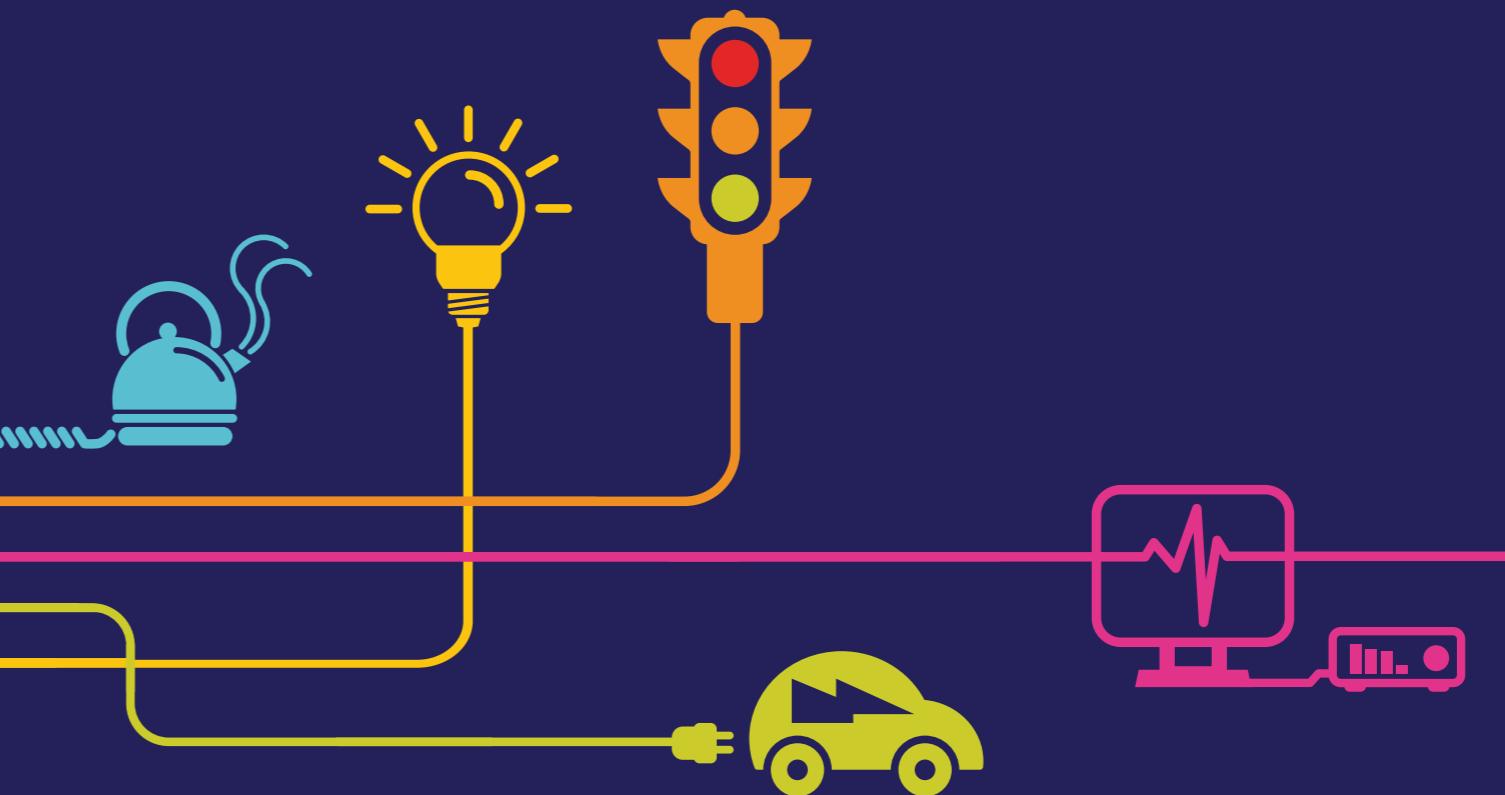


5.3.3.5

Environmental Statement Project Description Figures 3.15 to 3.24

Hinkley Point C Connection Project

*Regulation 5(2)(a) of the Infrastructure Planning
(Applications: Prescribed Forms and Procedure)
Regulations 2009*



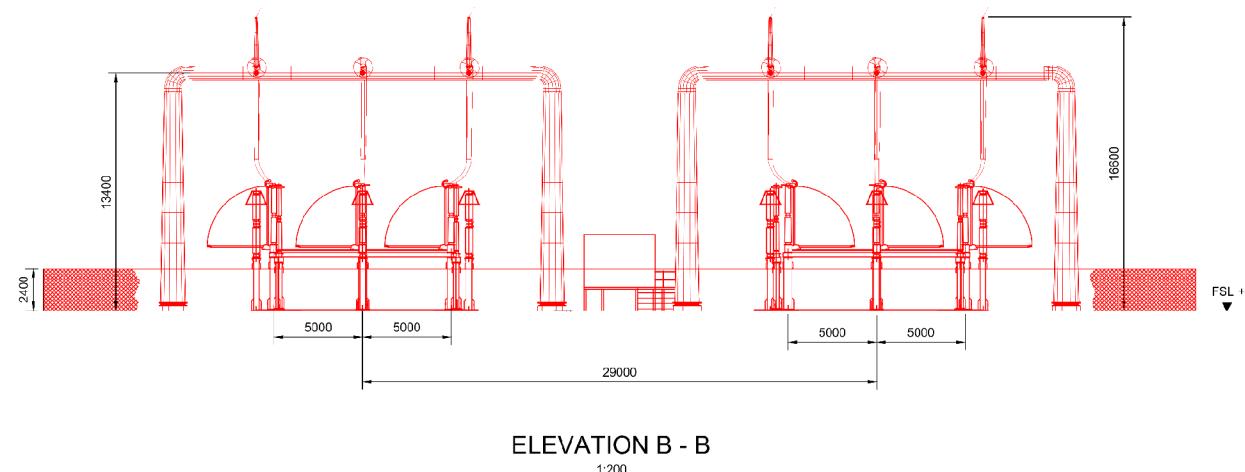
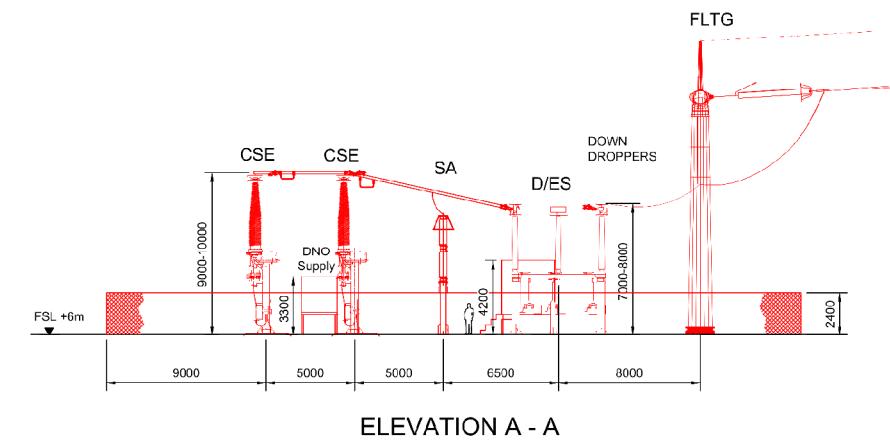
Environmental Statement

Hinkley Point C Connection Project

5.3.3 – Project Description – Figures (orange highlight indicates the contents of this Volume)

Figure	Title
Volume 5.3.3.1	
3.1	The Proposed Development
3.2	The Proposed Development – Preferred Route Option A and Alternative Route Option B
Volume 5.3.3.2	
3.3	Construction Plans
Volume 5.3.3.3	
3.4	Construction Plans – Preferred Route Option A and Alternative Route Option B
3.5	Indicative Access for Future Maintenance
3.6	Indicative Access for Future Maintenance – Preferred Route Option A and Alternative Route Option B
Volume 5.3.3.4	
3.7	Environmental Constraints
3.8	Pylon Profiles
3.9	Sandford 400/132kV Substation
3.10	Seabank 400/132kV Substation
3.11	Churchill 132/33kV Substation
3.12	Avonmouth 132/33kV Substation
3.13	Portishead 132/33kV Substation
3.14	Bridgwater Tee Cable Sealing End Compounds
Volume 5.3.3.5	
3.15	South of the Mendip Hills Cable Sealing End Compound
3.16	Typical Site Laydown Areas
3.17	Typical Underground Cable Technical Arrangements
3.18	River Axe and Towerhead Brook Crossing Options
3.19	Temporary Construction Road and Bridge Details
3.20	Culvert Construction Details
3.21	Typical 400/132kV Horizontal Directional Drilling Reception and Drive Site
3.22	Typical Bellmouth Arrangements
3.23	Typical Pylon Working Area
3.24	Pylon Foundations

Figure 3.15 - South of the Mendip Hills Cable Sealing End Compound



Key	
—	New Equipment
—	CSE - Cable Sealing End
—	SA - Surge Arrester
—	D/ES - Disconnector/Earth Switch
—	FLTG - Full Line Tension Gantry
—	— Equipment Foundations

Notes

1. For illustration purpose only.
2. Proposed arrangement shown for indicative purposes only. Dimensions and design may vary depending on site and installation conditions.
3. BYSTRUP FLT gantries structure based on drawing number 23_13205_73 Revision D from LSTC.
4. Sensitive equipment to be installed at a minimum of 7.2m AOD according to Flood Risk Assessment: 10/J2M/2046932 P2 - ES Volume 5.23.3
5. Drawing only illustrates principal CSEC structures. Provision for lighting and security to be designed as requested. Permanent lighting to be for access only.

A	02/04/2014	DCO SUBMISSION	CB	BC	BC
ISSUE	DATE	COMMENTS	DRAW	CHKD	APP'D

Title
**NATIONAL GRID (HINKLEY POINT C
 CONNECTION PROJECT)
 ENVIRONMENTAL STATEMENT
 VOLUME 5.3.3**

SOUTH OF THE MENDIP HILLS
 CABLE SEALING END COMPOUND

nationalgrid

National Grid plc, Warwick Technology Park, Galows Hill, Warwick, CV34 6DA

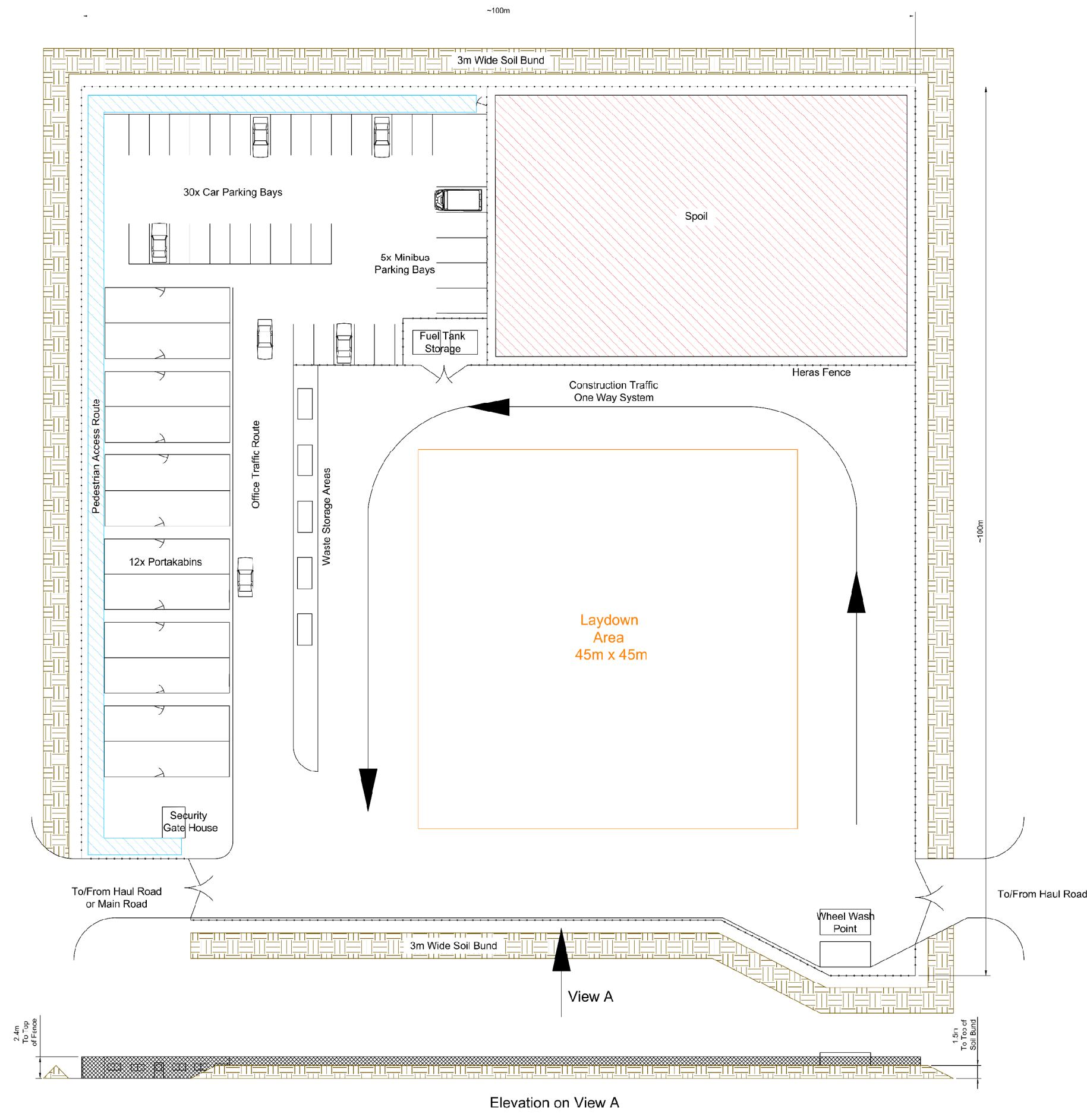
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NG INVESTMENT No.	APPLICATION No.	GIS
20897	EN020001	A3
FIGURE No.	DRAWING No.	SCALE
3.15	G1979.2115.1C	NTS

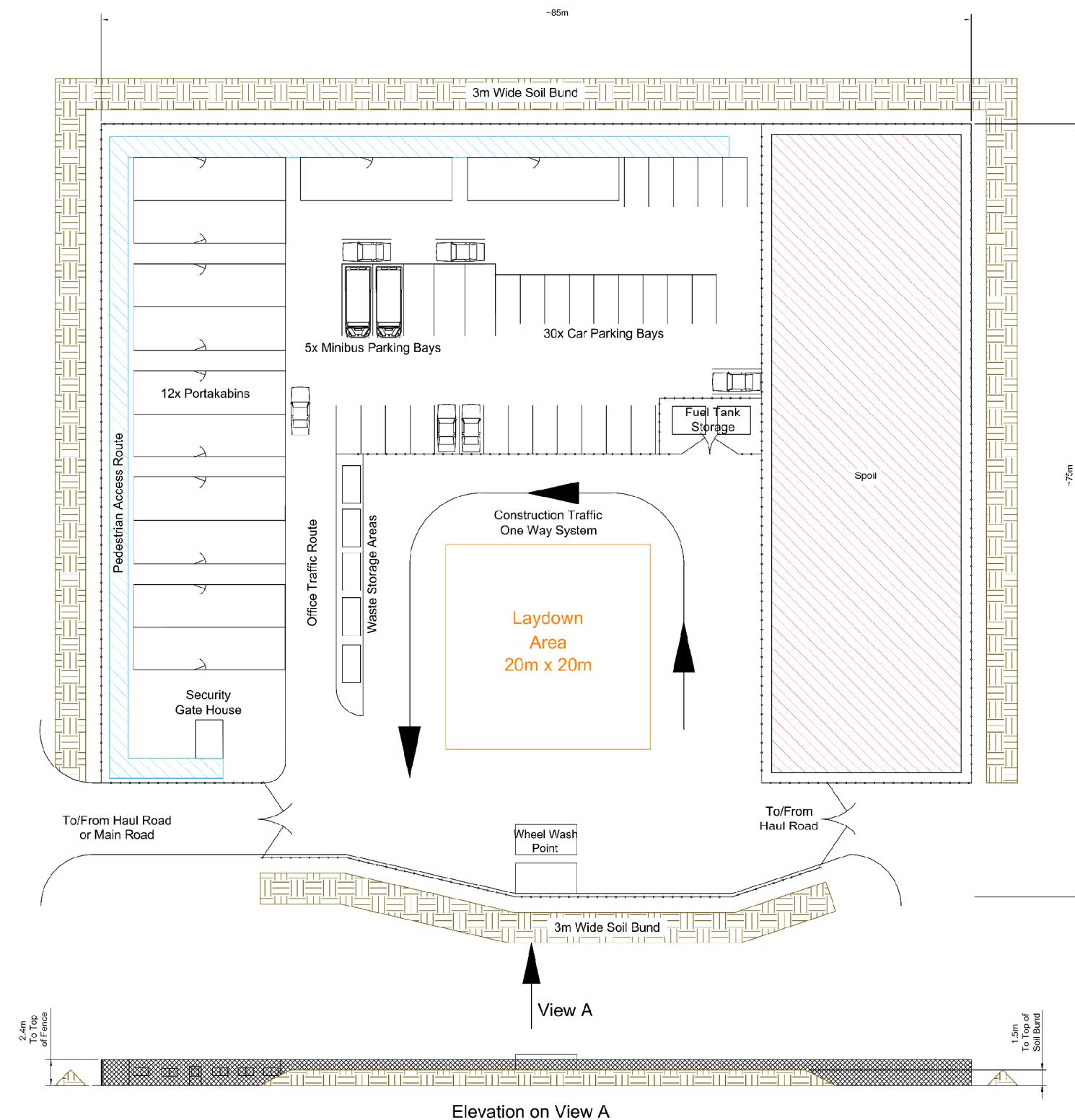
SHEET 1 of 1

ISSUE A

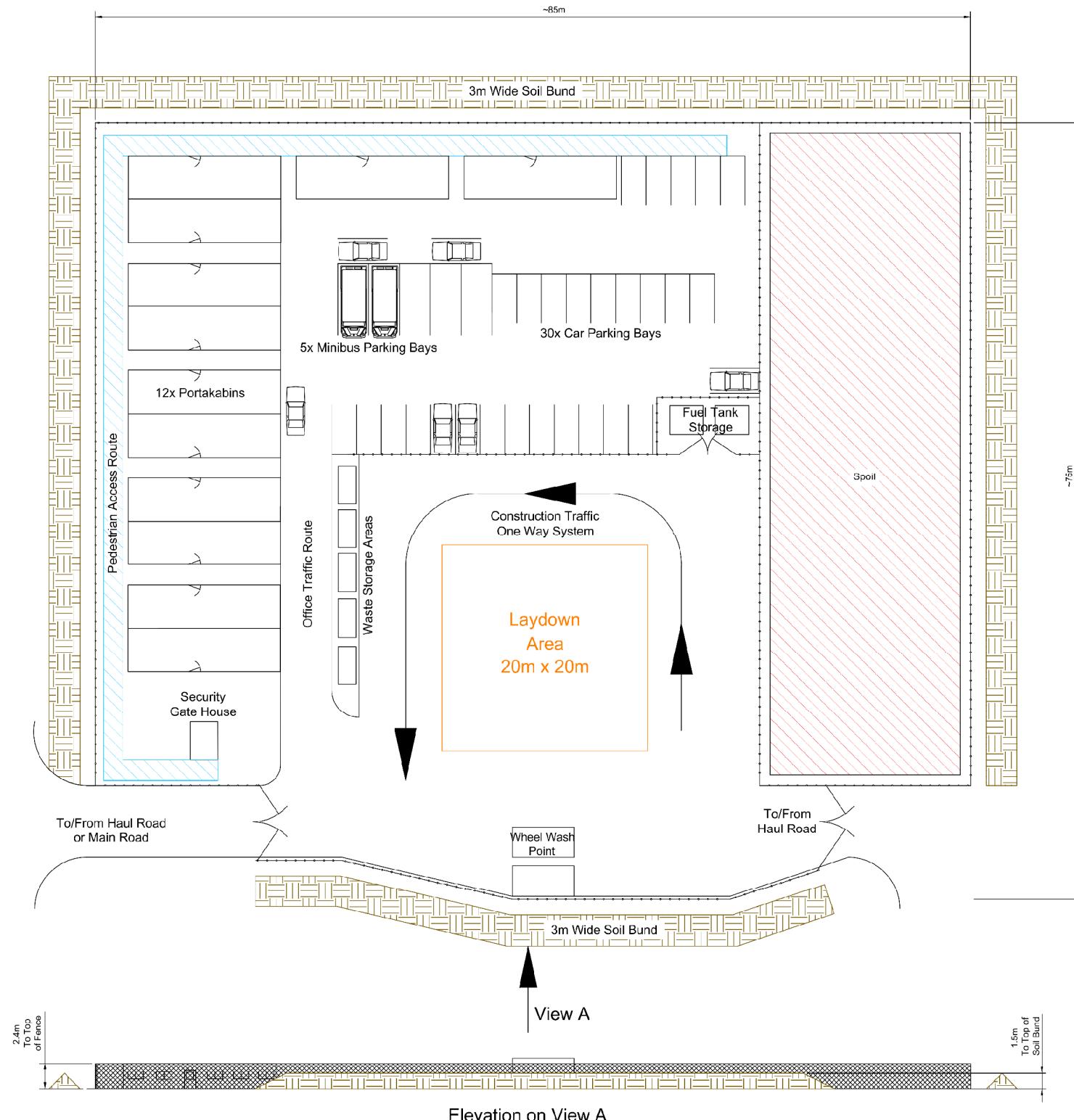
Figure 3.16 - Typical Site Laydown Areas



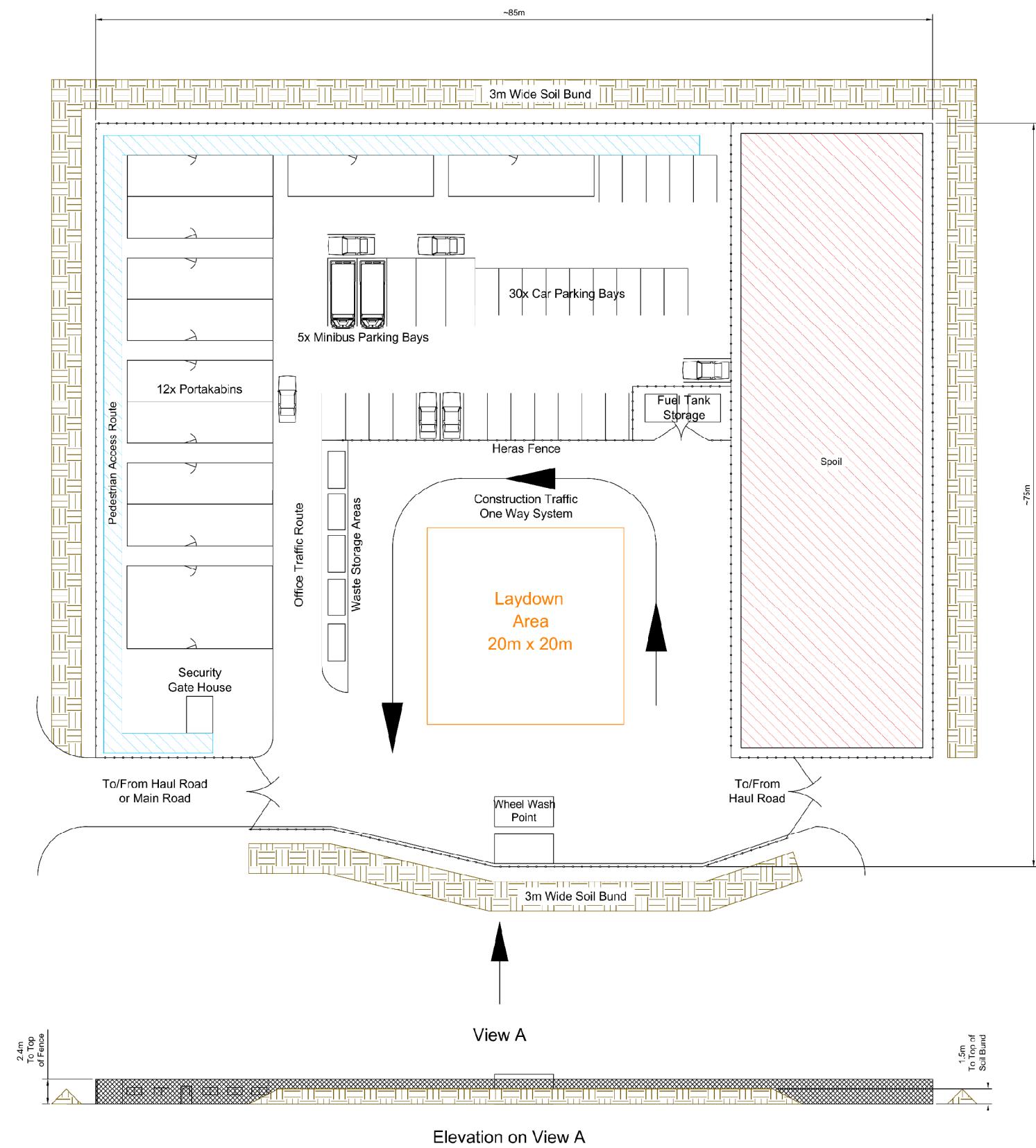
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NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT) ENVIRONMENTAL STATEMENT VOLUME 5.3.3			
TYPICAL SITE LAYDOWN AREAS - TYPICAL 400kV COMPOUND - GENERAL ARRANGEMENT	nationalgrid	National Grid plc, Warwick Technology Park, Galows Hill, Warwick, CV34 6DA	GIS A3
NG INVESTMENT No. 20897	APPLICATION No. EN020001	SCALE NTS	ISSUE A
FIGURE No. 3.16.1 DRAWING No. G1979.2116.1C			
SHEET 1 of 6			



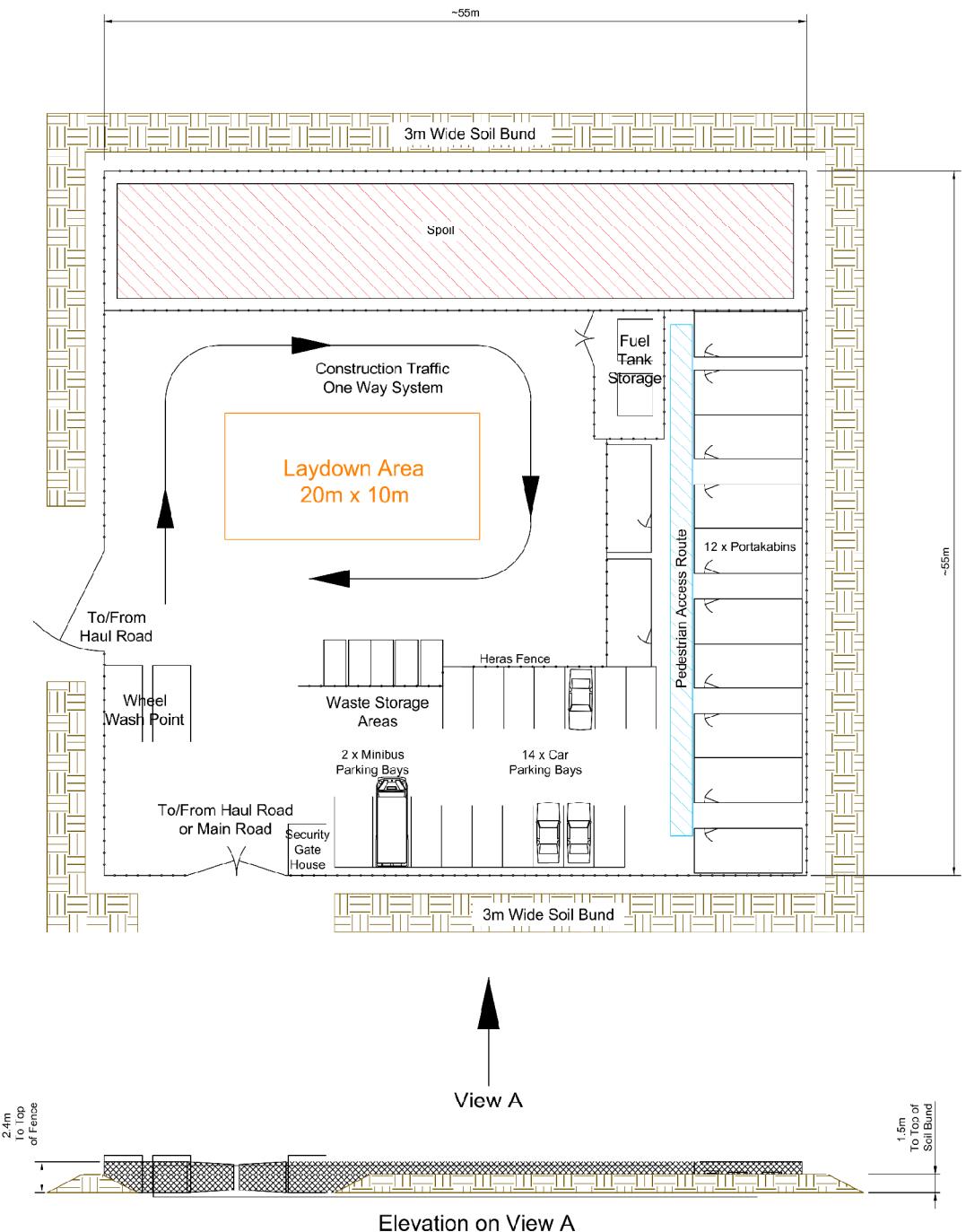
Key			
	Pedestrian Access		
	Soil Bund		
	Spoil		
Notes			
1)	Dimensions and layout arrangement shown is indicative only. Design will vary according to the construction contractors requirements, the available area and the specific site constraints.		
2)	Portakabins will be single storey but may be raised to take account of potential flood risk at certain locations. Details to be agreed with relevant stakeholders.		
3)	Soil bund will be designed with suitable gaps/ drainage pipes to allow water flow in flood conditions. Details to be agreed with relevant stakeholders.		
NOTE:			
Original Drawing Number -			
NG - MMD-322069-E-DR-400UG-XX-0804			
A	01/04/2014	DCO SUBMISSION	CB BC BC
ISSUE	DATE	COMMENTS	DRAW CHKD APP'D
Title			
NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT) ENVIRONMENTAL STATEMENT VOLUME 5.3.3			
TYPICAL SITE LAYDOWN AREAS - GENERAL ARRANGEMENT - 400kV SATELLITE COMPOUND			
 National Grid plc, Warwick Technology Park, Galows Hill, Warwick, CV34 6DA			
NG INVESTMENT No.	APPLICATION No.	GIS	
20897	EN020001	A3	
FIGURE No.	DRAWING No.	SCALE	
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SHEET 2 of 6			ISSUE
			A



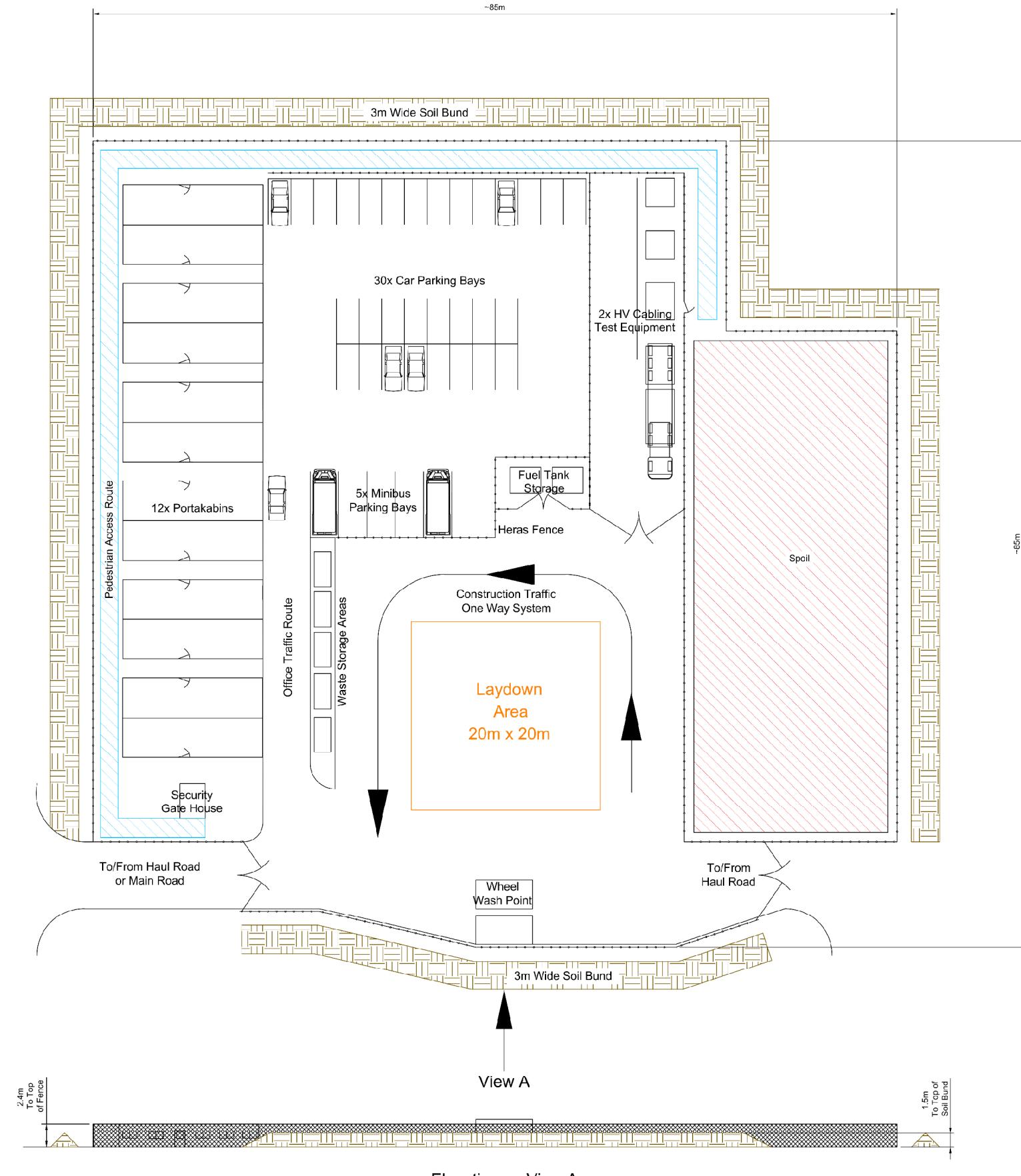
Key			
	Pedestrian Access		
	Soil Bund		
	Spoil		
Notes			
1)	Dimensions and layout arrangement shown is indicative only. Design will vary according to the construction contractors requirements, the available area and the specific site constraints.		
2)	Portakabins will be single storey but may be raised to take account of potential flood risk at certain locations. Details to be agreed with relevant stakeholders.		
3)	Soil bund will be designed with suitable gaps/ drainage pipes to allow water flow in flood conditions. Details to be agreed with relevant stakeholders.		
NOTE:			
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Title			
NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT) ENVIRONMENTAL STATEMENT VOLUME 5.3.3			
TYPICAL SITE LAYDOWN AREAS - TYPICAL 400kV COMPOUND INCLUDING TEST EQUIPMENT - GENERAL ARRANGEMENT			
 National Grid plc, Warwick Technology Park, Galows Hill, Warwick, CV34 6DA			
NG INVESTMENT No.	APPLICATION No.		GIS
20897	EN020001		A3
FIGURE No.	DRAWING No.	SCALE	
3.16.3	G1979.2116.3C	NTS	
SHEET 3 of 6			ISSUE
			A



Key			
			Pedestrian Access
			Soil Bund
			Spoil
Notes			
1) Dimensions and layout arrangement shown is indicative only. Design will vary according to the construction contractors requirements, the available area and the specific site constraints.			
2) Portacabins will be single storey but may be raised to take account of potential flood risk at certain locations. Details to be agreed with relevant stakeholders.			
3) Soil bund will be designed with suitable gaps/ drainage pipes to allow water flow in flood conditions. Details to be agreed with relevant stakeholders.			
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ISSUE	DATE	COMMENTS	DRAW CHKD APP'D
Title			
NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT) ENVIRONMENTAL STATEMENT VOLUME 5.3.3			
TYPICAL SITE LAYDOWN AREAS - TYPICAL 132KV COMPOUND GENERAL ARRANGEMENT			
 National Grid plc, Warwick Technology Park, Galows Hill, Warwick, CV34 6DA			
NG INVESTMENT No.	APPLICATION No.	GIS	
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SHEET 4 of 6			ISSUE A

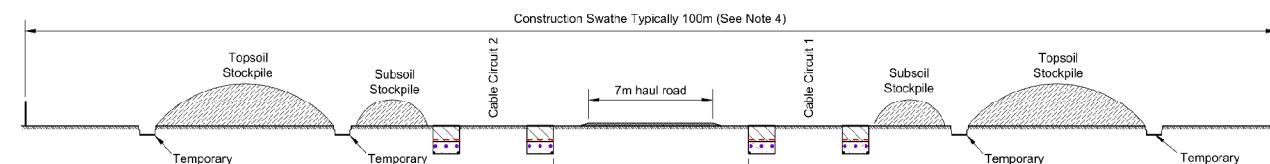
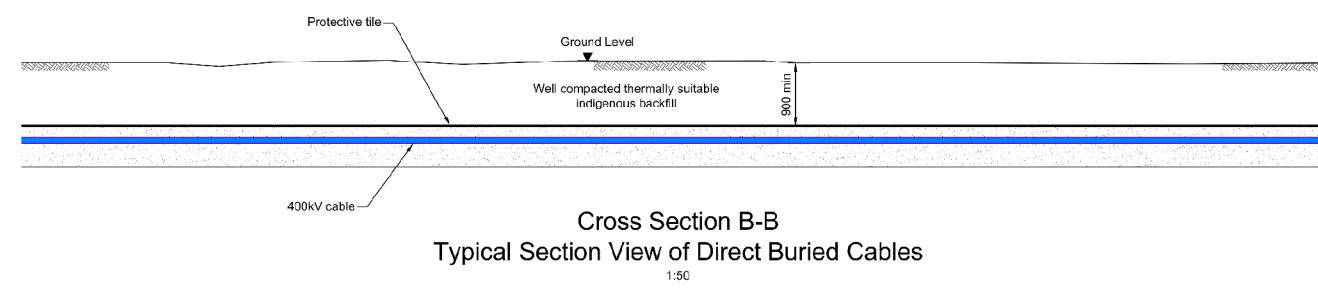
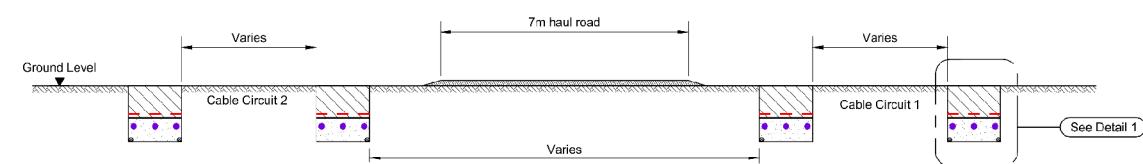
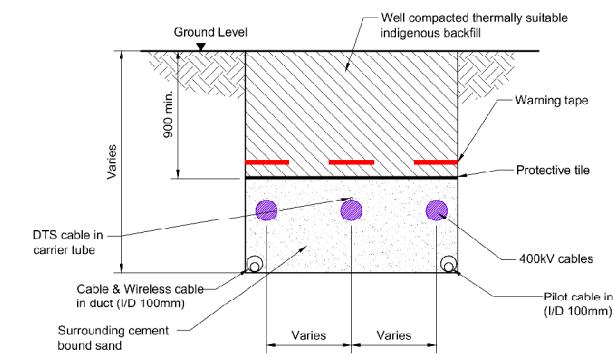
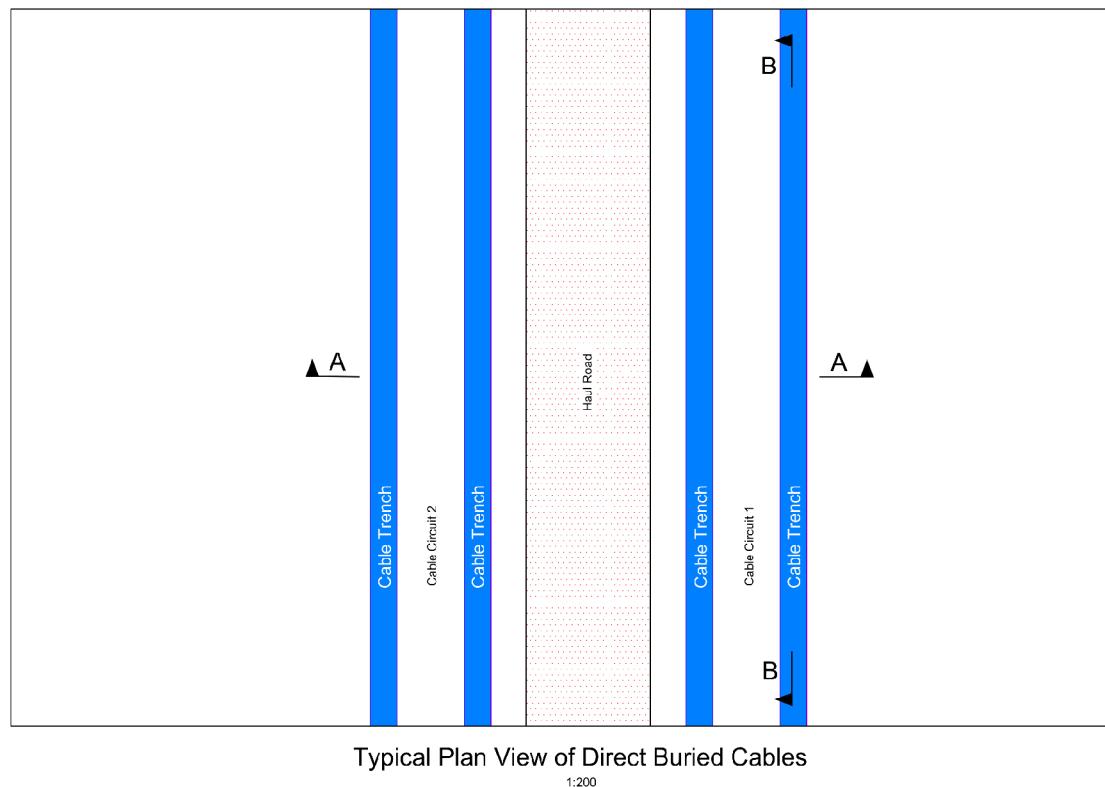


