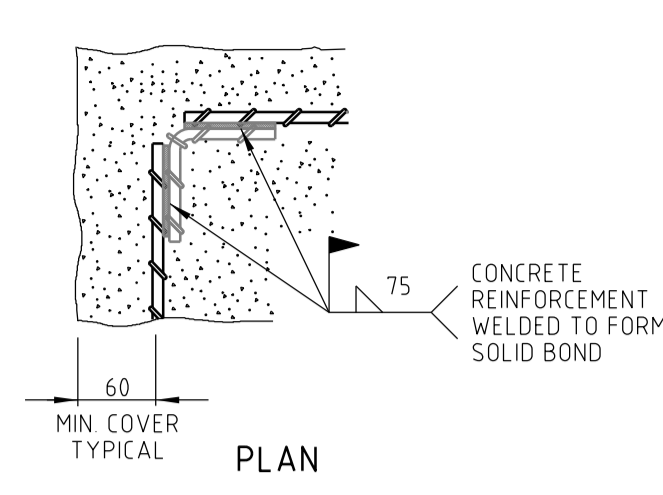
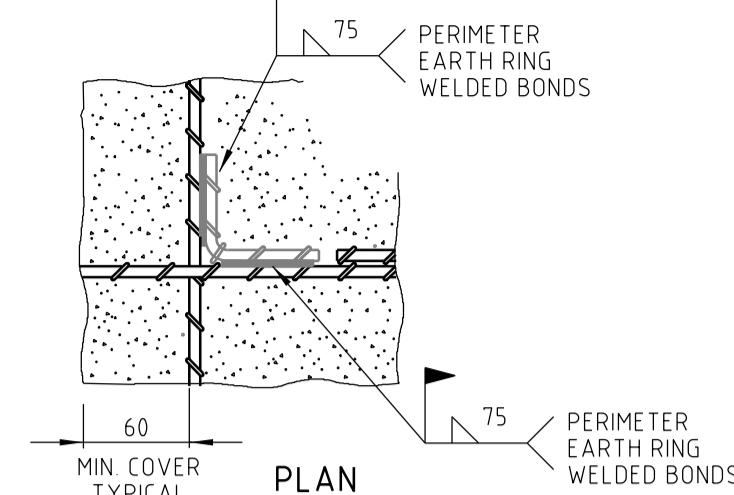


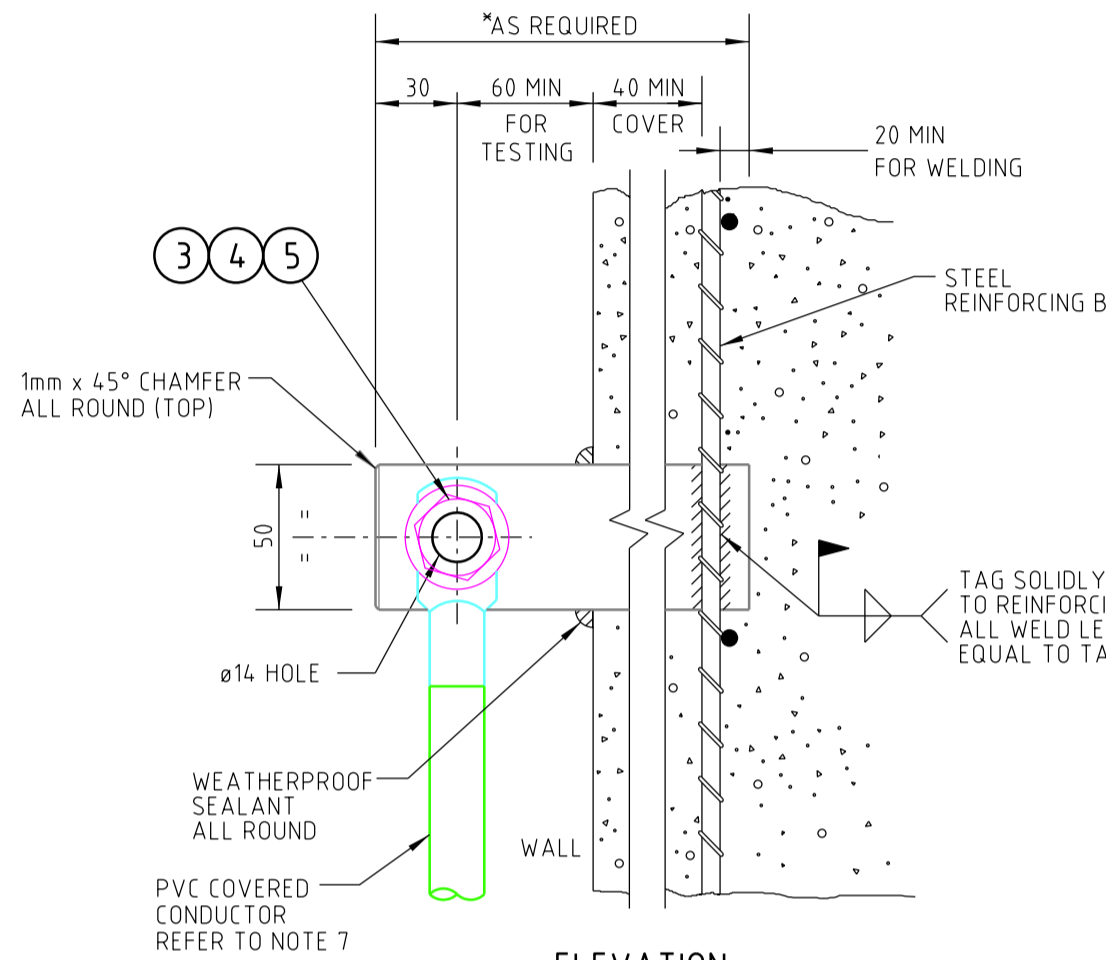
WELDED OVERLAP CONNECTION IN REINFORCING BARS (TO FORM EARTH RING) DETAIL (WB)



