

M25 junction 28 improvement scheme TR010029

2.8 Engineering drawings and sections

APFP Regulation 5(2)(o) and Regulation 6(2)
Planning Act 2008

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



Infrastructure Planning

Planning Act 2008

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

M25 junction 28 improvement scheme Development Consent Order 202[x]

2.8 ENGINEERING DRAWINGS AND SECTIONS

Regulation Number:	Regulation 5(2)(o) and Regulation 6(2)(a) and 6(2)(b)
Planning Inspectorate Scheme Reference	TR010029
Application Document Reference	TR010029/APP/2.8
Author:	M25 junction 28 scheme, Project Team, Highways England

Version	Date	Status of Version
<u>1</u>	<u>April 2021</u>	<u>Deadline 5, incorporated changes 1-4</u>
0	May 2020	Application issue

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1. Introduction

1.1.1 Highways England (the “Applicant”) has applied to the Secretary of State for a Development Consent (“DCO”) to authorise a scheme for alterations to the M25 junction 28 (the “Scheme”). The application is submitted to the Planning Inspectorate (the “Inspectorate”) in accordance with section 37 of the Planning Act 2008 (the “2008 Act”).

1.1.2 This document comprises part of the suite of application documents and is submitted in compliance with Regulations 5(2)(o), 6(2)(a) and 6(2)(b) of the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009, which require:

5(2)(o) ‘any other plans, drawings and sections necessary to describe the proposals for which development is sought, showing details of design, external appearance, and the preferred layout of buildings or structures, drainage, surface water management, means of vehicular and pedestrian access, any car parking to be provided, and means of landscaping’.

6(2) ‘If the application is for highway related development or for the construction or alteration of a railway, it must be accompanied by section drawings to suitable horizontal and vertical scales, which show, by reference to Ordnance Survey or Chart datum

(a) the levels of the proposed works, including in particular and where relevant

- (i) ground levels;*
- (ii) the height of every proposed bridge, viaduct, aqueduct, embankment and elevated guideway;*
- (iii) the depth of every proposed cutting and tunnel;*
- (iv) the levels of the bed of any tidal waters or inland waterway in which it is proposed that any works should be situated;*
- (v) the height of every structure or device (including a cable, but not catenary and related equipment) intended to be erected above, on or below the surface of, or on or beneath the bed of tidal waters or an inland waterway; and*
- (vi) drainage outfall details for highways.*

(b) a cross section of every intended tunnel and any altered gradient of a carriageway or a way forming part of a guided transport system on either side of every level crossing, bridge, tunnel or underpass which would carry the carriageway or way or through which it would pass.’

1.1.3 This document should be read alongside and is informed by other application documents, in particular, Schedule 1 to the draft DCO (application document TR010029/APP/3.1(4)) (which lists the works for which consent is sought) and the Works plans (application document TR010029/APP/2.3(1)3.4) and the Scheme layout plans (application document TR010029/APP/2.7(1)).

2. Schedule of plans included in this application document

4.1.42.1.1 Engineering sections, Section location plan (Key plan, Sheet 1 and 3 of 4), Engineering sections, Typical cross sections (Sheet 1, 2, 3 and 6 of 6), Longitudinal section (Key plan, Sheet 1 and 3 of 4) have been updated at Deadline 5.

Document title	Document number	Version
Engineering sections Typical cross sections key plan Regulations 5(2)(o) and 6(2)	TR010029/APP/2.8	0 <u>1</u>
Engineering sections Regulations 5(2)(o) and 6(2) Section location plan Sheet 1 of 4	TR010029/APP/2.8	0 <u>1</u>
Engineering sections Regulations 5(2)(o) and 6(2) Section location plan Sheet 2 of 4	TR010029/APP/2.8	0
Engineering sections Regulations 5(2)(o) and 6(2) Section location plan Sheet 3 of 4	TR010029/APP/2.8	0 <u>1</u>
Engineering sections Regulations 5(2)(o) and 6(2) Section location plan Sheet 4 of 4	TR010029/APP/2.8	0
Engineering sections Typical cross sections Regulations 5(2)(o) and 6(2) Sheet 1 of 6	TR010029/APP/2.8	0 <u>1</u>
Engineering sections Typical cross sections Regulations 5(2)(o) and 6(2) Sheet 2 of 6	TR010029/APP/2.8	0 <u>1</u>
Engineering sections Typical cross sections Regulations 5(2)(o) and 6(2) Sheet 3 of 6	TR010029/APP/2.8	0 <u>1</u>
Engineering sections Typical cross sections Regulations 5(2)(o) and 6(2) Sheet 4 of 6	TR010029/APP/2.8	0

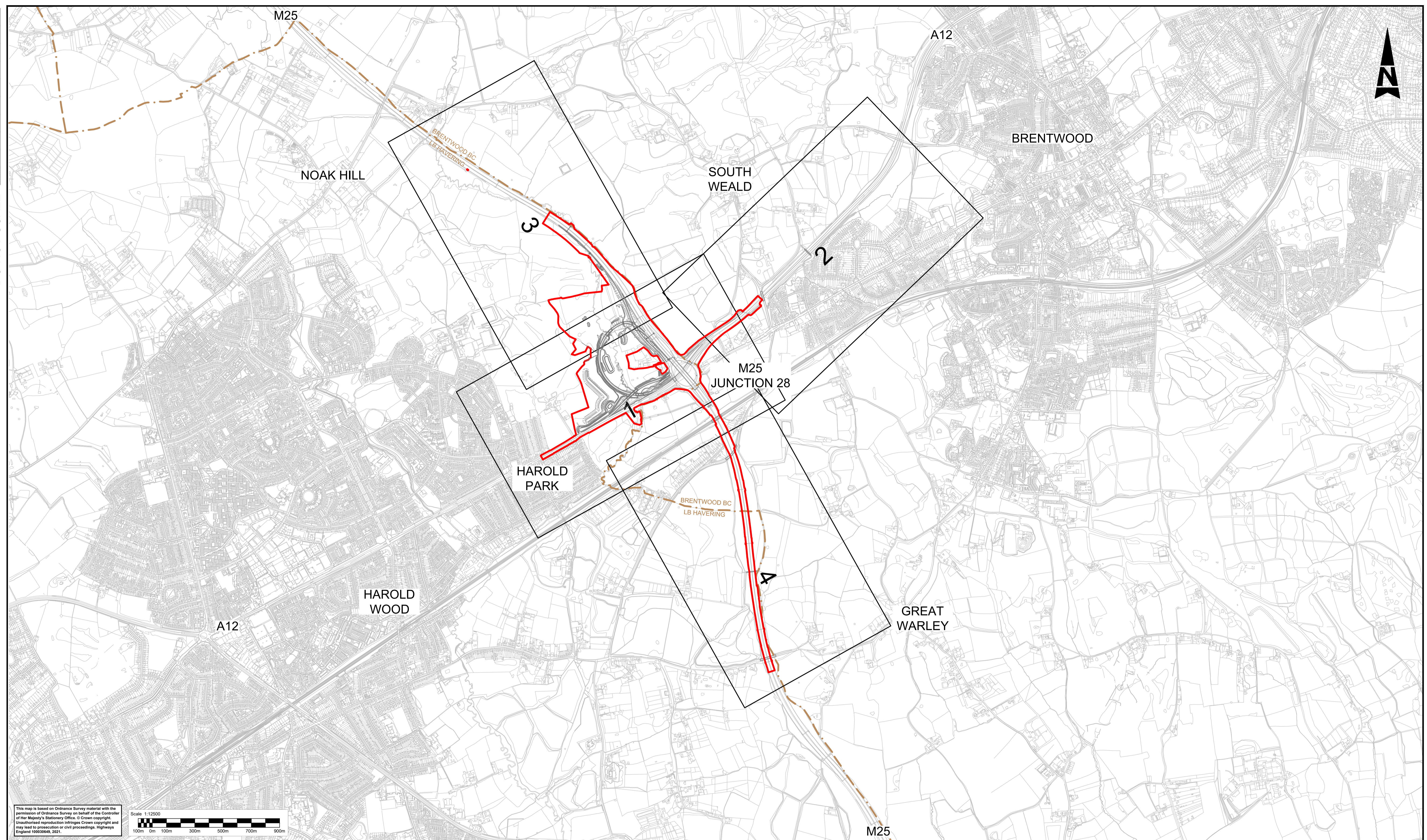
Document title	Document number	Version
Engineering sections Typical cross sections Regulations 5(2)(o) and 6(2) Sheet 5 of 6	TR010029/APP/2.8	0
Engineering sections Typical cross sections Regulations 5(2)(o) and 6(2) Sheet 6 of 6	TR010029/APP/2.8	0 ₁
Longitudinal section Regulations 5(2)(o) and 6(2) Key plans	TR010029/APP/2.8	0 ₁
Longitudinal section Regulations 5(2)(o) and 6(2) Sheet 1 of 4	TR010029/APP/2.8	0 ₁
Longitudinal section Regulations 5(2)(o) and 6(2) Sheet 2 of 4	TR010029/APP/2.8	0
Longitudinal section Regulations 5(2)(o) and 6(2) Sheet 3 of 4	TR010029/APP/2.8	0 ₁
Longitudinal section Regulations 5(2)(o) and 6(2) Sheet 4 of 4	TR010029/APP/2.8	0
Longitudinal section Regulations 5(2)(o) and 6(2) Sheet 1 of 10	TR010029/APP/2.8	0
Longitudinal section Regulations 5(2)(o) and 6(2) Sheet 2 of 10	TR010029/APP/2.8	0
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Document title	Document number	Version
Longitudinal section Regulations 5(2)(o) and 6(2) Sheet 7 of 10	TR010029/APP/2.8	0
Longitudinal section Regulations 5(2)(o) and 6(2) Sheet 8 of 10	TR010029/APP/2.8	0
Longitudinal section Regulations 5(2)(o) and 6(2) Sheet 9 of 10	TR010029/APP/2.8	0
Longitudinal section Regulations 5(2)(o) and 6(2) Sheet 10 of 10	TR010029/APP/2.8	0
Engineering sections Regulations 5(2)(o) and 6(2) Alder Wood bridge Sheet 1 of 10	TR010029/APP/2.8	0
Engineering sections Regulations 5(2)(o) and 6(2) Duck Wood bridge Sheet 2 of 10	TR010029/APP/2.8	0
Engineering sections Regulations 5(2)(o) and 6(2) Grove bridge Sheet 3 of 10	TR010029/APP/2.8	0
Engineering sections Regulations 5(2)(o) and 6(2) Grove Farm underpass Sheet 4 of 10	TR010029/APP/2.8	0
Engineering sections Regulations 5(2)(o) and 6(2) Maylands bridge Sheet 5 of 10	TR010029/APP/2.8	0
Engineering sections Regulations 5(2)(o) and 6(2) Proposed ads cantilever gantry at CH 530 Sheet 6 of 10	TR010029/APP/2.8	0
Engineering sections Regulations 5(2)(o) and 6(2) Gantry at CH 740 Sheet 7 of 10	TR010029/APP/2.8	0
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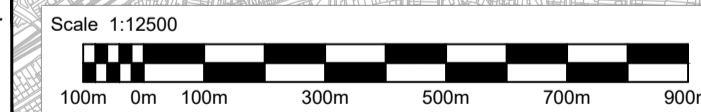
Document title	Document number	Version
Regulations 5(2)(o) and 6(2) Gantry at CH 1806 Sheet 8 of 10		
Engineering section Regulations 5(2)(o) and 6(2) Typical headwall Sheet 9 of 10	TR010029/APP/2.8	0
Engineering section Regulations 5(2)(o) and 6(2) Typical headwall Sheet 10 of 10	TR010029/APP/2.8	0

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- LEGEND:**
- 2 SHEET NUMBER FOR WORKS IN THIS AREA
 - DEVELOPMENT CONSENT ORDER (DCO) BOUNDARY
 - LOCAL AUTHORITY BOUNDARY

Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date

DCO EXAMINATION

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ATKINS

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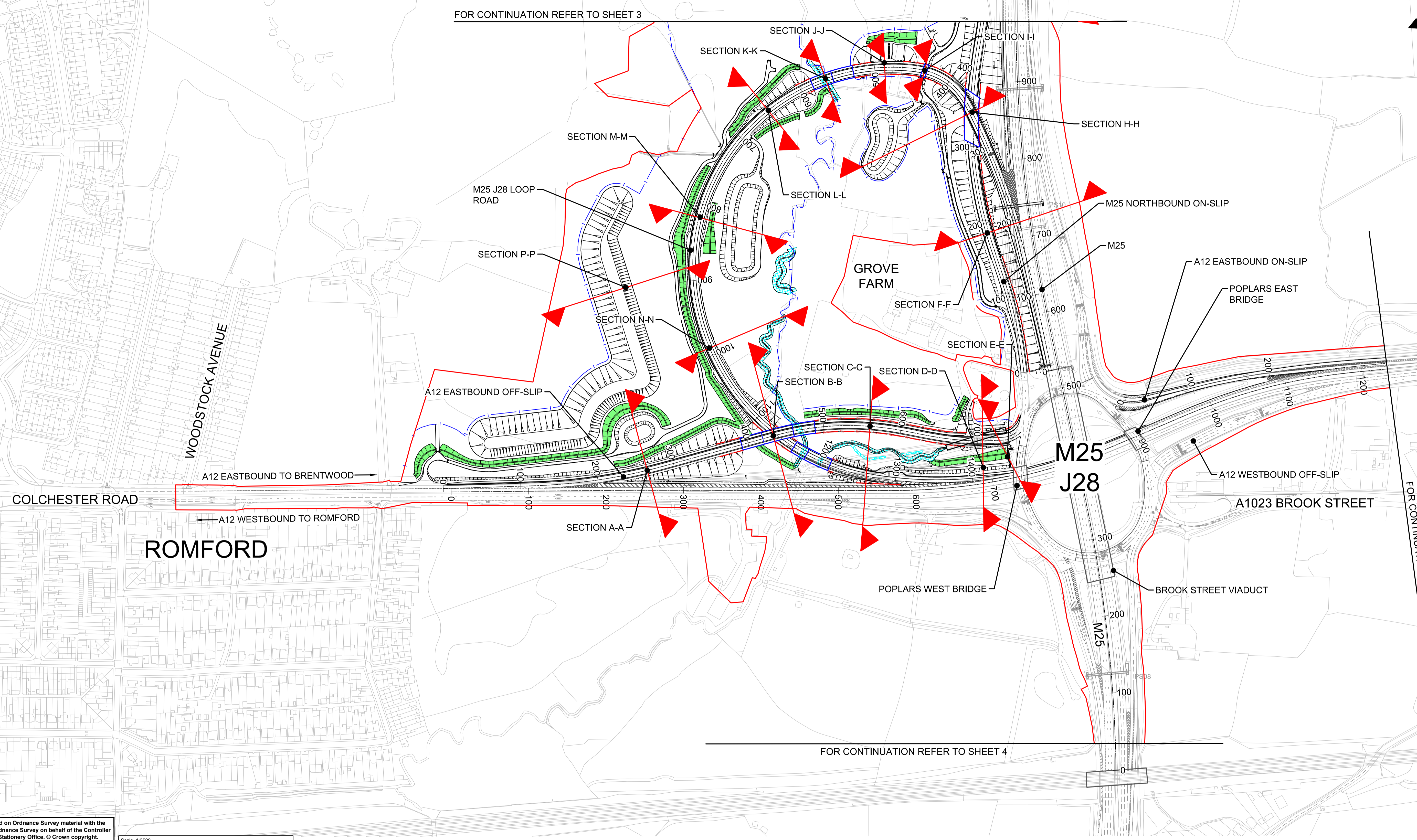
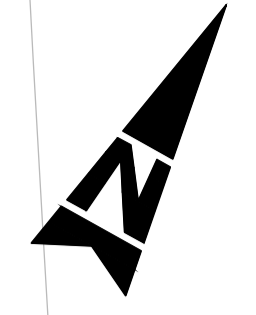
Working on behalf of
highways
england

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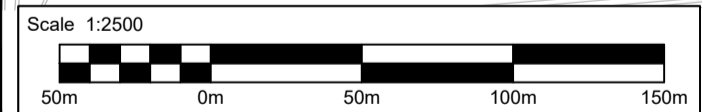
FOR CONTINUATION REFER TO SHEET 3



FOR CONTINUATION REFER TO SHEET 2

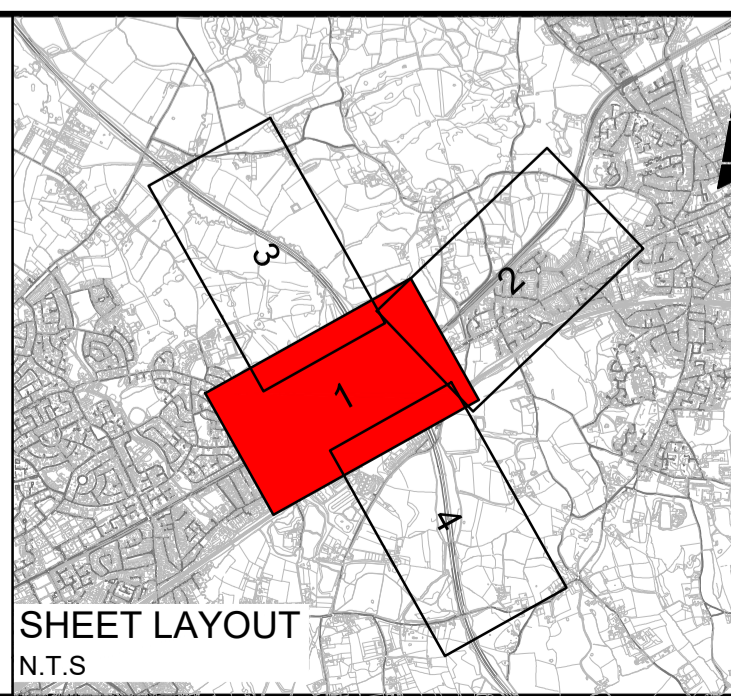
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- NOTES:**
- All dimensions are in metres unless otherwise stated.
 - Do not scale from this drawing.
 - For cross sections details refer to the following sheets.
- | | |
|--------------------|--------------------|
| A-A - Sheet 1 of 6 | J-J - Sheet 5 of 4 |
| B-B - Sheet 1 of 6 | K-K - Sheet 5 of 4 |
| C-C - Sheet 2 of 6 | L-L - Sheet 5 of 6 |
| D-D - Sheet 2 of 6 | M-M - Sheet 5 of 6 |
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| H-H - Sheet 4 of 6 | |
| I-I - Sheet 4 of 6 | |

- KEY :**
- Development Consent Order (DCO) boundary
 - Proposed boundary
 - Existing bridge
 - Proposed bridge
 - Proposed retaining wall
 - Typical cross-section
 - Proposed pre-earthwork ditch
 - Realigned watercourse

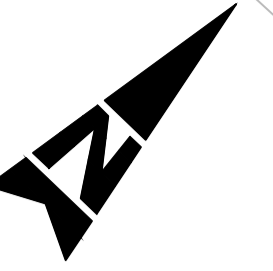


Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date

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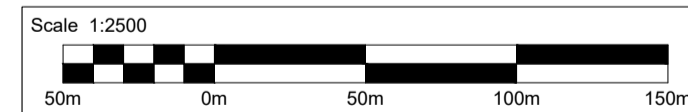
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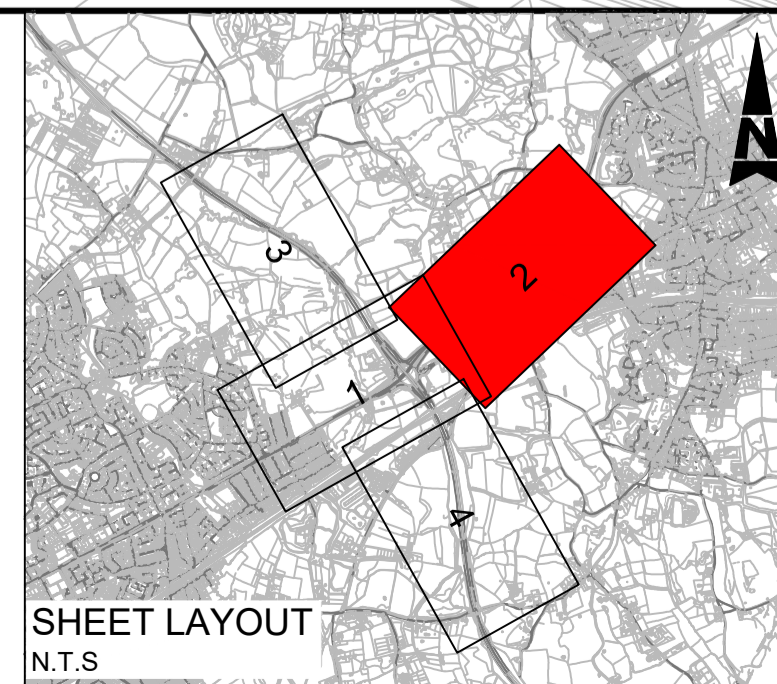
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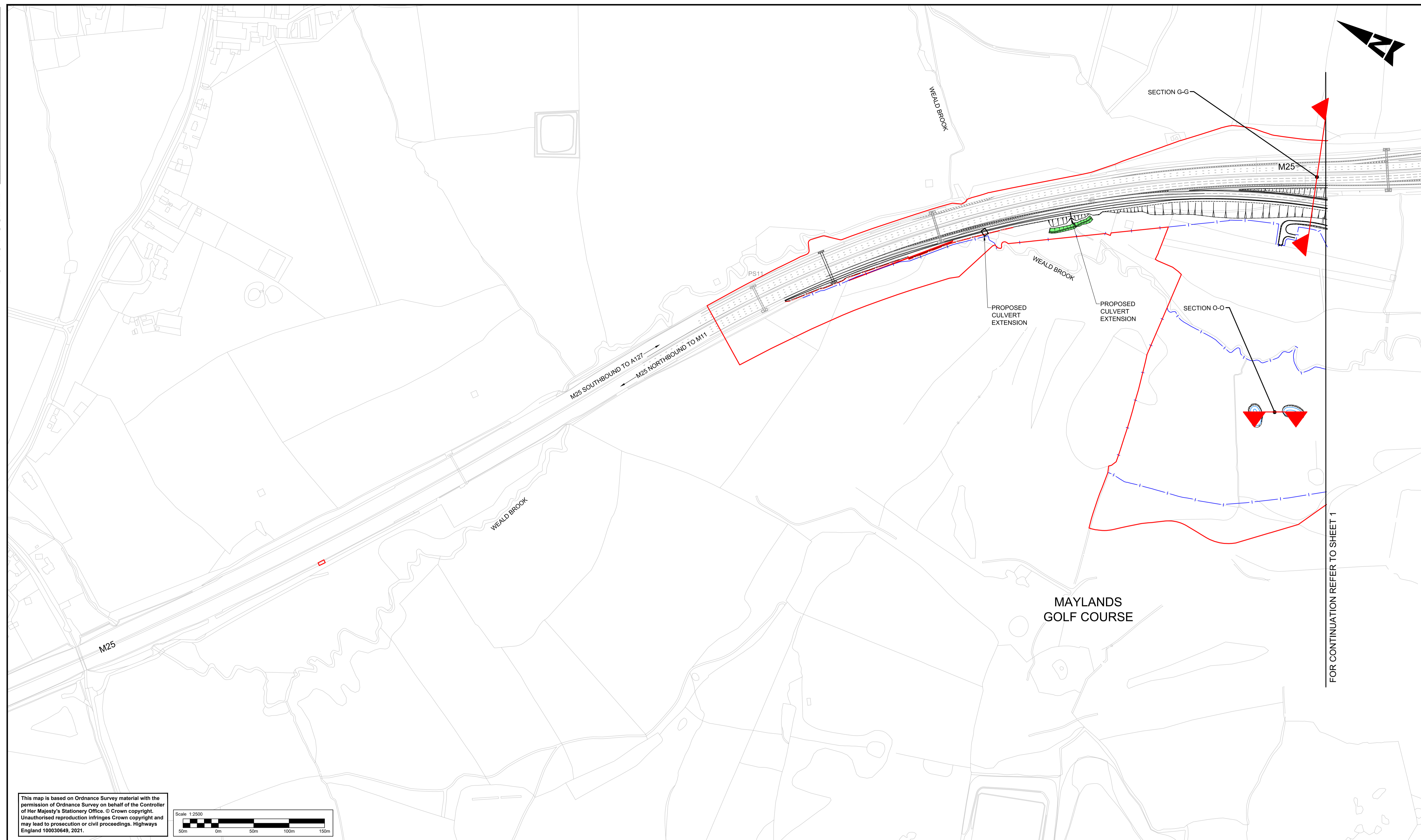
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DCO APPLICATION	A4	M25 junction 28 improvement scheme
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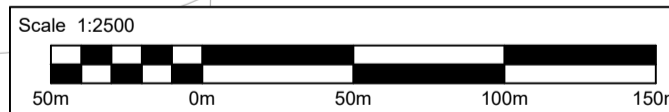
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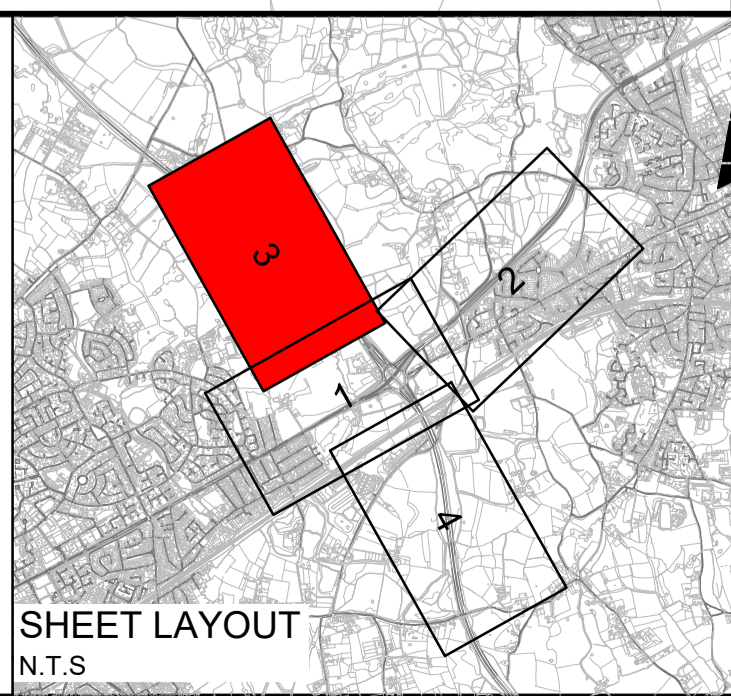
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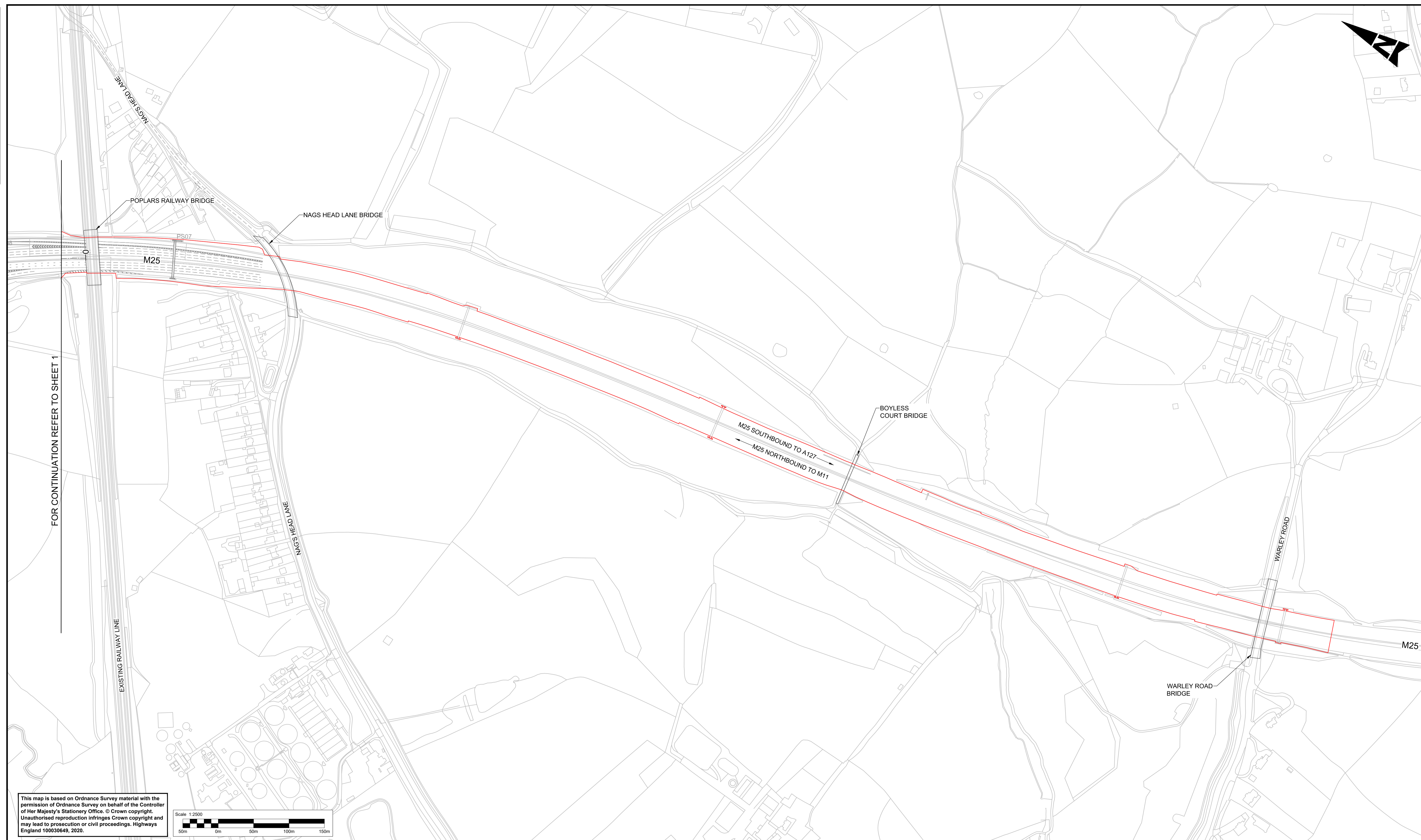


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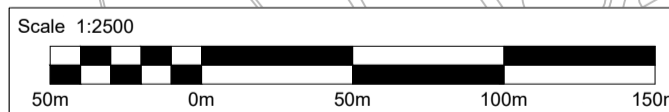
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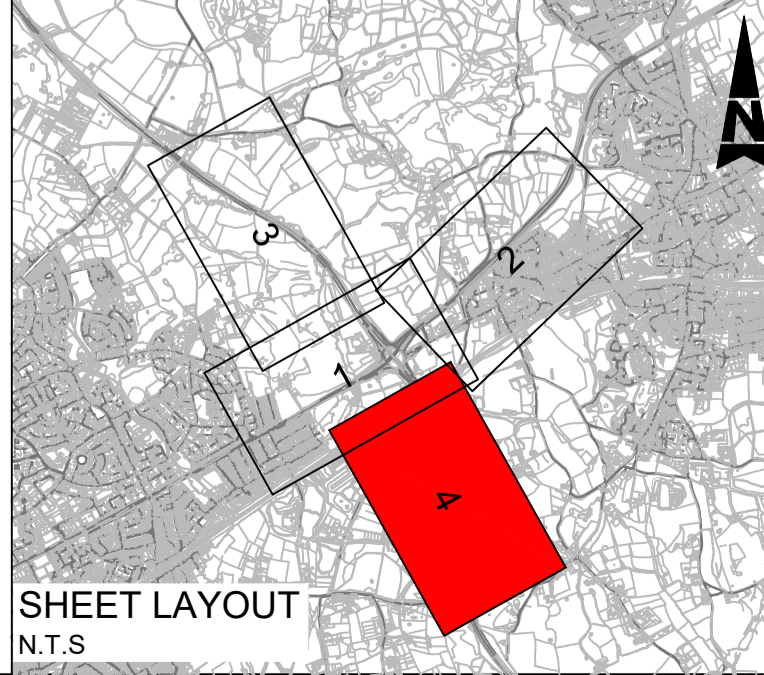
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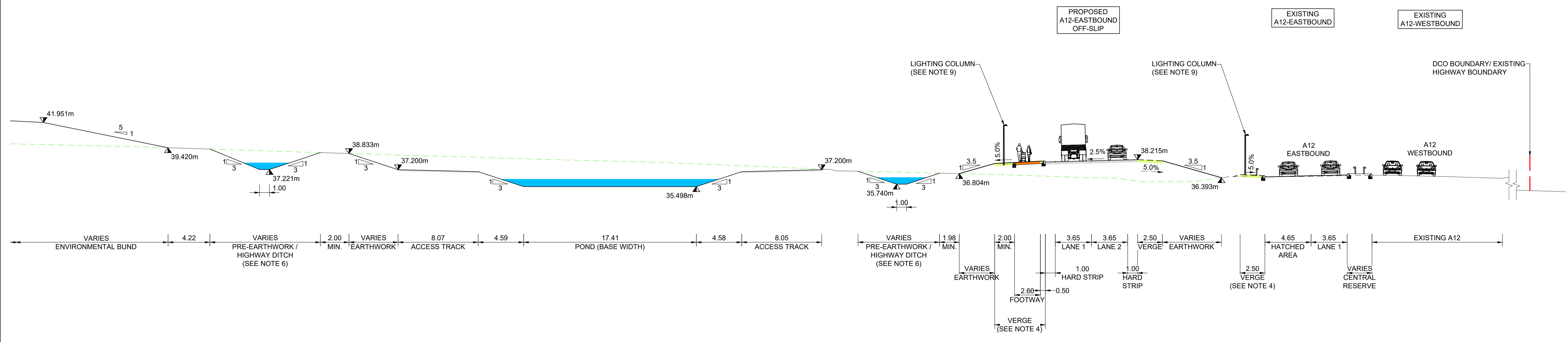


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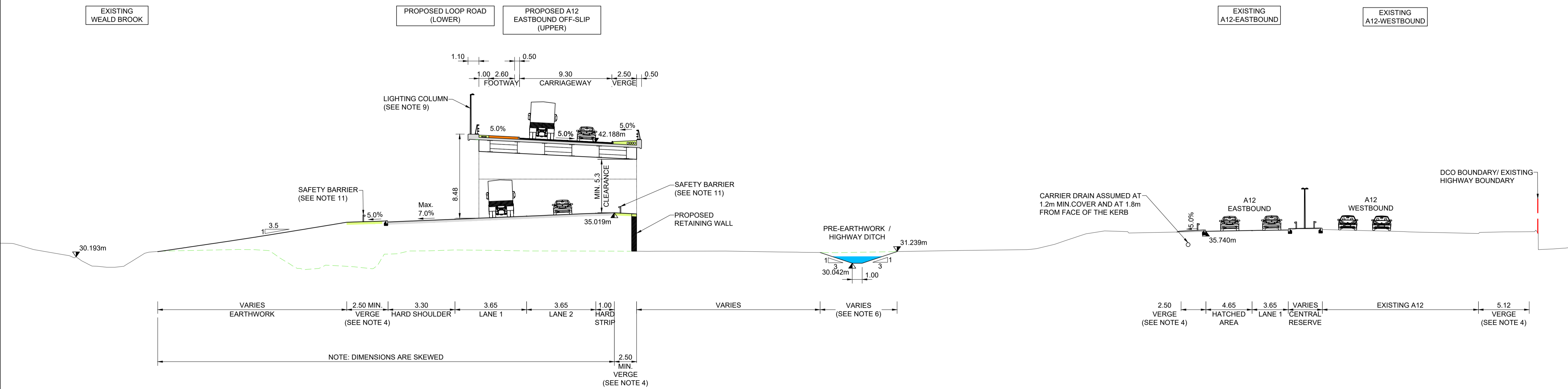
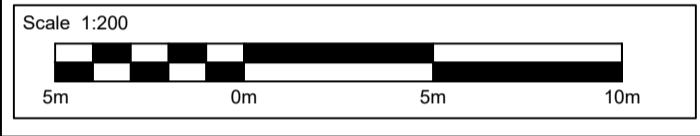
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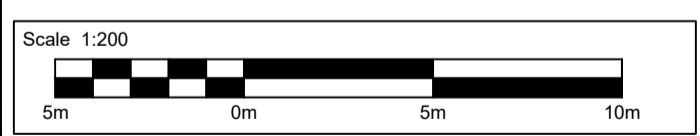
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PROPOSED CROSS-SECTION OF A12 EASTBOUND OFF-SLIP ROAD AT CHAINAGE 260
SECTION A-A



PROPOSED CROSS-SECTION OF A12 EASTBOUND OFF-SLIP ROAD AT CHAINAGE 430
SECTION B-B



- NOTES:**
- All dimensions are in metres unless otherwise stated.
 - Refer to Works Plans (Application document reference TR010029/APP/2.3).
 - Cross falls shown are typical.
 - Verge width dimensions will vary to accommodate utilities and road furniture wherever required.
 - Verge width dimensions will vary to accommodate utilities and road furniture wherever required.
 - Road furniture and protective works are indicative only. All vehicle restraint systems to be confirmed.
 - Drainage details shown are indicative only.
 - Kerbs location to be decided based on drainage requirements wherever necessary.
 - Bridge elements shown are indicative only.
 - Lighting columns shown are indicative only.
 - Utilities plant not shown.
 - Safety barrier type shown is indicative and subject to design development.
 - Existing dimensions are approximate / indicative only.

