

Lower Thames Crossing

6.2 Environmental Statement Figures Figure 2.4 - Environmental Masterplan Section 1 & 1A (1 of 10) (Clean version)

APFP Regulation 5(2)(a)

Infrastructure Planning (Applications:
Prescribed Forms and Procedure)
Regulations 2009

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DATE: August 2023
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Application Document Ref: TR010032/APP/6.2

VERSION: 2.0

Lower Thames Crossing

Figure 2.4: Environmental Masterplan

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1 Environmental Masterplan: Sections 1 and 1A

1.1 Schedule of Plans included in this application document

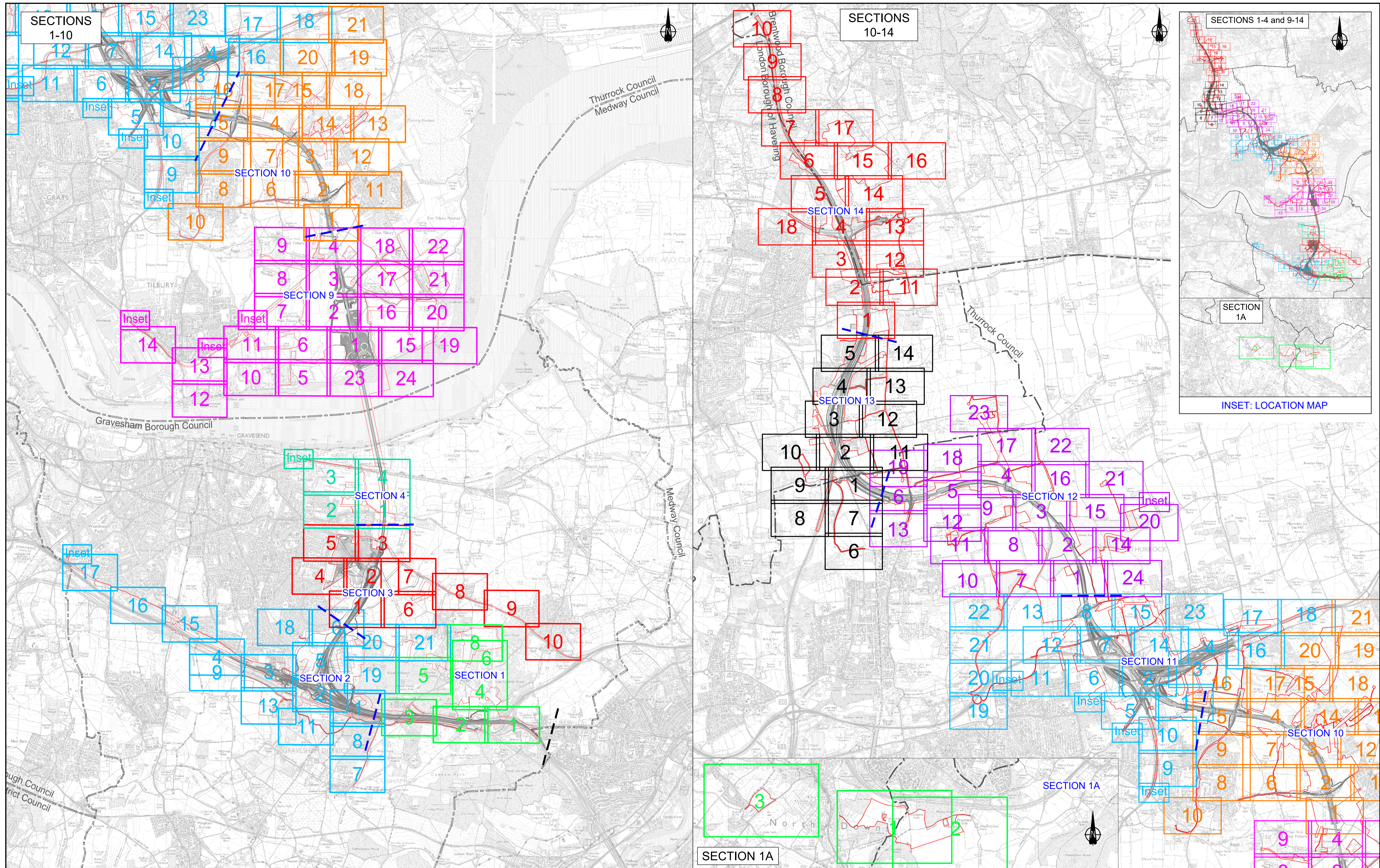
1.2 Section 1 (Sheets 1-8)

HE540039-CJV-EGN-S01_EN000000_Z-DR-ZZ- 00001 – Section 1 Overview	TR010032/APP/6.2	P01.6
HE540039-CJV-EGN-S01_EN000000_Z-DR-ZZ- 00002 - Section 1 Sheet 1	TR010032/APP/6.2	P02
HE540039-CJV-EGN-S01_EN000000_Z-DR-ZZ- 00003 - Section 1 Sheet 2	TR010032/APP/6.2	P02
HE540039-CJV-EGN-S01_EN000000_Z-DR-ZZ- 00004 - Section 1 Sheet 3	TR010032/APP/6.2	P02
HE540039-CJV-EGN-S01_EN000000_Z-DR-ZZ- 00005 - Section 1 Sheet 4	TR010032/APP/6.2	P01.6
HE540039-CJV-EGN-S01_EN000000_Z-DR-ZZ- 00006 - Section 1 Sheet 5	TR010032/APP/6.2	P01.2
HE540039-CJV-EGN-S01_EN000000_Z-DR-ZZ- 00007 - Section 1 Sheet 6	TR010032/APP/6.2	P01.2
HE540039-CJV-EGN-S01_EN000000_Z-DR-ZZ- 00009 - Section 1 Sheet 8	TR010032/APP/6.2	P01.2

1.3 Section 1A (Sheets 9-11)

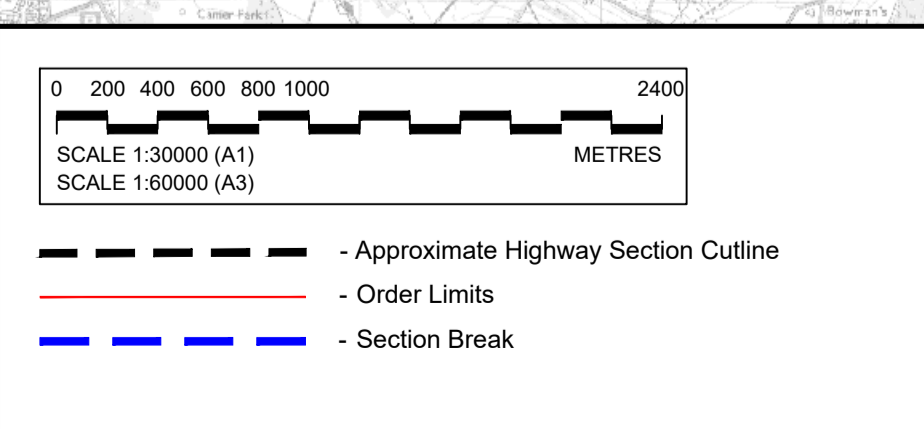
HE540039-CJV-EGN-S01_EN000000_Z- DR-ZZ- 00010 - Section 1a Sheet 9	TR010032/APP/6.2	P01.1
HE540039-CJV-EGN-S01_EN000000_Z- DR-ZZ- 00011 - Section 1a Sheet 10	TR010032/APP/6.2	P01.1
HE540039-CJV-EGN-S01_EN000000_Z- DR-ZZ- 00012 - Section 1a Sheet 11	TR010032/APP/6.2	P01.1

1.4 Scheme Overview



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Rev	Status	Rev. Date	Purpose of revision	Drawn	Check'd	Apprv'd
P01.3	SD	2021/09/23				



Section Layout Key:

1	Section S1 (Sheets 1 - 8)	10	Section S10 (Sheets 1 - 21)
1A	Section S1A (Sheets 1 - 3)	11	Section S11 (Sheets 1 - 22)
2	Section S2 (Sheets 1 - 21)	12	Section S12 (Sheets 1 - 24)
3	Section S3 (Sheets 1 - 10)	13	Section S13 (Sheets 1 - 14)
4	Section S4 (Sheets 1 - 4)	14	Section S14 (Sheets 1 - 18)
5	Section S5 (Sheets 1 - 24)		

NOTE: Development of the Project design has resulted in the removal of some sheets forming part of the Environmental Masterplan, where acquisition of land for the Project is no longer required. In this instance, the original sheet numbering has been retained and therefore the sheet numbering shown on this Scheme Overview plan is not always consecutive.

For information, the following sheets have been omitted:

Section 1

- Sheet 7 (HE540039-CJV-EGN-S01_EN000000_Z-DR-ZZ-00008)

Section 2

- Sheet 10 (HE540039-CJV-EGN-S02_EN000000_Z-DR-ZZ-00011)
- Sheet 12 (HE540039-CJV-EGN-S02_EN000000_Z-DR-ZZ-00013)
- Sheet 14 (HE540039-CJV-EGN-S02_EN000000_Z-DR-ZZ-00015)

Client

Project

LOWER THAMES CROSSING

Status	Application Document Number	Original Size	Revision
	TR010032/APP/6.2	A1	P01.3
Drawing title			
ENVIRONMENTAL MASTERPLAN SCHEME OVERVIEW			
Drawing Number			
HE540039-CJV-EGN-SZZ_EN000000_Z-DR-ZZ-00002			

1.5 Environmental Masterplan Legend

EXISTING FEATURES

General Features

- Existing WCH Route
- Overhead Power Lines

Environmental Features

- Retained Woodland, Trees and Hedges (within Order Limits)
- Retained Woodland, Trees and Hedges (outside Order Limits)
- Waterbodies / Ponds
- Watercourses
- Tree Preservation Orders Area
- Individual Tree Preservation Orders
- Veteran Tree

PROPOSED PROJECT FEATURES

- Order Limits
- Permanent Acquisition of Land

General Project Features

- Existing Overhead Power Lines to be Removed
- Indicative Diverted and Modified Overhead Power Lines
- Proposed / Improved WCH Route
- Diverted / Redesignated WCH Route
- Proposed Carriageway
- Proposed Retaining Wall
- Proposed Cutting
- Proposed Embankment
- Proposed False Cutting Earthwork (up to 4m height above carriageway level typically at 1(v) 4(h) gradient)
- Proposed Watercourse Diversion
- Proposed Attenuation Ponds / Water Bodies
- Proposed Highway Estate Boundary Fencing
- Reinstated HS1 'Meshed' Fencing
- Proposed Security Fencing (incorporating highway boundary fence)
- Proposed Fencing Gates
- Proposed Tunnel Portal Building Outline (sub-surface)
- Proposed Highway Lighting and Gantry
- Proposed Green Bridge
- Proposed Traveller Site Replacement

General Project Features cont.

- Proposed Replacement Open Space
- Proposed Replacement Common Land
- Proposed Recreational Sites

PROPOSED LANDSCAPE ELEMENTS

Grassland (LE 1)

- LE 1.3 Species Rich Grassland
- LE 1.31 Species Rich Chalk Grassland
- LE 1.32 Species Rich Annual Wildflower Grassland
- LE 1.4 Rock and Scree

Planting (LE 2)

- LE 2.1 Woodland
- LE 2.11 Woodland With Non-Native Species
- LE 2.14 Wet / Carr Woodland
- LE 2.2 Woodland Edge
- LE 2.22 Scrub Woodland
- LE 2.4 Linear Belt of Shrubs and Trees
- LE 2.5 Shrubs With Intermittent Trees
- LE 2.7 Scattered Trees
- LE 2.8 Scrub / Scattered Scrub

Hedges (LE 4)

- LE 4.3 Native Species Hedge (untrimmed)
- LE 4.4 Native Hedgerow With Trees

Individual Trees (LE 5)

- LE 5.1 Individual Trees

Wetland Habitats (LE 6)

- LE 6.11 Water Bodies – Standing Water
- LE 6.12 Water Bodies and Associated Plants – Shallow Scrape Habitat
- LE 6.2 Banks and Ditches
- LE 6.21 Banks and Ditches – High Tide Roost Features
- LE 6.4 Wet Grassland

General Project Features cont.

