

APPENDIX B

Developer Installed Water Main Supplemental Technical Specifications

The Technical Specification used for Developer Installed Mains shall be the “American Water Works Service Company Incorporated Standard Pipeline Specifications” dated 2020. The Supplemental Technical Specifications amend or supplement the technical specifications. All provisions, which are not so amended or supplemented by the Supplemental Technical Specifications, shall remain in full force and effect:

SUPPLEMENTAL TECHNICAL SPECIFICATIONS

The Technical Specification used for Water Main Installation shall be “The Illinois American Water Company Standard Pipeline Specifications” dated January 2020. The Supplemental Technical Specifications amend or supplement the technical specifications. All provisions, which are not so amended or supplemented by the Supplemental Technical Specifications, shall remain in full force and effect:

DIVISION 2 – SITE WORK

Section 02210 – Trenching, Backfilling, and Compacting

2.04 FILTER FABRIC

Acceptable manufacturers:

- a. Mirafi 140N by Mirafi, Inc.
- b. Typar 3401 by DuPont
- c. Propex 4547 by Amoco Fabrics Co
- d. US 120NW by US Fabrics
- e. Advanced Drainage Systems

3.05. TRENCH EXCAVATION AND BOTTOM PREPARATION

F. Trench Depth - All trenches shall provide for a minimum cover over the pipe barrel to the top of finished grade as indicated in the following table, unless otherwise authorized by the Water Company Representative.

DISTRICT	MINIMUM COVER OVER PIPE BARREL
Cairo	36-inches
Interurban	42-inches
Alton	42-inches
Champaign	42-inches
Lincoln	42-inches
Pekin	42-inches
Peoria	42-inches
Chicago Metro	66-inches
Pontiac	48-inches

Streator	48-inches
Sterling	48-inches

Section 02220 – Casing Installation (Steel)

2.02 CASING END SEAL

B. Acceptable Manufacturers:

- a. Cascade Waterworks Mfg. – Model CCES
- b. APS Standard Model AC Casing End Seal
- c. BWM Manufacturing

2.03 CASING INSULATORS

C. Acceptable Manufacturers:

- a. Cascade Water Work Manufacturing Company (Stainless Steel only – Model CCS)
- b. Pipeline Seal and Insulator, Inc. (Carbon Steel with polyvinyl chloride or the Ranger II model)
- c. Advanced Products and Systems, Inc. (Model SI)
- d. Power Seal Pipeline Products Corp. (Model 4810)
- e. RACI (polyethylene model F-60 for 12-inch carrier pipe and smaller). RACI shall not be used for carrier pipe larger than 12-inch.
- f. BWM Manufacturing

Section 02225 – Casing Installation (PVC)

2.02 CASING END SEAL

B. Acceptable Manufacturers:

- a. Cascade Waterworks Mfg. – Model CCES
- b. APS Standard Model AC Casing End Seal
- c. BWM Manufacturing

DIVISION 15 – MECHANICAL

Section 15000 – Piping – General Provisions

2.02 PETROLATUM TAPE COATING

C. Acceptable Manufacturers

- a. Tapecoat TC Envirotape
- b. Denso Densyl Tape

2.03 RUBBERIZED-BITUMEN BASED SPRAY-ON COATING

Acceptable Manufacturers:

- a. 3M Rubberized Underseal Undercoating 08883
- b. Permatex

Section 15105 – Ductile Iron Pipe and Fittings

2.01 PIPE MATERIALS

- A. The owner may waive the zinc coating for use on “typical” mains in non-corrosive soils as defined by American Water

F. Acceptable Suppliers

- a. United State Pipe & Foundry Co.
1101 East Pearl Street
Burlington, NJ 08016
- b. American Cast Iron Pipe Company
2916 16th Street North
Birmingham, AL 35207
- c. McWane

2.02 FITTINGS

A. Ductile Iron Fittings

- 2. The owner may waive the zinc coating for use on “typical” mains in non-corrosive soils as defined by American Water

B. Acceptable Suppliers

- a. Sigma (through United States Pipe & Foundry Co.
1101 East Pearl Street
Burlington, NJ 08016
- b. Tyler Union (domestic only)
McWane Cast Iron Pipe Co.
P.O. Box 607
Birmingham, AL 35201

c. American Cast Iron Pipe Company
2916 16th Street North
Birmingham, AL 35207

d. Star Pipe Products

C. Joints

1. Bolt manufacturer shall be Birmingham Fastener Cor-Blue, Sigma, or approved equal.

3. Romac Alpha Restrained Joints are allowable in all districts but Alton.

Section 15120 – Polyvinyl Chloride (PVC) Pipe

2.01 PIPE MATERIALS

Approved manufacturers:

- a. J-M Eagle Company, Inc
9 Peach Tree Hill Road
Livingston, NJ 07039
(973)535-1633
www.jmeagle.com
- b. Pipe Life Jet Stream
- c. Diamond Plastics
- d. NAPCO Pipe

Section 15122 – Fusible PVC Pipe

2.02 CONNECTIONS AND FITTINGS FOR PRESSURE APPLICATIONS

H. Approved Manufacturers:

Fusible polyvinylchloride pipe shall be used as manufactured under the trade names Fusible C-900®, Fusible C-905®, and FPVC®, for Underground Solutions, Inc., Poway, CA, (858) 679-9551. Fusion process shall be as patented by Underground Solutions, Inc., Poway, CA, Patent No. 6,982,051.

Section 15125 – HDPE Pipe

2.04 Acceptable Manufacturers

- A. CPChem Performance Pipe
- B. KWH Pipe Ltd
- C. Poly Systems Inc.

Section 15130 – Piping Specialties

2.01 POLYETHYLENE ENCASEMENT

B. Acceptable Suppliers of Polyethylene Tape: Gorilla Tape

D. Acceptable Suppliers:

- a. Approved DI Pipe Suppliers (See Section 15105)

2.02 VALVE BOXES

B. USA Bluebook Part # 75181 or equal

D. Acceptable Manufacturers:

- a. Bingham & Taylor
- b. Mueller (Streator, Sterling, Chicago Metro)
- c. A.Y. McDonald (Chicago Metro)
- d. Water Quality Products (Sterling)
- e. Sigma Corp
- f. Star Pipe Products
- g. Tyler Union

2.03 RODS, BOLTS, LUGS, AND BRACKETS

C. Approved Manufacturer is Birmingham Fastener Cor-Blue

- a. Sigma Corp

2.04 RETAINING GLANDS

B. Acceptable Manufacturers:

- a. EBBA Iron, Inc.
P.O. Box 857
Eastland, TX 76448
- b. Ford Retaining Glands – 1400 Series for DI, 1500 Series for PVC
- c. Sigma Corp

2.05 TEST/TRACER BOXES

B. Acceptable Manufacturers:

- a. Copperhead Snake Pit Access Box
- b. Handley Industries, Inc

2.06 MARKING POSTS

B. Acceptable Manufacturers:

- a. Rhino
280 University Drive Southwest
Waseca, MN 56093
1-800-522-4343
- b. Carsonite International
605 Bob Gifford Boulevard
Early Branch, SC 29916
800-648-7916
- c. Proline Safety Products

2.07 IDENTIFICATION TAPE

B. Acceptable Manufacturers:

- a. Reef Industries, Inc – Terra Tape
- b. Proline Safety Products

2.08 LOCATION WIRE

B. Acceptable Manufacturers:

- a. Copperhead Industries, LLC – Part Number 1230B-HS (OPEN CUT ONLY)
- b. Copperhead Industries, LLC – Part Number 1245B-EHS (Horizontal Directional Drilling)
- c. Copperhead Industries, LLC – Part Number LSL1230B Connector
- d. DryConn Waterproof Connectors – Direct Bury Lug Aqua #90220
- e. Neptco, Inc Part #1802W w/ TS-19-LC/IL (Option for Interurban)

2.09 RESTRAINED JOINT MARKING TAPE

C. Acceptable Manufacturers:

- a. St. Louis Paper & Box Company – Part Number MIAM-010
- b. AA Thread

Section 15150 – Gate Valves

2.01. Small Gate Valve

B.

Table 1 – Valve Opening Direction

DISTRICT	OPENING DIRECTION
Alton	Right
Grafton	Left
Cairo	Left
Interurban	Right
Hardin	Left
Lincoln	Left
Pekin	Left
Peoria	Left
Champaign	Left
Pontiac	Left
Streator	Left
Sterling	Left
Chicago Metro	Left
South Beloit	Left

D. Acceptable Manufacturers:

- a. Mueller Company
- b. Clow (Not Permitted in Alton/Grafton, Interurban)
- c. U.S. Pipe (Champaign, Streator, Sterling)
- d. American Cast Iron Pipe Company
- e. Val-Matic

2.02. Large Gate Valves

- A. Valves larger than 12” for use in the Alton and Champaign Districts shall be Butterfly valves, not Gate Valves. See Specification 15155.

