Management Methodology
Water Lane	AONB Cable Section	Road closure with diversion
Dedham Road	AONB Cable Section	Road closure with diversion
Rectory Road, Nightingale Hill and Grove Hill – are all connected as one continuous road	AONB Cable Section	Road closure with diversion
Ipswich Road	AONB Cable Section	Road closure with diversion
Birchwood Road	AONB Cable Section	Road closure with diversion
Malting Farm Lane	AONB Cable Section	Road closure with diversion
B1029 (Dedham Road)	AONB Cable Section	Road closure with diversion
Home Farm Lane	AONB Cable Section	Road closure with diversion
Morrow Lane	AONB Cable Section	Road closure with diversion
Little Bromley Road	AONB Cable Section	Road closure with diversion
Hungerdown Lane	AONB Cable Section	Road closure with diversion
Grange Road	AONB Cable Section	Road closure with diversion
Ardleigh Road	AONB Cable Section	Road closure with diversion
School Lane (two separate crossings)	Great Horkesley Cable Section	Road closure with diversion
London Road	Great Horkesley Cable Section	Road closure with diversion
Vinesse Road	Great Horkesley Cable Section	Road closure with diversion
Crabtree Lane	Great Horkesley Cable Section	Road closure with diversion
Brentwood Road (two separate crossings)	Tilbury Cable Section	Road closure with diversion
High House Lane (two separate crossings)	Tilbury Cable Section	Road closure with diversion

5.8.13 In the event that Cow Watering Lane is required to be used as a highway diversion route, the Main Works Contractor(s) will implement appropriate traffic management measures at the ARU Writtle Equine Facility crossing point to enable the safe crossing of students and horses.

Access and Crossover Points

5.8.14 Traffic management will be required during the construction of the proposed site access points and crossover points for the safety of road users. The TRO Plans and schedules show the proposed traffic management measures associated with site access points. Traffic management will vary dependent on site-specific requirements, but may typically include:

- Temporary traffic light systems (and/or stop and go boards) to control flows during construction of site access points and crossover points to allow single lane working where roads are of suitable width
- Further use of temporary traffic light systems during periods of peak construction traffic flows to control turning/crossing movements at public highway interfaces
- Temporary speed limit restrictions in the vicinity of proposed access and crossing points. This will be completed in combination with other measures including vegetation clearance to achieve the relevant visibility requirements.

5.8.15 As far as possible, where mature trees and mature hedgerows conflict with a temporary visibility splay, the Main Works Contractor(s) will adopt the principle that all reasonable forms of traffic management are applied (potentially including temporary traffic lights and low speed limits) to enable the retention of the mature trees and mature hedgerows, unless agreed otherwise with the relevant highway authority.

5.8.16 It is anticipated that for the construction of access and crossover points on single track roads, these would be closed during construction of the access. It is anticipated that the construction of site access points onto wider roads would be constructed using temporary traffic management measures such as temporary traffic signals.

5.8.17 Access control measures such as fencing and gated accesses to working areas will typically be in place for safety and security. Access and crossover points will be designed to reduce highway safety risks and congestion on the public highway by providing for the safe and efficient passage of construction traffic.

5.9 Highway Mitigation Measures

5.9.1 Highway mitigation measures have been proposed on the existing highway network to facilitate construction vehicle access to the construction corridor.

Primary Access Route and AIL Access Routes Mitigation Measures

5.9.2 In discussions with the LHAs and National Highways, a package of mitigation measures has been developed covering all of the PARs and AIL routes. These mitigation measures have been designed to facilitate access to the construction corridor for construction vehicles including AILs. The mitigation measures are detailed on the Indicative Highway Mitigation Plans (Appendix C).

5.9.3 Each indicative mitigation measure is identified on the drawings, in terms of the physical extent of the measure and the type of mitigation measure to be implemented. The mitigation measures are subject to change throughout the construction of the project, changes will be reviewed and in consultation with the relevant local highway authority.

5.9.4 The mitigation measures are categorised as follows:

- Red: Highway improvement works such as road widening, and passing bays (the extent of the works require land outside of the extent of the existing public highway)
- Orange: Highway improvement works such as road widening, and passing bays (the extent of the works contained within the existing public highway)

- Yellow: Modifications to existing highway features such as a temporary removal of street furniture (bollards, signs, guard railings) to allow large vehicles/AIL delivery vehicles to pass. Temporary traffic management would be put in place where appropriate to temporarily replace removed street furniture.
- Green: Modifications localised vegetation cutting/clearance, or TTRO/TROs in the highway (temporary restrictions on parking/waiting/loading etc, or reduced speed limits).

5.9.5 These mitigation measures will be in place for the duration of the Project and removed at the end of the Project (unless otherwise agreed with the LHA or National Highways and subject always to the Applicant and/or the Main Works Contractor first securing all necessary consents and other approvals required for the permanent retention of those mitigation measures), with land reinstated to its previous condition (as far as is reasonably practical).

5.9.6 Locations of proposed permanent mitigation, such as but not limited to Bentley Road, Ardleigh (Essex), will require a comprehensive investigation of the construction of the carriageway to inform the subsequent detailed design of the works. As noted within the Chapter 14 of the ES (Document Reference 6.14), the illustrative speed reductions for Ardleigh Road and Bentley Road detailed below are additionally in place to help mitigate the noise and vibration impacts from the construction traffic.

5.9.7 Table 5.6 sets out the illustrative traffic management measures associated with the red and orange works detailed above.

Table 5.6 Illustrative mitigation measures (red and orange works)

Name of Road	Traffic Measure Envisaged	Diversion Route	Description	Illustrative Location of TM
Wymondham Road, Norfolk Red Mitigation	Temporary road closure	Flordon Road and B113 Norwich Road	Construction, operation and removal of temporary road widening and/or passing places for two-way HGV construction vehicles.	Access and Rights of Navigation Plans (Document Reference 2.5)
Finningham Road, Suffolk Red Mitigation	Temporary speed limit, temporary traffic signals and/or temporary road closure – to be confirmed with LHA	N/A	Construction, operation and removal of temporary road widening and/or passing places for two-way HGV construction vehicles. Provision of new drainage ditches and relocation or diversion of telegraph poles and overhead cables.	Speed limits are detailed within Schedule 13. Access and Rights of Navigation Plans (Document Reference 2.5)
Thornham Road, Suffolk Red Mitigation	Temporary speed limit, temporary traffic signals and/or temporary road closure – to be confirmed with LHA	N/A	Construction, operation and removal of temporary road widening and/or passing places for two-way HGV construction vehicles. Relocation or diversion of telegraph poles and overhead cables.	Speed limits are detailed within Schedule 13. Access and Rights of Navigation Plans (Document Reference 2.5)
Eastlands Lane, Wickham Road, Stowmarket, Suffolk Red Mitigation	Temporary speed limit, temporary traffic signals and/or temporary road closure – to be confirmed with LHA	N/A	Construction, operation and removal of temporary road widening and/or passing places for two-way HGV construction vehicles along Eastlands Lane. Relocation or diversion of telegraph poles and overhead cables.	Speed limits are detailed within Schedule 13. Access and Rights of Navigation Plans (Document Reference 2.5)
B1113 Lorraine Way/Bullen Lane, Suffolk	Temporary speed limit, temporary traffic signals and/or temporary road	N/A	Construction, operation and removal of temporary road widening and/or	Speed limits are detailed within Schedule 13.

