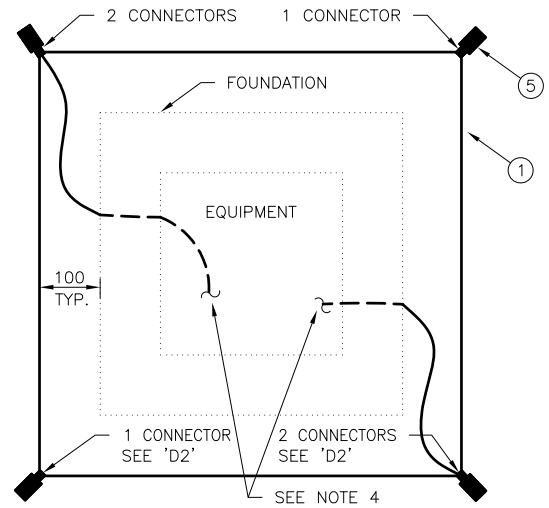
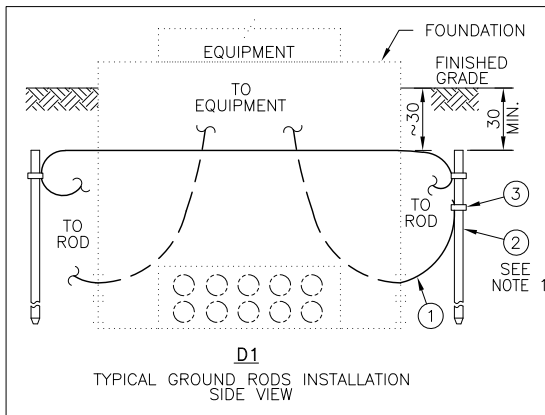


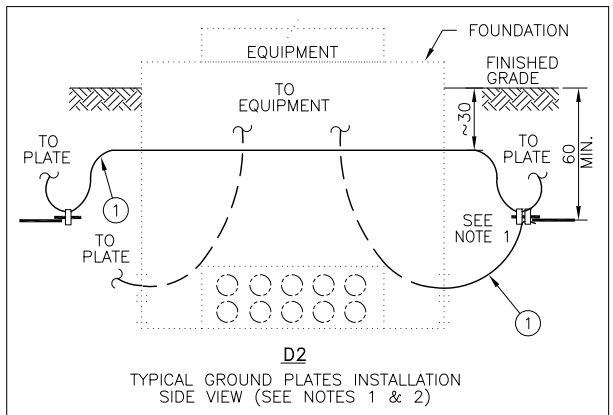
FIG. 1
GROUND GRID WITH GROUND RODS
PLAN VIEW



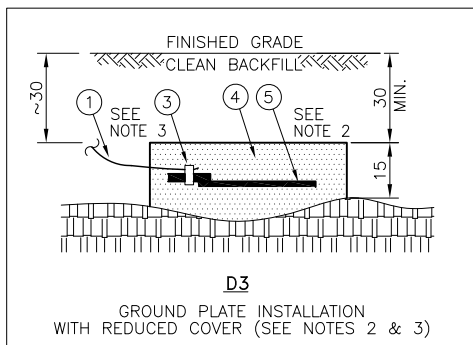
ALT. 1
GROUND GRID WITH GROUND PLATES
PLAN VIEW (SEE NOTES 1 & 2)



D1
TYPICAL GROUND RODS INSTALLATION
SIDE VIEW



D2
TYPICAL GROUND PLATES INSTALLATION
SIDE VIEW (SEE NOTES 1 & 2)



D3
GROUND PLATE INSTALLATION
WITH REDUCED COVER (SEE NOTES 2 & 3)

NOTES:

- GROUND RODS MAY BE SUBSTITUTED WITH GROUND PLATES ONLY IF GROUND RODS CANNOT BE DRIVEN DUE TO ROCKY GROUND CONDITIONS. MAINTAIN 60cm MINIMUM NATIVE SOIL COVER OVER PLATES, 30cm MINIMUM OVER GROUND RODS AND APPROX. 30cm OVER GROUND WIRE(S).
- PLATES INSTALLED WITH LESS THAN 60cm OF COVER MUST BE INSTALLED PER 'D3'. EACH GROUND PLATE REQUIRES MINIMUM ONE BAG OF G.E.M. PLATE TO BE CENTERED WITHIN MIXTURE.
- MECHANICAL PROTECTION (7.5cm OF CONCRETE, 20MPa MIN. STRENGTH) IS REQUIRED OVER PLATES AND GROUND WIRES FOR BURIAL DEPTHS LESS THAN 30cm.
- LEAVE MINIMUM 2m COIL OF #4 AWG BARE COPPER WIRE IN FOUNDATION FOR FINAL CONNECTION TO EQUIPMENT.