Table 1 – Valve Opening Direction

DISTRICT	OPENING DIRECTION
Alton	Right
Grafton	Left
Cairo	Left
Interurban	Right
Hardin	Left
Lincoln	Left
Pekin	Left
Peoria	Left
Champaign	Left
Pontiac	Left
Streator	Left
Sterling	Left
Chicago Metro	Left
South Beloit	Left

- E. Acceptable Manufacturers:
- a. Mueller Company
 - b. Clow (Cairo, Interurban)
 - c. U.S. Pipe
 - d. Val-Matic

Section 15155 – Butterfly Valves

2.01

B.

Table 1 – Valve Opening Direction

DISTRICT	OPENING DIRECTION
Alton	Right
Grafton	Left
Cairo	Left
Interurban	Right
Hardin	Left
Lincoln	Left
Pekin	Left
Peoria	Left
Champaign	Left
Pontiac	Left
Streator	Left
Sterling	Left
Chicago Metro	Left
South Beloit	Left

H. Acceptable Manufacturers:

- a. Henry Platt (Not Chicago Metro)
- b. DeZurik (Not Chicago Metro)
- c. Mueller (Chicago Metro)
- d. Clow (Chicago Metro)
- e. Val-Matic Corp

Section 15170 – Tapping Sleeves, Saddles, and Valves

2.02 Tapping Valves

A.

Table 1 – Valve Opening Direction

DISTRICT	OPENING DIRECTION
Alton	Right
Grafton	Left
Cairo	Left
Interurban	Right
Hardin	Left
Lincoln	Left
Pekin	Left
Peoria	Left
Champaign	Left
Pontiac	Left
Streator	Left
Sterling	Left
Chicago Metro	Left
South Beloit	Left

C. Acceptable manufacturers:

- a. Clow
- b. U.S. Pipe (Mueller)

2.03 STAINLESS STEEL TAPPING SLEEVES

A. Acceptable Manufacturers:

- a. JCM
- b. Romac Industries

2.03 CONCRETE TAPPING SLEEVES

A. Acceptable Manufacturers:

- a. JCM
- b. Romac Industries

2.05 TAPPING SADDLES

A. Acceptable Manufacturers:

- a. Bronze Service Saddles
 - i. Mueller - BR1B Series
 - ii. Mueller - BR2B Series
 - iii. Mueller – BR1S Series (for use with PVC)
 - iv. A.Y. McDonald C-900 #3895
 - v. A.Y. McDonald DIP #3825
- b. Stainless Service Saddles

- i. Mueller

Section 15180 – Fire Hydrants

2.01 MATERIAL

B. Hydrants for use in the Alton District shall have a 4 ½ inch valve opening.

Fire Hydrant Thread Type

National Standard (NS 2-1/2” Butt, 7-1/2 threads, thread O.D. 3.062”)
(F-548 4-1/2” Butt, 4 threads)

Mueller Thread (D306 2-1/2” Butt, 6 threads, thread O.D. 3.082”)
(F-548 4-1/2” Butt, 4 threads)

The hydrant thread type for each District are listed in Table 5:

Table 5: Hydrant Threads Type

	DISTRICT	FIRE HYDRANT THREAD TYPE	DIRECTION TO OPEN
Southern	Alton	National Standard	Left (Counter-clockwise)
	Cairo (1) *	Special Thread	Left (Counter-clockwise)
	Interurban	National Standard	Right (Clockwise)
	(Exceptions)		
	East St. Louis	Mueller Thread	Right (Clockwise)
	Alorton	Mueller Thread	Right (Clockwise)
	Brooklyn	Mueller Thread	Right (Clockwise)
	Cahokia - Maplewood	Mueller Thread	Right (Clockwise)
	Fairview – Caseyville	Mueller Thread	Right (Clockwise)
	Sauget	Mueller Thread	Right (Clockwise)
	National City	Mueller Thread	Right (Clockwise)
	Fairmont City	Mueller Thread	Right (Clockwise)
	Washington Pk	Mueller Thread	Right (Clockwise)
Granite City	Mueller Thread	Right (Clockwise)	

	Venice	Mueller Thread	Right (Clockwise)
Northern	Pekin	National Standard	Left (Counter-clockwise)
	Peoria(2)*	National Standard	Right (Clockwise)
	Lincoln	National Standard	Left (Counter-clockwise)
Eastern	Champaign	National Standard	Right (Clockwise)
	Pontiac(3)*	National Standard	Left (Counter-clockwise)
	Streator (4)*	National Standard	Left (Counter-clockwise)
	Sterling (5)*	National Standard	Left (Counter-clockwise)
	Chicago Metro	National Standard	Left (Counter-clockwise)

