

AENC-MMAC-ENG-DWG-0085

Norwich to Tilbury

Volume 2: Plans, Drawings and Sections

**Document: 2.6.1 Design and Layout Plans - Subs & Cables -
Clean Version**

Final Issue C

June 2026

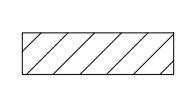
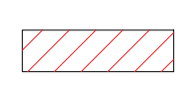
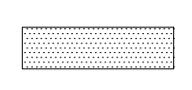


Planning Inspectorate Reference: EN020027

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

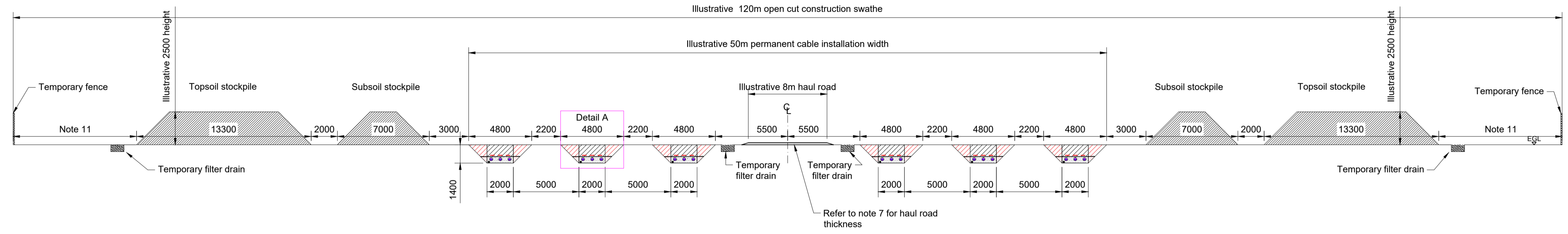
nationalgrid

THE NATIONAL GRID
(NORWICH TO TILBURY) ORDER
ILLUSTRATIVE HIGH VOLTAGE CABLE DIRECT BURIED CROSS SECTION AND CONSTRUCTION EASEMENT DRAWING
REGULATION 5(2)(o)
SHEET 1 OF 1

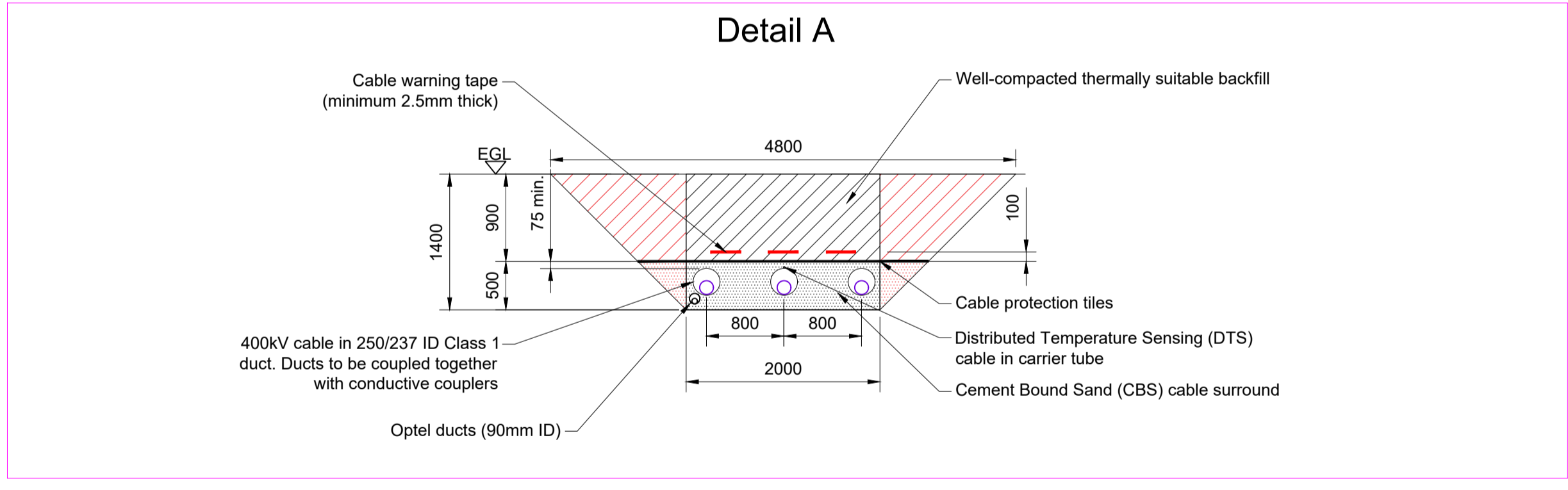
LEGEND

	Well-compacted thermally suitable backfill (indigenous material to be used where possible)
	Well-compacted thermally suitable backfill (splayed excavation) (indigenous material to be used where possible)
	Cement-bound sand cable surround
	Cement-bound sand cable surround (splayed excavation)
	High voltage cable

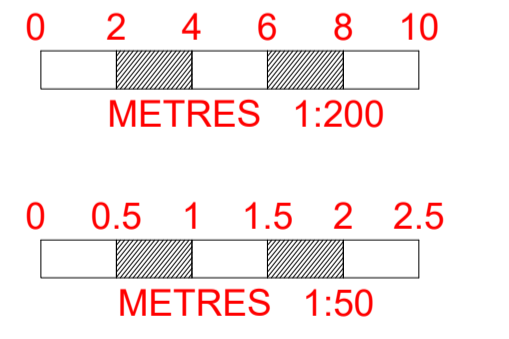
- Notes**
- These plans are illustrative and will sit within the Order Limits. Due to the need for future flexibility, National Grid will be applying for Order Limits and Limits of Deviation within its DCO, within which any final alignment would lie.
 - For additional detail on the plan suites, please refer to the Guide to Plans (document reference 2.0), located in the Volume 2 of the DCO application.
 - All dimensions are approximate and indicated in millimetres (mm) unless noted otherwise.
 - This drawing is scaled at paper size A1, therefore any prints taken at smaller sizes will affect accuracy of the measurement units and should not be scaled against.
 - The proposed arrangement, including circuit and cable spacing, is shown for illustrative purposes only. Dimensions and the design may vary depending on site and installation conditions.
 - The cable construction swathe may reduce in width subject to site constraints. At these locations, associated topsoil and subsoil may be stored elsewhere along the route. It is assumed that soil stockpiles will be locally omitted where the swathe passes through hedgerows or in areas that are otherwise constrained. In particularly constrained areas, the trench spacing could be reduced by using vertical excavations and appropriate temporary works. However, this approach is not recommended for all locations as battered excavations will substantially aid efficiency of construction.
 - Haul road dimensions and depths are subject to vehicle requirements and ground conditions.
 - Drainage details are shown illustratively. Requirements are subject to site conditions and construction methodology.
 - Installation of high voltage cables, ducts and associated communications cables shall be in accordance with the relevant National Grid standards and technical specifications.
 - A "bypass" haul road is required on a location-specific basis to provide parallel access to overhead lines outside the underground cable working area. In these locations, the widths will be in accordance with the Illustrative Haul Road Cross Section drawing.
 - Offset between perimeter fence and bund allows for spacing of other features to change as a result of varying site conditions without affecting the overall swathe width.



Illustrative swathe for open cut construction for 400kV cabling works
1:200



Illustrative direct buried cable trench cross-section
1:50



Issue	Date	Remarks	Drawn	Checked	Approved
A	AUG-2025	For DCO submission	OB	CK	KR

Title
THE NATIONAL GRID
(NORWICH TO TILBURY) ORDER
ILLUSTRATIVE HIGH VOLTAGE CABLE DIRECT BURIED CROSS SECTION AND CONSTRUCTION EASEMENT DRAWING
REGULATION 5(2)(o)
SHEET 1 OF 1





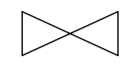




nationalgrid

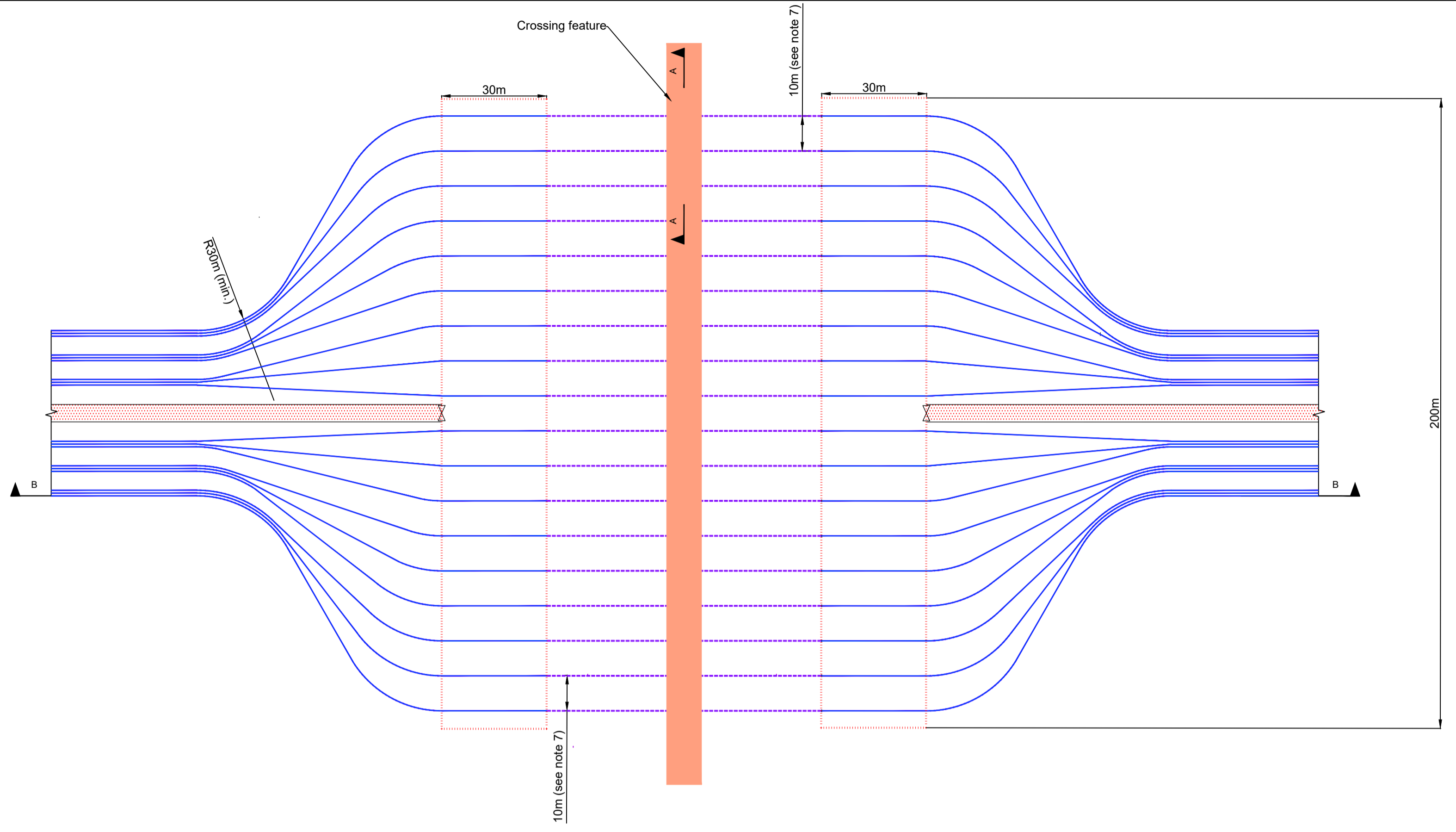
PINS Application Number: EN020027
National Grid Drawing Reference: AENC-MMAC-ENG-DWG-0085-01

Scale	Sheet Size	Sheet	Issue
As shown	A1	SHEET 1 OF 1	A

THE NATIONAL GRID
(NORWICH TO TILBURY) ORDER
ILLUSTRATIVE TRENCHLESS CROSSING STANDARD DETAIL
REGULATION 5(2)(o)
SHEET 1 OF 1

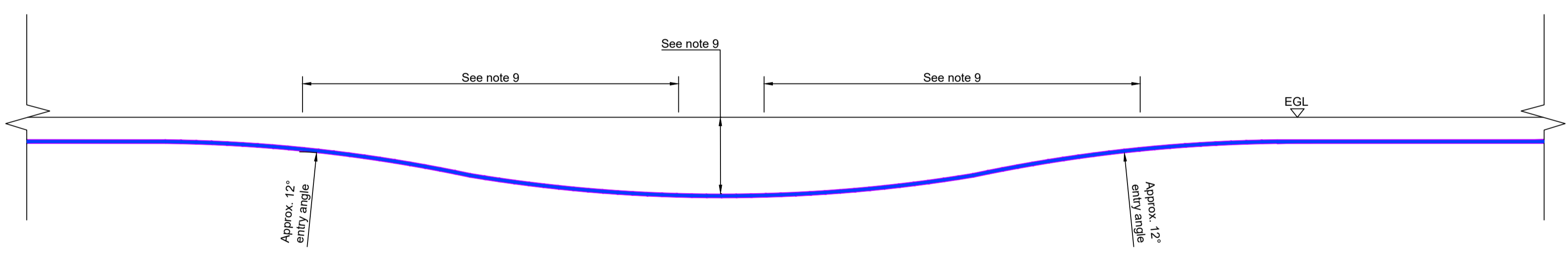
LEGEND

-  Cable duct containing high voltage alternating current (HVAC) cable
-  Comms cable / duct
-  Horizontal directional drill (HDD) shot - one HVAC cable in duct
-  HDD launch / reception site
-  Temporary gate
-  Haul Road
-  Crossing feature
-  Bentonite filling
-  High voltage cable

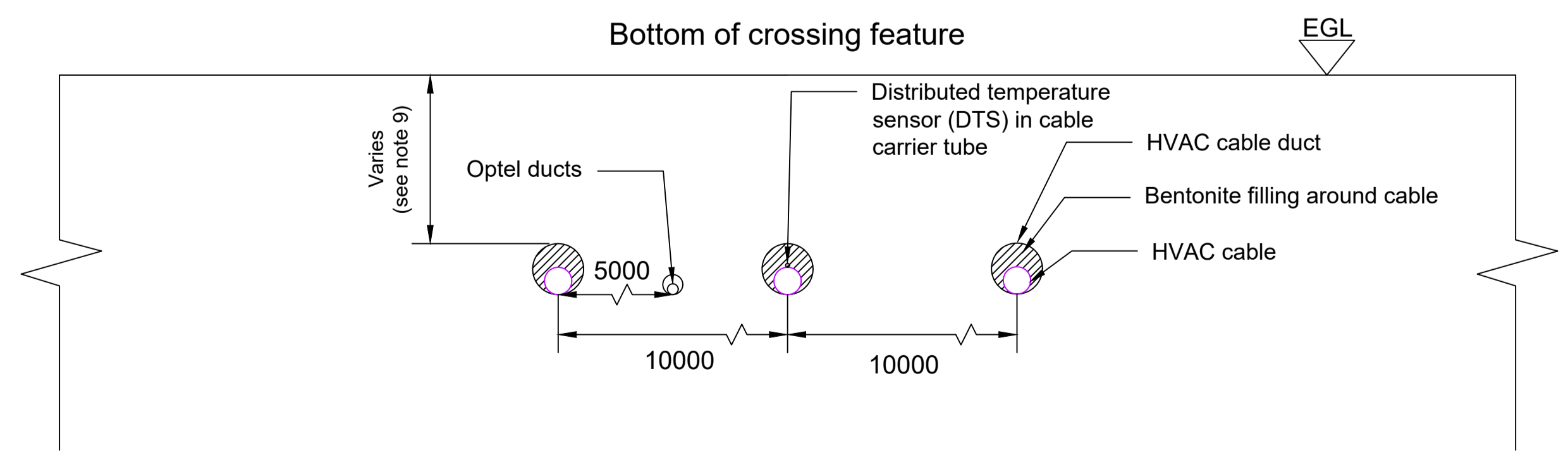
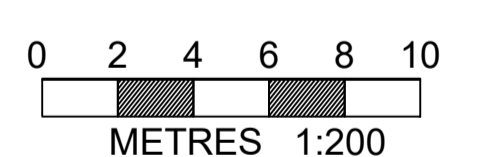
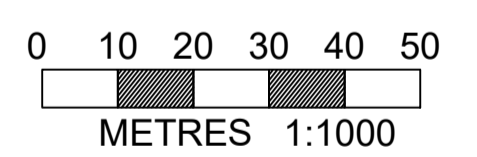


Illustrative HDD plan arrangement under a crossing feature
1:1000

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 2. For additional detail on the plan suites, please refer to the Guide to Plans (document reference 2.0), located in the Volume 2 of the DCO application.
 3. All dimensions are approximate and indicated in millimeters (mm) unless noted otherwise.
 4. This drawing is scaled at paper size A1, therefore any prints taken at smaller sizes will affect accuracy of the measurement units and should not be scaled against.
 5. The proposed arrangement, including circuit and cable spacing, is shown for illustrative purposes only. Dimensions and the design may vary depending on site and installation conditions.
 6. Installation of high voltage cables, ducts and associated communications cables shall be in accordance with the relevant National Grid standards and technical specifications.
 7. Cable spacing based on typical 10m separation. Spacing may increase/decrease (within the underground cable Limits of Deviation) as the design is developed.
 8. Horizontal Directional Drilling (HDD) is shown as the a baseline method of trenchless installation. However, various other trenchless installation methods are available. The selected method will vary by location to suit the detailed design and site conditions.
 9. Depth between existing surface level, track, utility or bottom of ditch (as appropriate) and top of duct to be agreed with relevant stakeholders. Increase in depth may impact overall length of the trenchless installation.
 10. Refer to drawing ENC-MMAC-ENG-DWG-0085-03 (document reference 2.6.1) for the illustrative HDD launching and reception worksite layout.



Cross Section B-B
Illustrative HDD cable long section
1:200



Cross Section A-A
Illustrative HDD cable cross section under crossing feature
NTS

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A	AUG-2025	For DCO submission	OB	CK	KR

Title

THE NATIONAL GRID
(NORWICH TO TILBURY) ORDER
ILLUSTRATIVE TRENCHLESS CROSSING
STANDARD DETAIL
REGULATION 5(2)(o)
SHEET 1 OF 1

nationalgrid

PINS Application Number: EN020027



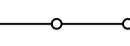




National Grid Drawing Reference: AENC-MMAC-ENG-DWG-0085-02

Scale	Sheet Size	Sheet	Issue
As shown	A1	SHEET 1 OF 1	A

THE NATIONAL GRID
(NORWICH TO TILBURY) ORDER
ILLUSTRATIVE HDD LAUNCHING AND RECEPTION WORKSITE LAYOUT
REGULATION 5(2)(o)
SHEET 1 OF 1

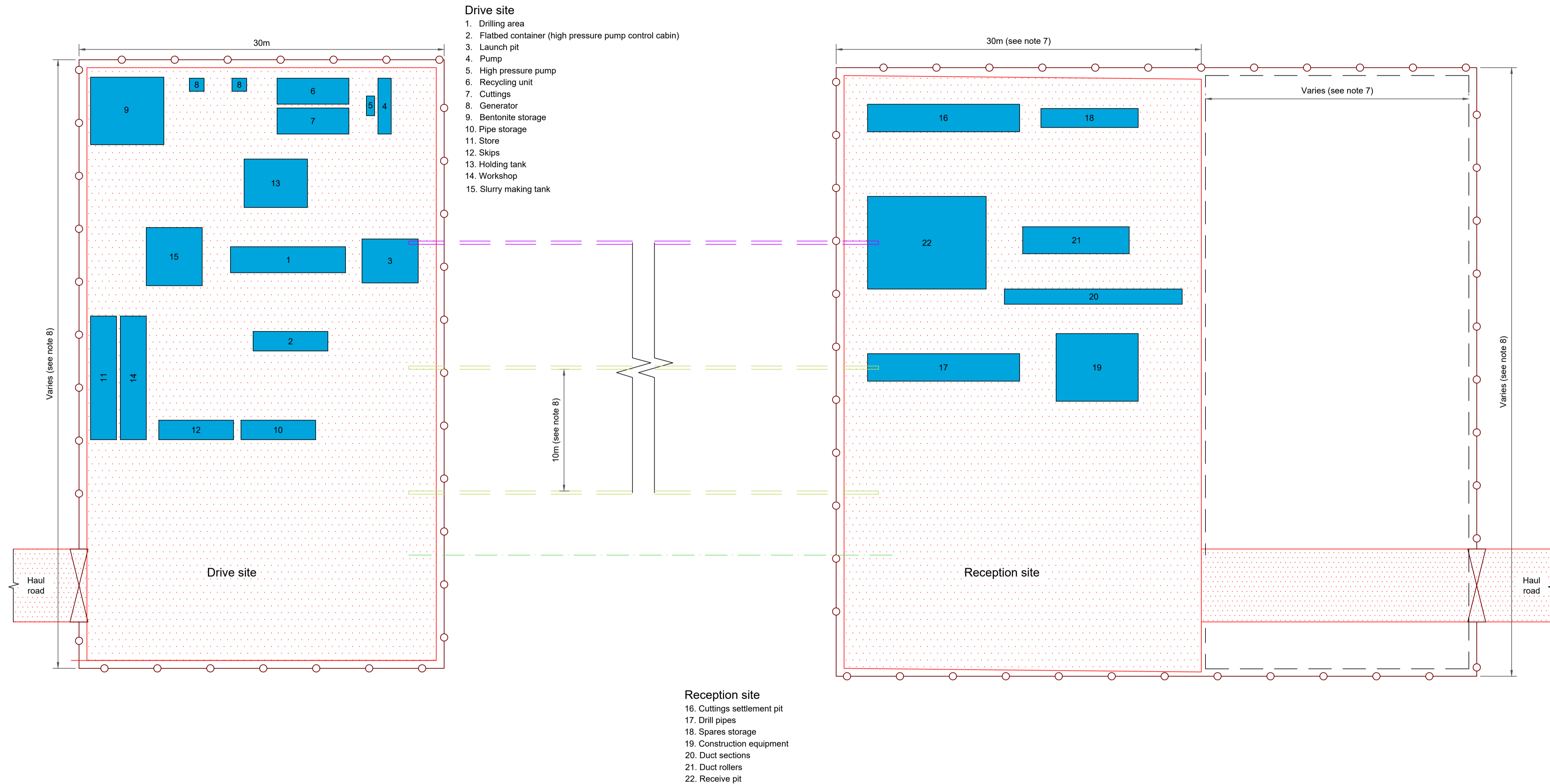
Application Document 2.6.1

LEGEND

-  Hard standing/gravel surface
-  Construction equipment/area
-  Temporary fence
-  Cable duct (being installed)
-  Cable duct (installed)
-  Temporary gate
-  Comms cable/duct

Notes

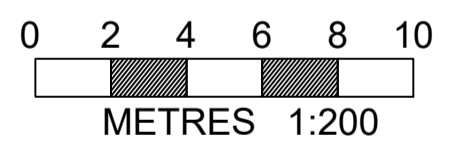
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2. For additional detail on the plan suites, please refer to the Guide to Plans (document reference 2.0), located in the Volume 2 of the DCO application.
3. All dimensions are approximate and indicated in metres (m) unless noted otherwise.
4. This drawing is scaled at paper size A1, therefore any prints taken at smaller sizes will affect accuracy of the measurement units and should not be scaled against.
5. The proposed arrangement, including circuit and cable spacing, is shown for illustrative purposes only. Dimensions and the design may vary depending on site and installation conditions.
6. Temporary topsoil/subsoil bunding is not shown on drawing.
7. Compound width may vary subject to length of crossing and handling area needed.
8. This is an illustrative layout for Horizontal Directional Drilling of three cables. Installation of the proposed 18 cables will require a working area of approximately 180m, allowing for a typical separation of 10m between each cable. The spacing may increase/decrease (within the underground cable Limits of Deviation) as the design is developed.
9. Horizontal Directional Drilling (HDD) is shown as the baseline method of trenchless installation. However, various other trenchless installation methods are available. The selected method will vary by location to suit the detailed design and design conditions.
10. Cable winch locations are not shown on drawing as there is assumed sufficient space within the cable corridor to accommodate this.
11. Drilling area, mud pit and associated construction equipment will move to suit each new drill position.
12. Installation of high voltage cables, ducts and associated communications cables shall be in accordance with the relevant National Grid standards and technical specifications and the requirements of the organisation with responsibility for the feature being crossed.
13. Refer to drawing AENC-MMAC-ENG-DWG-0085-02 (document 2.6.1) for the illustrative trenchless crossing standard detail.



