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6/10/05

CONTRACT NO.

- FRAME WITH COVER SHALL BE NEENAH R-3492-A WITH LEGEND "ADFW." SHALL BE GASKET SEALED FOR WATERTIGHT
- 2. ALL MANHOLE COVERS SHALL BE BOLTED TO THE FRAME.
- 3. OPENINGS IN THE WALLS FOR THE PIPE SHALL BE CAST-IN OR CUT CLEANLY WITHOUT PERCUSSION TO A MAXIMUM DIAMETER OF O.D. ±3". THE SPACE BETWEEN PIPE AND WALL SHALL THEN BE FILLED WITH NON SHRINK GROUT, OR APPROVED JOINT INSERT ASSEMBLY.
- 4. WHERE A PIPE PASSES THROUGH A WALL 2 ADDITIONAL "A" BARS SHALL BE PLACED ABOVE, BELOW, AND TO EACH SIDE OF THE OPENING VERTICAL "A" BARS SHALL EXTEND A MINIMUM OF 2'-0" ABOVE AND BELOW THE EDGES OF THE OPENING. THE ADDITIONAL REINFORCING SHALL BE PLACED AT BOTH THE INSIDE AND OUTSIDE LAYER OF REINFORCING.
- 5. WHEN LIFTING THE PRE-CAST MANHOLE, A BAR SHALL BE PLACED HORIZONTALLY THROUGH THE LIFTING HOLES, PROVIDED AT THE TIME OF MANUFACTURE THE LIFTING DEVICES SHALL BE PLACED ONLY ON THAT BAR. THE BAR AND HOLES SHALL BE APPROVED BY THE ENGINEER. THE LIFTING HOLES SHALL BE FILLED WITH GROUT AFTER THE MANHOLE IS IN POSITION.
- 6. SPLICE LENGTHS REQUIRED FOR REINFORCING BARS: #4 BAR, 1'-4"; #5 BAR, 1'-8"; #6 BAR, 2'-0"; #7 BAR, 2'-6".
- JOINT AND WATERSTOP ARE AN OPTION FOR CAST—IN PLACE MANHOLES ONLY. PRE—CAST MANHOLES SHALL NOT BE JOINTED AT THIS LOCATION.
- 8. CONCRETE STRENGTH AT 28 DAYS SHALL BE A MINIMUM OF 4,000 PSI FOR CAST—IN PLACE MANHOLES, 5,000 PSI FOR
- 9. REINFORCING SHALL CONFORM TO ASTM A615, GRADE 60.
- 10. REINFORCING "A" BARS SHALL BE #5 @ 12".
- 11. PLASTIC MAGNETIC 3" WIDE DETECTABLE TAPE REQUIRED ABOVE ALL CONDUITS, DUCTS AND DUCTBANKS NOT INSTALLED UNDER PAVEMENT.
- 12. THE BACKFILL ABOVE THE CONDUIT SHALL BE AS DEFINED IN SPECIFICATION SECTION 110.
- 13. CAST IRON STEPS SHALL BE NEENAH R-1982-1 FOR STRAIGHT WALLS, OR APPROVED EQUAL.
- 14. MANHOLE TO BE CONSTRUCTED OF STRUCTURAL P.C. CONCRETE. THE CONTRACT UNIT PRICE PER INLET SHALL INCLUDE THE FRAME, GRATES, AND STEPS IN PLACE AND COMPLETE PER UNIT.
- 15. THE CONTRACTOR IS REQUIRED TO SUBMIT MANUFACTURER'S SHOP DRAWING SHOWING DETAILS AND DESIGN CALCULATIONS FOR APPROVAL PRIOR TO INSTALLATION. (SEE SPECS - ITEM 752) SHOP DRAWINGS SHALL BE SEALED BY A REGISTERED PROFESSIONAL STRUCTURAL ENGINEER.
- 16. THIS MANHOLE FRAME AND GRATE REQUIRES AIRPORT LOADING TO CONFORM WITH AC 150/5320-6D. THIS IS 50,000 LBS SINGLE WHEEL LOAD OR 90,000 LBS FOR DUAL WHEEL LOADING. ALL OTHER INLETS, FRAMES, AND GRATES SHALL BE DESIGNED TO WITHSTAND AASHTO HS20-44 HIGHWAY LOADING.
- 17. TESTING OF MANHOLES. ALL MANHOLES IN THE SYSTEM SHALL BE TESTED FOR WATERTIGHTNESS BY PLUGGING THE INLET AND OUTLET SEWERS WITH TIGHT PLUGS, FILLING THE MANHOLE WITH WATER AND ALLOWING ONE HOUR FOR SATURATION OF MANHOLE MATERIAL. AFTER ONE HOUR THE MANHOLE SHALL BE REFILLED TO THE ORIGINAL LEVEL AFTER TWO HOURS, THE DIFFERENCE IN WATER SURFACE ELEVATION FROM ORIGINAL TO FINAL LEVEL SHALL BE MEASURED AND CONVERTED INTO GALLONS PER HOUR LOST THROUGH MANHOLE LEAKAGE. THE ALLOWABLE LEAKAGE IN SYSTEM MANHOLES SHALL NOT EXCEED 3.0 GALLONS PER

DETAILS

COLLECTION SYSTEM 1075 Eastgate Drive O'Fallon, Illinois 62269 PH 618-624-2628 FAX 618-624-2730

EarthTech

DWG. FILE NAME 84723-C-06

HEET NO.