APPENDIX B: APPROVED PRODUCTS AND MATERIALS

Hillsborough County Water Resources Department
Appendix B: Pre-approved Products and Materials

			Optimal County Limit ☼	POTABLE WATER	RECLAIMED WATER	WASTEWATER (Gravity)	WASTEWATER (Force Main)	WASTEWATER (Pump Station)	Manufacturer	Part Name/ Model Number	Important Notes and Stipulations
Access Frames	Access Frames and Valve Boxes	**Access Rings and Covers**	No Limit	-		Yes	-		Neenah Foundry (Charlotte Pipe Infrastructure)	USF 227-SQ	Model 8015108 Specifies "Hillsborough County Florida, EST. 1834, Foundary, SANITARY" and Hillsborough County logo on cover (POR-15 Coating required for all wastewater service)
				Yes	Yes	-	Yes		Neenah Foundry (Charlotte Pipe Infrastructure)	USF 227-AQ	Model 8015188 Specifies "Hillsborough County Florida, EST. 1834, Foundary, AIR RELEASE" and Hillsborough County logo on cover. (POR-15 coating required for sanitary sewer)
				-		-	-	Yes	Neenah Foundry (Charlotte Pipe Infrastructure)	USF 105-M	Model 8018833 LPSS use only. "SANITARY SEWER" on cover. Model 8018833 (POR-15 coating required.)
				-		Yes	-		East Jordan Iron Works (EJ)	1071A-LO (Cover) 1227Z (Ring)	"Year, Hillsborough County Florida, Sanitary Sewer" and Hillsborough County logo on cover (POR-15 Coating required when Force Main dumps into Gravity)
				-		-	-				
		Manhole Cover and Cone Casting Grade Adjusting Rings	No Limit	Yes	Yes	Yes	Yes		Ladtech	HDPE Adjusting Rings	Approved for Traffic & Non-traffic applications. Shall be installed using a butyl sealant meeting ASTM C-990 per mfg. instructions.
				Yes	Yes	Yes	Yes		Neenah Foundry (Charlotte Pipe Infrastructure)	227 MH Steel Adjusting Rings	Model 9060003 Use approved Manhole Frame and Cover Protective Paint for Force Mains dumping into Gravity or for Wastewater ARV
				Yes	Yes	Yes	Yes		Cretex Specialty Products	PRO-RING	Approved for Traffic & Non-traffic applications. Shall be installed using M-1 Structural or Rapid Set Flexible.
		Valve Box and Cover	No Limit	Yes	Yes	Yes	Yes	Yes	Tyler / Union	6850 Series	Screw Type With Base and Lid
				Yes	Yes	Yes	Yes	Yes	Sigma / Russell Pipe Company		Screw Type With Base and Lid
				Yes	Yes	Yes	Yes	Yes	Star Pipe Products		Screw Type With Base and Lid
				Yes	Yes	Yes	Yes	Yes	Bingham & Taylor	Series 4905	Screw Type with Base, Stnd & Heavy Lid, Skirt and Risers
		Wetwell Access and Frames (Hinged on discharge piping side)	No Limit	-		-	-	Yes	Halliday Products, Inc	Series S-R	
				-		-	-	Yes	Water / Wastewater Systems, Inc.		Fabricated with water Dept. Approval
				-		-	-				

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Backflow Prevention, Etc.	**Backflow Prevention Assemblies & Devices (For Hillsborough County owned & maintained assets)**	No Limit	Yes		-	-		Apollo Valves (Conbraco)	RPLF4A	½" - 2" (Required Specs: RPZ, ASSE 1013, AWWA C511, NSF-61, NSF-372)
			Yes		-	-		Apollo Valves (Conbraco)	RP4A	2½" - 10" (Required Specs: RPZ, ASSE 1013, AWWA C511, NSF-61, NSF-372)
			Yes		-	-		Wilkins (Zurn)	975XL2	¾" - 2" (Required Specs: RPZ, ASSE 1013, AWWA C511, NSF-61, NSF-372)
			Yes		-	-		Wilkins (Zurn)	375	2" - 10" (Required specs: RPZ, Epoxy Coated DI, ASSE 1013, AWWA C511, NSF-61, NSF-372)
			Yes		-	-		Ford Meter Box Company INC	HHS 31-323-NL	⅝" x ¾" (Required specs: ASSE 1024, NSF-61, NSF-372) (ONLY for Residential water service connections where there is an Auxiliary Water System, or contains another Potential Cross-connectionl)
			Yes					A.Y. McDonald	7411-3JE-43	NL - 3/4" swivel nut less saddle x FNPT (Required specs: ASSE 1024, NSF-61, NSF-372) (ONLY for residential services where there is auxiliary irrigation reclaim cross connection control)
			Yes		-	-		A.Y. McDonald	7411-3JE-54	NL - 1" swivel nut less saddle x FNPT (Required specs: ASSE 1024, NSF-61, NSF-372) (ONLY for Residential water service connections where there is an Auxiliary Water System, or contains another Potential Cross-connection)
	Casing Spacers	4	Yes	Yes	Yes	Yes		Cascade	CCS	Stainless Steel (8" to 48")
			Yes	Yes	Yes	Yes		Advanced Products & Systems	SSI8 SSI12	SSI8 (4" to 36") SSI12 (42" to 48")
			Yes	Yes	Yes	Yes		RACI Spacers North America		Sizes Greater than 33" require PUD Design Exception
	Marking Tape (4.5 mil Thickness & 2" Width minimum)	No Limit	Yes		-	-		Pro-Line Safety Products	Blue	
			-		-	Yes		Pro-Line Safety Products	Green	
			-	Yes	-	-		Pro-Line Safety Products	Purple	
			-		-	-				
	Flexible Wetwell & Manhole to Pipe Connectors	No Limit	-		Yes	-		A-Lok Products, Inc.	Z-Lok	
			-		Yes	-		Trelleborg	Kor-N-Seal	
			-		Yes	-		Press Seal Gasket	PSX Direct Drive	
			-		-	-				