Key						
	Pedestrian Access					
	Soil Bund					
	Spoil					
Notes						
1)	Dimensions and layout arrangement shown is indicative only. Design will vary according to the construction contractors requirements, the available area and the specific site constraints.					
2)	Portacabins will be single storey but may be raised to take account of potential flood risk at certain locations. Details to be agreed with relevant stakeholders.					
3)	Soil bund will be designed with suitable gaps/ drainage pipes to allow water flow in flood conditions. Details to be agreed with relevant stakeholders.					
NOTE:						
Original Drawing Number -						
NG - MMD-322069-E-DR-WPD-XX-0801						
A	01/04/2014	DCO SUBMISSION	CB BC BC			
ISSUE	DATE	COMMENTS	DRAW CHKD APP'D			
Title						
NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT) ENVIRONMENTAL STATEMENT VOLUME 5.3.3						
TYPICAL SITE LAYDOWN AREAS - TYPICAL 132kV SATELLITE COMPOUND - GENERAL ARRANGEMENT						
 National Grid plc, Warwick Technology Park, Galows Hill, Warwick, CV34 6DA						
NG INVESTMENT No.	APPLICATION No.	GIS				
20897	EN020001	A3				
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3.16.5	G1979.2116.5A	NTS				
SHEET 5 of 6			ISSUE			
			A			

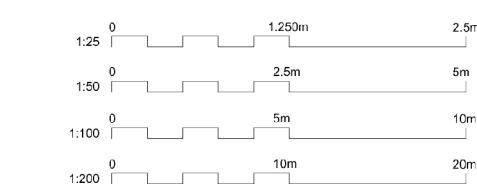


Key					
	Pedestrian Access				
	Soil Bund				
	Spoil				
Notes					
1) Dimensions and layout arrangement shown is indicative only. Design will vary according to the construction contractors requirements, the available area and the specific site constraints.					
2) Portacabins will be single storey but may be raised to take account of potential flood risk at certain locations. Details to be agreed with relevant stakeholders.					
3) Soil bund will be designed with suitable gaps/ drainage pipes to allow water flow in flood conditions. Details to be agreed with relevant stakeholders.					
NOTE: Original Drawing Number -					
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A	01/04/2014	DCO SUBMISSION	CB	BC	BC
ISSUE	DATE	COMMENTS	DRAW	CHKD	APP'D
Title					
NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT) ENVIRONMENTAL STATEMENT VOLUME 5.3.3					
TYPICAL SITE LAYDOWN AREAS - TYPICAL 132kV COMPOUND - INCLUDING TEST EQUIPMENT - GENERAL ARRANGEMENT					
 National Grid plc, Warwick Technology Park, Galows Hill, Warwick, CV34 6DA					
NG INVESTMENT No.	APPLICATION No.	GIS			
20897	EN020001	A3			
FIGURE No.	DRAWING No.	SCALE			
3.16.6	G1979.2116.6A	NTS			
SHEET 6 of 6				ISSUE	A

Figure 3.17 - Typical Underground Cable Technical Arrangements



Typical Swathe for Open Cut Construction for 400kV Cabling Works



Key	
	Proposed direct buried cable alignment
	Haul road
	CBS (Cement Bound Sand)
	Well compacted thermally suitable indigenous backfill

Notes

1. Proposed arrangement shown for indicative purpose only. Dimensions and design may vary depending on site and installation conditions.
2. Based on NGTS 2.5 installation conditions and the ratings required by TGN(E) 26/ Issue 3 - Table G39 with both circuits in operation.
3. Circuit separation required to meet ratings at obstructions with regular occurrence.
4. Construction swathe width may vary according to site conditions.

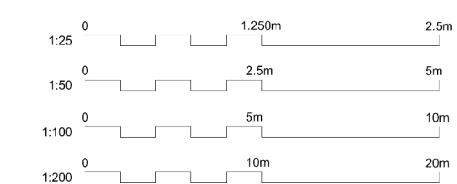
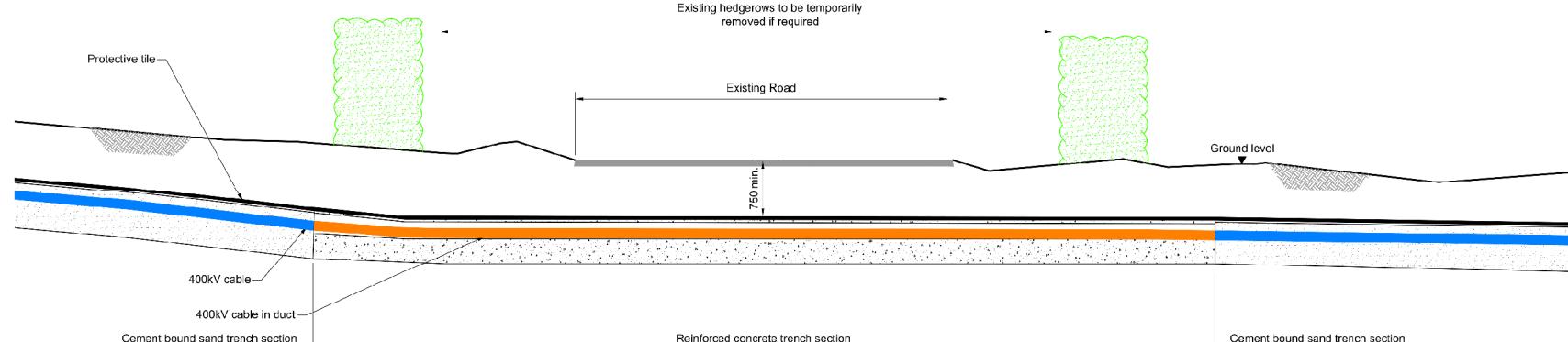
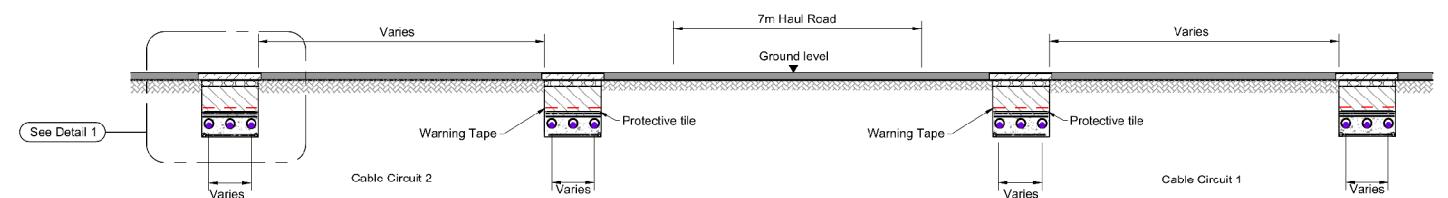
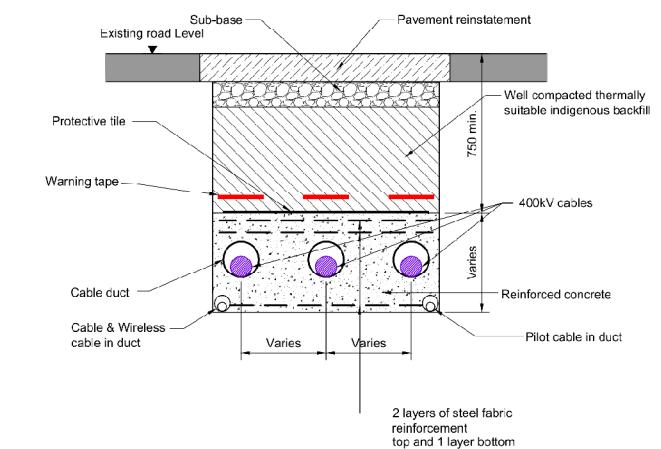
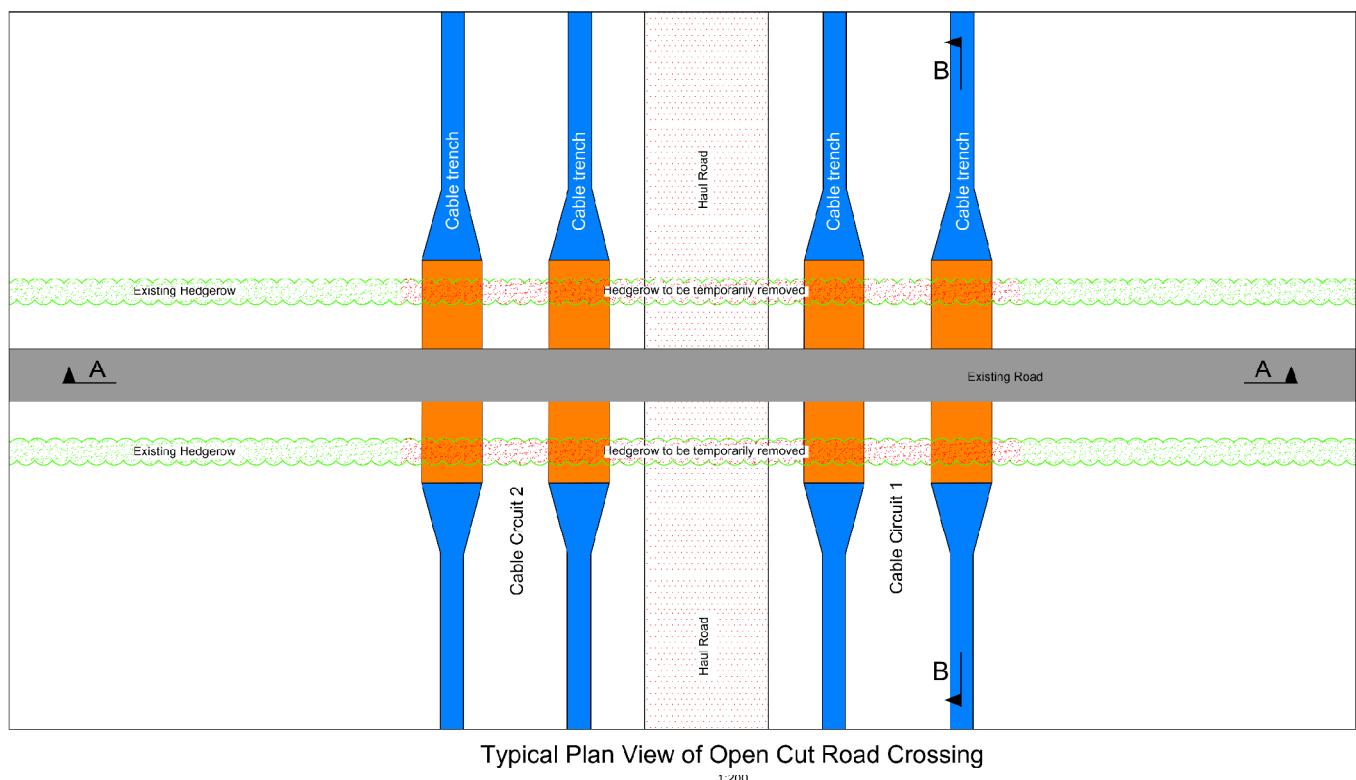
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MMD-322069-E-DR-400UG-XX-0600

A	02/04/2014	DCO SUBMISSION	CB	BC	BC
ISSUE	DATE	COMMENTS	DRAW	CHKD	APP'D

Title NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT) ENVIRONMENTAL STATEMENT VOLUME 5.3 TYPICAL UNDERGROUND CABLE TECHNICAL ARRANGEMENT - 400kV UNDERGROUND CABLE INSTALLATION TYPICAL DIRECT BURIED DETAILS & CONSTRUCTION SWATHE GENERAL ARRANGEMENT					
nationalgrid National Grid plc, Warwick Technology Park, Galows Hill, Warwick, CV34 6DA					

NG INVESTMENT No.	APPLICATION No.	GIS
20897	EN020001	A3
FIGURE No.	DRAWING No.	SCALE
3.17.1	G1979.2117.1C	NTS
SHEET 1 of 13		ISSUE
A		



Key	
	Proposed direct buried cable alignment
	Proposed ducted cable alignment
	Haul road
	Existing road
	Existing hedgerow
	Existing hedgerow to be temporarily removed
	Reinforced Concrete
	CBS (Cement bound sand)
	Well compacted thermally suitable indigenous backfill
	Pavement reinstatement
	Sub-base

Notes

- All dimensions are in millimetres unless otherwise stated.
- Do not scale any items of information from this drawing.
- Ground profiles are shown for illustrative purposes only.
- Proposed arrangement shown for indicative purpose only. Dimensions and design may vary depending on site and installation conditions.

NOTE:
Original Drawing Number -

NG - 13/NG/0205
MMD-322069-E-DR-400UG-XX-0601

A	02/04/2014	DCO SUBMISSION	CB	BC	BC
ISSUE	DATE	COMMENTS	DRAW	CHKD	APP'D

Title NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT)
ENVIRONMENTAL STATEMENT VOLUME 5.3.3

TYPICAL UNDERGROUND CABLE TECHNICAL ARRANGEMENT -
400kV UNDERGROUND CABLE INSTALLATION
TYPICAL GENERAL ARRANGEMENT AT OPEN CUT ROAD CROSSINGS

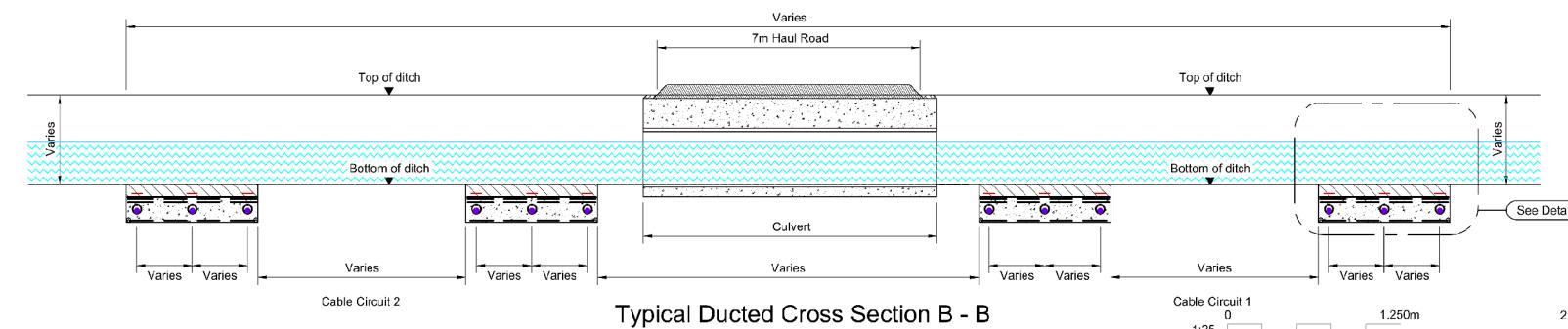
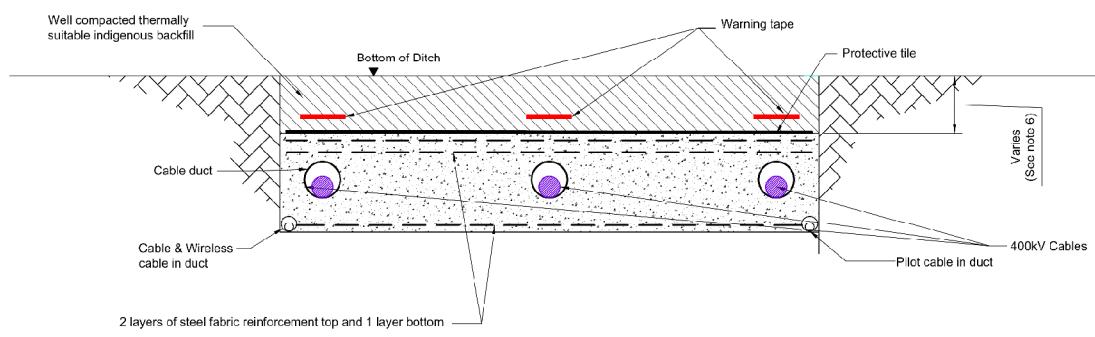
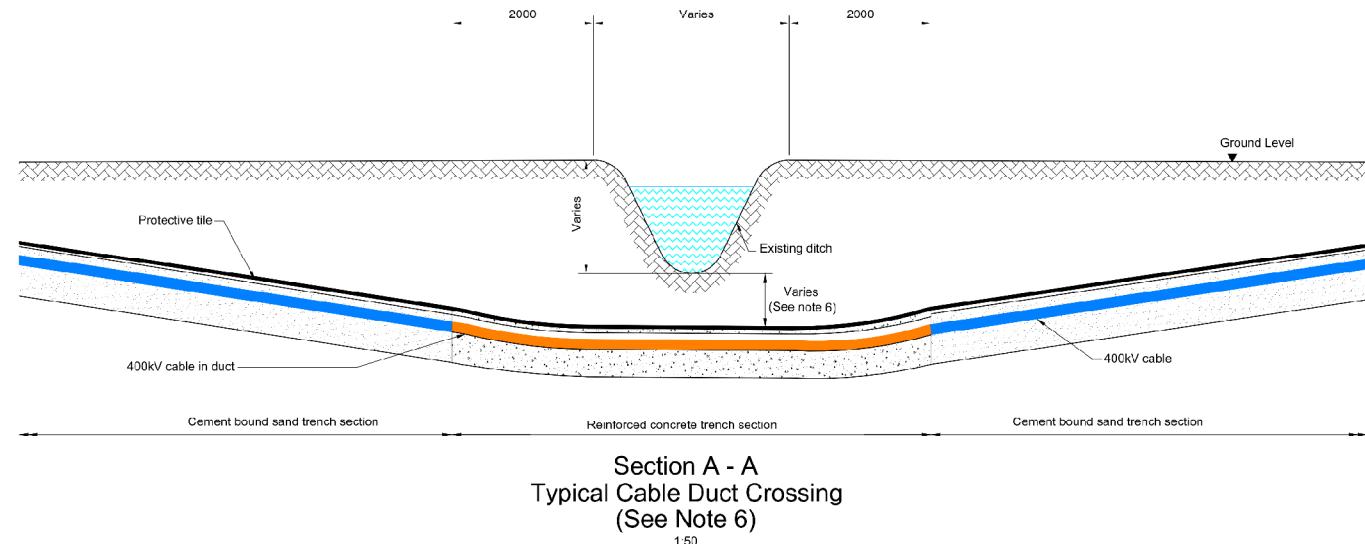
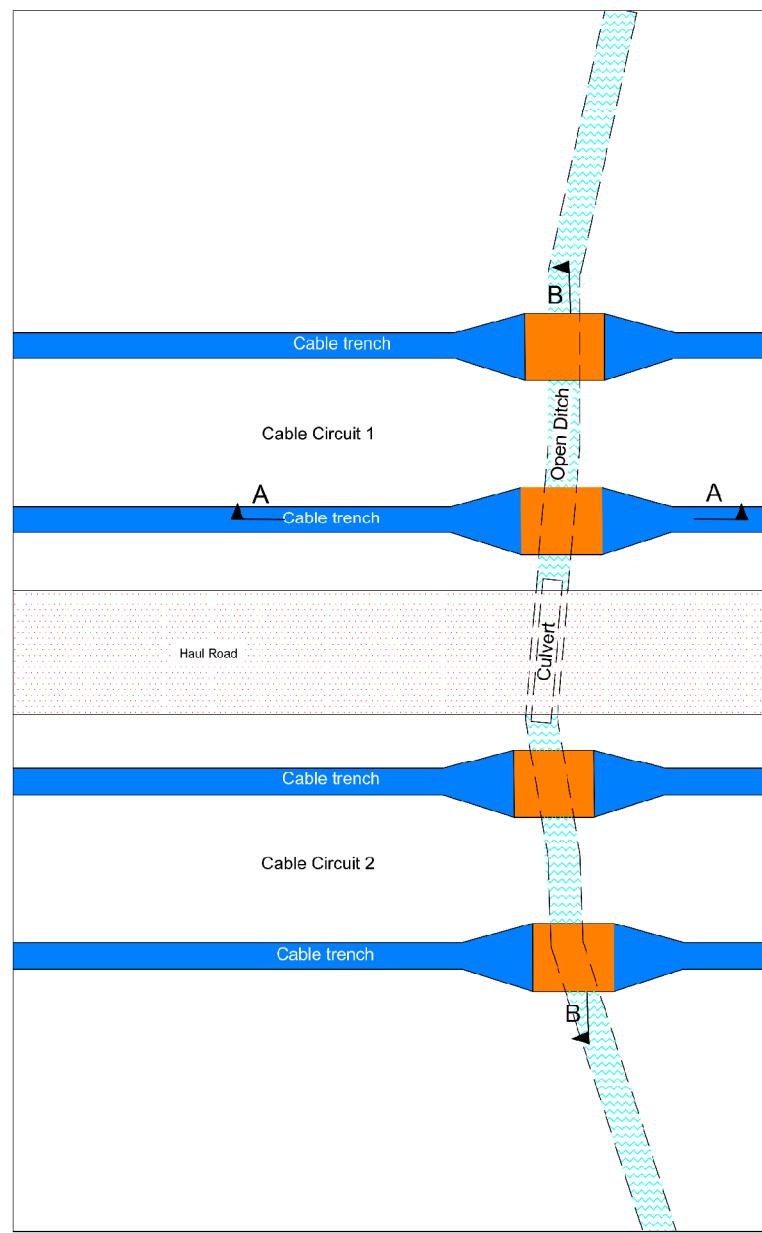
nationalgrid

National Grid plc, Warwick Technology Park, Galows Hill, Warwick, CV34 6DA

NG INVESTMENT No.	APPLICATION No.	GIS
20897	EN020001	A3
FIGURE No.	DRAWING No.	SCALE
3.17.2	G1979.2117.2C	NTS

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ISSUE A



Key
Proposed direct buried cable alignment
Proposed ducted cable alignment
Haul road
Water Course
Reinforced Concrete
CBS (Cement bound sand)
Well compacted thermally suitable indigenous backfill

Notes

- All dimensions are in millimetres unless otherwise stated.
- Do not scale any items of information from this drawing.
- Ground profiles are shown for illustrative purposes only.
- Proposed arrangement shown for indicative purpose only. Dimensions and design may vary depending on site and installation conditions.
- Additional reinforcements and high strength concrete shall be used to increase the level of protection offered by a standard ducted section due to the reduced cover to the bottom of the drainage ditch.
- Depth to be agreed with the relevant stakeholders.

NOTE:
Original Drawing Number -

NG - 13/NG/0206
MMD-322069-E-DR-400UG-XX-0602

A	02/04/2014	DCO SUBMISSION	CB	BC	BC
ISSUE	DATE	COMMENTS	DRAW	CHKD	APP'D

Title NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT)
ENVIRONMENTAL STATEMENT VOLUME 5.3.3

TYPICAL UNDERGROUND CABLE TECHNICAL ARRANGEMENT -
400kV UNDERGROUND CABLE INSTALLATION
TYPICAL GENERAL ARRANGEMENT AT DITCH CROSSING

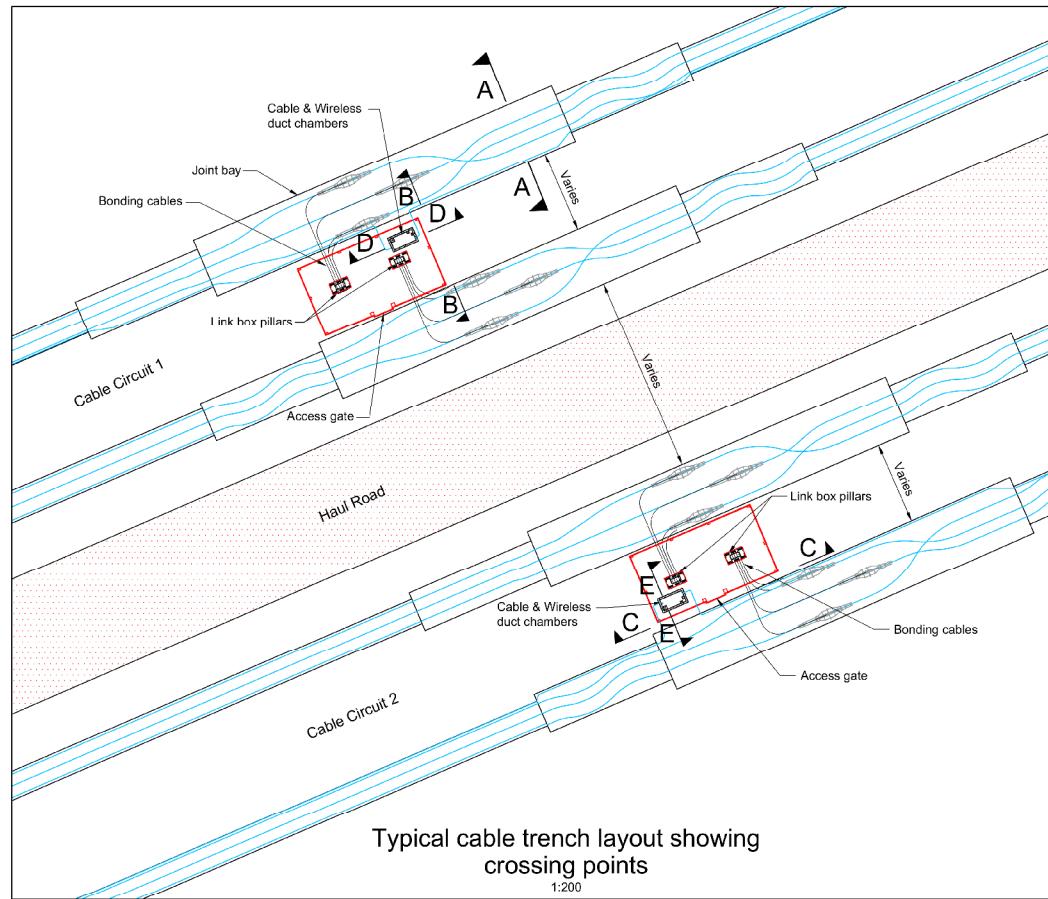
nationalgrid

National Grid plc, Warwick Technology Park, Galows Hill, Warwick, CV34 6DA

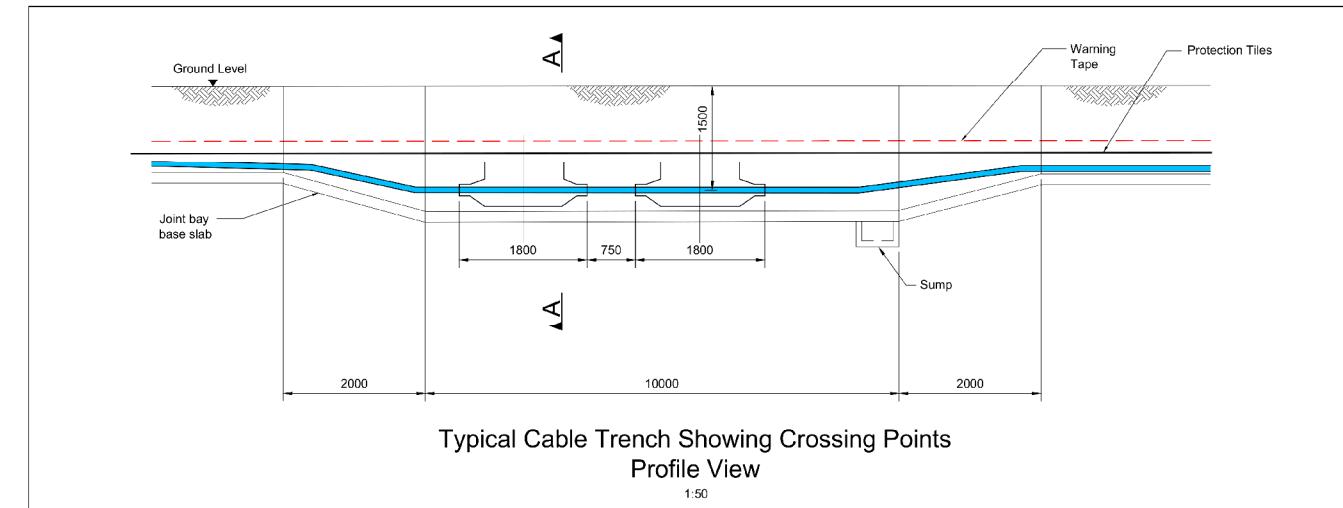
NG INVESTMENT No.	APPLICATION No.	GIS
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FIGURE No.	DRAWING No.	SCALE
3.17.3	G1979.2117.3C	NTS

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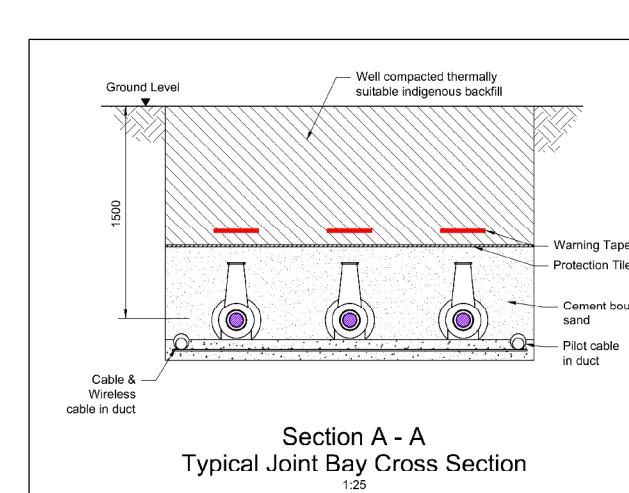
ISSUE A



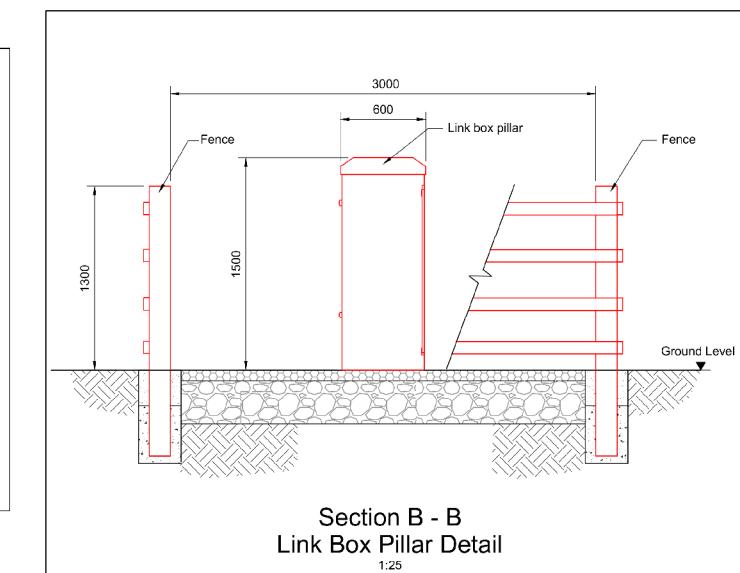
Typical cable trench layout showing crossing points



Typical Cable Trench Showing Crossing Points Profile View

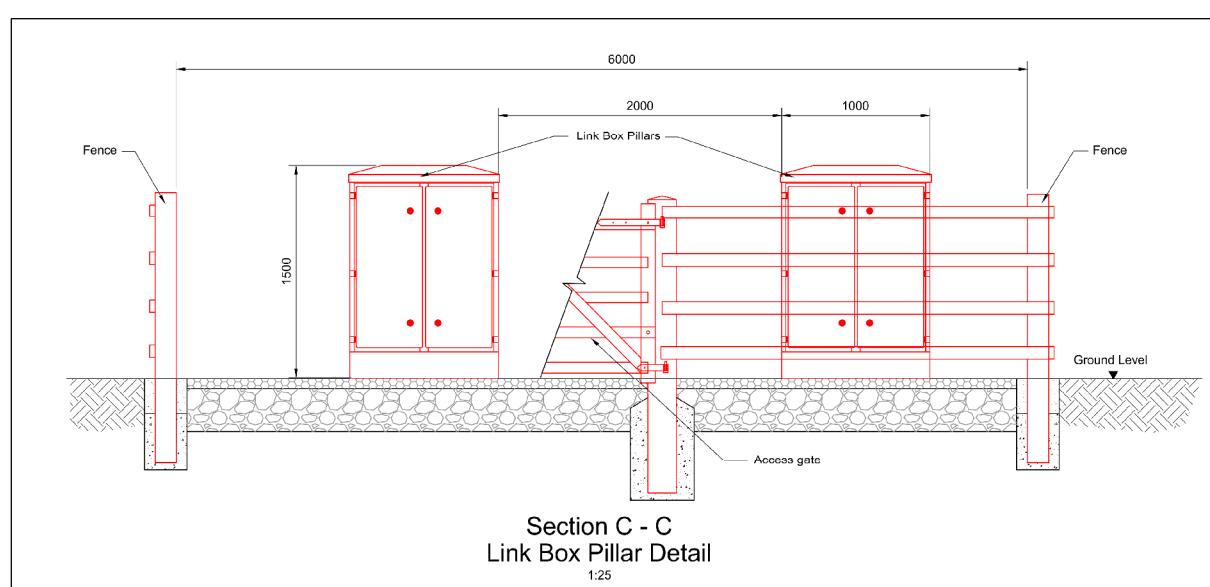


Section A - A Typical Joint Bay Cross Section



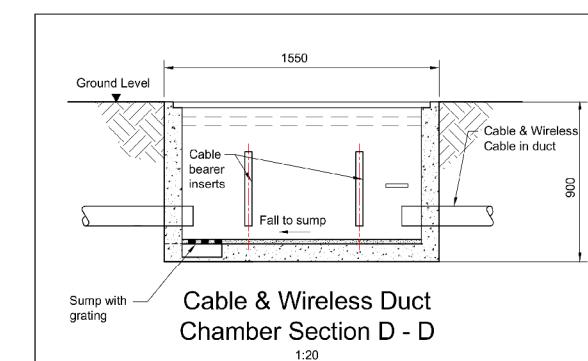
Section B - B

Link Box Pillar Detail

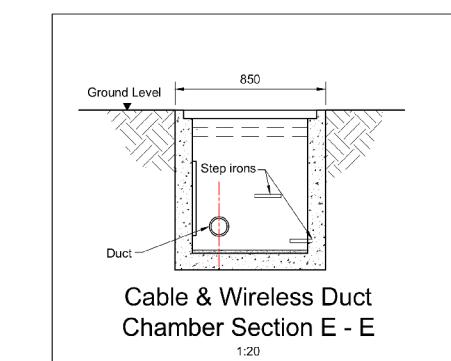


Section C - C

Link Box Pillar Detail



Cable & Wireless Duct Chamber Section D - D



Cable & Wireless Duct
Chamber Section E - E

The key consists of seven entries, each with a colored or patterned square followed by a label. The entries are:

- Proposed direct buried cable alignment (solid blue square)
- Haul road (dotted red square)
- Concrete (solid grey square)
- CBS (Cement bound sand) (dotted grey square)
- Well compacted thermally suitable indigenous backfill (diagonal hatching)
- Single sized granular material (hexagonal pattern)
- Sub-base (circular pattern)

Notes

1. All dimensions are in millimetres unless otherwise stated.
2. Do not scale any items of information from this drawing.
3. Existing ground profiles shown are for general indication only.
4. Proposed arrangement shown for indicative purpose only. Dimensions and design may vary depending on site and installation conditions.
5. Cable & Wireless pulling chamber proposed as per Cable & Wireless specification. Refer to PDD-20897L2-REP-0005.

