

**Lower Thames Crossing
10.10 Extract from Works Plans
Volume C (Sheets 21 to 49)
Utilities
(Revision cloud version)**

Infrastructure Planning (Examination
Procedure) Rules 2010

Volume 10

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Lower Thames Crossing

10.10 Extract from Works Plans

Volume C (Sheets 21 to 49) Utilities

(Revision cloud version)

List of contents

	Page number
1 Introduction	1
2 Schedule of Plans included in this application document	6

1 Introduction

- 1.1.1 This document is submitted to the Planning Inspectorate on behalf of the Secretary of State in relation to an application made by National Highways (the Applicant) under section 37 of the Planning Act 2008.
- 1.1.2 The Application is for the grant of development consent for the A122 Lower Thames Crossing. Should development consent be granted, the draft A122 (Lower Thames Crossing) Development Consent Order (Application Document 3.1) (the draft Order”) will be made by the Secretary of State for Transport (subject to any modifications considered appropriate).
- 1.1.3 This document comprises part of the suite of application documentation and is included in the application to comply with Regulations 5(2)(j) and 5(4) of the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009, which require:
- 5(2)(j) ‘a works plan showing, in relation to existing features:*
- (i) the proposed location or (for a linear scheme) the proposed route and alignment of the development and works; and*
- (ii) the limits within which the development and works may be carried out and any limits of deviation provided for in the draft order.*
- 5(4) Where a plan comprises three or more separate sheets a key plan must be provided showing the relationship between the different sheets.’*
- 1.1.4 The purpose of the Works Plans is to illustrate the location and extent of the works for which development consent is sought as described in Schedule 1 of the draft Order (Application Document 3.1). The Applicant has sought to describe the works in Schedule 1 applying, whenever necessary, separate sub-work numbers to provide clarity.
- 1.1.5 In order to assist the interpretation of the Works Plans, the Applicant has prepared Composite sheets, which show all of the works for that sheet, and Utilities sheets, which show only the utility works from the Composite sheet.
- 1.1.6 It should be noted that, for consistency, the Applicant has prepared the Utilities sheets for the entire set.
- 1.1.7 As the Works Plans have been informed by and are part of the application documentation, they should be read alongside the other application documents. In particular, the Works Plans should be read alongside the following:
- a. Schedule 1 of the draft Order (Application Document 3.1)
 - b. Land Plans (Application Document 2.2)
 - c. Rights of Way and Access Plans (Application Document 2.7)
 - d. Engineering Drawings and Sections Plans (Application Document 2.9)
 - e. Structures Plans (Application Document 2.13)
 - f. Temporary Works Plans (Application Document 2.17)

- 1.1.8 Each sheet shows the relevant works numbers applicable within the area shown. Reference should be made to the next relevant sheet for details of works numbers beyond the cut lines. Other information on the Works Plans is shown beyond the cut lines for completeness and context.
- 1.1.9 The Works Plans show the Order Limits and the relevant local authority boundaries for clarity. In this plan set, 'the Order Limits' mean the limits of lands to be acquired or used, permanently or temporarily, within which the authorised development may be carried out (see article 2 of the draft Order (Application Document 3.1)).
- 1.1.10 The Works Plans show the centreline for each length of the proposed highway work or linear utility diversion, as well as the boundary for other non-linear works. The proposed highway works centreline is shown in a black dashed line and comprises the road works including streets, public rights of way and private means of access.
- 1.1.11 The proposed diversion or modification of overhead lines is shown in a purple solid line and the temporary diversion alignment is shown in a purple dashed line. The existing overhead lines to be removed as part of the works is shown in a grey dashed line. The proposed underground diversion alignment for gas is shown in an orange solid line and the proposed gas alignment to be removed is shown in orange dashed line. The proposed underground diversion alignment for multi-utilities is shown in blue solid line and the above ground multi-utility compounds are shown in a black box identified as 'substation SS'. The proposed temporary underground diversion alignment for multi-utilities is shown in light blue solid line.
- 1.1.12 Start and end points for utilities works are not shown as the centreline and the limits of deviation represent the areas in which the works can be carried out, covering disparate elements of the works which are connected but which do not have the same start and end point. However, for gas utilities works, the alignment line is supported by solid orange squares (at each end) representing the tie-ins into the existing network, where applicable. Where there is no tie-in to the existing gas network no solid orange square is shown. For the overhead lines works, the alignment line includes (along its extent) purple border squares for new permanent pylons, purple dashed border squares for new temporary pylons, grey dashed border squares for existing pylons to be removed and green border squares for existing pylons to be retained. Additional power apparatus (such as poles) are not shown.
- 1.1.13 The major proposed structures are highlighted with a black solid box and include structures along the Project mainline and the ground protection tunnel. All these structures have been assigned their own work number, described in Schedule 1 of the draft Order (Application Document 3.1).
- 1.1.14 The Works Plans show the areas proposed in the environmental design as new areas to provide mitigation or compensation for the impacts of the Project as black arrow shaded areas. The areas necessary for floodplain compensation are shown as a blue dotted shaded area.

