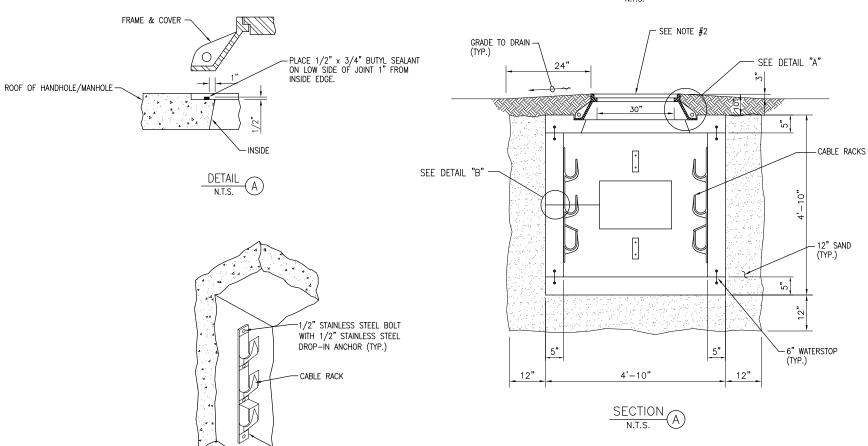


PRECAST 4'x4'x4' MANHOLE

PRECAST 4' x 4' x 4' MANHOLE DETAILS N.T.S. (NOT TO SCALE)



CABLE RACK SUPPORT

CABLE RACK

## PRECAST 4'x4'x4' ELECTRICAL MANHOLE NOTES

1. 4'x4'x4' ELECTRICAL MANHOLE SHALL BE CONSTRUCTED TO MEET THE FOLLOWING:

- 1) DESIGN SPECIFICATION: ACI 318, AASHTO LOAD FACTOR DESIGN METHOD, AND ASTM C858
- 2) DESIGN LOADING: AASHTO HS20 (32,000 LB/AXLE)
- 3) LIVE LOAD SURCHARGE: .5% OF THE WHEEL LOADING APPLIED TO 8'-0" OF DEPTH.
- 4) CONCRETE COMPRESSIVE STRENGTH: F'c = 4500 PSI
- 5) REINFORCING STEEL: ASTM A706, Fy = 60000 PSI

## **DESIGN ASSUMPTIONS:**

- 1) GROUND WATER LEVEL: 3'-6" BELOW GRADE.
- 2) EARTH COVER: 2'-0" MINIMUM TO 5'-0" MAXIMUM

3) LIVE LOAD IMPACT: 2'-0" 1 = 20% 2'-1" TO 2'-11" 1 = 10% 3'-0" TO 5'-0" 1 = 0%

- 4) COEFFICIENT OF ACTIVE EARTH PRESSURE: Ka 0.3
- 5) SPECIFIC WEIGHT OF STD. AGGREGATE CONCRETE" 150 PCF
- 6) SPECIFIC WEIGHT OF DRY EARTH: 100 PCF
- 7) SPECIFIC WEIGHT OF SATURATED EARTH: 120 PCF 8) EQUIVALENT FLUID PRESSURE OF DRY EARTH: 30 PSF
- 9) EQUIVALENT FLUID PRESSURE OF SATURATED EARTH: 80 PSF

THE SUPPLIER SHALL PROVIDE CERTIFICATION THAT THE PRECAST MANHOLES MEET OR EXCEED THESE REQUIREMENTS PRIOR TO INSTALLATION.

- MANHOLE FRAME & LID SHALL BE CAPABLE OF WITHSTANDING MINIMUM 50,000 POUND LOADS. MANHOLE FRAME & LID SHALL BE NEENAH CATALOG NO. R-1640-C OR APPROVED EQUAL. LID FOR HIGH VOLTAGE MANHOLE SHALL BE LABELED "HIGH VOLTAGE". LID FOR LOW VOLTAGE MANHOLE SHALL BE LABELED "LOW VOLTAGE" OR "OV-600V".
- 3. COORDINATE DUCT BANK INTERFACE & OPENINGS WITH THE MANHOLE MFR. CONTRACTOR SHALL SLOPE DUCT BANK TO PRECAST MANHOLE OPENINGS. ALL OPENINGS SHALL BE SEALED WATERTIGHT AFTER DUCT BANK INSTALLATION.
- 4'x4'x4' MANHOLE SHALL BE MANUFACTURED BY A CONCRETE ELECTRICAL MANHOLE PRODUCER ON THE ILLINOIS DEPARTMENT OF TRANSPORTATION APPROVED LIST OF CERTIFIED PRECAST CONCRETE
- 5. 4'x4'x4' MANHOLE SHALL BE PAID FOR UNDER ITEM AR110710 ELECTRICAL MANHOLE PER EACH.
- CABLE RACKS SHALL BE HEAVY DUTY CORROSION RESISTANT NYLON MATERIAL WITH CORROSION RESISTANT STAINLESS STEEL MOUNTING HARDWARE; UNDERGROUND DEVICES, INC. CAT. NO. 3SR1N, 3SR2N OR 3SR3N OR EQUAL. PROVIDE AT LEAST TWO TRIPLE HOOK CABLE RACKS ON EACH MANHOLE WALL SPACED TO SUPPORT RESPECTIVE CABLES.
- 7. COORDINATE INSTALLATION OF MANHOLES WITH RESPECTIVE FINISHED GRADE ELEVATIONS.

REVISION					
DATE					
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EDGAR COUNTY AIRPORT PARIS, ILLINOIS

HANSON

CONSTRUCT CROSSWIND RUNWAY 18-36

4'X4'X4' ELECTRICAL MANHOLE