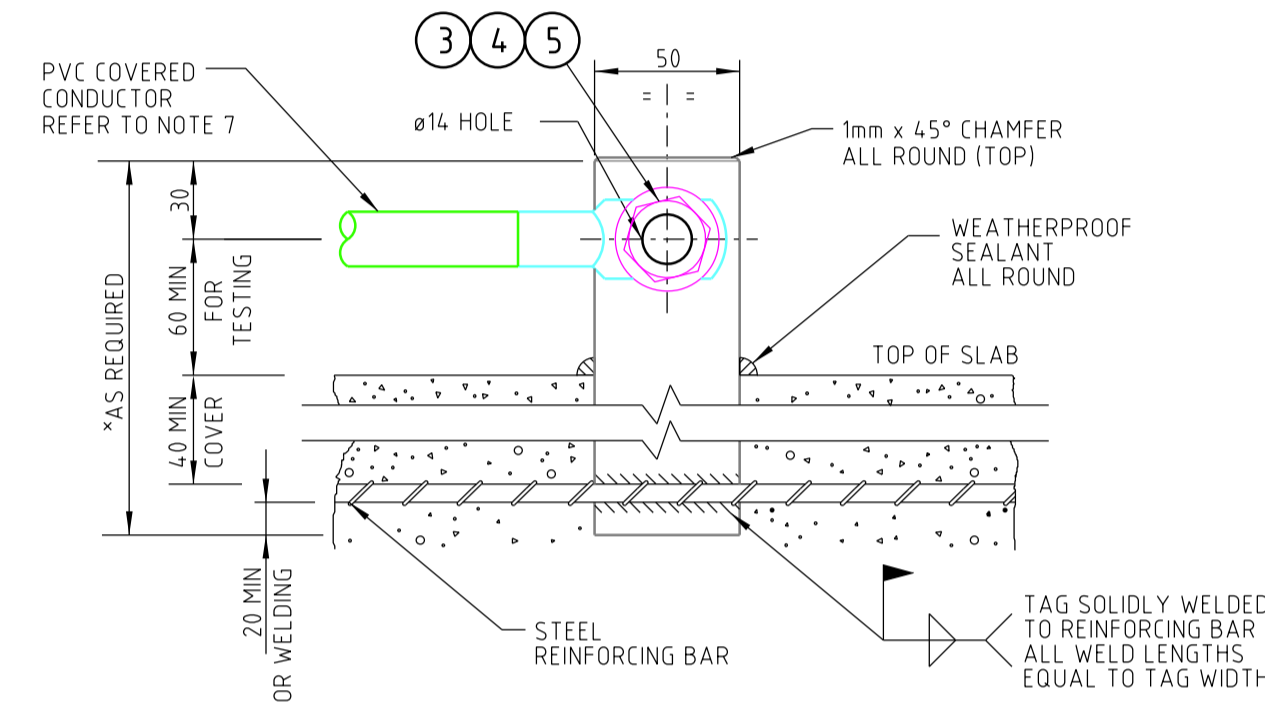
WELDED 90° CONNECTION IN REINFORCING BARS (TO FORM EARTH RING) DETAIL (WA)