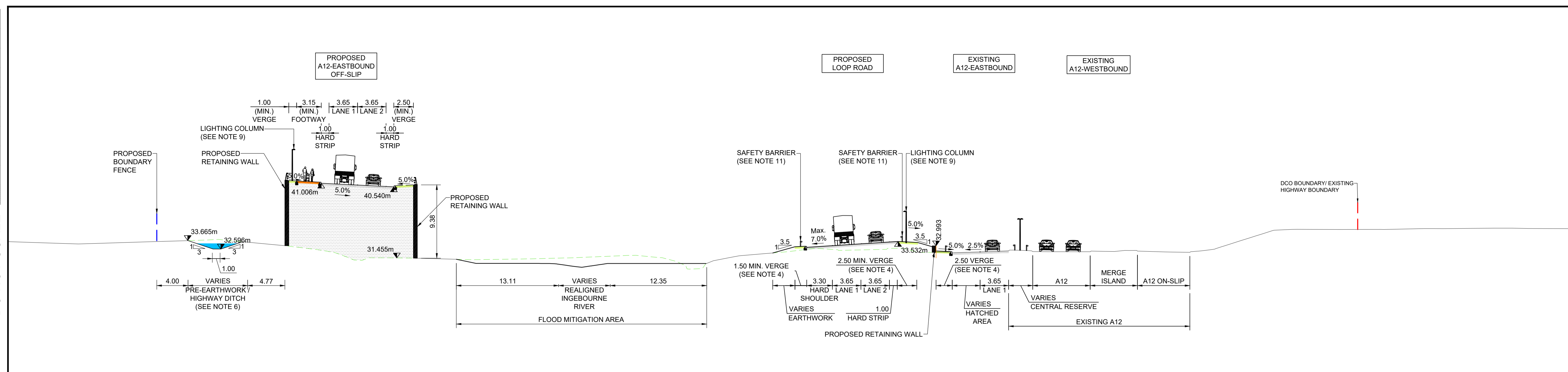
KEY:

- Proposed verge
- Proposed carriageway/access
- Proposed footway
- Proposed ditch/watercourse
- Existing ground level to be modified
- DCO boundary/ Existing highway boundary
- Proposed boundary fence

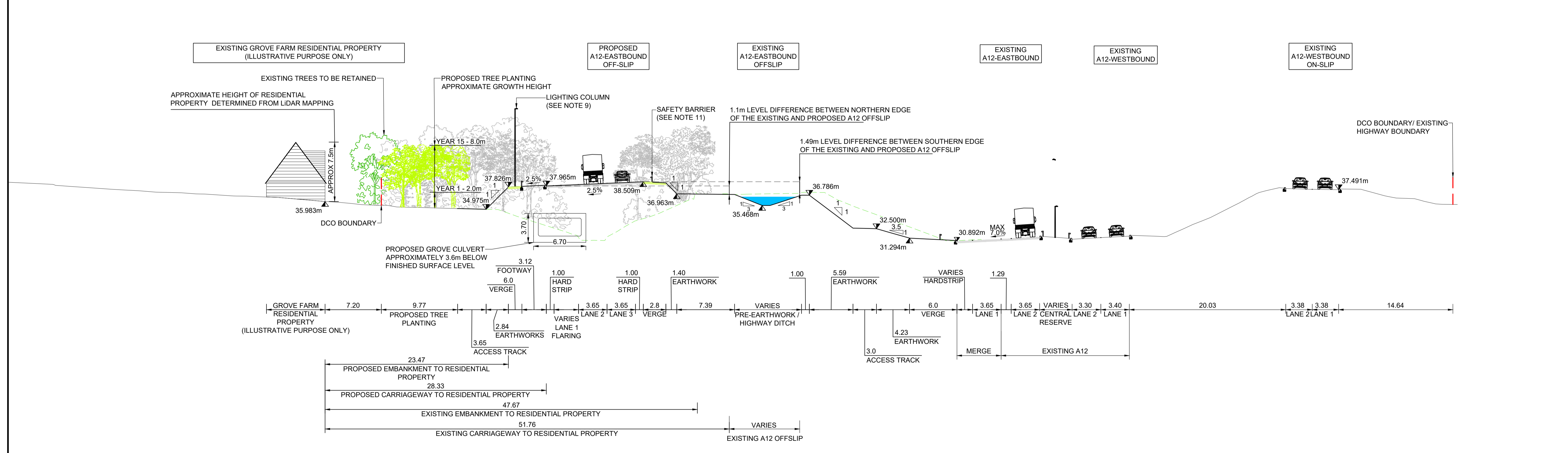
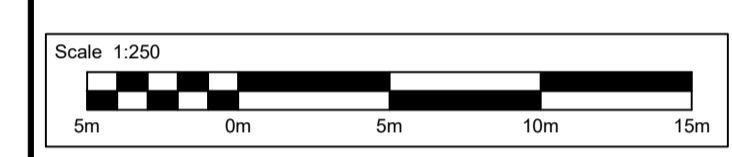
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Project Title	M25 junction 28 improvement scheme																													
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<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Description</th> <th>Status</th> <th>Revision</th> <th>Drawn</th> <th>Checked</th> <th>Reviewed</th> <th>Authorised</th> <th>Issue Date</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date									<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">Client</td> <td>Working on behalf of</td> </tr> <tr> <td style="text-align: center;"> </td> <td> </td> </tr> </table>	Client	Working on behalf of			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">Drawing Title</td> <td>ENGINEERING SECTIONS TYPICAL CROSS SECTIONS REGULATION 5(2)(o) AND 6(2) SHEET 1 OF 6</td> </tr> </table>	Drawing Title	ENGINEERING SECTIONS TYPICAL CROSS SECTIONS REGULATION 5(2)(o) AND 6(2) SHEET 1 OF 6	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">Drawing Number</td> <td>TR010029/APP/2.8</td> </tr> <tr> <td style="text-align: center;">Rev.</td> <td>1</td> </tr> </table>	Drawing Number	TR010029/APP/2.8	Rev.	1	
Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date																							
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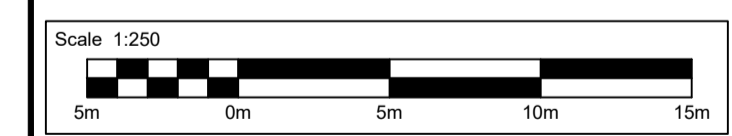
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**PROPOSED CROSS-SECTION OF A12 EASTBOUND OFF-SLIP ROAD AT CHAINAGE 560
SECTION C-C**



**PROPOSED CROSS-SECTION OF A12 EASTBOUND OFF-SLIP ROAD AT CHAINAGE 707
SECTION D-D**



- NOTES:**
- All dimensions are in metres unless otherwise stated.
 - Refer to Works Plans (Application document reference TR010029/APP/2.3).
 - Cross falls shown are typical.
 - Verge width dimensions will vary to accommodate utilities and road furniture wherever required.
 - Road furniture and protective works are indicative only. All vehicle restraint systems to be confirmed.
 - Drainage details shown are indicative only.
 - Kerbs location to be decided based on drainage requirements wherever necessary.
 - Bridge elements shown are indicative only.
 - Lighting columns shown are indicative only.
 - Utilities plant not shown.
 - Safety barrier type shown is indicative and subject to design development.
 - Existing dimensions are approximate / indicative only.

KEY:

- Proposed verge
- Proposed carriageway/access
- Proposed footway
- Proposed ditch/watercourse
- Existing ground level to be modified
- DCO boundary/ Existing highway boundary
- Proposed boundary fence

Description		Drawing Suitability		Status		Project Title	
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date	DCO EXAMINATION
Description		Drawing Suitability		Status		Project Title	
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date	A4
Description		Drawing Suitability		Status		Project Title	
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date	M25 junction 28 improvement scheme
Description		Drawing Suitability		Status		Project Title	
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date	A4
Description		Drawing Suitability		Status		Project Title	
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date	M25 junction 28 improvement scheme
Description		Drawing Suitability		Status		Project Title	
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date	A4
Description		Drawing Suitability		Status		Project Title	
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date	M25 junction 28 improvement scheme

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Fax: +44 (0)1245 345010
www.atkinsglobal.com

Working on behalf of

**highways
england**

**ENGINEERING SECTIONS
TYPICAL CROSS SECTIONS
REGULATION 5(2)(o) AND 6(2)
SHEET 2 OF 6**

Client: **highways
england**

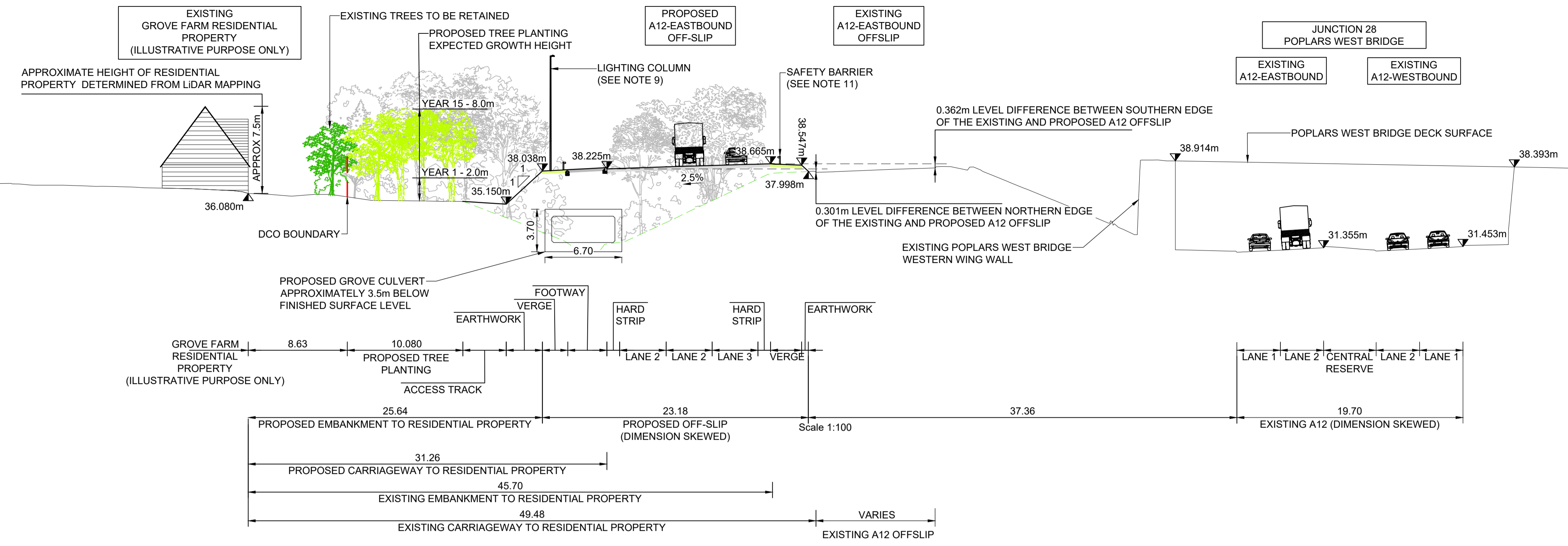
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Rev: **1**

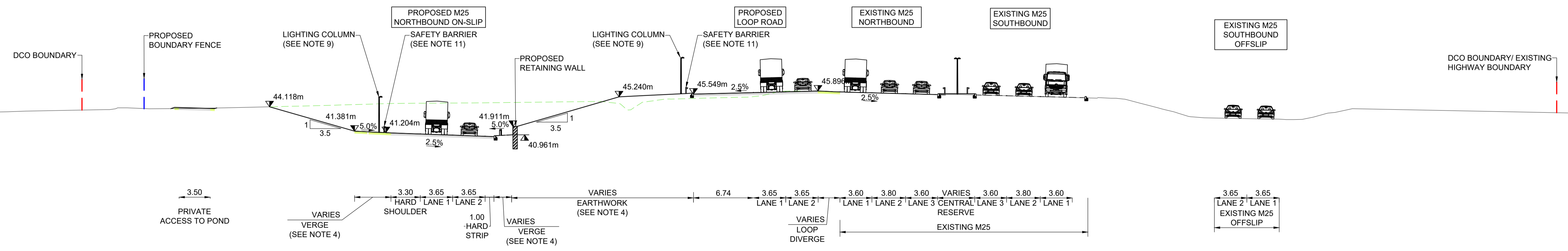
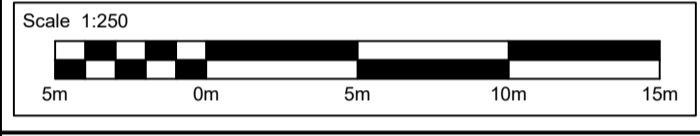
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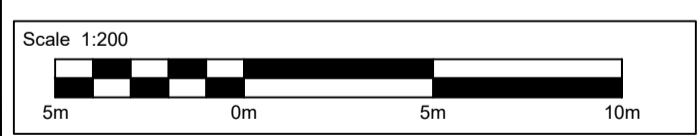
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**EXISTING CROSS-SECTION OF A12 UNDER POPLARS WEST BRIDGE J28
SECTION E-E**



**PROPOSED CROSS-SECTION OF M25 NORTHBOUND ON-SLIP ROAD AT CHAINAGE 190
SECTION F-F**



- NOTES:**
- All dimensions are in metres unless otherwise stated.
 - Refer to Works Plans (Application document reference TR010029/APP/2.3).
 - Cross falls shown are typical.
 - Verge width dimensions will vary to accommodate utilities and road furniture wherever required.
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- KEY:**
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 - Proposed carriageway/access
 - Proposed footway
 - Proposed ditch/watercourse
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 - DCO boundary/ Existing highway boundary
 - Proposed boundary fence

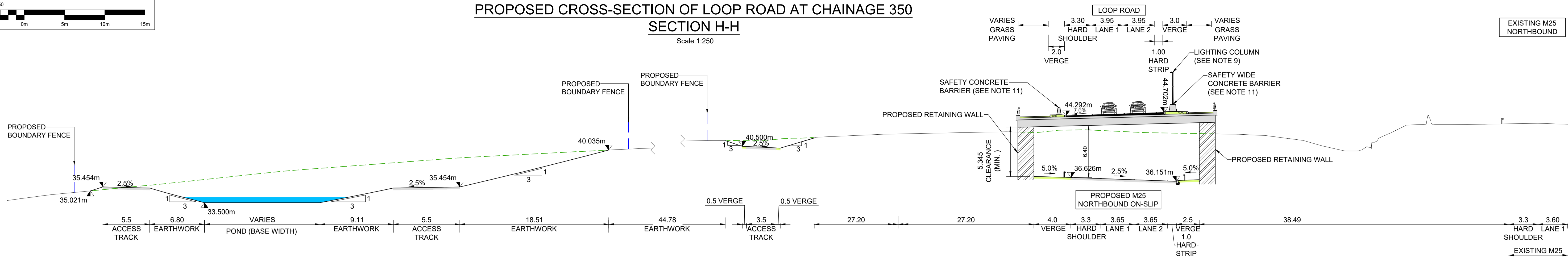
Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date

DCO EXAMINATION	Status A4	Project Title M25 junction 28 improvement scheme
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<p>Working on behalf of</p>		<p>Client</p> <p>TR010029/APP/2.8</p>
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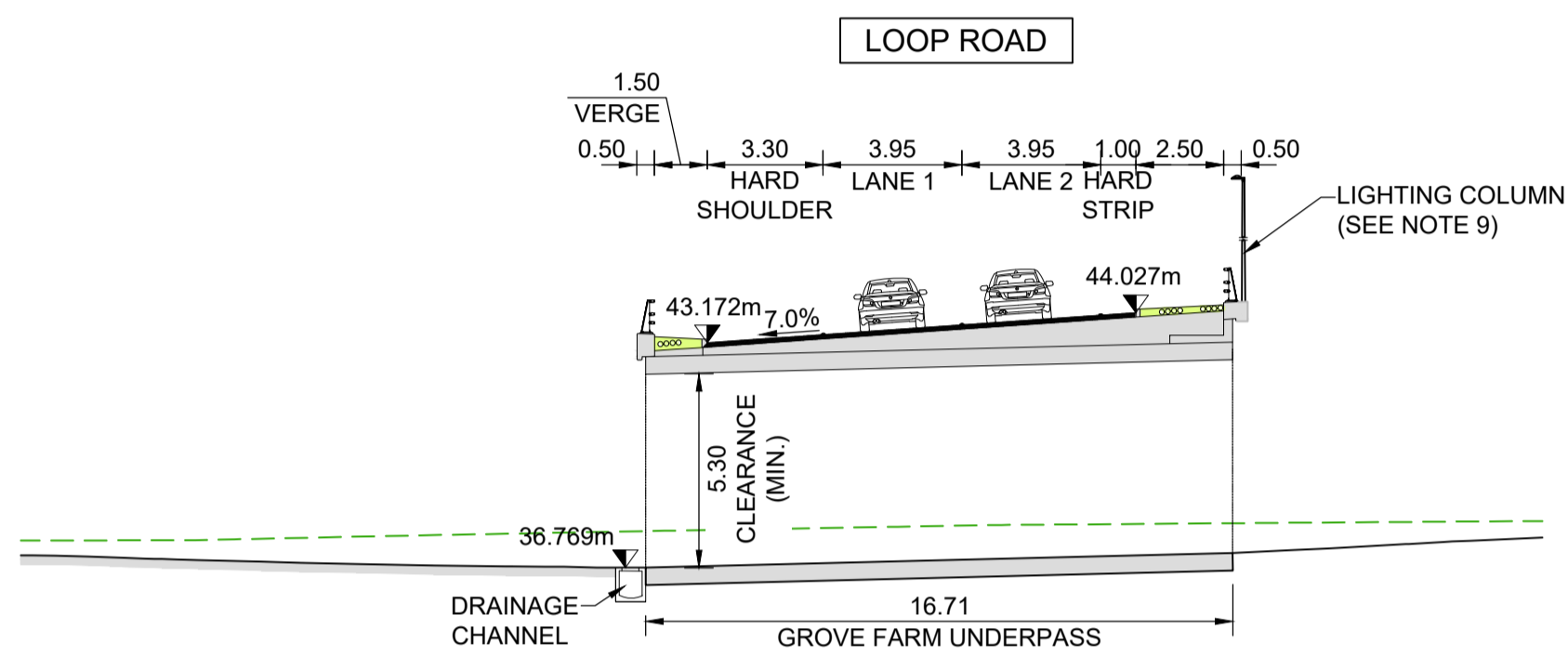
PROPOSED CROSS-SECTION OF LOOP ROAD AT CHAINAGE 350

SECTION H-H
Scale 1:250



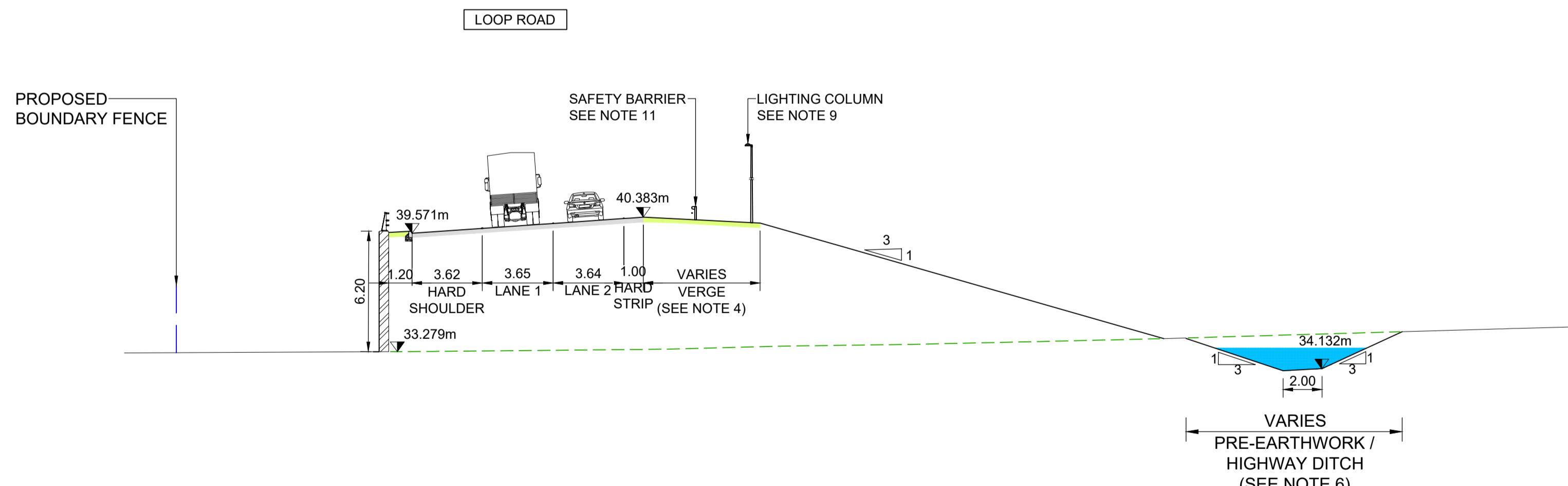
PROPOSED CROSS-SECTION OF LOOP ROAD AT CHAINAGE 435

SECTION I-I
Scale 1:200



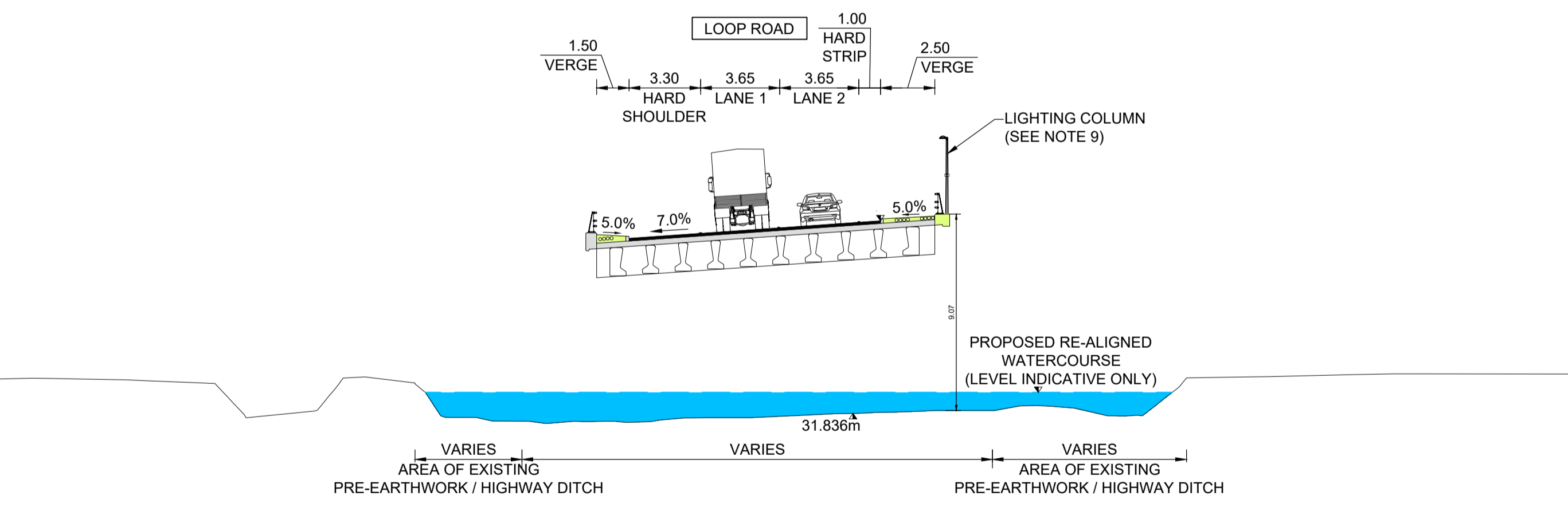
PROPOSED CROSS-SECTION OF LOOP ROAD AT CHAINAGE 480

SECTION J-J
Scale 1:200



PROPOSED CROSS-SECTION OF LOOP ROAD AT CHAINAGE 560

SECTION K-K
Scale 1:200



- NOTES:**
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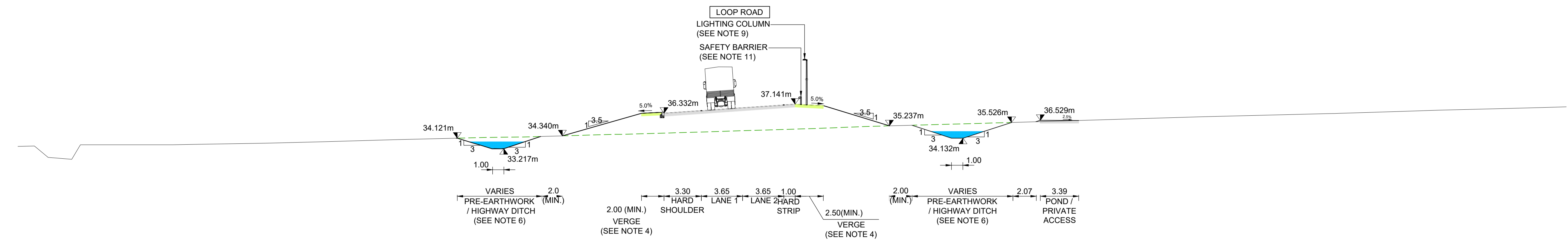
- Proposed verge
- Proposed carriageway/access
- Proposed footway
- Proposed ditch/watercourse
- Existing ground level to be modified
- DCO boundary/ Existing highway boundary
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Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date

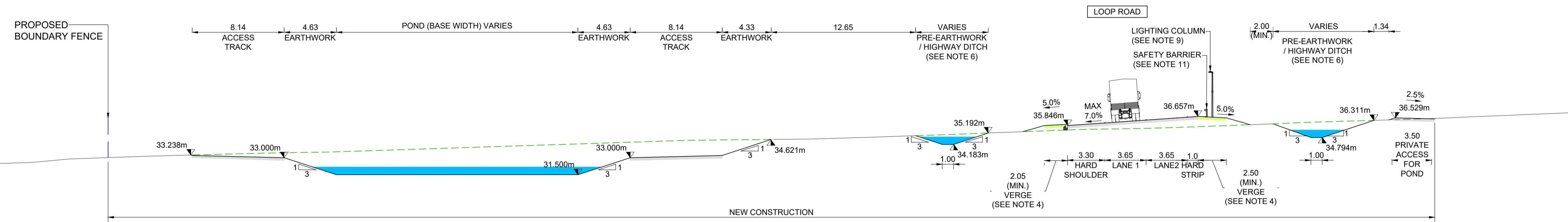
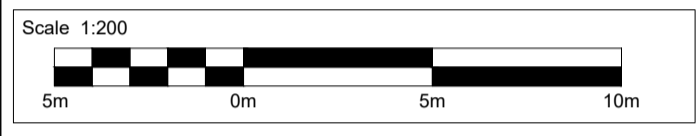
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DCO APPLICATION		A4		M25 junction 28 improvement scheme	
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Client		Working on behalf of		Drawing Number	
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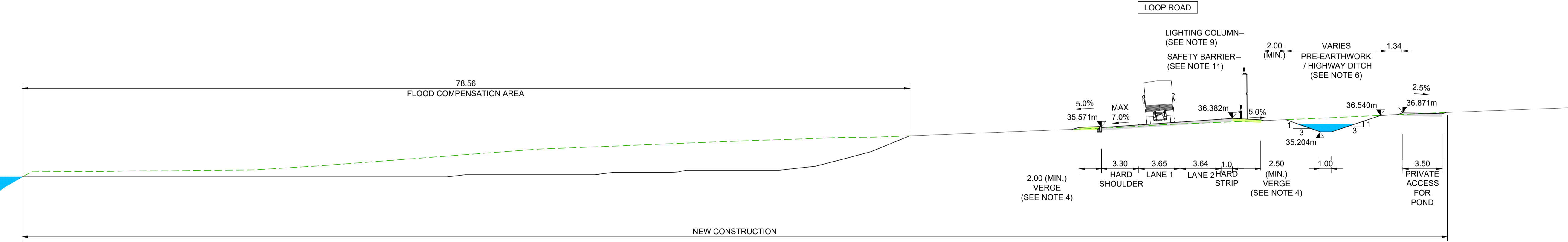
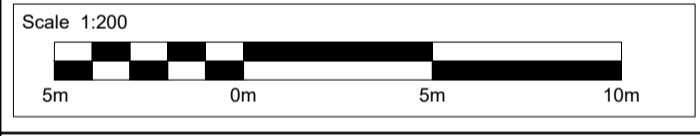
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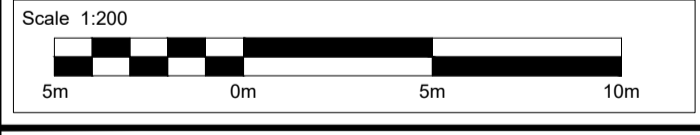
PROPOSED CROSS-SECTION OF LOOP ROAD AT CHAINAGE 650
SECTION L-L
Scale 1:200



PROPOSED CROSS-SECTION OF LOOP ROAD AT CHAINAGE 820
SECTION M-M
Scale 1:200



PROPOSED CROSS-SECTION OF LOOP ROAD AT CHAINAGE 990
SECTION N-N
Scale 1:200



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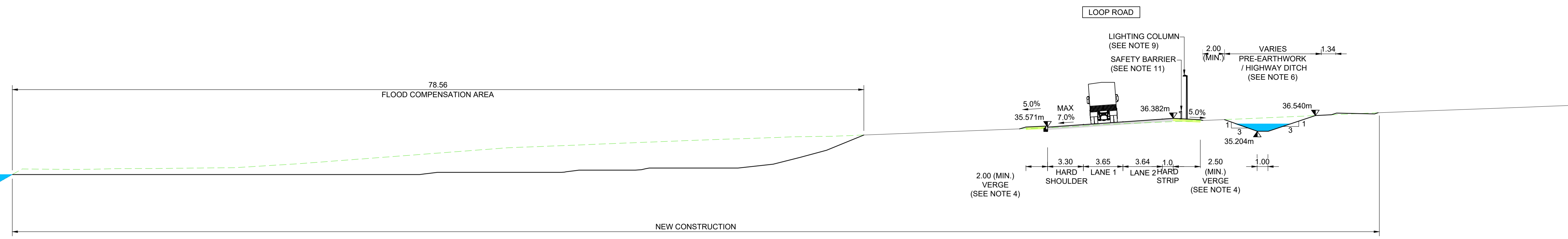
KEY:

- Proposed verge
- Proposed carriageway/access
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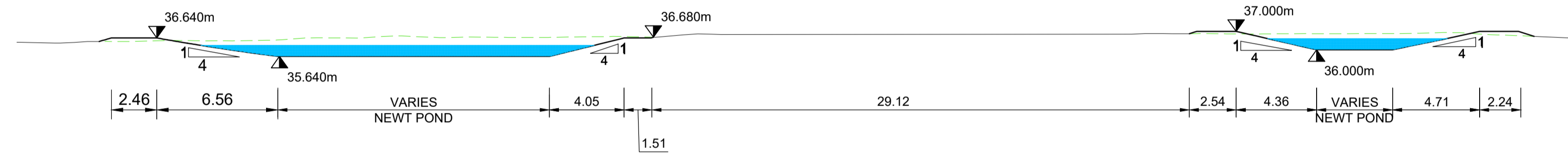
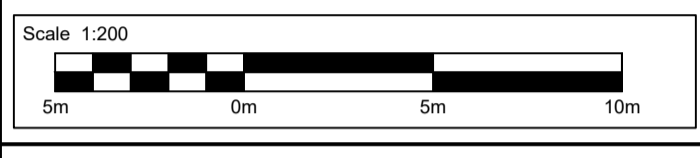
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Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date																				
 SNC-LAVALIN ATKINS <small>Member of the SNC-Lavalin Group Copyright © SNC Lavalin (2020)</small>		Amlin House Atkins 4th Floor 90-96 Victoria Road Chelmsford Essex CM1 1QU Tel: +44 (0)1245 245245 Fax: +44 (0)1245 345010 www.atkinsglobal.com																									
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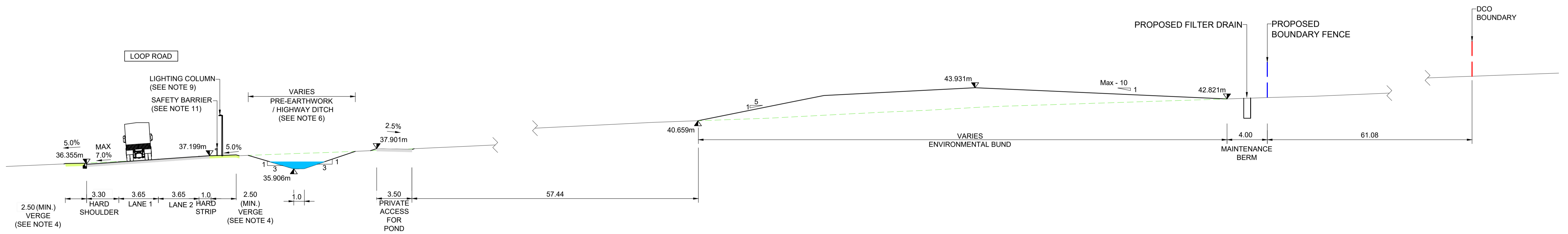
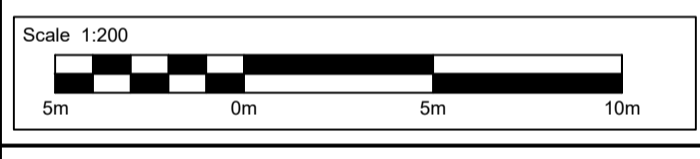
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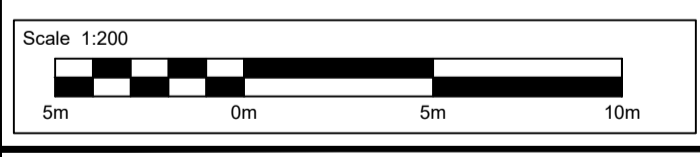
**PROPOSED CROSS-SECTION OF LOOP ROAD AT CHAINAGE 990
SECTION N-N**



**PROPOSED CROSS-SECTION OF NEWT PONDS
SECTION O-O**



**PROPOSED CROSS-SECTION OF ENVIRONMENTAL BUND
SECTION P-P**



NOTES:

1. All dimensions are in metres unless otherwise stated.
2. Refer to Works Plans (Application document reference TR010029/APP/2.3).
3. Cross falls shown are typical.
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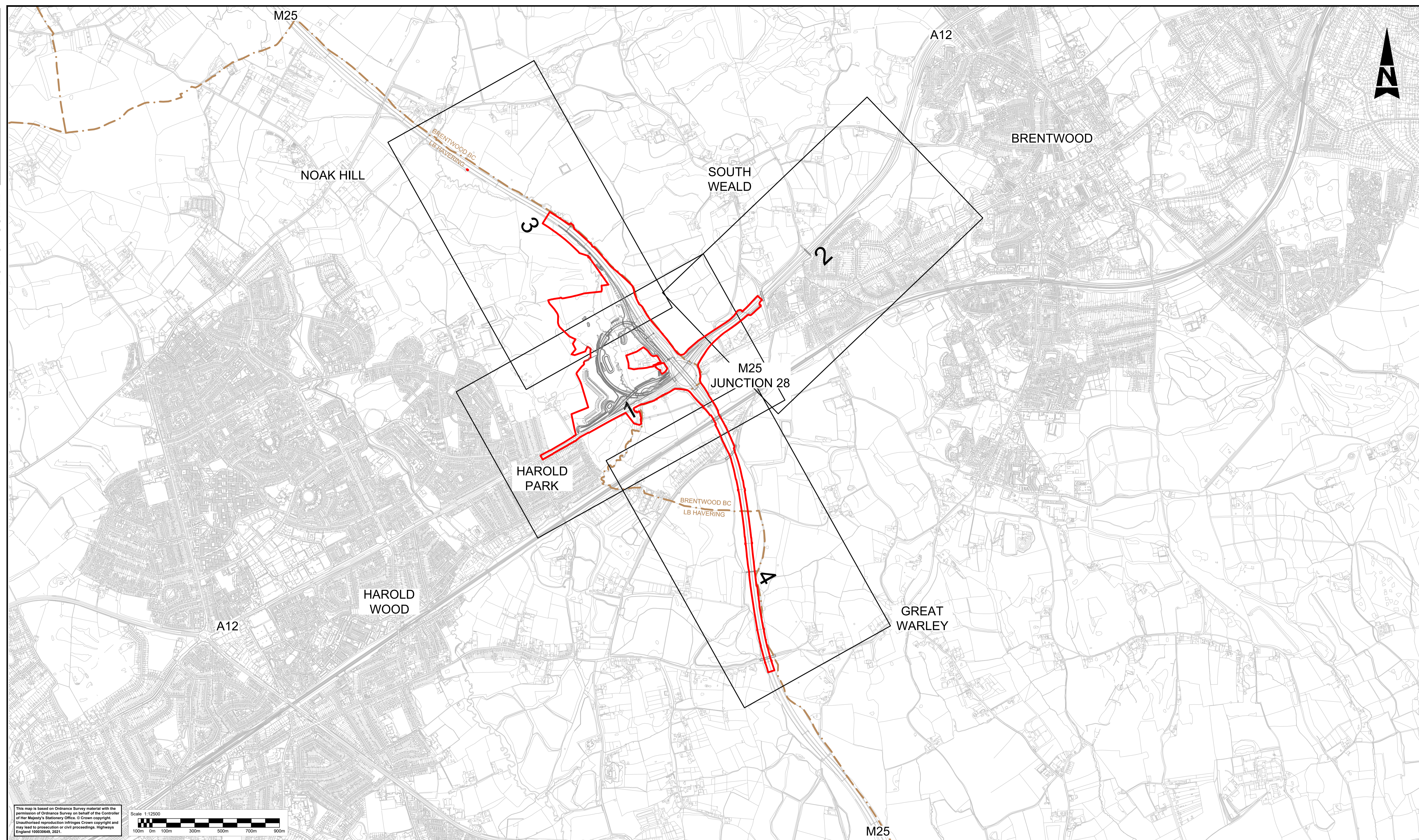
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- Proposed ditch/watercourse
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- DCO boundary/ Existing highway boundary
- Proposed boundary fence