Name of Road	Traffic Measure Envisaged	Diversion Route	Description	Illustrative Location of TM
Red Mitigation	closure – to be confirmed with LHA		passing places for two-way HGVs, mobile crane and AIL. Removal and replacement of hedges and drainage ditches. Relocation or diversion of telegraph poles and overhead cables.	Access and Rights of Navigation Plans (Document Reference 2.5)
A12 Ipswich Road merge taper, Holton St Mary, Suffolk Red Mitigation	Temporary speed limit, temporary lane closure, temporary traffic signals and/or temporary road closure – to be confirmed with LHA and National Highways	N/A	Permanent extension and widening of the A12 merge lane taper at Holton St Mary, including reconstruction of footway facility. Removal and replacement of hedges. Provision of new drainage ditches.	Speed limits are detailed within Schedule 13. Access and Rights of Navigation Plans (Document Reference 2.5)
Church Road and Old Church Road, Mountnessing, Suffolk Red Mitigation	Temporary speed limit, temporary traffic signals and/or temporary road closure – to be confirmed with LHA	N/A	Construction, operation and removal of temporary road widening and/or passing places for two-way HGV construction vehicles along Church Road and Old Church Road, Mountnessing. Provision of new drainage ditches and relocation or diversion of telegraph poles and overhead cables.	Speed limits are detailed within Schedule 13. Access and Rights of Navigation Plans (Document Reference 2.5)
Ardleigh Road, near Little Bromley, Essex Red Mitigation	Temporary speed limit, (permanent to 30mph to Paynes Lane), temporary traffic signals and/or temporary road closure – to be confirmed with LHA	N/A	Construction and operation of new permanent highway road alignment and widening along existing sections of road.	Speed limits are detailed within Schedule 13. Access and Rights of Navigation Plans (Document Reference 2.5)
Bentley Road, Essex	Temporary speed limit at 30mph from Ardleigh Road	N/A	Construction and operation of new permanent road widening including	Speed limits are detailed within Schedule 13.

Name of Road	Traffic Measure Envisaged	Diversion Route	Description	Illustrative Location of TM
Red Mitigation	to Paynes Lane junction, temporary traffic signals and/or temporary road closure – to be confirmed with LHA		new landscaping/grass verges and non-motorised user facilities. Provision of new roadside drainage ditches. Removal of existing trees and hedges. Relocation/diversion of road signs, street furniture, telegraph poles and overhead cables.	Access and Rights of Navigation Plans (Document Reference 2.5)
A120 at Bentley Road, Essex Red Mitigation	Temporary speed limit at 40mph from Paynes Lane junction, and temporary lane narrowing/closure – to be confirmed with LHA and National Highways. Temporary restriction on all eastbound traffic on A120 (northern side) to allow contraflow delivery of AIL transformer turning into Bentley Road from Harwich. AIL to have police escort vehicle(s).	N/A	Construction and operation of new permanent junction widening at A120 off Bentley Road. Extension of A120 merge taper, and reconstruction of footway facility. Relocation of road signs and street furniture. Relocation/diversion of telegraph poles and overhead cables.	Speed limits are detailed within Schedule 13. Access and Rights of Navigation Plans (Document Reference 2.5)
Wick Lane, Essex Red Mitigation	Temporary speed limit, temporary traffic signals and/or temporary road closure – to be confirmed with LHA	N/A	Construction, operation and removal of temporary carriageway widening and/or passing bays to allow for two-way HGV construction vehicles	Speed limits are detailed within Schedule 13. Access and Rights of Navigation Plans (Document Reference 2.5)
Ivy Barns Lane, Essex Red Mitigation	Temporary speed limit, temporary traffic signals and/or temporary road closure – to be confirmed with LHA	N/A	Construction, operation and removal of temporary carriageway widening and/or passing bays to allow for two-way HGV construction vehicles	Speed limits are detailed within Schedule 13.

Name of Road	Traffic Measure Envisaged	Diversion Route	Description	Illustrative Location of TM
				Access and Rights of Navigation Plans (Document Reference 2.5)
B1002 Church Lane, Ingatestone, Essex Red Mitigation	Temporary speed limit, temporary traffic signals – to be confirmed with LHA	N/A	Construction, operation and removal of temporary widening at B1002 junction and section of Church Lane to accommodate construction vehicles (mobile crane and two-way HGV).	Speed limits are detailed within Schedule 13. Access and Rights of Navigation Plans (Document Reference 2.5)
Brentwood Road, Basildon, Essex Red Mitigation	Temporary speed limit, temporary traffic signals – to be confirmed with LHA	N/A	Construction, operation and removal of temporary widening of junction radius off Brentwood Road to facilitate turning movements of construction vehicles (mobile crane and HGV low loader).	Speed limits are detailed within Schedule 13. Access and Rights of Navigation Plans (Document Reference 2.5)
A1071/B1113 Swan Hill Roundabout, Sproughton, Suffolk Orange Mitigation	Temporary traffic signals to remove/replace the two splitter islands at the roundabout. Temporary road closure and/or temporary traffic signals to accommodate contraflow movement of the AIL transformer delivery (also with police escort vehicle(s)).	N/A	Temporary removal of two splitter islands on eastern and northern side approach arms of the roundabout, to allow for AIL transformer delivery. Reconstruct/reinstate the two splitter islands once AIL delivery movements have concluded.	Access and Rights of Navigation Plans (Document Reference 2.5)
Hoford Road, Tilbury, Thurrock Orange Mitigation	Hoford Road is presently closed off to highway traffic, as it provides private means of access to/from a quarry site.	N/A	Construction, operation and maintenance of new permanent road widening and provision of new landscaping areas and non-motorised user cycleway/footway facilities, along	Access and Rights of Navigation Plans (Document Reference 2.5)

Name of Road	Traffic Measure Envisaged	Diversion Route	Description	Illustrative Location of TM
	Temporary pedestrian management required to segregate users of the public footpath(s) from construction plant and delivery vehicles.		Hoford Road from Buckingham Hill Road to the proposed Tilbury North Substation location.	
A1013 Stanford Road, Tilbury, Thurrock Orange Mitigation	Temporary traffic signals to remove/replace the pedestrian refuge island – to be confirmed with LHA. Temporary restrictions to all traffic to accommodate incoming movement and contraflow outbound movement of the AIL vehicle (also with police escort vehicle(s)).	N/A	Temporary removal of central pedestrian refuge traffic island near to the junction of Heath Road, to allow for turning movements of AIL vehicles. Reconstruct/reinstate the pedestrian refuge traffic islands once AIL delivery movements have concluded.	Access and Rights of Navigation Plans (Document Reference 2.5)
Brentwood Road, Chadwell St Mary, Thurrock Orange Mitigation	Temporary traffic signals to remove/replace the pedestrian refuge island – to be confirmed with LHA. Temporary restrictions to all traffic to accommodate incoming movement and contraflow outbound movement of the AIL vehicle (also with police escort vehicle(s)).	N/A	Temporary removal of central traffic island, near to the junction of Welling Road, to allow for the movements of AIL vehicles. Reconstruct/reinstate the pedestrian traffic island once AIL delivery movements have concluded.	Access and Rights of Navigation Plans (Document Reference 2.5)

Institute of Environmental Management and Assessment Mitigation Measures

5.9.8 Additional mitigation measures for the highway have been established in ES Chapter 7: Air Quality (document reference 6.7) and ES Chapter 14: Noise and Vibration (document reference 6.14) as part of the air quality and noise assessments against Institute of Environmental Management and Assessment (IEMA) guidelines. The additional mitigation measures affecting construction vehicles are detailed below. The Transport Coordinator will be responsible for ensuring that these mitigation measures are fulfilled.

Table 5.7 Pedestrian, Cyclists and Horse Riders Severance – Mitigation proposals

Project Section	Location	Issue detected	Standard mitigation	Additional mitigation
Section H	Link PAR 64 - A1013 Stanford Road (east of Orsett Roundabout)	The McDonald's located on the A13 is currently accessed from the north side of A1013 Stanford Road through private land. People cross informally the A1013 Stanford Road away from designated crossings	The driver information pack will include areas with road safety concerns i.e. where pedestrians may be crossing the carriageway away from designated crossing point. Additionally, the construction traffic drivers will be subject to a driving briefing that will set out how to behaviour, specific routes and any potential conflict points.	No
Section H	Link PAR 65 - Buckingham Hill Road	Users of footpaths 41 and 42 are required to cross Buckingham Hill Road. Safety concerns have been raised at this location as currently the road is already heavily used by HGVs.	The driver information pack will include areas with road safety concerns i.e. where pedestrians may be crossing the carriageway away from designated crossing point. Additionally, the construction traffic drivers will be subject to a driving briefing that will set out how to	Ensure adjacent vegetation is maintained to allow visibility.