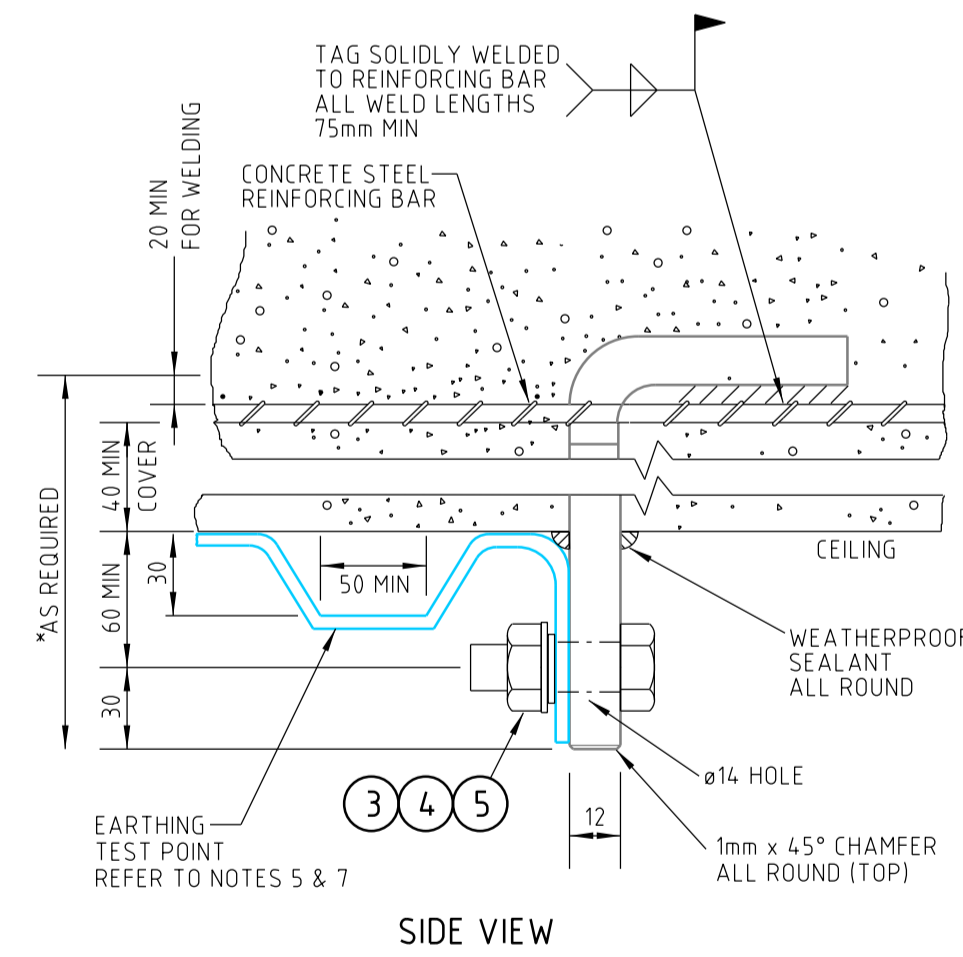
WELDED INTERSECTION CONNECTION IN REINFORCING BARS (TO FORM EARTH RING) DETAIL (WC)