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Fittings, Tapping Saddles & Service Saddles	Directional Change Fittings	Ductile Iron (C110 & C153)	No Limit	Yes	Yes	-	Yes	Yes	U.S. Pipe Company		Sewer-- Aprvd Ceramic Epoxy needed
				Yes	Yes	-	Yes	Yes	Sigma / Russell Pipe Company		Sewer-- Aprvd Ceramic Epoxy needed. Note: MJ Sleeves are not approved for use.
				Yes	Yes	-	Yes	Yes	American Ductile Iron Pipe Company		14" & Larger; Sewer--Ceramic Exoxy Interior
				Yes	Yes	-	Yes	Yes	Tyler/Union		Sewer-- Aprvd Ceramic Epoxy needed
				Yes	Yes	-	Yes	Yes	North American Cast Iron Products (NACIP)		Sewer-- Aprvd Ceramic Epoxy needed
				Yes	Yes	-	Yes	Yes	One-Bolt Inc.		Mfg Restraint included; Sewer-- Ceramic Epoxy Interior
				Yes	Yes	-	Yes	Yes	Star Pipe Products		Sewer-- Aprvd Ceramic Epoxy needed, Note: MJ Sleeves are not approved for use.
				Yes	Yes	-	Yes	Yes	Serampore Industries Private Ltd. (SIP)		Sewer-- Aprvd Ceramic Epoxy needed
		PVC for Wastewater Gravity (SDR 26 / ASTM D3034)	No Limit	-	-	Yes	-	-	Harrington Corp (HARCO)		Approved thru 8"
				-	-	Yes	-	-	Multi Fittings Corp		Approved thru 8"
				-	-	Yes	-	-	National Pipe & Plastics Inc		4" to 15"
				-	-	Yes	-	-	Westlake Pipe & Fittings Corp.		
				-	-	Yes	-	-	GPK Products		
	Service Saddles		No Limit	Yes	Yes	-	-	-	Smith-Blair (Sensus)	313	Epoxy coat DI body, dual bale
				Yes	Yes	-	-	-	Ford Meter Box Company INC	F-202	E-coat DI body, dual bale
							Yes		Ford Meter Box Company INC	FS323-xxx-IP7-Q	4 to 12 inch pipe size Saddles, all stainless Steel components required for force main Air Release Valve Installations
				Yes	Yes	-	-	-	JCM Industries	402	Shop coat DI body, dual bale
				-	-	-	Yes	-	Continental Industries INC	PVC Super FastTap	3"-6", For LPSS use only
				Yes	Yes	-	-	-	JCM Industries	406	Epoxy coat DI body, dual SS Straps
				-	Yes	-	-	-	Cascade	CNS2	Epoxy coat DI body, dual SS Straps
				Yes	Yes				A.Y. McDonald	4826A	Epoxy coat DI body, dual straps
				Yes	Yes	-	Yes	-	Dresser TPS LLC	TPS Series T3	316/L SS panel, lugs, outlet, bolts, nuts, and washers options required for wastewater service
	Specialized Fitting Type Items		No Limit	Yes	Yes	-	Yes	-	Infact Corporation	Foster Adapter	* Must have Epoxy coating (10 mills thickness) * Must be Pre-Approved for use in Wastewater

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Fittings, Tapping Saddles & Service Saddles	**Tapping Sleeve**	**Less Than Size-On Size Taps**	Ductile Iron (MJ ends x Flange Outlet)	**No Limit**	Yes	Yes	-	Yes	-	American Flow Control	Series 2800	4"-16" (For Use on DI & CI)
					Yes	Yes	-	Yes	-	Mueller Co.	H-615	4"-24", 4"-12" for PVC (For Use on PVC, DI, & CI)
					Yes	Yes	-	Yes	-	Tyler/Union		6"-12" (For use on DI & CI)
			Fabricated SST (*with flange outlet and wrap-around gasket*)		Yes	Yes	-	Yes	-	Mueller Co.	H-304SS	4"-12" (For Use on PVC, AC, DI & CI)
					Yes	Yes	-	Yes	-	JCM Industries	432	4"-12" (For Use on PVC, AC, DI & CI)
					Yes	Yes	-	Yes	-	Cascade	CST-EX	4"-12" (For Use on PVC, AC, DI & CI)
			Fabricated Carbon Steel (Epoxy Coated, SST hdwe, with flange outlet, outlet seal gasket)		Yes	Yes	-	Yes	-	Smith-Blair (Sensus)	622	4"-30" (For Use on PVC, DI, & CI)
					Yes	Yes	-	Yes	-	JCM Industries	412 ESS	6"-30" (For Use on PVC, DI, & CI)
					Yes	Yes	-	Yes	-	Ford Meter Box Company INC	FTSC	4"-30" (For Use on PVC, DI, & CI)
					-	-	-	-	-			

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Flow Meters	With Double Check Backflow Meter **Flow meters shall be NSF-61 & NSF-372 approved for potable water use.**	¾"	No Limit	Yes	-	-	-	-	Neptune Technology Group	T10DC (Dual Check)	
				-	-	-	-	-			
	Residential Service Meters **Flow meters shall be NSF-61 & NSF-372 approved for potable water use.**	⅝" x ¾"	No Limit	Yes	Yes	-	-	-			
				Yes	Yes	-	-	-	Badger Meter Inc	Recordall Disk Series Model LP	
				Yes	Yes	-	-	-	Badger Meter Inc	Recordall Disk Series Model 25	
				Yes	Yes	-	-	-	Neptune Technology Group	T10	
				Yes	Yes	-	-	-	Sensus Metering Systems	SRII	
				Yes	Yes	-	-	-	Master Meter	BLMJ	
				-	-	-	-	-			
		1"	No Limit	Yes	Yes	-	-	-	Mueller Systems	452-IIS	
				Yes	Yes	-	-	-	Neptune Technology Group	T10	
				Yes	Yes	-	-	-	Sensus Metering Systems	SRII	
				Yes	Yes	-	-	-	Master Meter	BLMJ	

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Flow Meters	Small Commercial Service **Flow meters shall be NSF-61 & NSF-372 approved for potable water use.**	1½"	No Limit	Yes	Yes	-	-	-	Badger Meter Inc	Recordall Disk Series Model 120	(FL x FL)--> Requires flange adapter to convert to FIPxFIP
				Yes	Yes	-	-	-	Mueller Systems	562 IIS	(FL x FL)--> Requires flange adapter to convert to FIPxFIP
				Yes		-	-	-	Master Meter	Octave Ultrasonic	
				Yes	Yes	-	-	-	Neptune Technology Group	T10	(FL x FL)--> Requires flange adapter to convert to FIPxFIP
				Yes	Yes	-	-	-	Sensus Metering Systems	Omini T²	(FL x FL)--> Requires flange adapter to convert to FIPxFIP
				-	-	-	-	-			
		2"	No Limit	Yes	Yes	-	-	-	Badger Meter INC	Recordall Disk Series Model 170	(FL x FL)--> Requires flange adapter to convert to FIPxFIP
				Yes	Yes	-	-	-	Mueller Systems	572 IIS	(FL x FL)--> Requires flange adapter to convert to FIPxFIP
				Yes	Yes	-	-	-	Neptune Technology Group	T10	(FL xFL)-->Requires flange adapter to convert to FIPxFIP
				Yes	Yes	-	-	-	Badger Meter Inc	RecordAll-Turbo Series Model 200	(FL xFL)-->Requires flange adapter to convert to FIPxFIP
				Yes	Yes	-	-	-	Sensus Metering Systems	Omini T²	(FL xFL)-->Requires flange adapter to convert to FIPxFIP
				Yes	Yes	-	-	-	Mueller Systems	MVR 160 (Turbine)	(FL x FL)--> Requires flange adapter to convert to FIPxFIP
				Yes		-	-	-	Master Meter	Octave Ultrasonic	

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Flow Meters	Commercial or Industrial Service *PUD Requirement: ±2% Accuracy* **Flow meters shall be NSF-61 & NSF-372 approved for potable water use.**	3"	No Limit	Yes	Yes	-	-	-	Badger Meter Inc	RecordAll-Turbo Series	
				Yes	Yes	-	-	-	Neptune Technology Group	MACH 10	
				Yes	Yes	-	-	-	Sensus Metering Systems	Omini T²	
				Yes		-	-	-	Master Meter	Octave Ultrasonic	
		4"	No Limit	Yes	Yes	-	-	-	Badger Meter Inc	RecordAll-Turbo Series	
				Yes	Yes	-	-	-	Neptune Technology Group	MACH 10	
				Yes	Yes	-	-	-	Sensus Metering Systems	Omini T²	
				Yes		-	-	-	Master Meter	Octave Ultrasonic	
		6"	No Limit	Yes	Yes	-	-	-	Badger Meter Inc	RecordAll-Turbo Series	
				Yes	Yes	-	-	-	Neptune Technology Group	MACH 10	
				Yes	Yes	-	-	-	Sensus Metering Systems	Omini T²	
				Yes		-	-	-	Master Meter	Octave Ultrasonic	
		8"	No Limit	Yes	Yes	-	-	-	Neptune Technology Group	MACH 10	
				Yes	Yes	-	-	-	Sensus Metering Systems	Omini T²	
				Yes		-	-	-	Master Meter	Octave Ultrasonic	
		10"	No Limit	Yes	Yes	-	-	-	Badger Meter Inc	RecordAll-Turbo Series	
				Yes	Yes	-	-	-	Neptune Technology Group	MACH 10	
				Yes		-	-	-	Master Meter	Octave Ultrasonic	
				Yes	Yes	-	-	-	Sensus Metering Systems	Omini T²	