- LE 6.41 Marsh and Wet Grassland – Coastal Grazing Marsh
- LE 7.2 Green Roof
- LE 7.3 Car Park
- LE 7.4 Reinforced Earth Bund

Ecological Habitats (LE 8)

- LE 8.1 Open Mosaic Habitat
- LE 8.2 Ancient Woodland Compensation Planting
- LE 8.3 Woodland Mitigation Planting
- LE 8.4 Wetland / Fenland Creation
- LE 8.5 Ecology Pond (Indicative symbol only)
- LE 8.6 Acid Grassland Soil Salvage
- LE 8.7 Nitrogen Deposition (NDEP) Compensation Area

Earthworks

- Proposed Contours

PROPOSED ENVIRONMENTAL ELEMENTS

Noise (E 1)

- E 1.2 Acoustic Barrier-Built Elements (typically incorporating highway boundary fence)

Water (E 2)

- Flood Compensation Areas (E2-FCA)
- Flood Defence (E2-FD)

Ecological (E 3)

- E 3.2 Ecological Habitat Creation and Receptor Sites for Protected Species
- E 3.2 Ecological Protection Measures – Dormouse Boxes
- E 3.2 Ecological Protection Measures – Bat / Bird Boxes
- E 3.2 Ecological Protection Measures – Ecological Culvert
- E 3.2 Ecological Protection Measures – Bat Barn Block
- E 3.2 Ecological Protection Measures – Ecological Fencing (incorporating highway boundary fence)

NOTES:

Land Reinstatement

The Environmental Masterplan is intended to show the permanent landscaping and environmental mitigation features that are embedded in the operational design. Land temporarily impacted by construction would be reinstated to its former condition and composition upon completion, as far as reasonably practicable and as provided for in DCO Article 35, unless otherwise shown in the Environmental Masterplan.

WCH Terminology and Route Information

The term 'WCH Routes' (which includes Public Rights of Way) refers to routes for walkers, cyclists and horse riders and is used in the broad sense within the Environmental Masterplan to refer to routes intended for at least one (but not necessarily more than one) of those users. For further information, please refer to the Rights of Way and Access Plans (Application Document 2.7) and the draft Development Consent Order (Application Document 3.1).

Veteran Trees

Veteran trees shown on the Environmental Masterplan include those identified in the Ancient Tree Inventory and project-identified potential ancient or veteran trees.

Outline Landscape and Ecological Management Plan

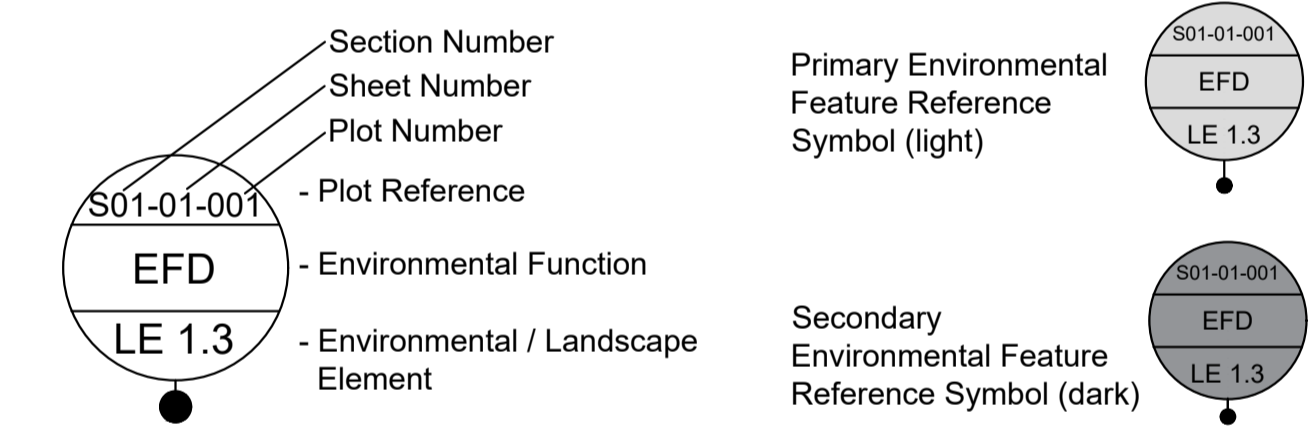
The outline Landscape and Ecology Management Plan (LEMP) separately sets out the proposed management for the environmental / landscape elements shown on the Environmental Masterplan. The Environment Masterplan secures the spatial extent and location of the environmental / landscape elements detailed within the outline LEMP. The outline LEMP details the management regimes, management expectations and monitoring requirements for the proposals in each land parcel shown on the Environmental Masterplan. It focuses on the management requirements for land parcels to be permanently acquired within the Order Limits and which perform specific landscape and ecological mitigation functions for the Project. For further detail regarding management requirements and principles, please refer to the outline LEMP (Application Document 6.7).

Existing WCH Routes

Existing WCH route information is based on Local Authority data. For further details, please refer to the relevant Local Authority Definitive Public Right of Way Map and Statement.

Environmental Feature Reference Symbol

An Environmental Feature Reference Symbol is provided for each environmental / landscape element. This contains a Plot Reference, the Environmental Function and the specific Landscape / Environmental Element. The Plot Reference is unique to each element labelled, and comprises the Section number, Sheet number and unique Plot number. Additional Environmental Feature Reference Symbols have been attributed to elements which span more than one page. The differences between the initial (Primary) Environmental Feature Reference Symbol and any additional (Secondary) versions are shown below.



Environmental Functions (EF)

- EFA Visual Screening
- EFB Landscape Integration
- EFC Enhancing the Built Environment
- EFD Nature Conservation and Biodiversity
- EFE Visual Amenity
- EFF Heritage
- EFG Auditory Amenity
- EFH Water Quality
- EFJ Agricultural / Highway Boundary
- EFK Access

Project Design Report

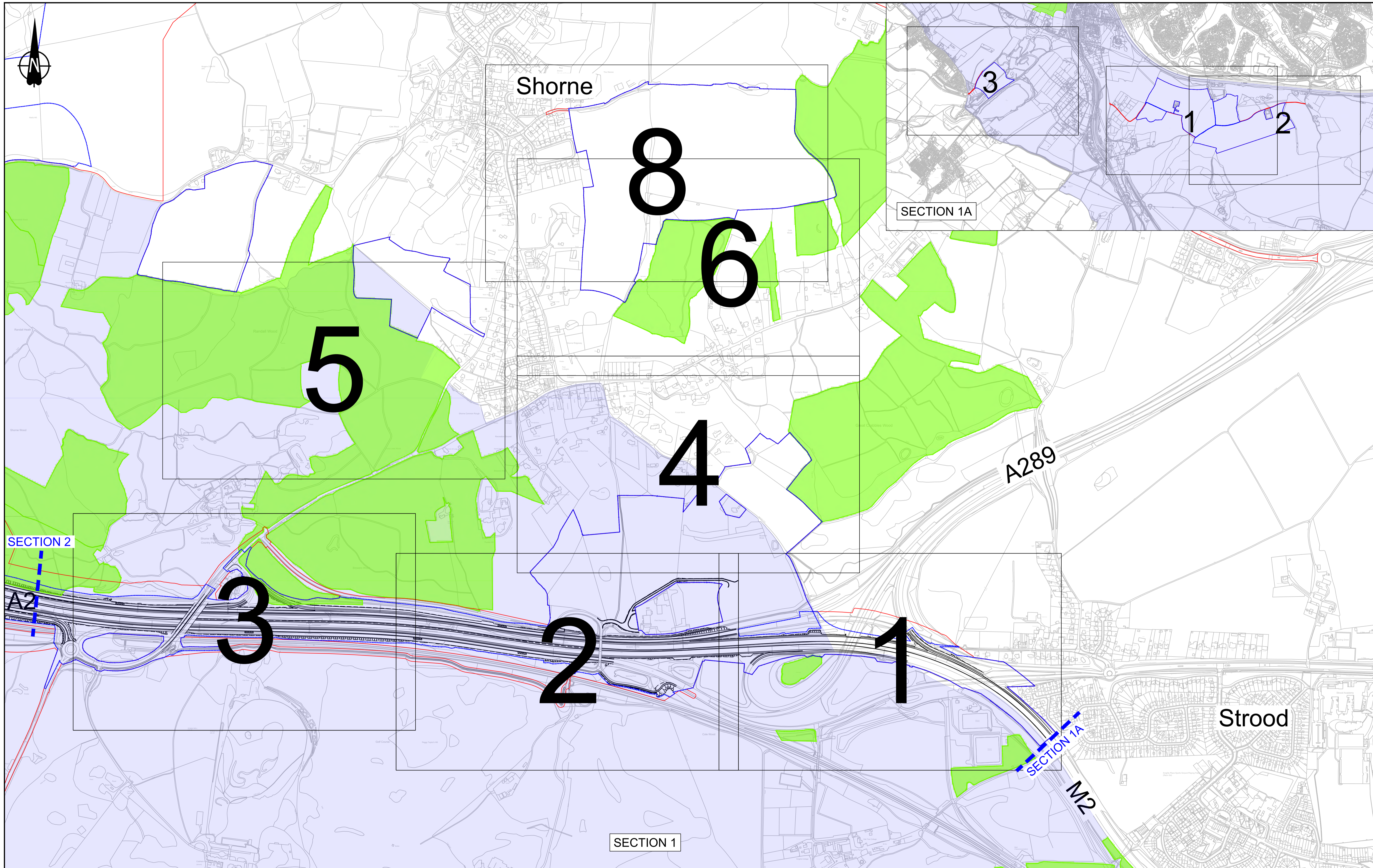
For further detail on the Landscape Design and Special Category Land shown within these plans, as well as the associated background and approach, please refer to the Project Design Report, Volume 2 Book of Plans, and Design Principles document (Application Documents 7.4, 6.2 and 7.5 respectively).

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Rev	Status	Rev. Date	Purpose of revision	Drawn	Check'd	Apprv'd
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	Status Initial Status or WIP	Original Size A1	Revision P01.6
	Application Document Number TR010032/APP/6.2	Scale	
Project LOWER THAMES CROSSING	Drawing title ENVIRONMENTAL MASTERPLAN LEGEND		
Drawing Number HE540039-CJV-EGN-SZZ_EN000000_Z-DR-ZZ-00001			

1.6 Section 1



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0 50 100 150 200 250 300 350 400 450 500
 SCALE 1:5000 (A1)
 SCALE 1:10000 (A3)
 METRES

P01.6	S0	08/08/2022	LD			
Rev	Status	Rev. Date	Purpose of revision	Drawn	Check'd	Appr'd

Notes:
 1. The sheets presented cover the full extent of the Order Limits. The sheet numbering for section 1 is not sequential due to alteration to the Order Limits prior to submissions resulting in page 7 being removed in the submission set

