



## **MATERIALS REVIEW CHECKLIST**

### **WATER DISTRIBUTION SYSTEM**

**PVC WATER PIPE;** Class 150 (DR 18), conforming to ANSI/AWWA C900-89 OR C905-88 or latest revision and shall have push on rubber gasket joints.

\_\_\_\_\_ J-M Pipe

\_\_\_\_\_ Diamond

**DIP WATER PIPE;** Class 350 wall thickness (up to 12"), Class 300 (14"-18"), conforming to ANSI/AWWA C151/a21.51-96, or latest revision, or polyethylene lined conforming to ANNSI/AWWA C105/A21.5-93 or latest revision.

\_\_\_\_\_ American Cast Iron Co.

\_\_\_\_\_ U.S. Pipe

\_\_\_\_\_ McWane/Clow

**FITTINGS;** ductile iron compact mechanical joint type and shall be class 350 through 24" conforming to ANSI/AWWA C153/A21.53-94, or latest revision, and class 250 in sizes 24" and larger, conforming to ANSI/AWWA C110/A21.10-93, or latest revision, complete with glands, gaskets, bolts and nuts. All fittings shall be cement lined and seal coated with the same as pipe.

\_\_\_\_\_ American Cast Iron Pipe

\_\_\_\_\_ Union Foundry

\_\_\_\_\_ U.S. Pipe

**FIRE HYDRANTS;** minimum 5 1/4" valve opening and shall open against the pressure and closing with the flow. Hydrants shall meet or exceed ANSI/AWWA C502- 94, C503-97 or latest revision and shall comply with Factory Mutual Research Corporation and Underwriters Laboratories UL246 Standard.

\_\_\_\_\_ Mueller

\_\_\_\_\_ American Flow Control

\_\_\_\_\_ Clow

\_\_\_\_\_ Kennedy

## MATERIALS REVIEW CHECKLIST (cont.)

**VALVES;** gate valves for water (4"-12" in size), butterfly valves for water (16" and up in size). Gate valves shall be iron body, fully resilient seat, and bronze mounted non-rising stem, double disc, rated at 200 psi and conforming to ANSI/AWWA C509-94 or latest revision. Exposed valves shall be outside screw and yoke type.

\_\_\_\_\_ American Flow Control

\_\_\_\_\_ Mueller

\_\_\_\_\_ Clow

**BUTTERFLY VALVES AND OPERATORS;** shall conform to ANSI/AWWA C504-94 or latest revision standard for rubber-seated butterfly valves and shall be class 150 A or B.

\_\_\_\_\_ Mueller Company

\_\_\_\_\_ Henry Pratt Company

\_\_\_\_\_ Dezurick

\_\_\_\_\_ Clow/M&H

**TAPPING VALVE;** flange by mechanical iron body, fully resilient seat, bronze mounted non-rising stem, double disc, rated at 200 psi and conforming to ANSI/AWWA C509-94 or latest revision.

\_\_\_\_\_ American Flow Control

\_\_\_\_\_ Clow

\_\_\_\_\_ Mueller

**TAPPING SLEEVES;** ductile iron meeting ASTM Grade 65-45-12, mechanical joint.

\_\_\_\_\_ American / Darling

\_\_\_\_\_ Clow

\_\_\_\_\_ Mueller

\_\_\_\_\_ Tyler

\_\_\_\_\_ U.S. Pipe

**AIR RELEASE VALVE;** Valve body and cover shall be of cast iron construction, ASTM A126-B. All internal parts shall be of stainless steel, ASTM A240 - Type 304 for the float and ASTM A296 - Type 316 for the linkage. The venting orifice shall be 3/16" in diameter with brass seat. The inlet opening shall be a 2" NPT screwed connection. The overall height shall not exceed 13 inches.

\_\_\_\_\_ Val-Matic

\_\_\_\_\_ Apco / DeZurik

\_\_\_\_\_ VAG Group

\_\_\_\_\_ Crispin

**RETAINING GLAND;** Retainer glands shall conform to ANSI/AWWA C111/A21.11-95 latest revision. All glands shall be manufactured from ductile iron as listed by Underwriters Laboratories for 250 psi minimum water pressure rating or.

\_\_\_\_\_ Ebba Mega Lug

\_\_\_\_\_ SIGMA

\_\_\_\_\_ Uni-Flange

**VALVE BOX;** Valve boxes for water mains and sewer force mains shall be adjustable screw type with 5 ¼ inch shaft, 18 to 24 inch extension, Cast Iron ASTM-A48 Class 30 marked "water".

\_\_\_\_\_ Tyler

\_\_\_\_\_ Sigma

**LOCATING TAPE;** 3" wide blue tape for water main with a metallized foil core laminated between 2 layers of plastic film. The words "CAUTION WATER LINE BURIED BELOW" shall be printed at 30" intervals along the tape. Tape shall be placed 18" below grade above all PVC mains and services or as recommended by manufacturer. Non-metallic tape shall be used above ductile iron pipe.

