

## **SECTION 14 – APPROVED WATER AND SEWER MATERIALS**

### **14.1 General**

This Section represents a listing of specific manufacturers whose products have been approved for use within Henrico County's water and sanitary sewer systems by type of material and the approved product of each.

This listing is intended to be used as a reference source for the Utilities Department's employees, contractors and vendors. Materials produced by manufacturers not listed herein are not acceptable for use within the County's systems. Manufacturers interested in submitting products for evaluation and possible approval should communicate their interest to the Chairman of the Product Review Committee, Department of Public Utilities, County of Henrico, P.O. Box 90775, Henrico, Virginia 23273-0775.

It should be noted that in some cases manufacturer approval is on a plant-by-plant basis. The Committee reserves the right to perform a comprehensive plant and product evaluation and testing, and at the sole option of the department, plant evaluations may be required on an ongoing basis for new and existing facilities. The Committee also reserves the right to limit the number of approved manufacturers and products as deemed necessary to control parts inventory and maintenance/training requirements.

Revisions to this publication will be made periodically. Questions concerning the information contained in the listings should be referred to the Product Review Committee. Any errors or omissions should be reported to the committee immediately. The Department of Public Utilities will not allow the use of products and materials identified incorrectly in this publication.

### **14.2 Seeding.**

- A. Mulch – Type I
  - (1.) “Hold/Gro” erosion control fabric
- B. Synthetic mulch binder for use with Type II mulch:
  - (1.) Aerospray 70A, Cytec Industries
  - (2.) Petroset, Fluid Tech, Inc.
  - (3.) Terra Tack™ (Tracer™ Tackifier), Reinco, Inc.

## 14.3 Water Distribution System.

### A. Pipes

- (1.) Ductile Iron Pipe – Thickness Class 51 minimum or higher
  - a. Push-on Joint and Mechanical Joint.
    1. Griffin Fastite (3” – 48”)
    2. American D.I. Pipe Fastite (4” – 64”)
    3. U.S. Pipe Tyton (3” – 64”)
    4. Clow Tyton (3” – 36”)
    5. McWane Tyton (3” – 36”)
    6. Atlantic States (3” – 24”)
  - b. Restrained Joint.
    1. Griffin Snap-Lok (6” – 48”)
    2. American D.I. Pipe Flex-Ring (4” – 48”)
    3. U.S. Pipe TR-FLEX (4” – 36”)
    4. Clow Super Lock D.I. (6” – 30”)
- (2.) Polyvinylchloride (PVC) pipe (DR-18, CL. 150) (Sizes 6”, 8”)
  - a. JM Blue Brute
  - b. Diamond Plastics
  - c. North American Pipe
  - d. National Pipe
- (3.) Copper Tubing
  - a. Mueller
  - b. Cerro
  - c. Cambridge Lee

### B. Corporation Stops

- (1.) Mueller compression connection type, Mueller Industries, Inc.
- (2.) Ford pack joint type
- (3.) Cambridge Brass CB Compression
- (4.) Cambridge Brass Campak connection
- (5.) A. Y. McDonald Compression Type Q series

### C. Meter (Setters) Yokes for 5/8” thru 2” meters:

- (1.) Mueller Industries, Inc.
- (2.) Ford, Series 270, Ford Meter Box Company, Inc.
  - a. Series 270 for 5/8” and 1” meters
  - b. Series 70 for 1 ½” and 2” meters
- (3.) Cambridge Brass Series 6020
- (4.) A. Y. McDonald 21 series

### D. Water Meter Boxes/Vaults for 5/8” and 1” meters

- (1.) Oldcastle, Round Meter Box HW-0020B
  - (2.) Capitol Foundry MBX-11
- E. Water Meter Boxes/Vaults for 1 1/2" and 2" meters
- (1.) Old Castle H-Series 1730 (Polymer concrete)
  - (2.) Oldcastle H-Series 1730 Polymer Concrete lid for areas not subject to traffic.
  - (3.) Oldcastle H-Series 1730 Diamond Plate Steel lid for areas subject to incidental, non-deliberate traffic.
  - (4.) Highline Products, Ultra Series, Model PHA173024H Polymer Concrete box and lid
  - (5.) Oldcastle Heavy Wall Series HW-0030-B.
- F. Water Vaults for Dual 1 1/2" and 2" meters
- (1.) Oldcastle Duo Series Polymer Concrete model Duo 30x48x24
  - (2.) Highline Products Ultra Series Model PHA304824H
- G. Water Vaults for Triple 2" Meters
- (1.) Oldcastle Duo Series Polymer Concrete model Duo 36x60x24
- H. Fittings (Bends, Crosses, Tees, Reducers) Cast Iron or Ductile Iron
- (1.) Restrained Joint Fittings
- I. Pipe Restraints and Retainer Glands (must be UL Listed and FM Approved)
- (1.) For D.I.P
    - a. Uni-Flange Series 1400, Ford Meter Box Company, Inc., or equal
    - b. MEGALUG®, EBAA Iron Sales, Inc.
    - c. One-Lok Series SLD Restraining Gland for DIP, Sigma Corporation
    - d. Stargrip Series 3000, Star Pipe Products
    - e. EZ-LOK Restraints Gland for Ductile Iron Pipe (3"-24"), Capital Industries, Inc.
  - (2.) For P.V.C. pipe
    - a. Uni-Flange Series 1390-C (PVC Bell and Spigot Joints), Ford Meter Box Company, Inc.
    - b. Uni-Flange Series 1500 (PVC Pipe - MJ Fittings), Ford Meter Box Company, Inc.
    - c. MEGALUG®, EBAA Iron Sales, Inc.
    - d. One-Lok Series SLC Restraining Gland for PVC, Sigma Corporation