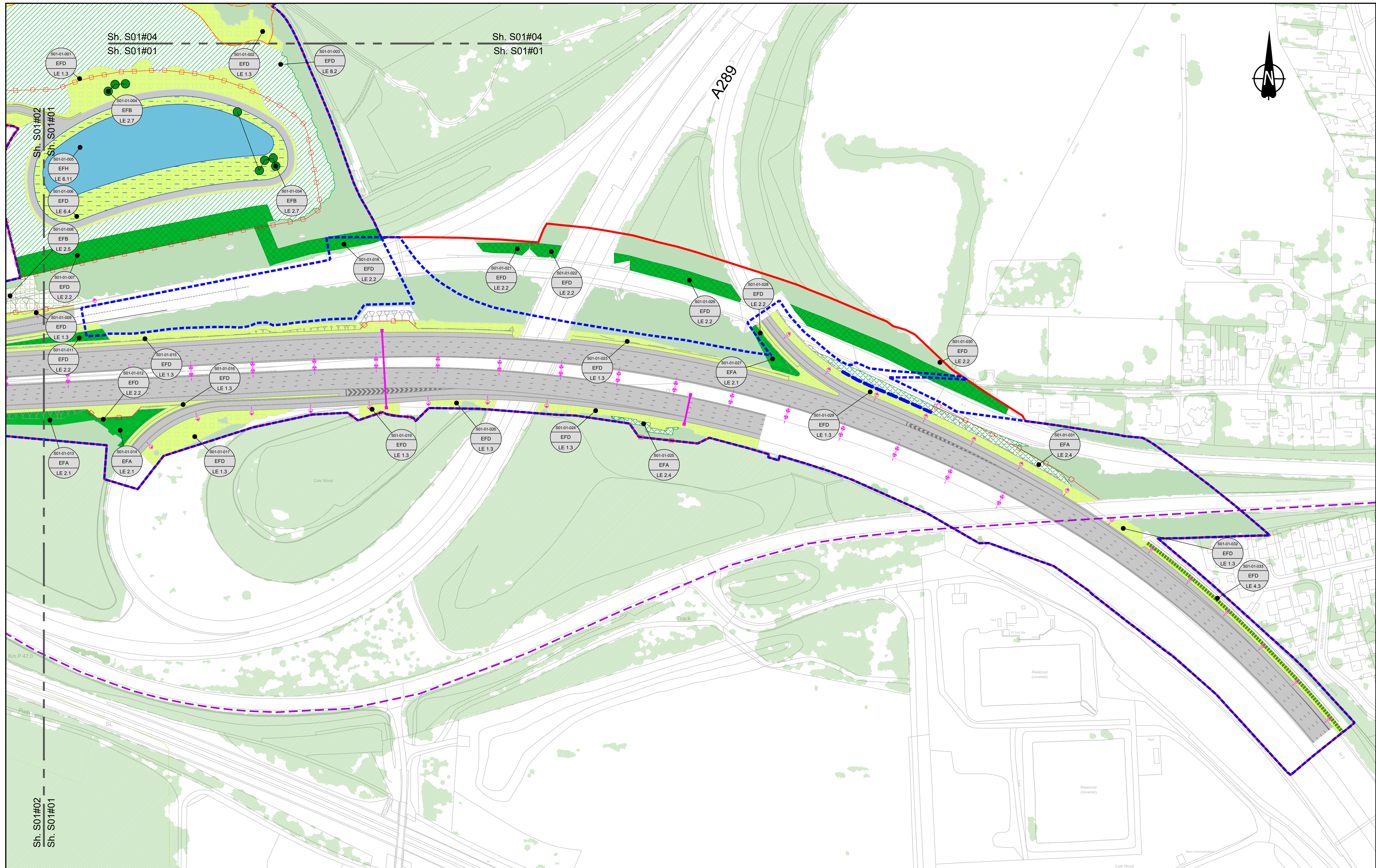
LEGEND

Order Limits	Registered Parks and Gardens
Permanent Acquisition of Land	Ramsar Sites
Area of Outstanding National Beauty (AONB)	Ancient Woodland
Site of Special Scientific Interest (SSSI)	Conservation Area

Client
 national highways

Project
 LOWER THAMES CROSSING

Status	Initial Status or WIP	Original Size	Revision
Application Document Number	TR010032/APP/6.2	A1	P01.6
Drawing title	ENVIRONMENTAL MASTERPLAN OVERVIEW PLAN SECTION 1 & 1A		
Drawing Number	HE540039-CJV-EGN-S01_EN000000_Z-DR-ZZ-00001		



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SCALE 1:1250 (A1)
SCALE 1:2500 (A3)

Section Overview Sheet: Refer to section overview plan at the start of the section.

P01	S2	25/10/2022	DCO Application	SA	PS	MH
P02	S9	19/07/2023	Deadline 2	LD	SK	BF
Rev	Status	Rev. Date	Purpose of revision	Drawn	Check'd	Apprv'd

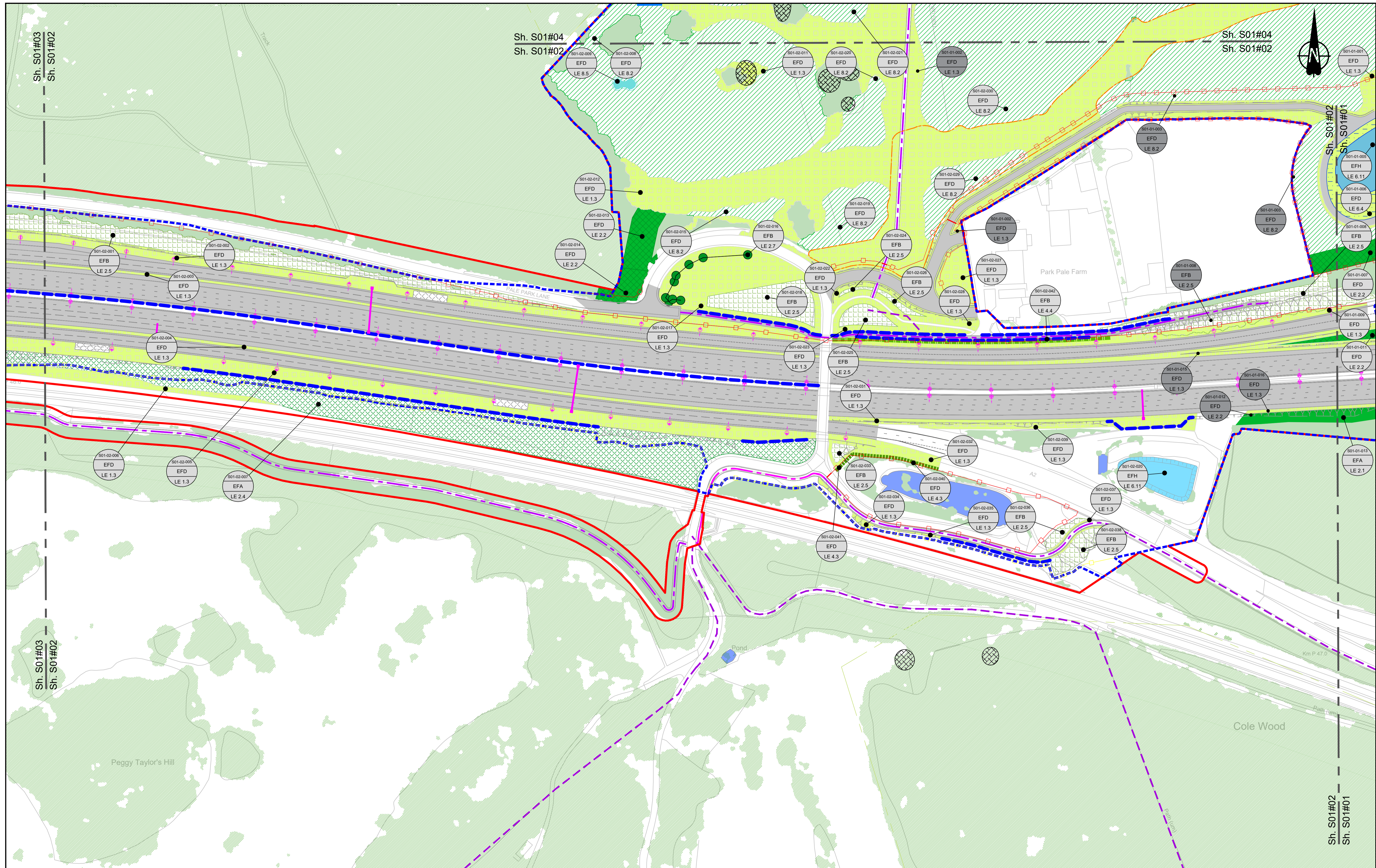
Environmental Mitigation Legend: Refer to Main Legend for baseline and scheme features (Dwg: HE540039-CJV-EGN-SZZ_EN000000_Z-DR-ZZ-00001).

<p>Order Limits</p> <p>Permanent Acquisition of Land</p> <p>Grassland (LE 1)</p> <p>LE 1.3 Species Rich Chalk Grassland</p> <p>LE 1.31 Species Rich Chalk Grassland</p> <p>LE 1.32 Species Rich Annual Wildflower Grassland</p> <p>LE 1.4 Rock and Scree</p>	<p>Planting (LE 2)</p> <p>LE 2.1 Woodland</p> <p>LE 2.11 Woodland With Non-Native Species</p> <p>LE 2.14 Wet / Carr Woodland</p> <p>LE 2.2 Woodland Edge</p> <p>LE 2.22 Scrub Woodland</p> <p>LE 2.4 Linear Belt of Shrubs and Trees</p>	<p>LE 2.5 Shrubs With Intermittent Trees</p> <p>LE 2.7 Scattered Trees</p> <p>LE 2.8 Scrub / Scattered Scrub</p> <p>Hedges (LE 4)</p> <p>LE 4.3 Native Species Hedge (untrimmed)</p> <p>LE 4.4 Native Hedgerow With Trees</p>	<p>Individual Trees (LE 5)</p> <p>LE 5.1 Individual Trees</p> <p>Wetland Habitats (LE 6)</p> <p>LE 6.11 Water Bodies - Standing Water</p> <p>LE 6.12 Water Bodies and Associated Plants</p> <p>LE 6.2 Banks and Ditches</p> <p>LE 6.21 Banks and Ditches - High Tide Root Features</p>	<p>LE 6.4 Wet Grassland</p> <p>LE 6.41 Marsh and Wet Grassland - Coastal Grazing Marsh</p> <p>Hard Landscape Features (LE 7)</p> <p>LE 7.4 Reinforced Earth Bund</p> <p>Earthworks</p> <p>Proposed Contours</p>	<p>Ecological Habitats (LE 8)</p> <p>LE 8.1 Open Mosaic Habitat</p> <p>LE 8.2 Ancient Woodland Compensation Planting</p> <p>LE 8.3 Woodland Mitigation Planting</p> <p>LE 8.4 Wetland / Fenland Creation</p> <p>LE 8.5 Ecology Pond (indicative symbol only)</p> <p>LE 8.6 Acid Grassland Soil Salvage</p>	<p>LE 8.7 Nitrogen Deposition (NDEP) Compensation Area</p> <p>Noise (E 1)</p> <p>E 1.2 Acoustic Barrier-Built Elements (typically inc. highway boundary fence)</p> <p>Water (E 2)</p> <p>Flood Compensation Areas (E 2-FCA)</p> <p>Flood Defence (E 2-FD)</p>	<p>Ecological (E 3)</p> <p>E 3.2 Ecological Habitat Creation and Receptor sites for Protected Species</p> <p>E 3.2 Dormouse Boxes</p> <p>E 3.2 Bat Boxes</p> <p>E 3.2 Ecological Culvert</p> <p>E 3.2 Bat Barn Block</p> <p>E 3.2 Barn Owl Box</p> <p>E 3.2 Ecological Fencing (inc. highway boundary fence)</p>
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Client: **national highways**

Project: **LOWER THAMES CROSSING**

Status	PINS Submission	Original Size	A1	Revision	P02
Application Document Number	TR010032/APP/6.2	Scale	1:1250		
Drawing Title	ENVIRONMENTAL MASTERPLAN SECTION 1 SHEET 1				
Drawing Number	HE540039-CJV-EGN-S01_EN000000_Z-DR-ZZ-00002				



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SCALE 1:1250 (A1)
SCALE 1:2500 (A3)

Section Overview Sheet: Refer to section overview plan at the start of the section.

