



Storm Sewer

Construction Staking

All construction staking for the storm sewers shall be performed by a professional licensed surveyor. The staking shall consist of horizontal locations at points on inlets, outlets, and manholes with vertical grades located thereon. The Contractor shall exercise due care to preserve stakes and destroy them only at the direction of the Engineer.

Materials:

- All concrete pipes shall be reinforced concrete pipe, Class III or Class V, and conform to ASTM C-76 and the Alabama Department of Transportation Standard Specifications for Highway Construction, latest edition, Section 854 or as approved by the Owner.
- Pipe extensions shall be of the type and class of piping being extended.
- All HDPE pipe shall be dual-wall pipe equivalent to A.D.S.N-12.
- All openings in storm drain covers shall meet ADA requirements and be “heel proof” where exposed to foot traffic.

Trenching, backfill and compaction shall conform to Section 02249 of these specifications. Additionally, all other requirements of the Contract Documents shall apply.

The trench shall be excavated beginning at the outlet end and proceed upgrade true to the established line and grade. Trenches shall be properly sheeted and braced wherever needed and conform to Section 02249 of these specifications.

Foundation of the trench shall be so formed and treated as to prevent subsequent settlement. If the foundation is in rock, the foundation backfill consisting of a 12” cushion of well-compacted sand, fine gravel, broken stone or other approved materials shall be placed upon the rock. If the excavation has been made deeper than necessary, proper bearing shall be secured by means of a layer of fine gravel or other suitable material. In all cases, recesses shall be formed to receive the bell hub so that the full length of the pipe barrel will rest on the trench bottom.

Pipe Laying:

The laying of pipes and finished trenches shall be started at the outlet and proceed upgrade so that the spigot or groove ends point in the direction of the flow. All pipes shall be laid with ends abutting and with not more than one inch variation from established alignment at the vertical center line or from grade at the flow line. The bottom of the trench shall be shaped accurately to the outside surface of the pipe for a depth of at least 1/10 of the outside diameter. The pipe shall be fitted and matched so that when laid in the work, they will form a sewer with a smooth uniform invert. Hubs or bells shall be carefully cleaned before pipes



Section 3: Standards by CSI Divisions

are lowered into the trenches. Pipes shall be so lowered as to avoid damage and unnecessary handling in the trench.

Sealing Joints:

Joints shall be sealed with mortar, bituminous plastic cement, rubber type gaskets or other type sealers that may be approved. Joints shall be thoroughly cleaned before being sealed and shall be sealed for the full circumference of the joint unless otherwise directed.

Backfilling:

All trenches and excavation shall be backfilled as per Section 02249. Backfilling shall not begin until mortar joints have cured or until backfilling is authorized by the Engineer. The material shall be carefully deposited simultaneously on both sides of the pipe in uniform layers not to exceed 8 inches in compacted thickness, solidly tamped around with the proper tools so as not to injure or disturb the pipe. Compaction and density requirements shall meet those as shown on the construction drawings.