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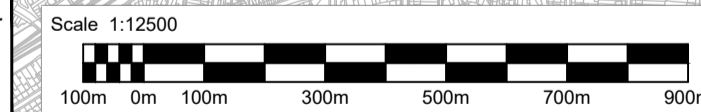
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<p>Client: Working on behalf of highways england</p>		<p>HE PIN: HE551519 Scale: AS SHOWN Original Size: A1</p>

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- LEGEND:**
- 2 SHEET NUMBER FOR WORKS IN THIS AREA
 - DEVELOPMENT CONSENT ORDER (DCO) BOUNDARY
 - LOCAL AUTHORITY BOUNDARY

Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date

Drawing Suitability: DCO EXAMINATION

Status: A4

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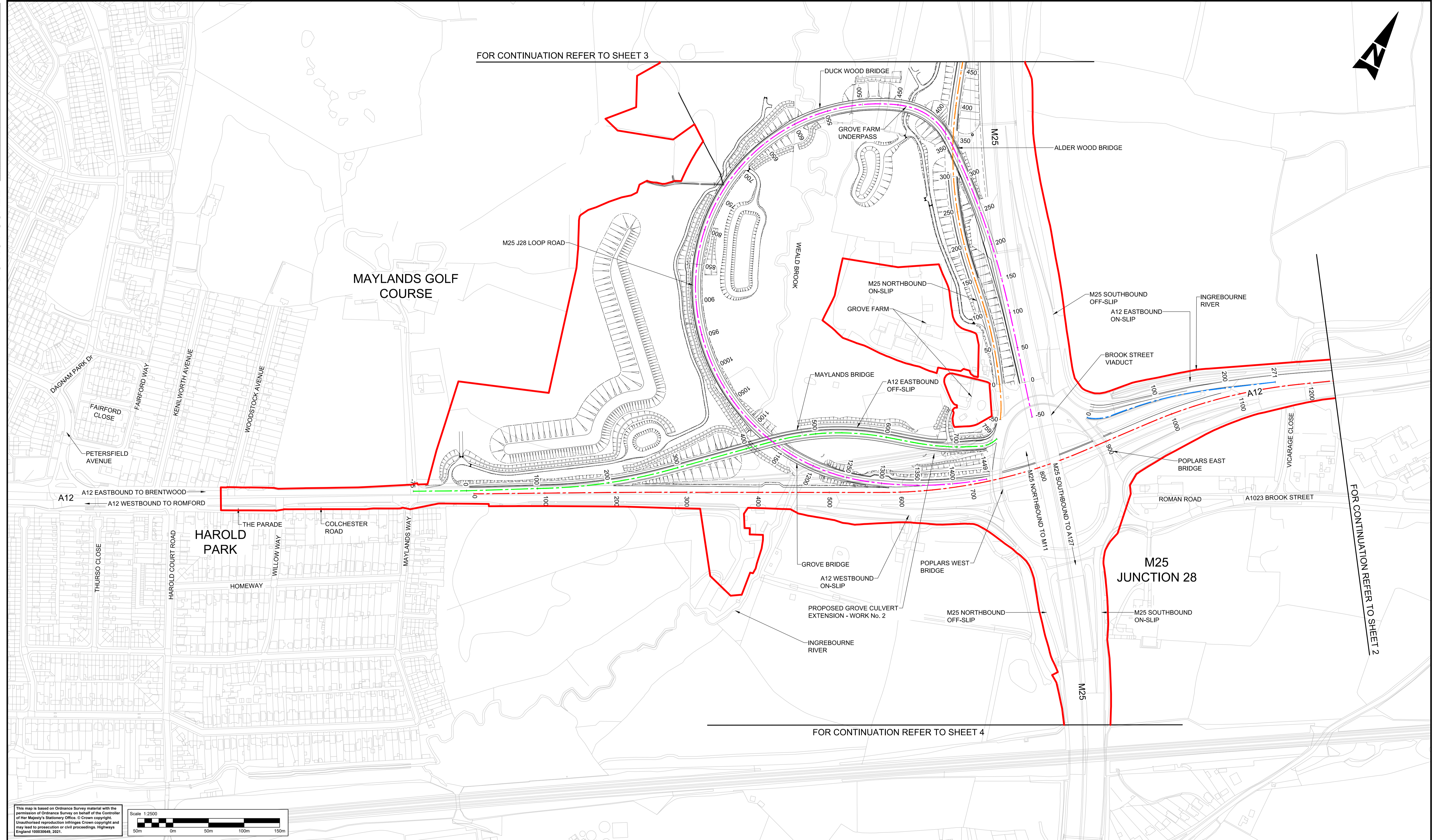
Working on behalf of
highways
england

Project Title	M25 junction 28 improvement scheme	
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Drawing Number	TR010029/APP/2.8	Rev: 1
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FOR CONTINUATION REFER TO SHEET 3



FOR CONTINUATION REFER TO SHEET 2

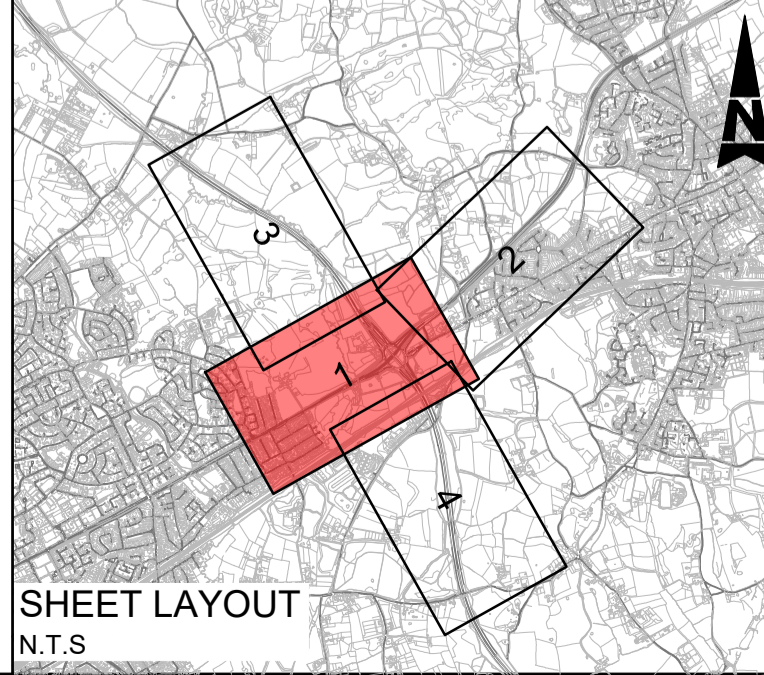
FOR CONTINUATION REFER TO SHEET 4

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Scale: 1:2500

- Notes**
1. These plans should be read in conjunction with the Longitudinal Section drawings (application document reference TR010029/APP/2.8).
 2. These plans should be read in conjunction with the Engineering Section drawings (application document reference TR010029/APP/2.8).

- Legend:**
- Development Consent Order (DCO) boundary
 - Scheme layout (shown for illustrative purposes)
 - A12 Mainline Chainage - refer to drawing TR010029/APP/2.9 Longitudinal Section sheet 1 to 3
 - A12 Eastbound Off-Slip Chainage - refer to drawing TR010029/APP/2.9 Longitudinal Section sheet 4 to 5
 - A12 Eastbound On-Slip Chainage - refer to drawing TR010029/APP/2.9 Longitudinal Section sheet 6
 - M25 Northbound On-Slip Chainage - refer to drawing TR010029/APP/2.9 Longitudinal Section sheet 7 to 8
 - M25 J28 Loop Road Chainage - refer to drawing TR010029/APP/2.9 Longitudinal Section sheet 9 to 11

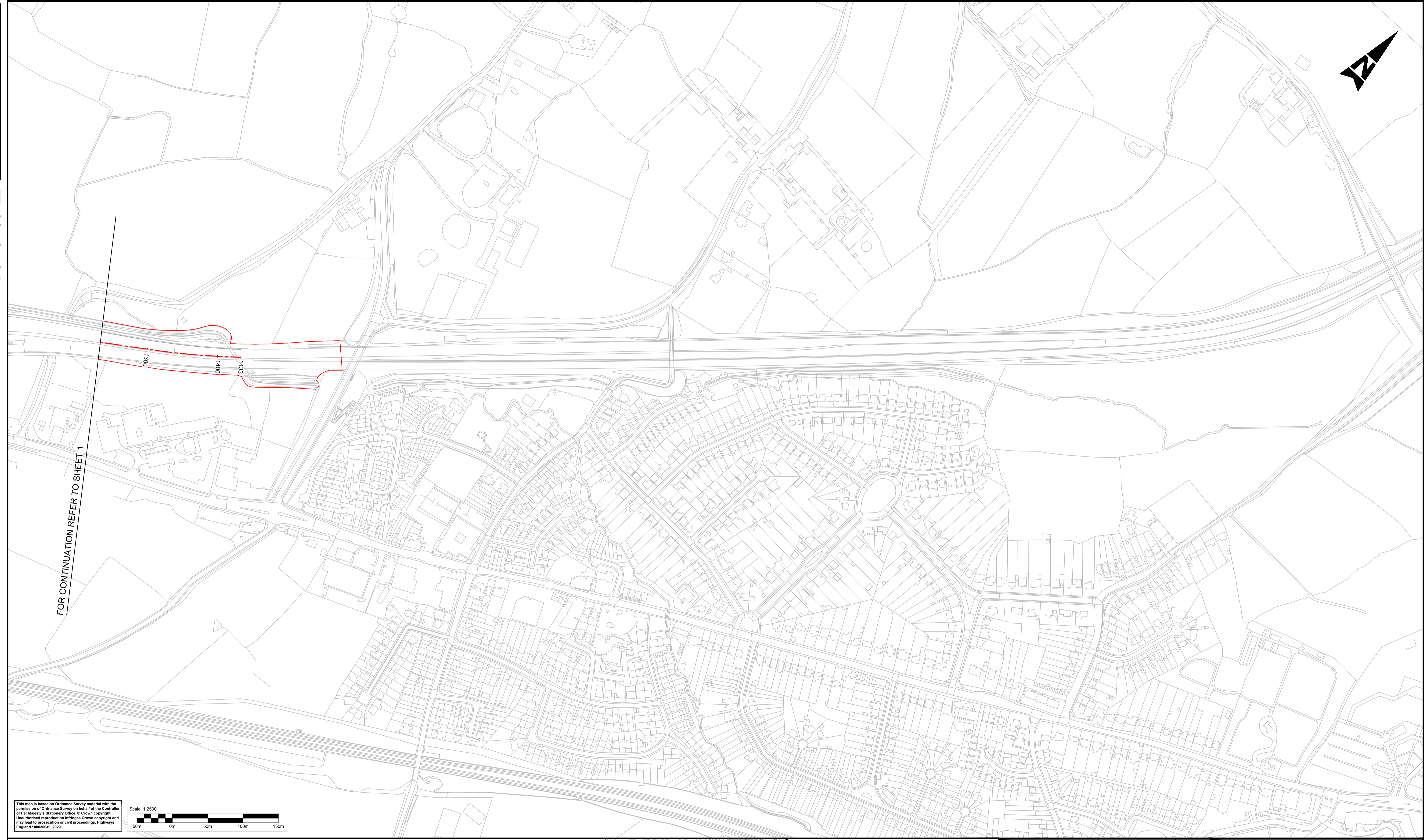
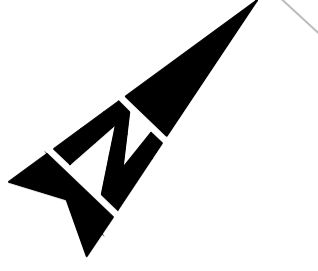


Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date

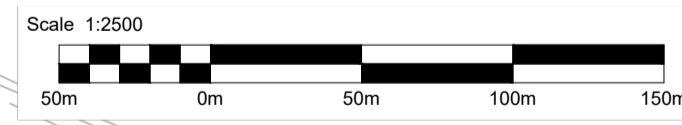
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<p>Member of the SNC-Lavalin Group Copyright © SNC Lavalin (2020)</p>		<p>Drawing Title</p> <p style="text-align: center;">LONGITUDINAL SECTION REGULATIONS 5(2)(o) and 6(2) SECTION LOCATION PLAN SHEET 1 OF 4</p>
<p>Client</p> <p style="text-align: center;">Working on behalf of highways england</p>		<p>Drawing Number</p> <p style="text-align: center;">TR010029/APP/2.8</p>
<p>HE PIN: HE551519</p>		<p>Scale: 1:2500</p> <p>Original Size: A1</p>

DO NOT SCALE

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Millimetres

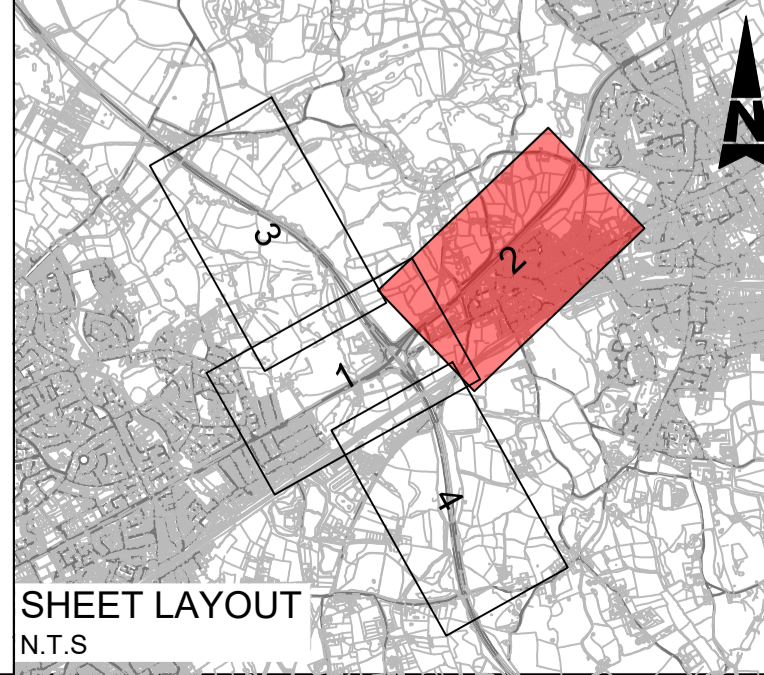


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- Notes**
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- Legend:**
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 - - - A12 Eastbound On-Slip Chainage - refer to drawing TR010029/APP/2.9 Longitudinal Section sheet 6
 - - - M25 Northbound On-Slip Chainage - refer to drawing TR010029/APP/2.9 Longitudinal Section sheet 7 to 8
 - - - M25 J28 Loop Road Chainage - refer to drawing TR010029/APP/2.9 Longitudinal Section sheet 9 to 11



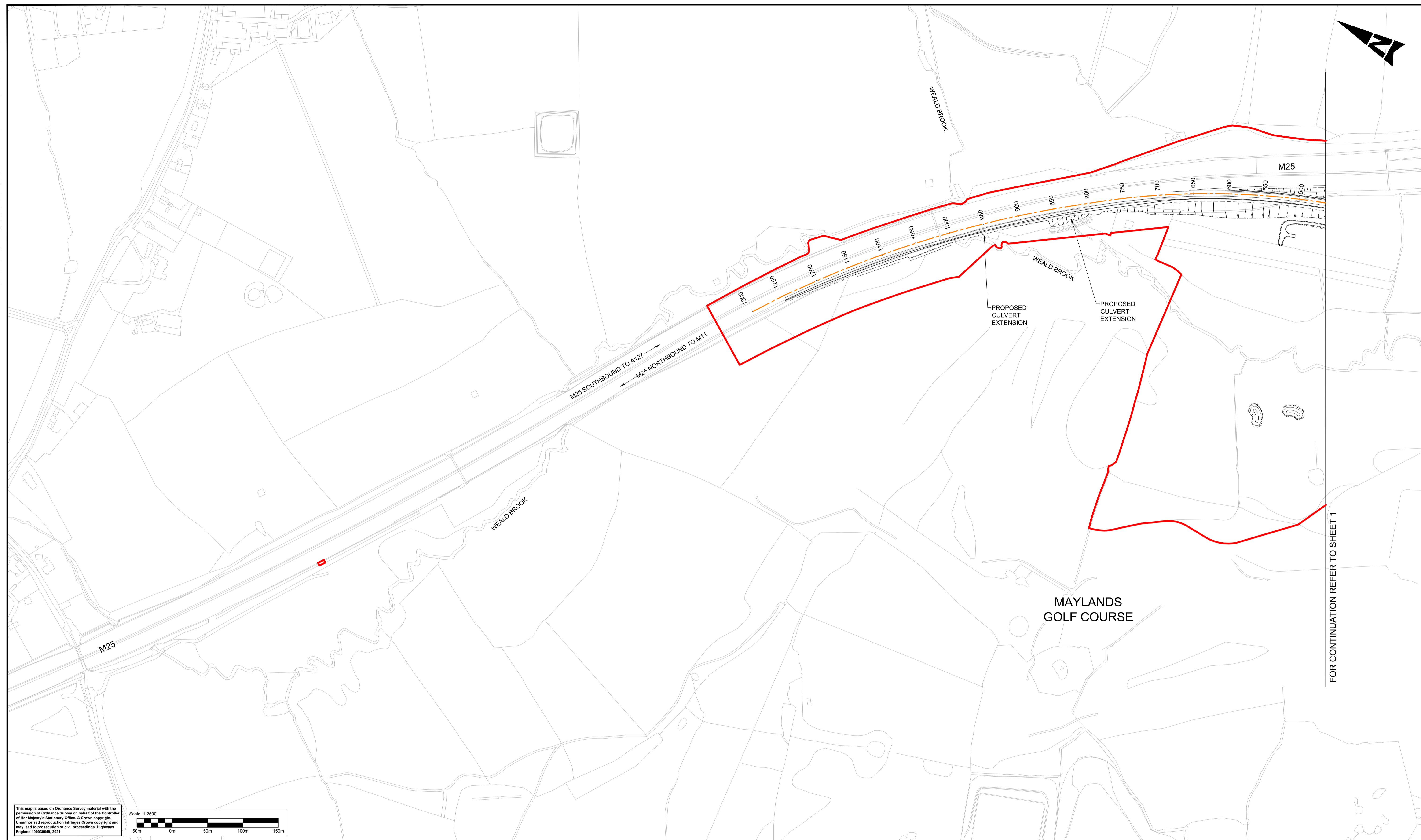
Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date

Drawing Suitability	Status	Project Title
DCO APPLICATION	A4	M25 junction 28 improvement scheme
<p>Member of the SNC-Lavalin Group Copyright © SNC Lavalin (2020)</p>		
<p>Amlin House Atkins 4th Floor 90-96 Victoria Road Chelmsford Essex CM1 1QU Tel: +44 (0)1245 245245 Fax: +44 (0)1245 345010 www.atkinsglobal.com</p>		
Client	Working on behalf of	
		Drawing Number TR010029/APP/2.8
HE PIN: HE551519	Scale: 1:2500	Original Size: A1

Drawing Title	Rev.
LONGITUDINAL SECTION REGULATIONS 5(2)(o) and 6(2) SECTION LOCATION PLAN SHEET 2 OF 4	0

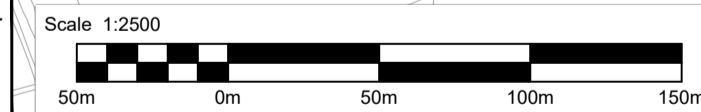
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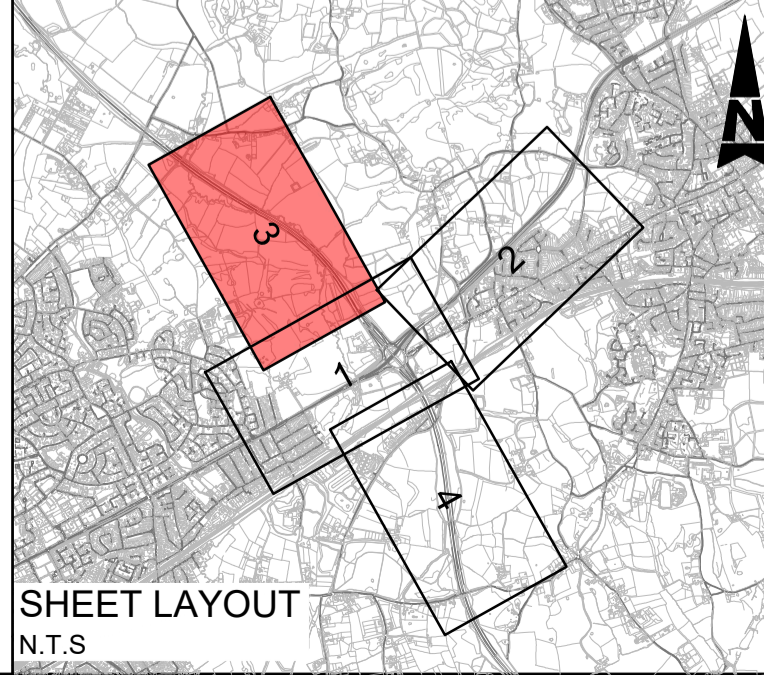
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 2. These plans should be read in conjunction with the Engineering Section drawings (application document reference TR010029/APP/2.8).

- Legend:**
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 - Scheme layout (shown for illustrative purposes)
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 - - - A12 Eastbound On-Slip Chainage - refer to drawing TR010029/APP/2.9 Longitudinal Section sheet 6
 - - - M25 Northbound On-Slip Chainage - refer to drawing TR010029/APP/2.9 Longitudinal Section sheet 7 to 8
 - - - M25 J28 Loop Road Chainage - refer to drawing TR010029/APP/2.9 Longitudinal Section sheet 9 to 11



Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
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Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date

Drawing Suitability: DCO EXAMINATION
 Status: A4
 Project Title: M25 junction 28 improvement scheme

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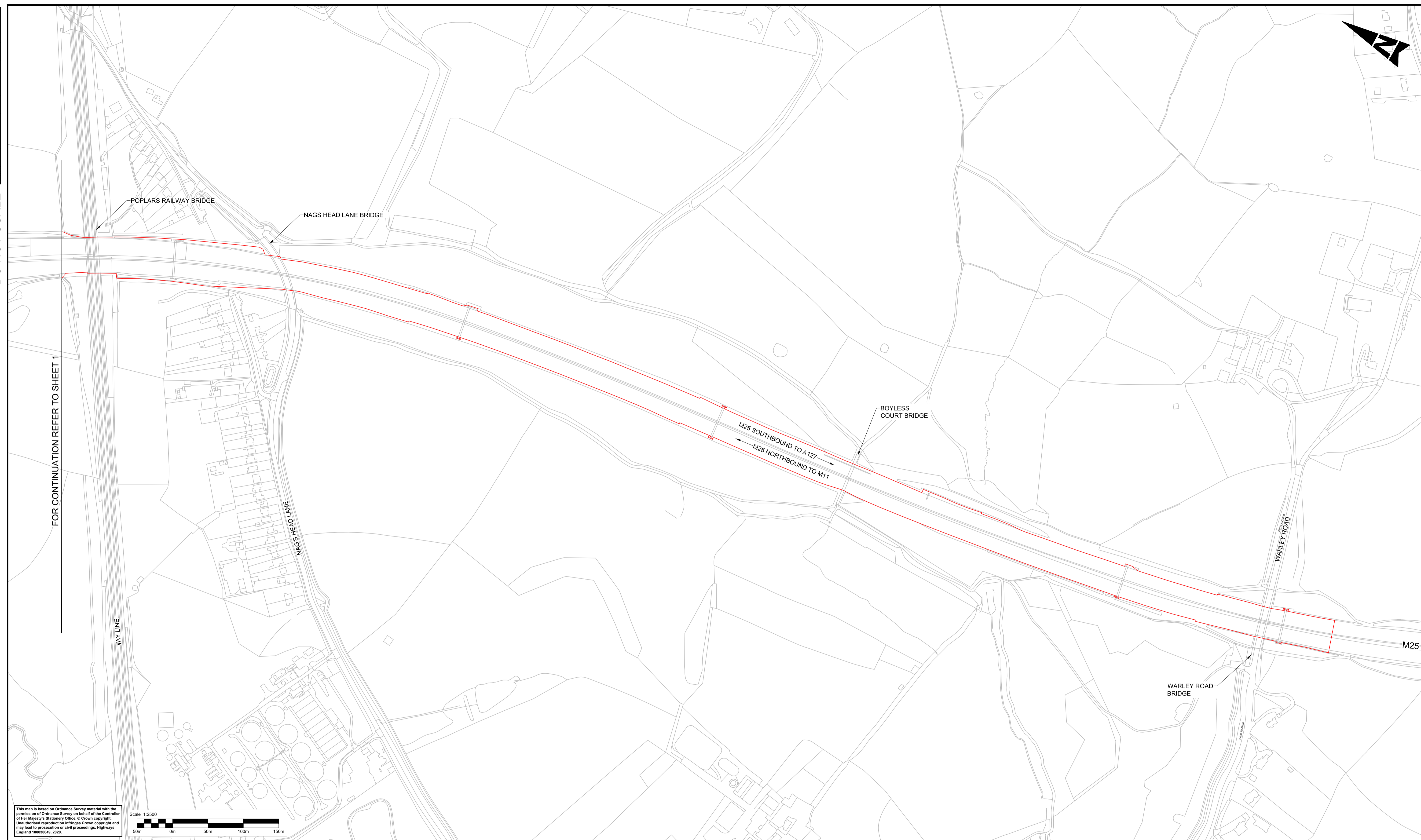
Amlyn House
 Atkins 4th Floor
 90-96 Victoria Road
 Chelmsford
 Essex CM1 1QU
 Tel: +44 (0)1245 245245
 Fax: +44 (0)1245 345010
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Drawing Title		LONGITUDINAL SECTION REGULATIONS 5(2)(o) AND 6(2) SECTION LOCATION PLAN SHEET 3 OF 4	
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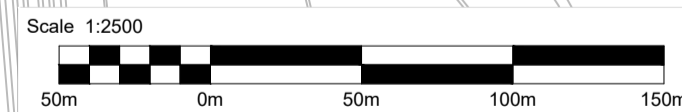
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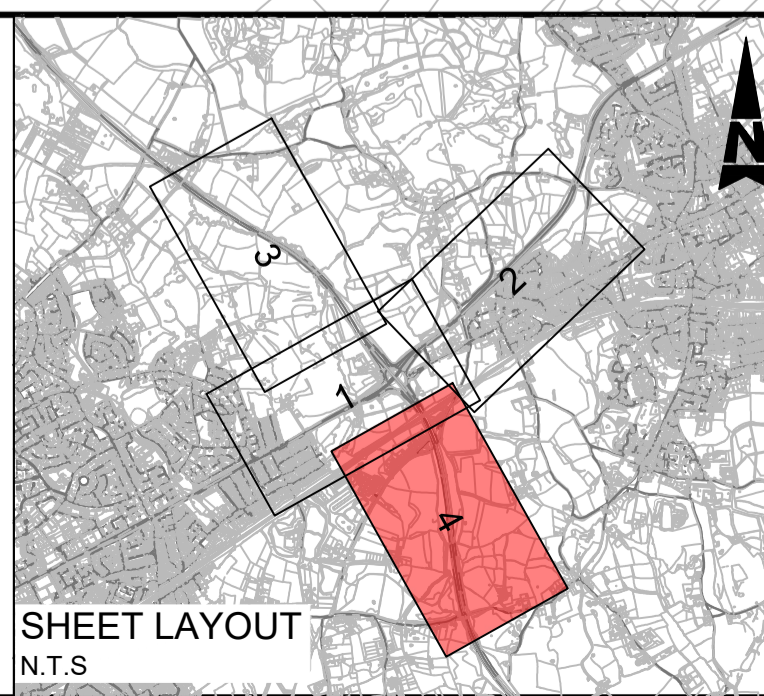
FOR CONTINUATION REFER TO SHEET 1

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 - - - A12 Eastbound On-Slip Chainage - refer to drawing TR010029/APP/2.9 Longitudinal Section sheet 6
 - - - M25 Northbound On-Slip Chainage - refer to drawing TR010029/APP/2.9 Longitudinal Section sheet 7 to 8
 - - - M25 J28 Loop Road Chainage - refer to drawing TR010029/APP/2.9 Longitudinal Section sheet 9 to 11

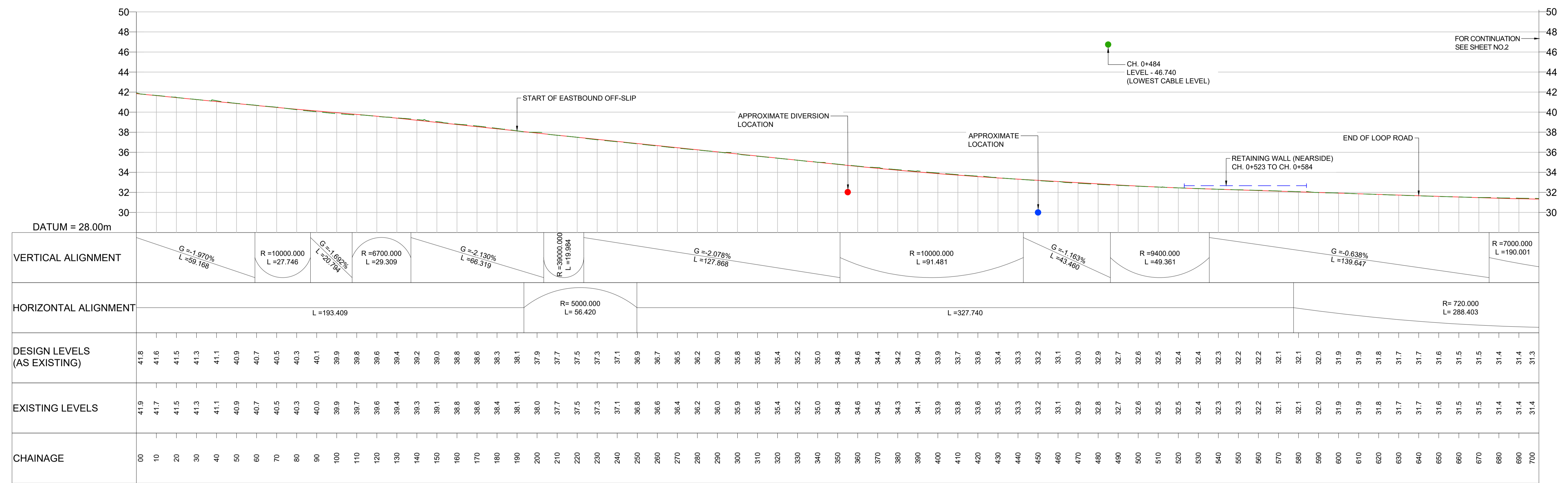


Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date

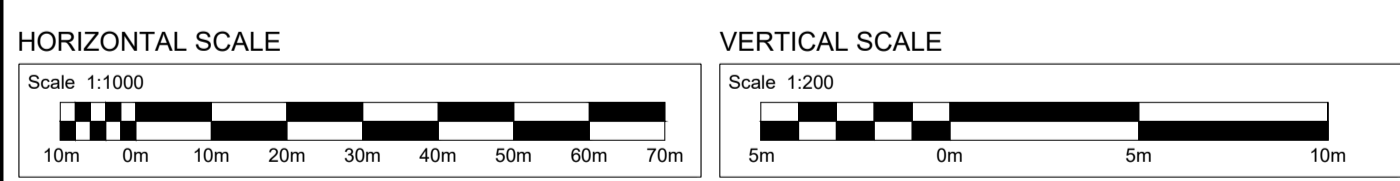
Drawing Suitability	Status	Project Title
DCO APPLICATION	A4	M25 junction 28 improvement scheme
<p>Member of the SNC-Lavalin Group Copyright © SNC Lavalin (2020)</p>		Drawing Title
<p>Amlyn House Atkins 4th Floor 90-96 Victoria Road Chelmsford Essex CM1 1QU Tel: +44 (0)1245 245245 Fax: +44 (0)1245 345010 www.atkinsglobal.com</p>		<p>LONGITUDINAL SECTION REGULATIONS 5(2)(o) AND 6(2) SECTION LOCATION PLAN SHEET 4 OF 4</p>
Client	Drawing Number	Rev.
Working on behalf of 	TR010029/APP/2.8	0
HE PIN: HE551519	Scale: 1:2500	Original Size: A1

DO NOT SCALE

Millimetres



LONGITUDINAL SECTION A12 MAINLINE (EASTBOUND) (CHAINAGE 00 TO 700)
 SCALE = H - 1:1000
 V - 1:200



Notes:

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- Refer to Work Plans (Application document reference TR010029/APP/2.3).

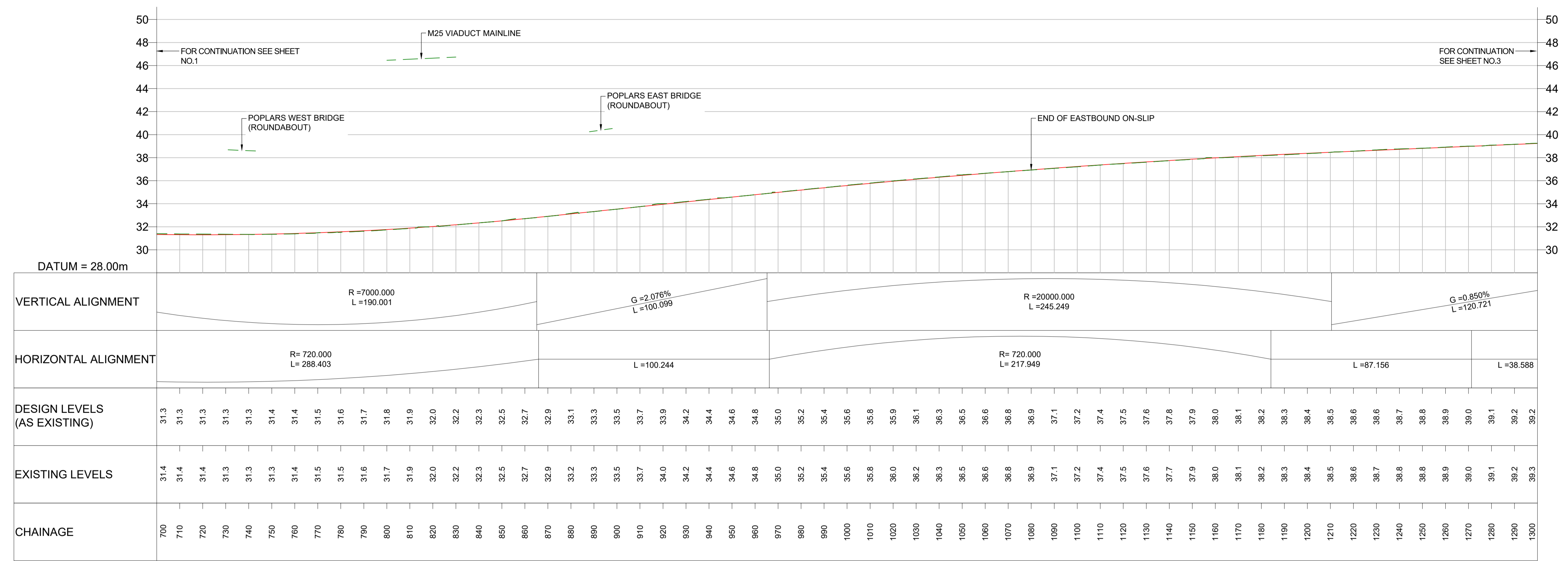
Legend

- Proposed road
- - - Existing ground
- Proposed LHP gas diversion approximate location
- Existing overhead power cable
- - - 1 in 100 years estimated flood level
- Existing fuel pipeline approximate location
- - - Proposed retaining wall
- ~ ~ ~ Realigned water course
- | Proposed gantry
- | Existing gantry (to be removed)

Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
DCO APPLICATION							
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Working on behalf of highways england							
Client						Client	
highways england						0	
LONGITUDINAL SECTION REGULATIONS 5(2)(o) and 6(2)							
SHEET 1 OF 10							
TR010029/APP/2.8				0			
HE PIN: HE551519		Scale: AS SHOWN		Original Size: A1			

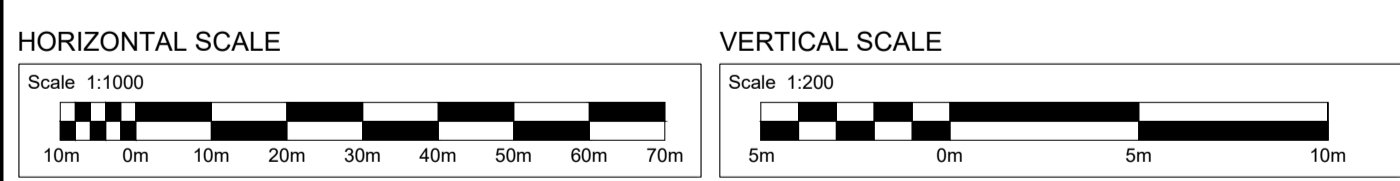
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Millimetres



LONGITUDINAL SECTION A12 MAINLINE (EASTBOUND) (CHAINAGE 700 TO 1300)

SCALE = H - 1:1000
V - 1:200



- Notes:**
- All dimensions are in metres unless otherwise stated. Horizontal and vertical position may vary within the DCO boundary and the Limit of Deviation.
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 - For location of longitudinal sections refer to Longitudinal section key plan drawings (application document reference TR010029/APP/2.8)
 - Refer to Work Plans (Application document reference TR010029/APP/2.3).