P01	S2	25/10/2022	DCO Application	SA	PS	MH
P02	S9	19/07/2023	Deadline 2	LD	SK	BF
Rev	Status	Rev. Date	Purpose of revision	Drawn	Check'd	Apprv'd

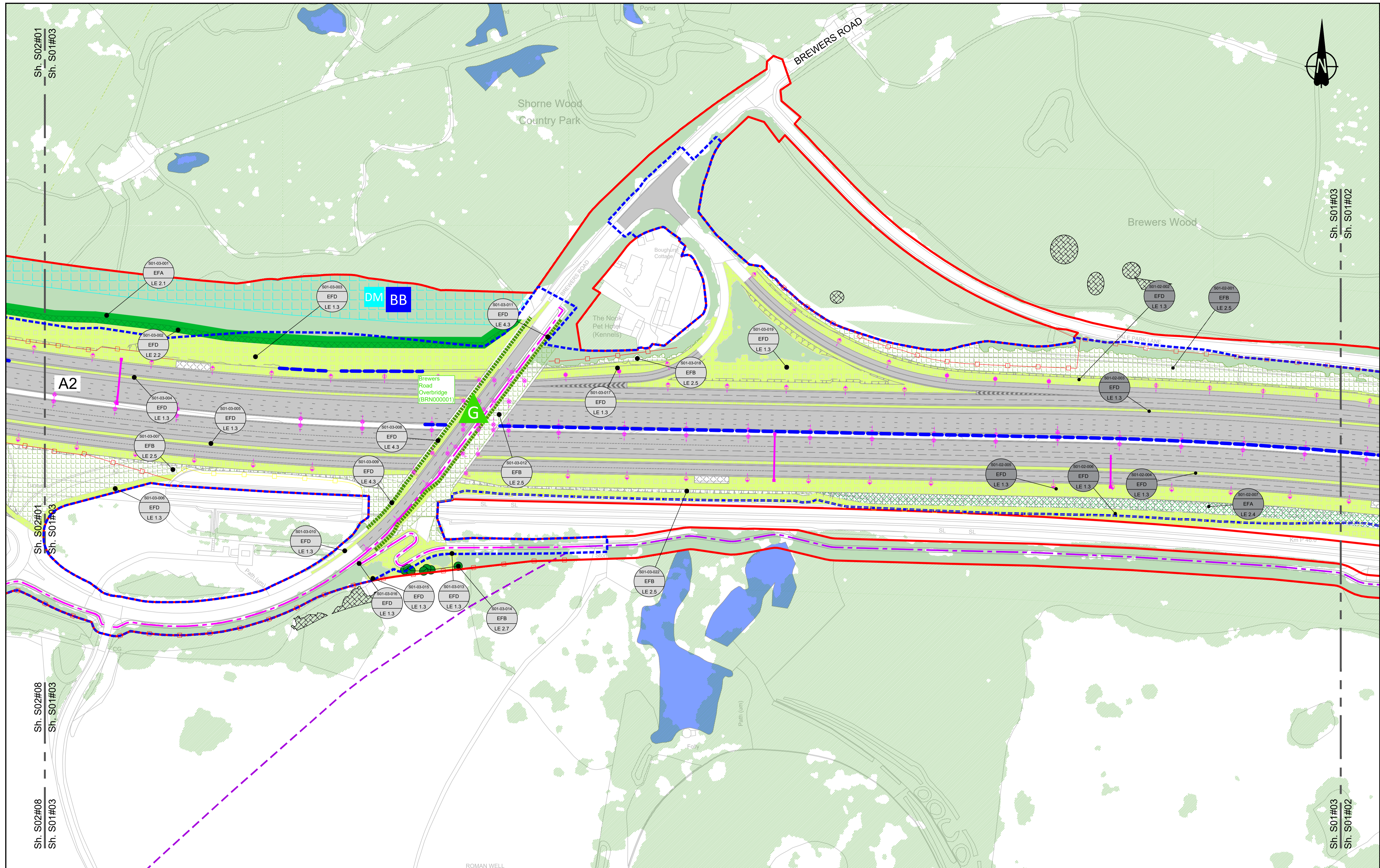
Environmental Mitigation Legend: Refer to Main Legend for baseline and scheme features (Dwg: HE540039-CJV-EGN-SZZ_EN000000_Z-DR-ZZ-00001).

Order Limits	Planting (LE 2)	Individual Trees (LE 5)	Ecological Habitats (LE 8)	Noise (E 1)	Ecological (E 3)
Permanent Acquisition of Land	LE 2.1 Woodland	LE 5.1 Individual Trees	LE 8.1 Open Mosaic Habitat	LE 8.7 Nitrogen Deposition (NDEP) Compensation Area	E 3.2 Ecological Habitat Creation and Receptor sites for Protected Species
Grassland (LE 1)	LE 2.11 Woodland With Non-Native Species	Wetland Habitats (LE 6)	LE 8.2 Ancient Woodland Compensation Planting	E 1.2 Acoustic Barrier-Built Elements (Typically inc. Highway boundary fence)	E 3.2 Dormouse Boxes
LE 1.3 Species Rich Grassland	LE 2.14 Wet / Carr Woodland	LE 6.11 Water Bodies - Standing Water	LE 8.3 Woodland Mitigation Planting	Water (E 2)	E 3.2 Bat Boxes
LE 1.31 Species Rich Chalk Grassland	LE 2.2 Woodland Edge	LE 6.12 Water Bodies and Associated Plants - Shallow Scrape	LE 8.4 Wetland / Fenland Creation	Flood Compensation Areas (E 2-FCA)	E 3.2 Ecological Culvert
LE 1.32 Species Rich Annual Wildflower Grassland	LE 2.22 Scrub Woodland	LE 6.2 Banks and Ditches	LE 8.5 Ecology Pond (Indicative symbol only)	Flood Defence (E 2-FD)	E 3.2 Bat Barn Block
LE 1.4 Rock and Scree	LE 2.4 Linear Belt of Shrubs and Trees	LE 6.21 Banks and Ditches - High Tide Roost Features	LE 8.6 Acid Grassland Soil Salvage		
		Hard Landscape Features (LE 7)			
		LE 7.4 Reinforced Earth Band			
		Earthworks			
		Proposed Contours			

Client: **national highways**

Project: **LOWER THAMES CROSSING**

Status	PINS Submission	Original Size	A1	Revision	P02
Application Document Number	TR010032/APP/6.2	Scale	1:1250		
Drawing Title	ENVIRONMENTAL MASTERPLAN SECTION 1 SHEET 2				
Drawing Number	HE540039-CJV-EGN-S01_EN000000_Z-DR-ZZ-00003				



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0 10 20 30 40 50 60 70 80 90 100 METRES

SCALE 1:1250 (A1)
SCALE 1:2500 (A3)

Section Overview Sheet: Refer to section overview plan at the start of the section.

P01	S2	25/10/2022	DCO Application	SA	PS	MH
P02	S9	19/07/2023	Deadline 2	LD	SK	BF
Rev	Status	Rev. Date	Purpose of revision	Drawn	Check'd	Apprv'd

Environmental Mitigation Legend: Refer to Main Legend for baseline and scheme features (Dwg: HE540039-CJV-EGN-SZZ_EN000000_Z-DR-ZZ-00001).

Order Limits — Order Limits — Permanent Acquisition of Land	Planting (LE 2) LE 2.1 Woodland LE 2.11 Woodland With Non-Native Species LE 2.14 Wet / Carr Woodland LE 2.2 Woodland Edge LE 2.22 Scrub Woodland LE 2.4 Linear Belt of Shrubs and Trees	Individual Trees (LE 5) LE 5.1 Individual Trees LE 5.2 Scattered Trees	Wetland Habitats (LE 6) LE 6.1 Water Bodies – Standing Water LE 6.12 Water Bodies and Associated Plants – Shallow Scrape LE 6.2 Banks and Ditches LE 6.21 Banks and Ditches – High Tide Roost Features	Ecological Habitats (LE 8) LE 8.1 Open Mosaic Habitat LE 8.2 Ancient Woodland Compensation Planting LE 8.3 Woodland Mitigation Planting LE 8.4 Wetland / Fenland Creation LE 8.5 Ecology Pond (indicative symbol only) LE 8.6 Acid Grassland Soil Salvage	Noise (E 1) E 1.2 Acoustic Barrier-Built Elements (typically inc. highway boundary fence)	Water (E 2) E 2.1 Flood Compensation Areas (E 2-FCA) E 2.2 Flood Defence (E 2-FD)	Ecological (E 3) E 3.2 Ecological Habitat Creation and Receptor sites for Protected Species E 3.2 Dormouse Boxes E 3.2 Bat Boxes E 3.2 Ecological Culvert E 3.2 Bat Barn Block	E 3.2 Barn Owl Box E 3.2 Ecological Fencing (inc. highway boundary fence)
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Grassland (LE 1)
LE 1.3 Species Rich Grassland
LE 1.31 Species Rich Chalk Grassland
LE 1.32 Species Rich Annual Wildflower Grassland
LE 1.4 Rock and Scree

Hard Landscape Features (LE 7)
LE 7.4 Reinforced Earth Bund

Earthworks
Proposed Contours

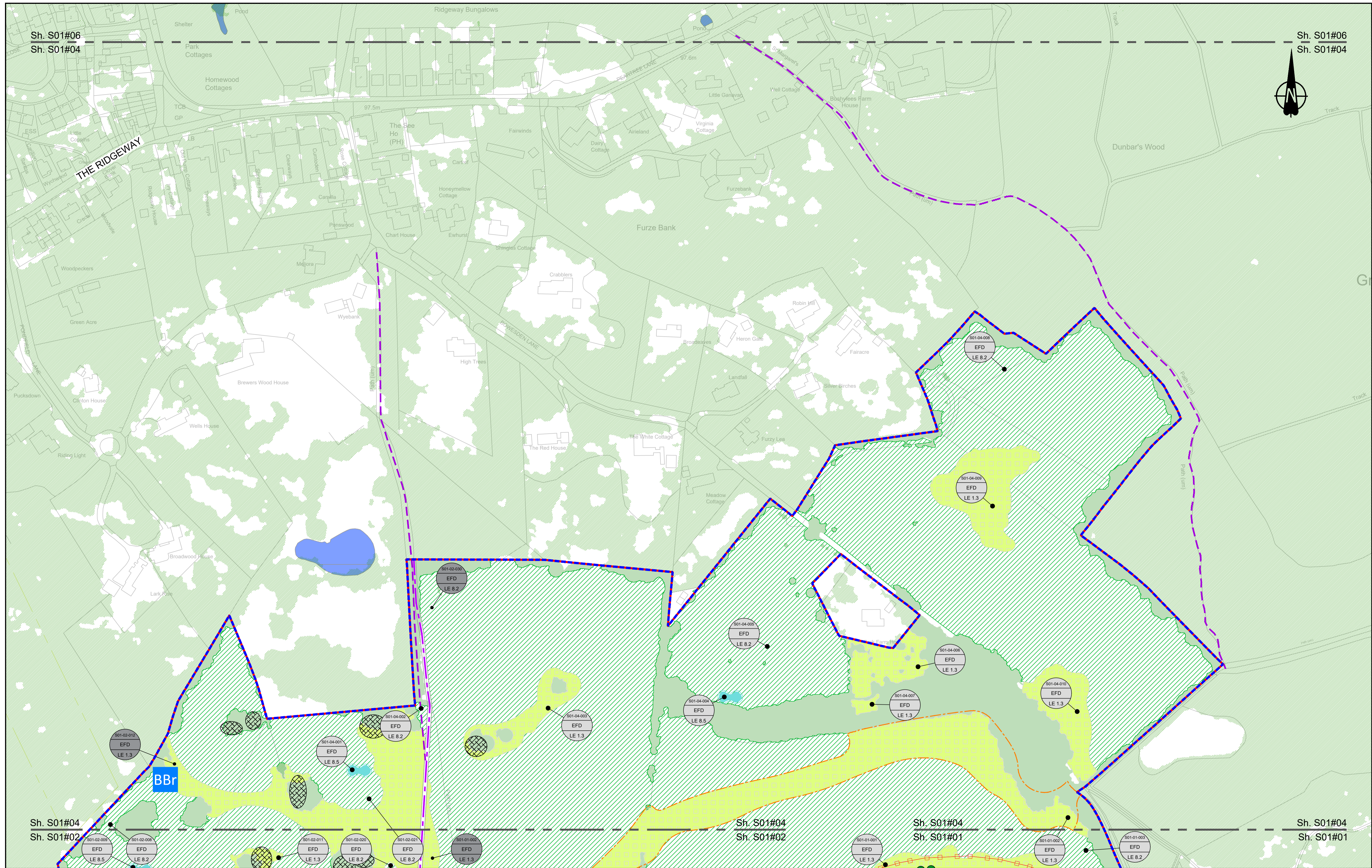
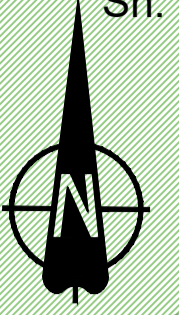
Client: **national highways**

Project: **LOWER THAMES CROSSING**

Status: PINS Submission	Application Document Number: TR010032/APP/6.2	Original Size: A1	Revision: P02
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Drawing Number: HE540039-CJV-EGN-S01_EN000000_Z-DR-ZZ-00004			
HE540039-CJV-EGN-S01_EN000000_Z-DR-ZZ-00004.dwg			

Sh. S01#06
Sh. S01#04

Sh. S01#06
Sh. S01#04



Sh. S01#04
Sh. S01#02

Sh. S01#04
Sh. S01#02

Sh. S01#04
Sh. S01#01

Sh. S01#04
Sh. S01#01

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SCALE 1:1250 (A1)
SCALE 1:2500 (A3)

Section Overview Sheet: Refer to section overview plan at the start of the section.