Project Section	Location	Issue detected	Standard mitigation	Additional mitigation
			behaviour, specific routes and any potential conflict points.	
Section H	Link PAR 66 - Brentwood Road	Safety concerns have been raised at the crossing of pedestrians and cyclists on the approach to Orsett Cock Roundabout	The driver information pack will include areas with road safety concerns i.e. where pedestrians may be crossing the carriageway away from designated crossing point. The drivers delivery pack will include information on cycleways and warnings of routes which could have a higher volume of cyclists. Additionally, the construction traffic drivers will be subject to a driving briefing that will set out how to behaviour, specific routes and any potential conflict points	No
Section H	Thurrock – Hoford Road	Popular route for pedestrians and cyclists connecting to footpaths 45 and 43. Safety concerns at this location as currently a no-through road at Clearserve access. Road will be heavily used by construction traffic accessing Tilbury North construction site via Buckingham Hill Road.	Temporary designated facilities for pedestrians and cyclists along Hoford Road between Tilbury North SAP and Buckingham Hill Road to provide segregation from construction traffic and improve safety. Further details are provided in the Transport Assessment (document reference 7.11), and provided on Section H of the Access, Rights of Way & Public Rights of Navigation Plans alteration plans (document reference 2.5).	No

Table 5.8 Pedestrian, Cyclists and Horse Riders Amenity – Mitigation proposals

Project Section	Location	Issue detected	Embedded mitigation	Additional mitigation
Section A	Link PAR 1 - A140 Ipswich Road	Pedestrians and cyclists at the junction where there is an increase in HGV and total traffic. Although off-carriageway facilities are provided but width reduced by adjacent vegetation. This road does not form part of a designated cycle route and traffic surveys show a low number of cyclists on carriageway. Trip attractors appears limited for WCH.	The driver information pack will identify locations where pedestrians/ cyclists cross the carriageway and appropriate signage provided where necessary	Maintenance of vegetation adjacent to shared footway to increase available width.
Section A	Link PAR 9 - A1066 High Road / A1066 Low Road / A1066 Diss Road /A1066 The Street / A1066 Thetford Road / A1066 Hurth Way / A1066 Mundford Road	The WCH provision is adequate, but there is an uncontrolled crossing for pedestrians and cyclists near the junction of Old Croxton Rd. Number of HGVs per hour would increase by one every four minutes as a result of the Project at this location.	The driver information pack will identify locations where pedestrians/cyclists cross the carriageway.	Warning signs on approach to crossings
Section B	Link PAR 12 - B1113 Finningham Rd / B1113 Walsham Road	The stretch of B1113 between Gislingham Road and Wickham Road has no footway available, where the footpath W-246/013 access from the playground. Therefore, pedestrians may be walking on the road or adjacent verge. Speed limit of 30mph but the signage is hidden behind vegetation.	The driver information pack will identify locations where pedestrians cross the carriageway or could be walking on carriageway from playground	Cut back vegetation and maintain verge to improve visibility to PRoW access and existing advanced warning signage Improve existing signage (height of post/backing boards and/or VMS sign) Notices on PRoW access indicating construction route

Project Section	Location	Issue detected	Embedded mitigation	Additional mitigation
				Surface colouring under SLOW markings
Section B	Link PAR 16 - A1120 Church Road / A1120 Bell's Lane	School route to Stowupland Freeman Primary School with direct access from Church Road. Likely congestion during school pickup/drop off times	Construction traffic to avoid school pickup/drop off times	No
Section C	Link PAR 25 - B1070 Hadleigh Road	Bellmouth access to haul road proposed on the same side of the footway that is used as a school route to schools within East Bergholt. Cycle route at B1070 has no dedicated cycling infrastructure for the cycle users and adjacent footway width is limited by overgrown vegetation.	Crossing facilities for pedestrians at the bellmouth access provided The driver information pack will identify locations where pedestrians/ cyclists cross the carriageway or could be cycling on carriageway	Maintenance of adjacent vegetation along footway to ensure full width is accessible
Section C	Link PAR 27 - Birchwood Road	Users of Birchwood Corner bus stops are not provided with footway or crossing facilities. Although, the number of construction vehicles expected along this section of Birchwood Road towards Wick Lane is expected to be low	The driver information pack will identify locations where pedestrians may be walking to bus stops either on verge or carriageway.	Ensure adjacent vegetation is maintained to keep verge clear. Place signs to warn drivers of upcoming pedestrians in road ahead that may be crossing the carriageway
Section C	Link PAR 28 - Wick Road / Grove Hill	Adequate width for the footway serving mainly residential properties. NCN along Wick Road, however dedicated cycling infrastructure not provided.	The driver information pack will identify NCN location where higher number of cyclists may be on the carriageway.	No

Project Section	Location	Issue detected	Embedded mitigation	Additional mitigation
Section D	Link PAR 36 - A134 Northern Approach Road / A134 Wildeve Avenue / A134 Nayland Road / A134 The Causeway	Potential use of verge by WCH at locations where there are PRoW access points	The driver information pack will identify locations where pedestrians may be walking either on verge or carriageway.	Ensure adjacent vegetation is maintained to keep verge clear. Place signs to warn drivers of upcoming pedestrians in road ahead crossing the carriageway
Section D	Link PAR 37 - A1124 Halsted Rd	Potential use of verge by WCH at locations where there are PRoW access points	The driver information pack will identify locations where pedestrians may be walking either on verge or carriageway.	Ensure adjacent vegetation is maintained to keep verge clear. Place signs to warn drivers of upcoming pedestrians in road ahead crossing the carriageway
Section D	Link PAR 38 - Mill Rd	NCN Route 13 located along this road link with no dedicated cycling infrastructure provided	The driver information pack will identify NCN location where higher number of cyclists may be on the carriageway.	Potential speed limit reduction through this section (from national speed limit 60 mph)
Section E	Link PAR 43 - Spinks Lane / Highfields Road / Spa Road / Flora Road / Faulkbourne Road / Church Hill	Potential use of verge by WCH at locations where there are PRoW access points	The driver information pack will identify locations where pedestrians may be walking either on verge or carriageway.	Ensure adjacent vegetation is maintained to keep verge clear. Place signs to warn drivers of upcoming pedestrians in road ahead crossing the carriageway
Section F	Link PAR 49 - A414 Three Mill Hill / A1114 London Rd	Good WCH provision for pedestrians, accessing from PRoW and to the bus stops but no crossing points present (dual carriageway)	The driver information pack will identify locations where pedestrians may be crossing	Ensure adjacent vegetation is maintained to allow visibility

Project Section	Location	Issue detected	Embedded mitigation	Additional mitigation
Section F	Link PAR 51 - A1060 Rainsford Rd / A1060 Roxwell Rd	No footway or path to access the bus stop Reeds Farm	The driver information pack will identify locations where pedestrians may be walking on verge	Ensure adjacent vegetation is maintained to allow visibility
Section G	Link PAR 54 - B1002 Main Road	Potential presence of horse-riders on the carriageway. School route in Margaretting	Within CTMP – Driver's pack will identify locations where horse-riders may be on the carriageway. Avoid construction traffic at the start and end times of school	No
Section H	Link PAR 67 - A1013 Stanford Road (west of Orsett Roundabout)	Cyclists on the shared use footway are required to join the carriageway at the A1013 Stanford Rd overbridge over A1089	The driver information pack will identify NCN location and warning of off carriageway section over bridge where higher number of cyclists may be on the carriageway. Allow cyclists on the footway during construction period	No
Section H	Link PAR 68 - Heath Road	Heath Road used as route to school between the bus stops at A1013 Stanford Road and schools located in Chadwell St. Mary. Adequate WCH provision. The primary access route at this location is for a short section and the bellmouth access is located on the opposite side of the footway, on the east side	The driver information pack will identify school routes	No

Table 5.9 Road Safety Mitigation Proposals

Project Section	Location	Issue detected	Embedded mitigation	Additional mitigation
Section H	Link PAR 71 – Muckingford Road	Three collisions occur along a section of road less than 100 meters (2 serious and 1 slight). The accidents occurred in the section between Hoford Road and High House Lane with no lighting and all with good weather conditions. In two of the accidents the vehicles skidded with a dry road surface. Therefore, this section could be a potential hotspot for collisions	The driver information pack will include areas with road safety concerns Additionally, the construction traffic drivers will be subject to a driving briefing that will set out how to behaviour, specific routes and any potential conflict points.	No

Junction Capacity Mitigation Measures

5.9.9 Section 6 of the Transport Assessment (Document Number 7.11) outlines the approach to assessing the impact of background traffic growth plus committed development plus Project construction flows during the AM and PM peak. As a result of this assessment a number of junctions have been identified for requiring further mitigation during the construction period – these are listed in Table 5.10. The Main Works Contractor(s) will be responsible for ensuring these measures are enforced.

