

APPROVED MATERIALS AND MANUFACTURERS LIST



APPROVED MATERIALS AND MANUFACTURERS LIST

1.1 INTRODUCTION

This section contains the policies and procedures for selecting products for use in the water and sanitary sewer systems in Stafford County Virginia and for maintaining the county's Water and Sewer Design and Construction Standards. The official list of specific products and manufacturers that have been approved for use within the Stafford County water and sanitary sewer system is posted on the Stafford County Web Site on the Department of Utilities Web Page under Utilities Code Compliance, Review & Inspections "Approved Product List." This list is updated on a regular basis to add or remove products as directed by the Product Review Committee of the Stafford County Department of Utilities.

This listing is intended to be used as a reference source for Department of Utilities' employees, contractors, and vendors. Materials produced by manufacturers not listed herein are not acceptable for use within the County's system. Manufacturers interested in submitting products for evaluation and possible approval should submit a written request in accordance with the procedures listed below.

1.2 EVALUATION PROCESS

1.2.1 Product and Design Review Committee

The Product and Design Review Committee will be responsible for:

- Review and approval of the "Approved Materials and Manufacturers List"
- Review and approval of the "Stafford County Water and Sewer Standards"
- Review and response to comments and concerns regarding the Water and Sewer Standards expressed by contractors, engineers, developers, suppliers, etc.
- Review of any other matters regarding the design and construction of the Stafford County water and sewer systems.

The Product and Design Review Committee shall be composed of employees of the Department of Utilities including at least one construction inspector, one member from the field operations staff, and one member from the engineering staff. The Director of Public Works will appoint all members.

The Product and Design Review Committee does not meet on regular basis. Meetings are held when the committee receives a request for new product review from a vendor.

1.2.2 Manufacturers and Products Submission Procedures

A manufacturer requesting review of his product shall complete the following procedures:

- A. A written request shall be sent to the Product and Design Review Committee, Department of Utilities, PO BOX 339, Stafford, VA 22555-0339 to the attention of Engineering Manager

- B. The request shall include, but not be limited to, submission (thirteen copies of all documents) of the following
1. A list of all applicable standards (AWWA, ANSI, etc.) regarding the product and AWWA, ANSI, etc. certification of the product.
 2. Adequate shop drawings and design information (brochures and other product information).
 3. Location of the manufacturer's plant.
 4. Location of the nearest local distribution point and retail outlet.
 5. A list of any special tools, fittings or methods of construction that the product may require for installation and/or maintenance.
 6. Spare parts and service availability information.
 7. A 5-year history of the product documenting its performance.
 8. Warranties.
 9. Product sample (where appropriate). Submit one sample only of each product.
 10. User references, with contact person and telephone numbers.
 11. Life cycle costs.
 12. A statement of why the approval of the product would be beneficial to Stafford County.
 13. Sample product if possible

The applicant may be requested to make a presentation regarding the product to the committee that shall not exceed 20 minutes. Representatives at the meeting shall be in a position to offer any type of background on product use and locations, design and reference checks. The representative shall also have the authority to approve a trial run in Stafford County.

1.2.3 Design and Construction Submission Procedures

Questions, comments and requests for changes to the Water and Sewer Standards shall be made in writing to the Product and Design Review Committee at the above address. The committee will review each request.

1.2.4 Design Changes

After the Product and Design Review Committee has approved a product, the manufacturer or his representative shall inform the Committee, in writing, of any modifications in design or material. Such changes may require further evaluation and approval of the committee.

1.2.5 Withdrawal of Approval

The Committee may withdraw any approval as a result of a design change, field observation, testing, product failure, or other factors that, in the Committee's opinion, warrant such withdrawal.

1.2.6 Committee Recommendations

After completion of the review, the committee shall discuss the issue until a general consensus is reached. If a consensus cannot be reached, the recommendation shall be deferred to the next committee meeting. All product evaluations are final. Any product that is not approved cannot be resubmitted for at least one year.