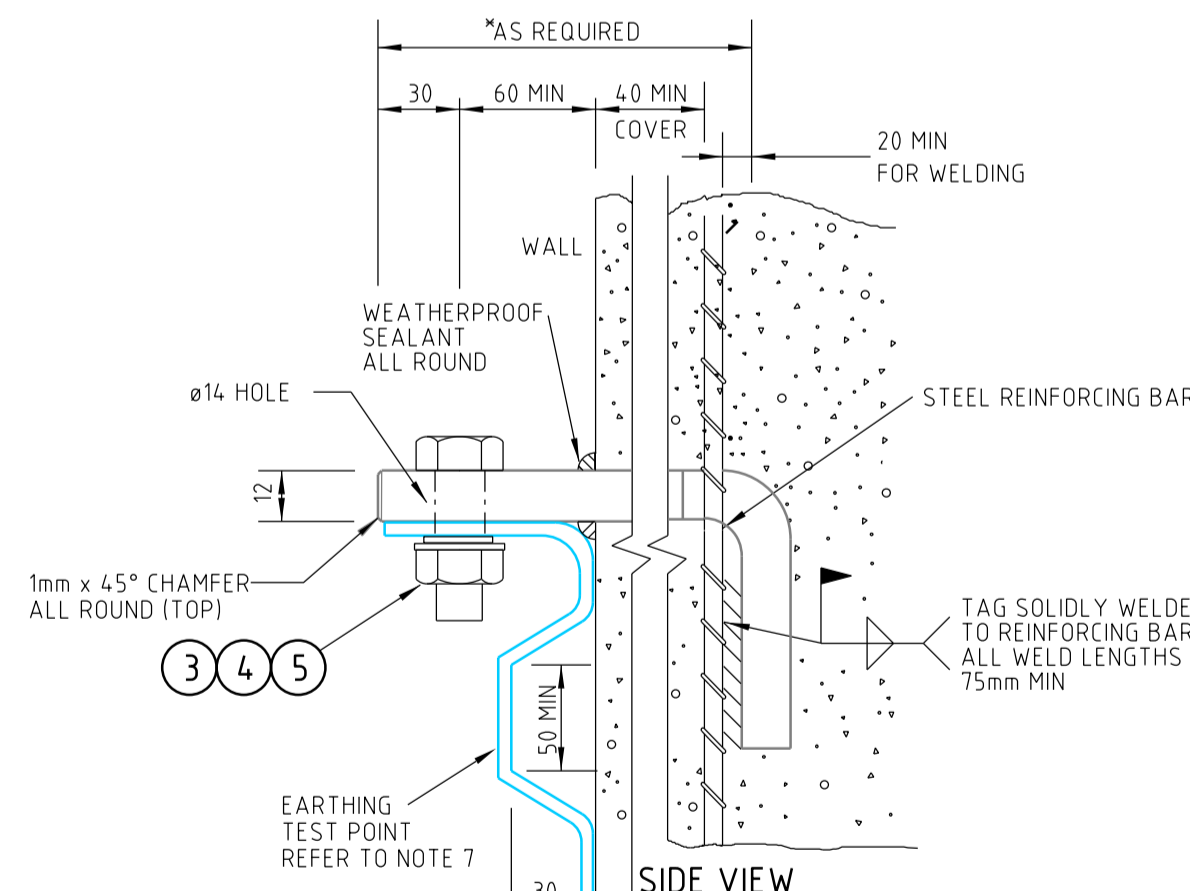
EARTH TAG WELDED TO REINFORCING BAR - VERTICAL MOUNTED DETAIL (EV)
MATERIAL: 50 x 12 FL MILD STEEL, HOT DIP GALV.
*CONNECTION BRACKET LENGTH TO BE DETERMINED ON SITE AND MUST ENSURE 60mm MINIMUM PENETRATION THROUGH THE FINAL WALL FACE



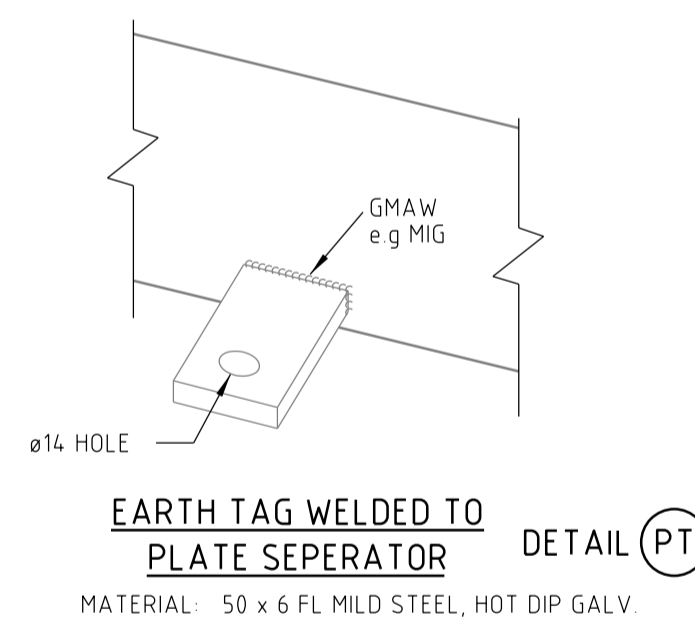
EARTH TAG WELDED TO REINFORCING BAR - SLAB MOUNTED DETAIL (ES)
MATERIAL: 50 x 12 FL MILD STEEL, HOT DIP GALV.
*CONNECTION BRACKET LENGTH TO BE DETERMINED ON SITE AND MUST ENSURE 60mm MINIMUM PENETRATION THROUGH THE FINAL SLAB LEVEL



