

equivalent to the crush strength of the pipe with which it will be used. [UPC 705.1]

3.5.3.1 The use of unmachined field-cut asbestos cement sewer pipe is permitted for necessary length adjustments and at points of connection to other piping materials. These adaptations shall be made with either a one-piece molded rubber coupling with appropriate bushings or listed adapter fittings. [UPC 705.2]

3.5.3.2 Approved female fittings shall be provided with interior grooves in the bell ends in which rubber sealing rings, suitable for the particular size of pipe with which the fittings will be used, are placed. The compressed rubber sealing ring in the joined female (bell) fitting end shall provide a watertight joint. [UPC 705.2]

3.5.3.3 Pipe and fitting ends shall be lubricated with an approved jelly or soap solution to permit easy assembly. [UPC 705.2]

3.5.3.4 A listed one-piece molded rubber coupling with appropriate bushings may be used as an alternate means of connecting asbestos cement pipe and male end fittings. [UPC 705.2]

3.5.3.5 Transition from asbestos cement sewer pipe to another material shall be made by listed adapter fittings, or a one-piece molded coupling with appropriate bushings for the respective material. [UPC 705.1]

3.5.4 Markings

3.5.4.1 Asbestos cement sewer pipe markings shall be in accordance with ASTM C 428. [UPC 716.0]

3.5.4.2 Each coupling sleeve of fitting markings shall be in accordance with ASTM C 428. [UPC 716.0]

3.5.5 No asbestos cement sewer pipe shall be installed less than 1 foot (305 mm) below the surface of the ground or closer than two (2) feet (610 mm) to a building. [UPC 718.3]

3.5.6 Cleanouts shall be asbestos cement or other approved materials of plug or cap type installed with rubber ring compression joints. Cleanouts, extended to within 1 foot (305 mm) of the surface, shall be of materials approved for such use. [UPC 719.0]

3.6 CONCRETE SEWER PIPE

3.6.1 Minimum Standards

3.6.1.1 Pipe and Fittings

Concrete sewer pipe may be used in sizes four (4) inches (102 mm) and larger. Concrete sewer pipe shall conform to ASTM C14, Class 2. Transition to other types or sizes of pipe may be made with listed

concrete pipe adapter fittings or listed one-piece molded rubber coupling with appropriate bushings or increasers. [UPC 301.1]

3.6.2 Types of Joints

Concrete sewer pipe and fittings shall be joined by means of flexible rubber sealing rings, compressed to provide water-tight joints conforming to ASTM C443, or by listed one-piece molded rubber couplings, or hot-poured joints of listed hot-pour compounds. Portland cement joints are prohibited except for repairs or connections to existing lines constructed with such joints.

Concrete sewer pipe shall be joined by gaskets furnished by the pipe manufacturer and installed according to the manufacturer's instructions. Approved lubricant shall be used when required for the type of joint furnished. [UPC 705.1]

3.6.3 Use of Joints

Except for points of connection to existing piping at either end of the sewer, concrete sewer pipe shall be laid using the same type of jointing throughout. [UPC 705.2]

3.6.4 Markings

3.6.4.1 Concrete sewer pipe and fittings markings shall be in accordance with ASTM C 14. [UPC 716.0]

3.6.5 Grade, Support and Protection of Building Sewers

Concrete sewer pipe shall be installed not less than 1 foot (305 mm) below the ground and not closer than two (2) feet (610 mm) to a building. [UPC 718.0]

3.6.6 Cleanouts

Cleanouts shall conform to type of jointing used and cleanouts extended to within 1 foot (305 mm) of grade, shall be of materials listed for that use. [UPC 719.0]

3.7 VITRIFIED CLAY PIPE

3.7.1 Minimum Standards

3.7.1.1 Materials. Materials shall comply with the appropriate standard in Table 14-1 of the UPC. Vitrified clay sewer pipe, extra strength only, may be used in sizes three (3) inches (76 mm) and larger. [UPC 301.1, 701.0]

3.7.2 Types of Joints

Vitrified clay sewer pipe and fittings shall be joined by means of preformed flexible compression joints or listed one-piece molded rubber couplings. [UPC 705.1]

3.7.2.1 Except at point of connection to existing piping at either end of the sewer, vitrified clay sewer piping shall be laid using the