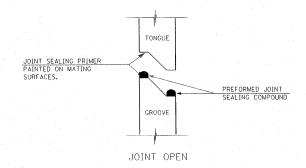
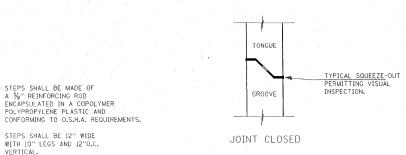


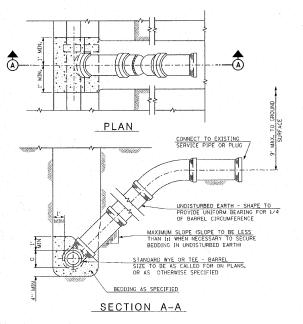
WATERPROOF FRAME AND BOLTED LID

ALL MANHOLE FRAMES AND LIDS SHALL BE NEENAH TYPE R-1916D, OR EOUIVALENT. THE MANHOLE LID SHALL HAVE A CONCEALED PICKHOLE LESS THAN 1" IN DIA. AND SHALL HAVE CAST IN THE CENTER THE WORD "SANITARY", MASTIC SEALANT SHALL BE APPLIED BETWEEN THE CONCRETE AND FLANGE OF THE FRAME BEFORE THE LID BOLTS ARE TIGHTENED.



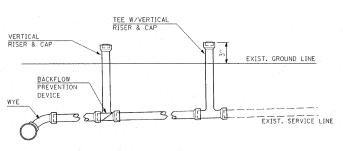


WATER TIGHT JOINT DETAIL



TYPICAL RISER FOR SERVICE LATERAL

MADISON 03-00026-00-PK 06-00026-01-MS 97331



TYPICAL CLEAN OUT DETAIL



211 North B Sulte 1900 St. Louis, M ph (314) 24 fox (314) 5

LEWIS AND CLARK MEMORIAL TOWER

DETAILS SEWER SANITARY

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE REQUIRED SLOPE ON ALL SANITARY SEWER PIPE AND THE REQUIRED ELEVATIONS OF ALL MANHOLES. MINIMUM SLOPE FOR ALL SANITARY SEWER SERVICE PIPE SHALL

BY VILLAGE OF HARTFORD PUBLIC WORKS DEPARTMENT PERSONNEL.

8. THE END OF EACH SERVICE LATERAL SHALL BE MARKED WITH A TREATED 2" BY 4" STAKE LEFT AT LEAST 3 FEET ABOVE THE FINISHED GRADE.

9. ALL DISTURBED AREAS, FOR WHATEVER REASON, SHALL BE GRADED TO AS NEAR ITS ORIGINAL STATE AND SEEDED ACCORDING TO THE SPECIAL PROVISIONS.

CUT INSTALLATION (IF NECESSARY).

SANITARY SEWER SYSTEM NOTES AND SPECIFICATIONS (UNLESS NOTED OTHERWISE ELSEWHERE)

ALL SANITARY SEWER WORK SHALL BE COMPLETED ACCORDING TO THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION. IN ILLINOIS, ADOPTED MAY, 1996, AND LATEST REVISIONS.

2. SANITARY SEWER PIPE SHALL BE AS SHOWN ON THE CONSTRUCTION PLANS AND AS DESCRIBED IN THE SPECIAL PROVISIONS

3. SEWER LINES SHALL BE LOCATED AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN OR SERVICE CONNECTION. THE SEWER LINE SHALL BE SEPARATED FROM A WATER MAIN SO THAT ITS CROWN IS A MINIMUM OF 18 INCHES BELOW THE INVERT OF THE WATER MAIN OR SERVICE EXCEPT AS PROVIDED IN THESE PLANS OR IN THE SPECIAL PROVISIONS.

4. ALL MANHOLES SHALL BE TYPE "A" IN DESIGN AND 4' MIN. IN DIAMETER, EQUIPPED WITH A-LOCK RUBBER GASKETS. RISERS AND SLABS SHALL BE ACCORDING TO ASTM C478. LIFTING HOLE SHALL BE PROVIDED IN THE BASES AND RISERS. LIFTING HOOKS SHALL BE PROVIDED IN FLAT SLABS. MANHOLE STEPS SHALL BE CONSTRUCTED OF COPOLYMER POLYPROPYLENE PLASTIC.

5. MANHOLES (LEAKAGE TESTING)-PRIOR TO PLACING THE COMPLETED SANITARY SYSTEM IN SERVICE. EACH MANHOLE SHALL BE TESTED FOR LEAKAGE ACCORDING TO ASTM C1244-02. FAILING MANHOLES SHALL BE REPAIRED AND RETESTED AS NECESSARY TO ACHIEVE AN ACCEPTABLE RESULT.

7. CONTRACTOR SHALL PROVIDE 48 HOUR NOTICE OF TESTING FOR OBSERVATION

10. SEE TRENCH DETAIL. SHEET C-03 FOR SANITARY SEWER INSTALLATION-OPEN

GROUND ADJUST SEE SECTION 32-3.09 ECCENTRIC TOP OR STANDARD TOP WATER TIGHT JOINT 4" MIN. STEPS AT GROUT

MANHOLE STEP, PLASTIC

WITH 10" LEGS AND 12"0.C.

BOTTOM SLAB: 3500 PSI CONCRETE OR PRECAST REINFORCED CONCRETE SLAB ON 6" SAND CUSHION BOTTOM SLAB, MAY BE PRECAST MONOLITHIC WITH MANHOLE WALL SECTION

SECTION A-A

IF AREA UNDER THE MANHOLE IS DISTURBED DURING CONSTRUCTION, THE BACKFILL SHALL BE THOROUGHLY COMPACTED TO THE SATISFACTION OF THE ENGINEER.

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SECTIONAL PLAN

 (\triangleright)

RUBBER GASKETED COUPLINGS FOR SANITARY MANHOLES PER ASTM C-923

MATERIAL WALL THICKNESS (T)

PRECAST CONC. MIN 1/12 "D

CAST-IN-PLACE CONC. MIN. 6"

STEPS REQUIRED, UNLESS DELETED

MANHOLE, TYPE A

SEPARATE SANITARY SEWER MANHOLES SUBJECT TO SATURATED SOIL CONDITIONS OR SURFACE SUBMERGENCE SHALL BE EQUIPPED WITH CHIMNEY SEALS AND WATER TIGHT MANHOLE COVERS.

KENNEDY PROJECT 10-02048

SHEET NO.

C - 04