national highways

Lower Thames Crossing

1.3 Introduction to the Application (Tracked changes version)

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Lower Thames Crossing

1.3 Introduction to the Application

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1 Executive summary

1.1 Introduction

1.1.1 National Highways (the Applicant) has submitted an application under section 37 of the Planning Act 2008 for an order to grant development consent (a DCO) for the A122 Lower Thames Crossing (the Project).

1.1.2 This document provides a guide to the Project, Applicant and DCO application.

1.1.3 The Project would provide a connection between the A2 and M2 in Kent and the M25 south of junction 29, crossing under the River Thames through a tunnel.

1.1.4 The Scheme Objectives of the Project are:

a. to support sustainable local development and regional economic growth in the medium to long term

b. to be affordable to Government and users

c. to achieve value for money

d. to relieve the congested Dartford Crossing and approach roads and improve their performance by providing free-flowing north–south capacity

e. to improve resilience of the Thames crossings and the major road network

f. to improve safety

g. to minimise adverse impacts on health and the environment

1.1.5 The Project qualifies as a Nationally Significant Infrastructure Project under the Planning Act 2008 in relation to the construction of a highway, the installation of an electric line above ground and the diversion of gas pipelines. Further information is provided in section 3.4.

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1.1.6 Should consent be granted National Highways would be responsible for constructing, operating, maintaining and improving (under its general statutory powers in respect of the latter) the new route of the A122 Lower Thames Crossing.

1.2 Understanding the key Application Documents

1.2.1 Chapter 2 sets out the structure of this document, Chapter 3 introduces the Project and Chapter 4 introduces the applicant.

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1.2.2 The draft Development Consent Order (Application Document 3.1) sets out the powers that the Applicant is seeking to enable it to construct and maintain the Project. This legal document is supported in this application by other documents that present, assess and mitigate the effects of the Project. These other documents that make up the DCO application are presented in Chapters 5 to 12 and include:

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a. Volume 1 - Application form / information / background

b. Volume 2 – Plans, drawings and sections

c. Volume 3 – Draft Development Consent Order

d. Volume 4 – Compulsory acquisition information

e. Volume 5 – Consultation and engagement

f. Volume 6 – Environmental Impact Assessment (EIA) information

g. Volume 7 – Other documents

1.2.3 Chapter 13 provides further guidance on how key documents that make up the application for development consent should be read and used together to facilitate understanding of the Project.

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1.3 Mitigation route map (control plan)

1.3.1 The DCO application contains a preliminary scheme design. Following successful grant of the DCO, the Project Contractors would progress the detailed design of the Project in line with the DCO and implement the mitigation measures outlined within the control documents.

1.3.2 Detailed design will be in accordance with the extent of the defined limits of deviation provided in the draft DCO and any approval required under the requirements set out in Schedule 2 to the draft Development Consent Order (Application Document 3.1). The limits of deviation are designed to ensure that the development consent, if granted, includes a proportionate amount of flexibility, allowing a degree of 'deviation' from certain aspects of the consented Project as shown in certain plans and drawings.

1.3.3 Chapter 14 describes the mitigation route map, also known as the control plan, which is the framework for mitigating, monitoring and controlling effects of the Project. It is made up of a series of 'control documents' which present the mitigation measures identified in the application that must be implemented during design, construction and operation to reduce the adverse effects of the Project. The control plan is illustrated in Plate 1.1.

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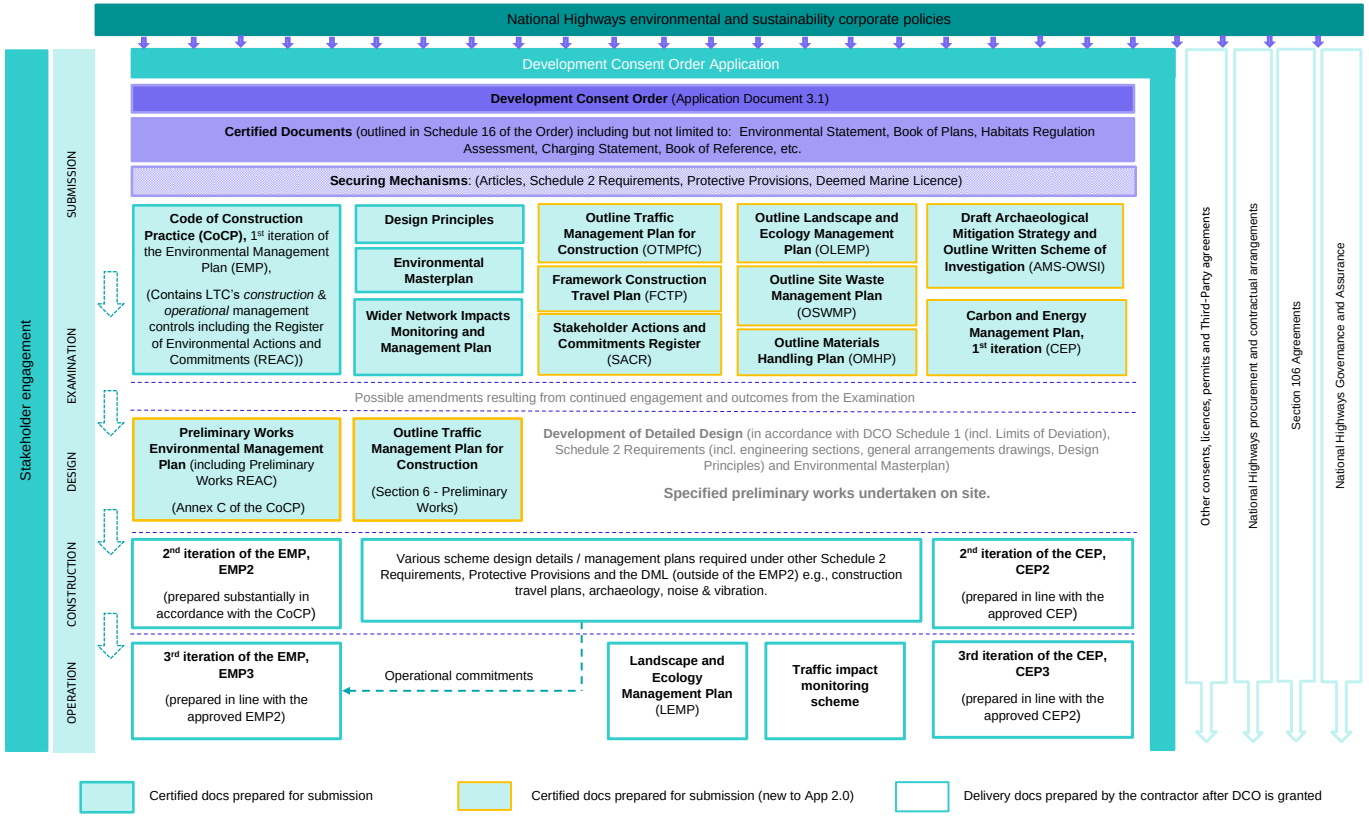
Plate 1.1 Control Plan



1.3.4 Each document in Plate 1.1 is secured within the draft DCO by means of an article, a specific requirement within Schedule 2 Requirements, Protective Provisions, or the Deemed Marine Licence.

1.3.5 Table 14.1 identifies the individual control documents submitted as part of this application and their relevance to each phase of the development and implementation of the Project. Reference is also provided to the specific securing mechanism for each.

1.3.6 Overall, the control plan demonstrates that the mitigation of effects of the Project presented in this DCO will be secured.

1.4 Identifying information geographically and thematically in the application

1.4.1 Chapter 15 provides further guidance on how to locate information geographically and thematically within the DCO application.

1.4.2 To aid in providing information geographically, the Community Impact Report (Application Document 7.16) is part of this DCO application and provides information at a ward level.

1.4.3 Thematically, a number of key themes have been identified during consultation and technical engagement. Table 15.1 sets these out together with a summary of where these are addressed in the DCO application.

1.5 Update since the DCO application submitted in October 2020

1.5.1 Chapter 16 provides an update since the DCO application submitted in October 2020. This chapter includes:

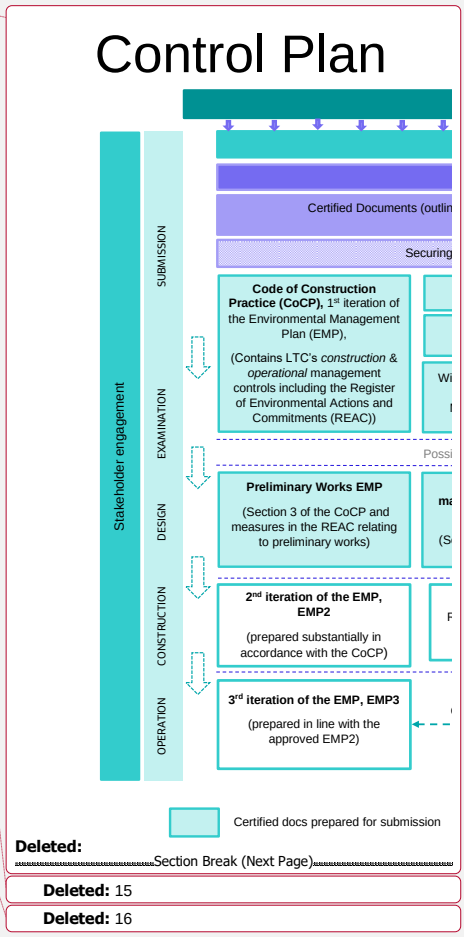
a. Changes since the application dated October 2020 – in relation to the design of the Project, how it is built and operated and Order Limit changes.

b. Consultation – high level information on the Community Impacts Consultation and Local Refinement Consultation.

c. Technical engagement – high level information on technical engagement undertaken.

d. New and significantly amended documents produced since the application dated October 2020 – this provides an overview of the application framework, focusing on new documents, significantly amended documents and change in structure.

1.5.2 The DCO application as it is now submitted represents an evolution on the one submitted in October 2020, whilst further reinforcing the clear need and benefits of the Project, which are outlined in documents such as the Need for the Project (Application Document 7.1) and the Benefits and Outcomes Document (Application Document 7.20).



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2 Introduction

2.1 Purpose of this document

2.1.1 National Highways (the Applicant) has submitted an application under section 37 of the Planning Act 2008 for an order to grant development consent (a DCO) for the A122 Lower Thames Crossing (the Project).

2.1.2 This document provides a guide to the Project, Applicant and DCO application, to assist those in reviewing the DCO application documentation.

2.2 Structure of this document

2.2.1 This document comprises of the following chapters:

a. Chapter 2 – Introduces this document

b. Chapter 3 – Provides a high-level description of the Project

c. Chapter 4 – Introduces the Applicant and the Project Team

d. Chapter 5 – Gives an overview of the application documentation

e. Chapters 6 to 12 – Explain the purpose of each of the documents submitted in the DCO application, which are organised into Volumes 1 to 7

f. Chapter 13 – Explains the key Application Documents, concepts and controls for the Project

g. Chapter 14 – Describes the mitigation route map, also known as the control plan

h. Chapter 15 – Explains how to identify information geographically and thematically within the DCO application

i. Chapter 16 – Provides an update since application submitted in October 2020

j. Chapter 17 – Provides a glossary of key terms in this document

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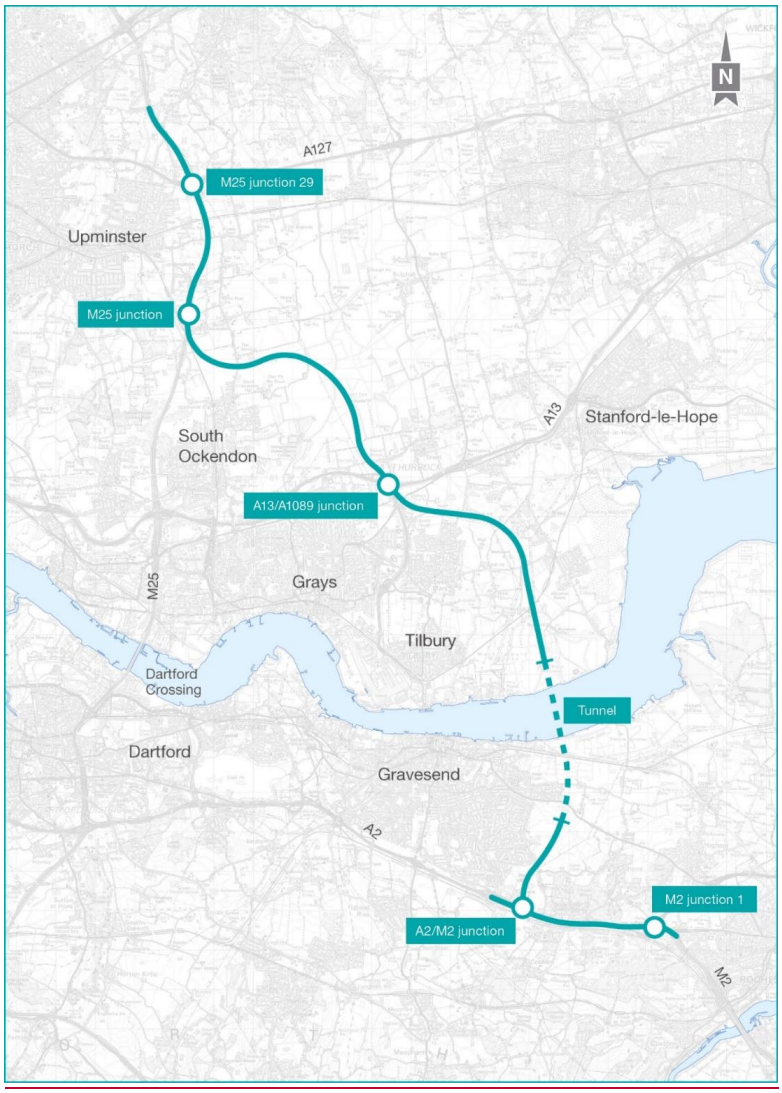
3 The Project

3.1 Project route

3.1.1 The Project would provide a connection between the A2 and M2 in Kent and the M25 south of junction 29, crossing under the River Thames through a tunnel. The Project route is presented in Plate 3.1 and the Location Plan (Application Document 2.1) is reproduced in Appendix A.

Plate 3.1 Lower Thames Crossing route



3.1.2 The A122 would be approximately 23km long, 4.25km of which would be in tunnel. On the south side of the River Thames, the Project route would link the tunnel to the A2 and M2. On the north side, it would link to the A13, M25 junction 29 and the M25 south of junction 29. The tunnel portals would be located to the east of the village of Chalk on the south of the River Thames and to the west of East Tilbury on the north side.

3.1.3 Junctions are proposed at the following locations:

a. New junction with the A2 to the south-east of Gravesend

b. Modified junction with the A13/A1089 in Thurrock

c. New junction with the M25 between junctions 29 and 30

3.1.4 The Project route would be three lanes in both directions, except for:

a. link roads

b. stretches of the carriageway through junctions

c. the southbound carriageway from the M25 to the junction with the A13/A1089, which would be two lanes

3.1.5 In common with most A-roads, the A122 would operate with no hard shoulder but would feature a 1m hard strip on either side of the carriageway. It would also feature technology including stopped vehicle and incident detection, lane control, variable speed limits and electronic signage and signalling. The A122 design outside the tunnel would include emergency areas. The tunnel would include a range of enhanced systems and response measures instead of emergency areas

3.1.6 The A122 would be classified as an 'all-purpose trunk road' with green signs. For safety reasons, walkers, cyclists, horse riders and slow-moving vehicles would be prohibited from using it.

3.2 Junction modifications

3.2.1 Alterations would be required to both the M25 at the northern limits of the route and on the A2 at the southern end. The existing A13/A1089 junction would also require modifications to connect to the Project route.

3.3 Vertical alignment

3.3.1 The new A122 would be at varying heights along the route, with approximately 80% in a cutting, false cutting or tunnel. The A2 would remain at its current level, with the junction between the A2 and the A122 requiring some link roads at or below ground level on embankments and structures such as bridges. As it approaches the southern tunnel portal, the A122 would be at ground level before descending into a deep cutting. To the north of the River Thames, the A122 would be lowered as much as practicable to reduce its impact on the landscape. Where the road crosses the Tilbury floodplain, railway lines, and the Mardyke floodplain, it would be elevated.

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3.4 Local roads

3.4.1 The Project would include adjustment to a number of local roads. Most existing local roads affected by the Project route would be reconnected or designed to provide alternative provision. In most locations, the affected local roads would cross over the Project route.

3.5 Tunnel

3.5.1 It is currently proposed that two tunnel boring machines (TBMs) would be used to construct the tunnel, one for each bore.

3.5.2 Emergency access and vehicle turn-around facilities would be provided at the tunnel portals. Cross-passages providing a connection between the two tunnels would be provided for emergency incident response and tunnel user evacuation. Tunnel portal structures would accommodate service buildings for control operations, mechanical and electrical equipment, drainage and maintenance operations.

3.6 Highway crossings

3.6.1 Approximately 50 new highway crossings would be required, comprising road bridges, underpasses, green bridges and footbridges. In addition, widening and other modification of existing highways crossings would be required.

3.7 Highway drainage

3.7.1 South of the River Thames, the highway drainage system would discharge into vegetated drainage comprising infiltration basins with lined sediment forebays, ditches and swales. The intention is that these would outfall from the drainage systems to ground.

3.7.2 North of the River Thames, the highway drainage system would discharge into vegetated drainage comprising wetland-type retention ponds with sediment forebays, ditches and swales within an infiltration basin at the A13 junction. Existing dry retention ponds located along the M25 would be upgraded to wetland-type retention ponds with sediment forebays. The outfall from these ponds would discharge into watercourses and ditches.

3.8 Safety and security

3.8.1 The A122 would include the following:

a. Modern safety measures and design standards with technology to manage traffic and provide better information to drivers

b. Variable Message Signs to display variable speed limits, travel information, hazard warnings and both advisory and mandatory signage to drivers

c. CCTV cameras and detection equipment to monitor and manage network usage, for alerting and investigating incidents (e.g. stopped vehicles), for maintenance and asset protection and for detection of crime

d. Above-ground traffic detection to control automatic traffic management systems (e.g. variable speed limits) and to collect data on traffic flows

e. Free-flow road user charging infrastructure

f. Equipment within the tunnel to monitor and control the tunnel environment during normal and emergency operations

3.9 Road User charging

3.9.1 In December 2014, the Government stated in the National Policy Statement for National Networks (NPSNN) (Department for Transport, 2014) that the *'Government will consider tolling as a means of funding new road capacity on the SRN. River and estuarial crossings will normally be funded by tolls or road user charges'*.

3.9.2 To align with NPSNN policy and to help the Project meet the Scheme Objectives, it is proposed that road user charges would be levied in line with the Dartford Crossing. Vehicles would be charged for using the new tunnel. Further information on road user charging can be found in the Road User Charging Statement (Application Document 7.6).

3.10 Walkers, cyclists and horse riders

3.10.1 Where the Project affects existing Public Rights of Way, these would be reinstated with provision of under- or overbridges, or a suitable alternative provision would be made. The Project proposes a number of new, diverted, upgraded and reinstated routes for walkers, cyclists and horse riders. Further information on provision for walkers, cyclists and horse riders can be found in the General Arrangement Plans (Application Document 2.5) drawings, Works Plans (Application Document 2.6), draft Development Consent Order Schedule 1 (Application Document 3.1), Rights of Way and Access Plans (Application Document 2.7) and Design Principles (Application Document 7.5).

3.11 Environmental design

3.11.1 The Project has been developed to avoid or minimise significant effects on the environment, and during the design process further measures have been incorporated to mitigate adverse impacts that would arise and that cannot be avoided. Some of the measures adopted include landscaping, noise mitigation measures, and the provision of green infrastructure along the Project route, including a number of green bridges.

3.11.2 The Project would create a number of new areas of ecological habitat, providing mitigation or compensation for the impacts on existing areas. Two new parks would be created including Tilbury Fields to the west of the northern tunnel portal, and Chalk Park, to the south of the River Thames. Further information on environmental works and mitigation can be found in the Works Plans (Application Document 2.6), draft Development Consent Order Schedule 1 (Application Document 3.1), Environmental Statement (Application Documents 6.1 to 6.3). In particular Environmental Statement Figure 2.4: Environmental Masterplan (Application Document 6.2) and the Register of Environmental Actions and Commitments (REAC) in the Environmental Statement Appendix 2.2: Code of Construction Practice (Application Document 6.3).