Rev	Status	Rev. Date	Purpose of revision	Drawn	Check'd	Apprv'd
P01.6	SD	08/08/2022		LD		

Environmental Mitigation Legend: Refer to Main Legend for baseline and scheme features (Dwg: HE540039-CJV-EGN-SZZ_EN000000_Z-DR-ZZ-00001).

Order Limits
 - Red dashed line: Order Limits
 - Blue dashed line: Permanent Acquisition of Land

Grassland (LE 1)
 - LE 1.3 Species Rich Grassland
 - LE 1.31 Species Rich Chalk Grassland
 - LE 1.32 Species Rich Annual Wildflower Grassland
 - LE 1.4 Rock and Scree

Planting (LE 2)
 - LE 2.1 Woodland
 - LE 2.11 Woodland With Non-Native Species
 - LE 2.14 Wet / Carr Woodland
 - LE 2.2 Woodland Edge
 - LE 2.22 Scrub Woodland
 - LE 2.4 Linear Belt of Shrubs and Trees

Shrubs With Intermittent Trees (LE 2.5)
 - LE 2.5 Shrubs With Intermittent Trees

Scattered Trees (LE 2.7)
 - LE 2.7 Scattered Trees

Scrub / Scattered Scrub (LE 2.8)
 - LE 2.8 Scrub / Scattered Scrub

Hedges (LE 4)
 - LE 4.3 Native Species Hedge (untrimmed)
 - LE 4.4 Native Hedgerow With Trees

Individual Trees (LE 5)
 - LE 5.1 Individual Trees

Wetland Habitats (LE 6)
 - LE 6.11 Water Bodies - Standing Water
 - LE 6.12 Water Bodies and Associated Plants - Shallow Scrape
 - LE 6.2 Banks and Ditches
 - LE 6.21 Banks and Ditches - High Tide Root Features

Wet Grassland (LE 6.4)
 - LE 6.4 Marsh and Wet Grassland - Coastal Grazing Marsh

Hard Landscape Features (LE 7)
 - LE 7.4 Reinforced Earth Bund

Earthworks
 - Proposed Contours

Ecological Habitats (LE 8)
 - LE 8.1 Open Mosaic Habitat
 - LE 8.2 Ancient Woodland Compensation Planting
 - LE 8.3 Woodland Mitigation Planting
 - LE 8.4 Wetland / Fenland Creation
 - LE 8.5 Ecology Pond (indicative symbol only)
 - LE 8.6 Acid Grassland Soil Salvage

Ecological (E 3)
 - E 3.2 Ecological Habitat Creation and Receptor sites for Protected Species
 - E 3.2 Dormouse Boxes
 - E 3.2 Bat Boxes
 - E 3.2 Ecological Culvert
 - E 3.2 Bat Barn Block

Noise (E 1)
 - E 1.2 Acoustic Barrier-Built Elements (typically inc. highway boundary fence)

Water (E 2)
 - E 2.7 Nitrogen Deposition (NDEP) Compensation Area
 - E 2.8 Flood Compensation Areas (E 2-FCA)
 - E 2.9 Flood Defence (E 2-FD)

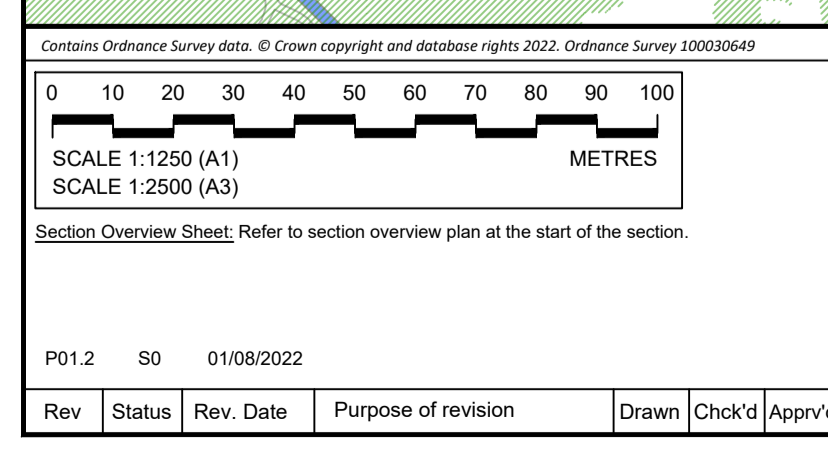
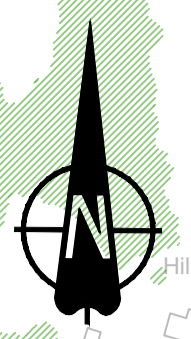
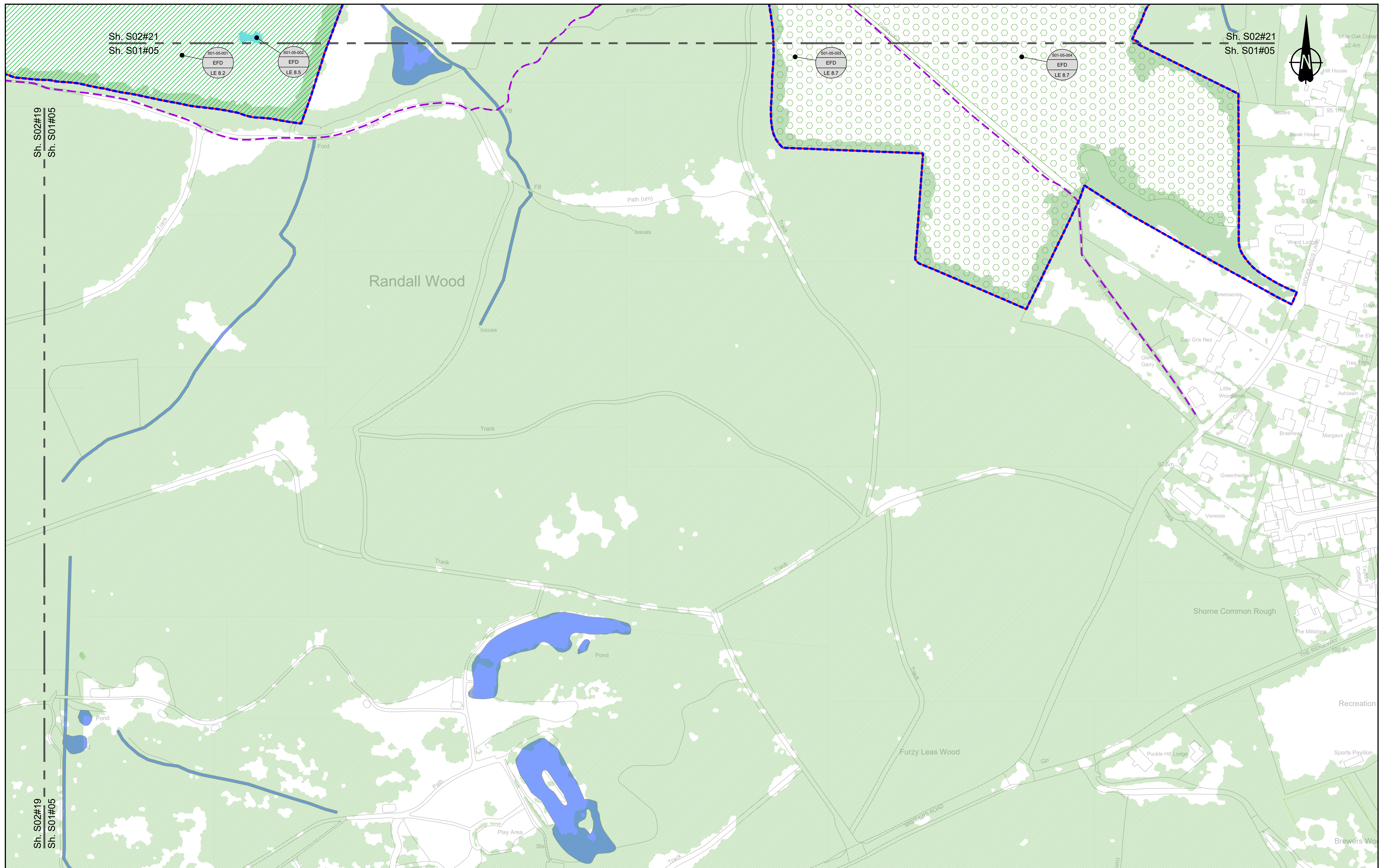
Ecological (E 3)
 - E 3.2 Ecological Habitat Creation and Receptor sites for Protected Species
 - E 3.2 Ecological Fencing (inc. highway boundary fence)
 - E 3.2 Barn Owl Box

Client: **national highways**

Project: **LOWER THAMES CROSSING**

Status	Initial Status or WIP	Original Size	Revision
Application Document Number	TR010032/APP/6.2	A1	P01.6
Scale	1:1250		
Drawing Title	ENVIRONMENTAL MASTERPLAN SECTION 1 SHEET 4		
Drawing Number	HE540039-CJV-EGN-S01_EN000000_Z-DR-ZZ-00005		