- Drive site**
1. Drilling area
 2. Flatbed container (high pressure pump control cabin)
 3. Launch pit
 4. Pump
 5. High pressure pump
 6. Recycling unit
 7. Cuttings
 8. Generator
 9. Bentonite storage
 10. Pipe storage
 11. Store
 12. Skips
 13. Holding tank
 14. Workshop
 15. Slurry making tank

- Reception site**
16. Cuttings settlement pit
 17. Drill pipes
 18. Spares storage
 19. Construction equipment
 20. Duct sections
 21. Duct rollers
 22. Receive pit

Illustrative HDD construction compound layout
1:200





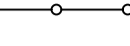




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A	AUG-2025	For DCO submission	OB	CK	KR

Title
THE NATIONAL GRID
(NORWICH TO TILBURY) ORDER
ILLUSTRATIVE PRIMARY HDD LAUNCHING AND
RECEPTION WORKSITE LAYOUT
REGULATION 5(2)(o)
SHEET 1 OF 1

nationalgrid

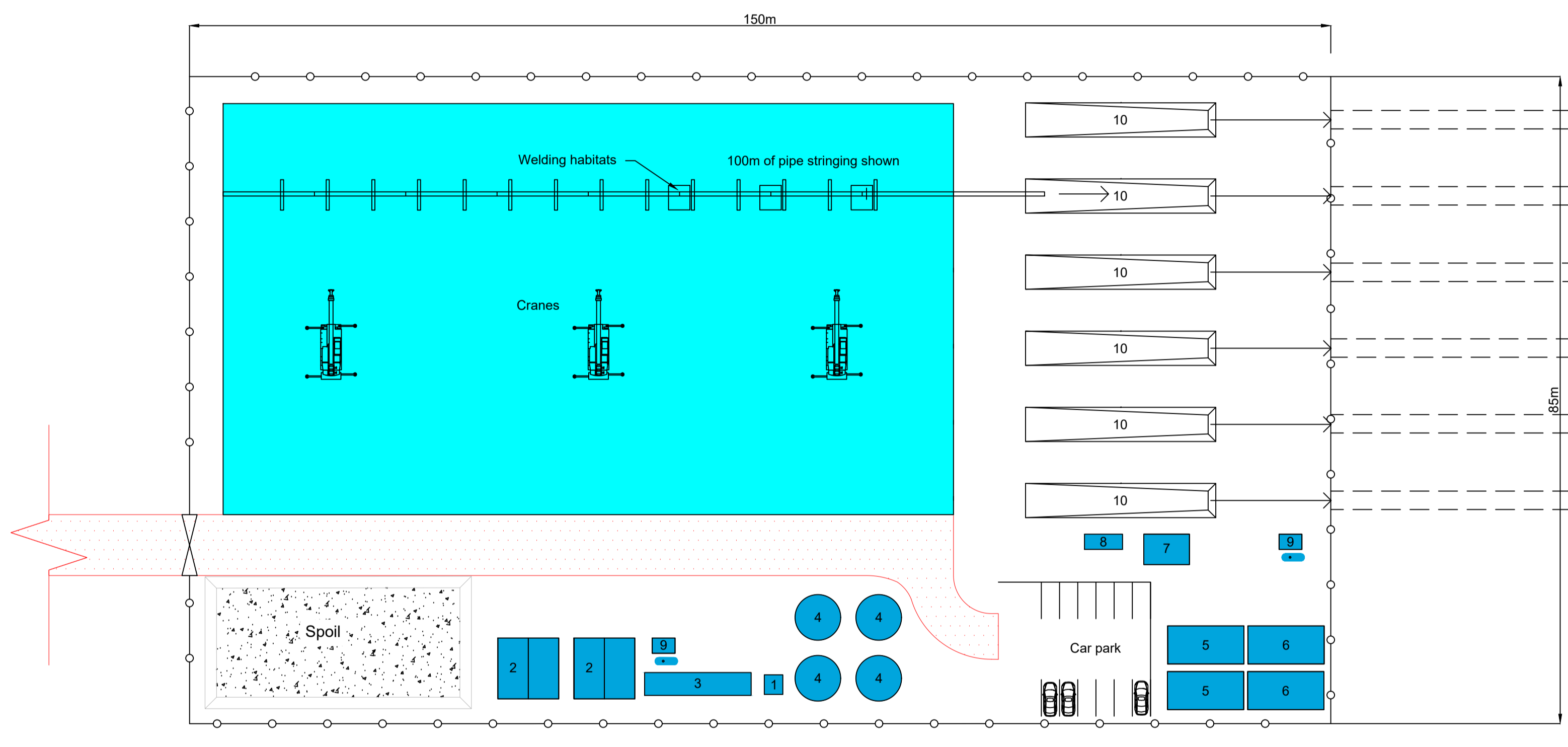
PINS Application Number			
EN020027			
National Grid Drawing Reference			
AENC-MMAC-ENG-DWG-0085-03			
Scale	Sheet Size	Sheet	Issue
1:200	A1	SHEET 1 OF 1	A

THE NATIONAL GRID
(NORWICH TO TILBURY) ORDER
ILLUSTRATIVE DIRECT PIPE LAUNCHING AND RECEPTION WORKSITE LAYOUT
REGULATION 5(2)(o)
SHEET 1 OF 1

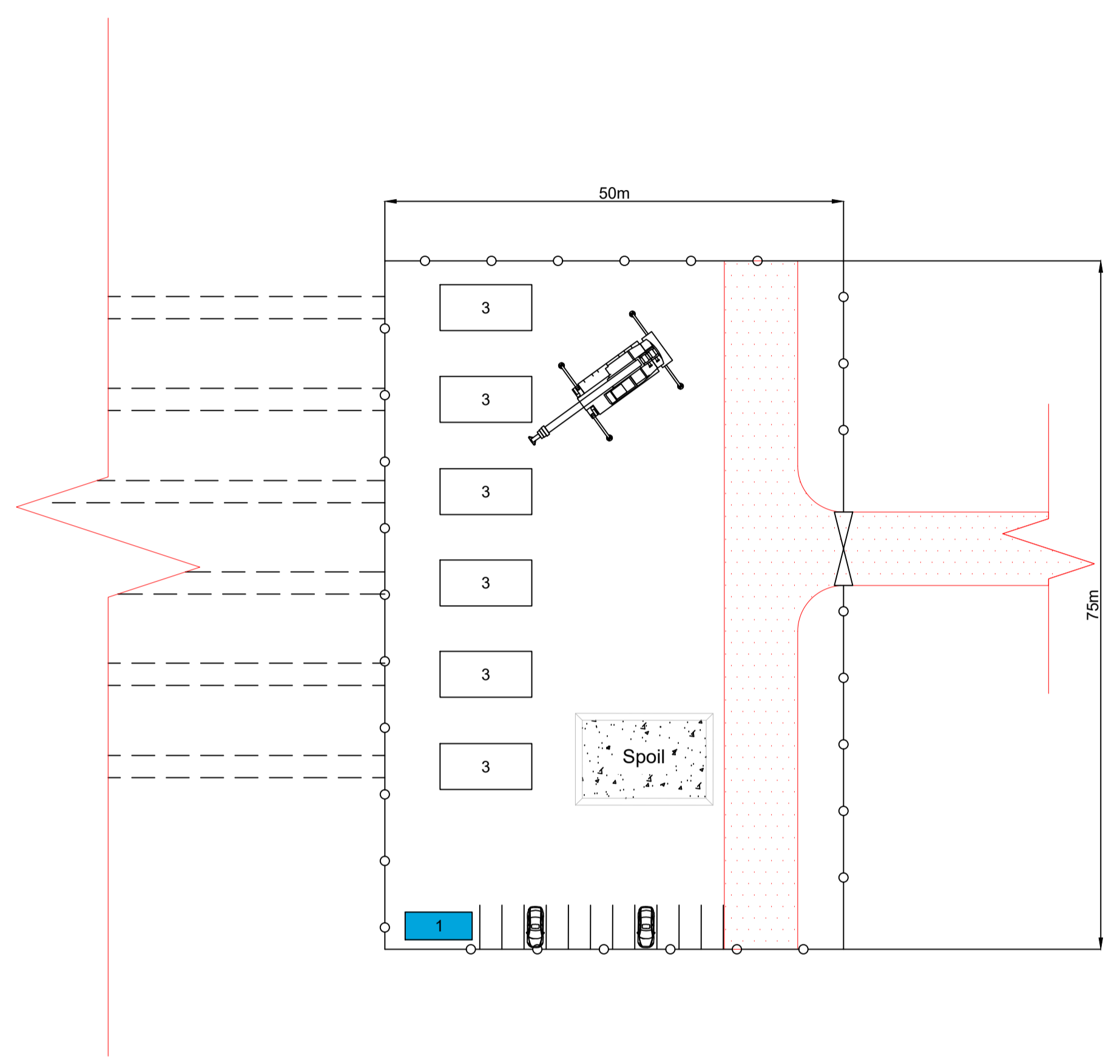
- LEGEND**
-  Construction equipment/area
 -  Haul road
 -  Temporary fence
 -  Temporary gate
 -  Launch pit with push unit (pipe thruster) 25m x 4m (proposed/typical)
 -  Pipe welding & fabrication area
 -  Pipejack tunnel

- 1. Pumps
- 2. Slurry separation
- 3. Slurry mixing
- 4. Water and lubricant tanks
- 5. Office
- 6. Welfare
- 7. Hydraulics unit
- 8. Control room
- 9. Power generator
- 10. Launch pits

- 1. Welfare
- 2. Working crane
- 3. Reception pits

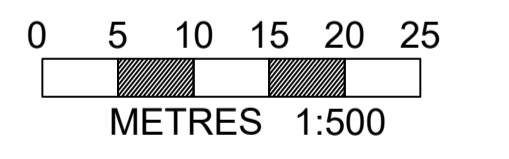


Direct pipe - illustrative launching site layout
1:500



Direct pipe - illustrative reception site layout
1:500

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 5. The proposed arrangement, including circuit and cable spacing, is shown for illustrative purposes only. Dimensions and the design may vary depending on site and installation conditions.
 6. Compound width may vary subject to length of crossing and handling area needed.
 7. Tunnel spacing based on 10m separation. Spacing may increase/decrease (within the underground cable Limits of Deviation) at later stage of design.
 8. Layout based on six no. pipe jack tunnels.
 9. Plant/working areas shown for space allocation. Final number and layout will be established once design and specific sites known.
 10. The launch side will be selected based on several factors, including space and access.



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THE NATIONAL GRID
(NORWICH TO TILBURY) ORDER
ILLUSTRATIVE DIRECT PIPE LAUNCHING AND RECEPTION WORKSITE LAYOUT
REGULATION 5(2)(o)
SHEET 1 OF 1

nationalgrid

PINS Application Number: EN020027
National Grid Drawing Reference: AENC-MMAC-ENG-DWG-0085-04

Scale: 1:500	Sheet Size: A1	Sheet: SHEET 1 OF 1	Issue: A
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THE NATIONAL GRID
(NORWICH TO TILBURY) ORDER
ILLUSTRATIVE PIPEJACK LAUNCHING AND RECEPTION WORKSITE LAYOUT
REGULATION 5(2)(o)
SHEET 1 OF 1

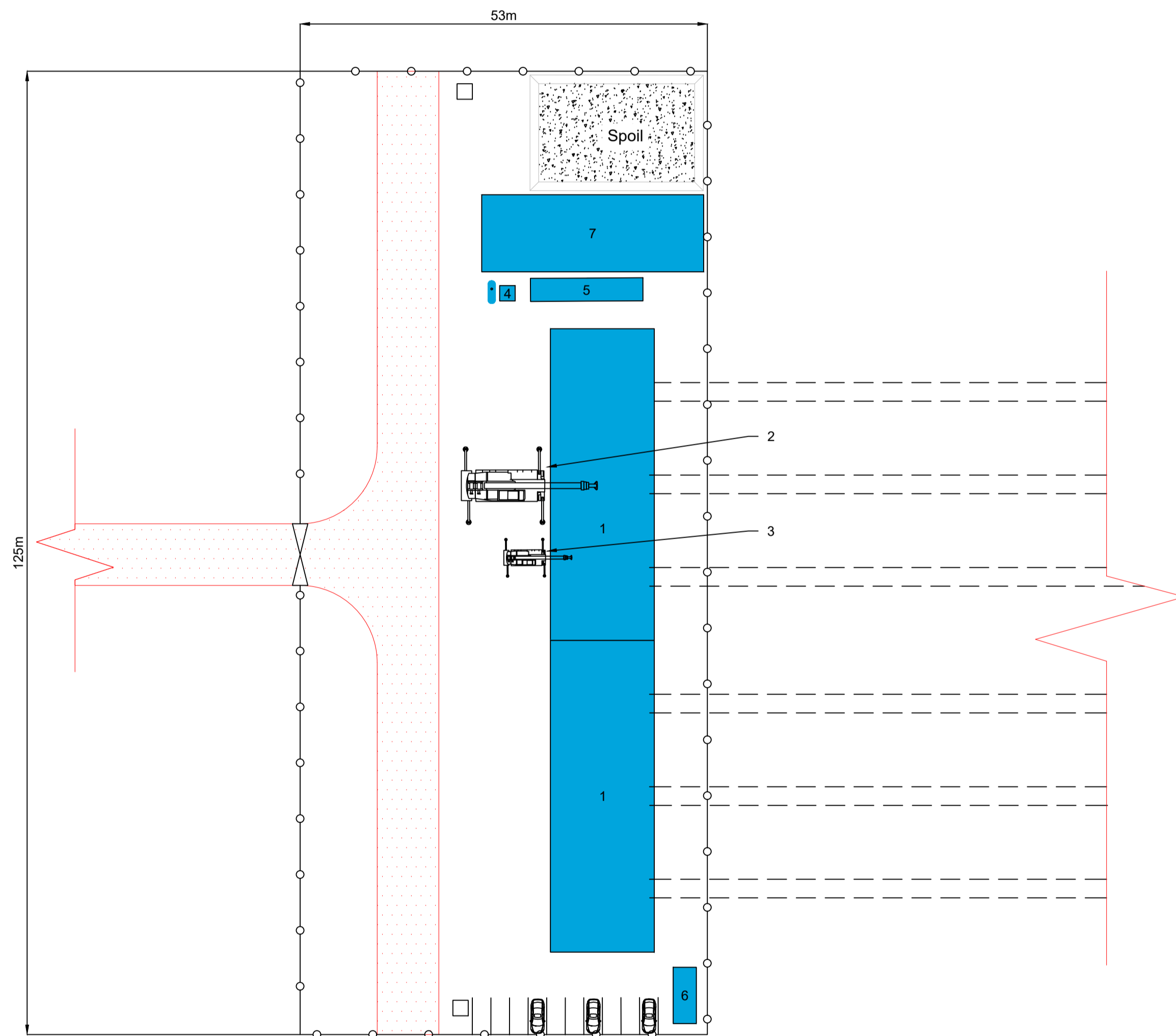
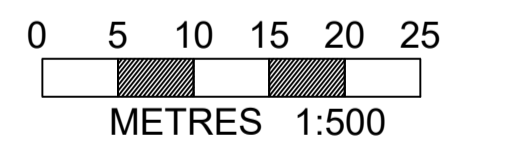
Application Document 2.6.1

LEGEND

- Construction equipment/area
- Haul road
- Temporary fence
- Temporary gate
- Pipejack tunnel

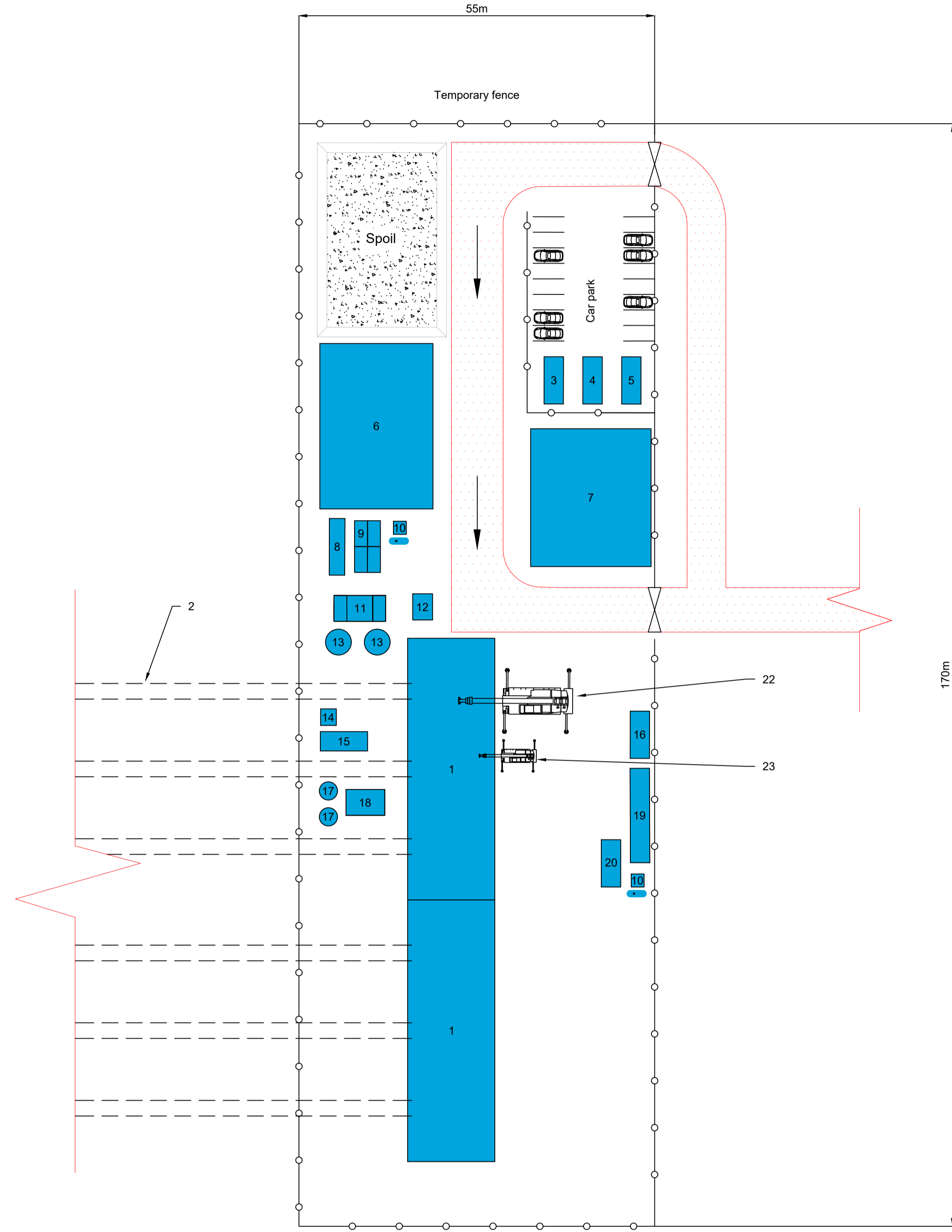
Notes

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6. Compound width may vary subject to length of crossing and handling area needed.
7. Tunnel spacing based on 10m separation. Spacing may increase/decrease (within the underground cable Limits of Deviation) at later stage of design.
8. Layout based on six no. pipe jack tunnels.
9. Plant/working areas shown for space allocation. Final number and layout will be established once design and specific sites known.
10. The launch side will be selected based on several factors, including space and access.



Pipejack - illustrative reception site layout

1. Reception box area
2. Working crane
3. Rescue crane
4. Diesel Tank and Generator
5. Work Shop
6. Welfare
7. General Storage Area



Pipejack - illustrative launching site layout

1. Launching box area
2. Pipejack tunnel
3. Showers and toilets
4. Welfare
5. Office
6. General storage area
7. Slurry, bentonite pipes and other general storage
8. Slurry separation
9. Slurry mixing
10. Power generator
11. Separation tanks
12. Skip
13. Water and lubrication tanks
14. Pumps
15. Ventilation plant
16. Control room
17. Lubrication mixing
18. Hydraulics unit
19. Workshop
20. Shelter and COSHH shed
21. Illustrative tunnel alignment
22. Working crane
23. Rescue crane

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A	AUG-2025	For DCO submission	OB	CK	KR

Title
THE NATIONAL GRID
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ILLUSTRATIVE PIPEJACK LAUNCHING AND
RECEPTION WORKSITE LAYOUT
REGULATION 5(2)(o)
SHEET 1 OF 1



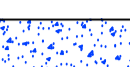






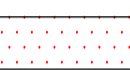
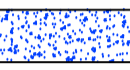
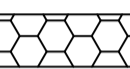

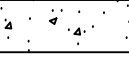
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PINS Application Number			
EN020027			
National Grid Drawing Reference			
AENC-MMAC-ENG-DWG-0085-05			
Scale	Sheet Size	Sheet	Issue
1:500	A1	SHEET 1 OF 1	A

THE NATIONAL GRID
(NORWICH TO TILBURY) ORDER
ILLUSTRATIVE JOINT BAY ARRANGEMENT STANDARD DETAIL
REGULATION 5(2)(o)
SHEET 1 OF 1

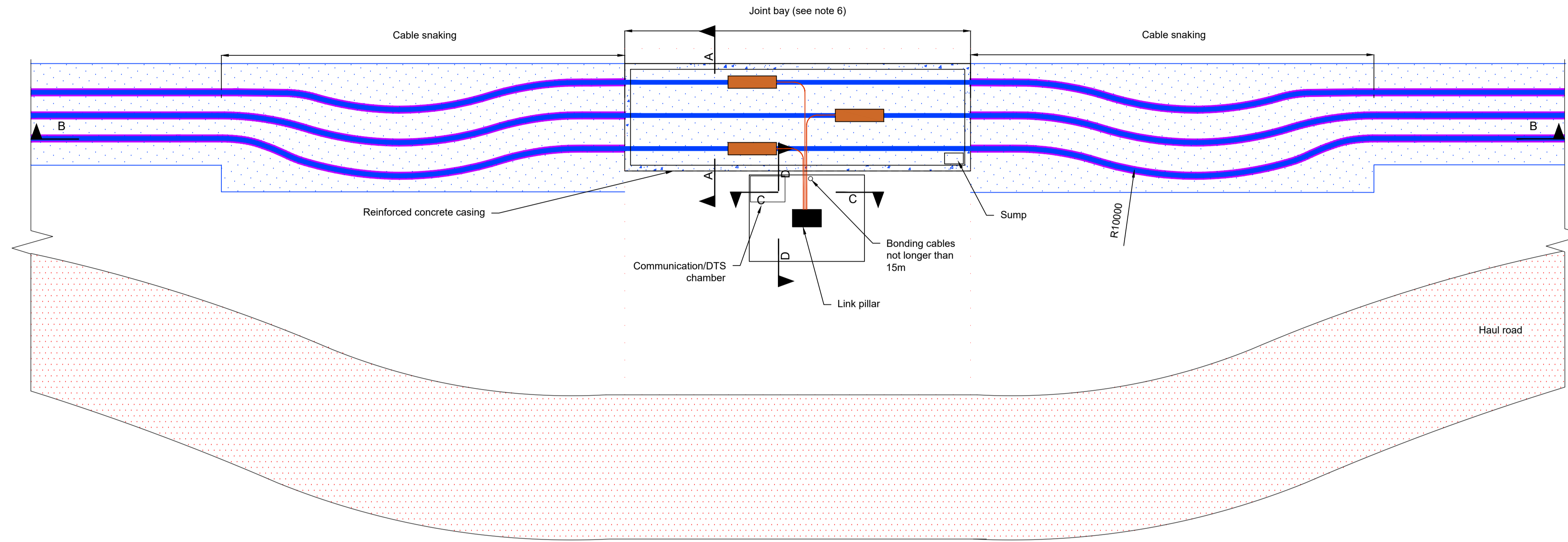
Application Document 2.6.1

LEGEND

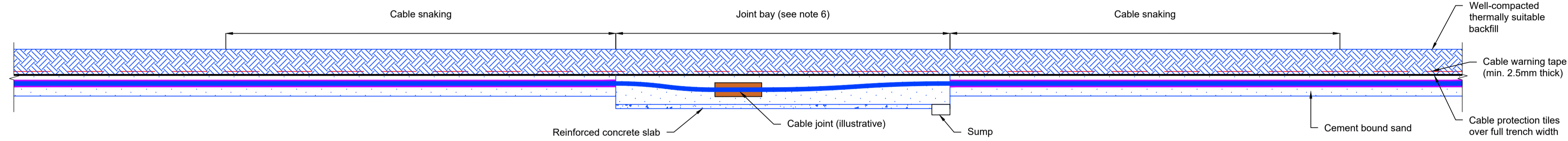
-  Cable duct containing high voltage alternating current (HVAC) cable
-  Comms cable / duct
-  Concrete duct block
-  Cement-bound sand (CBS) cable surround
-  Well compacted thermally suitable backfill (indigenous material to be used where possible)
-  Cable warning tape
-  Cable protection tiles
-  Bonding cable
-  Illustrative joint bay construction working area
-  Haul road
-  Concrete joint bay
-  Surfacing
-  Subbase
-  Fence foundation

Notes

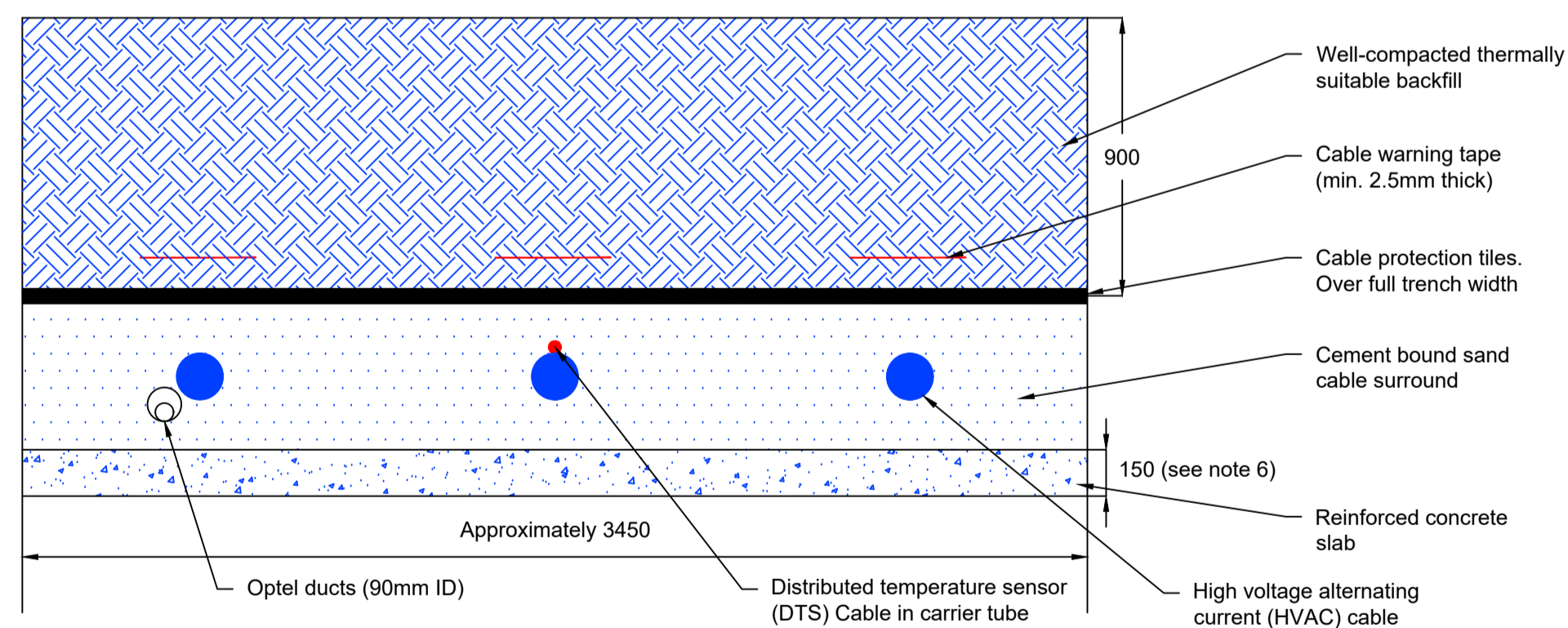
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6. Installation of high voltage cables, ducts and associated communications cables shall be in accordance with the relevant National Grid standards and technical specifications.
7. Requirement for distributed temperature sensor (DTS) and/or Communication cables to be agreed at a later stage of the design.
8. Earthmat will be required. Currently not included on drawing.
9. Link pillar size and joint bay arrangement and depth subject to cable manufacturer specification.
10. Illustrative arrangement relates to one trench only which can accommodate three cables. In total there are 18 cables, split across six trenches. This illustrative drawing shows one trench, any other trenches would be similar.
11. Joint bay spacing will be determined by cable section length following the cable system design. Typical cable section lengths are 500-1000m, although this may vary. Each set of three cables will require a joint bay and link pillar for every cable section.