3.12 Construction compounds and Utility Logistics Hubs

3.12.1 While the Project is being built, construction compounds would be located along the Project route. Larger compounds would be required at the northern and southern tunnel portals to allow for tunnelling operations and materials management. Utility logistic hubs would be needed for specific utility works. Further information on construction compounds and Utility Logistics Hubs can be found in Works Plans (Application Document 2.6), Temporary Works Plans (Application Document 2.17), draft Development Consent Order Schedule 1 (Application Document 3.1), Environmental Statement Chapter 2 - Project Description (Application Document 6.1), Environmental Statement Figure 2.2 (Application Document 6.2) and Environmental Statement Appendix 2.1 (Application Document 6.3).

3.13 Haulage routes and construction traffic management

3.13.1 Where there is no direct access from the strategic road network, suitable local roads would initially be used to access the construction worksites and compounds. Following this, temporary haul routes would be constructed off the strategic road network early in the programme where possible to access the construction worksites and compounds and further reduce usage of the local road network. In some instances, the temporary haul roads may need to connect to the existing local road network. Traffic management measures would be used to control the impacts of construction on the local and strategic road network.

3.13.2 Further information on haul routes can be found in Environmental Statement Figure 2.2 (Application Document 6.2), Environmental Statement Appendix 2.1 (Application Document 6.3) and the outline Traffic Management Plan for Construction (Application Document 7.14).

3.14 Services and utility installations and diversions

3.14.1 To accommodate the construction and operation of the Project, it would be necessary to install and divert multiple utilities including overhead electricity powerlines, high-pressure gas pipelines and other utility networks and their associated infrastructure including cabinets, substations and maintenance compounds. New utility connections would be installed to the compounds and to the tunnels. Further information on services and utility diversions can be found in Section 3.4 below and in Works Plans (Application Document 2.6), Temporary Works Plans (Application Document 2.17), draft Development Consent Order Schedule 1 (Application Document 3.1) and Environmental Statement Chapter 2 - Project Description (Application Document 6.1).

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3.15 Land required

3.15.1 The Project would require land on a permanent basis for the road and tunnel, along with other operational infrastructure, and environmental mitigation and compensation.

3.15.2 On a temporary basis, land would be required for construction compounds, logistics areas and other construction activities. The utility installations and diversions, some environmental works and flood compensation requirements would require land to be taken on a temporary basis, and for permanent rights to be acquired for the operation and maintenance of any utility infrastructure,

and to secure environmental works and flood compensation. The full land requirement for the Project is shown on the Land Plans (Application Document 2.2) and set out in the Statement of Reasons (Application Document 4.1).

3.15.3 The Project would also require both permanent acquisition and temporary use of areas of special category land, which includes common land and public open space. Replacement land would be provided for some of this special category land as set out in the Special Category Land Plans (Application Document 2.4). In other cases, in accordance with the Planning Act 2008, replacement land has not been included, for example, because it is only proposed to install and divert utilities through the land and the land would not be permanently impacted. This means that its previous use can continue once the works are finished.

3.15.4 Consultation with relevant landowners, occupiers and agents remains an ongoing focus through the development of the Project. Compensation for affected parties follows the statutory Compensation Code.

3.16 Waste management

3.16.1 The Project aims to minimise the volume of waste generated by applying the waste hierarchy, in line with legislation (reduce - reuse - recycle - responsible disposal). Further information on waste management can be found in Environmental Statement Chapter 11 - Material Assets and Waste (Application Document 6.1).

3.17 Operations and maintenance

3.17.1 Following completion, the A122 would be part of the strategic road network.

3.17.2 To carry out inspection, certain specified maintenance activities in the tunnel and periodic emergency exercises, a periodic full closure of the relevant tunnel(s) would be required. These would be planned to minimise disruption, and where feasible lane closures would be used instead. Further information on operations and maintenance can be found in Environmental Statement Chapter 2 - Project Description (Application Document 6.1).

3.18 Scheme Objectives

3.18.1 The Scheme Objectives of the Project are:

a. to support sustainable local development and regional economic growth in the medium to long term

b. to be affordable to Government and users

c. to achieve value for money

d. to relieve the congested Dartford Crossing and approach roads and improve their performance by providing free-flowing north–south capacity

e. to improve resilience of the Thames crossings and the major road network

f. to improve safety

g. to minimise adverse impacts on health and the environment

3.18.2 The need for the Project is comprehensively set out in the Need for the Project (Application Document 7.1) and Statement of Reasons (Application Document 4.1).

3.19 Project history, timeline and future milestones

3.19.1 The history of the Project and future milestones are summarised in Table 3.1.

Table 3.1 Project history and future milestones

Year	Activity
April 2009	Department for Transport carried out a study to review potential crossing locations.
2012	Further work carried out by Department for Transport to consider three of the potential crossings in more detail.
May 2013	Non-statutory public consultation was held
March 2016	Non-statutory public consultation was held
April 2017	Preferred Route Announcement
October 2018	Statutory Consultation was held
January 2020	Non-statutory public supplementary consultation was held
July 2020	Non-statutory public consultation on design refinements was held
October 2020	Submission of DCO application and subsequent withdrawal in November 2020
July to September 2021	Non-statutory public consultation on community impacts was held
May to June 2022	Non-statutory public consultation on local refinements was held
2022	Resubmission of DCO application
2023	Examination of DCO application
2024	Secretary of State to make decision on whether to approve application
2025	Construction phase anticipated to commence. Following the DCO Grant there would be preparatory works, referred to in the draft DCO as preliminary works taking place in 2024. The main construction period for the Lower Thames Crossing would start in early 2025.
2030	Road Opening

3.20 Qualification as a Nationally Significant Infrastructure Project

3.20.1 The Planning Act 2008 (the 2008 Act) makes a distinction between three different types of highway Nationally Significant Infrastructure Projects (NSIPs) as set out in section 22(1)(a)–(c): construction, alteration and improvement. For a project to be a 'construction' or 'alteration' NSIP, the area of development must be greater than the relevant limits set out in section 22(4) of the 2008 Act.

3.20.2 The Project is an NSIP within sections 14(1)(h) and 22 of the 2008 Act. This Project involves the 'construction' of a highway within the meaning of section 22(1)(a). The Project satisfies section 22(2) in that the highway will (when constructed) be wholly located in England, the Applicant as a strategic highways company will be the highway authority for the highway, and the area of development is greater than the relevant limit set out in subsection (4), which in this case is 12.5 hectares, as speed limits for any class of vehicle will be in excess of 50mph.

3.20.3 This Project also involves the installation of an electric line above ground near the A13 (i.e. Work Number OH7 as described in Schedule 1 to the draft Development Consent Order (Application Document 3.1)). This element of the Project is also an NSIP under sections 14(1)(b) and 16(1)(a) of the Planning Act 2008, since the electric line will (when installed) be wholly in England. None of the exceptions set out in section 16(3) apply to exclude the installation of the electric line above ground as an NSIP: the nominal voltage is above 132kV; the length is greater than 2km, the distance between the existing line and a new support will be greater than 60m, and it does not fall under a category of work which would not require a consent under section 37(1) of the Electricity Act 1989 or under the Overhead Lines (Exemption) (England and Wales) Regulations 2009. Annex 2 to the Explanatory Memorandum (Application Document 3.2) provides further information on the assessment of proposed above ground electricity line works for the purposes of Section 16 of the Planning Act 2008.

3.20.4 The Project also includes three gas diversions which constitute NSIPs pursuant to sections 14(1)(f) and 20 of the 2008 Act. The diversion of the National Grid Feeder 5 (Phase 1 and 2), and National Grid Feeder 18 high pressure gas pipelines (Works G2, G3 and G4) constitute NSIPs under section 20 of the 2008 Act. This is because the pipelines are to be wholly in England; the construction of those pipelines is likely to have a significant effect on the environment; each will have a design operating pressure of more than 7 bar gauge; and, when constructed, will convey gas for the supply (directly or indirectly) to at least 50,000 customers, or potential customers, of one or more gas suppliers. Accordingly, for each of these works, each of the conditions in sections 20(2) to (5) of the 2008 Act is satisfied. Environmental Statement Appendix 1.3 - Assessment of proposed gas pipeline works for the purposes of section 20 of the Planning Act 2008 (Application Document 6.3) presents the environmental assessment of the gas pipeline works required as part of the Project for the purposes of determining whether Section 20 of the Planning Act 2008 is engaged.

3.20.5 Since the Project comprises NSIPs, development consent must be obtained from the Secretary of State to authorise it, and an application for a DCO must be made to the Secretary of State, care of the Planning Inspectorate, under section 37 of the 2008 Act. Further confirmation as to the Project's qualification as an NSIP can be found in the Explanatory Memorandum (Application Document 3.2).

4 The Applicant

4.1 National Highways

4.1.1 The Applicant is appointed and licensed by the Secretary of State for Transport as the strategic highways company for England. It is responsible for operating, maintaining and improving the SRN in England on behalf of the Secretary of State for Transport. The network is made up of England's motorways and trunk roads (some of the major A roads) and the new A122 Lower Thames Crossing will be part of the trunk road network for which the Applicant is responsible. Following construction of the Project, the Applicant will be responsible for operating, maintaining and improving (under its general statutory powers in respect of the latter) the new route of the A122 Lower Thames Crossing.

4.1.2 National Highways was known as Highways England between 2015 and August 2021. Prior to that it was known as the Highways Agency. Where reference is made to historical reports and publications, the name of the organisation at that time is used.

4.2 The A122 Lower Thames Crossing Project Team

4.2.1 The Project is managed by the National Highways A122 Lower Thames Crossing Project Team, which is responsible for delivering the Project in accordance with the Scheme Objectives.

4.2.2 A consortium of Jacobs, Arcadis and COWI has been appointed by the Applicant to prepare the DCO design and application for development consent and to support the Applicant through the Examination process.

4.2.3 The Project contact details are:

A122 Lower Thames Crossing Project Team

National Highways

5th Floor, Beaufort House

15 St Botolph Street

London

EC3A 7DT

Email: info@lowerthamescrossing.co.uk **Telephone:** 0300 123 5000

5 Application Documents

5.1.1 A list of documents within the DCO application is set out in the Cover letter with Schedule 55 Checklist for the LTC Project (Application Document 1.1). Further detail on the documents within the DCO application is provided in the following chapters. The Application Documents provided comply with all of the requirements of the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (the "APFP Regulations"), and the content and structure of them is precedented.

5.1.2 If you require a copy of any of the Application Documents, or parts of them, please contact the A122 Lower Thames Crossing Project Team (contact details in paragraph 4.2.3). A USB containing these documents will be provided free of charge. For those requiring hard copies, there may be a reasonable charge for printing and distribution.

5.1.3 All the Application Documents can be found online on the Planning Inspectorate website: https://infrastructure.planninginspectorate.gov.uk/projects/south-east/lower-thames-crossing/

5.1.4 The reports, drawings and plans that make up the DCO application have been organised into seven volumes as listed in Table 5.1.

Table 5.1 Contents of the Application

Volume	Content
1 Application Form / Information / Background	The completed application form, cover letter and section 55 acceptance of applications checklist, introduction to the application, navigation document and electronic application index.
2 Plans / Drawings / Sections	These include plans that illustrate the location of the Project; the land that will be acquired or used (land plans); Crown land; special category land; the general arrangements; proposed works (works plans); rights of way and access; streets subject to temporary restrictions of use; engineering drawings and sections; traffic regulation measures; classification of roads; tunnel area; structures; river restrictions; tunnel limits of deviation; drainage; temporary works; hedgerows and tree preservation order.
3 Draft Development Consent Order	This is the document that sets out the legal powers that the Applicant is seeking to enable it to build, operate and maintain the Project, together with the Explanatory Memorandum explaining the provisions of the DCO. This volume also includes the Consents and Agreements Position Statement which sets out the strategy for obtaining the consents and associated agreements needed to implement the proposed Project, as well as a validation report for the drafting of the DCO.
4 Compulsory Acquisition Information	Documents setting out in tabular form the land to be acquired or used, reports justifying the seeking of compulsory acquisition powers over this land and evidence to support the availability of funding to deliver the Project (including the Funding Statement, Book of Reference and Statement of Reasons).

Volume	Content
5 Consultation and engagement	The Consultation Report sets out the methodology and outcomes of the consultation undertaken between 2016 and 2022 and how responses to the consultations have been taken into account. This volume also includes the Statement of Engagement, Statement of Commonality, Statements of Common Ground and Statement responding to Local Authority stated positions on Adequacy of Consultation.
6 Environmental Impact Assessment (EIA) Information	The Environmental Statement: an assessment of the likely significant effects (both positive and negative) of the Project on the environment and a description of mitigation measures proposed to reduce any negative effects. This volume includes other environment related documents including the Non-Technical Summary, Code of Construction Practice including the Register of Environmental Actions and Commitments, outline Site Waste Management Plan, outline Materials Handling Plan, Water Framework Directive Assessment, Flood Risk Assessment, Scoping Opinion and Responses, Habitats Regulations Assessment - Screening Report and Statement to Inform an Appropriate Assessment, Statement of Statutory Nuisance and outline Landscape and Ecology Management Plan. Plans showing environmental features and proposed mitigation are also included.
7 Other Documents	Additional documents that support the DCO application; these are not legally required but provide useful information on the case for the Project. These include the Need for the Project, Planning Statement, Section 106 Agreements – Head of Terms, Project Design Report, Design Principles, Road User Charging Statement, Combined Modelling and Appraisal Report, Traffic Forecasts Non-Technical Summary, Transport Assessment, Health and Equalities Impact Assessment, Sustainability Statement, Wider Network Impacts Management and Monitoring Plan, Framework Construction Travel Plan, outline Traffic Management Plan for Construction, Preliminary Navigational Risk Assessment, Community Impact Report, Interrelationships with other Nationally Significant Infrastructure Projects and Major Development Schemes, Worker Accommodation Report, Carbon and Energy Management Plan. Benefits and Outcomes Document and Stakeholder Actions and Commitments Register.

6 Volume 1 Application form/ information/background

6.1.1 The Cover Letter and completed Section 55 Checklist (Application Document 1.1) introduces the application and shows how the DCO application fulfils the conditions for acceptance by the Planning Inspectorate under section 55 of the Planning Act 2008. The Schedule of Compliance with Section 55 will also be completed by the Planning Inspectorate on receipt of the DCO application.

6.1.2 The Application Form (Application Document 1.2) is a standard form and provides a high-level summary of the Project and the documents that have been submitted. It is a form that originates from Schedule 2 of the Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009.

6.1.3 The Introduction to the Application (Application Document 1.3) is this document. This document provides a guide to the Project, the Applicant, DCO application documentation and mitigation route map.

6.1.4 The Navigation Document (Application Document 1.4) provides a summary of the structure of the DCO application and the latest version of the Application Documents. This provides a full list of all documents submitted to date and is a live document that will be updated throughout the Examination period to show document revision history and examination library references.

6.1.5 The Electronic Application Index (Application Document 1.5) is the technical index that applicants must submit with their application to facilitate efficient management and publication of the Application Documents by the Planning Inspectorate. The Electronic Application Index (Application Document 1.5) is submitted electronically as an excel file (in line with Advice Note Six: Preparation and Submission of Application Documents (Planning Inspectorate, 2022)).

7 Volume 2 Plans, drawings and sections

7.1.1 There are 18 sets of plans as described below. A key plan is provided in each set of plans which comprises three or more sheets, showing the relationship between the different sheets. The exceptions to this are the Location Plan, Tunnel Area Plan, River Restrictions Plan and the Tunnel Limits of Deviation Plans. Each plan (and each sheet within a set of plans) includes a key which explains the use of symbols/lines/shading to denote features and information in the plans.

7.1.2 The Location Plan (Application Document 2.1) identifies the location of the Project in its wider context.

7.1.3 The Land Plans (Application Document 2.2) correspond to the Book of Reference (Application Document 4.2) and, in summary, set out:

a. the limits of land to be acquired or used permanently or temporarily

b. the land to be acquired or used permanently for construction, operation and maintenance works for the Project

c. any land of which temporary possession may be taken

d. any land to be used temporarily and rights in the land to be acquired permanently

7.1.4 The Crown Land Plans (Application Document 2.3) identify the 'Crown Interests' within the Order Limits, including any freehold, leasehold or third-party interests over other landowners' property. These interests may not be compulsorily acquired without agreement from the relevant Crown authority.

7.1.5 The Special Category Land Plans (Application Document 2.4) identify the special category land within the Order Limits and any replacement land that will be secured under the DCO. The land within the Order Limits includes land that is common land, open space and allotments, these being types of land that fall within the definition of special category land. These plans also show the type of powers sought in relation to the land: permanent acquisition; temporary possession and acquisition of permanent rights; or temporary possession (under the terms of the DCO).

7.1.6 The General Arrangement Plans (Application Document 2.5) drawings show an illustration of the Project against an Ordnance Survey base map.

7.1.7 The Works Plans (Application Document 2.6) show the lines and situations of the proposed works and the limits of deviation within which the development and works may be carried out. These plans also show the extent of the individual works. Further explanation of how they have been produced is set out below.

7.1.8 The Rights of Way and Access Plans (Application Document 2.7) show any new or altered means of access, stopping up of streets or roads and any diversions, extinguishment or creation of rights of way.

7.1.9 The Streets Subject to Temporary Restrictions of Use (Application Document 2.8) show streets subject to temporary alteration, diversion and restriction of use.

7.1.10 The Engineering Drawings and Sections (Application Document 2.9) show the proposed road plan and profile including the ground levels, the height of certain structures, the depths of cuttings and tunnels, drainage outfall levels and the indicative location of structures required for the Project.

7.1.11 The Traffic Regulation Measures Plans (Application Document 2.10) show the speed limits, clearways and other restrictions that would be applied to new or altered highways within the Order Limits to regulate traffic.

7.1.12 The Classification of Roads Plans (Application Document 2.11) show the proposed classification of highways forming part of the Project and variations to existing highway classifications.

7.1.13 The Tunnel Area Plan (Application Document 2.12) shows the location and extent of the operation of the tunnel area and includes both the tunnel bores and the tunnel approaches. These elements define the area where it is considered necessary for measures, such as the byelaws and road user charging, to apply.

7.1.14 The Structures Plans (Application Document 2.13) show an illustration of the design and location of key features of the Project, such as bridges, tunnel structures and gantries and will be subject to detailed design development. This is not a prescribed document but has been produced to provide further information about the proposed structures.

7.1.15 The River Restrictions Plan (Application Document 2.14) shows the extent of the protection zones within the River Thames surrounding the tunnel is shown in the plan, where certain restrictions on activities are in place for the purpose of protecting the tunnel area.

7.1.16 The Tunnel Limits of Deviation Plans (Application Document 2.15) show the lateral (i.e. side to side) and vertical (i.e. above or below) limits from the lines that the tunnel works are allowed to deviate. Tunnel works include the tunnel, the tunnel portals and the tunnel control building.

7.1.17 The Drainage Plans (Application Document 2.16) show the location and proposed road drainage design of the Project.

7.1.18 The Temporary Works Plans (Application Document 2.17) show the location of construction compounds and utility logistics hubs. These illustrate areas for material storage and site buildings and the proposed alignment of offline access routes required during construction.

7.1.19 The Hedgerows and Tree Preservation Order Plans (Application Document 2.18) show the location of hedgerows and trees protected by Tree Preservation Orders, including trees subject to tree preservation orders as listed and described in Schedule 7 of the draft Development Consent Order (Application Document 3.1).

8 Volume 3 Draft Development Consent Order

8.1.1 The draft Development Consent Order (Application Document 3.1) sets out the powers that the Applicant is seeking to enable it to construct and maintain the Project. It sets out the parameters for what development would be permitted. It consists of seven parts and is accompanied by 16 Schedules as outlined below.

8.1.2 The Explanatory Memorandum (Application Document 3.2) to the draft DCO explains the purpose and effect of each provision in the draft DCO.

Parts

a. Part 1 – Preliminary

b. Part 2 – Principal Powers

c. Part 3 – Streets

d. Part 4 – Supplemental Powers

e. Part 5 – Powers of Acquisition and Possession of Land

f. Part 6 – Operations

g. Part 7 – Miscellaneous and General

Schedules

8.1.3 Schedule 1 – Authorised Development – Part 1 lists the works that would be authorised by the DCO, which are shown on the Works Plans (Application Document 2.6) and to which the schedule refers. Part 2 provides further details on the works proposed to scheduled monuments.

8.1.4 Schedule 2 – Requirements – sets out the conditions the Applicant would be required to accord with when implementing the development authorised by the DCO. This Schedule is subdivided as follows:

a. Part 1 – Requirements

b. Part 2 – Procedure for Discharge of Requirements

8.1.5 Schedule 3 – Temporary Closure, Alteration, Diversion and Restriction of Use of Streets and Private Means of Access – sets out the highways, other streets and private means of access which the Applicant may temporarily restrict to construct the Project. Should be read in conjunction with the Streets Subject to Temporary Restrictions of Use (Application Document 2.8).