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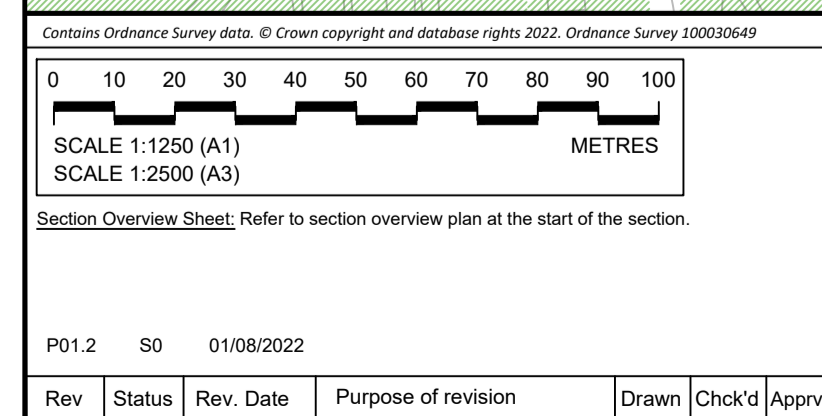
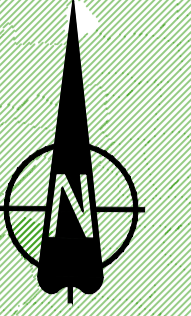
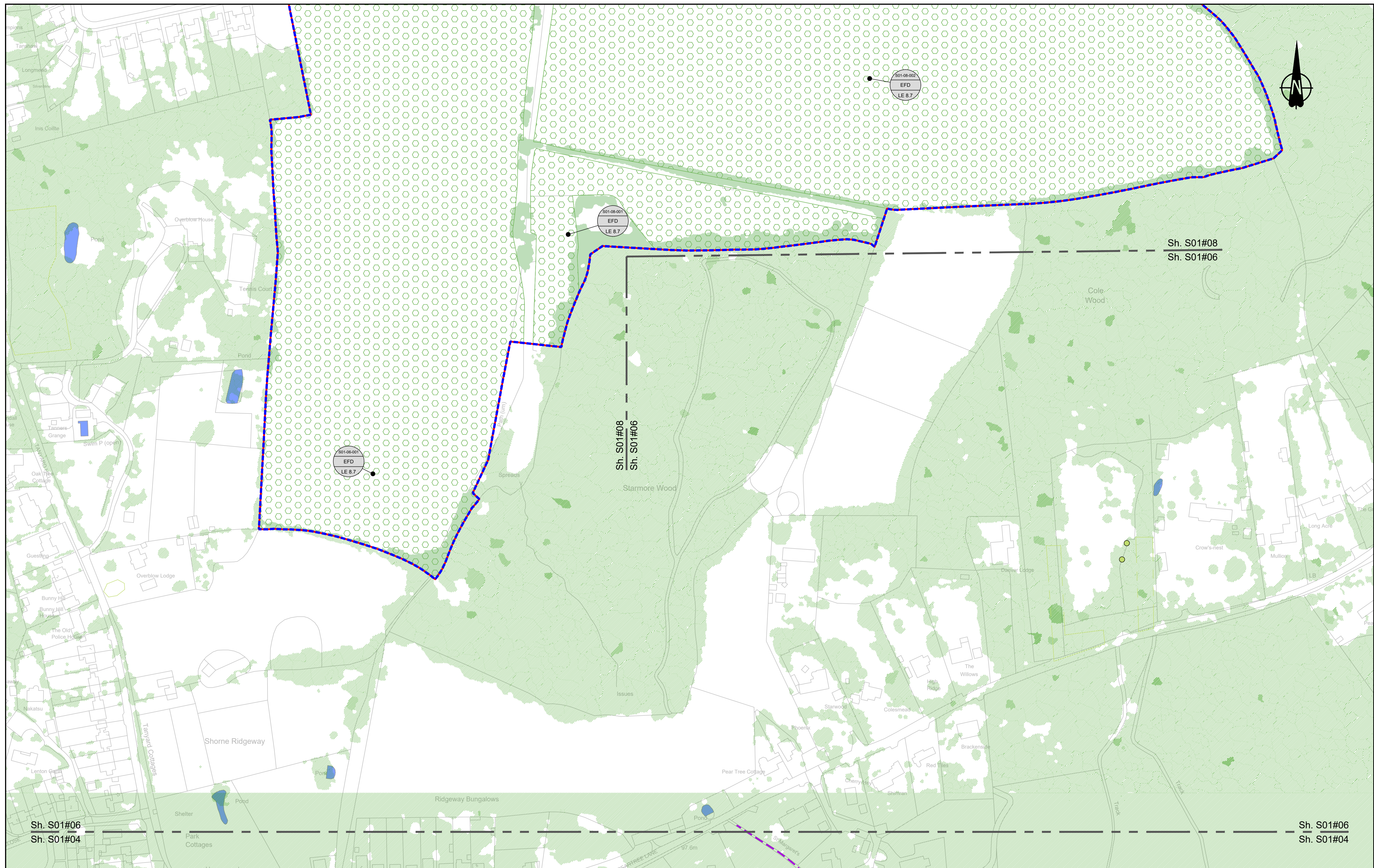
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<p>Order Limits</p> <ul style="list-style-type: none"> Order Limits Permanent Acquisition of Land <p>Grassland (LE 1)</p> <ul style="list-style-type: none"> LE 1.3 Species Rich Grassland LE 1.31 Species Rich Chalk Grassland LE 1.32 Species Rich Annual Wildflower Grassland LE 1.4 Rock and Scree 	<p>Planting (LE 2)</p> <ul style="list-style-type: none"> LE 2.1 Woodland LE 2.11 Woodland With Non-Native Species LE 2.14 Wet / Carr Woodland LE 2.2 Woodland Edge LE 2.22 Scrub Woodland LE 2.4 Linear Belt of Shrubs and Trees <p>Hedges (LE 4)</p> <ul style="list-style-type: none"> LE 4.3 Native Species Hedge (untrimmed) LE 4.4 Native Hedgerow With Trees 	<p>Individual Trees (LE 5)</p> <ul style="list-style-type: none"> LE 5.1 Individual Trees <p>Wetland Habitats (LE 6)</p> <ul style="list-style-type: none"> LE 6.11 Water Bodies - Standing Water LE 6.12 Water Bodies and Associated Plants - Shallow Scrape LE 6.2 Banks and Ditches LE 6.21 Banks and Ditches - High Tide Root Features <p>Hard Landscape Features (LE 7)</p> <ul style="list-style-type: none"> LE 7.4 Reinforced Earth Bund <p>Earthworks</p> <ul style="list-style-type: none"> Proposed Contours 	<p>Ecological Habitats (LE 8)</p> <ul style="list-style-type: none"> LE 8.1 Open Mosaic Habitat LE 8.2 Ancient Woodland Compensation Planting LE 8.3 Woodland Mitigation Planting LE 8.4 Wetland / Fenland Creation LE 8.5 Ecology Pond (indicative symbol only) LE 8.6 Acid Grassland Soil Salvage 	<p>Ecological (E 3)</p> <ul style="list-style-type: none"> E 3.2 Ecological Habitat Creation and Receptor sites for Protected Species E 3.2 Dormouse Boxes E 3.2 Bat Boxes E 3.2 Ecological Culvert E 3.2 Bat Barn Block <p>Ecological (E 3.2)</p> <ul style="list-style-type: none"> E 3.2 Ecological Fencing (inc. highway boundary fence) E 3.2 Barn Owl Box E 3.2 Ecological Fencing (inc. highway boundary fence) 	<p>Noise (E 1)</p> <ul style="list-style-type: none"> E 1.2 Acoustic Barrier-Built Elements (typically inc. highway boundary fence) <p>Water (E 2)</p> <ul style="list-style-type: none"> Flood Compensation Areas (E 2-FCA) Flood Defence (E 2-FD) <p>LE 8.7 Nitrogen Deposition (NDEP) Compensation Area</p>
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Client: national highways

Project: LOWER THAMES CROSSING

Status: Initial Status or WIP	Original Size: A1	Revision: P01.2
Application Document Number: TR010032/APP/6.2	Scale: 1:1250	
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Drawing Number: HE540039-CJV-EGN-S01_EN000000_Z-DR-ZZ-00006		



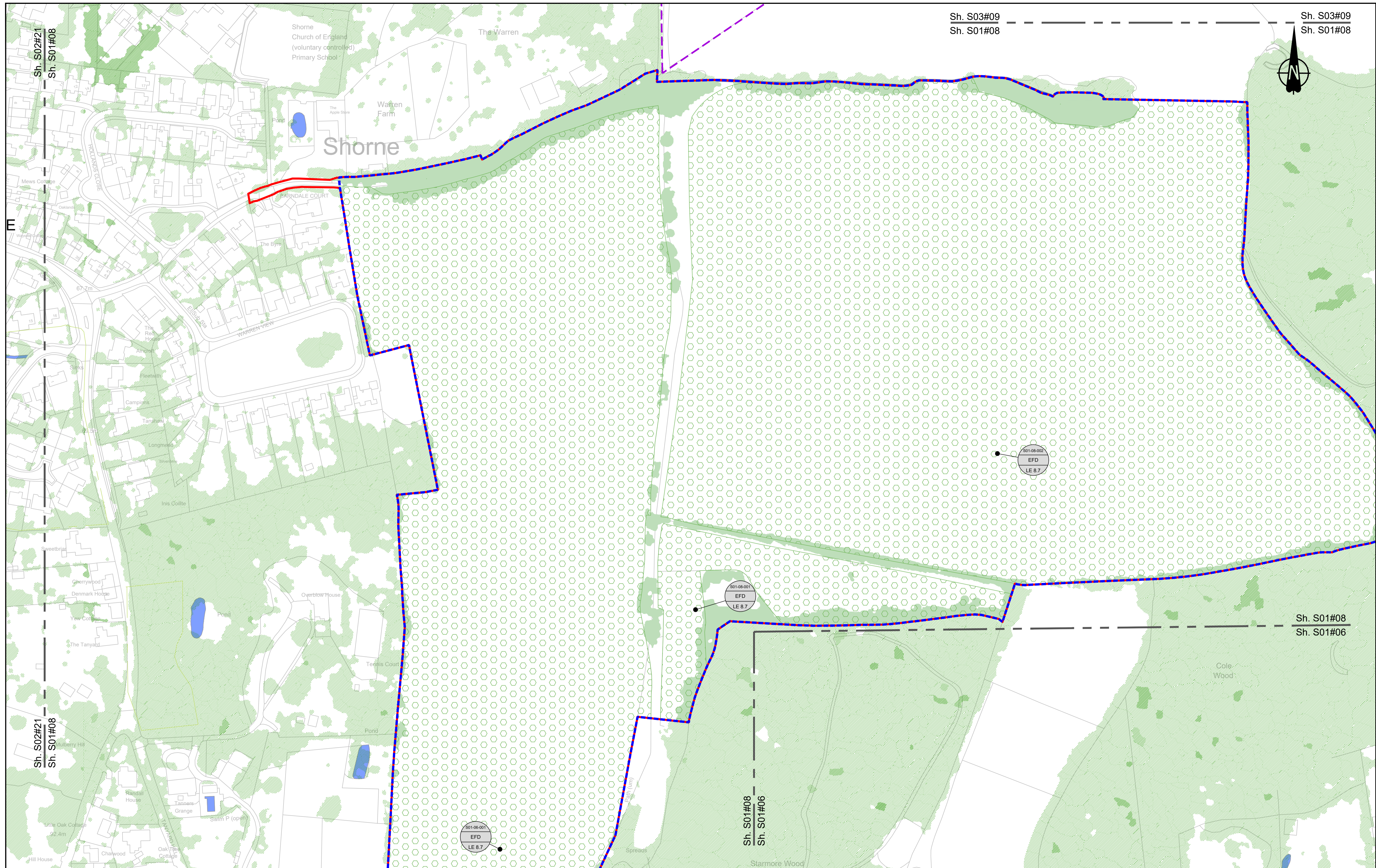
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<p>Order Limits</p> <ul style="list-style-type: none"> Permanent Acquisition of Land <p>Grassland (LE 1)</p> <ul style="list-style-type: none"> LE 1.3 Species Rich Chalk Grassland LE 1.31 Species Rich Chalk Grassland LE 1.32 Species Rich Annual Wildflower Grassland LE 1.4 Rock and Scree 	<p>Planting (LE 2)</p> <ul style="list-style-type: none"> LE 2.1 Woodland LE 2.11 Woodland With Non-Native Species LE 2.14 Wet / Carr Woodland LE 2.2 Woodland Edge LE 2.22 Scrub Woodland LE 2.4 Linear Belt of Shrubs and Trees <p>Hedges (LE 4)</p> <ul style="list-style-type: none"> LE 4.3 Native Species Hedge (untrimmed) LE 4.4 Native Hedgerow With Trees 	<p>Individual Trees (LE 5)</p> <ul style="list-style-type: none"> LE 5.1 Individual Trees <p>Wetland Habitats (LE 6)</p> <ul style="list-style-type: none"> LE 6.11 Water Bodies - Standing Water LE 6.12 Water Bodies - Shallow Scrape LE 6.2 Banks and Ditches LE 6.21 Banks and Ditches - High Tide Roost Features <p>Hard Landscape Features (LE 7)</p> <ul style="list-style-type: none"> LE 7.4 Reinforced Earth Bund <p>Earthworks</p> <ul style="list-style-type: none"> Proposed Contours 	<p>Ecological Habitats (LE 8)</p> <ul style="list-style-type: none"> LE 8.1 Open Mosaic Habitat LE 8.2 Ancient Woodland Compensation Planting LE 8.3 Woodland Mitigation Planting LE 8.4 Wetland / Fenland Creation LE 8.5 Ecology Pond (indicative symbol only) LE 8.6 Acid Grassland Soil Salvage 	<p>Noise (E 1)</p> <ul style="list-style-type: none"> LE 8.7 Nitrogen Deposition (NDEP) Compensation Area E 1.2 Acoustic Barrier-Built Elements (typically inc. highway boundary fence) <p>Water (E 2)</p> <ul style="list-style-type: none"> Flood Compensation Areas (E 2-FCA) Flood Defence (E 2-FD) 	<p>Ecological (E 3)</p> <ul style="list-style-type: none"> E 3.2 Ecological Habitat Creation and Receptor sites for Protected Species E 3.2 Dormouse Boxes E 3.2 Bat Boxes E 3.2 Ecological Culvert E 3.2 Bat Barn Block 	<ul style="list-style-type: none"> E 3.2 Ecological Fencing (inc. highway boundary fence) E 3.2 Bat Barn Box
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Client: national highways

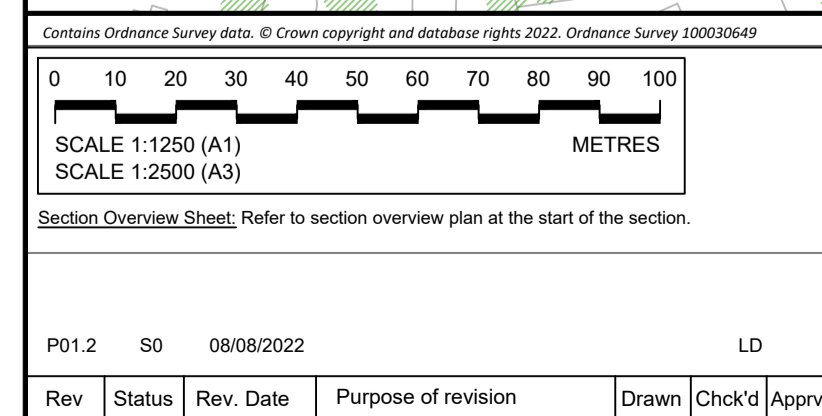
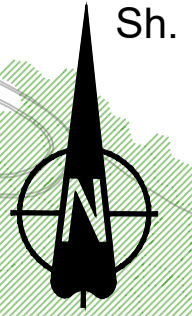
Project: LOWER THAMES CROSSING