5.9.10 Table 5.10 also includes junctions on the highway network where temporary or permanent mitigation has not been identified due to the anticipated limited impact of the Project construction traffic. For these junctions, the Main Works Contractor(s) will develop a monitoring and mitigation framework which will include the proposed details of monitoring of the junctions and additional temporary and proportionate mitigation measures to be implemented during construction, where defined criteria (trigger points) are met or are predicted to be met, including re-timing vehicles away from peak hours, shared mobility (transport), additional traffic management and signage, and signal optimisation. This framework will be agreed with the relevant Local Highway Authority or National Highways in relation to SRN junctions, and will be included within the final CTMP. To support the framework, additional proportionate measures may be discussed with the relevant Local Highway Authority, to explore suitable mitigation.

5.9.11 The locations that require further mitigation measures are detailed below:

Table 5.10 Proposed Junction Capacity Mitigation Measures

Project Section	Region	Site No.	Junction	Junction Type	Mitigation Measures*
Section A	Norfolk	Site 1	A47 Norwich Southern Bypass/ A140 Ipswich Rd	Priority Roundabout	Temporary signage to warn general traffic of peak hour congestion
Section C	Suffolk	Site 29	A14 J55 Copdock Interchange	Signalised roundabout	Change to lane and destination arrow markings on the A1214 and A12 approaches to the roundabout, and on the circulatory carriageway
	Essex	Site 39	A120 Harwich Road / Bentley Road	Priority junction	Widening of junction bellmouth and lengthening of merge taper onto A120 NB mainline
Section D	Essex	Site 38	A120 Ardleigh Crown Interchange	Partially Signalised Roundabout	Mitigation to be discussed and agreed with the LHA and National Highways and any necessary mitigation to be included in the final CTMP.

Project Section	Region	Site No.	Junction	Junction Type	Mitigation Measures*
	Essex	Site 46	A12 Eight Ash Green Interchange	Signalised Roundabout	Signal Optimisation
	Essex	Site 47	A120 Coggeshall Road / Great Tey Road	Priority T-junction	Mitigation to be discussed and agreed with the LHA and National Highways and any necessary mitigation to be included in the final CTMP.
Section E	Essex	Site 48	A120 / Long Green / B1018 / Cressing Road (Galleys Corner) and A120 / A131 / B1256 (Marks Farm) roundabout	Priority Roundabout	Mitigation to be discussed and agreed with the LHA and National Highways and any necessary mitigation to be included in the final CTMP.
Section F	Essex	Site 58	A131 Great Notley Bypass/ Main Road	Priority Roundabout	Mitigation, to be discussed and agreed with the LHA, is expected to consist in retiming of construction vehicle movements outside the AM peak period during peak construction activity.
Section F	Essex	Site 63	A414 Three Mile Hill / A1114 London Road	Priority Roundabout	Mitigation, to be discussed and agreed with the LHA, is expected to consist in retiming of construction vehicle movements outside the AM peak period during peak construction activity.
Section G	Essex	Site 73	A127 Southend Arterial Rd / A176 Noak Hill Rd	Priority Roundabout	Monitor operation of junction
	Thurrock	Site 90	M25 J30	Signalised Roundabout	Signal Optimisation
Section A	Norfolk	Site 2	A140 Ipswich Road / Mangreen Lane	Priority T-junction	Construction vehicles to avoid AM Peak hour
	Norfolk	Site 3	B1113/ Wymondham Road	Priority T-junction	40mph proposed as part of highway mitigation works to reduce speed on approach to junction Monitor operation of junction

Project Section	Region	Site No.	Junction	Junction Type	Mitigation Measures*
	Norfolk	Site 6	A1066 Victoria Road / B1077 Stunston Road	Priority T-junction	Construction HGV traffic to avoid going through Diss during the following peak times (07:00-10:00 and 15:00-19:00). Between the hours of 10:00 and 15:00, construction HGV traffic is to be split 50/50 through Diss and Thetford
	Norfolk	Site 7	A1066 Victoria Rd / Tesco access	Priority Roundabout	Construction HGV traffic to avoid going through Diss during the following peak times (07:00-10:00 and 15:00-19:00). Between the hours of 10:00 and 15:00, HGV traffic is to be split 50/50 through Diss and Thetford
	Norfolk	Site 8	A1066 Victoria Rd / Morrisons access	Priority Roundabout	Construction HGV traffic to avoid going through Diss during the following peak times (07:00-10:00 and 15:00-19:00). Between the hours of 10:00 and 15:00, HGV traffic is to be split 50/50 through Diss and Thetford
	Norfolk	Site 9	A1066 Park Rd / Denmark St	Roundabout	Construction HGV traffic to avoid going through Diss during the following peak times (07:00-10:00 and 15:00-19:00). Between the hours of 10:00 and 15:00, HGV traffic is to be split 50/50 through Diss and Thetford
	Norfolk	Site 10	A1066 Park Rd / Denmark St	Priority Crossroad	Construction HGV traffic to avoid going through Diss during the following peak times (07:00-10:00 and 15:00-19:00). Between the hours of 10:00 and 15:00, HGV traffic is to

Project Section	Region	Site No.	Junction	Junction Type	Mitigation Measures*
					be split 50/50 through Diss and Thetford
	Norfolk	Site 13	A1066 Mundford Road / Wyatt Way	Priority Roundabout	Construction HGV traffic to avoid going through Diss during the following peak times (07:00-10:00 and 15:00-19:00). Between the hours of 10:00 and 15:00, HGV traffic is to be split 50/50 through Diss and Thetford
	Norfolk	Site 14	A1066 Mundford Road / A1075 Norwich Road	Priority Roundabout	100% of construction traffic to use the junction during peak hours.
	Norfolk	Site 15	A1066 Hurth Way / A1066 Thetford Road	Priority Roundabout	Outside of peak times construction traffic is to be split 50/50 through Diss and Thetford
	Suffolk	Site 22	A1120 Church Rd / B1115 Stowmarket Rd	Priority T-junction	Construction traffic to avoid AM and PM peak hours and avoid school pick-up and drop off periods
	Suffolk	Site 25	A1120 / B1113 Needham Rd	Signalised roundabout	Signal optimisation
	Suffolk	Site 27	B1113 Bramford Rd / Bramford Rd	Partially signalised Junction	Signal optimisation
Section C	Suffolk	Site 30	A1214 London Rd / Scrivener Dr	Partially Signalised Roundabout	Signal optimisation
	Suffolk	Site 31	A1214 London Rd / A1071	Signalised T-Junction	Rationalise Intergreens, add phase delays and signal optimisation
	Suffolk	Site 32	A1071 / B1113 Swan Hill	Priority Roundabout	Rationalise Intergreens and add phase delays and signal optimisation
	Suffolk	Site 35	A140/Workhouse Road/Stoke Road ('Stoke Ash crossroads')	Priority Crossroads	Monitor operation of the junction