For each product that has been submitted, one of the following recommendations will be made:

- A. Approval for Use:** This approves a product for use throughout the Department's service area. All use of the product will be in conformance with the manufacturer's specifications and good engineering practices.
- B. Conditional Approval for Use:** This approves a product for use throughout the Department's service area; however, the product will be reviewed periodically to ensure that no unforeseen installation or maintenance problems have arisen. After a suitable period of field observation, this approval may be upgraded to **Approval for Use** status. The frequency of review and the length of field observation period will be determined by the Product and Design Review Committee. If, during the field observation period, problems with installation, operation or maintenance of the product are observed, the Product and Design Review Committee may downgrade the status of the product to **Disapproved for Use**. All use of the product will be in conformance with the manufacturer's specifications and good engineering practices.
- C. Limited Approval for Use:** This approves a product for use only in certain sites or projects with the Department's service area. The Product and Design Review Committee will determine where the product can be used. The product will be reviewed periodically to ensure that no unforeseen installation, operation or maintenance problems have arisen. After a suitable period of field observation, this approval may be upgraded to **Conditional Approval for Use** or **Approval for Use** status. The frequency of review and the length of the field observation period will be determined by the Product and Design Review Committee. If, during the field observation period, problems with the installation, operation or maintenance of the product are observed, the Product and Design Review Committee may downgrade the status of the product to **Disapproved for Use**. All use of the product will be in conformance with manufacturer's specifications and good engineering practices.
- D. Disapproved for Use:** The product may not be used anywhere in the Department's service area. If a product has been given a **Disapproved for Use** status by the Product and Design Review Committee, the committee will not review the product again unless significant changes have been made to the product. The Product and Design Review Committee will not reconsider a disapproved product until at least twelve (12) months have passed from the date of disapproval.
- E. Insufficient Information:** Not enough information was provided to evaluate the product. When the Product and Design Review Committee has received additional information, the Committee will evaluate the product at its next regularly scheduled meeting. As part of the request for additional information, the Committee may request a presentation from the manufacturer.

1.2.7 APPROVED PRODUCTS LIST

APPROVED PRODUCTS LIST

DATE: _____ INSPECTOR: _____

PROJECT: _____ CONTRACTOR: _____

POLYVINYL CHLORIDE (PVC) WATER PIPE / MANUFACTURER	
4" TO 10" PVC PIPE / AWWA: C-900 MIN. CLASS DR 14 BLUE	
1) NATIONAL PIPE & PLASTICS	
2) NORTH AMERICAN PIPE	
3) DIAMOND PLASTICS	
4) ROYAL	
5) SANDERSON PIPE	
2" TO 3" PVC PIPE ASTM D 2241, MINIMUM CLASS DR 21	
1) NATIONAL PIPE & PLASTICS	
2) NORTH AMERICAN PIPE	
3) DIAMOND PLASTICS	
4) ROYAL	
PVC RESTRAINED JOINT / AWWA: C-900 MIN. CLASS DR 14 BLUE	
1) DIAMOND PLASTICS & DIAMOND LOK-21 SDR 14	
DUCTILE IRON (DIP) WATER PIPE / MANUFACTURER	
AWWA: C-151 MIN. CLASS 52 PUSH ON OR MECHANICAL JOINT	
1) U.S PIPE & FOUNDRY COMPANY	
2) AMERICAN DUCTILE IRON PIPE	
AWWA: C-150 MIN. CLASS 52 PUSH ON RESTRAINED JOINT	
1) U.S. PIPE TR-FLEX	
2) AMERICAN FLEX-RING RESTRAINED JOINT	
HIGH DENSITY POLYETHYLENE (HDPE) PIPE/MANUFACTURER	
AWWA: C906, PE 3408, MINIMUM SDR 11 CLASS 200	
1) CHEVRON	
2) PLEXCO	
3) FLYING W PLASTICS	
4) PERFORMANCE PIPE DRISCOPEX 4000/4100	
FIRE HYDRANTS / MANUFACTURER	
AWWA C502 & HYDRANTS SHALL BE FACTORY YELLOW, SHERWIN WILLIAMS INDUSTRIAL URETHANE ALKYD HIGH GLOSS OR MCCORMICK POLYURETHANE MODIFIED ENAMEL 33320	
1) MUELLER CENTURION A423	
2) KENNEDY K81D	
3) AMERICAN FLOW CONTROL B084-B-5	
4) CLOW MEDALLION	
FLUSHING HYDRANTS / MANUFACTURER	
BELOW GRADE	
1) KUPFERLE 2" MAIN GUARD MODEL #85	