Legend

- Proposed road
- Existing ground
- Proposed LHP gas diversion approximate location
- Existing overhead power cable
- 1 in 100 years estimated flood level
- Existing fuel pipeline approximate location
- Proposed retaining wall
- Realigned water course
- Proposed gantry
- Existing gantry (to be removed)

Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date

DCO APPLICATION

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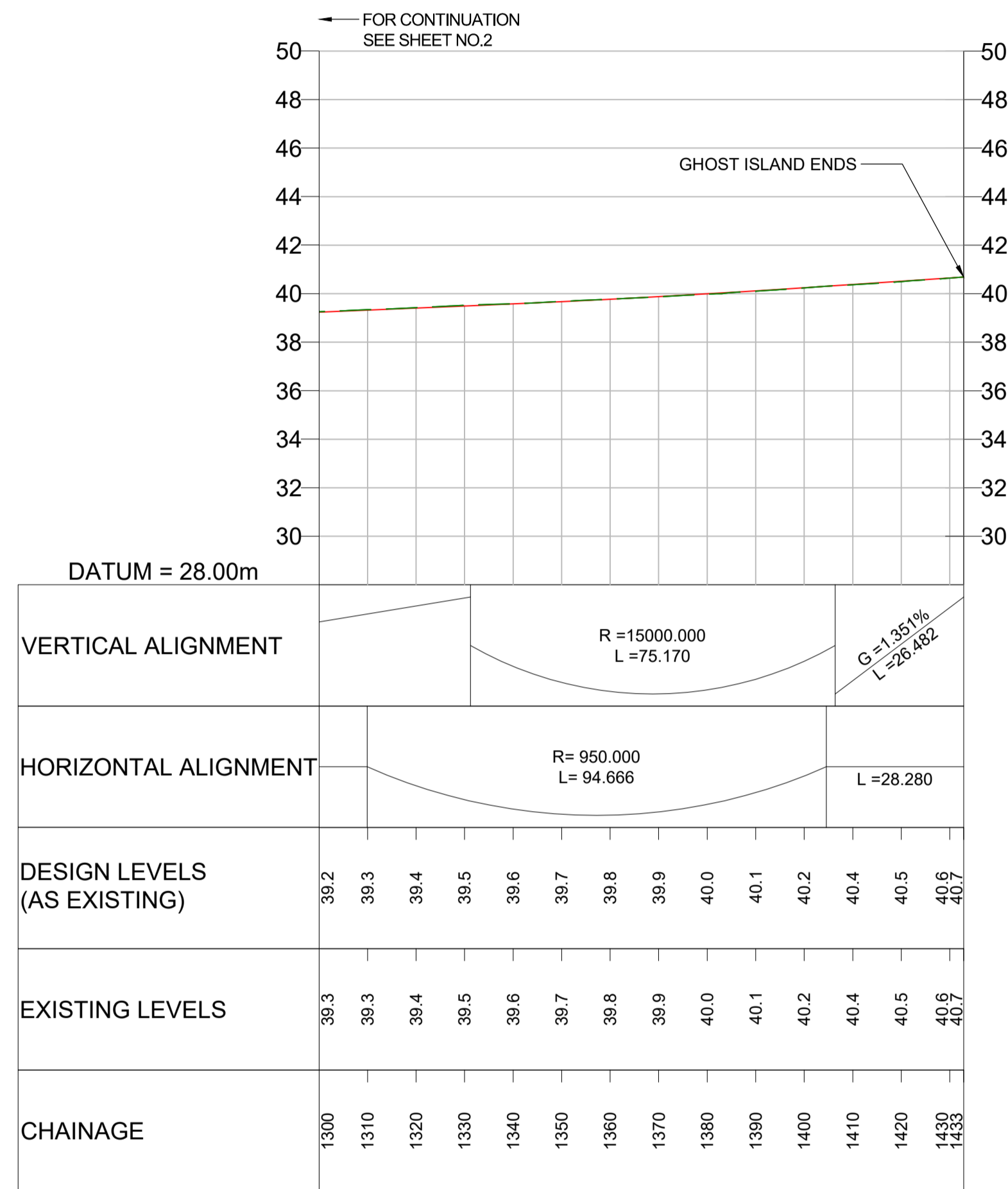
Working on behalf of
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england

Project Title M25 junction 28 improvement scheme	Status A4
Drawing Title LONGITUDINAL SECTION REGULATIONS 5(2)(o) and 6(2) SHEET 2 OF 10	Client highways england
Drawing Number TR010029/APP/2.8	Rev. 0
HE PIN: HE551519	Scale: AS SHOWN
Original Size: A1	

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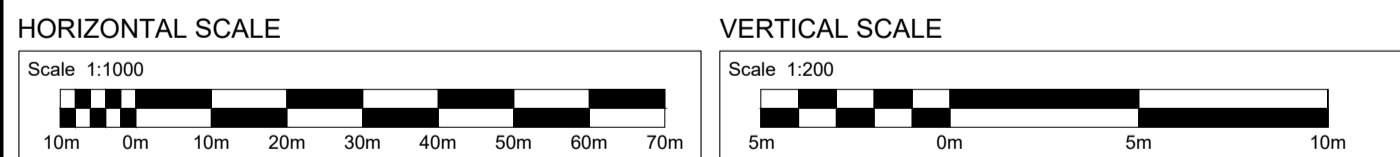
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LONGITUDINAL SECTION A12 MAINLINE (EASTBOUND) (CHAINAGE 1300 TO 1433)

SCALE = H - 1:1000
V - 1:200



Notes:

- All dimensions are in metres unless otherwise stated. Horizontal and vertical position may vary within the DCO boundary and the Limit of Deviation.
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- For location of longitudinal sections refer to Longitudinal section key plan drawings (application document reference TR010029/APP/2.8)
- Refer to Work Plans (Application document reference TR010029/APP/2.3).

Legend

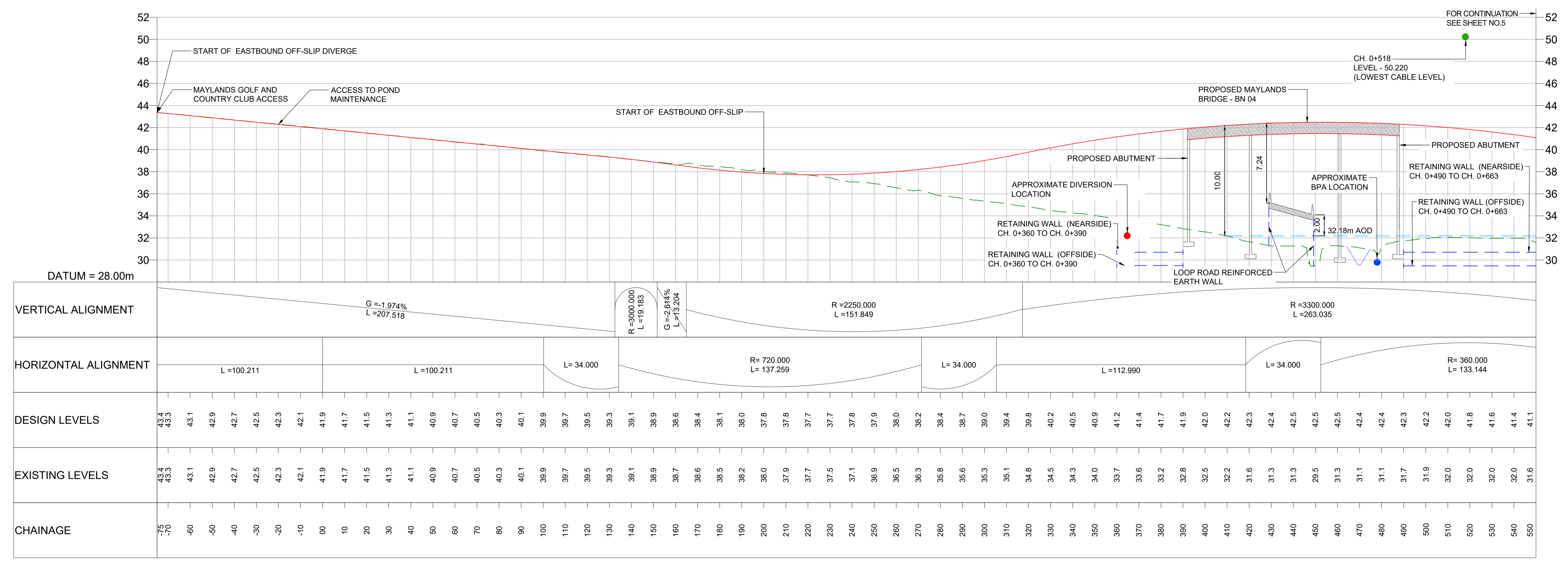
- Proposed road
- - - Existing ground
- Proposed LHP gas diversion approximate location
- Existing overhead power cable
- - - 1 in 100 years estimated flood level
- Existing fuel pipeline approximate location
- - - Proposed retaining wall
- Realigned water course
- | Proposed gantry
- | Existing gantry (to be removed)

Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date

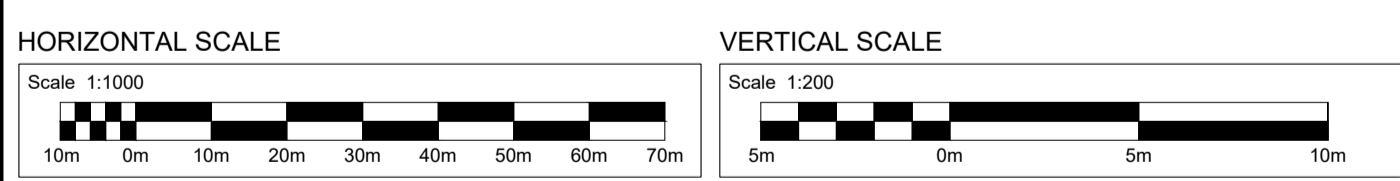
Drawing Suitability		Status		Project Title	
DCO APPLICATION		A4		M25 junction 28 improvement scheme	
		Amlin House Atkins 4th Floor 90-96 Victoria Road Chelmsford Essex CM1 1QU Tel: +44 (0)1245 245245 Fax: +44 (0)1245 345010 www.atkinsglobal.com		Drawing Title LONGITUDINAL SECTION REGULATIONS 5(2)(o) and 6(2) SHEET 3 OF 10	
Client		Working on behalf of		Drawing Number	
		TR010029/APP/2.8		0	
HE PIN: HE551519		Scale: AS SHOWN		Original Size: A1	

DO NOT SCALE

Millimetres



LONGITUDINAL SECTION A12 EASTBOUND OFF-SLIP (CHAINAGE -75 TO 550)
 SCALE = H - 1:1000
 V - 1:200



Notes:

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- Refer to Work Plans (Application document reference TR010029/APP/2.3).

Legend

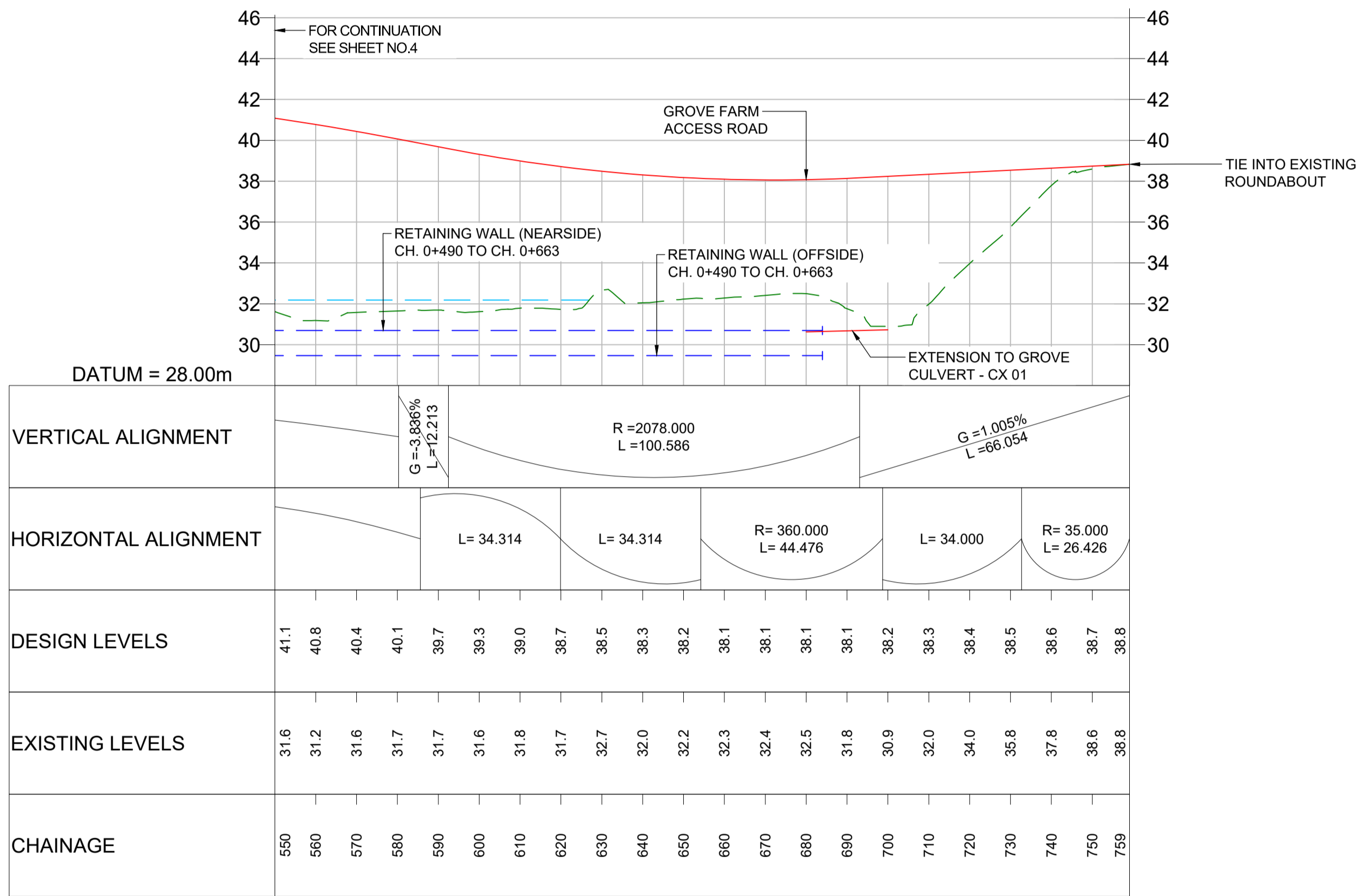
- Proposed road
- - - Existing ground
- Proposed LHP gas diversion approximate location
- Existing overhead power cable
- - - 1 in 100 years estimated flood level
- Existing fuel pipeline approximate location
- - - Proposed retaining wall
- - - Realigned water course
- | Proposed gantry
- | Existing gantry (to be removed)

Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date

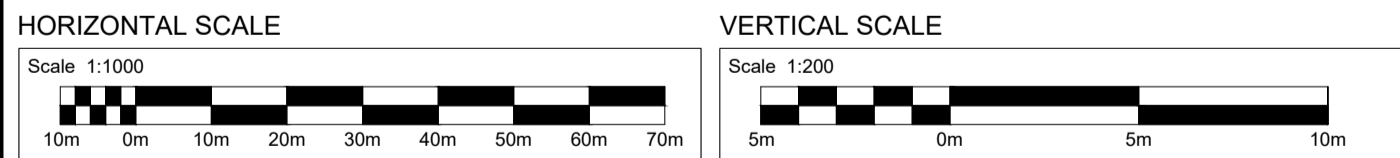
DCO APPLICATION	Status: A4	Project Title: M25 junction 28 improvement scheme
<p>Amlyn House Atkins 4th Floor 90-96 Victoria Road Chelmsford Essex CM1 1QU Tel: +44 (0)1245 245245 Fax: +44 (0)1245 345010 www.atkinsglobal.com</p>		LONGITUDINAL SECTION REGULATIONS 5(2)(o) and 6(2) SHEET 4 OF 10
<p>Working on behalf of</p>		Drawing Number: TR010029/APP/2.8 Rev: 0
HE PIN: HE551519		Scale: AS SHOWN
		Original Size: A1

DO NOT SCALE

Millimetres



LONGITUDINAL SECTION A12 EASTBOUND OFF-SLIP (CHAINAGE 550 TO 759)
SCALE = H - 1:1000
V - 1:200



Notes:

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- Refer to Work Plans (Application document reference TR010029/APP/2.3).

Legend

- Proposed road
- - - Existing ground
- Proposed LHP gas diversion approximate location
- Existing overhead power cable
- - - 1 in 100 years estimated flood level
- Existing fuel pipeline approximate location
- - - Proposed retaining wall
- Realigned water course
- | Proposed gantry
- | Existing gantry (to be removed)

Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date

DCO APPLICATION

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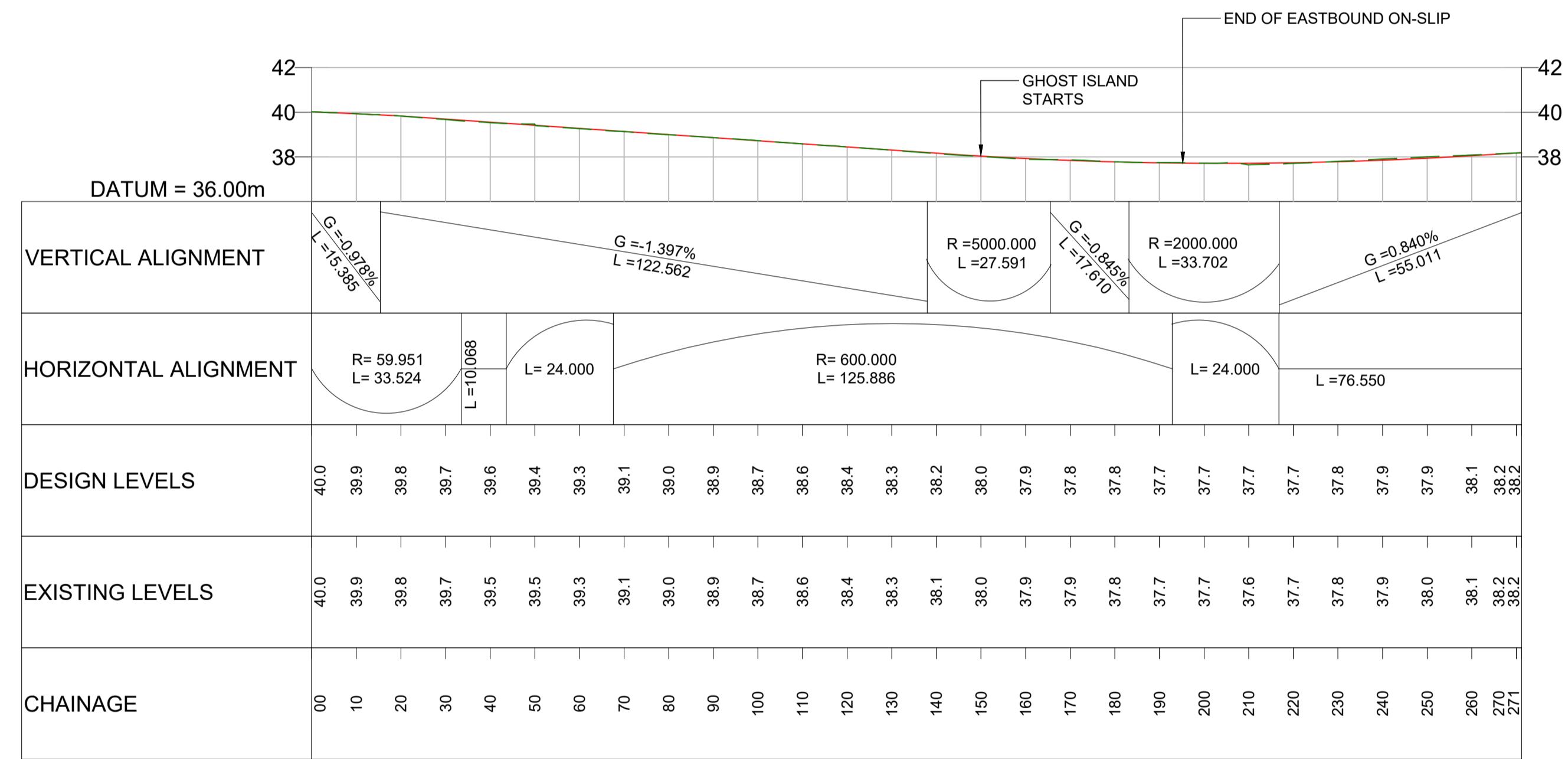
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Drawing Title	LONGITUDINAL SECTION REGULATIONS 5(2)(o) and 6(2)
Sheet	SHEET 5 OF 10
Client	highways england
Drawing Number	TR010029/APP/2.8
Revision	0
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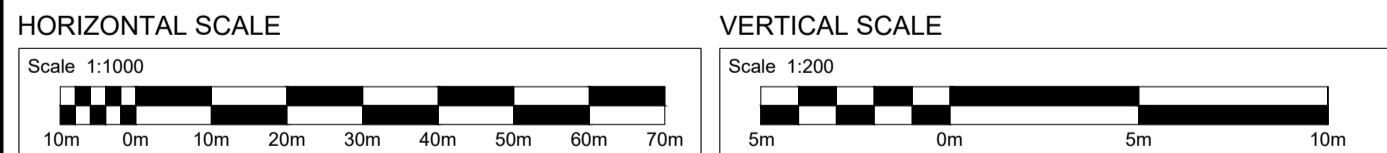
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LONGITUDINAL SECTION A12 EASTBOUND ON-SLIP (CHAINAGE 00 TO 271)

SCALE = H - 1:1000
V - 1:200



Notes:

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- Refer to Work Plans (Application document reference TR010029/APP/2.3).

Legend

- Proposed road
- - - Existing ground
- Proposed LHP gas diversion approximate location
- Existing overhead power cable
- - - 1 in 100 years estimated flood level
- Existing fuel pipeline approximate location
- - - Proposed retaining wall
- ~ ~ ~ Realigned water course
- | Proposed gantry
- | Existing gantry (to be removed)

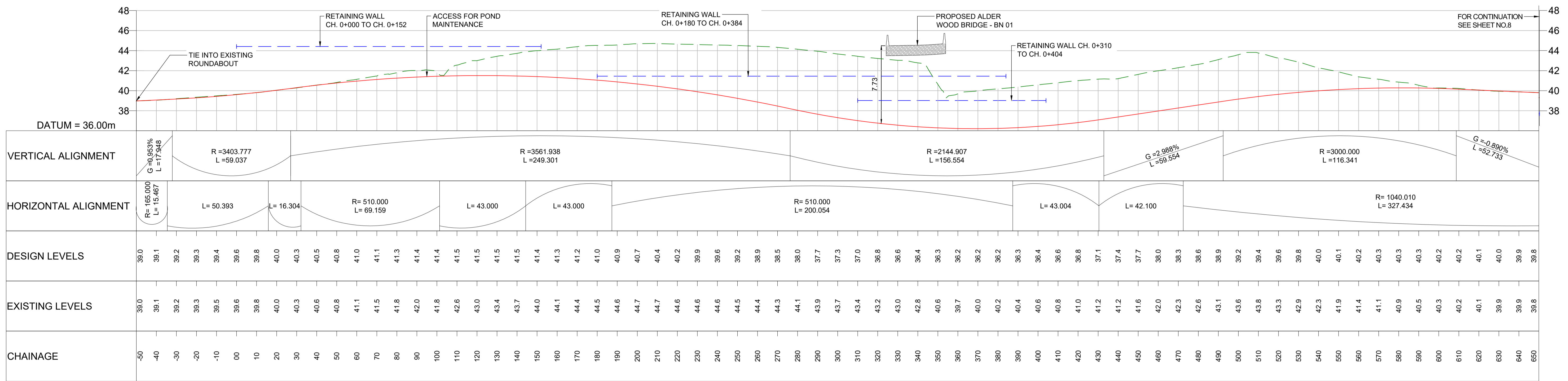
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Drawing Suitability	Status	Project Title
DCO APPLICATION	A4	M25 junction 28 improvement scheme
Amlin House Atkins 4th Floor 90-96 Victoria Road Chelmsford Essex CM1 1QU Tel: +44 (0)1245 245245 Fax: +44 (0)1245 345010 www.atkinsglobal.com		
Client	Working on behalf of	Drawing Number
highways england		TR010029/APP/2.8
HE PIN: HE551519	Scale: AS SHOWN	Original Size: A1

Drawing Title	Rev.
LONGITUDINAL SECTION REGULATIONS 5(2)(o) and 6(2)	0
SHEET 6 OF 10	

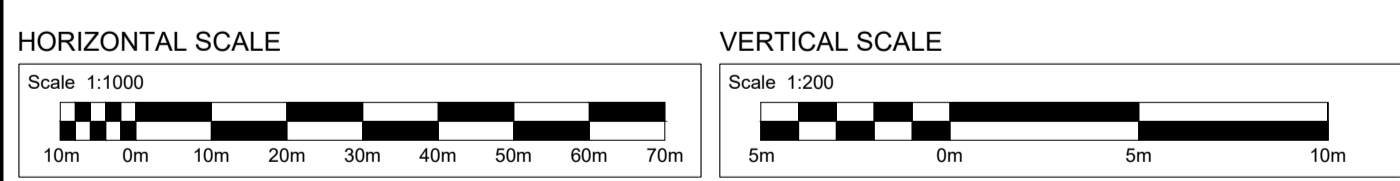
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Millimetres



LONGITUDINAL SECTION M25 NORTHBOUND ON-SLIP (CHAINAGE -50 TO 650)

SCALE = H - 1:1000
V - 1:200



Notes:

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- Refer to Work Plans (Application document reference TR010029/APP/2.3).

Legend

- Proposed road
- Existing ground
- Proposed LHP gas diversion approximate location
- Existing overhead power cable
- 1 in 100 years estimated flood level
- Existing fuel pipeline approximate location
- Proposed retaining wall
- Realigned water course
- Proposed gantry
- Existing gantry (to be removed)

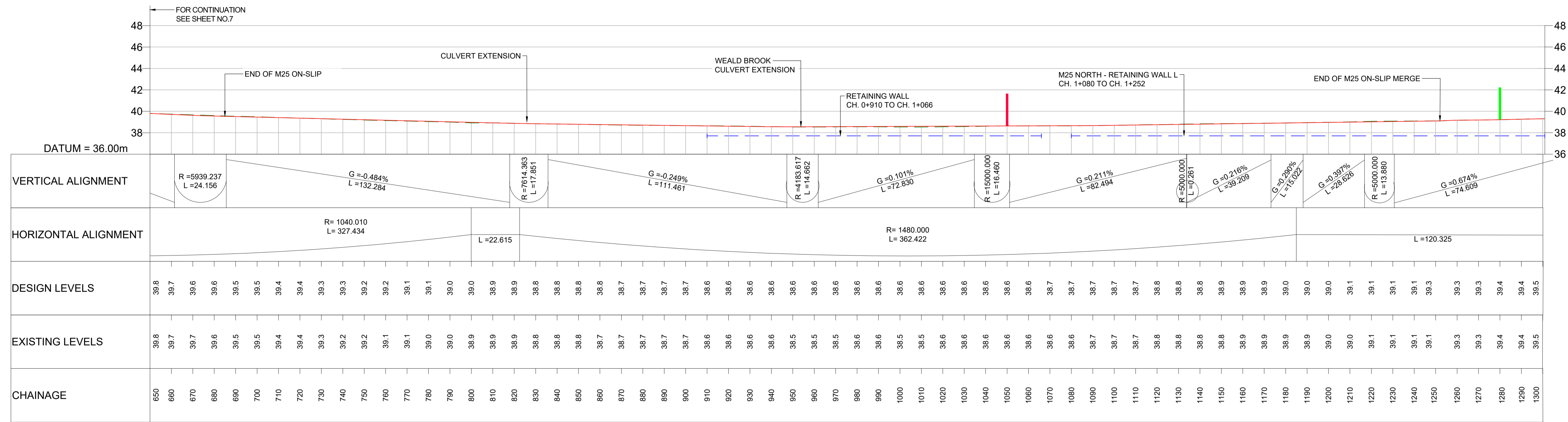
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Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date	M25 junction 28 improvement scheme
Description		Drawing Suitability		Status		Project Title	
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Description		Drawing Suitability		Status		Project Title	
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Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date	Original Size: A1

Client: Working on behalf of **highways england**

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 Fax: +44 (0)1245 345010
 www.atkinsglobal.com

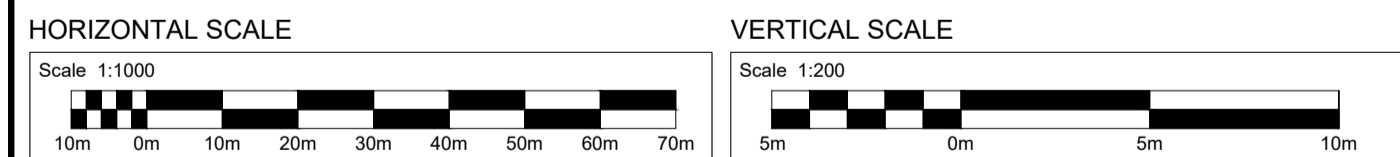
DO NOT SCALE

100
0 10
Millimetres



LONGITUDINAL SECTION M25 NORTHBOUND ON-SLIP (CHAINAGE 650 TO 1300)

SCALE = H - 1:1000
V - 1:200



Notes:

- All dimensions are in metres unless otherwise stated. Horizontal and vertical position may vary within the DCO boundary and the Limit of Deviation.
- The retaining walls, bridge decks, culvert and overhead power line details are indicative only.
- For location of longitudinal sections refer to Longitudinal section key plan drawings (application document reference TR010029/APP/2.8)
- Refer to Work Plans (Application document reference TR010029/APP/2.3).

Legend

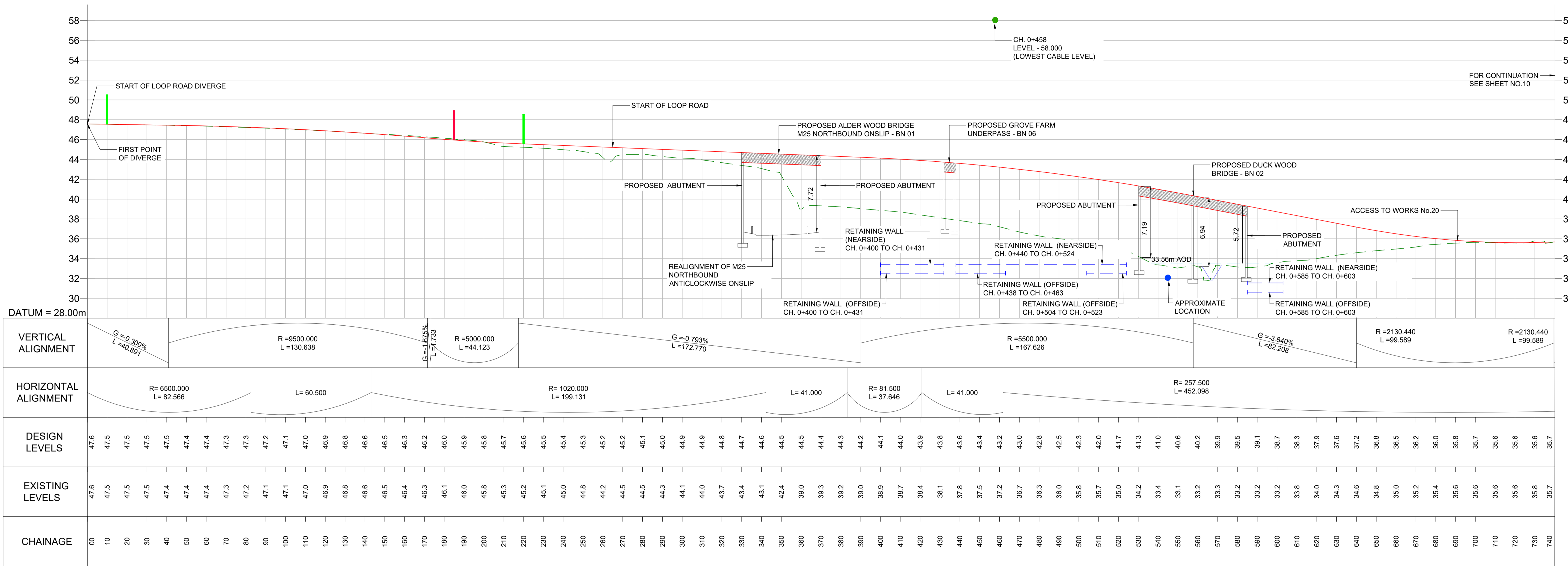
- Proposed road
- - - Existing ground
- Proposed LHP gas diversion approximate location
- Existing overhead power cable
- - - 1 in 100 years estimated flood level
- Existing fuel pipeline approximate location
- - - Proposed retaining wall
- ∩ Realigned water course
- | Proposed gantry
- | Existing gantry (to be removed)

Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date

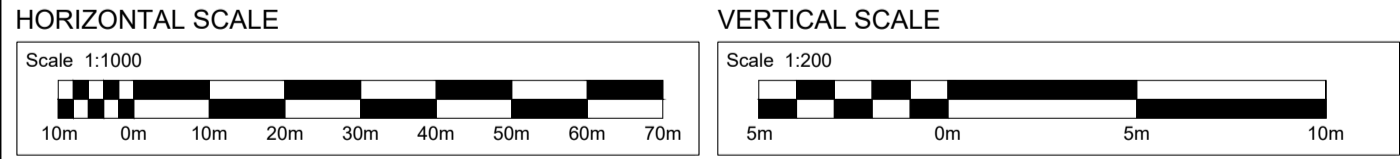
Drawing Suitability		Status		Project Title	
DCO APPLICATION		A4		M25 junction 28 improvement scheme	
		Amalin House Atkins 4th Floor 90-96 Victoria Road Chelmsford Essex CM1 1QU Tel: +44 (0)1245 245245 Fax: +44 (0)1245 345010 www.atkinsglobal.com		Drawing Title LONGITUDINAL SECTION REGULATIONS 5(2)(o) and 6(2) SHEET 8 OF 10	
Client		Drawing Number		Rev.	
		TR010029/APP/2.8		0	
HE PIN: HE551519		Scale: AS SHOWN		Original Size: A1	

DO NOT SCALE

100
0 10
Millimetres



LONGITUDINAL SECTION M25 J28 LOOP ROAD (CHAINAGE 00 TO 740)
SCALE = H - 1:1000
V - 1:200



Notes:

- All dimensions are in metres unless otherwise stated. Horizontal and vertical position may vary within the DCO boundary and the Limit of Deviation.
- The retaining walls, bridge decks, culvert and overhead power line details are indicative only.
- For location of longitudinal sections refer to Longitudinal section key plan drawings (application document reference TR010029/APP/2.8)
- Refer to Work Plans (Application document reference TR010029/APP/2.3).

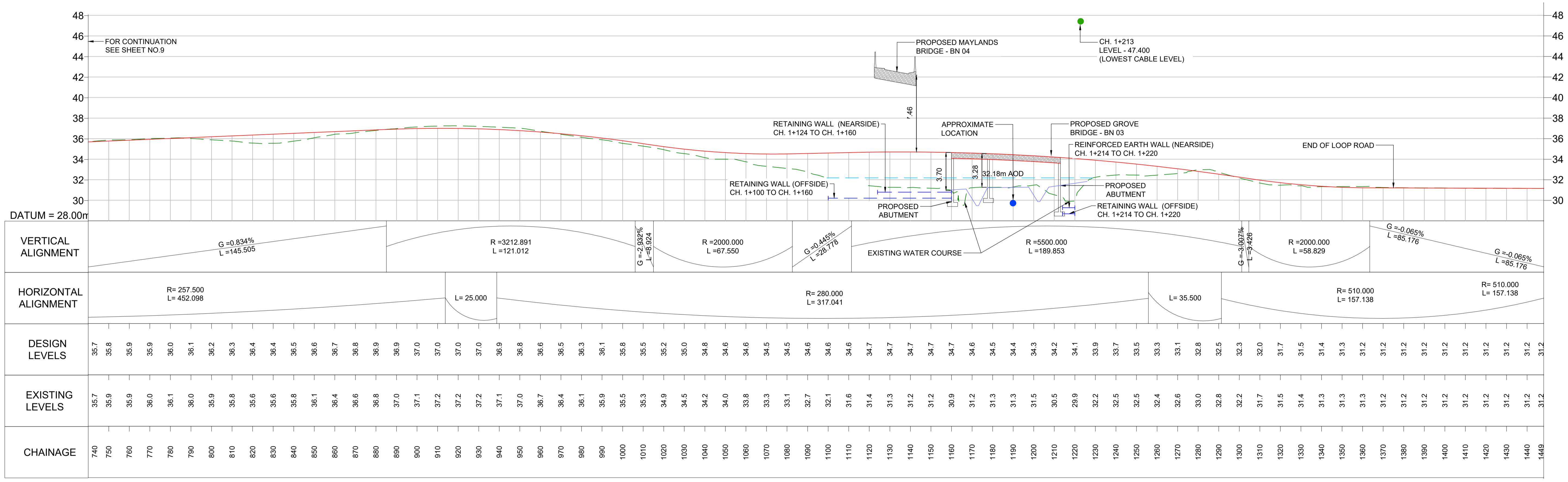
Legend

	Proposed road		Proposed gantry
	Existing ground		Existing gantry (to be removed)
	Proposed LHP gas diversion approximate location		Existing overhead power cable
	1 in 100 years estimated flood level		Existing fuel pipeline approximate location
	Proposed retaining wall		Realigned water course

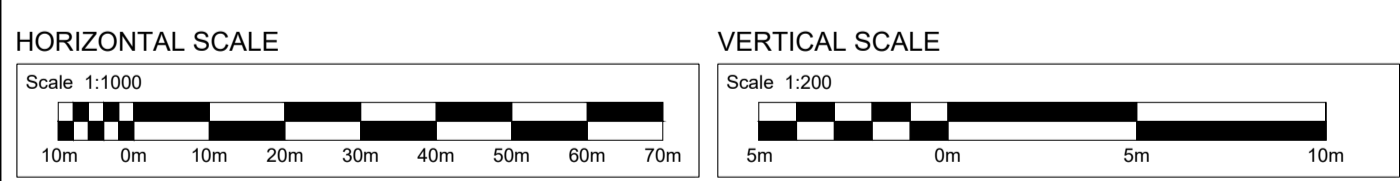
Description		Drawing Suitability		Status		Project Title						
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date	DCO APPLICATION		A4		M25 junction 28 improvement scheme	
Description		Drawing Suitability		Status		Project Title						
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date			Amlin House Atkins 4th Floor 90-96 Victoria Road Chelmsford Essex CM1 1QU Tel: +44 (0)1245 245245 Fax: +44 (0)1245 345010 www.atkinsglobal.com		Drawing Title LONGITUDINAL SECTION REGULATIONS 5(2)(o) and 6(2) SHEET 9 OF 10	
Description		Drawing Suitability		Status		Project Title						
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date			Client Working on behalf of highways england		Drawing Number TR010029/APP/2.8 Rev: 0	
Description		Drawing Suitability		Status		Project Title						
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date	HE PIN: HE551519 Scale: AS SHOWN Original Size: A1					

DO NOT SCALE

100
0 10
Millimetres



LONGITUDINAL SECTION M25 J28 LOOP ROAD (CHAINAGE 740 TO 1449)
SCALE = H - 1:1000
V - 1:200



- Notes:**
- All dimensions are in metres unless otherwise stated. Horizontal and vertical position may vary within the DCO boundary and the Limit of Deviation.
 - The retaining walls, bridge decks, culvert and overhead power line details are indicative only.
 - For location of longitudinal sections refer to Longitudinal section key plan drawings (application document reference TR010029/APP/2.8)
 - Refer to Work Plans (Application document reference TR010029/APP/2.3).