\_\_\_\_\_ Lineguard, Inc.

\_\_\_\_\_ Magnatec

**LOCATING WIRES:**

\_\_\_\_\_ # 6 gauge copper wire single strand (non-insulated)

\_\_\_\_\_ #12 gauge coated copper wire single strand

**SERVICE SADDLE;** ductile iron epoxy or nylon coated with double stainless steel straps or single Wide strap. Saddles shall conform to ANSI/AWWA C111/21.11-95 and ASTM A 588 or latest revision.

\_\_\_\_\_ Ford

\_\_\_\_\_ L / Muller

\_\_\_\_\_ JCM

\_\_\_\_\_ Romac

\_\_\_\_\_ Smith-Blair / Optional 316ss

**CORPORATION STOP;** Corporation stops shall be manufactured of brass alloy in accordance with ASTM B62 with threaded ends.

\_\_\_\_\_ Ford

\_\_\_\_\_ Mueller

**METER ANGLE STOP;** Meter stops shall be the 90-degree lock wing type and shall be of bronze Construction in accordance with ASTM B62. Meter stops shall be closed button design and resilient "O" ring sealed against external leakage at the top. Stops shall be equipped with a meter coupling nut on the outlet sides.

\_\_\_\_\_ Ford

\_\_\_\_\_ Mueller

\_\_\_\_\_ McDonald

**P.E. SERVICE TUBING;** polyethylene (PE) tubing as described in 200 psi ANSI/AWWA C901-96, or latest revision with a working pressure of (DR 9). Pipe joints shall be of the compression type totally confined grip seal and coupling nut. Polyethylene shall be extruded from PE 3408 high molecular weight materials and must conform to ASTM D2737.

\_\_\_\_\_ Endot Poly

\_\_\_\_\_ Phillips Driscopipe

\_\_\_\_\_ Vanguard

**BLOW-OFF BOX;** 10" box for blow-off assembly shall be Cast Iron ASTM-A48 Class 30 marked W".

\_\_\_\_\_ US Foundry USF 7630

## **MATERIALS REVIEW CHECKLIST**

### **SEWER COLLECTION SYSTEM**

**RIM & COVER;** casting material shall conform to specifications ASTM-A48 Class 30, Gray Cast Iron. Heavy duty round manhole, 7" frame depth with raised letters "SANITARY SEWER & CITY OF PEMBROKE PINES".

\_\_\_\_\_ US Foundry – USF420-C

**WATER TIGHT INSERT;** polyethylene watertight manhole insert. The cover body shall be manufactured to the dimensions as shown on the contract drawings to allow easy installation in the manhole frame. The insert shall be provided with a lift strap attached to the cover body.

\_\_\_\_\_ Rain Guard

\_\_\_\_\_ Knutson

**PVC SDR 35 FITTINGS;** non-pressure polyvinyl chloride pipe conforming to ASTM D3034, SDR 35, with push-on rubber gasket joints unless otherwise noted.

\_\_\_\_\_ Harco

\_\_\_\_\_ J-M

\_\_\_\_\_ Plastic Trends

**PVC SDR 35 PIPE;** non-pressure polyvinyl chloride pipe conforming to ASTM D3034, SDR 35, With push-on rubber gasket joints unless otherwise noted.

\_\_\_\_\_ J-M Pipe

\_\_\_\_\_ Certainteed

\_\_\_\_\_ Diamond

**DUCTILE IRON PIPE;** Class 350 wall thickness (up to 12"), Class 300 (14"-18"), Class 250 (20" Or greater) with either double cement conforming to ANSI/AWWA C105/A21.5-93 or latest revision, or approved equal. The pipe shall withstand a working pressure of 350 psi. The joints shall be bell and spigot push on type, mechanical joint or flanged. Flanged pipe shall conform to the physical and chemical requirements as set forth in the Handbook of Ductile Iron Pipe of the Cast Iron Pipe Research Association.

\_\_\_\_\_ American Cast Iron Co.

\_\_\_\_\_ U.S. Pipe

\_\_\_\_\_ Griffin Pipe Products Co.

\_\_\_\_\_ McWane/Clow

**MANHOLE COATING;** Coal Tar Epoxy

\_\_\_\_\_ Targuard Sherwin Williams

**SEWER TRANSMISSION SYSTEM**

**PUMP STATION;** two vertical, close-coupled, motor driven, vacuum primed, non-clog sewage pumps; valves; internal piping; central control panel with circuit breakers; motor starters and automatic pumping level controls; heater, ventilating blower; priming pumps and appurtenances; and all internal wiring.