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Flow Meters	Compound Service Compound meters shall be NSF-61 & NSF-372 approved and used only for domestic service.	1½"	No Limit	Yes	Yes	-	-	-	Sensus Metering Systems	Omini C²	FLxFL requires flange adapter to convert to FIPxFIP
				Yes		-	-	-	Master Meter	Octave Ultrasonic	
		2"	No Limit	Yes	Yes	-	-	-	Badger Meter Inc	RecordAll-Compound Series	Turbine x Disk (FL xFL)-->Requires flange adapter to convert to FIPxFIP
				Yes	Yes	-	-	-	Sensus Metering Systems	Omini C²	(FL xFL)-->Requires flange adapter to convert to FIPxFIP
				Yes		-	-	-	Master Meter	Octave Ultrasonic	
		3"	No Limit	Yes	Yes	-	-	-	Neptune Technology Group	MACH 10	Not a traditional compound meter, but can replace one.
				Yes	Yes	-	-	-	Sensus Metering Systems	Omini C²	
				Yes	Yes	-	-	-	Badger Meter Inc	RecordAll-Compound Series	
				Yes		-	-	-	Master Meter	Octave Ultrasonic	
		4"	No Limit	Yes	Yes	-	-	-	Badger Meter Inc	RecordAll (Compound Series)	
				Yes	Yes	-	-	-	Neptune Technology Group	MACH 10	Not a traditional compound meter, but can replace one.
				Yes	Yes	-	-	-	Sensus Metering Systems	Omini C²	
				Yes		-	-	-	Master Meter	Octave Ultrasonic	
		6"	No Limit	Yes	Yes	-	-	-	Neptune Technology Group	MACH 10	Not a traditional compound meter, but can replace one.
				Yes	Yes	-	-	-	Sensus Metering Systems	Omini C²	
				Yes	Yes	-	-	-	Badger Meter Inc	RecordAll-Compound Series	
				Yes		-	-	-	Master Meter	Octave Ultrasonic	
		8"	No Limit	Yes	Yes	-	-	-	Sensus Metering Systems	Omini C²	
				Yes		-	-	-	Master Meter	Octave Ultrasonic	
				Yes	Yes	-	-	-	Neptune Technology Group	MACH 10	Not a traditional compound meter, but can replace one.
		10"	No Limit	Yes	Yes	-	-	-	Sensus Metering Systems	Omini C²	
				Yes		-	-	-	Master Meter	Octave Ultrasonic	
				Yes	Yes	-	-	-	Neptune Technology Group	MACH 10	Not a traditional compound meter, but can replace one.

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Flow Meters	Fire Service FM, NSF-61 & NSF-372 approved. Compound meters may be used for combination of fire and domestic service.	3"	No Limit	Yes	-	-	-	-	Badger Meter Inc (Fire Series)	FSMA RecordAll	
				Yes		-	-	-	Neptune Technology Group	MACH 10	
				Yes		-	-	-	Master Meter	Octave Ultrasonic	
		4"	No Limit	Yes	-	-	-	-	Sensus Metering Systems	Omini F²	
				Yes	-	-	-	-	Neptune Technology Group	MACH 10	
				Yes	-	-	-	-	Badger Meter Inc (Fire Series)	FSAA RecordAll	
				Yes	-	-	-	-	Badger Meter Inc (Fire Series)	FSMA RecordAll	
				Yes		-	-	-	Master Meter	Octave Ultrasonic	
		6"	No Limit	Yes	-	-	-	-	Sensus Metering Systems	Omini F²	
				Yes	-	-	-	-	Neptune Technology Group	MACH 10	
				Yes	-	-	-	-	Badger Meter Inc (Fire Series)	FSAA RecordAll	
				Yes	-	-	-	-	Badger Meter Inc (Fire Series)	FSMA RecordAll	
				Yes	-	-	-	-	Badger Meter Inc (Fire Series)	FSAA-DB RecordAll	6" x 1.5" Disk Series
				Yes		-	-	-	Master Meter	Octave Ultrasonic	
		8"	No Limit	Yes	-	-	-	-	Sensus Metering Systems	Omini F²	Potable-->Must be NSF-61 stamped and approved.
				Yes	-	-	-	-	Badger Meter Inc (Fire Series)	FSMA RecordAll	
				Yes	-	-	-	-	Badger Meter Inc (Fire Series)	FSAA RecordAll	
				Yes	-	-	-	-	Badger Meter Inc (Fire Series)	FSAA-DB RecordAll	
				Yes	-	-	-	-	Neptune Technology Group	MACH 10	
				Yes		-	-	-	Master Meter	Octave Ultrasonic	
		10"	No Limit	Yes	-	-	-	-	Sensus Metering Systems	Omini F²	
				Yes	-	-	-	-	Neptune Technology Group	MACH 10	
				Yes	-	-	-	-	Badger Meter Inc (Fire Series)	FSMA RecordAll	
				Yes	-	-	-	-	Badger Meter Inc (Fire Series)	FSAA	
				Yes		-	-	-	Master Meter	Octave Ultrasonic	

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Paints and Corrosion Systems	**Interior Ceramic Epoxy Coatings** **(For Ductile Iron Pipes and Fittings)** **Required for all Sanitary sewer applications.**	**No Limit**	-	-	Yes	Yes	Yes	Induron Protective Coatings	Protecto 401	Applied at 40 mils thick nominal by a certified applicator. See Induron website for special handling considerations.
			-	-	Yes	Yes	Yes	Permite Corporation	Permox-CTF	Applied at 40 mils thick nominal by a certified applicator. See Permite Corporation website for special handling considerations.
			-	-	-	-	-			
	Manhole Frame and Cover Protective Paint	**No Limit**	-	-	Yes	-	-	POR-15, INC	Prime: Prep & Ready Finish: POR-15	
			-	-	-	-	-			
			-	-	-	-	-			
	Painting Materials for Aerial or Above Grade Piping, Fittings, and Valves *(NACE Classified C5-I Environment)* *(VOC ≤2.8 lbs/gal, Est. Service Life ≥ 5yrs)* (Rust Inhibitive Field Primer & (Exterior Finish)	**No Limit**	Yes	Yes	-	Yes	Yes	Tnemec	(Primer) Typoxy Series 27WB (Finish) Endura Shield II 1074U (Ggloss)	
			Yes	Yes	-	Yes	Yes	Tnemec	(Primer) Typoxy Series 27WB (Finish) Endura-Shield 1075U (Semi-Gloss)	
			Yes	Yes	-	Yes	Yes	Sherwin-Williams	(Primer) Dura Plate 235 Multi-Purpose Epoxy (Finish) Waterbased Acrolon 100 Urethane	
			Yes	Yes	-	Yes	Yes	Sherwin-Williams	(Primer) Macropoxy 646-100 (Finish) Waterbased Acrolon 100 Urethane	
			Yes	Yes	-	Yes	Yes	International Paint	(Primer) Intercure 200 HS (Finish) Interthane 990 HS	
			-	-	-	-	-			

