

5.3 Appendix C – Spotsylvania County Standard Water and Sewer Notes

1. All public water and sewer utility infrastructure included with this approved plan shall comply with the 2018 version of the Spotsylvania County Department of Utilities Water and Sewer Design and Construction Standards Manual.
2. When the Spotsylvania County Water and Sewer Design and Construction Standards contain a project category in the approved materials and manufacturers list, only those products specifically listed may be used.
3. All changes to the approved construction plans must be approved in advance by the Utility Department.
4. All water lines up to 10" diameter may be Class 200 C900 (SDR 14) Poly-Vinyl Chloride (PVC) pipe or zinc coated ductile iron. All water lines 12" and larger or where indicated shall be Class 52 Zinc Coated Ductile Iron, conforming to ANSI-A21.51 (AWWA C151). Zinc Coated Ductile Iron pipe shall have cement mortar lining and seal coating in accordance with ANSI A21.4 (AWWA C104). Bituminous outside coating shall be in accordance with ANSI/AWWA C104. All pipes regardless of material shall have 10-gauge solid copper insulated tracer wire installed adjacent to the pipe. See [Section 3.2.3.9](#) in the Design and Construction standards for more details.
5. Pipe Fittings shall conform to ANSI/AWWA A21.10/C110 for standard size fitting or ANSI/AWWA A21.52/C153 for compact fittings. All joints shall be either mechanical joint or push-on joint conforming to ANSI/AWWA A21.11/C111. Fittings shall be cement mortar lined with a seal coat in accordance with ANSI/AWWA A21.4/C104. All fittings shall have a minimum pressure rating of 250. Lr on profiles indicates length of restrained pipe at fitting.
6. The contractor shall verify all dimensions and elevations in the field before starting construction and notify the Engineer of any discrepancies.
7. There shall be a 10' horizontal separation between water lines and/or sewer lines and a vertical separation of 18" between the bottom of the water main and the top of the sewer main. This applies to building sewer laterals as well.
8. All bacteriological samples of water lines shall be taken by Utility Department personnel. A minimum of 48 hours' notice is required to schedule these samples.
9. All water line and sewer line select backfill, structural backfill, and pipe bedding material shall be compacted to 95% VTM-1 dry density. All controlled fill in trenches under pavement or where otherwise specified shall be compacted to 95% VTM-1 dry density. Compaction reports shall be required to be submitted prior to first acceptance.
10. No existing water main is to be tampered with by tapping, opening, or closing valves without a Utility Department inspector present on the job site.
11. No new water lines are to be filled or flushed without a Utility Department inspector present.

12. Ductile Iron pipe shall be Zinc Coated and V-Bio Polywrapped.
13. The contractor is responsible for daily as-built plans on all construction. All laterals and appurtenances shall be referenced from the nearest manhole.
14. All manholes shall be waterproofed on exterior surface by the manufacturer in accordance with Spotsylvania County Specifications.
15. Sewer connection to existing sanitary manholes shall be made by core drilling manhole and installing a rubber boot to create a watertight connection.
16. "Doghouse" manholes are not allowed unless approved by the Utility Department. See [Section 2.3.3](#).
17. A Cleanout cover assembly in accordance with the standard details shall be installed on each sewer lateral cleanout.
18. An air test is required on new sanitary sewer lines. A vacuum test is required on new manholes.
19. All gravity sanitary sewer mains shall be PVC sewer pipe type PSM poly-vinyl chloride unless noted otherwise on the plans. Pipe and fittings shall meet ASTM designation D-3034-73. Minimum designation used shall be SDR-35. Class A bedding shall be used on depths exceeding 24 feet.
20. All gravity sanitary sewer laterals shall be PVC sewer pipe type PSM poly-vinyl chloride unless noted otherwise on the plans. Pipe and fittings shall meet ASTM designation D-3034-73. Minimum designation used shall be SDR-26 or SCH 40.
21. All sanitary sewer laterals shall be installed at a minimum grade of $\frac{1}{4}$ " per foot (2.08%) unless approved by the Engineer and/or Owner.
22. The contractor shall be responsible for installing all sewer laterals to each lot as shown on the construction plans under the inspection and approval of the Department of Utilities.
23. Contact the Utility Department Cross/Connection and Backflow Coordinator for requirements for backflow prevention.
24. The developer/Owner is responsible for responding to Miss Utility Requests until water and sewer lines are accepted. Any damage to water and sewer mains must be repaired prior to acceptance.
25. The contractor shall be responsible for contacting the Spotsylvania County Utilities Department prior to any water line tie-in or shut off with a minimum of 72 hours' notice.
26. Any construction or installation of public utilities performed on a major holiday, as "major holiday" is defined in the County Human Resource Policy, on a weekend, or on any day before 7:00 a.m. or after 5:00 p.m. ("Off Hours") shall require two (2) days advance written notice and approval by the Department.
27. All bolts, nuts and hardware shall be coated with FluoroKote #1 process or be equivalent and shall be installed on fittings.