

NOTES:

1. REFER TO MXS-100-001 DETAIL 1 FOR EXOTHERMIC WELD DETAILS.

2. GROUND CONDUCTORS SHALL BE WELDED TO GROUND PLATES CAST INTO THE MANHOLE SECTIONS.

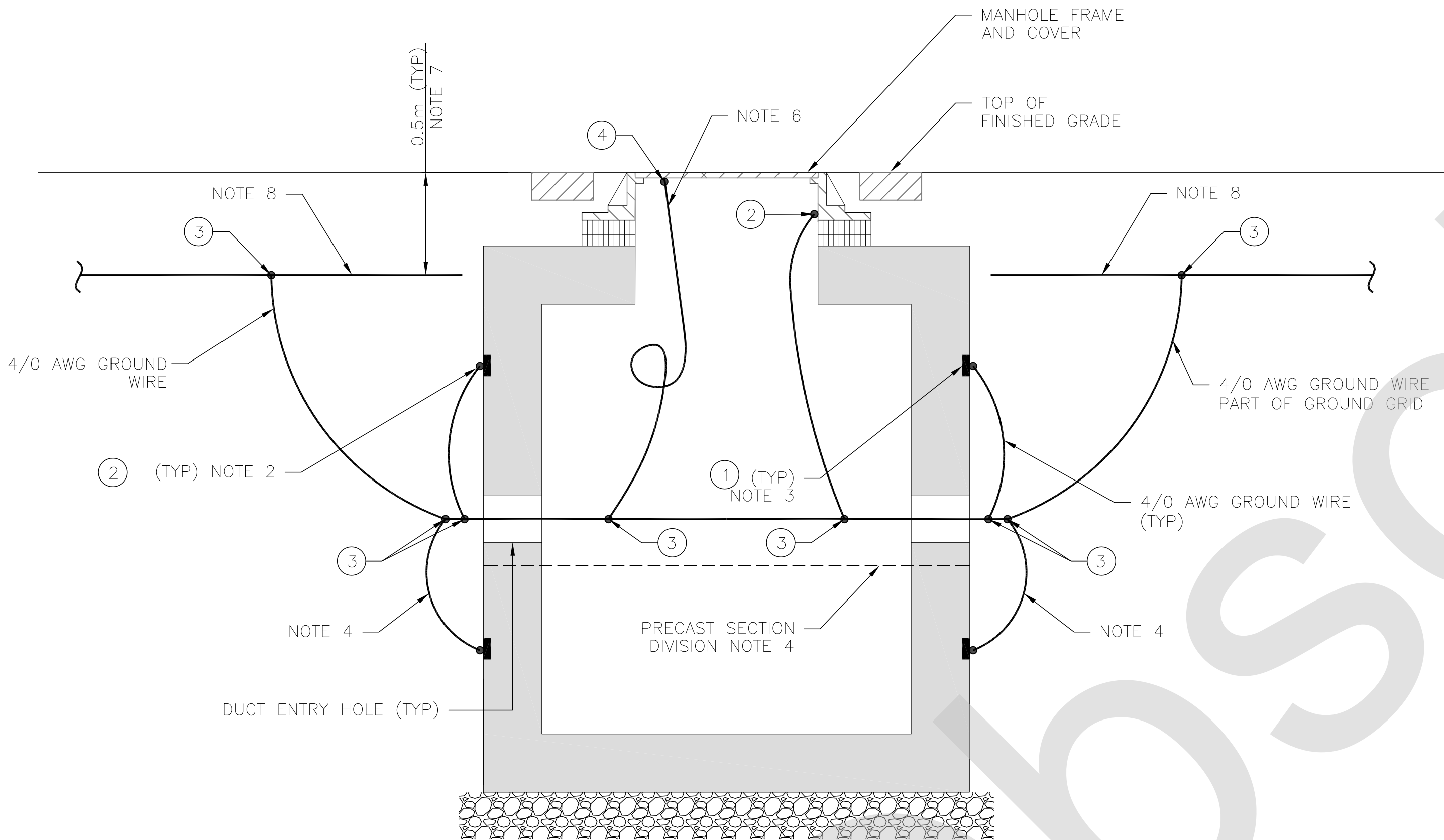
3. REFER TO MXS-200-009 DETAIL 1 FOR GROUND PLATE DETAIL AND INTERCONNECTION TO MANHOLE REBAR.