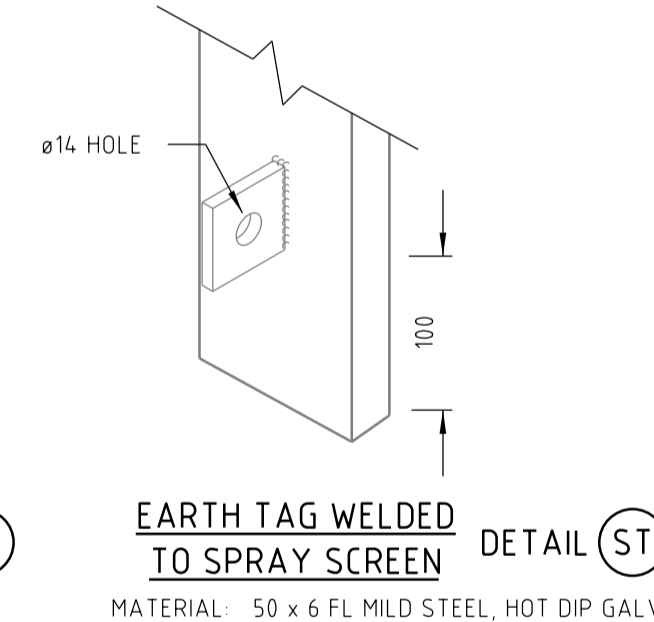
HORIZONTAL MOUNTED EARTH TAG WELDED CONNECTION TO REINFORCING BAR DETAIL (EC)
MATERIAL: 50 x 12 FL MILD STEEL, HOT DIP GALV.
*CONNECTION BRACKET LENGTH TO BE DETERMINED ON SITE AND MUST ENSURE 60mm MINIMUM PENETRATION THROUGH THE FINAL SLAB LEVEL



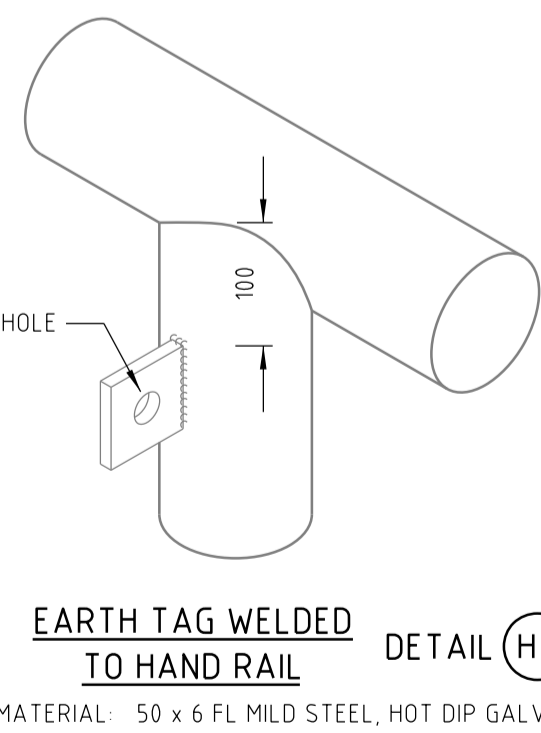
HORIZONTAL MOUNTED EARTH TAG WELDED CONNECTION TO REINFORCING BAR DETAIL (EH)
MATERIAL: 50 x 12 FL MILD STEEL, HOT DIP GALV.
*CONNECTION BRACKET LENGTH TO BE DETERMINED ON SITE AND MUST ENSURE 60mm MINIMUM PENETRATION THROUGH THE FINAL SLAB LEVEL



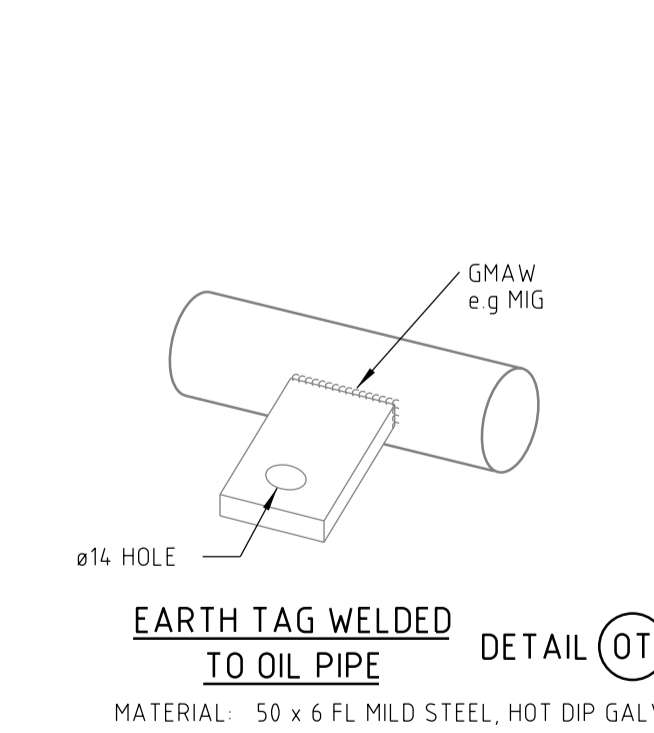
EARTH TAG WELDED TO PLATE SEPERATOR DETAIL (PT)
MATERIAL: 50 x 6 FL MILD STEEL, HOT DIP GALV