Project Section	Region	Site No.	Junction	Junction Type	Mitigation Measures*
	Essex	Site 42	A1341 Via Urbis Romanae / Olympic Boulevard	Signalised Junction	Update to intergreens and phase delays and optimise signal timings
	Essex	Site 43	A1341 Via Urbis Romanae / Whitmore Drive	Signalised Junction	Update to intergreens and phase delays and optimise signal timings
	Essex	Site 44	A1341 Via Urbis Romanae / A134 Northern Approach Road	Signalised Junction	Update to intergreens and phase delays and optimise signal timings
Section E	Essex	Site 50	B1389 Hatfield Road / Spinks Lane	Signalised Crossroads	Signal optimisation
Section F	Essex	Site 58	A131 Great Notley Bypass / Main Road	Priority Roundabout	Temporary signage to be provided to warn general traffic of peak hour congestion and availability of alternative routes
	Essex	Site 59	A131 Braintree Rd/ B1008 Essex Regiment Way	Priority Roundabout	Temporary signage to be provided to warn general traffic of peak hour congestion and availability of alternative routes
	Essex	Site 63	A414 Three Mile Hill / A1114 London Rd	Priority Roundabout	Temporary signage to be provided to warn general traffic of peak hour congestion and availability of alternative routes
	Essex	Site 64	A1114 London Rd / A1016 Westway	Roundabout	Temporary signage to be provided to warn general traffic of peak hour congestion and availability of alternative routes
	Essex	Site 65	A1016 Westway / Writtle Rd	Signalised Crossroads	Signal and cycle time optimisation
	Essex	Site 68	A1016 Waterhouse Ln / A1060 Rainsford Rd	Signalised	Signal Optimisation
	Essex	Site 69	A1060 Roxwell Rd / Lordship Rd	Priority Roundabout	Monitor operation of the junction

Project Section	Region	Site No.	Junction	Junction Type	Mitigation Measures*
	Essex	Site 70	A1060 Rainsford Rd / Park Avenue	Signalised	Signal optimisation
	Essex	Site 71	A414 Greenbury Way / Highwood Road	Roundabout	Monitor operation of the junction
Section G	Essex	Site 74	A176 Noak Hill Road / Wash Road	Priority T-junction	Monitor operation of the junction
	Essex	Site 81	A129 London Rd / Western Rd	Signalised Crossroads	Signal optimisation
	Essex	Site 82	A129 London Rd / Mountnessing Rd	Priority T-junction	Monitor operation of the junction
Section H	Thurrock	Site 85	A1013 Stanford Road / Buckingham Hill Road	Signalised T-junction	Signal optimisation

** The wording "Monitor operation of the junction" is used for junctions where mitigation measures are to be developed as part of the monitoring and mitigation framework.*

5.10 Blue Light Services

5.10.1 The police, fire and ambulance services (referred to as 'blue light services') will be given written notice of:

- Planned temporary lane or road closures
- AIL deliveries and kept fully informed throughout the delivery period (through the ESDAL system described in Paragraph 5.3.8).

5.10.2 Engagement on any police escorts required to support the delivery of the AILs would be undertaken as early as practicable, due to the limited specialist resource to support AIL movements.

5.10.3 It is anticipated that the Main Works Contractor(s) will develop an Incident Management Plan in agreement with the blue light services to develop a procedure for any incidents on the road network proposed to be utilised by the Project.

5.10.4 National Grid will, following the grant of development consent, establish and maintain a **Transport, Community Safety and Cohesion Working Group** for the duration of the construction phase of the Project. The purpose of the working group shall be to facilitate ongoing engagement with the relevant police forces and other emergency services in relation to Abnormal Indivisible Load (AIL) movements, traffic management measures, road closures, diversions, speed management, traffic-related incidents, and matters relating to community safety and community cohesion arising during the construction of the Project.

5.10.5 When establishing the Transport, Community Safety and Cohesion Working Group, National Grid will consult with the relevant police forces and other emergency

services, including agreement on the working group's remit, terms of reference and start date; membership, voting and attendance arrangements; and meeting frequency.

5.10.6 As per commitment GG40 in the Outline CoCP, National Grid and the Main Works Contractor(s) will prepare before commencement of development and as an appendix to the Final CoCP, an **Incident Response and Management Plan** to include construction phase incident management and community impacts such as protest related activity, wilful obstruction of the highway and road traffic collisions.

5.10.7 National Grid will also, following the grant of development consent, establish and maintain a **Security Partnership Working Group** to facilitate engagement with the relevant police forces and other emergency services on matters relating to construction site security and crime prevention during the construction of the Norwich to Tilbury Project.

5.10.8 When establishing the **Security Partnership Working Group**, National Grid will consult with the relevant police forces and other emergency services, including agreement on the working group's remit, terms of reference and start date; membership, voting and attendance arrangements; and meeting frequency.

5.10.9 Following consultation in accordance with paragraphs 5.10.5 and 5.10.8, National Grid will establish and maintain the Transport, Community Safety and Cohesion Working Group and Security Partnership Working Group having due regard to all requirements and requests set out by the police forces and emergency services during the consultation process. National Grid must keep a written account of how any such representations have been taken into account.

5.11 Bus Stops and Routes

5.11.1 Where a bus stop is required to be closed during construction, it be will relocated through discussions with the relevant highway authority and the bus operators. A temporary bus stop will be provided, where a suitable location can be identified.

5.12 Pedestrians and Other Road Users

5.12.1 Local communities will be informed during the construction phase through letter drops/emails and local signage. Information on the impact will be shared with Parish Councils. Mitigation measures will be developed to manage the impact on pedestrians and other road users throughout construction, based on the number and type of construction vehicles using the route and users of the public highway. This may involve providing signage to advise of alternative footways and cycleways that can be used during construction (as far as is practical). A PRoW Management Plan (PRoWMP) has been developed to provide information on the temporary diversions and closures that could be employed by the Main Works Contractor(s) to manage the impact on users of the PRoW and to maintain public safety during the construction phase. The PRoW management strategy is detailed in the Outline Public Rights of Way Management Plan (document reference 7.6).

5.12.2 The designs associated with the permanent stopping up and diversion of PRoWs will be discussed and agreed with the relevant LHA.

5.13 Staff Travel

5.13.1 In accordance with good practice measures in the Outline CoCP (document reference 7.2), an Outline Construction Worker Travel Plan has been developed (Appendix B of this Outline CTMP). This sets out the good practice measures that should be in place to encourage sustainable transportation for the workforce, in a way which reduces both environmental and social impacts on the local area.

5.13.2 When the travel patterns of construction workers is understood, the Main Works Contractor(s) and Travel Plan Coordinator will explore the feasibility of a mini-bus to site, including a review of whether one could be provided from public transport hubs (such as railway stations).

6. Implementation

6.1 Implementation of the CTMP

6.1.1 National Grid will put in place robust procedures to inform and supervise all personnel working on the Project. This includes contractual requirements on the Main Works Contractor(s), to ensure control measures set out within the CTMP are adopted when undertaking the construction of works authorised by the DCO. The Main Works Contractor(s) will be responsible for implementing these control measures.

6.1.2 The Main Works Contractor(s) would be responsible for briefing all operatives on the specific details within the CTMP prior to the commencement of works. The briefings should be delivered by a suitably trained member of the team, such as the site supervisor, Construction Manager, Transport Coordinator or Environmental Manager.

6.2 Site Checks and Reporting

6.2.1 The Main Works Contractor(s) will undertake pre-site condition surveys as part of the site set up, as described in Section 5.2. This should include making a record of the condition of existing features such as public highways, tracks and PRoWs, including location of each feature. Post-site condition surveys should be undertaken after construction, and the results of these and any remedial works will be discussed and agreed with the landowner and, where applicable, the relevant highway authorities, prior to handover.

6.2.2 Regular site checks are required to be carried out across the Project to monitor compliance with the CTMP. The programme of site inspections will be controlled by the Transport Coordinator who will draw on appropriate suitable experience specialists for specific tasks. The overarching inspections are summarised below in Table 6.1. Appropriate action will be taken should any incidents of non-conformance with the CTMP be found during inspection.

6.2.3 Site checks and inspections will include checks against compliance with measures detailed in the Outline CoCP (document reference 7.2) and other commitments made by the Project. These site checks are anticipated to only be completed on active working areas.