4. APPLICABLE ONLY IF MANHOLE IS CAST IN SEPARATE SECTIONS. NOT REQUIRED IF MANHOLE IS SINGLE CASTING.

5. ALL METALLIC PARTS TO BE CONNECTED TO THE GROUND GRID.
6. COIL 1.5m ADDITIONAL GROUND CONDUCTOR TO ALLOW FOR MANHOLE COVER TO BE REMOVED.

7. THE DEPTH OF THE GROUND GRID WILL DEPEND ON LOCAL SITE CONDITIONS AND MUST BE DETERMINED BY THE CONTRACTOR PRIOR TO INSTALLATION. 0.5M IS A TYPICAL VALUE THAT HAS BEEN PROVIDED FOR REFERENCE.

8. GROUND WIRE CONTINUOUS AROUND MANHOLE IN PLAN VIEW.

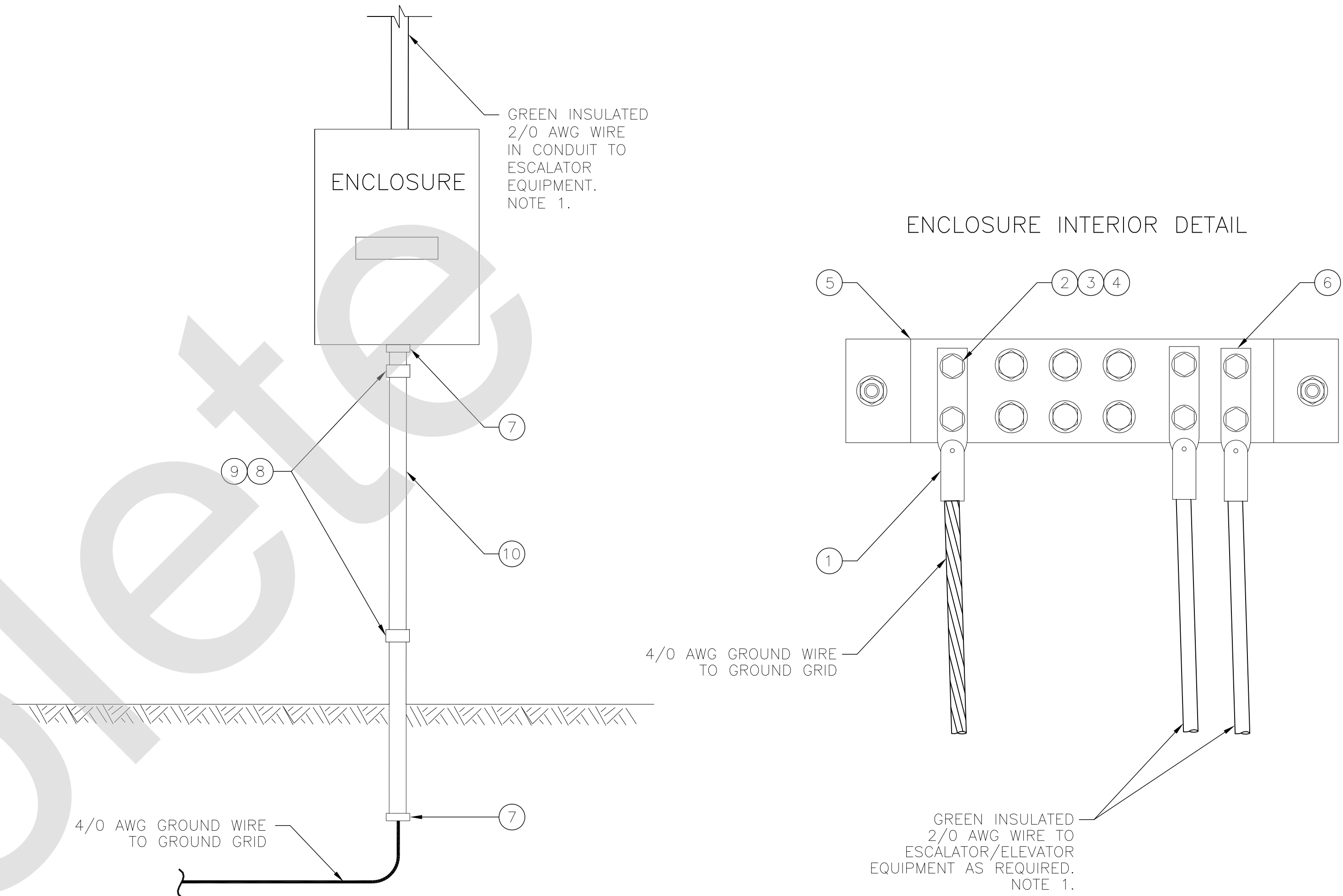


NOTE:  
THIS DRAWING IS PROVIDED FOR INSTRUCTIONAL DESIGN PURPOSES ONLY BASED ON METROLINX GO TRANSIT DESIGN GUIDELINES AND REQUIREMENTS. THE CONSULTANT SHALL VERIFY FOR LOCAL CODE COMPLIANCE, EXISTING SITE CONDITIONS AND INTER DISCIPLINARY DRAWING COORDINATION. ALL DIMENSIONS AND SPECIFICATIONS SHOULD BE VERIFIED BY CONSULTANT AND/OR CONTRACTOR BEFORE ACTUAL CONSTRUCTION BEGINS.

DETAIL 1 – MANHOLE GROUNDING

NOTES:

1. CONNECT GROUND CONDUCTORS TO EQUIPMENT AS REQUIRED BY THE MANUFACTURER'S SPECIFICATION.



DETAIL 2 – GROUNDING CONNECTION TO WALL MOUNTED ESCALATOR AND ELEVATOR CONTROL CABINETS

ITEM	QTY	UNIT	DESCRIPTION	MANUFACTURER & CAT. NO.
1	1	EA	COMPRESSION TERMINAL, 2 HOLE, FOR 4/0 WIRE	BURNDY: YGA28-2N OR EQUIVALENT
2	2	EA	DURIUM BOLT 1/2"-13 X 1", W/NUT	BURNDY: 50X100 HEB BOX OR EQUIVALENT
3	4	EA	DURIUM FLAT WASHER 1/2"	BURNDY: 50 FW BOX OR EQUIVALENT
