



MEMORANDUM

P.O. Box 4100 ♦ FRISCO, COLORADO 80443

TO: MAYOR AND TOWN COUNCIL
FROM: JEFF GOBLE, PUBLIC WORKS DIRECTOR
RE: RESOLUTION 24-12 – APPROVAL OF AMENDMENTS TO THE WATER CONSTRUCTION STANDARDS.
DATE: FEBRUARY 13, 2024

Summary and Background: Pursuant to the Town of Frisco Home Rule Charter, various chapters of Town Code are reviewed and amended as needed every five years. The Water Construction Standards listed in Chapter 171 of the Town Code were last reviewed and amended in February of 2019. Since then we have experienced some issues that need to be addressed in the Water Construction Standards. Recommended changes are listed below. Additionally, copies of the red-line version and clean version are attached to this agenda item

The following is a synopsis of the recommended changes to the Water Construction standards and justification for the changes:

- **Page 2, Section 1** – *No excavation for any water system work shall begin after 9:00am Monday -Thursday. No new excavations for water system work will be allowed on Fridays unless the work is determined to be an emergency by the Water Superintendent or their designee.* This change is due to many issues we have had with contractors not starting work until late in the day causing staff to remain late into the evening, sometimes in the dark for inspection purposes.
- **Page 3, Section 3** – *No excavation for any water system work shall begin after 9:00am Monday -Thursday. No new excavations for water system work will be allowed on Fridays unless the work is determined to be an emergency by the Water Superintendent or their designee.* This change is due to many issues we have had with contractors not starting work until late in the day causing staff to remain late into the evening, sometimes in the dark for inspection purposes.
- **Page 4, Section 3** – *When abandoning a service tap the excavator must expose the tap and section of main line for safe inspection. It is the responsibility of the property owner to properly abandon all unused service taps.* This change is to better facilitate inspection of the entire water main during tap abandonment.
- **Page 4, Section 3** – *All hydrants within 30 feet of a paved, concrete, pedestrian, or vehicular surface shall have 2 bollards facing said surface. If said surface is within 30*

feet on multiple sides of hydrant, 4 bollards must be installed on each corner. This change is needed to better protect new hydrants from vehicle hazards.

- **Page 4, Section 3** – *Joint restraint shall be provided with mega-lug assemblies only. Concrete thrust blocks are not permitted unless approved in writing by the Water Superintendent.* Using concrete thrust blocks for pipe fitting restraint is old technology and very rarely installed properly. The newer mega-lug assemblies are an accepted technology industry wide and are far superior to even properly install thrust blocks.
- **Page 5, Section 4** – *All new water main installations shall provide a ¾ inch testing tap and line, where possible. Pressure testing, chlorine testing and bacteriological testing can be performed through a fire hydrant with written permission from the Water Superintendent.* This change gives contractors the option, with permission of the Water Superintendent, to test through fire hydrants rather than a using a ¾ inch copper line that will then have to be abandoned, leaving a plugged hole in the new water main.
- **Page 6, Section 5** – *Direct water taps may not be re-used for water service. Direct taps must be properly abandoned.* This change clearly states that any direct tap (a tap that is drilled directly into the water main without a tapping saddle) that is encountered during and water system excavation be removed and properly plugged.
- **Page 6, Section 5** – *No buried couplings are permitted. When a service line exceeds the length of rolled K-copper, underground grade HDPE poly pipe may be used. The service line must be pressurized, and all fittings must be inspected prior to any backfill.* This change is to eliminate buried couplings which have historically been a area of failure and leaks in water service lines.
- **Page 7, Section 6** – *No excavation for any water system work shall begin after 9:00am Monday -Thursday. No new excavations for water system work will be allowed on Fridays unless the work is determined to be an emergency by the Water Superintendent or their designee.* This change is due to many issues we have had with contractors not starting work until late in the day causing staff to remain late into the evening, sometimes in the dark for inspection purposes.
- **Page 8, Section 6** – *Service lines shall be inspected to ensure that there are no leaks at all connections this will be a visual inspection at static pressure . Connections to previously approved stub-outs will be pressure tested back to the approved valve.* A visual inspection at the system's static pressure is preferred over air testing which can be dangerous if not done correctly.
- **Page 9, Section 6** – *In the event that a sewer main or sewer service line crosses above or crosses within 18" below the water service line, the sewer line shall be made impervious to a minimum distance of 10' to both sides of the water service line either through AWWA C-900 spec pipe or flow fill encasement.* This change removes the provision that allows less superior SDR 26 sewer pipe for crossings of water lines. Only C-900 PVC pipe or flow fill encasement will be allowed.
- **Page 14, Section 9** – *No excavation for any water system work shall begin after 9:00am Monday -Thursday. No new excavations for water system work will be allowed on Fridays unless the work is determined to be an emergency by the Water Superintendent or their designee.* This change is due to many issues we have had with contractors not starting work until late in the day causing staff to remain late into the evening, sometimes in the dark for inspection purposes.

Analysis:

Financial Impact: These changes to the Water Construction Standards have no financial impact to the Town or the Water Enterprise Fund.

Alignment with Strategic Plan: These changes align with the Quality Core Services of the Strategic Plan by helping to ensure the continued safe, efficient, and reliable operation of the Town's water system.

Environmental Sustainability: This section does not apply to this agenda item.

Staff Recommendation: Staff recommends that Council approve Resolution 24-12 to allow for the changes to the Water Construction Standards as outlined in this report.

Approved By:

Tom Fisher, Town Manager
Diane McBride, Assistant Town Manager
Leslie Edwards, Finance Director
Chris McGinnis, Town Engineer

Attachments:

Attachment 1 – Resolution 24-12

Attachment 2 – Water Construction Standards – red-line copy

Attachment 3 – Water Construction Standards – clean copy