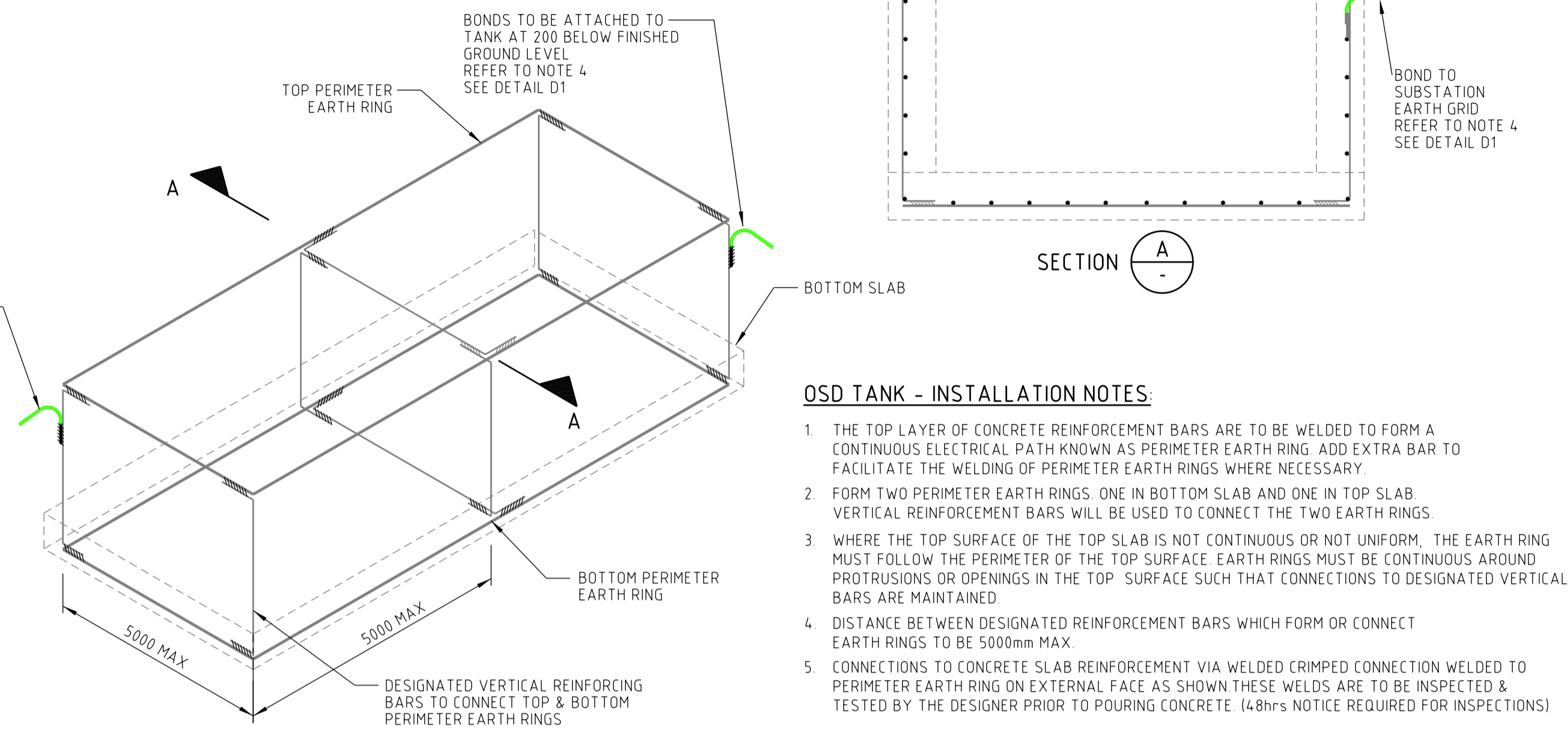
EARTH TAG WELDED TO SPRAY SCREEN DETAIL (ST)
MATERIAL: 50 x 6 FL MILD STEEL, HOT DIP GALV.