- e. PVCgrip Series 4000, Star Pipe Products
- J. Detector Check Valves (U.L. classified or F.M. Approved, AWWA compliant and ASSE listed 1015 for DC's and 1048 for DDC's)
- (1.) Hersey Model DC or EDC III
  - (2.) Febco Model 800
  - (3.) Zurn / Wilkins Regulator
- K. Valves (Clockwise Opening)
- (1.) Gate Valves (for main sizes 12" and smaller only)
    - a. American-Flow
    - b. Clow
    - c. M & H
    - d. Kennedy
    - e. Mueller Industries, Inc.
    - f. U.S. Pipe
  - (2.) Gate Valves (smaller than 3")
    - a. Jenkins 49-U threaded ends, Crane Co.
    - b. Jenkins 1242 solder ends, Crane Co.
    - c. U.S. Pipe
    - d. American Flow
  - (3.) Resilient Seat Gate Valves (for main sizes 16" and smaller only)
    - a. American Flow Control
    - b. Clow
    - c. M & H
    - d. Kennedy
    - e. U.S. Pipe
  - (4.) Butterfly Valves (for main sizes 16" through 24")
    - a. M & H "450"
    - b. Mueller Industries, Inc.
    - c. Pratt Groundhog
    - d. Valmatic
    - e. Dezurik
- L. Valve Boxes (Screw Type Only)
- (1.) Bingham & Taylor
  - (2.) Opelika Foundry
  - (3.) Tyler
  - (4.) VB-630A Valve Box, Sigma Corporation
  - (5.) 8560 Series Valve Box with #6 Base and 6800 Series Lid, East Jordan Iron Works, Inc.
  - (6.) Adjustable Screw Valve Box with Base VB-4015, Capitol / Commex

- M. Pressure Reducing Valves
- (1.) ROSS 40WR, Ross Valve Mfg. Co., Inc., Troy, NY
- N. Tapping Sleeves
- (1.) Tapping Sleeves, Stainless Steel, Cascade CST-EX, Cascade Waterworks Manufacturing Co.
  - (2.) Tapping Sleeves, Stainless Steel, PowerSeal 3490AS and 3490ASMJ, PowerSeal
  - (3.) Tapping Sleeves, Stainless Steel, Smith-Blair 665, Smith-Blair, Inc
  - (4.) Tapping Sleeves, Stainless Steel, JCM 432, JCM 439, JCM Industries
  - (5.) Tapping Sleeve, Stainless Steel, JCM 459MJ in sizes greater than 24" only, JCM Industries
  - (6.) Romac SST III Tapping Sleeve, Romac Industries
  - (7.) Mueller H-304 Stainless Steel tapping Sleeve, Mueller Industries, Inc.
- O. Bolted, Sleeve-Type Couplings, Reducing Or Transition Couplings, And Flanged Coupling Adapters
- (1.) Dresser Manufacturing Division of Dresser Industries
  - (2.) Smith-Blair
  - (3.) Ford Meter Box Company
  - (4.) Cascade Waterworks Manufacturing Company (styles CRC and CRCA)
  - (5.) Romac
  - (6.) JCM
- P. Fire Hydrants (Clockwise Opening, City of Richmond special threads)
- (1.) Mueller A-461 Centurion, Mueller Industries, Inc.
  - (2.) Metropolitan 250 M-94
  - (3.) Kennedy K-81A Guardian
  - (4.) American Flow Control, Mark-73
  - (5.) Clow Medallion Fire Hydrant, Clow Valve Company
- Q. Flanged Adapters (for joining plain-end pipe to flanged items)
- (1.) Dresser Manufacturing Division of Dresser Industries, Style 128 or 127
  - (2.) Smith-Blair, Type 912 or 913
  - (3.) Foster Adaptor, Infact Corporation
  - (4.) Star
  - (5.) EBBA

- R. Pressure Gages
  - (1.) Ashcroft No. 1279
- S. Air and Vacuum Valves
  - (1.) Valve & Primer Corp., Crispin
  - (2.) Val-Matic Valve & Manufacturing Company
- T. Service Saddles
  - (1.) Cascade
  - (2.) Mueller Industries, Inc.
  - (3.) Romac
  - (4.) JCM
- U. Flushing Hydrants
  - (1.) Aquarius "One-O-One" HH or
  - (2.) Main Guard Model #78
  - (3.) Cherne Industries, Inc.
- V. Electronic Marker
  - (1.) 3M Marker Ball
  - (2.) Omni Marker Ball
- W. Warning Tape
  - (1.) Terra Tape, Premium Strength, Reef Industries Inc.

