

**HOWARD COUNTY, MARYLAND**  
**DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING**  
**APPROVED MATERIALS LIST**  
**December 10, 2007**

<b>Reference</b>	<b>Product Description</b>	<b>Manufacturer</b>	<b>Model Number (Details)</b>
905.01	PVC Pipe	Diamond Plastics Corp.	n/a
905.01	PVC Pipe	ETI/Uponor	4" and larger DR18 1-1/2" and 2" SDR 21
905.01	PVC Pipe	J-M Pipe	n/a
905.01	PVC Pipe	National Pipe & Plastics, Inc.	n/a
905.01	PVC Fittings	Harco	n/a
905.01	PVC Fittings	Harvel	n/a
905.01	PVC Pipe Mechanical Joint Fitting Restraints	EBAA	2000 PV (4" to 36")
905.01	PVC Pipe Mechanical Joint Fitting Restraints	EBAA	2200 (42" to 48")
905.01	PVC Pipe Mechanical Joint Fitting Restraints	Romac	GripRing Series (4" to 12")
905.01	PVC Pipe Joint Harness Restraints	EBAA	1600 (4" to 12")
905.01	PVC Pipe Joint Harness Restraints	EBAA	2200 (14" to 48")
905.01	PVC Pipe Joint Harness Restraints	Romac	Style 611
905.02	HDPE Pipe	Performance Pipe Company	Driscoplex Series 4000 (For Ductile Iron Pipe Sizes)
905.02	HDPE Pipe	Isco Industries	n/a
905.02.01	HDPE Pipe for Storm Drains	Advanced Drainage Systems, Inc. (ADS / Hancor)	HDPE 12" - 48" diameter
905.02	Electrofusion Service Saddle	Performance Pipe Company	n/a
905.02	Electrofusion Service Saddle	Isco Industries	Frialen Series
905.04.02	Prestressed Concrete Cylinder Pipe (PCCP)	Price Brothers	n/a
905.04.02	Prestressed Concrete Cylinder Pipe (PCCP)	Hanson Pipe and Products, Inc.	n/a
905.04.02	Prestressed Concrete Cylinder Pipe (PCCP)	Vianni Pipe, Inc.	n/a

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<b>Reference</b>	<b>Product Description</b>	<b>Manufacturer</b>	<b>Model Number (Details)</b>
905.10 905.11	Ductile Iron Pipe and Fittings	American Cast Iron Pipe Company	n/a
905.10 905.11	Ductile Iron Pipe and Fittings	Griffin Pipe Products Company	n/a
905.10 905.11	Ductile Iron Pipe and Fittings	US Pipe	n/a
905.10 905.11	Ductile Iron Push-On Joints	American Cast Iron Pipe Company	Fastite
905.10 905.11	Ductile Iron Push-On Joints	US Pipe	Tyton
905.10 905.11	Ductile Iron Mechanical Joint Restraint	EBAA Iron Inc.	Megalugs
905.10 905.11	Ductile Iron Mechanical Joint Restraint	Romac	GripRings (4" to 12")
905.10 905.11	Ductile Iron Mechanical Joint Restraint	Smith-Blair	Cam-Lok
905.10 905.11	Ductile Iron Push-On Joint Restraint	American Cast Iron Pipe Company	Flex-Ring
905.10 905.11	Ductile Iron Push-On Joint Restraint	Griffin	Snap-Lok
905.10 905.11	Ductile Iron Push-On Joint Restraint	US Pipe	Field Lok
905.10	MJ Pipe Adapters	INFACT Corp.	Foster (4-16")
905.10	Ductile Iron Fittings, Specialty	One Bolt, Inc.	One Bolt Fittings
905.10	MJ Gland	Clow Valve Co.	Field Lok 4"-12" diameter DIP
905.10	MJ Gasket	Clow Valve Co.	Field Lok 4"-12" diameter DIP
905.11	Specialized Pipe Lining	LaFarge	Sewper Coat
905.11	Specialized Pipe Lining	American Cast Iron Pipe Company	Fusion Bonded Epoxy
905.11	Specialized Pipe Lining	US Pipe and Foundry	Permafuse Epoxy
905.13	Steel Pipe and Fittings	Northwest	n/a

