

## City of Hutto - Water Notes

Updated March 2019

1. Water systems shall be constructed in accordance with City of Hutto Engineering Manual, standard specifications and standard details.
2. Fire hydrants on mains under construction shall be securely wrapped with a poly wrap bag and taped into place. The poly wrap shall be removed when the mains are accepted and brought into service. All fire lines shall be ductile iron.
3. All water service, wastewater service, and valve locations shall be appropriately marked as follows:
  - A. Water Service "W" on top of curb
  - B. Valve "V" on top of curb or valve sign as instructed by City Engineer
4. Tools for marking curbs shall be provided by the Contractor. Other appropriate means of marking service and valve locations shall be provided in areas without curbs. Such means of marking shall be specified by the engineer and approved by the City of Hutto.
5. Thrust blocking and restraints shall be in accordance with City of Hutto standard specifications.
6. Hydrostatic pressure and leakage tests shall be performed on all pressure pipelines carrying water.
7. All newly installed pipes and related products must conform to American National Standards Institute must be certified by an organization accredited by ANSI.
8. Pipe material for water mains shall be PVC (AWWA C900/C905, MIN. DR 14), or Ductile Iron (AWWA C151, MIN. CLASS 350). Water services (2" OR SMALLER) shall be polyethylene tubing (BLACK, 200 PSI, DR 9).
9. All ductile iron pipe (D.I.P) shall be wrapped with eight (8) MIL, black virgin polyethylene wrap as specified in ANSI/AWWA C105/A21.5.
10. All D.I.P. shall be lined with virgin polyethylene conforming to ASTM D-1248; 40 MIL thickness (nominal), 35 MILS (minimum). Liner to be Polybond or equal. At any point where D.I.P. cannot be wrapped in polyethylene, coat the exterior with Polybond or approved equal.
11. All PVC pipe (all types and SDR/DR wall thickness to be used) shall have rubber gasket equipped bell and spigot joints conforming to ASTM D-3212. The gasket material shall conform to ASTM F-477. Solvent welded joints will not be approved for this project.
12. All potable waterlines and sanitary sewer facilities must be installed so as to provide a minimum of nine feet of clearance in any direction between them. Where the nine foot separation distance cannot be achieved, follow these special procedures.
  - A. If a collection system pipe parallels a public water supply pipe the following requirements apply:
    - I. A collection system pipe must be constructed of cast iron, ductile iron, or PVC meeting ASTM specifications with at least 150 pounds per square inch (PSI) pressure rating for both the pipe and joints.

- II. Vertical separation must be at least two feet between the outside diameters of the pipes.
  - III. Horizontal separation must be at least four feet between outside diameters of the pipes.
  - IV. Collection system pipe must be below water supply pipe.
- B. If a collection system pipe crosses a public water supply pipe, the following requirements apply:
- I. If a collection system is constructed of cast iron, ductile iron, or PVC with a minimum pressure rating of 150 PSI, the following requirements apply:
    - a. A minimum distance of six (6) inches between outside diameters of the pipes.
    - b. A collection system pipe must be below a public water supply pipe.
    - c. Collection system pipe joints must be located as far as possible from an intersection with a public water supply line.
  - II. If a collection system crosses over a public water supply pipe, each portion of a collection system pipe within nine feet of a public water supply pipe must be constructed of cast iron, ductile iron, or PVC pipe with a pressure rating of at least 150 PSI using appropriate adapters.
13. The Contractor must obtain a temporary water meter from the City of Hutto Utility Billing Department for all water used during construction.
14. Contractor to schedule water valve closure through City of Hutto: Department of Public Works – Utility Division with advance notice of 7 days. Contractor to contact public works at phone # 512-759-4016 and notify construction inspector. Water valve closure will only be scheduled for Tuesday through Thursday. Contractor to notify all businesses and residents affected by valve closures. Closures must be coordinated to minimize effects on existing customers with considerations given to businesses that require water to maintain operations.
15. Line flushing or any activity using a large quantity of water must be scheduled with the City of Hutto. Contractor will be responsible for tracking the amount of water used during flushing and be required to reimburse the city for water use, if not already metered.
16. The Contractor, at his expense, shall perform sterilization of all potable water lines and shall provide all equipment necessary (including test gages), supplies (including concentrated chlorine disinfection material) and necessary labor required for the sterilization procedure. The sterilization procedure shall be monitored by the Engineer and a City of Hutto Construction Inspector. Water samples will be collected to verify each treated line has attained an initial chlorine concentration of 50 ppm.
17. An independent qualified lab, at the Contractor's expense, shall perform quality testing for all wastewater pipe installed and pressure hydrostatic testing of all water lines constructed. The contractor shall provide all equipment (including pumps and gages), supplies, and labor necessary to perform the tests. A City of Hutto Construction Inspector must be present for all testing.

18. The Contractor shall provide the engineer and the city not less than 24 hours notice prior to performing sterilization, quality testing, or pressure testing.
19. The Contractor shall not open or close any valves unless authorized by the City of Hutto.
20. All valve boxes and covers shall be cast iron per City of Hutto standard details.
21. All manholes shall be concrete with cast iron ring and cover. All manholes located outside of pavement shall have bolted and gasketed covers. Concrete manholes to be coated per standard detail and construction specifications. Tapping of fiberglass manholes shall not be permitted.
22. All fire lines shall be ductile iron pipe (AWWA C-100, Class 200).
23. All fire hydrants shall be silver in color including bonnet and installed per City of Hutto Standard detail.
24. All water piping and fittings shall be virgin stock.
25. All mechanical restraints shall be installed per manufacturer's specifications.
26. Along State Highways, water lines are required on both sides of the roadway. New water lines crossing existing streets shall be placed by boring. A steel casing shall be required under major and minor collector roadways, arterial roadways and State Highway. Open cut excavation will not be allowed to cross existing streets, unless approved by the City Engineer.
27. All new water pipes must have detectable tape per City of Hutto Standard Detail.
28. All automatic flush valves must use a meter to measure water loss.
29. Tracer wire will be tested and must work correctly before City acceptance of infrastructure. Tracer wire must be encased in pipe.
30. All reduced size taps shall be made using an epoxy coated fabricated steel tapping sleeve with stainless steel bolts, or a stainless steel full circle tapping sleeve with ductile iron flange.