Legend

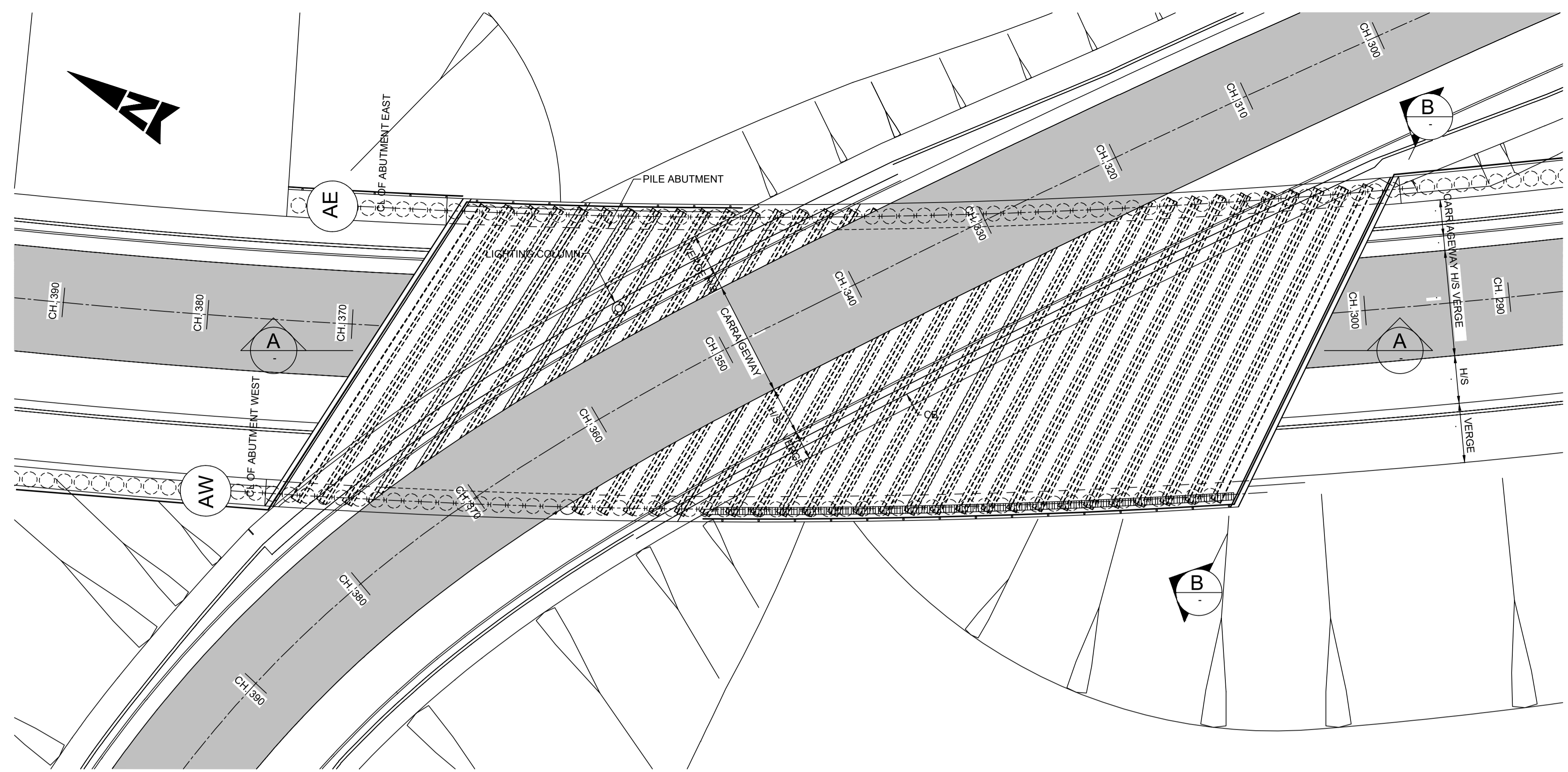
- Proposed road
- Existing ground
- Proposed LHP gas diversion approximate location
- Existing overhead power cable
- 1 in 100 years estimated flood level
- Existing fuel pipeline approximate location
- Proposed retaining wall
- Realigned water course
- Proposed gantry
- Existing gantry (to be removed)

Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date

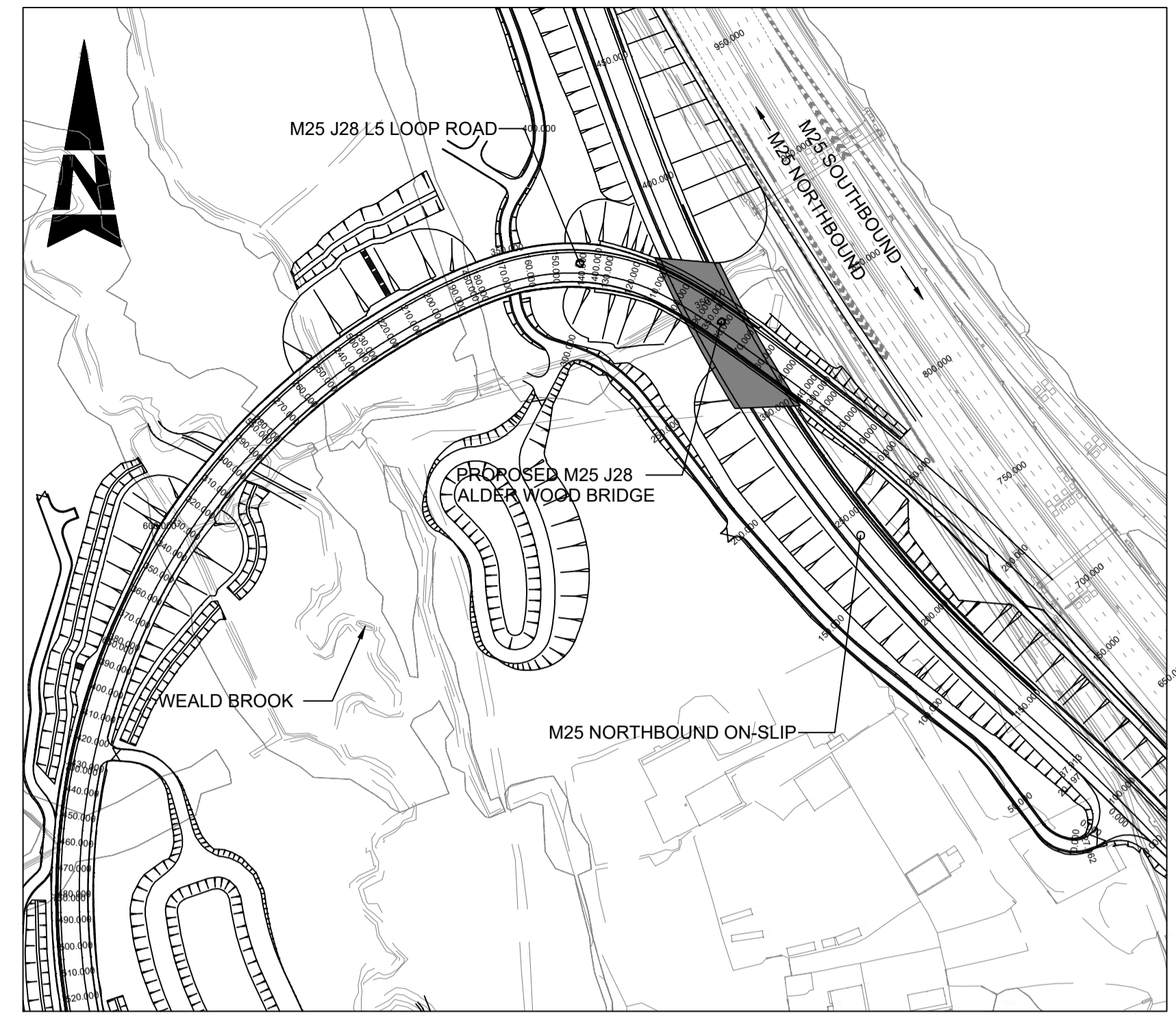
Drawing Suitability		Status	Project Title
DCO APPLICATION		A4	M25 junction 28 improvement scheme
		Drawing Title LONGITUDINAL SECTION REGULATIONS 5(2)(o) and 6(2) SHEET 10 OF 10	
Member of the SNC-Lavalin Group Copyright © SNC Lavalin (2020)		Amlin House Atkins 4th Floor 90-96 Victoria Road Chelmsford Essex CM1 1QU Tel: +44 (0)1245 245245 Fax: +44 (0)1245 345010 www.atkinsglobal.com	
Client		Drawing Number	Rev.
		TR010029/APP/2.8	0
HE PIN: HE551519		Scale: AS SHOWN	Original Size: A1

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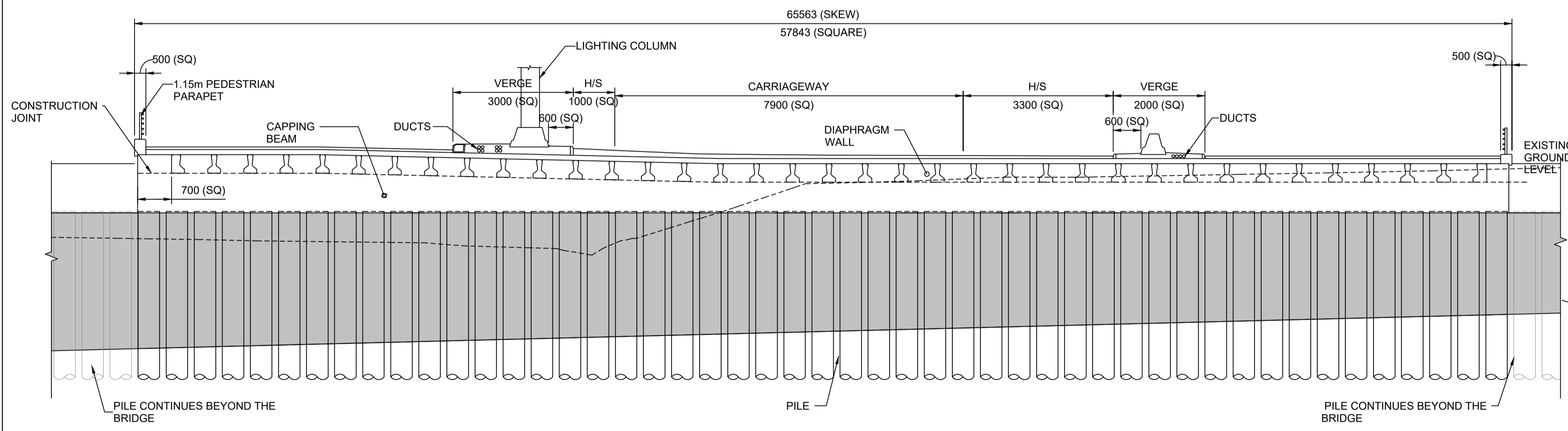
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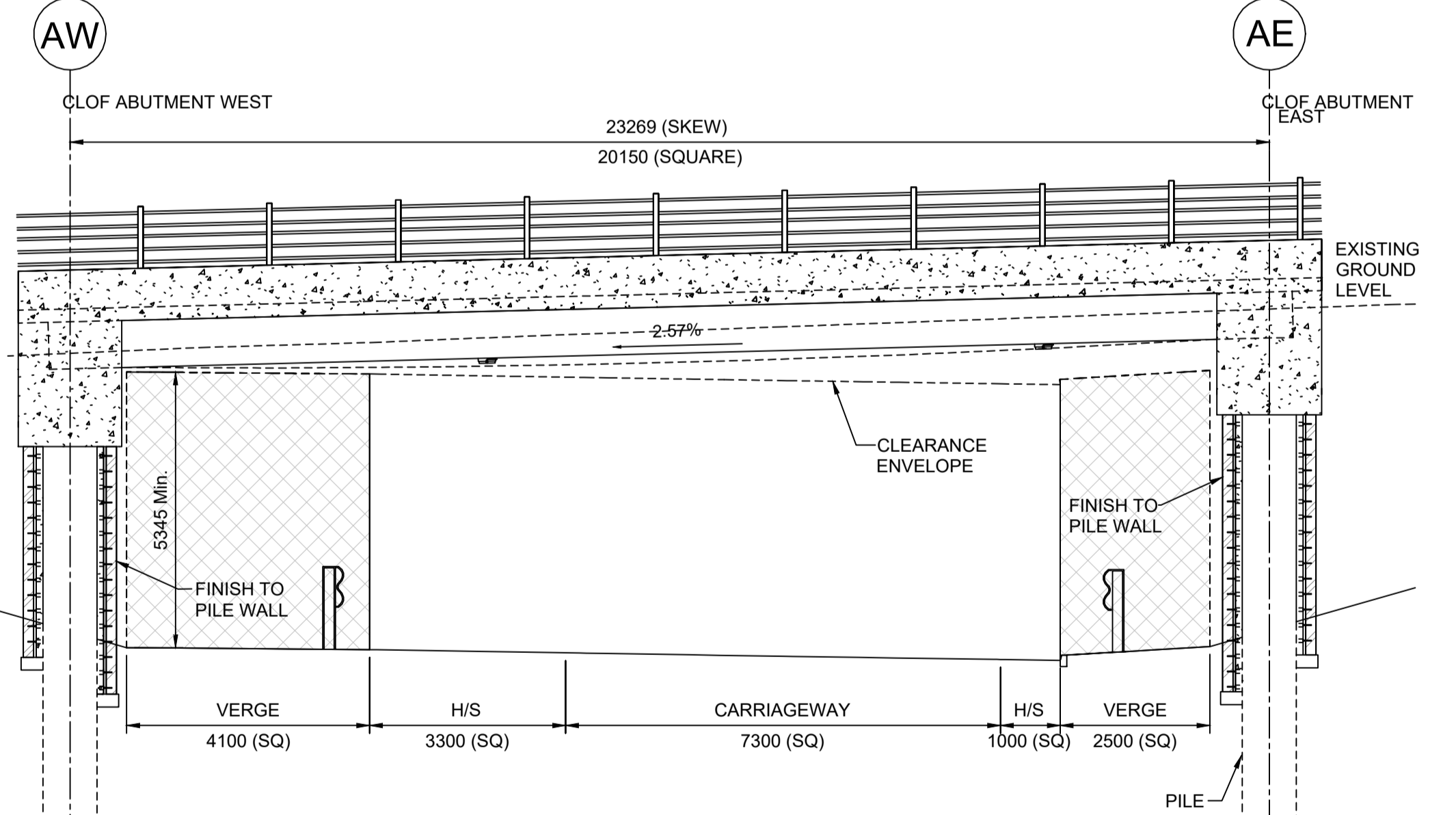
PLAN ON DECK
SCALE 1 : 200



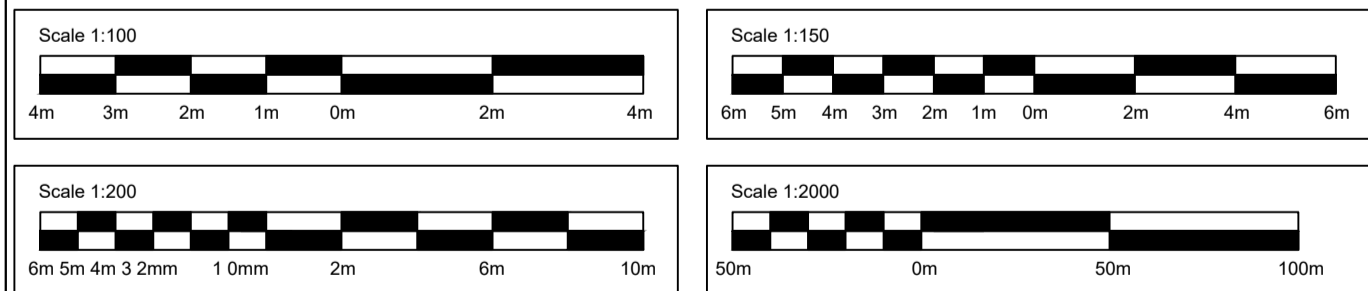
LOCATION PLAN
SCALE 1 : 2000



A SECTION
SCALE 1 : 150



B SECTION
SCALE 1 : 100



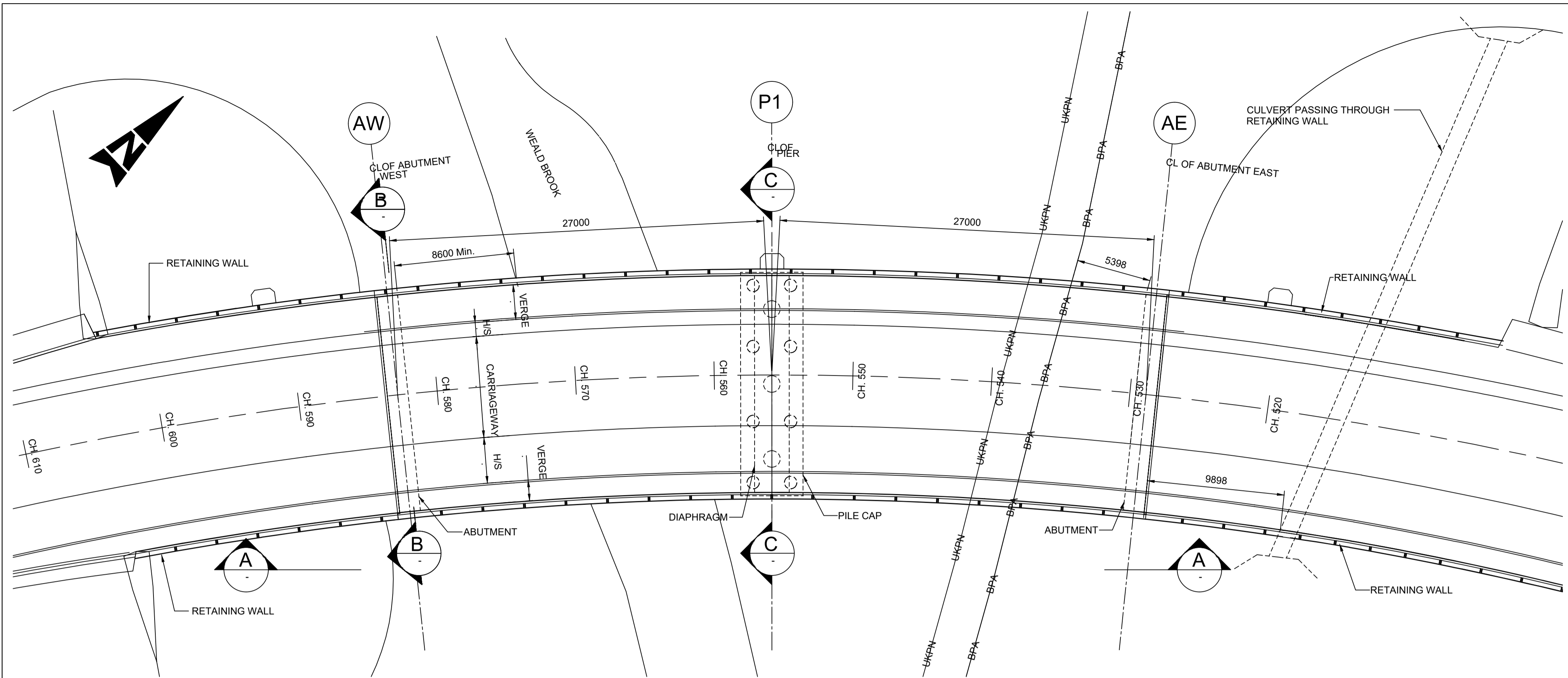
- Notes**
- All dimensions are in millimeters; all levels and chainages are in metres unless noted otherwise.
 - Pile length shall be optimized based on geotech recommendation.
 - The maximum cross fall as per highway typical cross section.
 - The stream behind the east abutment will be diverted.
 - Drainage not shown
 - Utilities not shown.
 - The proposed structures will be subject to detailed design development. Any changes will be limited to being within the DCO boundary or the relevant limits of deviation where not coincident with the DCO boundary and subject to the requirements of Schedule 2 of the Development Consent Order (application document TR010029/APP/3.1).

Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date

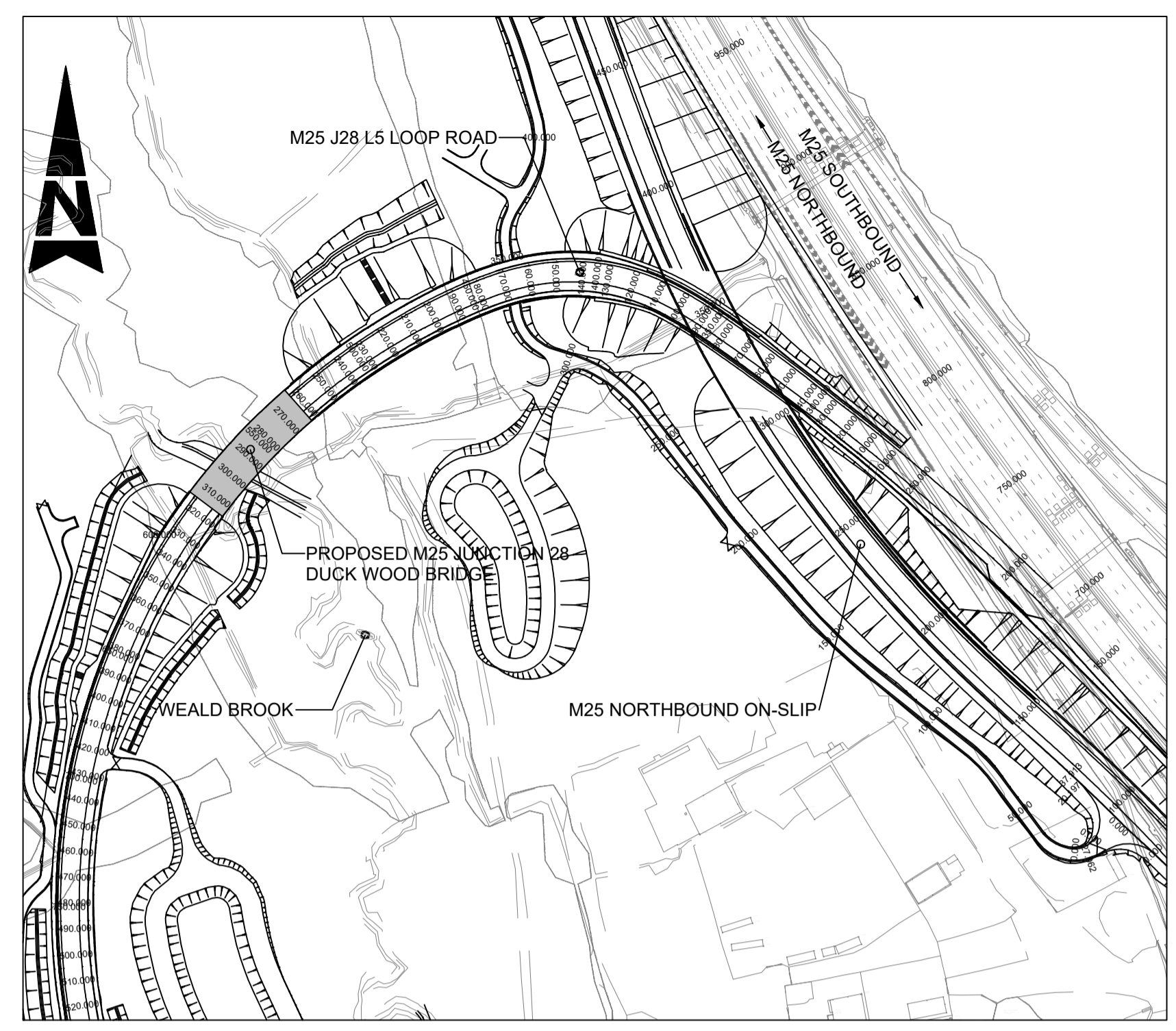
Drawing Subtitle DCO APPLICATION	Status A4	Project Title M25 junction 28 improvement scheme
 Member of the SNC-Lavalin Group Copyright © Atkins Limited (2020)		Drawing Title ENGINEERING SECTIONS REGULATIONS 5(2)(o) AND 6(2) ALDER WOOD BRIDGE SHEET 1 OF 10
Client Working on behalf of highways england		Drawing Number TR10029/APP/2.8
HE PIN: HE551519		Scale: As Shown Original Size: A1

DO NOT SCALE

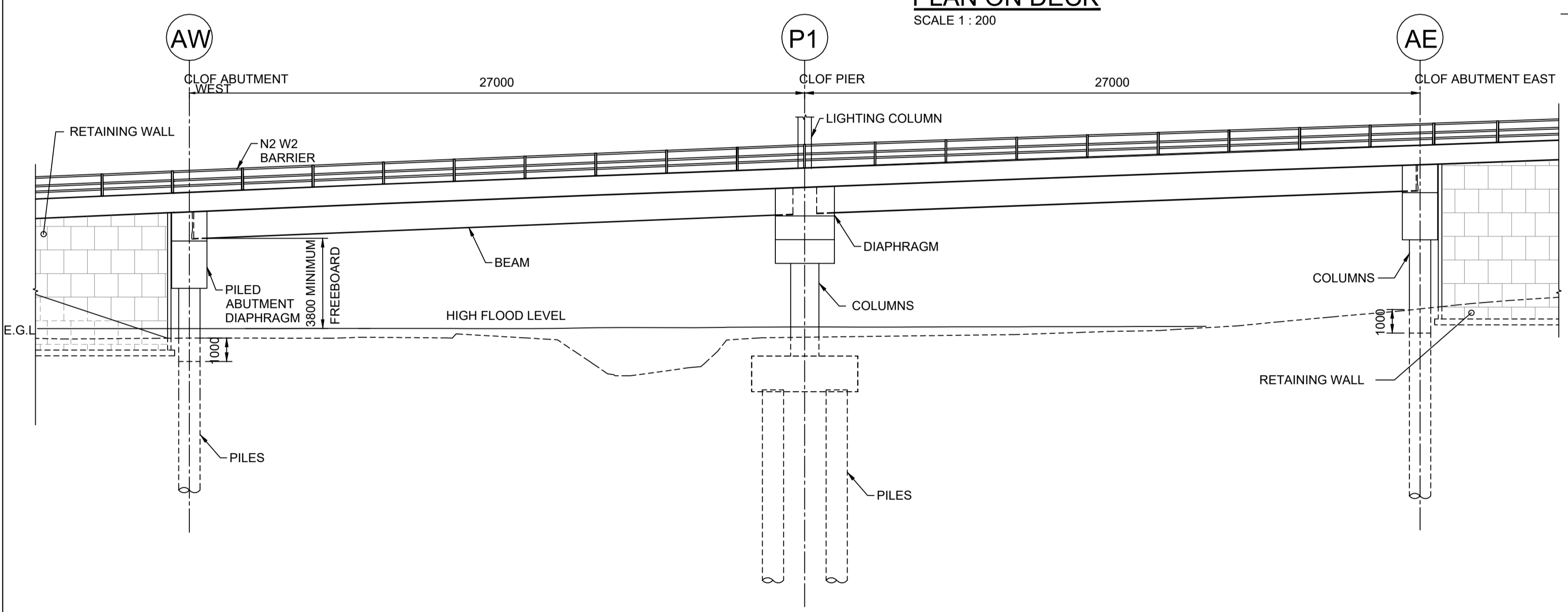
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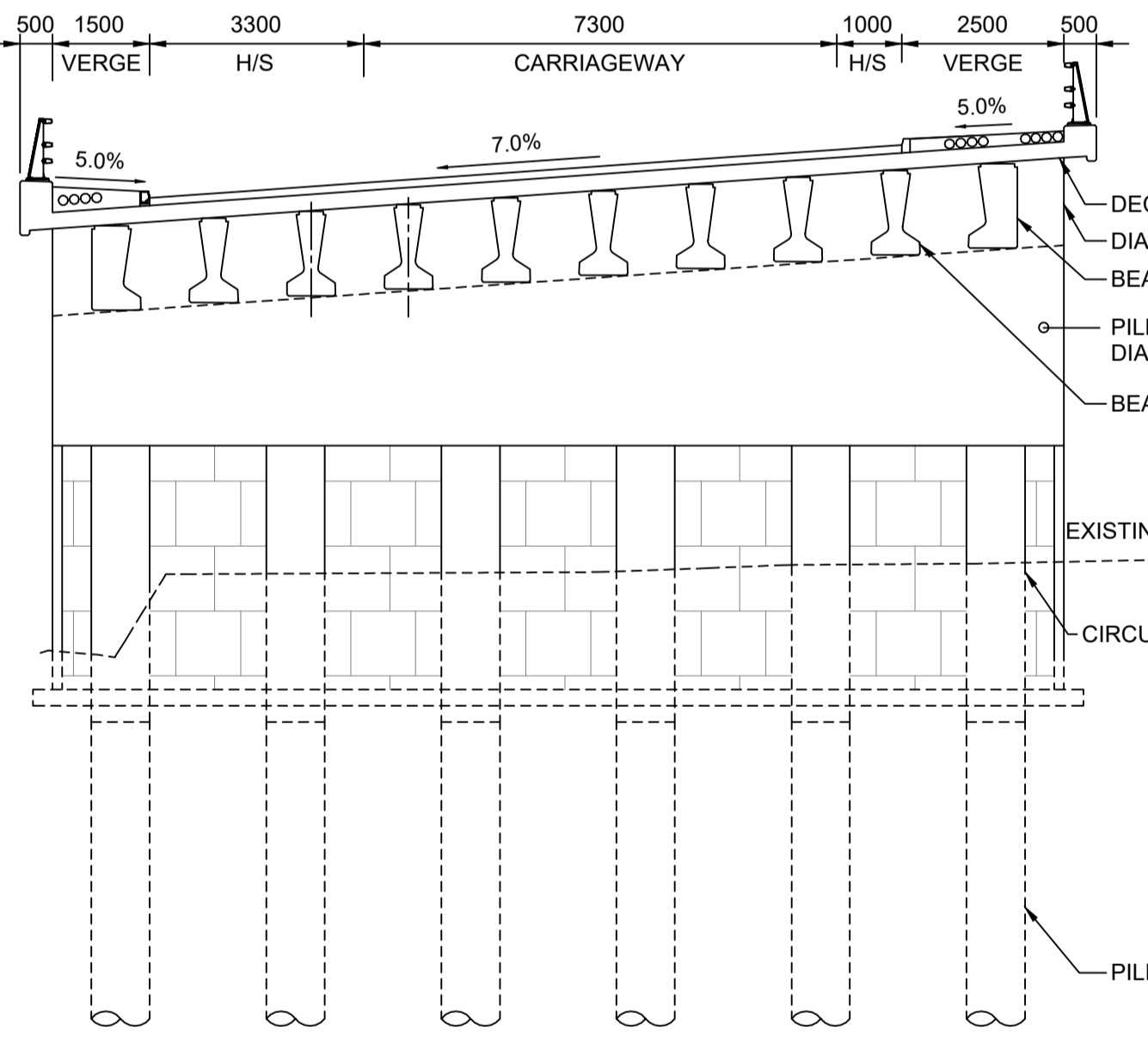
PLAN ON DECK
SCALE 1 : 200



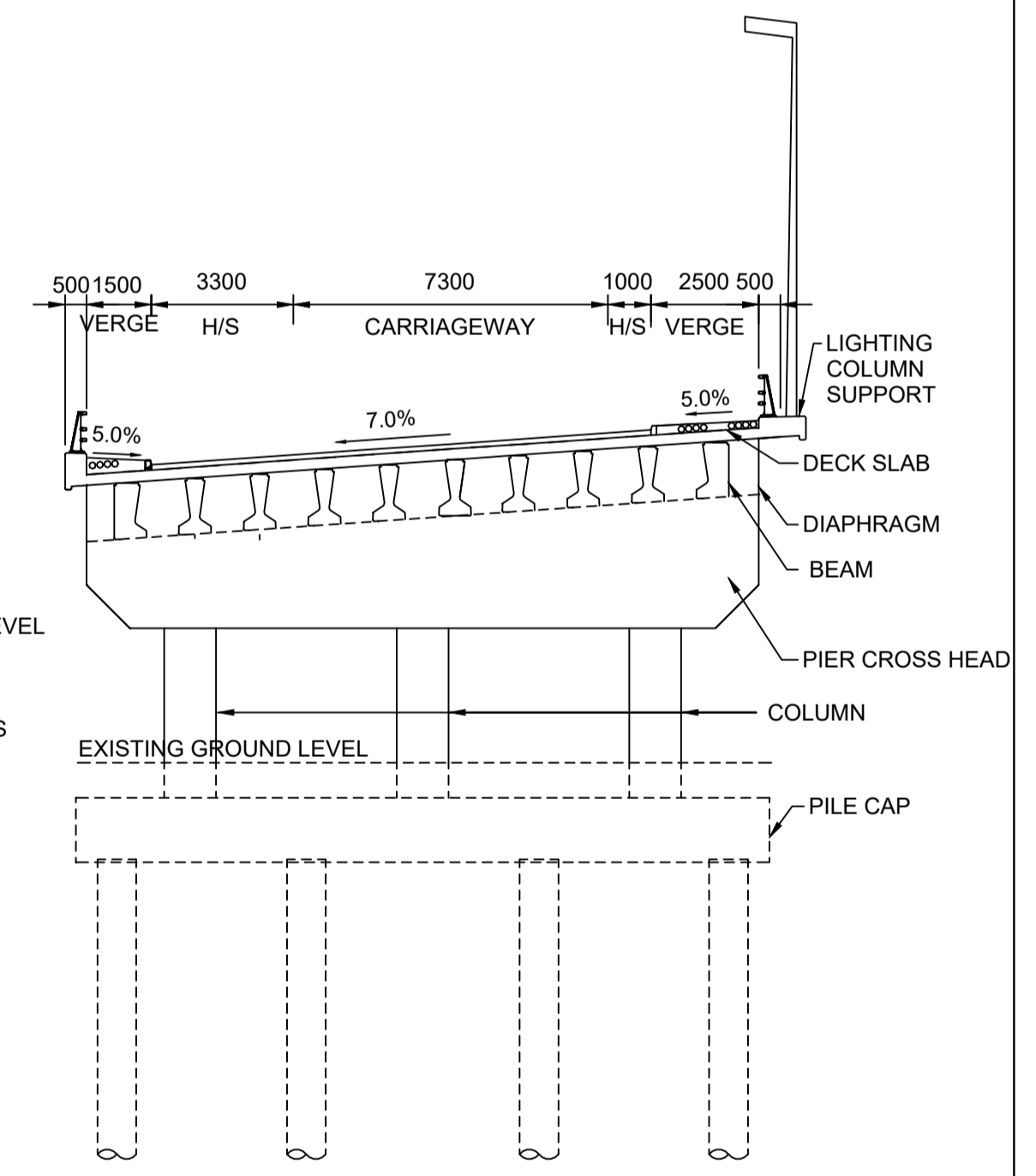
LOCATION PLAN
SCALE 1 : 2000



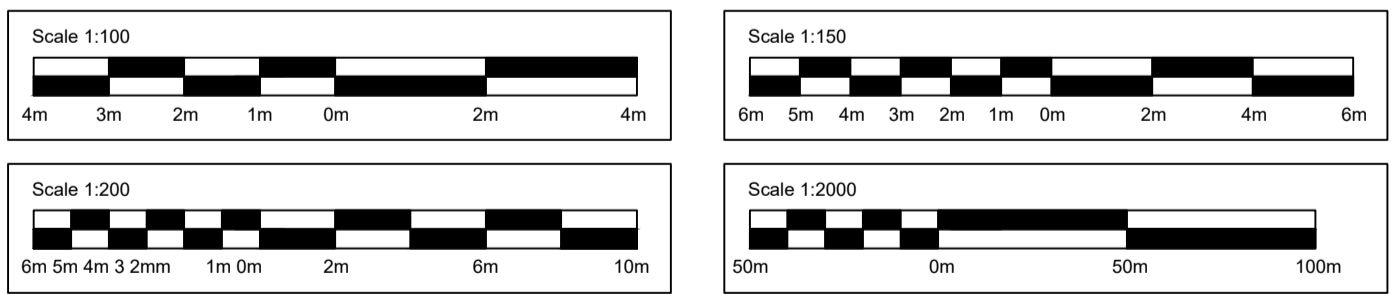
A ELEVATION
SCALE 1 : 150



B SECTION
SCALE 1 : 100



C SECTION
SCALE 1 : 150



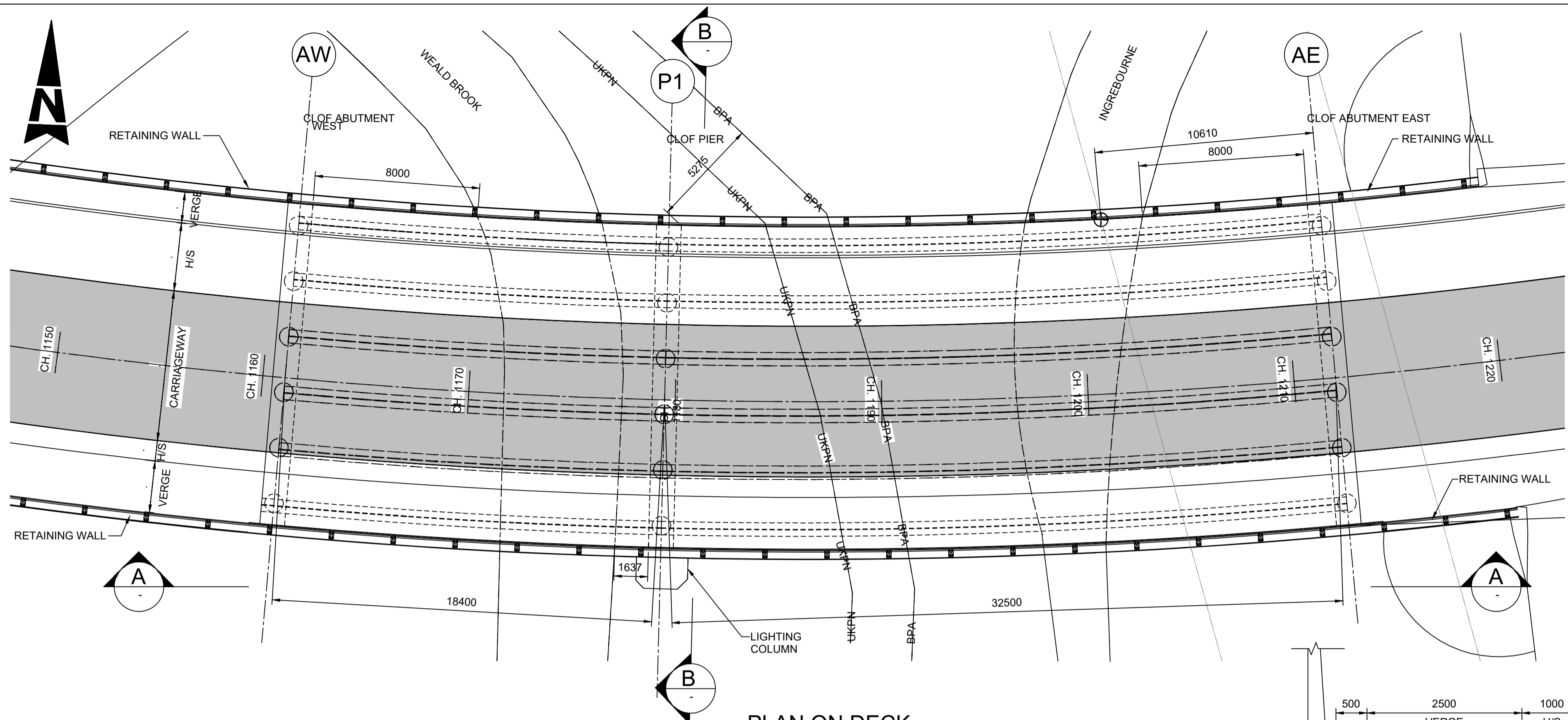
- Notes**
- All dimensions are in millimeters; all levels and chainages are in metres unless noted otherwise.
 - Full length of piles not shown. actual length shall be as per geotech recommendation.
 - Drainage not shown
 - Utilities not shown.
 - The proposed structures will be subject to detailed design development. Any changes will be limited to being within the DCO boundary or the relevant limits of deviation where not coincident with the DCO boundary and subject to the requirements of Schedule 2 of the Development Consent Order (application document TR010029/APP/3.1).

Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date

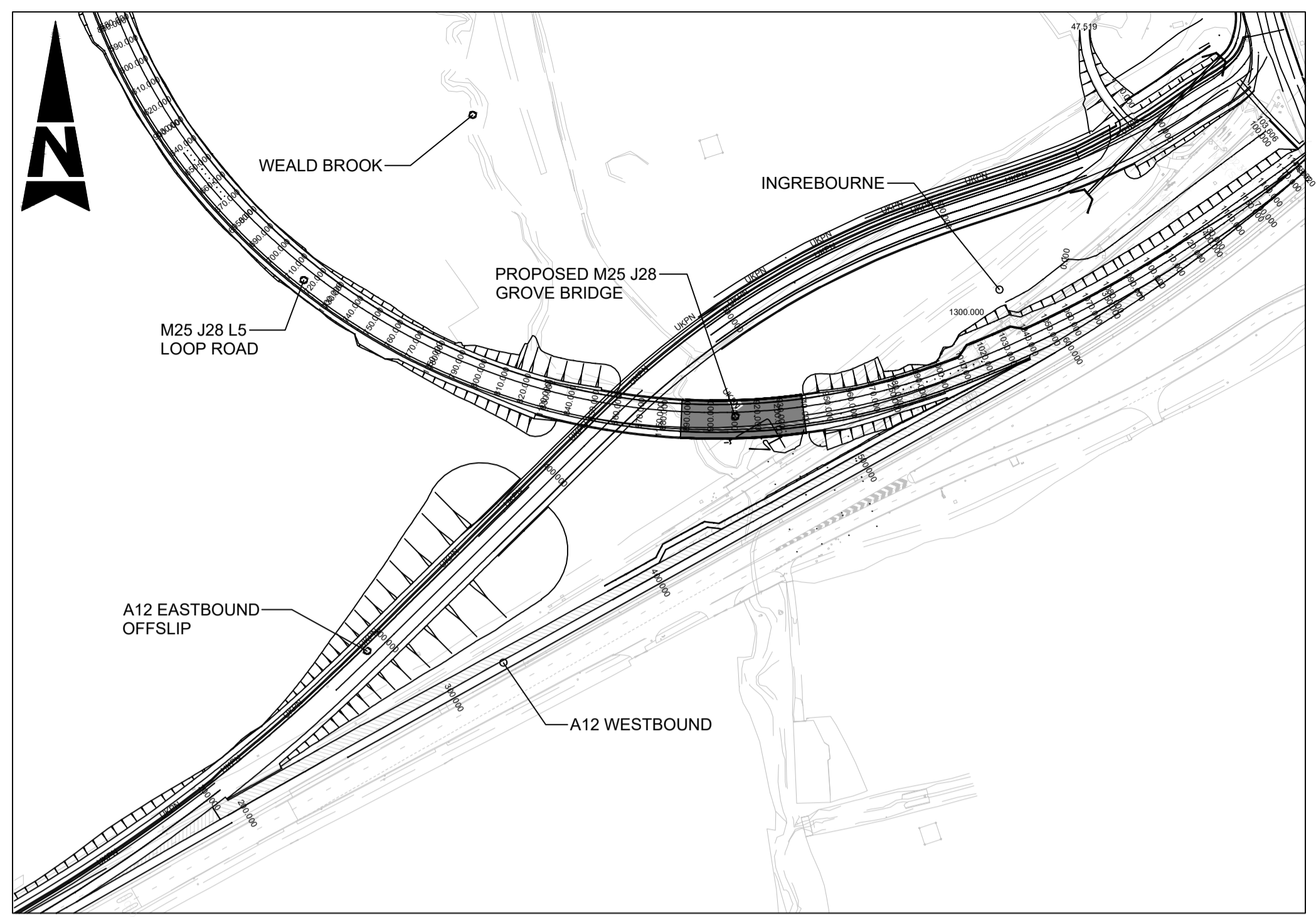
Drawing Subtitle DCO APPLICATION	Status A4	Project Title M25 junction 28 improvement scheme
 Amlin House Atkins 4th Floor 90-96 Victoria Road Chelmsford Essex CM1 1QU Tel: +44 (0)1245 245245 Fax: +44 (0)1245 345010 www.atkinsglobal.com		Drawing Title ENGINEERING SECTIONS REGULATIONS 5(2)(o) AND 6(2) DUCK WOOD BRIDGE SHEET 2 OF 10
Client 		Drawing Number TR10029/APP/2.8
HE PIN: HE551519		Original Size A1

DO NOT SCALE

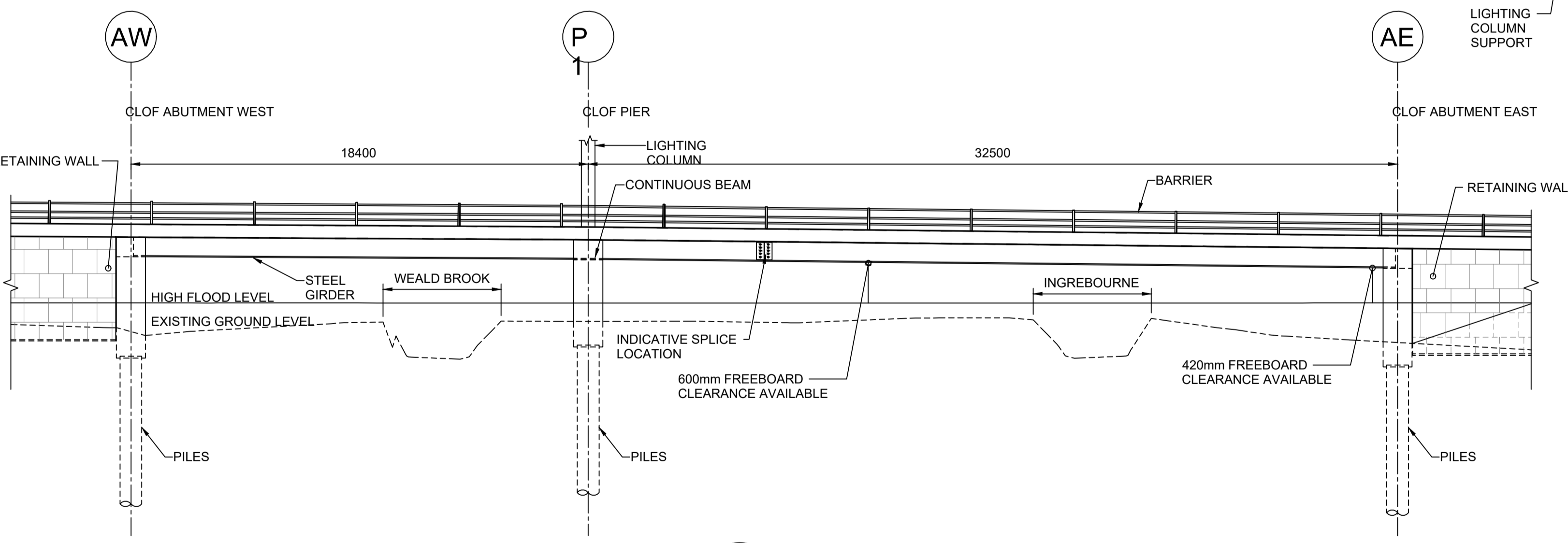
Millimetres
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PLAN ON DECK
SCALE 1 : 150

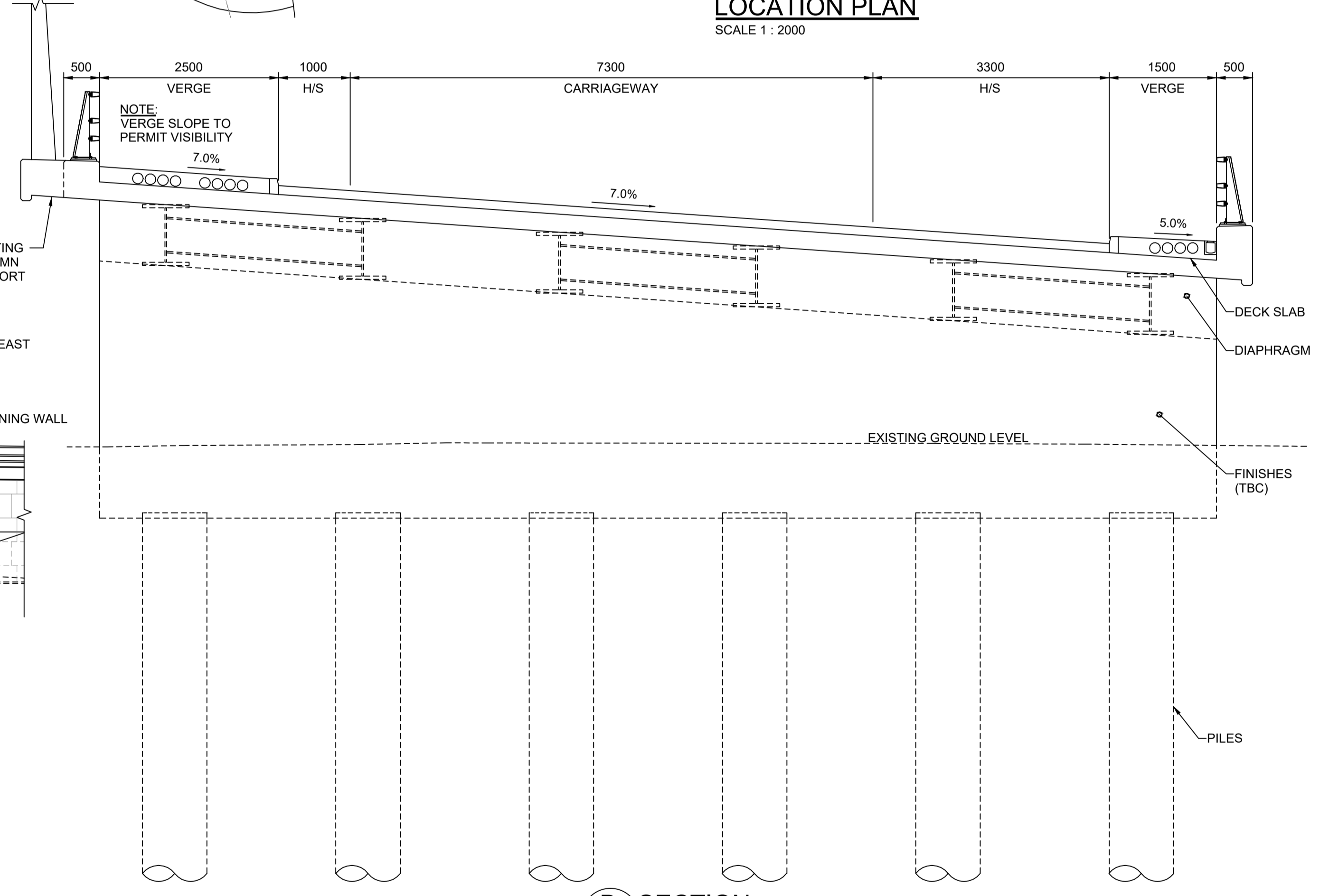


LOCATION PLAN
SCALE 1 : 2000

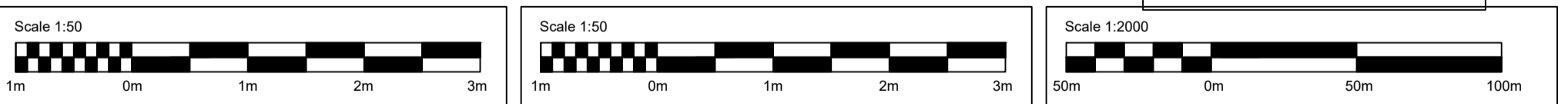


A ELEVATION
SCALE 1 : 150

NOTE:
FOR CLARITY FINISHES
REMOVED



B SECTION
SCALE 1 : 50



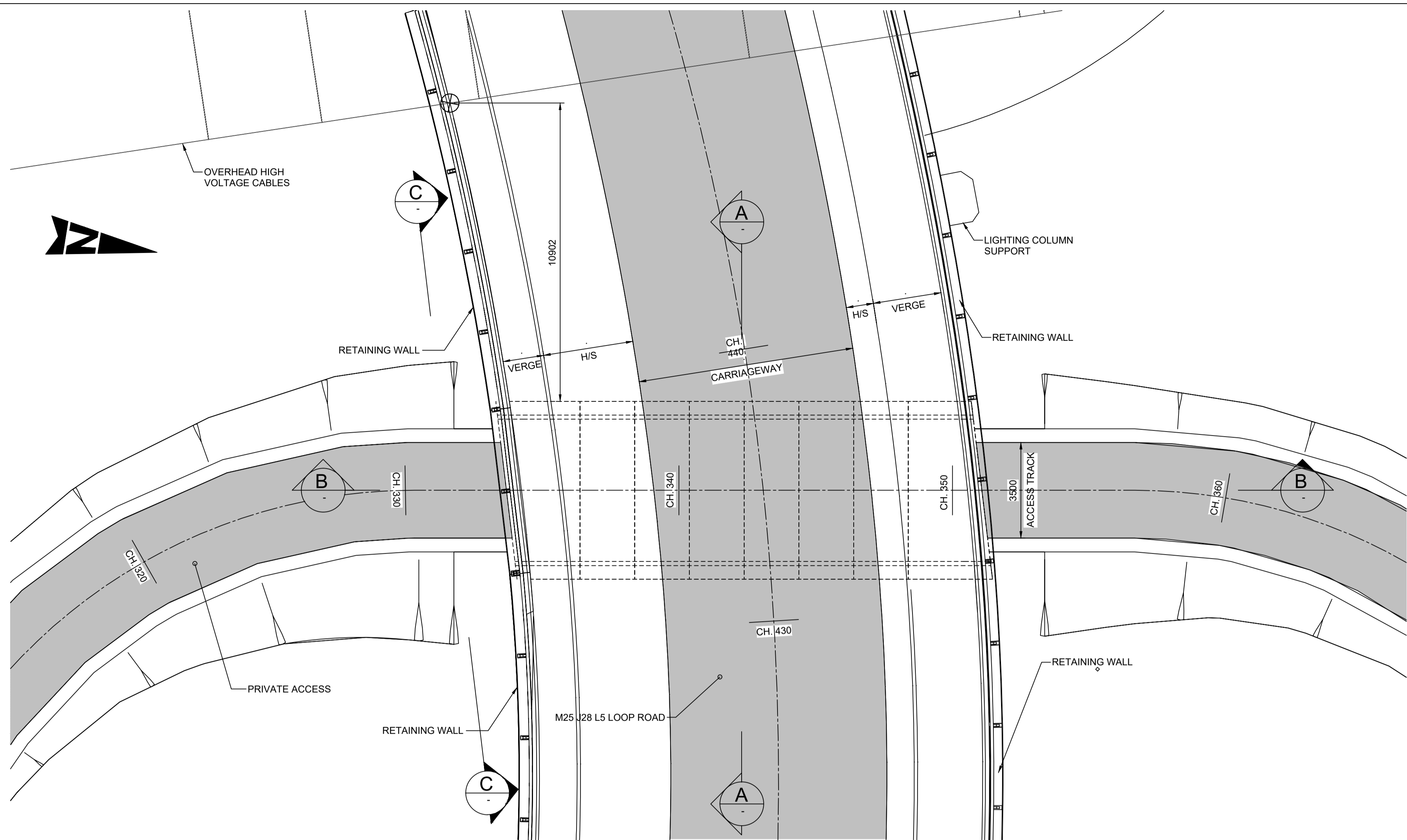
- Notes**
- All dimensions are in millimetres. all levels and chainages are in metres unless noted otherwise.
 - Full length of piles not shown. actual length shall be as per geotech recommendation
 - The maximum cross fall as per highway typical cross section is 7% maximum
 - Drainage not shown
 - Utilities not shown.
 - The proposed structures will be subject to detailed design development. Any changes will be limited to being within the DCO boundary or the relevant limits of deviation where not coincident with the DCO boundary and subject to the requirements of Schedule 2 of the Development Consent Order (application document TR010029/APP/3.1).

Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date

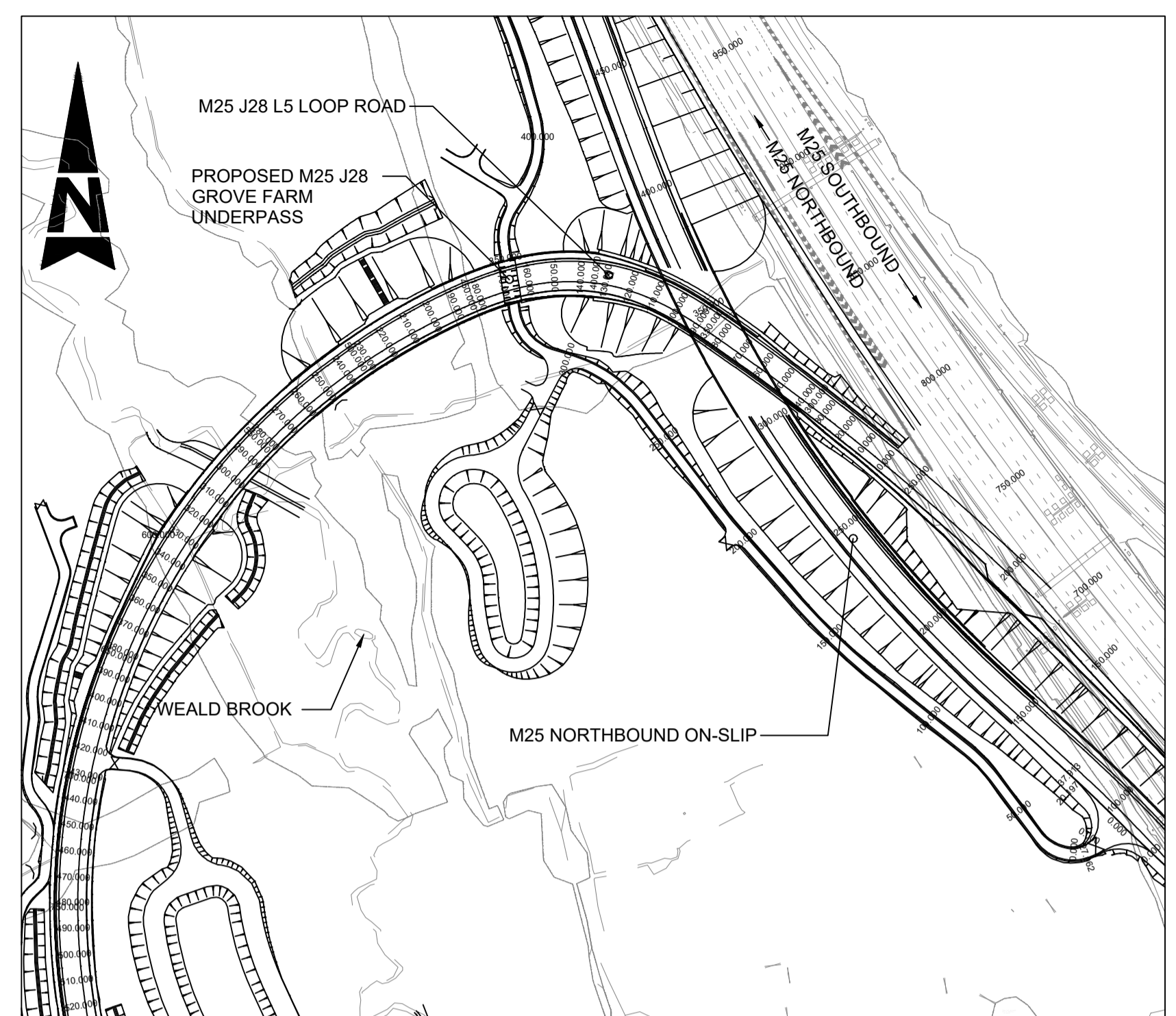
DCO APPLICATION		Status A4	Project Title M25 junction 28 improvement scheme
		Drawing Title ENGINEERING SECTIONS REGULATIONS 5(2)(o) AND 6(2) GROVE BRIDGE SHEET 3 OF 10	
Client 		Drawing Number TR10029/APP/2.8	Rev: 0
Member of the SNC-Lavalin Group Copyright © Atkins Limited (2020)		Amlin House Atkins 4th Floor 90-96 Victoria Road Chelmsford Essex CM1 1QU Tel: +44 (0)1245 245245 Fax: +44 (0)1245 345010 www.atkinsglobal.com	HE PIN: HE551519 Scale: As Shown Original Size: A1

DO NOT SCALE

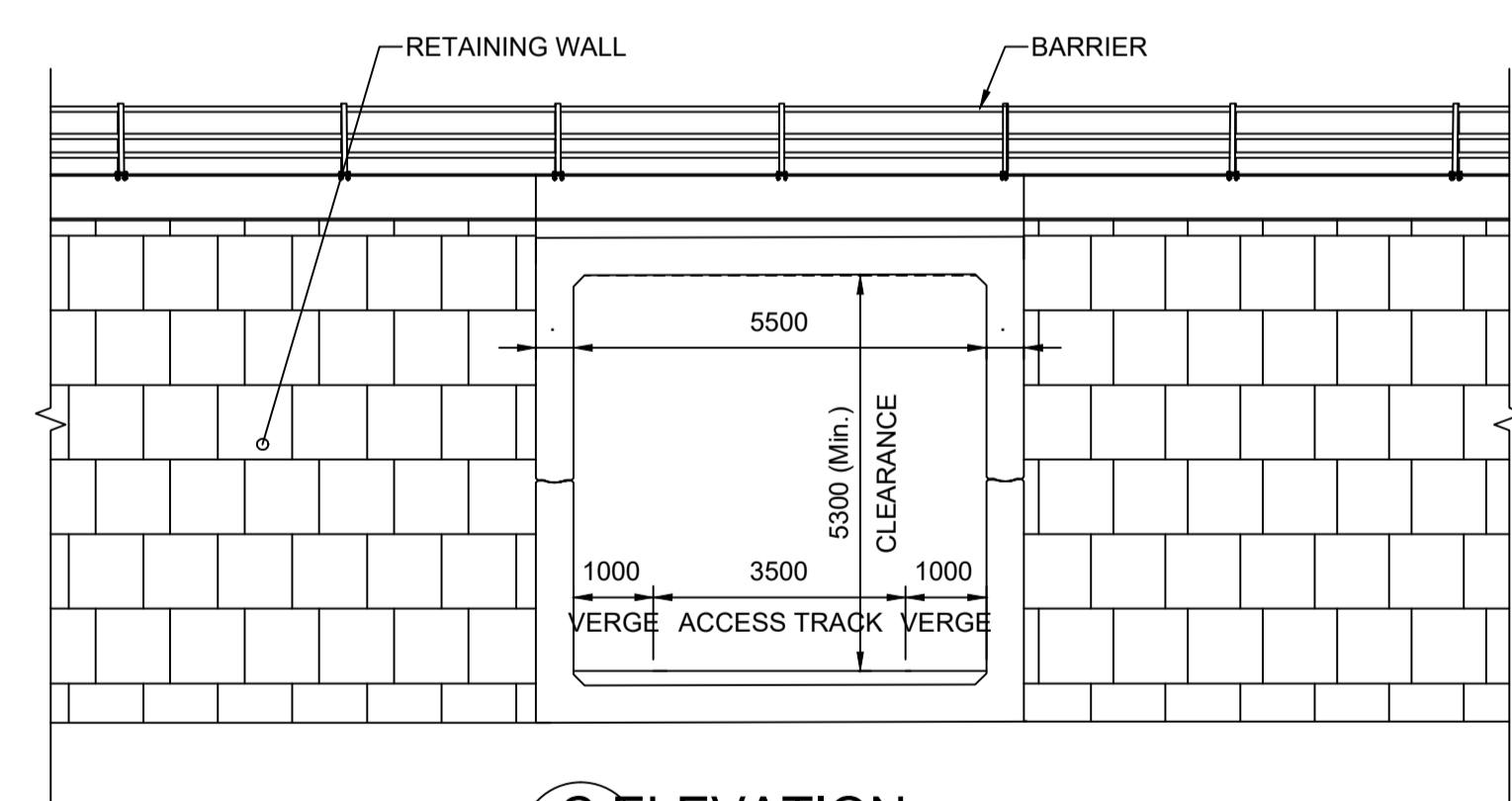
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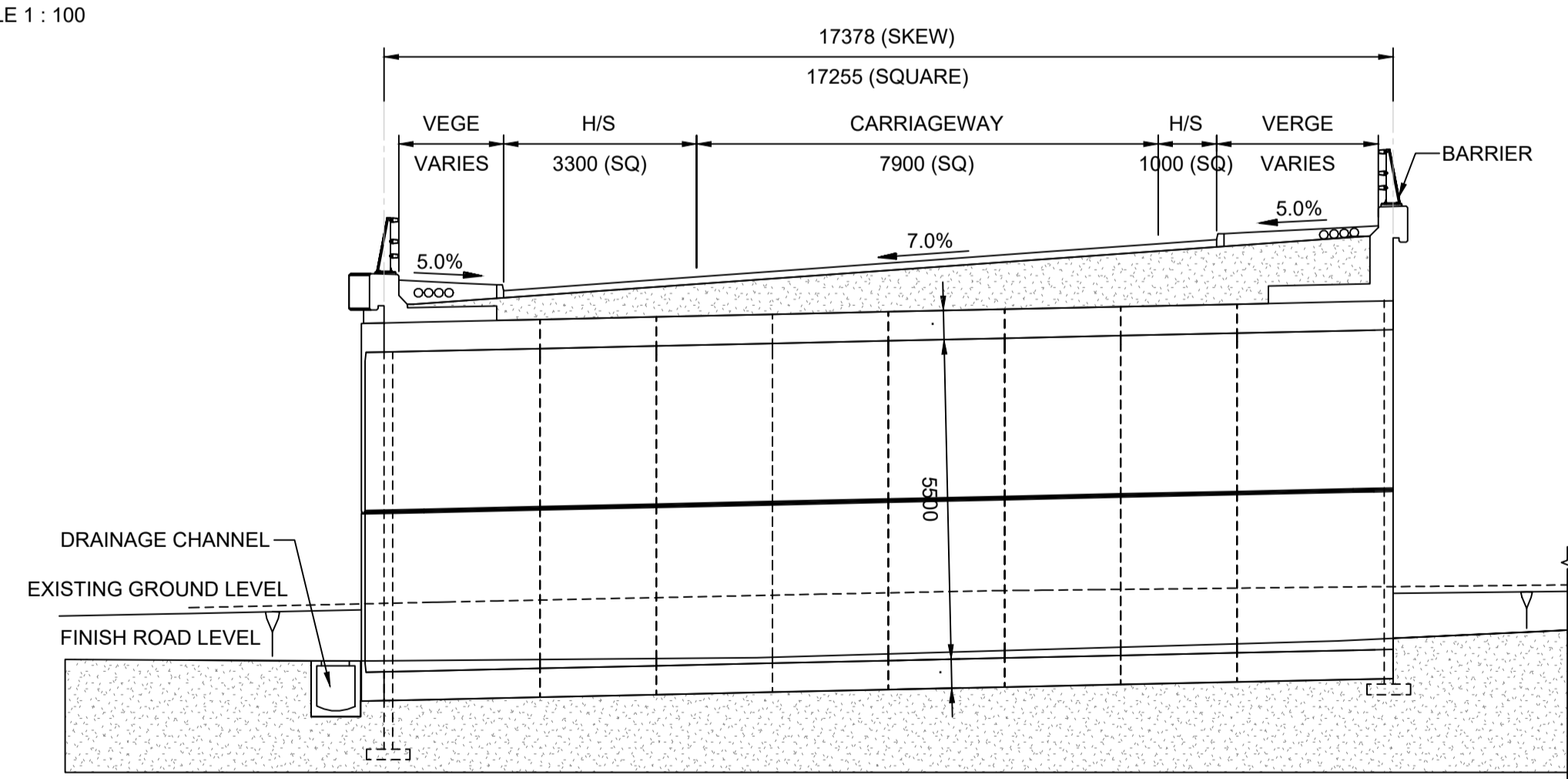
PLAN VIEW
SCALE 1 : 100



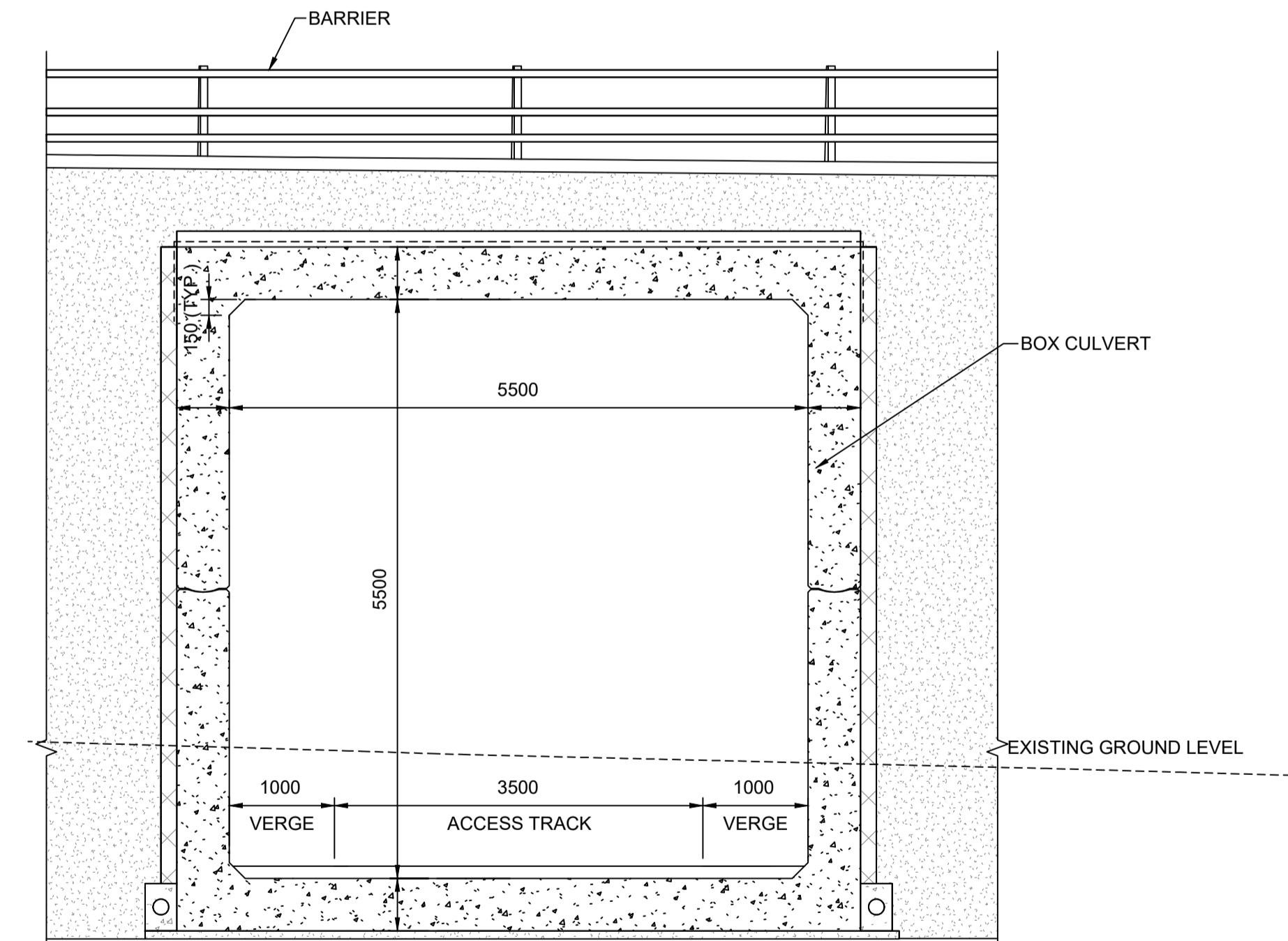
LOCATION PLAN
SCALE 1 : 2000



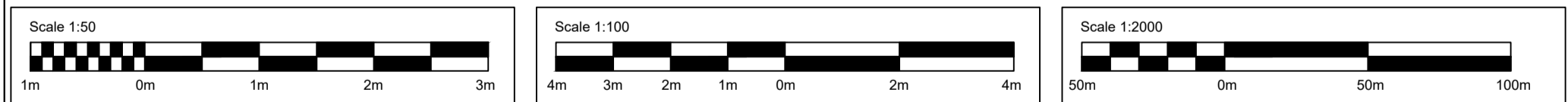
C ELEVATION
SCALE 1 : 100



B SECTION
SCALE 1 : 100



A SECTION
SCALE 1 : 50



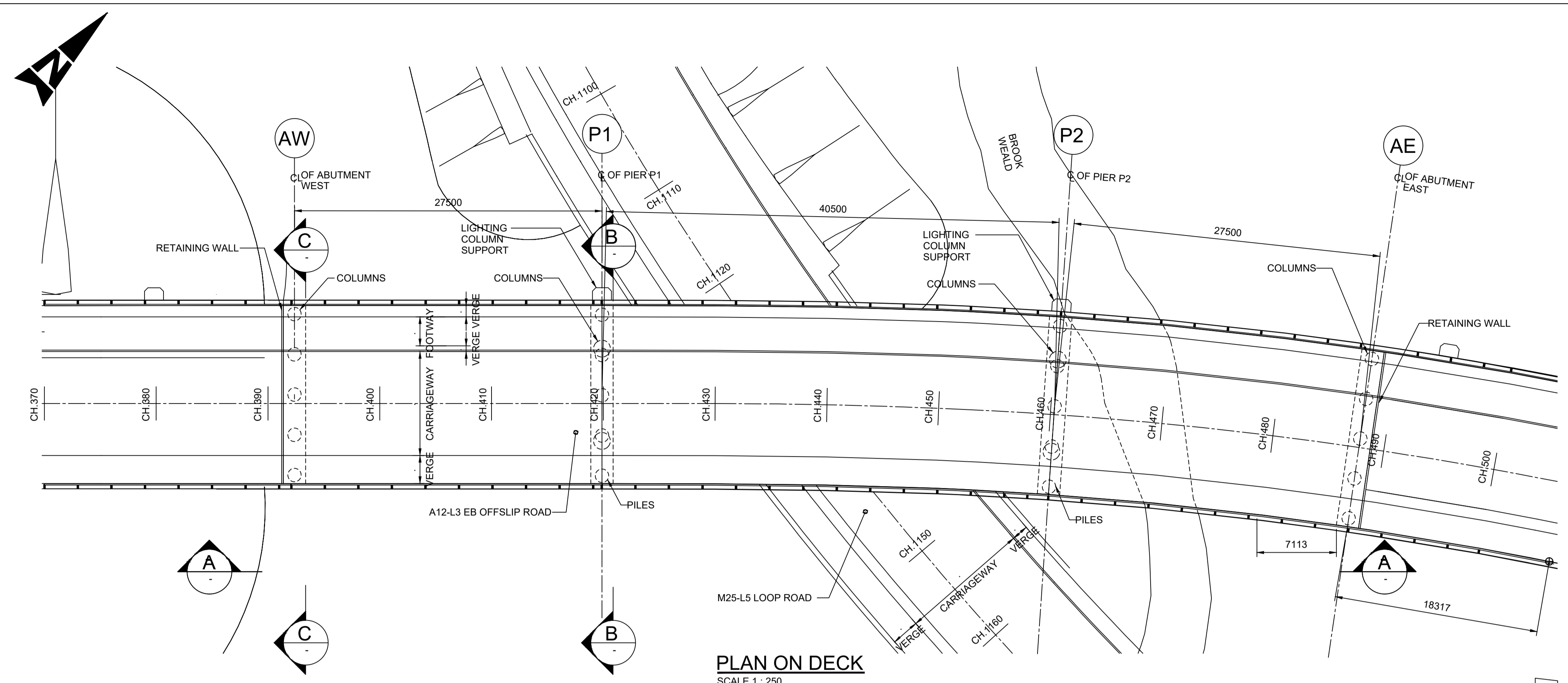
- Notes**
- All dimensions are in millimetres; all levels and chainages are in metres unless noted otherwise.
 - Drainage not shown
 - Utilities not shown.
 - The proposed structures will be subject to detailed design development. Any changes will be limited to being within the DCO boundary or the relevant limits of deviation where not coincident with the DCO boundary and subject to the requirements of Schedule 2 of the Development Consent Order (application document TR010029/APP/3.1).

Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date

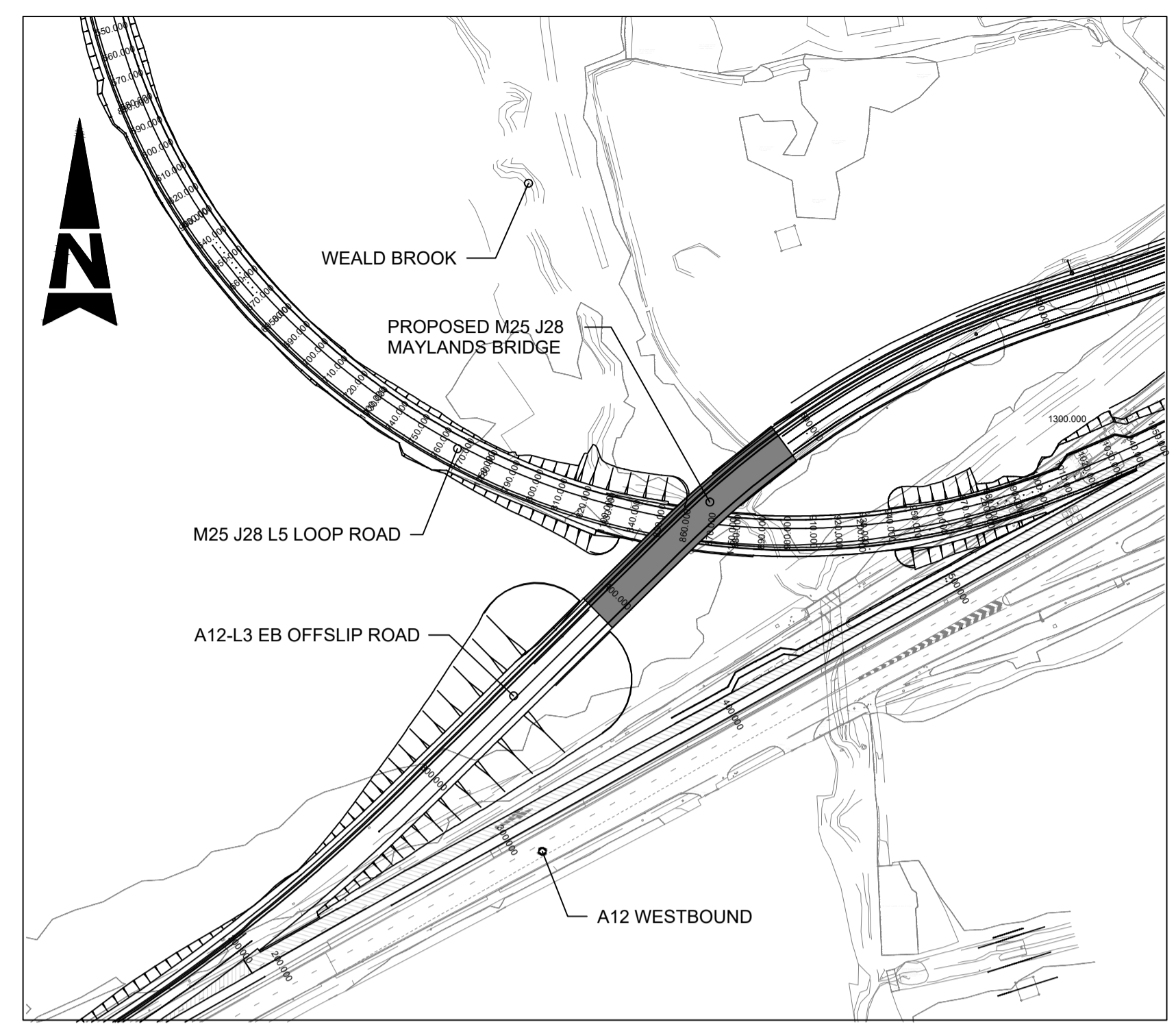
Drawing Subtitle DCO APPLICATION	Status A4	Project Title M25 junction 28 improvement scheme
 Member of the SNC-Lavalin Group Copyright © Atkins Limited (2020)		Drawing Title ENGINEERING SECTIONS REGULATIONS 5(2)(o) AND 6(2) GROVE FARM UNDERPASS SHEET 4 OF 10
Client Working on behalf of highways england		Drawing Number TR10029/APP/2.8
HE PIN: HE551519		Scale: As Shown
Original Size: A1		Rev: 0

DO NOT SCALE

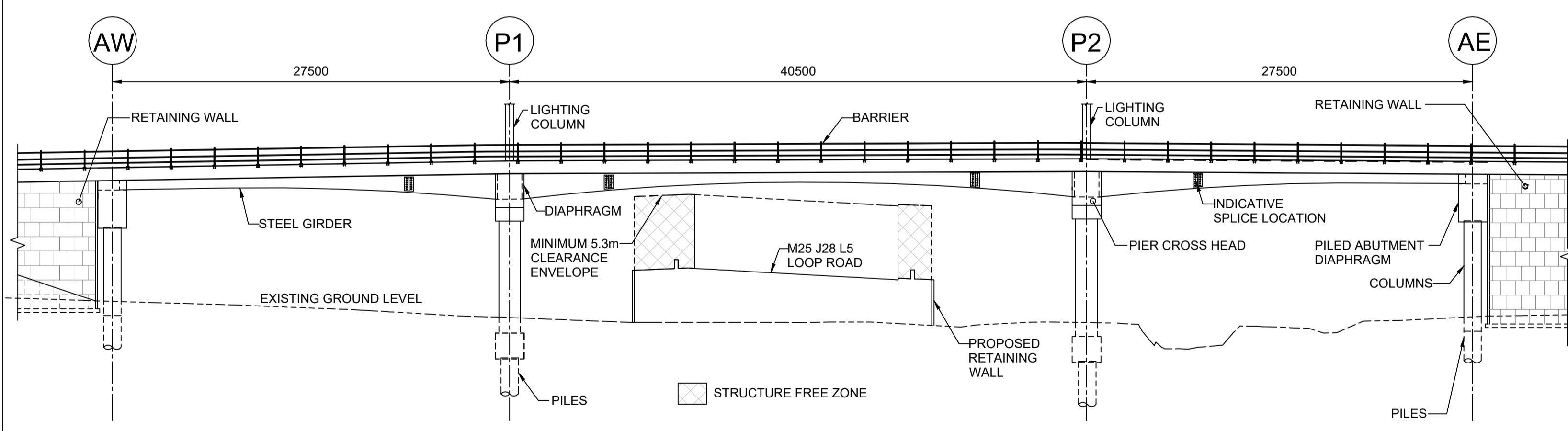
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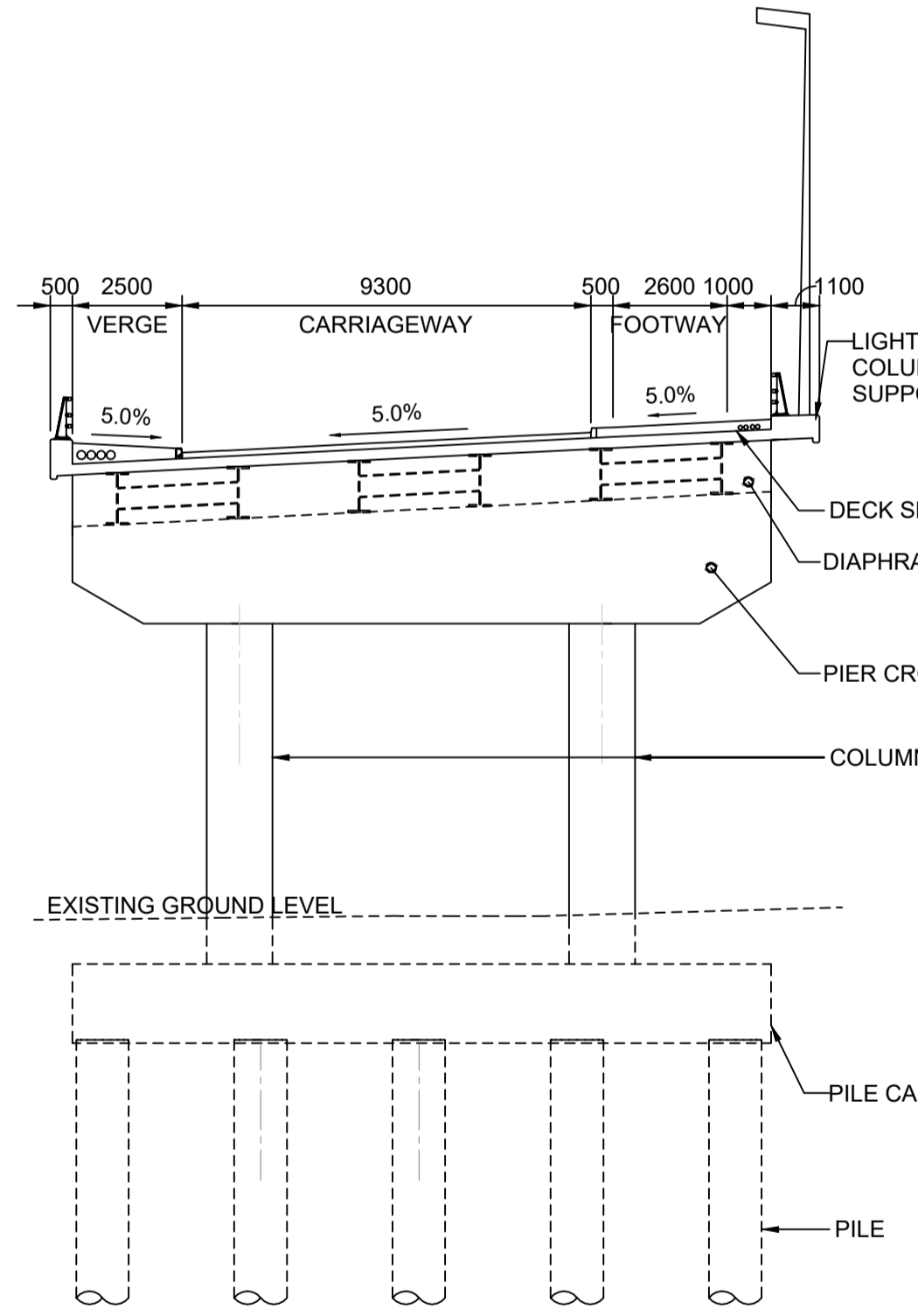
PLAN ON DECK
SCALE 1 : 250



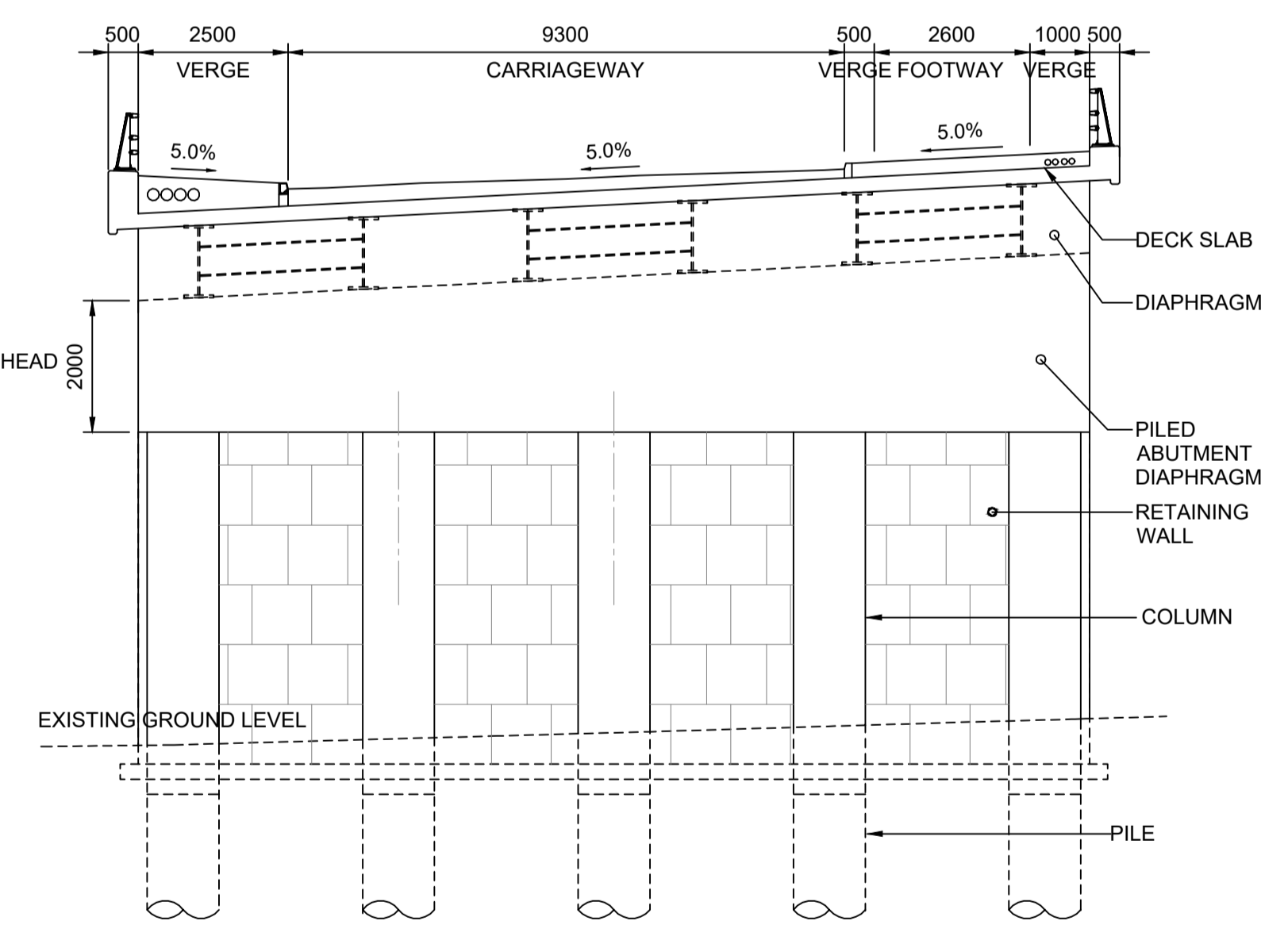
LOCATION PLAN
SCALE 1 : 2000



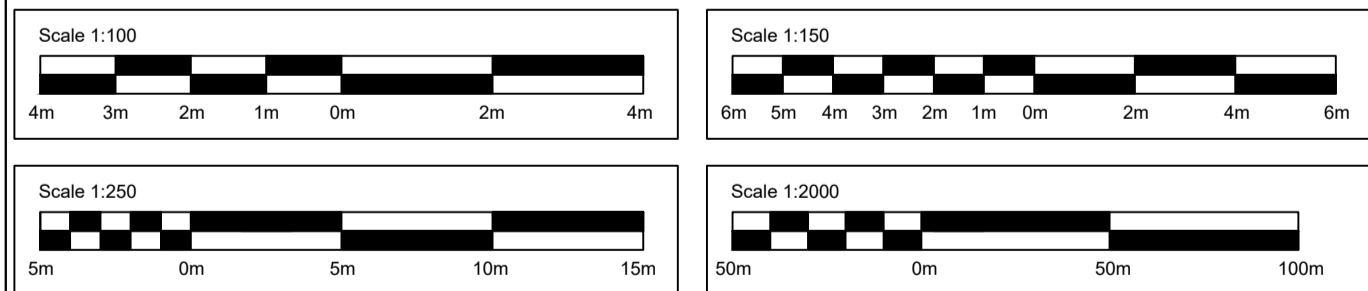
A ELEVATION
SCALE 1 : 250



B SECTION
SCALE 1 : 150



C SECTION
SCALE 1 : 100



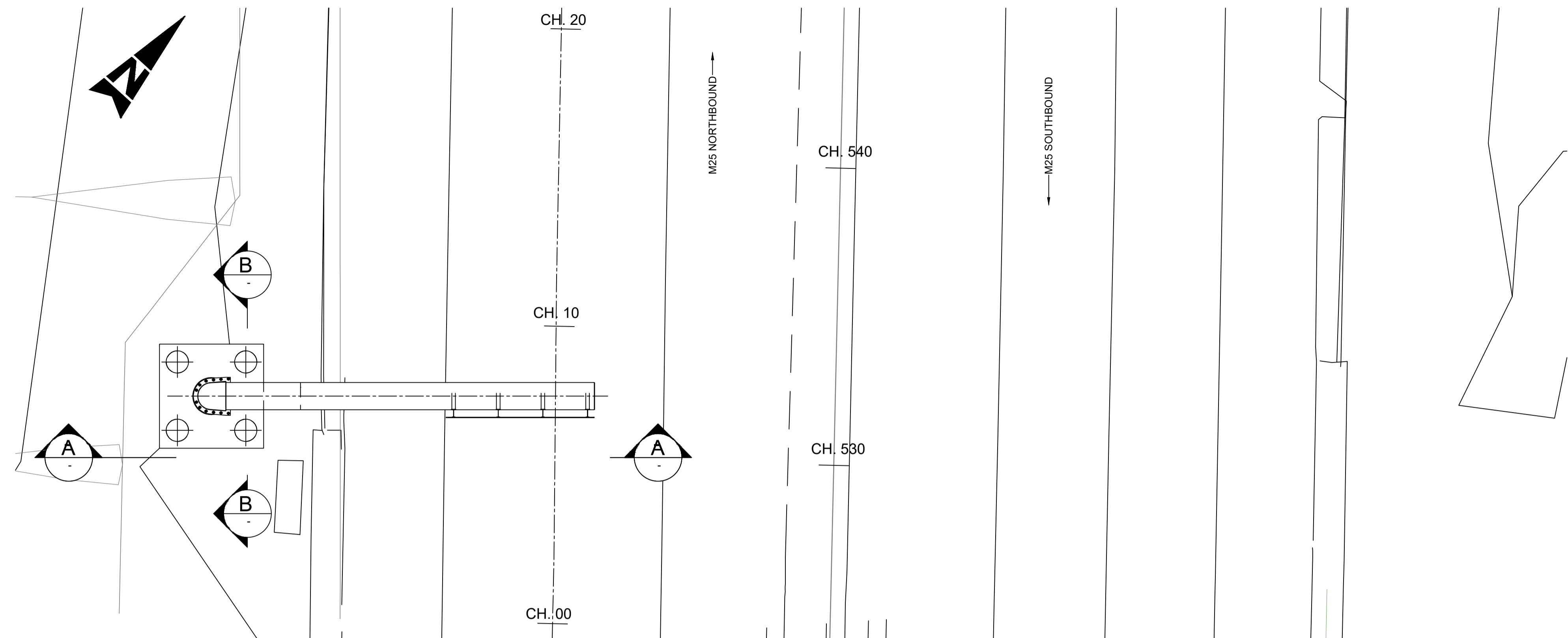
- Notes**
- All dimensions are in millimetres; all levels and chainages are in metres unless noted otherwise.
 - Full length of piles not shown. actual length shall be as per geotech recommendation.
 - The splice details shown are indicative.
 - The communication ducts shown are indicative.
 - Drainage not shown
 - Utilities not shown.
 - The proposed structures will be subject to detailed design development. Any changes will be limited to being within the DCO boundary or the relevant limits of deviation where not coincident with the DCO boundary and subject to the requirements of Schedule 2 of the Development Consent Order (application document TR010029/APP/3.1).

Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date

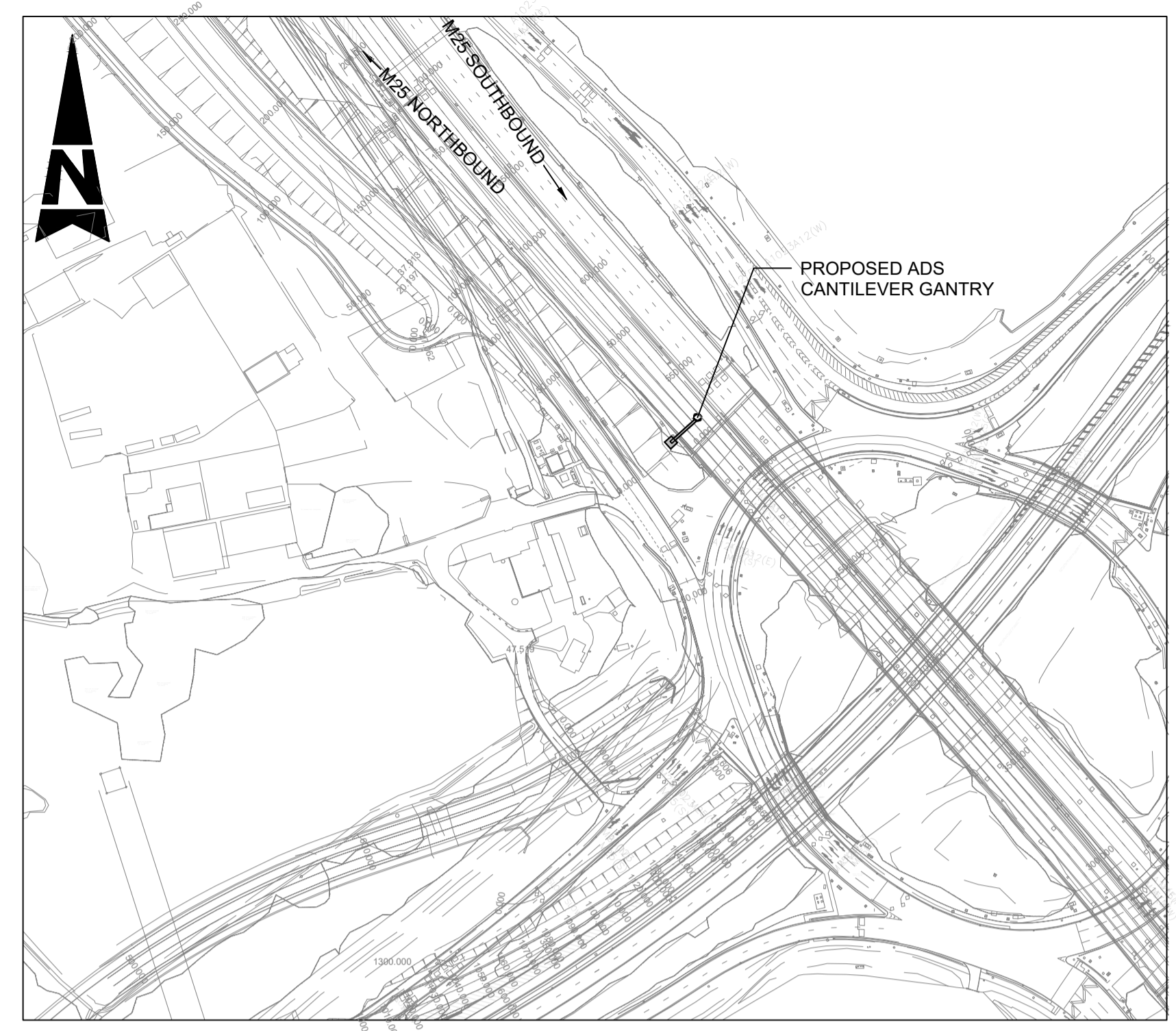
Drawing Subtitle DCO APPLICATION	Status A4	Project Title M25 junction 28 improvement scheme
 Member of the SNC-Lavalin Group Copyright © Atkins Limited (2020)		Drawing Title ENGINEERING SECTIONS REGULATIONS 5(2)(o) AND 6(2) MAYLANDS BRIDGE SHEET 5 OF 10
Client Working on behalf of highways england		Drawing Number TR10029/APP/2.8
HE PIN: HE551519		Scale: As Shown Original Size: A1

DO NOT SCALE

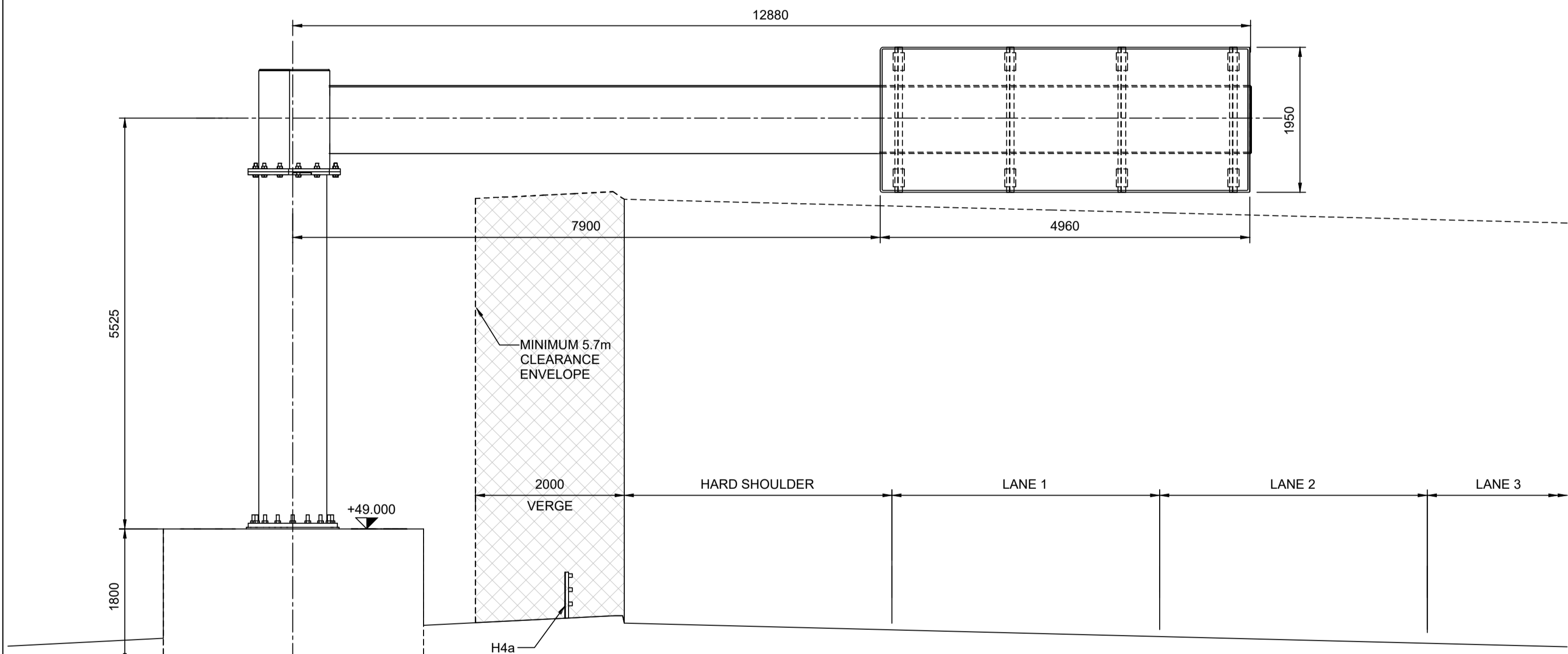
Millimetres
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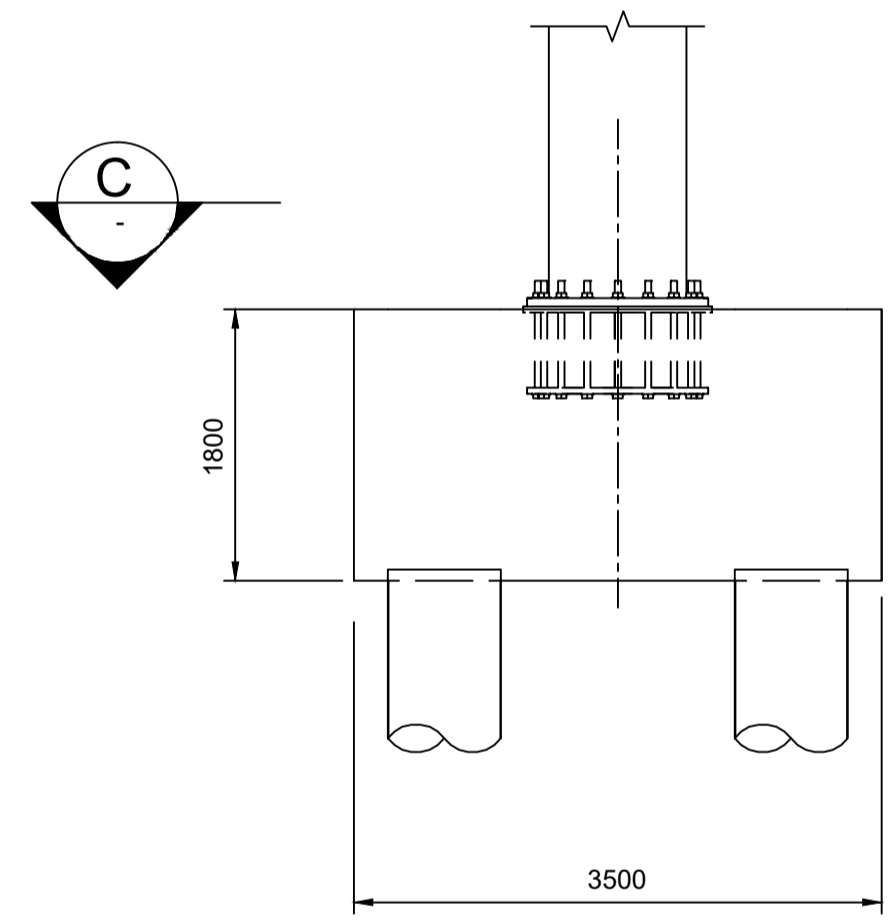
PLAN
SCALE 1 : 100



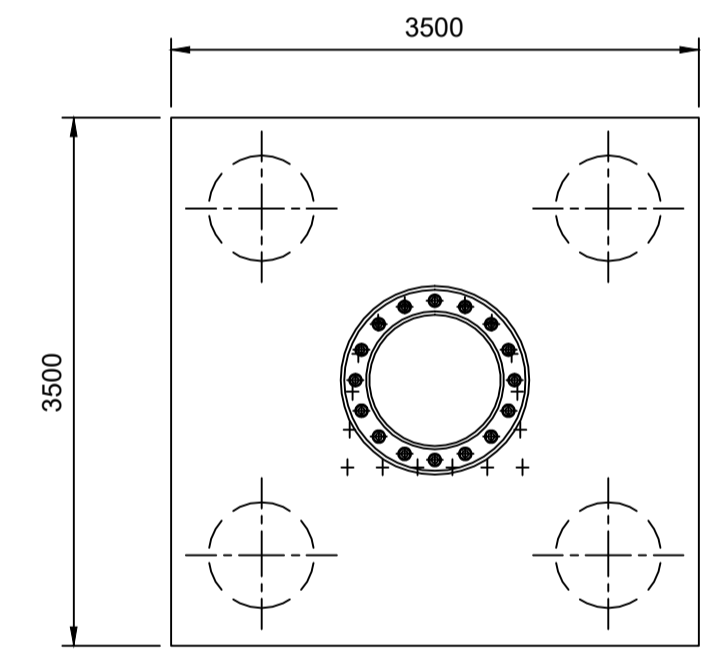
LOCATION PLAN
NOT TO SCALE



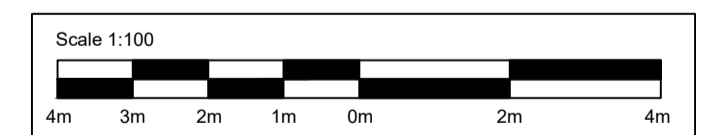
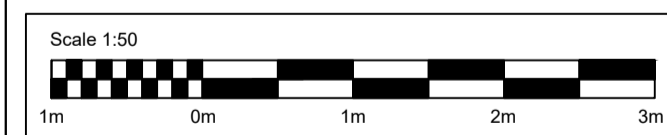
A ELEVATION
SCALE 1 : 50



B SECTION
SCALE 1 : 50



C SECTION
SCALE 1 : 50



Notes

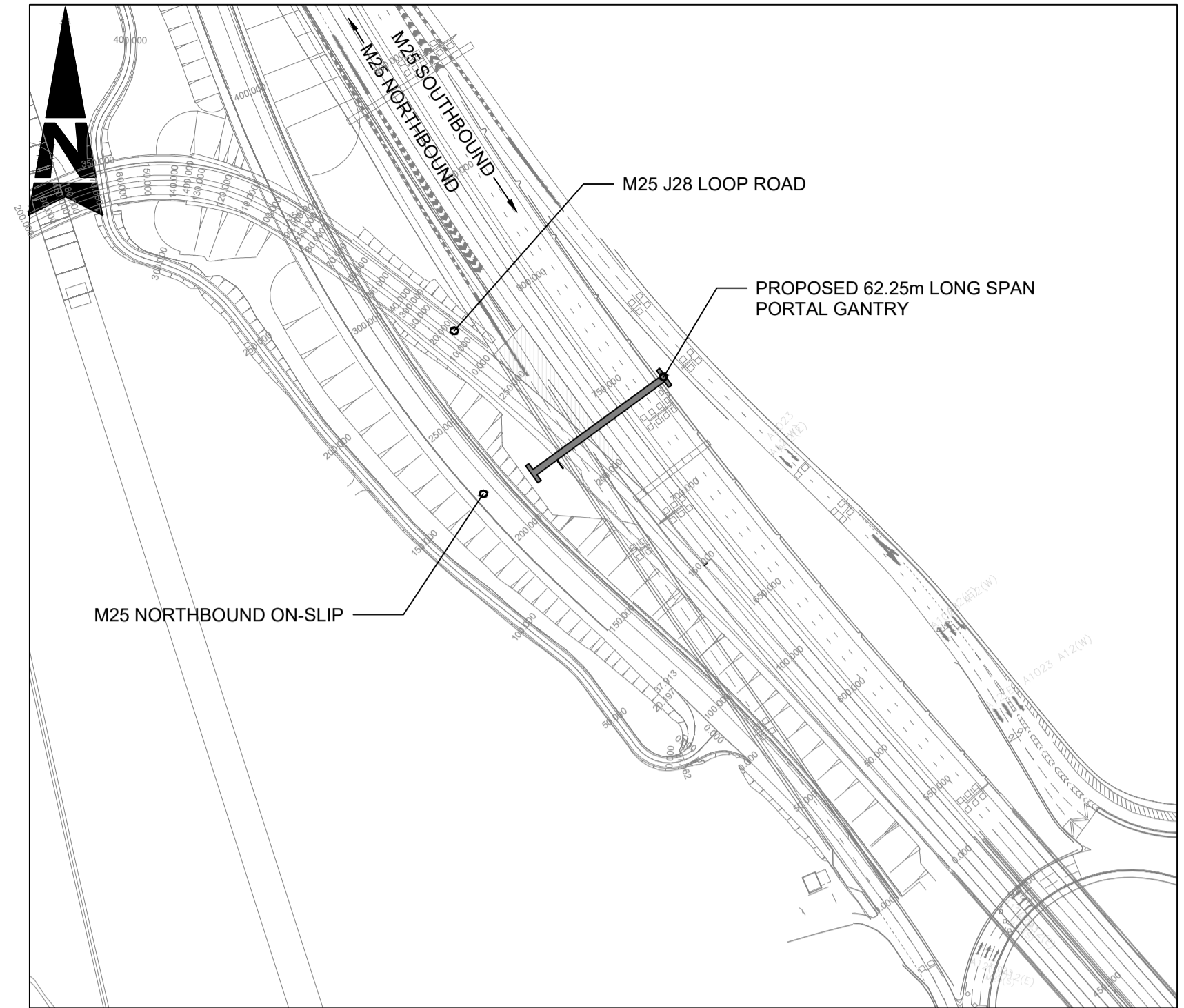
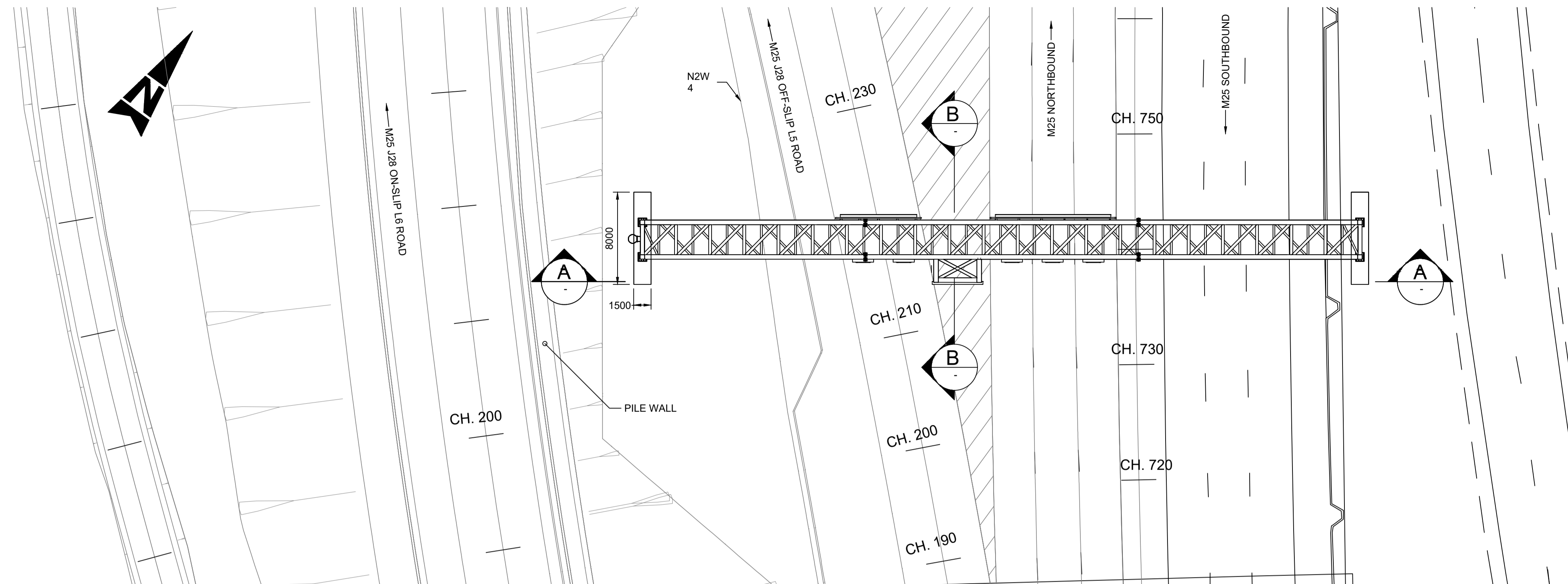
- All dimensions are in millimetres; all levels and chainages are in metres unless noted otherwise.
- All levels and dimensions are taken at centre line chainage of gantry.
- Drainage not shown.
- Utilities not shown.
- The proposed structures will be subject to detailed design development. Any changes will be limited to being within the DCO boundary or the relevant limits of deviation where not coincident with the DCO boundary and subject to the requirements of Schedule 2 of the Development Consent Order (application document TR010029/APP/3.1).

Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date

Drawing Subtitle DCO APPLICATION	Status A4	Project Title M25 junction 28 improvement scheme
 Member of the SNC-Lavalin Group Copyright © Atkins Limited (2020)		Drawing Title ENGINEERING SECTIONS REGULATIONS 5(2)(o) AND 6(2) PROPOSED ADS CANTILEVER GANTRY AT CH.530 SHEET 6 OF 10
Client 		Drawing Number TR10029/APP/2.8
HE PIN: HE551519		Scale: As Shown Original Size: A1

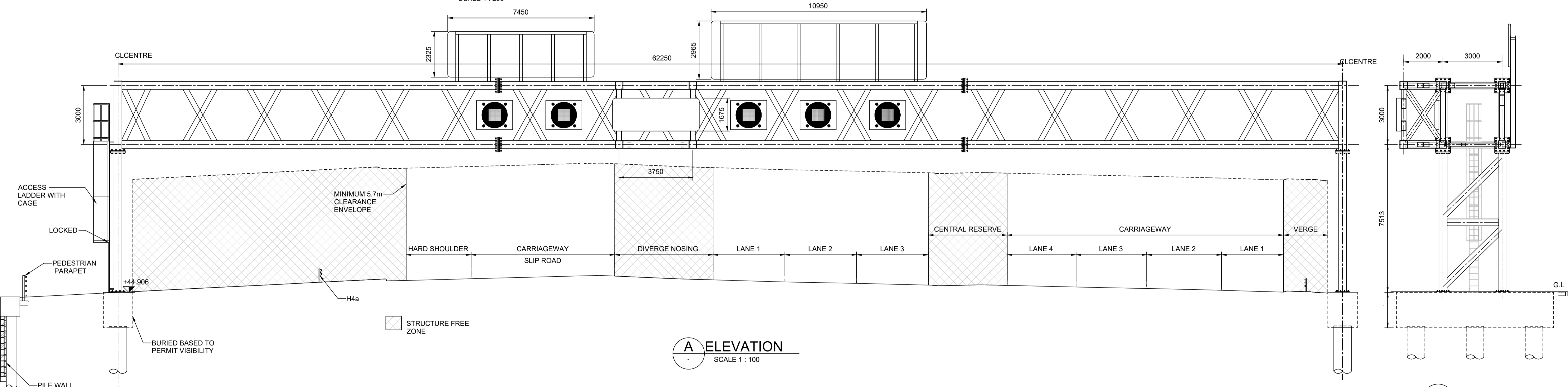
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Millimetres
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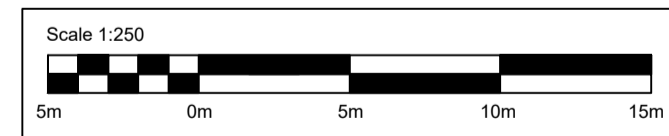
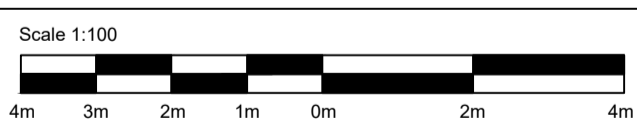
LOCATION PLAN
NOT TO SCALE

PLAN
SCALE 1 : 250



A ELEVATION
SCALE 1 : 100

B SECTION
SCALE 1 : 100



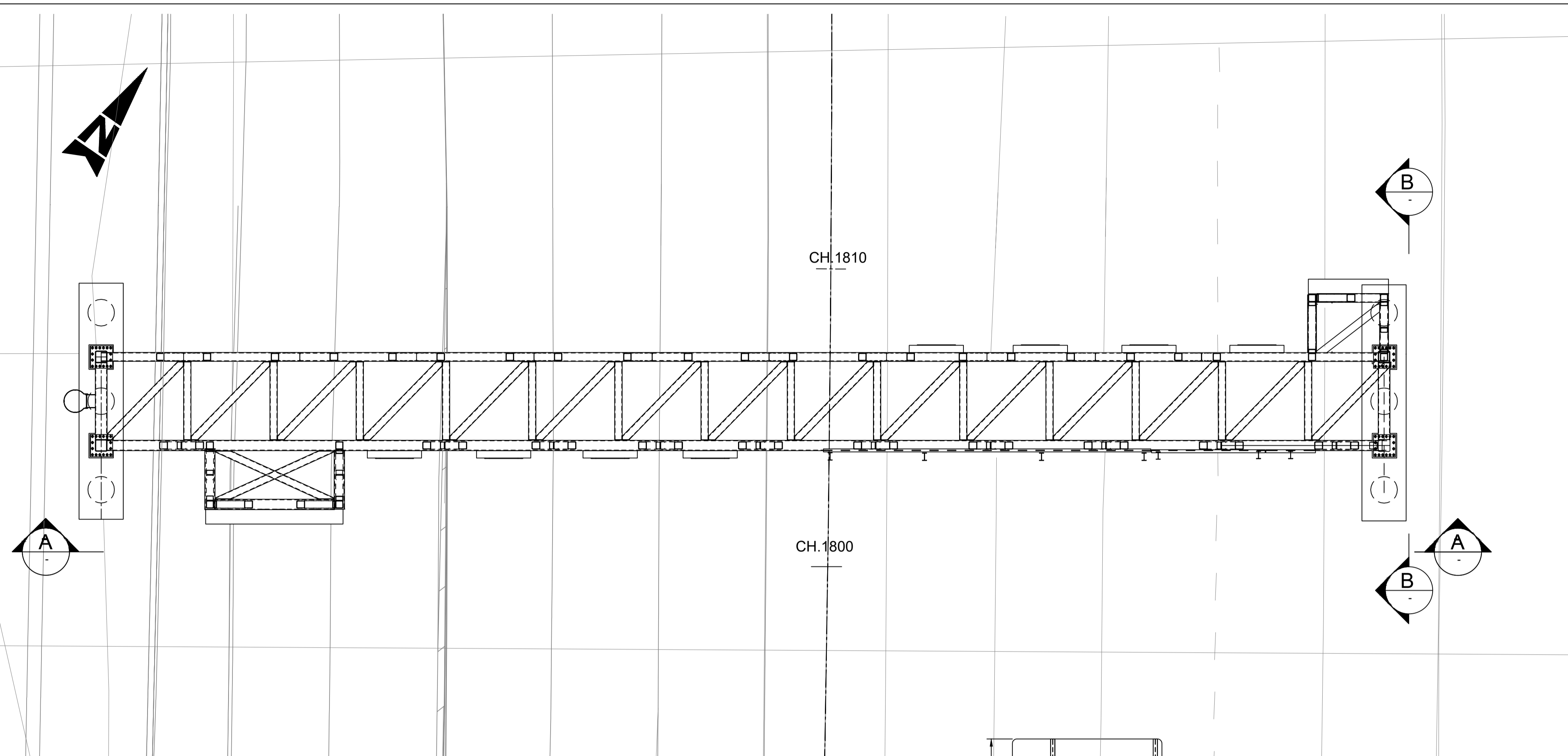
- Notes**
- All dimensions are in millimetres; all levels and chainages are in metres unless noted otherwise.
 - All levels and dimensions are taken at centre line chainage of gantry.
 - Drainage not shown
 - Utilities not shown.
 - The proposed structures will be subject to detailed design development. Any changes will be limited to being within the DCO boundary or the relevant limits of deviation where not coincident with the DCO boundary and subject to the requirements of Schedule 2 of the Development Consent Order (application document TR010029/APP/3.1).

Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date

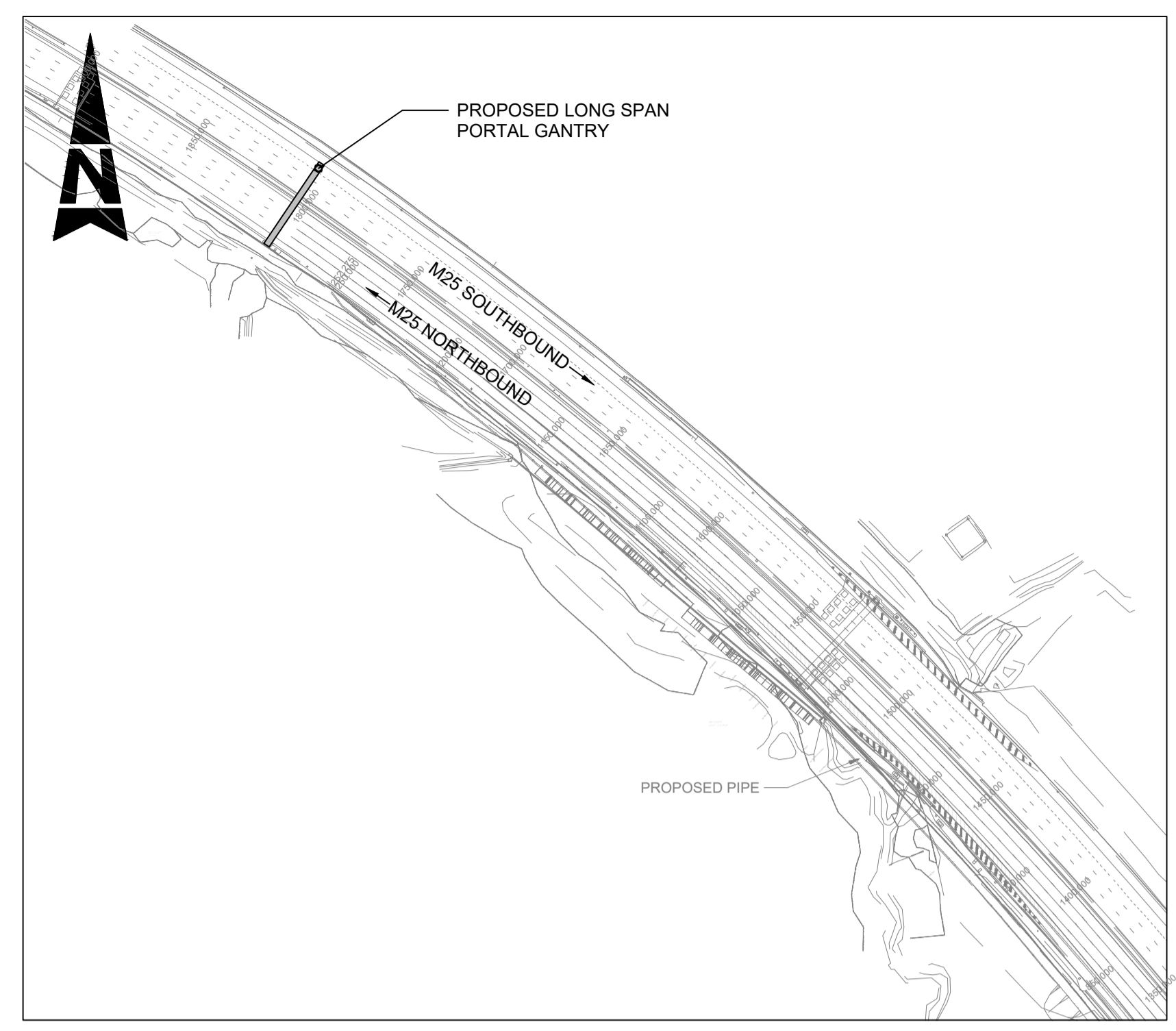
Drawing Subtitle DCO APPLICATION		Status A4	Project Title M25 junction 28 improvement scheme
 Member of the SNC-Lavalin Group Copyright © Atkins Limited (2020)		Amlin House Atkins 4th Floor 90-96 Victoria Road Chelmsford Essex CM1 1QU Tel: +44 (0)1245 245245 Fax: +44 (0)1245 345010 www.atkinglobal.com	
Client Working on behalf of 		Drawing Number TR10029/APP/2.8	Rev. 0
HE PIN: HE551519		Scale: As Shown	Original Size: A1

DO NOT SCALE

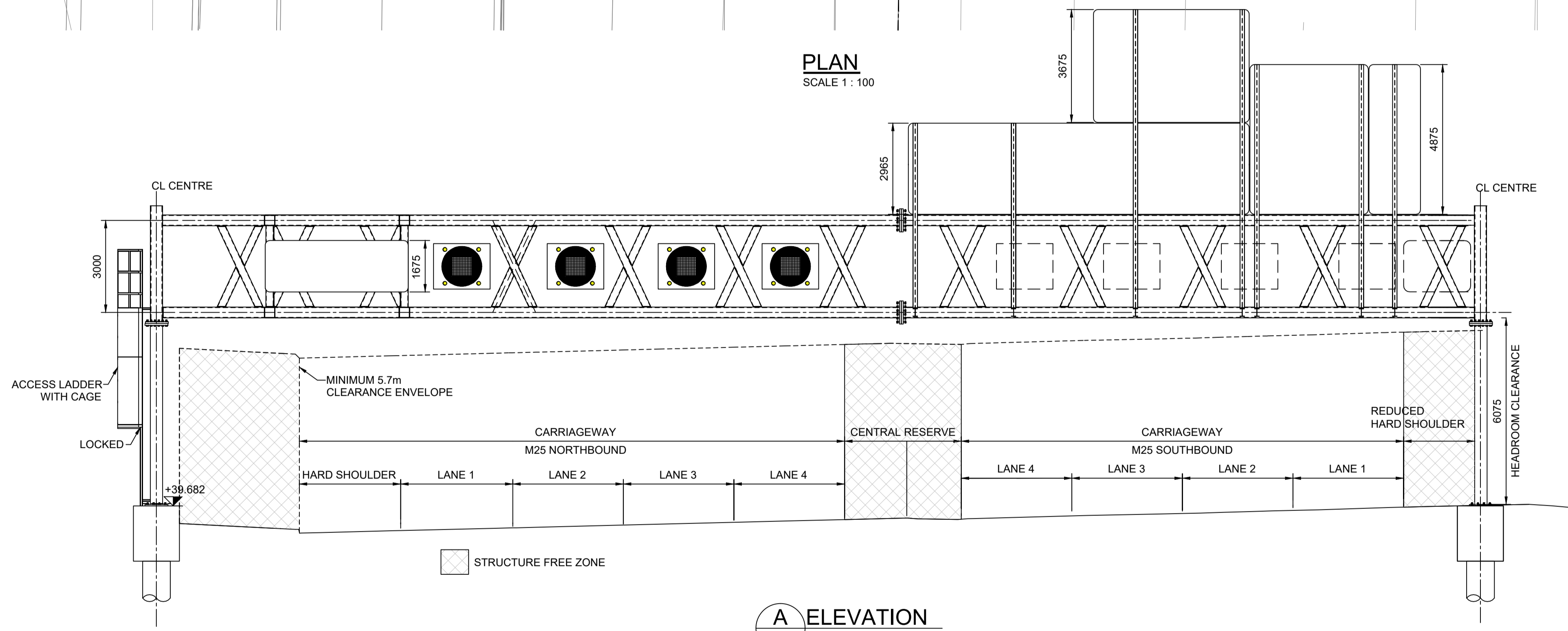
Millimetres
0 10 100



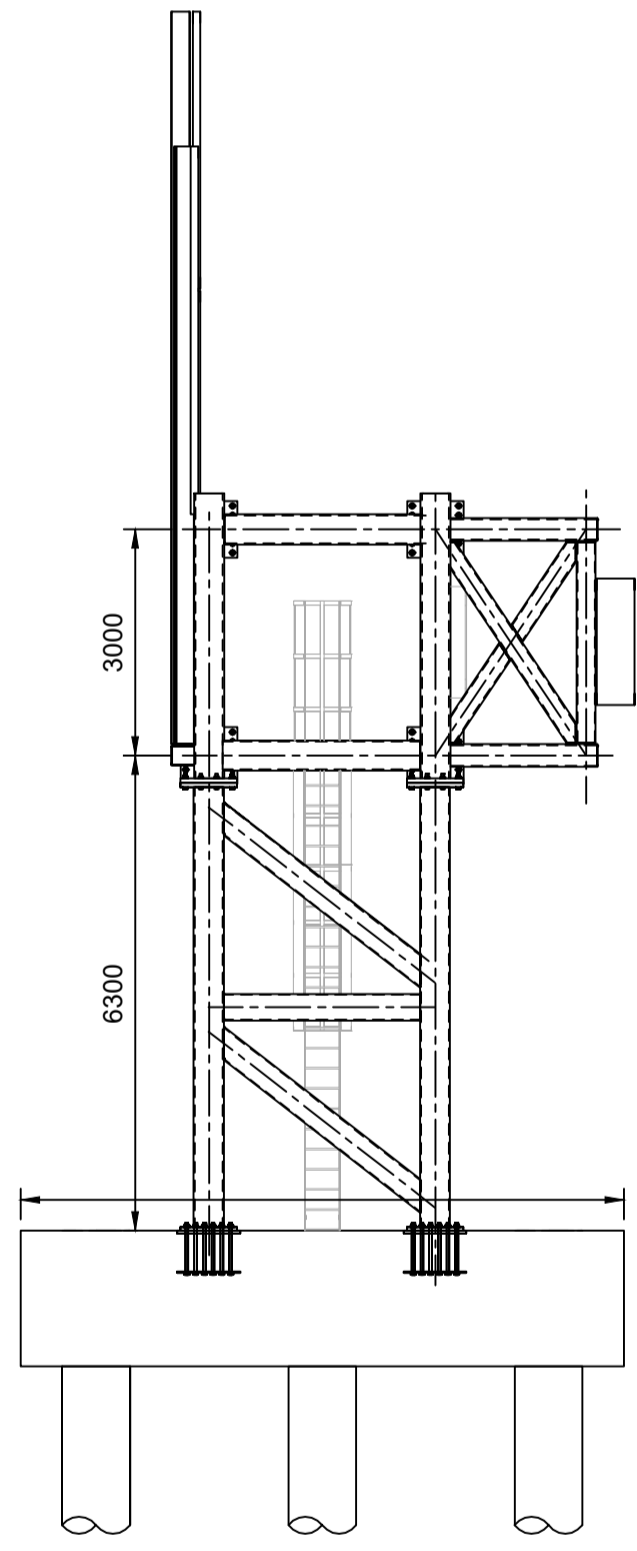
PLAN
SCALE 1 : 100



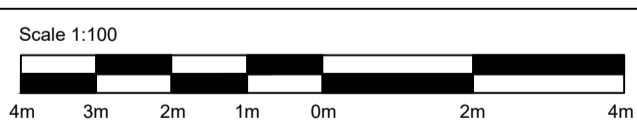
LOCATION PLAN
NOT TO SCALE



A ELEVATION
SCALE 1 : 100



B SECTION
SCALE 1 : 100



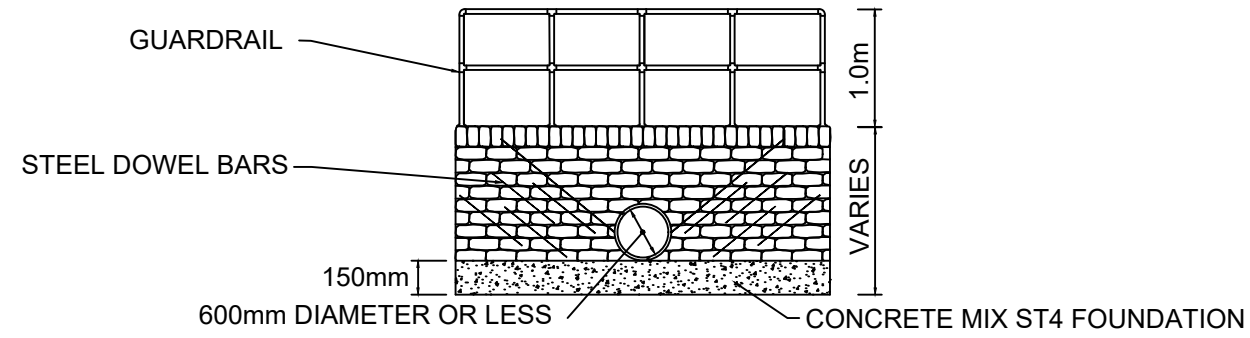
- Notes**
- All dimensions are in millimetres; all levels and chainages are in metres unless noted otherwise.
 - All levels and dimensions are taken at centre line chainage of gantry.
 - Drainage not shown.
 - Utilities not shown.
 - The proposed structures will be subject to detailed design development. Any changes will be limited to being within the DCO boundary or the relevant limits of deviation where not coincident with the DCO boundary and subject to the requirements of Schedule 2 of the Development Consent Order (application document TR010029/APP/3.1).

Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date

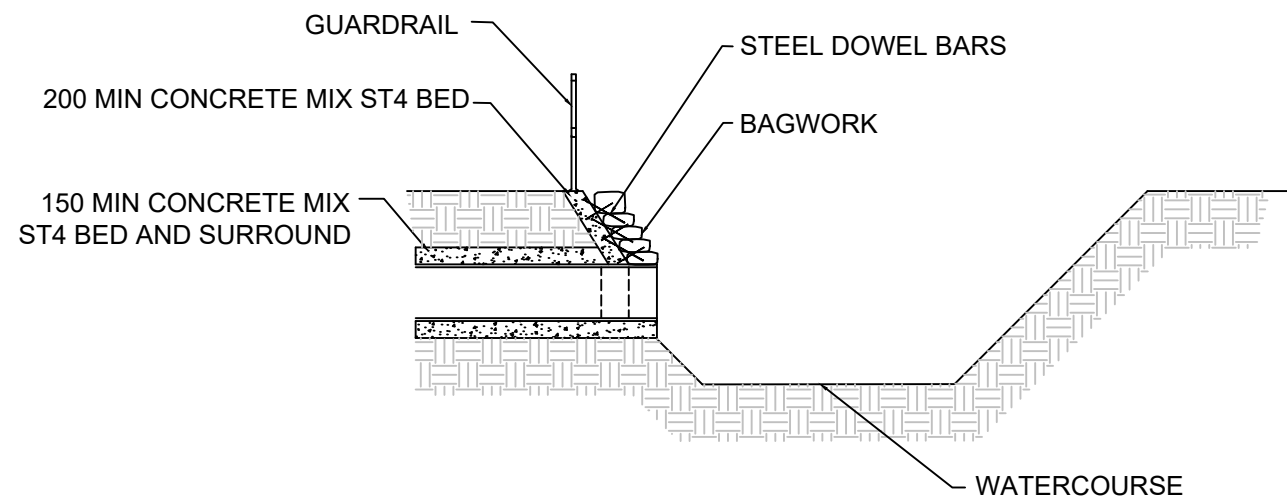
Drawing Subtitle DCO APPLICATION	Status A4	Project Title M25 junction 28 improvement scheme
 Member of the SNC-Lavalin Group Copyright © Atkins Limited (2020)		Drawing Title ENGINEERING SECTIONS REGULATIONS 5(2)(o) AND 6(2) PROPOSED LONG SPAN PORTAL GANTRY AT CH.1806 SHEET 8 OF 10
Client Working on behalf of highways england		Drawing Number TR10029/APP/2.8
HE PIN: HE551519		Scale: As Shown Original Size: A1

100
0
Millimetres
DO NOT SCALE

BAGWORK HEADWALL

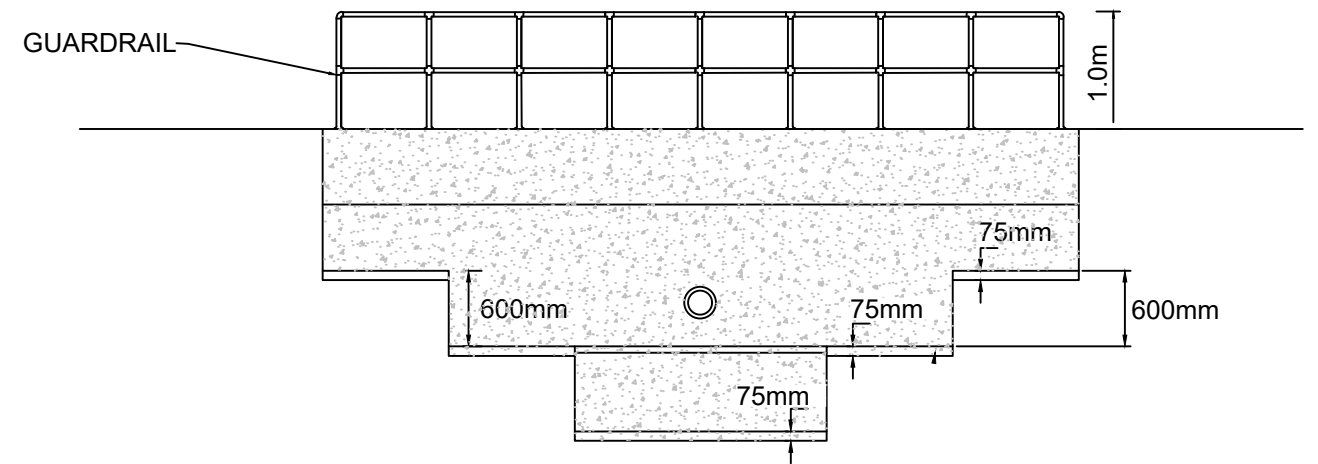


ELEVATION

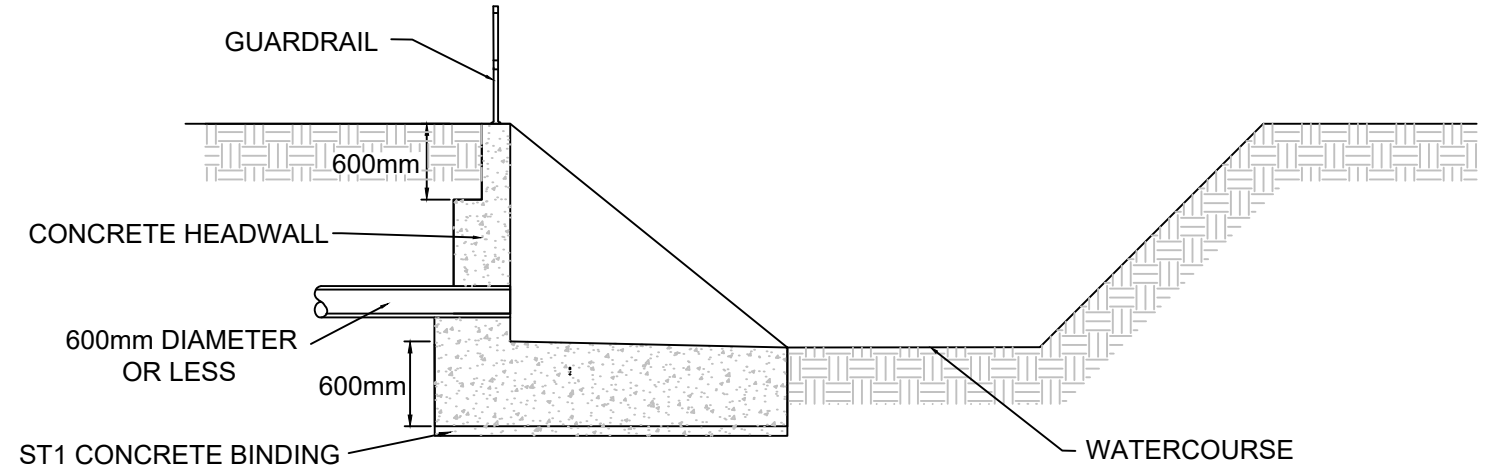


CROSS SECTION

CONCRETE HEADWALL



ELEVATION



CROSS SECTION

Notes

1. All dimensions are in millimetres unless stated otherwise.
2. Bag sizes nominally 500 x 300 x 120.
3. The proposed structures will be subject to detailed design development. Any changes will be limited to being within the DCO boundary or the relevant limits of deviation where not coincident with the DCO boundary and subject to the requirements of Schedule 2 of the Development Consent Order (application document TR010029/APP/3.1).

Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date

Drawing Suitability: **DCO APPLICATION** Status: **A4**

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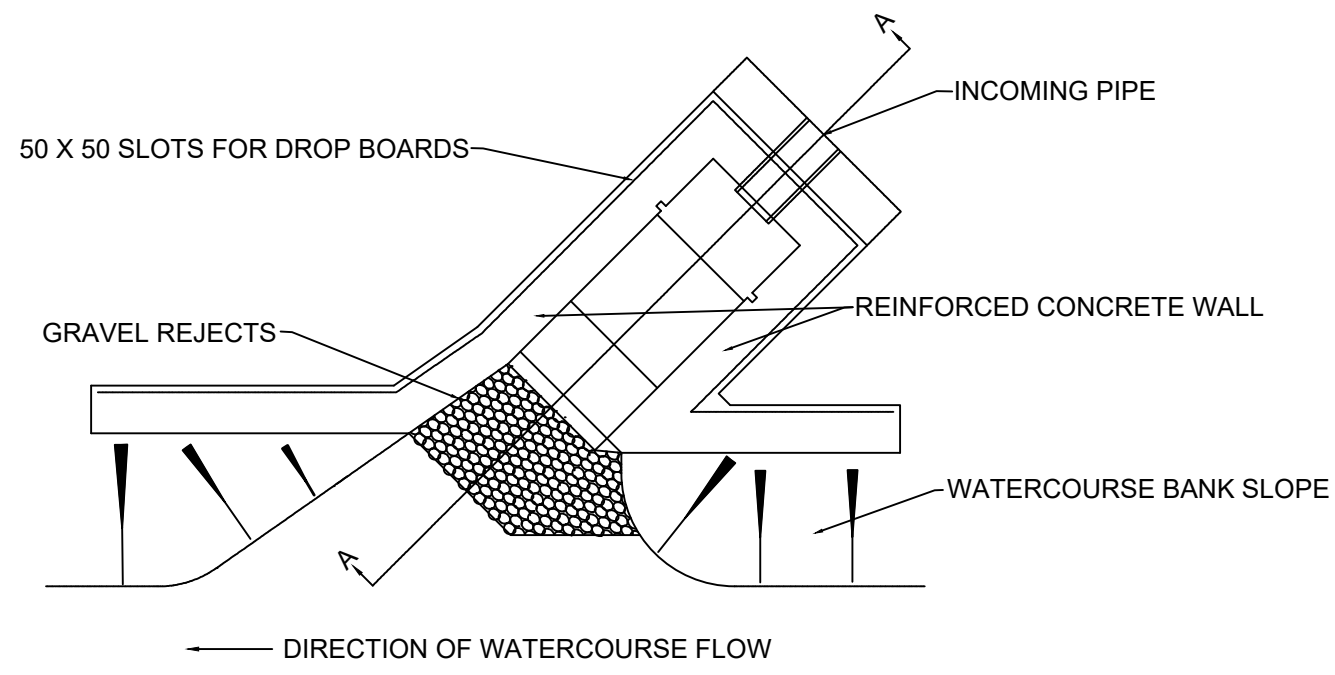
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Client: **Working on behalf of highways england**

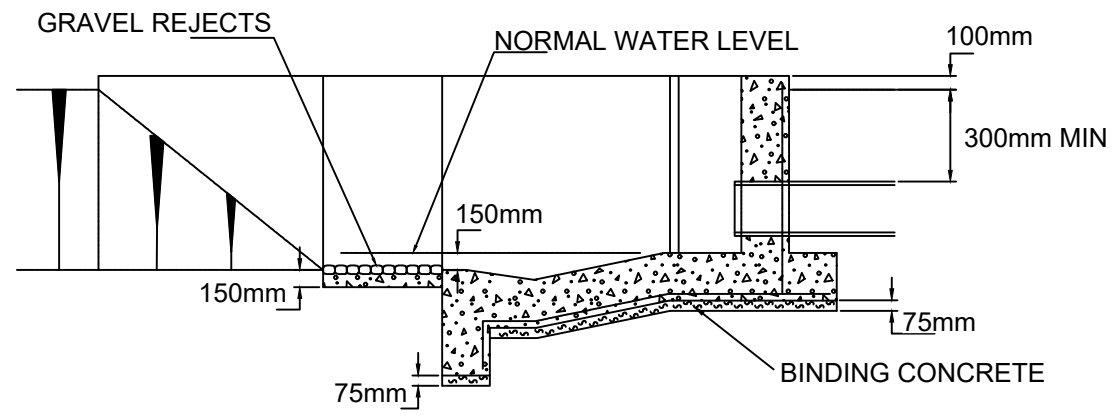
Project Title	M25 junction 28 improvement scheme	
Drawing Title	ENGINEERING SECTION REGULATIONS 5(2) (o) AND 6(2) TYPICAL HEADWALL SHEET 9 OF 10	
Drawing Number	TR010029/APP/2.8	Rev: 0
HE PIN:	HE551519	Scale: NTS Original Size: A3

100
 Millimetres
 10
 0
 DO NOT SCALE

REINFORCED CONCRETE HEADWALL



PLAN



SECTION A - A

Notes

- All dimensions are in millimetres unless stated otherwise.
- The proposed structures will be subject to detailed design development. Any changes will be limited to being within the DCO boundary or the relevant limits of deviation where not coincident with the DCO boundary and subject to the requirements of Schedule 2 of the Development Consent Order (application document TR010029/APP/3.1).

Description		Drawing Suitability		Status		Project Title			
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date	DCO APPLICATION	A4	M25 junction 28 improvement scheme
Description		SNC-LAVALIN		ATKINS		Amlin House Atkins 4th Floor 90-96 Victoria Road Chelmsford Essex CM1 1QU Tel: +44 (0)1245 245245 Fax: +44 (0)1245 345010 www.atkinsglobal.com		Drawing Title	
Description		Member of the SNC-Lavalin Group		Copyright © SNC Lavalin (2020)		Working on behalf of		ENGINEERING SECTION REGULATIONS 5(2) (o) AND 6(2) TYPICAL HEADWALL SHEET 10 OF 10	
Description		Client		highways england		Drawing Number		TR010029/APP/2.8	
Description		Rev.		0		HE PIN: HE551519		Scale: NTS	
Description		Original Size:		A3					

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