

MATERIALS REVIEW LIST



**CITY OF MIRAMAR
OFFICE OF OPERATIONAL SERVICES
2200 Civic Center Place
Miramar, Florida 33025**

ENGINEERING SERVICES

MATERIALS REVIEW LIST

APPROVAL DATE _____ PERMIT NO. _____

PROJECT NAME: _____

PROJECT PHASE: _____ BID/CONTRACT NUMBER: _____

CONTRACTOR NAME: _____

CONTRACTOR CONCURRENCE: _____
- Signature Date

ENGINEER OF RECORD: _____
- Signature Date

Name (Typed or Printed)

MIRAMAR ENGINEER CONCURRENCE: _____

Signature Date

Name (Typed or Printed)

By submittal of Materials Review List and signature above, the CONTRACTOR for the indicated PROJECT agrees to adhere to the following materials/products and to use only those products that are "checked-off" correctly. Only one (1) manufacturer per category will be allowed. It is understood that the Miramar Inspector will reject materials of construction not in accordance with this document and the City of Miramar's minimum design and construction standards as outlined in the Pump Station and Plan Review Checklists.

BASIS: The following products and specifications have been found to be acceptable and/or desirable in their respective groups on a trial basis. Shop drawings need to be submitted for Miramar's approval. Any product that is not on this list must be approved in advance by the City Engineer or his designee. Such approval requires the submission of shop drawings (six (6) copies) for each deviation from this list. Shop drawings will also be required for all non-standard items such as manholes, wet wells, drainage structures, other castings, Flygt or Davis EMU pumps and any other items not addressed by this Materials Review List.

WATER DISTRIBUTION MATERIALS REVIEW LIST

1. FIRE HYDRANTS, AWWA & UL approved/FM; traffic breakaway-flange, no cut bolts; non-rising stem; dry barrel; a minimum 5-1/4" main valve opening; bronze to bronze seating.

- _____ a. Mueller Super Centurion 200 A423
- _____ b. Clow Medallion F2545
- _____ c. American Darling

Note: All fire hydrants are required to be factory painted yellow.

2. RESILIENT SEAT GATE VALVES (Specified for all available sizes, AWWA & UL/FM)

- _____ a. Mueller A-2360 (for 4" through 12", and 18" through 24")
Mueller A-2361 (for 14" and 16")
- _____ b. M & H Style 3067 or 3068
- _____ c. Clow F-6100 Series
- _____ d. American Series 500

Valve coatings and linings to be fusion bonded epoxy.

3. TAPPING SLEEVE, Ductile iron with mechanical joints only.

- _____ a. M & H Style 1174/1274
- _____ b. American DIP AFC Tapping Sleeve
- _____ c. Mueller Mechanical Joint Tapping Sleeve H-615 Series
- _____ d. U.S. Pipe Mechanical Joint Tapping Sleeve

Sleeve coating to be asphalt; lining to be cement.

- UL/FM approval required on shut-off RSGV for Double Detector check valves application only. See Detector check Detector valve.

4. **TAPPING VALVES** shall be ductile iron short body Resilient seat gate valves to be used up to 16" and gate valves for sizes larger than 16".

- _____ a. American #865 (for 4" through 12"; #565 for 14")
- _____ b. M & H Style 4751 (for 4" through 12"); 2751 (for 14" through 24")
- _____ c. Mueller T-2360 (for 4" through 12")
Mueller H-667 (for 14" through 24")
- _____ d. U.S. Pipe #5860 + 3860 Double Disc $\geq 20"$

Note: Tapping Sleeve and Valve Manufacturer shall be the same. Valve coatings and linings to be fusion bonded epoxy.

5. CURB STOPS AND YOKE VALVES Ball Valve type T-top only - Must be full port with locking wing.

- _____ a. Ford KV43-341W-NL 5/8"-1" meter, FV43-777W-NL 1.5" or 2" meter
- _____ b. Mueller P24258 single, P15363-06 double

6. CORPORATION STOPS Ball Valve Type

- _____ a. Ford FB-1100
- _____ b. Mueller P25028

7. CHECK VALVES for service meters. All check valves shall be dual check valve types.

- _____ a. Ford HHCA31
- _____ b. Mueller H-14460-A
- _____ c. AV McDonald 12-3HE43

8. SERVICE SADDLES stainless steel straps only, ductile iron body with a coating of fusion bonded epoxy.

- _____ a. Ford FC202
- _____ b. JCM 403 Wide Service Saddle
- _____ c. Romac 202
- _____ d. Smith Blair 317
- _____ e. Mueller Series DE2S

9. DUCTILE IRON PIPE (Class 51 min., Cement Mortar Lining, AWWA, ANSI, Water Service) Class 51 for 8" and above, and Class 52 for 4" and 6":

- _____ a. American Cast Iron Pipe Company
- _____ b. U. S. Pipe
- _____ c. McWane (Clow)

Pipe coating to be asphalt; Lining to be cement.