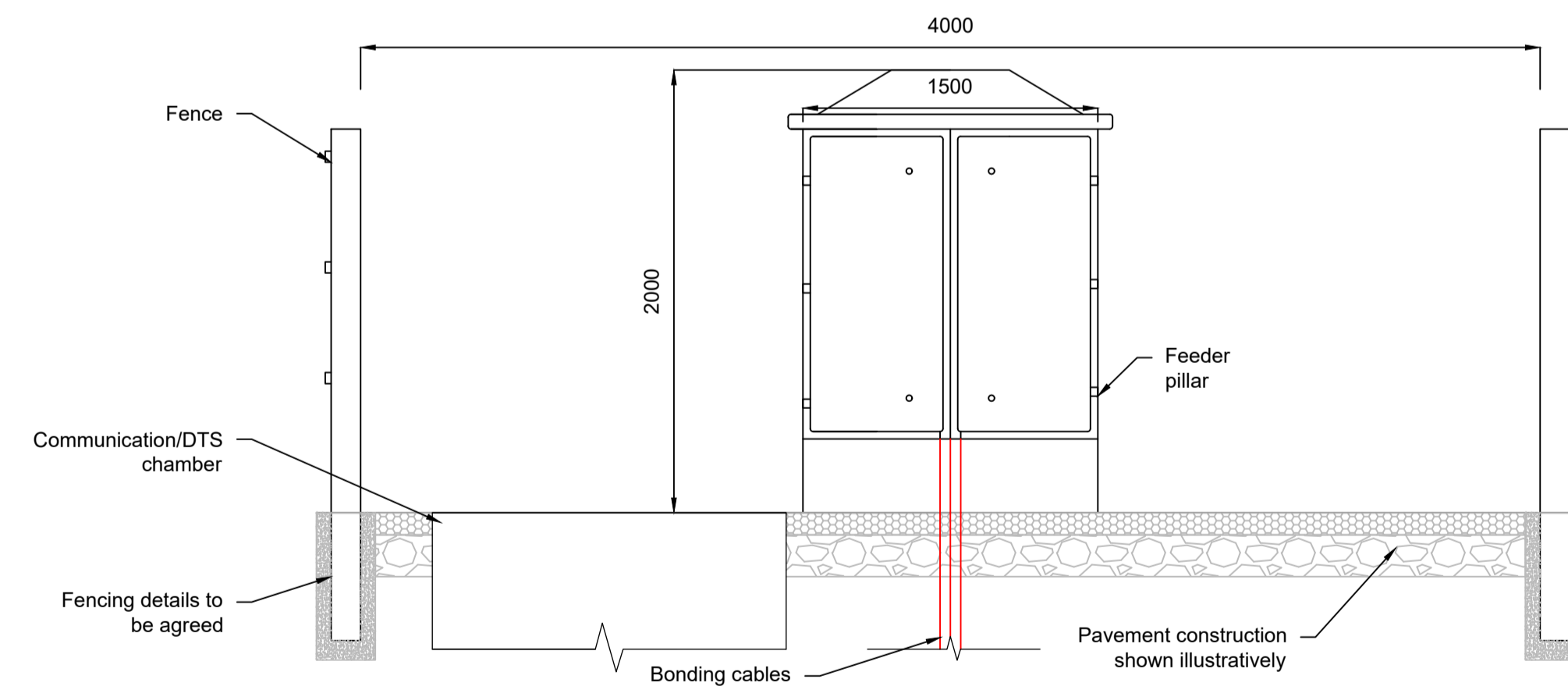
Illustrative HVAC cable joint bay layout
1:100



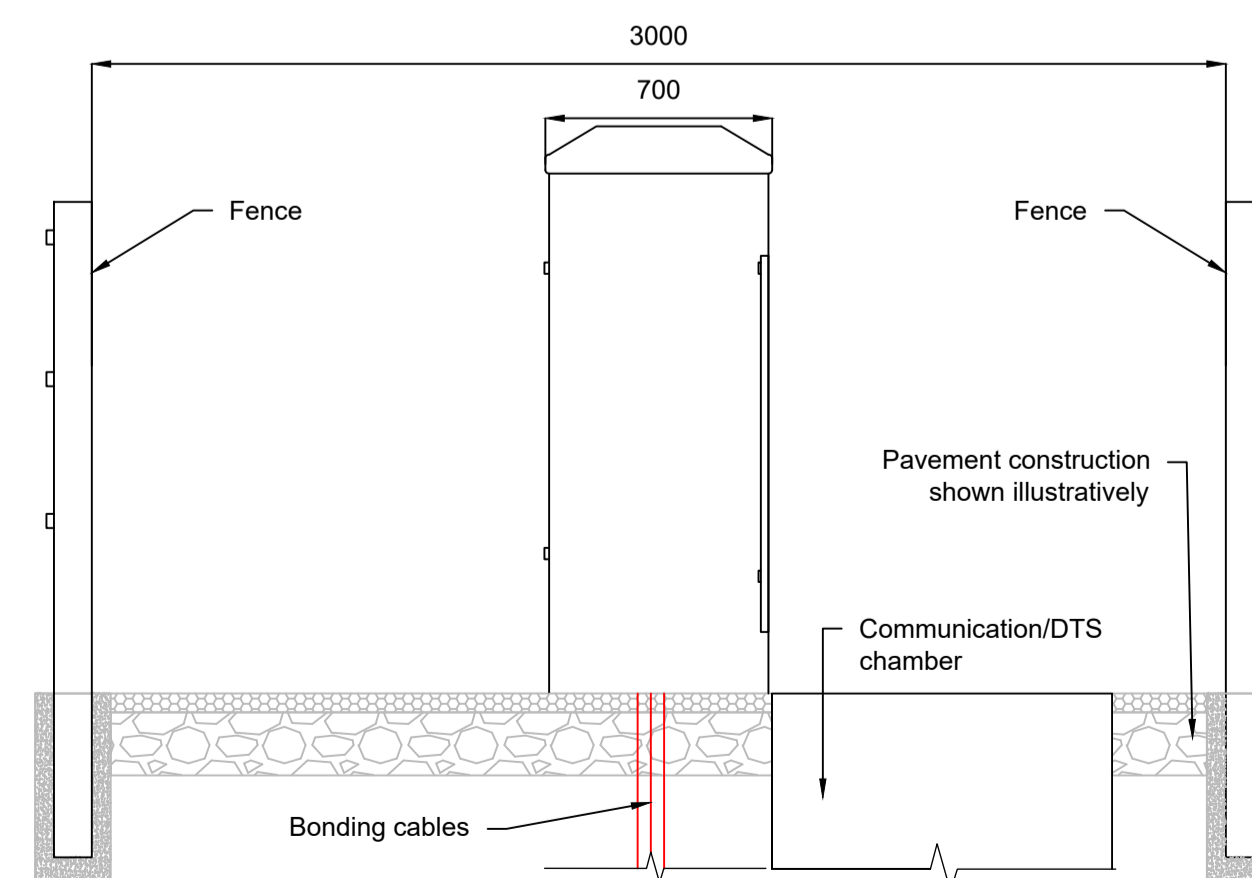
Cross Section B-B
Illustrative HVAC cable joint bay long section
1:100



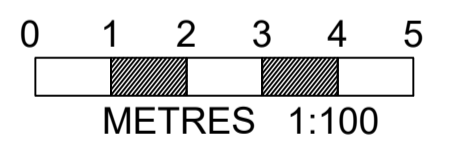
Cross Section A-A
Illustrative HVAC cable joint bay cross section
1:20



Cross Section C-C
Illustrative link pillar detail
1:20



Cross Section D-D
Illustrative link pillar detail
1:20



Issue	Date	For DCO submission	OB	CK	KR
A	AUG-2025				

Title
THE NATIONAL GRID
(NORWICH TO TILBURY) ORDER
ILLUSTRATIVE JOINT BAY ARRANGEMENT
STANDARD DETAIL
REGULATION 5(2)(o)
SHEET 1 OF 1




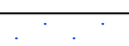
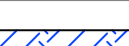
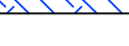








nationalgrid

PINS Application Number		EN020027	
National Grid Drawing Reference		AENC-MMAC-ENG-DWG-0085-06	
Scale	Sheet Size	Sheet	Issue
As shown	A1	SHEET 1 OF 1	A

THE NATIONAL GRID
(NORWICH TO TILBURY) ORDER
ILLUSTRATIVE JOINT BAY ARRANGEMENT STANDARD DETAIL (COMBINED LINK PILLARS)
REGULATION 5(2)(o)
SHEET 1 OF 1

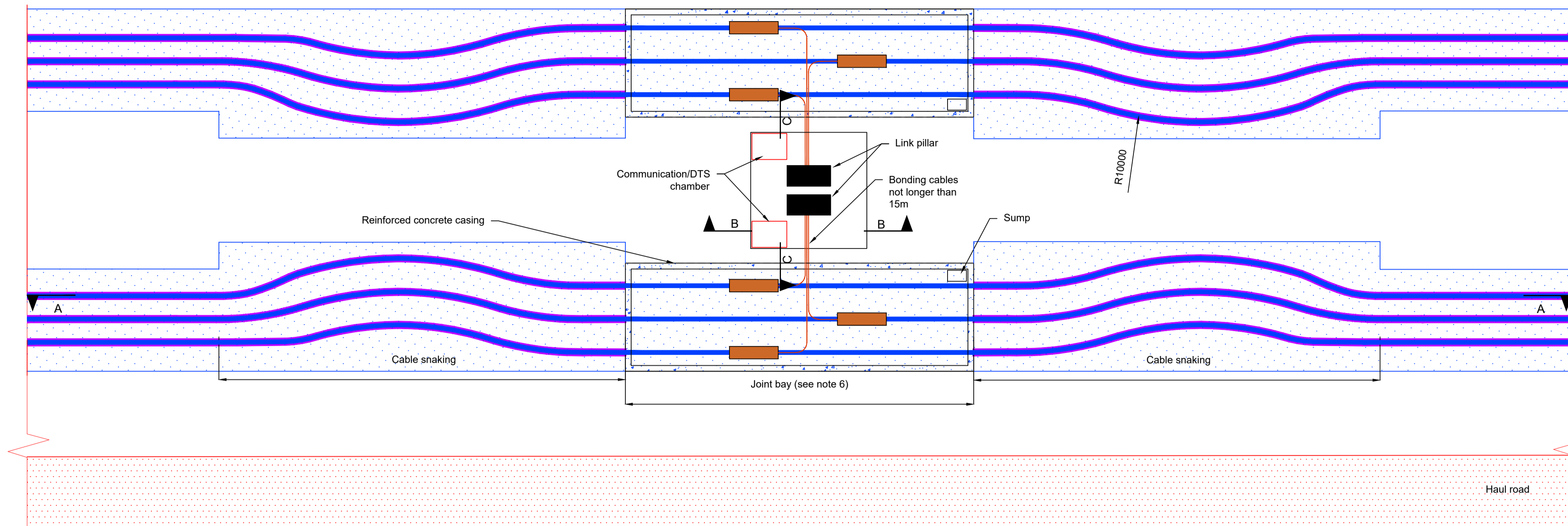
Application Document 2.6.1

LEGEND

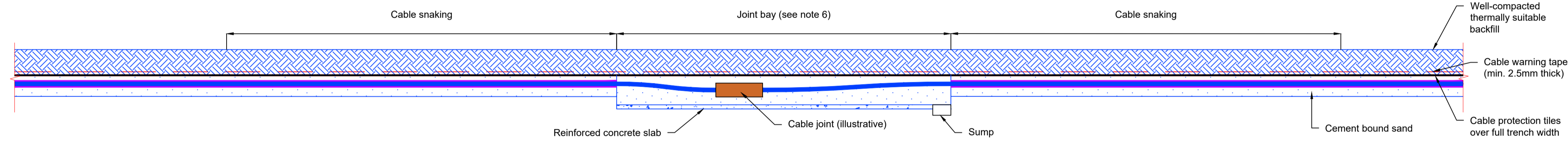
-  Cable duct containing high voltage alternating current (HVAC) cable
-  Comms cable / duct
-  Concrete duct block
-  Cement-bound sand (CBS) cable surround
-  Well compacted thermally suitable backfill (indigenous material to be used where possible)
-  Cable warning tape
-  Cable protection tiles
-  Bonding cable
-  Illustrative joint bay construction working area
-  Haul road
-  Concrete joint bay
-  Surfacing
-  Subbase
-  Fence foundation

Notes

1. These plans are illustrative and will sit within the Order Limits. Due to the need for future flexibility, National Grid will be applying for Order Limits and Limits of Deviation within its DCO, within which any final alignment would lie.
2. For additional detail on the plan suites, please refer to the Guide to Plans (document reference 2.0), located in the Volume 2 of the DCO application.
3. All dimensions are approximate and indicated in millimeters (mm) unless noted otherwise.
4. This drawing is scaled at paper size A1, therefore any prints taken at smaller sizes will affect accuracy of the measurement units and should not be scaled against.
5. The proposed arrangement, including circuit and cable spacing, is shown for illustrative purposes only. Dimensions and the design may vary depending on site and installation conditions.
6. Installation of high voltage cables, ducts and associated communications cables shall be in accordance with the relevant National Grid standards and technical specifications.
7. Requirement for distributed temperature sensor (DTS) and/or Communication cables to be agreed at a later stage of the design.
8. Earthmat will be required. Currently not included on drawing.
9. Link pillar size and joint bay arrangement and depth subject to cable manufacturer specification.
10. Illustrative arrangement relates to one trench only which can accommodate three cables. In total there are 18 cables, split across six trenches. This illustrative drawing shows one trench, any other trenches would be similar.
11. Joint bay spacing will be determined by cable section length following the cable system design. Typical cable section lengths are 500-1000m, although this may vary. Each set of three cables will require a joint bay and link pillar for every cable section.
12. The example image is illustrative and arrangements/layouts within the Project may differ from that presented in this image.



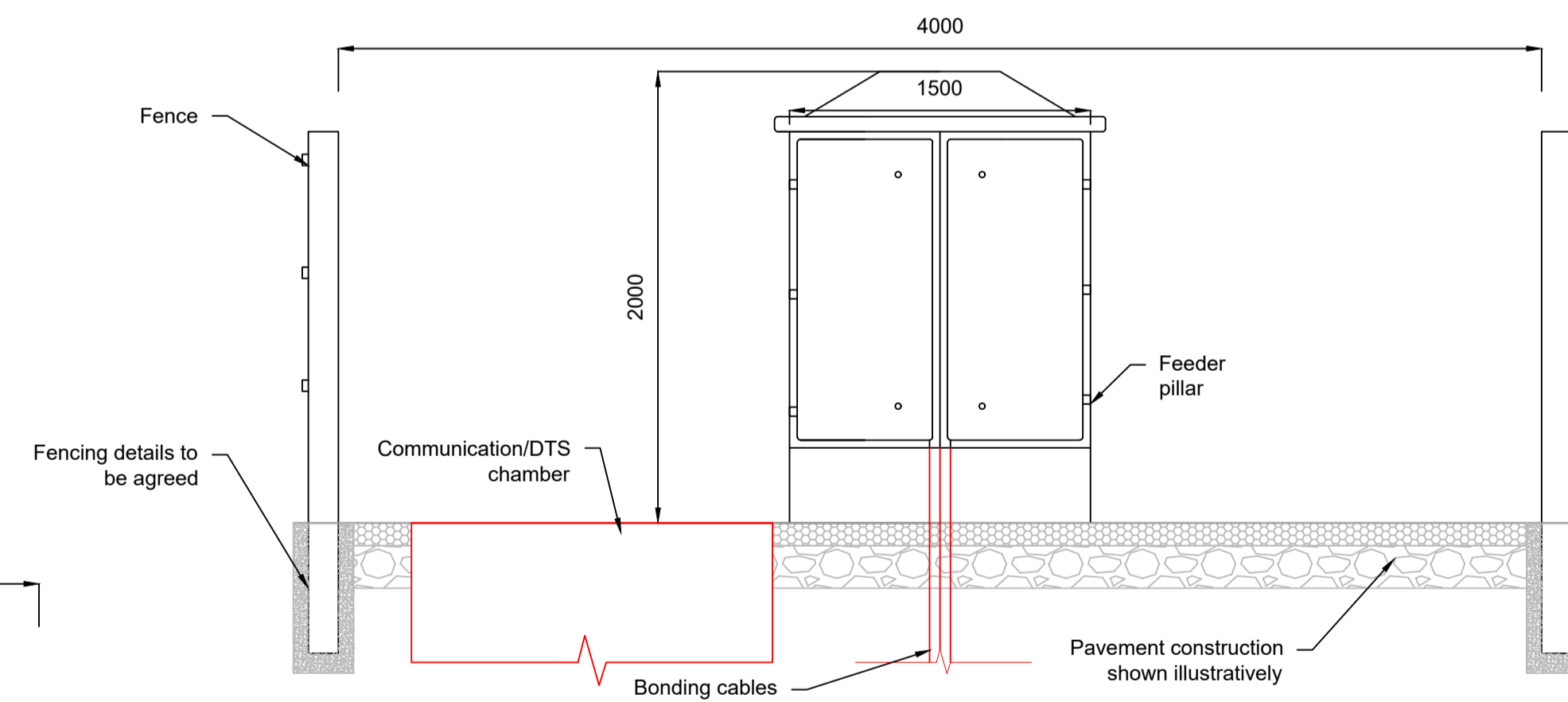
Illustrative combined HVAC cable joint bay layout
1:100



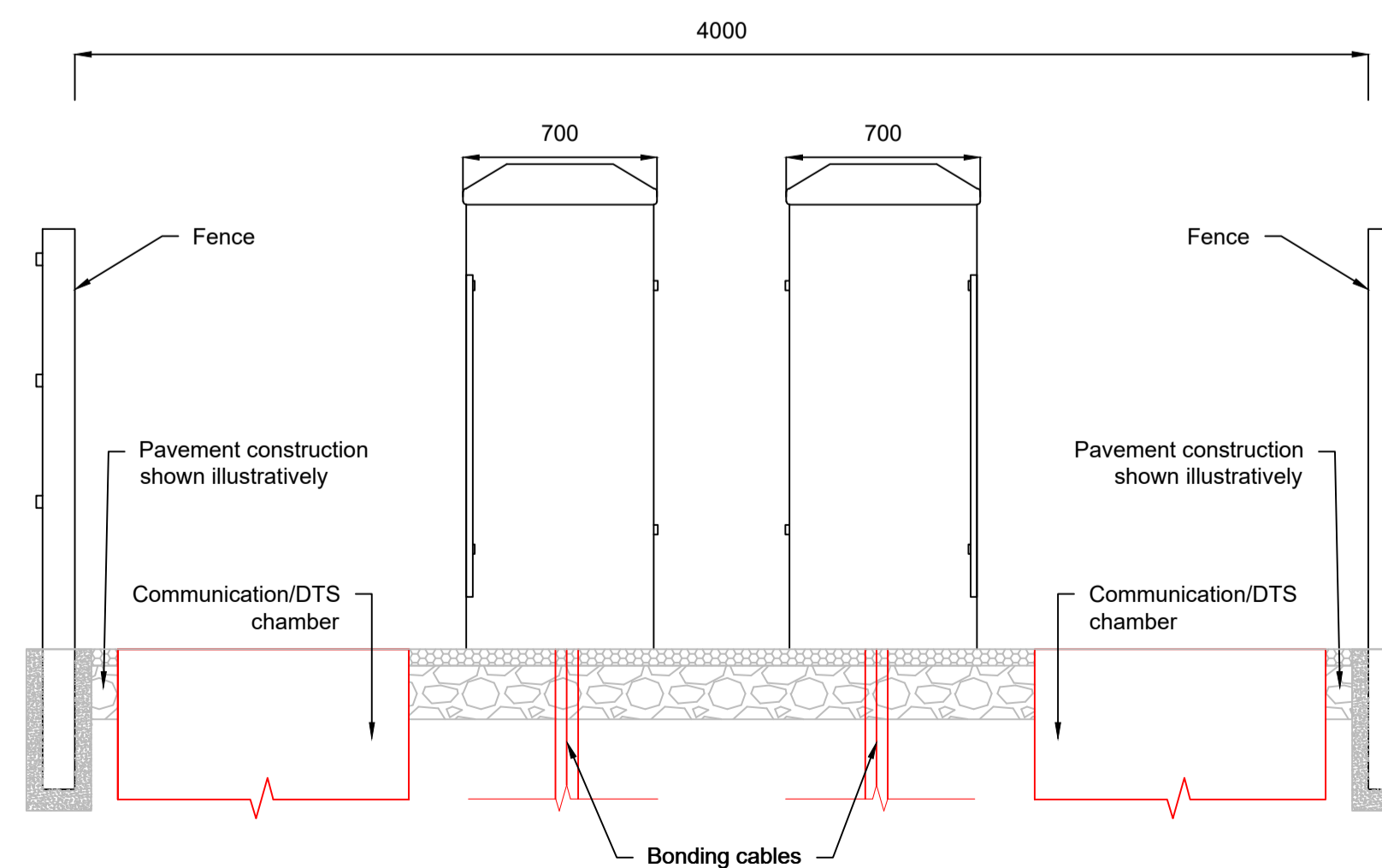
Cross Section A-A
Illustrative combined HVAC cable joint bay long section
1:100



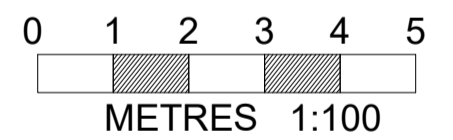
Example image of combined HVAC cable joint bay



Cross Section B-B
Illustrative combined link pillar detail
1:20



Cross Section C-C
Illustrative combined link pillar detail
1:20



Issue	Date	For	Remarks	Drawn	Checked	Approved
A	JUN-2026	For deadline five		TL	JW	KR

Title
THE NATIONAL GRID
(NORWICH TO TILBURY) ORDER
ILLUSTRATIVE JOINT BAY ARRANGEMENT
STANDARD DETAIL (COMBINED LINK PILLARS)
REGULATION 5(2)(o)
SHEET 1 OF 1





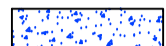
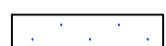
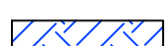

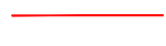






PINS Application Number		EN020027	
National Grid Drawing Reference			
AENC-MMAC-ENG-DWG-0085-06A			
Scale	Sheet Size	Sheet	Issue
As shown	A1	SHEET 1 OF 1	A

THE NATIONAL GRID
(NORWICH TO TILBURY) ORDER
ILLUSTRATIVE UTILITY CROSSING (DIRECT BURIED) STANDARD DETAIL
REGULATION 5(2)(o)
SHEET 1 OF 1

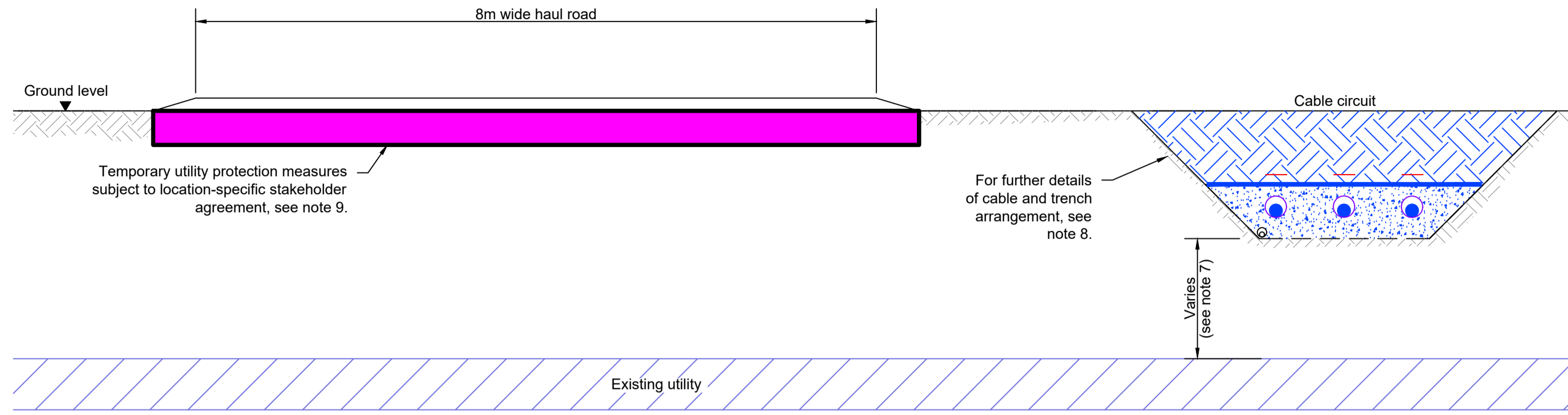
Application Document 2.6.1

LEGEND

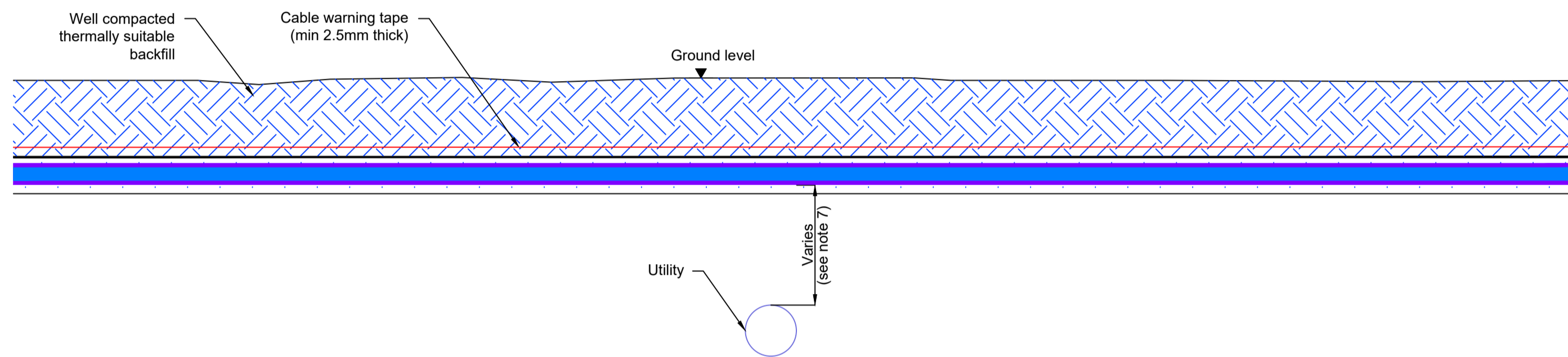
-  Cable duct containing high voltage alternating current (HVAC) cable
-  HVAC cable
-  Comms cable / duct
-  Haul road
-  Concrete duct block
-  Cement-bound sand (CBS) cable surround
-  Well compacted thermally suitable backfill (indigenous material to be used where possible)
-  Existing ground
-  Cable warning tape
-  Cable protection tiles
-  Temporary support works
-  Existing utility
-  Temporary utility protection measures

Notes

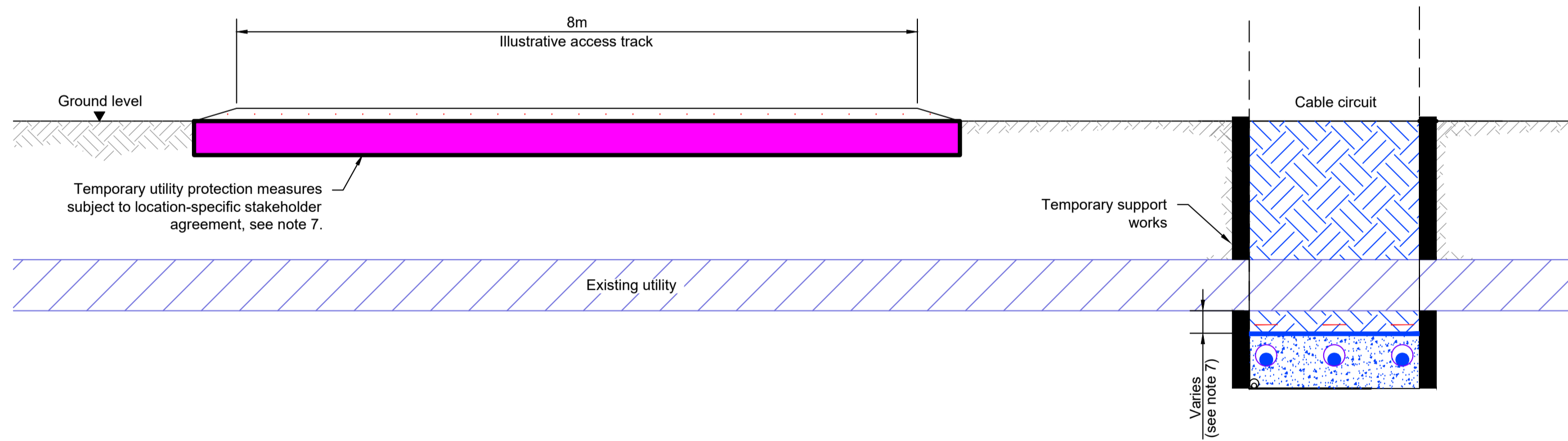
1. These plans are illustrative and will sit within the Order Limits. Due to the need for future flexibility, National Grid will be applying for Order Limits and Limits of Deviation within its DCO, within which any final alignment would lie.
2. For additional detail on the plan suites, please refer to the Guide to Plans (document reference 2.0), located in the Volume 2 of the DCO application.
3. All dimensions are approximate and indicated in millimeters (mm) unless noted otherwise.
4. This drawing is scaled at paper size A1, therefore any prints taken at smaller sizes will affect accuracy of the measurement units and should not be scaled against.
5. The proposed arrangement, including circuit and cable spacing, is shown for illustrative purposes only. Dimensions and the design may vary depending on site and installation conditions.
6. Installation of high voltage cables, ducts and associated communications cables shall be in accordance with the relevant National Grid standards and technical specifications.
7. Spacing between existing utility and proposed cables is subject to agreement with the relevant utility provider at individual locations.
8. A continuous haul road is normally required to support construction activities. Details of temporary utility crossings to be agreed with relevant statutory undertaker.
9. Section details show standard single trench. Six trenches will be required in total.
10. Details of any crossings will be agreed with the relevant statutory undertaker