- 1.1.15 The Works Plans indicate the location of temporary construction compounds and working sites, listed as numbered works in Schedule 1. A separate set of Temporary Works Plans (Application Document 2.17) has been prepared to show the location and extent of temporary works, including temporary roads for construction access.
- 1.1.16 The design is shown in the background on the Works Plans for illustrative purposes and specifically to provide context and aid understanding of the works. As indicated in the legend, the proposed structures are shown as two solid grey lines; this includes the proposed bridges, viaducts, overbridges, underbridges and retaining walls. It should be noted that proposed bridges, viaducts, overbridges and underbridges are described as a sub-work of a highways linear work in Schedule 1 of the draft Order (Application Document 3.1). For other elements of the works that cannot be separately distinguished from a work or broken down, such as retaining walls, highway drainage ditches and swales, embankments and cuttings earthworks, the Applicant has included these in the list of ancillary works as described in Schedule 1 of the draft Order (Application Document 3.1).
- 1.1.17 The proposed drainage culverts are represented in a specific way, as shown in the legend, in an approach consistent with the General Arrangement Plans (Application Document 2.5).
- 1.1.18 The commencement and termination of the proposed highways linear works are graphically represented on the plan by different black markers in the shape of bowties (one solid, one hollow). The Applicant has made every effort to represent the bowtie entirely within the Order Limits boundary wherever possible but due to the size of this graphic, this is sometimes unachievable. It is important to note that the start and end points of the works are all within the Order Limits and are defined by the reference points listed in Schedule 1 of the draft Order (Application Document 3.1) and shown in Rights of Way and Access Plans (Application Document 2.7).
- 1.1.19 Article 6 of the draft Order (Application Document 3.1) provides for a lateral deviation from the lines or situations shown on the Works Plans to the extent of the defined limits of deviation. This is to provide the Applicant with a limited and proportionate degree of flexibility to allow for detailed design development. The vertical limits of deviation are described in Article 6 of the draft Order (Application Document 3.1).
- 1.1.20 The highway works lateral limits of deviation are shown as areas of shaded green on the Composite sheets and the limits of deviation for utility works are indicated by striped areas on the Composite and Utilities sheets as: purple for overhead electricity lines works, orange for gas works, blue for underground multi-utility works and light blue for temporary overhead and multi-utility works. Where relevant, the lateral limits of deviation shown in the Works Plans have been determined considering a range of factors, including earthworks, structures and drainage features. The lateral limits of deviation for tunnels works, such as the tunnel portal structures (south and north), the bored tunnels and the tunnel service buildings are shown as part of the highways lateral limits of deviation and also shown in detail in the Tunnel Limits of Deviation Plans (Application Document 2.15).