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Hillsborough County Public Utlities Department
Appendix B: Pre-approved Products and Materials

			Optimal County Limit ☼	POTABLE WATER	RECLAIMED WATER	WASTEWATER (Gravity)	WASTEWATER (Force Main)	WASTEWATER (Pump Station)	Manufacturer	Part Name/ Model Number	Important Notes and Stipulations
Paints and Corrosion Systems	**Corrosion Protection Systems (County Approved Stamp must be applied on all Installations)**	New Applications	**No Limit**	-	-	Yes	-	Yes	IET Systems	**IET System 3:** Prime: DS-101 (min 5 mils dft) Intermediate: DS-301 (min 125 mils dft) Finish: DS-401 (min 5 mils dft)	* Credentials must be checked for all coating applicators. * The applicator shall present current certification of training by the manufacturer in all aspects (technical and practical) of the corrosion protection system to the Engineer of Record (EOR) or the County Project Manager. * All documentation must indicate the name of the crew leader, with at least five (5) years of experience in the usage of the specific corrosion protection system. * When applicable for a project, training via manufacturer "shadowing" shall be mentioned in the documentation provided to the project manager or EOR."
				-	-	Yes	-	Yes	CCI Spectrum Incorporated	SpectraShield (min 500 mils dft)	
				-	-	Yes	-	Yes	Raven Lining Systems	Primer: Raven 155 (min 8 mils dft) Finish: Raven 405 (min 125 mils dft)	
				-	-	Yes	-	Yes	Sauereisen	Intermediate: 210T (min 125 mils dft) Finish: 210G (min 20 mils dft)	
				-	-	Yes	-	Yes	Warren Environmental	Finish: 301-14 (min 100 mils dft)	
				-	-	Yes	-	Yes	Industrial Maintenance Group (IMG)	SC 3900 FUB: (min: 100-200 dft)	
						Yes		Yes	Sprayroq, LLC.	SprayWall: New construction minimum is 125 mils for corrosion barriers. For structural applications minimum thickness is 250 mils.	
				-	-	Yes	-	Yes	Vortex Sevices-Applicator	Quadrex-GeoKrete - 0.5 inch to new	

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Paints and Corrosion Systems	**Corrosion Protection Systems (County Approved Stamp must be applied on all Installations)**	Rehabilitation Applications	**No Limit**	-	-	Yes	-	Yes	CCI Spectrum Incorporated	SpectraShield (min 500 mils dft)	* Credentials must be checked for all coating applicators. * The applicator shall present current certification of training by the manufacturer in all aspects (technical and practical) of the corrosion protection system to the Engineer of Record (EOR) or the County Project Manager. * All documentation must indicate the name of the crew leader, with at least five (5) years of experience in the usage of the specific corrosion protection system. * When applicable for a project, training via manufacturer "shadowing" shall be mentioned in the documentation provided to the project manager or EOR."
				-	-	Yes	-	Yes	IET Systems	**IET System 3:** Prime: DS-101 (min 5 mils dft) Intermediate: DS-301 (min 125 mils dft) Finish: DS-401 (min 5 mils dft)	
				-	-	Yes	-	Yes	Raven Lining Systems	Underlay: Raven 705CA (min 8 mils dft) Primer: Raven 155 (min 8 mils dft) Finish: Raven 405 (min 125 mils dft)	
				-	-	Yes	-	Yes	Sauereisen	Underlay: F-121 Intermediate: 210T (min 125 mils dft) Finish: 210G (min 20 mils dft)	
				-	-	Yes	-	Yes	Warren Environmental	Intermediate: 301-18 (min 500 mils dft) Finish: 301-14 (min 100 mils dft)	
				-	-	Yes	-	Yes	Industrial Maintenance Group (IMG)	Underlay: 40 mils cementitious (typ) Finish: SC 3900 FUB (120 mils)	
						Yes		Yes	Sprayroq, LLC.	SprayWall: Existing construction minimum is 125 mils for corrosion barriers. For structural applications minimum thickness is 250 mils.	
				-	-	Yes	-	Yes	Vortex Services Applicator	Quadrex-GeoKrete - 1-inch thickness to structural Restoration	

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Pipes	**Ductile Iron Pipe** *(Ceramic Epoxy Coating is required for Sanitary Sewer Applications)*	Push-On, Flanged, and Mech Joint (4" & up)	**No Limit**	Yes	Yes	-	Yes	Yes	U.S. Pipe Company		Push-On gasket Tyton.
				Yes	Yes	-	Yes	Yes	American Ductile Iron Pipe Company		Push-On gasket Fastite.
				Yes	Yes	-	Yes	Yes	McWane Inc. - Ductile Iron Pipe Group		Push-On gasket Tyton / Fastite.
				-	-	-	-	-			
		With Mfg Restrained Joint	**No Limit**	Yes	Yes	-	Yes	-	U.S. Pipe Company	HDSS	12" to 48" (Requires Prior PUD Approval)
				Yes	Yes	-	Yes	-	U.S. Pipe Company	Field Lok 350 Gasket	4" to 12" (Requires Prior PUD Approval) Not for directional drill or above grade use. Review assembly instructions before use. Integral gasket restraint.
				Yes	Yes	-	Yes	-	American Ductile Iron Pipe Company	Flex Ring	4" to 42"
				Yes	Yes	-	Yes	-	American Ductile Iron Pipe Company	Fast-Grip Gasket	4" to 12" (Requires Prior PUD Approval) Not for directional drill or above grade use. Review assembly instructions before use. Integral gasket restraint.
				Yes	Yes	-	Yes	-	McWane Inc. - Ductile Iron Pipe Group	TR Flex Joint	
				Yes	Yes	-	Yes	-	McWane Inc. - Ductile Iron Pipe Group	Sure Stop 350 Gasket	4" to 12" (Requires Prior PUD Approval) Not for directional drill or above grade use. Review assembly instructions before use. Integral gasket restraint.
				-	-	-	-	-			

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Hillsborough County Public Utlities Department
Appendix B: Pre-approved Products and Materials

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Pipes	PVC Pipe *(Approved DR in Technical Specifications)*	**2" or 3"** (AWWA 2241)	No Limit	-	Yes	-	-	-	Diamond Plastics Corporation		
				-	Yes	-	-	-	National Pipe & Plastics Inc		
				-	Yes	-	-	-	Westlake Pipe & Fittings Corp. (North American Pipe Corp.)		
		4" to 12" (SDR 18 / AWWA C900 C909)	No Limit	Yes	Yes	Yes	Yes	Yes	Diamond Plastics Corporation	AWWA C900	
				Yes	Yes	Yes	Yes	Yes	JM Eagle	AWWA C900 & C909	
				Yes	Yes	Yes	Yes	Yes	National Pipe & Plastics Inc	AWWA C900	
				Yes	Yes	Yes	Yes	Yes	Westlake Pipe & Fittings Corp. (North American Pipe Corp.)	AWWA C900	
		4" to 12" (SDR 26 / ASTM D 3034)	No Limit	-	-	Yes	-	-	Diamond Plastics Corporation		
				-	-	Yes	-	-	JM Eagle	Gravity Sewer Pipe	
				-	-	Yes	-	-	National Pipe & Plastics Inc	Plastic Sewer Main (PSM) Pipe	
				-	-	Yes	-	-	Westlake Pipe & Fittings Corp. (North American Pipe Corp.)		
		14" and Above (SDR 18 / AWWA C900) *(Public Utilities Department Design Exception Required)*	No limit	Yes	Yes	Yes	Yes	-	JM Eagle	Blue Brute	Specify appropriate pipe color for service.
				Yes	Yes	Yes	Yes	-	Diamond Plastics Corporation	Trans 21	Specify appropriate pipe color for service.
				Yes	Yes	Yes	Yes	-	Westlake Pipe & Fittings Corp. (North American Pipe Corp.)		Specify appropriate pipe color for service.
		With Mfg Restrained Joint	No Limit	Yes	Yes	-	Yes	-	Westlake Pipe & Fittings Corp. (North American Speciality Products)	Certa-Lok C900 RJ	4"-12"
				Yes	Yes	-	Yes	-	Westlake Pipe & Fittings Corp. (North American Speciality Products)	Certa-Lok C900 RJIB	4"-12"
				Yes	Yes	-	Yes	-	Underground Solutions	Fusible C-900®, Fusible PVC™ (FPVC™)	Approved 4"-30".
				Yes	Yes	-	Yes	-	Underground Solutions	TerraBrute CR C-900	4" to 12", *Requires Design Exception to collect information.
				Yes	Yes	-	Yes	-	Ransom International LLC. Subsidiary of McWane Inc.	RieberLok- For C900 PVC DR 18 & 14	4" to 12" (Requires Prior PUD Approval) Not for directional drill or above grade use. Review assembly instructions before use.