8.1.6 Schedule 4 – Permanent Stopping Up of Streets and Private Means of Access – sets out the highways, other streets and private means of access which the Applicant would permanently stop up as a result of the Project and provides how the Applicant would replace them (where necessary). Should be read in conjunction with the Rights of Way and Access Plans (Application Document 2.7). This Schedule is subdivided as follows:

a. Part 1 – Highways to be Stopped Up for which a Substitute is to be Provided

b. Part 2 – Highways to be Stopped Up for which a Substitute is Not to be Provided

c. Part 3 – Other Streets or Private Means of Access to be Stopped Up for Which a Substitute is to be Provided

d. Part 4 – Other Streets or Private Means of Access to be Stopped Up for Which a Substitute is Not to be Provided

8.1.7 Schedule 5 – Classification of Roads, Etc. – lists the road classification (e.g. trunk road) that would apply to new or altered highways and sets out how the Project would be integrated into the existing network of highway classifications. Schedule 5 should be read in conjunction with the Classification of Roads Plans (Application Document 2.11). This Schedule is subdivided as follows:

a. Part 1 – Special Roads

b. Part 2 – Trunk Roads

c. Part 3 – GLA Roads

d. Part 4 – Classified Roads

e. Part 5 – Unclassified Roads

f. Part 6 – Other Public Rights of Way

8.1.8 Schedule 6 – Traffic Regulation Measures – sets out the speed limits, clearways and other restrictions that would be applied to streets within the Order Limits, as well as revocations and variations of existing traffic regulation orders. This should be read in conjunction with the Traffic Regulation Measures Plans (Application Document 2.10). This Schedule is subdivided as follows:

a. Part 1 – Speed Limits

b. Part 2 – Clearways and Other Restrictions

c. Part 3 – Revocations and Variations of Existing Traffic Regulation Orders

8.1.9 Schedule 7 – Trees Subject to Tree Preservation Orders – lists all trees subject to Tree Protection Orders (TPOs) and the works which may be carried out on them (such works are shown in the Works Plans (Application Document 2.6)). This should be read in conjunction with Hedgerows and Tree Preservation Order Plans (Application Document 2.18), Environmental Statement Figure 7.4 (Application Document 6.2) for the individual TPO locations.

8.1.10 Schedule 8 – Land of Which Only New Rights Etc. May Be Acquired – sets out the land over which the Applicant is seeking to acquire new land rights and/or restrictive covenants (such as utility provider infrastructure) rather than

acquiring the entire freehold interest in that land. Should be read in conjunction with the Land Plans (Application Document 2.2).

8.1.11 Schedule 9 – Modification of Compensation and Compulsory Purchase Enactments for Creation of New Rights and Imposition of Restrictive Covenants – amends relevant compulsory purchase legislation to ensure that it can apply to the DCO (particularly in connection with land and rights compulsorily acquired under the DCO).

8.1.12 Schedule 10 – Land in Which Only Subsoil or New Rights in and Above Subsoil and Surface may be Acquired – sets out the land in which the Applicant is only seeking to acquire subsoil and, above such subsoil, new land rights and/or restrictive covenants for the purposes of the Project. This should be read in conjunction with the Land Plans (Application Document 2.2).

8.1.13 Schedule 11 – Land of Which Temporary Possession may be Taken – sets out the land which the Applicant is seeking to possess temporarily for the purpose of constructing the Project. This should be read in conjunction with the Land Plans (Application Document 2.2).

8.1.14 Schedule 12 – Road User Charging Provisions for Use of The Lower Thames Crossing – Article 45 of the draft DCO introduces the powers for the Secretary of State to impose road user charges for use of the tunnel under the DCO in accordance with the terms stated in this Schedule.

8.1.15 Schedule 13 – Lower Thames Crossing Byelaws – sets out the byelaws the Applicant is seeking to apply to users of the "tunnel area" (as defined in the draft Development Consent Order (Application Document 3.1)). This Schedule is subdivided as follows:

a. Part 1 – Preliminary

b. Part 2 – Restrictions in The Tunnel Area

c. Part 3 – Enforcement

8.1.16 Schedule 14 – Protective Provisions – includes provisions to protect the interests of various bodies (e.g. statutory undertakers) in the context of the Project. This Schedule is subdivided as follows:

a. Part 1 – For the Protection of Electricity, Gas, Water and Sewerage Undertakers

b. Part 2 – For the Protection of Operators of Electronic Communications Code Networks

c. Part 3 – For the Protection of Drainage Authorities

d. Part 4 – For the Protection of Railway Interests

e. Part 5 – For the Protection of specified Gas Undertakers

f. Part 6 and 7 – For the Protection of National Grid as Electricity and Gas Undertaker

g. Part 8 – For the Protection of the Port of London Authority

h. Part 9 – For the Protection of the Environment Agency

i. Part 10 – For the Protection of the Port of Tilbury London Limited

8.1.17 Schedule 15 – Deemed Marine Licence – sets out the terms on which the licence would be granted.

8.1.18 Schedule 16 – Documents to be Certified – contains a list of documents that would be certified under the relevant article of the DCO, if the DCO is made by the Secretary of State.

8.1.19 The Applicant requires a range of consents and agreements to construct and operate the Project. Some of these are included in the draft DCO and would therefore be granted as part of the consent if the DCO is made by the Secretary of State. However, there are a range of other consents from different regulatory organisations that will be required separately to the DCO. The Consents and Agreements Position Statement (Application Document 3.3) sets out the intended strategy for obtaining such consents and associated agreements needed to implement the Project.

8.1.20 The Validation Report (Application Document 3.4) is provided at the request of the Planning Inspectorate to demonstrate compatibility of the DCO with the relevant Statutory Instrument template. All DCOs must be made in the form of a Statutory Instrument because they include legislative provisions and powers to amend or exclude other statutory provisions.

9 Volume 4 Compulsory acquisition information

9.1.1 In order to implement the Project, the Applicant would need to obtain and use statutory powers to compulsorily acquire land and rights over land, and to possess and use land temporarily. The Applicant is required to provide evidence that the use of these powers would be justified, proportionate and in the public interest, and this evidence is set out in the Statement of Reasons (Application Document 4.1), Funding Statement (Application Document 4.3) and Book of Reference (Application Document 4.2) as explained below.

9.1.2 The Statement of Reasons (Application Document 4.1) explains that there is a compelling case in the public interest which would justify the Applicant's exercise of powers of compulsory acquisition in order to acquire land and rights permanently and to use land temporarily to enable it to construct, operate and maintain the Project.

9.1.3 The Book of Reference (Application Document 4.2) identifies all Parties who own or occupy land and/or have an interest in or right over the land affected by the Project, and/or who may be entitled to make a 'relevant claim' as defined in section 57 of the Planning Act 2008. It is structured in five parts in accordance with relevant regulatory requirements. The five parts are described below.

a. Part 1: Names and addresses for service of each person within Categories 1 and 2 as defined in section 57 of the Planning Act 2008 in respect of any land inside the Order Limits.

b. Category 1 interests are owners, lessees, tenants or occupiers of land. Category 2 interests are those who have an interest in the land or who have the power to sell and convey the land or release the land.

c. Part 2: Names and addresses for service of each person within Category 3. A person is within Category 3 if an applicant thinks that, if the order were to be made and fully implemented, the person would or might be entitled to make a relevant claim. A relevant claim for these purposes means a claim under: Part 1 of the Land Compensation Act 1973 (c. 26); section 10 of the Compulsory Purchase Act 1965; or section 152(3) of the Planning Act 2008.

d. Part 3: Names of all those entitled to enjoy easements or other private rights over land (including private rights of navigation over water) which it is proposed shall be extinguished, suspended or interfered in the DCO.

e. Part 4: Owner of any Crown interest in land which is proposed to be used for the purposes of the DCO for which the application is being made.

f. Part 5: Land the acquisition of which is subject to special parliamentary procedure, is special category land, or is replacement land.

9.1.4 The Funding Statement (Application Document 4.3) explains how the Project, including compulsory purchase acquisition and compensation, would be funded.

10 Volume 5 Consultation and engagement

10.1.1 The Consultation Report (Application Document 5.1) provides an account of the pre-application consultation undertaken on the Project. The report includes details of the Statutory Consultation which the Applicant is required to undertake in accordance with the Planning Act 2008, other public consultations held by the Applicant, the informal engagement that has taken place, and how the comments received have been taken into account when developing the Project.

10.1.2 A range of appendices that support the Consultation Report are described in Table 10.1.

Table 10.1 Supporting appendices

Appendix	Contents
Appendix A - Compliance Checklist	A breakdown of how the Applicant has complied with all relevant legislation and policy guidance in delivering the Statutory Consultation.
Appendix B - Copies of non-statutory consultation material	The core documents produced for the non-statutory consultation undertaken in 2016 on proposals for the Lower Thames Crossing.
Appendix C - The Infrastructure Planning (EIA) Regulations 2017: Regulation 8(1) letter to the Planning Inspectorate and acknowledgement	A copy of each letter.
Appendix D - Copy of the draft Statement of Community Consultation provided to local authorities	A copy of the draft Statement of Community Consultation.
Appendix E - Letter to local authorities beginning consultation on the Statement of Community Consultation	A copy of the letter.
Appendix F - Response from local authorities on the draft Statement of Community Consultation and an explanation of how National Highways had regard to those responses	A copy of each response provided by local authorities. A table that lists each point made in those responses alongside the Applicant's consideration of it.
Appendix G - Published Statement of Community Consultation and compliance checklist	A copy of the SoCC as it appeared at deposit locations and on the consultation website. A table that lists each activity included in the SoCC alongside a statement explaining how it was fulfilled during the Statutory Consultation.
Appendix H - List of prescribed consultees identified and consulted	A table that lists the prescribed consultees identified and consulted (under s42(1)(a)-(aa) of the Planning Act 2008) by the Applicant. A table that lists the local authorities identified and consulted (under s42 of the Planning Act 2008 and on a discretionary basis) by the Applicant.

Appendix	Contents
Appendix I - List of all respondents to Statutory Consultation	A list of all respondents, divided according to the relevant consultee strand. The names of individual respondents will be replaced with an anonymous reference number.
Appendix J - List of persons with an interest in land consulted under section 42 and records of undeliverable section 42(1)(d) mail	A list of all the land interests identified by the Applicant through the application of its Land Referencing methodology and consulted about the Project.
Appendix K - Section 42 Letters and enclosures	Copies of the different types of section 42 letters (and their enclosures) that were issued by the Applicant to the relevant consultees prior to the launch of the Statutory Consultation.
Appendix L - S46 Letter sent to the Planning Inspectorate and their letter of acknowledgement	Copies of each letter.
Appendix M - Statutory Consultation material	Copies of the main consultation material produced for the Statutory Consultation.
Appendix N - Section 47 and section 48 newspaper notices	A table listing the titles and publication dates of newspapers in which the section 47 and section 48 notices appeared. Copies of the notices as they appeared in each of the listed newspapers.
Appendix O - List of any additional consultees	A series of tables in which additional consultation recipients are listed.
Appendix P - Meeting log	Not used
Appendix Q – Supplementary Consultation material	Copies of the core documents produced for Supplementary Consultation.
Appendix R – Design Refinement Consultation material	Copies of the core documents produced for Design Refinement Consultation.
Appendix S – Community Impacts Consultation material	Copies of the core documents produced for the Community Impacts Consultation
Appendix T – Local Refinement Consultation material	Copies of the core documents produced for the Local Refinement Consultation
Appendix U - Traverse's summary reports of consultation responses	A copy of the reports produced by an independent agency that analysed responses to the Applicant's Statutory Consultation, and a summer update document produced by the Applicant.
Appendix V - Adequacy of Consultation Representations from Local Authorities	A list of issues raised by local authorities as part of their Adequacy of Consultation Representations and the Applicant's responses to those issues.

10.1.3 A Statement of Engagement (Application Document 5.2) has been prepared to set out National Highways' approach to engagement with stakeholders alongside consultation (outlined in the Consultation Report).

10.1.4 A Statement of Commonality (Application Document 5.3) identifies where there are common issues being discussed between different Interested Parties (Stakeholders).

10.1.5 Statements of Common Ground (Application Document 5.4) set out matters agreed and not agreed with stakeholders. The Project has been and is continuing to work proactively with stakeholders to develop SoCGs to aid the DCO examination process. The preparation and agreement of SoCGs is an iterative process and it is usual for some updating of documents to be necessary before a final statement is agreed by the end of the examination period and further SoCGs may need to be developed with additional stakeholders to those listed during examination.

10.1.6 The Statement responding to Local Authority stated positions on Adequacy of Consultation (Application Document 5.5) provides a statement that responds to the concerns raised by the Local Authorities regarding the adequacy of consultation in their statements to the Planning Inspectorate in September 2022 in advance of the submission, and to provide signposting to where further detail on the Applicant's response to these matters are set out within the application documents.

11 Volume 6 Environmental Impact Assessment (EIA) information

11.1.1 The Applicant has undertaken an EIA of the Project to consider what significant effects the Project is likely to have on the environment. The Environmental Statement (Application Documents 6.1 to 6.3) reports the findings of the EIA. The findings of the EIA are also summarised in the Environmental Statement Non-Technical Summary (NTS) (Application Document 6.4).

11.1.2 The Environmental Statement also provides general information on the Project including context, description of the Project and its construction, reasonable alternatives studied, the consultation process that was part of the EIA and technical information on a range of environmental topics. This chapter provides an overview of the structure of the document to assist with navigation.

11.1.3 The EIA and Environmental Statement are legal requirements and accord with relevant legislation and current guidance. The content of the Environmental Statement was considered by the Planning Inspectorate through a Scoping Opinion (Application Document 6.3).

11.1.4 The Environmental Statement includes the following chapters:

a. Chapter 1: Introduction
b. Chapter 2: Project Description
c. Chapter 3: Assessment of Reasonable Alternatives
d. Chapter 4: Environmental Impact Assessment Methodology
e. Chapter 5: Air Quality
f. Chapter 6: Cultural Heritage
g. Chapter 7: Landscape and Visual
h. Chapter 8: Terrestrial Biodiversity
i. Chapter 9: Marine Biodiversity
j. Chapter 10: Geology and Soils
k. Chapter 11: Material Assets and Waste
l. Chapter 12: Noise and Vibration
m. Chapter 13: Population and Human Health
n. Chapter 14: Road Drainage and the Water Environment
o. Chapter 15: Climate
p. Chapter 16: Cumulative Effects Assessment
q. Chapter 17: Summary

11.1.5 The Environmental Statement Figures (Application Document 6.2) provides the series of figures, photographs and other illustrative material which support the Environmental Statement Chapters (Application Document 6.1). The figures are summarised in the Navigation Document (Application Document 1.4).

11.1.6 The Environmental Statement Appendices (Application Document 6.3) provides the appendices which support the findings of the EIA. These appendices are summarised in the Navigation Document (Application Document 1.4).

11.1.7 The Environmental Scoping Report prepared by the Applicant identifies the scope and content of the EIA. The Inspectorate's Scoping Opinion and National Highways Response are contained in Environmental Statement Appendix 4.1 (Application Document 6.3).

11.1.8 A signposting document to demonstrate where in the application documents environmental effects associated with traffic and transport is contained within the Environmental Statement Appendix 4.4 - Traffic and Transport assessment (Application Document 6.3).

11.1.9 An assessment on the risk of flooding within the Project and elsewhere as a result of the Project being constructed and operated is contained within Environmental Statement Appendix 14.6 - Flood Risk Assessment (Application Document 6.3).

11.1.10 The Project crosses several surface water bodies and groundwater bodies. An assessment of the Project's compliance against the Water Framework Directive (2000/60/EC) objectives is required for each of the water bodies affected. In accordance with Regulation 5(2)(q) of the APFP Regulations, this is included in Environmental Statement Appendix 14.7 - Water Framework Directive Assessment (Application Document 6.3).

11.1.11 The Environmental Statement Appendix 2.2 - Code of Construction Practice, First iteration of Environmental Management Plan (CoCP) (Application Document 6.3) sets out a framework for the mitigation and management of environmental effects during construction and operation. The key aims of the CoCP are to ensure that environmental mitigation measures, requirements in the DCO ("DCO Requirements"), and any necessary consents and licences are implemented and complied with in order to minimise and manage the risk of adverse environmental impacts.

11.1.12 The Register of Environmental Actions and Commitments (REAC) is included within chapter 7 of the CoCP. This document lists items, including mitigation proposed in the Environmental Statement and other Application Documents, and shows how they are secured in the draft DCO, for example through DCO Requirements.

11.1.13 Within the CoCP, the outline Site Waste Management Plan (oSWMP) (Application Document 6.3) is provided in Annex A. It sets out the overarching principles and procedures that would be applied for the management of waste during the construction of the Project. It also defines specific roles and responsibilities to ensure waste is managed effectively.

11.1.14 Within the CoCP, the outline Materials Handling Plan (oMHP), Application Document 6.3) is provided in Annex B. It sets out the approach and high-level principles for handling construction materials and waste, both inside and outside the Order Limits.

11.1.15 The Environmental Statement Appendix 6.9 - Draft Archaeological Mitigation Strategy and Outline Written Scheme of Investigation (Draft AMS-OWSI) document (Application Document 6.3) sets out the strategy for essential mitigation for heritage assets. It describes the embedded and good practice mitigation measures relevant to cultural heritage.

11.1.16 The Environmental Masterplan is contained within Environmental Statement Figure 2.4 (Application Document 6.2), which visually presents the environmental works (mitigation and compensation).

11.1.17 The Environmental Statement Non-Technical Summary (NTS) (Application Document 6.4) is a concise document which summarises the main findings of the Environmental Statement in non-technical language.

11.1.18 The Habitats Regulations Assessment – Screening Report and Statement to Inform an Appropriate Assessment (Application Document 6.5) provides an assessment of the likely significant effects (Stage 1) and adverse effects on integrity (Stage 2) of the Project on European Sites to inform the Secretary of State's assessment pursuant to Regulation 63 of the Conservation of Habitats and Species Regulations 2017 have been satisfied.

11.1.19 The Statement of Statutory Nuisance (Application Document 6.6) identifies the matters set out in section 79 of the Environmental Protection Act 1990 in respect of statutory nuisances and considers whether the Project would engage one or more of those matters. Where any matters may be potentially engaged, this statement sets out its proposals for mitigating or limiting them. The Statement of Statutory Nuisance is submitted in accordance with Regulation 5(2)(f) of the APFP Regulations.

11.1.20 The outline Landscape and Ecology Management Plan (oLEMP) (Application Document 6.7) sets out the proposed management of the landscape and ecological elements of the Project. It focuses on the management requirements for the land parcels within the Order Limits acquired permanently that perform specific landscape and ecological mitigation functions.

12 Volume 7 Other documents

12.1.1 A range of additional documents have been submitted with the DCO application. These documents are not legally required but are intended to provide useful information on the Project and aid detailed understanding of the DCO application and its justification.

12.1.2 The Need for the Project (Application Document 7.1) sets out the need case for the Project and the scheme objectives. It demonstrates that there is a clear and compelling need to address the long-standing transport problems at the Dartford Crossing, as well as an opportunity to boost local and regional economic growth.

12.1.3 The Planning Statement (Application Document 7.2) presents the planning narrative of the Project including its design evolution through the consideration of alternatives and its interrelationships with other major developments. Moreover, it reviews the Project's compliance with relevant planning policies and government policy in the NPSNN and Energy National Policy Statements, and National Policy Statement for Ports, and exercises a planning balance judgement to conclude on the overall acceptability of the Project. Consideration is given to the following Energy National Policy Statements:

a. Overarching National Policy Statement for Energy (EN-1) (Department of Energy and Climate Change, 2011a).

b. National Policy Statement for Gas Supply Infrastructure and Gas and Oil Pipelines (EN-4) (Department of Energy and Climate Change, 2011b).

c. National Policy Statement for Electricity Networks Infrastructure (EN-5) (Department of Energy and Climate Change, 2011c).

d. Appendix I: Carbon Strategy and Policy Alignment of the Planning Statement has been produced to explain how the Applicant's approach goes beyond previous practice and the requirements of NPSNN, to push the construction industry towards a net zero trajectory.

12.1.4 The Section 106 Agreements – Heads of Terms (Application Document 7.3) sets out the Heads of Terms for the planning obligations that the Applicant considers to be appropriate in the context of the Project (and supporting assessments). These Heads of Terms only outline the substantive obligations which are likely to be required and do not outline the legal or administrative provisions that would be included in the s106 agreements. The Heads of Terms submitted are draft and are provided on the understanding that they will be subject to further discussions with the local authorities following the submission of the DCO application.

12.1.5 The Project Design Report (Application Document 7.4) describes the preliminary design and integration of the Project into its surrounding landscape and context. The report sets out the background to the Project and the Project's approach to and development of good design on a Project-wide, regional and local basis. It also describes the main alternatives to the design which were considered and how the design evolved in response to public and stakeholder consultation and the reasons for selecting the proposed design.