6.2.4 Provisions relating to extraordinary traffic are contained within the Protective Provisions for the Protection of the Highway Authorities within Schedule 13 of the DCO. Paragraph 12 of Schedule 13 sets out a mechanism for reimbursement of any extraordinary expense incurred by the relevant highway authority as a consequence of extraordinary traffic associated with the Project.

6.2.5 The carrying out of emergency call outs and works by the relevant highway authority is detailed within the Protective Provisions for the Protection of the Highway Authorities, within Schedule 13 of the DCO. Paragraph 13 sets out the mechanism for emergency call outs and repairs on the highway and says that the highway authority may recover any expenditure it reasonably incurs in so doing .

Table 6.1 Site checks relevant to the CTMP

Inspection Type	Purpose	Who	Frequency
Environmental inspections	To monitor compliance with Project commitments and the environmental standards. To monitor adherence to good practice commitments and raise actions where concerns are identified. To check mitigation measures for sensitive features are in place.	EnvCoW	Weekly
Site checks	To ensure that working practices are carried out in accordance with approved methods, standards and good practice commitments. These should also check compliance with requirements agreed in any applicable permit.	Works Supervisors	Daily visual check in working area
Environmental observations	Allows all staff to raise concerns or good practice ideas to safeguard continual improvement and innovation.	All staff	As required
Monitoring of vehicles and road network	Checking signage is in place. Monitoring of vehicle condition and use of agreed construction routes. Monitoring of construction HGV movements	Transport Coordinators	Weekly
Monitoring of PRoW routes	Checking signage is in place and checking condition of PRoW within the Order Limits. Checking compliance with the PRoWMP (Document Reference 7.6).	EnvCoW(s)	Daily visual check in working area.

6.2.6 The results of inspections are required to be recorded in an Environmental Log for environmental checks, in accordance with the Outline CoCP (document reference 7.2), with transport monitoring included within a separate transport log. Findings should be disseminated to the wider construction team as appropriate and additional procedures put in place if required. Should incidents of non-conformance be reported, then finding should be shared with the relevant LHA on a quarterly basis.

6.2.7 The Main Works Contractor(s) should implement a monitoring and reporting system to check compliance with the measures set out within the CTMP. This may include the need for a GPS tracking system to be fitted to HGVs owned and operated by the Main Works Contractor(s) to check for compliance with authorised construction routes. Automatic Number Plate Recognition may also be utilised for monitoring compliance, however these can be difficult to implement across all vehicles for the Project.

6.2.8 The Main Works Contractor(s) will also be expected to monitor the number of construction vehicles using the PARs between the sites and the SRN/MRN. The monitoring of LGV and car usage, for information such as car parking, occupancy rates and timings are detailed within the Outline CWTP (Appendix B).

6.2.9 The Main Works Contractor(s) will develop a quarterly report to collate key transport parameters and issue to the relevant Local Highway Authorities and National Highways. It is expected that this quarterly report will include details on:

- HGV numbers and distribution
- Any incidents of exceedance of assessed volumes
- Any incidents of non-compliance with routing or vehicle timing
- Compliance with key mitigations (this will be interpreted from the booking system, when deliveries are scheduled to arrive to site)

Site Vehicle Movements to Site

6.2.10 It is proposed that the Main Works Contractor(s) and National Grid prepare documentation to implement the strategies set out in Section 5.4 to manage construction related movements to and from site. This may include the following:

- Implement a delivery management system
- Implement a Construction Employee Management Plan
- Implement a Construction Logistics Plan

Routeing Adherence

6.2.11 All delivery contractors and construction staff will be instructed to use the agreed construction access routes, complying with the agreed final CTMP for each work area. A number of measures will be implemented to ensure compliance with routeing:

- Construction access routes will have temporary signs posted along the proposed routes to site access prior to the commencement of construction activities, with the specification and location of signage to be agreed with the LHA. Where multiple access points use a common road to site, signage will be clearly distinguishable between access points (more information on signage is detailed in Section 5.4)
- Signage will also be placed at the exits of site access points to instruct construction traffic to follow the designated route
- The delivery routes and timings would be communicated by the Main Works Contractor(s) to all companies and/or drivers involved in the transport of materials and plant to and from site by HGV construction vehicles
- An ‘identifier’ would be placed within the window of all delivery vehicles to enable residents to identify if an HGV is engaged on work on the Project. This identifier would be submitted to and approved by the relevant highway authorities as part of the final CTMP
- Monitoring data would be collected from HGVs that are fitted with monitoring devices (such as GPS tracking), including the routes taken, timing and speed of vehicles when making deliveries. This data could be used for auditing and complaint investigation. The Main Works Contractor(s) would be required to ensure a high proportion of HGVs are fitted with GPS so that route compliance can be checked
- The registration numbers for all HGVs making deliveries would be recorded. Alongside the HGV monitoring device data (where fitted) outlined above, this would allow a check of any reported breaches of the agreed delivery routes and enforcement action to be undertaken if required.

Site Safety

6.2.12 The Main Works Contractor(s) will set out their methods for mitigating, recording and monitoring the following safety related issues:

- Record of all accidents
- Modes of transport staff use to travel to site
- Vehicles and operations not meeting safety requirements
- Description of the Main Works Contractor(s) handbook
- Description of the driver information pack.

Driver Information Pack

6.2.13 The driver information pack will be specific to each PAR, to allow targeted information and detailed mitigation measures to be highlighted to the HGV drivers.

6.2.14 The Main Works Contractor(s) will undertake the following to ensure that the information in the final driver's information pack will be effective:

- During tender phases, all supply chain members will receive a copy of the Logistics Direction for the Supply Chain
- During onboarding, supply chain members will have to confirm their adherence to the standard, and attend a logistics specific briefing, which covers the rules, sensitivities, and consequences (for the Project and them) of non-compliance.
- Concurrently, a briefing pack will be provided for all supply chain members so they can brief their drivers.
- Every PAR will have its own driver information pack. This will outline route to site (to accompany the Vehicle Management Booking System Driver App), and all the rules specific to the site they will be visiting – speed limits, height restrictions, safety areas, etc.)
- When the is evidence that drivers are readily failing to follow the rules, they will be 'invited' to attend a training session, and assessment. Failure to attend, or pass the assessment, and the driver will not be permitted back on the Project.
- Quarterly supply chain logistics forums will also be held, to discuss change, issues (and ways of working together to resolve them), incidents, and good practice.
- Where there is specific information that needs to be provided to a driver on an ad-hoc basis, information will be provided at the site access point.
- The Main Works Contractor(s) will monitor HGVs that it owns and operates to check for parking in inappropriate specific locations along or adjacent to a PAR and take corrective action.

6.2.15 The driver information pack will be issued to each driver prior to them commencing work and will include:

- Details of road safety concerns for the PARs (e.g. locations where pedestrians may be crossing the carriageway). This will be supported by additional signage and vegetation clearance in appropriate locations warning pedestrians of additional vehicles (locations detailed in this document and the Transport Assessment (document reference 7.11).

- Details of locations where pedestrians could be walking/cycling on the carriageway. This will be supported by additional mitigations at appropriate locations including cutting back the vegetation and maintaining the verges to improve visibility with additional signage and notices on the route.
- Details of school routes, where an increase in pedestrians may be noted. This is supported, where deemed necessary, through the re-timing of construction vehicles outside school pick up and drop off times.
- Clarification of HGV routes. This will be supported by the delivery management booking system and use of the identifier in the vehicle window.
- Speed limit requirements. This will be supported by additional signage on the route and on site for the observed speed limits that the drivers are legally bound to adhere to.
- Details of reporting accidents and near misses. This is expected to be undertaken by the Transport Coordinator as part of site checks.
- Details of the types of locations it would not be appropriate to park on the local highway network. The Outline CTMP details that HGV drivers parking or waiting on the highway in inappropriate locations which could result in highway issues is a matter of non-compliance.
- Details of appropriate lorry parks, services and other designated overnight parking locations; include information in general on inappropriate locations for waiting or parking; and identify specific locations along or adjacent to a PAR identified as part of the drive through survey of PARs, where it would not be appropriate to stop/park.
- Details on any restrictions on delivery hours. This will have the additional mitigation from the booking system/delivery management system which will not schedule deliveries to site outside the agreed delivery hours.
- Details of HGV safety standards. This will be additionally mitigated by commitment GG19 in the Code of Construction Practice (document reference 7.2).
- Details of disciplinary measures for non-compliance. This will additionally be supported by the role of the Transport Coordinator whose responsibility is to ensure compliance with the CTMP and escalate all incidents of non-compliance through the non-compliance procedure detailed in Section 6.3.
- Information on sensitive locations in the local area, such as hospitals, care homes and schools. Where the assessment highlighted mitigation could be required at these locations, additional mitigation, above the driver information pack, has been detailed for the appropriate locations.
- A copy of the identifier to display in the vehicle window.

