NORTH TABLE MOUNTAIN WATER AND SANITATION DISTRICT
(NTM or District)

GENERAL NOTES: Revision Date – January 2026:

1. The Construction Drawings, of this project, must meet all requirements set forth in the NTM Standard Specifications.
2. Contractor is responsible for confirming that they have the latest version of Notes, Standard Specifications and Construction Drawings at the time of construction. The Notes and Standard Specifications are posted on the NTM website, www.ntmwater.org.
3. Soil amendment is required for all new construction by the Developer per the Standard Specifications. Each 1,000 square feet of soil must be amended with 4 cubic yards of approved compost. Compost must be roto-tilled into the soil to a depth of 4 to 6 inches. This applies to all permeable areas of the development including each individual lot and all common areas. Meters will not be set until soil amendment is installed and approved.
4. Landscape and Irrigation Plans must be submitted to and approved by the governing jurisdiction.
5. A submittal package of detail sheets to include all pipe and appurtenances, to be used during construction, must be submitted and approved prior to construction. Only submit on items pertinent to water and sewer, do not include items related to other utilities (storm water, etc.) Allow up to three weeks for review.
6. Contractor must obtain a Utility Permit from NTM before any water or sanitary sewer utility construction is started. Bonding and Insurance requirements are listed on the Utility Permit.
7. Prior to installing water main in dedicated paved streets or easements, grading shall have progressed to at least the subgrade stage. The finish grade for water main installed in unpaved areas must be brought up to an elevation such that the trench depth above the top of the pipe is at least 4 feet when being installed.
8. Trenches shall not be backfilled until the pipe is inspected. The Contractor is responsible for notifying the NTM Inspector 24 hours prior to inspection at 303-279-2854.
9. Water and sanitary sewer service locations shall be permanently marked on the face of the curb with a “W” or “S” stamped in wet concrete.
10. A minimum of ten (10) horizontal feet of separation shall be maintained between the water and sewer facilities.
11. Any changes of material or deviations from the approved plans or these specifications must be done with written permission of the NTM District Engineer.
12. The Contractor shall have in their possession at all times, a copy of the plans that have the signed NTM approval block on the cover sheet.
13. The Contactor shall maintain, on the job site, a separate set of Construction Plans red-lined to fully indicate field installed conditions and deviations from the original drawings. Include all fittings, deflections, services and valves for waterlines. Include all manholes, inverts and services for sanitary sewer lines.
    a. NTM shall receive copy of red-lined field set.
14. The red-lined Construction Plans (see note, above) shall be transferred to electronic “As-Built” drawings.
    - The As-Built Drawings must be approved by the District.
    - The As-Built drawings shall be submitted to NTM in electronic PDF and AUTOCAD

formats.

15. A Certificate of Completion will be issued once:
    a. The project has been inspected and approved.
    b. The As-Built drawings have been submitted and approved.
    c. Two–year, $25,000, bond has been issued to NTM.
    d. The two-year warranty period shall commence at the issue date of the Certificate of Completion.
16. Letter of Acceptance (after 2-year warranty period):
    a. Initiated by Owner/Contractor.
    b. Request NTM re-inspection of the water and sewer infrastructure and a punch-list will be generated.
    c. NTM will not accept facilities until the final punch-list is approved.
    d. A Letter of Acceptance will be issued and the bond can be released.
17. Road cut permits and all bonding for work in Jefferson County or governing jurisdiction shall be secured and paid for by the Owner/Contractor. Backfill and road surface replacement shall meet Jefferson County or governing jurisdiction standards.
18. Material Quantities:
    a. Water main (LF): _____
    b. Sewer main (LF): _____
    c. Manholes: _____
    d. Valve boxes: _____
    e. Fire hydrants: _____
    f. Meter pits: _____
    g. Bends _____

19. NTM Approval Stamp must be on the cover sheet of the construction plans.

North Table Mountain Water and Sanitation District's review of these plans relates only to the District's requirements. The Professional Engineer, Contractors and Owners designing and constructing this proposed water distribution and/or sewage collection system shall be solely responsible for the adequacy of the design, installation and materials utilized. This includes all connections to existing District facilities. Any modification of these plans must be resubmitted to the District for approval prior to construction.