Status	Initial Status or WIP	Original Size	Revision
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Drawing Title	ENVIRONMENTAL MASTERPLAN SECTION 1 SHEET 6		
Drawing Number	HE540039-CJV-EGN-S01_EN000000_Z-DR-ZZ-00007		



Sh. S03#09
Sh. S01#08

Sh. S03#09
Sh. S01#08



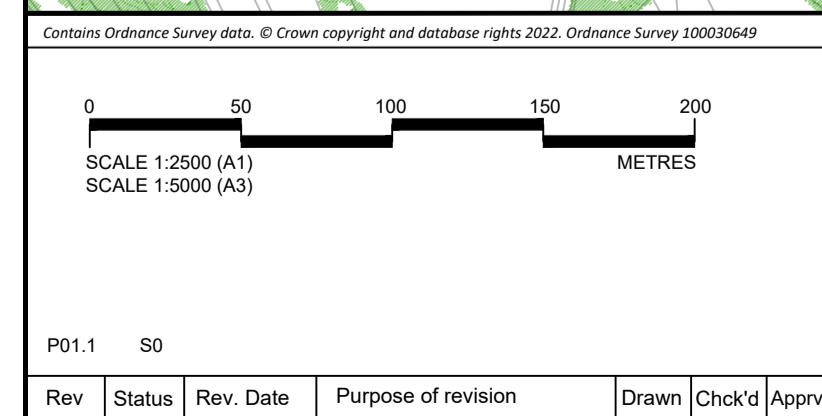
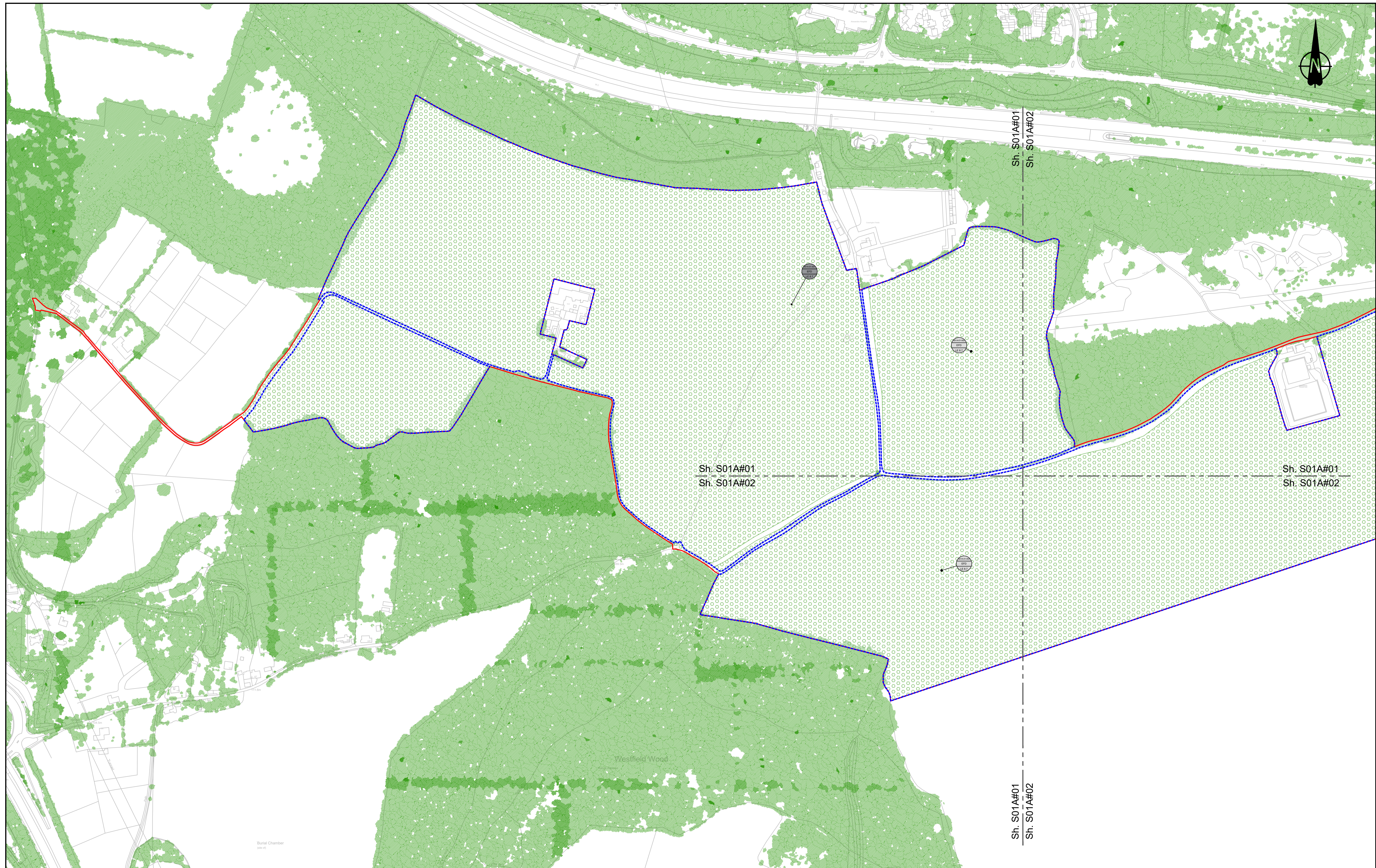
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Order Limits Permanent Acquisition of Land	Planting (LE 2) LE 2.1 Woodland LE 2.11 Woodland With Non-Native Species LE 2.14 Wet / Carr Woodland LE 2.2 Woodland Edge LE 2.22 Scrub Woodland LE 2.4 Linear Belt of Shrubs and Trees
Grassland (LE 1) LE 1.3 Species Rich Grassland LE 1.31 Species Rich Chalk Grassland LE 1.32 Species Rich Annual Wildflower Grassland LE 1.4 Rock and Scree	Individual Trees (LE 5) LE 5.1 Individual Trees Wetland Habitats (LE 6) LE 6.11 Water Bodies - Standing Water LE 6.12 Water Bodies and Associated Plants - Shallow Scrape LE 6.2 Banks and Ditches LE 6.21 Banks and Ditches - High Tide Root Features
Ecological Habitats (LE 8) LE 8.1 Open Mosaic Habitat LE 8.2 Ancient Woodland Compensation Planting LE 8.3 Woodland Mitigation Planting LE 8.4 Wetland / Fenland Creation LE 8.5 Ecology Pond (indicative symbol only) LE 8.6 Acid Grassland Soil Salvage	Hard Landscape Features (LE 7) LE 7.4 Reinforced Earth Bund Earthworks Proposed Contours
Ecological (E 3) E 3.2 Ecological Habitat Creation and Receptor sites for Protected Species E 3.2 Dormouse Boxes E 3.2 Bat Boxes E 3.2 Ecological Culvert E 3.2 Bat Barn Block E 3.2 Barn Owl Box E 3.2 Ecological Fencing (inc. highway boundary fence)	Noise (E 1) E 1.2 Acoustic Barrier-Built Elements (typically inc. highway boundary fence) Water (E 2) Flood Compensation Areas (E 2-FCA) Flood Defence (E 2-FD)

Client: national highways

Project: LOWER THAMES CROSSING

Status: Initial Status or WIP	Original Size: A1	Revision: P01.2
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Drawing Title: ENVIRONMENTAL MASTERPLAN SECTION 1 SHEET 8		
Drawing Number: HE540039-CJV-EGN-S01_EN000000_Z-DR-ZZ-00009		

1.7 Section 1A



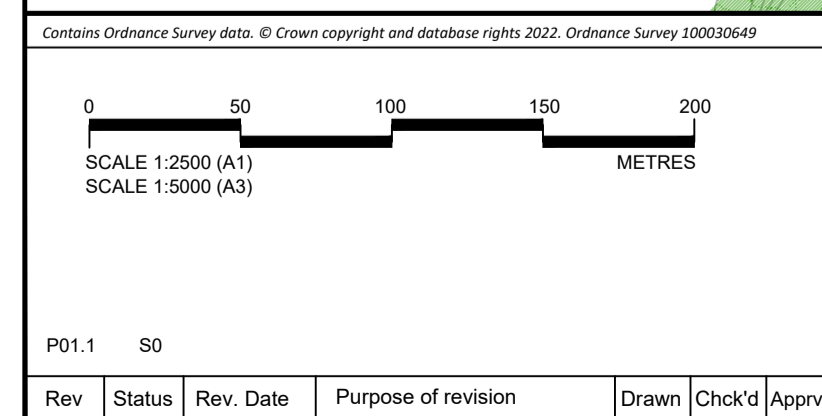
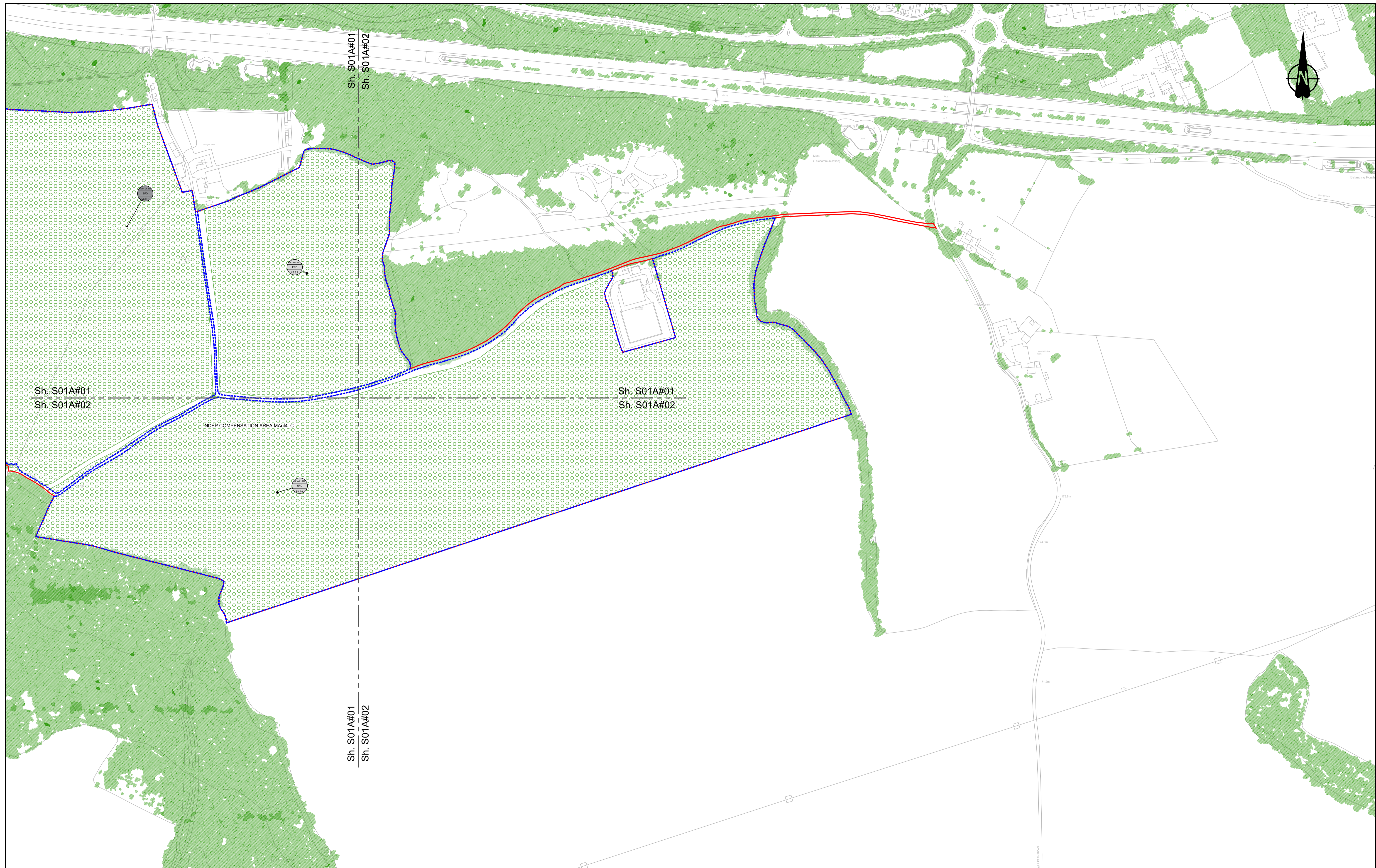
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Grassland (LE 1) LE 1.3 Species Rich Grassland LE 1.31 Species Rich Chalk Grassland LE 1.32 Species Rich Annual Wildflower Grassland LE 1.4 Rock and Scree	Hedges (LE 4) LE 4.3 Native Species Hedge (untrimmed) LE 4.4 Native Hedgerow With Trees	Hard Landscape Features (LE 7) LE 7.4 Reinforced Earth Bund Earthworks Proposed Contours	Noise (E 1) E 1.2 Acoustic Barrier-Built Elements (typically inc. highway boundary fence)	Water (E 2) Flood Compensation Areas (E 2-FCA) Flood Defence (E 2-FD)

