

Memorandum:**Date:** 12/7/20**To:** Folder Summary**From:** Public Works Engineering**Subject:** Proposed 2020 Engineering Design Standards Update**Sanitary Sewer Engineering Design Standard Review Group**

- Project initiated – Late 2019
 - SF Engineering, WR Staff, HDR (Gabe Laber and Kevin Newman)
- Subcommittee met late September 2020
 - Contractors – John Rennich (H&W)
 - Design engineers – Mitch Mergen (Stockwell), Paul Korn (Sayre), Damian Greble (Ehrhart Griffin)
 - Manufacturers – Matt Carlson (October and November meetings)

EDS Chapter 9

- 9.4.2 Velocity within Pipe – added table for minimum pipe slopes and maximum slope entering manhole. Added max allowable slope of 9%.
- 9.4.5 Size of Sewer Pipe – removed reference to sewer mains smaller than 8-inch.
- 9.4.6 Depth of Sewer – added 15-foot maximum. Already included in EDS 13.2.2.3.12.
- 9.4.7 Alignment of Sewers – updated bending radius requirements and added table.
- 9.4.8.3.g - "... placing the rim elevation a minimum of 1-foot..."
- 9.4.8.5 Maximum Manhole Drop – added requirement to drop manholes less than 4 feet.
- 9.4.8.6 Manhole Covers, Manhole External Frame Seals, and Manhole Markers – removed external frame seals and manhole markers.
- 9.4.8.9 Crossings – added requirement to limit drainage crossings.
- 9.4.9.2 Regular Services – added language for building sewer location requirements.
- ~~9.4.10~~ 9.4.9.3 Lateral Extensions – added requirements for systems being public or private.

Water Engineering Design Standard Review Project Timeline

- Project initiated – Spring 2019
- Hired HDR – Fall 2019
- Individual Meetings (Suppliers, Contractors) – Spring 2020
- Subcommittee (Suppliers, Contractors, Developers) - Fall 2020
 - Contractors – Jason Snyders (First Rate Excavate)
 - Design engineers – Kim Buell (Schmitz Kalda Associates), Chad Stensland (Ulteig)
 - Suppliers – Tyler Smith (Dakota Supply Group), Tim Monson (Core & Main)
- IRAB Approved 11/4/20
- Council approval (EDS only) anticipate December 2020

EDS Chapter 10

- 10.1.1 Design Standards – required water systems be designed by South Dakota licensed engineer.
- 10.2 Water Main– larger than 16" mains 40' from buildings, added language to follow

10 States Standards for separation.

- 10.3.1 Valves – added that only City operates.
- 10.4 Fire Hydrant – added spacing of 40' on public water systems and 15' for private water systems from structures.
- 10.4 Fire Hydrant – added language for hydrant protection.
- 10.5 Fire Service Lines – lines smaller than 6" allowed on 6 to 15 unit apartments with calcs and Fire Marshall approval
- 10.5 Fire Service Lines – identified a minimum 40 foot spacing of a PIV from a structure.
- 10.5 Fire Service Lines – add language that domestic valve is located at ROW
- 10.6 Domestic Service Lines – added language for disconnect of non-utilized service lines.
- 10.6 Domestic Service Lines – identified a 10-foot spacing from any structure.9.4.2

EDS Chapter 12

- 12.2.5 Dust Mitigation – added Dust Mitigation note to strengthen requirement of dust suppression for construction sites.