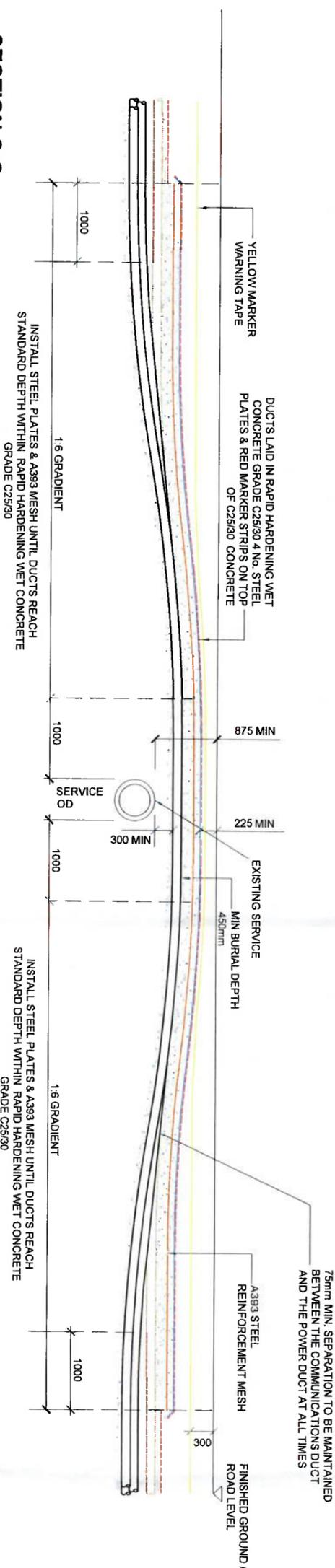




### SECTION C-C

SCALE 1:50



DUCTS LAID IN CBGM B (CL 822) COMPACTED TO CL 813.10 AND TABLE 8/4 OF TII SPECIFICATION FOR ROADWORKS (19NMMP)

EXISTING CULVERT / SERVICE

SPRAY DUCTS INTO 1 SINGLE HORIZONTAL ROW OF 4 DUCTS TO MAXIMISE COVER LEVEL.