4	4	EA	DURIUM SPRING WASHER 1/2"	BURNDY: 50 SW BOX OR EQUIVALENT
5	1	EA	COPPER GROUND BUS 6mm X 50mm X 300mm (1/4" X 2 X 12") MIN	(GENERIC)
6	PER DESIGN	EA	COMPRESSION TERMINAL, 2 HOLE, FOR 2/0 WIRE AND DURIM BOLT NUT AND WASHERS	BURNDY: YGA26-2N OR EQUIVALENT
7	2	EA	BUSHING	(GENERIC)
8	2	EA	ANCHOR, SS 304, 316	HILTI: KBS 1/4"x2-1/4" OR EQUIVALENT
9	2	EA	27mm CONDUIT CLAMP 1-HOLE	T&B: 1278 OR EQUIVALENT
10	PER DESIGN	N/A	27mm CONDUIT	(GENERIC)

ITEM	QTY	UNIT	DESCRIPTION	MANUFACTURER & CAT. NO.
1	MIN 2	EA	CAST GROUND PLATE	ERICO: B1642Q OR EQUIVALENT
2	MIN 3	EA	VERTICAL WIRE TAP TO VERTICAL PLATE EXOTHERMIC CONNECTION	BURNDY: B-8718 OR EQUIVALENT
3	MIN 6	EA	4/0 WIRE TAP TO 4/0 WIRE RUN EXOTHERMIC CONNECTION	BURNDY: B-241 OR EQUIVALENT
4	1	EA	HORIZONTAL WIRE TAP TO HORIZONTAL PLATE EXOTHERMIC CONNECTION	BURNDY: B-6114 OR EQUIVALENT

REFERENCE DRAWINGS			ISSUE			REVISIONS		
			3	15/04/06	FINAL DESIGN			
			1	15/03/06	100% DESIGN			
			1	15/02/09	90% DESIGN			
			0	15/01/16	60% DESIGN			
DWG NO.	TITLE		NO.	DATE	ISSUED FOR	REV.	DATE	

DRAWN BY: SB 14/12/11	DESIGNED BY: SXF 14/12/11
CHECKED BY: CTG 15/01/16	APPROVED BY: ZBT 15/01/16
SCALE: NTS FULL SIZE ONLY	

PARSONS  
BRINCKERHOFF



TRACTION ELECTRIFICATION  
GROUNDING AND BONDING  
STANDARD INSTALLATION DESIGN DETAILS  
MANHOLES, ELEVATORS AND ESCALATORS

CONTRACT NO. RQQ-2011-PP-032	DWG. NO. MXS-200-004	REV. 0	SHEET 12/26
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