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Hillsborough County Public Utlities Department
Appendix B: Pre-approved Products and Materials

				Optimal County Limit ☼	POTABLE WATER	RECLAIMED WATER	WASTEWATER (Gravity)	WASTEWATER (Force Main)	WASTEWATER (Pump Station)	Manufacturer	Part Name/ Model Number	Important Notes and Stipulations
Pipes	Polyethylene Pipe, 1" & 2" (AWWA C901)			No Limit	Yes	-	-	-	-	Performance Pipe *(A Chevron Phillips Chemical Company)*	DriscoPlex 5100 Ultra-Line	Black tube. Must have BLUE stripe for Potable Applications. PE4710 SDR 9
					-	Yes	-	-	-	Performance Pipe (*A Chevron Phillips Chemical Company)*	DriscoPlex 5100 Ultra-Line	Black tube. Must have LAVENDER stripe for Reclaimed Applications. PE4710 SDR 9
					Yes	-	-	-	-	Endot	Endopure	PE 4710 SDR 9
					-	Yes	-	-	-	Endot	Endocore RWT	PE 4710 SDR 9
					Yes	-	-	-	-	Charter Plastics	Blue Ice CTS Tubing	PE 4710 SDR 9
					-	Yes	-	-	-	Charter Plastics	Lavender Ice CTS Tubing	PE 4710 SDR 9
					Yes	-	-	-	-	ADS	Polyflex CTS Tubing (Blue)	PE 4710 SDR 9
					-	Yes	-	-	-	ADS	Polyflex CTS Tubing (Lavender)	PE 4710 SDR 9
					-	-	-	-	-			
Pumps	Centrifugal Overhung Impeller Type Submersible Pumps	Low-Pressure (Light Duty) Applications	Grinder	2	-	-	-	-	Yes	Sulzer	ABS Piranha 09 /2D	
					-	-	-	-	-			
		Pressurized Applications	NonClog	2	-	-	-	-	-	Xylem	Flygt	>60 gpm peak design flow
					-	-	-	-	-	Pentair	Hydromatic	>60 gpm peak design flow, S4T requires ≥ 8-ft wetwell and oversized hatch. Rejected Models: H4Q, S4P
			Chopper/Cutter	2	-	-	-	-	-	Xylem	Flygt	
					-	-	-	-	-	Pentair	Hydromatic	
			Grinder	2	-	-	-	-	Yes	Xylem	Flygt	< 80 gpm peak design flow
					-	-	-	-	-			
					-	-	-	-	-			

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Pipe Restraints	PVC - DIP	MJ - Ring (Serration Style)		No Limit	Yes	Yes	-	Yes	-	Ford Meter Box Company Inc.	Uni-flange 1300	2" to 36"
					Yes	Yes	-	Yes	-	Sigma	PV-Lok PWM	2" to 48"
					Yes	Yes	-	Yes	-	JCM Industries	610	4" to 12"
					Yes	Yes		Yes	-	Star Pipe Products	1000G2	4" to 12"
					-	-	-	-	-			
		MJ - Gland (Wedge Action)		No Limit	Yes	Yes	-	Yes	-	EBAA Iron Company	2000 PV	4" to 36"
					Yes	Yes	-	Yes	-	Sigma	One-Lock SLCE	
					Yes	Yes	-	Yes	-	Ford Meter Box Company Inc.	Uni-Flange 1500	
					Yes	Yes	-	Yes	-	Star Pipe Products	4000G2	3" to 12"
					Yes	Yes	-	Yes	-	Romac Industries	GripRing	
					Yes	Yes	-	Yes	-	Tyler/Union	Tuf Grip TLP	
					Yes	Yes	-	Yes	-	Serampore Industries Private Ltd. (SIP)	EZPVCU Ultra	4" to 12"

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Pipe Restraints	DIP - DIP	Ring - Ring		No Limit	Yes	Yes	-	Yes	-	EBAA Iron Company	1600TD	4" to 12"
					Yes	Yes	-	Yes	-	Ford Meter Box Company Inc.	Uni-flange 1390	4" to 12"
					Yes	Yes	-	Yes	-	Star Pipe Products	1100G2	4" to 12"
					Yes	Yes	-	Yes	-	Star Pipe Products	3100P	4" to 12"
					Yes	Yes	-	Yes	-	Sigma	PV-Lok PWP	
					Yes	Yes	-	Yes	-	Sigma	One-Lok SLDEH	
		MJ - Ring (Serration Style)		No Limit	Yes	Yes	-	Yes	-	Star Pipe Products	1000G2	4" to12 "
					Yes	Yes	-	Yes	-	JCM Industries	610	4" to 12"
		MJ - Gland (Wedge Action)		No Limit	Yes	Yes	-	Yes	-	EBAA Iron Company	MegaLug 1100	
					Yes	Yes	-	Yes	-	Ford Meter Box Company Inc.	Uniflange 1400	
					Yes	Yes	-	Yes	-	Sigma	One-Lok D-SLDE	
					Yes	Yes	-	Yes	-	Sigma	One-Lok SLDE	
					Yes	Yes	-	Yes	-	Romac Industries	GripRing	
					Yes	Yes	-	Yes	-	Star Pipe Products	StarGrip 3000	4" to 12"
					Yes	Yes	-	Yes	-	Tyler/Union	Tuf Grip TLD	
					Yes	Yes	-	Yes	-	Serampore Industries Private Ltd. (SIP)	EZD-Grip	3" to 24"
Pipe Restraints	PVC - PVC	Ring - Ring		No Limit	Yes	Yes	-	Yes	-	Ford Meter Box Company Inc.	Uniflange 1350	4" to 12"
					Yes	Yes	-	Yes	-	Ford Meter Box Company Inc.	Uniflange 1390	4" to 12"
					Yes	Yes	-	Yes	-	EBAA Iron Company	1600 (& 1600TD)	4" to 12"
					Yes	Yes	-	Yes	-	JCM Industries	JCM 620	4" to 12"
					Yes	Yes	-	Yes	-	Sigma	PV-Lok PWP	2" to 12"
					Yes	Yes	-	Yes	-	Star Pipe Products	1100G2	4" to 12"
					Yes	Yes	-	Yes	-	Star Pipe Products	4100P	4" t0 12"
					-	-	-	-	-	Serampore Industries Private Ltd. (SIP)	EZ-Grip PTP Series	4" to 12"