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905.13	Steel Pipe and Fittings	American	n/a
905.13	Steel Coupling	Smith Blair	411
905.13	Insulated Steel Coupling	Smith Blair	416
921	Weatherproofing Sealant	Tremco Incorporated	Vulkem 116
960.02.02	Swing Check Valve	Valmatic	Flex Swing #508A
960.02.02	Swing Check Valve	M&H Valve Co.	Figure 159
960.02.03	Pump Check Service Valve	Bermad	700 Series
960.02.03	Pump Check Service Valve	Claval	60 series
960.03.02	Dry Pit Submersible Pumps	Fairbanks Morse	2430WD 5430WD
960.03.02	Dry Pit Submersible Pumps	Flowserve	MSX
960.03.03	Wet Well Submersible Pumps	Flowserve	MSX
960.03.03	Wet Well Submersible Pumps	Fairbanks Morse	2430M&W 5430M&W
960.03.04	Suction Lift Pumps	Smith & Loveless	#501 MG
960.04	Water Pumps (Split Case)	Flowserve	LN LNN
960.04	Water Pumps (Split Case)	Fairbanks Morse	2800 5800
960.04	Water Pumps (Split Case)	Patterson	Horizontal Split-Case
960.04.02	Dry Pit Submersible Pumps	Flygt	T Series
960.04.02	Dry Pit Submersible Pumps	KSB	Sewatec Series
960.04.03	Wetwell Submersible Pumps	Flygt	3000 series
960.04.03	Wetwell Submersible Pumps	KSB	KRT
960.04.04	Suction Lift Pumps	Gorman Rupp	Super T series
960.04.05	Water Pumps (horizontal split case)	Gould Pumps	3400 Series
960.05	Flowmeters	ABB	MagMaster
960.05	Flowmeters	Krohne	Aquaflux

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<b>Reference</b>	<b>Product Description</b>	<b>Manufacturer</b>	<b>Model Number (Details)</b>
960.06.01	Wastewater Flow Meters	Rosemount	8700 Series
960.06.02	Water Flow Meters (universal Venturi)	BIF	Universal Venturi Tube
960.07.02	Level Measurement System	Milltronics	Hydroranger transmitter with Echomax transducer
960.08	Programmable Logic Controllers (PLC)	USFilter/ Autocon	n/a
960.08	Variable Frequency Drives (VFD)	Danfoss	VLT
961.01	Resilient Seated Gate Valves	American AVK	Series 25 (4" to 12") Series 55 (18" to 24")
961.01	Resilient Seated Gate Valves	American Flow Control	Series 500 (4" to 12") Series 2500 (14" to 36")
961.01	Resilient Seat Gate Valves	Clow	Resilient Seat Gate Valves (14" to 36")
961.01	Resilient Seated Gate Valves	Kennedy Valve	Kenseal II Series (4" to 12")
961.01	Resilient Seated Gate Valves	M&H	4067 (14" to 36")
961.01	Resilient Seated Gate Valves	Mueller Company	A-2360 (4" to 12") A-2361 (14" to 36")
961.02	Butterfly Valves	M&H	Style 1450 (30" to 48")
961.02	Butterfly Valves	Keystone Valve	Figure 47 (30" to 48")
961.02	Butterfly Valves	Mueller Company	Line seal III (30" to 48")
961.03.01	Sewage Air/Vacuum and Air Release Valves	APCO	Series 200A
961.03.01	Sewage Air/Vacuum and Air Release Valves	ARI	D-050
961.03.01	Sewage Air Vacuum/air Release valves	Claval	30 Series valves
961.03.01	Sewage Air/Vacuum and Air Release Valves	Golden Anderson	Figure 935
961.03.01	Sewage Air/Vacuum and Air Release Valves	Valmatic	Series 100
961.03.02	Water Air/Vacuum Valves	APCO	Series 400