INSTALL STEEL PLATES & A393 MESH UNTIL DUCTS REACH STANDARD DEPTH WITHIN RAPID HARDENING WET CONCRETE GRADE C25/30

INSTALL STEEL PLATES & A393 MESH UNTIL DUCTS REACH STANDARD DEPTH WITHIN RAPID HARDENING WET CONCRETE GRADE C25/30

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**03 OCT 2025**

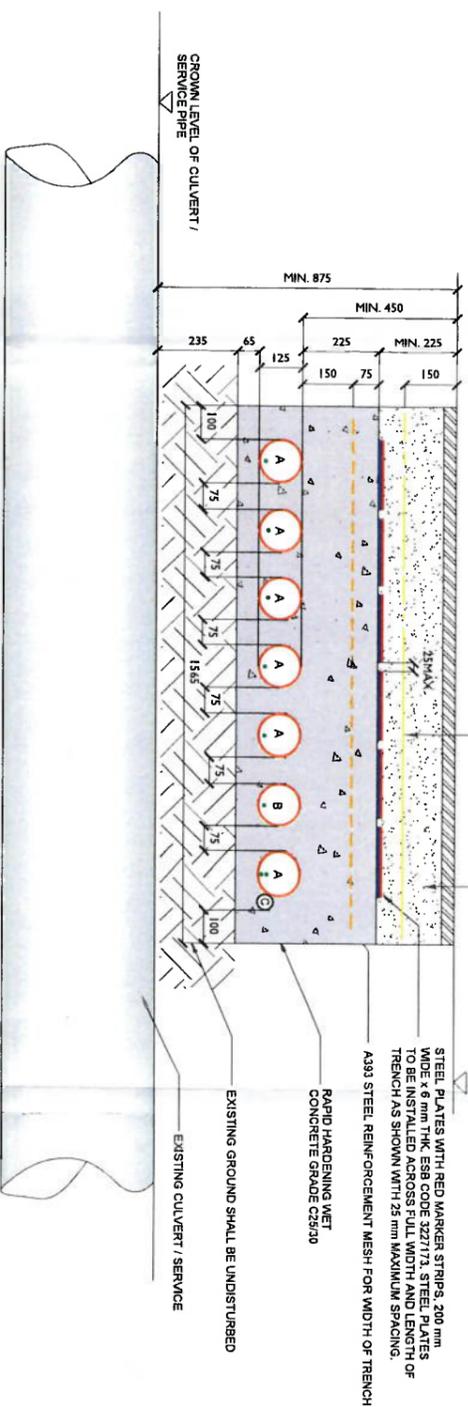
LTR DATED FROM *NEF*

LDG. *223 792-25*

ACP. *223 792-25*

### PLAN VIEW

SCALE 1:50



\* ALL EXISTING SERVICES WITH COVER LESS THAN MIN. DIMENSIONS ABOVE SHALL BE CROSSED BY UNDERCROSSING METHOD

### SECTION D-D

SCALE 1:10

A = 110mm OUTER DIAMETER HOPE ESB APPROVED DUCT, SDR=17.6

**4 SEP 2025**

**RECEIVED**

**Planning Department**

**4 SEP 2025**

**4 SEP 2025**

- NOTES:**
- THIS DRAWING IS TO BE USED ONLY FOR THE PURPOSE OF ISSUE AND IS SUBJECT TO AMENDMENT.
  - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT INFORMATION AND DOCUMENTATION.
  - DO NOT SCALE FROM THIS DRAWING. USE ONLY PRINTED DIMENSIONS.
  - ALL DIMENSIONS ARE IN MILLIMETRES. ALL CHANGES, LEVELS AND COORDINATES ARE IN METRES UNLESS DENIED OTHERWISE.
  - PERMITTED TO PROCEED UNTIL THE CONTRACTOR HAS CONSULTED UP TO DATE SERVICES DRAWINGS AND CARRIED OUT NECESSARY FIELD SURVEYING AND LOCATION (EPL) SCAN.
  - HAND DIG ONLY WITHIN 500mm OF EXISTING SERVICES.
  - IF COMPACTING CBGM B COULD CAUSE DAMAGE TO THE CULVERT / SERVICE BELOW, USE RAPID HARDENING CEMENT GRADE C25 / 30 FOLLOWING ENGINEERS PRIOR APPROVAL.
  - FOR STANDARD TRENCH CROSS SECTION DRAWINGS SEE 05869-DR-211-P2
  - WHERE DEPTHS EXCEED 3000mm TO THE TOP OF THE DUCT THE CONTRACTOR SHALL CONSULT THE CABLE SYSTEM DESIGN ENGINEER.
  - BACKFILL AS PER GUIDELINES FOR THE OPENING, BACKFILLING AND REINSTATEMENT OF OPENINGS IN THE PUBLIC ROADWAY.
  - TERMINAL JOINTS SEE 05869-DR-215-P2 & 05869-DR-216-P2
  - THE PROPOSED DESIGN IS SUBJECT TO ESB APPROVAL.
  - ESB'S PREFERENCE IS TO CROSS UNDER ALL SERVICES WHERE IT'S NOT POSSIBLE TO MAINTAIN STANDARD COVER WHEN CROSSING OVER THE SERVICE.
  - THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF ALL TEMPORARY WORKS REQUIRED. THE CONTRACTOR WILL APPOINT AN APPROVED TEMPORARY WORKS DESIGNER AND SUBMIT PROPOSED TEMPORARY WORKS DESIGNS TO THE PDP.



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**PROJECT**  
**Swordlestown**  
**33kV Underground Cable**

**CLIENT**



**CONSULTANTS**



**NOTES:**

See notes in drawing window

**LEGEND:**

- 125mm @ 12mm DIA. PULL ROPE
- RED MARKER STRIP WITH STEEL PLATES
- YELLOW MARKER WARNING TAPE
- EXISTING SERVICES MARKER TAPE
- A393 REINFORCEMENT MESH

**ISSUE/REVISION**

NO.	DATE	DESCRIPTION
P2	21.02.23	Issued for Section 5 Application
P1	31.01.23	Issued for Section 5 Application
P1	16.12.22	Issued for Section 5 Application

**PROJECT NUMBER**

05-869

**SHEET TITLE**

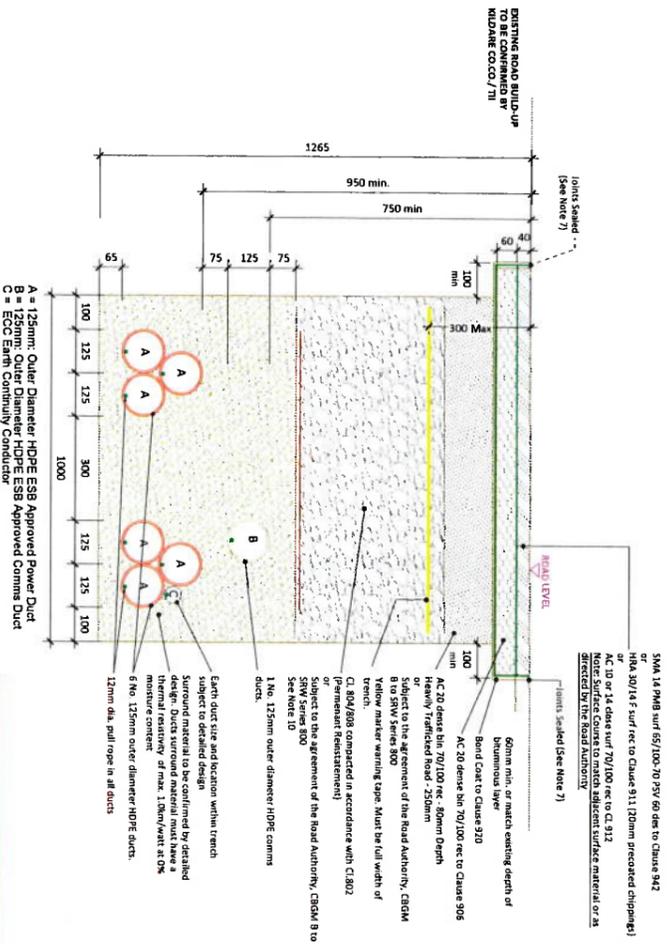
33kV UGC Service/  
 Culvert Overcrossing Detail