## 14.4 Sanitary Sewer System

- A. Pipes – Gravity and Pressure
  - (1.) Gravity Sewer
    - (a) Polyvinylchloride (PVC) reprocessed, recycled content nonpressure pipe
      - 1. IPEX Ecolotube DR-35 Sewer Pipe, IPEX, Inc.
      - 2. Enviro-Tite Premium PVC Sewer Pipe, IPEX, Inc.
      - 3. J M Eagle
      - 4. National
      - 5. Diamond
      - 6. North American

- (b) Ductile Iron Sewer – Thickness class 50. Use same manufacturers as water pipe.
  - (2.) Pressure Sewer
    - (a) Ductile Iron (Use same class as water pipe)
      - 1. See ductile iron water pipe
- B. Gaskets & Flexible Manhole Connectors
  - (1.) Gaskets
    - a. Type 4G Manhole Gasket, Press Seal Gasket Corporation
  - (2.) Flexible Manhole Connectors
    - a. Kor-N-Seal, Press-Seal with a stainless steel expander ring,
    - b. Press-Seal with a nylon expander sleeve,
- C. Liners for Acid-Resistant Manholes
  - (1.) Fiberglass Reinforced Polyester (FRP)
    - a. Dion No. 6694
  - (2.) Polyvinylchloride (PVC)
    - a. Amercoat "T-Lock Amer-Plate"
    - b. Ameron "T-Lock"
  - (3.) High-Density Polyethylene (HDPE)
    - a. AGRU "Sure Grip" HDPE/PP-R Concrete Protective Liner
- D. Frames and Covers
  - (1.) Standard Manhole Frame and Cover
    - a. Capital Foundry MH-1678\*HC Frame and Cover
    - b. East Jordan Iron Works 1042Z2 Frame with 1040C Cover
    - c. U S Foundry 759 Frame with NC Cover
    - d. U S Foundry 763 Frame with NC Cover
    - e. Neenah Foundry M1247 Frame and Cover
  - (2.) Vandalproof/Watertight Frame and Cover
    - a. Capital Foundry MH-1678\*JC-WT Frame and Cover
    - b. U S Foundry 759 Frame and NC-BWT Cover
    - c. Neenah Foundry M1247-B Frame and Cover
  - (3.) Vandalproof/Watertight Manhole Frame and Cover only for use in easements not subject to traffic
    - a. Certainteed Pamtight CDPE70AF Frame and Cover
- E. Valves
  - (1.) Sewage Air/Vacuum Release Valves
  - (2.) Plug Valves
    - a. Dezurik, Series 100 Eccentric Valve
    - b. Milliken, Series 500 Eccentric Valve
    - c. Valmatic

- F. Fittings (Gasketed) – Gravity
  - (1.) Concrete
  - (2.) PVC Sanitary Sewer Fittings (ASTM D3034 SDR35 6” - 27”)
    - a. Multi-fit
    - b. Plasti Trend
    - c. GPK
    - d. Harco
  
- G. Fitting (D.I. Only) Pressure
  - (1.) Refer to Water Distribution Fittings
  
- H. Adaptors
  
- I. Saddles
  - (1.) Romac
  - (2.) Cascade
  - (3.) Geneco
  - (4.) Fernco
  
- J. Steps, Manhole
  - (1.) American Step Co. Model ML-10
  
- K. Stoppers (Plugs)
  - (1.) Cherne
  - (2.) Lansas
  
- L. Precast Manholes
  - (1.) Hansen
  - (2.) Americast
  - (3.) Tindall
  
- M. Manhole Adjusting Rings
  - (1.) Hansen
  - (2.) Americast
  - (3.) Tindall
  
- N. Casing Spacers and End Seals
  - (1.) APS Stainless Steel Band Casing Spacers, Model SSI, Advance Products and Systems, Inc.
  - (2.) APS Casing End Seals, Model AC Pull-on
  - (3.) APS Casing End Seals, Model AM Molded
  - (4.) Cascade Stainless Steel Casing Spacers
  - (5.) Raci

- O. Electronic Marker
  - (1.) 3M Marker Ball
  - (2.) Omni Marker Ball