

WATER UTILITY INSTALLATION NOTES

1. Installation of water main, fittings, valves, fire hydrants, and appurtenances shall be in accordance with Indiana American Water Standards and Specifications, latest revision.
2. It is the contractor's responsibility to field verify the location, size and material of the existing water main prior to construction.
3. At the point of connection to existing water mains, a tapping sleeve and valve may be required to be installed if the existing water main cannot be shut down without impacting customers, to be determined at the pre-construction meeting.
4. For PVC C900 pipe installation: DR14 pipe is required. Deflection of pipe joints and bending of pipes are not permitted. All angles shall be made with proper fittings. When restraint of pipe-to-pipe joints are required, all joints shall be restrained with external split serrated restraint harnesses. Select fill material required for bedding and embedment regardless of pipe's proximity to pavement. PVC C900 pipe is not allowed for pipes larger than 12-inch.
5. For Ductile Iron pipe installation: Thickness Class 52 for typical distribution mains 12-inch nominal size and smaller. When restraint of pipe-to-pipe joints are required, push-on restraining gaskets with integral stainless steel locking segments are permitted on pipe-to-pipe connections 12-inch nominal size and smaller only. Pipe-to-pipe connections greater than 12-inch nominal size shall be restrained per specification section 15105.
6. For HDPE pipe installation: DIPS DR11 for sizes 4 inch and larger, IPS DR9 for 3 inch, and CTS DR9 for sizes smaller than 3 inch. HDPE bends, tees, and crosses are not acceptable. Pressure testing of HDPE pipe differs from ductile iron and PVC pipe, see specification section 15030-3.03. Pipe fusion must be completed by certified technician; certification to be submitted prior to pre-construction meeting.
7. Encase all ductile iron piping, ductile iron fittings, valves, hydrants, restraint harnesses, and all other metallic appurtenances in 12mil blue polyethylene.
8. All fire hydrant laterals shall be ductile iron pipe.
9. All MJ T-bolts and flange bolts shall have Xylan or FluoroKote #1 corrosion resistant coating.
10. All fittings shall be restrained using MJ retainer glands.
11. Thrust restraint to be achieved through the restraint of pipe joints and fittings. Thrust blocks are not an acceptable means of thrust restraint, except when required in connecting to existing water main and for installation of fire hydrants. See specification sections 15105 and 15120 for pipe joint restraint requirements for ductile iron and PVC pipe.
12. Copper-clad steel tracer wire required on installation of all pipe. Tracer wire shall be taped to pipe or polyethylene encasement at a minimum spacing of 10-feet. Splices shall be encased in waterproof connectors. Wire and connectors are to be compatible and from the same manufacturer. Detectable tape is required one foot above pipe. Continuity shall be tested after completion of backfill.
13. Select fill material required for final backfill when within 5-feet of pavement per specification section 02210.

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14. Maintain the required 10-feet of horizontal separation and 18-inches of vertical separation from sanitary and storm sewers. Maintain 8-feet of horizontal separation from sanitary and storm structures. See 327 IAC 8-3.2-9 of the Indiana Administrative Code for more information.
15. Maintain minimum cover depth of X'' and a maximum of $X''+24''$.

USER NOTES:

- Depending on water main pipe material, choose between note #3 or #4.
- X'' per 327 IAC 8-3.2-17(d)
 - 42" min. for SIO