12.1.6 The Design Principles (Application Document 7.5) sets out principles that underpin the design measures that integrate the Project into its context. It captures embedded mitigation measures and establishes parameters which must be met in the final design of the Project.

12.1.7 The Road User Charging Statement (Application Document 7.6) explains the purpose of road user charging on the Lower Thames Crossing, explains why the proposed road user charging scheme has been selected and how the road user charging scheme will be implemented, operated and enforced.

12.1.8 The Combined Modelling and Appraisal Report (Application Document 7.7) details the transport modelling and economic appraisal undertaken for the Project, including:

a. Appendix A – Transport Data Package, which details the need for, availability of, collection and quality assurance of transport data on which the transport modelling was undertaken.

b. Appendix B – Transport Model Package, which describes the design, development, calibration and validation of the strategic transport model.

c. Appendix C – Transport Forecasting Package, which describes the methodologies and tools adopted to generate the traffic forecasts used to support the development of the Project. It provides the assumptions, processes and forecasts required for the economic, environmental and operational assessments.

d. Appendix D – Economic Appraisal Package, which explains the option identification and selection process; describes the methodologies used to model and appraise the economic, environmental, social and public accounts impacts of the Project; presents the monetised appraisal results and summarises qualitatively appraised impacts and evidence of further non-standard impacts

12.1.9 The Traffic Forecasts Non-Technical Summary (Application Document 7.8) provides a summary of the transport modelling undertaken and the forecast traffic flows.

12.1.10 The Transport Assessment (Application Document 7.9) assesses the impact of the Project during both construction and operation on the strategic and local highway network, and local sustainable modes of transport (including walkers, cyclists and horse riders).

12.1.11 The Health and Equalities Impact Assessment (Application Document 7.10) provides an assessment of compliance with legislation set out under the Equality Act 2010 and associated Public Sector Equality Act and provides an assessment of the Project's impact on human health.

12.1.12 The Sustainability Statement (Application Document 7.11) provides a summary of where the preliminary design for the Project has met the aims of National Highways' Design Manual for Roads and Bridges chapter GG 103 - Introduction and general requirements for sustainable development and design.

12.1.13 The Wider Network Impacts Management and Monitoring Plan (Application Document 7.12) sets out National Highways' approach on monitoring and managing the associated wider network impacts of the Project, through the proposed DCO traffic impact monitoring scheme. This requires traffic monitoring to be carried out during the operational phase of the Project to identify changes in performance on the surrounding road network.

12.1.14 The Framework Construction Travel Plan (Application Document 7.13) sets out a framework to reduce the impact of the Project's construction workforce on the road network as a result of travel to and from construction worksites, compounds and Utility Logistics Hubs (ULH). The FCTP sets out proposed measures, including reducing single occupancy vehicle trips and encouraging sustainable and active travel.

12.1.15 The outline Traffic Management Plan for Construction (oTMPfC, Application Document 7.14) sets out the approach to carrying out temporary traffic management for the safe construction of the Project. It also explains management measures available to the Contractor to reduce the impact on the local community (including journey time reliability, access, severance and safety).

12.1.16 The Preliminary Navigational Risk Assessment (Application Document 7.15) assesses and quantifies the navigation risk posed by the Project during construction and operation. The draft DCO seeks a range of powers necessary to undertake the Project, including powers in relation to construction of temporary and permanent structures, discharge of water and survey of the river Thames and adjoining land.

12.1.17 The Community Impact Report (Application Document 7.16) provides information on impacts at a ward level based on the Environmental Statement and the Transport Assessment, together with mitigation and monitoring information documented in the Register of Environmental Actions and Commitments within the Code of Construction Practice (CoCP).

12.1.18 The Interrelationship with other Nationally Significant Infrastructure Projects and Major Development Schemes (Application Document 7.17) describes how National Highways have worked with third-party project promoters and stakeholders to design out and control project interfaces, where necessary, to avoid prejudicing the successful delivery of other projects. It documents the work undertaken to ensure proposals are designed, consented, and delivered in a coordinated way to support Government's vision for the Lower Thames area.

12.1.19 The Worker Accommodation Report (Application Document 7.18) sets out the estimated number of workers at the peak construction phase of the Project who would require temporary accommodation, what type of accommodation these workers are anticipated to seek and where, and a consideration of this demand in the context of supply and the operation of the accommodation market.

12.1.20 The Carbon and Energy Management Plan (Application Document 7.19) sets out how the Project will minimise its carbon impact during construction and operation. To achieve this, the Project has reduced its carbon emissions significantly during preliminary design through low carbon solutions and has developed a Lowest Carbon Strategy. The plan describes the carbon commitments that the Project is making, which are focused around setting a

challenging carbon baseline and establishing a best practice approach to carbon management and the adoption of the PAS2080 Carbon Management in Infrastructure standard. The Lowest Carbon Strategy aims to further reduce carbon emissions further over the lifetime of the Project.

12.1.21 The Benefits and Outcomes Document (Application Document 7.20) captures some of the many benefits that will result from the Project but that currently sit outside of the DCO application and control documents. The document considers proposals and associated funding that has been secured or is under agreement, both within and outside of the Order Limits that will provide substantial benefits to the local community, the general public, the environment and the national economy.

12.1.22 The Stakeholder Actions and Commitments Register (SACR) (Application Document 7.21) provide a list of construction and/or design and/or operational related commitments given to stakeholders that are secured within the DCO and are not included in other documents or agreements such as side agreements (agreed with specific stakeholders outside of the DCO), environmental mitigation (as secured in the REAC) or measures required within the outline management plans. The intention of the document is to reduce the need for legal agreements by providing a mechanism to provide legally secured commitments which has the effect of assisting stakeholders by obviating time/expense associated with legal agreements and speeding up resolution of issues during examination.

13 Understanding the key Application Documents

13.1 Introduction

13.1.1 In order to provide clarity and transparency, and given the scale and complexity of the works, the Applicant has prepared this section of the Introduction to the Application to provide the Planning Inspectorate, and any interested parties, further guidance on how key documents that make up the application for development consent should be read and used together to facilitate understanding of the Project. This section also provides a clear explanation of the flexibility and land usage, grounded in precedent, sought in connection with the utilities works, and the controls in place.

13.2 Key concepts and controlling mechanisms underpinning the DCO Application Documents

13.2.1 The chapter describes how future design development will work within the parameters and controls set out in the application for development consent. This chapter includes worked examples where relevant. This chapter does not change or substantively add to the content of Application Documents or the relationships between them, rather it provides an explanation of the documents, the flexibility sought, and signposts the relevant controls.

The authorised development

13.2.2 In order to construct the Project, and in line with precedent, the draft Development Consent Order (Application Document 3.1) authorises the "authorised development" which includes the works set out in Schedule 1 to the draft DCO. The term 'authorised development' is used to refer to any development proposed to be authorised under the draft DCO should the Secretary of State grant development consent and make the DCO.

13.2.3 The authorised development, as defined in the DCO, includes the required diversions of statutory undertakers' and third-parties' apparatus. The design for such diversions submitted with the application is based on the information provided by the statutory undertakers and the utility trench trials undertaken to date.

13.2.4 Due to the scale of the Project and the current stage of design for these works, a degree of flexibility is sought for detailed design and to allow for unforeseen circumstances, this is explained further below. Further detail on the Applicant's approach to the Rochdale Envelope and the flexibility within the draft DCO is provided within Environmental Statement Chapter 2 - Project Description (Application Document 6.1).

Numbered works

13.2.5 Schedule 1 of the draft Development Consent Order (Application Document 3.1) is a textual description of the "works" 2comprising the authorised development in which the Project is divided up into a series of elements, referred to in the DCO application documentation as 'numbered works'.

13.2.6 There is no prescribed approach for dividing a scheme into a series of numbered works; it is open to an applicant to do this in the most appropriate manner in light of the characteristics of the development. In the case of this Project, work numbers start in the south-east, as in the case of Work Number 1, before moving northwards and ending at Works Number 9 (see Plate 13.1 and Plate 13.2).

13.2.7 The description of the authorised development for this Project includes Work Nos. 1 to 9, which relate to highways, drainage, private means of access, Public Rights of Way, watercourse diversion culverts and other works.

13.2.8 Each numbered work (e.g., Work Number 1) comprises a cohesive set of works representing a significant element or part of the authorised development. Some of those numbered works are themselves sub-divided, in recognition of the fact that they have several distinct but interdependent component parts. For instance, as a whole, Work Number 1 is the 'construction of the new A122 Lower Thames Crossing between the M2 junction 1 and Thong Lane bridge'. However, given its scale, Work Number 1 is broken down into Work Nos. 1A to P. These numbered works (i.e. Work Nos. 1A to 1P) are shown within the Works Plans (Application Document 2.6). Each of Work Nos. 1A to 1P comprise a number of further component parts, and these are described in a series of separate roman numerals (see for example Work Number 1A which includes paragraphs (i) to (vi)). To provide transparency and further control on the location of the works in these roman numerals, there are further references to the rights of way and access plans, and distances. This approach has been consented in a number of highways projects (see, for example, the Lake Lothing (Lowestoft) Third Crossing Order 2020 and the Silvertown Tunnel Order 2018).

13.2.9 In order to provide clarity on the location of the numbered works, some linear works within the Works Plans (Application Document 2.6) need to be read in conjunction with the Rights of Way and Access Plans (Application Document 2.7), which help illustrate the start and end reference points of each work. For example, Work Number 1A involves 'the construction of an improved section of the existing M2 and the improvement works to the A2, to include - improvements works to the three-lane southbound carriageway of the existing M2 special road, with widening to four-lane carriageway, as shown on Sheet 3 of the Rights of Way and Access Plans (reference points [2/6] and [2/9])'. This provides further information (and control) on the location of the works and follows the approach of other highways projects (see, for example, Schedule 1 to the A19 Downhill Lane Development Consent Order 2020 or the M42 Junction 6 Development Consent Order 2020).

13.2.10 In addition to the above, there are a number of other works that fall into the following categories, as per Schedule 1 to the draft DCO:

a. Utilities – made up of:

i. Diversion of overhead lines – covering Works OH1 to OH8

ii. Temporary diversion of overhead lines – covering Works OHT1 to OHT8

iii. High-pressure gas utilities – covering Works G1 to G10

iv. Diversion and connection of multi-utilities – covering Works MU1 to MU92

v. Temporary diversion and connection of multi-utilities – covering Works MUT1 to MUT32

b. Environmental works – covering Works E1 to E52.

c. Temporary Environmental work – Work No. ET1.

d. Flood compensation areas – covering Works FCA1 to FCA7.

e. Construction areas for main works – covering Works CA1 to CA16 (CA4 and CA12 not in use).

f. Utility Logistics Hubs – covering Works ULH1 to ULH16.

g. Open Space and Common Land – covering OSC1 to OSC12.

h. Thurrock Flexible Generation Plant (TFGP) diversion – Work No. TFGP1 - the TFGP DCO includes a new gas pipeline connection to the existing high-pressure National Grid gas national transmission system (NTS) at Feeder 18. The TFGP high-pressure gas pipeline intercepts the main alignment for LTC south of Station Road in Tilbury. Should Thurrock Power Limited construct the gas pipeline prior to construction of LTC, the pipeline will need to be diverted to enable the construction of the Project. Powers enabling National Highways to construct the diversion are provided subject to Requirement 15 in Schedule 2 to the draft DCO.

Plate 13.1 Example of numbered works at M2/A2/Lower Thames Crossing junction

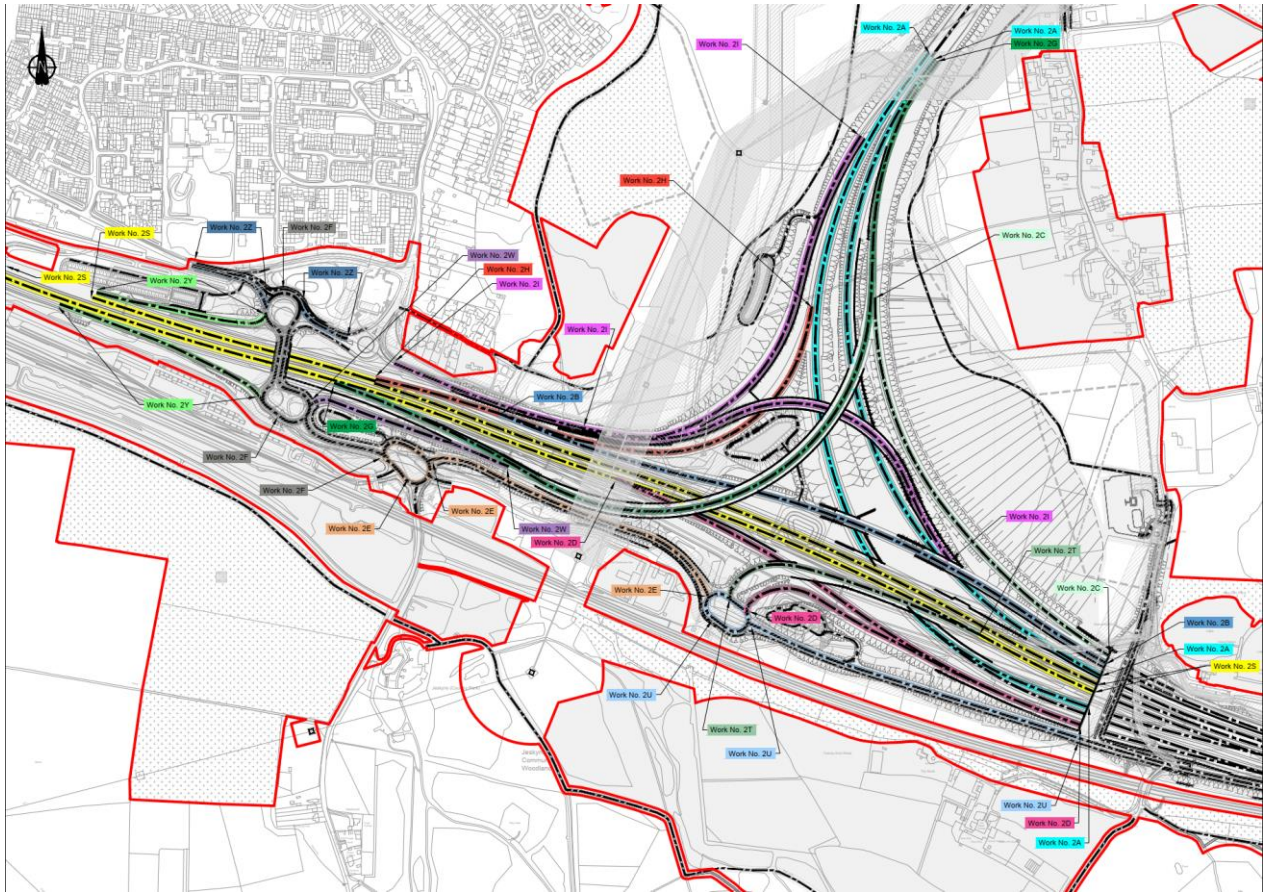
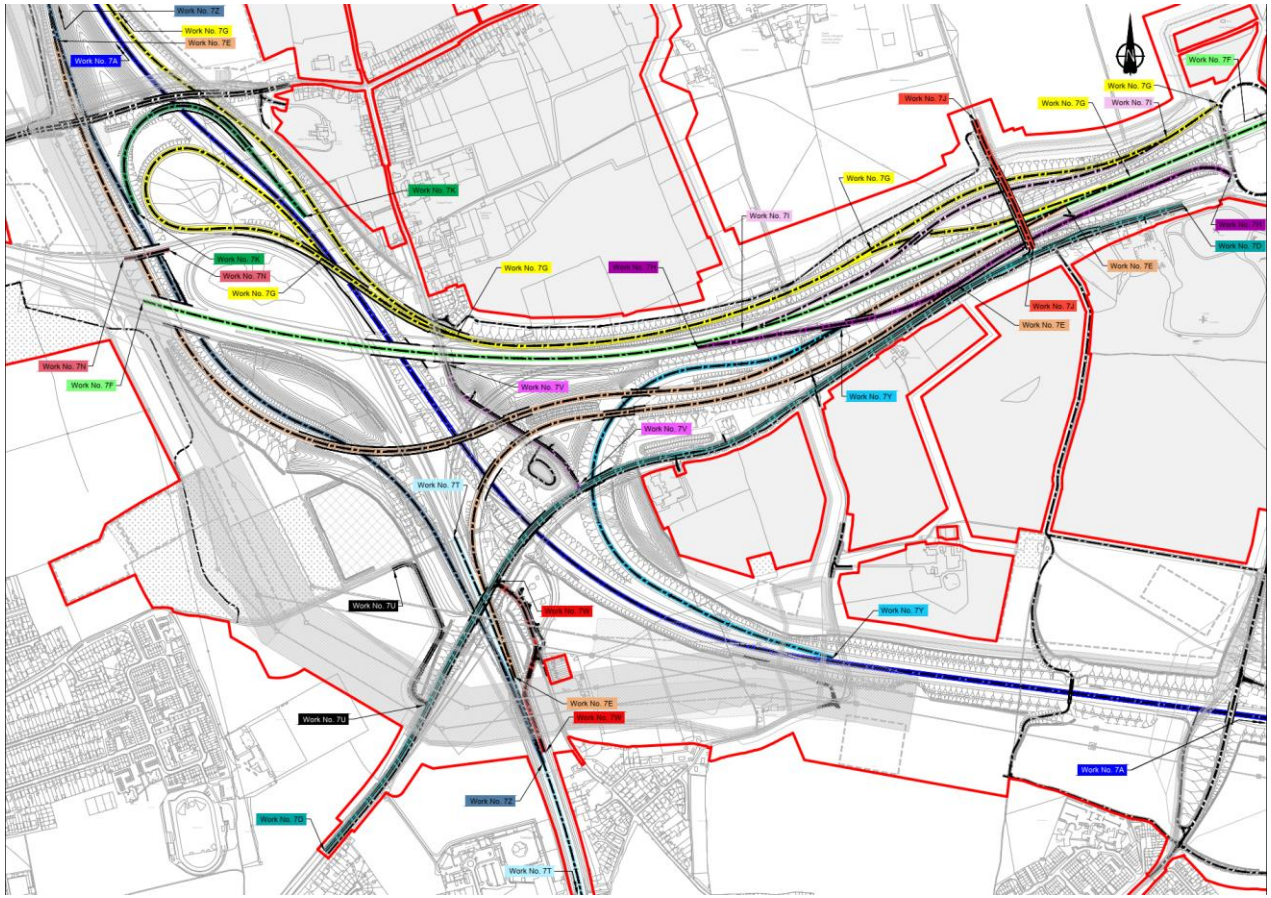


Plate 13.2 Example of numbered works at A13/A1089/A122 Lower Thames Crossing junction



Plans and drawings

13.2.11 The elements of the Project (or the authorised development), which are described in Schedule 1 of the draft Development Consent Order (Application Document 3.1) in the form of numbered works, are also represented visually in a series of technical plans and drawings included in the DCO application. Each set of plans and drawings provides information about a particular aspect of the Project. The information shown on the plans is for illustrative purposes only to show the proposed design of the Project and will be subject to detailed design. Detailed design will be in accordance with the extent of the defined limits of deviation provided in the draft DCO and any approval required under the requirements set out in Schedule 2 to the draft Development Consent Order (Application Document 3.1).

13.2.12 The names of the plan sets, as described above in Chapter 7 of this document are:

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a. The Works Plans (Application Document 2.6)

b. The Engineering Drawings and Sections (Application Document 2.9)

c. The Land Plans (Application Document 2.2)

d. The Rights of Way and Access Plans (Application Document 2.7)

13.2.13 Compliance with certain key plans and drawings is secured by DCO Requirement 3: '*The authorised development must be designed in detail and carried out in accordance with the design principles document and the preliminary scheme design shown on the engineering drawings and sections, and the general arrangement drawings, unless otherwise agreed in writing by the Secretary of State following consultation by the undertaker with the relevant planning authority on matters related to its functions, provided that the Secretary of State is satisfied that any amendments to those documents showing departures from the preliminary scheme design would not give rise to any materially new or materially different environmental effects in comparison with those reported in the environmental statement*'. These plans therefore provide a controlling mechanism for the location of the Project.

13.3 Relationship between the DCO and the plans and drawings

13.3.1 As indicated above, the application for development consent for the Project comprises a number of key documents which need to be read in conjunction with one another. In summary, the relationships between the submitted documents are as follows:

a. Schedule 1 of the draft Development Consent Order (Application Document 3.1) sets out a description of the Project, broken down into its component parts – see paragraphs 13.2.5 to 13.2.10 above, on 'numbered works'.

b. The numbered works are shown on the Works Plans (Application Document 2.6) by way of a centreline (in the case of linear works, of which the Project is, in the main, comprised and, in the case of non-linear works, by way of a boundary). In the first instance, the Works Plans should be read in conjunction with DCO Schedule 1.