APPROVED FOR CONSTRUCTION

_____
District Manager

_____
Distribution and Collection

_____
Project Engineer

_____
Date

APPROVAL VALID FOR 6 MONTHS

WATER LINE NOTES: Revision Date – January 2026

1. All water mains, fire lines, and fire hydrant leads with a diameter of 12 inches or less shall be constructed using C909 PVC, Pressure Class 235, with a push-on single gasket joint, manufactured in compliance with AWWA Standard C909. The approved manufacturers are J.M. Eagle or Westlake Pipe & Fittings or District approved equal.
2. All fittings shall be AWWA rated ductile iron with mechanical joint ends or approved equal. All fittings shall have a pressure rating of 350 psi and shall be wrapped with an AWWA rated 8-mil minimum thickness polyethylene. All T-head bolts , restraint rods and nuts shall be Cor-Blue, flange bolts shall be stainless steel.
3. All fittings shall be restrained using PVC Stargrip Series 400 made for C909 PVC pipe or approved equal. All fittings shall be restrained according to the Water Standard Detail W10. In addition, all fittings must be protected with concrete thrust blocks according to Standard Water Detail W3.
4. All valves are to be open right (clockwise). Approved manufacturer - AVK or District approved equal.
5. Wet taps shall be made using full wrap, stainless steel full gasket with 360 degrees of pipe coverage (Muller Co., Ford, Smith-Blair, Romac or approved equal). Tapping valves shall be AWWA rated ductile iron body, resilient seat, non-rising stem, flanged inlet and mechanical joint outlet, two-inch operating nut, open right (clockwise) or District approved equal.
6. The Contractor shall furnish and install Copperhead Industries blue 12 AWG stranded detector wire along the length of all new water pipe, per Standard Detail W11.
7. Contractor shall install detectable tape 1-foot above squeegee.
8. All service and fire lines will be inspected from the main to the building.
9. Existing service lines that will not be utilized must be abandoned. Abandon water service line at the main; shut corporation stop valve off at the tap and sever service line.
    a. Tap credits for new services will not be granted until the existing service has been properly abandoned.
10. There shall be a minimum cover of 4.5 and maximum of 6.0 feet of cover for all water mains.
    a. If a grade change causes the existing water main to have less than 4’ or more than 6’ of cover the water main will need to be relocated with new pipe to an acceptable depth and design drawing submitted for approval.
11. All water mains shall be chlorinated in accordance with AWWA Standard C651, "Disinfecting Water Mains". The preferred method is to use chlorine tablets filling and flushing of the line shall only be performed in the presence of the NTM Inspector.
12. <u>Schedule for testing of pipe:</u>
    Bacteriological sampling will take a minimum of 4 days, no exceptions! Samples shall be taken at every 1,200 feet of new water main, the end of the main and from each branch.
        i. Fill main and allow pipe to chlorinate for 24 hours.
        ii. After the first 24 hours the chlorine residual in the main shall be at least 25 mg/L, prior to flushing.
            - Contractor shall schedule NTM to take a residual chlorine sample, flush the main and collect the first sample(s) for bacteriological testing.
        iii. A second bacteriological sample(s) will be collected for testing 24 hours after the main has been flushed and the first sample has been taken.

iv. Results from the bacteriological sample(s) will be determined in 48 hours, no less.

13. The main must have service lines installed and passed the bacteriological test prior to a hydro-static pressure test. All pipe shall be field hydro-static pressure tested to a minimum of 150 psi for at least one (1) hour duration. All testing shall be completed in the presence of the NTM Inspector. No leakage is allowed.
14. Backflow protection shall be provided in accordance with the Colorado Safe Drinking Water Regulations as well as District Rules and Regulations (available on the District website). All backflow preventers must be USC approved and listed for the orientation of installation. Details for fire suppression systems and all backflow prevention assemblies must be included in the submittal package. Fire line backflow preventers shall be independently certified prior to District approval. All devices shall be tested upon installation and the results provided to the District. Contact NTM's Cross Connection Control Administrator (backflow@ntmwater.org) with any questions.

SEWER LINE NOTES: Revision Date - January 2026

1. All sanitary sewer mains and service lines shall be constructed of green ASTM SDR 35 PVC pipe with integral gasketed bell unless otherwise approved by the District.
2. The Contractor shall furnish and install green Copperhead Industries 12 AWG stranded detector wire along the length of all sewer main, service lines and manholes per Standard Drawings S1, S2 and S8.
3. Existing sanitary sewer service lines that will not be utilized must be abandoned and capped at the main.
    a. Tap credits for new services will not be granted until the existing service has been properly abandoned.
4. All sanitary sewer pipe installations shall be air tested prior to acceptance. Air pressure tests shall be performed in the presence of the NTM Inspector. Pressure must be stabilized at 3.5 psi at start of test. If the time required for a one (1) pound pressure drop (from 3.5 to 2.5 psi) is greater than ten (10) minutes then the section shall pass.
5. New manholes shall be vacuum tested. A vacuum of 10 inches of mercury (Hg) shall be drawn. The manhole shall pass the test if the vacuum reading does not drop more than 1 inch Hg (from 10" Hg to 9" Hg) during the following vacuum test times:

MH Depth	4' Diameter MH	5' Diameter MH	6' Diameter MH
15 feet or less	60 seconds	75 seconds	95 seconds
Over 15 feet	90 seconds	105 seconds	120 seconds

6. All new sewer mains shall be jetted to remove foreign material from the newly installed sewer main prior to video inspection. All material flushed from new mains shall be removed and not allowed to enter existing sewer mains.
7. Contractor is responsible for video inspection of all new sewer mains. Inspection shall include the following:
    (a) NTM will perform flushing the video must be recorded directly after the main has been flushed - the video shall be recorded with water flowing in pipe. Video of dry main will not be accepted. Coordinate flushing with NTM field staff.
    (b) Submit video to the District for review and approval. The video shall remain the property of the District.
    (c) All video shall contain voice data and distance information.
    (d) Should any portion of the video be of inadequate quality or coverage, as determined by the District inspector, the Contractor will have the portion re-videoed.

8. Minimum pipe diameter is 4-inch for a service line and 8-inch for a main. All pipes have minimum slope and velocity requirements as described in the District's Standard Specifications.

9. Underdrain systems are not part of the District's Sanitary Sewer System. They must not be blue or green pipe. Underdrain clean-outs are not allowed inside manholes.

The above notes are in addition to those on the Standard Water and Sewer Detail drawings and the District's Standard Specifications.