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<b>Reference</b>	<b>Product Description</b>	<b>Manufacturer</b>	<b>Model Number (Details)</b>
961.03.02	Water Air/Vacuum Valves	ARI	D-050
961.03.02	Water Air/Vacuum Valves	Claval	30 Series valves
961.03.02	Water Air/Vacuum Valves	Golden Anderson	Figure 935
961.03.02	Water Air/Vacuum Valves	Valmatic	Series 100
961.04	Pressure Reducing Valves (PRV) for Water Service	Cla-Val	Series 90 (4" and larger)
961.04	Pressure Reducing Valves (PRV) for Water Service	Bermad	Series 700 (4" and larger)
961.04	PRV Flow Metering Option	Cla-Val	131-VC-3T
961.05	Tapping Sleeves	Cascade	CST-EX
961.05	Tapping Sleeves	Ford Meter Box Company	FAST Style
961.05	Tapping Sleeves	Mueller Company	H-304
961.05	Tapping Sleeves	Romac	SST (DIP & PVC) SST-H (HDPE)
961.05	Tapping sleeves	Smith Blair	660 series stainless steel
961.05	Electrofusion style (HDPE only)	ISCO	Fialen VA
961.05	Valves for Tapping Sleeves	Mueller Company	T-2360 (2" to 12")
961.05	Valves for Tapping Sleeves	M&H	4751 (4" to 12")
961.05	Valves for Tapping Sleeves	US Pipe & Foundry	Metroseal 250 (4" to 16")
961.05	Valves for Tapping Sleeves	Kennedy Valve	Kenseal II Series
961.05	Valves for Tapping Sleeves	American Flow Control	Series 2500
961.05	Valves for Tapping Sleeves	AVK	Series 25
961.06	Roadway Valve Boxes	Bingham&Taylor	4906, 4909-E, 4905-X
961.06	Roadway Valve boxes	East Jordan Iron works	Slide Type
961.06	Roadway Valve Boxes	Mueller Company	H-10360

**HOWARD COUNTY, MARYLAND**  
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<b>Reference</b>	<b>Product Description</b>	<b>Manufacturer</b>	<b>Model Number (Details)</b>
961.06	Valve Box Adjustment Risers	Bingham & Taylor	Rite Hite
961.06	Valve Box Adjustment Risers	Tyler/Union	#69
961.06	Valve Box Adaptor	Adaptor, Inc.	Valve Box Adaptor II
961.07	Fire Hydrants	American Darling	B84B
961.07	Fire Hydrants	AVK	Series 2780
961.07	Fire Hydrants	Clow	Medallion
961.07	Fire Hydrants	Kennedy Valve	K81 Guardian
961.07	Fire Hydrants	Mueller Company	Centurion
961.07(b)	Fire Hydrants ( paint)	Duron Dura Clad (finish coat)	DTM Acrylic Coating, High Gloss, Safety Orange, #95-31511
961.07(b)	Fire Hydrants ( paint)	Duron Dura Clad (Primer)	Terminator 2, Water base stain killer, Interior/Exterior Primer/sealer, White #7121811
961.08.02	Three Part Unions	Mueller	15400
961.08.02	Three Part Unions	Ford Meter Box Co.	C22
961.08.02	Three Part Unions	A.Y. McDonald	4758
961.08.03	Corporation Stops	Mueller	H-15000
961.08.03	Corporation Stops	Ford Meter Box Co.	F-600
961.08.03	Corporation Stops	A.Y. McDonald	4701
961.08.04	Curb Stops	Mueller	H-15022 (1") B-25204 (1 1/2" to 2")
961.08.04	Curb Stops	Ford Meter Box Co.	B22
961.08.04	Curb Stops	A.Y. McDonald	6100
961.08.05	Outside Meter Settings 1" and Smaller	AY MacDonald	14G42ILTQQ (single 1")
961.08.05	Outside Meter Settings 1" and Smaller	Ford	Y501 (5/8") Y503 (3/4") Y504 (1")
961.08.05	Outside Meter Settings 1" and Smaller	Mueller	H-5010 (5/8") H-5030 (3/4") H-5040 (1")
961.08.05	Outside Meter Setting Assembly	Ford	Double Assembly # B 95141-10 (contd.) (Factory assembled)