13.3.2 The more detailed component parts of each numbered work are shown on other sets of plans/drawings as appropriate. Some examples are described below:

a. The Engineering Drawings and Sections (Application Document 2.9) provide more detail than the Works Plans, and show key features of the Project which take the form of built structures, such as bridges, junctions, slip roads, roundabouts, presenting these elements in both plan view and longitudinal cross-section, whilst also linking back to the Works Plans and DCO Schedule 1 by way of references throughout to the 'headline' numbered works shown on the Works Plans (and by reference to 'chainage' (which is a series of measurements running along the length of the Project, and including a marker every 100 metres and every 50 metres for several smaller roads – see the numbers set out in boxes, arranged perpendicular to the line of the road on the plan)). DCO article 6 (limits of deviation) sets out the upwards and downwards vertical limits of deviation applicable to the elements of the works shown; they should also be read in conjunction with the other documents mentioned above and below.

b. The Tunnel Limits of Deviation Plans (Application Document 2.15) in conjunction with DCO article 6 (limits of deviation) show the vertical limits of deviation applicable to the tunnel portal structures, tunnels, and tunnel service buildings (Work Nos. 3C, 4A and 5A).

c. The Rights of Way and Access Plans (Application Document 2.7) show the detail of all the highways (this includes Public Rights of Way), other streets and private means of access which would be affected by the Project on a permanent basis (if the Project were implemented). These plans show highways, other streets and private means of access which are proposed to be stopped up and, where appropriate, replaced with substitute highways, other streets or private means of access.

13.4 Limits of deviation

13.4.1 The draft DCO includes (at article 6) limits of deviation. The limits of deviation are designed to ensure that the development consent, if granted, includes a proportionate amount of flexibility, allowing a degree of 'deviation' from certain aspects of the consented Project as shown in certain plans and drawings – in this case the Works Plans (Application Document 2.6) and Tunnel Limits of Deviation Plans (Application Document 2.15). These are the documents which set the constraints by reference to which the limits of deviation are subsequently defined.

13.4.2 Limits of deviation are necessary because development consent is being applied for whilst the Project is still at the preliminary design stage. In accordance with standard industry practice, a contractor will not be appointed to carry out the detailed design until after the DCO application has been submitted. It is therefore imperative that the consent has sufficient flexibility built in to ensure that the Project can be implemented and delivered in due course without the risk of a breach of the terms of the DCO.

13.4.3 It is also important to ensure that the consent is drafted in terms which can accommodate, in light of the design stage of the Project, unforeseeable physical site circumstances, such as, for example, geological and ground conditions complications, which can give rise to unexpected issues on major civil engineering projects at the project implementation stage.

13.4.4 The general approach of having a textual limit of deviation in a DCO with reference to lines on the works plans and heights shown in design drawings is very well precedented in applications accepted by the Planning Inspectorate across other highways and energy projects (see, for example, article 5(2)(a) of the Silvertown Tunnel Order and article 5 of the National Grid (Hinkley Point C Connection Project) Order 2016).

Highway works

13.4.5 For highway works, the limits of deviation set out in article 6(1)(a) and (b) of the draft DCO allow for a lateral deviation from the lines and situations of the authorised development within the limits of deviation shown on the Works Plans (Application Document 2.6), and vertical deviation of the highway linear works as set out in article 6 which is subject to a maximum deviation of 0.5 metres upwards or 1m downwards.

Tunnel works

13.4.6 Under article 6(1)(b) and (c) and 6(2) (o) and (p) the limits of deviation for tunnel portal structures, tunnels and tunnel service buildings are controlled by and shown in the Tunnel Limits of Deviation Plans (Application Document 2.15).

Utilities

13.4.7 The limits of deviation for the diversion of statutory undertakers' and third-parties' apparatus has been separated out in article 6(2)(d) to (i) and allow for a lateral deviation from the lines and situations of the authorised development within the limits of deviation shown on the Works Plans (Application Document 2.6) as well as vertical deviations from the heights shown in the Engineering Drawings and Sections (Application Document 2.9).

Environmental works

13.4.8 The limits of deviation for the environmental works are set out in article 6(1)(a) and (b) of the draft DCO allow for a lateral deviation from the lines and situations of the authorised development within the boundaries for each site shown on the Works Plans (Application Document 2.6).

Construction compounds and Utility Logistics Hubs

13.4.9 The limits of deviation for the environmental works are set out in article 6(1)(a) and (b) of the draft DCO allow for a lateral deviation from the lines and situations of the authorised development within the boundaries for each site shown on the Works Plans (Application Document 2.6).

Chalk Park and Tilbury Fields

13.4.10 The limits of deviation for Chalk Park and Tilbury Fields are set out in article 6(1) of the draft DCO allow for a lateral deviation from the lines and situations of the authorised development within the boundaries for each site shown on the Works Plans (Application Document 2.6). The vertical deviation as set out in article 6(2)(b) and (c) is subject to a general maximum of 5m upwards and 5m downwards and limited to 2m upwards and 2m downwards for the highest levels (hilltop landform for Chalk Park and the sculptural landscape mounding for Tilbury Fields).

Drivers for flexibility and land usage for the diversion of statutory undertakers' apparatus

13.4.11 The flexibility and land usage sought in connection with the utilities is driven by the following factors:

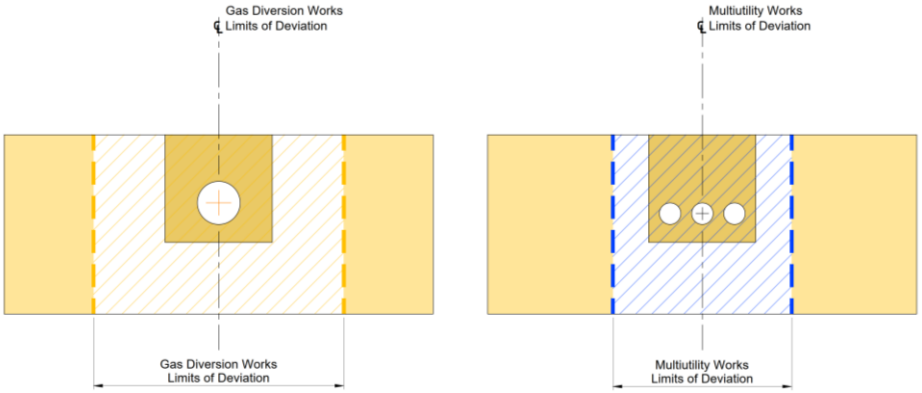
a. The presence of multi-utility corridors – unlike many other highways projects, the proposals entail not just isolated diversions of pipelines, or overhead lines, but the diversion and installation of multi-utility corridors. This aspect gives rise to the need to ensure there is appropriate flexibility within the same corridors for a number of utilities connections.

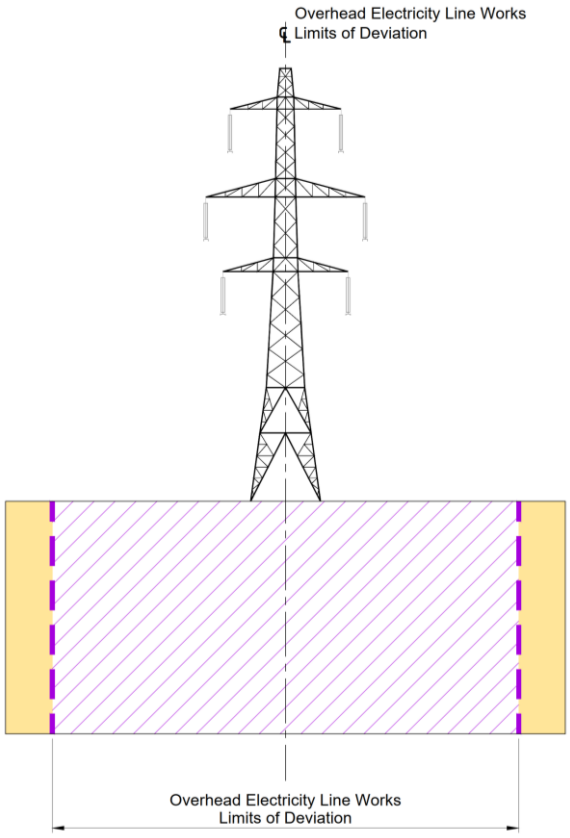
b. Inter-relationship between utilities works – the proposed areas for the distinct utilities works (gas pipelines, overhead line works and multi-utility underground corridors) are often in close proximity, giving rise to the need for additional areas of land for the purpose of carrying out the works which are narrower than the utility works area (see Plate 13.3).

c. Scale of the Project – given the scale of the Project, there is a greater potential that decisions made at the detailed design stage may have knock on implications for the precise location of any utilities works.

d. Flexibility for the utilities design is necessary to ensure that circumstances (such as unanticipated and uncertain asset locations, specific apparatus requirements and clearances, archaeology, ground conditions) which may only come to light as detailed design and construction works are progressed, do not render the proposals incapable of lawful implementation without recourse to the onerous procedures for varying the terms of a DCO. This flexibility will also enable better alignment of utilities with the Project's proposed environmental and ecological features.

Plate 13.3 Example of limits of deviation for statutory undertakers' apparatus





e. To avoid cumbersome severance of properties during construction and to allow for connection to existing utilities, the Order Limits have been produced to follow property boundaries where appropriate. In some instances, the limits of deviation and land use (discussed in the section below) extend to the boundary to reflect this approach.

f. The Applicant intends to continue to liaise with key stakeholders, including landowners and the statutory undertakers during the ongoing development of the design of the Project, and this is also a factor which requires a degree of flexibility to be inherent in the consent sought and granted, so that the positive outputs of that collaborative process can be accommodated and realised.

13.4.12 With respect to the diversion of statutory undertakers' apparatus, there are four types of limits of deviations indicated within article 6 of the draft Development Consent Order (Application Document 3.1). These apply to the following:

a. Overhead high voltage electricity transmission line diversions

b. Gas pipeline diversions

c. Underground multi-utility diversions

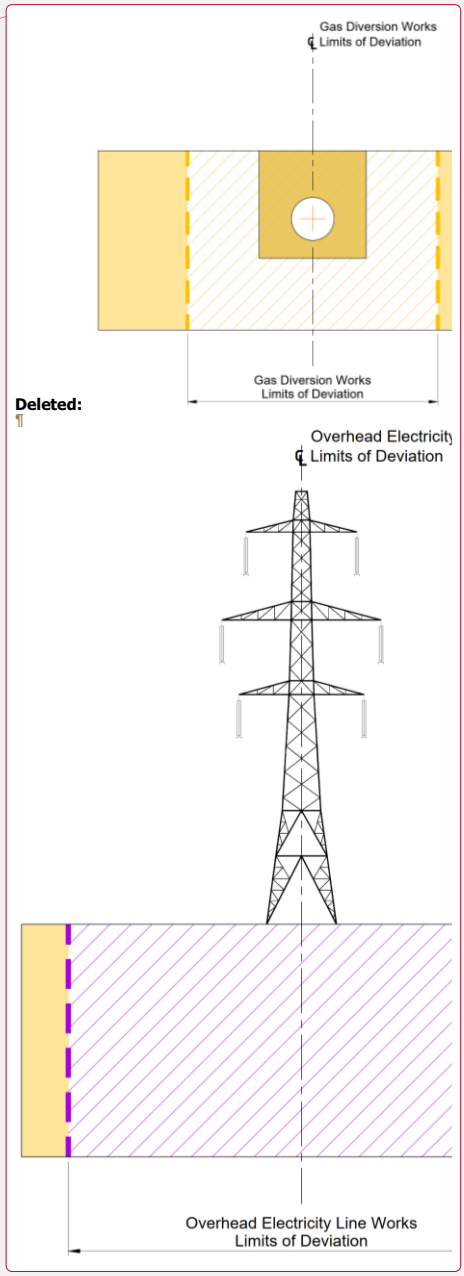
d. Above ground multi-utility compounds

13.4.13 More stringent lateral and vertical limits of deviation are sought for utilities where the environmental effects have a potential to be greater (i.e. the high pressure gas pipelines and overhead electricity transmission lines).

13.4.14 Table 13.1 further elaborates on the approach in relation to the four types of utilities works.

Table 13.1 Approach to lateral and vertical limits of deviation in relation to the four types of utilities works

Type of work	Lateral limit of deviation	Vertical limit of deviation	Commentary
Overhead line works (Works Number OH1, OH3 to OH8)	Varying between 0 to 40 metres either side of the situations/ lines as shown in the Works Plans (Application Document 2.6 – as per article 6(1)(a)	Six metres upwards from the heights shown in the Engineering Drawings and Sections (Application Document 2.9) and to any extent downwards as may be found to be necessary or convenient; (article 6(2)(f))	The limits of deviation sought have been established following close engagement with National Grid, and are consistent with the limits of deviation sought for their projects (see, for example, the limits sought and granted in connection with the Richborough Connection project – note the lateral limits of deviation are shown on a plan, but are similar to the lateral limits of deviation sought here).



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Type of work	Lateral limit of deviation	Vertical limit of deviation	Commentary
SGN medium pressure gas pipeline works (Work No. G1a and G1b) National Grid high pressure gas pipeline works (Works Nos. G2 to G4)	Varying between 10 to 20 metres either side of work centreline as shown in the Works Plans (Application Document 2.6) as per article 6(1)(a)	<u>For Works No. G1b, G3 and G4:</u> Not less than 1.2 metres below the surface of the ground (upwards) (article 6(2)(d)(i))vertically downwards to such extent as may be found necessary or convenient to a maximum depth of 25 metres below the surface of the ground (article 6(1)(d)(ii)) <u>For Works No. G1a and G2:</u> Not less than 1.2 metres below the surface of the ground (upwards) (article 6(2)(e)(i))vertically downwards to such extent as may be found necessary or convenient to a maximum depth of 15 metres below the surface of the ground (article 6(1)(e)(ii))	The limits of deviation sought have been established following engagement with the asset owners and are consistent with other pipeline projects (see, for example, the Thorpe Marsh Gas Pipeline Order 2016 and the River Humber Gas Pipeline Replacement Order 2016).
Cadent high pressure gas pipeline works (Work Nos. G5, G6, G6b, G7 and G10)	10 metres either side of work centreline as shown in the Works Plans (Application Document 2.6) as per article 6(1)(a)	Not less than 1.2 metres below the surface of the ground (upwards) (article 6(2)(e)(i))vertically downwards to such extent as may be found necessary or convenient to a maximum depth of 15 metres below the surface of the ground (article 6(1)(e)(ii))	The limits of deviation sought have been established following engagement with the asset owners and are consistent with other pipeline projects (see, for example, the Thorpe Marsh Gas Pipeline Order 2016 and the River Humber Gas Pipeline Replacement Order 2016).
City of London Corporation (ex-Barking Power Station pipeline) high pressure gas pipeline works (Works Nos. G8 & G9) Removal of overhead line (Work No. OH2)	This is an existing asset, and the extent of works are shown in the Works Plans (as per article 6(1)(a)).	As this is an existing asset, no vertical limits of deviation are required.	N/A

Type of work	Lateral limit of deviation	Vertical limit of deviation	Commentary
Thurrock Flexible Generation Plant high pressure gas pipeline diversion work (Work No. TFGP1)	6 metres either side of work centreline as shown in the Works Plans (Application Document 2.6) as per article 6(1)(a)	Not less than 1.2 metres below the surface of the ground (upwards) (article 6(2)(e)(i))vertically downwards to such extent as may be found necessary or convenient to a maximum depth of 15 metres below the surface of the ground (article 6(1)(e)(ii))	The limits of deviation sought have been established following engagement with the asset owners and are consistent with other pipeline projects (see, for example, the Thorpe Marsh Gas Pipeline Order 2016 and the River Humber Gas Pipeline Replacement Order 2016).
Underground multi-utility works (Works Nos. MU1 to MU92).	Varying between 2 and 25m either side of work centreline as shown on the Works Plans (Application Document 2.6) as per article 6(1)(a)	Not less than 0.25 metres below the surface of the ground (upwards) (article 6(2)(h)(i)) To such extent as may be found to be necessary or convenient (downwards) (article 6(2)(h)(ii)	As set out above, highway projects do not usually include multi-utility corridors. The limits of deviation sought here reflect the stage of design development for which uncertainty over the alignment of existing utilities remains until further ground surveys are completed. Also the fact that given these works are underground utilities works, will not entail as adverse environmental impacts compared with the overhead line works, or given their scale, as compared with the proposed high pressure gas pipeline works.
Above ground multi-utility compounds. Works Nos.: • MU21 Southern Portal electricity compound (UKPN) • G6a Stanford Road gas compound (Cadent).	Within the box shown for the work in the Works Plans – this is controlled by article 6(1)(a) which refers to the “lines and situations” of a work, which in this context is a “box”.	Maximum heights (upwards) as set out in article 6(2)(k) for Work No. MU21 and 6(2)(n) for Work No. G6a.	As set out above, highway projects do not usually include multi-utility corridors. The limits of deviation sought here reflect the stage of design development.

Type of work	Lateral limit of deviation	Vertical limit of deviation	Commentary
Above ground substations (Works Nos. MU1, MU11, MU13, MU14, MU33, MU36, MU41, MU48, MU49, MU52, MU43, and MU45)	Within the box shown for the work in the Works Plans – this is controlled by article 6(1)(a) which refers to the "lines and situations" of a work, which in this context is a "box" annotated as "SS".	Maximum heights (upwards) as set out in article 6(2)(j).	The limits of deviation sought have been established following engagement with the asset owners.
Above ground poles: Work No. MU87 and MU92	10m either side of work centreline as shown on the Works Plans (Application Document 2.6) as per article 6(1)(a)	Maximum heights (upwards) as set out in article 6(2)(l).	The limits of deviation sought have been established following engagement with the asset owners.
Temporary overhead line (Works Number OHT1 to OHT8)	40 metres either side of the situations/ lines as shown in the Works Plans (Application Document 2.6) as per article 6(1)(a)	To any extent upwards not exceeding the heights listed in **Schedule 1** and to any extent downwards as may be necessary or convenient (article 6(2)(g)(i) and (ii))	The limits of deviation sought have been established following close engagement with National Grid, and are consistent with the limits of deviation sought for their projects (see, for example, the limits sought and granted in connection with the Richborough Connection project – note the lateral limits of deviation are shown on a plan, but are similar to the lateral limits of deviation sought here).
Temporary underground multi-utility works (Works Nos. MUT1 to MUT4 and MUT6 to MU32)	Varying between 2 and 10m either side of work centreline as shown on the Works Plans (Application Document 2.6) as per article 6(1)(a)	Not less than 0.25 metres below the surface of the ground (upwards) (article 6(2)(i)(i)) To such extent as may be found to be necessary or convenient (downwards) (article 6(2)(i)(ii)	As set out above, highway projects do not usually include multi-utility corridors. The limits of deviation sought here reflect the stage of design development for which uncertainty over the alignment of existing utilities remains until further ground surveys are completed. Also the fact that given these works are underground utilities

Type of work	Lateral limit of deviation	Vertical limit of deviation	Commentary
			works, will not entail as adverse environmental impacts compared with the overhead line works, or given their scale, as compared with the proposed high pressure gas pipeline works.
Temporary above ground substation: MUT5	Within the box shown for the work in the Works Plans – this is controlled by article 6(1)(a) which refers to the "lines and situations" of a work, which in this context is a "box".	Maximum heights (upwards) as set out in article 6(2)(m)	The limits of deviation sought have been established following engagement with the asset owners and are consistent with other pipeline projects.

Land usage for statutory undertakers' apparatus

13.4.15 The Land Plans read in conjunction with the Statement of Reasons (Application Document 4.1) and Book of Reference (Application Document 4.2) set out the controls on the use of land and the extent of rights that may be acquired following grant of the DCO. This includes relevant restrictions for the utilities works. In particular:

a. The purposes for which temporary possession can be taken in connection with the plots in column (1) of the Schedule 11 of the draft DCO are limited and controlled in columns (2) and (3).

b. The permanent rights and/or restrictive covenants or subsoil which can be acquired in connection with those plots in Schedules 8 and 10 of the draft DCO are similarly controlled and limited.

13.4.16 The Applicant does not in most cases propose to acquire full title to land permanently for the purpose of diverting statutory undertakers' apparatus (further particulars of acquisition sought are in the Book of Reference (Application Document 4.2). This reflects the existing situation in relation to the utilities infrastructure across the Order Limits where in most cases the land is not owned outright by the statutory undertaker, but they have rights to install, maintain and access the land. Where diversionary works are proposed, the existing rights of the statutory undertakers within the Order Limits will be extinguished as part of the land acquisition process and new permanent rights will be dedicated over the relocated assets for the statutory undertakers and third-parties ahead of commencing the works.