10. Fittings, follower glands and other accessories shall be short body ductile iron conforming to AWWA C153; ANSI.

- _____ a. Tyler
- _____ b. U. S. Pipe
- _____ c. American
- _____ d. Union Foundry (McWane Clow)
- _____ e. Russco
- _____ f. EBAA
- _____ g. Star Pipe

11. POLYETHYLENE TUBING - Polyethylene compound shall comply with ASTM D 3350 and ASTM D 1248 and AWWA C-901 (Water Service)

_____ a. Phillips 66 Petroleum Driscopipe 5100 1" and 2" (ASTM D 3408)

12. POLYVINYL CHLORIDE PIPE (4" and below)

_____ a. Polyvinyl Chloride (PVC) Pressure Pipe (AWWA C-900, SDR-18, 150 PSI, thickness class 51 or above)

13. RESTRAINT All fittings and specific pipe joints shall be restrained as outlined below (NO SUBSTITUTIONS):

JOINT

RESTRAINT

Push-On PVC

EBA Iron Series 2800 Harness

Push-On DIP

TR-Flex by U. S. Pipe or Flex Ring by American or

EBA Iron Series 1700 Megalug

Fittings with DIP

EBA Iron Series 1100 Megalug

Fittings with PVC

EBA Iron Series 2000 Megalug

14. BACKFLOW PREVENTERS Cross Connection Control (Water Service 5/8" to 1" for meters)

_____ a. Ford - HHCA 31-323 (5/8" x 3/4") HHS 31-344 (1")

_____ b. Watts - Series A7

15. VALVE BOX (Water or sewer service, adjustable screw type with locking cover, 5-1/4" shaft, 18" to 24" Ext., cover to be marked for service, Cast Iron ASTM-A48 Class 30.

_____ a. Russco

_____ b. Tyler Series 6850

_____ c. Clow Series F-2450

* U. S. Foundry Series 7500 no longer cast

SEWER COLLECTION AND TRANSMISSION MATERIALS REVIEW LIST

1. RESILIENT SEAT GATE VALVES; 4" through 12", UL/FM approved.

- _____ a. Mueller A-2360 (for 4" through 12", and 18" through 24");
Mueller A-2361 (for 14" and 16")
- _____ b. M & H Style 3067 or 3068
- _____ c. Clow F-6100 Series
- _____ d. American Series 2500

Valve coatings and linings to be fusion bonded epoxy.

2. PLUG VALVES, 16-inch and larger only.

- _____ a. Pratt
- _____ b. Dezurik

Valve coatings and linings to be fusion bounded epoxy.

3. TAPPING SLEEVE, Ductile iron with mechanical joints only.

- _____ a. M & H Style 1174/1274
- _____ b. American DIP AFC Tapping Sleeve
- _____ c. Mueller Mechanical Joint Tapping Sleeve H-615 Series
- _____ d. U. S. Pipe Mechanical Joint Tapping Sleeve

Sleeve coating to be asphalt; lining to be 401 ceramic epoxy.

* UL/FM approval required on shut-off RSGV for Double Detector check valves application only.
See Detector check Detector valve.

4. TAPPING VALVES shall be ductile iron short body Resilient seat gate valves to be used up to 16" and gate valves for sizes larger than 16".

- _____ a. American #865 for 4" through 12"; #565 for 14"
- _____ b. M & H Style 4751 4" through 12"; 2751 14" through 24"
- _____ c. Mueller T-2360 (for 4" through 12")
Mueller H-667 (for 14" through 24")
- _____ d. U. S. Pipe #5860 + 3860 Double Disc \geq 20"

Note: Tapping Sleeve and Valve Manufacturer shall be the same. Valve coatings and linings to be fusion bonded epoxy.