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Surface and Vent Boxes	Vent Box for Wastewater Force Main Air Release Valve	Combo (Box & Lid)	No Limit	-		-	Yes		DFW Plastics, Inc	DFW37C-12-AF1-SARV-HILLS	Black with lid lettering "Hillsborough County Sewer ARV"
			No Limit	-		-	-				
		Lids	No Limit	-		-	Yes		DFW Plastics, Inc	DFW37C-AF1-SARV-LID-HILLS	Black with lettering "Hillsborough County Sewer ARV"
		Base Boxes	No Limit	-		-	Yes		DFW Plastics, Inc	DFW37C-12-BODY	Wastewater-->Black
			No Limit	-		-	-				
			No Limit	-		-	-				
	Water Meter Boxes	Single Service	Combo (Base & Lid)	No Limit	Yes		-	-		DFW Plastics, Inc	DFW37C-12-AF1F-DEEP-HILLS	Potable-->Black
				No Limit	-	Yes	-	-		DFW Plastics, Inc	DFW37C5-12-AF5F-DEEP- HILLS	Reclaimed-->Pantone 522C
				No Limit	-		-	-				
			Lids	No Limit	Yes		-	-		DFW Plastics, Inc	DFW37C-AF1F--DEEP-HILLS-LID	Potable-->Black
				No Limit	-	Yes	-	-		DFW Plastics, Inc	DFW37C5-12-AF5F-DEEP-HILLS-LID	Reclaimed-->Pantone 522C
			Base Boxes	No Limit	-		-	-				
				No Limit	-		-	-				
				No Limit	Yes		-	-		DFW Plastics, Inc	DFW37C-12-BODY	Potable-->Black
				No Limit	-	Yes	-	-		DFW Plastics, Inc	DFW37C5-12-BODY	Reclaimed-->Pantone 522C

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Surface and Vent Boxes	Water Meter Boxes	Dual Serivce	Combo (Box &Lid)	No Limit	Yes		-	-		DFW Plastics, Inc	DFW39C-12-AF1F-DEEP-HILLS	Potable-->Black
					-	Yes	-	-		DFW Plastics, Inc	DFW39C5-12-AF5F-DEEP-HILLS	Reclaimed-->Pantone 522C
			Lids	No Limit	Yes		-	-		DFW Plastics, Inc	DFW39C-AF1F-DEEP-HILLS-LID	Potable-->Black
					-	Yes	-	-		DFW Plastics, Inc	DFW39C5-AF5F-DEEP- HILLS LID	Reclaimed-->Pantone 522C
			Base Boxes	No Limit	-		-	-				
					-		-	-				
					Yes		-	-		DFW Plastics, Inc	DFW39C-12-BODY-HILLS	Potable-->Black
					-	Yes	-	-		DFW Plastics, Inc	DFW39C5-12-BODY-HILLS	Reclaimed-->Pantone 522C
		Commercial Use	Combo (Box & Lid)	No Limit	Yes		-	-		DFW Plastics, Inc	DFW1730C-12-AF1F-DEEP HILLS	Potable-->Black
					-	Yes	-	-		DFW Plastics, Inc	DFW1730C5-12-AF5F-DEEP HILLS	Reclaimed --> Pantone 522C
			Lids	No Limit	Yes		-	-		DFW Plastics, Inc	DFW1730C-12-AF1F-DEEP-HILLS - LID	Potable-->Black
					-	Yes	-	-		DFW Plastics, Inc	DFW1730C5-12-AF5F-DEEP-HILLS - LID	Reclaimed --> Pantone 522C
			Base Boxes	No Limit	Yes	Yes	-	-		DFW Plastics, Inc	DFW1730-12-BODY-HILLS	Potable-->Black
					-	Yes	-	-		DFW Plastics, Inc	DFW1730C5-12-BODY-HILLS	Reclaimed --> Pantone 522C

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Valves	Air-Release and Combination Air Valves		No Limit	Yes	Yes	-	-	-	Crispin Multiplex Manufacturing	PL 20	Air-Release Valve.
				Yes	Yes	-	-	-	Valmatic	45	Air-Release Valve.
				Yes	-	-	-	-	A.R.I. Flow Control	D-040PT02	Combination Air Valve for Potable Water
				-	Yes	-	-	-	A.R.I. Flow Control	D-021PT02	Combination Air Valve for Reclaimed Water
							Yes	-	A.R.I. Flow Control	D-025TPV02	Combination Air Valve. Vacuum check valve required (D-025TPV02) unless a major vacuum condition exists and is specified by the design engineer via a design exception (D-025PT02 is same without one-way valve in high vacumme applications). Reinforced Nylon body, SST Hardware and trim.
				-	Yes	-	Yes	-	H-Tec	Model 986	
							Yes		BERMAD	C50-PIP	Combination Air Valve. Inflow protection option required (IP) unless a major vacuum condition exists and is specified by the design engineer via a design exception. Reinforced Nylon body, SST Hardware and trim.
				-	-	-	-	-			
	Ball Valves Ball stem and Body shall be 316 Stainless Steel, non-lubricated free-floating ball type, full port. Handle, nuts and washers shall be 300 series Stainless Steel 		No Limit	-	-	-	-	Yes	Jamesbury Corporation (Metso Automation)	Eliminator Series	Full Port Female IP (NPT) Inlet and Outlet **Pump Stations;** For discharge piping gauge port isolation Approved up to 1/2".
				-	-	-	Yes	Yes	FNW	Figure 220	Full port Female IP (NPT) Inlet and Outlet **Pump stations:** For discharge piping gauge port isolation **Force mains:** For ARV isolation and/or pressure release Typically 1" and 2"
				-	-	-	-	Yes	Jamesbury Corporation (Metso Automation)	Full Bore Series 9000	Full port, ANSI Class 150 Flanged **Grinder Pump Stations:** For discharge piping isolation Typically 2"
				-	-	-	-	-			
	Check Valves	2" & larger	Metal & Resilient Hinge Arm	Yes	Yes	-	-	Yes	Kennedy Valve Company (McWane)/ M&H (McWane)	Style 1106LW (lever & weight)	2" to 12". Bronze to bronze seat.
				Yes	Yes	-	-	Yes	Kennedy Valve Company (McWane)/ M&H (McWane)	Style 106AW/ 159-02 (lever & weight)	14" and up. Resilient to bronze seat.
				Yes	Yes	-	-	Yes	American Flow Control	50-SC Series	8" to 14"
			Flapper Disk	-	-	-	-	Yes	Val-Matic	Series 500A	
				-	-	-	-	Yes		5XXDG	XX represents size Must have stainless steel cover bolts, disc position indicator, and backflow actuator. Resilient hinge arm style.
				-	-	-	-	Yes	GA Industries (North American Valve and Gate Group)	RF200-D	Must have stainless steel cover bolts, disc position indicator, and backflow actuator.