NOTE:

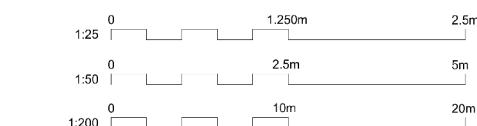
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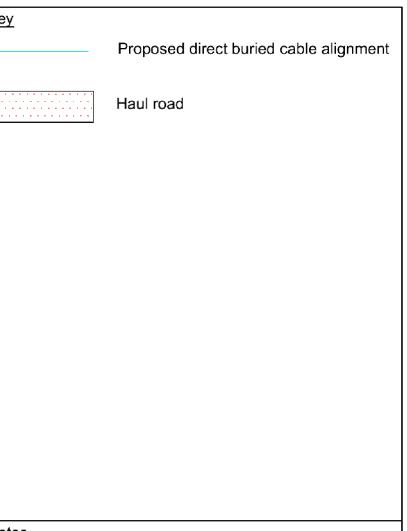
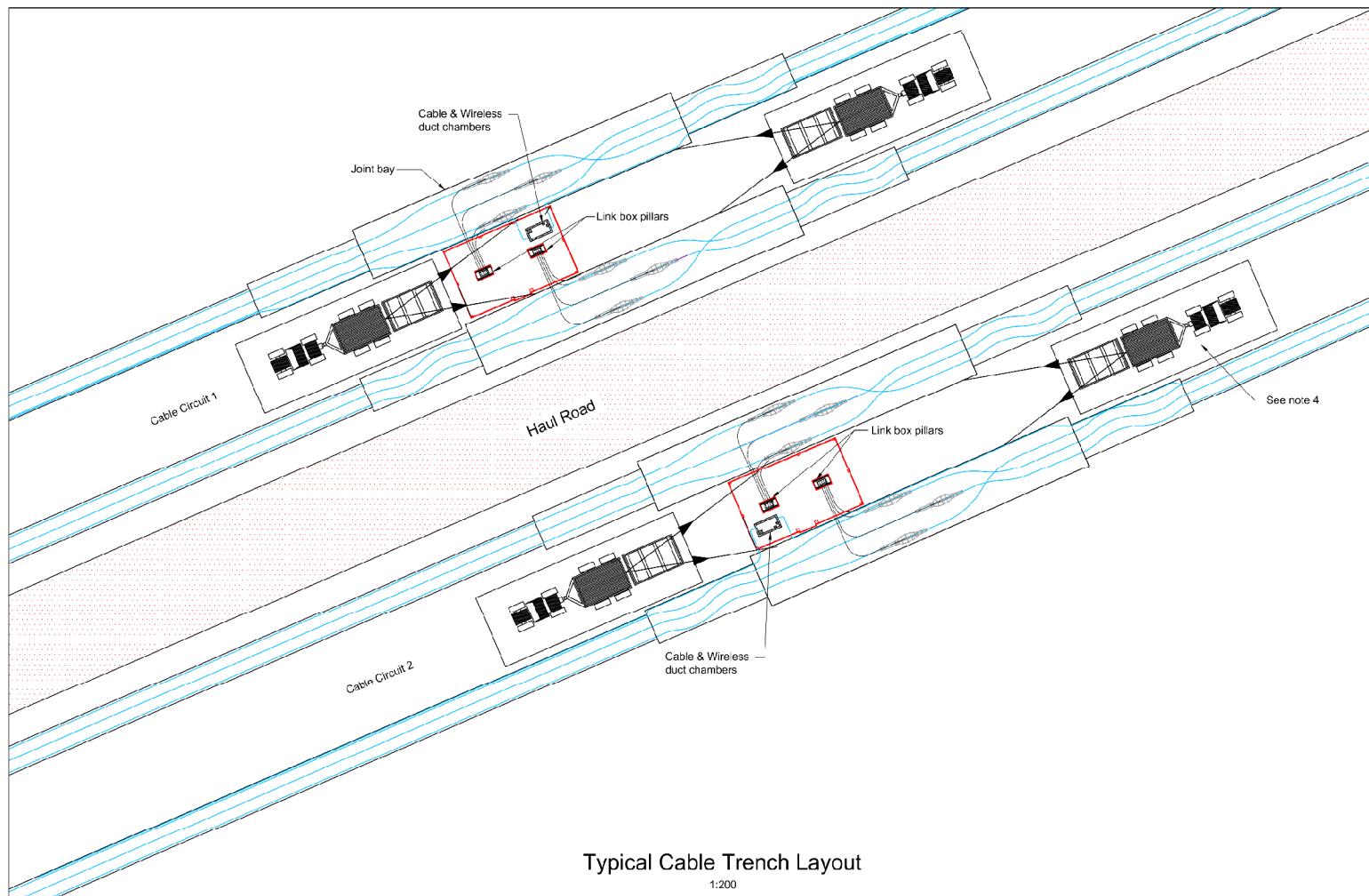
A	02/04/2014	DCO SUBMISSION	CB	BC	BC
02/04/2014	02/04/2014	02/04/2014	02/04/2014	02/04/2014	02/04/2014

Title NATIONAL GRID (HINKLEY POINT C
CONNECTION PROJECT)
ENVIRONMENTAL STATEMENT
VOLUME 5.3.3

TYPICAL UNDERGROUND CABLE
TECHNICAL ARRANGEMENT -
400kV UNDERGROUND CABLE INSTALLATION
TYPICAL GENERAL ARRANGEMENT
JOINT BAY WITH LINK BOX PILLAR

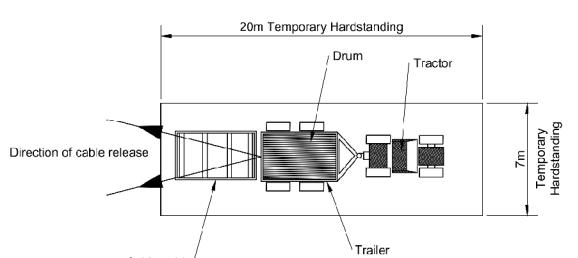


National Grid plc, Warwick Technology Park, Galfows Hill, Warwick, CV34 6DA			
NG INVESTMENT No.	APPLICATION No.	GIS	
20897	EN020001	A3	
FIGURE No.	DRAWING No.	SCALE	
3.17.4	G1979.2117.4C	NTS	
SHEET 4 of 13			ISSUE A



Notes

- Do not scale any items of information from this drawing.
- Hardstanding shall be capable of supporting equipment/mobile plant.
- Proposed arrangement shown for indicative purposes only, dimensions and design may vary depending on site and installation conditions.
- Indicative location of trailer mounted cable drum.



Cable Pulling Arrangement

NTS

DESCRIPTION	SIZE	WEIGHT
TRACTOR	5.2m LONG x 2.54m WIDE x 3m HIGH	8 TONNES
TRAILER	5.9m LONG x 4.4m WIDE x 2.5m HIGH	5 TONNES
TRAILER WITH CABLE DRUM AND CABLE	5.9m LONG x 4.4m WIDE x 5m (APPROX) HIGH	40 TONNES
CABLE GUIDE	5m LONG x 3m WIDE x 3m (APPROX) HIGH	2.5 TONNES

15m TURNING CIRCLE FOR TRACTOR

DRUM / TRAILER DETAILS

1:200 0 10m 20m

NOTE:
Original Drawing Number -
NG - 13/NG/0208
MMD-322069-E-DR-400UG-XX-0701

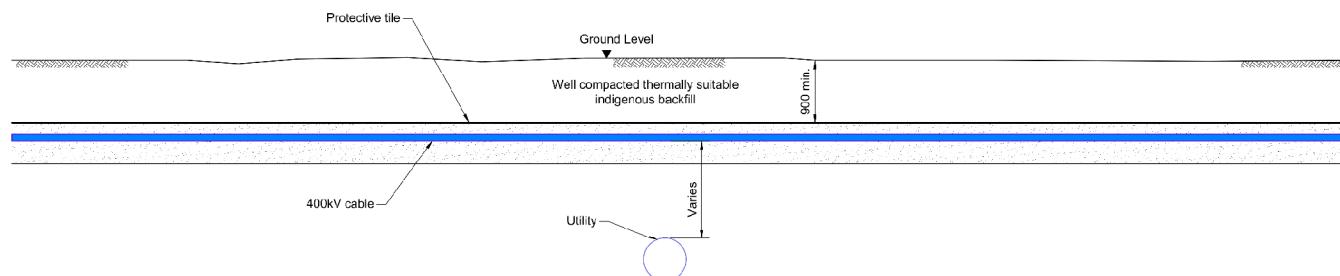
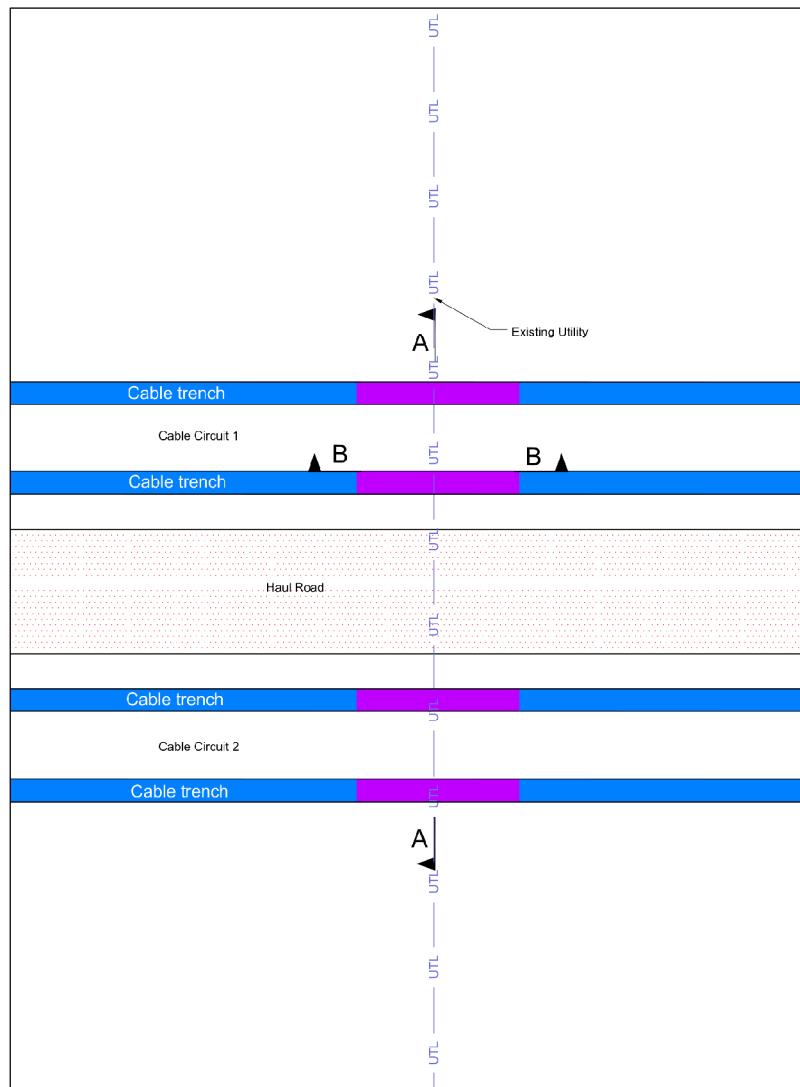
Title NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT)
ENVIRONMENTAL STATEMENT
VOLUME 5.3.3

TYPICAL UNDERGROUND CABLE
TECHNICAL ARRANGEMENT -
400kV UNDERGROUND CABLE INSTALLATION
TYPICAL GENERAL ARRANGEMENT OF
A CABLE PULLING LOCATION

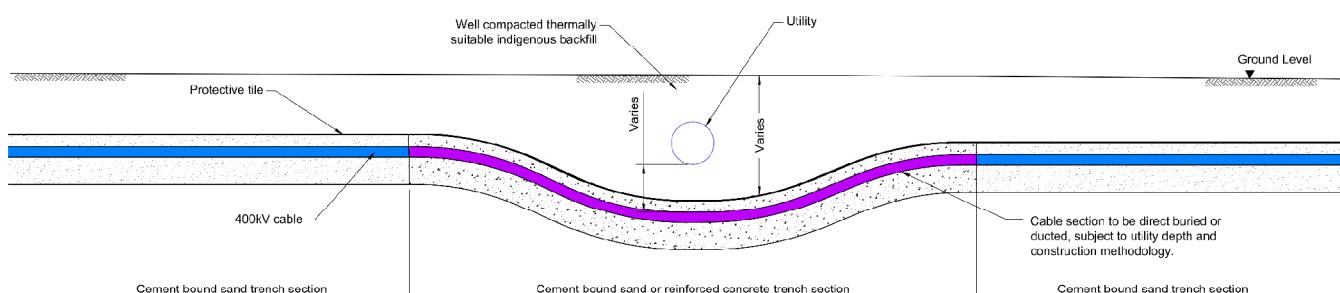
nationalgrid

National Grid plc, Warwick Technology Park, Galows Hill, Warwick, CV34 6DA

NG INVESTMENT No.	APPLICATION No.	GIS
20897	EN020001	A3
FIGURE No.	DRAWING No.	SCALE
3.17.5	G1979.2117.5C	NTS
SHEET 5 of 13		ISSUE
		A

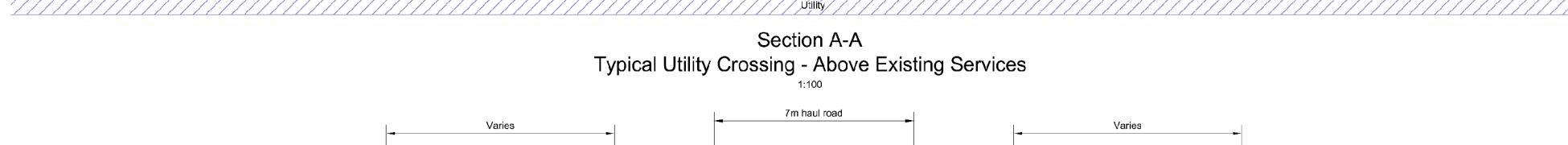
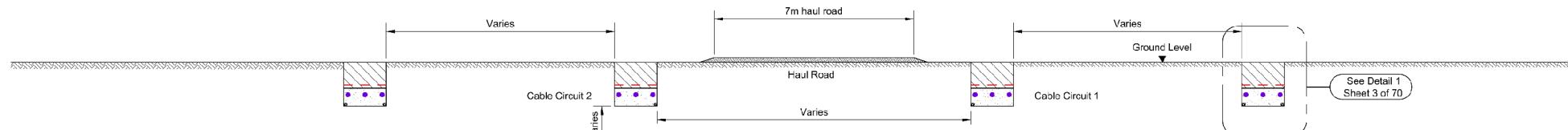


Section B-B
Typical Utility Crossing - Above Existing Services 1:50

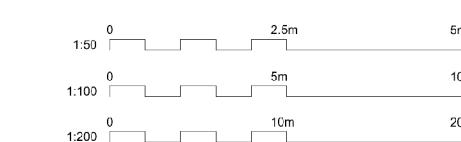


Section B-B
Typical Utility Crossing - Below Existing Services 1:50

Typical Plan View of Utility Crossing



Section A-A
Typical Utility Crossing - Below Existing Services 1:100



Key	
	Proposed direct buried cable alignment
	Proposed direct buried or ducted cable alignment
	Haul road
	Reinforced Concrete
	CBS (Cement Bound Sand)
	Well compacted thermally suitable indigenous backfill
	UTL — Existing Utility

Notes

1. All dimensions are in millimetres unless otherwise stated.
2. Do not scale any items of information from this drawing.
3. Existing ground profiles shown are for general indication only.
4. Proposed arrangement shown for indicative purposes only. Dimensions and design detail may vary depending on site and installation conditions.
5. Spacing between utility and cable is subject to agreement with the relevant utility provider at individual locations.

NOTE:
Original Drawing Number -

NG - 13/NG/0237
MMD-322069-E-DR-400UG-XX-0603

A	02/04/2014	DCO SUBMISSION	CB BC BC
ISSUE	DATE	COMMENTS	DRAW CHKD APP'D

Title NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT)
ENVIRONMENTAL STATEMENT VOLUME 5.3.3

TYPICAL UNDERGROUND CABLE TECHNICAL ARRANGEMENT -
400kV UNDERGROUND CABLE INSTALLATION
TYPICAL SERVICES CROSSING DETAIL & GENERAL ARRANGEMENT

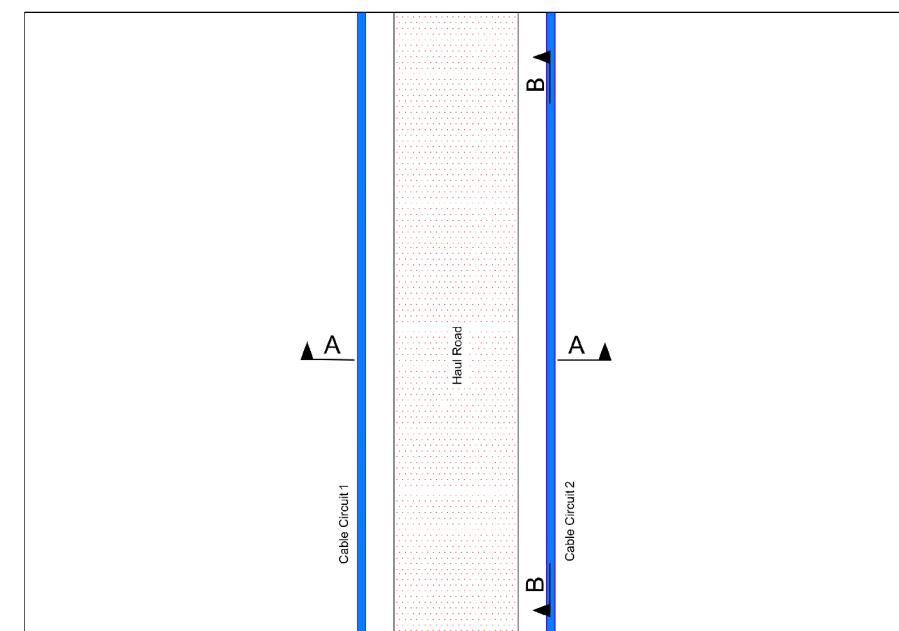
nationalgrid

National Grid plc, Warwick Technology Park, Galows Hill, Warwick, CV34 6DA

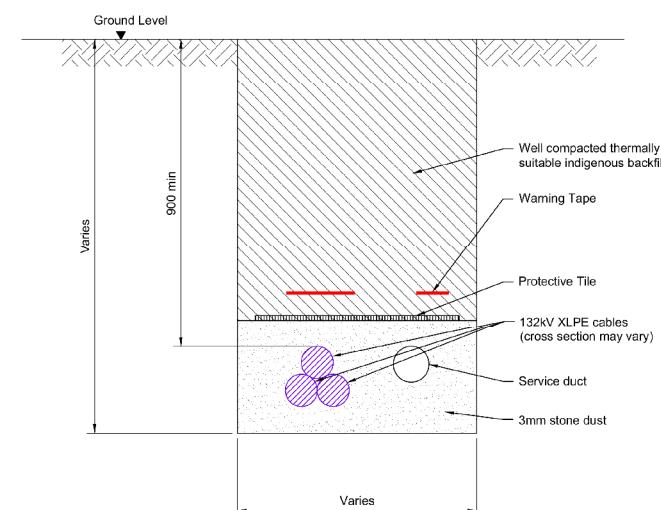
NG INVESTMENT No.	APPLICATION No.	GIS
20897	EN020001	A3
FIGURE No.	DRAWING No.	SCALE
3.17.6	G1979.2117.6C	NTS

SHEET 6 of 13

ISSUE A



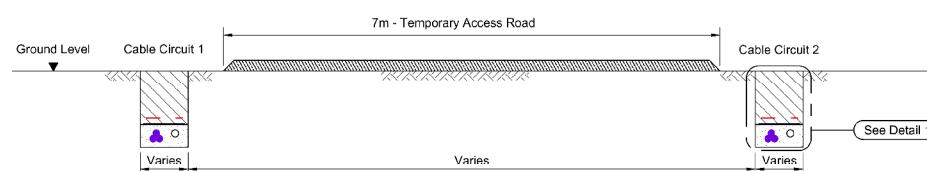
Typical Plan View of Direct Buried Cables



Detail 1

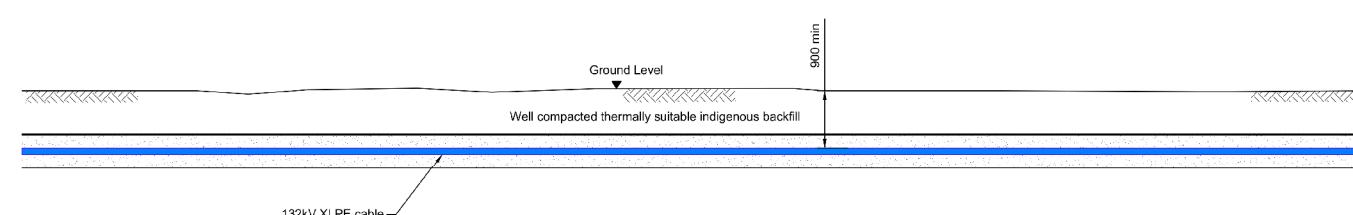
(See Note 5)

1:10



Section A-A
Typical Duct Cross Section

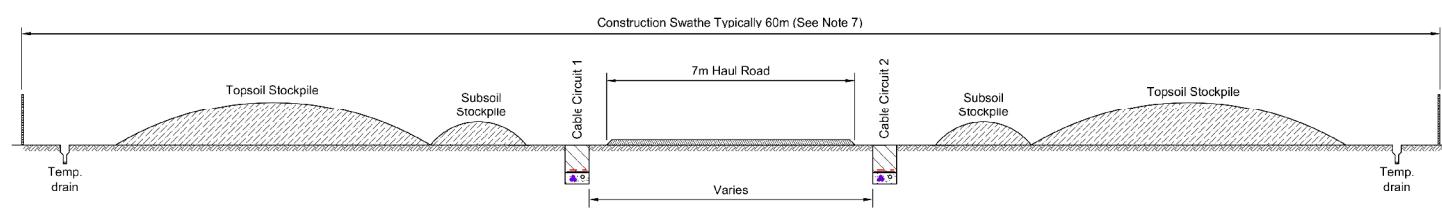
1:50



Section B-B
Typical Section View of Direct Buried Cables

(Service ducts omitted for clarity)

1:50



Typical Section Haul Road Swathe

1:100

Key	
	Proposed direct buried cable alignment
	Haul road
	Stone dust
	Well compacted thermally suitable indigenous backfill

Notes	
1.	All dimensions are in millimetres unless otherwise stated.
2.	Dimensional information should not be obtained from this drawing (do not scale).
3.	Dimensions and depths are indicative only and will vary according to installation and site conditions.
4.	Proposed general arrangement based on WPD requirements.
5.	Trench arrangement and dimensions to be confirmed during detail design stages.
6.	Minimum depth to top of cables to be 900mm in general installation, except in agricultural land where the minimum is 1000mm.
7.	Construction swathe width may vary according to site conditions.

NOTE:
Original Drawing Number -

NG - 13/NG/0240
MMD-322069-E-DR-WPD-XX-0600

A 02/04/2014 DCO SUBMISSION CB BC BC
ISSUE DATE COMMENTS DRAW CHKD APPD

Title NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT)
ENVIRONMENTAL STATEMENT VOLUME 5.3.3
TYPICAL UNDERGROUND CABLE TECHNICAL ARRANGEMENT -
132kV UNDERGROUND CABLE INSTALLATION
TYPICAL DIRECT BURIED DETAILS & CONSTRUCTION SWATHE
GENERAL ARRANGEMENT

nationalgrid

National Grid plc, Warwick Technology Park, Galows Hill, Warwick, CV34 6DA

NG INVESTMENT No.	APPLICATION No.	GIS
20897	EN020001	A3
FIGURE No.	DRAWING No.	SCALE
3.17.7	G1979.2117.7C	NTS

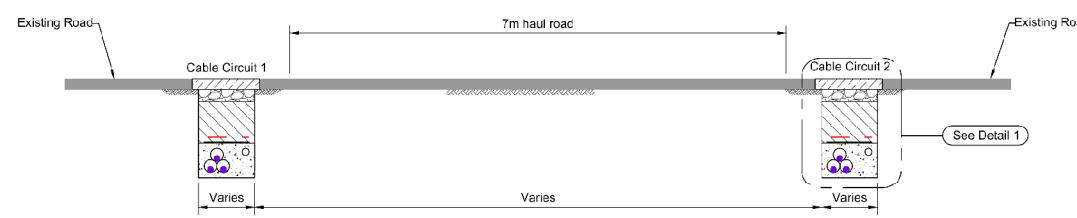
SHEET 7 of 13

ISSUE A



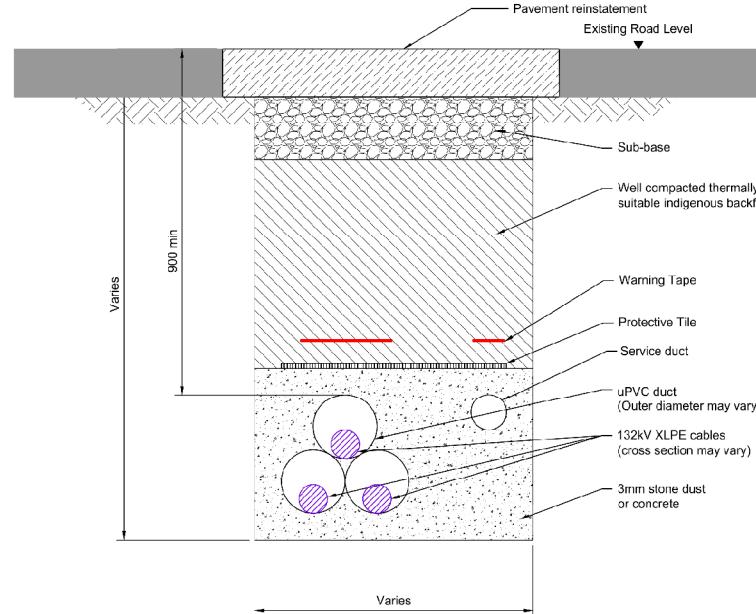
Typical Plan View of Open Cut Road Crossing

1:200



Section A-A
Typical Duct Cross Section

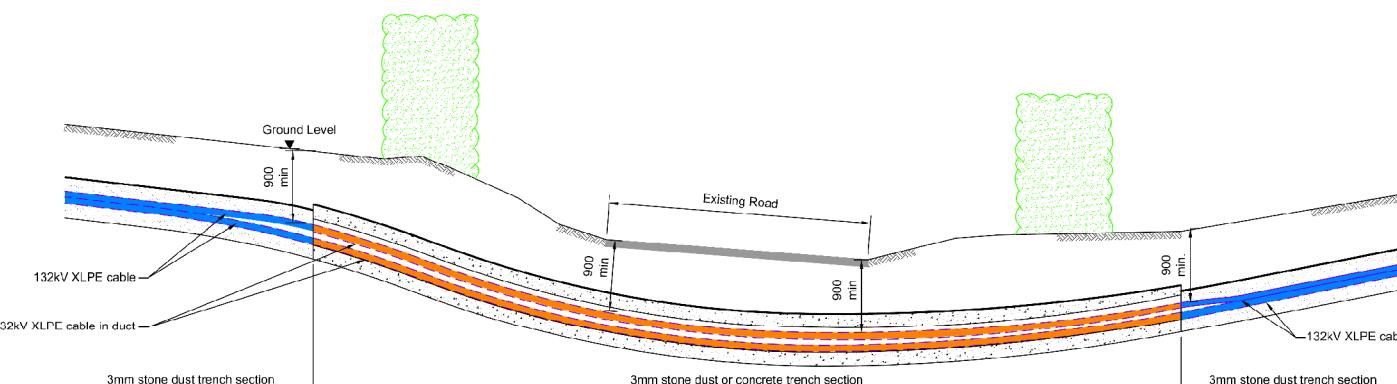
(1:50)



Detail 1

(See Note 5)

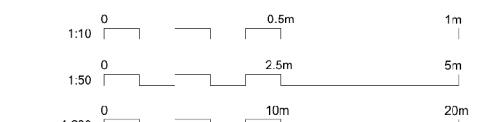
1:10



Section B-B
Typical Section View of Open Cut Road Crossing

(Service duct omitted for clarity)

1:50



Key	
Proposed direct buried cable alignment	
Proposed ducted cable alignment	
Haul road	
Existing road	
Existing hedgerow	
Existing hedgerow to be temporarily removed	
Reinforced Concrete or stone dust	
Stone dust	
Well compacted thermally suitable indigenous backfill	
Pavement reinstatement	
Sub-base	
Haul Road	

Notes

- All dimensions are in millimetres unless otherwise stated.
- Dimensional information should not be obtained from this drawing (do not scale).
- Dimensions and depths are indicative only and will vary according to installation and site conditions.
- Proposed general arrangement based on WPD requirements.
- Trench arrangement and dimensions to be confirmed during detail design stages.
- Bentonite may be required within ducts to potentially improve cable rating, subject to agreement with relevant stakeholders.

NOTE:
Original Drawing Number -

NG - 13/NG/0241
MMD-322069-E-DR-WPD-XX-0601

A	02/04/2014	DCO SUBMISSION	CB	BC	BC
ISSUE	DATE	COMMENTS	DRAW	CHKD	APP'D

Title NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT)
ENVIRONMENTAL STATEMENT
VOLUME 5.3.3

TYPICAL UNDERGROUND CABLE
TECHNICAL ARRANGEMENT -
132kV UNDERGROUND CABLE INSTALLATION
TYPICAL GENERAL ARRANGEMENT AT
OPEN CUT ROAD CROSSINGS

nationalgrid

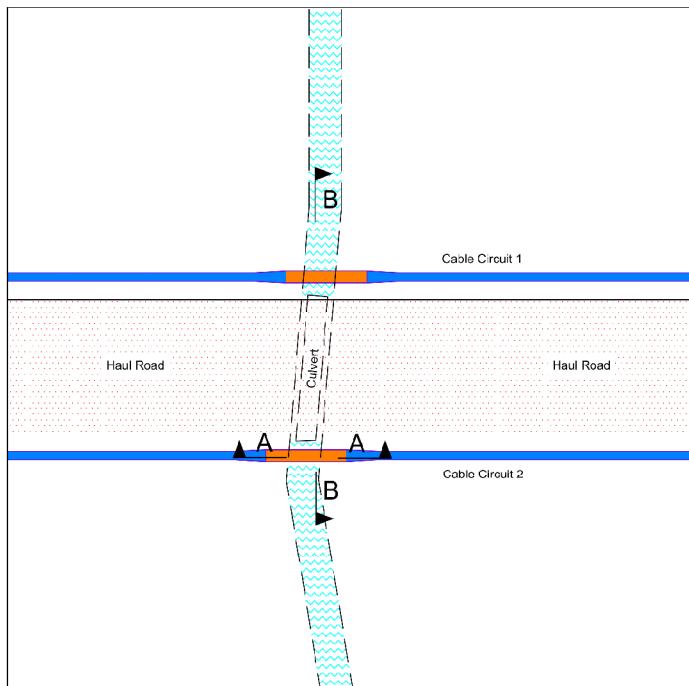
National Grid plc, Warwick Technology Park, Galows Hill, Warwick, CV34 6DA

NG INVESTMENT No.	APPLICATION No.	GIS
20897	EN020001	A3
FIGURE No.	DRAWING No.	SCALE
3.17.8	G1979.2117.8C	NTS

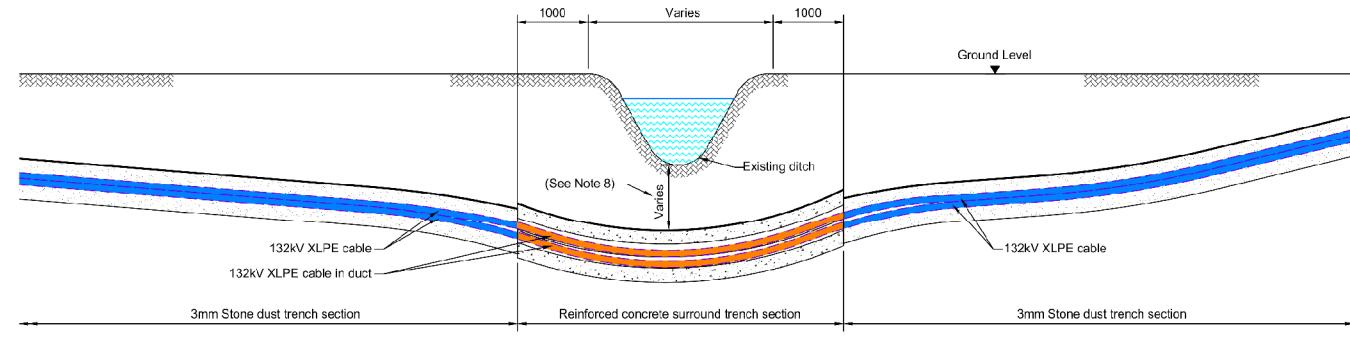
SHEET 8 of 13

ISSUE A

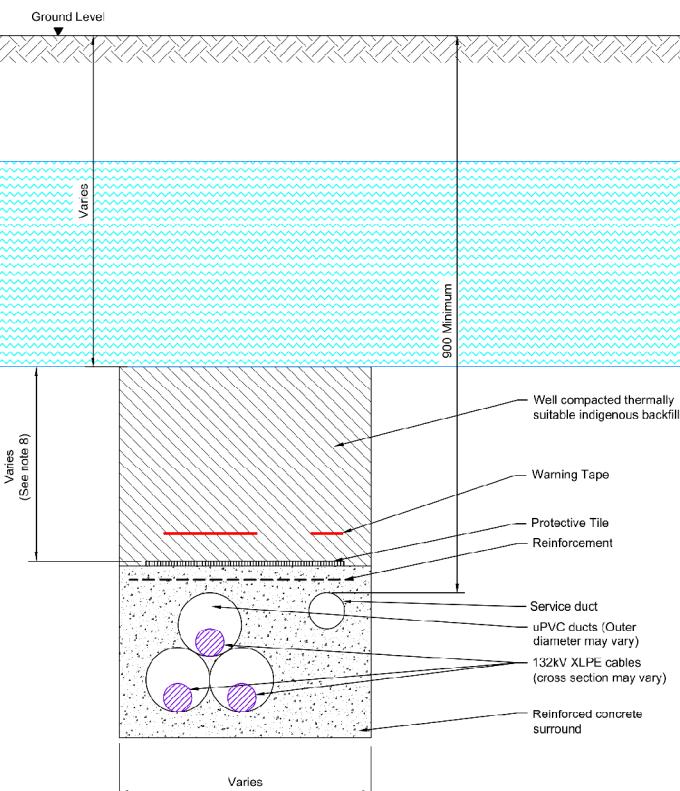
Key
Proposed direct buried cable alignment
Proposed ducted cable alignment
Haul road
Water Course
Reinforced Concrete
CBS (Cement bound sand)
Well compacted thermally suitable indigenous backfill



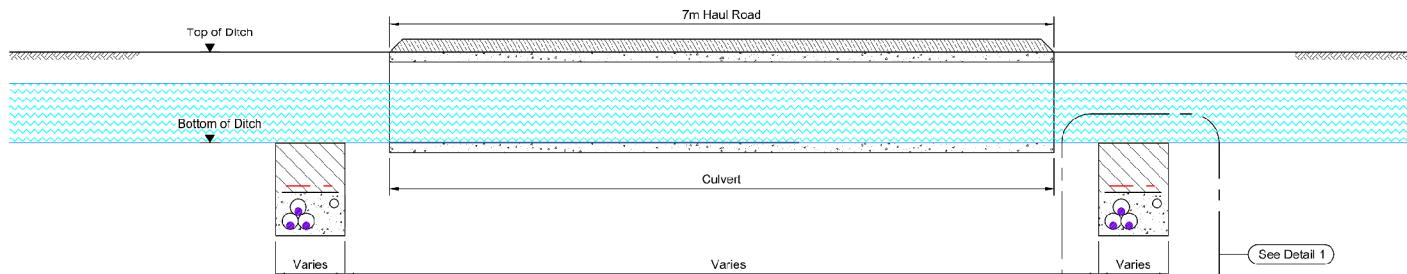
Typical Plan View of Ditch Crossing
1:200



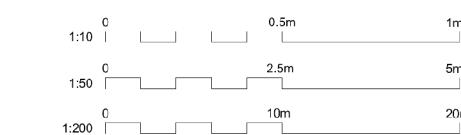
Section A-A
Typical Section View of Ditch Crossing (Cable)
(Service ducts and reinforcement omitted for clarity)
1:50



Detail 1
(see Note 4)
1:10



Section B-B
Typical Duct Cross Section
(Reinforcement omitted for clarity)
1:50



NOTE:
Original Drawing Number -

NG - 13/NG/0242
MMD-322069-E-DR-WPD-XX-0602

A	02/04/2014	DCO SUBMISSION	CB	BC	BC
ISSUE	DATE	COMMENTS	DRAW	CHKD	APP'D

Title NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT)
ENVIRONMENTAL STATEMENT
VOLUME 5.3.3

TYPICAL UNDERGROUND CABLE
TECHNICAL ARRANGEMENT -
132kV UNDERGROUND CABLE INSTALLATION
TYPICAL GENERAL ARRANGEMENT AT
DITCH CROSSING