13.4.17 Provision has been made in the draft DCO for the creation and acquisition of new rights to accommodate the diversion of statutory undertakers' apparatus over a number of new plots (see articles 28, 31 and 32).

13.4.18 Whilst these rights are shown as applying to the whole of the relevant plots, the Applicant will only seek to acquire permanent rights over land in connection with the operation/maintenance of the apparatus for the defined corridor of the diversions following detailed design and once the works have been completed. Consideration will be given to combining corridors for statutory undertakers' apparatus where practicable and acceptable to the asset owner.

13.4.19 Following detailed design, the power to acquire permanent rights would only be implemented by the Applicant in respect of the land in the identified corridors; it would not, be implemented over the entirety of the plots in question. The purpose of this is to give the Applicant the flexibility to minimise so far as is possible the extent of interests to be acquired, with consequently less impact on affected landowners, and lower payments of compensation which is in the public interest.

13.4.20 This approach has been benchmarked against other granted National Highways DCOs and takes a similar approach to the A19/A184 Testo's junction, M42 junction 6 and A585 Windy Harbour to Skippool improvement schemes which required significant utility diversions and sought the same level of flexibility within the limits of deviations.

13.4.21 Further details on compulsory acquisition powers can be found in Chapter 9 of this document.

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Consistency between environmental assessments carried out and the Project for which development consent is sought

13.4.22 In terms of what has been assessed in the Environmental Statement (Application Document 6.1), Environmental Statement Chapter 2 explains the approach taken in the assessment and sets out what has been assessed, namely the works proposed to be authorised in the draft DCO.

13.4.23 The Applicant has produced the environmental assessments recorded in the Environmental Statement supporting the DCO application, such that there is consistency between the environmental assessments carried out and the Project for which development consent is sought. The Environmental Statement has assessed a reasonable worst-case scenario defined by the limits of deviation described above, proposed mitigation and available information from the statutory undertakers.

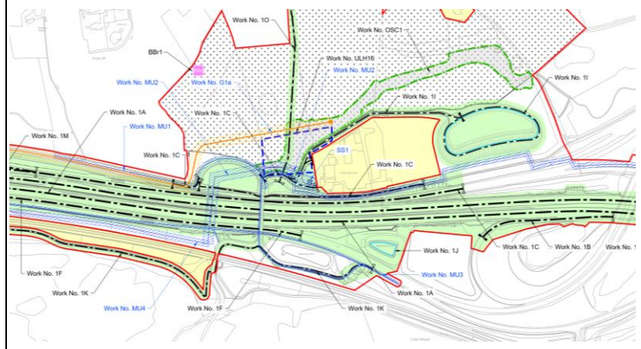
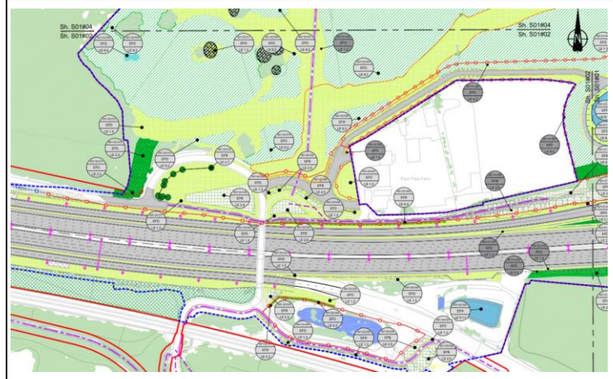
13.5 Worked examples

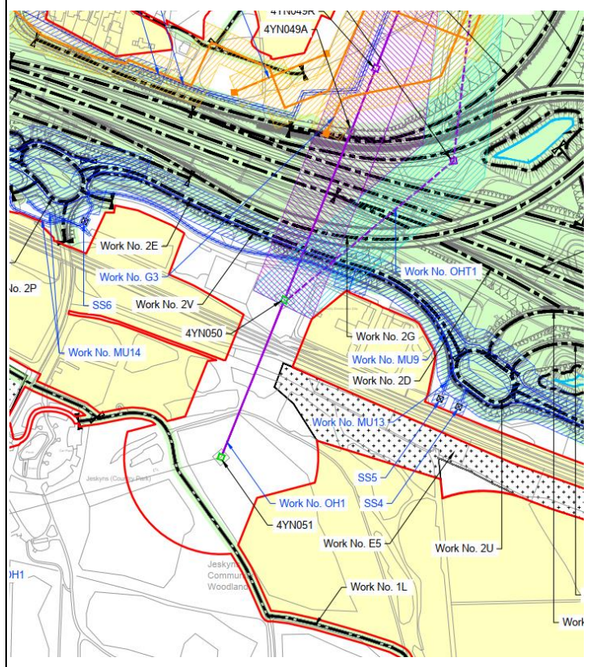
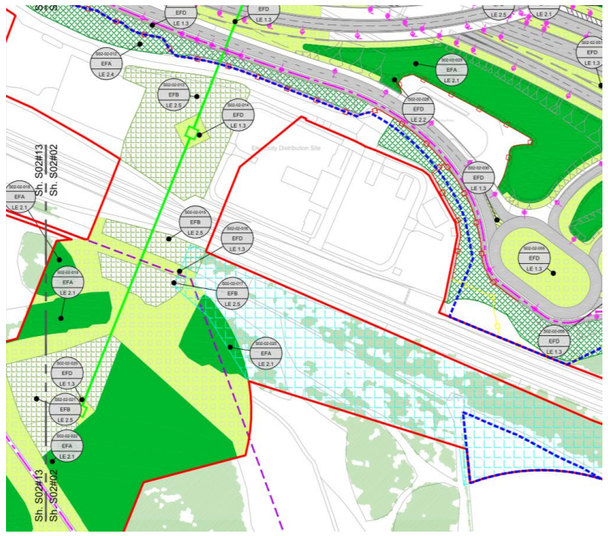
13.5.1 Below in Table 13.2 are worked examples of the relevant controls in connection with particular highways and utilities diversion works.

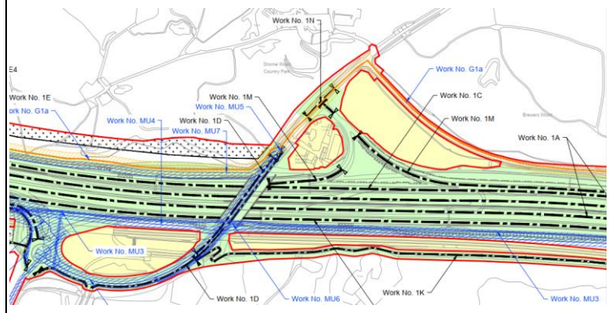
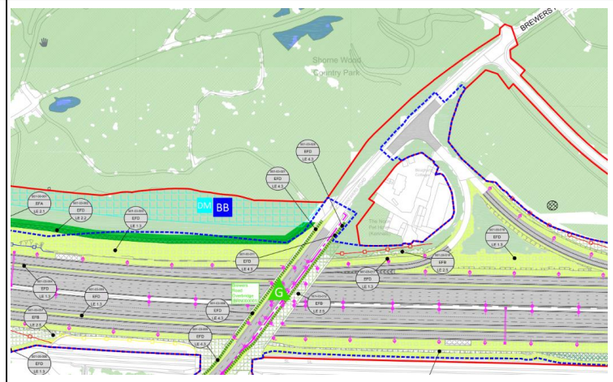
13.6 Conclusion

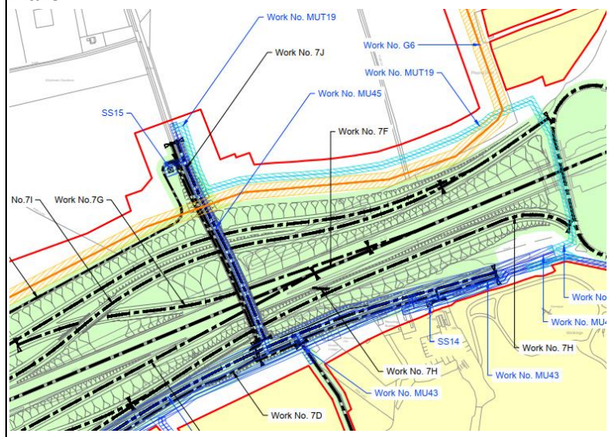
13.6.1 In light of the above controls, the application achieves a proportionate and appropriate balance between building in adequate control measures (to provide clarity and certainty about the nature of the Project for which consent is sought and which would be delivered if consent was granted), and ensuring that an adequate level of flexibility is incorporated into the terms of the consent applied for.

Table 13.2 Worked examples of the relevant controls in connection with particular utilities diversion works

Work	Limits of deviation	Purposes for which temporary possession can be taken (Schedule 11)	Purposes for which permanent rights can be acquired (Schedule 8)	Sample of mitigation measures secured under Requirement 4(2) from the REAC and under Requirement 3 from the Design Principles	Environmental Masterplan
Work Number 1C	For highways works, a lateral deviation from the lines and situations of the authorised development within the limits of deviation shown on the Works Plans:  Sheet 3	N/A.	Plots 03-29, 03-30, 03-31 and 03-32 Required for: New A2 eastbound link road, including: construction of a new single carriageway local road and construction of a new Public Right of Way between Park Pale and Shorne Woods.	REAC: LV005 No main compounds, as defined in the project description presented in Environmental Statement Chapter 2: Project Description (Application Document 6.1), would be located within the Kent Downs AONB. Design Principles: S1.01 To retain the historic woodland landscape character within the Kent Downs AONB, and to screen the Project from users of Shorne Woods Country Park (including users of Park Pale Lane), existing planting along the northern edge of the A2 corridor shall be retained as far as reasonably practicable. Where tree loss is unavoidable, landscape proposals shall maximise reinstatement of woodland within the A2 corridor as defined in the Environmental Masterplan (Section 1 sheets 1-3 and Section 2 sheets 1-4) (Application Document 6.2).	 Section 1, Sheet 2

Work	Limits of deviation	Purposes for which temporary possession can be taken (Schedule 11)	Purposes for which permanent rights can be acquired (Schedule 8)	Sample of mitigation measures secured under Requirement 4(2) from the REAC and under Requirement 3 from the Design Principles	Environmental Masterplan
Work Number OH1	For utilities works, a lateral deviation from the lines and situations of the authorised development within the limits of deviation shown on the Works Plans:  Sheet 6	Plots 06-54, 06-56, 06-121, 06-135, 06-152 and 06-158 Required for: Diversion or modification of overhead lines.	Plots 06-54, 06-56, 06-121, 06-152 and 06-158 Required for: Diversion or modification of overhead lines, including rights and restrictive covenants to construct, protect, operate, access and maintain.	REAC: LV002 Land temporarily impacted by works to divert utilities would be reinstated to its former condition and composition upon completion, as far as reasonably practicable, unless otherwise specified in the Environmental Masterplan (Figure 2.4, Application Document 6.2) or under the terms of article 35 of the draft DCO, which sets out the temporary possession powers. LV001 Detailed design for the Project, including diverted utilities, will aim to reduce the removal of trees and vegetation as far as reasonably practicable, and in accordance with the LEMP and the Environmental Masterplan (Figure 2.4, Application Document 6.2). Design Principles: S1.12 Where vegetation is removed as a result of utilities work along the former A2 corridor west of the junction, appropriate reinstatement and planting using suitable species is to take place along the utility route as far as reasonably practicable.	 Section 2, Sheet 2

Work	Limits of deviation	Purposes for which temporary possession can be taken (Schedule 11)	Purposes for which permanent rights can be acquired (Schedule 8)	Sample of mitigation measures secured under Requirement 4(2) from the REAC and under Requirement 3 from the Design Principles	Environmental Masterplan
Work Number G1a	For utilities works, a lateral deviation from the lines and situations of the authorised development within the limits of deviation shown on the Works Plans:  Sheet 4	Plots 03-02, 03-03, 03-14, 03-16, 03-17, 04-89, 04-140, 04-223, 04-228, 04-244, 04-246, 04-247, 04-249, 04-251, 04-252, 04-266, 04-268 and 04-274, 04-226, 04-227, 04-253, 04-254 and 04-255 Required for: Diversion of medium pressure gas utility.	Plots 03-02, 03-03, 03-14, 03-16, 03-17 04-140, 04-223, 04-228, 04-244, 04-246, 04-247, 04-249, 04-251, 04-252, 04-266, 04-268 and 04-274 Required for: Diversion of medium pressure gas utility, including rights and restrictive covenants to construct, protect, operate, access and maintain.	REAC: LV002 Land temporarily impacted by works to divert utilities would be reinstated to its former condition and composition upon completion, as far as reasonably practicable, unless otherwise specified in the Environmental Masterplan (Figure 2.4, Application Document 6.2) or under the terms of article 35 of the draft DCO, which sets out the temporary possession powers. LV001 Detailed design for the Project, including diverted utilities, will aim to reduce the removal of trees and vegetation as far as reasonably practicable, and in accordance with the LEMP and the Environmental Masterplan (Figure 2.4, Application Document 6.2). Design Principles: S1.03 To reduce the impact on the Kent Downs AONB, the preliminary design has been developed to reduce the width of the A2 corridor footprint as far as reasonably practicable. The detailed design shall be developed to minimise the footprint of the works associated with the Project and diverted utilities in order to maximise the areas available for woodland planting. For example, steep planted engineered embankments shall be used, and asset maintenance accesses, PRoWs and utilities easements shall be combined to make as efficient use of land as is safe and practicable.	 Section 1, Sheet 3

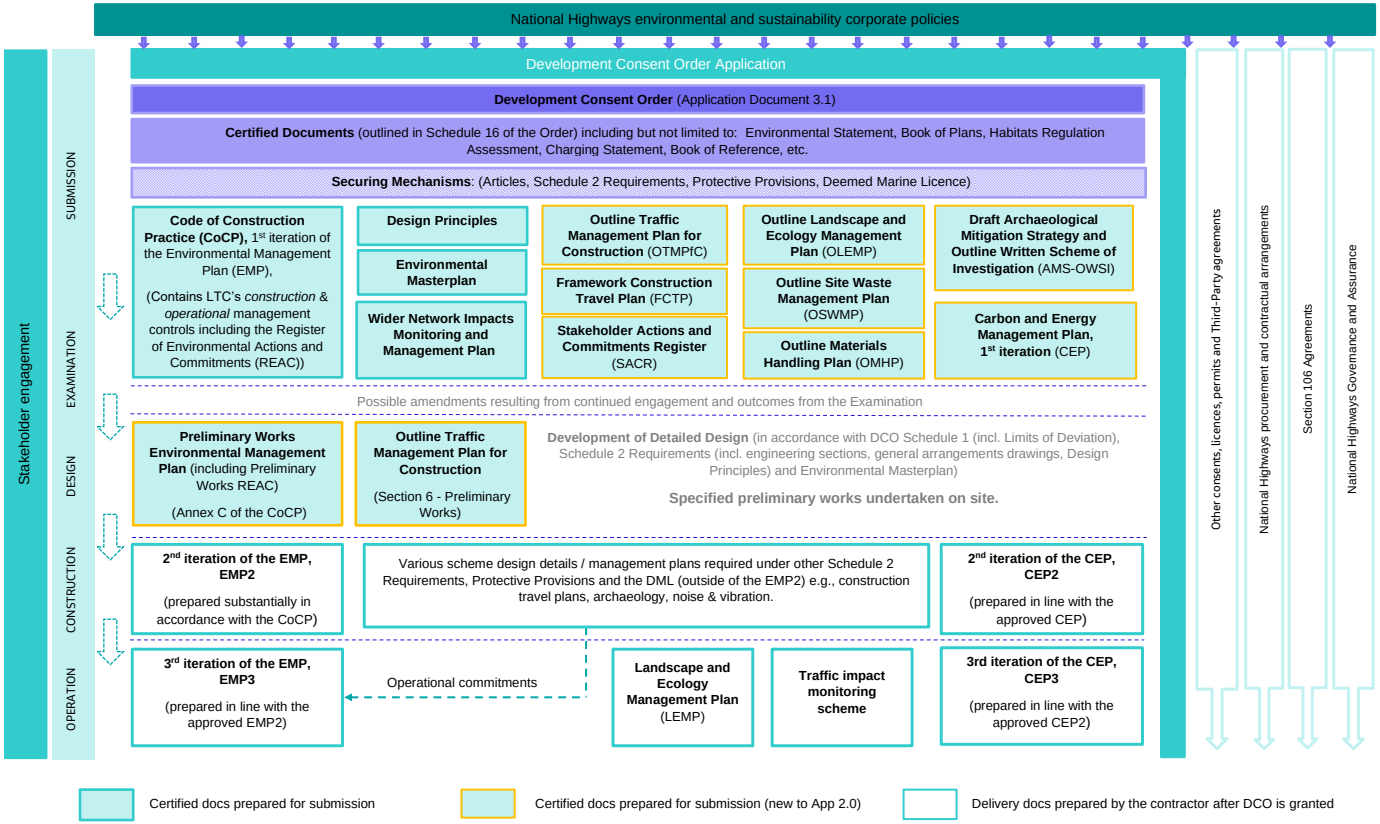
Work	Limits of deviation	Purposes for which temporary possession can be taken (Schedule 11)	Purposes for which permanent rights can be acquired (Schedule 8)	Sample of mitigation measures secured under Requirement 4(2) from the REAC and under Requirement 3 from the Design Principles	Environmental Masterplan
Work Number MU45	For utilities works, a lateral deviation from the lines and situations of the authorised development within the limits of deviation on the Works Plans:  Sheet 32	MU45 covers a number of plots as specified in Schedule 11 Required for: Utility works, including the installation or diversion of underground utilities within a multiutility corridor.	MU45 covers a number of plots as specified in Schedule 8 Required for: Utility works, including the installation or diversion of underground utilities within a multiutility corridor, including rights and restrictive covenants to construct, protect, operate, access and maintain.	REAC: LV002 Land temporarily impacted by works to divert utilities would be reinstated to its former condition and composition upon completion, as far as reasonably practicable, unless otherwise specified in the Environmental Masterplan (Figure 2.4, Application Document 6.2) or under the terms of article 35 of the draft DCO, which sets out the temporary possession powers. LV001 Detailed design for the Project, including diverted utilities, will aim to reduce the removal of trees and vegetation as far as reasonably practicable, and in accordance with the LEMP and the Environmental Masterplan (Figure 2.4, Application Document 6.2).	 Section 11, Sheet 4

14 Mitigation route map (control plan)

14.1 Introduction

14.1.1 This chapter describes the mitigation route map, also known as the control plan, which is the framework for mitigating, monitoring and controlling effects of the Project. It is made up of a series of 'control documents' which present the mitigation measures identified in the application that must be implemented during design, construction and operation to reduce the adverse effects of the Project. The control plan is illustrated in Plate 14.1.

Plate 14.1 Control Plan



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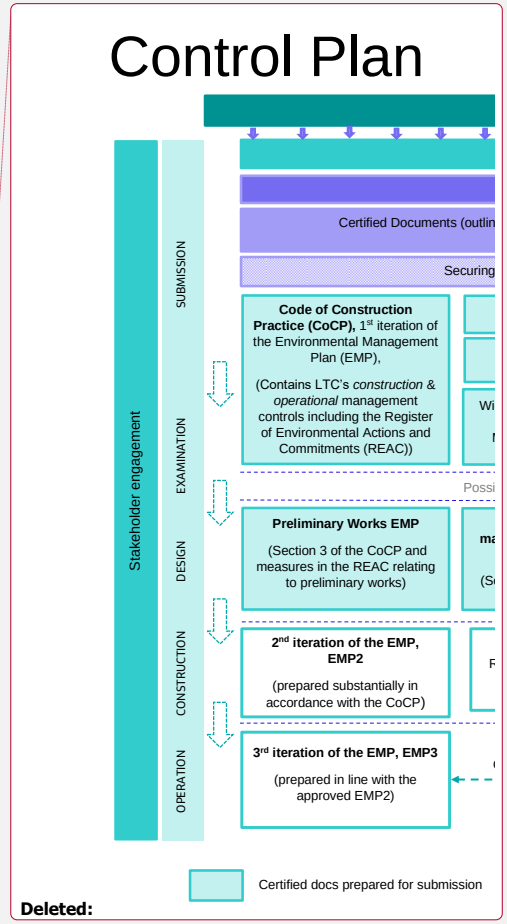

14.1.2 Each document in the plate above is secured within the draft DCO by means of an article, a specific requirement within Schedule 2 Requirements, Protective Provisions, or the Deemed Marine Licence.