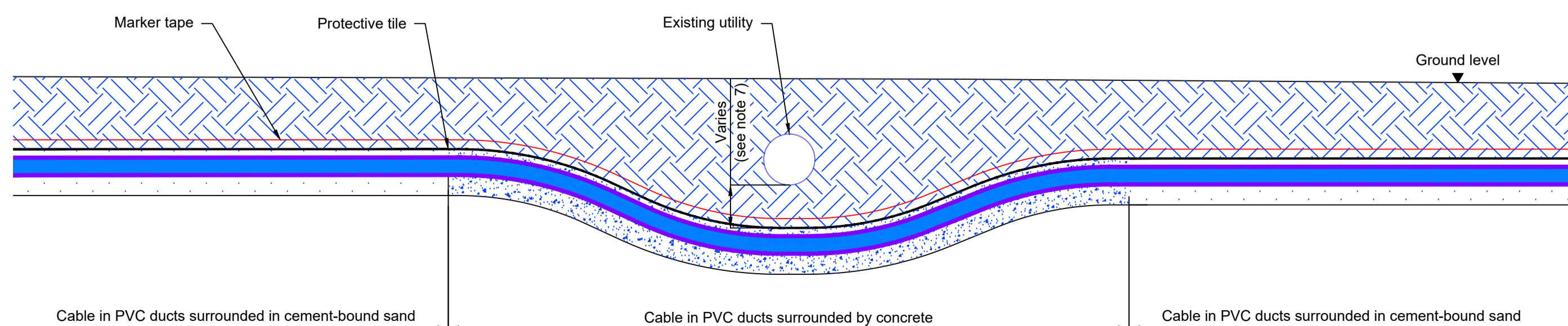
Cross Section A-A
Illustrative utility crossing - above existing services
1:50



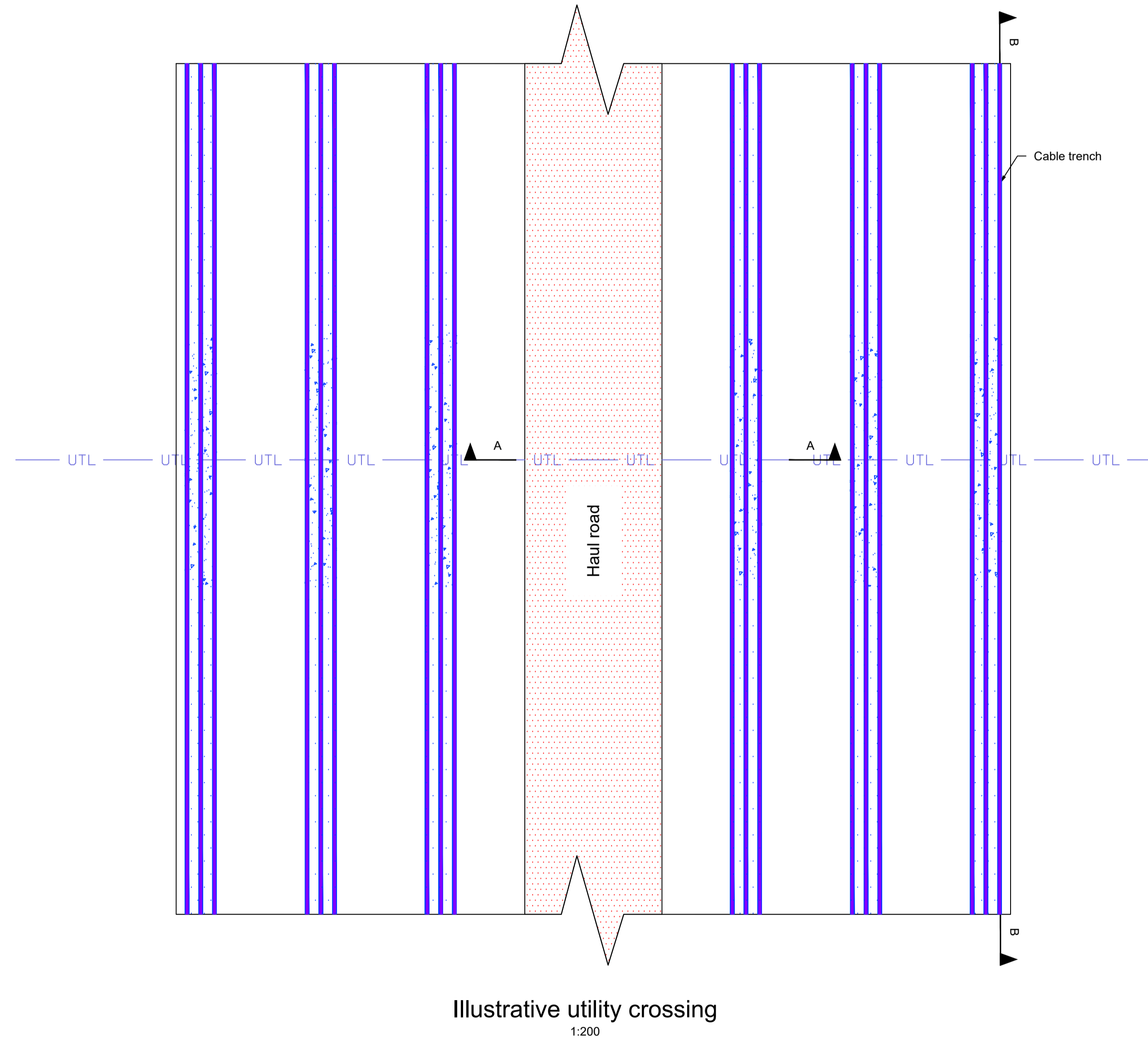
Cross Section B-B
Illustrative utility crossing - above existing services
1:50



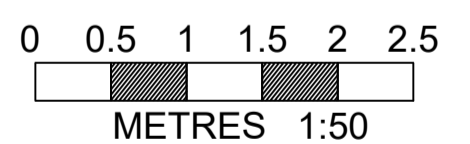
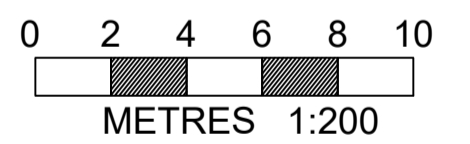
Cross Section A-A
Illustrative utility crossing - below existing services
1:50



Cross Section B-B
Illustrative utility crossing - below existing services
1:50



Illustrative utility crossing
1:200



A	AUG-2025	For DCO submission	OB	CK	KR
Issue	Date	Remarks	Drawn	Checked	Approved




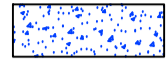
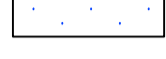





Title
THE NATIONAL GRID
(NORWICH TO TILBURY) ORDER
ILLUSTRATIVE UTILITY CROSSING (DIRECT BURIED) STANDARD DETAIL
REGULATION 5(2)(o)
SHEET 1 OF 1

nationalgrid			
PINS Application Number EN020027			
National Grid Drawing Reference AENC-MMAC-ENG-DWG-0085-07			
Scale	Sheet Size	Sheet	Issue
As shown	A1	SHEET 1 OF 1	A

THE NATIONAL GRID
(NORWICH TO TILBURY) ORDER
ILLUSTRATIVE DUCTED WATERCOURSE CROSSING STANDARD DETAIL
REGULATION 5(2)(o)
SHEET 1 OF 1

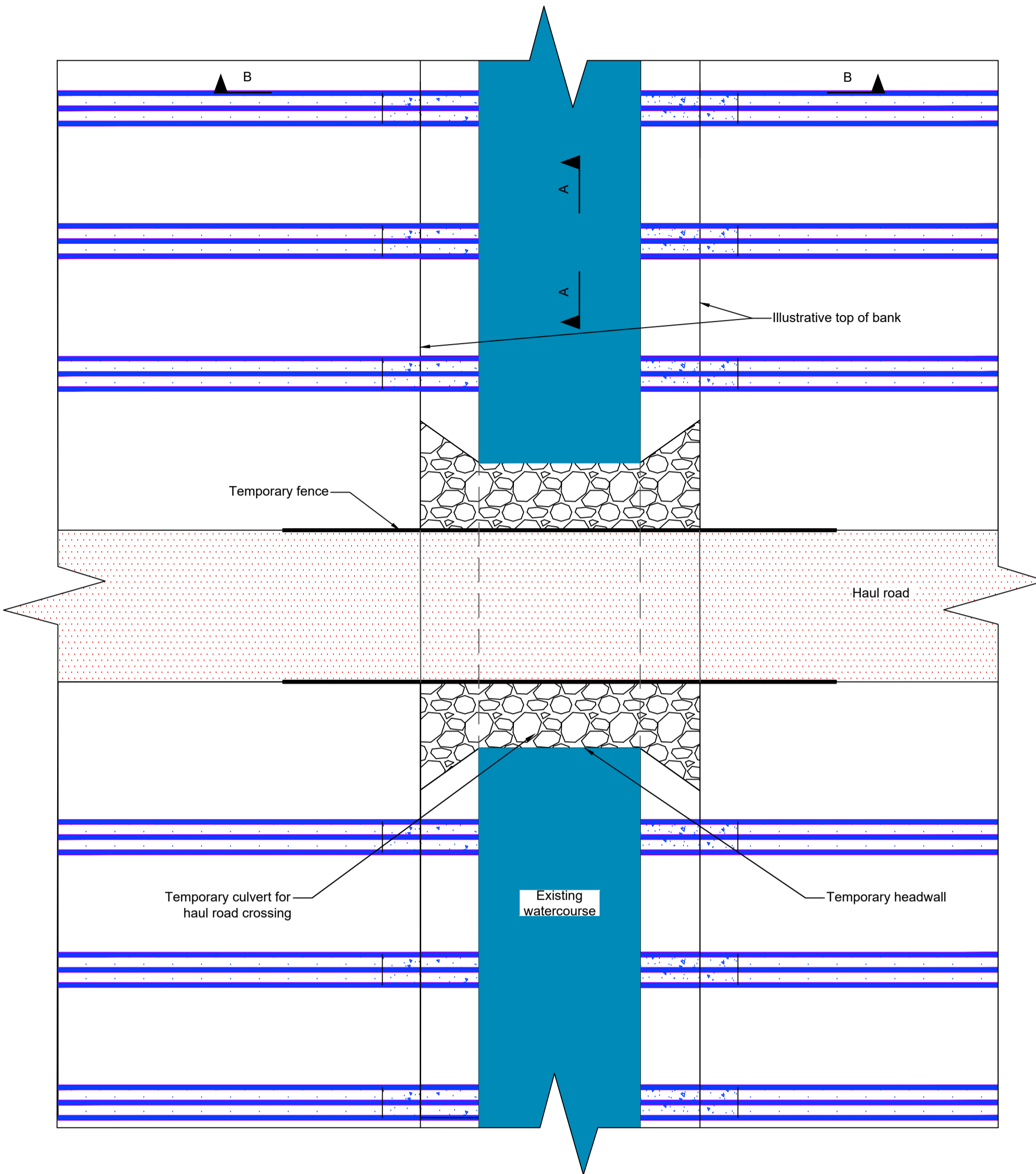
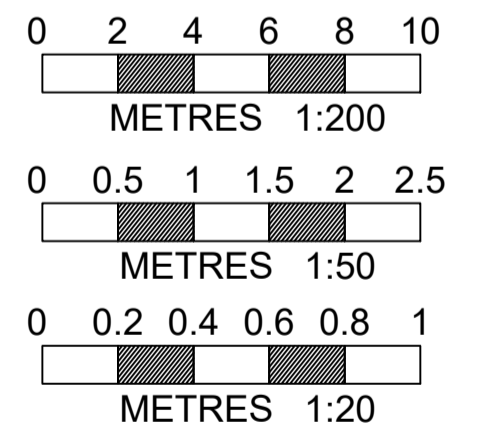
Application Document 2.6.1

LEGEND

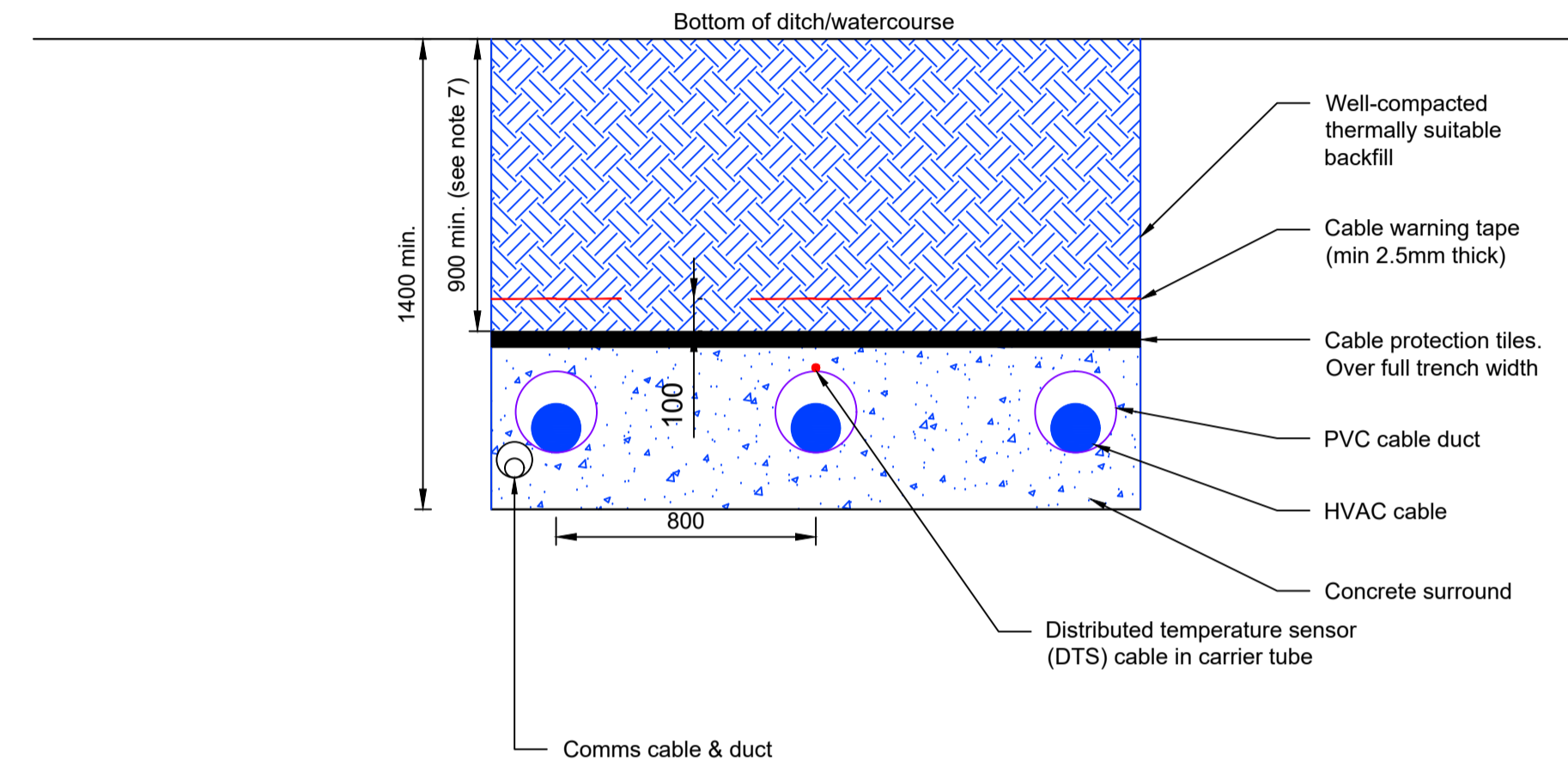
-  Cable duct containing high voltage alternating current (HVAC) Cable
-  Comms cable / duct
-  Haul road
-  Concrete duct block
-  Cement-bound sand (CBS) cable surround
-  Well compacted thermally suitable backfill (indigenous material to be used where possible)
-  Cable warning tape
-  Cable protection tiles
-  Watercourse
-  Granular material

Notes

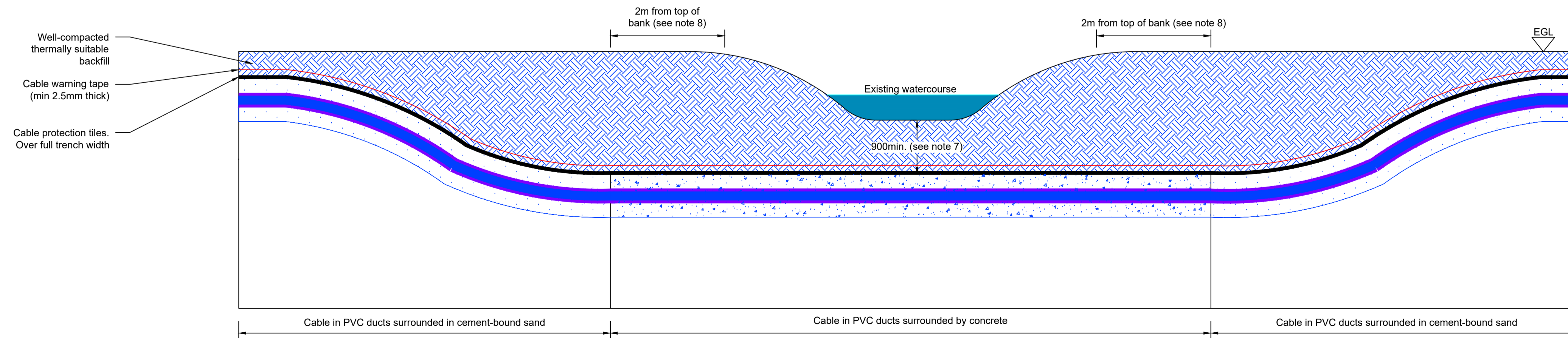
1. These plans are illustrative and will sit within the Order Limits. Due to the need for future flexibility, National Grid will be applying for Order Limits and Limits of Deviation within its DCO, within which any final alignment would lie.
2. For additional detail on the plan suites, please refer to the Guide to Plans (document reference 2.0), located in the Volume 2 of the DCO application.
3. All dimensions are approximate and indicated in millimeters (mm) unless noted otherwise.
4. This drawing is scaled at paper size A1, therefore any prints taken at smaller sizes will affect accuracy of the measurement units and should not be scaled against.
5. The proposed arrangement, including circuit and cable spacing, is shown for illustrative purposes only. Dimensions and the design may vary depending on site and installation conditions.
6. Installation of high voltage cables, ducts and associated communications cables shall be in accordance with the relevant National Grid standards and technical specifications.
7. Depth between top of watercourse and top of cable protection tiles to be agreed with relevant stakeholders.
8. Concrete duct block length to extend by approximately two meters beyond top of bank. Subject to agreement with relevant stakeholders, cement bound sand surround may be used at the watercourse crossings instead of concrete. This is to be assessed at later stage of design.
9. Comms cable / duct currently shown illustratively in trench cross section. Exact location to be agreed at a later stage of design.
10. Crossing methodology to be agreed with relevant authority.
11. Refer to drawing AENC-LSTC-ENG-DWG-0004-11 (document reference 2.6.2) for the illustrative culvert construction details.



Illustrative open cut watercourse crossing
1:200



Cross Section A-A
Illustrative ducted cable cross section at watercourse
(one trench)
1:20



Cross Section B-B
Illustrative ducted cable long section at watercourse
(one trench)
1:50

Issue	Date	Remarks	Drawn	Checked	Approved
A	AUG-2025	For DCO submission	OB	CK	KR



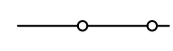
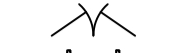


Title
THE NATIONAL GRID
(NORWICH TO TILBURY) ORDER
ILLUSTRATIVE DUCTED WATERCOURSE CROSSING
STANDARD DETAIL
REGULATION 5(2)(o)
SHEET 1 OF 1

nationalgrid			
PINS Application Number EN020027			
National Grid Drawing Reference AENC-MMAC-ENG-DWG-0085-08			
Scale	Sheet Size	Sheet	Issue
As shown	A1	SHEET 1 OF 1	A

THE NATIONAL GRID
(NORWICH TO TILBURY) ORDER
ILLUSTRATIVE PRIMARY CONSTRUCTION COMPOUND ARRANGEMENT
REGULATION 5(2)(o)
SHEET 1 OF 1

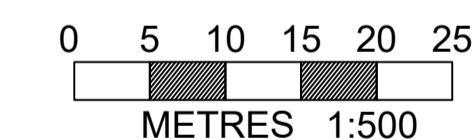
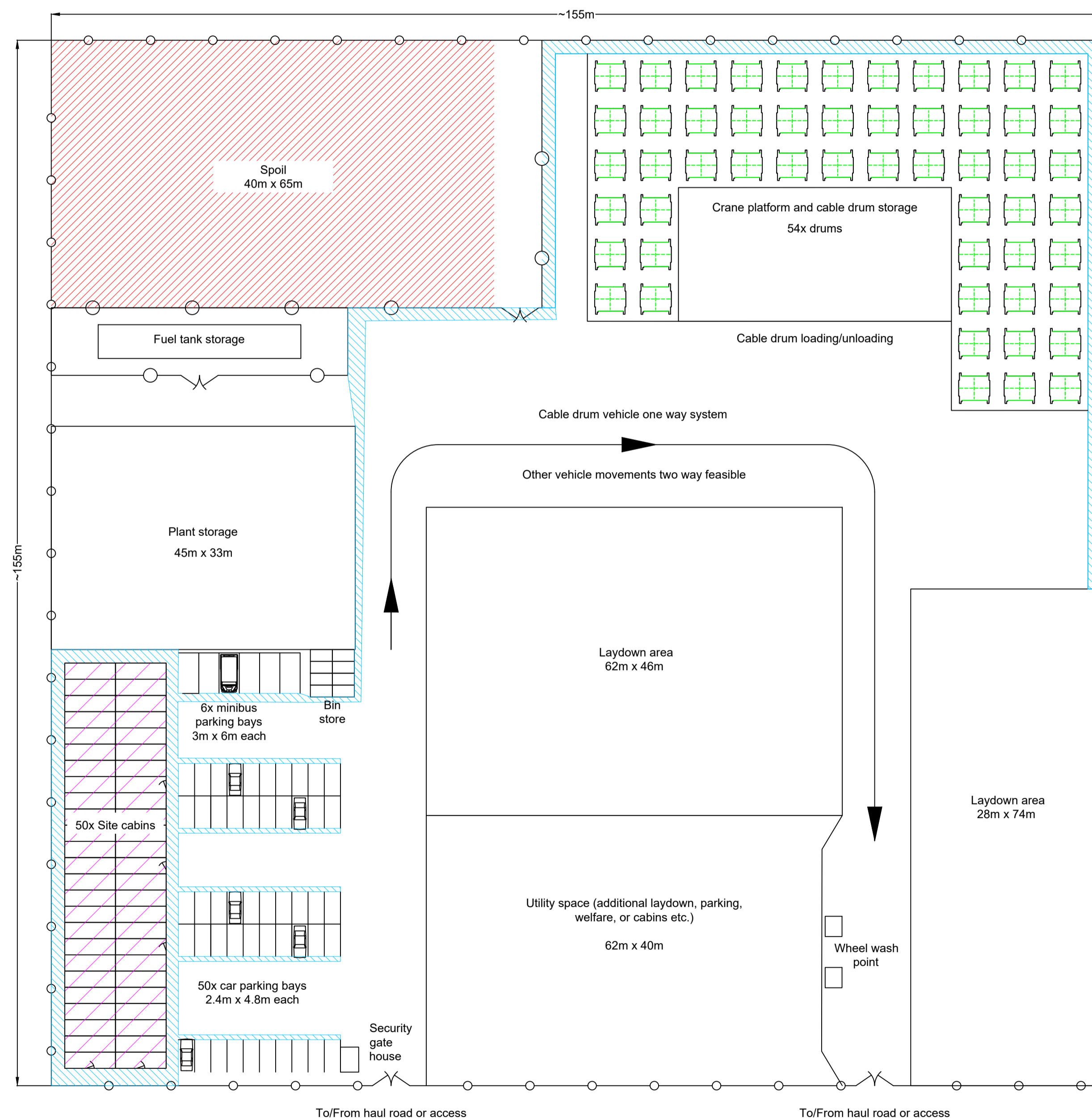
Application Document 2.6.1

LEGEND

-  Pedestrian access
-  Spoil
-  Temporary fence
-  Temporary gate
-  Cable drum
-  Site cabin areas

Notes

1. These plans are illustrative and will sit within the Order Limits. Due to the need for future flexibility, National Grid will be applying for Order Limits and Limits of Deviation within its DCO, within which any final alignment would lie.
2. For additional detail on the plan suites, please refer to the Guide to Plans (document reference 2.0), located in the Volume 2 of the DCO application.
3. All dimensions are approximate and indicated in metres (m) unless noted otherwise.
4. This drawing is scaled at paper size A1, therefore any prints taken at smaller sizes will affect accuracy of the measurement units and should not be scaled against.
5. This drawing shows an illustrative primary construction compound, which will be in place during construction of the relevant aspects of the Project. Dimensions and layout arrangement are illustrative only. The design will vary according to the available area, the specific site constraints and the construction contractors requirements.
6. Site cabins may be raised to take account for potential flooding at certain locations. Details to be agreed with relevant stakeholders.
7. Drainage details are not included on the drawing. Subject to ground conditions, this may involve an attenuation pond and/or septic tank.
8. This layout assumes that up to half of the cable drums required per section of cable served by each compound will be stored on site at any one time.
9. The Order Limits around compounds have been increased to allow for up to a 50m (or equivalent) extension to the compound in both directions, to allow for flexibility of drum delivery methods (if required).



Issue	Date	Remarks	Drawn	Checked	Approved
A	AUG-2025	For DCO submission	OB	CK	KR

THE NATIONAL GRID
(NORWICH TO TILBURY) ORDER
ILLUSTRATIVE PRIMARY CONSTRUCTION
COMPOUND ARRANGEMENT
REGULATION 5(2)(o)
SHEET 1 OF 1

nationalgrid



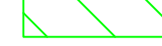

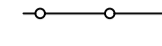

PINS Application Number EN020027

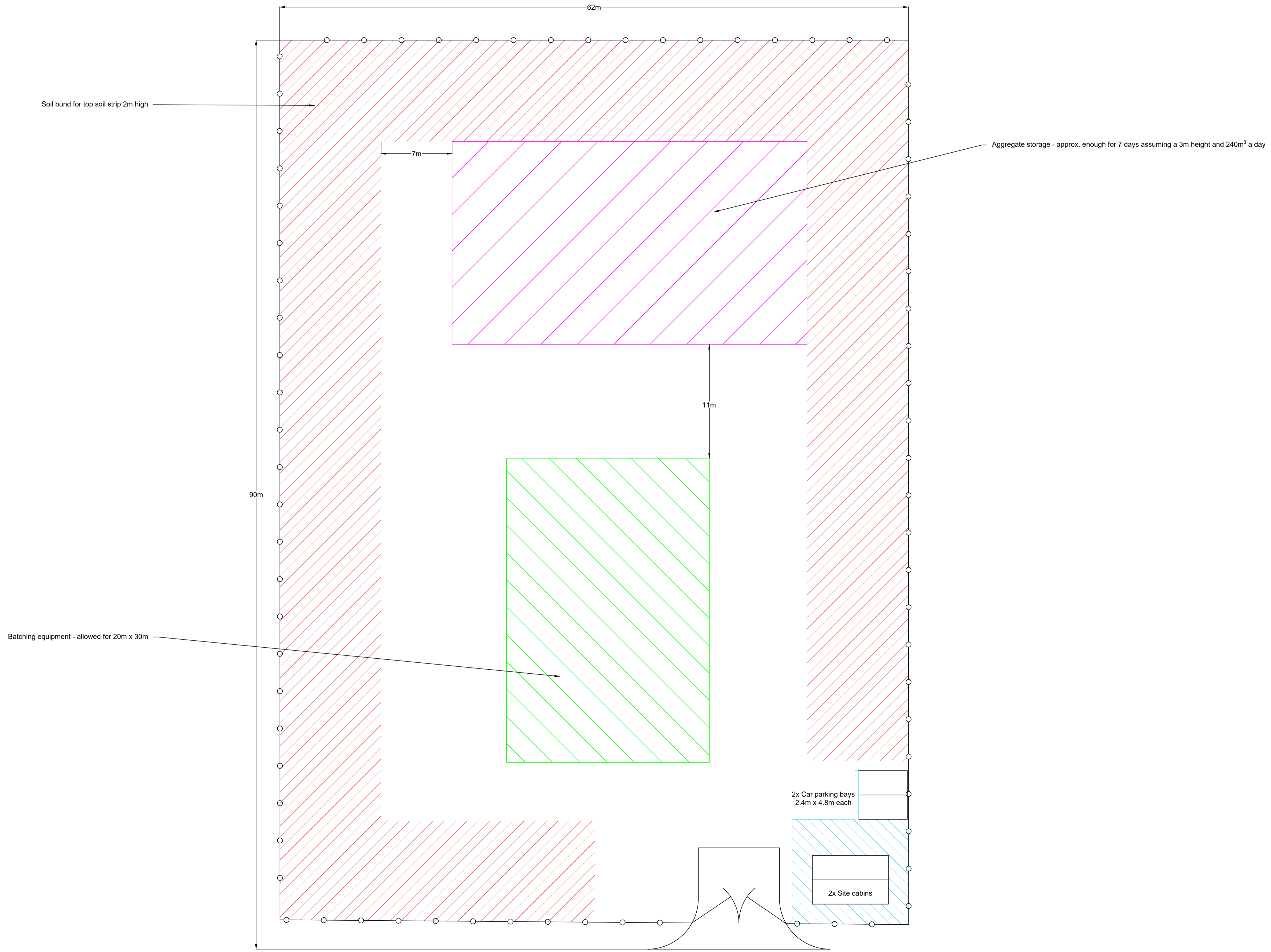
National Grid Drawing Reference AENC-MMAC-ENG-DWG-0085-09

Scale	Sheet Size	Sheet	Issue
1:500	A1	SHEET 1 OF 1	A

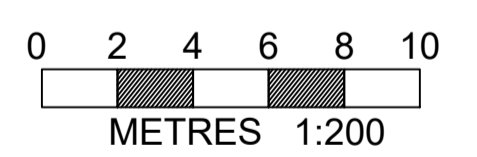
THE NATIONAL GRID
(NORWICH TO TILBURY) ORDER
ILLUSTRATIVE BATCHING COMPOUND ARRANGEMENT
REGULATION 5(2)(o)
SHEET 1 OF 1

LEGEND

-  Soil bund
-  Aggregate storage
-  Batching equipment
-  Pedestrian access
-  Temporary fence
-  Temporary gate



- Notes**
1. These plans are illustrative and will sit within the Order Limits. Due to the need for future flexibility, National Grid will be applying for Order Limits and Limits of Deviation within its DCO, within which any final alignment would lie.
 2. For additional detail on the plan suites, please refer to the Guide to Plans (document reference 2.0), located in the Volume 2 of the DCO application.
 3. All dimensions are approximate and indicated in metres (m) unless noted otherwise.
 4. This drawing is scaled at paper size A1, therefore any prints taken at smaller sizes will affect accuracy of the measurement units and should not be scaled against.
 5. The proposed arrangement is shown for illustrative purposes only. Dimensions and the design may vary depending on site conditions and the contractor's requirements.
 6. Site cabins may be raised to take account for potential flooding at certain locations. Details to be agreed with relevant stakeholders.
 7. Drainage details are not included on the drawing. Subject to ground conditions, this may involve an attenuation pond and / or Septic Tank.