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Hillsborough County Public Utlities Department
Appendix B: Pre-approved Products and Materials

			Optimal County Limit ☼	POTABLE WATER	RECLAIMED WATER	WASTEWATER (Gravity)	WASTEWATER (Force Main)	WASTEWATER (Pump Station)	Manufacturer	Part Name/ Model Number	Important Notes and Stipulations
Valves	Gate Valves (Resilient Seated C509 & C515)	2" to 3"	No Limit								
				Yes	Yes	-	-	Yes	U.S. Pipe Company	A-USP0-6	Cast Iron, NRS, Flanged
						-	-	-			
				Yes	Yes	-	-	-	U.S. Pipe Company	R-USP0-6	Cast Iron, OS&Y, Flanged
				Yes	Yes	-	-	Yes	U.S. Pipe Company	A-USP0-8	Cast Iron, NRS, NPT
				Yes	Yes	-	-	Yes	Mueller Co.	A-2361 Series	DI, NRS, NPT, Flanged or OS&Y, T304 SST hardware, EPDMdisc/gaskets, (No OS&Y at pump station)
				Yes	Yes	-	-	-	U.S. Pipe Company	R-USP0-8	Cast Iron, OS&Y, NPT
				Yes	Yes	-	-	Yes	Clow Valve Co. (McWane)	Model 2638, 2639 & 2640	Ductile or Cast Iron, NRS or OS&Y (No OS&Y at Pump Station)
				Yes	Yes	-	-	Yes	American Flow Control	2500 Series	Ductile Iron, NRS or OS&Y (No OS&Y at Pump Station)
				-	-	-	-	-			
		4" to 12"	No Limit								
				Yes	Yes	-	-	-	U.S. Pipe Company	USP0 Series	Cast Iron, NRS or OS&Y
				Yes	Yes	-	-	Yes	Mueller Co.	A-2361 Series	DI, NRS, Flanged or OS&Y, T304 SST hardware, EPDMdisc/gaskets, (Aquagrip x Aquagrip - Must have Restraint Bolts), (No OS&Y at pump station)
				-	-	-	-				
				-	-	-	-	Yes	U.S. Pipe Company	A-USP0-6	Cast Iron, NRS, Flanged
				Yes	Yes	-	-	Yes	American Flow Control	2500 Series	Ductile Iron, NRS or OS&Y (No OS&Y at Pump Station)
				Yes	Yes	-	-	Yes	Kennedy Valve Company (McWane)	7000 Series and 8000 Series	Ductile or Cast Iron, NRS or OS&Y (No OS&Y at pump station)
				Yes	Yes	-	-	Yes	Clow Valve Co. (McWane)	Model 2638	Ductile or Cast Iron, NRS or OS&Y (No OS&Y at Pump Station)
				Yes	Yes	-	-	Yes	Clow Valve Co. (McWane)	Model 2639	Ductile or Cast Iron, NRS or OS&Y (No OS&Y at Pump Station)
				Yes	Yes	-	-	Yes	Clow Valve Co. (McWane)	Model 2640	Ductile or Cast Iron, NRS or OS&Y (No OS&Y at Pump Station)
				Yes	Yes	-	-	-	M&H Valve Co. (McWane)	4068	Cast Iron, OS&Y, Flanged
				Yes	Yes	-	-	Yes	M&H Valve Co. (McWane)	4067	Cast Iron, NRS
		14" & larger	No Limit	Yes	Yes	-	-	Yes	American Flow Control	2500 Series	Ductile Iron, NRS or OS&Y (No OS&Y at Pump Station)
				Yes	Yes	-	-	Yes	Mueller Co.	2361 Series	DI, NRS or OS&Y, T304 SST hardware, EPDM disc/gaskets, (No OS&Y at pump station)
				Yes	Yes	-	-	-	U.S. Pipe Company	USP1 Series	DI, NRS or OS&Y, T304 SST hardware, EPDM disc/gaskets ✶ Larger than 36" is not NSF 61 Certified
				-	-	-	-	Yes	U.S. Pipe Company	A-USP1-6	DI, NRS, Flanged, T304 SST hardware, EPDM disc/gaskets
				Yes	Yes	-	-	Yes	Clow Valve Co. (McWane)	Model 2638	Ductile Iron, NRS or OS&Y (No OS&Y at Pump Station)
				Yes	Yes	-	-	Yes	Kennedy Valve Company (McWane)	Model 2638	Ductle Iron, NRS or OS&Y (No OS&Y at Pump Station)

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Hillsborough County Public Utlities Department
Appendix B: Pre-approved Products and Materials

			Optimal County Limit ☼	POTABLE WATER	RECLAIMED WATER	WASTEWATER (Gravity)	WASTEWATER (Force Main)	WASTEWATER (Pump Station)	Manufacturer	Part Name/ Model Number	Important Notes and Stipulations
Valves	Corporation Stops 		No Limit	Yes	-	-	-	-	Ford Meter Box Company INC	FB 1700-7-NL	Ball--[Male AWWA IP Thread Inlet] x [Threaded Female IP Outlet]
				Yes	-	-	-	-	Mueller Co.	B20046N	Ball--[Male AWWA IP Thread Inlet] x [Threaded Female IP Outlet]
				Yes	Yes	-	-	-			
				Yes	Yes	-	-	-	Ford Meter Box Company INC	FB-1100-X NL (Entire Line)	Ball--[Male AWWA IP Thread Inlet] x [CTS Tubing Outlet]
				Yes	Yes	-	-	-			
				Yes	Yes	-	-	-			
				Yes	Yes	-	-	-	Mueller Co.	P25028N	Ball--[Male AWWA IP Thread Inlet] x [CTS Tubing Outlet]
				Yes	Yes						
				Yes	Yes				A.Y. McDonald	73149B	Ball - MNPT x FNPT
				Yes	Yes	-	-	-	A.Y. McDonald	74704B-22	Ball - MNPT x CTS Compression
	Curb Stops		No Limit	Yes	Yes	-	-		Ford Meter Box Company INC	B41-XXXW-NL(Entire Line)	Ball--[CTS Tubing Inlet] x [Threaded Female IP Outlet]
				Yes	Yes	-	-	-	A.Y. McDonald	76102W-22	Ball - CTS compression x FNPT
				-	-	-	-	-			
	Meter Valves	Single Service	No Limit	Yes	-	-	-	-	Ford Meter Box Company INC	B43-XXXW-NL (Entire Line)	Ball--[CTS Tubing Inlet] x [Meter Swivel Nut Outlet]
				-	Yes	-	-	-	Ford Meter Box Company INC	BRW 43-XXXW-NL (Entire Line)	Ball--[CTS Tubing Inlet] x [Meter Swivel Nut Outlet]
				Yes	Yes	-	-	-	Mueller Co.	P24350N	Ball--[CTS Tubing Inlet] x [Meter Swivel Nut Outlet]
				Yes					A.Y. McDonald	76100MW-22	Ball - CTS compression x meter
					Yes				A.Y. McDonald	76100MW-22RWC	Ball - CTS compression x meter
		Angle Service	No Limit	Yes	Yes	-	-	-	Ford Meter Box Company INC	BA43-342W-NL	Ball--[CTS Tubing Inlet] x [Meter Swivel Nut Outlet]
				Yes	Yes	-	-	-	A.Y. McDonald	74602B-22	Ball - CTS compression x meter
		Branched or Dual Service	No Limit	Yes	-	-	-	-	Ford Meter Box Company INC	Assembly: UVB43-42W-NL	2 Ball Angle Valve [Female IP Inlet] X [Meter Swivel Nut Outlet] Branch Pipes [CTS Tubing Inlet] x [2 Male AWWA IP Outlets]
									Ford Meter Box Company INC	Assembly: UVBS43-42W-NL	2 Straight Ball Valve [Female IP Inlet] X [Meter Swivel Nut Outlet] Branch Pipes [CTS Tubing Inlet] x [2 Male AWWA IP Outlets]
				-	Yes	-	-	-	Ford Meter Box Company INC	Assembly: UVBRW43-42W	2 Ball Angle Valve [Female IP Inlet] X [Meter Swivel Nut Outlet] Branch Pipes [CTS Tubing Inlet] x [2 Male AWWA IP Outlets]
				Yes	Yes	-	-	-	Mueller Co.	Must be ordered as Assembly Two B24265N One P15363N	(Installed Only as Assembly) 2 Ball Angle Valves [Female IP Inlet] X [Meter Swivel Nut Outlet] Branch Pipes [CTS Tubing Inlet] x [2 Male AWWA IP Outlets]
				Yes	Yes	-	-	-	A.Y. McDonald	709U2BW-22	CTS compression x meter swivel nut with saddle