5. CHECK VALVES - Pump Stations

- _____ a. M & H Style 159-02
- _____ b. Clow
- _____ c. American Flow Control
- _____ d. APCO Swing Check
- _____ e. Golden Anderson

Note: Oil cushioned check valves for operating points over 100 feet of head.

6. DUCTILE IRON PIPE * (Class 51 min., Epoxy-coated interior, AWWA, ANSI, Water Service) Class 51 for 8" and above, and Class 52 for 4" and 6".

- _____ a. American Cast Iron Pipe Company
- _____ b. U. S. Pipe
- _____ c. McWane (Clow)

Exterior pipe coating to be asphalt; Linings to be Protecto 401 ceramic epoxy.

7. PVC gravity sewer shall be SDR35. Run from deepest manhole into pump station shall be DIP. All gravity lines deeper than ten (10) feet shall be SDR26.

8. Mechanical Joint with follower glands and other accessories shall be short body ductile iron conforming to AWWA C153.

- _____ a. Tyler
- _____ b. U. S. Pipe
- _____ c. American
- _____ d. Union Foundry (McWane Clow)
- _____ e. EBAA
- _____ f. Star Pipe

9. PVC SDR-35 SEWER PIPE/DUCTILE IRON PIPE ADAPTER use with all new construction. (Cast iron and ductile iron fittings with mechanical or push on joints conforming to AWWA C-153 or C-110 shall be allowed as alternative when PVC sizes are not available.)

- _____ a. Harco, Class 150
- _____ b. Flow Control
- _____ c. Quail

All manufacturer's pipe acceptable. Must be properly labeled as well as being AWWA/ANSI approved.

10. FLANGED ADAPTERS Ductile Iron

- _____ a. American
- _____ b. U. S. Pipe
- _____ c. Uniflanged, Series 200
- _____ d. Romac Style 613
- _____ e. Smith-Blair 912

11. MANHOLE RING AND COVER

- _____ a. U. S. Foundry 420-C

With "CITY OF MIRAMAR" cast in iron

Only concrete grade rings shall be used to set sanitary manhole rings & cover.

12. RESTRAINT All fittings and specific pipe joints shall be restrained as outlined below (NO SUBSTITUTIONS):

JOINT

RESTRAINT

Push-On PVC

EBAA Iron Series 2800 Harness

Push-On DIP

TR-Flex by U. S. Pipe or Flex Ring by American or

EBAA Iron Series 1700 Megalug

Fittings with DIP

EBAA Iron Series 1100 Megalug

Fittings with PVC

EBAA Iron Series 2000 Megalug

Note: Thrust blocked shall not be used.

13. AIR RELEASE VALVES (Provide appropriate valve for size and service intended)

- _____ a. Valmatic: Water - 38 or 45; Wastewater - 48SBW
- _____ b. Golden Anderson: Water - #945; Wastewater - #959
- _____ c. Apco

14. Couplings for use on existing facilities (VCP, etc.)

- _____ a. Fernco
- _____ b. Indiana Seal
- _____ c. Mission Coupling
- _____ d. Dallas
- _____ e. Rockwell 900 Series depending on service

15. VALVE BOX (Water or sewer service, adjustable screw type with locking cover, 5-1/4" shaft, 18" to 24" Ext., cover to be marked for service, Cast Iron ASTM-A48 Class 30.

- _____ a. Russco
- _____ b. Tyler Series 6850
- _____ c. Clow Series F-2450

** U. S. Foundry Series 7500 no longer cast*

16. VALVE BOX (Water or sewer service, adjustable screw type with locking cover, 5-1/4" shaft, 18" to 24" Ext., cover to be marked for service, Cast Iron ASTM-A48 Class 30.

- _____ a. Russco
- _____ b. Tyler Series 6850
- _____ c. Clow Series F-2450

** U. S. Foundry Series 7500 no longer cast*

STORM DRAINAGE PIPE MATERIALS REVIEW LIST

1. REINFORCED CONCRETE PIPE (RCP).

- _____ a. U.S. Precast
- _____ b. Rinker

2. High Density Polyethylene Pipe (HDPE) – Class II

- _____ a. Advance Drainage Systems (NT-12) – up to 24" dia.

3. Polypropylene Pipe (PP)

- _____ a. Advance Drainage Systems (High Performance) – up to 36" dia.