

**SECTION 3
JACKING AND BORING**

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SECTION 3 JACKING AND BORING

3.1 GENERAL

- A) The provisions of this section shall be applicable to installation of casing pipe for protection of sewer and water pipelines.
- B) Where directed, underground pipelines crossing existing major City streets, County roadways, Florida State highways, and railroads shall be installed under these trafficways within Jacked and bored steel casing pipe. The Contractor shall obtain in advance and strictly adhere to specific crossing requirements from the authority having jurisdiction.
- C) The Contractor is responsible for submitting the necessary permit documents and obtaining approval from the appropriate authority prior to construction.

3.2 MATERIALS AND INSTALLATION

3.2.1 Dimensions and Materials

Casing pipes under City streets shall be located as shown on the approved construction plans so as to minimize possible conflict with existing or future utilities and structures, with minimum 36 inches depth of cover between the top of the casing pipe and surface of the roadway. Casings shall be new prime steel pipe conforming to the requirements of ASTM Designation A-139, Grade B.

3.2.2 Areas Not Under Jurisdiction

For casing pipe crossings under roadways, railroads, or other installations not within the jurisdiction of the City, the Contractor shall comply with the regulations of the appropriate authority in regard to design, specifications and construction. However, in no case shall the minimum casing pipe diameter and wall thickness, for a specific carrier pipe size be less than that specified in the standard details.

3.2.3 Workmanship

- A) Jacking and Boring operations shall be done simultaneously with continuous installation, until the casing pipe is in final position. Correct line and grade shall be carefully maintained. Add-on sections of casing pipe shall be full-ring butt welded to the preceding length to produce water-tight total pipe strength joints. The casing installation shall produce no upheaval, settlement, cracking, movement or distortion or the existing roadbed or other facilities. Following placement of the carrier pipe within the steel casing, plastic or rubber boots are to be installed to close each open end.
- B) Casing pipe holes shall be mechanically bored through the soil by a cutting head on a continuous auger mounted inside the pipe. The auger shall extend a minimum distance beyond the end of the pipe casing to preclude formation of voids outside of the pipe shell.

- C) The casing pipe shall be adequately protected to prevent crushing or other damage under jacking pressure.
- D) Jacking and Boring Pits shall be excavated and maintained to the minimum dimension. Excavations shall be adequately barricaded, sheeted, braced and dewatered as required. The edge of the jacking pit shall be a minimum of 6 feet from the edge of pavement. The Contractor shall follow the requirements of OSHA and the Florida Trench Safety Act.
- E) The carrier pipe shall be either Pressure Class 350 ductile iron pipe, or with prior City approval, SR14 or DR18 PVC pipe, with restrained joints. The carrier pipes shall be supported by pre-manufactured stainless steel casing spacers within the casing pipe.