A	AUG-2025	For DCO submission	OB	CK	KR
Issue	Date	Remarks	Drawn	Checked	Approved

Title

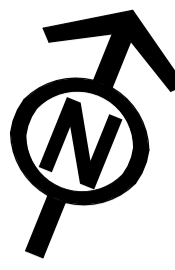
THE NATIONAL GRID
(NORWICH TO TILBURY) ORDER
ILLUSTRATIVE BATCHING COMPOUND
ARRANGEMENT
REGULATION 5(2)(o)
SHEET 1 OF 1

nationalgrid

PINS Application Number
EN020027

National Grid Drawing Reference
AENC-MMAC-ENG-DWG-0085-10

Scale	Sheet Size	Sheet	Issue
1:200	A1	SHEET 1 OF 1	A



THE NATIONAL GRID (NORWICH TO TILBURY) ORDER
 DESIGN AND LAYOUT PLANS
 INDICATIVE BRAMFORD SUBSTATION LAYOUT
 REGULATION 5(2)(o)
 SECTION B, SHEET 1 OF 1
 MID SUFFOLK DISTRICT COUNCIL

Application Document 2.6.1

LEGEND

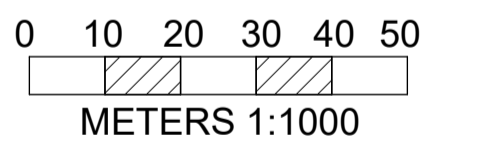
- Proposed equipment
- Existing equipment (National Grid)
- Proposed overhead line works
- Equipment to be removed
- Development works (Other schemes)
- Order Limits
- Substation permanent access

LIST OF ABBREVIATIONS

- PRR - Portable Relay Room
- CB - Circuit Breaker
- CT - Current Transformer
- VT - Voltage Transformer
- SA - Surge Arrester
- PI - Post Insulator
- ES - Earth Switch
- SGT - Supergrid Transformer
- DISC - Disconnect
- STATCOM - Static Synchronous Compensator
- SHR - Shunt Reactor
- DG - Diesel Generator
- SVC - Static Var Compensator
- DRC - Dynamic Reactive Compensator
- EY - Electric Vehicle
- GIS - Gas Insulated Switchgear
- QB - Quad Booster
- DNO - Distribution Network Operator

Notes

1. These plans are indicative and will sit within the Order Limits. Due to the need for future flexibility, National Grid will be applying for Order Limits and Limits of Deviation within its DCO, within which any final alignment would lie.
2. For additional detail on the plan sites, please refer to the Guide to Plans (document reference 2.0), located in the Volume 2 of the DCO application.
3. All dimensions are approximate and indicated in metres (m) unless noted otherwise.
4. This drawing is scaled at paper size A1, therefore any prints taken at smaller sizes will affect accuracy of the measurement units and should not be scaled against.
5. The voltage of the overhead line shown is 400kV.



BACKGROUND MAPPING INFORMATION HAS BEEN REPRODUCED FROM THE ORDNANCE SURVEY BY PERMISSION OF ORDNANCE SURVEY OF THE CONTROLLER OF HIS MAJESTY'S STATIONERY OFFICE. © CROWN COPYRIGHT AND DATABASE RIGHTS (2025) LICENCE OS100024241 AND AC0000807948.

Issue	Date	Remarks	Drawn	Checked	Approved
A	AUG-2025	For DCO submission	SG	GB	KR

Title
 THE NATIONAL GRID
 (NORWICH TO TILBURY) ORDER
 DESIGN AND LAYOUT PLANS
 INDICATIVE BRAMFORD SUBSTATION LAYOUT
 REGULATION 5(2)(o)
 SECTION B, SHEET 1 OF 1
 MID SUFFOLK DISTRICT COUNCIL

nationalgrid

PINS Application Number

EN020027

National Grid Drawing Reference

AE-NC-MMAC-ENG-DWG-0085-11

Scale	Sheet Size	Sheet	Issue
1:1000	A1	SHEET 1 OF 1	A

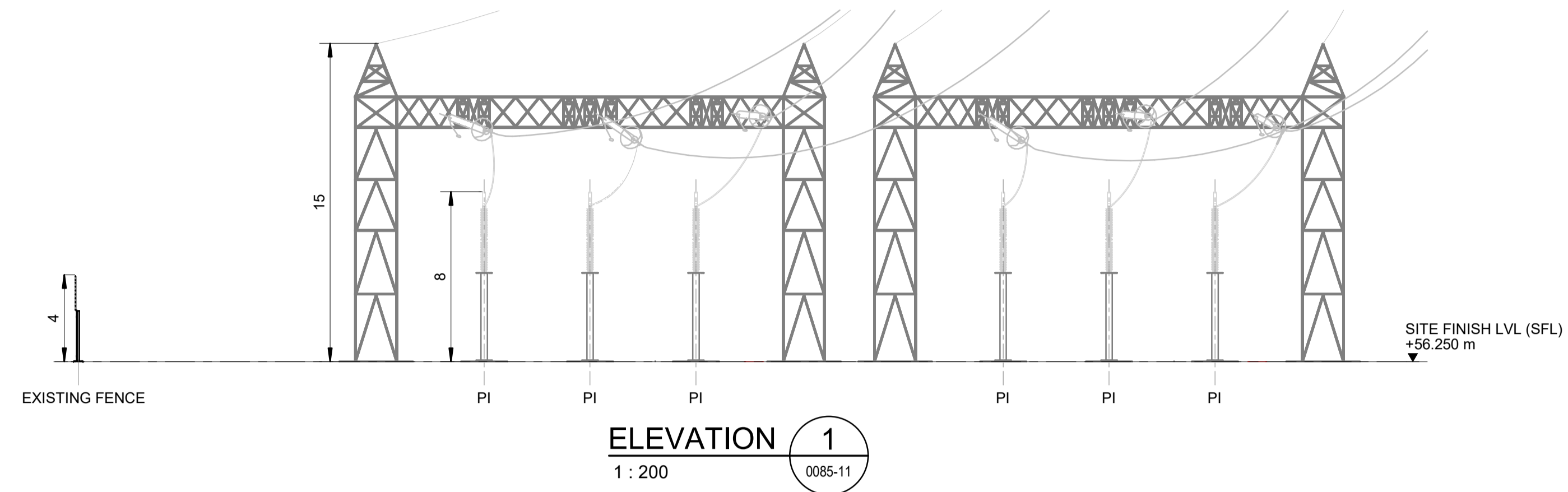
THE NATIONAL GRID (NORWICH TO TILBURY) ORDER
 DESIGN AND LAYOUT PLANS
 INDICATIVE BRAMFORD SUBSTATION ELEVATIONS
 REGULATION 5(2)(o)
 SECTION B, SHEET 1 OF 2
 MID SUFFOLK DISTRICT COUNCIL

LEGEND

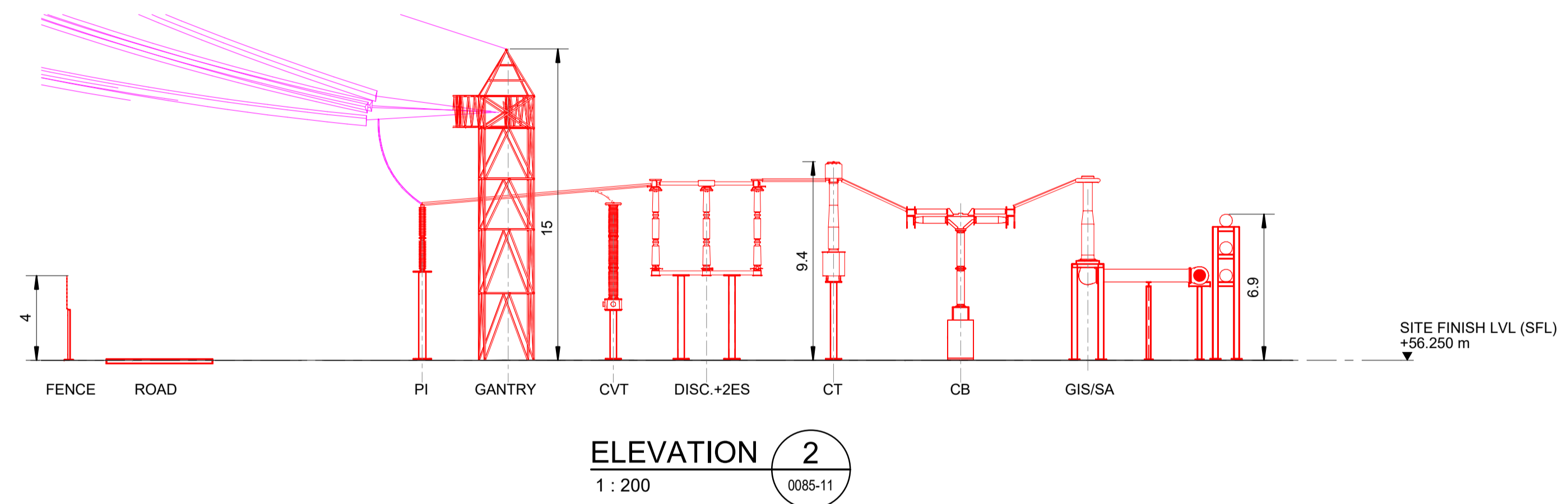
- Proposed equipment
- Existing equipment (National Grid)
- Proposed Overhead line works
- Development works (Other schemes)

LIST OF ABBREVIATIONS

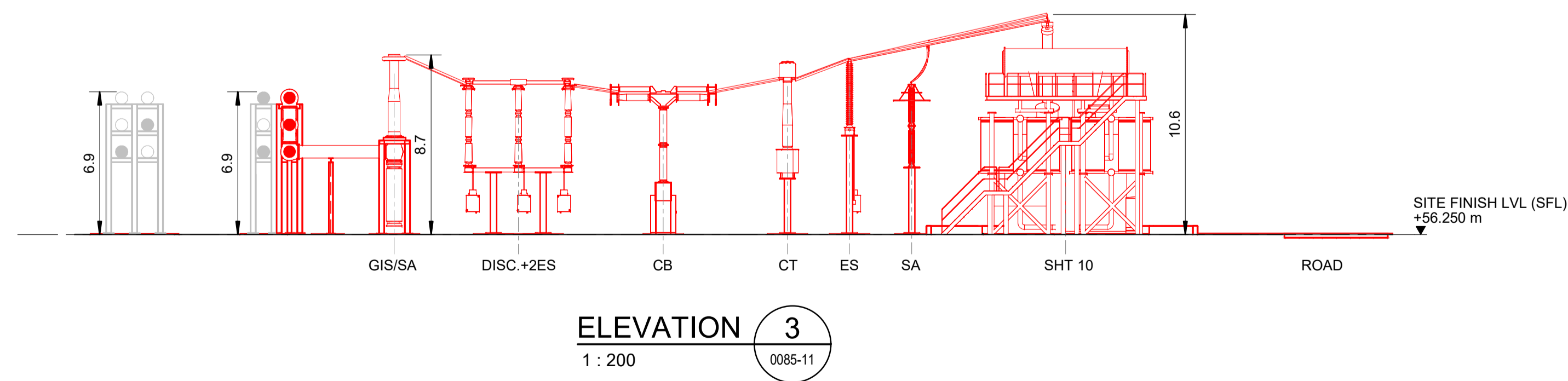
- PRR - Portable Relay Room
- CB - Circuit Breaker
- CT - Current Transformer
- VT - Voltage Transformer
- SA - Surge Arrester
- PI - Post Insulator
- ES - Earth Switch
- SGT - Supergrid Transformer
- DISC - Disconnect
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- SHR - Shunt Reactor
- DG - Diesel Generator
- SVC - Static Var Compensator
- DRC - Dynamic Reactive Compensator
- EV - Electric Vehicle
- GIS - Gas Insulated Switchgear
- QB - Quad Booster
- DNO - Distribution Network Operator



ELEVATION 1
 1 : 200 (0085-11)



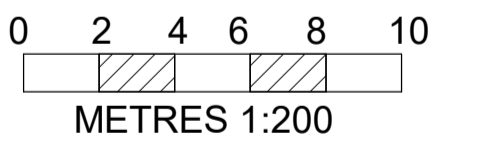
ELEVATION 2
 1 : 200 (0085-11)



ELEVATION 3
 1 : 200 (0085-11)

Notes

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4. This drawing is scaled at paper size A1, therefore any prints taken at smaller sizes will affect accuracy of the measurement units and should not be scaled against.
5. The voltage of the overhead line shown is 400kV.



Issue	Date	Remarks	Drawn	Checked	Approved
A	AUG-2025	For DCO submission	SG	GB	KR

Title
 THE NATIONAL GRID
 (NORWICH TO TILBURY) ORDER
 DESIGN AND LAYOUT PLANS
 INDICATIVE BRAMFORD SUBSTATION ELEVATIONS
 REGULATION 5(2)(o)
 SECTION B, SHEET 1 OF 2
 MID SUFFOLK DISTRICT COUNCIL



PINS Application Number

EN020027

National Grid Drawing Reference

AENC-MMAC-ENG-DWG-0085-12

Scale	Sheet Size	Sheet	Issue
1:200	A1	SHEET 1 OF 2	A

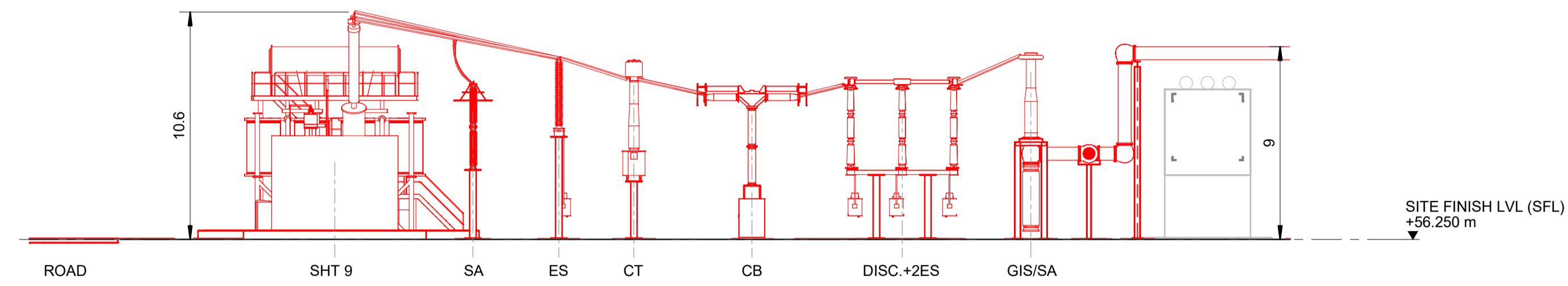
THE NATIONAL GRID (NORWICH TO TILBURY) ORDER
 DESIGN AND LAYOUT PLANS
 INDICATIVE BRAMFORD SUBSTATION ELEVATIONS
 REGULATION 5(2)(o)
 SECTION B, SHEET 2 OF 2
 MID SUFFOLK DISTRICT COUNCIL

LEGEND

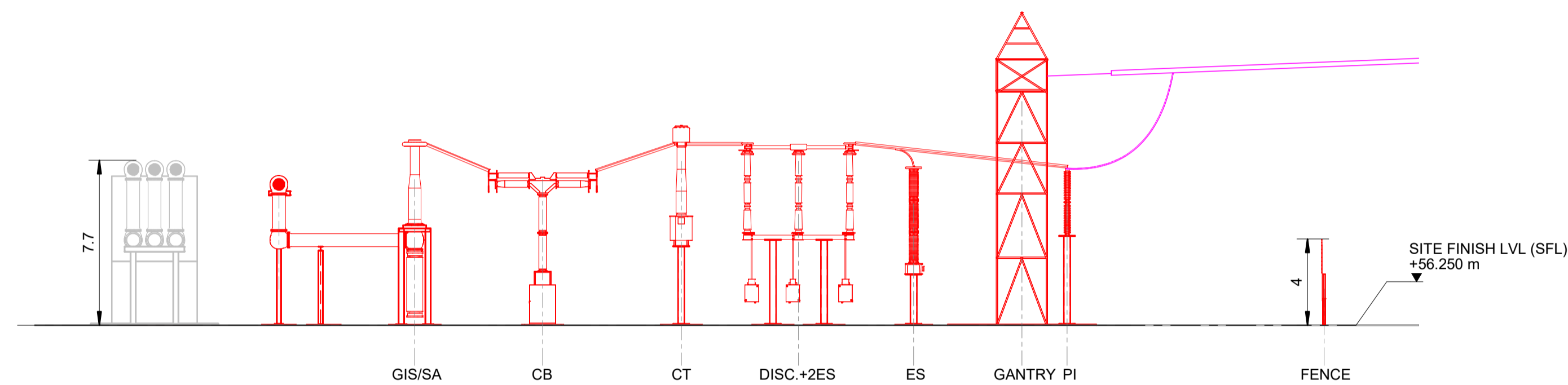
- Proposed equipment
- Existing equipment (National Grid)
- Proposed Overhead line works
- Development works (Other schemes)

LIST OF ABBREVIATIONS

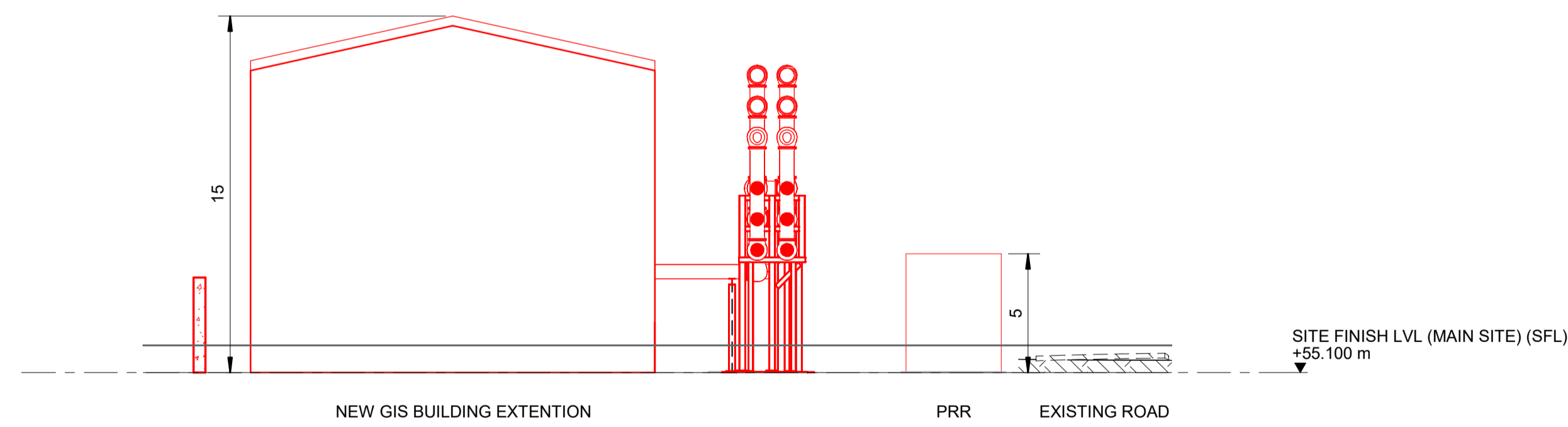
- PRR - Portable Relay Room
- CB - Circuit Breaker
- CT - Current Transformer
- VT - Voltage Transformer
- SA - Surge Arrester
- PI - Post Insulator
- ES - Earth Switch
- SGT - Supergrid Transformer
- DISC - Disconnector
- STATCOM - Static Synchronous Compensator
- SHR - Shunt Reactor
- DG - Diesel Generator
- SVC - Static Var Compensator
- DRC - Dynamic Reactive Compensator
- EV - Electric Vehicle
- GIS - Gas Insulated Switchgear
- QB - Quad Booster
- DNO - Distribution Network Operator



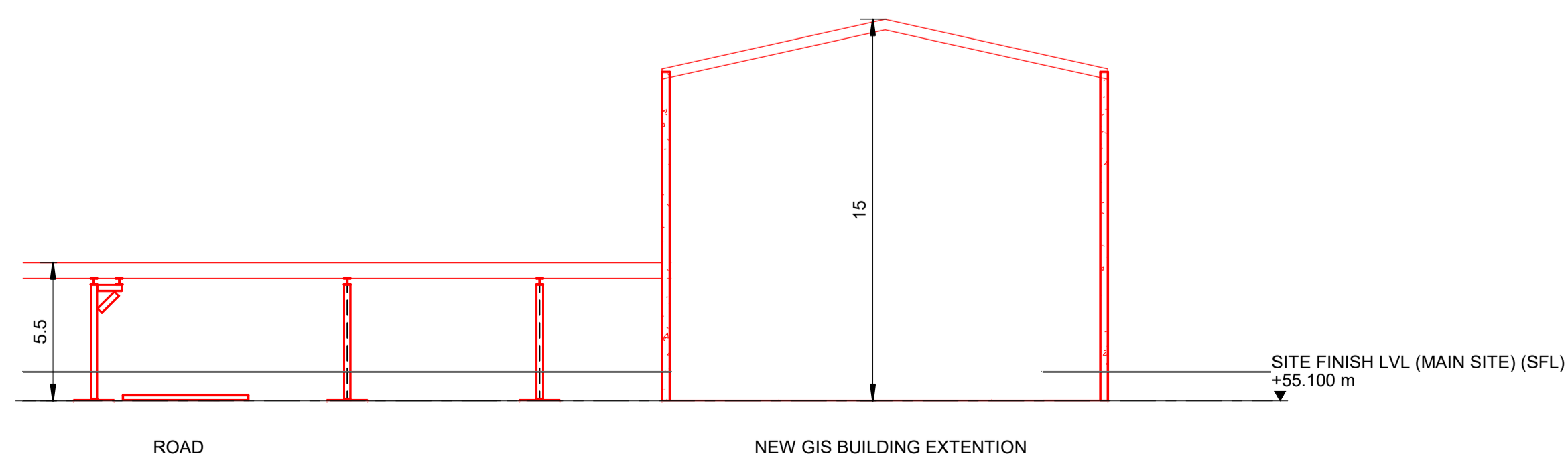
ELEVATION 4
 1 : 200



ELEVATION 5
 1 : 200



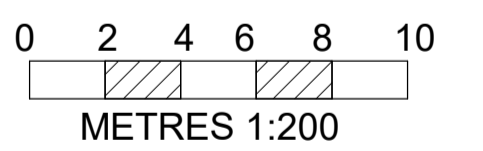
ELEVATION 6
 1 : 200



ELEVATION 7
 1 : 200

Notes

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5. The voltage of the overhead line shown is 400kV.

