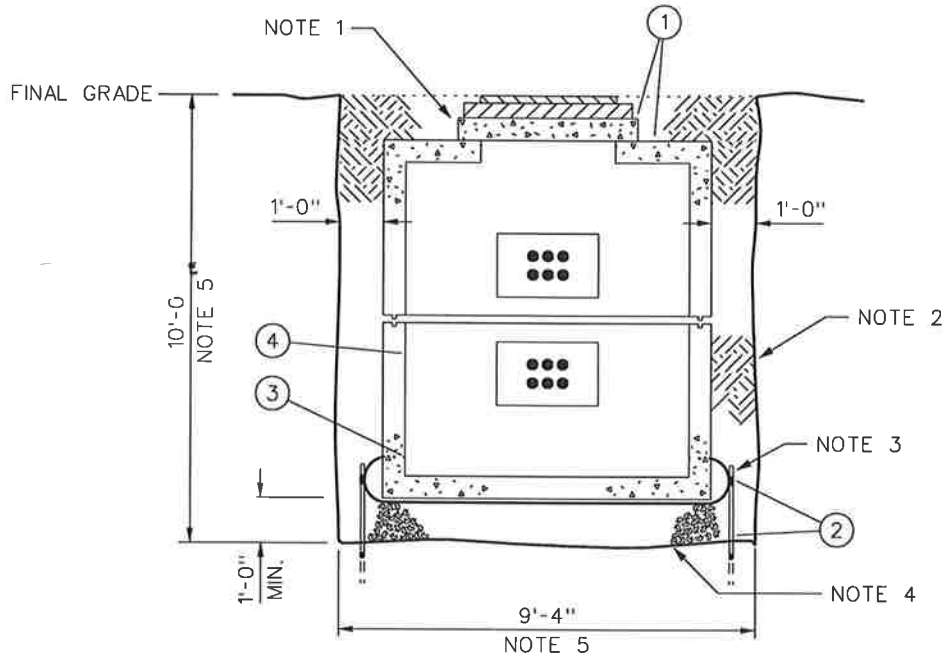

MACRO = (1) + (2) + (3) + (4)

(1) MH16x6x7P (1)	(2) GRD-MH-OUT (1)	(3) GRD-MH-IN (1)	(4) MH-RACK-STEP (2)
Z-580	*Z-805.I*	*Z-805.I*	*Z-582*

NOTES:

1. The minimum concrete interface (thickness) between the top surface of the manhole and the increment ring is 1/2". The interface between the increment ring and the manhole rim is 1/2". At the minimum a 6" increment ring should be used when setting the rim and cover. This spacing will provide an earthen cushion between the top surface of the manhole and the final grade. Additional rings may be necessary for grade adjustments. Increment rings are available in 3", 6" or 9" thicknesses, (Z-580).
2. The backfill material (select) should be tamped approximately every 6".
3. For manhole grounding details see **MANHOLE GROUNDING Z-805.** The rods must be inserted and external ground connections made when the manhole is set.
4. Additional base depth may be required when unstable or "mucky" conditions exists. 1"-2" stone should be used for the base at all times.
5. The minimum excavation width is 9'-4" (see calculations).
   The minimum excavation length is 19'-4" (see calculations).
   The minimum excavation depth is 10'-0" (see calculations).

MINIMUM EXCAVATION DEPTH

STONE BASE	1'-0"
MANHOLE (HEIGHT)	8'-0"
INCREMENT RING	6"
RING, LID & SEALING COMPOUND (MASTIC)	5"
MORTAR	1"
	10'-0"

MINIMUM EXCAVATION WIDTH

MANHOLE (WIDTH)	7'-4"	
TOTAL EARTH TO WALL CLEARANCE	2'-0"	(1' PER SIDE)
	9'-4"	

MINIMUM EXCAVATION LENGTH

MANHOLE (LENGTH)	17'-4"	
TOTAL EARTH TO WALL CLEARANCE	2'-0"	(1' PER SIDE)
	19'-4"	