EARTH TAG WELDED TO HAND RAIL DETAIL (HT)
MATERIAL: 50 x 6 FL MILD STEEL, HOT DIP GALV.

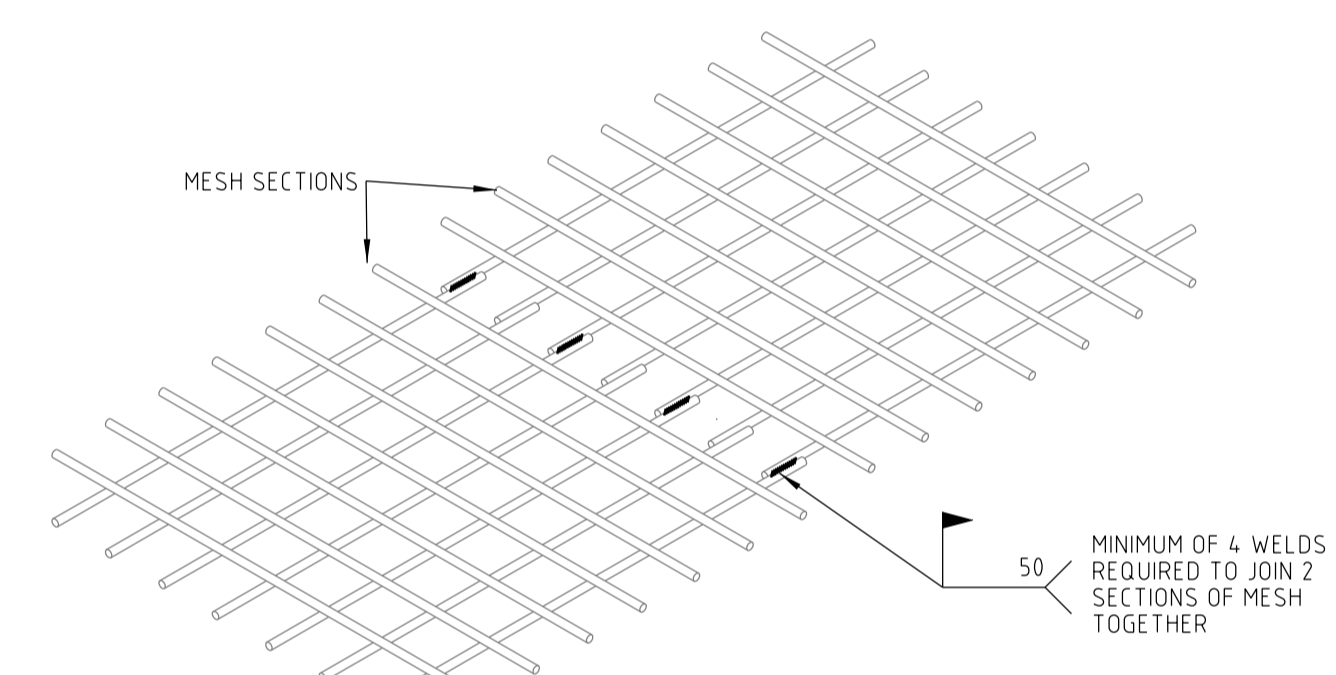


EARTH TAG WELDED TO OIL PIPE DETAIL (OT)
MATERIAL: 50 x 6 FL MILD STEEL, HOT DIP GALV.



- OSD TANK - INSTALLATION NOTES:**
- THE TOP LAYER OF CONCRETE REINFORCEMENT BARS ARE TO BE WELDED TO FORM A CONTINUOUS ELECTRICAL PATH KNOWN AS PERIMETER EARTH RING. ADD EXTRA BAR TO FACILITATE THE WELDING OF PERIMETER EARTH RINGS WHERE NECESSARY.
 - FORM TWO PERIMETER EARTH RINGS. ONE IN BOTTOM SLAB AND ONE IN TOP SLAB. VERTICAL REINFORCEMENT BARS WILL BE USED TO CONNECT THE TWO EARTH RINGS.
 - WHERE THE TOP SURFACE OF THE TOP SLAB IS NOT CONTINUOUS OR NOT UNIFORM, THE EARTH RING MUST FOLLOW THE PERIMETER OF THE TOP SURFACE. EARTH RINGS MUST BE CONTINUOUS AROUND PROTRUSIONS OR OPENINGS IN THE TOP SURFACE SUCH THAT CONNECTIONS TO DESIGNATED VERTICAL BARS ARE MAINTAINED.
 - DISTANCE BETWEEN DESIGNATED REINFORCEMENT BARS WHICH FORM OR CONNECT EARTH RINGS TO BE 5000mm MAX.
 - CONNECTIONS TO CONCRETE SLAB REINFORCEMENT VIA WELDED CRIMPED CONNECTION WELDED TO PERIMETER EARTH RING ON EXTERNAL FACE AS SHOWN THESE WELDS ARE TO BE INSPECTED & TESTED BY THE DESIGNER PRIOR TO POURING CONCRETE. (48hrs NOTICE REQUIRED FOR INSPECTIONS)