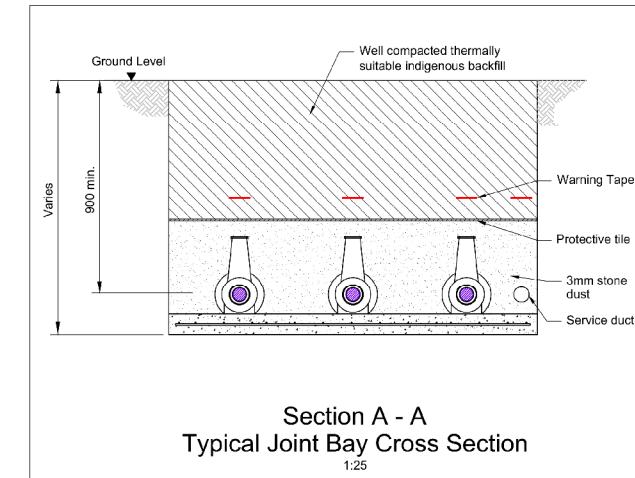
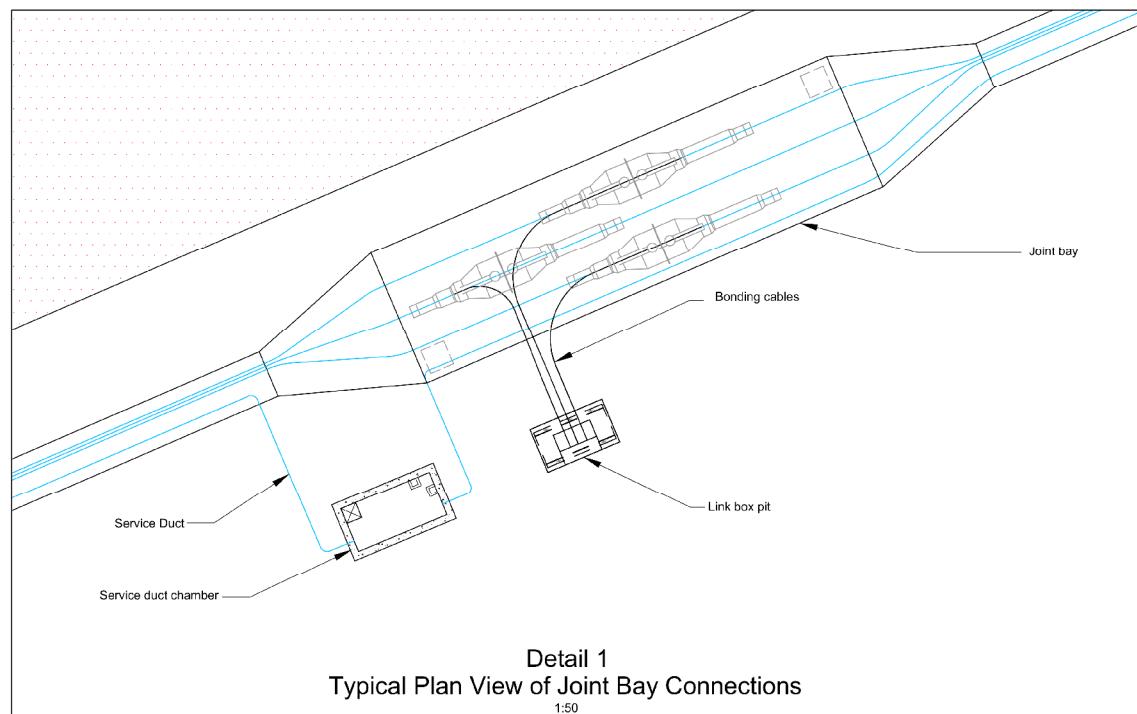
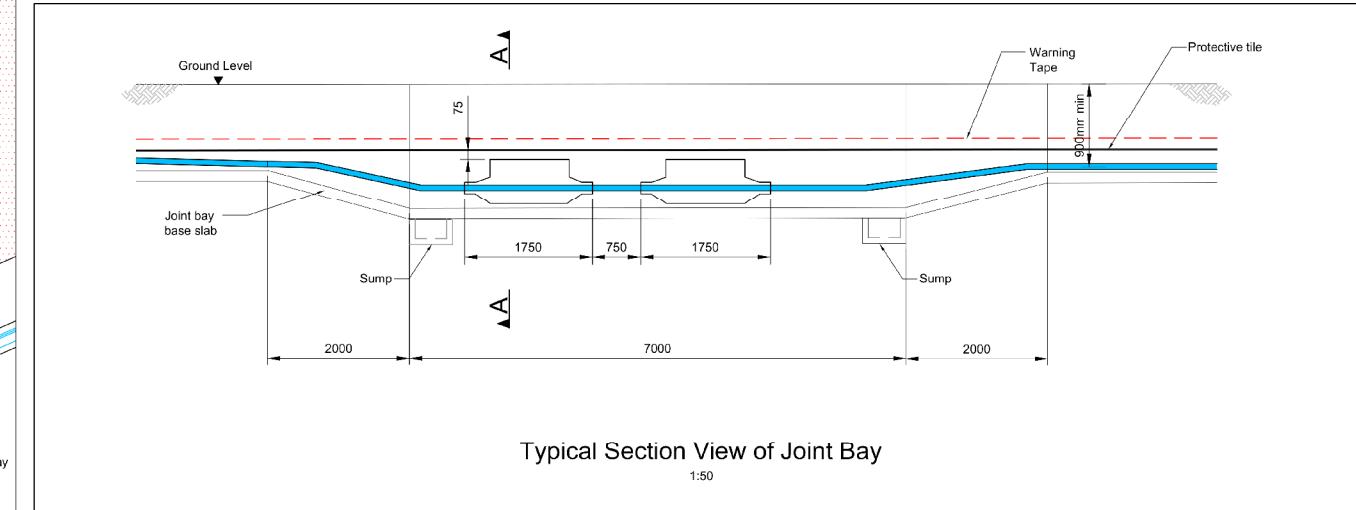
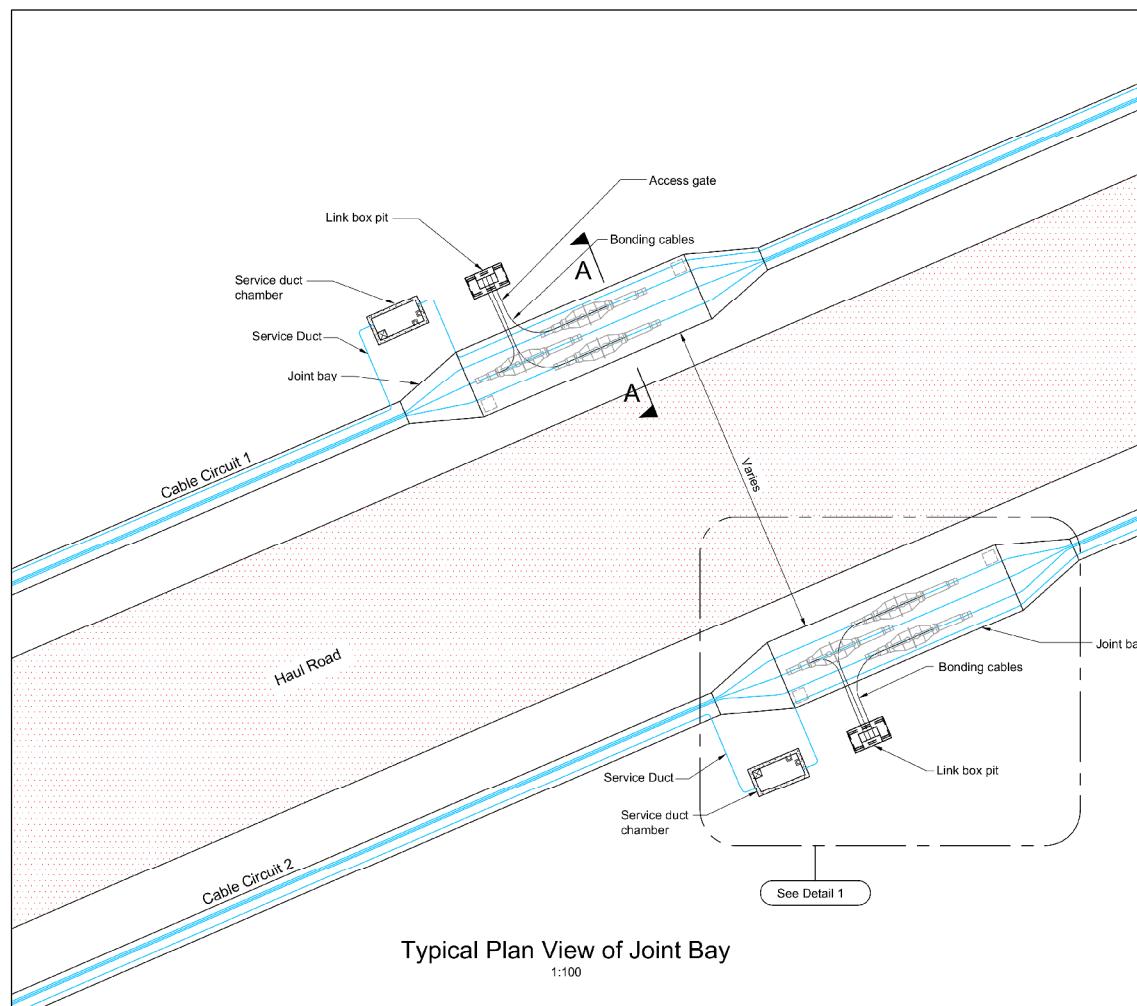
nationalgrid

National Grid plc, Warwick Technology Park, Galows Hill, Warwick, CV34 6DA

NG INVESTMENT No.	APPLICATION No.	GIS
20897	EN020001	A3
FIGURE No.	DRAWING No.	SCALE
3.17.9	G1979.2117.9C	NTS

SHEET 9 of 13

ISSUE A



Key	
	Proposed direct buried cable alignment
	Haul road
	Concrete
	Stone dust
	Well compacted thermally suitable indigenous backfill

Notes

1. All dimensions are in millimetres unless otherwise stated.
2. Do not scale any items of information from this drawing.
3. Existing ground profiles shown are for general indication only.
4. Arrangement shown for indicative purpose only. Dimensions and design may vary depending on site and installation conditions.
5. Link boxes to be installed below ground. Length of the bonding leads which connects to the link boxes must not exceed 8m as per WPD standard CA6A/3.
6. Joint separation to be determined dependant on onsite conditions.

NOTE:
Original Drawing Number -

NG - 13/NG/0215
MMD-322069-E-DR-WPD-XX-0700

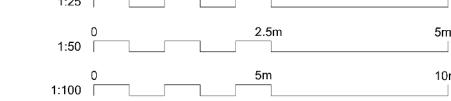
A	02/04/2014	DCO SUBMISSION	CB BC BC
ISSUE DATE	COMMENTS	DRAW CHKD APP'D	

Title NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT)
ENVIRONMENTAL STATEMENT
VOLUME 5.3.3

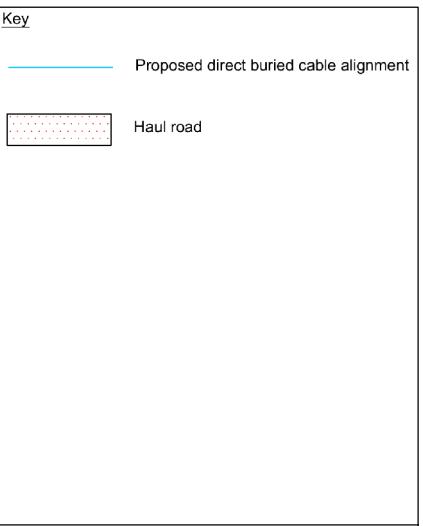
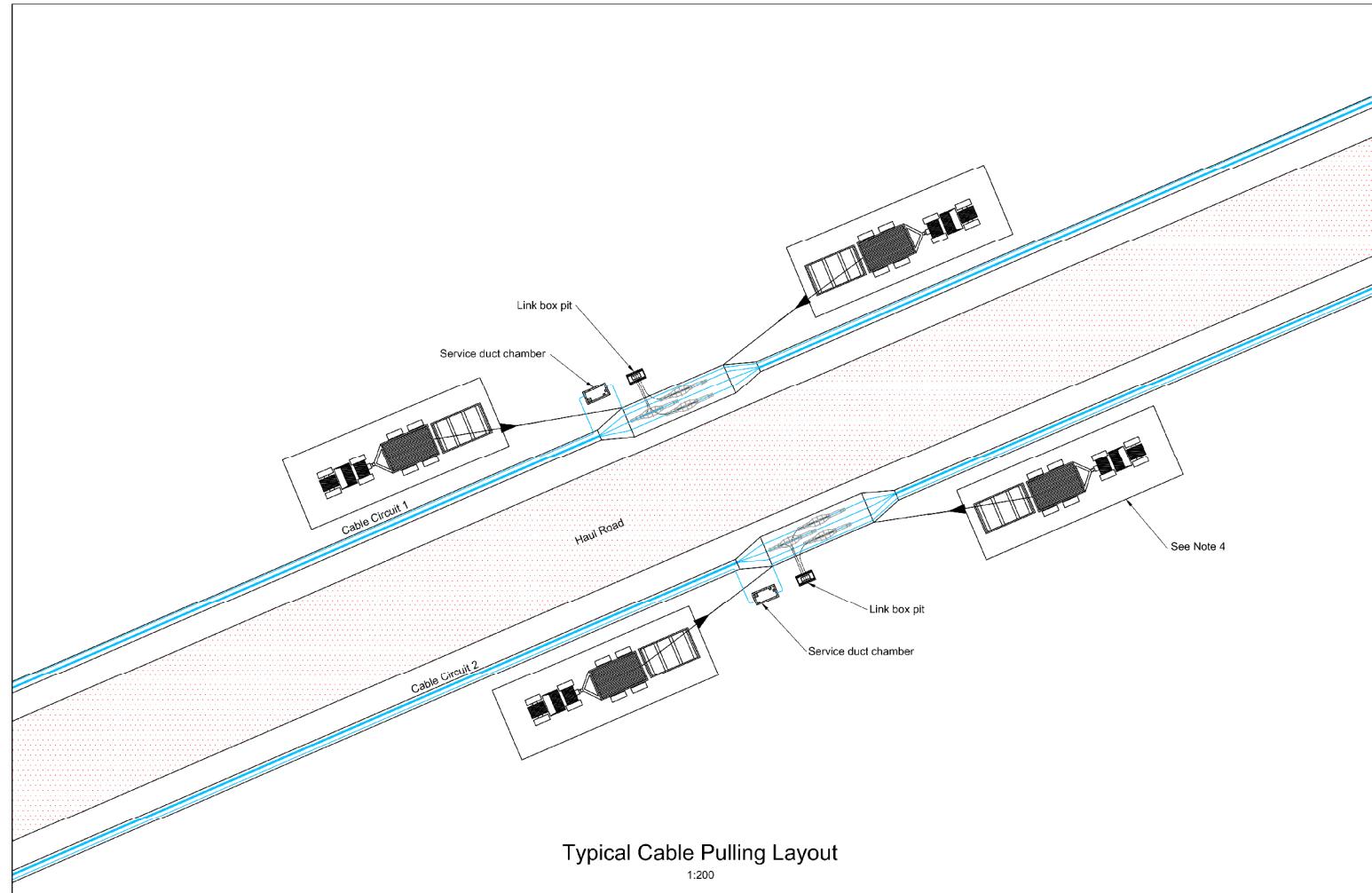
TYPICAL UNDERGROUND CABLE
TECHNICAL ARRANGEMENT -
132kV UNDERGROUND CABLE INSTALLATION
TYPICAL GENERAL ARRANGEMENT OF
JOINT BAY WITH LINK BOX PIT

nationalgrid

National Grid plc, Warwick Technology Park, Galows Hill, Warwick, CV34 6DA

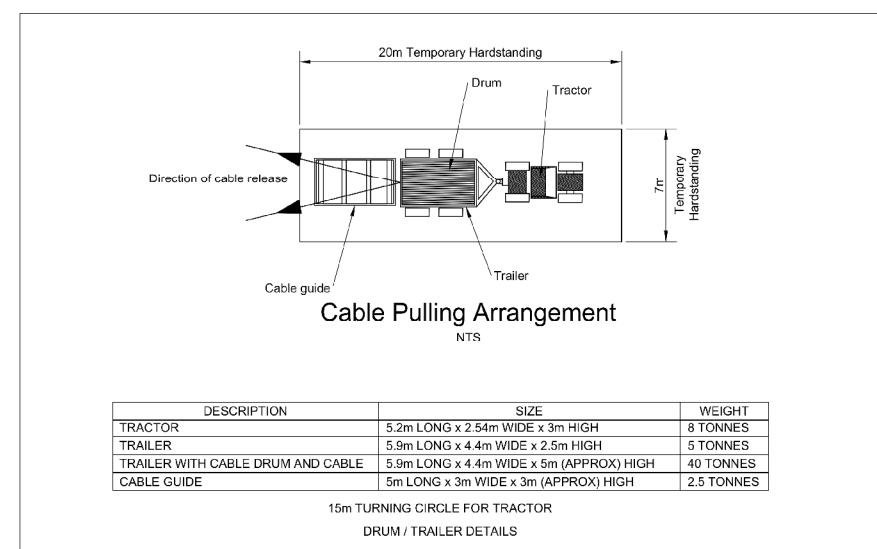


NG INVESTMENT No.	APPLICATION No.	GIS
20897	EN020001	A3
FIGURE No.	DRAWING No.	SCALE
3.17.10	G1979.2117.10C	NTS
SHEET 10 of 13		ISSUE
		A



Notes

- Do not scale any items of information from this drawing.
- Hardstanding shall be capable of supporting equipment/mobile plant.
- Arrangement shown for indicative purposes only, dimensions and design may vary depending on site and installation conditions.
- Indicative location of trailer mounted cable drum.



NOTE:
Original Drawing Number -
NG - 13/NG/0216
MMD-322069-E-DR-WPD-XX-0701

A	02/04/2014	DCO SUBMISSION	CB BC BC
ISSUE	DATE	COMMENTS	DRAW CHKD APP'D

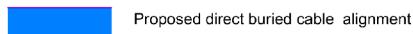
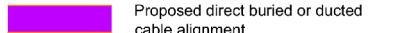
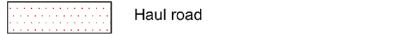
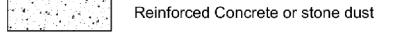
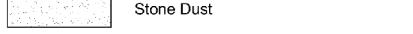
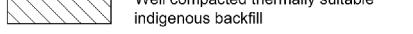
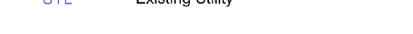
Title NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT)
ENVIRONMENTAL STATEMENT
VOLUME 5.3.3

TYPICAL UNDERGROUND CABLE TECHNICAL ARRANGEMENT -
132kV UNDERGROUND CABLE INSTALLATION
TYPICAL GENERAL ARRANGEMENT OF
CABLE PULLING LOCATION

nationalgrid

National Grid plc, Warwick Technology Park, Galows Hill, Warwick, CV34 6DA

NG INVESTMENT No.	APPLICATION No.	GIS
20897	EN020001	A3
FIGURE No.	DRAWING No.	SCALE
3.17.11	G1979.2117.11C	NTS
SHEET 11 of 13		ISSUE
A		

Key	
	Proposed direct buried cable alignment
	Proposed direct buried or ducted cable alignment
	Haul road
	Reinforced Concrete or stone dust
	Stone Dust
	Well compacted thermally suitable indigenous backfill
	Existing Utility

Notes
1. All dimensions are in millimetres unless otherwise stated.
2. Dimensional information should not be obtained from this drawing (do not scale).
3. Dimensions and depths are indicative only and will vary according to installation and site conditions.
4. Proposed general arrangement based on WPD requirements.
5. Trench arrangement and dimensions to be confirmed during detail design stages.
6. Minimum depth to top of cable to be 900mm in general installation, except in agricultural land where the minimum is 1000mm.
7. Where possible, cable crossing at existing services should be perpendicular.
8. Spacing between utility and cable is subject to agreement with the relevant provider/asset owner at individual locations.

NOTE:			
Original Drawing Number -			
NG - 13/NG/0243 MMD-322069-E-DR-WPD-XX-0603			
A	02/04/2014	DCO SUBMISSION	CB BC BC
ISSUE	DATE	COMMENTS	DRAW CHKD APPD

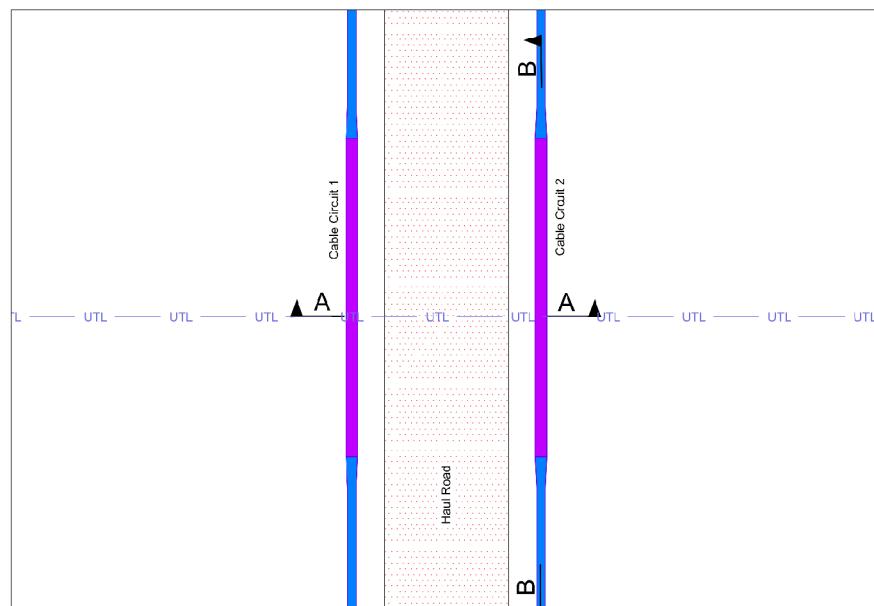
Title NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT)
ENVIRONMENTAL STATEMENT
VOLUME 5.3.3

TYPICAL UNDERGROUND CABLE
TECHNICAL ARRANGEMENT -
132kV UNDERGROUND CABLE INSTALLATION
TYPICAL SERVICES CROSSING DETAIL
& GENERAL ARRANGEMENT

nationalgrid

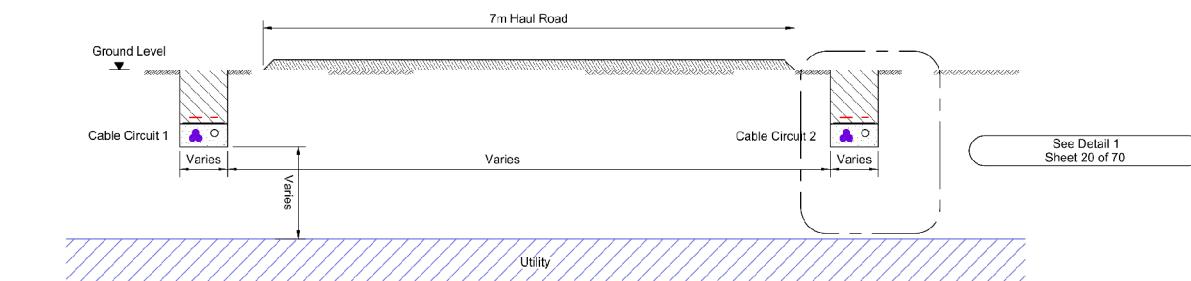
National Grid plc, Warwick Technology Park, Galows Hill, Warwick, CV34 6DA

NG INVESTMENT No.	APPLICATION No.	GIS
20897	EN020001	A3
FIGURE No.	DRAWING No.	SCALE
3.17.12	G1979.2117.12C	NTS
SHEET 12 of 13		ISSUE
		A



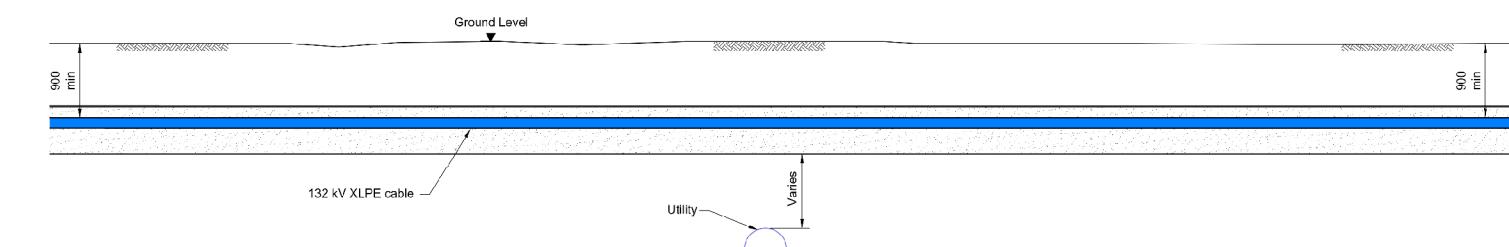
Typical Plan View of Utility Crossing

1:200



Section A-A
Typical Utility Crossings - Above Existing Services

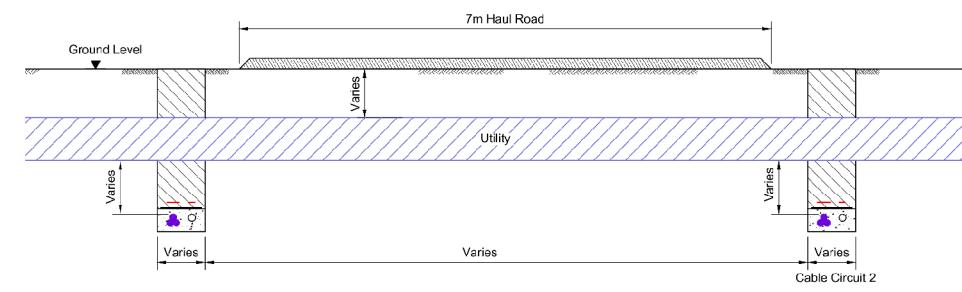
1:50



Section B-B
Typical Utility Crossings - Above Existing Services

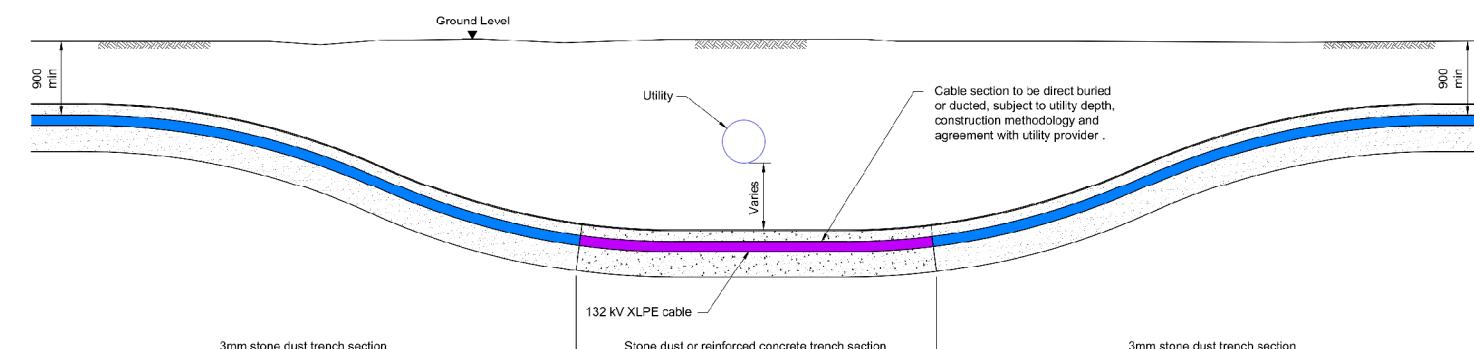
(Service ducts omitted for clarity)

1:50



Section A-A
Typical Utility Crossings - Below Existing Services

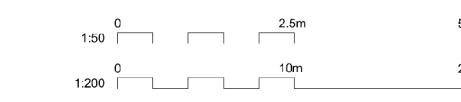
1:50

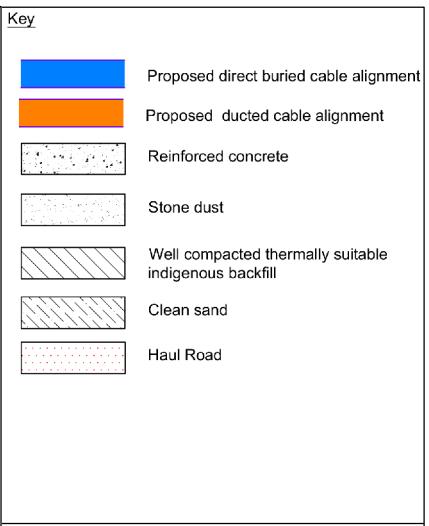
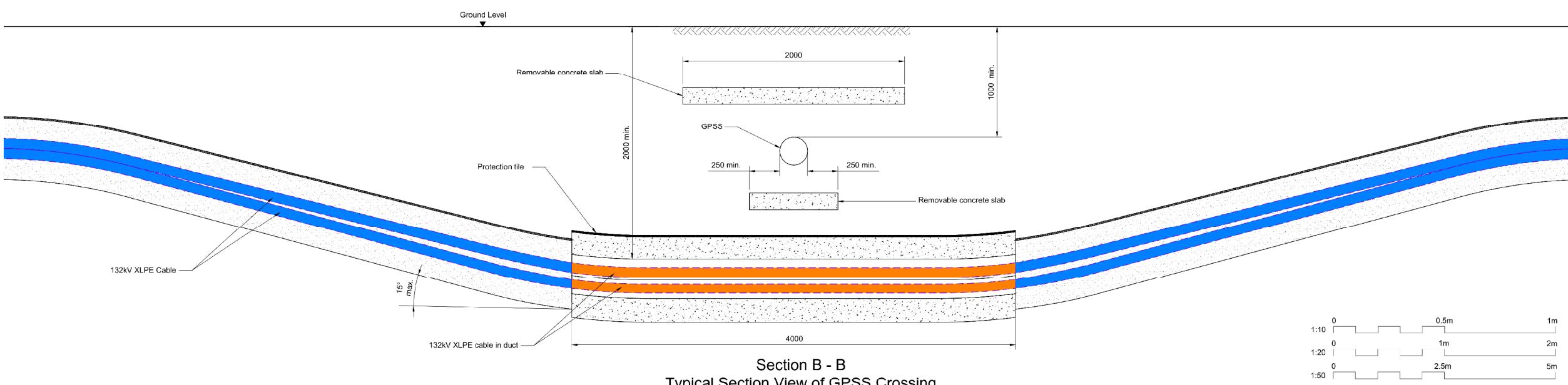
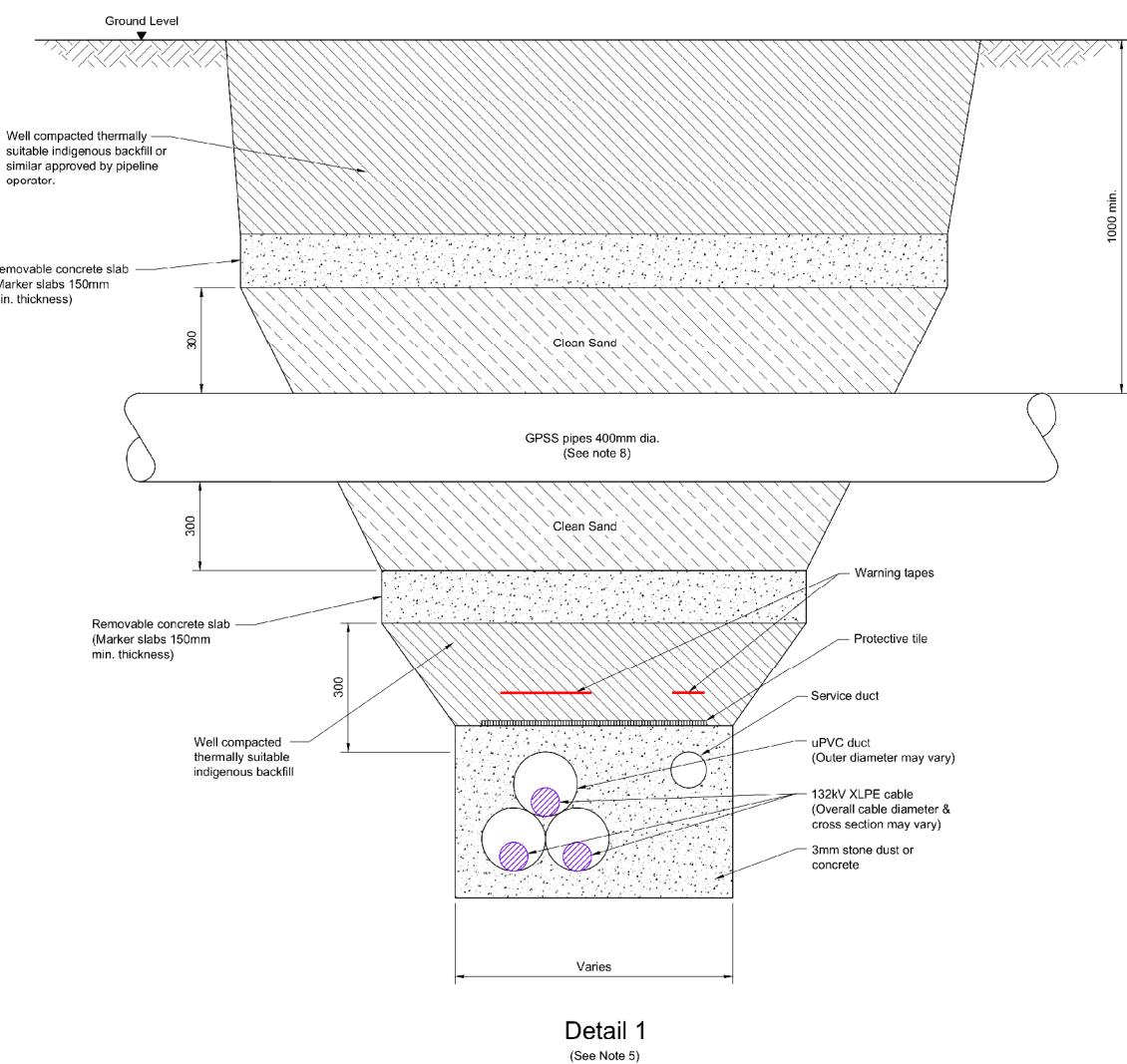
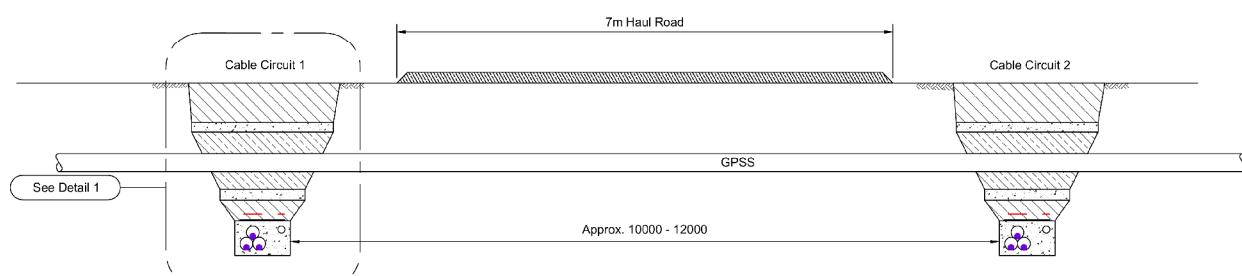
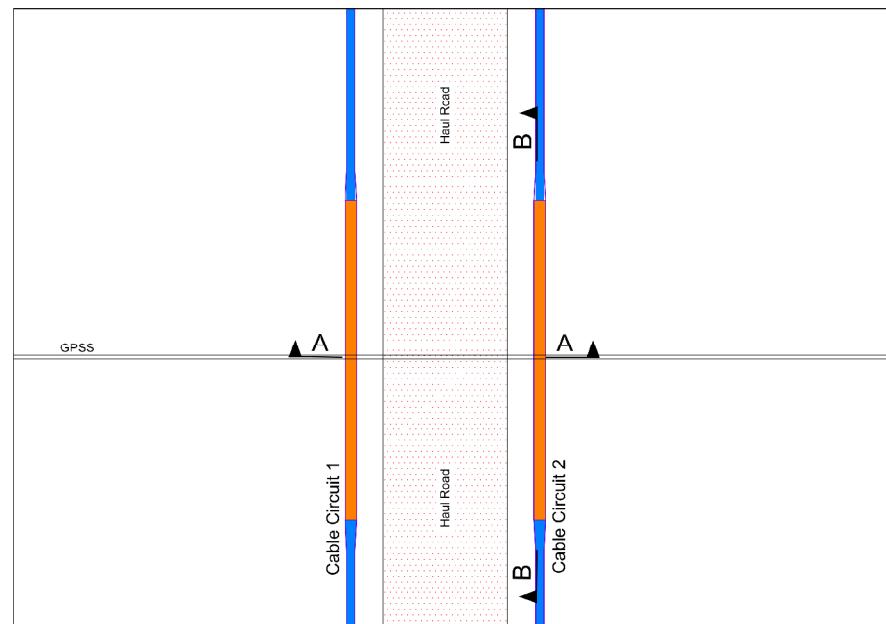


Section B-B
Typical Utility Crossings - Below Existing Services

(Service ducts omitted for clarity)

1:50





Notes

- All dimensions are in millimetres unless otherwise stated.
- Dimensional information should not be obtained from this drawing (do not scale).
- Dimensions and depths are indicative only and will vary according to installation and site conditions.
- General arrangement based on WPD standard CA6A/3 and GPSS Standard relating to the installation of underground cables.
- Trench arrangement and dimensions to be confirmed during detail design stages.
- Bentonite may be required within ducts to potentially improve cable rating, subject to agreement with relevant stakeholders.
- The cable sizes to be confirmed at a later stage.
- GPSS pipe dimensions are assumed only.

NOTE:
Original Drawing Number -

NG - 13/NG/0239
MMD-322069-E-DR-WPD-XX-0606

A	02/04/2014	DCO SUBMISSION	CB	BC	BC
ISSUE	DATE	COMMENTS	DRAW	CHKD	APP'D

Title NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT)
ENVIRONMENTAL STATEMENT VOLUME 5.3.3

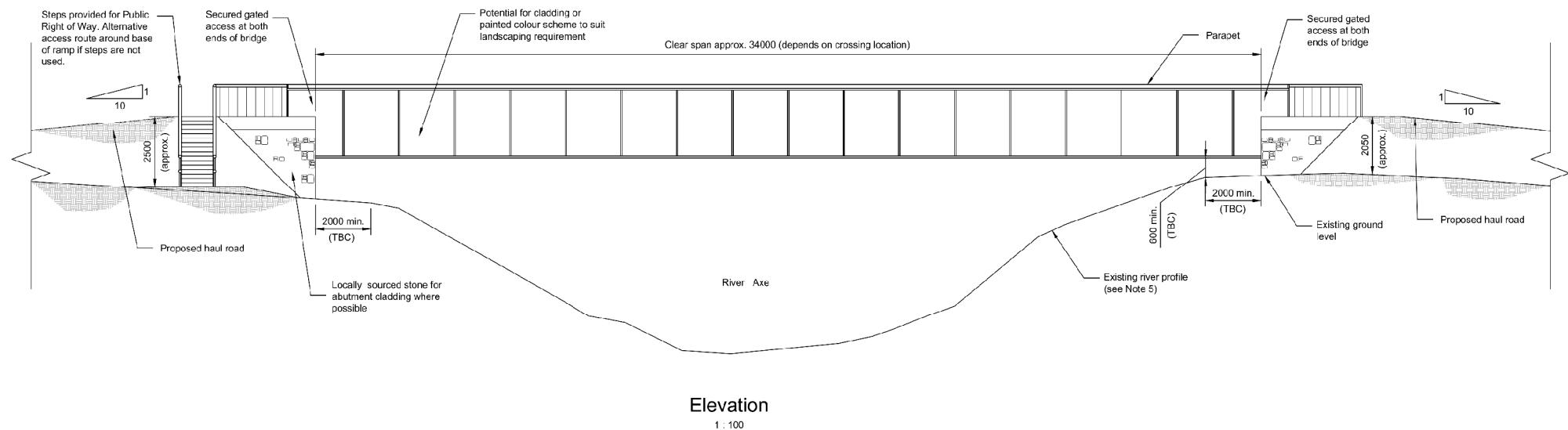
TYPICAL UNDERGROUND CABLE TECHNICAL ARRANGEMENT -
132kV UNDERGROUND CABLE INSTALLATION
TYPICAL GENERAL ARRANGEMENT AT GPSS
(GOVERNMENT PIPELINE AND STORAGE SYSTEM) CROSSING

nationalgrid

National Grid plc, Warwick Technology Park, Galows Hill, Warwick, CV34 6DA

NG INVESTMENT No.	APPLICATION No.	GIS
20897	EN020001	A3
FIGURE No.	DRAWING No.	SCALE
3.17.13	G1979.2117.13A	NTS
SHEET	ISSUE	NTS
13 of 13		A

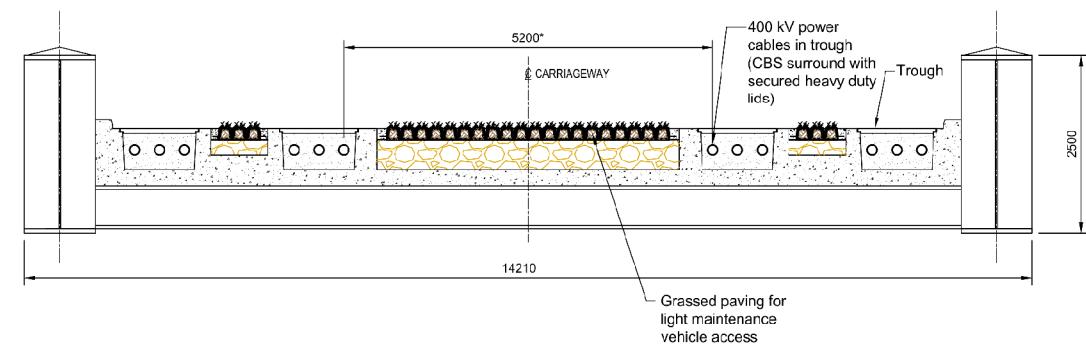
Figure 3.18 - River Axe and Towerhead Brook Crossing Options



Key	
	Grasscrete
	Concrete
	CBS (Cement Bound Sand)
	Sub-base

Notes

1. All dimensions are in millimetres unless otherwise stated.
2. This drawing to be read in conjunction with Drawings Sheet 13 & 14 of 70.
3. Do not scale any items of information from this drawing.
4. All structural arrangements of bridge shown indicatively, dimensions subject to 3rd party discussions, on site survey results and design development.
5. River Axe profile based on Topographic Survey Drawing dated 12/04/2013 provided by National Grid.