- 1.1.21 Further information about the limits of deviation is provided in the Introduction to the Application (Application Document 1.3). The information shown on the plans is for illustrative purposes only to show the proposed design of the Project and would be subject to detailed design. Detailed design would be in accordance with the extent of the defined limits of deviation provided in the draft Order and any approval required under the requirements set out in Schedule 2 of the draft Order (Application Document 3.1).
- 1.1.22 It should be recognised that there are some instances where the extent of a work shown in the Works Plans and described in Schedule 1 of the draft Order (Application Document 3.1) may differ from the extents provided elsewhere in the draft Order, namely in Schedules 3 and 4 (Application Document 3.1). This is because, in some cases, new public rights of way may be created by a combination of works or the creation of a new public rights of way may be divided into several works. The corresponding commencement and termination points of all the works shown in the Works Plans have a corresponding reference point in the Rights of Way and Access Plans (Application Document 2.7).
- 1.1.23 To ensure sufficient detail and clarity of information, the Works Plans (sheets 1 to 49) have been prepared at a scale of 1:2500. The key plan uses a smaller scale than that prescribed in Regulation 5(3) of the 2009 Regulations so that the Project can be represented in a single sheet plan.
- 1.1.24 The Applicant has adopted the same approach for the Works Plans as has been used for the following:
- a. Land Plans (Application Document 2.2)
 - b. Crown Land Plans (Application Document 2.3)
 - c. Special Category Land Plans (Application Document 2.4)
 - d. General Arrangement Plans (Application Document 2.5)
 - e. Rights of Way and Access Plans (Application Document 2.7)
 - f. Streets Subject to Temporary Restrictions of Use Plans (Application Document 2.8)
 - g. Traffic Regulation Measures Plans (Application Document 2.10)
 - h. Drainage Plans (Application Document 2.16)
 - i. Temporary Works Plans (Application Document 2.17)
 - j. Hedgerows and Tree Preservation Order Plans (Application Document 2.18)
- 1.1.25 The information contained on each sheet of the Works Plans corresponds with the information shown on each sheet of the aforementioned sets. This is intended to help interested parties understand the inter-relationship between

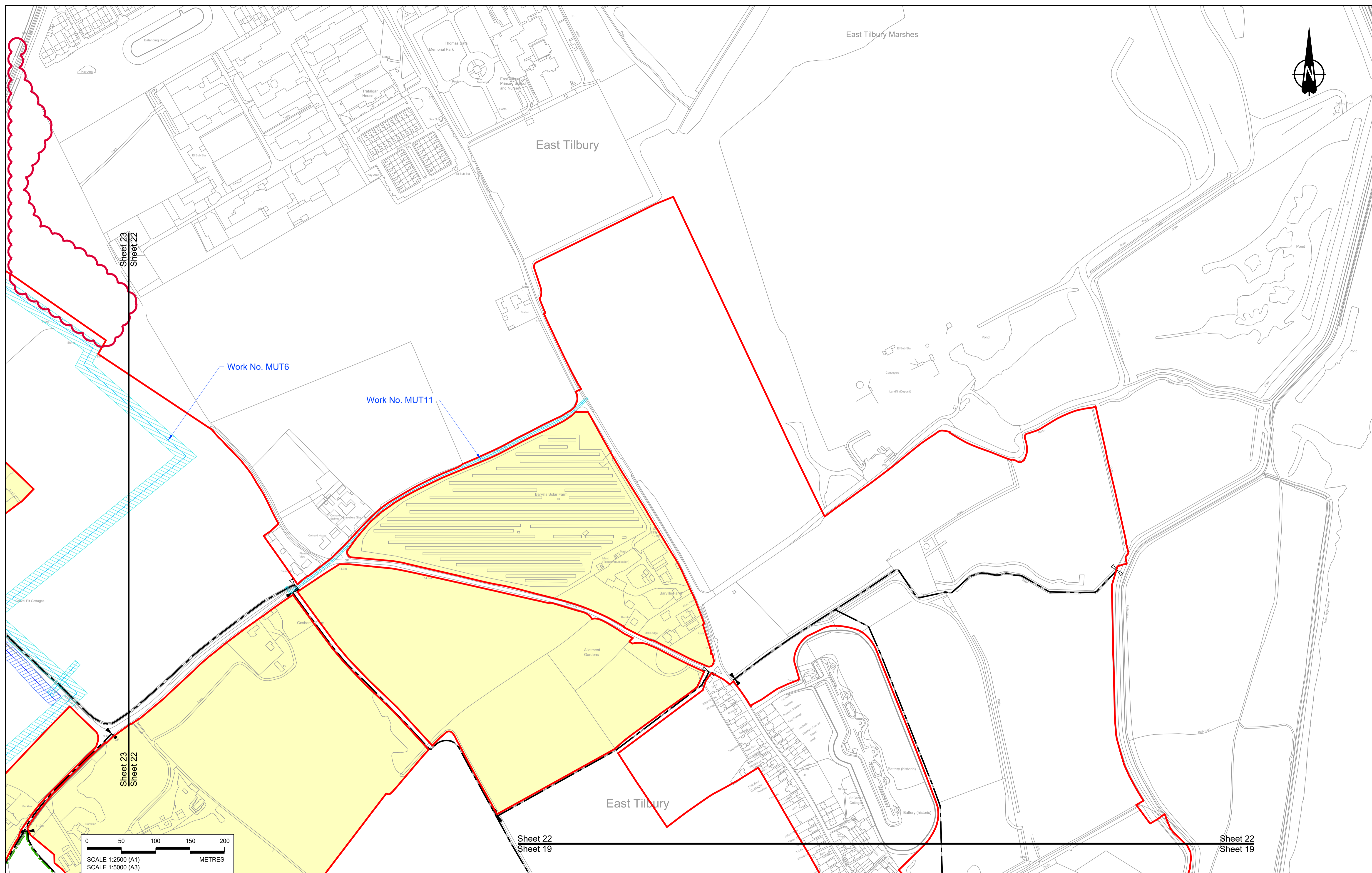
the different sets of plans and to help illustrate the design of the Project more clearly.

