

- a variance from these specifications is required and approved by the District.
- the project's overall length is greater than ten thousand (10,000) contiguous feet. Two (2) or more adjoining projects shall be considered one (1) project for the purposes of this requirement.
- the project consists of water pipes less than three inches (3") or greater than twelve inches (12") in diameter. This excludes: [1.] circulating two inch (2") water main projects of less than five hundred feet (500') shall qualify if future extension from the line will not occur and if the District determines that the two inch (2") line will benefit the overall system hydraulics and/or drinking water quality and [2.] projects consisting of water pipes greater than twelve inches (12") if the project only includes the relocation and/or rehab of the water main and no changes to pipe diameter.
- the project includes new construction or installation of treatment plants, storage tanks, chemical or pressure booster pumping stations.
- the project is funded in part or in full by the State Revolving Fund (SRF) or Congressional Special Appropriation Project Grants (SPAP).
- the project is under the jurisdiction of any regulating agency or funding agency other than the Kentucky Division of Water (external agencies), which in any way conflict with any regulatory process or funding process of these external agencies.
- the project impacts any outstanding state resource water, outstanding national resource water, exceptional water, or cold water aquatic habitat as defined at by 401 KAR Chapter 10.

If DOW approval is required an additional three (3) sets of plans must be submitted to the District along with a check made out to the Kentucky State Treasurer in the amount of \$150 for projects less than 10,000 linear feet and \$325 for projects longer than 10,000 by the Developer. Requirements contained within the DOW approval may make it necessary for a professional engineer to certify in writing that the project has been completed in accordance with the approved plans and specifications. If this is the case, the Developer shall secure these engineering services and supply said written certification upon completion of construction.

- 1.05 WATER MAINS ON PRIVATE PROPERTY Water mains installed on private property which are going to be maintained by the Water District, shall have a twenty-(20) foot wide easement with the water main centered in the easement area and shall have a justifiable benefit to the District (serving more than one property owner, hydraulic benefits, etc.) A four-(4) foot area over the water main shall be a non-paved, strip totally unobstructed with the exceptions as outlined in DESIGN GUIDELINES. With appropriate justification, paving may be approved within the four-(4) foot area over cross-country water mains. Outside the ten-(10) foot area over the water main, 5' either side but within the overall easement area, other utilities may be placed in this area. Proper documentation shall be provided for all easement areas. For areas that are on recorded subdivision plats, the following statement may be used in lieu of the grant of easement forms:

WATER MAIN EASE

The Water Main Easement(s) as shown on this plat are subject to the DECLARATION OF MASTER WATER FACILITY EASEMENT AGREEMENT as set forth in _____ (Document Location)

of the _____ County Clerk's records at _____, Ky.
(County Name) (Court House)

Document Location at Various Court Houses:

Court House	Document Location	County
Alexandria	Easement Book 129, Page 145	Campbell
Boone County	Easement Book 54, Page 195	Boone
Covington	Miscellaneous Book 504, Page 311	Kenton
Independence	Miscellaneous Book 228, Page 73	Kenton
Newport	Easement Book 304, Page 466	Campbell

For other areas, the Design Engineer shall prepare an easement document suitable for recording with the County Clerk. Documents shall consist of a sketch (8 1/2" by 14"), a legal description of the twenty (20) foot easement with back references to Deed Book and Page number, and a signed Grant of Easement Form (Restoration agreement) provided by the District prior to filling the main for sterilization.

- 1.06 WATER MAIN SIZE Minimum public water main size shall be 8", unless it is determined by the District that a dead-end main has no potential for future development, or it is determined by the District that a smaller main is adequate. The District may allow the last 600 feet of water main to be constructed as 6" water main, if a fire hydrant is deemed necessary by the Authority having Jurisdiction; or a smaller diameter main if a blow-off is sufficient. The water main around a cul-de-sac may be reduced to 4" ductile Iron or 2" polyethylene. A flushing device may be required, as determined by the District, on 4" ductile Iron and 2" polyethylene lines, if there is no potential for future development as determined by the District and proper fire hydrant spacing can be met. The District may consider the installation of conduits for cul-de-sac lots versus a main around the cul-de-sac. Conduits will need to be installed on the opposite lot lines of the electric service and at the proper depth with a tracing wire. Additional requirements may be required for the installation of conduits subject to the approval of the District. All water mains 16" and larger shall be min. class 50 ductile Iron as determined by the District. The District does not allow water mains 10", 14" & 18" in size.


- 1.07 DEAD ENDS OF WATER MAINS Dead ends to water mains shall be prohibited unless approved by the District. Dead ends may be approved if one or more of the following conditions exists:

- The distance between the dead end and the other tie-in point is greater than 600 feet.
- Physical features exist between the dead end and the other tie-in point that in the opinion of the District make it impractical to tie them together.
- Slopes between the dead end and the other tie-in point is greater than 3 to 1.
- Slopes/terrain between the dead end and the other tie-in point is certified as geotechnically unstable by a qualified professional geotechnical engineer.
- It is necessary to purchase easements to run a water line through existing developed lots.

The District reserves the right to require certain dead ends to be connected even though they meet the above conditions. No services shall be permitted to be tapped on cross-country water mains. For lines that dead end, a fire hydrant or blow-off shall be placed at the end of each line 6" in diameter or greater, and a flush hydrant or blow-off shall be required at the end of each line that is less than 6" in diameter. Each blow-off, fire hydrant, or flush hydrant shall be sized so that water velocity in the water main served by the blow-off or hydrant is greater than or equal to two and one half (2.5) fps during flushing. Flushing devices, blow-offs, or air relief valves shall not be connected to any sanitary sewer, combined sewer, septic tank or subsoil treatment system (hereinafter "non-storm sewer") or any storm sewer or storm drain, and shall be located at a distance greater than ten feet (10') from any non-storm sewer. Chambers, pits, or manholes containing valves, blow-offs, meters, or other such appurtenances shall not be directly connected to any non-storm sewer or any storm sewer or storm drain. Such chambers, pits, or manholes shall be drained to absorption pits underground or to the surface of the ground where they are not subject to flooding by surface water.

Cul-de-sacs streets of less than 300 feet long may be considered for the installation of a 4" ductile Iron looped water main for the elimination of the dead end. A fire hydrant shall be installed at the intersection of the cross street and a valve installed between the two tees for the 4" line.

- 1.08 MULTIPLE WATER MAIN FEEDS A minimum of two supply sources shall be required for subdivisions of one hundred (100) units or more, more than one street, and/or there is potential development area that exceeds the number of customers or streets previously mentioned.

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