Typical Section : Half-through Girder
(Cable and Light Vehicle Access Bridge)

1:50

* Minimum cable separation based on initial discussions subject to design development

1:1000 0 50m 100m 1:50 0 2.5m 5m

A	02/04/2014	DCO SUBMISSION	CB BC BC
ISSUE	DATE	COMMENTS	DRAW CHKD APP'D

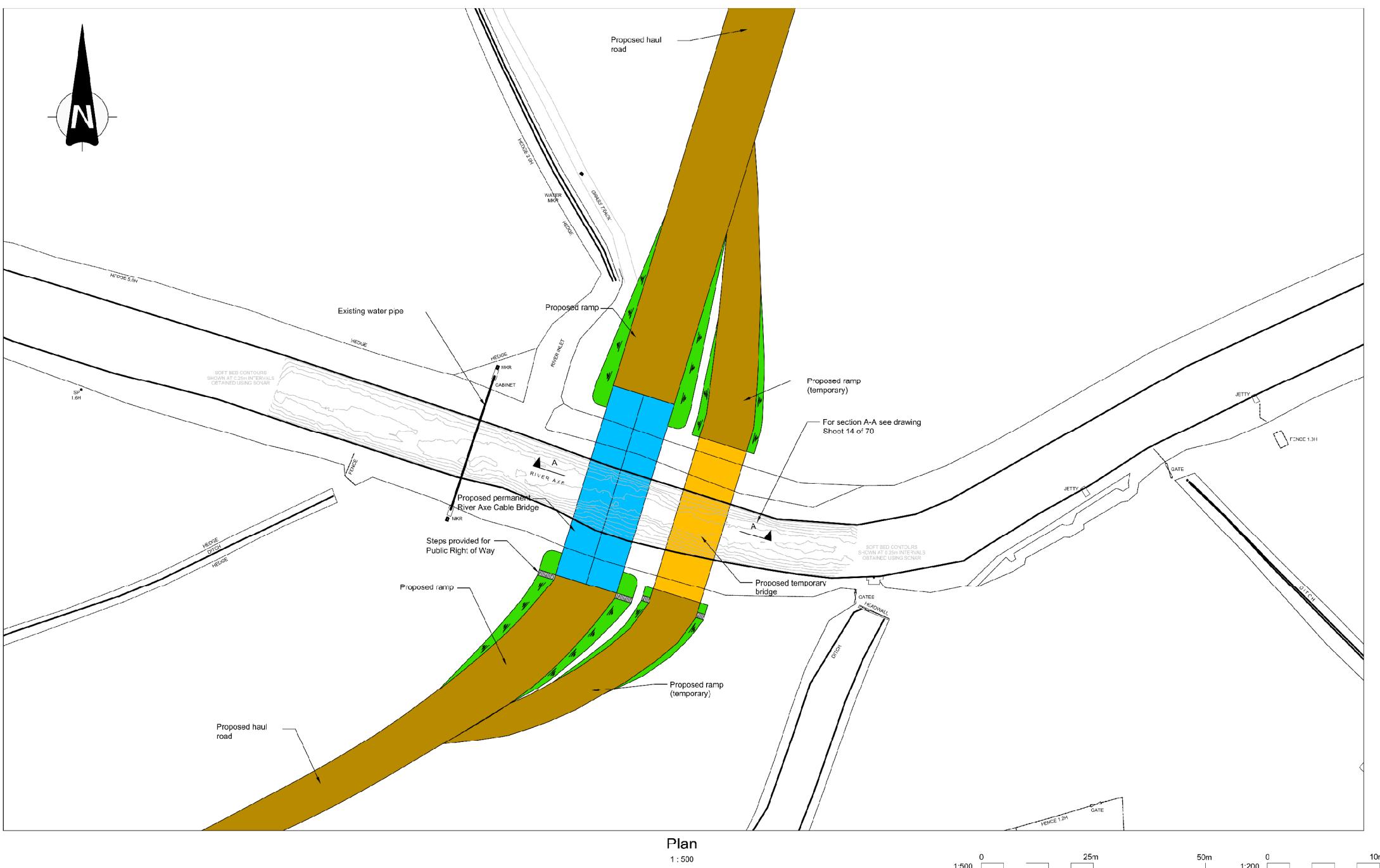
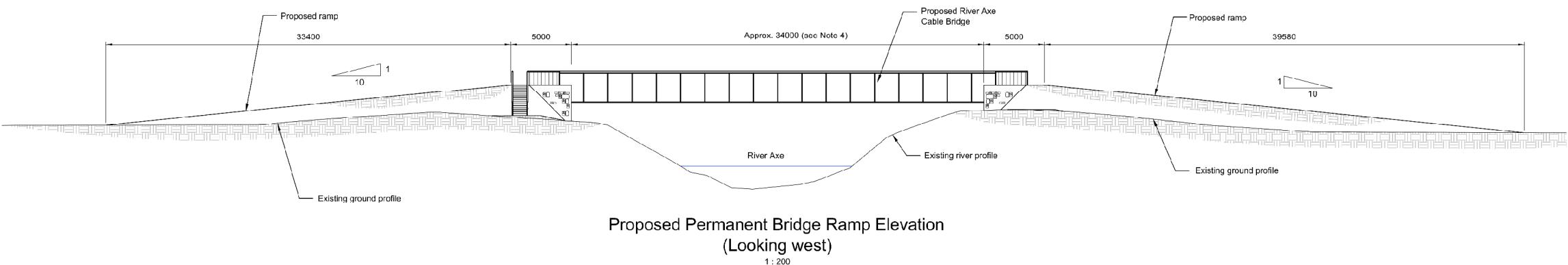
Title NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT) ENVIRONMENTAL STATEMENT VOLUME 5.3.3

RIVER AXE AND TOWERHEAD BROOK CROSSING OPTIONS - RIVER AXE CABLE BRIDGE ELEVATION AND CROSS SECTION

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National Grid plc, Warwick Technology Park, Galows Hill, Warwick, CV34 6DA

NG INVESTMENT No.	APPLICATION No.	GIS
20897	EN020001	A3
FIGURE No.	DRAWING No.	SCALE
3.18.1	G1979.2118.1C	NTS
SHEET 1 of 7		ISSUE
A		A



A map showing the locations of LOXTON, WEBBINGTON, and BIDDISHAM. An M5 motorway is visible on the left. A red box highlights a specific area in the center, which is the proposed site for the new development.

- Proposed River Axe cable bridge structure
- Proposed temporary bridge
- Proposed embankment
- Proposed haul road

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Serial Drawing Number -

3/NG/0244
322069-E-DR-400UG-XX-0901

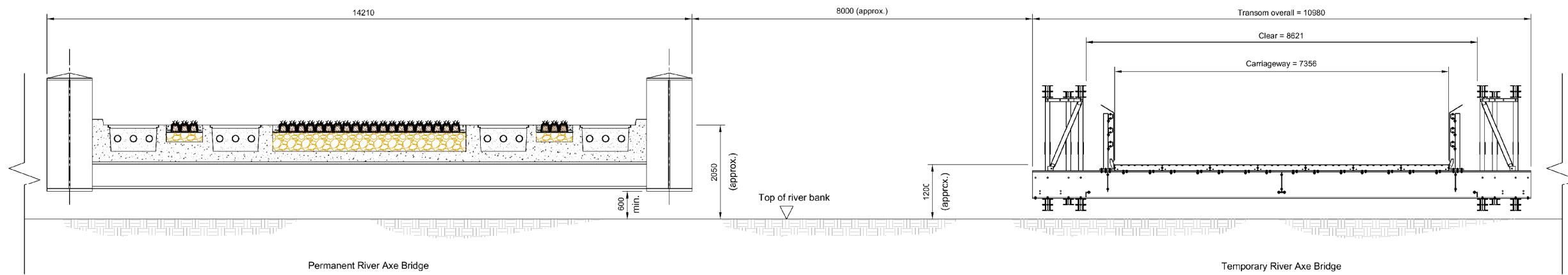
NATIONAL GRID (HINKLEY POINT C
CONNECTION PROJECT)
ENVIRONMENTAL STATEMENT
VOLUME 5.3.3

RIVER AXE AND TOWERHEAD BROOK
CROSSING OPTIONS -
RIVER AXE CABLE BRIDGE
PLAN AND ELEVATION OF RAMP

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STMENT NO.	APPLICATION NO.	GIS
897	EN020001	
NO.	DRAWING NO.	SCALE
18.2	G1979.2118.2C	NTS
SHEET 2 of 7		ISSUE
		A



Section A - A

1 : 50

A	02/04/2014	DCO SUBMISSION	CB	BC
ISSUE	DATE	COMMENTS	DRAW	CHKD
				APR'D

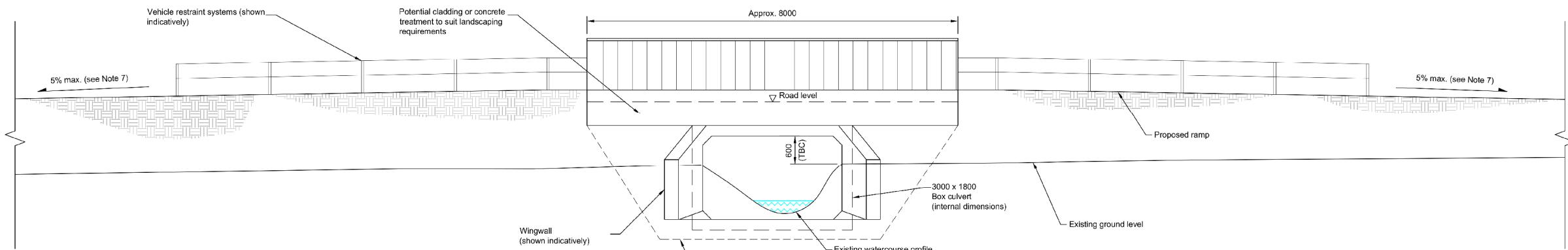
Title NATIONAL GRID (HINKLEY POINT C
CONNECTION PROJECT)
ENVIRONMENTAL STATEMENT
VOLUME 5.3.3

RIVER AXE AND TOWERHEAD BROOK
CROSSING OPTIONS -
RIVER AXE CABLE BRIDGE
COMBINED CROSS SECTION OF
TEMPORARY AND PERMANENT BRIDGES

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NG INVESTMENT No.	APPLICATION No.	GIS
20897	EN020001	A3
FIGURE No.	DRAWING No.	SCALE
3.18.3	G1979.2118.3C	NTS
SHEET 3 of 7		ISSUE A



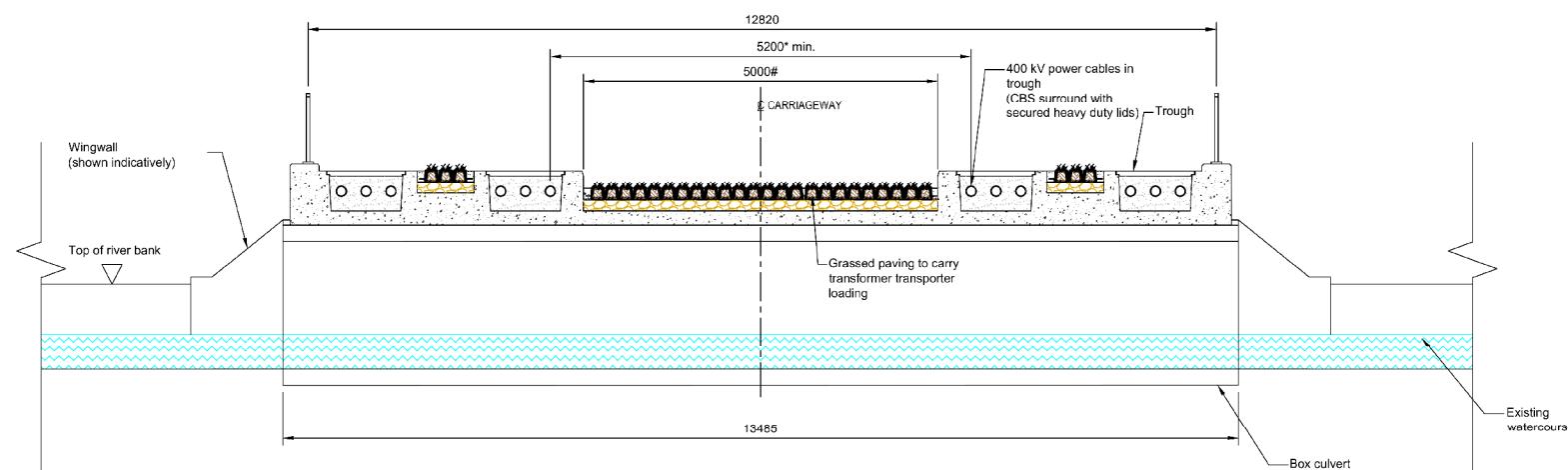
Elevation (Looking West)

1:50

Key	
	Grasscrete
	Concrete
	CBS (Cement Bound Sand)
	Sub-base
	Existing watercourse

Notes

1. All dimensions are in millimetres unless otherwise stated.
2. This drawing to be read in conjunction with Drawing Sheet 17 of 70.
3. Do not scale any items of information from this drawing.
4. All structural arrangements of crossing shown indicatively, dimensions subject to 3rd party discussions, on site survey results and design development.
5. Towerhead Brook profile based on Topographic Survey Drawing dated 12/04/2013 provided by National Grid.
6. Minimum requirement for slope transition to be confirmed by transformer transporter.
7. Ramp: maximum gradient 5%, minimum transition of 20m from 0 - 5%.



Typical Section

(Combined Transformer Access and Cable Bridge)

1:50

* Minimum cable separation based on initial discussions subject to design development
Minimum construction/transformer access width based on initial discussions subject to design development

0 1.50 2.5m 5m

NOTE:
Original Drawing Number -

NG - 13/NG/0245
MMD-322069-E-DR-400UG-XX-0910

A	02/04/2014	DCO SUBMISSION	CB BC BC
ISSUE	DATE	COMMENTS	DRAW CHKD APP'D

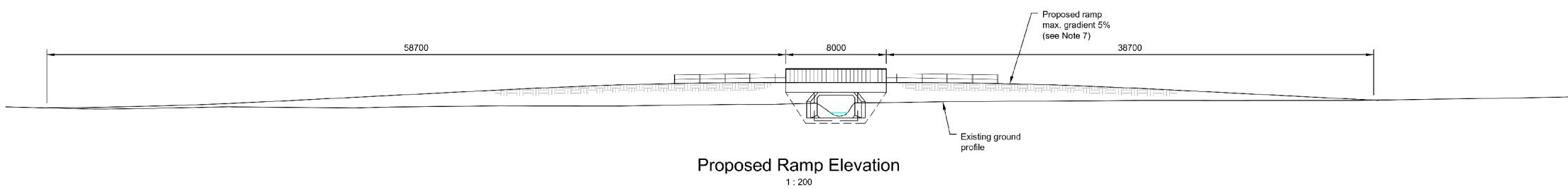
Title NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT)
ENVIRONMENTAL STATEMENT
VOLUME 5.3.3

RIVER AXE AND TOWERHEAD BROOK CROSSING OPTIONS -
TOWERHEAD BROOK CABLE CROSSING
ELEVATION AND CROSS SECTION
(CULVERT OPTION)

nationalgrid

National Grid plc, Warwick Technology Park, Galows Hill, Warwick, CV34 6DA

NG INVESTMENT No.	APPLICATION No.	GIS
20897	EN020001	A3
FIGURE No.	DRAWING No.	SCALE
3.18.4	G1979.2118.4C	NTS
SHEET 4 of 7		ISSUE
A		A



This map shows the Banwell and Sandford areas. A red box highlights a specific location in the Sandford area. A north arrow is located in the top left corner. A scale bar is located on the left side.

Key



- Proposed Towerhead Brook bridge structure
- Proposed embankment
- Proposed haul road

Notes

1. All dimensions are in millimetres unless otherwise stated.
2. Do not scale any items of information from this drawing.
3. This drawing to be read in conjunction with Drawing Sheet 16 of 70.
4. All structural arrangements of bridge shown indicatively, dimensions subject to 3rd party discussions, on site survey results and design development.
5. Towerhead Brook profile based on Topographic Survey Drawing dated 12/04/2013 provided by National Grid.
6. Minimum requirement for slope transition to be confirmed by transformer transporter.
7. Ramp: maximum gradient 5%, minimum transition of 20m from 0 - 5%

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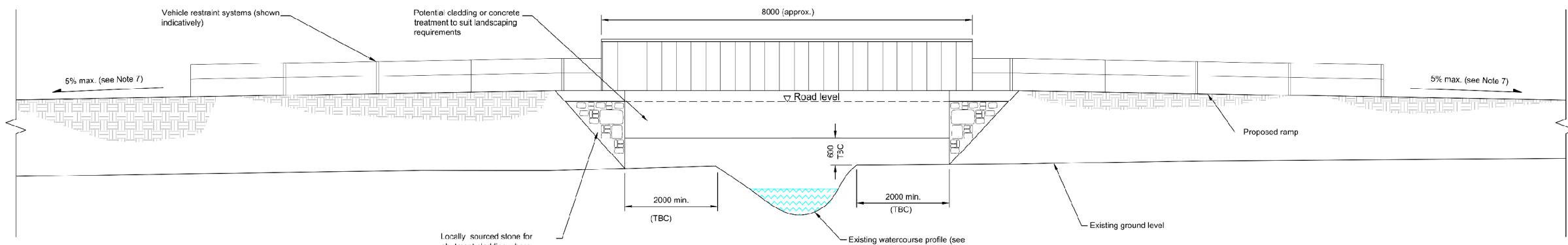
Title NATIONAL GRID (HINKLEY POINT C
CONNECTION PROJECT)
ENVIRONMENTAL STATEMENT
VOLUME 5.3.3

RIVER AXE AND TOWERHEAD BROOK
CROSSING OPTIONS -
TOWERHEAD BROOK CABLE CROSSING
PLAN AND ELEVATION OF RAMP
(CULVERT OPTION)

nationalgrid

national Grid plc, Warwick Technology Park, Gallows Hill, Warwick, CV34 6DA

NG INVESTMENT No.	APPLICATION No.		GIS
20897	EN020001		A3
FIGURE No.	DRAWING No.	SCALE	
3.18.5	G1979.2118.5C	NTS	
SHEET 5 of 7			ISSUE
			A



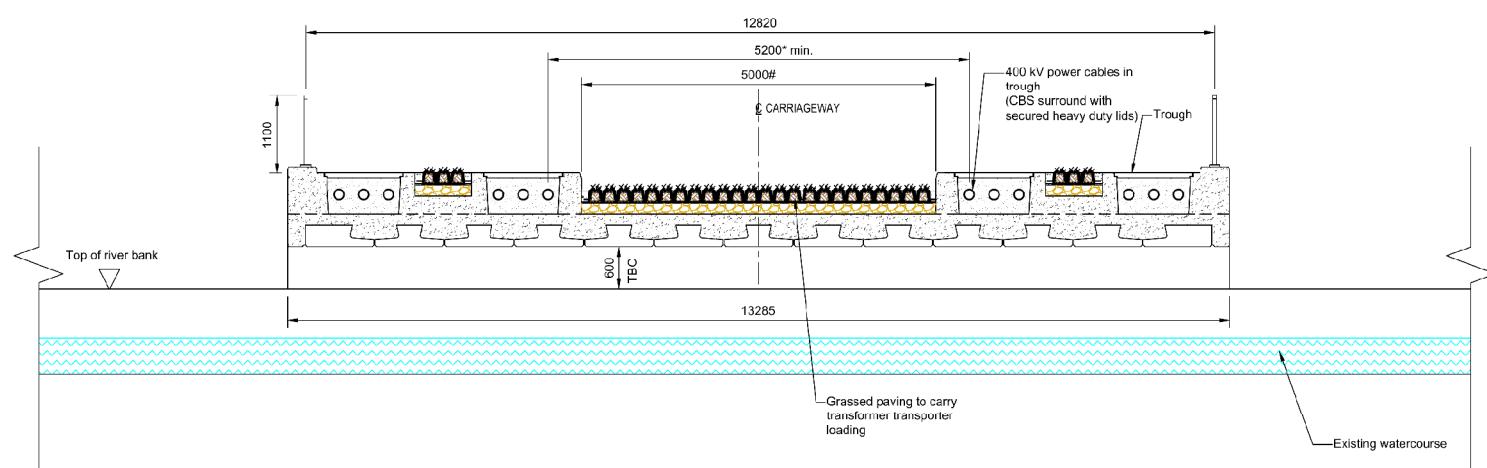
Elevation (Looking West)

1:50

Key	
	Grasscrete
	Concrete
	CBS (Cement Bound Sand)
	Sub-base
	Existing watercourse

Notes

- All dimensions are in millimetres unless otherwise stated.
- This drawing to be read in conjunction with Drawing Sheet 19 of 70.
- Do not scale any items of information from this drawing.
- All structural arrangements of crossing shown indicatively, dimensions subject to 3rd party discussions, on site survey results and design development.
- Towerhead Brook profile based on Topographic Survey Drawing dated 12/04/2013 provided by National Grid.
- Minimum requirement for slope transition to be confirmed by transformer transporter.
- Ramp: maximum gradient 5%, minimum transition of 20m from 0 - 5%.



Typical Section

(Combined Transformer Access and Cable Bridge)

1:50

* Minimum cable separation based on initial discussions subject to design development
 # Minimum construction/transformer access width based on initial discussions subject to design development:

0 2.5m 5m

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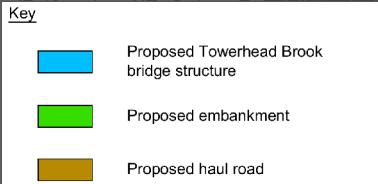
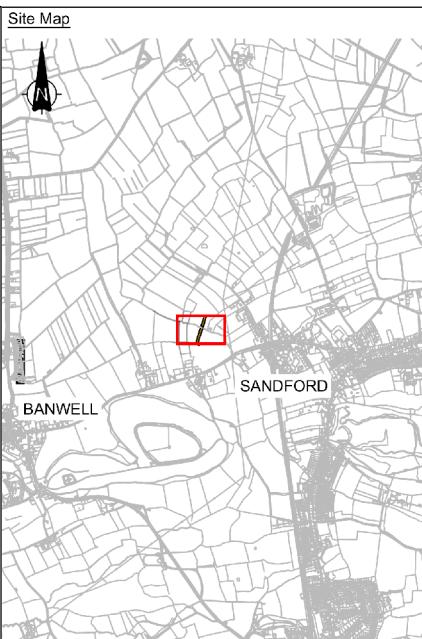
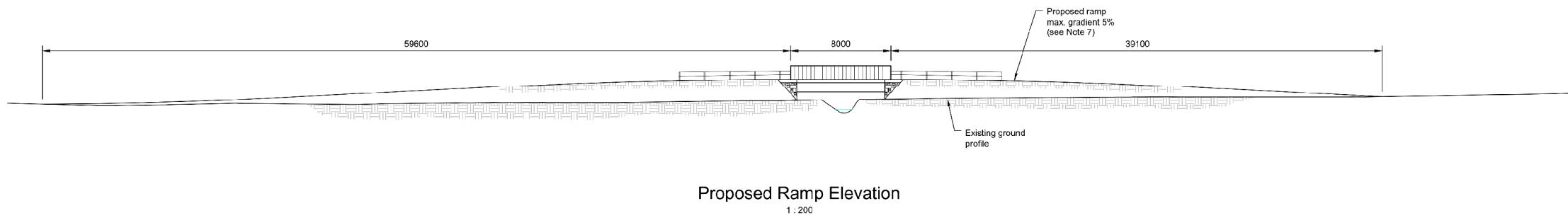
Title NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT) ENVIRONMENTAL STATEMENT VOLUME 5.3.3

RIVER AXE AND TOWERHEAD BROOK CROSSING OPTIONS - TOWERHEAD BROOK CABLE CROSSING ELEVATION AND CROSS SECTION (BRIDGE OPTION)

nationalgrid

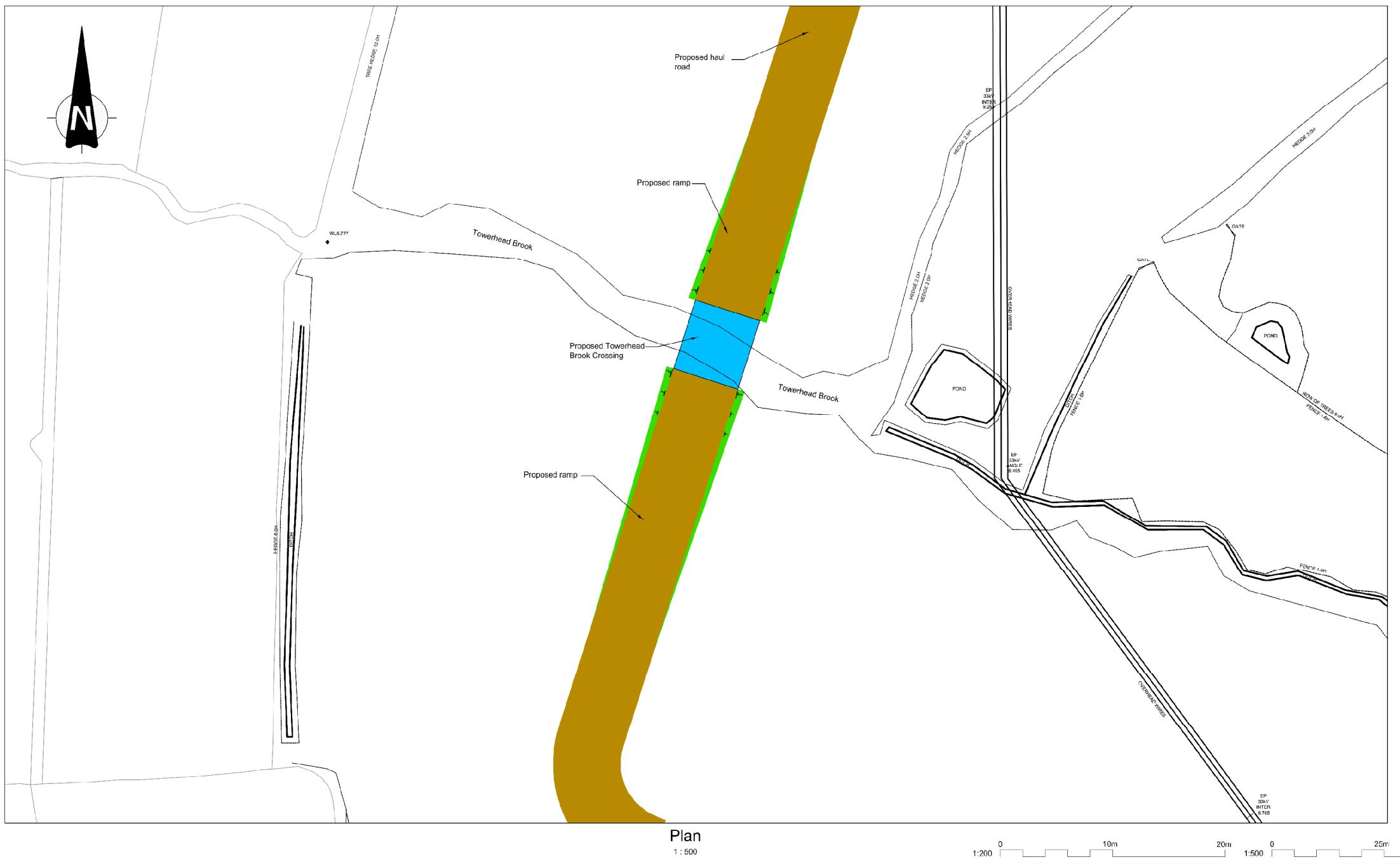
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NG INVESTMENT No.	APPLICATION No.	GIS
20897	EN020001	A3
FIGURE No.	DRAWING No.	SCALE
3.18.6	G1979.2118.6C	NTS
SHEET 6 of 7		ISSUE
		A



Notes

- All dimensions are in millimetres unless otherwise stated.
- Do not scale any items of information from this drawing.
- This drawing to be read in conjunction with Drawings Sheet 18 of 70.
- All structural arrangements of bridge shown indicatively, dimensions subject to 3rd party discussions, on site survey results and design development.
- Towerhead Brook profile based on Topographic Survey Drawing dated 12/04/2013 provided by National Grid.
- Minimum requirement for slope transition to be confirmed by transformer transporter.
- Ramp: maximum gradient 5%, minimum transition of 20m from 0 - 5%.



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RIVER AXE AND TOWERHEAD BROOK CROSSING OPTIONS - TOWERHEAD BROOK CABLE CROSSING PLAN AND ELEVATION OF RAMP (BRIDGE OPTION)

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NG INVESTMENT No.	APPLICATION No.	GIS
20897	EN020001	A3
FIGURE No.	DRAWING No.	SCALE
3.18.7	G1979.2118.7C	NTS

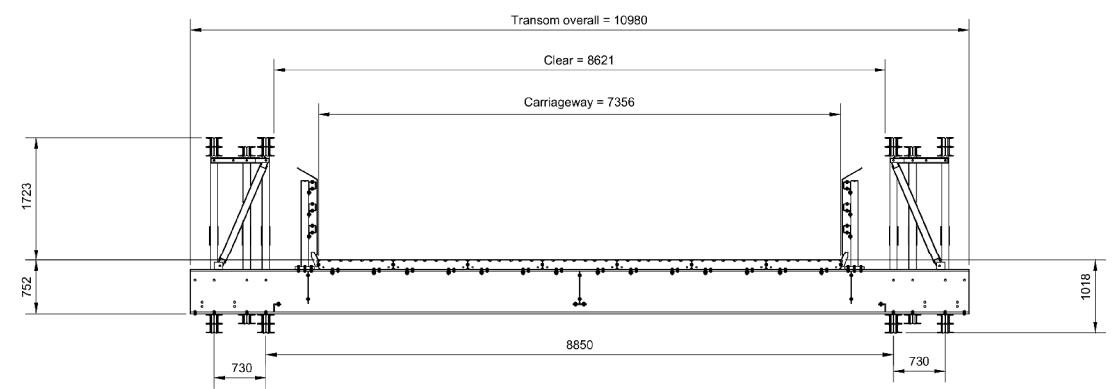
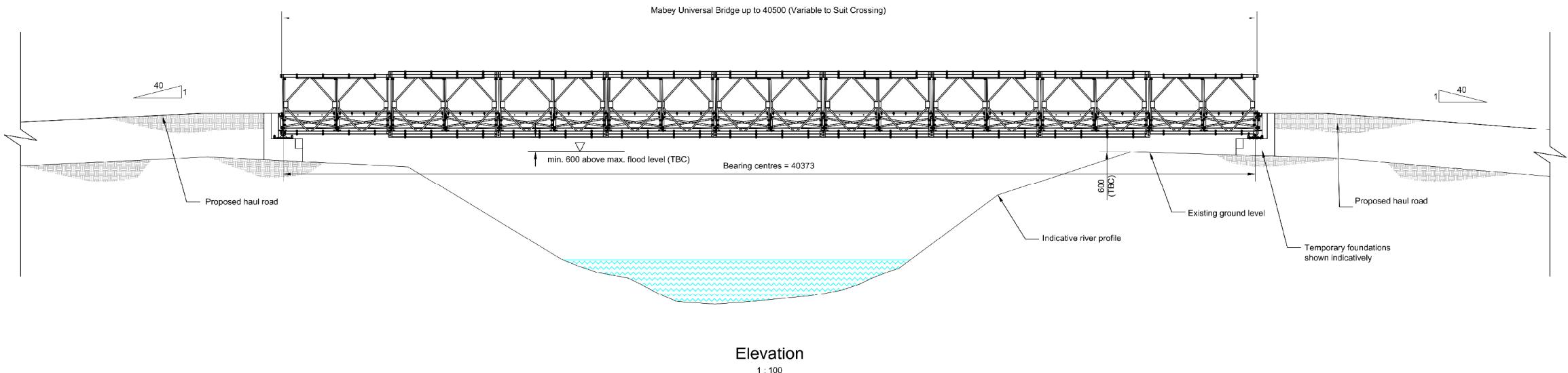
SHEET 7 of 7

ISSUE A

Figure 3.19 - Temporary Construction Road and Bridge Details

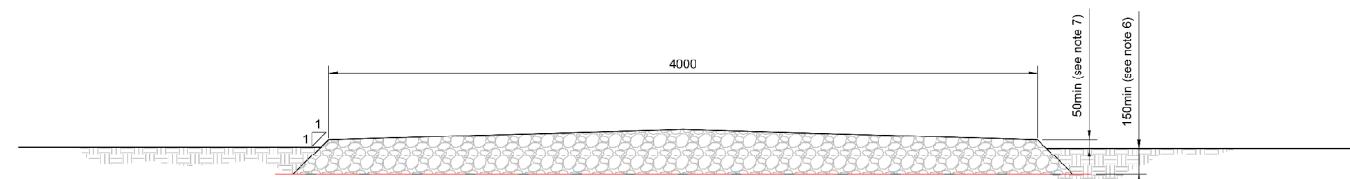
Notes

1. All dimensions are in millimetres unless otherwise stated.
2. Do not scale any items of information from this drawing.
3. All structural arrangements of bridge shown indicatively, dimensions subject to 3rd party discussions, on site survey results and design development.
4. Temporary bridge based on Mabey Universal bridge information (received 21.05.2013)



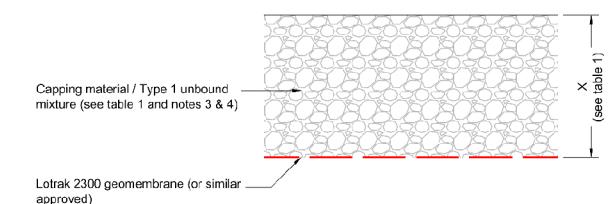
NOTE:
Original Drawing Number -
MMD-322069-C-DR-GEN-XX-0007

A	03/04/2014	DCO SUBMISSION	CB	BC	BC
ISSUE	DATE	COMMENTS	DRAW	CHKD	APP'D
Title NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT) ENVIRONMENTAL STATEMENT VOLUME 5.3.3					
TEMPORARY CONSTRUCTION ROAD AND BRIDGE DETAILS - TYPICAL TEMPORARY BRIDGE					
nationalgrid National Grid plc, Warwick Technology Park, Galows Hill, Warwick, CV34 6DA					
NG INVESTMENT No.	APPLICATION No.	GIS			
20897	EN020001	A3			
FIGURE No.	DRAWING No.	SCALE			
3.19.1	G1979.2410.1A	NTS			
SHEET 1 of 4					
ISSUE A					



General Haul Road Cross Section - O/H Cable Section

1:20



Haul Road Pavement Detail - O/H Cable Section

1:5

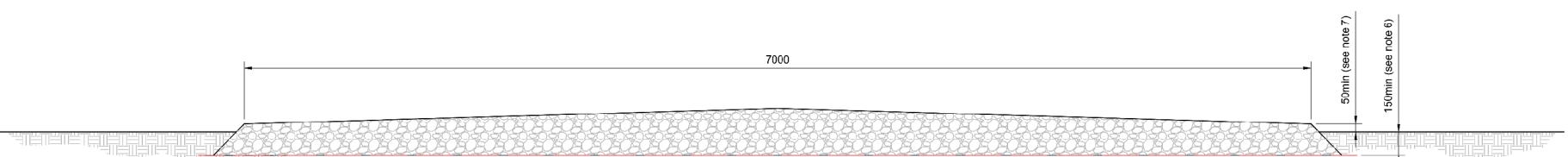
CBR %	Layer Thickness (X) mm	
	Option A Capping Material (see note 4)	Option B Type 1 Unbound Mixture (see note 5)
2.5 *	400	350
5	250	225
7.5	220	200
10s	200	200

* Where CBR is 2.5% layer of TriAx geogrid (or similar approved) to be installed 150mm below FGL

Table 1 - Haul Road Layer Thickness - O/H Cable Section

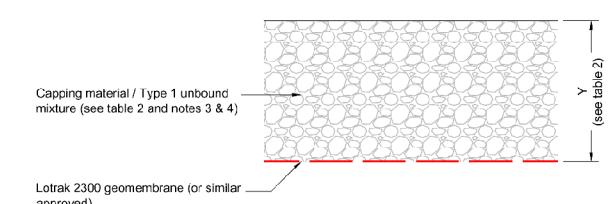
Notes

- All dimensions are in millimetres unless otherwise stated.
- Do not scale any items or information from this drawing.
- SHW - Specification for Highways
- Capping layers to comply with SHW clause 613, compacted in accordance with SHW table 6/4 and have a minimal stiffness modulus of 100MPa.
- Type 1 unbound mixture to comply with SHW clause 803, compacted in accordance with SHW table 8/4 and have a minimal stiffness modulus of 150MPa. Consideration of recycled material should be given. Including re-use on site should construction programme allow.
- Minimal of 150mm existing material to be removed prior to installation of haul roads.
- Temporary Haul road shall be installed a minimum 50mm proud of the existing ground level.
- Where CBR values are less than 2.5%, alternative pavement construction will need to be considered.
- Pavement Design has been based on the DMRB Interim Advice Note 7/06 rev 1 (2009).
- Two pavement options available to suit preferred layer thicknesses and available materials.
- Cross drains may be required where roads block existing surface run off.



General Haul Road Cross Section - U/G Cable Section

1:20



Haul Road Pavement Detail - U/G Cable Section

1:5

CBR %	Layer Thickness (Y) mm	
	Option A Capping Material (see note 4)	Option B Type 1 Unbound Mixture (see note 5)
2.5 *	400	350
5	250	225
7.5	220	200
10s	200	200

* Where CBR is 2.5% layer of TriAx geogrid (or similar approved) to be installed 150mm below FGL

Table 2 - Haul Road Layer Thickness - U/G Cable Section

NOTE:
Original Drawing Number -
MMD-322069-C-DR-GEN-XX-0004

A	03/04/2014	DCO SUBMISSION	CB BC BC
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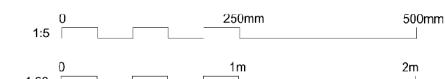
NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT)
ENVIRONMENTAL STATEMENT
VOLUME 5.3.3

TEMPORARY CONSTRUCTION
ROAD AND BRIDGE DETAILS -
HAUL ROAD CONSTRUCTION DETAILS

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NG INVESTMENT No.	APPLICATION No.	GIS
20897	EN020001	A3
FIGURE No.	DRAWING No.	SCALE
3.19.2	G1979.2410.2A	NTS



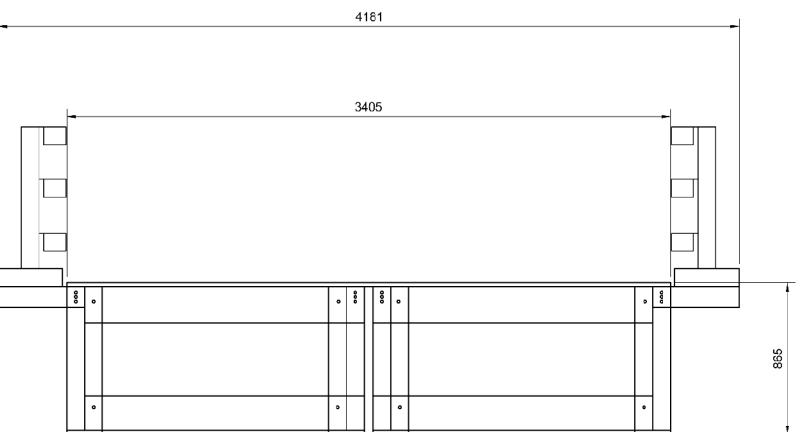
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SHEET 2 of 4

ISSUE A

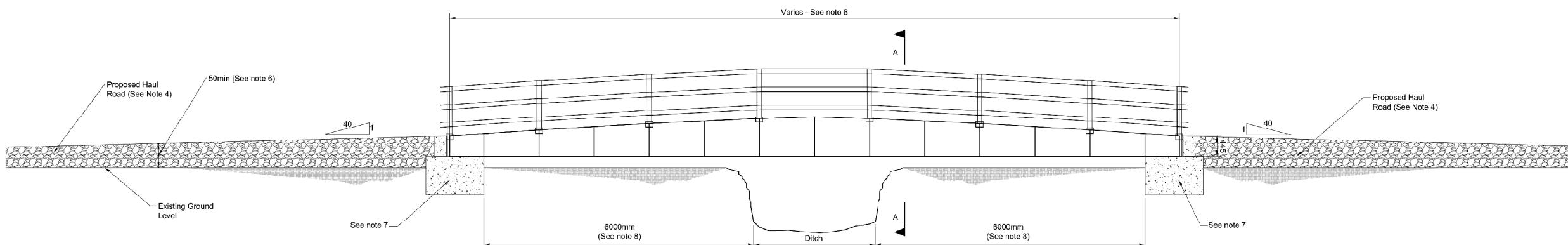
Notes

1. All dimensions are in millimetres unless otherwise stated.
2. Do not scale any items of information from this drawing.
3. SHW - specification for highways
4. For proposal Haul Road construction details refer to drawing 13/NG/0222.
5. Minimal of 150mm existing material to be removed prior to installation of Haul roads.
6. Temporary Haul road shall be installed a minimal 50mm proud of the existing ground level.
7. Foundations type and sizes are shown indicatively and will vary to suit ground conditions.
8. Temporary Bridge will vary in length to ensure construction works are a minimum 6m offset from the top of ditch.