**SHEET NUMBER**

05869-DR-212

# Permanent Reinstatement

Reinstatement details based on Guidelines for Managing Openings in Public Roads - SD4

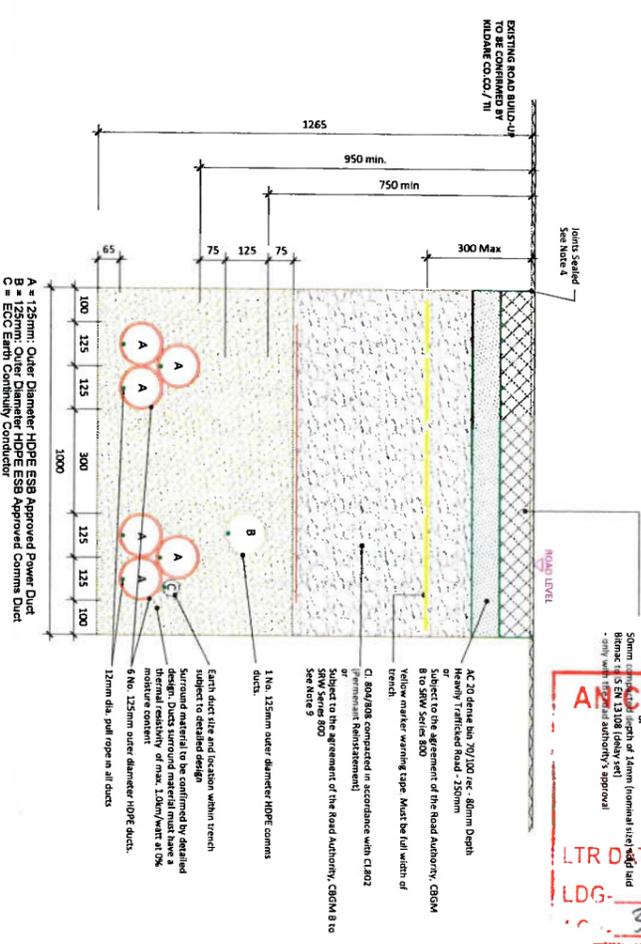


# Typical Section Through Permanent Reinstatement of Longitudinal Opening in Roadway

SCALE 1:10

# Temporary Reinstatement

Reinstatement details based on Guidelines for Managing Openings in Public Roads - SD1