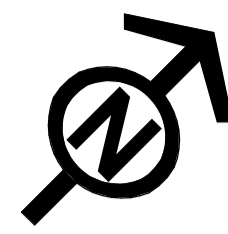


Issue	Date	Remarks	Drawn	Checked	Approved
A	AUG-2025	For DCO submission	SG	GB	KR

Title
 THE NATIONAL GRID
 (NORWICH TO TILBURY) ORDER
 DESIGN AND LAYOUT PLANS
 INDICATIVE BRAMFORD SUBSTATION ELEVATIONS
 REGULATION 5(2)(o)
 SECTION B, SHEET 2 OF 2
 MID SUFFOLK DISTRICT COUNCIL



PINS Application Number			
EN020027			
National Grid Drawing Reference			
AENC-MMAC-ENG-DWG-0085-12			
Scale	Sheet Size	Sheet	Issue
1:200	A1	SHEET 2 OF 2	A



THE NATIONAL GRID (NORWICH TO TILBURY) ORDER
 DESIGN AND LAYOUT PLANS
 INDICATIVE CABLE SEALING END COMPOUND LAYOUT & ELEVATIONS WENHAM GROVE
 REGULATION 5(2)(o)
 SECTION C, SHEET 1 OF 1
 BABERGH DISTRICT COUNCIL

Application Document 2.6.1

LEGEND

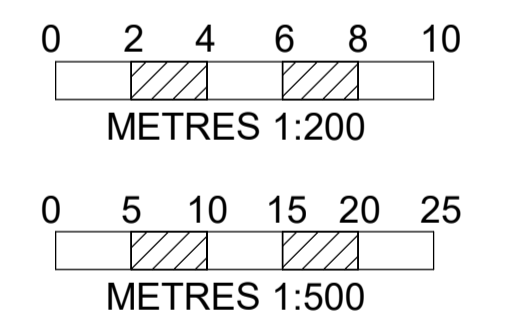
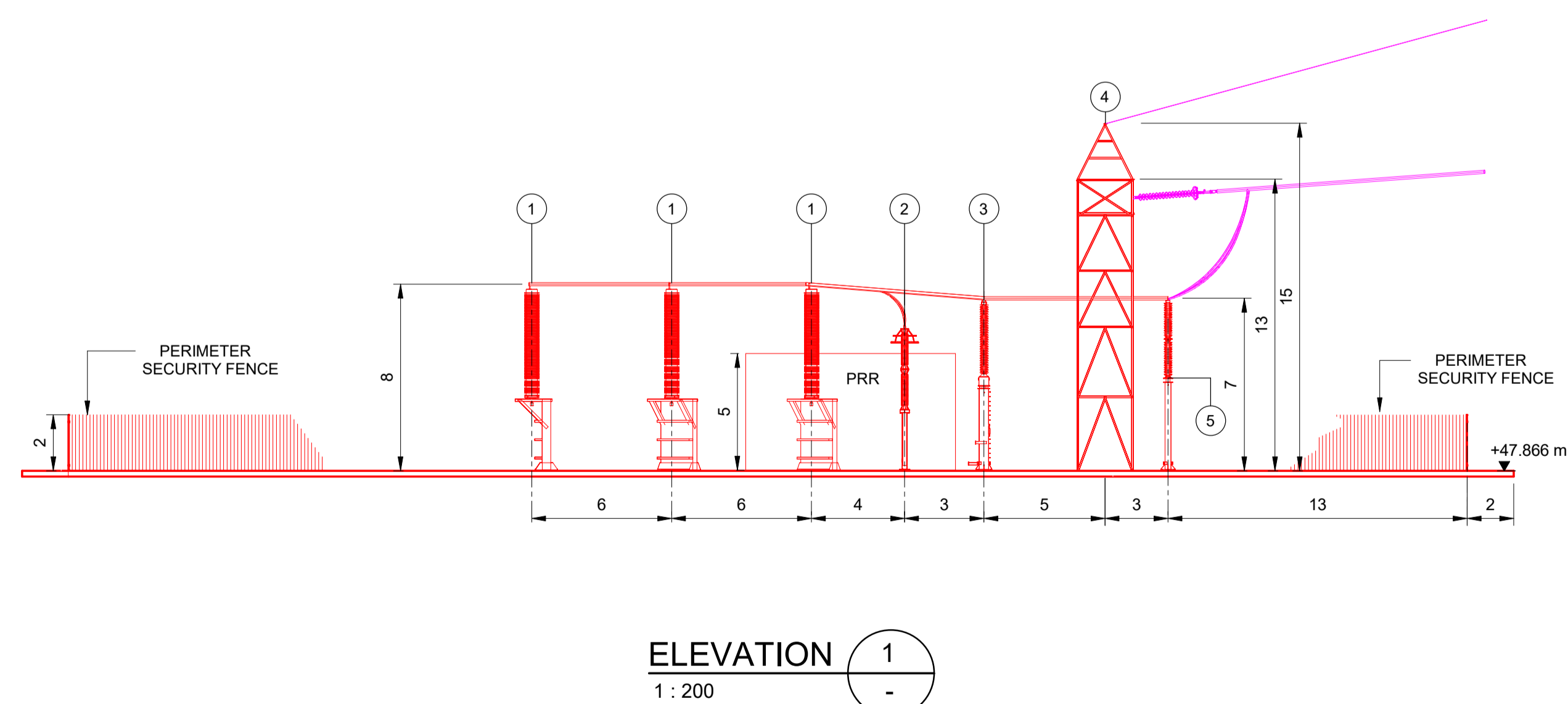
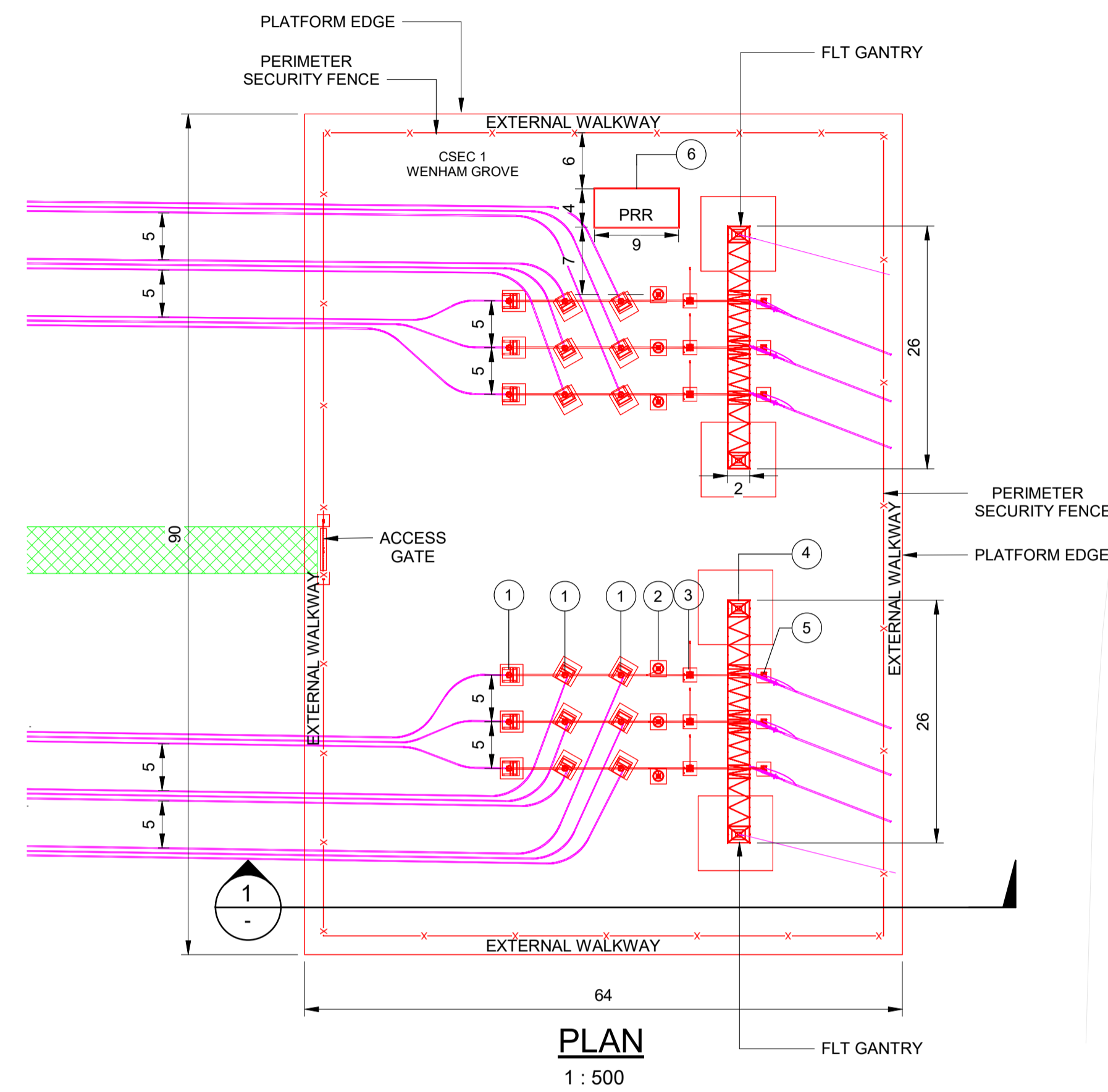
- Proposed equipment
- Proposed overhead line/cable works
- CSE Compound permanent access

LIST OF ABBREVIATIONS

- 01 - 400kV Cable sealing end
- 02 - 400kV Surge arrester
- 03 - 400kV Earth switch
- 04 - Full line tension (FLT) gantry
- 05 - 400kV Post insulator
- 06 - Portable relay room (PRR)

Notes

1. These plans are indicative and will sit within the Order Limits. Due to the need for future flexibility, National Grid will be applying for Order Limits and Limits of Deviation within its DCO, within which any final alignment would lie.
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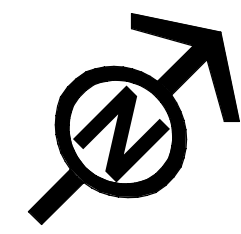
BACKGROUND MAPPING INFORMATION HAS BEEN REPRODUCED FROM THE ORDNANCE SURVEY BY PERMISSION OF ORDNANCE SURVEY OF THE CONTROLLER OF HIS MAJESTY'S STATIONERY OFFICE. © CROWN COPYRIGHT AND DATABASE RIGHTS (2025) LICENCE OS100024241 AND AC0000807948.

Issue	Date	Remarks	Drawn	Checked	Approved
A	AUG-2025	For DCO submission	SN	GR	KR

Title
 THE NATIONAL GRID
 (NORWICH TO TILBURY) ORDER
 DESIGN AND LAYOUT PLANS
 INDICATIVE CABLE SEALING END COMPOUND
 LAYOUT & ELEVATIONS WENHAM GROVE
 REGULATION 5(2)(o)
 SECTION C, SHEET 1 OF 1
 BABERGH DISTRICT COUNCIL







PINS Application Number			
EN020027			
National Grid Drawing Reference			
AENC-MMAC-ENG-DWG-0085-13			
Scale	Sheet Size	Sheet	Issue
As shown	A1	SHEET 1 OF 1	A



THE NATIONAL GRID (NORWICH TO TILBURY) ORDER
 DESIGN AND LAYOUT PLANS
 INDICATIVE EACH SUBSTATION LAYOUT
 REGULATION 5(2)(o)
 SECTION C, SHEET 1 OF 1
 TENDRING DISTRICT COUNCIL

Application Document 2.6.1

LEGEND

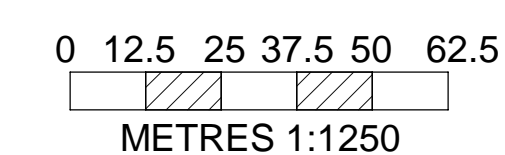
-  Proposed equipment
-  Proposed overhead line works
-  Substation permanent access
-  Order Limits

LIST OF ABBREVIATIONS

- PRR - Portable Relay Room
- CB - Circuit Breaker
- CT - Current Transformer
- VT - Voltage Transformer
- SA - Surge Arrester
- PI - Post Insulator
- ES - Earth Switch
- SGT - Supergrid Transformer
- DISC - Disconnector
- STATCOM - Static Synchronous Compensator
- SHR - Shunt Reactor
- DG - Diesel Generator
- SVC - Static Var Compensator
- DRC - Dynamic Reactive Compensator
- EV - Electric Vehicle
- GIS - Gas Insulated Switchgear
- QB - Quad Booster
- DNO - Distribution Network Operator
- ET - Earthing Transformer

Notes

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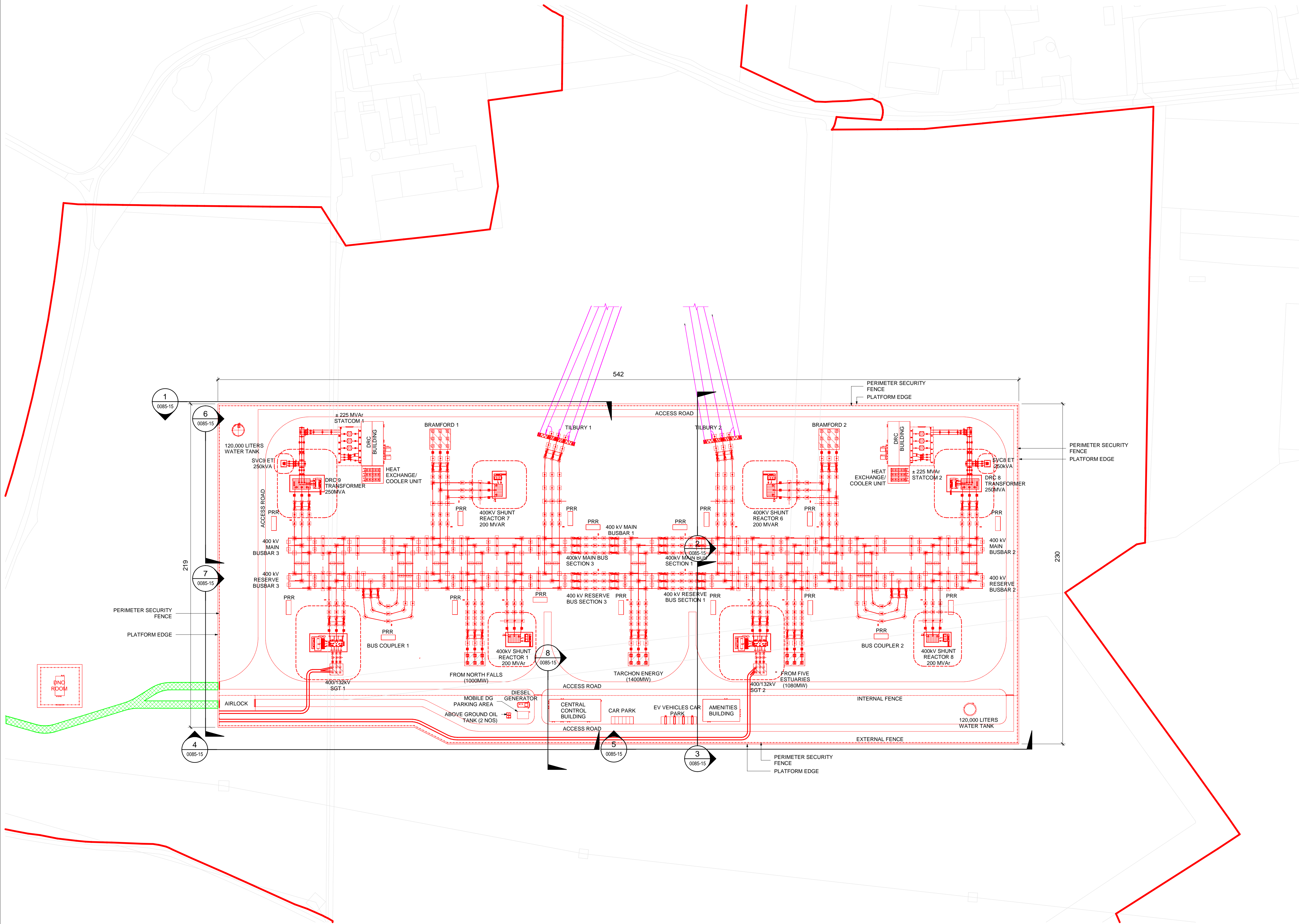
BACKGROUND MAPPING INFORMATION HAS BEEN REPRODUCED FROM THE ORDINANCE SURVEY BY PERMISSION OF ORDINANCE SURVEY OF THE CONTROLLER OF HIS MAJESTY'S STATIONERY OFFICE. © CROWN COPYRIGHT AND DATABASE RIGHTS (2025) LICENCE OS100024241 AND AC0000807948.

Issue	Date	Remarks	Drawn	Checked	Approved
A	AUG-2025	For DCO submission	VP	GR	KR

Title
 THE NATIONAL GRID (NORWICH TO TILBURY) ORDER
 DESIGN AND LAYOUT PLANS
 INDICATIVE EACH SUBSTATION LAYOUT
 REGULATION 5(2)(o)
 SECTION C, SHEET 1 OF 1
 TENDRING DISTRICT COUNCIL

nationalgrid

PINS Application Number			
EN020027			
National Grid Drawing Reference			
AENC-MMAC-ENG-DWG-0085-14			
Scale	Sheet Size	Sheet	Issue
1:1250	A1	SHEET 1 OF 1	A



THE NATIONAL GRID (NORWICH TO TILBURY) ORDER
 DESIGN AND LAYOUT PLANS
 INDICATIVE EACN SUBSTATION ELEVATIONS
 REGULATION 5(2)(o)
 SECTION C, SHEET 1 OF 2
 TENDRING DISTRICT COUNCIL

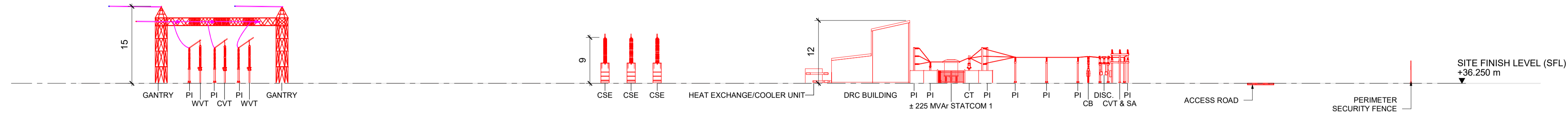
Application Document 2.6.1

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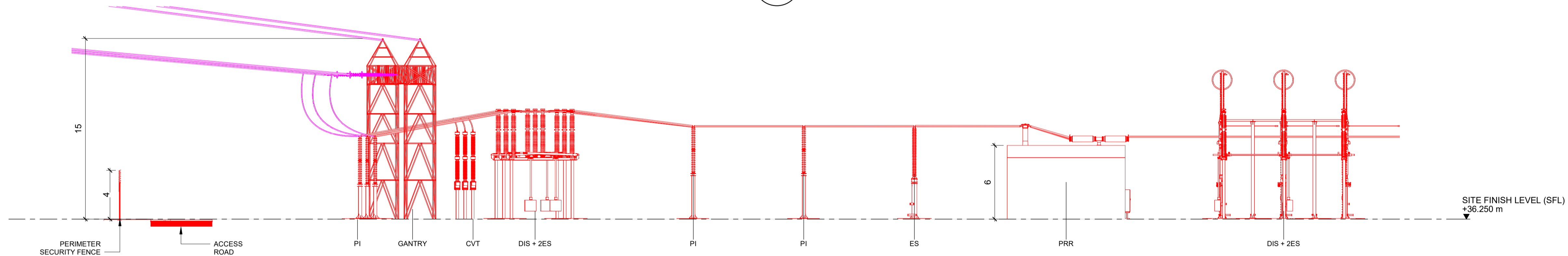
- Proposed equipment
- Proposed overhead line works

LIST OF ABBREVIATIONS

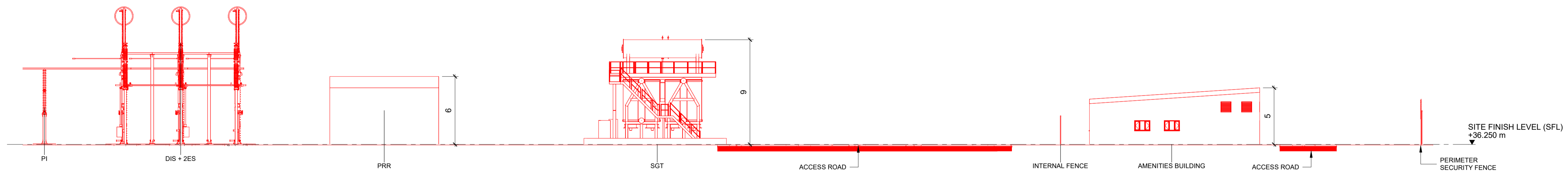
- PRR - Portable Relay Room
- CB - Circuit Breaker
- CT - Current Transformer
- VT - Voltage Transformer
- SA - Surge Arrester
- PI - Post Insulator
- ES - Earth Switch
- SGT - Supergrid Transformer
- DISC - Disconnect
- STATCOM - Static Synchronous Compensator
- SHR - Shunt Reactor
- DG - Diesel Generator
- SVC - Static Var Compensator
- DRC - Dynamic Reactive Compensator
- EV - Electric Vehicle
- GIS - Gas Insulated Switchgear
- QB - Quad Booster
- DNO - Distribution Network Operator
- ET - Earthing Transformer



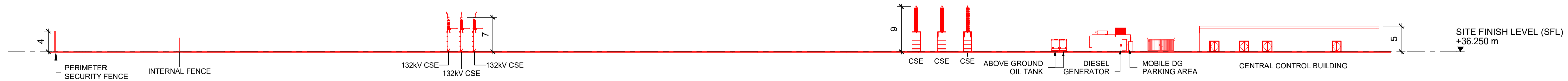
ELEVATION 1
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ELEVATION 2
 1 : 200



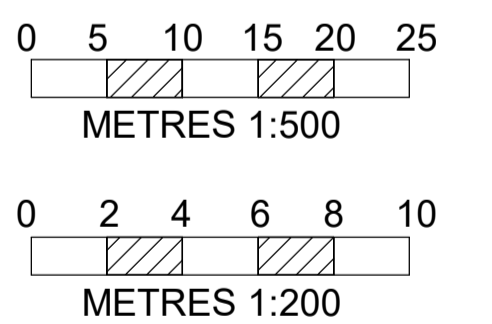
ELEVATION 3
 1 : 200



ELEVATION 4
 1 : 500

Notes

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Issue	Date	Remarks	Drawn	Checked	Approved
A	AUG-2025	For DCO submission	VP	GR	KR

THE NATIONAL GRID
 (NORWICH TO TILBURY) ORDER
 DESIGN AND LAYOUT PLANS
 INDICATIVE EACN SUBSTATION ELEVATIONS
 REGULATION 5(2)(o)
 SECTION C, SHEET 1 OF 2
 TENDRING DISTRICT COUNCIL

nationalgrid

PINS Application Number			
EN020027			
National Grid Drawing Reference			
AENC-MMAC-ENG-DWG-0085-15			
Scale	Sheet Size	Sheet	Issue
As shown	A1	SHEET 1 OF 2	A

THE NATIONAL GRID (NORWICH TO TILBURY) ORDER
 DESIGN AND LAYOUT PLANS
 INDICATIVE EACN SUBSTATION ELEVATIONS
 REGULATION 5(2)(o)
 SECTION C, SHEET 2 OF 2
 TENDRING DISTRICT COUNCIL

LEGEND

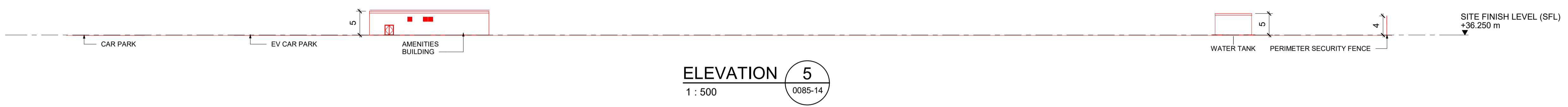
- Proposed equipment
- Proposed overhead line works

LIST OF ABBREVIATIONS

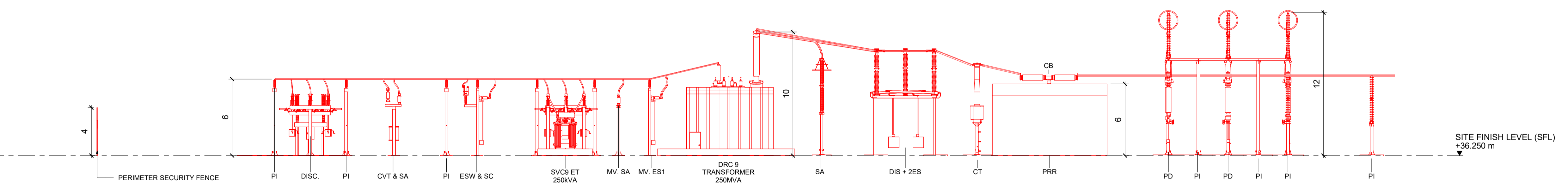
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- DRC - Dynamic Reactive Compensator
- EV - Electric Vehicle
- GIS - Gas Insulated Switchgear
- QB - Quad Booster
- DNO - Distribution Network Operator
- ET - Earthing Transformer

Notes

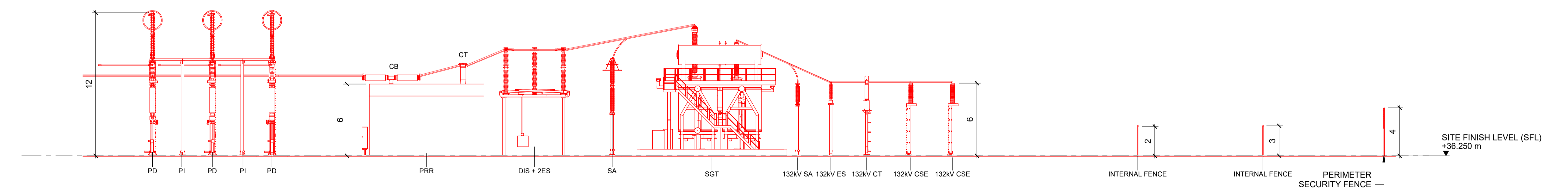
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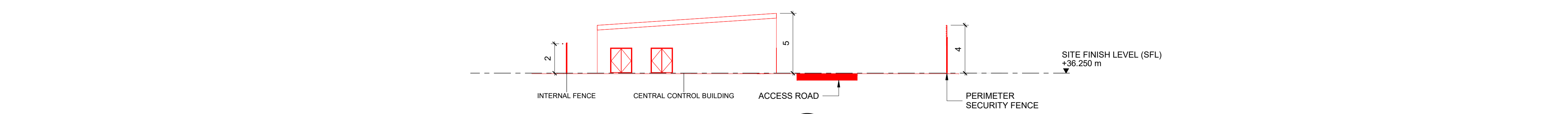
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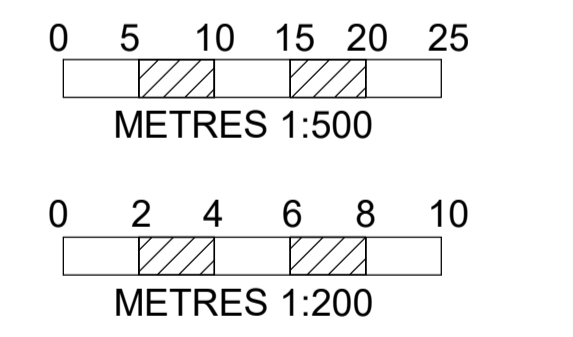
ELEVATION 6
1 : 200



ELEVATION 7
1 : 200



ELEVATION 8
1 : 200

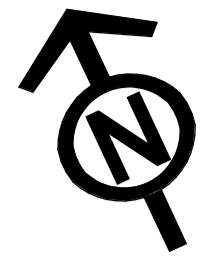


Issue	Date	Remarks	Drawn	Checked	Approved
A	AUG-2025	For DCO submission	VP	GR	KR

Title
 THE NATIONAL GRID
 (NORWICH TO TILBURY) ORDER
 DESIGN AND LAYOUT PLANS
 INDICATIVE EACN SUBSTATION ELEVATIONS
 REGULATION 5(2)(o)
 SECTION C, SHEET 2 OF 2
 TENDRING DISTRICT COUNCIL



PINS Application Number			
EN020027			
National Grid Drawing Reference			
AENC-MMAC-ENG-DWG-0085-15			
Scale	Sheet Size	Sheet	Issue
As shown	A1	SHEET 2 OF 2	A



THE NATIONAL GRID (NORWICH TO TILBURY) ORDER
 DESIGN AND LAYOUT PLANS
 INDICATIVE CABLE SEALING END COMPOUND LAYOUT & ELEVATIONS GREAT HORKESLEY - EACN SIDE
 REGULATION 5(2)(o)
 SECTION D, SHEET 1 OF 1
 COLCHESTER CITY COUNCIL

