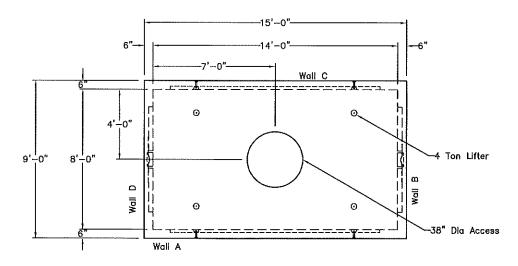


Walls A, C

Walls B, D



Plan View



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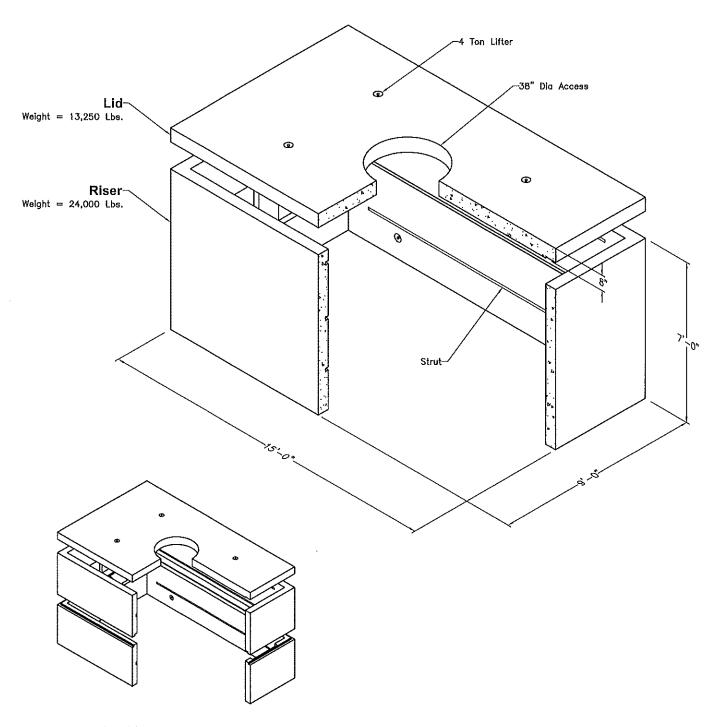
## 814-84-MH

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Two Piece Riser Option



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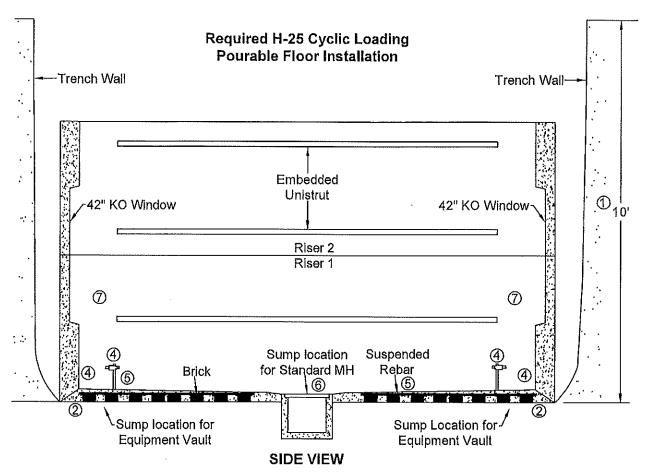
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## CONDUIT SYSTEMS DISTRIBUTION MANHOLE INSTALLATIONS 15 AND 25 kV



## Notes

- 1. Standard excavating depth of the manhole shall be 10 ft (not applicable to Equipment MH's).
- 2. Manhole structure is leveled by removing soils from under the interior perimeter of the beveled walls,
- 3. Both Riser 1 & 2 meet trench shoring requirements for manhole access during the leveling process.
- 4. The cleared beveled wall area is to be used to complete the H-25 load cycling criteria for the manhole installation by pouring the concrete floor under the bevel wall throughout the perimeter of the manhole. Ground rods location is roughly 12" from the end and side walls and 8" above the poured floor. Attach the rebar in the floor to the ground rods with a ground clamp and #4 Cu solid wire.
- 5. A wire tied, rebar reinforced, concrete poured floor is necessary for the manhole to meet the H-25 traffic rating. The tied rebar grid in the floor must be bonded to the ground rods with #4 Cu solid wire and laid on top of standard bricks before the floor is poured to address step potential issues within the manhole.
- 6. The poured concrete floor shall be no more than 1" 2" above the beveled wall location with a preferred gradual incline (about 1") toward the sump pump box somewhat level, but lower than the floor to maintain a safe working surface. Estimated concrete required for a MH is per page U-D.
- 7. When installing "Equipment Vaults" containing subsurface transformers or switching gear requiring center access, dual sump pump box locations shall be located at the end of each of the floor locations directly under the manhole access or vent ports.
- 8. 5/8th Drill Bit proper size for installing ground rod

<b>⊘</b> Xcel Energy *	lesued	Replaces	Drawn by	Approved	File	UNDERGROUND DISTRIBUTION MANUAL
	Jan-14	Oct-03	JD	RDS	U3	PAGE U-3