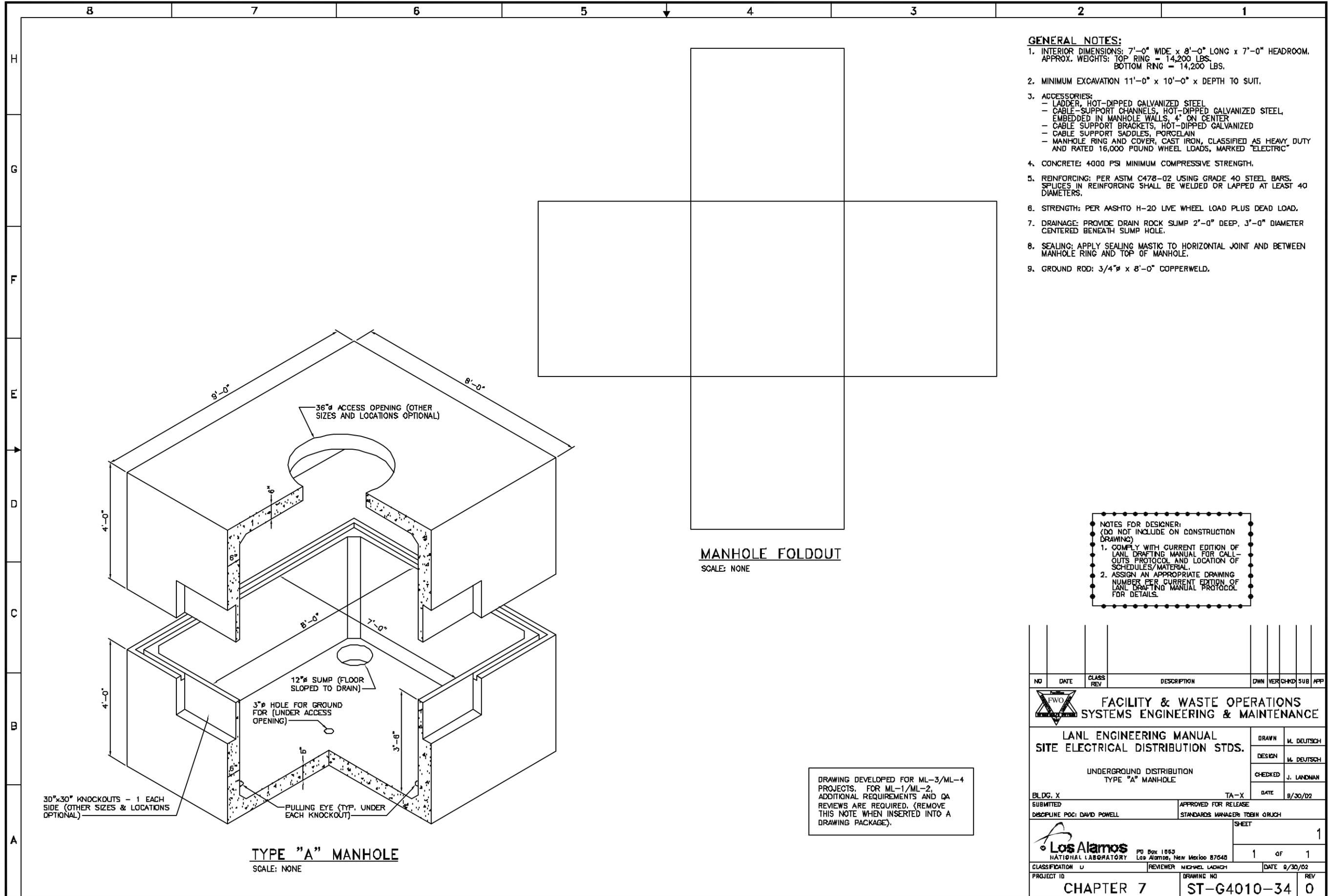


G:\LANL Engineering Standards\Eng. Manual (LEU)\2. Approved\ST-G4010-34E1.dwg, 11/09/02 ■ 08552 053088



