1. All pipe systems shall be installed in accordance with ASTM D2321, “Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity Flow Applications”. Latest addition, with the exception that the initial backfill may extend to the crown of the pipe. Soil classifications are per the latest version of ASTM D2321. Class IVB materials (MH, CH) as defined in previous versions of ASTM D2321 are not appropriate backfill materials.

2. Measures should be taken to prevent migration of native fines into backfill material, when required.

3. Foundation: Where the trench bottom is unstable, the contractor shall excavate to a depth required by the engineer and replace with suitable material as specified by the engineer. As an alternative and at the discretion of the design engineer, the trench bottom may be stabilized using a geotextile material.

4. Bedding: Suitable material shall be class I, II, III, or IV. The contractor shall provide documentation for material specification to engineer. Compaction shall be specified by the engineer in accordance with Table 1 for the applicable fill heights listed. Unless otherwise noted by the engineer, minimum bedding thickness shall be 4” (100mm) for 12”-24” (300mm-600mm) diameter pipe. 6” (150mm) for 30”-60” (750mm-1500mm) diameter pipe. The middle 1/3 beneath the pipe invert shall be loosely placed. Please note, Class IV material has limited application and can be difficult to place and compact, use only with the approval of a soil expert.

5. Initial backfill: Suitable material shall be class I, II, III, or IV in the pipe zone extending to the crown of the pipe. The contractor shall provide documentation for material specification to engineer. Material shall be installed as required in ASTM D2321, Latest edition. Compaction shall be specified by the engineer in accordance with Table 1 for the applicable fill heights listed. Please note, Class IV material has limited application and can be difficult to place and compact, use only with the approval of a soil expert.

6. Minimum cover: Minimum cover, H, in non-traffic applications (grass or landscape areas) is 12” (300mm) from the top of pipe to ground surface. Additional cover may be required to prevent flotation. For traffic applications; Class I or II material compacted to 90% SPD and Class III compacted to 95% SPD is required. For traffic applications, minimum cover, H, is 12” (300mm) up to 48” (1200mm) diameter pipe and 24” (600mm) of cover for 60” (1500mm) diameter pipe. Measured from top of pipe to bottom of flexible pavement or to top of rigid pavement.

7. For additional information see technical note 2.04.