- 1.1.26 It is important to note that there are locations within the DCO boundary where no works are shown on the Works Plans. A number of reasons could account for this, for example, the land may be required temporarily to provide sufficient working space during construction.
- 1.1.27 This plan set uses a consistent key applicable to the plan set as a whole, rather than being tailored to each individual sheet. This means that there may be some items shown in the key that are not on a given sheet.
- 1.1.28 To ensure that the file size of this document does not exceed the 50MB limit prescribed by the Planning Inspectorate, the set has been split into six volumes: three separate volumes (volume A contains the key plan, volume B contains the initial sheets 1 to 20 and volume C contains sheets 21 to 49 for the composite plans) and three further separate volumes (volumes A, B and C) for the utilities works.
- 1.1.29 The table below provides the schedule of plans which will be changed in relation to this change application. The other plans from the set have not been provided as are not impacted.
- 1.1.30 The plans in this set were updated to reflect the application change using the current baseline, at the time of the proposed changes. As such, the revision number shown is the next in sequence for each individual plan sheet. Following best practice, the revision history block was left unaltered showing the historical issues of each plan. Each of these plan sheets will be in abeyance until formal acceptance of the application change.

2 Schedule of Plans included in this application document

Document Title	Document Number	Revision
WORKS PLANS REGULATION 5(2)(j) KEY PLAN – COMPOSITE	TR010032/APP/2.6	P02
WORKS PLANS REGULATION 5(2)(j) SHEET 1 – COMPOSITE	TR010032/APP/2.6	P02
WORKS PLANS REGULATION 5(2)(j) SHEET 2 – COMPOSITE	TR010032/APP/2.6	P02
WORKS PLANS REGULATION 5(2)(j) SHEET 22 – COMPOSITE	TR010032/APP/2.6	P02
WORKS PLANS REGULATION 5(2)(j) SHEET 23 – COMPOSITE	TR010032/APP/2.6	P03
WORKS PLANS REGULATION 5(2)(j) SHEET 24 – COMPOSITE	TR010032/APP/2.6	P03
WORKS PLANS REGULATION 5(2)(j) KEY PLAN – UTILITIES	TR010032/APP/2.6	P02
WORKS PLANS REGULATION 5(2)(j) SHEET 1 – UTILITIES	TR010032/APP/2.6	P02
WORKS PLANS REGULATION 5(2)(j) SHEET 2 – UTILITIES	TR010032/APP/2.6	P02
WORKS PLANS REGULATION 5(2)(j) SHEET 22 – UTILITIES	TR010032/APP/2.6	P02
WORKS PLANS REGULATION 5(2)(j) SHEET 23 – UTILITIES	TR010032/APP/2.6	P02

Document Title	Document Number	Revision
WORKS PLANS REGULATION 5(2)(j) SHEET 24 – UTILITIES	TR010032/APP/2.6	P02



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Rev	Status	Rev. Date	Purpose of revision	Drawn	Chk'd	Apprv'd
P01	S8	19/10/2022	DCO Application	MS	RO	ASB
P02	S8	22/05/2023	DCO Application	MS	RO	ASB

NOTES:

- The proposed works shown are illustrative only and will be subject to change as part of detailed design development. Any changes will be limited to being within the constraints included in the Development Consent Order (application document reference TR010032/APP/3.1).
- These plans should be read in conjunction with Schedule 1 (Authorised Development) of the Development Consent Order (application document reference TR010032/APP/3.1), the Land Plans (application document reference TR010032/APP/2.2) and the Engineering Drawings and Sections (application document reference TR010032/APP/2.9).
- Proposed works are shown adjacent to the Order Limits to provide greater clarity of the extent of the work but could extend to the Order Limits as well.
- The definition of streets is included in the Development Consent Order (application document reference TR010032/APP/3.1).