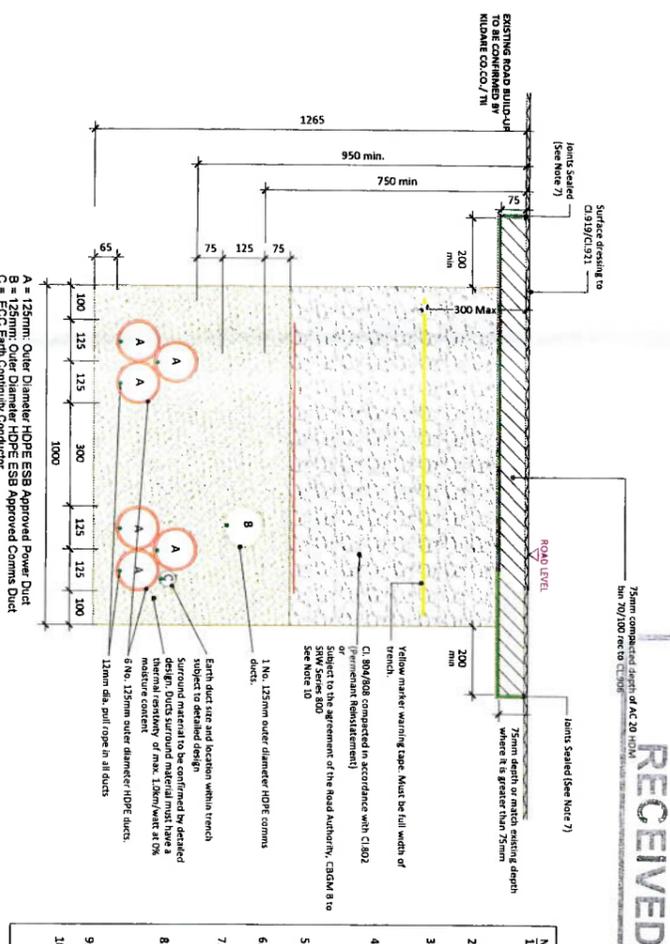


# Typical Section Through Temporary Reinstatement of Longitudinal Opening in Roadway

SCALE 1:10

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4 SEP 2025

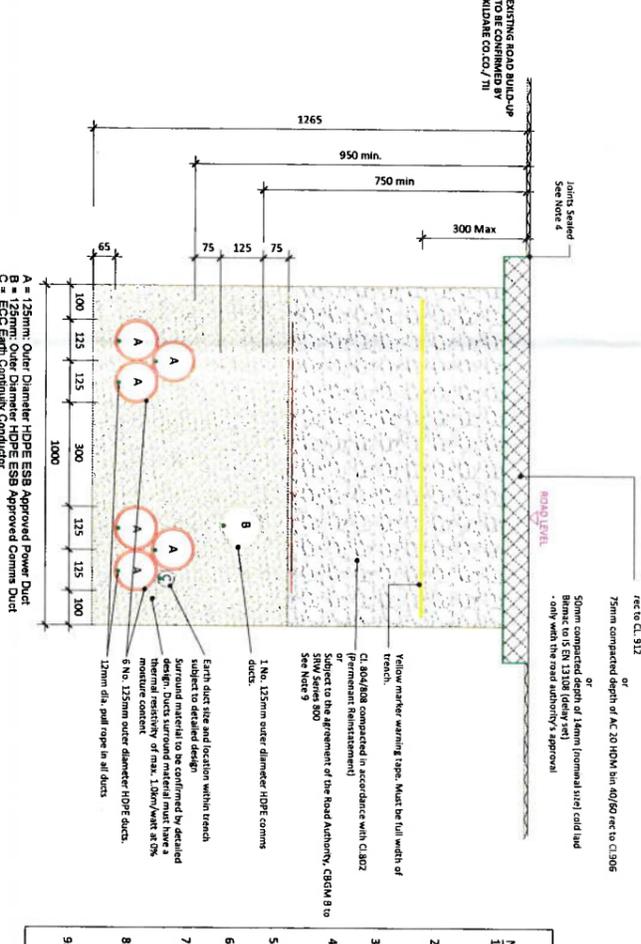
Reinstatement details based on Guidelines for Managing Openings in Public Roads - SD5



# Typical Section Through Permanent Reinstatement of Longitudinal Opening in Dressed Rural Unbound Roadway

SCALE 1:10

Reinstatement details based on Guidelines for Managing Openings in Public Roads - SD2



# Typical Section Through Temporary Reinstatement of Longitudinal Opening in Dressed Rural Unbound Roadway

SCALE 1:10

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ALL REINSTATEMENT WORKS ARE TO BE IN ACCORDANCE WITH LOCAL AREA ENGINEERS REQUIREMENTS AND GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS

- Note:
- Refer to Guidelines for managing Openings in Public Roads (Purple Book - April 2017), Chapter 6 'Specifications' for guidance on Duct type / colour and Marker Tape type / colour.
  - All bound edges shall be saw cut to expose the full vertical thickness of each layer prior to excavation. All edges shall be essentially straight, smooth and vertical.
  - Where a temporary surface has been used, material shall be placed out to the depth specified in this drawing. The new permanent surface shall be machine laid and mechanically compacted with a vibrating roller.
  - Where the trimmed edge of excavation is within 400mm of a joint / edge, ironwork or other reinstatement, this trimmed edge shall be extended to include same and the area of reinstatement shall be extended accordingly (increase to 800mm where this is pre-existing practice).
  - Any damaged area adjacent to the opening and resulting from the excavation operation shall be included within the area to be reinstated.
  - Clause 808 or Cement Bound Granular Material surface to be sprayed per clause 920 prior to application of Asphalt Concrete Layer.
  - Joint sealer shall be a hot 50 per bitumen binder or cold thixotropic bitumen 50-70 per to be applied to all vertical cuts in accordance with B.5.35/987 prior to application of bituminous material.
  - For roads without asphalt concrete surface (e.g. may be CI.804 with double surface dressing), the road authority may, at its discretion, permit the temporary reinstatement surface of asphalt concrete to be regulated in lieu of excavation and reinstatement, and subsequently surface dressed.
  - On highly trafficked roads services must have a minimum cover of 750mm.
  - Where required by the Road authority the trench may be reinstated with a Cement Bound Granular Material.