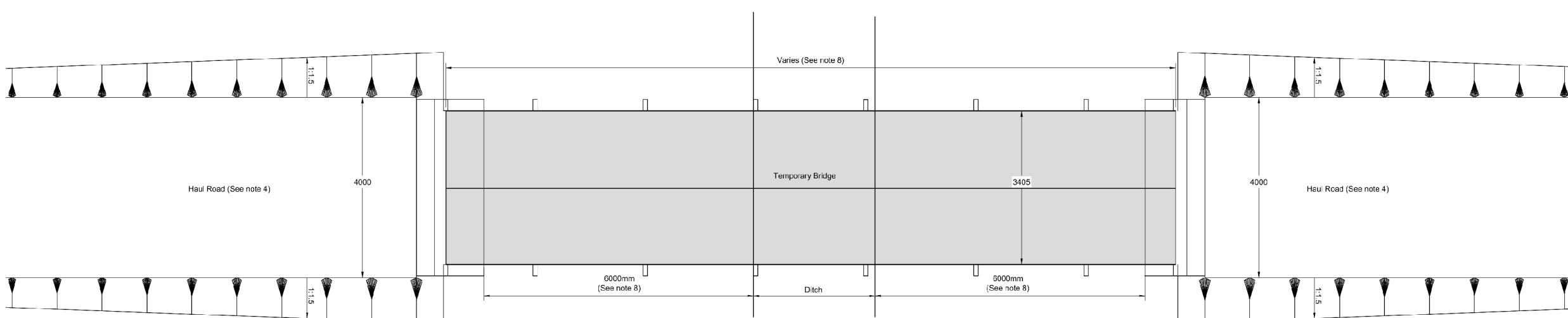
Cross-section - Section A-A

1:20



Temporary Bridge - Long Section

1:50



Temporary Bridge Plan

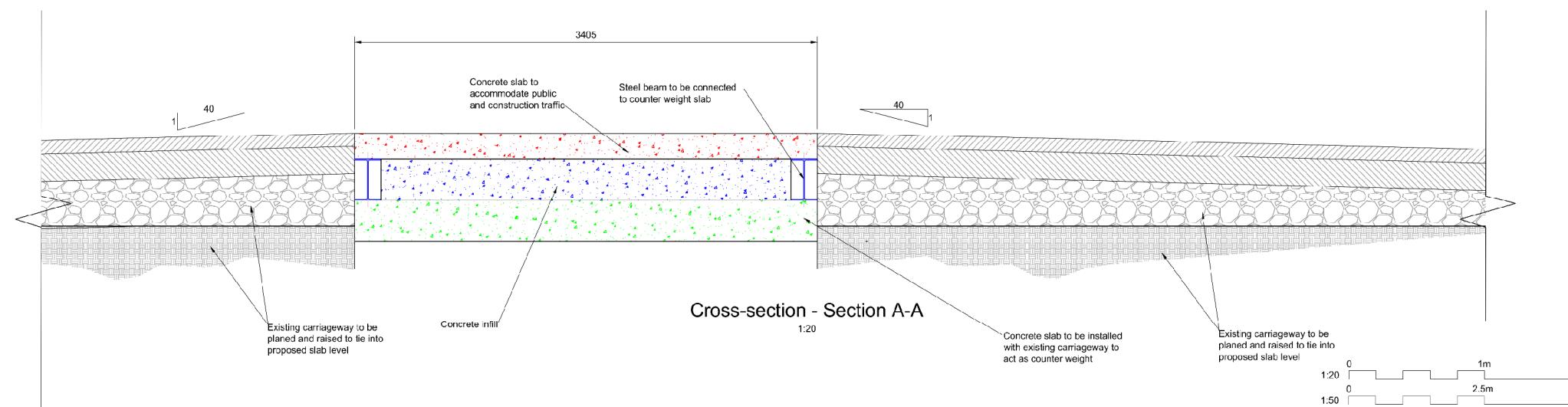
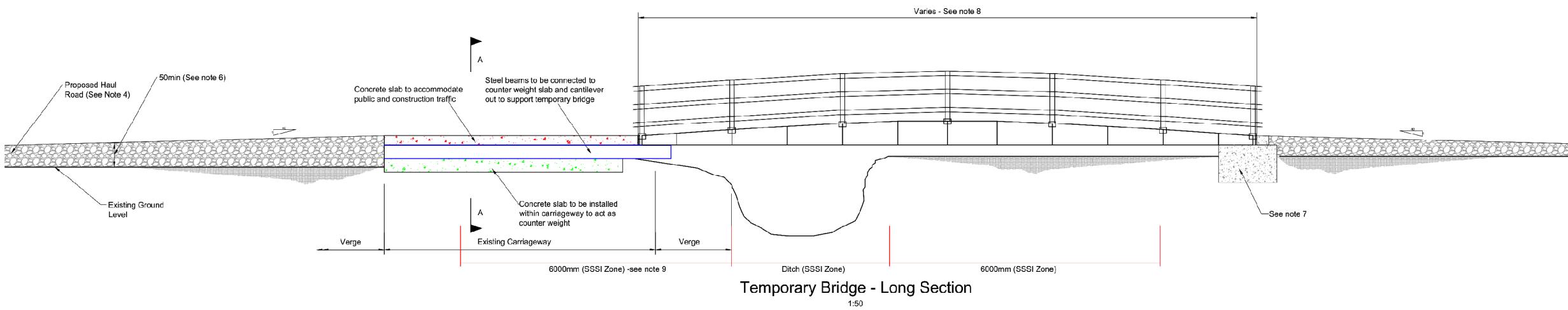
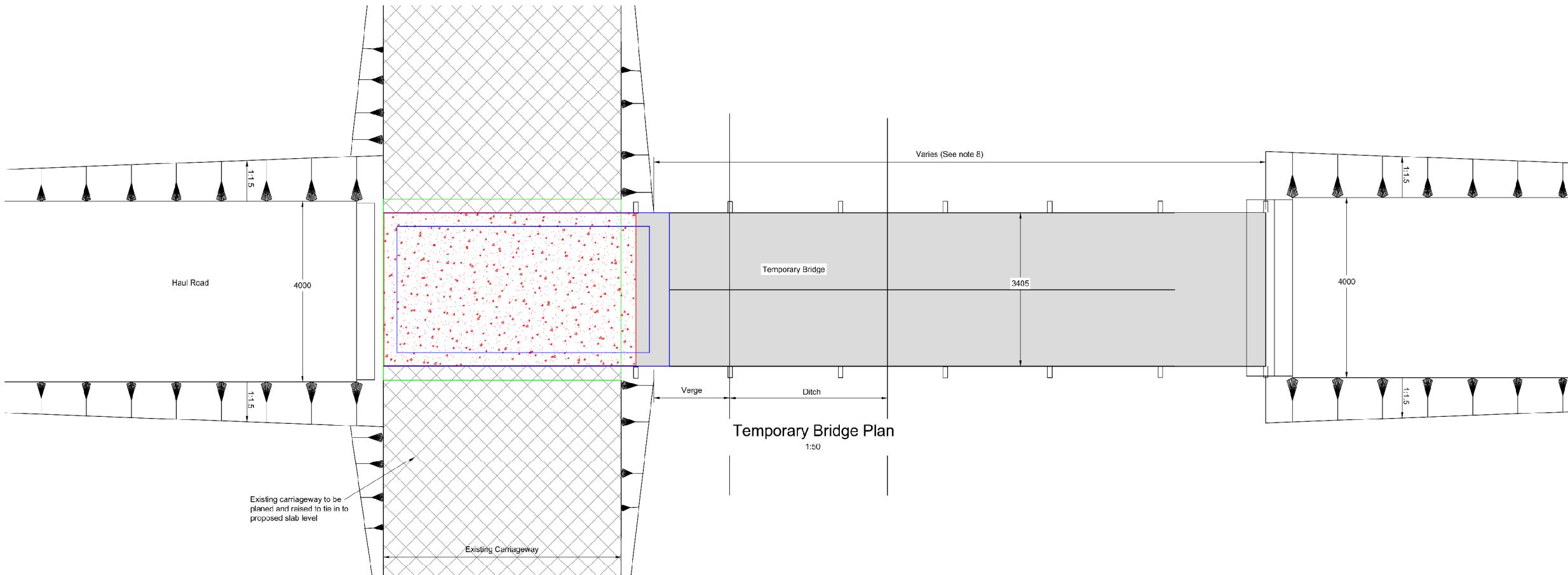
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NOTE:

Original Drawing Number -

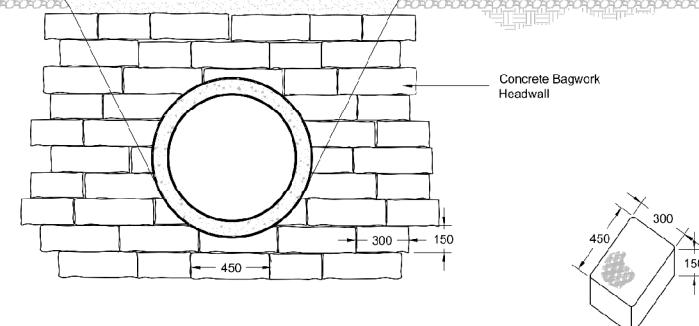
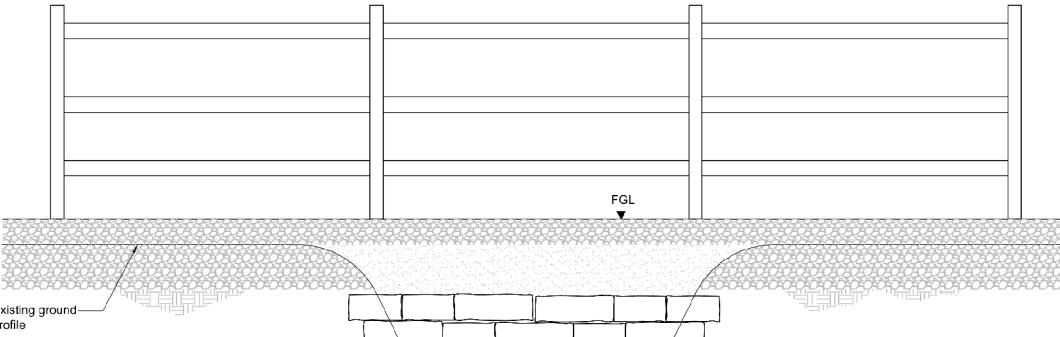
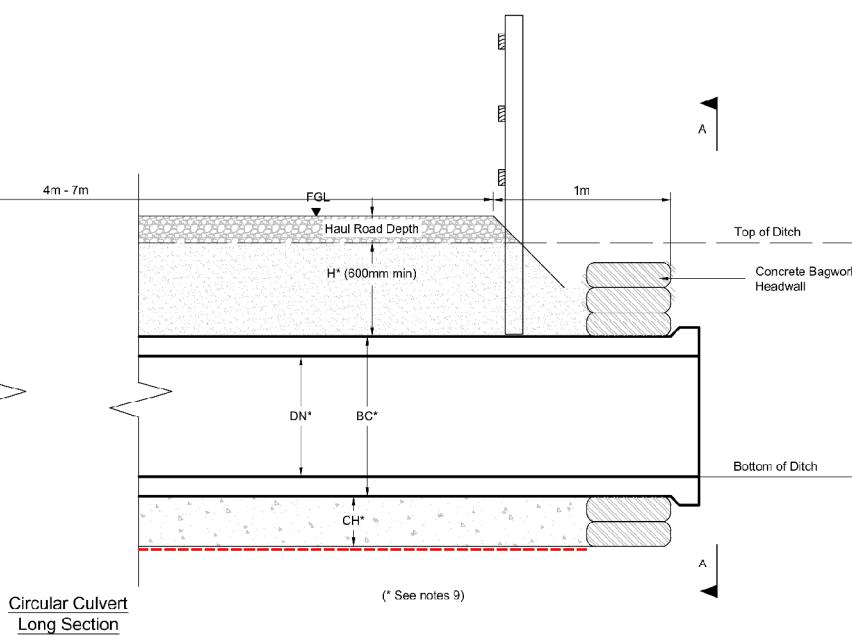
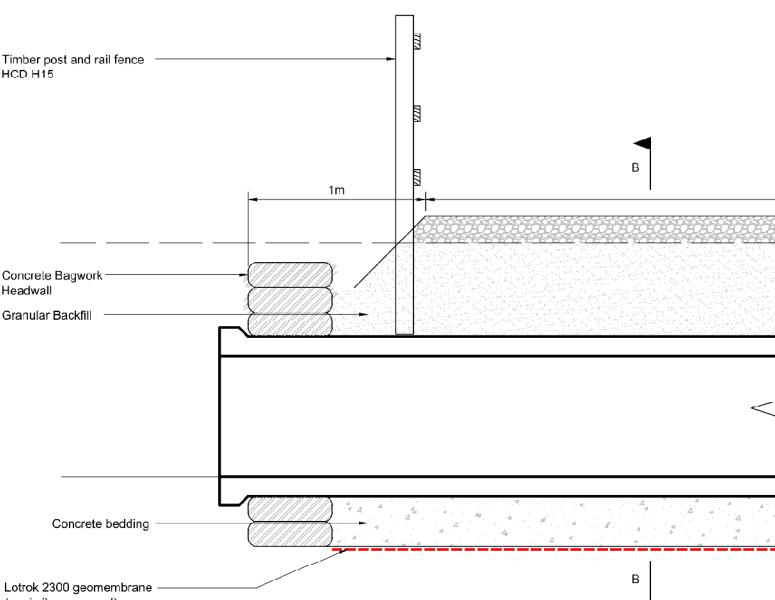
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A	03/04/2014	DCO SUBMISSION	CB	BC	BC
ISSUE	DATE	COMMENTS	DRAW	CHKD	APP'D
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TEMPORARY CONSTRUCTION ROAD AND BRIDGE DETAILS - TEMPORARY BRIDGE CONSTRUCTION DETAILS					
nationalgrid National Grid plc, Warwick Technology Park, Gallows Hill, Warwick, CV34 6DA					
NG INVESTMENT No.	APPLICATION No.		GIS		
20897	EN020001		A3		
FIGURE No.	DRAWING No.		SCALE		
3.19.3	G1979.2410.3A		NTS		
SHEET 3 of 4					
ISSUE A					



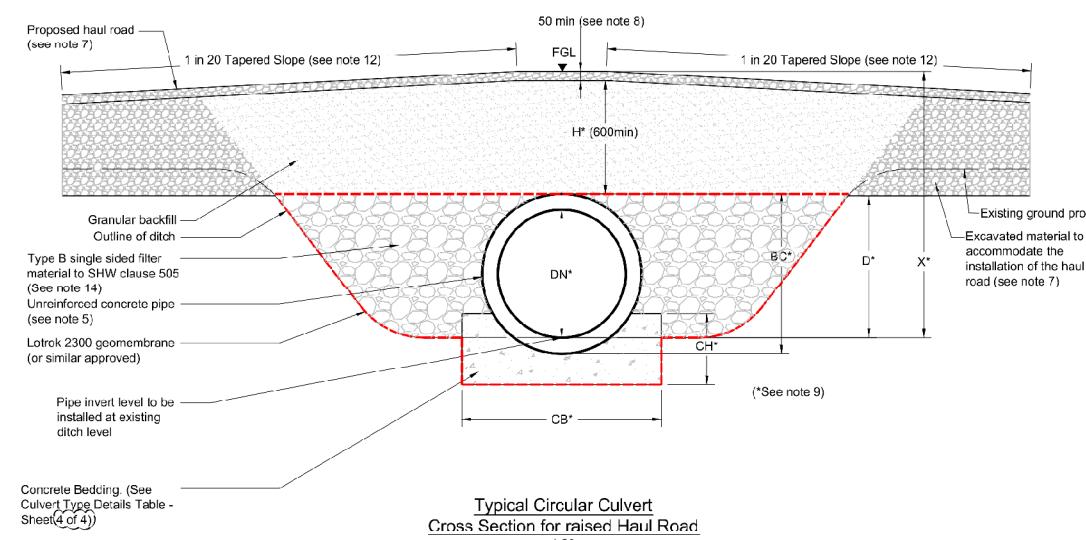
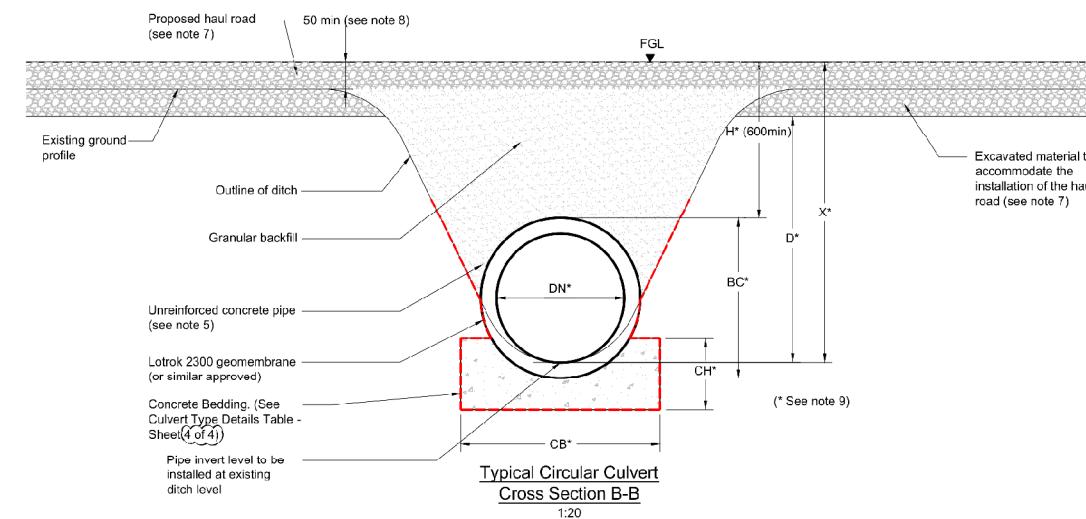
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A	03/04/2014	DCO SUBMISSION	CB BC BC
ISSUE	DATE	COMMENTS	DRAW CHKD APP'D
Title NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT) ENVIRONMENTAL STATEMENT VOLUME 5.3.3			
TEMPORARY CONSTRUCTION ROAD AND BRIDGE DETAILS - TEMPORARY BRIDGE CONSTRUCTION DETAILS			
nationalgrid National Grid plc, Warwick Technology Park, Galows Hill, Warwick, CV34 6DA			
NG INVESTMENT No.	APPLICATION No.	GIS	
20897	EN020001	A3	
FIGURE No.	DRAWING No.	SCALE	
3.19.4	G1979.2410.4A	NTS	
SHEET 4 of 4			ISSUE
			A

Figure 3.20 - Culvert Construction Details



Section A-A Headwall
(See note 15)

1:20



Typical Circular Culvert
Cross Section for raised Haul Road

0 1m 2m
1:20

Notes

- All dimensions in millimetres unless otherwise stated.
- Do not scale any items of information from this drawing.
- SHW - Specification for Highways
- All concrete in accordance with BS 8500
- Circular concrete culverts to comply with and tested to BS 5911:2010. Box concrete culvert to comply with XD3 exposure class and BS5400
- Culvert crossing has been designed in accordance with BS 1295-1:1997 *Structural design of buried pipelines under various conditions of loading - Part 1: General & BS 9295:2010 Guide to the structural design of pipeline*. Maximum loading have been assumed to be the maximum loading permitted on the Highways network as described in the aforementioned standards.
- For Haul Road construction details refer to drawing 13/NG/0222
- Temporary Haul road shall be installed a minimum 50mm proud of existing ground level.
- For culvert type dimensions refer to drawing no. 13/NG/0221 Sheet 4 of 4.
- Where necessary a layer of granular material to be laid to create a flat base
- Circular and Box culverts have been designed to accommodate regular traffic/HB loading conditions.
- Haul road gradient will not exceed 1:20 slope
- Design has allowed for minimal settlement. Maintenance regime to be in place to monitor settlement and increase culvert cover when necessary, whilst also ensuring culvert are not blocked
- Where ditch widths are significantly wider than the proposed culvert, ditch will be filled with Type B filter material
- For crossings which are owned by an IDB, refer to drawing 13/NG/0221 (sheet 3 of 4) for culvert headwall design
- Potential request for mammal routing may be required subject to consultation with stakeholder

NOTE:
Original Drawing Number -

NG - 13/NG/0221
MMD-322069-C-DR-GEN-XX-0002

A	02/04/2014	DCO SUBMISSION	CB	BC	BC
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Title
NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT)
ENVIRONMENTAL STATEMENT
VOLUME 5.3.3

CULVERT CONSTRUCTION DETAILS -
TEMPORARY CONSTRUCTION ACCESS
CULVERT CONSTRUCTION DETAILS

nationalgrid

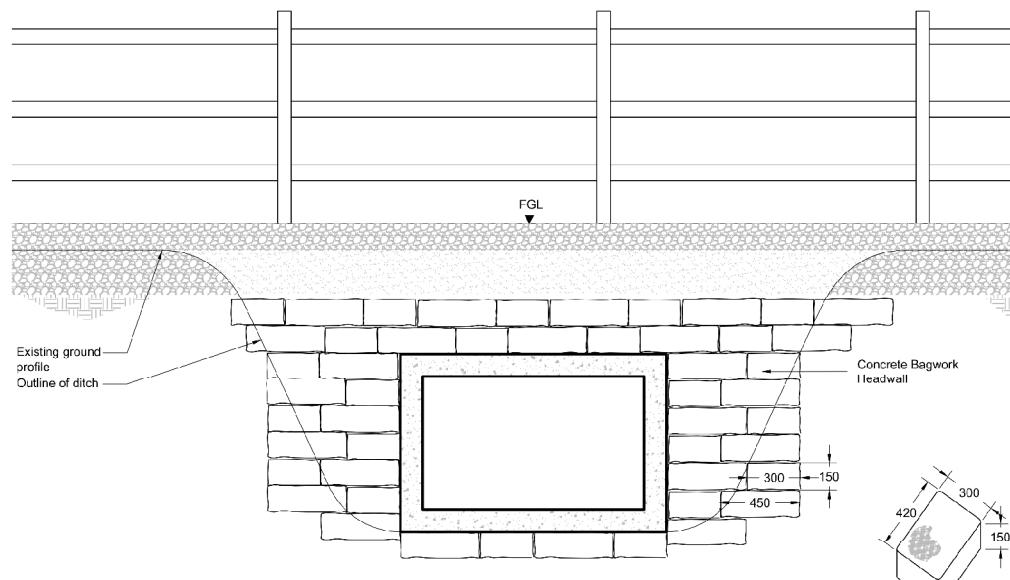
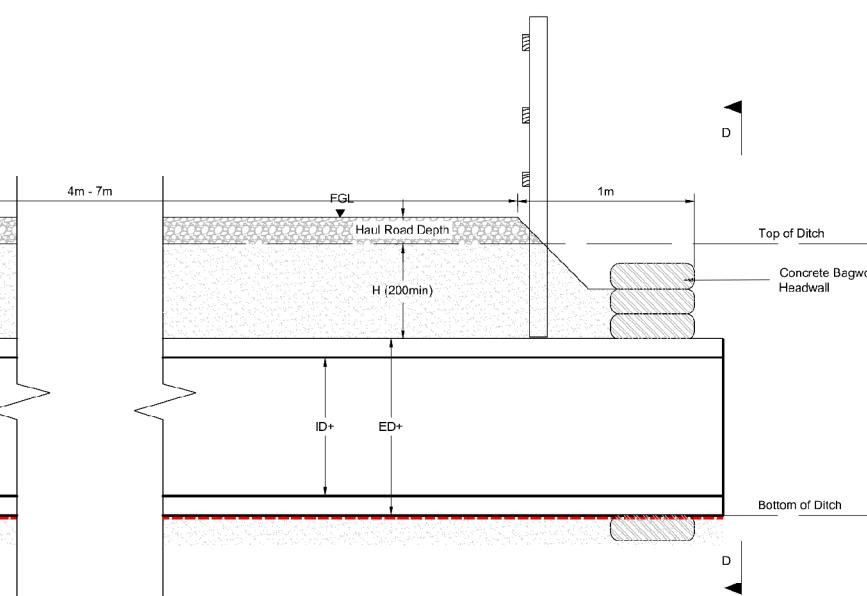
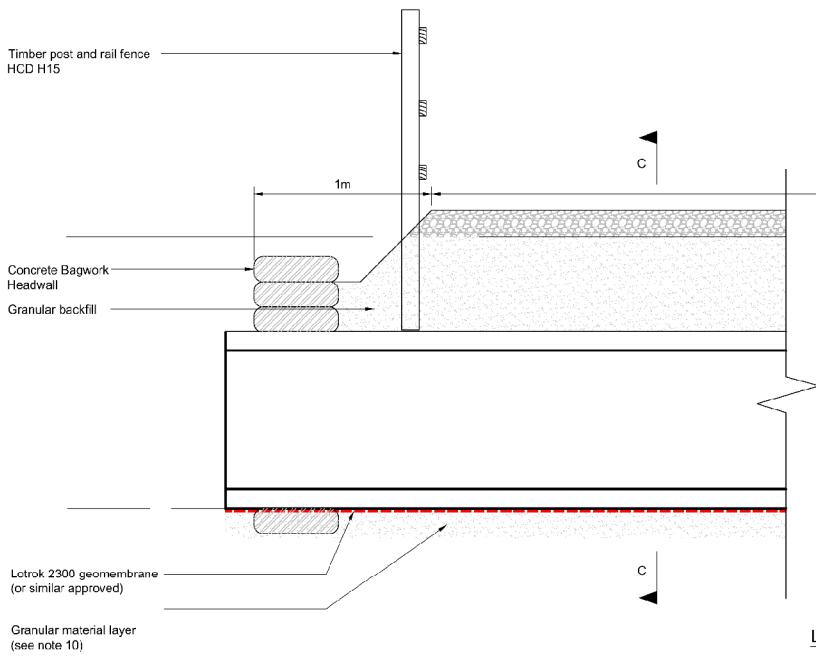
National Grid plc, Warwick Technology Park, Galows Hill, Warwick, CV34 6DA

NG INVESTMENT No.	APPLICATION No.	GIS
20897	EN020001	A3
FIGURE No.	DRAWING No.	SCALE
3.20.1	G1979.2119.1C	NTS

SHEET 1 of 4

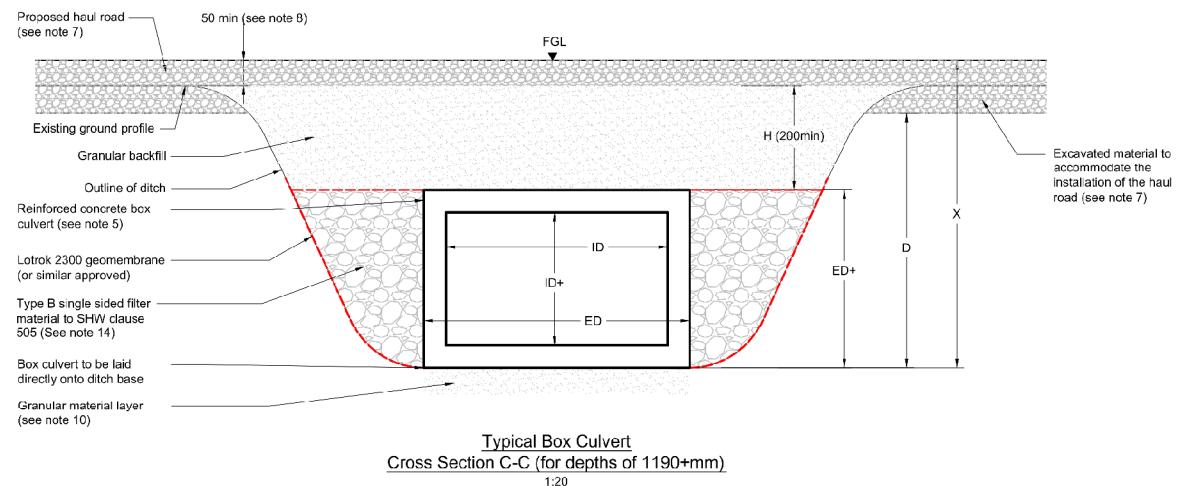
ISSUE

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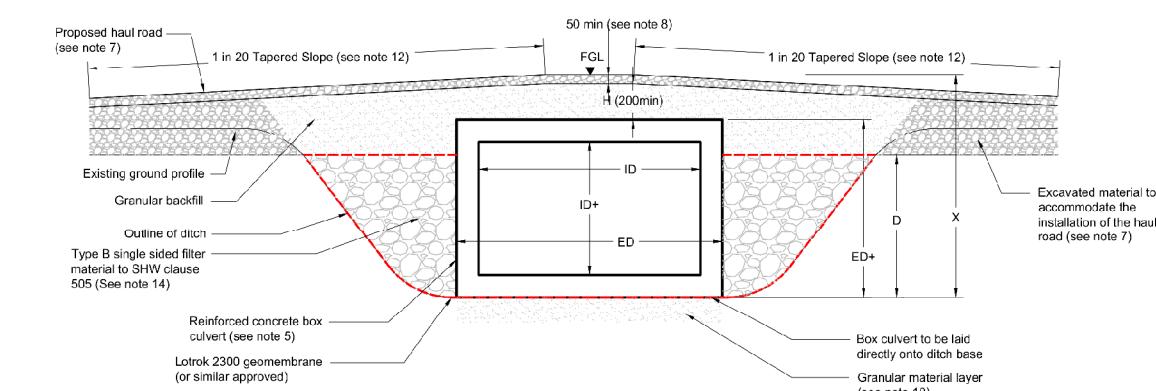


Section D-D Headwall
(See note 15)
1:20

SHW 519 Hessian Bags
1:20



Typical Box Culvert
Cross Section C-C (for depths of 1190+mm)
1:20



Typical Box Culvert
Cross Section for raised Haul Road (for depths between 640-1190mm)
1:20

0 1m 2m

Notes

- All dimensions in millimetres unless otherwise stated.
- Do not scale any items of information from this drawing.
- SHW - Specification for Highways
- All concrete in accordance with BS 8500
- Circular concrete culverts to comply with and tested to BS 5911:2010. Box concrete culvert to comply with XD3 exposure class and BS5400
- Culvert crossing has been designed in accordance with BS 1295-1:1997 *Structural design of buried pipelines under various conditions of loading - Part 1: General & BS 9295-2010 Guide to the structural design of pipeline*. Maximum loading have been assume to be the maximum loading permitted on the Highways network as described in the aforementioned standards.
- For Haul Road construction details refer to drawing 13/NG/0222.
- Temporary Haul road shall be installed a minimum 50mm proud of existing ground level.
- For culvert type dimensions refer to drawing no. 13/NG/0221 Sheet 4 of 4.
- Where necessary a layer of granular material to be laid to create a flat base.
- Circular and Box culverts have been designed to accommodate regular traffic/HB loading conditions.
- Haul road gradient shall not exceed a 1:20 slope
- Design has allowed for minimal settlement. Maintenance regime to be in place to monitor settlement and increase culvert cover when necessary, whilst also ensuring culvert are not blocked.
- Where ditch widths are significantly wider than the proposed culvert, ditch will be filled with Type B filter material.
- For crossings which are owned by an IDB, refer to drawing 13/NG/0221 (sheet 3 of 4) for culvert headwall design.
- Potential request for mammal routing may be required subject to consultation with stakeholder.

NOTE:
Original Drawing Number -

NG - 13/NG/0221
MMD-322069-C-DR-GEN-XX-0008

A	02/04/2014	DCO SUBMISSION	CB	BC	BC
ISSUE	DATE	COMMENTS	DRAW	CHKD	APP'D

Title
NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT)
ENVIRONMENTAL STATEMENT
VOLUME 5.3.3

CULVERT CONSTRUCTION DETAILS -
TEMPORARY CONSTRUCTION ACCESS
CULVERT CONSTRUCTION DETAILS

nationalgrid

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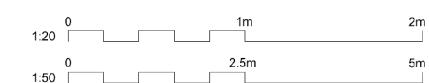
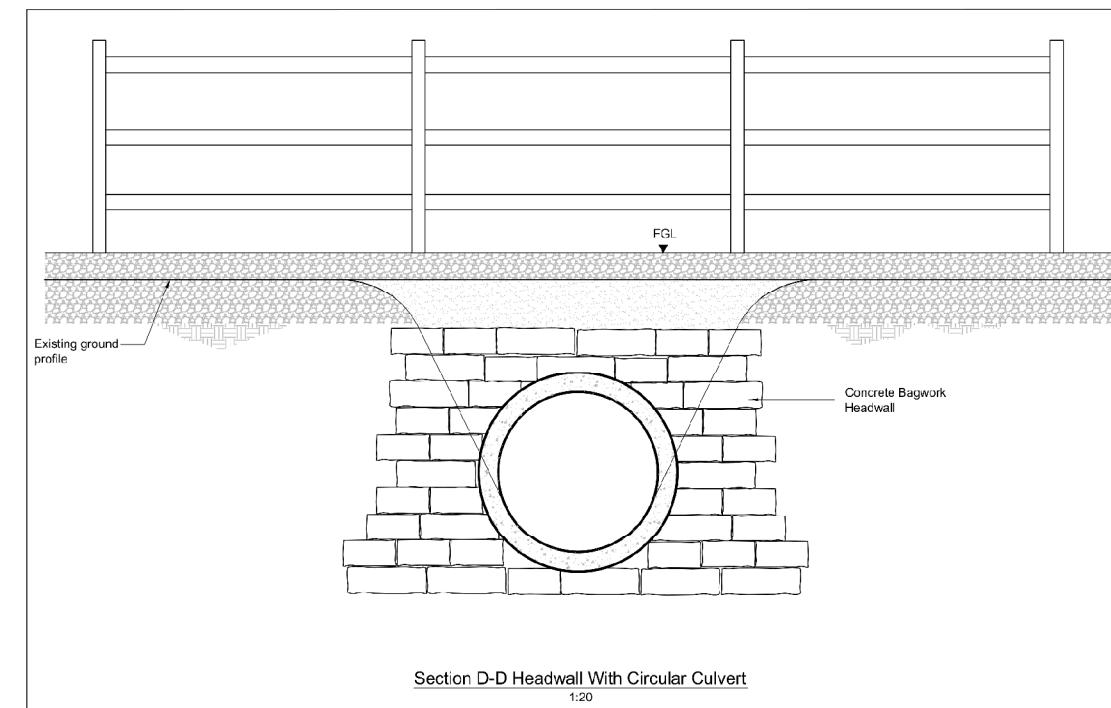
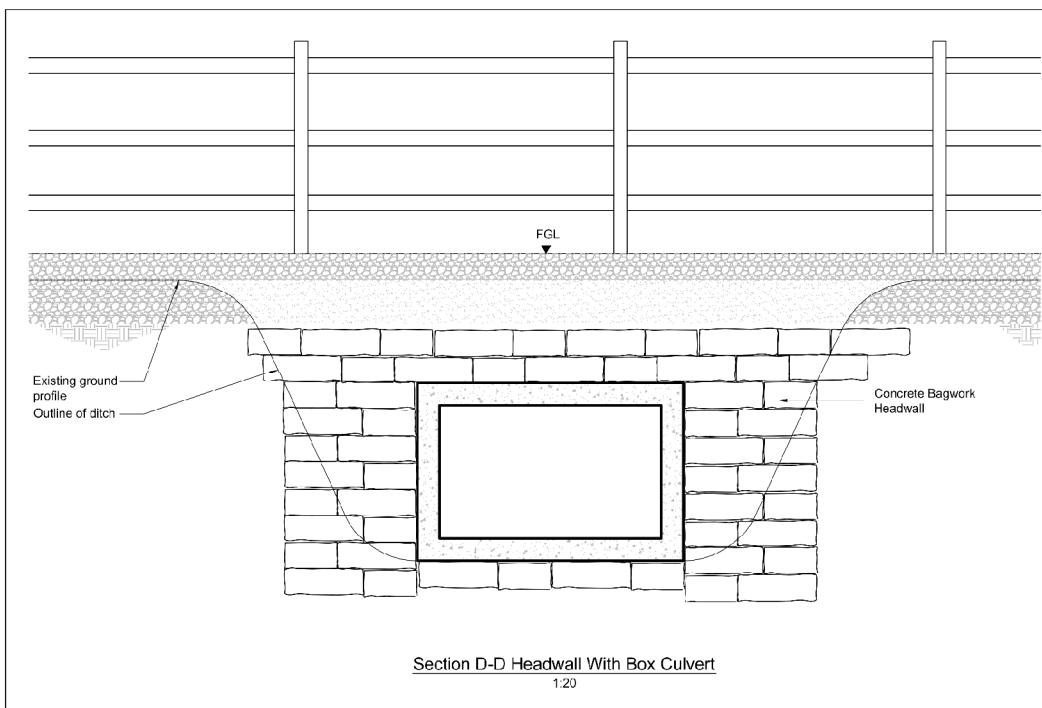
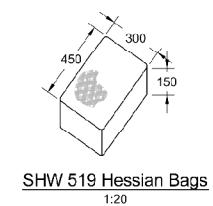
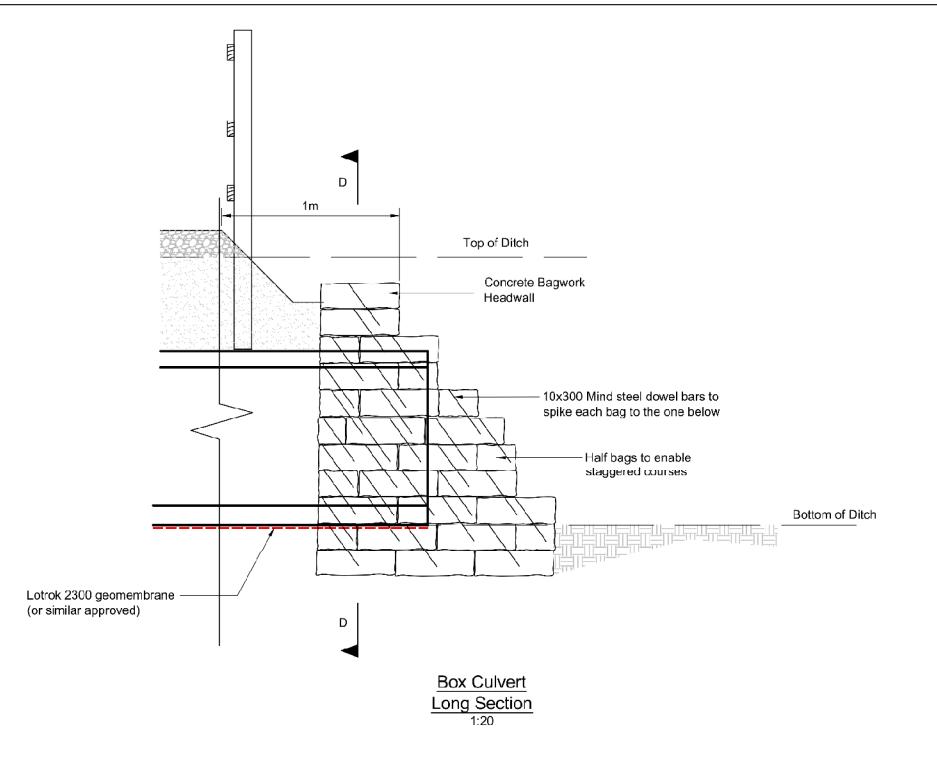
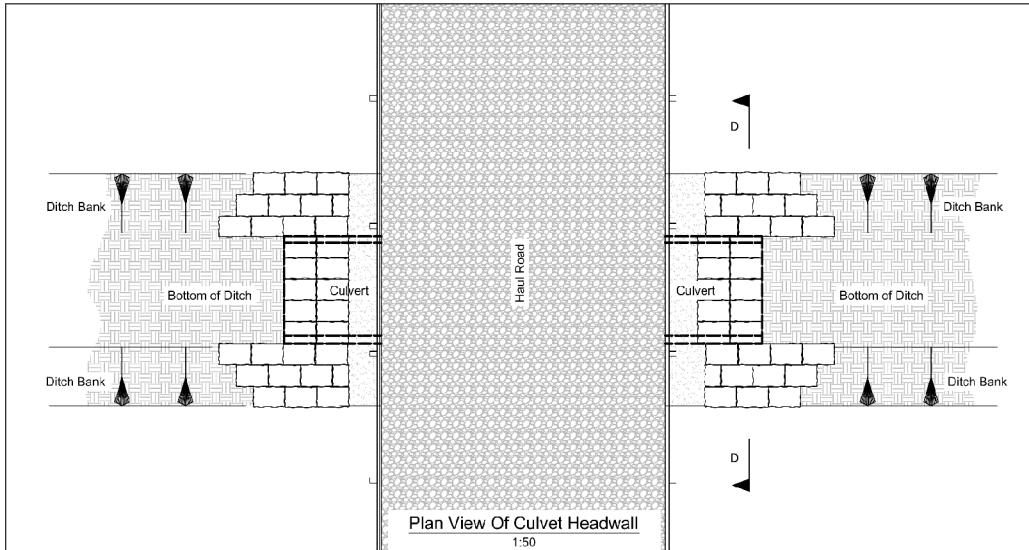
NG INVESTMENT No.	APPLICATION No.	GIS
20897	EN020001	A3
FIGURE No.	DRAWING No.	SCALE
3.20.2	G1979.2119.2C	NTS