- (1) Cairo- (A-263 2-3/8" Butt, 8 threads, thread O.D. 2.980")
(F-548 4-1/2" Butt, 4 threads, 1-3/8" pentagon operating nut)
- (2) Peoria – (C-305 2-1/2" Butt, 7 threads, thread O.D. 3.068")
(Steamer Nozzle shall be 4" Butt, 4 threads, thread O.D. 4.955")
- (3) Pontiac - (D-306 2-1/2" Butt. 7-1/2 threads, thread O.D. 3.062")
(4-1/2" (Large) Butt, 4 threads, 1-1/4" pentagon operating nut)
- (4) Streator – (Steamer Nozzle shall be National Standard "Fine" Thread)
- (5) Sterling – (Pumper nozzle shall be 4" and a 1-1/8" pentagon operating nut)

D. Acceptable Manufacturers:

- a. Mueller Super Centurion
- b. Waterous Pacer (Chicago Metro)
- c. Clow Valve Company

3.02 INSTALLATION

I. Paint Color

- a. Interurban
 - a. Barrel and Caps – Yellow
 - b. Hydrant
 - i. 6" Main – Red
 - ii. 8" Main – Orange
 - iii. 10" & Above - Green
- b. Alton – Orange
- c. Champaign – Orange
- d. Streator – Red
- e. Pontiac – Orange
- f. Cairo – Yellow
- g. Sterling – Orange

- h. Chicago Metro - Yellow

Section 15190 – Air Release, Blow-Off Outlets and Related Components

2.01 COMBINATION AIR/VACUUM RELEASE VALVES

B. Acceptable Manufacturers:

- a. Henry Pratt
- b. Val-Matic

2.02 BLOW-OFF FLUSHING HYDRANT ASSEMBLY

B. Acceptable Manufacturers:

- a. Kupferle Foundry – Tru-Flo Model TF 500
- b. Mueller (Chicago Metro)

Section 15200 - Service Lines

2.01 COPPER SERVICE LINE MATERIAL

Acceptable manufacturers:

- a. Core and Main Provided
 - 1. ¾” and 1” Copper – Type L 60’ Coils
 - 2. 2” Copper – Type K 40’ Coils or 20’ Rigid
- b. Kobe Weiland

2.02 POLYTHYLENE SERVICE LINE MATERIAL

Acceptable manufacturers:

- a. Endot Industries (EndoPure PE-3408 only)
- b. JM Eagle
- c. KWH Pipe
- d. Advanced Drainage Systems

2.03 CORPORATION STOPS

Acceptable manufacturers:

- a. Mueller - ¾” and 1” – H-15008N (Granite City)
- b. A.Y. McDonald – ¾” and 1” – 74701B-22
- c. A.Y. McDonald – 2” – 74701B-22
- d. Mueller - ¾” and 2” – B-25008N (Alton)
- e. Mueller – ¾” and 1” – P-15008N
- f. Mueller – ¾” and 2” – P-25008N

2.04 CURB STOPS

Acceptable manufacturers:

- a. Mueller
- b. A.Y. McDonald

2.05 CURB BOXES

Acceptable manufacturers:

- a. Mueller
- b. Bingham and Taylor (Champaign and Streator)
- c. Sigma Corp.
- d. A.Y. McDonald

2.06 METER BOX/PIT

Acceptable manufacturers:

- a. Sigma
- b. Mueller (Champaign, Chicago Metro)
- c. A.Y. McDonald (Champaign, Chicago Metro)
- d. Advanced Drainage Systems

2.07 METER BOX FRAME AND LID

Acceptable manufacturers:

- a. Vestal (Not Champaign, Chicago Metro)
- b. Mueller (Champaign, Chicago Metro)
- c. A.Y. McDonald (Champaign, Chicago Metro, Interurban)
- d. Sigma Corp.

2.08 METER SETTER/METER YOKE

Acceptable manufacturers:

- a. A.Y. McDonald
- b. Mueller

2.09 MISCELLANEOUS SERVICE LINE FITTINGS

Acceptable manufacturers:

- a. A.Y. McDonald (Champaign and Interurban)
- b. Ford (Interurban and Alton)
- c. Mueller

END OF SUPPLEMENTAL TECHNICAL SPECIFICATIONS