



- 1. This drawing is subject to ESB design approval and is not to be used for construction.
- 2. This drawing is to be read in conjunction with all other relevant documentation.

YELLOW MARKER

STANDARD DEPTH

WARNING TAPE

- 3. Do not scale from this drawing use only printed dimensions
- 4. All dimensions are in millimetres, all chainages, levels and co-ordinates are in metres unless defined
- 5. No excavation shall commence until the Contractor has consulted up to date services drawings and carried out an Electromagnetic Locator (EML) Scan.

DUCTS LAID IN CBGM B (CL 822)

OF TII SPECIFICATION FOR

ROADWORKS (15N/MM<sup>2</sup>)

1:6 GRADIENT INSTALL STEEL PLATES, A393 MESH AND RAPID HARDENING

DUCTS LAID IN CBGM B (CL 822)

OF TII SPECIFICATION FOR

ROADWORKS (15N/MM<sup>2</sup>)

COMPACTED TO CL 813.10 AND TABLE 8/4

**PLAN VIEW** 

**SCALE 1:50** 

WET CONCRETE GRADE C35/30 UNTIL DUCTS REACH

COMPACTED TO CL 813.10 AND TABLE 8/4

\*5 No. STEEL

RED MARKER

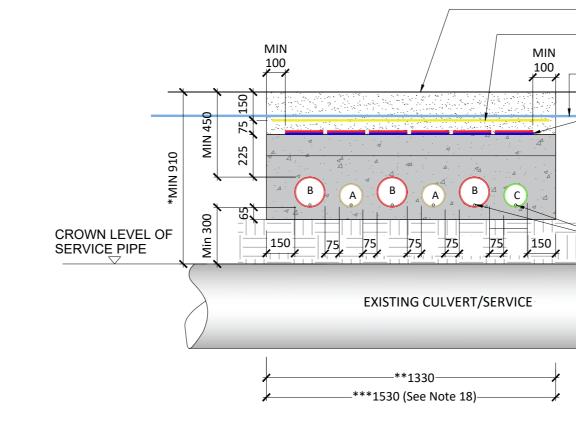
PLATES &

STRIPS

**EXISTING** 

**CULVERT** 

- Hand dig only within 500mm of existing services.
- 7. 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 and minimum horizontal separation to existing services, see 051064-DR-110 (TREFOIL) and 051064-DR-121 (FLAT).
- 9. Where depths exceed 2500mm to the top of duct the Contractor shall consult the cable system design engineer for phase spacing requirements.
- 10. Backfill as per guidelines for the opening, backfilling and reinstatement of openings in public roads (2015).
- 11. ESB's preference is to cross under existing services where possible.
- 12. Backfill as per guidelines for the opening, backfilling and reinstatement of openings in public roads (2015)
- 13. The Contractor is responsible for the design and construction of all temporary works. The Contractor shall appoint a temporary works designer, and submit temporary works design to PSDP for review.
- 14. 225mm minimum concrete over ducts where they transition from standard cross section and where they are at less than standard cover to ground level.
- 15. Replace existing service marker tape over ESB yellow marker tape.
- 16. The owner of the existing utility being crossed must be consulted in advance of works commencing as per their guidelines.
- 17. The Contractor shall record detailed as-built information as per the specification. At all crossing locations these records shall include photographic evidence clearly demonstrating that minimum service clearances and duct separations have been achieved.
- 18. Where duct for Earth Continuity Conductor (ECC) is required for single point bonded sections, attach the 125mm ECC duct to the A duct and update the trench width accordingly.



MIN BURIAL DEPTH

450mm

**EXISTING** 

**SERVICE** 

**SERVICE** 

OD

**SECTION C-C** 

OD

**SCALE 1:50** 

CULVERT / SERVICE.

BACKFILL & REINSTATE AS PER RELEVANT SPECIFICATION -ESBN APPROVED YELLOW MARKER WARNING TAPE FOR WIDTH OF TRENCH

\* 5X200mm STEEL PLATE & RED MARKER WHERE ECC ISN'T

\*\* MIN 1330mm WHERE ECC ISN'T REQUIRED

\*\*\* SEE GENERAL NOTES, NO. 19

EXISTING 3rd PARTY UTILITY TAPE

FINISHED GROUND /

ROAD LEVEL

**REQUIRED** 

1:6 GRADIENT

INSTALL STEEL PLATES, A393 MESH AND RAPID HARDENING

WET CONCRETE GRADE C35/30 UNTIL DUCTS REACH

STANDARD DEPTH

SPLAY DUCTS INTO 1 SINGLE

MAXIMISE COVER LEVEL.

HORIZONTAL ROW OF 5 DUCTS TO

6x200mm ESBN RED CABLE MARKER STRIPS LINKED TO 6x200mm WIDE GALVANISED STEEL PLATES, TO EXTEND

-EXISTING GROUND SHALL BE UNDISTURBED

-5 No. HDPE DUCTS WITH 12mm DIA. PULL ROPES, DUCTS LAID IN C25/30 CONCRETE. COMMS DUCT LOCATED EITHER SIDE OF POWER DUCTS WITH MINIMUM 75mm SEPARATION. 63mm EARTH CONTINUNITY DUCT (ECD) TO BE INCLUDED WHEN

REQUIRED.

**SECTION D-D** 

SCALE: 1:20

- \* ALL EXISTING SERVICES WITH COVERS LESS THAN MIN. DIMENSIONS ABOVE SHALL BE CROSSED BY UNDERCROSSING METHOD
- A = 125mm OUTER DIAMETER HDPE ESB APPROVED COMMS DUCT, SDR=17.6
- B = 160mm OUTER DIAMETER HDPE ESB APPROVED POWER DUCT, SDR=21
- C = 125mm OUTER DIAMETER HDPE FOR EARTH CONTINUITY CONDUCTOR

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**PROJECT** 

Colehill 110kV Substation

CLIENT



**CONSULTANTS** 

NOTES: -

LEGEND:

160mm Ø HDPE POWER DUCT WITH 12mm DIAMTER PULL ROPE 125mm Ø HDPE COMMUNICATION DUCT WITH 12mm DIAMTER PULL ROPE 125mm Ø HDPE EARTH CONTINUITY CONDUCTOR WITH12mm DIAMTER PULL ROPE RED MARKER STRIP OR STEEL PLATES YELLOW MARKER WARNING TAPE

6mm GAI VANISED

EXISTING SERVICE TAPE

STEEL PLATE

ISSUE/REVISION

P2 05.11.24 Issued for Planning P1 21.10.24 Issued for Planning I/R DATE DESCRIPTION

PROJECT NUMBER

05-1064

SHEET TITLE

**Trench Sections For Overcrossing** Existing Culvert/Service

SHEET NUMBER

051064-DR-118