ABOVE GRADE	
1) KUPFERLE 2" ECLIPSE MODEL 2	
SAMPLING STATIONS / MANUFACTURER	
1) KUPFERLE ECLIPSE #88	
FOSTER ADAPTERS / MANUFACTURER	
AWWA C153 DUCTILE IRON EPOXY COATED, STAINLESS STEEL ACCESSORIES & PROTECTO 401 INTERNAL COATING FOR SEWER	
1) INFAC T	
CORPORATION STOPS: 3/4" – 1" / MANUFACTURER	
AWWA / CC TAPER BY GRIP JOINT, BALL VALVE	
1) FORD: FB-1000-3	
2) FORD: FB-1000-4	
3) MUELLER: B-25008N, 3/4" AND 1"	
4) AY MCDONALD 74701 B-22 3/4"	
5) AY MCDONALD 74701 B-22 1"	
6) CAMBRIDGE BRASS 301 NLA383 3/4"	
7) CAMBRIDGE BRASS 301 NLA484 1"	
PIPE RESTRAINTS (DIP) PIPE / MANUFACTURER	
MUST BE UL LISTED AND FM APPROVED	
1) EBAA IRON, INC. (MEGALUG 1100, 1500 AND 2000)	
2) STAR PIPE PRODUCTS, INC. (ALL GRIP & STAR GRIP)	
3) FORD UNI-FLANGE (SERIES 1500 AND 1400)	
4) SIGMA ONE-LOK RETAINER GLANDS C900/C905 AND DIP	
5) ROMAC STYLE 611 (DIP PIPE)	
6) ROMAC ROMA GRIP WEDGE (PVC AND DIP)	
PIPE RESTRAINTS (PVC) PIPE / MANUFACTURER	
MUST BE UL LISTED AND FM APPROVED	
1) EBAA IRON, INC. (MEGALUG 1500, 1900, 19mjOO AND 1500TD)	
2) ROMAC STYLE 611 (PVC PIPE)	
3) ROMAC ROMA GRIP WEDGE	
4) STAR PRODUCTS SERIES 1000	
COMBINATION VACUUM ARV VALVES / MANUFACTURER	
1) DEZURIK / APCO SERIES 140C	
2) GA INDUSTRIES FIGURES 945	
3) ARI NO D-040	
4) ARI NO D-040-6	
5) H-TECH MODEL 993	
DIRECT BURY COMBIN. VACUUM ARV VALVES / MANUFACTURER	
1) H-TECH MODEL 992	
2) H-TECH MODEL 992 FLOOD PROOF OPTION	
AIR RELEASE VALVES / MANUFACTURER	

1) ARI NO D-015	
2) ARI NO D-050	
3) GA INDUSTRIES FIGURES 905, 910	
4) GA INDUSTRIES FIGURES 920. 922	
5) DEZURIK / APCO MODEL 50	
HI-DENSITY POLYETHYLENE PLASTIC BOX / MANUFACTURER	
1) OLD CASTLE	
2) DFW PLASTICS, INC.	
3) BINGHAM & TAYLOR	
18" FRAME AND COVER	
FRAME AND COVER – IFL180118AWA32	
METER PIT MMP182230	
20" FRAME AND COVER	
FRAME AND COVER – IFL18020AWA32	
METER PIT MMP202430	
WATER METER RECESSED TOUCH READ COVERS / MANUFACTURER	
RECESSED WITH TOUCH READ COVERS / ONE HOLE ASTM 48A CLASS 30	
1) AY MCDONALD 74MCL115RG (11.5" LOCKING LID)	
2) AY MCDONALD 74MCL20RG (20" LOCKING LID)	
3) BINGHAM & TAYLOR 180 BTA 32 DP/180 18 A WEH	
4) BINGHAM & TAYLOR / VESTAL VESFL20MFLWS	
BACKFLOW PREVENTER BOX / MANUFACTURER	
POLYESTER ENCLOSURE HEATED & INSULATE ASSE1060	
1) EZ BOX MODEL HEZ	
TRACER WIRE / MANUFACTURER	
#10 AWG COPPER-CLAD STEEL CORE, ASTM D1248 HDPE JACKET BLUE FOR WATER AND GREEN FOR SEWER	
1) COPPERHEAD INDUSTRIES SUPER FLEX	
2) PRO TRACE HF-CCSPE	
TRACER WIRE CONNECTIONS / MANUFACTURER	
1) DRYCONN 3 WAY DIRECT BURY LUG BLUE	
2) COPPERHEAD SNAKEBITE LOCKING CONNECTOR BLUE	
WATERLINE MARKER / MANUFACTURER	
UV RESISTANT FIBERGLASS COMPOSITE: BLUE WITH WHITE LETTERING: CAUTION WATER PIPELINE	
1) CARSONITE INTERNATIONAL SRM306608	
2) RHINO 3 RAIL FIBERGLASS UTILITY MARKER POST	
VALVE BOXES / MANUFACTURER	
CAST-IRON SLIP TYPE ONLY	
1) SIGMA	
2) BINGHAM & TAYLOR	
3) STAR PIPE	

