

1.18 MAINTENANCE PERIOD The Developer shall be responsible for the maintenance of the installed water mains and appurtenances to District Standards for a period of not less than one (1) year from the date the water main is placed in service by the District. If an inspection reveals that the installation does not meet District standards, the developer will be notified in writing to correct all discrepancies and/or problems within 30 days after notification. If the problems are not corrected within the 30 day period, the District shall make the corrections at the expense of the Developer. The Developer shall then be billed by the District at a rate of time and material plus overhead or at the rate of actual cost plus overhead when completed by an available contractor hired by the District. Payment is required within 30 days of invoice date. Indebtedness to the Water District will result in no future water being provided to the Developer on all existing and future water main projects and/or phases until all indebtedness is paid in full.

1.19 APPLICATION FOR SERVICE Application for water service will only be accepted after the water main bacteria samples are shown to be negative following disinfection and the main is placed in-service by the District. No service installation will be scheduled until the water main is approved and turned on.

1.20 CONDUITS FOR WATER SERVICES IN ROCKY AREAS The Developer is responsible for notifying the District when rocky conditions are found in a development which could affect the installation of customer water service lines. In rocky areas, the Developer shall install service line conduits and be responsible for maintaining markings which identify the conduit's location. When service connections in developments require rock boring as a result of a developer's failure to install crossover conduits, the water service applicant will be billed for the full cost of the installation under the District's Invoice Billing Policy, less the connection fee paid at the time of application. This will apply to service connections tapped to water mains installed by a developer and put into service after January 1, 2020. The word "rock" is defined as boulders and solid masonry larger than 1/2 cubic yard in volume, or solid ledge rock and masonry which requires for its removal, drilling and blasting, wedging, sledging, barring, or breaking up with a power operated hand tool. Photo evidence of rock encountered during service line installation is available upon request.

1.21 ORGANIC CONTAMINATION
Mains installed within 200 feet of petroleum tanks and other areas of organic contamination must be ductile iron pipe.

PART II - MATERIALS

2.01 WATER MAIN PIPE AND FITTINGS

A. Minimum Class 50 Ductile Iron Pipe (D.I.P) - A minimum of Class 50 Ductile Iron pipe shall conform to the latest edition of AWWA C151. All pipe shall be clearly marked as to class by the manufacturer "Push-on single gasket" type joints shall conform to the latest edition of AWWA C-111. Pipe shall have a standard thickness cement mortar lining in conformance with AWWA C-104.

Under no conditions shall pipe line deflection measured between joints exceed the manufacturer's published recommended standard for that type of pipe. The maximum deflection at push-on joints and/or mechanical joints shall be 5 degrees or as recommended by Manufacturer. All D.I.P. shall be blue polyethylene wrapped.

B. Polyvinyl Chloride Pipe (P.V.C.) - D.R. 18, P.V.C. pipe shall conform to the latest edition of AWWA C900, must be NSF approved and manufactured in accordance with ASTM standards. All pipe shall be clearly marked as to class by the manufacturer. The outside diameter shall be equivalent to D.I.P. Pipe shall have gasket bell end type joints furnished complete with gaskets meeting the latest edition of ASTM F477. Solvent weld joints are prohibited.

P.V.C. pipe shall be permitted for use in residential subdivisions and along city and county roads as approved by the District. Pipe size shall be limited to 6", 8" & 12". P.V.C. pipe shall not be installed in high pressure areas where the static system pressures exceeds 125 psi or other system conditions exist which increase pressures over 125 psi. as determined by the District. P.V.C. pipe cannot be used for cross country lines, along state highways, water crossings, or installed within 200 feet radius of oil or gasoline lines, underground storage tanks, petroleum storage tanks or pumping stations.

P.V.C. pipe may be tied into an existing ductile iron main in a subdivision when the extension is over 450 linear feet of main, or when the pipe is installed around a cul-de-sac or a dead-end street with no possible extension of the street as approved by the District. Transition between D.I.P. and P.V.C. pipe shall be made with some type of ductile iron fitting. Manufacturer approved transition joints shall be used between dissimilar piping materials.

Beveled spigot ends must have a minimum bevel of 8 degrees to a maximum bevel of 15 degrees. The vertical face of the spigot end may not exceed 75% of pipe wall thickness and the horizontal length of the bevel shall not exceed 1.25 inches. Field beveled spigot end shall be made per manufacturers recommendation and as approved by the District. The degree of bevel shall be approved for the type of pipe being installed.

P.V.C. Pipe Shipping, Handling & Storage - The front end of all pipe delivered by truck shall be covered for protection against exhaust fumes.P.V.C. pipe shall be protected from exposure to sunlight according to manufacturer's recommendations. Pipe will not be accepted for installation if discoloration is evident due to sunlight or other exposure. Pipe shall be stored in such a manner to prevent beaming the pipe.


C. Molecularly Oriented Polyvinyl Chloride Pressure Pipe (P.V.C.O.)

P.V.C.O. pipe shall conform to the latest edition of AWWA C909, must be NSF approved and manufactured in accordance with ASTM standards. All pipe shall be clearly marked as to class by the manufacturer. The outside diameter shall be equivalent to D.I.P. Pipe shall have gasket bell end type joints furnished complete with gaskets meeting the latest edition of ASTM D3139. Solvent weld joints are prohibited. P.V.C.O. pipe installation shall follow the P.V.C. C-900 Standards - Part II -Materials, 2.01, Section C of these specifications.

D. Polyethylene Pipe - Class 200, S.D.R. 9, 200 psi, ASTM D-2737, P.E. pipe shall conform to the latest edition of AWWA C901, must be NSF approved and manufactured in accordance with ASTM standards. All pipe shall be clearly marked as to class by the manufacturer. The outside diameter shall be equivalent to Copper Tubing Size (CTS). The P.E. pipe shall be homogeneous throughout and free of visible cracks, holes, kinks, foreign inclusions or other defects. It shall be uniform in color, opacity, density and other physical properties. Solvent weld joints are prohibited.

P.E. pipe shall be permitted for use in residential subdivisions cul-de-sacs only as approved by the District. Pipe size shall be limited to 2". P.E. pipe shall not be installed in high pressure areas where the static system pressures exceeds 125 psi or other system conditions exist which increase pressures over 125 psi. as determined by the District. P.E. pipe cannot be used for cross country lines, along state highways, water crossings, or installed within 200 feet radius of oil or gasoline lines, underground storage tanks, petroleum storage tanks or pumping stations.

P.E. pipe expands and contracts when exposed to temperature changes, allowances shall be made during installation. Normally P.E. pipe will "snake" itself in the trench enough to provide sufficient slack. An extra 6" per 100' of pipe per 45 F temperature change should be added to compensate for thermal conditions.

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| N. KY. WATER DISTRICT | | SPECIFICATIONS | | | |
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| DRAWN BY: | | SAR | | | |
| APPROVED: | |  | | | |
| DATE: | | 2/1/2021 | | | |
| STANDARD DRAWING NO: | | 100-C | | | |