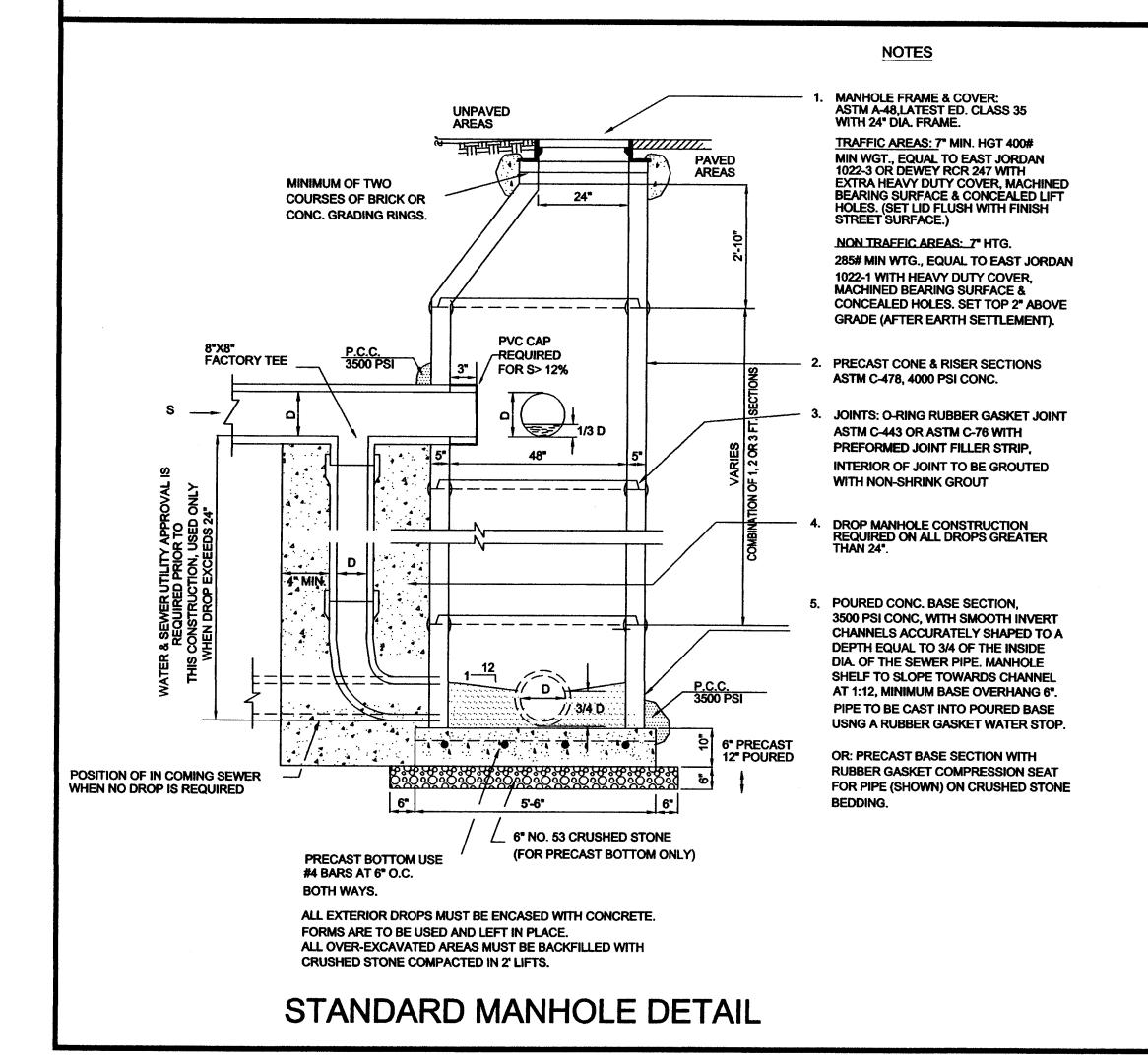
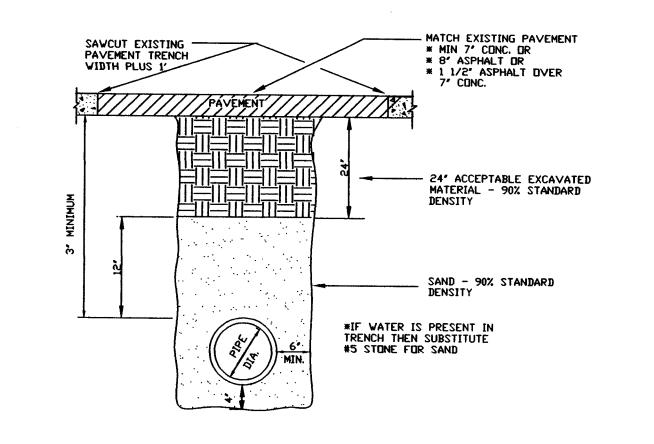
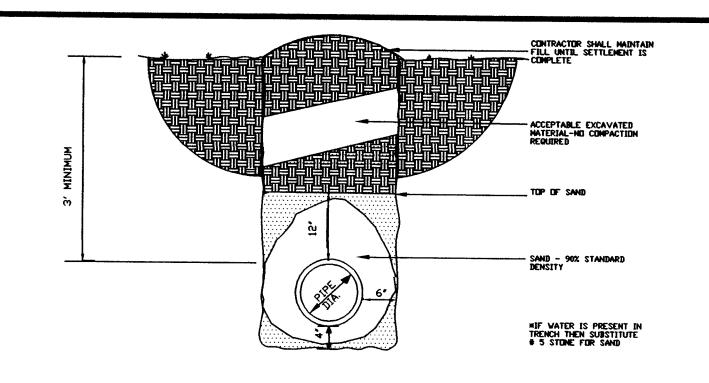
SHALLOW MANHOLE DETAIL