14.1.3 Table 14.1 identifies the individual control documents submitted as part of this application and their relevance to each phase of the development and implementation of the Project. Reference is also provided to the specific securing mechanism for each. The purpose of each document is briefly described in the preceding chapters of this document and elaborated further below where necessary.

14.1.4 Where relevant, certain draft versions of the control documents have been consulted on as part of the preparation of the DCO application either though technical engagement with the relevant stakeholders or as part of the Community Impacts Consultation, and subsequently updated to reflect feedback.

14.1.5 Following acceptance of the DCO application, the Application Documents contained within Table 14.1 may be subject to amendment because of continued stakeholder engagement and change arising through the examination process.

14.1.6 The Project has not yet been designed in detail, and the DCO application contains a preliminary scheme design. Accordingly, following successful grant of the DCO, the Project Contractors would progress the detailed design of the Project in line with the DCO and implement the mitigation measures outlined within the control documents. Some control documents (e.g. the outline Traffic Management Plan for Construction) are outline documents which contain processes and frameworks for managing impacts or establishing measures, whilst some control documents (e.g. the REAC) contain specific measures which are secured. The DCO application contains both types of control documents because National Highways is balancing the stage of design development against providing appropriate and proportionate controls.

14.1.7 Updated management plans detailing the mitigation measures to be implemented as required under the Schedule 2 Requirements, Protective Provisions and the Deemed Marine Licence, would then be produced and submitted to the Secretary of State for approval in consultation with the relevant statutory bodies, prior to beginning construction works or operation, depending on the specific requirement.

14.1.8 Outside of the DCO application, sit a series of additional control measures which will be implemented further to the mitigation detailed within the control documents. These include, but are not limited to:

a. Other consents, licences, permits and Third-Party agreements, where these have not been specifically disapplied by the DCO

b. National Highways procurement and contractual arrangements; additional requirements as detailed in the agreements signed with the Project Contractors

c. Section 106 Agreements; further planning obligations as agreed with Local Authorities (Heads of Terms for those agreements are submitted as part of the application in Application Document 7.3)

d. National Highways governance and assurance arrangements

14.1.9 The Consents and Agreements Position Statement (Application Document 3.3) sets out the intended strategy for obtaining consents and associated agreements needed to implement the Project.

Table 14.1 Control documents at each phase

Phase of Project	Relevant Application Document	Secured by
Design Development	General arrangement drawings, engineering drawings and sections (see chapter 7)	draft DCO Schedule 2 Requirement 3
	Volume 3 draft DCO and Schedules 1 and 4	draft DCO articles 3, 6
	Environmental Masterplan	draft DCO Schedule 2 Requirement 5
	Design Principles	draft DCO Schedule 2 Requirement 3
	Carbon and Energy Management Plan (First Iteration)	draft DCO Schedule 2 Requirement 16
	Stakeholder Actions and Commitments Register	draft DCO article 61
Construction – preliminary works	Preliminary works Environmental Management Plan (EMP, contained in the Code of Construction Practice) and preliminary works REAC	draft DCO Schedule 2 Requirement 4
	Outline Traffic Management Plan for Construction – Section 6 on preliminary works	draft DCO Schedule 2 Requirement 10
Construction – main works	Code of Construction Practice	draft DCO Schedule 2 Requirement 4 and delivered through EMP2
	Register of Environmental Actions and Commitments	draft DCO Schedule 2 Requirement 4 and delivered through EMP2
	Outline Site Waste Management Plan	draft DCO Schedule 2 Requirement 4 and delivered through EMP2 which must include plans for the management of site waste substantially in accordance with the oSWMP

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Phase of Project	Relevant Application Document	Secured by
	Outline Materials Handling Plan	draft DCO Schedule 2 Requirement 4 and delivered through EMP2 which must include plans for the management of materials substantially in accordance with the oMHP
	Outline Traffic Management Plan for Construction	draft DCO Schedule 2 Requirement 10 and delivered through a Traffic Management Plan which must be substantially in accordance with the oTMPfC
	Framework Construction Travel Plan	draft DCO Schedule 2 Requirement 11 and delivered through Site Specific Travel Plans (SSTPs) which must be substantially in accordance with the Framework Construction Travel Plan (FCTP)
	Draft Archaeological Mitigation Strategy – Outline Written Scheme of Investigation	draft DCO Schedule 2 Requirement 9 and delivered through a Written Scheme for the Investigation reflecting the measures in the draft AMS-OWSI
	Carbon and Energy Management Plan	draft DCO Schedule 2 Requirement 16 and delivered through a Carbon and Energy Management Plan, Second Iteration, which must be substantially in accordance with the First Iteration
	Preliminary Navigational Risk Assessment	draft DCO protective provisions for the benefit the Port of London Authority
	Stakeholder Actions and Commitments Register	draft DCO article 61
Operation and Maintenance	Register of Environmental Actions and Commitments	draft DCO Schedule 2 Requirement 4 and delivered through EMP3
	Outline Landscape and Ecology Management Plan	draft DCO Schedule 2 Requirement 5 and delivered through a Landscape and Ecology Management Plan (LEMP) which must be substantially in accordance with the oLEMP

Phase of Project	Relevant Application Document	Secured by
	Wider Network Impacts Management and Monitoring Plan	draft DCO Schedule 2 Requirement 14 and delivered through a Traffic Impact Monitoring Scheme which must be substantially in accordance with the WNIMMP
	Carbon and Energy Management Plan	draft DCO Schedule 2 Requirement 16 and delivered through a Carbon and Energy Management Plan, Third Iteration, which must address the matters in the Second Iteration
	Preliminary Navigational Risk Assessment	draft DCO protective provisions for the benefit of the Port of London Authority
	Stakeholder Actions and Commitments Register	draft DCO article 61

14.2 Detailed design control

14.2.1 Following successful grant of the DCO, the detailed design would be produced in accordance with the control plan documents presented in the DCO, as amended during examination where relevant. In relation to the first row in column 1 of Table 14.1, Application Documents that control the detailed design and contain embedded mitigation are described in Chapter 12. This includes general arrangement drawings, engineering drawings and sections; Volume 3 draft DCO and Schedules 1 and 4 that relate to design development; the Environmental Masterplan; the Design Principles; and the Carbon and Energy Management Plan (First Iteration) (see Section 14.3 below). The detailed design would be produced in line with the limits of deviation, as defined in article 6 of the draft DCO and discussed further in the preceding chapter. The maximum limits of deviation would not apply where the Secretary of State approves of a variation and where it is demonstrated that a deviation in excess of these limits would not give rise to any materially new or materially different environmental effects in comparison with those reported in the Environmental Statement.

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14.2.2 As per the CoCP, where the Contractors propose a change to the design of the Project under article 6 or Requirements 3 or 8 of the DCO they must follow a process insofar as the proposed change requires a consideration of whether there is a 'materially new or materially different' effect as compared with the Environmental Statement. If the proposed change does not give rise to a materially new or materially different effect and where the change is progressed, management plans may be amended to reflect the change, where required.

14.3 Construction phase control

14.3.1 The control documents presenting the measures to be implemented by the contractor during the construction phase are identified in the second and third rows of the first column in Table 14.1. These measures ensure that the construction phase of the Project is appropriately managed and mitigation measures implemented to reduce the adverse effects of the Project.

14.3.2 Within the construction phase are preliminary works and main works. Preliminary works are those that would be undertaken between the DCO being made and commencement of construction as defined by the draft Development Consent Order. The draft Development Consent Order (Application Document 3.1) provides a definition of commencement, as well as a definition of "preliminary works".

14.3.3 The effect of these definitions is that some works outside the scope of the formal definition of commencement can be carried out prior to the discharge of the requirements contained in Schedule 2 of the DCO and the approvals required therein.

14.3.4 The preliminary works have been identified as works which may be carried out early in the construction programme and which would have negligible or relatively minor environmental impacts.

14.3.5 The only preliminary works that can be undertaken and their locations are listed in Table 3.1 of the CoCP. These preliminary works shall be undertaken in accordance with industry good practice and relevant commitments in the REAC (see Table 3.2 of the CoCP).

14.3.6 These controls will be in place on the date the DCO comes into force to provide assurance that appropriate environmental controls apply to works which can be carried out prior to the discharge of requirements under the DCO (as per Requirement 4(1) of Schedule 2 to the DCO).

14.3.7 For more information, please see 3 of the CoCP.

14.3.8 The preliminary works must also be carried out in accordance with section 6 of the outline Traffic Management Plan for Construction.

14.3.9 The control documents which are relevant to the management of the effects of the Project during main works construction are described below. The contractors would be required to submit updated versions of the control documents to the Secretary of State for approval in consultation with the relevant statutory bodies, prior to the commencement of construction.

The CoCP and REAC

14.3.10 The CoCP provides a framework to manage construction and operational activities.

14.3.11 The good practice and essential construction and operation mitigation measures presented in the Environmental Statement are collated in the Register of Environmental Actions and Commitments (REAC) which is chapter 7 of the Code of Construction Practice (CoCP). There is a number referencing system for mitigation measures contained within the REAC that is applicable to the measures described throughout the Environmental Statement.

14.3.12 Following examination the CoCP will form the basis for Contractors' contracts. Compliance with the REAC is secured as Requirement 4 of Schedule 2 of the draft Development Consent Order (Application Document 3.1).

14.3.13 Before commencement of works, the contractors would develop the Second Iteration of the Environmental Management Plans (EMP2), which must be consistent with the CoCP and REAC. Each EMP2 would be specific to the contractor, the scope of works to be undertaken and the relevant location. These EMP2s should follow appropriate industry-standard practice and reflect the mitigation measures set out in the REAC. The EMP2s would:

a. Set out procedures for monitoring compliance with the mitigation measures outlined in the REAC.

b. Develop additional environmental management plans for environmental aspects that require further measures and controls during the construction phase. This would include plans for managing air quality, ecology, soils, contaminated land, substances hazardous to health and pollution prevention controls.

Outline Site Waste Management Plan

14.3.14 The outline Site Waste Management Plan (oSWMP) (Annex A of the CoCP) (Application Document 6.3) sets out the overarching principles and procedures for managing waste during the construction phase. The plan also defines specific roles and responsibilities to ensure waste is managed effectively and covers all works within the Order Limits during construction. The contractor would produce a plan for the management of site waste, substantially in accordance with the oSWMP. This would be part of EMP2.

Outline Materials Handling Plan

14.3.15 The outline Materials Handling Plan (oMHP) (Annex B of the CoCP) (Application Document 6.3) sets out the approach and high-level principles for handling construction materials and waste, both inside and outside the Order Limits. The contractor would produce a plan for the management of materials, substantially in accordance with the oMHP once appointed and more detail is known. This would be part of the EMP2.

Outline Traffic Management Plan for Construction

14.3.16 The outline Traffic Management Plan for Construction (oTMPfC) (Application Document 7.14) outlines the approach to carrying out temporary traffic management for the safe construction of the new road. It also explains measures available to the contractor to reduce the impact on the local community (including journey time reliability, access, severance and safety). The oTMPfC has been produced following work with relevant local authorities, businesses and emergency services. Once appointed, the contractors would produce a plan substantially in accordance with the oTMPfC for implementation during construction.

Framework Construction Travel Plan

14.3.17 The Framework Construction Travel Plan (Application Document 7.13) sets out a framework to reduce the impact of the Project's construction workforce on the road network as a result of travel to and from construction worksites, compounds and Utility Logistics Hubs (ULH). The FCTP sets out proposed measures, including reducing single occupancy vehicle trips and encouraging sustainable and active travel. Prior to the start of construction, the contractors would develop Site Specific Travel Plans (SSTPs) in accordance with the FCTP, following the latest policy, advice and best practice documents. This would apply to individual compounds and ULH, or several where they are closely located with similar levels of accessibility.

Draft Archaeological Mitigation Strategy – Outline Written Scheme of Investigation

14.3.18 The Draft Archaeological Mitigation Strategy and Outline Written Scheme of Investigation (Draft AMS-OWSI) document (Appendix 6.9 of the Environmental Statement) (Application Document 6.3) sets out the strategy for essential mitigation for heritage assets. It describes the embedded and good practice mitigation measures relevant to cultural heritage. Written Schemes of Investigation (WSI) would be prepared for areas of archaeological interest provisionally identified as requiring mitigation in this AMS-OWSI. The contractor would produce a plan in accordance with the Draft AMS-OWSI, once appointed and more detailed design is developed.

Carbon and Energy Management Plan

14.3.19 The Carbon and Energy Management Plan (Application Document 7.19) sets out how the Project will minimise its carbon impact during construction and operation. To achieve this, the Project has reduced its carbon emissions significantly during preliminary design through low carbon solutions and has developed a Lowest Carbon Strategy. The plan describes the carbon commitments that the Project is making, which are focused around setting a challenging carbon baseline and establishing a best practice approach to carbon management and the adoption of the PAS2080 Carbon Management in Infrastructure standard. The Lowest Carbon Strategy aims to further reduce carbon emissions further over the lifetime of the Project

14.3.20 Before construction starts, a Second Iteration of the Carbon and Energy Management Plan would need to be submitted to and approved by the Secretary of State following consultation by the undertaker with the bodies identified in the First Iteration. The Second Iteration must be substantially in accordance with the First Iteration.

Preliminary Navigational Risk Assessment

14.3.21 The Preliminary Navigational Risk Assessment (pNRA) (Application Document 7.15) assesses and quantifies the navigation risk posed by the Project during construction and operation. The draft DCO seeks a range of powers necessary to undertake the Project, including powers in relation to construction of temporary and permanent structures, discharge of water and survey of the river Thames and adjoining land.

14.3.22 The requirement for a Navigational Risk Assessment, is secured in the protective provisions for the Port of London Authority in the draft DCO. The protective provisions require a navigational risk assessment to be submitted to the PLA that must be in all material respects in accordance with the pNRA, and should include where relevant, the incorporation of risk controls identified in the pNRA.

Stakeholder Actions and Commitments Register

14.3.23 The Stakeholder Actions and Commitments Register (Application Document 7.21) provides a list of construction and/or design and/or operational related commitments given to stakeholders that are secured within the DCO and are not included in other documents or agreements such as side agreements (agreed with specific stakeholders outside of the DCO), environmental mitigation (as secured in the REAC) or measures required within the outline management plans. The intention of the document is to reduce the need for legal agreements by providing a mechanism to provide legally secured commitments which has the effect of assisting stakeholders by obviating time/expense associated with legal agreements and speeding up resolution of issues during examination.

14.4 Operational phase control

14.4.1 The control documents presenting the measures to be implemented immediately following construction during the establishment period, and afterwards during the operation of the road are identified in the fourth row in the first column in Table 14.1.

14.4.2 The control documents which are relevant to the management of the environmental effects of the Project in the operation phase are described below.

The CoCP and REAC

14.4.3 The CoCP and REAC include measures relevant to the operation phases of the Project. These control plan documents are described further in the construction phase discussed above.

14.4.4 A third update of the EMP (EMP3) would be prepared by the construction Contractors for implementation following completion of the construction phase. This would set out the approach to environmental management during the Project's operational phase to be implemented by National Highways. The EMP3 will build on the EMP2 (except where covered in a Landscape and Ecology Management Plan (LEMP)) and will provide the relevant information on existing and future environmental commitments and objectives that will need to be honoured and ongoing actions and risks that will need to be managed. It will include as-built information and other details in a form that can be utilised by the organisation responsible for long-term operational management.

Outline Landscape and Ecology Management Plan

14.4.5 The outline Landscape and Ecology Management Plan (oLEMP) (Application Document 6.7) outlines the proposed management of the landscape and ecological elements of the Project. National Highways' Design Manual for Roads and Bridges (DMRB) standards GM 701 Series 3000 and GS 801 Series 3000 documents establish the general maintenance and inspection requirements for motorways and all-purpose trunk roads. The oLEMP focuses on the management requirements for the land parcels within the Order Limits acquired permanently that perform specific landscape and ecological mitigation functions. It details the management regimes, management expectations and monitoring requirements for each of those land parcels and the typologies contained within. It should be read in conjunction with the Environmental Masterplan (Application Document 6.2, Figure 2.4).

14.4.6 The oLEMP is based on the preliminary design to date. A final version of the LEMP would be created by the Contractor for implementation during the establishment period and after the establishment period.

14.4.7 The final LEMP would need to be substantially in accordance with the oLEMP, including the habitat management requirements, targets and prescriptions set out in it, and must reflect the Design Principles document and the mitigation measures set out in the REAC. It would be based on the Environmental Masterplan (Application Document 6.2, Figure 2.4).

Wider Network Impacts Management and Monitoring Plan

14.4.8 The Wider Network Impacts Management and Monitoring Plan (WNIMMP) (Application Document 7.12) has been produced to set out National Highways' approach on monitoring and managing the associated wider network impacts of the Project, through the proposed DCO traffic impact monitoring scheme. The WNIMMP sets out a traffic impact monitoring scheme to be carried out a year prior to opening (to establish a baseline) and one and five years after the road opens to identify changes in performance on the surrounding road network.

Carbon and Energy Management Plan

14.4.9 A Third Iteration of the Carbon and Energy Management Plan would be developed and completed by the end of the construction, commissioning and handover stage of any part of the authorised development, in accordance with the process set out in the First Iteration of that plan.

14.4.10 The Third Iteration of the Carbon and Energy Management Plan would address the matters set out in the Second Iteration that are relevant to the operation and maintenance of the authorised development and must contain the long-term commitments to manage and minimise carbon emissions during the operation and maintenance of the authorised development.

15 Identifying information geographically and thematically in the application

15.1 Introduction

15.1.1 In order to further support clarity and understanding, this section provides further guidance on how to locate information geographically and thematically within the DCO application. This chapter does not change or substantively add to the content of Application Documents or the relationships between them.

15.2 Identifying information geographically

15.2.1 Whilst the DCO is intended to be as accessible as possible, readers may be interested in understanding the design, construction and operational activities and effects at particular locations.

15.2.2 In many DCO application documents, the Project has been broken down into nine operational geographical sections, as described in Environmental Statement Chapter 2 Project Description (Application Document 6.1) and in Volume 2 Book of Plans. These run from south-east to north-west and reflect localised design constraints and opportunities. In a small number of DCO application documents, this geographical split is different which is appropriate to the nature of that particular document.

15.2.3 The environmental effects of the Project are described in the Environmental Statement (Application Document 6.1), and the traffic impacts are described in the Transport Assessment (Application Document 7.9). To provide a more accessible approach to understanding impacts geographically, information at a ward level was provided during the Community Impacts Consultation (see Section 16). The Community Impact Report (Application Document 7.16) is part of this DCO application and seeks to follow on from the approach used in that consultation by providing information at the same level. This includes a list explaining how the wards relate to the nine operational sections set out in Volume 2 Book of Plans and Environmental Statement Chapter 2 - Project description (Application Document 6.1). This is also supported by a number of map figures which illustrate activities and effects.

15.3 Identifying information thematically

15.3.1 A number of key themes have been identified by the Applicant and stakeholders during consultation and technical engagement. Whilst not exhaustive, the table below sets these out together with a summary of where these are addressed in the DCO application.