4) VESTAL	
5) EJ IRON WORKS 5-1/4" DROP LID 1.5" SKT WATER	
#8555 10T VALVE BOX SLIP – TYPE TOP	
#8555 16T VALVE BOX SLIP – TYPE TOP	
#8555 26T VALVE BOX SLIP – TYPE TOP	
#8555 24B VALVE BOX SLIP – TYPE BOTTOM	
#8555 30B VALVE BOX SLIP – TYPE BOTTOM	
#8555 36B VALVE BOX SLIP – TYPE BOTTOM	
VALVE BOX SPACERS T O CENTER VALVE / MANUFACTURER	
1) ADAPTOR INC. VALVE BOX ADAPTOR II	
PRECAST CONCRETE VAULTS / MANUFACTURER	
1) CP&P	
2) CLEAR FLOW COMPANY	
3) CONTRACTORS PIPE AND PRECAST CORPORATION	
4) ROTONDO PRECAST	
5) OLD CASTLE	
6) HANOVER	
7) ULTIMA CONNECT BY CUBIS SYSTEMS	
VAULT DOORS / MANUFACTURER	
TYPE K HEAVY DUTY ALUM. DOUBLE LEAF DOOR H20 RATED	
1) BILCO	
2) HALLIDAY	
MODULAR WALL SEAL / MANUFACTURER	
EPDM WITH STAINLESS STEEL NUTS & BOLTS	
1) LINK SEAL BY THUNDERLINE	
WATER FITTINGS / MANUFACTURER	
BENDS, CROSSES, TEES & GRADE-LOC OFFSET GLANDS, DUCTILE IRON ONLY AWWA C-110 & C-153 COMPACT	
1) TYLER PIPE UNION	
2) U.S. PIPE & FOUNDRY COMPANY	
3) SIGMA CORPORATION	
4) STAR PIPE PRODUCTS, INC.	
5) PIPELILNE COMPONENTS, INC.	
COUPLINGS (TRANSITION / STRAIGHT) NON-RESTRAINED	
STAINLESS STEEL BOLTS & NUTS AND OUTSIDE FINISH HEAT FUSED NYLON COATING OR FUSION BONDED EPOXY COATING MIN. 12" LONG BODY	
1) ROMAC 501 SERIES LONG SLEEVE	
2) FORD #FC2A LONG SLEEVE	
3) FORD ULTRA FLEX	
4) DRESSER STYLE 62	
WATER VALVES / MANUFACTURER	
OUTSIDE FINISH: HEAT FUSED NYLON COATING OR FUSION BONDED EPOXY COATING BODY & DISK: DIP OR CIP RESILIENT SEATED GATE VALVES – AWWA C509,SS BONNET BOLTS	