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Hillsborough County Public Utlities Department
Appendix B: Pre-approved Products and Materials

		Optimal County Limit ☼	POTABLE WATER	RECLAIMED WATER	WASTEWATER (Gravity)	WASTEWATER (Force Main)	WASTEWATER (Pump Station)	Manufacturer	Part Name/ Model Number	Important Notes and Stipulations
Valves	**Plug Valves** Must have internal and external epoxy coating 10 mils minimum. Valves and gearing shall be rated for a minimum of 150 psi and shall provide drip-tight shut off with this pressure in either direction. 3"-12" round port, 14"-36" rectangular port area must equal 100% of pipe area, 304 stainless steel external hardware required. For wastewater, seat-end must face into the direction of predominant flow. Inspectors may request packing slip to verify specifications on the job site.	**No Limit**	-	\	-	Yes	-	GA Industries	Plug Valves	
						Yes		Val-matic	2 inch – 12 inch series 5000.3XF and 14 inch to 36 inch series 5000F.3XF	
			-	-	-	Yes	-	Mueller Company	**Milliken Valve Company** Ballcentric Plug Valves	
			-	-	-	Yes	-		**Henry Pratt Company** Ballcentric Plug Valves	
			-	-	-	Yes	-	Dezurik	PEF	
			-	-	-	Yes	-	VSI Waterworks	PVII (2"-12") & PVIF (14"-72")	

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Appendix B: Pre-approved Products and Materials

			Optimal County Limit ☼	POTABLE WATER	RECLAIMED WATER	WASTEWATER (Gravity)	WASTEWATER (Force Main)	WASTEWATER (Pump Station)	Manufacturer	Part Name/ Model Number	Important Notes and Stipulations
Valves	**Tapping Valves**	4" to 12"	**No Limit**	Yes	Yes	-	Yes	Yes	M&H Valve Co. (McWane)	4751	Tapping valves for force mains are considered sacrificial and an additional plug valve is required.
				Yes	Yes	-	Yes	Yes	Clow Valve Co. (McWane)	F-6114	Tapping valves for force mains are considered sacrificial and an additional plug valve is required.
				Yes	Yes	-	Yes	Yes	Mueller Co.	T-2361 Series	Tapping valves for force mains are considered sacrificial and an additional plug valve is required.
				Yes	Yes	-	Yes	Yes	U.S. Pipe Company	T-USP0 Series	Tapping valves for force mains are considered sacrificial and an additional plug valve is required.
				Yes	Yes	-	Yes	Yes	American Flow Control	2500 Series	Tapping valves for force mains are considered sacrificial and an additional plug valve is required.
		14" & larger	**No Limit**	Yes	Yes	-	Yes	Yes	American Flow Control	2500 Series	Tapping valves for force mains are considered sacrificial and an additional plug valve is required.
				Yes	Yes	-	Yes	Yes	Clow Valve Co. (McWane)	F-6114	Tapping valves for force mains are considered sacrificial and an additional plug valve is required.
				Yes	Yes	-	Yes	Yes	Mueller Co.	T-2361 Series	Tapping valves for force mains are considered sacrificial and an additional plug valve is required.
				Yes	Yes	-	Yes	Yes	U.S. Pipe Company	T-USP1 Series	Tapping valves for force mains are considered sacrificial and an additional plug valve is required.
				-	-	-	-	-			Tapping valves for force mains are considered sacrificial and an additional plug valve is required.
Fire Hydrants			**5**	Yes	-	-	-	-	American Flow Control	B-84-B-5	304 Stainless Steel required on hydrant external and bonnet internal hardware and extension kit hardware.
				Yes	-	-	-	-	Clow Valve Co. (McWane)	Medallion F-2545 (EcoBrass)	304 Stainless Steel required on hydrant external and bonnet internal hardware and extension kit hardware.
				Yes	-	-	-	-	Kennedy Valve Company (McWane)	Guardian K81D	304 Stainless Steel required on hydrant external and bonnet internal hardware and extension kit hardware.
				Yes	-	-	-	-	Mueller Co.	Super Centurion (A-423)	304 Stainless Steel required on hydrant external and bonnet internal hardware and extension kit hardware.
				Yes	-	-	-	-	U.S. Pipe Valve & Hydrant Company (Mueller)	Metropolitan (M-94)	304 Stainless Steel required on hydrant external and bonnet internal hardware and extension kit hardware.
				-	-	-	-	-			

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Hillsborough County Public Utilities Department
Appendix B: Pre-approved Products and Materials

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Miscellaneous	Automatic Meter Reader (AMR) Meter Register		3	Yes	Yes	-	-	-	Transparent Technologies (T^2)	Innov8	
	Compound Pressure Gauges Assembly		No Limit	-	-	-	-	Yes	Ashcroft (Gauge)	25-1009-SWL-02L-XGV-Specify Desired Pressure Range (Silicone Filled)	Must have Ashcroft Diaphragm Seal (50-310SS-02T-XCK) Silicone Filled. If a larger gauge is needed such as the 45, the type 100 diaphragm seal is required.
	Automatic Flushing Systems Use only as requested by HC-PUD: Careful analysis of cross connection prevention, storm water system surcharge, grounding, and dechlorination requirements must be considered at each proposed site.		No Limit	Yes	-	-	-	-	Hydro-Guard	HG-1, HG-2, HG-5, and HG-6	Use air gap backflow prevention models. Notify fire department when HG-6 is in use.
				-	-	-	-	-			
				-	-	-	-	-			
	Wet Well Washer and Wastewater Conditioner		No Limit	-	-	-	-	Yes	Anue	EP-1300 Series	Grinder stations not included. Used only in special conditions. Requires HCWRD Engineering Approval.
				-	-	-	-	-			
				-	-	-	-	-			
	Manhole Inserts	**HDPE** (Can only be used Off-Pavement)	No Limit	-	-	Yes	-	-	USSI	Inflow Defender	Structural ribbing, no vent, woven nylon handle, 304 SST hdwe, neoprene gasket
		304 SST (Collector & Arterial Roads)				Yes			Contractor Specialties & Supply Co	No Flow In Flow	No vent, 304 SST handle and hdwe, neoprene gasket
						Yes			Sealing Systems Incorporated (SSI)		No vent, 304 SST handle and hdwe, neoprene gasket
						Yes			Inflow Systems, Inc.	Inflow Shield	No vent, 304 SST handle and hdwe, neoprene gasket
				-	-	Yes	-	-	Southwestern Packing & Seals	Rainstopper	Vent, 304 SST handle and hrdwr, synthetic elastomer (EL) gasket
	Valve Stem Alignment	Not Required	No Limit	Yes	Yes		Yes	Yes	EMMA Sales LLC	BoxLoc	Recommended, but Not Required
				-	-	-	-	-			
	Dedicated Sample Taps (DST)		No Limit	Yes	-	-	-	-	Water Plus Corporation	301W-NL, HC (Blue) - Requires 1-inch CTS connection on barrel	Number and Location required as directed by Development Services Department
	Utility Locating System		No Limit	Yes	Yes	-	Yes	-	Copperhead Industries	Tracer Wire and Connectors, Access Points, and Ground Rods	

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