Application Document 2.6.1

LEGEND

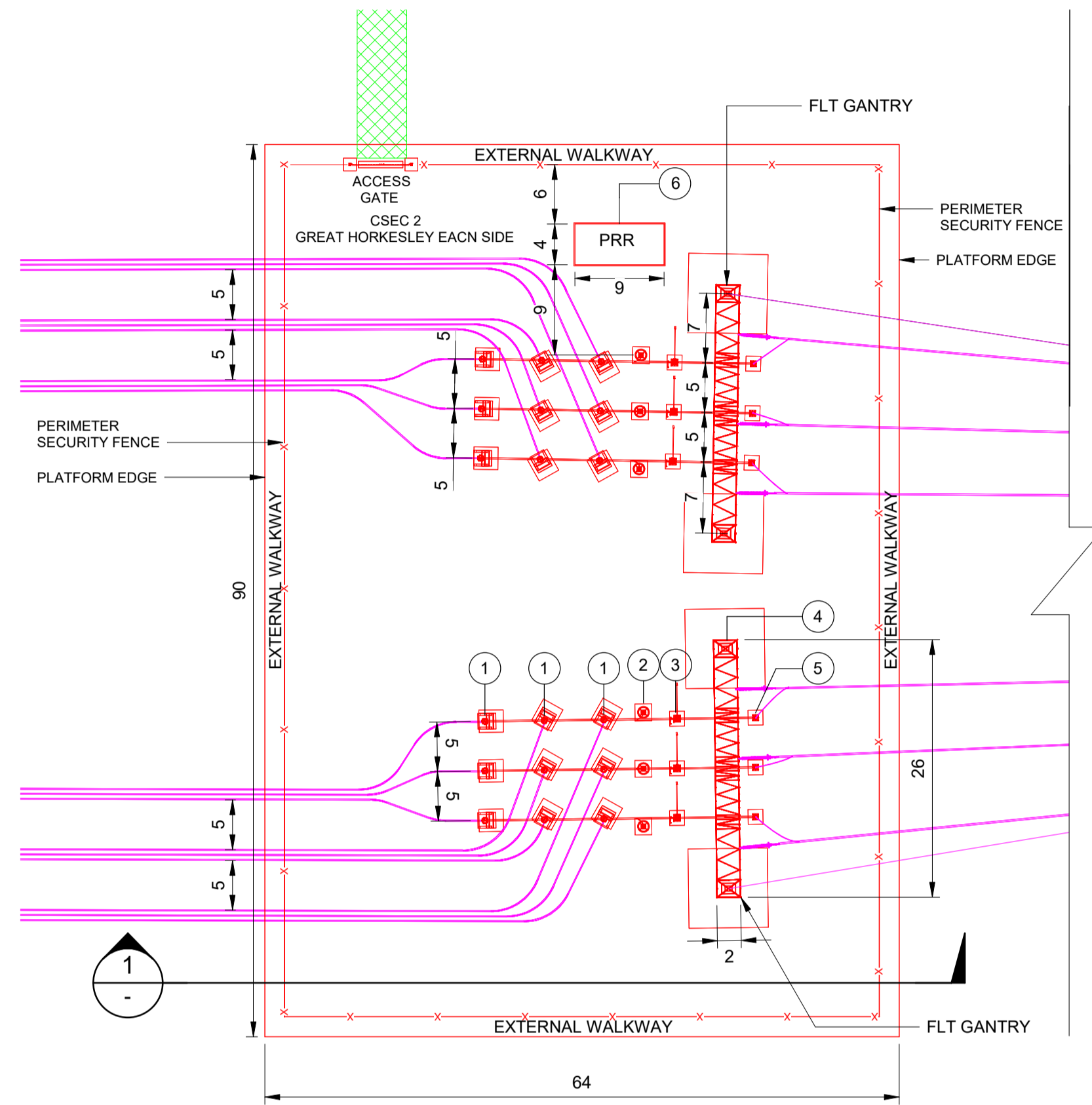
- Proposed equipment
- Proposed overhead line/cable works
- CSE Compound permanent access

LIST OF ABBREVIATIONS

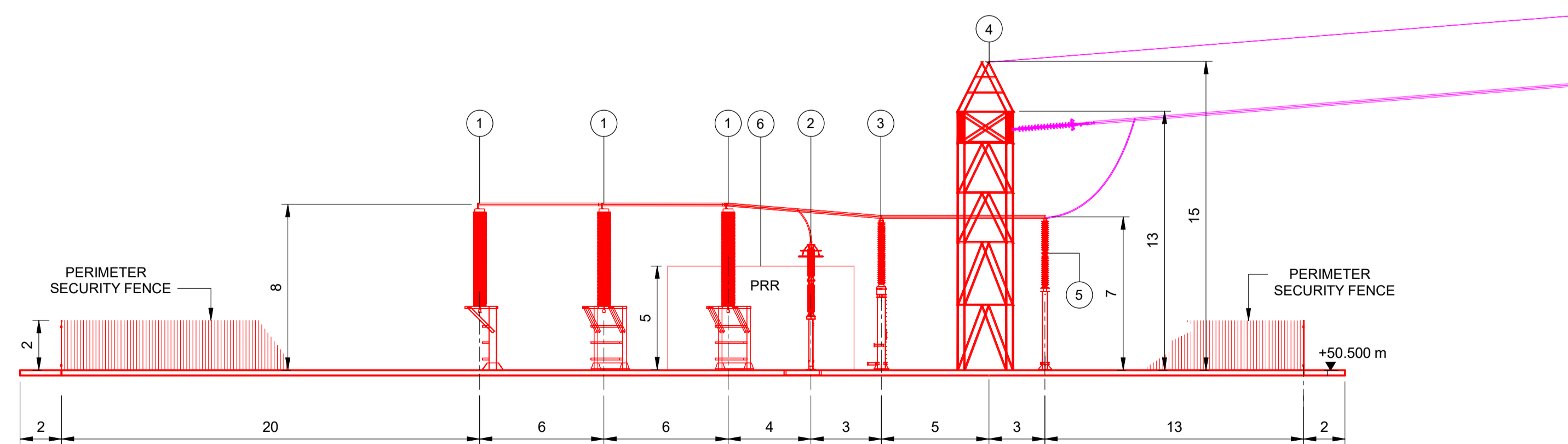
- 01 - 400kV Cable sealing end
- 02 - 400kV Surge arrester
- 03 - 400kV Earth switch
- 04 - Full line tension (FLT) gantry
- 05 - 400kV Post insulator
- 06 - Portable relay room (PRR)

Notes

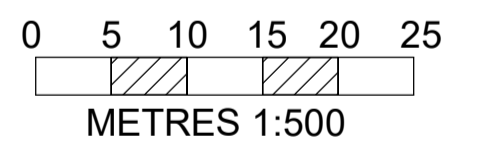
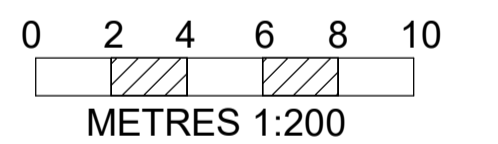
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PLAN
1 : 500



ELEVATION 1
1 : 200



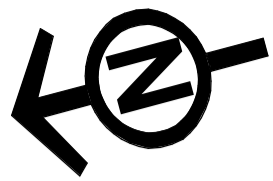
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Issue	Date	Remarks	Drawn	Checked	Approved
B	JAN-2026	For DCO submission - Errata update	TL	MP	KR
A	AUG-2025	For DCO submission	SN	GR	KR

Title
 THE NATIONAL GRID
 (NORWICH TO TILBURY) ORDER
 DESIGN AND LAYOUT PLANS
 INDICATIVE CABLE SEALING END COMPOUND
 LAYOUT & ELEVATIONS
 GREAT HORKESLEY - EACN SIDE
 REGULATION 5(2)(o), SECTION D
 SHEET 1 OF 1, COLCHESTER CITY COUNCIL



PINS Application Number			
EN020027			
National Grid Drawing Reference			
AENC-MMAC-ENG-DWG-0085-16			
Scale	Sheet Size	Sheet	Issue
As shown	A1	SHEET 1 OF 1	B



THE NATIONAL GRID (NORWICH TO TILBURY) ORDER
 DESIGN AND LAYOUT PLANS
 INDICATIVE CABLE SEALING END COMPOUND LAYOUT & ELEVATIONS GREAT HORKESLEY - TILBURY SIDE
 REGULATION 5(2)(o)
 SECTION D, SHEET 1 OF 1
 COLCHESTER CITY COUNCIL

Application Document 2.6.1

LEGEND

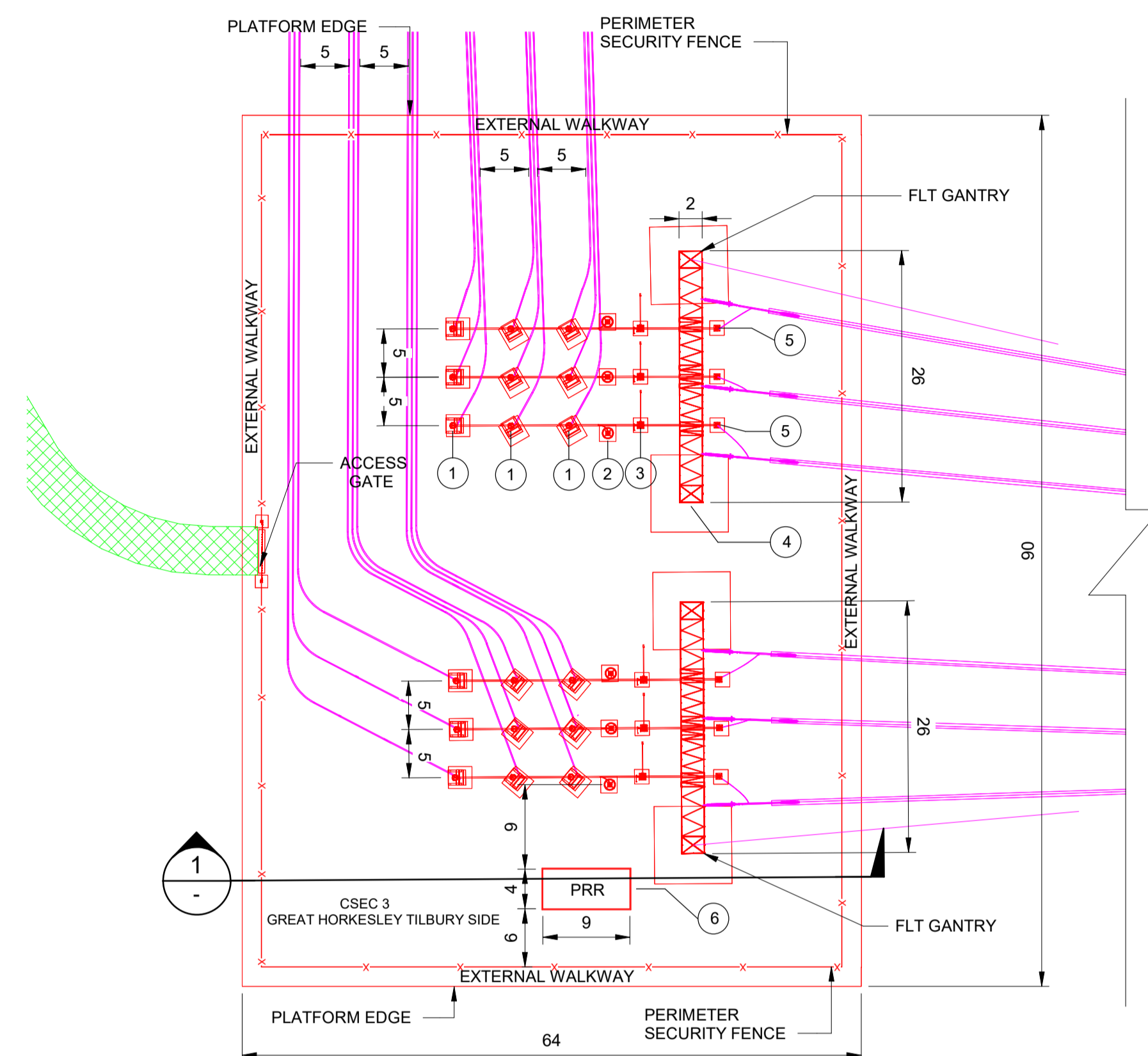
- Proposed equipment
- Proposed overhead line/cable works
- CSE Compound permanent access

LIST OF ABBREVIATIONS

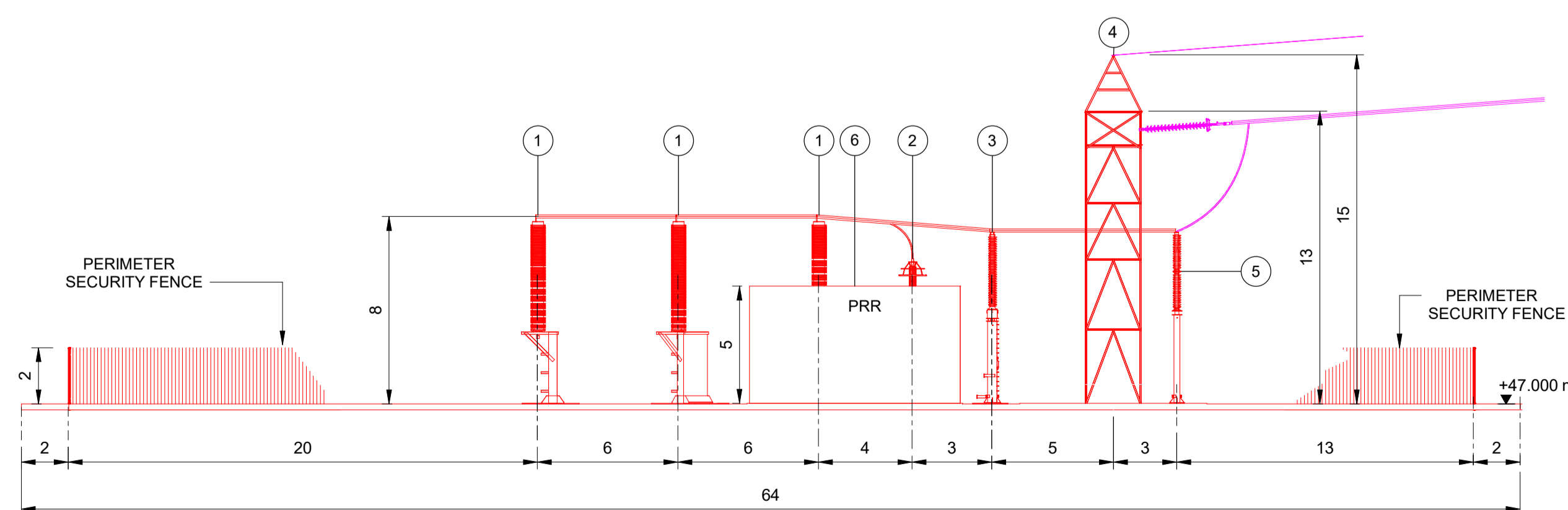
- 01 - 400kV Cable sealing end
- 02 - 400kV Surge arrester
- 03 - 400kV Earth switch
- 04 - Full line tension (FLT) gantry
- 05 - 400kV Post insulator
- 06 - Portable relay room (PRR)

Notes

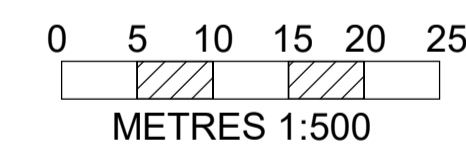
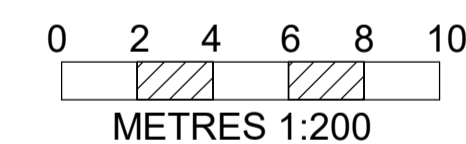
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PLAN
1 : 500



ELEVATION 1
1 : 200



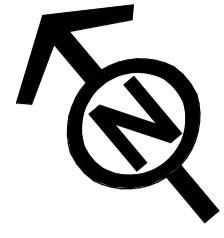
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Issue	Date	Remarks	Drawn	Checked	Approved
B	JAN-2026	For DCO submission - Errata update	TL	MP	KR
A	AUG-2025	For DCO submission	SN	GR	KR

Title
 THE NATIONAL GRID
 (NORWICH TO TILBURY) ORDER
 DESIGN AND LAYOUT PLANS
 INDICATIVE CABLE SEALING END COMPOUND
 LAYOUT & ELEVATIONS
 GREAT HORKESLEY - TILBURY SIDE
 REGULATION 5(2)(o), SECTION D
 SHEET 1 OF 1, COLCHESTER CITY COUNCIL

nationalgrid

PINS Application Number			
EN020027			
National Grid Drawing Reference			
AENC-MMAC-ENG-DWG-0085-17			
Scale	Sheet Size	Sheet	Issue
As shown	A1	SHEET 1 OF 1	B



THE NATIONAL GRID (NORWICH TO TILBURY) ORDER
 DESIGN AND LAYOUT PLANS
 INDICATIVE CABLE SEALING END COMPOUND LAYOUT & ELEVATIONS FAIRSTED - EACH SIDE
 REGULATION 5(2)(o)
 SECTION E, SHEET 1 OF 1
 BRAINTREE DISTRICT COUNCIL

Application Document 2.6.1

LEGEND

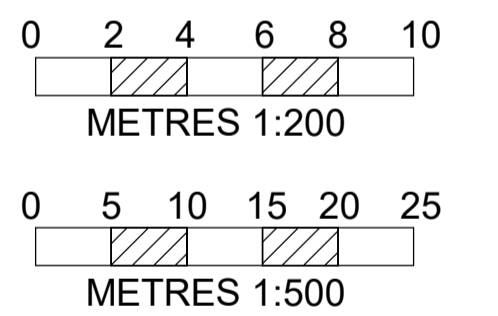
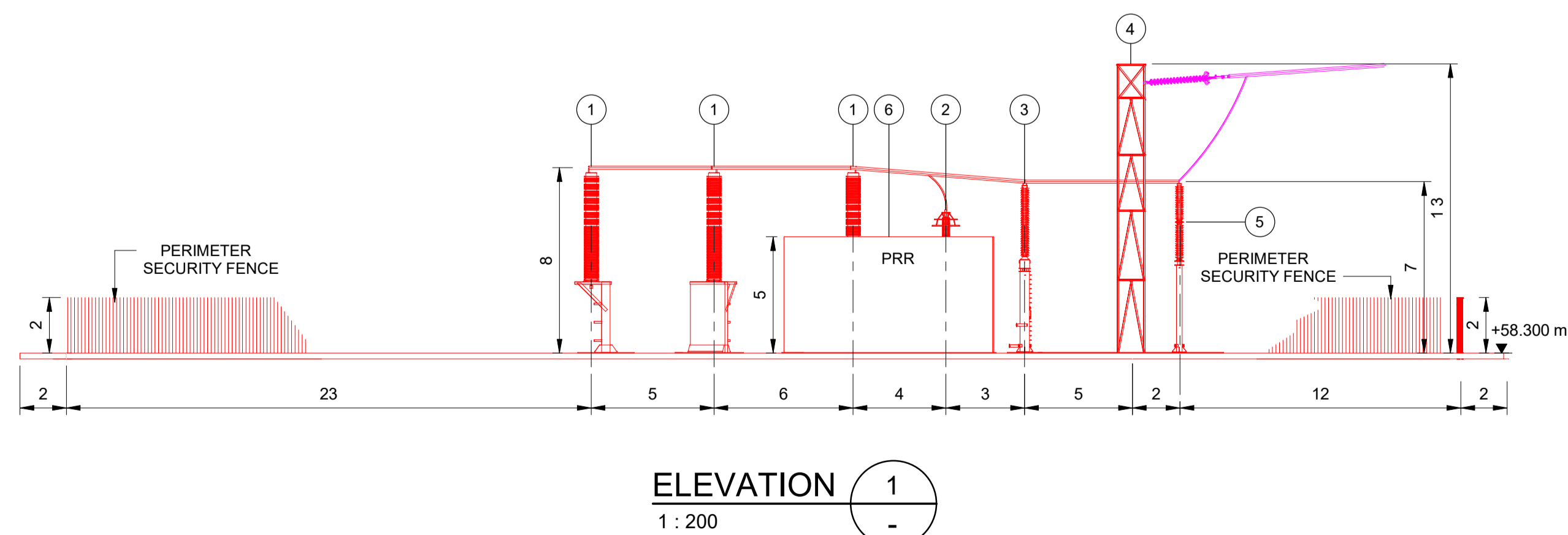
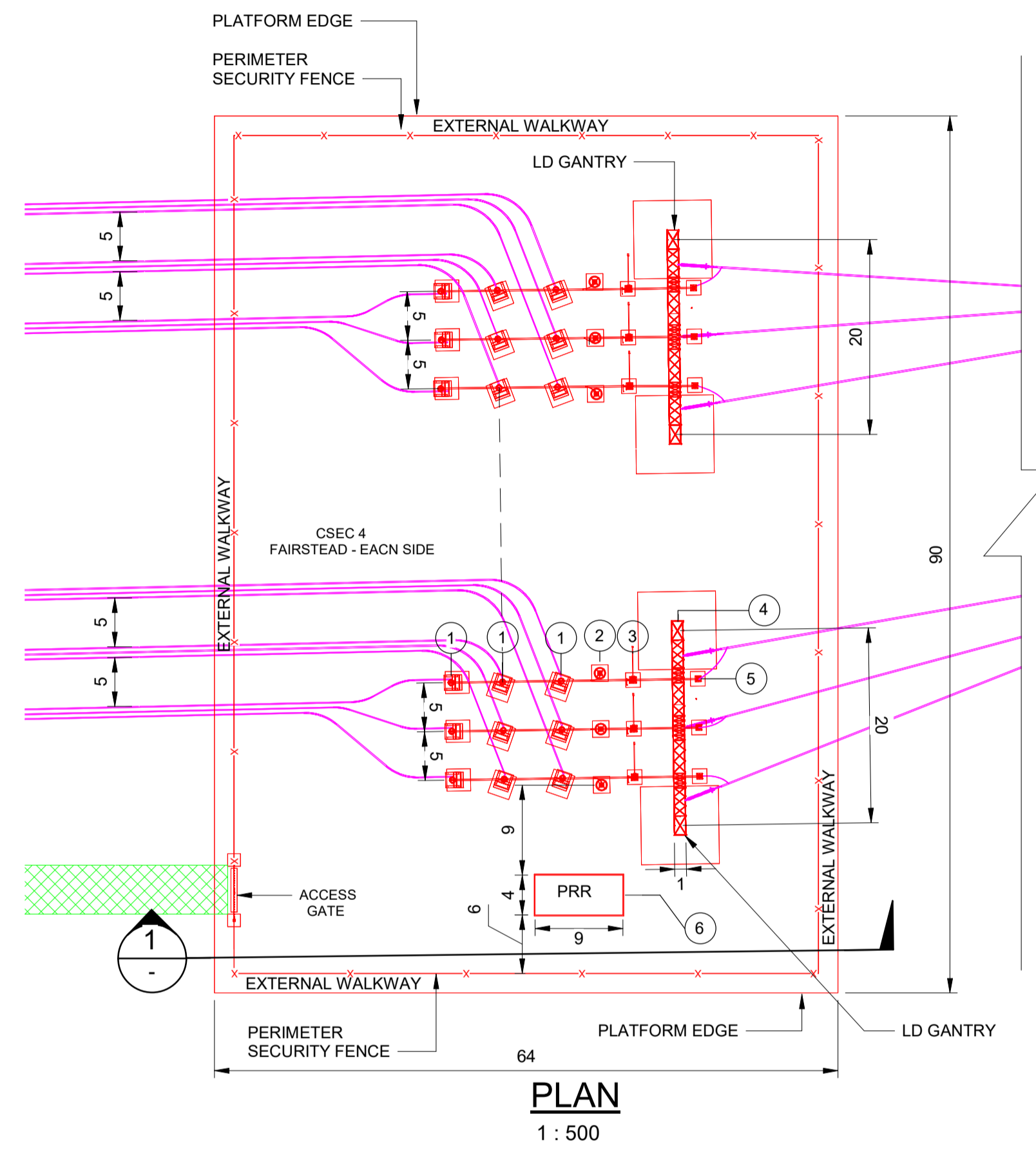
- Proposed equipment
- Proposed overhead line/cable works
- CSE Compound permanent access

LIST OF ABBREVIATIONS

- 01 - 400kV Cable sealing end
- 02 - 400kV Surge arrester
- 03 - 400kV Earth switch
- 04 - Full line tension (FLT) gantry
- 05 - 400kV Post insulator
- 06 - Portable relay room (PRR)

Notes

1. These plans are indicative and will sit within the Order Limits. Due to the need for future flexibility, National Grid will be applying for Order Limits and Limits of Deviation within its DCO, within which any final alignment would lie.
2. For additional detail on the plan suites, please refer to the Guide to plans (document reference 2.0), located in Volume 2 of the DCO application.
3. All dimensions are approximate and indicated in meter(m) unless noted otherwise.
4. This drawing is scaled at paper size A1, therefore any prints taken at smaller sizes will affect accuracy of the measurement units and should not be scaled against.
5. The voltage of the overhead line shown is 400kV.



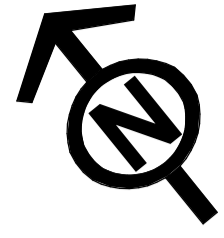
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Issue	Date	Remarks	Drawn	Checked	Approved
B	JAN-2026	For DCO submission - Errata update	TL	MP	KR
A	AUG-2025	For DCO submission	SN	GR	KR

Title
 THE NATIONAL GRID
 (NORWICH TO TILBURY) ORDER
 DESIGN AND LAYOUT PLANS
 INDICATIVE CABLE SEALING END COMPOUND
 LAYOUT & ELEVATIONS
 FAIRSTED - EACH SIDE
 REGULATION 5(2)(o), SECTION E
 SHEET 1 OF 1, BRAINTREE DISTRICT COUNCIL



PINS Application Number			
EN020027			
National Grid Drawing Reference			
AENC-MMAC-ENG-DWG-0085-18			
Scale	Sheet Size	Sheet	Issue
As shown	A1	SHEET 1 OF 1	B



THE NATIONAL GRID (NORWICH TO TILBURY) ORDER
DESIGN AND LAYOUT PLANS
INDICATIVE CABLE SEALING END COMPOUND LAYOUT & ELEVATIONS FAIRSTEAD - TILBURY SIDE
REGULATION 5(2)(o)
SECTION E, SHEET 1 OF 1
BRAINTREE DISTRICT COUNCIL

Application Document 2.6.1

LEGEND

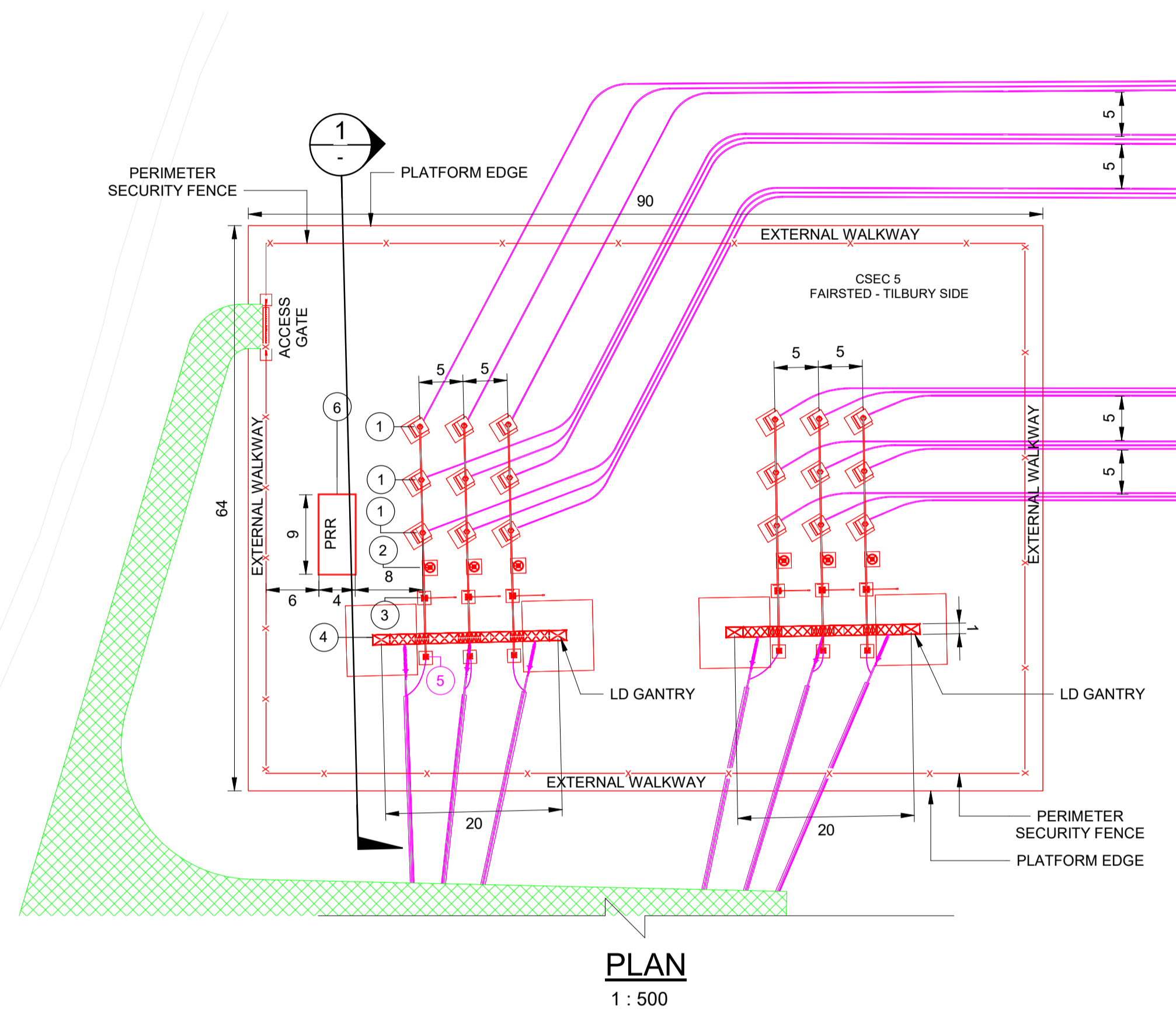
- Proposed equipment
- Proposed overhead line/cable works
- CSE Compound permanent access

LIST OF ABBREVIATIONS

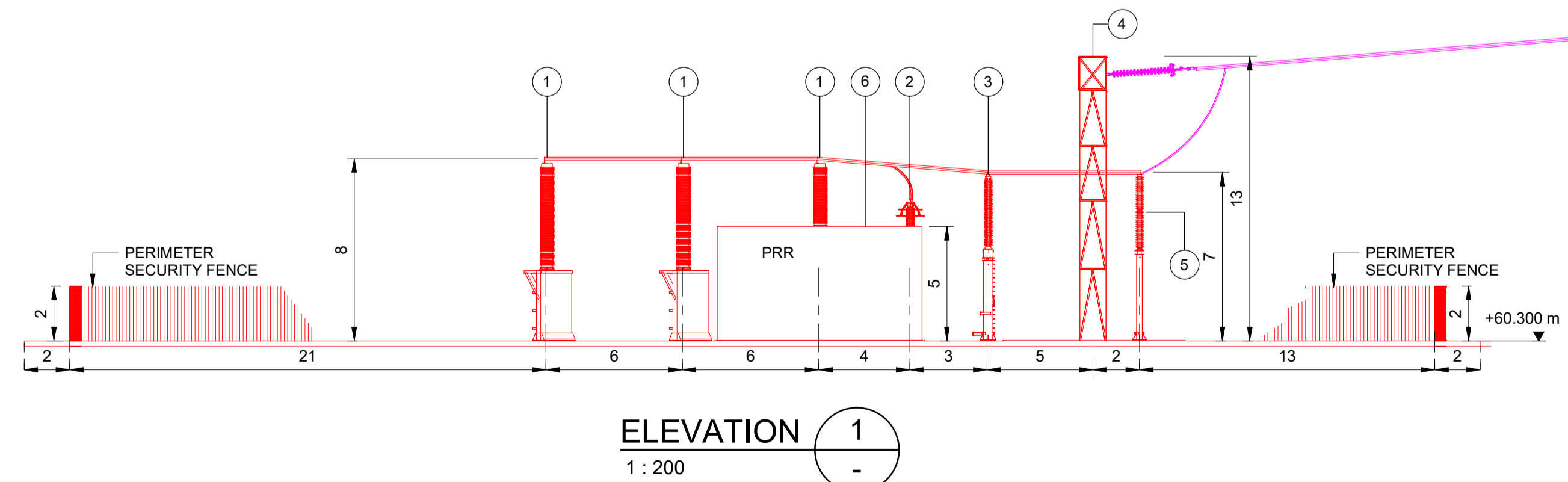
- 01 - 400kV Cable sealing end
- 02 - 400kV Surge arrester
- 03 - 400kV Earth switch
- 04 - Full line tension (FLT) gantry
- 05 - 400kV Post insulator
- 06 - Portable relay room (PRR)

Notes

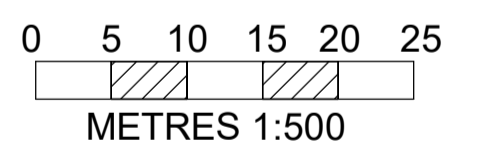
1. These plans are indicative and will sit within the Order Limits. Due to the need for future flexibility, National Grid will be applying for Order Limits and Limits of Deviation within its DCO, within which any final alignment would lie.
2. For additional detail on the plan suites, please refer to the Guide to plans (document reference 2.0), located in Volume 2 of the DCO application.
3. All dimensions are approximate and indicated in meter(m) unless noted otherwise.
4. This drawing is scaled at paper size A1, therefore any prints taken at smaller sizes will affect accuracy of the measurement units and should not be scaled against.
5. The voltage of the overhead line shown is 400kV.