1) KENNEDY (8571 SERIES)	
2) MUELLER A-2361&2362 (RESILIENT WEDGE)	
3) U.S. PIPE – METROSEAL 250	
4) M&H (STYLE 4067)	
5) AMERICAN FLOW CONTROL (C515)	
6) CLOW FIGURE F-6100	
RESILIENT SEATED WEDGE TAPPING VALVES – AWWA C509	
1) AMERICAN FLOW SERIES 2500 RES. WEDGE VALVE	
2) MUELLER T-2360 RES. WEDGE VALVE (6”-12” ONLY)	
3) KENNEDY MODEL 8950 SERIES	
4) CLOW MODEL F6144	
BUTTERFLY VALVES 14” AND GREATER – AWWA C504	
1) MUELLER – LINESEAL III	
2) DEZURIK	
3) M&H – STYLE 4500 & 1450	
INSERTA VALVES / MANUFACTURER	
1) TEAM INSERTA VALVE	
COMPRESSION FITTINGS / MANUFACTURER	
1) MUELLER PACK JOINT	
2) FORD PACK JOINT C-84	
3) AY MCDONALD 22 SERIES	
4) CAMBRIDGE BRASS CAMPAK B NL SERIES FITTING	
VALVE BOX SPACER / MANUFACTURER	
RESILIENT SPACER TO CENTER VALVE BOXES	
1) ADAPTOR INC. VALVE BOX ADAPTOR II	
TAPPING SLEEVES / MANUFACTURER	
STAINLESS STEEL WITH SS BOLTS & NUTS WITH STAINLESS STEEL OR DUCTILE IRON FLANGE – ALL PIPES	
1) ROMAC SST ALL STAINLESS STEEL TAPPING SLEEVE	
2) FORD FTSC (4”-30”) W/SS BOLTS	
MJ CAST IRON OR D.I SLEEVE	
1) MUELLER H-615 (4”-24” DIP)	
2) MUELLER H-619 (4”-12” A/C PIPE)	
3) AMERICAN FLOW CONTROL	
MODEL 2800-A FOR A/C PIPE	
MODEL 2800-C FOR 4”-12” DIP & PVC PIPES	
MODEL 1004 FOR PVC PIPE / DIP 16” AND UP	
METER SETTERS 2” / MANUFACTURER	
BALL VALVE INLET & OUTLET, 15” HEIGHT, FIP	
1) FORD VBB77-15B-11-77	
2) MUELLER B-2423	

3) AY MCDONALD 20B715 WWFF 775	
RESTRAINED FITTINGS & COUPLINGS IPS PVC PIPE / MANUFACTURER	
DUCTILE IRON, BITUMINOUS EXTERIOR COATING, DOUBLE CEMENT INTERIOR COATING, NSF 61 APPROVED FOR WATER, FUSION BONDED EPOXY FOR SEWER	
1) HARCO KNUCKLE JOINT RESTRAINT	
COPPER TUBING / MANUFACTURER	
TYPE K (SOFT) 3/4" AND 1" SERVICE LINES	
1) CAMBRIDGE LEE	
2) MUELLER STREAMLINE	
3) HOWELL	
4) CERRO	
TYPE K (HARD) 2" AND 3" SERVICE LINES	
1) CAMBRIDGE LEE	
2) MUELLER STREAMLINE	
3) HOWELL	
4) CERRO	
CROSS LINKED POLYETHYLENE / MANUFACTURER	
PEX-A, 1" AND 2" SERVICE LINES	
1) REHAU MUNICIPEX	
SERVICE SADDLES 4" AND SMALLER / MANUFACTURER	
4 BOLT SS W/ FUSION BONDED EPOXY OR NYLON	
1) FORD FC 202 SERIES	
2) FORD FS 202 SERIES (WITH E-COAT)	
3) MUELLER DR2	
4) SMITH/BLAIR, SERIES 317	
5) ROMAC INDUSTRIES, STYLE 202N	
6) JCM INDUSTRIES MODEL 406	
THREADED BALL VLV 2" AND SMALLER / MANUFACTURER	
STAINLESS STEEL BODY AND BALL WITH TEFLON SEAT, NRS WITH STAINLESS STEEL LEVER HANDLE	
1) APOLLO 76FJ-100-A SERIES	
2) MATCO-NORCA 20SSTHM	
3) WATTS SERIES S-FBV-1	
CASING SPACERS , END SEAL & COATING	
1) CASCADE STYLE CCS WITH STYLE CCES END SEALS	
2) PSI MODEL # C8G-2 & MODEL # C12G-2	
3) BMW SS STAINLESS STEEL CASING SPACERS	
4) RACI CASING SPACERS	
5) CCI MODEL CSS STAINLESS STEEL CASING SPACERS	
6) SIKA INERTOL BIYUMINOUS COATING	
7) END SEAL BY GPT MODEL R, PSI MODEL FW OR APPROVED EQUAL	
YOKE BARS / MANUFACTURER	