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**APPROVED MATERIALS LIST**  
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<b>Reference</b>	<b>Product Description</b>	<b>Manufacturer</b>	<b>Model Number (Details)</b>
961.08.06	Twin Service Connections	Ford Meter Box Co.	Angle "U" branch
961.08.06	Outside Meter Setting Assembly Twin Service assembly	AY MacDonald	14H42ILTQQ (twin 1")
961.08.06	Outside Meter Setting Assembly Twin Service assembly	Ford	B95141-10 (double Assembly)
961.08.07	¾" and 1" Inside Meter Setting	Mueller	H-1412
961.08.07	¾" and 1" Inside Meter Setting	Ford Meter Box	Copperhorn Series
961.08.08	1 ½" and 2" copper water meter setting fittings	Mueller	H-1423-9900
961.08.08	1 ½" and 2" copper water meter setting fittings	Ford Meter Box Co.	VV76-15-HB-11-66 (1 ½") VV77-15-HB-11-77 (2")
961.08.08	1 ½" and 2" copper water meter setting fittings	A.Y. McDonald	Series 21
961.08.09	Service Saddles	Ford	F202 (DIP) FC202 (PVC)
961.08.09	Service Saddles	Mueller	DR2A (DIP) DR2S (PVC)
961.08.10	Curb stop boxes	A.Y. McDonald	Series 5602
961.08.10	Curb stop boxes	Armor Access Box	Curb Service Box series (PVC)
961.08.10	Curb stop boxes	Ford	Arch Base Design (Cast iron)
961.08.10	Curb stop boxes	Ford Meter Box Co.	EA2 Series
961.08.10	Curb stop boxes	Mueller	H-10316 (1") H-10336 (1 ½" to 2")
961.08.11	Meter Boxes	Armor Access Box	Utility Meter Box series
961.08.11	Meter Boxes	Ford Meter Box	Monitor Lid and Frame No. MC- 24-TT
961.08.11	Meter Boxes	Carson Brooks Plastics, Inc.	2200 Series
961.08.12	Meter Boxes	DFW Plastics	Model Number 2452030TP
961.08.11	Meter Boxes	Rhino Water Meter Boxes	MB Series

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<b>Reference</b>	<b>Product Description</b>	<b>Manufacturer</b>	<b>Model Number (Details)</b>
961.08.11	Meter Box Cover and Frame	Ford	Monitor MC-24-TT (In non-vehicle traffic areas)
961.08.11	Meter Box Cover and Frame	Ford	RML-12 (In vehicle traffic areas)
961.09	Meter Vaults	Smith-Midland	n/a
961.09	Meter Vaults	Clearflow	n/a
961.09	Meter Vaults	A.C. Miller	n/a
961.09	Water Meter Vaults	AC Miller	Pre-Assembled
961.10	Blow-Off Hydrants	John C. Kupferle Foundry Co.	Eclipse No. 85
961.10	Blow-Off Hydrants	Mueller	A-408
961.11.01	Grinder Pumps	Environment One	2000 Series
961.11.01	Grinder Pumps	Delta Environmental	D Series
961.11.02	Union Ball Valves	Environment One	-
961.11.02	Union Ball Valves	Vortex Pump, LLC	V-1000
961.11.03	Check Valves	Environment One	-
961.11.03	Check Valves	Flo Control, Inc.	1720
962.00	Manhole Insert	Urban Environmental Products	The Man-Pan
962.01	Flexible Connectors for Structures, Pipes and Laterals	Press-Seal Gasket Corporation	-
962.01	Flexible Connectors for Structures, Pipes and Laterals	NPC Inc.	Kor-N-Seal
962.03	Straight Wall Manhole Frame and Lid	Neenah	Varies
962.03	Straight Wall Manhole Frame and Lid	East Jordan Iron Works, Inc.	154513
962.03	Sanitary Sewer Heavy Traffic Manhole Frame and Cover	Chesapeake Foundries, Inc.	
962.05	Steel Expandable Manhole Riser	American Highway Products LTD.	Pivoted Turnbuckle Manhole Riser
962.05	HDPE Manhole Riser	Ladtec, inc..	n/a, (Conditional Approval given 5/3/99.)
962.05	Concrete Manhole Adjustment rings.	Prism Precast Products	