PARTS LIST

PART No.	MM No.	DESCRIPTION	QTY.	
			FIG.1	ALT.1
1	30014480	CONDUCTOR, BARE, COPPER, #4 AWG	A/R	A/R
2	30014142	GROUND ROD, 3/4" x 10', GALV.	4	N/A
3	30006646	CONNECTOR, GROUND ROD TO #4 AWG COPPER WIRE	6	6
4	30025402	REDUCED DUST GROUND ENHANCEMENT MATERIAL (G.E.M.)	N/A	A/R
5	30025401	GROUND PLATE, GALV., 10" x 16", C/W 8" BAR	N/A	4
MM# = REFER TO SECTION 16 ONLY			A/R = AS REQUIRED	
△ = SUPPLIED WITH EQUIPMENT			N/A = NOT APPLICABLE	

ALL DIMENSIONS IN CENTIMETRES
UNLESS OTHERWISE STATED

01	SEPT 2023	ORIGINAL DU-14-101-RO IS NOW SUPERSEDED BY THIS NEW DRAWING/REVISION. GENERAL UPDATES. CHANGED TO NEW SECTION 12. CHANGED TO NEW DWG. & NUMBERING FORMAT.	GJ	PC	MM	MM
Rev No.	Date	Revision Particulars	dwn	ckd	des	app

Drawn By: GJ	Checked By: PC	Designed By: M.MATEVSKI	Design Approved By: M.MATEVSKI P.Eng.
Scale: N.T.S.	Date: (yyyy/mm/dd) 2020/03/12	Pole ID:	



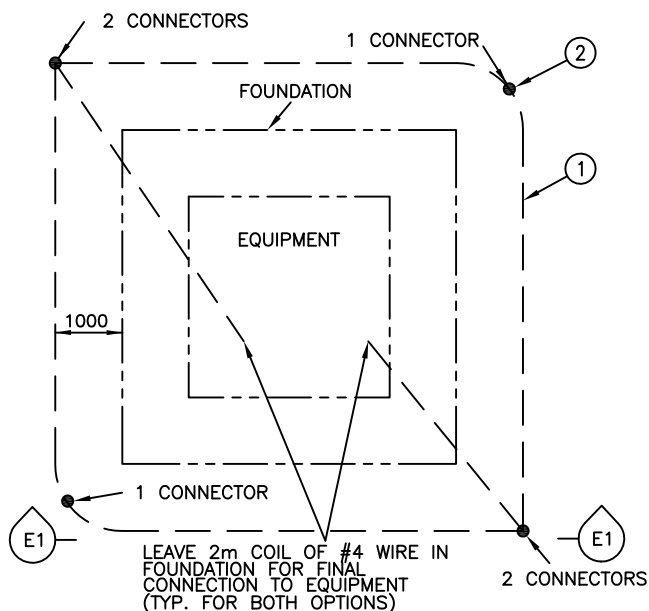
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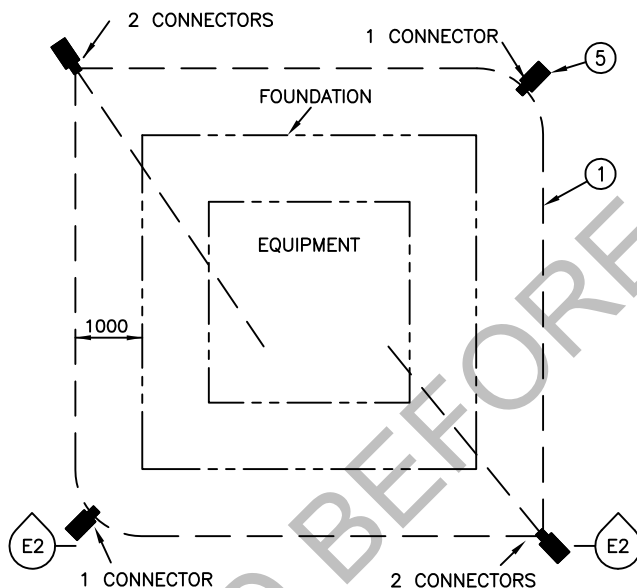
**GROUNDING FOR PAD-MOUNTED EQUIPMENT
- TYPICAL CONCRETE FOUNDATION INSTALLATIONS
WITH GROUND ROD OR GROUND PLATE**