\_\_\_\_\_ Smith & Loveless (pump station submittal data sheet must be provided with check list.)

**EMERGENCY GENERATOR;** the generator shall be sized to meet the starting amperage of both pumps simultaneously. The generator shall be trailer mounted with necessary towing equipment including lights and hitch. The generator shall be supplied with necessary plug and cable for supplying power to the pump station control panel.

\_\_\_\_\_ SUBMITT PROPOSAL

**EMERGENCY BYPASS PUMP;** The bypass pump shall be a minimum six (6) inch self-priming pump diesel powered, trailer mounted with necessary towing equipment including, lights and hitch. The bypass pump shall be supplied with the necessary hoses and connections to provide bypassing of the pump station.

\_\_\_\_\_ SUBMITT PROPOSAL

**PVC C-900 PIPE;** Class 150 (DR 18), conforming to ANSI/AWWA C900-89 OR C905-88 or latest revision and shall have push on rubber gasket joints.

\_\_\_\_\_ J-M Pipe

\_\_\_\_\_ Diamond

**DUCTILE IRON PIPE;** Class 350 wall thickness (up to 12"), Class 300 (14"-18"), Class 250 (20" or greater) with either double cement conforming to ANSI/AWWA C105/A21.5-93 or latest revision, or approved equal. The pipe shall withstand a working pressure of 350 psi. The joints shall be bell and spigot push on type, mechanical joint or flanged. Flanged pipe shall conform with the physical and chemical requirements as set forth in the Handbook of Ductile Iron Pipe of the Cast Iron Pipe Research Association.

\_\_\_\_\_ American Cast Iron Co.

\_\_\_\_\_ U.S. Pipe

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\_\_\_\_\_ American Cast Iron Pipe

\_\_\_\_\_ Union Foundry

\_\_\_\_\_ U.S. Pipe

\_\_\_\_\_ Griffin Pipe Products Co.

**PLUG VALVE;** Plug valves shall be semi-steel body, non-lubricated, eccentric type, with resilient faced plugs, and capable of drip-tight shut off at the rated pressure if applied at either port. Valves are to be equipped with actuating nuts, cast iron hand wheels or chain operators, with galvanized steel chains, as appropriate for the installation and type of operator.

\_\_\_\_\_ Clow

\_\_\_\_\_ Dezurik

\_\_\_\_\_ Keystone

**TAPPING VALVE;** flange by mechanical iron body, fully resilient seat, bronze mounted non-rising stem, double disc, rated at 200 psi and conforming to ANSI/AWWA C509-94 or latest revision.

\_\_\_\_\_ American Flow Control

\_\_\_\_\_ Clow

\_\_\_\_\_ Mueller

**TAPPING SLEEVE:** ductile iron meeting ASTM Grade 65-45-12, mechanical joint.

\_\_\_\_\_ American / Darling

\_\_\_\_\_ Clow

\_\_\_\_\_ Mueller

\_\_\_\_\_ Tyler

\_\_\_\_\_ U.S. Pipe

**RETAINING GLAND;** Retainer glands shall conform to ANSI/AWWAC111/A21.11-95 or latest revision. All glands shall be manufactured from ductile iron as listed by Underwriters Laboratories for 250 psi minimum water pressure rating.

\_\_\_\_\_ Ebba Mega Lug

\_\_\_\_\_ SIGMA

\_\_\_\_\_ Uni-Flange

**LOCATING TAPE;** 3" wide brown tape for water main with a metallized foil core laminated between 2 layers of plastic film. The words "CAUTION FORCE MAIN BURIED BELOW" shall be printed at 30" intervals along the tape. Tape shall be placed 18" below grade above all PVC mains and services or as recommended by manufacturer. Non-metallic tape shall be used above ductile iron pipe.

\_\_\_\_\_ Lineguard, Inc.

\_\_\_\_\_ Magnatec

**LOCATING WIRES:**

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**VALVE BOX;** Valve boxes for water mains and sewer force mains shall be adjustable screw type with 5 ¼ inch shaft, 18 to 24 inch extension, Cast Iron ASTM-A48 Class 30 marked "water".

\_\_\_\_\_ Tyler

\_\_\_\_\_ US Foundry

\_\_\_\_\_ Russell Pipe & Foundry

**AIR RELEASE VALVE;** Valve body and cover shall be of cast iron construction, ASTM A126-B. All internal parts shall be of stainless steel, ASTM A240 - Type 304 for the float and ASTM A296 - Type for the linkage. The venting orifice shall be 3/16" in diameter with brass seat. The inlet opening shall be a 2" NPT screwed connection. The overall height shall not exceed 13 inches.

\_\_\_\_\_ Val-Matic

\_\_\_\_\_ APCO

\_\_\_\_\_ Golden-Anderson

Updated: 5/13/2019