FOR 5/8" X 3/4" METER	
1) FORD Y502P	
2) MUELLER H-5020P	
3) AY MCDONALD 14-2P	
4) CAMBRIDGE BRASS 461-2	
FOR 3/4" METER	
1) FORD Y-503P	
2) MUELLER H-5030P	
3) AY MCDONALD 14-3P	
4) CAMBRIDGE BRASS 461-2	
YOKE ANGLE METER BALL VALVE 1" / MANUFACTURER	
FOR 5/8" X 3/4" METER	
1) MUELLER B2473N	
2) FORD BA94-324NLW	
3) AY MCDONALD 74602 BY-22 1X3/4X02-CONDITIONAL	
4) CAMBRIDGE BRASS 210NL-B4SR3	
FOR 3/4" METER	
1) MUELLER B2473N	
2) FORD BA94-324NLW	
3) AY MCDONALD 74602 BY-22 1X3/4X02-CONDITIONAL	
4) CAMBRIDGE BRASS 210NL-B4SR3	
YOKE ANGLE DBL. CHECK VALVE 1" / MANUFACTURER	
FOR 5/8" X 3/4" METER	
1) FORD HHCA 94-424NL	
2) MUELLER P 14466AN	
3) AY MCDONALD 7112 4Y2 34	
4) CAMBRIDGE BRASS 500NL-B4SR3	
FOR 3/4" METER	
1) FORD HHCA 94-424	
2) MUELLER P 14466A	
3) AY MCDONALD 7112 4Y2 34	
4) CAMBRIDGE BRASS 500NL-B4SR3	
DOUBLE CHECK, DOUBLE DETECTOR CHECK AND REDUCED PRESSURE PRINCIPLE DEVICES / MANUFACTURER	
AMERICAN SOCIETY OF SANITARY ENGINEERING SEAL APPROVAL, CALL STAFFORD COUNTY BACKFLOW COORDINATOR, (540) 658-5201 FOR SPECIFIC APPLICATIONS	
OTHER WATER PRODUCTS / MANUFACTURER	
VACUUM ARV PEDESTAL, PENCE PLASTIC MODEL AGVNS/1420 HASP BLUE	
GRAVITY SEWER PIPE / MANUFACTURER	
6"-48" PVC C-900/905 Per AWWA standards	
1) NATIONAL PIPE & PLASTICS EVER-GREEN SEWER PIPE	
2) NORTH AMERICAN PIPE ASTM D3034	

3) DIAMOND PLASTICS (PIPE ONLY)	
4) ROYAL (PIPE ONLY)	
5) NORTH AMERICAN F679	
6) SANDERSON PIPE	
7) SANITE HP-HP-PP FOR PIPES LARGER THAN 15"	
D.I. PIPE C-151 MINIMUM – CLASS 52 ACID RESISTANT LINING	
1) U.S. PIPE & FOUNDRY COMPANY (PROTECTO 401)	
2) AMERICAN DUCTILE IRON PIPE (PROTECTO 401)	
PRESSURE SEWER PIPE / MANUFACTURER	
D.I. PIPE CLASS 52 MINIMUM THICKNESS, ACID RESISTANT LINING	
1) U.S. PIPE & FOUNDRY COMPANY (PROTECTO 401)	
2) AMERICAN DUCTILE IRON PIPE (PROTECTO 401)	
PVC AWWA C-900 MINIMUM CLASS DR18 GREEN	
1) NATIONAL	
2) NORTH AMERICAN PIPE	
3) DIAMOND	
4) ROYAL	
RESTRAINED POLYVINYL CHLORIDE (PVC), AWWA C-900 MINIMUM CLASS DR 18 GREEN	
1) DIAMOND LOK-21 RESTRAINED JOINT SDR 18	
HDPE AWWA: C906, PE3408 MIN. SDR11, PR. CLASS 200	
1) CHEVRON	
2) PLEXCO	
3) FLYING W	
4) PERFORMANCE DRISCOPLEX 4000/4100	
PVC FITTINGS: ASTM D1784 / GASKETS: ASTM F477	
1) CHARLOTTE (FITTINGS ONLY)	
2) PLASTIC TREND (FITTINGS ONLY)	
3) MULTI FITTINGS (SDR 35 & SDR 26 FITTINGS ONLY)	
4) VASSALO/SYROCO ASTM D3034 SDR 35 & 26 (FITTINGS ONLY)	
5) VASSALO/SYROCO ASTM D1336 SDR 35 & 26 (FITTINGS ONLY)	
6) HARCO (FITTINGS ONLY)	
7) GPK (GASKETED SEWER PIPE & FITTINGS) SDR 35 & 26	
SEWER CLEANOUT COVER / MANUFACTURER	
1) EAST JORDAN IRON WORKS 8555010/06800006	
2) CAPITOL FOUNDRY WSSC-C/O	
3) BINGHAM & TAYLOR #8250	
WATERPROOF MANHOLE INSERTS / MANUFACTURER	
NON-CORRODABLE WITH SELF CLEANING GAS & VACUUM RELIEF	
1) RAINSTOPPER – SOUTHWESTERN PACKING & SEALS, INC.	
LIQUID APPLIED ELASTOMERIC LINING / MANUFACTURER	
1) SAUEREISEN F88	