6.2.16 The driver information pack will be issued to each driver that is making regular and consistent deliveries, prior to them arriving on site. The Main Works Contactor(s) will be responsible for briefing all operatives on the specific details within the CTMP, prior to the commencement of works.

6.2.17 The driver information pack will be monitored and controlled by the Main Works Contractor(s). The Main Works Contactor(s) will implement an audit system, tracking the receipt of the Driver Information Pack. The Main Works Contractor(s) will

maintain a ‘read and understood’ record for those that have been sent the driver information pack, to ensure that all construction drivers have seen, read, understood the details and have been briefed on process and procedures for delivery to ensure the desired mitigation effects will be seen. Monitoring to ensure that a driver has read/acknowledged the driver information pack will be undertaken when the driver information pack is issued to a driver and then quarterly, in line with the monitoring and reporting schedule.

6.2.18 The Main Works Contractor(s) will use reasonable endeavours to ensure that the driver information pack is issued to all drivers. In practice, it is not feasible or practicable to ensure every driver, including those making one-off deliveries to site, will read and acknowledge the driver information pack. This is the case when the deliveries are scheduled not from the main material source locations. Where appropriate, additional mitigation has been included to provide assurance that drivers and pedestrians will be made aware of the hotspot locations. The driver information pack will be supplemented by additional mitigation for pedestrian and equestrian safety and safety near schools identified within this document (Table 5.7, Table 5.8 and Table 5.9), the Transport Assessment (document reference 7.11) and the Environmental Statement Chapter 16 - Traffic and Transport (document reference 6.16).

6.2.19 The driver information pack will be updated (if required) on a quarterly basis (or sooner, should this be necessary), following the reporting and monitoring cycle, where additional revisions or updates to mitigation are required.

6.3 Non-Compliance Procedure

6.3.1 The EnvCoW(s) and Transport Coordinators will generally be responsible for undertaking site audits to check compliance with the CTMP. All incidents associated with the construction of the Project, including environmental incidents and non-conformance with the CTMP, will be reported by the EnvCoW(s) and Transport Coordinators. Where needed, corrective actions will be consulted with the relevant highway authority, police force and/or community members (which could include Parish Councils) prior to implementation.

6.3.2 National Grid will take all reasonable steps to avoid any breach of the CTMP through the implementation of the management measures. However, should any breaches occur, then enforcement procedures will be followed:

- Stage One: The Transport Co-ordinator will notify National Grid of any breaches of the CTMP arrangements as and when they occur, or the relevant highway authority confirms a breach and requests the Transport Co-ordinator to review the data and concerns. The relevant highway authority and the Transport Co-ordinator would then agree the extent of the breach of controls, and agree action, which is likely to be a contractor warning at this stage.
- Stage Two: If a further material breach is identified, National Grid will issue a warning letter to the relevant contractor outlining what action would be taken in the event of any further non-compliance (in general terms). The contractor will then be required to produce an action plan to outline how the issue would be rectified and any additional mitigation measures proposed.
- Stage Three: Should further breaches continue to occur the contractor would be required to remove the offender from site and the contractor/ supplier would

receive a formal warning. Any continued breaches by individuals of the supplier/ contractor may be dealt with by the formal dispute procedures of the contract.

6.3.3 Where a corrective action is identified, the LHA will be informed, including National Highways.

6.3.4 Further detail on the sanctions which could be applied will be included within the final Construction Traffic Management Plan.

6.3.5 Data recorded from the non-compliance procedure above will be collated on a quarterly basis by National Grid and the Main Works Contractor(s) and will be issued out to the relevant parties, including LHAs, National Highways and Police Forces.

6.4 Enforcement

6.4.1 To ensure that the final CTMP is effectively enforced, the following matters have been defined as non-compliance that would be investigated to understand if corrective measures would be required:

- Failure to display the unique identifier, or to remove the unique identifier when not making deliveries to the Project
- Construction workers overspill parking on the public highway
- Construction traffic (including workers) operating outside the agreed hours
- HGV drivers not adhering to the agreed routes without reasonable excuse
- HGV drivers parking or waiting on the highway in inappropriate locations, which could result in highway safety issues.
- Construction HGV movements above those included within the Transport Assessment (document reference 7.11) and the Environmental Statement Appendix 16.4 - Traffic and Transport Construction Effects (document reference 6.16.A4) to be reported within the three-month look ahead

6.4.2 On receipt of a report of potential non-compliance, the EnvCoW(s) and Transport Coordinator would follow the procedure noted in Section 6.3.

6.5 Community Liaison

6.5.1 In accordance with mitigation measure GG30 in the Outline CoCP (document reference 7.2), members of the community and local businesses will be kept informed regularly of the works through active community liaison. This will include notification of heavy traffic periods. A contact number will be provided which members of the public can use to raise any concerns or complaints about the Project. All construction-related complaints will be logged by the Main Works Contractor(s) in a complaints register, together with a record of the responses given and actions taken.

6.5.2 The specific requirements for works in highways will be in accordance with the Permit Schemes, which will set out the communications expectations for road works. The Project will adhere to these principles, the permit requirements and any resulting traffic diversions will be shown on the relevant county council online traffic map. Communication will include sending letters/emails to residents that detail the extent

of the works and, for example, any implications on parking arrangements. Details of where traffic management is in place is also anticipated to be available on the Project website.

6.5.3 The Community Liaison Officer will engage with key stakeholders and the local community to keep informed of any planned community events, so the Project can avoid these wherever practicable when scheduling any construction activities that may cause disruption and AIL deliveries.

6.6 Coordination with Other Developments/Events

6.6.1 National Grid will ensure liaison takes place by the Main Works Contractor(s) with LHAs and National Highways and other developments, including but not limited to North Falls and Five Estuaries Offshore Wind Farm and LTC, to ensure a coordinated approach to construction traffic management. Additionally, this liaison by the Main Works Contractor(s) should occur for significant local events within the area of the construction project, such as the Tendring Show.

Developer's Forum

6.6.2 National Grid has committed to join and engage with a Developer's Forum to be set up by Essex County Council, subject to agreeing suitable terms of reference, to continue and formalise project coordination. National Grid envisages that when the build programmes are available from the Main Works Contractor(s) these will be brought to the Developer's Forum and discussed with the Final Construction Traffic Management Plan developed. National Grid will engage with other Forums set up and managed by other Local Highway Authorities or National Highways, where appropriate.

- The Developer's Forum would be a regular monthly online meeting beginning as soon as the DCO is granted. It would be chaired by ECC with key members of the other NSIP Teams invited as well as other Strategic Site Teams, alongside relevant members of the Local Highway Authority and Planning Authority
- The Forum would be attended by National Grid as scheme promoter alongside their Main Works Contractor(s) constructing the scheme
- At critical times where programmes overlap National Grid and the Main Works Contractor(s) may be required to attend more regular weekly or bi-weekly meetings for urgent discussions on collaboration
- National Grid and the Main Works Contractor(s) will seek to respond flexibly to changing conditions identified through the Developer's Forum, subject to compliance with the DCO and National Grid's contractual and Transmission Licence Obligations.