Client: national highways

Project: LOWER THAMES CROSSING

Status: Initial Status or WIP	Original Size: A1	Revision: P01.1
Application Document Number: TR010032/APP/6.2	Scale: 1:1250	
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Drawing Number: HE540039-CJV-EGN-S01_EN000000_Z-DR-ZZ-00010		



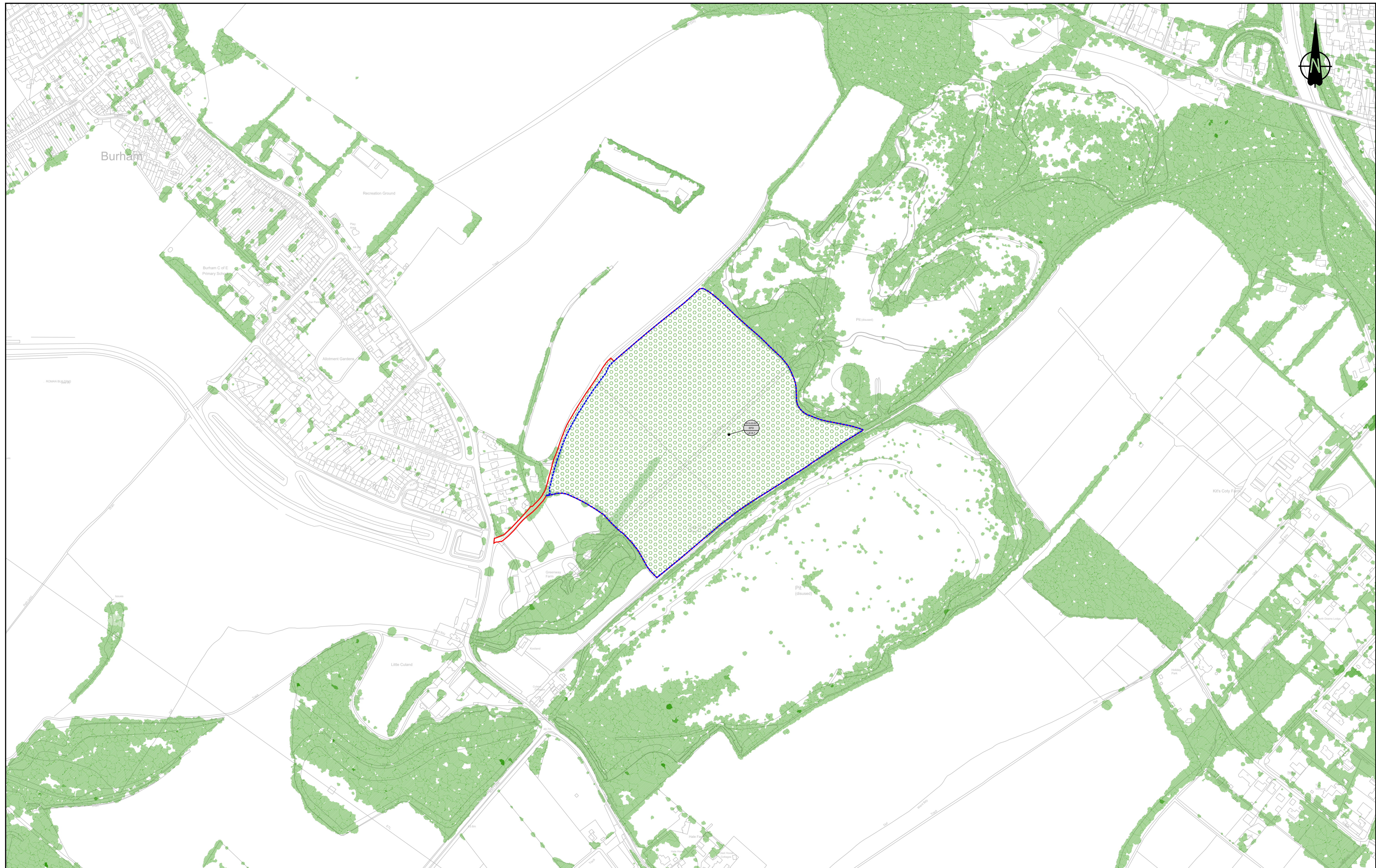
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<p>Order Limits</p> <ul style="list-style-type: none"> Order Limits Permanent Acquisition of Land <p>Grassland (LE 1)</p> <ul style="list-style-type: none"> LE 1.3 Species Rich Grassland LE 1.31 Species Rich Chalk Grassland LE 1.32 Species Rich Annual Wildflower Grassland LE 1.4 Rock and Scree 	<p>Planting (LE 2)</p> <ul style="list-style-type: none"> LE 2.1 Woodland LE 2.11 Woodland With Non-Native Species LE 2.14 Wet / Carr Woodland LE 2.2 Woodland Edge LE 2.22 Scrub Woodland LE 2.4 Linear Belt of Shrubs and Trees <p>Hedges (LE 4)</p> <ul style="list-style-type: none"> LE 4.3 Native Species Hedge (untrimmed) LE 4.4 Native Hedgerow With Trees 	<p>Individual Trees (LE 5)</p> <ul style="list-style-type: none"> LE 5.1 Individual Trees <p>Wetland Habitats (LE 6)</p> <ul style="list-style-type: none"> LE 6.11 Water Bodies - Standing Water LE 6.12 Water Bodies and Associated Plants - Shallow Scrape LE 6.2 Banks and Ditches LE 6.21 Banks and Ditches - High Tide Root Features 	<p>Wetland Habitats (LE 6)</p> <ul style="list-style-type: none"> LE 6.41 Marsh and Wet Grassland - Coastal Grazing Marsh <p>Hard Landscape Features (LE 7)</p> <ul style="list-style-type: none"> LE 7.4 Reinforced Earth Bund <p>Earthworks</p> <ul style="list-style-type: none"> Proposed Contours 	<p>Ecological Habitats (LE 8)</p> <ul style="list-style-type: none"> LE 8.1 Open Mosaic Habitat LE 8.2 Ancient Woodland Compensation Planting LE 8.3 Woodland Mitigation Planting LE 8.4 Wetland / Fenland Creation LE 8.5 Ecology Pond (indicative symbol only) LE 8.6 Acid Grassland Soil Salvage 	<p>Noise (E 1)</p> <ul style="list-style-type: none"> LE 8.7 Nitrogen Deposition (NDEP) Compensation Area E 1.2 Acoustic Barrier-Built Elements (typically inc. highway boundary fence) <p>Water (E 2)</p> <ul style="list-style-type: none"> Flood Compensation Areas (E 2-FCA) LE 8.5 Ecology Pond (indicative symbol only) Flood Defence (E 2-FD) 	<p>Ecological (E 3)</p> <ul style="list-style-type: none"> E 3.2 Ecological Habitat Creation and Receptor sites for Protected Species E 3.2 Dormouse Boxes E 3.2 Bat Boxes E 3.2 Ecological Culvert E 3.2 Bat Barn Block 	<ul style="list-style-type: none"> E 3.2 Barn Owl Box E 3.2 Ecological Fencing (inc. highway boundary fence)
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Client: national highways

Project: LOWER THAMES CROSSING

Status: Initial Status or WIP	Original Size: A1	Revision: P01.1
Application Document Number: TR010032/APP/6.2	Scale: 1:1250	
Drawing title: ENVIRONMENTAL MASTERPLAN SECTION 1A SHEET 2		
Drawing Number: HE540039-CJV-EGN-S01_EN000000_Z-DR-ZZ-00011		



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SCALE 1:2500 (A1)
SCALE 1:5000 (A3)
METRES

Rev	Status	Rev. Date	Purpose of revision	Drawn	Chk'd	Apprv'd
P01.1	SD					

Environmental Mitigation Legend: Refer to Main Legend for baseline and scheme features (Dwg: HE540039-CJV-EGN-SZZ_EN000000_Z-DR-ZZ-00001).

<p>Order Limits</p> <ul style="list-style-type: none"> Order Limits Permanent Acquisition of Land <p>Grassland (LE 1)</p> <ul style="list-style-type: none"> LE 1.3 Species Rich Grassland LE 1.31 Species Rich Chalk Grassland LE 1.32 Species Rich Annual Wildflower Grassland LE 1.4 Rock and Scree 	<p>Planting (LE 2)</p> <ul style="list-style-type: none"> LE 2.1 Woodland LE 2.11 Woodland With Non-Native Species LE 2.14 Wet / Carr Woodland LE 2.2 Woodland Edge LE 2.22 Scrub Woodland LE 2.4 Linear Belt of Shrubs and Trees <p>LE 2.5 Shrubs With Intermittent Trees</p> <p>LE 2.7 Scattered Trees</p> <p>LE 2.8 Scrub / Scattered Scrub</p> <p>Hedges (LE 4)</p> <ul style="list-style-type: none"> LE 4.3 Native Species Hedge (untrimm'd) LE 4.4 Native Hedgerow With Trees 	<p>Individual Trees (LE 5)</p> <ul style="list-style-type: none"> LE 5.1 Individual Trees <p>Wetland Habitats (LE 6)</p> <ul style="list-style-type: none"> LE 6.11 Water Bodies - Standing Water LE 6.12 Water Bodies and Associated Plants - Shallow Scrape LE 6.2 Barks and Ditches LE 6.21 Banks and Ditches - High Tide Root Features <p>LE 6.4 Marsh and Wet Grassland - Coastal Grazing Marsh</p> <p>LE 7.4 Reinforced Earth Bund</p> <p>Earthworks</p> <ul style="list-style-type: none"> Proposed Contours 	<p>Ecological Habitats (LE 8)</p> <ul style="list-style-type: none"> LE 8.1 Open Mosaic Habitat LE 8.2 Ancient Woodland Compensation Planting LE 8.3 Woodland Mitigation Planting LE 8.4 Wetland / Fenland Creation LE 8.5 Ecology Pond (indicative symbol only) LE 8.6 Acid Grassland Soil Salvage <p>LE 8.7 Nitrogen Deposition (NDEP) Compensation Area</p>	<p>Noise (E 1)</p> <ul style="list-style-type: none"> E 1.2 Acoustic Barrier-Built Elements (typically inc. highway boundary fence) <p>Water (E 2)</p> <ul style="list-style-type: none"> Flood Compensation Areas (E 2-FCA) Flood Defence (E 2-FD) 	<p>Ecological (E 3)</p> <ul style="list-style-type: none"> E 3.2 Ecological Habitat Creation and Receptor sites for Protected Species E 3.2 Dormouse Boxes E 3.2 Bat Boxes E 3.2 Ecological Culvert E 3.2 Bat Barn Block E 3.2 Ecological Fencing (inc. highway boundary fence) E 3.2 Barn Owl Box
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Client: national highways

Project: LOWER THAMES CROSSING

Status: Initial Status or WIP	Original Size: A1	Revision: P01.1
Application Document Number: TR010032/APP/6.2	Scale: 1:1250	
Drawing Title: ENVIRONMENTAL MASTERPLAN SECTION 1A SHEET 3		
Drawing Number: HE540039-CJV-EGN-S01_EN000000_Z-DR-ZZ-00012		

HE540039-CJV-EGN-S01_EN000000_Z-DR-ZZ-00012.dwg

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