MANHOLE JOINT SEALS / MANUFACTURER	
O-RING GASKET MEETING ASTM C-361 OR ASTM C-443	
1) PRESS-SEAL TYPE 4G GASKET	
2) PRESS-SEAL 4F GASKET	
POLYETHYLENE SLOPE ADJUSTMENT RINGS / MANUFACTURER	
EXPANDED POLYPROPYLENE	
1) CRETEX PRO-RING ADJUSTMENT SYSTEM	
2) EJ INFRA-RISER	
SANITARY SEWER MARKER / MANUFACTURER	
UV RESISTANT FIBERGLASS COMPOSITE, WHITE WITH GREEN LETTERING: CAUTION SEWER PIPELINE	
1) CARSONITE INTERNATIONAL SRM306601	
2) RHINO 3 RAIL FIBERGLASS UTILITY MARKER POST	
LATERAL BACKWATER VALVE / MANUFACTURER	
DIAPHRAM OPERATED SS KNIFE VALVE ASME A112.14.1	
1) SMITH FLODGATE FIGURE 7140Y	
MANHOLE INTERIOR COATING / MANUFACTURER	
HIGH BUILD ACID RESISTANT TWO COMPONENT POLYMER LINING SYSTEMS APPLIED BY APPLICATOR CERTIFIED BY MANUFACTURER AND APPROVED BY COUNTY.	
1) RAVEN 405	
2) SAUEREISEN SEWERGUARD 210S, 210RS	
3) VERSAFLEX 50 DM POLYUREA COATING SYSTEM	
4) BELZONA 5811 IMMERSION GRADE	
MH EXTERIOR BITUMINOUS COATINGS / MANUFACTURER	
1) SHERWIN WILLIAMS TARGUARD COAL EPOXY	
2) SEABOARD ASPHALT PRODUCTS MP 33 INDUST. MASTIC	
MODULAR WALL SEAL / MANUFACTURER	
EPDM WITH STAINLESS STEEL NUTS & BOLTS	
1) LINK SEAL BY THUNDERLINE	
SADDLES & INSERTING TEE / MANUFACTURER	
1) ROMAC STYLE CB SEWER SADDLE	
2) INSERTA TEE	
TRACER WIRE / MANUFACTURER	
#10 AWG COPPER-CLAD STEEL CORE, ASTM D1248 HDPE JACKET BLUE FOR WATER & GREEN FOR SEWER	
1) COPPERHEAD INDUSTRIES SUPER FLEX	
2) PRO TRACE HF-CCSPE	
VACUUM AIR RELEASE VAULTS / MANUFACTURER	
POLYMER CONCRETE WITH BOLT DOWN 48" BY 60"; DEPTH & MOUSE HOLE AS REQUIRED. MARKED "WATER" OR "SEWER" AS REQUIRED; STAINLESS STEEL BOLTS	
1) ARMORCAST	
MANHOLES - PRECAST / MANUFACTURER	
ASTM C478, WITH RUBBER O-RING GASKET	