- GENERAL NOTES:**
- INTERIOR DIMENSIONS: 7'-0" WIDE x 8'-0" LONG x 7'-0" HEADROOM. APPROX. WEIGHTS: TOP RING = 14,200 LBS. BOTTOM RING = 14,200 LBS.
  - MINIMUM EXCAVATION 11'-0" x 10'-0" x DEPTH TO SUIT.
  - ACCESSORIES:
    - LADDER, HOT-DIPPED GALVANIZED STEEL
    - CABLE-SUPPORT CHANNELS, HOT-DIPPED GALVANIZED STEEL, EMBEDDED IN MANHOLE WALLS, 4' ON CENTER
    - CABLE SUPPORT BRACKETS, HOT-DIPPED GALVANIZED
    - CABLE SUPPORT SADDLES, PORCELAIN
    - MANHOLE RING AND COVER, CAST IRON, CLASSIFIED AS HEAVY DUTY AND RATED 16,000 POUND WHEEL LOADS, MARKED "ELECTRIC"
  - CONCRETE: 4000 PSI MINIMUM COMPRESSIVE STRENGTH.
  - REINFORCING: PER ASTM C478-02 USING GRADE 40 STEEL BARS. SPLICES IN REINFORCING SHALL BE WELDED OR LAPPED AT LEAST 40 DIAMETERS.
  - STRENGTH: PER AASHTO H-20 LIVE WHEEL LOAD PLUS DEAD LOAD.
  - DRAINAGE: PROVIDE DRAIN ROCK SLUMP 2'-0" DEEP, 3'-0" DIAMETER CENTERED BENEATH SLUMP HOLE.
  - SEALING: APPLY SEALING MASTIC TO HORIZONTAL JOINT AND BETWEEN MANHOLE RING AND TOP OF MANHOLE.
  - GROUND ROD: 3/4" x 8'-0" COPPERWELD.

**MANHOLE FOLDOUT**  
SCALE: NONE

NOTES FOR DESIGNER:  
(DO NOT INCLUDE ON CONSTRUCTION DRAWING)

- COMPLY WITH CURRENT EDITION OF LANL DRAFTING MANUAL FOR CALL-OUTS PROTOCOL AND LOCATION OF SCHEDULES/MATERIAL.
- ASSIGN AN APPROPRIATE DRAWING NUMBER PER CURRENT EDITION OF LANL DRAFTING MANUAL PROTOCOL FOR DETAILS.

DRAWING DEVELOPED FOR ML-3/ML-4 PROJECTS. FOR ML-1/ML-2, ADDITIONAL REQUIREMENTS AND QA REVIEWS ARE REQUIRED. (REMOVE THIS NOTE WHEN INSERTED INTO A DRAWING PACKAGE).

**TYPE "A" MANHOLE**  
SCALE: NONE

NO	DATE	CLASS	DESCRIPTION	OWN	VER	CHKD	SUB	APP	
 <b>FACILITY &amp; WASTE OPERATIONS SYSTEMS ENGINEERING &amp; MAINTENANCE</b>									
<b>LANL ENGINEERING MANUAL SITE ELECTRICAL DISTRIBUTION STDS.</b>				DRAWN	M. DEUTSCH				
UNDERGROUND DISTRIBUTION TYPE "A" MANHOLE				DESIGN	M. DEUTSCH				
				CHECKED	J. LANDMAN				
				DATE	9/30/02				
BLDG. X				TA-X					
SUBMITTED				APPROVED FOR RELEASE					
DISCIPLINE POC: DAVID POWELL				STANDARDS MANAGER TOBIN GRUCH					
				SHEET					
				1					
 NATIONAL LABORATORY				PO Box 1663	Los Alamos, New Mexico 87545				
CLASSIFICATION	U	REVIEWER	NICHOL LADACH	DATE	9/30/02				
PROJECT ID	DRAWING NO		REV						
CHAPTER 7			ST-G4010-34	0					