6.7 Complaints Procedure

6.7.1 The complaints procedure for the Project is outlined within section 2 of **7.2 Code of Construction Practice Appendix E: Community Engagement and Public Information [APP-305].**

6.8 Change Process

Introduction

6.8.1 The CTMP is one of the plans listed in sub-paragraph (2) of Requirement 4(1) in the draft DCO (application document 3.1) which states *'All construction works forming part of the authorised development must be carried out in accordance with the plans listed in sub-paragraph (2) below, unless otherwise agreed with the relevant planning authority or other discharging authority as may be appropriate to the relevant plan concerned, and in case of the CTMP, the relevant highway authority.'*

6.8.2 Requirement 1(4) of the draft DCO (application document 3.1) states: *'Where an approval or agreement is required under the terms of any Requirement or a document referred to in a Requirement, or any Requirement specifies "unless otherwise approved" or "unless otherwise agreed" by the relevant highway authority or the relevant planning authority such as approval or agreement may only be given in relation to minor or immaterial changes and where it has been demonstrated to the satisfaction of the relevant highway authority to the relevant planning authority that the subject matter of the approval or agreement sought will not give rise to any materially new or materially different environmental effects from those assessed within the Environmental Statement.'*

6.8.3 Where there is a need to update the CTMP beyond derogations addressed pursuant to the above, the below text addresses the process for changing the CTMP itself. This does not cover changes to the DCO (material or non-material) which would be managed through the process set out in Schedule 6 of the Planning Act 2008.

6.8.4 Therefore, the below process is limited to changes to the CTMP.

CTMP Changes

6.8.5 It may be necessary to amend the details contained in the CTMP as a result of the iterative discussion and engagement that will continue after the CTMP has been approved. The resulting changes would not alter any of the underlying commitments, mitigations and methodologies set out in the CTMP. An example may be where a pre-construction survey identifies a measure already committed to is no longer required in the CTMP. In every case, consideration will be given to any changes to the outcome of the assessment of environmental effects.

6.8.6 Where there is a proposed change to the CTMP, National Grid will provide details to the relevant highway authority together with evidence of relevant stakeholder engagement, where upon, the relevant highway authority will, acting reasonably, endeavour to respond within 28 days to either confirm its consent to the change to the CTMP or provide its reasons why the change is not accepted. National Grid will also publish any amended version of the CTMP on the project website and will make clear in doing so that any previous version(s) are superseded.

Abbreviations

Abbreviation	Full Reference
CoCP	Code of Construction Practice
CSE	Cable Sealing End
CTMP	Construction Traffic Management Plan
CWTP	Construction Worker Travel Plan
DCO	Development Consent Order
EACN	East Anglia Connection Node
ES	Environmental Statement
IEMA	Institute of Environmental Management and Assessment
LHA	Local Highway Authority
LTC	Lower Thames Crossing
NGET	National Grid Electricity Transmission plc (herein referred to as 'National Grid')
NSIP	Nationally Significant Infrastructure Project
NtT	Norwich to Tilbury (referred to as 'the Project')
PARs	Primary Access Routes
PRoW	Public Rights of Way
PRoWMP	Public Rights of Way Management Plan
TROs	Traffic Regulation Orders
TTROs	Temporary Traffic Regulation Orders

Glossary

Term	Description
Abnormal Indivisible Load (AiL)	A large load which cannot 'without undue expense or risk of damage' be divided into two or more smaller loads for the purposes of being transported by road, and which exceeds limits set out in terms of weight (>44 tonnes), length (>18.65 m), and width (>2.9 m).
Heavy Goods Vehicle (HGV)	A large load which cannot 'without undue expense or risk of damage' be divided into two or more smaller loads for the purposes of being transported by road, and which exceeds limits set out in terms of weight (>44 tonnes), length (>18.65 m), and width (>2.9 m).
Local road network (LRN)	Comprising the local roads managed by relevant LHA
Main Works Contractor(s)	The contractor appointed by the client to plan, manage, monitor, and coordinate the construction phase of a project involving multiple contractors. They are responsible for ensuring that construction work is carried out safely, efficiently, and in compliance with legal and regulatory requirements. This includes preparing the Construction Phase Plan, coordinating health and safety measures, and liaising with the Principal Designer and other stakeholders throughout the project
Strategic road network (SRN)	Comprises the motorway and trunk road network, managed by National Highways, as defined by the Department for Transport
Major road network (MRN)	Routes in the middle tier of the road network (between the SRN and LRN), as defined by the Department for Transport. MRNs are managed by the LHAs. For the Project, the LHAs are Thurrock Council and Essex, Suffolk and Norfolk County Councils
Secondary Access Routes	Access routes which will be considered for specific movements of light vehicles (cars and vans) only moving between adjacent haul road sections, where the haul road is not continuous due to a river, main road, railway or other obstruction
Haul road	Temporary roads provided outside of the existing public highway. These routes will be managed by National Grid and link the site access points to the working areas
Site access point	The location on a PAR where construction vehicles will transition between the public highway and haul roads/working areas
Access tracks	Temporary access to a smaller scale, isolated works area, typically provided for erection of scaffold and netting at locations the overhead line crosses features such as roads and railways
Crossover points	Locations where haul roads cross the public highway, but are not proposed for construction HGVs to transition to or from the public highway (except in emergency situations)

Term	Description
Site compounds	The proposed locations provided for the overhead line, underground cabling, Cable Sealing End (CSE) compounds and substations temporary construction compounds.
Nationally Significant Infrastructure Project (NSIP)	Typically a large scale development of national importance that requires development consent from the Secretary of State, under the Planning Act 2008.
Lower Thames Crossing (LTC)	The Lower Thames Crossing is a proposed major road infrastructure project in the UK, designed to provide a new road crossing of the River Thames east of the existing Dartford Crossing. It aims to improve capacity, reduce congestion, and enhance connectivity between Kent and Essex
Cable Sealing End (CSE)	A termination point where high-voltage underground cables are connected to overhead lines or substations. It provides the necessary insulation and mechanical support to safely transition between different types of electrical infrastructure. These are typically housed within a Cable Sealing End (CSE) compound.
Construction Traffic Management Plan (CTMP)	S Plan detailing the procedures, requirements and standards necessary for managing the traffic effects during construction of the Project so that safe, adequate and convenient facilities for local movements by all transport modes are maintained throughout the construction process.
Construction Worker Travel Plan (CWTP)	Sets out how workers (admin and construction) travelling to the site during the construction phase will be managed.
Code of Construction Practice (CoCP)	Sets out the standards and procedures to be followed during construction activities. The primary aim is to minimise the environmental and community impact of construction works.
Development Consent Order (DCO)	An order made by the Secretary of State which grants development consent for Nationally Significant Infrastructure Projects pursuant to the Planning Act 2008.
East Anglian Connection Node (EACN)	A new 400kV substation on the Tendring Peninsula, referred to as EACN Substation, with a new permanent access.
Environmental Statement (ES)	The ES is a document prepared as part of the Environmental Impact Assessment (EIA) process. The ES presents the findings of the EIA and assesses the likely significant environmental effects of a proposed development.
Primary Access Routes (PARs)	Access routes on the public highway designated for use by construction vehicles (typically for HGVs) to travel from the strategic road network / major road network to the site access point.
Public Rights of Way (PRoW)	A Public Right of Way is a legally protected route over which the public has a right to pass and repass at any time, even if the land is privately owned.

Term	Description
Public Rights of Way Management Plan (PRoWMP)	A Public Rights of Way Management Plan is a document that outlines how public rights of way will be managed, maintained, or temporarily closed during the construction of a development project.
Traffic Regulation Order (TRO)	A Traffic Regulation Order is a legal order made by a local traffic authority under the Road Traffic Regulation Act 1984. It allows the authority to regulate, restrict, or prohibit the use of roads by vehicles or pedestrians.
Temporary Traffic Regulation Order (TRO)	TTROs are typically used when restrictions are needed for a limited period, usually up to 18 months for roads and 6 months for footpaths, bridleways, and cycle tracks. For special events, restrictions can be imposed for up to 3 days per calendar year without further approval, or longer with consent from the Secretary of State

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