PERIMETER EARTH RING - ON SITE DETENTION TANK DETAIL (OSD)
NOT ALL REINFORCING BARS SHOWN FOR CLARITY



WELDED MESH - OVERLAP JOINT DETAIL (WM)

- NOTES:**
- THE TOP LAYER OF CONCRETE REINFORCEMENT BARS ARE TO BE WELDED TO FORM A CONTINUOUS ELECTRICAL PATH KNOWN AS PERIMETER EARTH RING. ADD EXTRA BAR TO FACILITATE THE WELDING OF PERIMETER EARTH RINGS WHERE NECESSARY.
 - WHERE PERIMETER EARTH RINGS ARE WELDED IN CONCRETE TO FORM EARTHING FOR STRUCTURES AND EQUIPMENT, IT IS TO BE BONDED TO THE EARTH GRID.
 - CONNECTIONS TO CONCRETE SLAB REINFORCEMENT VIA EARTH TAGS OR WELDED CRIMPED CONNECTION WELDED TO PERIMETER EARTH RING. THESE WELDS ARE TO BE INSPECTED & TESTED BY THE DESIGNER PRIOR TO POURING CONCRETE. (48hrs NOTICE REQUIRED)
 - REINFORCING TO BE SOLIDLY WELDED FROM CONCRETE PILES TO BASEMENT AND FROM BASEMENT TO GROUND FLOOR AT LOCATIONS SHOWN.
 - LOCATE EARTH TAGS ON BASEMENT CEILING, SLABS AND WALLS AT NOMINAL LOCATIONS ON SITE WITH DESIGNER.
 - THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING 236805 SHEETS 2 & 3.
 - FOR CONDUCTOR, CRIMP & LUG SIZES REFER TO SITE SPECIFIC EARTHING DESIGN DOCUMENT.

NETWORK STANDARD

ITEM NO.	ITEM	DESCRIPTION	SAP CODE	MANUFACTURER	STD ORDER QTY.
136	JOINT SEALANT	SIKA FLEX PRO - CONCRETE GREY			
93	ANCHOR	MUSHROOM HEAD SPIKE - POWERS 5mm * 38mm STAINLESS STEEL GRADE 316 FOR FIXING UP TO 6mm MATERIALS TO CONCRETE OR BRICK. PACK OF 100	180045	POWERS MHS6MMSS	100 PK.
83	ANCHOR FULL SADDLE	ANCHOR SADDLE - FULL SADDLE STAINLESS STEEL GRADE 316 (70mm ² CABLE)		SPECIALISED WHOLESALE COLUMBIA SADDLES	
5	FASTENERS WASHER	FASTENERS - WASHER - M12 BELLEVILLE STAINLESS STEEL GRADE 304	175903	JAMES GLEN 3543	100 PK.
4	FASTENERS WASHER	FASTENERS - WASHER - M12 FLAT STAINLESS STEEL GRADE 316	49429	JAMES GLEN 4620	100 PK.
3	FASTENERS BOLT & NUT	FASTENERS - BOLT & NUT - M12 HEX STAINLESS STEEL GRADE 316 LENGTH TO SUIT	VARIOUS	VARIOUS	N/A

Ausgrid
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SCALE
DESIGNED: NTS
DRAWN: AARON BULBERT
CHECKED: AARON BULBERT
APPROVED: WIM GERRITSEN
DATE: 26/11/14
PROJECT NUMBER: E&IC-NS

MATERIALS LIST
EARTHING & INSULATION COORDINATION
STANDARD CONSTRUCTION
CIVIL WORKS
GENERAL EMBEDDED EARTHING DETAILS

SIZE: A1
DRAWING No: 236805
SHEET: 01
AMD: 0

ASSOCIATED DRAWINGS

1	2	3	4	5	6	7	8	9	10	11	12
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