



**SPECIAL PROVISIONS  
FOR  
WATER MAINS, VALVES, FIRE HYDRANTS, AND APPURTENANCES**

**Woodbury County  
STP-U-7057(689)--70-97**

**Effective Date  
May 19, 2015**

**THE STANDARD SPECIFICATIONS, SERIES 2012, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE SPECIAL PROVISIONS AND THEY SHALL PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.**

Make the following revisions to the Standard Specifications:

**2554.03, A, 1, a, General.**

**Add the Article:**

- 12) Intersection Connection:** An Intersection Connection shall be used to connect every new water main to the existing mains on side streets, extensions, and at each end of the new main. The Intersection Connection shall be constructed as shown in figure SC 5010.201.

**2554.03, A, 10, Water Service Stub.**

**Add the Articles:**

- d.** City water staff/Utilities Staff will make all taps on all water mains except on projects that are being administered by the City's Public Works Department. All services greater than 1 1/2 inches shall require a tapping saddle. All tapping saddles for 4 inch and larger taps shall be full wrap stainless steel saddles. Size on size taps are not allowed. Taps must be a minimum of one size smaller than the existing main and consistent with the table below.

**Allowable Taps Per Main Size**

		Main Size			
		2"	4"	6"	8" and Larger
Tap Size	3/4"	Saddle	Direct	Direct	Direct
	1"	None	Saddle	Direct	Direct
	1 1/4"	None	None	Saddle	Saddle
	1 1/2"	None	None	Saddle	Saddle
	2"	None	None	None	Saddle

- e. Stop box: distance to back of curb to be 8.5 feet and boxes are to be placed outside of paving, unless otherwise shown on plans.

**2554.03, B, 1, General.**

**Add the Articles:**

- f. Make arrangements with the Engineer for the Field Services Office to come out and check the operation of all mainline and service line valves before and after paving.
- g. Contact the City to request authorization to make more than one connection to a live water main. The City will place a valve lock-out on the valve and maintain possession of the key.

**2554.03, C, 3, a, General.**

**Add the Article:**

- 5) Isolation shall include a physical separation from the existing water system, except for one connection that will be used to fill the new line for testing.

**2554.03, C, 4, Final Flushing.**

**Add the Article:**

- c. The Contractor shall be responsible to reimburse the City for any financial penalties imposed on the City by state or federal regulatory agencies as a result of such disposal.

**2554.03, C, 6, Bacteria Testing.**

**Replace the Article:**

- 1. City personal will test water mains according to AWWA C651. If the initial disinfection procedure fails to produce satisfactory bacteriological results or if other water quality is affected, repeat the disinfection procedure.

**2. Sampling Procedures.**

After final flushing, two consecutive samples taken 24 hours apart shall be collected from the new main after the final flushing water has set in the new main at least 16 hours and the chlorine residual is within the allowable levels. One sample must be collected from each hydrant located on the new main. The maximum distance between sample sites is 1200 feet and samples must also be collected from each end of the line and each branch. Bacteriological samples shall be collected in sterile bottles containing sodium thiosulfate to neutralize the Chlorine in the sample.

Take care to safeguard the sample bottles and the sample from becoming contaminated before, during, and after the time of collection. Keep the sterile sample bottles closed until ready to take the sample. Do not use a hose to take the sample. The water should be allowed to run to waste for at least 2 to 3 minutes before sampling. The sample shall be collected directly into the sample bottle and taken from a flow of water that will allow filling of the bottle without splashing. Replace the cap immediately after sampling and label the sample with the location, time, and date of sample. Samples should be delivered to the laboratory within 1 hour of sampling or the water sample should be kept in an iced cooler or refrigerated until delivered. The time between collection and examination should never exceed 30 hours.

**2554.05, B, 3, b.**

**Replace the Article:**

~~Payment is full compensation for the fire hydrant, barrel extensions sufficient to achieve proper bury depth of anchoring pipe and height of fire hydrant above finished grade, and components to connect the fire hydrant to the water main, including anchoring pipe, fittings, thrust blocks, pea~~

~~gravel or porous backfill material, and fire hydrant gate valve, except tapping valve assembly if used.~~ Unit price includes, but is not limited to, the fire hydrant, up to 8 feet of anchoring pipe, fittings (except anchor tee), thrust blocks, pea gravel or porous backfill material, fire hydrant gate valve with box.

- 1) The mainline tee shall be bid as a separate bid item from the hydrant assembly. Payment shall be at the unit bid for each size of tee installed.
- 2) Fire hydrant extensions shall be bid separately from the hydrant assembly. Payment shall be at the unit bid for each size installed.

**4150.02, A, 1, a, 1.**

**Replace** the Article:

4 inch (100 mm) through 24 inch (600 mm) sizes: ~~DR-18 C900~~ -DR 14.

**4150.02, A, 2, a, 1.**

**Replace** the Article:

**4 inch (100 mm) through 24 inch (600 mm) sizes:** ~~Special thickness Class 52 according to AWWA C154~~ Pressure Class 350 per ANSI/AWWA C151/A21.51.