DRAWN: BLW	DVLPED: N/A DATE: 4/04	REVIEWED: JKP DATE: 11/27/06	APPRVD: RGW DATE: 11/27/06	NEXT REVIEW: 11/09	REV: 2

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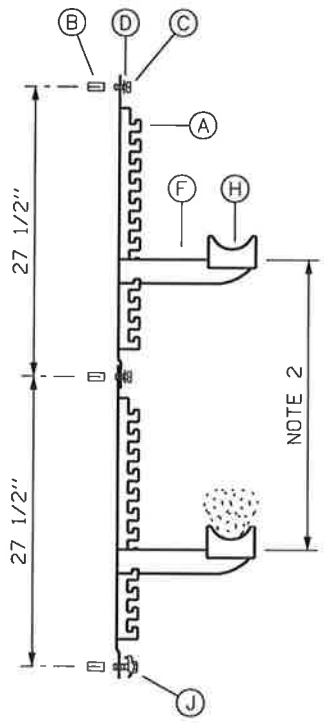
POWER DISTRIBUTION STANDARDS

MANHOLE INSTALLATION

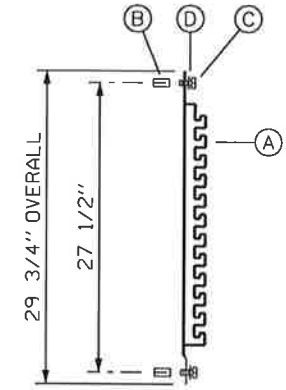
Z-582

MANHOLE_ACC

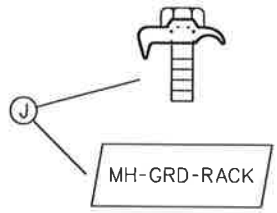


MH-RACK-STEP

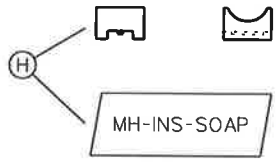
NOTE 1



MH-RACK

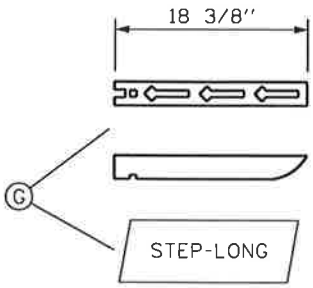


MH-GRD-RACK

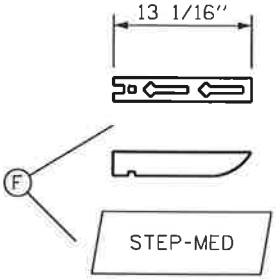


MH-INS-SOAP

NOTE 3

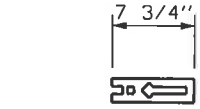


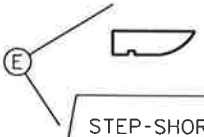
STEP-LONG



STEP-MED

NOTE 3





STEP-SHORT

ITEM	MATERIAL DESCRIPTION	STOCK NO.	MH-RACK-STEP	MH-RACK	STEP-SHORT	STEP-MED	STEP-LONG	MH-INS-SOAP	MH-GRD-RACK
A	WALL RACK, 32"	4218-0026	2	1					
B	1/2" DROP-IN ANCHOR	5101-0510	3	2					
C	1/2" X 1 1/2" S.S. BOLT	4552-5524	2	2					
D	1/2" S.S. FLAT WASHER	3523-0523	2	2					
E	HOOK-STEP/SHORT 7 3/4"	0113-0749			1				
F	HOOK-STEP/MED 13 1/16"	4208-0051	2			1			
G	HOOK-STEP/LONG 18 3/8"	4208-0069					1		
H	INSULATOR/SOAP	3909-0022	2					1	
J	1/2" X 2 1/8" BRONZE GROUND CONNECTOR	0119-0651	1						1

NOTES:

1. For new installations, a minimum of two (2) MH-RACK-STEP per wall are required to support the cable and splices. Other manhole accessory applications will depend upon the number of circuits installed, cable size and cable entry.
2. The spacing between the steps will depend upon the size of the cable installed, cable duct entry location and the splicing and cable training techniques used by the splicer.
3. When installing and splicing additional circuits, a minimum of two (2) STEP-MED and two (2) MH-INS-SOAP are required for mounting on the existing racks.

TDF: 129

DRAWN: BLW	DVLPED: JTR DATE: 06/01	REVIEWED: RWM DATE: 05/09/08	APPRVD: JKP DATE: 05/30/08	NEXT REVIEW: 11/10	REV: 3

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POWER DISTRIBUTION STANDARDS

MANHOLE ACCESSORIES

Z582