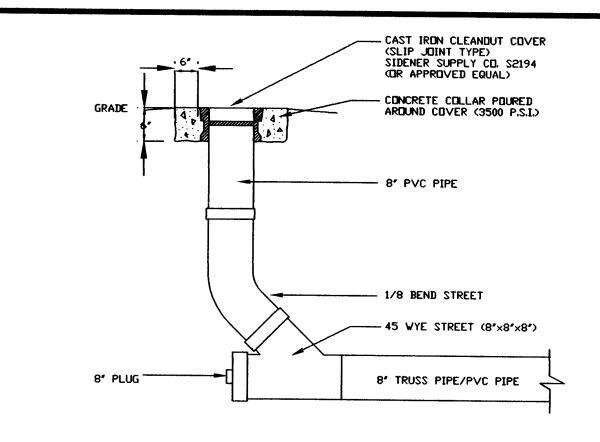


PVC TRUSS PIPE PVC SDR 26 PIPE

TRENCH UNDER PAVEMENT



STANDARD TRENCH DETAIL

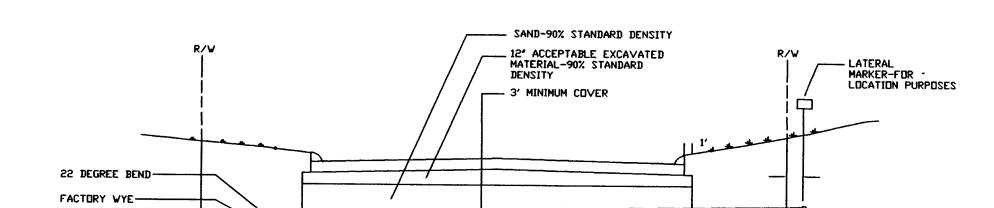


CLEANOUT DETAIL

GENERAL SEWER NOTES

- ALL MANHOLES SHALL BE IN ACCORDANCE WITH SK-110A OR SK-107 OF THE CITY OF EVANSVILLE STANDARD DETAILS WITH THE EXCEPTION THAT A PRECAST 'MOORE' TYPE REINFORCED CONCRETE BASE SHALL BE USED, AS MANUFACTURED BY M & W CONCRETE PIPE COMPANY, EXCEPT WHEN HEIGHT OF MANHOLE IS LESS THAN 4'-11'
- 2. When manhole is located within paved areas, the manhole frame shall be EJ.1022-3 with an extra heavy duty cover, or approved equal. Lifting holes shall be recessed. When manhole is located in nonpaved areas, an EJ.1022-1 frame shall be used with a heavy duty cover. Manhole casting shall be securely fastened to concrete cone section with a bituminous type mastic, or cement mortar material.
- 3. All manhole joints shall be sealed with a "Kent Seal" type rope with a joint on the inside of manhole rubbed smooth using a non-shrinking grout. In non-paved areas the manhole rim shall be set a minimum of 0.1 foot above finished grade.
- 4. All sanitary sewer pipe shall be truss pipe per ASTM D2680-89.
- 4a. All concrete mamholes shall be tested in accordance with ASTM C1244-93; standard test method for concrete manholes by negetive air pressure (vacuum) test.
- 5. All trenches located within 5'0" of paved areas shall be backfilled with granular material per detail shown on City Standard SK 113A.
- 6. All sanitary sewer lines shall be air tested, prior to allowing any connections into said line, in accordance with the Evansville Sewer Department standard specifications. Any failed sections shall be repaired and retested.
- A complete set of 'as built' plans shall be furnished to Evansville Sewer Department and the County Engineer's office.
- 8. Backfill compaction for trenches located beyond 5'0" of paved areas can be backfilled with natural material as shown. All 6' pipe located within the right-of-way shall be PVC SDR 26 pipe.
- 9. Where water and sewer lines run parallel, a 10-foot horizontal distance must be maintained. If 10 foot separation cannot be maintained, the sewer line shall be constructed of water works grade cast or ductile iron pipe with mechanical joints.
- 10. Waterlines shall maintain an 18 inch vertical separation above sewer line, if said lines should cross. If the 18 inch clearance cannot be maintained, the sewer line shall be constructed of water works grade cast or ductile iron pipe with mechanical joints within 10 feet of water line.
- 11. All bedding shall be Class "B", First Class per ASTM D-2321 except as noted for 18" diameter in note 4.
- 12. The contractor shall measure the location of the "Y's" for the house connections and give the locations to the engineer for the "AS BUILT"
- 13. Deflection tests shall be performed on all flexible pipe. The test shall be conducted after the final backfill has been in place at least 30 days. No pipe shall exceed a deflection of 5%.
- 14. A leakage test must be performed for gravity sewers and shall not exceed 200 gallons per inch of pipe diameter per mile per day.

NOTE: A BACKFLOW VALVE MUST BE INSTALLED IF PLUMBING FIXTURES ARE BELOW



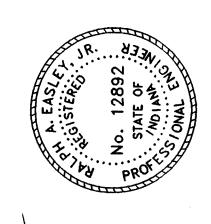
. 6' LATERAL @ 1% MINIMUM GRADE

CAP END AIR TIGHT ——FOR TESTING PURPOSES

LATERAL DETAIL

_ SANITARY SEWER

UPSTREAM MANHOLE.



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3727/ PRO 6998