GUIDELINE SPECIFICATION FOR PIPE INSTALLATION

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The following specifications are common to the industry. They are general in nature. Each job has its unique circumstances. These specifications are not complete for any job and cannot be used as such. Earth Tool Company LLC makes no claim as to the specifications' accuracy or completeness and does not represent or warrant them as such. The project engineer, city, or the contractor must provide the final specifications.

1. Use of pipe ramming will be for the placement of steel pipe to be used as casing. Pipe ramming will both be used for the direct placement of carrier pipe, except in the case where the carrier pipe is a non pressurized pipe.

2. The pipe used for ramming will be of good quality, free from obvious damage and the proper wall thickness to meet the local regulatory requirements and the manufacturer’s recommendation on wall thickness.

3. The launch pit location, size and shoring will be in accordance with all safety regulations required by the authorities in control of the locality. Pit location will be based on job requirements, right of way access, and regulations of the authorities with regulatory control over the site. Pit size will be determined by the project requirements and right of way access.

4. Receiving pit location will follow all guidelines required for the launch pit as documented under item #3.

5. The contractor will have experience with pipe ramming and have proof of previous projects completed or be assisted on site with a competent individual from the manufacture, or local representative, or dealer of the manufacturer.

6. The rammer used will be based on the size of the project, (length and size of casing) following the manufacturer’s recommendations and the contractors knowledge of the existing ground conditions.

7. Preparation of the pipe will follow the manufacturer’s guidelines. The casing will be rammed open ended except when 6” or smaller in diameter. Pipes 6” or smaller can be rammed open ended or closed. A soil shoe can be installed on the leading edge of the casing, either fabricated on site, or available from the manufacturer, except at depths only 18” or less from the surface. In such situations, no soil shoe will be used.

8. Lubrication to reduce friction can be used. The amount of lubrication directed to the outside of the pipe shall be no more than that required to fill the space between the outside of the pipe and soil, as created by the soil shoe, to reduce friction and increase production. Lubrication to the inside of the casing will be adequate to assist in spoil removal when the ram is completed.

9. Welding of the casing at joints will follow manufacturer’s recommendations. Use of straps at each joint on pipe 12” or larger is required as is the use of the manufacturer’s specified welding wire or rod.

10. Spoil removal for rammed casings 30” in diameter or less can be done with pressurized air and water. Air pressure used is not to exceed 150 psi and water pressure is not to exceed 300 psi. Casings larger than 30” in diameter must have the soil removed by means other than pressurizing the pipe, manual, vacuum, washing or other means.