PLAN
1 : 500



ELEVATION 1
1 : 200



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Issue	Date	Remarks	Drawn	Checked	Approved
B	JAN-2026	For DCO submission - Errata update	TL	MP	KR
A	AUG-2025	For DCO submission	SN	GR	KR

Title
 THE NATIONAL GRID
 (NORWICH TO TILBURY) ORDER
 DESIGN AND LAYOUT PLANS
 INDICATIVE CABLE SEALING END COMPOUND
 LAYOUT & ELEVATIONS
 FAIRSTEAD - TILBURY SIDE
 REGULATION 5(2)(o), SECTION E
 SHEET 1 OF 1, BRAINTREE DISTRICT COUNCIL



PINS Application Number			
EN020027			
National Grid Drawing Reference			
AENC-MMAC-ENG-DWG-0085-19			
Scale	Sheet Size	Sheet	Issue
As shown	A1	SHEET 1 OF 1	B



THE NATIONAL GRID (NORWICH TO TILBURY) ORDER
 DESIGN AND LAYOUT PLANS
 INDICATIVE TILBURY NORTH SUBSTATION LAYOUT
 REGULATION 5(2)(o)
 SECTION H, SHEET 1 OF 1
 THURROCK COUNCIL

Application Document 2.6.1

LEGEND

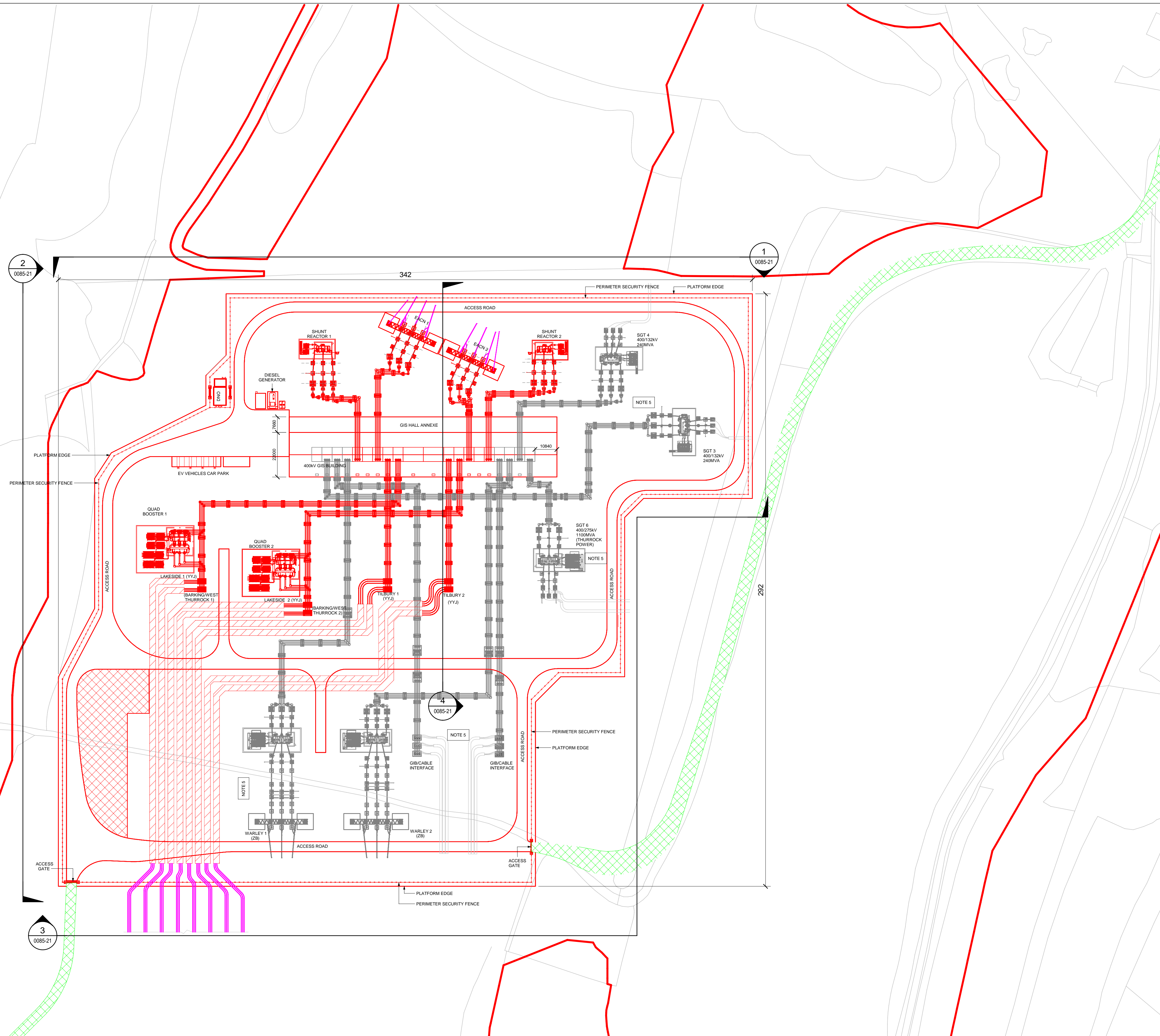
- Proposed equipment
- Proposed overhead line/cable works
- Future equipment - Note 5
- Substation permanent access
- AIL Laydown Area
- Order Limits

LIST OF ABBREVIATIONS

- PRR - Portable Relay Room
- CB - Circuit Breaker
- VT - Voltage Transformer
- SA - Surge Arrester
- PI - Post Insulator
- ES - Earth Switch
- SGT - Supergrid Transformer
- DISC - Disconnector
- STATCOM - Static Synchronous Compensator
- SHR - Shunt Reactor
- DG - Diesel Generator
- SVC - Static Var Compensator
- DRC - Dynamic Reactive Compensator
- EV - Electric Vehicle
- GIS - Gas Insulated Switchgear
- QB - Quad Booster
- DNO - Distribution Network Operator
- ET - Earthing Transformer

Notes

1. These plans are indicative and will sit within the order limits. Due to the need for future flexibility, National Grid will be applying for order limits and limits of deviation within its DCO, within which any final alignment would lie.
2. For additional detail on the plan sites, please refer to the Guide to Plans (document reference 2.0), located in the volume 2 of the DCO application.
3. All dimensions are approximate and indicated in metres (m) unless noted otherwise.
4. This drawing is scaled at paper size A1, therefore any prints taken at smaller sizes will affect accuracy of the measurement units and should not be scaled against.
5. Denotes areas reserved for future equipment requirements.
6. The voltage of the overhead line shown is 400kV.



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Issue	Date	Remarks	Drawn	Checked	Approved
B	JUN-2026	For deadline five	SM	GR	KR
A	AUG-2025	For DCO submission	SM	GR	KR

THE NATIONAL GRID
 (NORWICH TO TILBURY) ORDER
 DESIGN AND LAYOUT PLANS
 INDICATIVE TILBURY NORTH SUBSTATION LAYOUT
 REGULATION 5(2)(o)
 SECTION H, SHEET 1 OF 1
 THURROCK COUNCIL



PINS Application Number			
EN020027			
National Grid Drawing Reference			
AENC-MMAC-ENG-DWG-0085-20			
Scale	Sheet Size	Sheet	Issue
1:1000	A1	SHEET 1 OF 1	B

THE NATIONAL GRID (NORWICH TO TILBURY) ORDER
 DESIGN AND LAYOUT PLANS
 INDICATIVE TILBURY NORTH SUBSTATION ELEVATIONS
 REGULATION 5(2)(o)
 SECTION H, SHEET 1 OF 1
 THURROCK COUNCIL

LEGEND

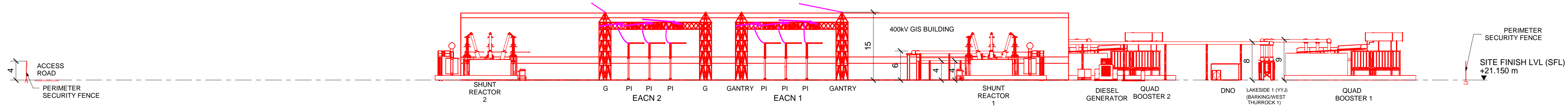
- Proposed equipment
- Proposed overhead line works

LIST OF ABBREVIATIONS

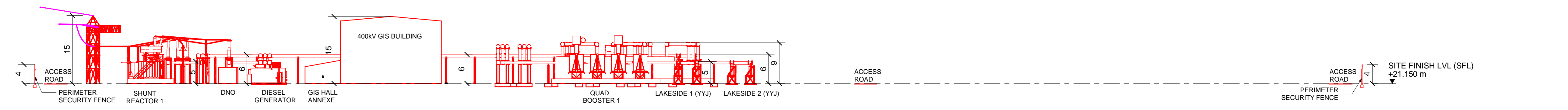
- PRR - Portable Relay Room
- CB - Circuit Breaker
- CT - Current Transformer
- VT - Voltage Transformer
- SA - Surge Arrester
- PI - Post Insulator
- ES - Earth Switch
- SGT - Supergrid Transformer
- DISC - Disconnect
- STATCOM - Static Synchronous Compensator
- SHR - Shunt Reactor
- DG - Diesel Generator
- SVC - Static Var Compensator
- DRC - Dynamic Reactive Compensator
- EV - Electric Vehicle
- GIS - Gas Insulated Switchgear
- QB - Quad Booster
- DNO - Distribution Network Operator
- ET - Earthing Transformer

Notes

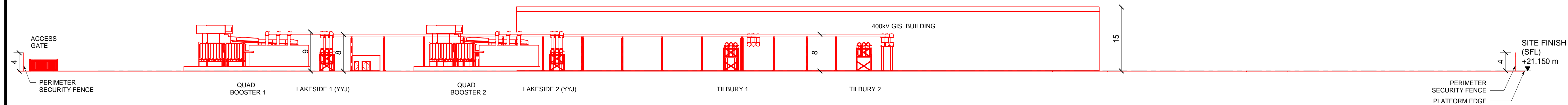
1. These plans are indicative and will sit within the order limits. Due to the need for future flexibility, National Grid will be applying for order limits and limits of deviation within its DCO, within which any final alignment would lie.
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5. The voltage of the overhead line shown is 400kV.



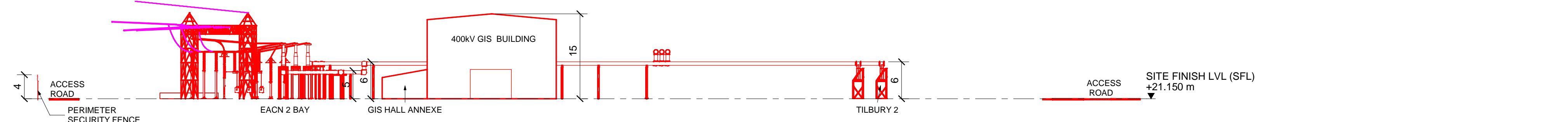
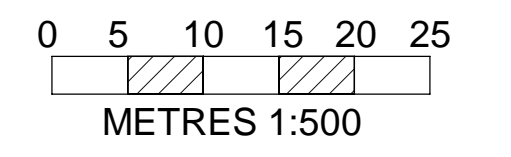
ELEVATION 1
 1 : 500



ELEVATION 2
 1 : 500



ELEVATION 3
 1 : 500



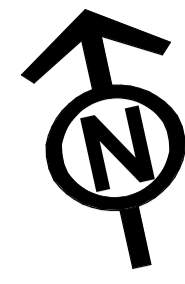
ELEVATION 4
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Issue	Date	Remarks	Drawn	Checked	Approved
B	JUN-2026	For deadline five	SM	GR	KR
A	AUG-2025	For DCO submission	SM	GR	KR

THE NATIONAL GRID
 (NORWICH TO TILBURY) ORDER
 DESIGN AND LAYOUT PLANS
 INDICATIVE TILBURY NORTH SUBSTATION ELEVATIONS
 REGULATION 5(2)(o)
 SECTION H, SHEET 1 OF 1
 THURROCK COUNCIL



PINS Application Number			
EN020027			
National Grid Drawing Reference			
AENC-MMAC-ENG-DWG-0085-21			
Scale	Sheet Size	Sheet	Issue
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THE NATIONAL GRID (NORWICH TO TILBURY) ORDER
 DESIGN AND LAYOUT PLANS
 INDICATIVE CABLE SEALING END COMPOUND LAYOUT & ELEVATIONS YYJ TURN IN - TILBURY NORTH (WARLEY SIDE AND TILBURY SIDE)
 REGULATION 5(2)(o)
 SECTION H, SHEET 1 OF 1
 THURROCK COUNCIL

Application Document 2.6.1

LEGEND

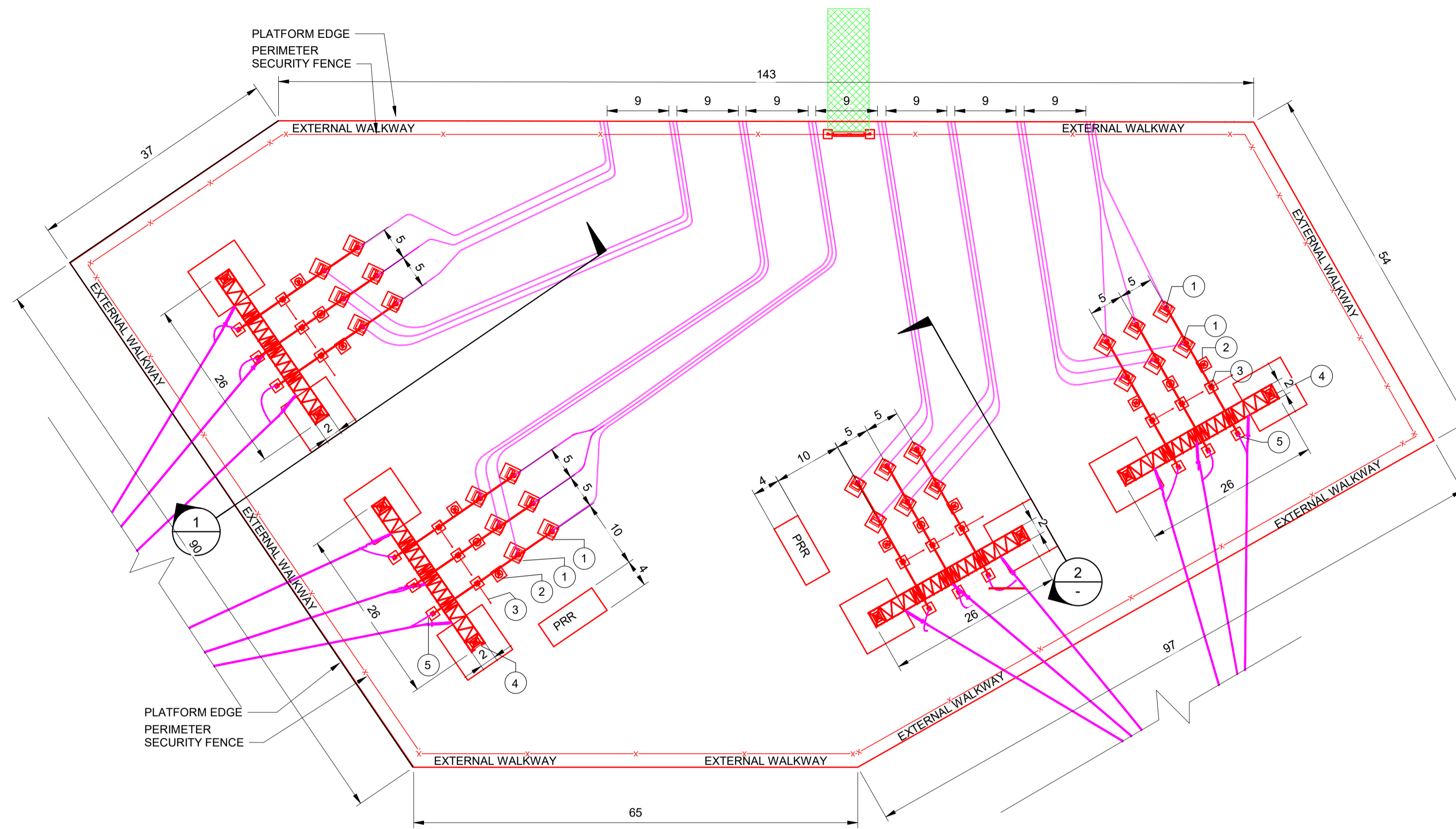
- Proposed equipment
- Proposed overhead line/cable works
- CSE Compound permanent access

LIST OF ABBREVIATIONS

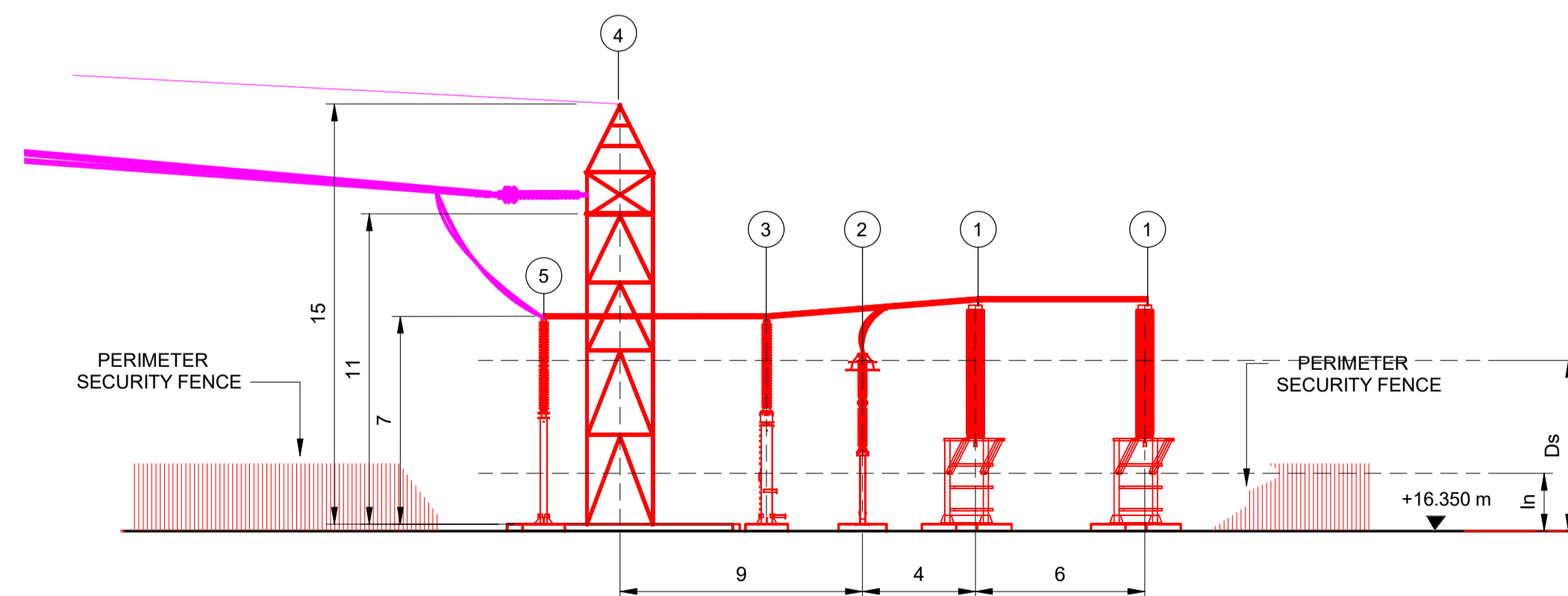
- 01 - 400kV Cable sealing end
- 02 - 400kV Surge arrester
- 03 - 400kV Earth switch
- 04 - Full line tention (FLT) gantry
- 05 - 400kV Post insulator
- 06 - Portable relay room (PRR)

Notes

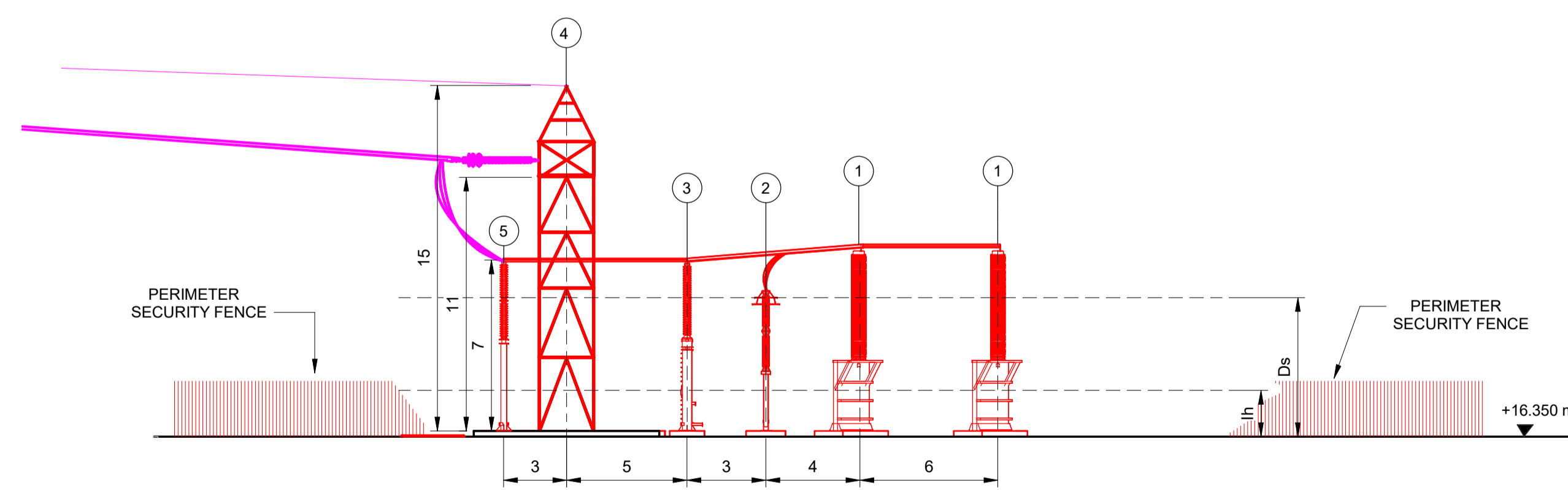
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4. This drawing is scaled at paper size A1, therefore any prints taken at smaller sizes will affect accuracy of the measurement units and should not be scaled against.
5. The voltage of the overhead line shown is 400kV.
6. AENC-MMAC-ENG-DWG-0085-24 illustrates the indicative YYJ Tilbury North CSE Compound (Warley side and Tilbury Side) and supersedes drawings AENC-MMAC-ENG-DWG-0085-22 and AENC-MMAC-ENG-DWG-0085-23. AENC-MMAC-ENG-DWG-0085-24 reflects the adoption of Scenario B for connecting Tilbury North Substation to the YYJ overhead line.



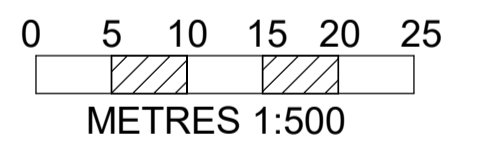
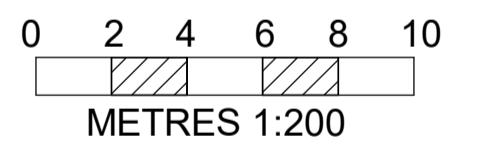
PLAN
1 : 500



ELEVATION 1
1 : 200



ELEVATION 2
1 : 200



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A	JUN-2026	For deadline five	SN	GR	KR

THE NATIONAL GRID
 (NORWICH TO TILBURY) ORDER
 DESIGN AND LAYOUT PLANS
 INDICATIVE CABLE SEALING END COMPOUND
 LAYOUT & ELEVATIONS YYJ TURN IN - TILBURY
 NORTH (WARLEY SIDE AND TILBURY SIDE)
 REGULATION 5(2)(o)
 SECTION H, SHEET 1 OF 1
 THURROCK COUNCIL

nationalgrid

PINS Application Number: EN020027
 National Grid Drawing Reference: AENC-MMAC-ENG-DWG-0085-24

Scale	Sheet Size	Sheet	Issue
As Shown	A1	SHEET 1 OF 1	A

National Grid plc
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No. 4031152
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