**ALL REINSTATEMENT WORKS ARE TO BE IN ACCORDANCE WITH LOCAL AREA ENGINEERS REQUIREMENTS AND GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS**

- Note:
- Refer to Guidelines for managing Openings in Public Roads (Purple Book - April 2017), Chapter 6 'Specifications' for guidance on Duct type / colour and Marker Tape type / colour.
  - All bound edges shall be saw cut to expose the full vertical thickness of each layer prior to excavation. All edges shall be essentially straight, smooth and vertical.
  - Clause 808 surface to be sprayed per clause 920 prior to application of Asphalt Concrete Layer.
  - Joint sealer shall be a hot 50 per bitumen binder or cold thixotropic bitumen 50-70 per to be applied to all vertical cuts in accordance with B.5.35/987 prior to application of bituminous materials.
  - License holder must maintain temporary reinstatement to a safe and acceptable standard.
  - Any damaged area adjacent to the opening and resulting from the excavation operation shall be included within the area to be reinstated.
  - Temporary Road Surface Warning Signs must be used in accordance with the Traffic Signs Manual (Chapter 8 - Temporary Traffic Measures and Signs for Roadworks).
  - Refer to detail Permanent Reinstatement of Road for advice on permanent reinstatement - all permanent reinstatement shall be carried out when adequate settlement has occurred as determined by the Road Authority.
  - Where required by the Road authority the trench may be reinstated with a Cement Bound Granular Material.

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STRATEGIC POWER PROJECTS

**CONSULTANTS**  
MAIONE O'NEGAN

**NOTES:**  
• This drawing is to be read in conjunction with relevant drawings, specifications and reports.  
• Dimensions are in millimetres, unless noted otherwise. Drawings showing road build up and reinstatement requirements to be confirmed with Kildare Co. Co.

**LEGEND:**

ISSUE/REVISION	DATE	DESCRIPTION
P1	16.12.22	For Section 5 Application
P2	31.01.23	For Section 5 Application
P3	21.02.23	For Section 5 Application

**PROJECT NUMBER**  
05-869

**SHEET TITLE**  
33kV UGC 2 No. Circuits Through Regional / Local Roadways

**SHEET NUMBER**  
05869-DR-211

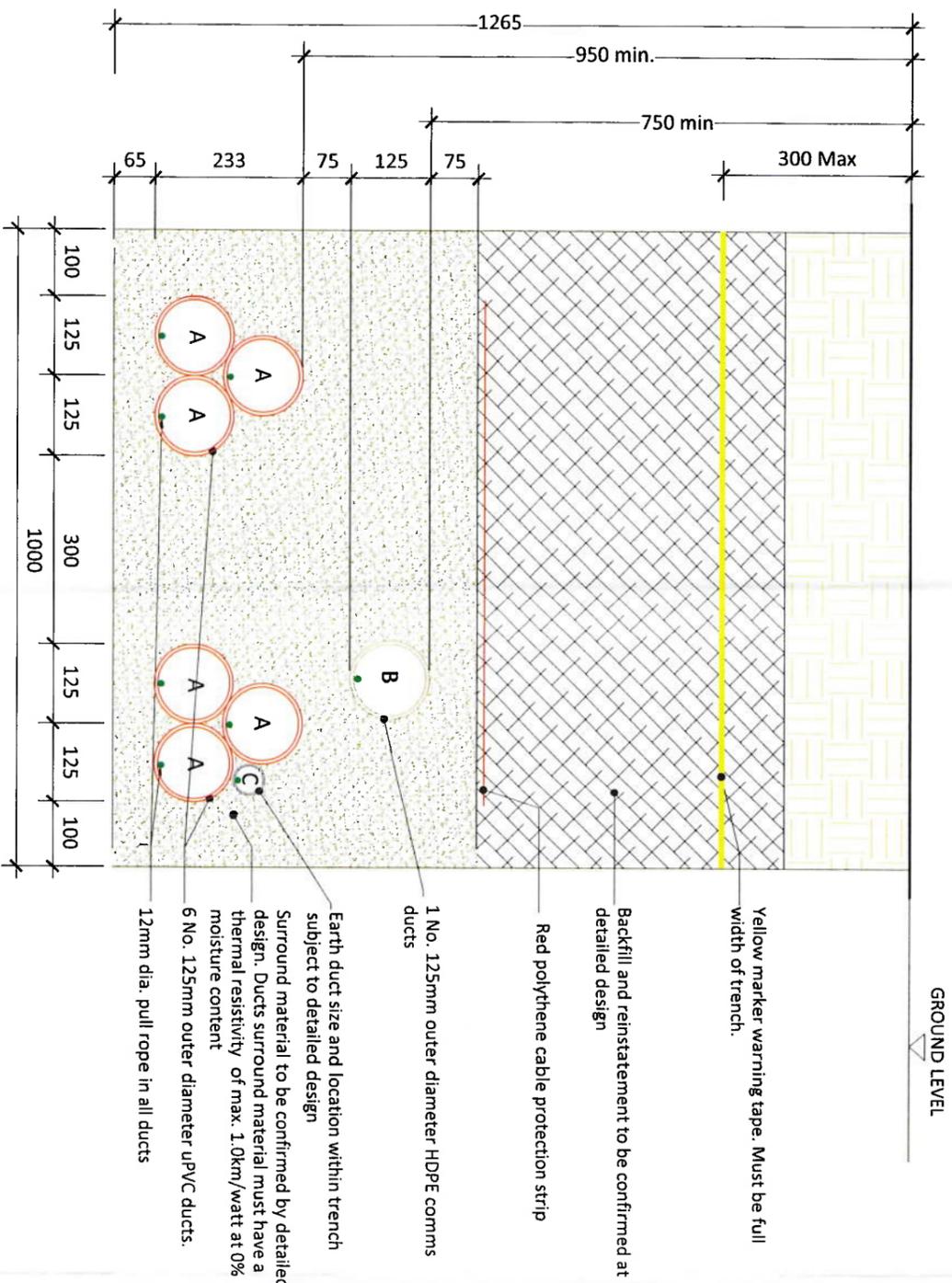
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03 OCT 2025