**4150.02, E, 1, Polyethylene Wrap.**

**Add** the Article:

- c. Polyethylene wrap on Ductile Iron Pipe (DIP) will only be required if the corrosive soil testing determines it is necessary.

**4150.02, E, 2, Tracer System.**

**Replace** Article e and **Add** the Article:

- e. **Tracer Wire Station:** ~~Comply with the contract documents.~~ Stations shall be Copper Head Industrial Snake Pit Tracer Box or Valvco Tracer Wire Access Box. The stations shall be placed as shown in Figure SC 5020.301.
- f. **Continuity Test:** Tracer wire continuity test shall be completed by third party prior to project acceptance.

**4150.02, G, 3, Corporations, Stops, and Stop Boxes.**

**Replace** the Article:

~~Contact the Engineer for requirements.~~

- a. Corporation stops shall be Mueller 300 Ball Corporation Valves, 1/4 turn open, AWWA taper thread on the inlet side, compression fitting for CTS OD Tubing on the outlet.
- b. Curb stops shall be Mueller 300 ball curb valve with 1/4 turn check, compression fitting for CTS tubing on each end, no reduced port valves.
- c. Valve boxes for curb stops shall be PENTEX Access boxes part #110185-14, 2 1/2 inch curb service box. Material shall be a rigid combination of polyolefin with fibrous inorganic component reinforcing and UV stabilizer additives to assure resistance to material degradation from ultraviolet light. Valve box shall be a telescoping two-piece (Screw style) with polycarbonate ring, pentagon bolt and Superflexon cover that is adjustable to 84 inches. Upper section shall be locatable electronically and magnetically with ring riveted to the top section. Lower section shall be a full threaded shaft 2 11/32 inch diameter over a Buffalo style arch, 4 inches wide by 7 inches high and saddle, 3 1/3 inches wide by 4 inches high.

**4150.03, A, 2.**

**Replace** the Article:

**Direction of Opening:** ~~The opening direction is counterclockwise as viewed from the top, unless specified otherwise in the contract documents or as directed by the Engineer. All valves 4 inch and larger, including service line valves, must open clockwise.~~

**4150.03, B, 1.**

**Replace** the Article:

**Standards:** Comply with AWWA C509 (gray iron or ductile iron) or AWWA C515 (ductile iron) and NSF 61. ~~Required for water mains less than or equal to 12 inches.~~

**4150.03, C, 1.**

**Replace** the Article:

**Standards:** Comply with AWWA C504 Class 150B (gray iron or ductile iron) and NSF 61. ~~Required for water mains larger than 12 inches. Butterfly Valves must have 250 psi operating pressure.~~

**4150.03, C, 4, For Seat on Disc Valves.**

**Delete** the Article:

~~**4. For Seat on Disc Valves:**~~

- ~~a. **Disc:** Ductile iron according to ASTM A 536 with synthetic rubber compound seat mechanically retained to the disc.~~
- ~~b. **Seat:** Continuous Type 316 stainless steel seat.~~

**4150.03, D, Tapping Valve Assemblies.**

**Replace** the first paragraph:

~~Use tapping valve assemblies only where specified in the contract documents. Tap, sleeve, and valve shall be provided by the Contractor. If City staff performs the tap, the City shall be reimbursed for performing the tap.~~

**4150.04, Fire Hydrant Assembly.**

**Add** as the first paragraph:

~~Construct fire hydrant assembly as shown in figure SC 5020.301.~~

**4150.04, B, Manufacturers.**

**Replace** the Article:

~~As allowed in the contract documents.~~

- ~~1. Mueller Centurion~~
- ~~2. Clow Medallion~~
- ~~3. American Darling B84B or B62B~~

**4150.04, C, 6.**

**Replace** the Article:

**Items to be Specified:** ~~The following items will be specified in the contract documents.~~

- a. Operating nut: 1.5 inch pentagonal.
- b. Pumper nozzle: 4 inch with 5 inch Storz quick connect on all new hydrants public and private.
- c. Nozzle threads.
  - 1) Male Dia. – 3.290

- 2) Pitch Dia. – 3.146
  - 3) Root Dia – 3.002
  - 4) Female OD – 3.340
  - 5) Pitch Dia. – 3.196
  - 6) Root Dia. – 3.052
  - 7) 60 Degree Sharp V Thread
- d. Main valve nominal opening size: 6 inch.

**4150.04, D, 2.**

**Replace** the Article:

~~Above grade exterior coating type and color will be selected by the Engineer. Field coating above grade:~~

- a. Public – safety yellow
- b. Private - red

**4150.05, B, Valve Box.**

**Replace** Articles 2 and 3:

2. **Manufacturer:** ~~As specified in the contract documents.~~ Pentex Roadway Valve Box - Water #111140-03.
3. **Type:** Use specified valve box in all areas.
  - a. ~~In paved areas, use a slide type.~~
  - b. ~~In all other areas, use a screw extension type.~~

**4150.04, Appurtenances.**

**Add** the Article:

**D. Adjustment Rings and Covers.**

Adjustment rings and covers shall be those produced at Sioux City Foundry.