1) WINCHESTER PRECAST – WBS	
2) CONTRACTORS PRECAST – CP&P	
3) TINDALL PRECAST	
4) FREDERICK PRECAST CONCRETE	
5) CP&P	
6) CP&P MONOTHIC MANHOLE	
MANHOLE FRAME & COVERS / MANUFACTURER	
ASTM A48, CLASS 35B, AASHTO M-306 STANDARD SOLID FRAME & COVER	
1) EAST JORDAN IRON WORKS	
#00194410 STANDARD MANHOLE FRAME	
#00194443 STANDARD MANHOLE LID	
2) CAPITOL FOUNDRY MH-1682	
3) U.S. FOUNDRY MH-1682	
HEAVY TRAFFIC SOLID COVER	
1) EAST JORDAN IRON WORKS #1930-A	
WATERTIGHT FRAME AND COVER	
1) EAST JORDAN IRON WORKS	
#00194412 W/T MANHOLE FRAME	
#00194441 W/T COVER	
2) U.S. FOUNDRY	
MANHOLE STEPS / MANUFACTURER	
1) AMERICAN STEP COMPANY	
2) M.A. INDUSTRIES	
INTERNAL CHIMNEY SEALS / MANUFACTURER	
1) SAUEREISEN F88	
N/A IF USING THE CRETEX PRO-RINGS	
GASKET & FLEXIBLE MANHOLE CONNECTION / MANUFACTURER	
FLEXIBLE CAST-IN-PLACE SEAL OR FLEXIBLE BOOTS INSTALLED WITH HYDRAULIC PRESSURE AFTER MANHOLE MANUFACTURE. MANHOLE OPENINGS MADE BY HOLE-FORMERS, INSERTED DURING MANUFACTURE. FIELD INSTALLED – MUST BE INSTALLED BY PERSONNEL CERTIFIED BY MANUFACTURER OR UNDER DIRECT SUPERVISION OF THE MANUFACTURER'S REPRESENTATIVE.	
1) PRESS-SEAL GASKET CORP. PSX POST. SEAL GASKET	
2) A-LOK	
3) INTERNATIONAL PRECAST SUP. WITH SS ADJUSTABLE	
4) NPC KOR-N-SEAL SL	
5) HAMILTON KENT – CIB CAST IN BOOT CONNECTOR	
6) HAMILTON KENT MIB MECHANCALLY INSTALLED	
MANHOLE JOINT WRAP / MANUFACTURER	
1) WRAPID SEAL	
2) BUTYL-TITE MULTISEAL, INC.	
MANHOLE JOINT SEALER BUTYL MASTIC / MANUFACTURER	

1) RAM NEK PIONEER 310 MASTIC	
SEWER VALVES / MANUFACTURER	
VALVES – PLUG, FULL PORT	
1) DEZURIK FIG 100	
2) CLOW ECCENTRIC PLUG VLVE C5413	
VALVES – RESILIENT SEATED GATE AWWA: C509	
1) MUELLER A-2360 (RESILIENT WEDGE)	
2) U.S. PIPE – METROSEAL 250	
3) M&H STYLE 4067	
4) AMERICAN FLOW CONTROL (C515)	
5) CLOW FIGURE F-6100	
6) KENNEDY 1106 SERIES	
SWING CHECK VALVES / MANUFACTURER	
1) GOLDEN ANDERSON FIGURE 250-D	
2) KENNEDY 1106 SERIES	
BACKWATER VALVES – MANHOLE VENT / MANUFACTURER	
1) JOSAM 67100	
COMBINATION AIR & VACUUM VALVES / MANUFACTURER	
1) H TECH MODEL 986	
2) ARI 020 & 025 STAINLESS STEEL	
BALL VALVE 1" OR 1 1/4" FIP/LPSS / MANUFACTURER	
1) FNW FIGURE 200A	
2) APOLLO 76FJ-100-A SERIES	
CHECK VALVE 1 1/4" LPSS / MANUFACTURER	
LPSS HOUSE CONNECTION – 2-INCH BRASS BODY & FLAPPER, FIP	
1) FNW 16B 200K	
VAULT DOORS / MANUFACTURER	
TYPE K HEAVY DUTY ALUMINUM DOUBLE LEAF DOOR H20 RATED	
1) BILCO	
2) HALLIDAY	
TRACER WIRE CONNECTIONS / MANUFACTURER	
1) DRYCORN 3 WAY DIRECT BURY LUG	
2) COPPERHEAD SNAKEBITE LOCKING CONNECTOR	
MANHOLE INVERT REPAIR / MANUFACTURER	
1) KAUFMAN HICAP PATCHING & FINISHING COMPOUND	
VACUUM AIR RELEASE VALVE RISER / MANUFACTURER	
C900 TAPPED SERVICE TEE; 316 STAINLESS STEEL / HDPE TRANSITION; GF NYLON ADAPTER & BALL VALVE	
1) HARCO C900 SERVICE TEE 351-XXX	
2) HARCO TRANSITION NIPPLE 65-283202	
3) HARCO MALE ADAPTER 75-33088	

4) HARCO BALL VALVE 76-70308	
LPFM BOX COVERS / MANUFACTURER	
1) EAST JORDAN	
2) Bingham and Taylor	