LTR DATED \_\_\_\_\_ FROM REF

LDG- 323792-25

ACP- \_\_\_\_\_



**Typical Section Through Off Road Sections**

SCALE 1:10

**Note:**

- This drawing is to be read in conjunction with relevant drawings, specifications and reports
- Dimensions are in millimeters, unless noted otherwise
- Drawings are not to be scaled use figured dimensions only

**ALL REINSTATEMENT WORKS ARE TO BE IN ACCORDANCE WITH LANDOWNERS/KILDARE CO.CO REQUIREMENTS**

Reinstatement details based on Guidelines for Managing Openings in Public Roads - SD14

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**STRATEGIC POWER PROJECTS**

PROJECT

**Swordlestown**

33kV Underground Cable

PROJECT NUMBER 05-869

SHEET TITLE

**33kV UGC Ducting**

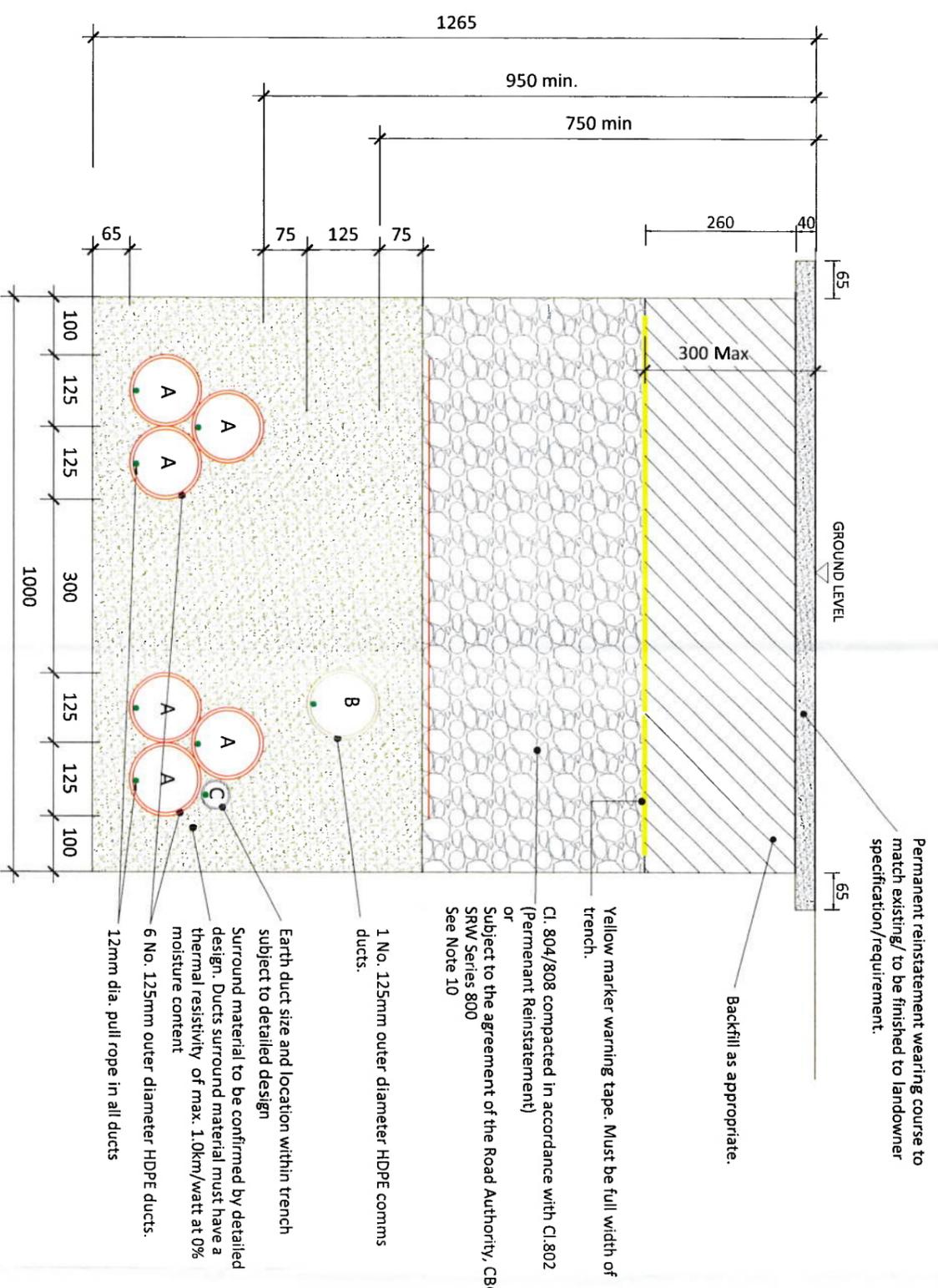
2 No. Circuits through Off Road Section

DRAWING STATUS For Section 5 Application

ISSUE/REVISION		
P3	21.02.23	Issued for Section 5 Application
P2	31.01.23	Issued for Section 5 Application
P1	16.12.22	Issued for Section 5 Application
I/R	DATE	DESCRIPTION

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 LDG. 323 7912-25  
 ACP. 323 7912-25



A = 125mm: Outer Diameter HDPE ESB Approved Power Duct  
 B = 125mm: Outer Diameter HDPE ESB Approved Comms Duct  