Table 15.1 Themes and location where addressed in the DCO application

Theme	Location in the DCO application
Need for the Project	The Need for the Project (Application Document 7.1) sets out the need case for the Project and the scheme objectives. It demonstrates that there is a clear and compelling need to address the long-standing transport problems at the Dartford Crossing, as well as an opportunity to boost local and regional economic growth. The Need for the Project sets out the benefits of the Project, which include increasing the road space supply to meet the traffic demand wishing to cross the River Thames east of London, with the resultant reduction in congestion at the Dartford Crossing, reductions in journey time and improvements in resilience and connectivity alongside benefits to the local, regional and national economy.
Options, alternatives and design evolution	The Planning Statement (Application Document 7.2) illustrates the evolution of the Project including the identification and selection of options and alternatives, demonstrates the impact of consultation and engagement on the design, and evidences the influence environmental assessment has had on the application design of the Project. The Project Design Report (Application Document 7.4) sets out how the Preliminary Design was developed and provides the illustrative designs for landscaping and key structures including the tunnel portals. It sets out the Project background, approach to and development of good design on a Project-wide, regional and local area-specific basis. Environmental Statement Chapter 3 - Assessment of Reasonable Alternatives (Application Document 6.1) identifies the reasonable alternatives that have been considered during the development of the Project and summarises the findings of the environmental assessments of those alternatives. The chapter describes the main alternatives identified and the reasons for their adoption or rejection by the Project. It also includes details of reappraisal work carried out to check the ongoing validity of those decisions as time has passed. The Statement of Reasons (Application Document 4.1) presents the approach to project design and alternatives in the context of the case for compulsory acquisition.
Construction traffic and environmental effects and control measures	The Transport Assessment (TA) (Application Document 7.9) presents outputs from the Project's transport model core scenario (more information on this is contained in Section 5.7 of the TA) during both the construction and operational phases of the Project. Outputs from the Project's transport model are used to support other assessments within the application, notably those contained within the Environmental Statement

Theme	Location in the DCO application
	(Application Document 6.1 – 6.3). This includes the air quality, noise and vibration and climate chapters whose assessments within the Environmental Statement use the same core scenario data. In addition, for the construction phase, outputs from the construction assessment have been used in the development of the following control documents: • The outline Traffic Management Plan for Construction (oTMPfC) (Application Document 7.14) • The Framework Construction Travel Plan (FCTP) (Application Document 7.13) • Environmental Statement Appendix 2.2 - Code of Construction Practice, First iteration of Environmental Management Plan - Annex B - outline Materials Handling Plan (oMHP) (Application Document 6.2) The construction impact assessment presented in the TA and the oTMPfC have been developed and finalised through an iterative process to help refine the anticipated resource levels and to reduce the forecast impacts on the road network. The detailed construction plans will be developed once the Contractor has been appointed. As these are developed, further work would be undertaken to refine the planning and reduce the impacts of the works. The oTMPfC contains a number of specific measures, such as HGV bans, that have arisen through this iterative review, and which are reflected into the modelling set out in the TA. To provide control over the works as the detailed construction plans are developed, the oTMPfC sets out a framework within which National Highways will work with local authorities to monitor and control the works. The FCTP has made use of the outputs from the Project's transport model with regards to the assumptions of where staff would travel to work from, and the baseline mode share assumptions for each compound or Utility Logistics Hub. The TA has been produced in line with the assumptions contained within the oMHP, including the baseline commitment of the percentage of material to be imported to the northern tunnel entrance compound from nearby port facilities
Carbon, energy and climate change	The Carbon and Energy Management Plan (Application Document 7.19) sets out the Applicant's carbon ambitions for the Project and the mechanisms that it will use to deliver them. This plan focuses on construction and maintenance emissions as these emissions are under its control and influence.

Theme	Location in the DCO application
	The Applicant has designated the Project as a 'pathfinder' for low carbon construction and set the following ambitions: • To construct it for the lowest practicable carbon emissions • To test low carbon innovation and approaches • To leave a legacy that enables future projects to decarbonise, in line with National Highways' ambition for net zero construction emissions by 2040 The Applicant's approach is based on the following principles: • Select the right partners • Set minimum standards • Reward carbon reduction • Invest in low carbon innovation • Adopt a best practice carbon management approach The Environmental Statement Chapter 15 - Climate (Application Document 6.1) presents an assessment of the likely significant effects of the Project on climate during construction and operation. This includes assessment of the Project's impact on greenhouse gas (GHG) emissions and assessment of the vulnerability of the Project to climate change during construction and operation. A number of other documents are closely linked to the climate assessment, namely: • Environmental Statement Chapter 14 - Road Drainage and the Water Environment (Application Document 6.1) • Environmental Statement Appendix 14.6 - Flood Risk Assessment (FRA) (Application Document 6.3) Appendix I: Carbon Strategy and Policy Alignment of the Planning Statement (Application Document 7.2) has been produced to explain how the Applicant's approach goes beyond previous practice and the requirements of NPSNN, to push the construction industry towards a net zero trajectory. The Combined Modelling and Appraisal Report, Appendix D - Economic Appraisal Report (Application Document 7.7) monetises the emissions and provides an explanation of the carbon emissions from road users. The Sustainability Statement (Application Document 7.11) covers wider aspects of sustainability including energy efficiency, water efficiency and CEEQUAL.
Navigation	Proposals for the use of the river by the Project, including for import of construction materials are set out in the outline Materials Handling Plan (oMHP) (Annex B of the CocP) (Application Document 6.3), in particular Section 6 on materials movement. This is then aligned across all assessments within the application, including the

Theme	Location in the DCO application
	Environmental Statement (Application Documents 6.1 to 6.3), Habitats Regulations Assessment – Screening Report and Statement to Inform an Appropriate Assessment (Application Document 6.5), Transport Assessment (Application Document 7.9 – Section 8.11), and the Preliminary Navigational Risk Assessment (Application Document 7.15). A Preliminary Navigational Risk Assessment (Application Document 7.15) assesses and quantifies the navigation risk posed by the Project during construction and operation. That particular assessment focusses on navigational risk and as the Project is proposing to utilise existing and consented capacity, there are existing navigational risk controls in place for the import of materials. The use of the river by Project vessels and material supply vessels has also been considered in the Environmental Statement. Within each topic chapter of the Environmental Statement, a section is included on 'use of the river'. These sections explain the relevance, if any, of vessel movements to the topic in question, and, where relevant, include a qualitative assessment of any effects. As a result of these assessments, no significant environmental effects resulting from vessel movements have been identified. Further information on the theme of navigation can be found in the Applicant's response to the Planning Inspectorate's section 51 advice dated 26/11/2020 in Annex C of the Covering Letter (Application Document 1.1).

16 Update since application submitted in October 2020

16.1 Introduction

16.1.1 After submitting a DCO application to the Planning Inspectorate on 23 October 2020 and receiving early feedback on it, National Highways (then known as Highways England) withdrew the application on 20 November 2020. A full response to the Planning Inspectorate's section 51 advice at that time and since then is provided in Annex C of the Cover letter with Schedule 55 Checklist for the LTC Project (Application Document 1.1).

16.1.2 National Highways has undertaken a considerable amount of work in response to feedback from the Planning Inspectorate, stakeholders and the public following the withdrawal of the DCO application in November 2020. This has included undertaking a Community Impacts Consultation, which ran from 14 July to 8 September 2021, and a further Local Refinement Consultation, which ran from 12 May to 20 June 2022.

16.1.3 Alongside this public consultation, extensive technical engagement has continued with stakeholders. As described in Section 10, a Statement of Engagement (Application Document 5.2) has been prepared to set out National Highways' approach to engagement with stakeholders alongside consultation (outlined in the Consultation Report, Application Document 5.1). Statements of Common Ground (Application Document 5.4) have been submitted as part of this application which reflect matters agreed and not agreed with stakeholders.

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16.1.4 The DCO application as it is now submitted represents an evolution on the one submitted in October 2020, whilst further reinforcing the clear need and benefits of the Project, which are outlined in documents such as the Need for the Project (Application Document 7.1) and the Benefits and Outcomes Document (Application Document 7.20).

16.1.5 This chapter provides further information to help readers understand the updates since the version of the DCO application submitted in October 2020.

16.1.6 This chapter provides updates in the following sections:

a. Changes since the application dated October 2020 – in relation to the design of the Project, how it is built and operated and Order Limit changes.

b. Consultation – high level information on the Community Impacts Consultation and Local Refinement Consultation.

c. Technical engagement – high level information on technical engagement undertaken.

d. New and significantly amended documents produced since the application dated October 2020 – this provides an overview of the application framework, focusing on new documents, significantly amended documents and change in structure.

16.2 Changes to the Design since the application dated October 2020

16.2.1 Changes can broadly be categorised as:

a. Design and access changes – for example, a new link road from the Orsett Cock junction to the A1089 and the redesign of Tilbury Fields.

b. Order Limit changes – between the Design Refinement Consultation and Community Impacts Consultation, Order Limits were reduced from 22.9km^2 to 22.2km^2. This then increased to 24.35km^2 in the Local Refinement Consultation due to land added to compensate for the potential nitrogen deposition effects caused by the forecast changes in traffic. The Order Limits for the DCO application are 23.94km^2. The Project has also reduced the number of properties within the Order Limits. Examples of Order Limit reductions include the reduction around the Ron Evans Memorial Field and the proposed replacement area for Orsett Showground. The Applicant has removed the East Tilbury Jetty to the east of Port of Tilbury (Tilbury 2 terminal) as any deliveries by river would come through the Port of Tilbury or other established port/dockside facilities. In a number of instances, changes have taken place in relation to land use acquisition status, particularly in relation to utilities.

c. Utilities changes – the Applicant has continued to work with utility companies to further refine its proposals. The emphasis has been on reducing the impact on communities, local landowners, businesses, the owner of the utility network and the environment, while also working to minimise any visual impacts once the new road is open. This includes:

   i. The realignment of gas pipelines to reduce impacts; for example to avoid a Scheduled Ancient Monument (SM7) and woodland near to Brewers Road and the Orsett Showground

   ii. The relocation of equipment; for example of the Shorne Woods switchgear equipment

   iii. Changes to proposed electricity substation locations, resulting in modifications to the proposed utility diversion routes, the Order Limits and land requirements

   iv. Sufficient development of design to allow for the consideration of tighter Limits of Deviation for underground utilities works

d. Mitigation and compensation proposals – for example, the inclusion of three arable fields in the Order Limits to the north of Chalk and to the south of the Thames and Medway Canal and Metropolitan Police firing range. These changes to how these fields are farmed will improve the habitat for birds

during construction. The Project also provides a substantial area of land for new wildlife habitats that would compensate for potential nitrogen deposition impacts.

16.2.2 Further information on the changes can be found in the Consultation Report (Application Document 5.1) in the following sections:

e. Chapter 8 Community Impacts Consultation. This provides a description of the changes made following the Design Refinement Consultation which were then consulted upon.

f. Chapter 14 Community Impacts Consultation responses. This provides lists of issues raised in consultee responses and National Highways response to these.

g. Chapter 14.5 Summary of changes to the Project as a result of the Community Impacts Consultation.

h. Chapter 9 Local Refinement Consultation. This provides a description of the changes made following the Community Impacts Consultation which were then consulted upon.

i. Chapter 15 Local Refinement Consultation responses. This provides lists of issues raised in consultee responses and National Highways' response to these.

j. Chapter 15.5 Summary of changes to the Project as a result of the Local Refinement Consultation.

16.2.3 To understand the Project definition in which this DCO is seeking consent for, reference should be made to Schedule 1 of the draft Development Consent Order (Application Document 3.1) and Chapter 2 Project Description in the Environmental Statement (Application Document 6.1).

16.3 Consultation

16.3.1 Since submitting the DCO in October 2020, National Highways has undertaken two further phases of public consultation: the Community Impacts Consultation and the Local Refinement Consultation. Over the same period, National Highways has also undertaken three rounds of consultation with owners of land (and other interested parties) that would be affected by localised design refinements. These three phases form part of National Highways' ongoing process of working directly with affected land interests to reach agreements and make progress with the design of the Project.

16.3.2 National Highways invited comments on an extensive suite of new documents and materials in the Community Impacts Consultation, including:

a. Guide to the community impacts consultation

b. Operations update

c. Construction update

d. Ward impact summaries

e. You said, we did

f. Maps – including General Arrangements, Land Use Plans, Engineering Plans

g. Draft DCO application documents, such as the CoCP and outline Site Waste Management Plan

16.3.3 Appendix S of the Consultation Report (Application Document 5.1) provides copies of or links to the Community Impacts Consultation material.

16.3.4 Following the Community Impacts Consultation, National Highways invited comments on new documents and materials in the Local Refinement Consultation, including:

a. Guide to the Local Refinement Consultation, including a section on 'You said, we did'

b. Maps – including General Arrangements, Land Use Plans, Engineering Plans

16.3.5 Appendix T of the Consultation Report provides copies of our links to the Local Refinement Consultation material.

16.4 Technical engagement

16.4.1 Since submitting the DCO in October 2020 and alongside public consultation, extensive technical engagement has continued with a number of land owners and stakeholders. As described in Section 10, a Statement of Engagement (Application Document 5.2) has been prepared to set out National Highways' approach to engagement with stakeholders alongside consultation (outlined in the Consultation Report, Application Document 5.1). Statements of Common Ground (Application Document 5.4) have been submitted as part of this application which reflect matters agreed and not agreed with stakeholders.

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16.4.2 The application submitted in October 2020 was shared with key stakeholder groups such as local authorities. In addition, many of the emerging documents for this subsequent DCO submission have been shared with these same stakeholders for comment.

16.5 New and significantly amended documents

16.5.1 Since submitting the DCO in October 2020, most DCO documents have been amended. For example, design changes and a new construction and operation programme have led to changes across documents such plans, drawings and sections, and upon traffic and environmental assessments and associated control documents such as the REAC.

16.5.2 Furthermore, a number of new documents have been produced for this application, notably but not limited to:

a. Temporary Works Plans (Application Document 2.17)

b. Hedgerows and Tree Preservation Order Plans (Application Document 2.18)

c. Statement of Engagement (Application Document 5.2)

d. Statement of Commonality (Application Document 5.3)

e. Statements of Common Ground (Application Document 5.4) – whose purpose and content has been developed from the previously submitted Summary of Envisaged Statements of Common Ground

f. Statement responding to Local Authority stated positions on Adequacy of Consultation (Application Document 5.5)

g. Environmental Statement Appendix 4.4 - Traffic and Transport (Application Document 6.3)

h. Environmental Statement Appendix 2.2 - Code of Construction Practice, First iteration of Environmental Management Plan - Annex A - outline Site Waste Management Plan (Application Document 6.3)

i. Environmental Statement Appendix 2.2 - Code of Construction Practice, First iteration of Environmental Management Plan - Annex B - outline Materials Handling Plan (Application Document 6.3)

j. Outline Landscape and Ecology Management Plan (Application Document 6.7)

k. Section 106 Agreements – Heads of Terms (Application Document 7.3)

l. Wider Network Impacts Management and Monitoring Plan (Application Document 7.12) – whose purpose and content has been developed from the previously submitted Outline Monitoring Strategy

m. Framework Construction Travel Plan (Application Document 7.13)

n. Outline Traffic Management Plan for Construction (Application Document 7.14)

o. Preliminary Navigational Risk Assessment (Application Document 7.15)

p. Community Impact Report (Application Document 7.16)

q. Interrelationships with other Nationally Significant Infrastructure Projects and Major Development Schemes (Application Document 7.17)

r. Workers Accommodation Report (Application Document 7.18)

s. Carbon and Energy Management Plan (Application Document 7.19) – whose purpose and content has been developed from the previously submitted Carbon and Energy Plan

t. Benefits & Outcomes Document (Application Document 7.20)

u. Stakeholder Actions and Commitments Register (Application Document 7.21)

16.5.3 Many of these documents were shared during the Community Impacts Consultation (see section 16.3 above) and / or subject to technical engagement (see section 16.4 above).

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16.5.4 Other changes made include but not limited to:

a. The construction traffic modelling has been refined into 11 rather than 5 phases.

b. The CoCP is now combined with REAC.

c. Reordering the structure of the Geology and Soils Appendices in light of request from Thurrock Council.

d. Inclusion of qualitative review of the use of the river in each Environmental Statement Chapter.

16.6 Conclusion

16.6.1 National Highways has shared a proportionate and greater amount of information on the Project with stakeholders, through public consultation and ongoing technical engagement. National Highways has taken on board this feedback to evolve and improve the proposals as presented in this application.

Glossary

Term	Abbreviation	Explanation
A122		The new A122 trunk road to be constructed as part of the Lower Thames Crossing project, including links, as defined in Part 2, Schedule 5 (Classification of Roads) in the draft DCO (Application Document 3.1)
A122 Lower Thames Crossing	**Project**	A proposed new crossing of the Thames Estuary linking the county of Kent with the county of Essex, at or east of the existing Dartford Crossing.
A122 Lower Thames Crossing/M25 junction		New junction with north-facing slip roads on the M25 between M25 junctions 29 and 30, near North Ockendon.
A13/A1089/A122 Lower Thames Crossing junction		Alteration of the existing junction between the A13 and the A1089, and construction of a new junction between the A122 Lower Thames Crossing and the A13 and A1089, comprising the following link roads: Improved A13 westbound to A122 Lower Thames Crossing southbound Improved A13 westbound to A122 Lower Thames Crossing northbound Improved A13 westbound to A1089 southbound A122 Lower Thames Crossing southbound to improved A13 eastbound and Orsett Cock roundabout A122 Lower Thames Crossing northbound to improved A13 eastbound and Orsett Cock roundabout Orsett Cock roundabout to the improved A13 westbound Improved A13 eastbound to Orsett Cock roundabout Improved A1089 northbound to A122 Lower Thames Crossing northbound Improved A1089 northbound to A122 Lower Thames Crossing southbound
A2		A major road in south-east England, connecting London with the English Channel port of Dover in Kent.
Application Document		In the context of the Project, a document submitted to the Planning Inspectorate as part of the application for development consent.
Construction		Activity on and/or offsite required to implement the Project. The construction phase is considered to commence with the first activity on site (e.g. creation of site access), and ends with demobilisation.

Term	Abbreviation	Explanation
Design Manual for Roads and Bridges	**DMRB**	A comprehensive manual containing requirements, advice and other published documents relating to works on motorway and all-purpose trunk roads for which one of the Overseeing Organisations (National Highways, Transport Scotland, the Welsh Government or the Department for Regional Development (Northern Ireland)) is highway authority. For the A122 Lower Thames Crossing the Overseeing Organisation is National Highways.
Development Consent Order	**DCO**	Means of obtaining permission for developments categorised as Nationally Significant Infrastructure Projects (NSIP) under the Planning Act 2008.
Development Consent Order application	**DCO application**	The Project Application Documents, collectively known as the 'DCO application'.
Environmental Statement	**ES**	A document produced to support an application for development consent that is subject to Environmental Impact Assessment (EIA), which sets out the likely impacts on the environment arising from the proposed development.
Highways England		Former name of National Highways.
M2 junction 1		The M2 will be widened from three lanes to four in both directions through M2 junction 1.
M2/A2/Lower Thames Crossing junction		New junction proposed as part of the Project to the east of Gravesend between the A2 and the new A122 Lower Thames Crossing with connections to the M2.
M25 junction 29		Improvement works to M25 junction 29 and to the M25 north of junction 29. The M25 through junction 29 will be widened from three lanes to four in both directions with hard shoulders.
National Highways		A UK government-owned company with responsibility for managing the motorways and major roads in England. Formerly known as Highways England.
National Planning Policy Framework	**NPPF**	A framework published in March 2012 by the UK's Department of Communities and Local Government, consolidating previously issued documents called Planning Policy Statements (PPS) and Planning Practice Guidance Notes (PPG) for use in England. The NPPF was updated in February 2019 and again in July 2021 by the Ministry of Housing, Communities and Local Government.
National Policy Statement	**NPS**	Set out UK government policy on different types of national infrastructure development, including energy, transport, water and waste. There are 12 NPS, providing the framework within which Examining Authorities make their recommendations to the Secretary of State.

Term	Abbreviation	Explanation
National Policy Statement for National Networks	**NPSNN**	Sets out the need for, and Government's policies to deliver, development of Nationally Significant Infrastructure Projects (NSIPs) on the national road and rail networks in England. It provides planning guidance for promoters of NSIPs on the road and rail networks, and the basis for the examination by the Examining Authority and decisions by the Secretary of State.
Nationally Significant Infrastructure Project	**NSIP**	Major infrastructure developments in England and Wales, such as proposals for power plants, large renewable energy projects, new airports and airport extensions, major road projects etc that require a development consent under the Planning Act 2008.
North Portal		The North Portal (northern tunnel entrance) would be located to the west of East Tilbury. Emergency access and vehicle turn-around facilities would be provided at the tunnel portal. The tunnel portal structures would accommodate service buildings for control operations, mechanical and electrical equipment, drainage and maintenance operations.
Operation		Describes the operational phase of a completed development and is considered to commence at the end of the construction phase, after demobilisation.
Order Limits		The outermost extent of the Project, indicated on the Plans by a red line. This is the Limit of Land to be Acquired or Used (LLAU) by the Project. This is the area in which the DCO would apply.
Planning Act 2008		The primary legislation that establishes the legal framework for applying for, examining and determining Development Consent Order applications for Nationally Significant Infrastructure Projects.
Project road		The new A122 trunk road, the improved A2 trunk road, and the improved M25 and M2 special roads, as defined in Parts 1 and 2, Schedule 5 (Classification of Roads) in the draft DCO (Application Document 3.1).
Project route		The horizontal and vertical alignment taken by the Project road.
South Portal		The South Portal of the Project (southern tunnel entrance) would be located to the south-east of the village of Chalk. Emergency access and vehicle turn-around facilities would be provided at the tunnel portal. The tunnel portal structures would accommodate service buildings for control operations, mechanical and electrical equipment, drainage and maintenance operations.

Term	Abbreviation	Explanation
The tunnel		Proposed 4.25km (2.5 miles) road tunnel beneath the River Thames, comprising two bores, one for northbound traffic and one for southbound traffic. Cross-passages connecting each bore would be provided for emergency incident response and tunnel user evacuation. Tunnel portal structures would accommodate service buildings for control operations, mechanical and electrical equipment, drainage and maintenance operations. Emergency access and vehicle turn-around facilities would also be provided at the tunnel portals.

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Appendices

Appendix A Location Plan

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