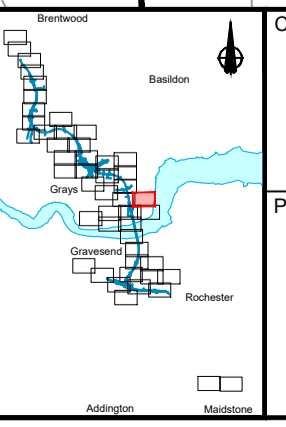
LEGEND:

	Order Limits
	Linear Work Centreline (including streets)
	Local Authority boundary
	Area excluded from Order Limits
	Commencement of linear work
	Termination of linear work

UTILITY LEGEND:

	Indicative diverted and modified overhead electricity lines
	Existing overhead electricity lines to be removed
	Indicative temporary overhead electricity lines
	Indicative underground gas diversion
	Maximum extent of existing gas pipeline to be removed
	Indicative underground multi-utility alignment
	Indicative temporary underground multi-utility alignment
	Existing pylon to be retained

	Overhead electricity lines works Limits of Deviation
	Gas works Limits of Deviation
	Underground multi-utility works Limits of Deviation
	Temporary overhead electricity lines and multi-utility works Limits of Deviation
	Substation SS



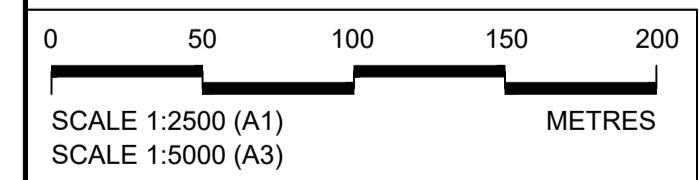
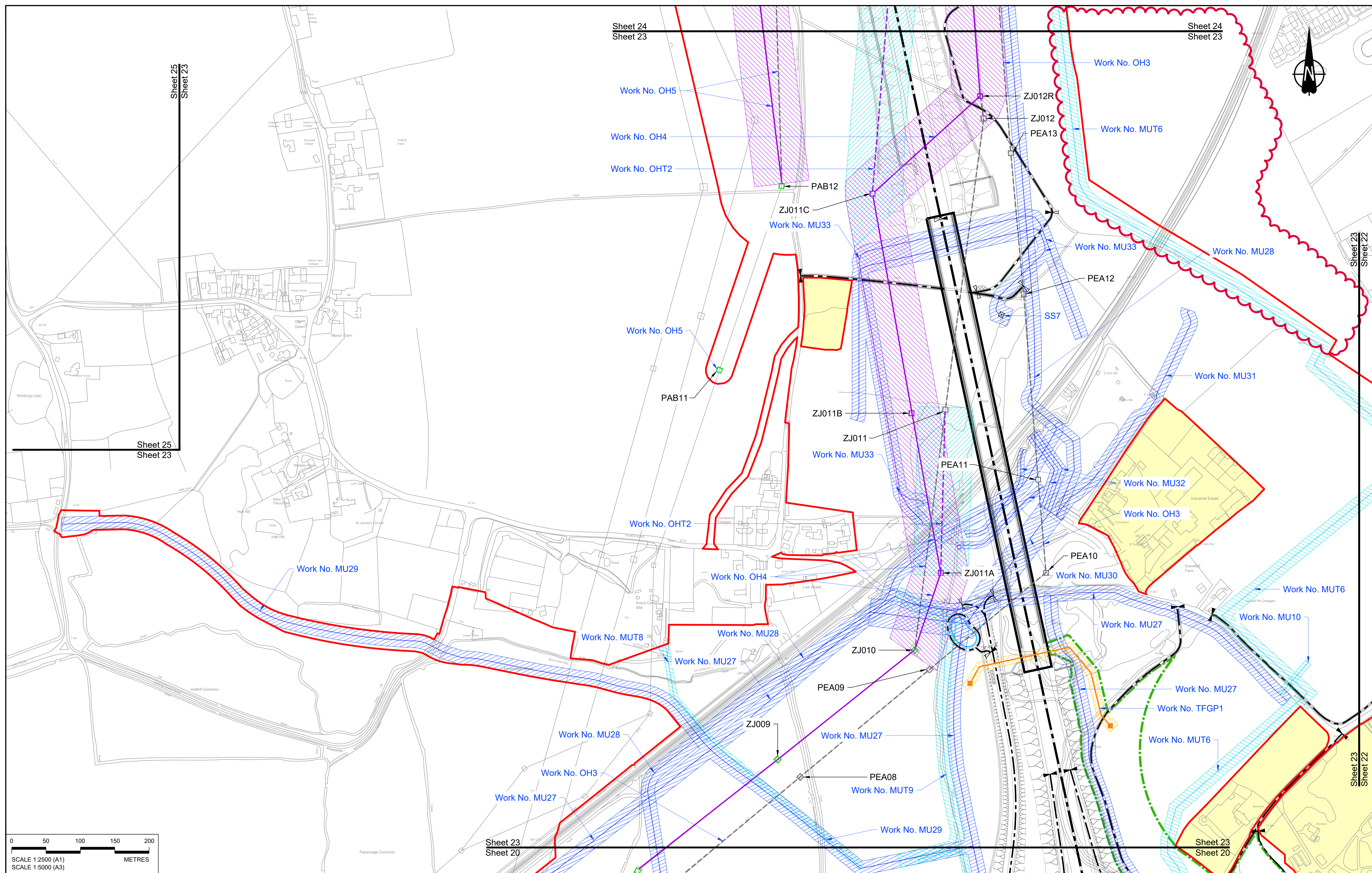
national highways