 C = ECCC Earth Continuity Conductor

**Typical Section Through Access Track**

SCALE 1:10

**Note:**

- This drawing is to be read in conjunction with relevant drawings, specifications and reports
- Dimensions are in millimeters, unless noted otherwise
- Drawings are not to be scaled use figured dimensions only

**ALL REINSTATEMENT WORKS ARE TO BE IN ACCORDANCE WITH LANDOWNERS/KILDARE CO.CO REQUIREMENTS**

Reinstatement details based on Guidelines for Managing Openings in Public Roads - SD14

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**STRATEGIC POWER PROJECTS**

PROJECT  
**Swordlestown  
 33kV Underground Cable**  
 PROJECT NUMBER  
**05-869**

SHEET TITLE  
**33kV UGC Ducting  
 2 No. Circuits through Access Track**  
 DRAWING STATUS  
**For Section 5 Application**

ISSUE/REVISION	DATE	DESCRIPTION
P3	21.02.23	Issued for Section 5 Application
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I/R		

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 Planning Department  
 4 SEP 2025  
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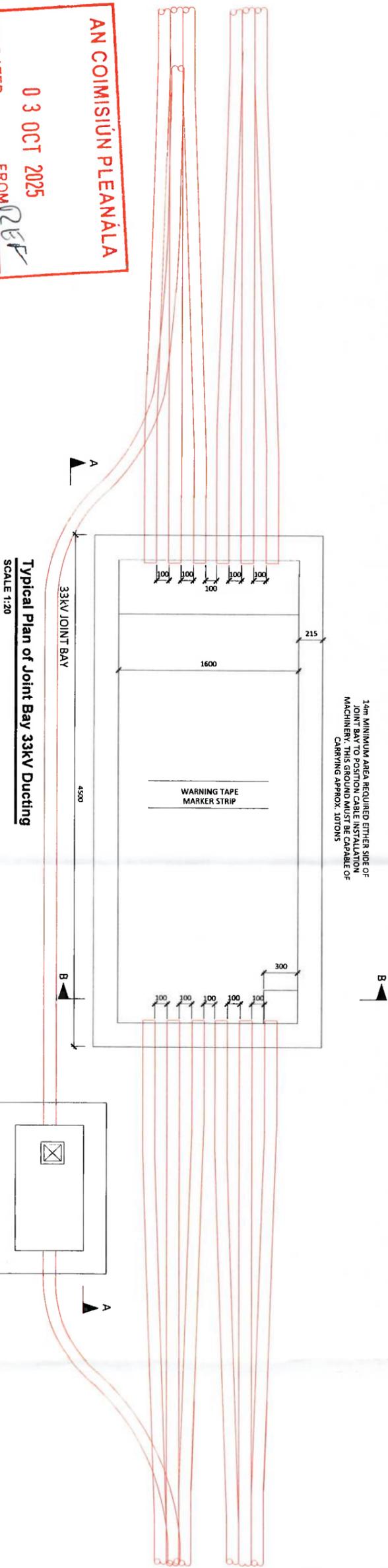
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03 OCT 2025