SHEET 2 of 4

A

Notes

- All dimensions in millimetres unless otherwise stated.
- Do not scale any items of information from this drawing.
- SHW - Specification for Highways
- All concrete in accordance with BS 8500
- For Haul Road construction details refer to drawing 13/NG/0222.
- Design has allowed for minimal settlement. Maintenance regime to be in place to monitor settlement and increase culvert cover when necessary, whilst also ensuring culvert are not blocked.
- This headwall design only to be used when the ditch is owned by an IDB.
- Drawing to be read in conjunction with drawings: 13/NG/0221 (Sheet 1 of 4)
13/NG/0221 (Sheet 2 of 4)
13/NG/0221 (Sheet 4 of 4)



NG INVESTMENT No.	APPLICATION No.	GIS
20897	EN020001	A3
FIGURE No.	DRAWING No.	SCALE
3.20.3	G1979.2119.3C	NTS
SHEET 3 of 4		ISSUE
		A

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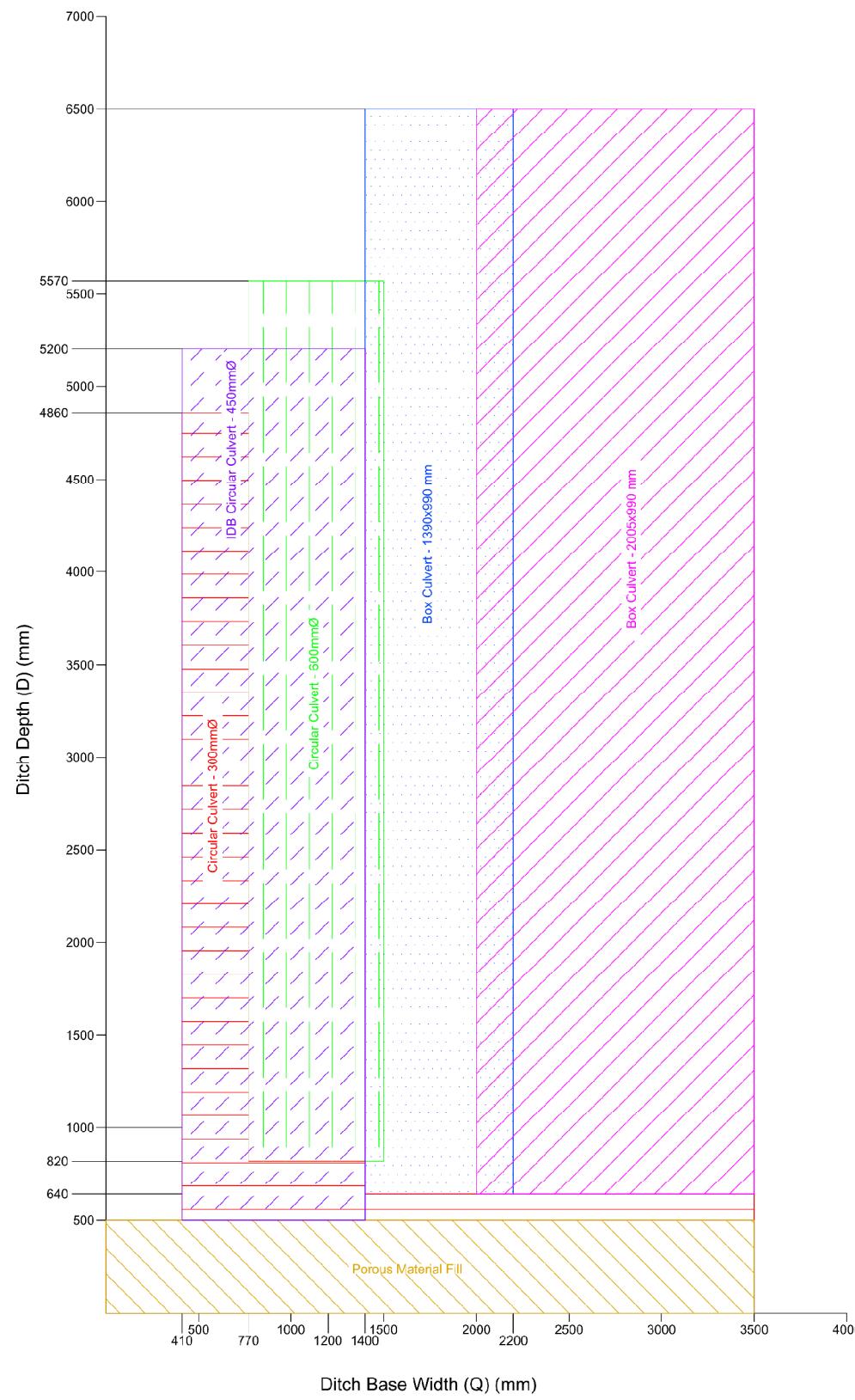
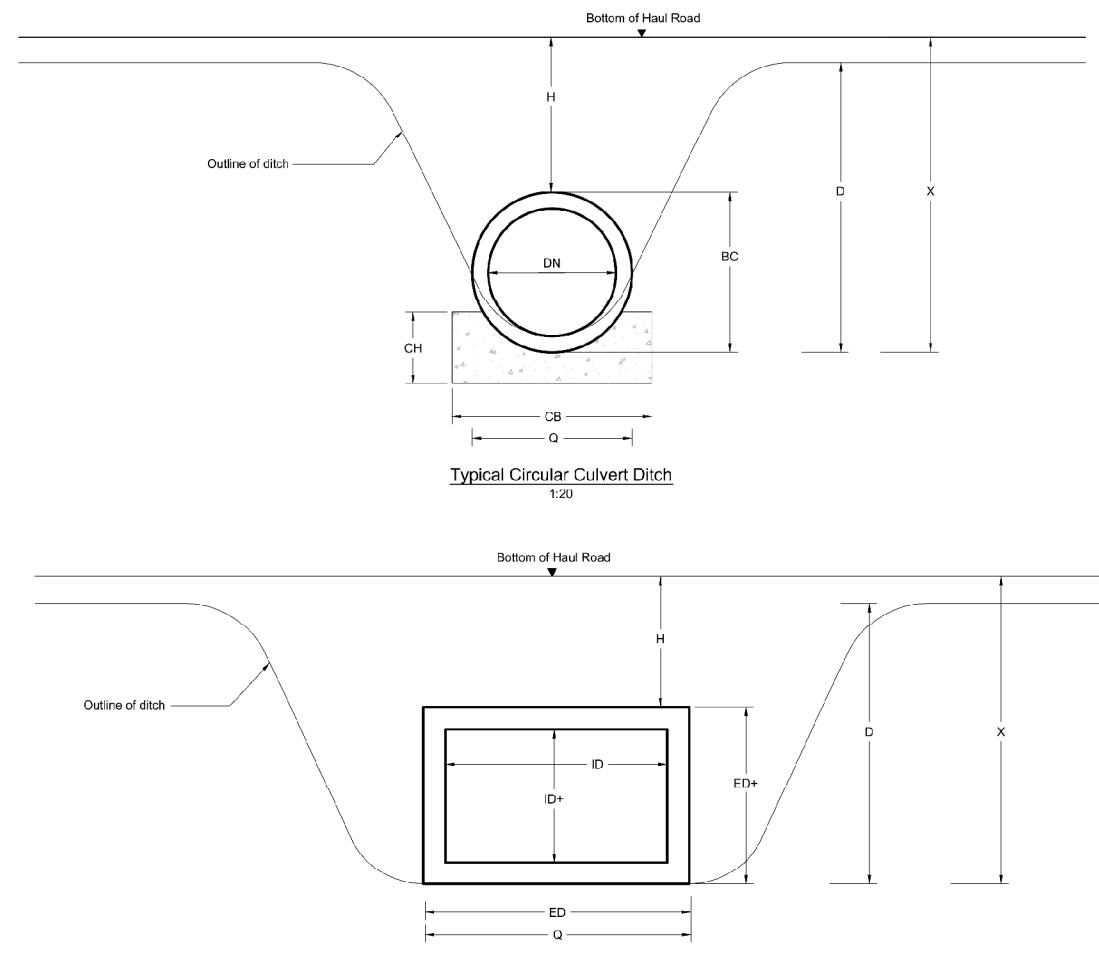


Figure 1

Box Culvert Type Details Table (See note 9)							
Internal Dimensions (ID x ID+) (mm)	External Dimensions (ED x ED+) (mm)	Cover (H) (mm)		Depth between Bottom of Ditch and Haul Road (mm) (see note 6)		Depth of Ditch (D) (mm) (see note 6)	
		Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
1000 x 600	1390 x 990	200	20000	600	20050	640	18000
1500 x 600	2005 x 990	200	20000	600	20050	640	19000
							1400 - 2200
							2000 - 3500

Circular Culvert Type Details Table (See note 9)							
Nominal Pipe Diameter (DN) (mm)	Outside Diameter of Pipe (BC) (mm)	Cover (H) (mm)		Depth between Bottom of Ditch and Haul Road (mm) (X) (mm)		Depth of Ditch (D) (mm) (see note 6)	
		Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
300	410	600	4450	1060	4910	460	4860
450 (IDB)	575	600	4625	1060	5250	460	5200
600	770	600	4800	1420	5620	820	5570
							410 - 3500
							610 x 177.5
							775 x 256.25
							770 - 1500
							970 x 342.5



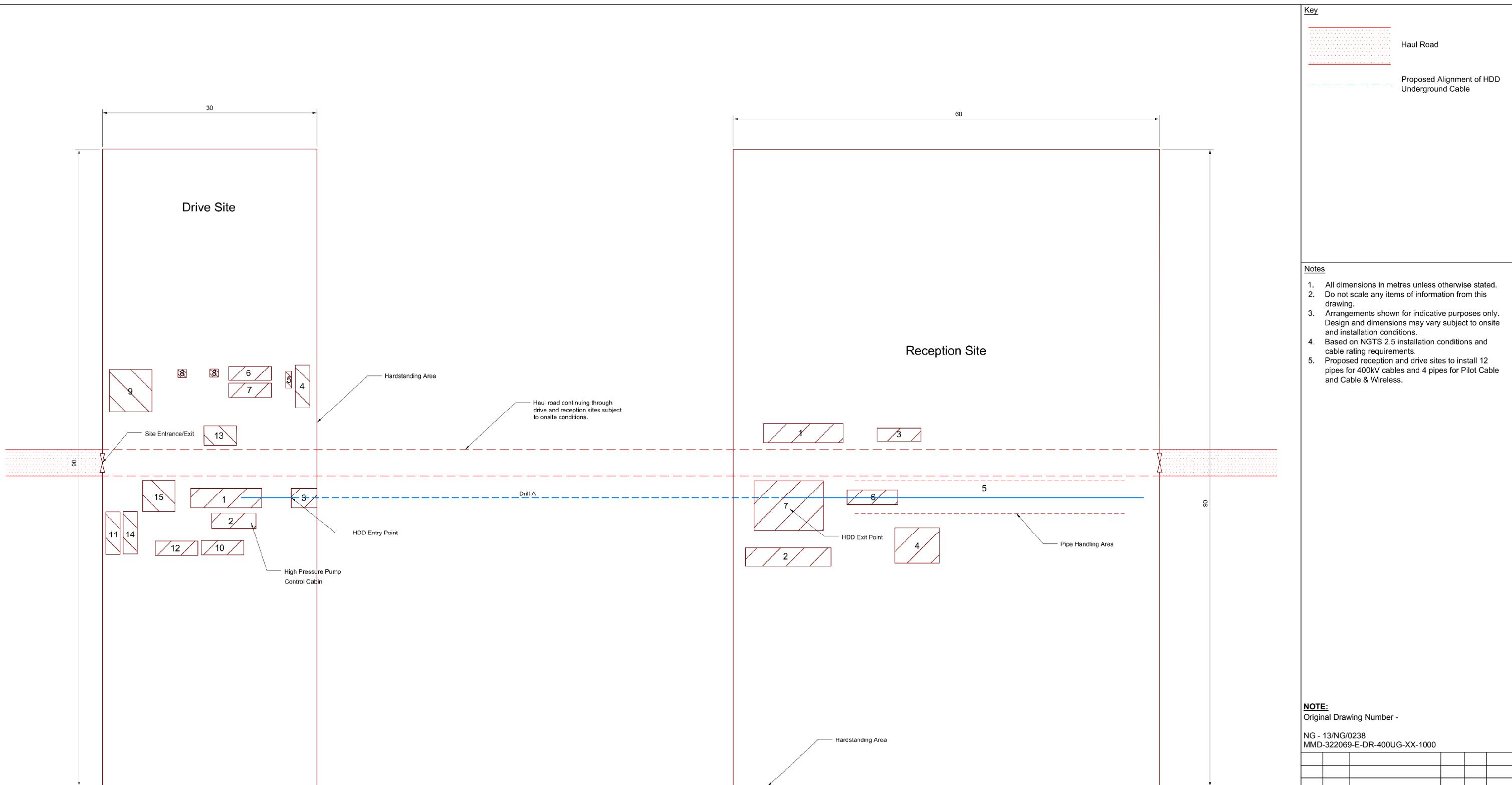
0 1m 2m

Notes

- All dimensions in millimetres unless otherwise stated.
- Do not scale any items of information from this drawing.
- SHW - Specification for Highways
- All concrete in accordance with BS 8500
- Circular concrete culverts to comply with and tested to BS 5911:2010. Box concrete culverts comply with XD3 exposure class and BS5400
- Culvert crossing has been designed in accordance with BS 1295-1:1997 *Structural design of buried pipelines under various conditions of loading - Part 1: General & BS 9295:2010 Guide to the structural design of pipelines*. Maximum loading have been assumed to be the maximum loading permitted on the Highways network as described in the aforementioned standards.
- For Haul Road construction details refer to drawing 13/NG/0222.
- Refer to drawing no. 13/NG/0221 sheets 1 of 4, 2 of 4 and 3 of 4 for proposed culvert details.
- Both circular and box culverts have been chosen for this design. Refer to Figure 1 on drawing 13/NG/0221 Sheet 4 of 4 to identify culvert type required.
- Any ditch with a top width greater than, or equal to, 5m or base width greater than, or equal to, 3.5m, will be bridged.
- Any ditch with a depth of less than 500mm will be filled with Type B single graded filter material to SHW clause 505.
- Drawing to be read in conjunction with drawing 13/NG/0221 Sheets 1 of 4, 2 of 4 and 3 of 4.
- Design has allowed for minimal settlement. Maintenance regime to be in place to monitor settlement and increase culvert cover when necessary whilst also ensuring culverts are not blocked.
- The 450mm circular culvert is only to be used on IDB owned ditches.

NOTE:	Original Drawing Number -				
NG - 13/NG/0221					
MMD-322069-C-DR-GEN-XX-0003					
A	02/04/2014	DCO SUBMISSION	CB	BC	BC
ISSUE	DATE	COMMENTS	DRAW	CHKD	APP'D
Title					
NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT) ENVIRONMENTAL STATEMENT VOLUME 5.3.3					
CULVERT CONSTRUCTION DETAILS - TEMPORARY CONSTRUCTION ACCESS					
nationalgrid					
National Grid plc, Warwick Technology Park, Gallows Hill, Warwick, CV34 6DA					
NG INVESTMENT No.	APPLICATION No.	GIS			
20897	EN020001	A3			
FIGURE No.	DRAWING No.	SCALE			
3.20.4	G1979.2119.4C	NTS			
SHEET 4 of 4					
ISSUE A					

Figure 3.21 - Typical 400/132kV Horizontal Directional Drilling Reception and Drive Site



Drive Site Layout

- Drilling
- Flatbed Container
- Mud Pit
- Pump
- High Pressure Pump
- Recycling Unit
- Cuttings
- Generator
- Bentonite Storage
- Pipes Storage
- Store
- Skip
- Holding Tank
- Workshop
- Slurry Mixing Tank

Plan View of HDD Typical Arrangement

1:250

Reception Site Layout

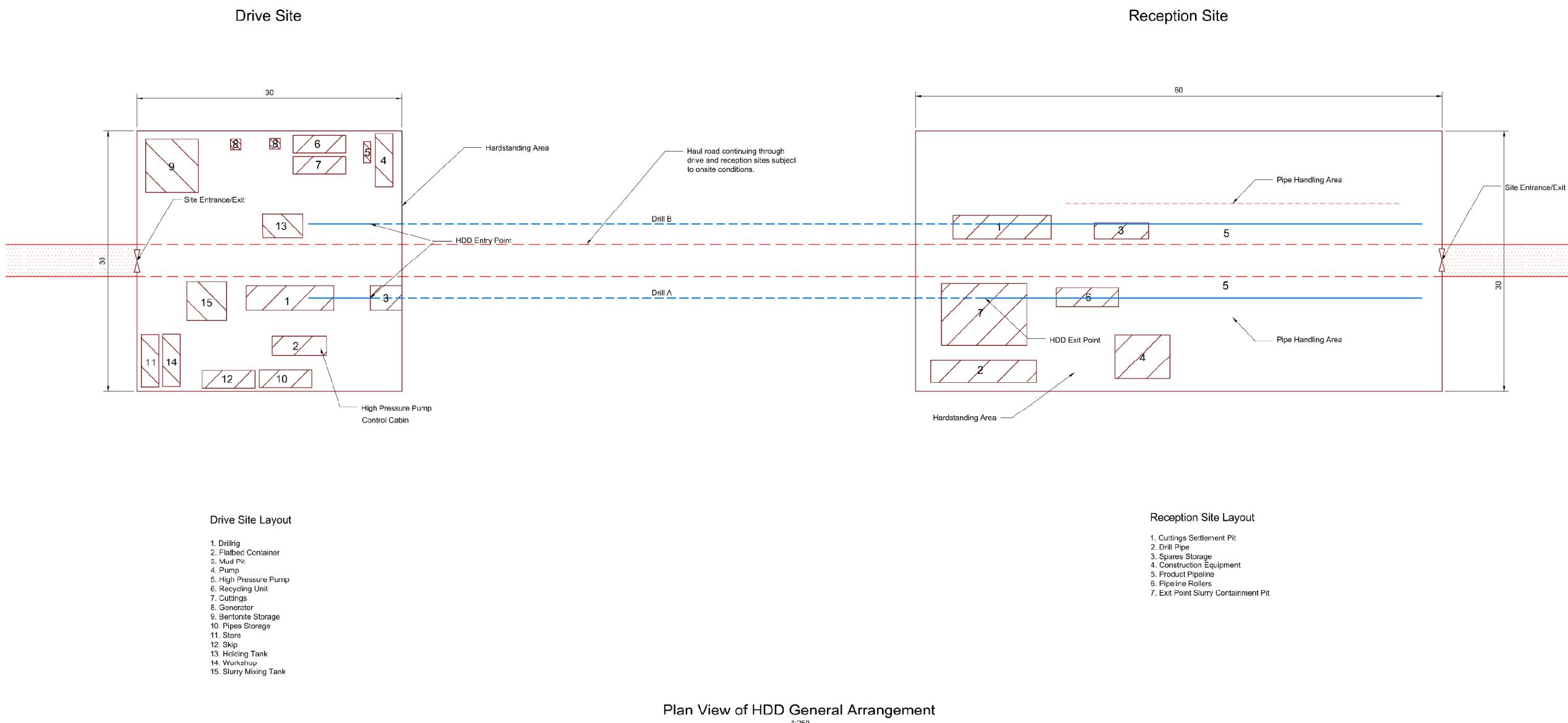
- Cuttings Settlement Pit
- Drill Pipe
- Spares Storage
- Construction Equipment
- Product Pipeline
- Pipeline Rollers
- Exit Point Slurry Containment Pit

1:250 0 12.5m 25m

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NG INVESTMENT No.	APPLICATION No.	GIS
20897	EN020001	A3
FIGURE No.	DRAWING No.	SCALE
3.21.1	G1979.2120.1C	NTS



Plan View of HDD General Arrangement

Key

Haul Road

Proposed Alignment of HDD Underground Cable

The key consists of a legend area in the top left corner. It features a red dotted line labeled "Haul Road" and a blue dashed line labeled "Proposed Alignment of HDD Underground Cable".

Notes

1. All dimensions in metres unless otherwise stated.
2. Do not scale any items of information from this drawing.
3. Arrangements shown for indicative purposes only. Design and dimensions may vary subject to onsite and installation conditions.

NOTE:

NG - 13/NG/0249
MMD-322069-E-DR-WPD-XX-1000

Title NATIONAL GRID (HINKLEY POINT C
CONNECTION PROJECT)
ENVIRONMENTAL STATEMENT

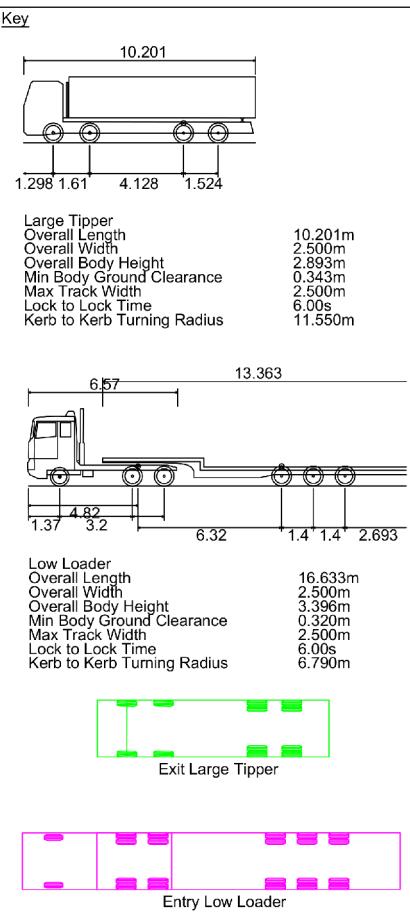
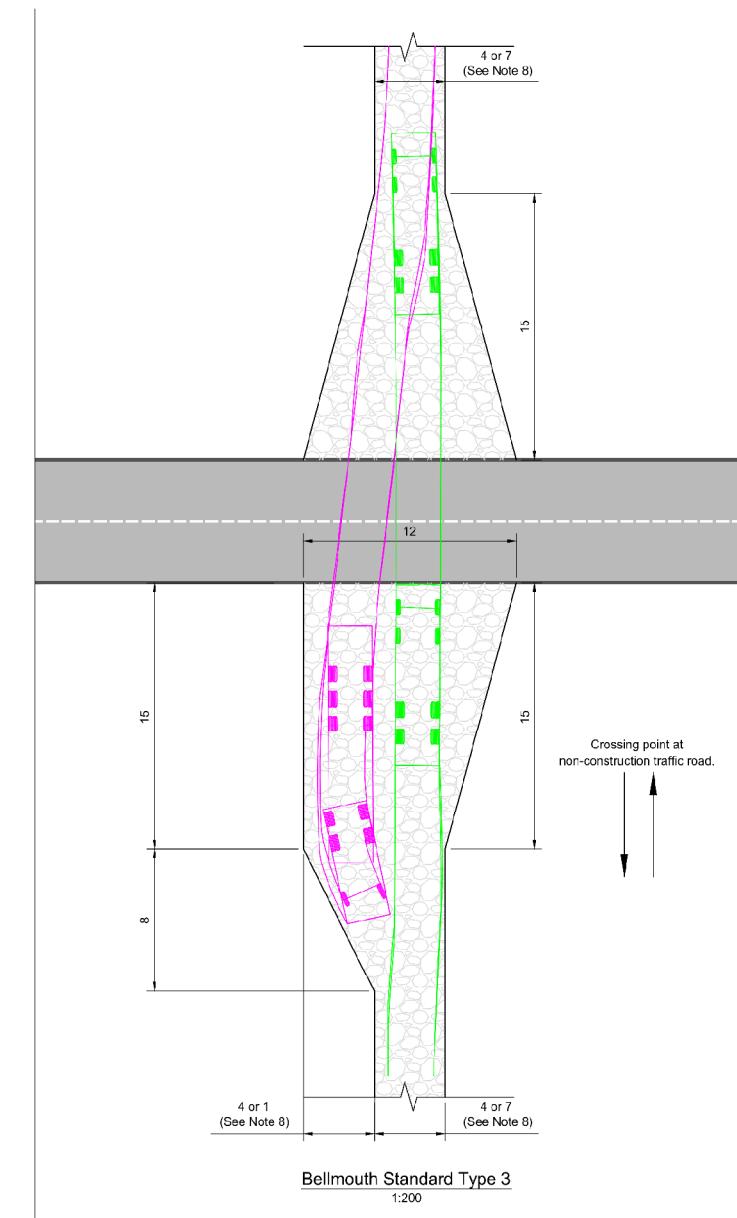
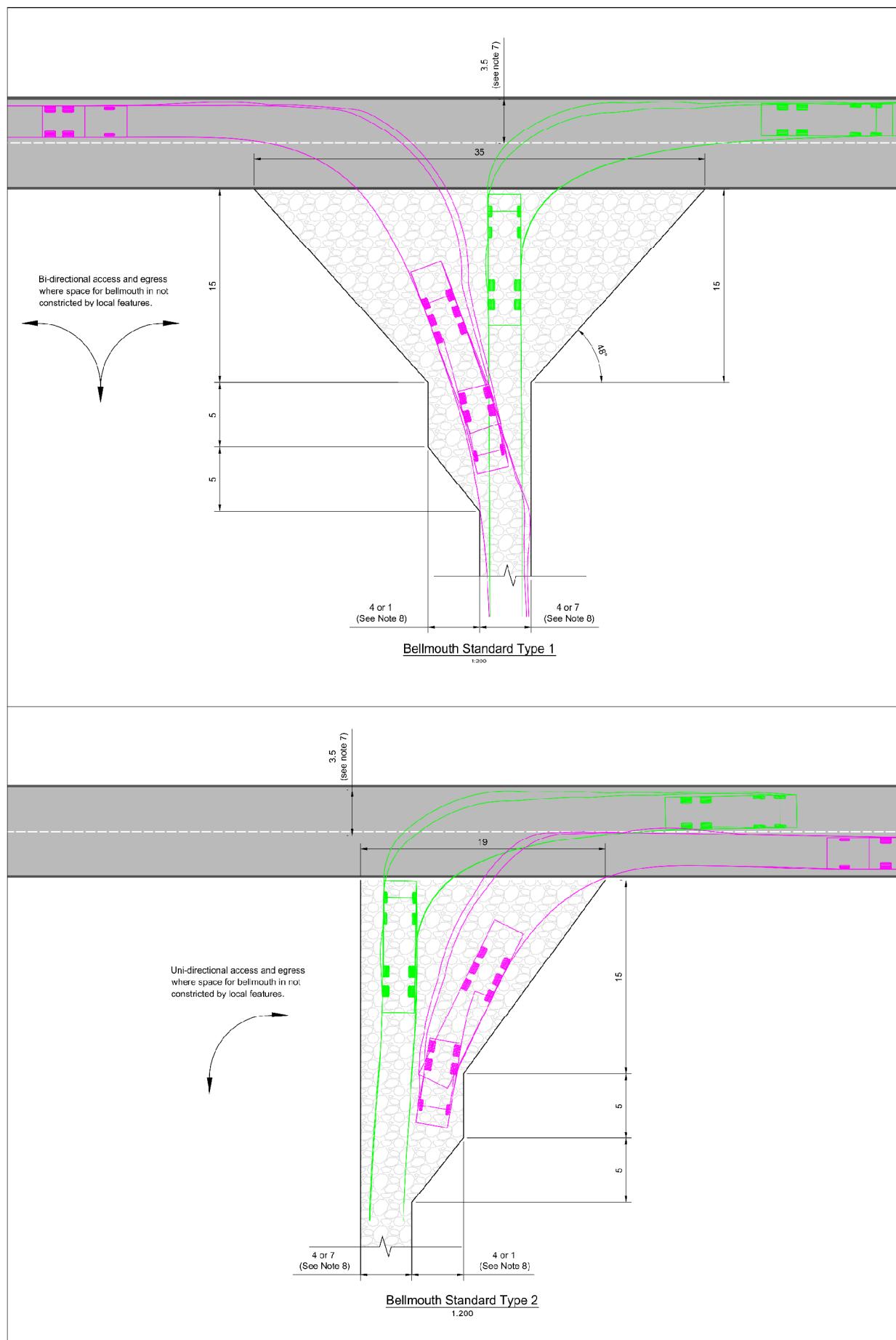
**TYPICAL HORIZONTAL DIRECTIONAL DRILLING
RECEPTION AND DRIVE SITE -
132KV GENERAL ARRANGEMENT -
EQUIPMENT AND VEHICLES AT BOTH
RECEPTION AND DRIVING AREA**

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INVESTMENT No.		APPLICATION No.		GIS
20897		EN020001		A3
FIGURE No.		DRAWING No.	SCALE	
3.21.2		G1979.2120.2C	NTS	
SHEET 2 of 2				ISSUE
				A

Figure 3.22 - Typical Bellmouth Arrangements



Notes

1. All dimensions in metres unless otherwise stated.
2. Do not scale any items of information from this drawing.
3. SHW - Specification for Highways
4. Bellmouth design has been based on DMRB 41/95.
5. Bellmouth sizes have been designed as such to allow construction vehicles to park within the bellmouth, minimising the impact on the public traffic.
6. The following construction vehicles have been considered to determine the size of the bellmouth:
 - a. 20t - 40t capacity 8 wheeled tipper truck
 - b. 40ft Low Loader
 Should larger vehicles be required, bellmouth size may change.
7. A minimum 3.5m road width required to allow access/egress without crossing over into adjacent carriageway or verge.
8. Bellmouth and haul road connection dimensions vary depending on haul road use (underground cables or overhead lines).

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VOLUME 5.3.3

TYPICAL BELL MOUTH ARRANGEMENTS

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NG INVESTMENT No.	APPLICATION No.	GIS
20897	EN020001	A3
FIGURE No.	DRAWING No.	SCALE
3.22	G1979.2121.1C	NTS
SHEET 1 of 1		ISSUE
		A

NOTE:
Original Drawing Number -

NG - 13/NG/0220

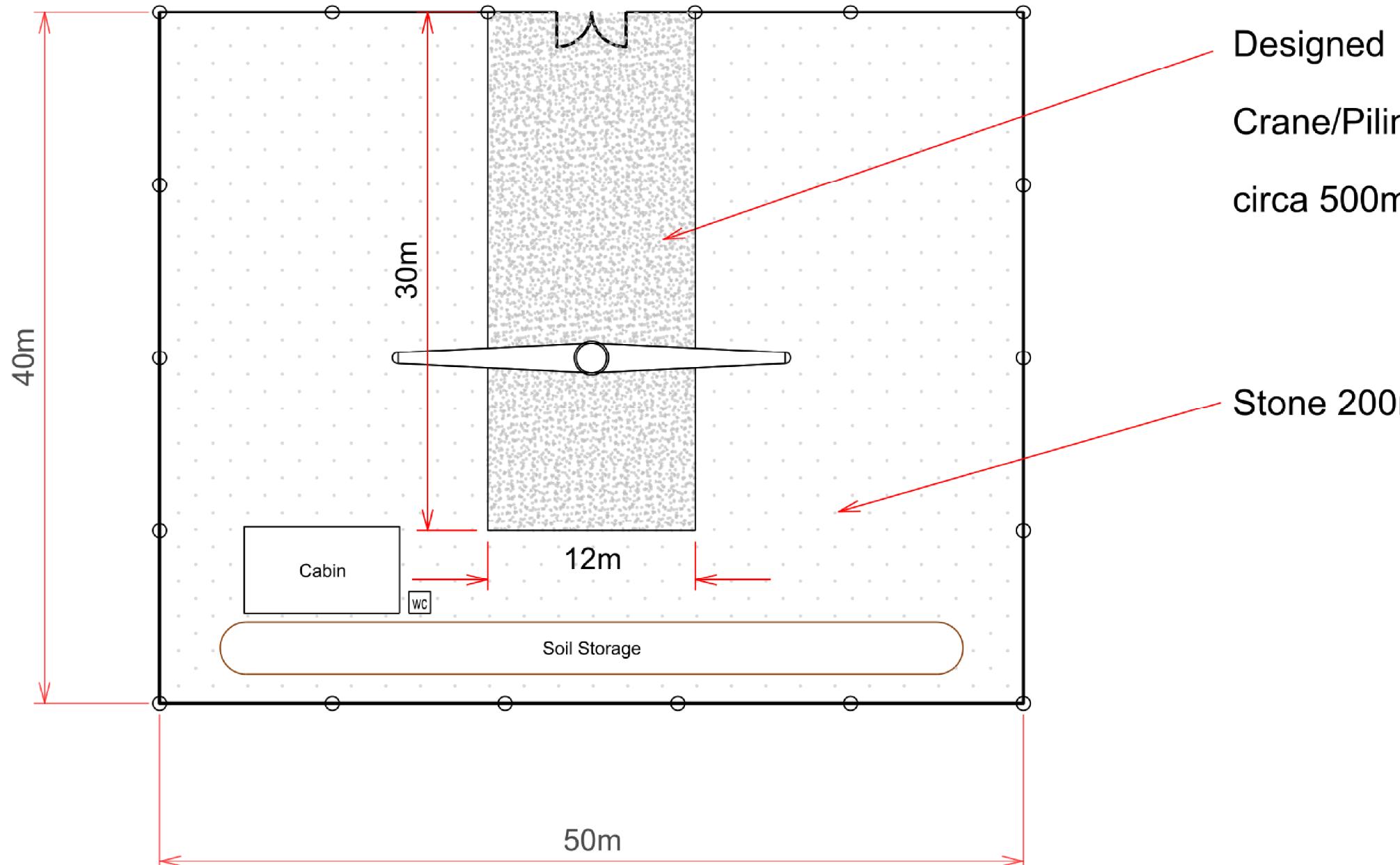
MMD-322069-E-DR-GEN-XX-0001

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0 10m 20m

1:200

Figure 3.23 - Typical Pylon Working Area



Designed
Crane/Piling Pad
circa 500mm Type1/Stone

Stone 200mm

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Title					
NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT) ENVIRONMENTAL STATEMENT VOLUME 5.3.3					
TYPICAL PYLON WORKING AREA					
nationalgrid <small>National Grid plc, Warwick Technology Park, Gallows Hill, Warwick, CV34 6DA</small>					
NG INVESTMENT No.	APPLICATION No.		GIS		
20897	EN020001		A3		
FIGURE No.	DRAWING No.		SCALE		
3.23	G1979.2122.1C		NTS		
SHEET 1 of 1					
ISSUE A					

Figure 3.24 - Pylon Foundations

NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT)
ENVIRONMENTAL STATEMENT
VOLUME 5.3.3

PYLON FOUNDATIONS 400kV PYLONS - INDICATIVE FOUNDATION TYPES PLAN

LEGEND

-  MINI-PILED FOUNDATION
-  STEEL TUBE PILED FOUNDATION
-  STEEL TUBE PILED OR CONTINUOUS FLIGHT AUGER (CFA)

(FROM DESK STUDY)

SCALE:

0 0.5 1.0 1.5 2.0 2.5

KILOMETRES 1 2 3 4 5 6

KILOMETRES 1:20,000



NOTE:
Original Drawing Number -

NG - 03 13205 25 - SHEET 1 OF 3

ANSWER

ISSUE DATE COMMENTS DRAW CHKD APP'D

Title
**NATIONAL GRID (HINKLEY POINT C
CONNECTION PROJECT)
ENVIRONMENTAL STATEMENT
VOLUME 5.3.3**

PYLON FOUNDATIONS - 400kV PYLONS - INDICATIVE FOUNDATION TYPES PLAN

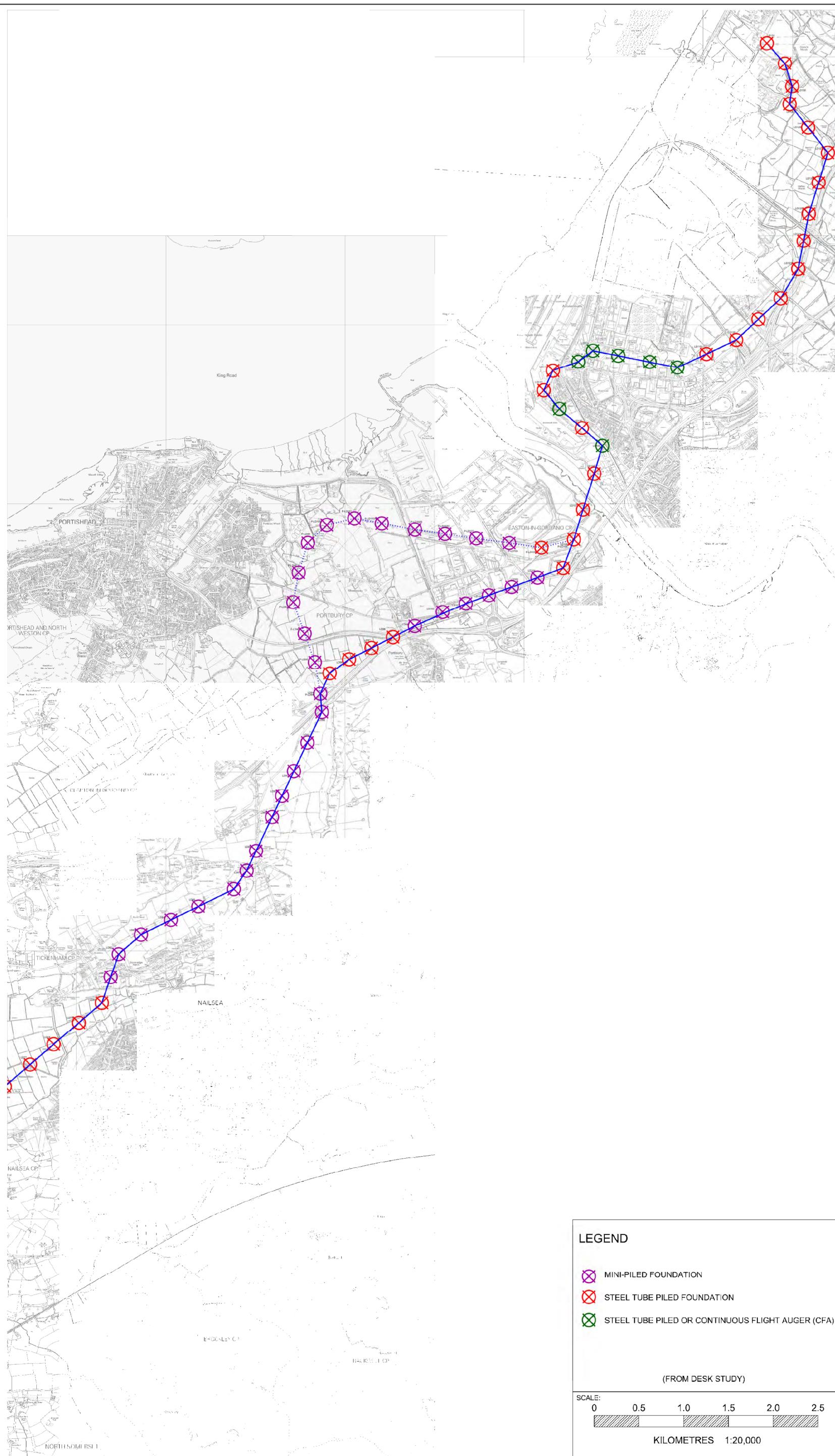
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National Grid plc, Warwick Technology Park, Gallows Hill, Warwick, CV25 6DA		
NG INVESTMENT No.	APPLICATION No.	GIS
20897	EN020001	A3
FIGURE No.	DRAWING No.	SCALE
3.24.1	G1979.2123.1C	NTS
		ISSUE
	SHEET 1 OF 2	A

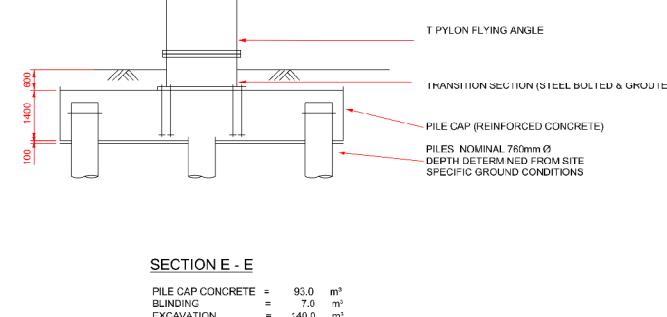
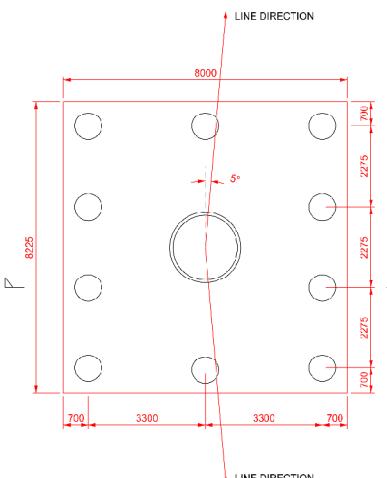
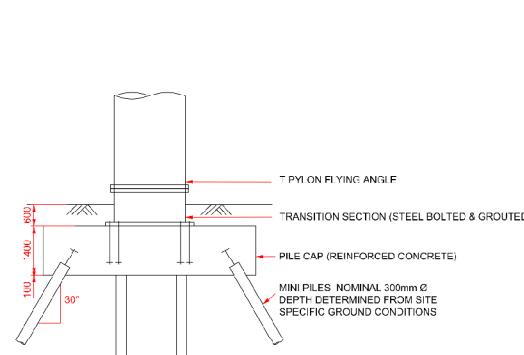
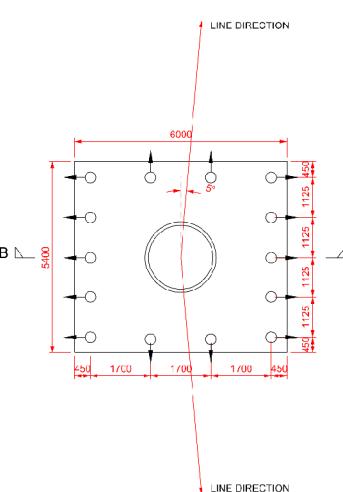
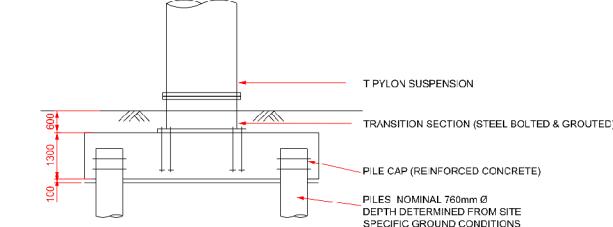
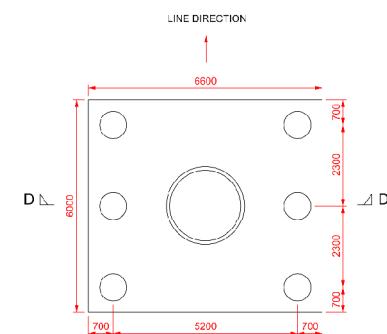
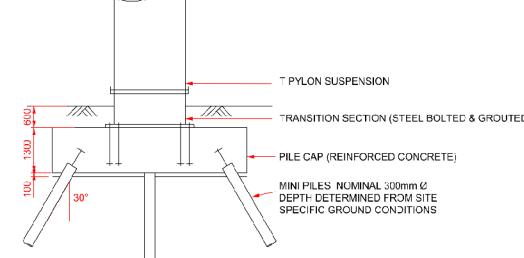
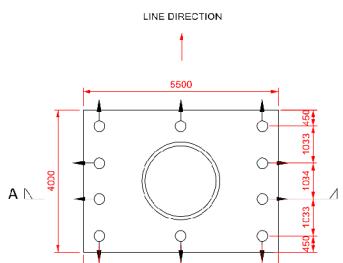
PYLON FOUNDATIONS
400kV PYLONS - INDICATIVE FOUNDATION TYPES PLAN



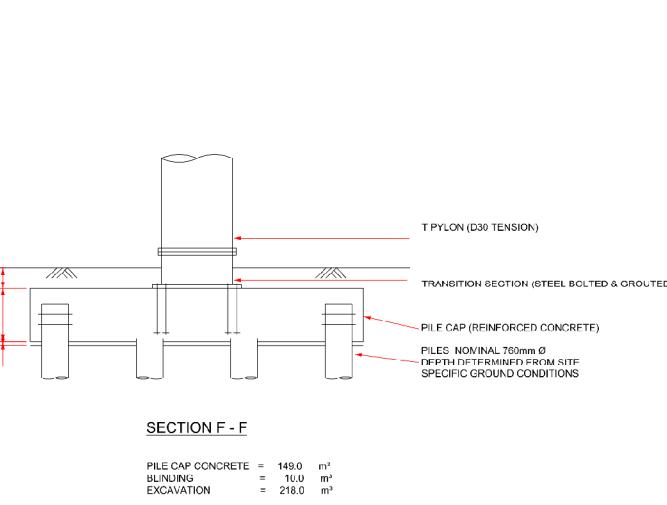
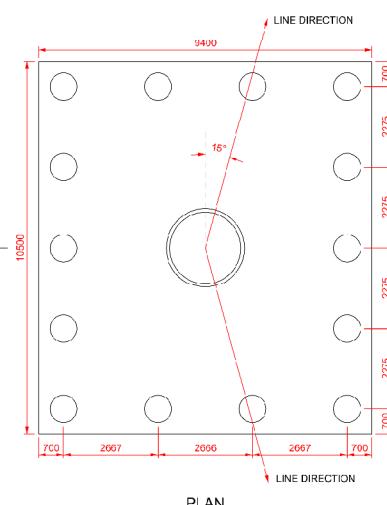
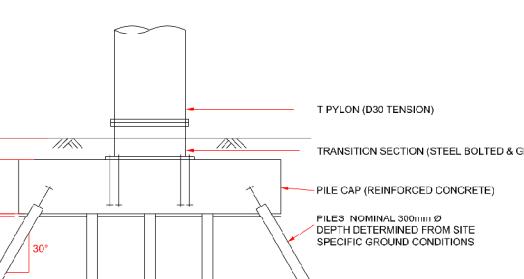
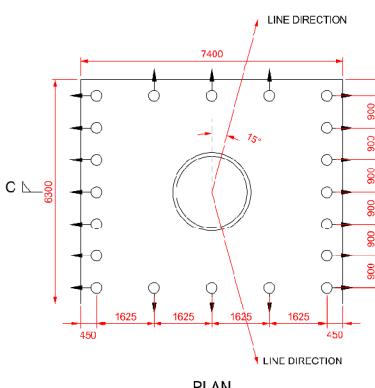
PYLON FOUNDATIONS
400kV PYLONS - INDICATIVE FOUNDATION TYPES PLAN



A	03/04/2014	DCO SUBMISSION	CB	BC	BC
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NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT) ENVIRONMENTAL STATEMENT VOLUME 5.3.3					
PYLON FOUNDATIONS - 400kV PYLONS - INDICATIVE FOUNDATION TYPES PLAN					
nationalgrid					
National Grid plc, Warwick Technology Park, Gallops Hill, Warwick, CV24 6DA					
NG INVESTMENT No	APPLICATION No	GIS			
20897	EN020001	A3			
FIGURE No.	DRAWING No.	SCALE			
3.24.3	G1979.2123.3C	NTS			
SHEET 3 OF 9					
ISSUE A					



Notes:
Foundation designs are conceptual and may be subject to modification following detailed design



NOTE:
Original Drawing Number -

NG - 16_13205_31

A	03/04/2014	DCO SUBMISSION	CB	BC	BC
ISSUE	DATE	COMMENTS	DRAW	CHKD	APP'D

Title
NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT)
ENVIRONMENTAL STATEMENT
VOLUME 5.3.3

PYLON FOUNDATIONS -
400kV T-PYLON
INDICATIVE FOUNDATIONS

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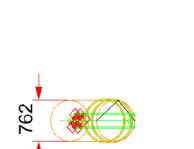
National Grid plc, Warwick Technology Park, Galows Hill, Warwick, CV34 6DA

NG INVESTMENT No.	APPLICATION No.	GIS
20897	EN020001	A3
FIGURE No.	DRAWING No.	SCALE
3.24.4	G1979.2123.4C	NTS

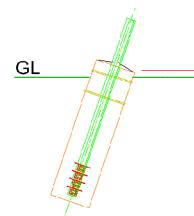
SHEET 4 of 9

ISSUE

SINGLE PILE
(TOWER TYPE L12 D)

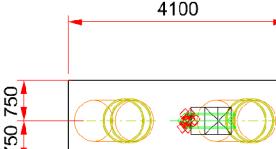


PLAN VIEW

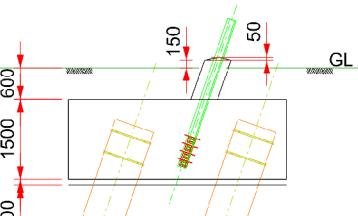


ELEVATION

TWO PILE CAP
(TOWER TYPE L12 D10/D25)



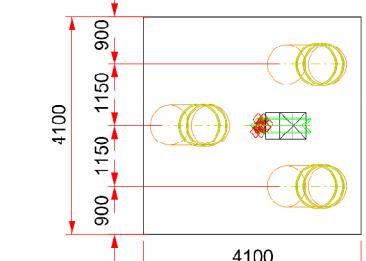
PLAN VIEW



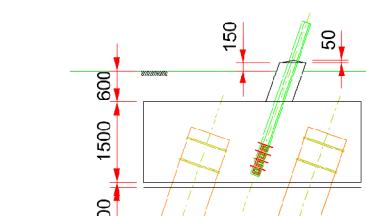
ELEVATION

Pile Cap Volume = 10.4m³ per leg
Excavation = 9.1m³ per leg

THREE PILE CAP
(TOWER TYPE L12 D10/D25)



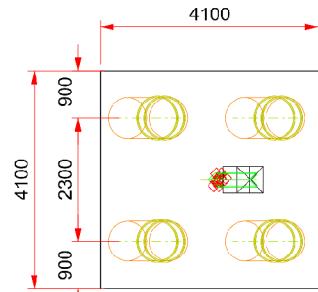
PLAN VIEW



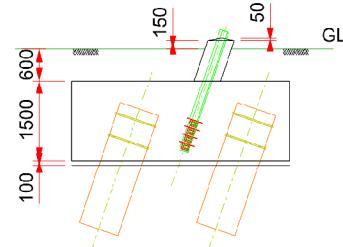
ELEVATION

Pile Cap Volume = 25.5m³ per leg
Excavation = 24.8m³ per leg

FOUR PILE CAP
(TOWER TYPE L12 D55/D90)

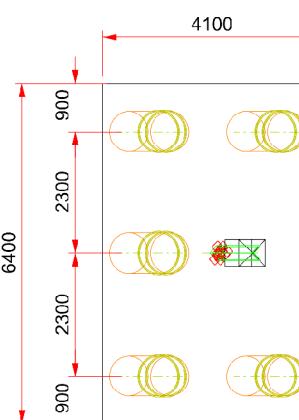


PLAN VIEW

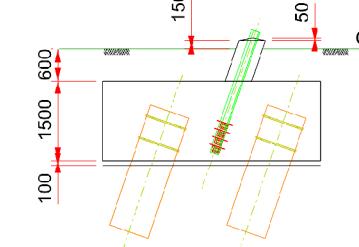


ELEVATION

FIVE PILE CAP
(TOWER TYPE L12 DT/DJT)



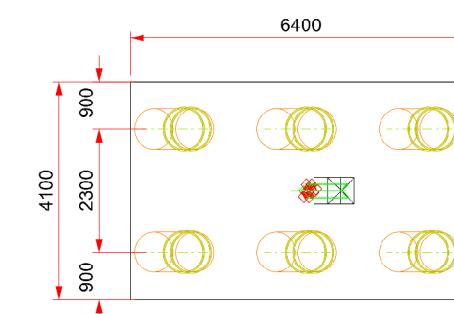
PLAN VIEW



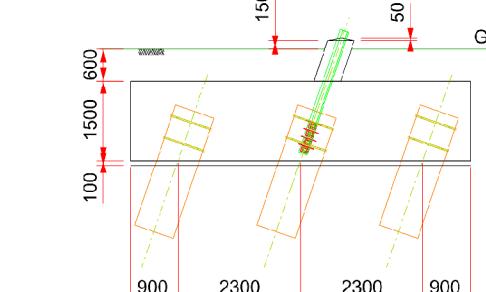
ELEVATION

Pile Cap Volume = 25.5m³ per leg
Excavation = 24.8m³ per leg

SIX PILE CAP
TOWER TYPE L12 DT/DJT



PLAN VIEW



ELEVATION

Pile Cap Volume = 39.8m³ per leg
Excavation = 38.7m³ per leg

Pile Cap Volume = 39.8m³ per leg
Excavation = 38.7m³ per leg

Notes:

1. FOUNDATION DESIGNS ARE CONCEPTUAL AND MAY BE SUBJECT TO MODIFICATION FOLLOWING DETAILED DESIGN
2. PILE LENGTHS TO BE DESIGNED TO SUIT SITE SPECIFIC GROUND CONDITIONS

NOTE:

Original Drawing Number -
NG - 16_13205_44

A	03/04/2014	DCO SUBMISSION	CB	BC	BC
ISSUE	DATE	COMMENTS	DRAW	CHKD	APP'D

Title
NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT)
ENVIRONMENTAL STATEMENT
VOLUME 5.3.3

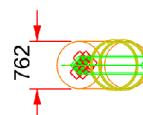
PYLON FOUNDATIONS -
400kV LATTICE PYLON
INDICATIVE FOUNDATIONS

nationalgrid

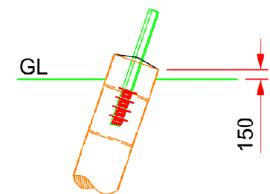
National Grid plc, Warwick Technology Park, Gallows Hill, Warwick, CV34 6DA

NG INVESTMENT No.	APPLICATION No.	GIS
20897	EN020001	A3
FIGURE No.	DRAWING No.	SCALE
3.24.5	G1979.2123.5C	NTS
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		A

SINGLE PILE
(TOWER TYPE D/D30)

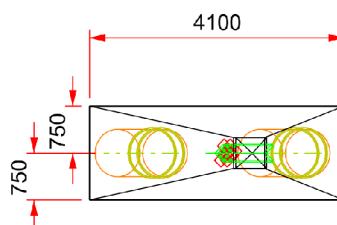


PLAN VIEW

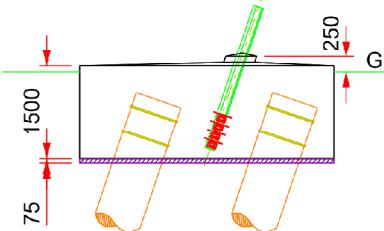


ELEVATION

TWO PILE CAP
(TOWER TYPE D60/DT)



PLAN VIEW



ELEVATION

Pile Cap Volume = 9.3m³ per leg
Excavation = 15.9m³ per leg

GENERAL NOTES:

1. FOUNDATION DESIGNS ARE CONCEPTUAL AND MAY BE SUBJECT TO MODIFICATION FOLLOWING DETAILED DESIGN
2. PILE LENGTHS TO BE DESIGNED TO SUIT SITE SPECIFIC GROUND CONDITIONS

NOTE:
Original Drawing Number -
NG - 16_12342_72

A	03/04/2014	DCO SUBMISSION	CB	BC	BC
ISSUE	DATE	COMMENTS	DRAW	CHKD	APP'D

Title
NATIONAL GRID (HINKLEY POINT C CONNECTION PROJECT)
ENVIRONMENTAL STATEMENT VOLUME 5.3.3

PYLON FOUNDATIONS -
132kV PYLON L4M/L7C STEEL
TUBE PILE FOUNDATIONS (INDICATIVE)

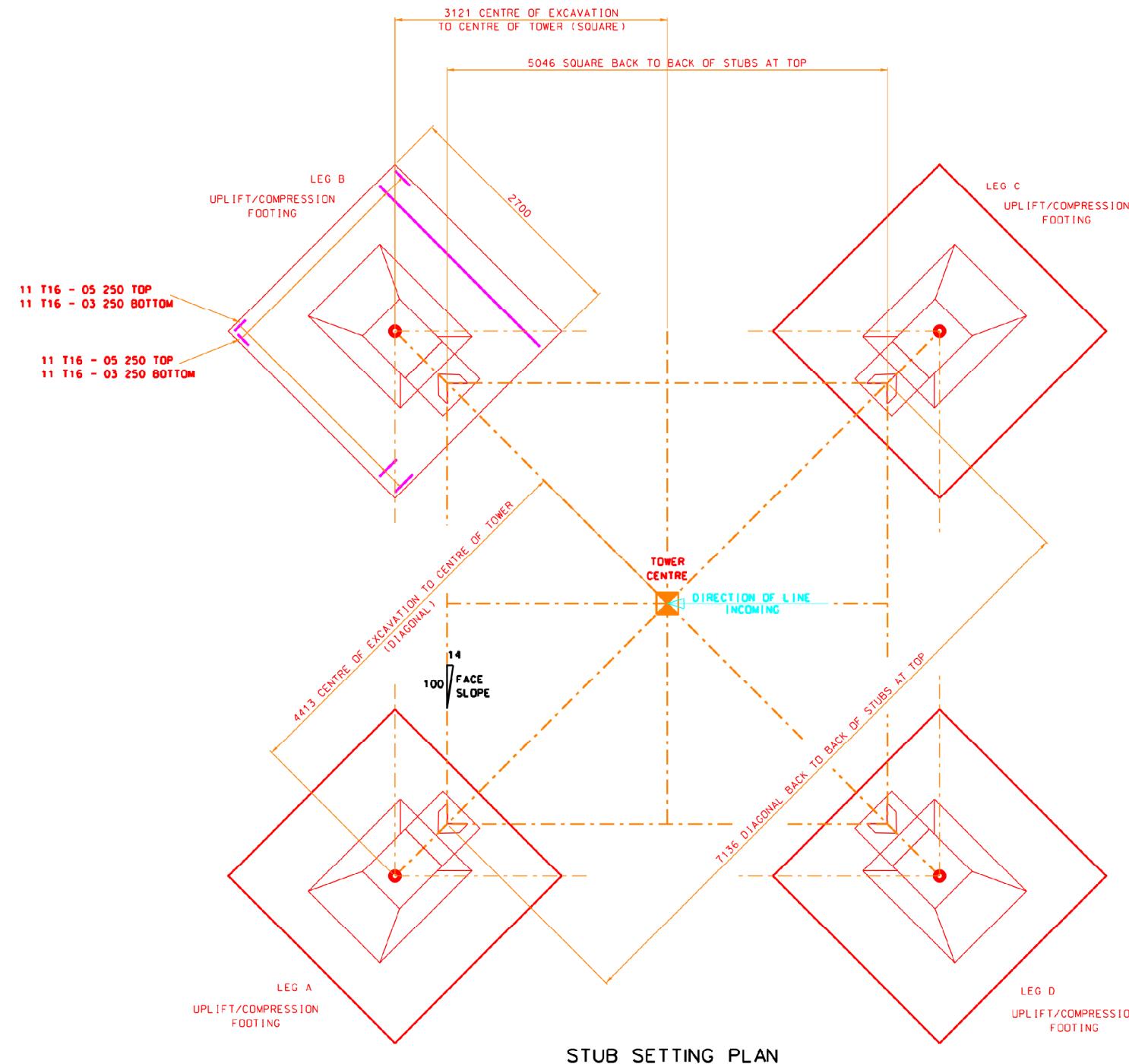
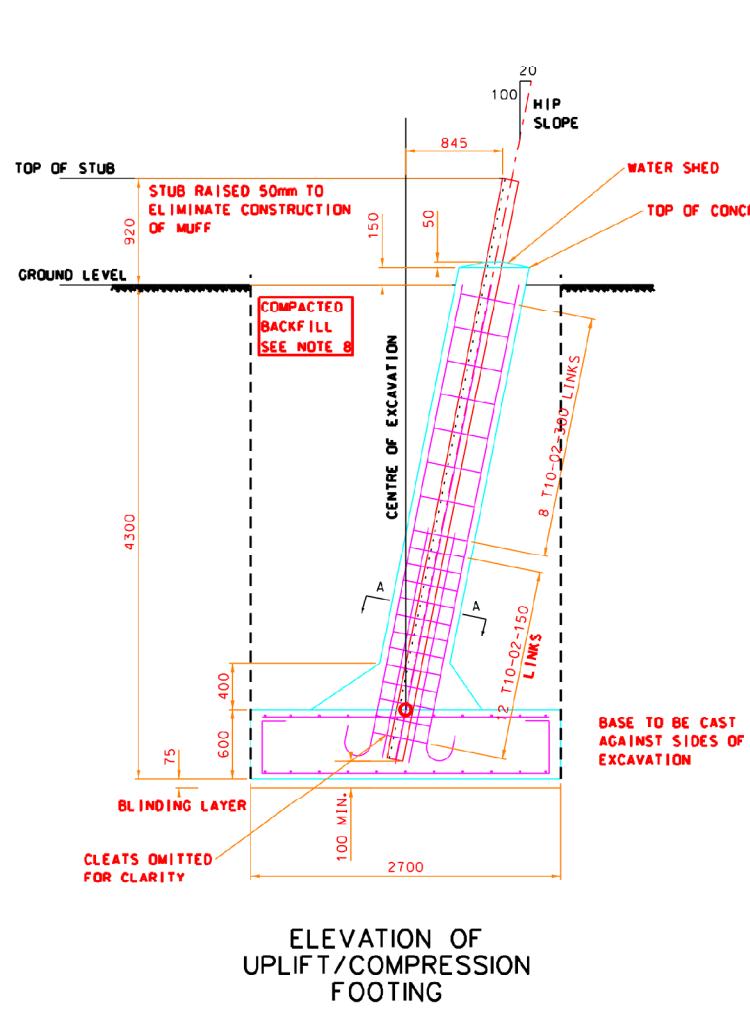
nationalgrid

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NG INVESTMENT No.	APPLICATION No.	GIS
20897	EN020001	A3
FIGURE No.	DRAWING No.	SCALE
3.24.6	G1979.2123.6C	NTS

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NOTE:
Original Drawing Number -

Title
NATIONAL GRID (HINKLEY POINT C
CONNECTION PROJECT)
ENVIRONMENTAL STATEMENT
VOLUME 5.3.3

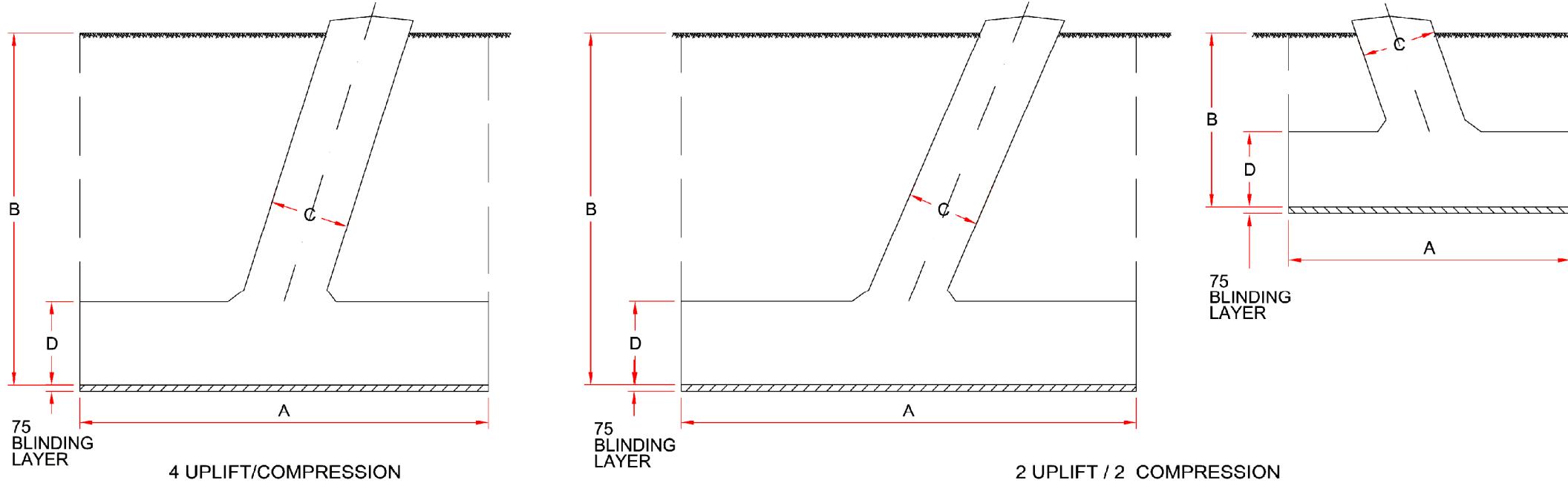
PYLON FOUNDATIONS - 132kV PYLON L4M DT PAD AND CHIMNEY FOUNDATIONS (INDICATIVE)

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NG INVESTMENT No.	APPLICATION No.	GIS
20897	EN020001	A3
FIGURE No.	DRAWING No.	SCALE
3.24.7	G1979.2123.7C	NTS
SHEET 7 of 9		ISSUE
		A

L7(c)	TOWER TYPE											
	D	D30		D60		D90		DT		DJT Junc	ST	
		Uplift	Compres sion	Uplift	Compres sion	Uplift	Compres sion	Uplift	Compres sion		Uplift	Compres sion
PAD SIZE A	4.10	5.40	3.20	5.50	3.80	4.80	4.80	5.00	3.70	4.60	3.80	2.90
DEPTH B	3.00	3.80	2.40	4.50	1.80	4.50	2.00	4.50	1.60	4.50	4.20	1.30
COLUMN C	0.50	0.70	0.70	0.70	0.70	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PAD HEIGHT D	0.90	1.18	0.63	1.20	0.78	0.95	0.95	1.00	0.68	0.90	0.70	0.48
CONCRETE VOLUME m ³ /TOWER	62.87	86.08		99.66		97.55		78.13		91.37	37.65	
EXCAVATION VOLUME m ³ /TOWER	208.44	279.72		333.06		308.01		276.21		389.34	147.58	
REBAR Kg/TOWER	3150.00	4300.00		4975.00		4875.00		3900.00		4575.00	1875.00	
BLINDING m ³ /TOWER	6.72	11.66		12.10		9.22		10.00		8.46	5.78	



GENERAL NOTES:

1. STUB /REINFORCEMENT DETAILS OMITTED FOR CLARITY
2. TO SUPPORT LOADINGS BASED UPON NATIONAL GRID LOAD SCHEDULE F 95/23984 FOR TERMINAL TOWERS AND LSTC PLS ANALYSIS R3 ($\gamma_v = 1.2$; $\gamma_m = 1.35$) FOR ALL OTHER TOWER TYPES.
3. STANDARD GROUND CONDITIONS, PAD IN CLAY/WEATHERED ROCK (LIAS/MERCI MUDSTONE).
4. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.

NOTE:
Original Drawing Number -
NG - 16_12342_74

A	03/04/2014	DCO SUBMISSION	CB	BC	BC
ISSUE	DATE	COMMENTS	DRAW	CHKD	APP'D

Title
NATIONAL GRID (HINKLEY POINT C
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PYLON FOUNDATIONS -
132kV PYLON L7C PAD AND
COLUMN FOUNDATIONS (INDICATIVE)

nationalgrid

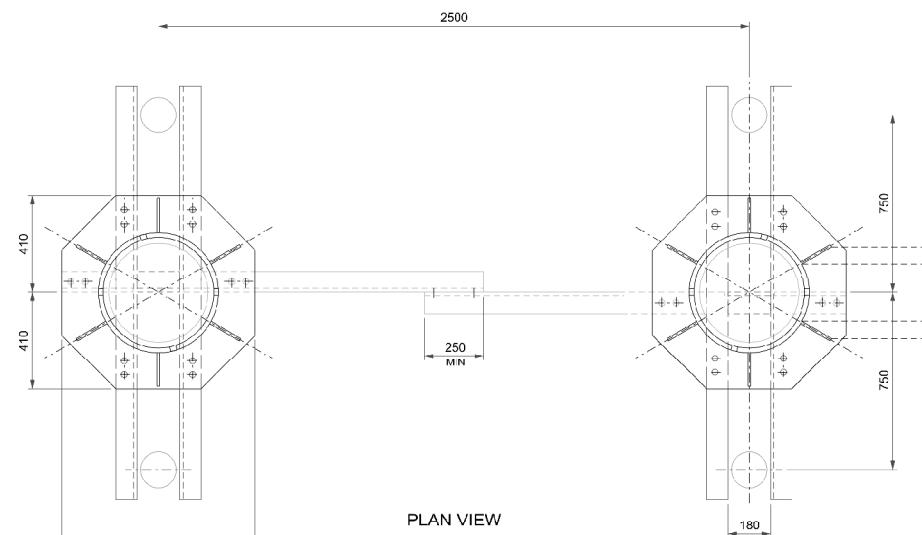
National Grid plc, Warwick Technology Park, Gallops Hill, Warwick, CV34 6DA

NG INVESTMENT No.	APPLICATION No.	GIS
20897	EN020001	A3
FIGURE No.	DRAWING No.	SCALE
3.24.8	G1979.2123.8C	NTS

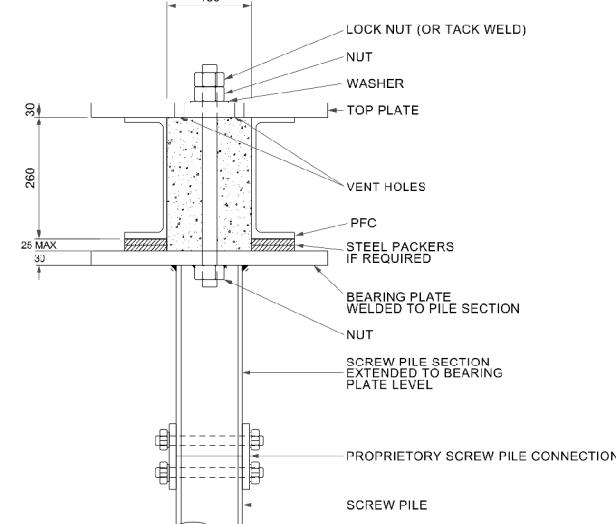
SHEET 8 of 9

ISSUE A

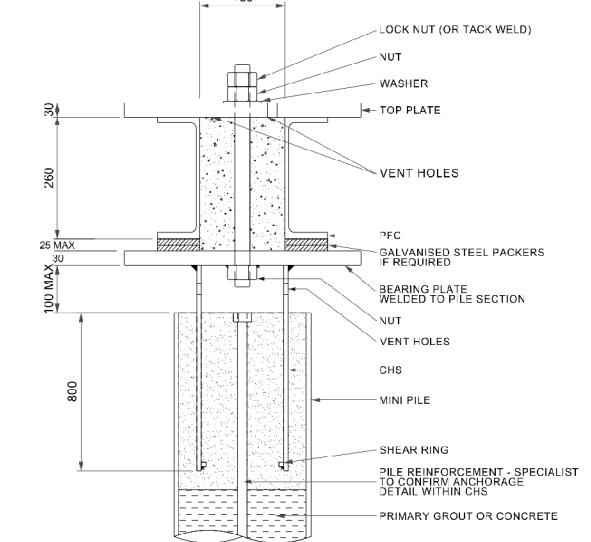
CONCEPTUAL ONLY



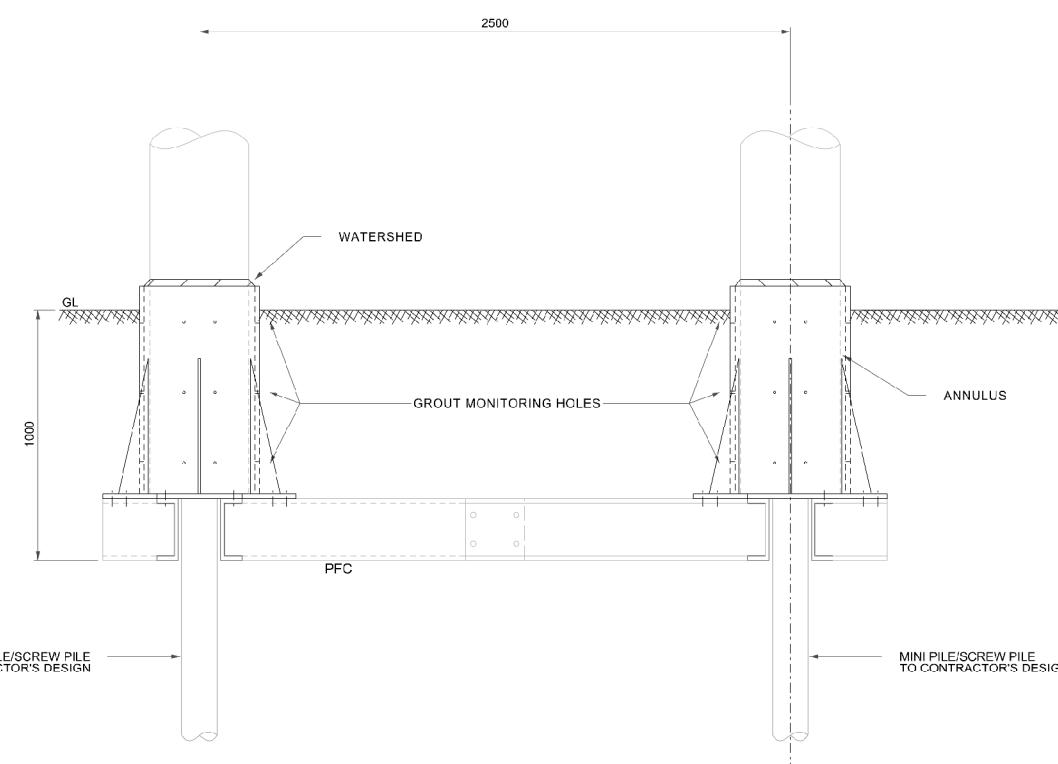
PLAN VIEW



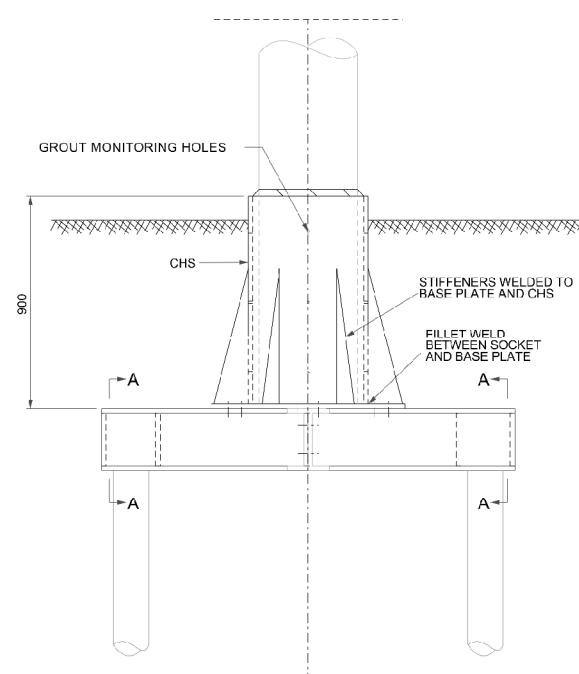
SECTION A-A
SCREW PILE/FRAME
CONNECTION
(SCALE x2)



SECTION A-A
ALTERNATE
MINI PILE/FRAME
CONNECTION
(SCALE x2)



FRONT ELEVATION



SIDE ELEVATION

NOTES:

1. FOUNDATION DESIGNS ARE CONCEPTUAL AND MAY BE SUBJECT TO MODIFICATION FOLLOWING DETAILED DESIGN
2. PILE LENGTHS TO BE DESIGNED TO SUIT SITE SPECIFIC GROUND CONDITIONS
3. ALL DIMENSIONS ARE TYPICAL

NOTE:
Original Drawing Number -
NG - 16_12342_75

Title			
A	03/04/2014	DCO SUBMISSION	CB BC BC
ISSUE DATE	COMMENTS	DRAW CHKD APP'D	

Title
NATIONAL GRID (HINKLEY POINT C
CONNECTION PROJECT)
ENVIRONMENTAL STATEMENT
VOLUME 5.3.3

PILE FOUNDATIONS -
132kV H POLE PYLON MINI
PILE/SCREW FOUNDATIONS (INDICATIVE)

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National Grid plc, Warwick Technology Park, Galows Hill, Warwick, CV34 6DA

NG INVESTMENT No.	APPLICATION No.	GIS
20897	EN020001	A3
FIGURE No.	DRAWING No.	SCALE
3.24.9	G1979.2123.9C	NTS

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