Client

Project

LOWER THAMES CROSSING

Status	DCO Application	Original Size	A1	Revision	P02
Application Document Number	TR010032/APP/2.6	Scale	1:2500		
Drawing title	WORKS PLANS REGULATION 5(2)(j) SHEET 22 - UTILITIES				
Drawing Number	HE540039-CJV-BOP-SZZ_GN000000_-DR-CX-75003				



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NOTES:

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- These plans should be read in conjunction with Schedule 1 (Authorised Development) of the Development Consent Order (application document reference TR010032/APP/3.1), the Land Plans (application document reference TR010032/APP/2.2) and the Engineering Drawings and Sections (application document reference TR010032/APP/2.9).
- Proposed works are shown adjacent to the Order Limits to provide greater clarity of the extent of the work but could extend to the Order Limits as well.
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Rev	Status	Rev. Date	Purpose of revision	Drawn	Check'd	Apprv'd
P01	S8	19/10/2022	DCO Application	MS	RO	ASB
P02	S8	22/05/2023	DCO Application	MS	RO	ASB

LEGEND:

- Order Limits
- Linear Work Centreline (including streets)
- Local Authority boundary
- Area excluded from Order Limits
- Commencement of linear work
- Commencement and termination of linear work
- Termination of linear work

UTILITY LEGEND:

- Indicative diverted and modified overhead electricity lines
- Existing overhead electricity lines to be removed
- Indicative temporary overhead electricity lines
- Indicative underground gas diversion
- Maximum extent of existing gas pipeline to be removed
- Indicative underground multi-utility alignment
- Indicative temporary underground multi-utility alignment
- Existing pylon to be retained

- Overhead electricity lines works Limits of Deviation
- Gas works Limits of Deviation
- Underground multi-utility works Limits of Deviation
- Temporary overhead electricity lines and multi-utility works Limits of Deviation
- Substation SS

national highways

Project: LOWER THAMES CROSSING

Status	DCO Application	Original Size	A1	Revision	P02
Application Document Number	TR010032/APP/2.6	Scale	1:2500		
Drawing title	WORKS PLANS REGULATION 5(2)(j) SHEET 23 - UTILITIES				
Drawing Number	HE540039-CJV-BOP-SZZ_GN000000_-DR-CX-75004				

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