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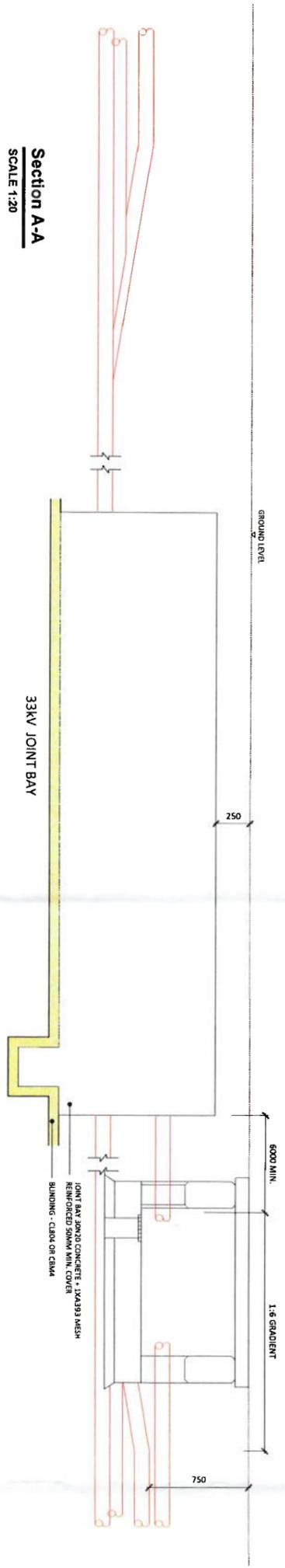
LDG- *323 7412 - 2*

ACP- *323 7412 - 2*

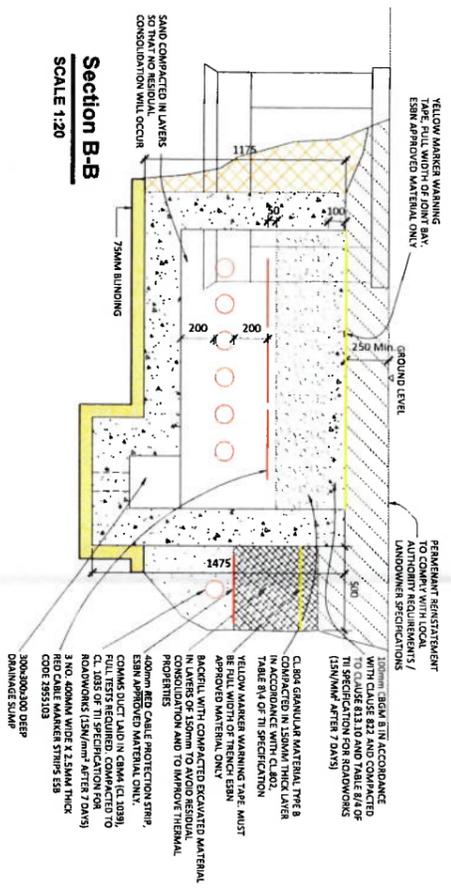


14m MINIMUM AREA REQUIRED EITHER SIDE OF JOINT BAY TO POSITION CABLE INSTALLATION MACHINERY. THIS GROUND MUST BE CAPABLE OF CARRYING APPROX. 10TONS

**Section A-A**  
SCALE 1:20



**Section B-B**  
SCALE 1:20



TRENCH CROSS SECTIONS ARE SUBJECT TO DETAIL DESIGN

- NOTES:**
- This drawing is subject to ESB approval and should be used for planning purposes only.
  - This drawing is to be read in conjunction with relevant drawings, specifications and reports.
  - Dimensions are in millimeters, unless noted otherwise.
  - Drawings are not to be scaled. Use figured dimensions only.
  - Stability of standard joint bay foundations can only be confirmed following ground investigation. Standard foundations are based on the formation at the base of the excavation shown being suitable for a minimum bearing pressure of 100N/m<sup>2</sup>. Where this is not achievable and where peat is encountered, the contractor shall refer to the Engineer for guidance.



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**PROJECT**  
Swordlestown  
33kV Underground Cable



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NOTES:  
See notes in drawing window

LEGEND:-

ISSUE/REVISION	DATE	DESCRIPTION
P1	16.12.22	Issued for Section 5 Application
P2	31.12.23	Issued for Section 5 Application
P3	21.02.23	Issued for Section 5 Application

PROJECT NUMBER  
05-869

SHEET TITLE  
33kV Single Circuit  
Joint Bay General Arrangement

SHEET NUMBER  
05869-DR-214