Drawing No. DU12-101-0500	Rev. No. 01
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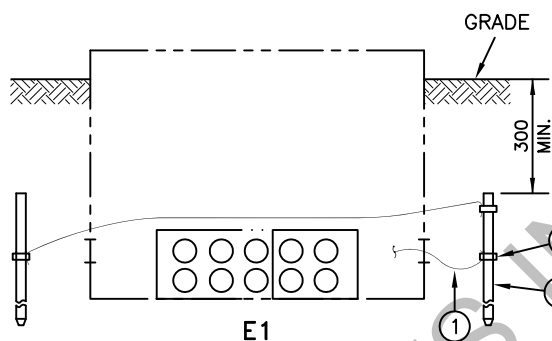
TITLE BLOCK REV 02 - AUGUST 2014



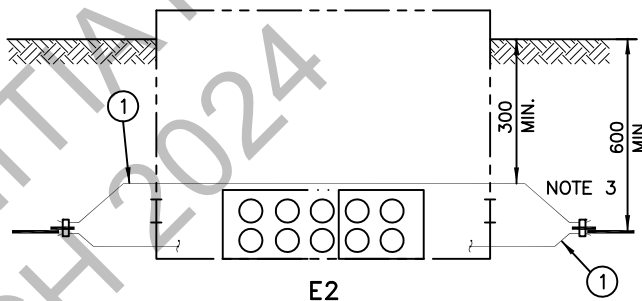
PLAN VIEW OF GROUND GRADIENT GRID



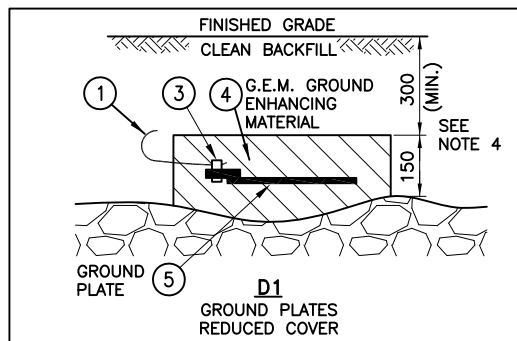
PLAN VIEW OF GROUND GRADIENT GRID



TYPICAL INSTALLATION - GROUND RODS



ALTERNATE INSTALLATION - GROUND PLATES



PARTS LIST			
PART No.	MM No.	DESCRIPTION	QTY.
1	30014488	BARE CONDUCTOR, COPPER, #4 AWG	A/R
2	30014142	ROD, GROUND, 19mm x 3m, GALV.	4
3	30006646	CONNECTOR, GRD. WEDGE, GROUND ROD TO #4 COPPER WIRE	6
4	30025402	GROUND ENHANCING MATERIAL (G.E.M.)	A/R
5	30025401	GROUND PLATE	4
MM# = REFER TO SECTION 16 ONLY		A/R = AS REQUIRED	

REFERENCES:

- SECTION 1 - DEFINITIONS
- SECTION 3C - CONSTRUCTION GUIDE
- SECTION 16 - MATERIALS

NOTES:

- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.
- GAS PIPE LINES SHALL MAINTAIN MINIMUM 300mm (PREFERRED 600mm) SEPARATION FROM HYDRO ONE EQUIPMENT GROUND GRID.
- GROUND RODS MAY BE SUBSTITUTED WITH GROUND PLATES ONLY IF GROUND RODS CANNOT BE DRIVEN DUE TO ROCKY GROUND CONDITIONS. MAINTAIN 600mm MINIMUM NATIVE SOIL COVER OVER PLATES AND 300mm OVER GROUND WIRE(S). PLATES INSTALLED AT REDUCED DEPTH MUST BE INSTALLED PER INSET 'D1'.
- MECHANICAL PROTECTION (75mm 21 MPa CONCRETE) IS REQUIRED OVER PLATES AND GROUND WIRES FOR BURIAL DEPTHS LESS THAN 300mm.

*	*	*	*	*	*
Rev. No.	Issue Date	Revision	Dwn	Approved By	Chk
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Drawn: LS	Approved: *	Date: NOV.26,2013
PAD-MOUNTED EQUIPMENT GROUNDING DETAILS - TYPICAL (CONCRETE FOUNDATION)		
Dwg. No. DU-14-101	Rev. 00	