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**December 10, 2007**

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962.05	Precast Rubber Grade Rings	American Highway Products LTD.	n/a
962.06	Manhole Interior Liners	Ameron International	T-Lok
962.06	Manhole Interior Liners	Agru	Sure-Grip HDPE Liner
963.02.01	Liner Plate Tunnel	American Commercial	-
963.02.01	Liner Plate Tunnel	LTV Steel	-
963.02.01	Liner Plate Tunnel	Armco	-
963.03	Casing End Seals	Pipeline Seal & Insulator, Inc.	Model S or C
963.03	Casing End Seals	Advance Products & Systems	Model AC
963.03	Casing End Seals	Maloney Technical Products	Multiflex
963.04	Casing Spacer/Insulators	Pipeline Seal and Insulator, Inc.	
963.04	Casing Spacer/Insulators	Advance Products & Systems	
963.04	Casing Spacer/Insulators	Cascade Waterworks Manufacturing Co.	
963.04	Casing Spacer/Insulators	RACI North America, Inc.	Varies
964.04.02	Cured in place Manhole Liner	Terre Hill	Multi-plex
964.04.02	Cured in place Manhole Liner	Poly-Triplex Technologies	Poly triplex Liner System
964.04.02	Spray on Epoxy Manhole Liner	Raven	Raven 400S
964.04.02	Spray on Epoxy Manhole Liner	Terre Hill	Hydropoxy
966.01	Grinder Pumps	Environment One	2000 series
966.01	Grinder Pumps	Vortex Pump, LLC	V-1000
966.03.02	Ball Valves	Hayward	Industrial Series
967.03	External Coating for Steel Pipe	Polyken Technologies	YGIII System
967.04	External Coating for Prestressed Concrete Pipe	Tnemec Company, Inc.	46H-413
967.07	External Coating for Non-Welded Steel Pipe Joints	Polyken Technologies	YGIII System

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967.08	External Coating for Welded Steel Pipe Joints	Polyken Technologies	YGIII System
967.09	Field Applied Coating for Insulating Flanges, Insulating Couplings, Mechanical Joints, and Insulating Corporation Stops	Denso North America, Inc.	Denso Paste Denso Profiling Mastic Denso Tape Denso Utility Tape
967.09	Field Applied Coating for Insulating Flanges, Insulating Couplings, Mechanical Joints, and Insulating Corporation Stops	Trenton Corporation	Wax-Tape Primer Fill-Putty #1 Wax-Tape Glas-Wrap
967.1	Prepackaged Magnesium Anodes	Stuart Steel Protection Corporation	
967.11	Magnesium Ribbon Anodes	Dow Magnesium	
967.12	Prepackaged Zinc Anodes	Stuart Steel Protection Corporation	
967.13	Zinc Ribbon Anodes	The Platt Brothers & Company	
967.14	Test Stations	CP Test Services, Inc.	NM-7
967.17	Current Measuring Shunt	Cott Manufacturing Company	Yellow
967.18	Compression Connectors	Burndy Corporation	YC-C
967.19	Electrical Tape	3M Company	Scotch 88 Vinyl Tape Scotch C130 Rubber Tape
967.20	Copper/Copper Sulfate Reference Electrode	Electrochemical Devices, Inc.	UL-CUG-SW
967.21	Silver/Silver Chloride Reference Electrode	Electrochemical Devices, Inc.	UL-AGG-SW
967.24	Thermite Weld Equipment	Erico, Inc.	
967.25	Coating for Thermite Welds to Steel and Ductile Iron	Royston Laboratories Division	Handy-Cap 747 Primer

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967.25	Coating for Thermite Welds to Prestressed Concrete Pipe	Royston Laboratories Division	Roskote R28
967.26	Insulating Flanges	Advance Products & Systems, Inc.	Trojan
967.27	Insulating Couplings	Dresser Industries	Style 39 Insulating Coupling
967.28	Insulating Corporation Stops	Mueller Company	300 Corporation Ball Valve
967.29	Mastic	Royston Laboratories Division	Roskote R28
967.30	Linked Rubber Seal	Thunderline Corporation	Link Seals
967.31	Insulated Casing Spacers	Advance Products & Systems, Inc.	SSI
967.31	Separator Mesh	Stuart Steel Protection Corporation	Diamond Rockstop
1009.03.02	Sewer Clean-outs	Prism Precast Products	-
Storm Drain Details	Curved Vane Inlets Grates	Neenah Foundry Company	(1998, County limited grate use substitution for new and existing grates in WR inlets.)
Storm Drain Details	'S' Cast Iron Vane Grates	East Jordan Iron Works, Inc.	
No Reference	Oil and Grease Separator	Green Turtle Technologies	Proceptor
No Reference	Storm Water Treatment Device	CDS Technologies	Varies