DIVISION OF POWER & WATER (WATER) APPROVED MATERIALS LIST FOR USE ON CONSTRUCTION OF PUBLIC WATER DISTRIBUTION FACILITIES

This form is part of the Approved Materials List that follows, and is intended for use by developers or contractors constructing potable water facilities within the City of Columbus and surrounding contracted Water Service Areas. An authorized representative of the developer or contractor shall check a single box per item for materials to be used in conjunction with the project, shall fill out this form in its entirety, and shall sign the certification statement below. Please contact the Division of Power & Water (Water) if part numbers or models indicated within the Approved Materials List are no longer available. Division of Power & Water (Water) personnel will review this form and the Approved Materials List and will seperately attach review comments.

Projec	ct name	DOPW Proj. #
DEVELOPER INFORMATION (IF APPLICABLE)	CONTRACTOR INFORMATION	SUPPLIER INFORMATION
Name of Developer (Company)	Name of Contractor (Company)	Name of Supplier (Company)
Contact Person	Contact Person	Contact Person
Mailing Address	Mailing Address	Mailing Address
City, State, Zip	City, State, Zip	City, State, Zip
Telephone	Telephone	Telephone
Fax	Fax	Fax
E-Mail Address	E-Mail Address	E-Mail Address
acknowledge understanding of the requirements that follow apply to all materials proposed for use on this project. Whe	 Any and all specific requirements detailed within the C n the notation "Full Submittal Required" or similar langu complete shop drawing submittals are required in according 	of materials to be used within the project indicated above, and I Columbus Construction and Material Specifications (CCMS) shall uage appears within the Approved Materials List, or when required ordance with the procedures detailed in the CCMS. All materials
Signed By Developer or Contractor Representative	Printed Name of Developer or Contractor Representative	e Date Telephone

Item	Description	Manufacturer	Size	Product No.	Selection	Comments
Pipe, Copper	For water lines 2-inch and smaller. All tubing shall be type K soft temper conforming to ASTM B 88 and in accordance with City of Columbus Construction and Materials Specifications. Material dimensions shall be copper tubing size (CTS).					Refer to approved copper tubing materials listed under Item 805 on page 7.
Pipe, Ductile Iron	For water Lines 3-inch and larger, manufactured per AWWA C151, and in accordance with City of Columbus Construction and Materials Specifications.	American Ductile Iron Pipe Clow Corporation Griffin Pipe U.S. Pipe				Fastite Push-on, Mech. Joint & Flex-Ring restrained joint Tyton or Fastite Push-on, Mech. Joint & Super-Lock restrained joint Tyton or Fastite Push-on, Mech. Joint & Snap-Lok restrained joint Tyton Push-on, Mech. Joint & TR Flex restrained joint
Pipe, Concrete	For water lines 20-inch and larger, manufactured per AWWA C301, in accordance with City of Columbus Construction and Materials Specifications. Full Submittal Required.	Hanson Pressure Pipe				Snap-Ring type joints to be used for all restrained joints
Pipe, Steel	For water lines 20-inch and larger, manufactured per AWWA M11, in accordance with City of Columbus Construction and Materials Specifications. Full Submittal Required.	American Spiral-Weld Steel Pipe Northwest Pipe Co. Hanson Pressure Pipe				
Ductile Iron Fitting (Tee)	Mechanical Joint (M.J) or Push-on Tees, for Water Lines 3-inch and Larger, Manufactured per AWWA C110 / C111 / C153 and in accordance with City of Columbus Construction and Materials Specifications.	American Ductile Iron (ACIPCO) Clow Corporation Sigma Star Pipe Products Tyler Union United-NAPAC, Inc. NACIP				
Ductile Iron Fitting (Tee) Ductile Iron Fitting (Swivel /Anchoring Tee) Ductile Iron Fitting (Cross)	Mechanical joint or push-on swivel & anchoring tees, for water lines 3-inch and larger, manufactured per AWWA C110 / C111 / C153 and in accordance with City of Columbus Construction and Materials Specifications.	American Ductile Iron (ACIPCO) Clow Corporation Sigma Star Pipe Products Tyler Union United-NAPAC, Inc. NACIP				
Ductile Iron Fitting (Cross)	Mechanical joint or push-on crosses, for water lines 3-inch and larger, manufactured per AWWA C110 / C111 / C153 and in accordance with City of Columbus Construction and Materials Specifications.	American Ductile Iron (ACIPCO) Clow Corporation Sigma Star Pipe Products Tyler Union United-NAPAC, Inc. NACIP				
Ductile Iron Fitting (1 1/4 Degree Bend)	Mechanical joint or push-on 11 1/4 degree bends, for water lines 3-inch and larger, manufactured per AWWA C110 / C111 / C153 and in accordance with City of Columbus Construction and Materials Specifications.	American Ductile Iron (ACIPCO) Clow Corporation Sigma Star Pipe Products Tyler Union United-NAPAC, Inc. NACIP				
Ductile Iron Fitting (22 1/2 Degree Bend)	Mechanical joint or push-on 22 1/2 degree bends, for water lines 3-inch and larger, manufactured per AWWA C110 / C111 / C153 and in accordance with City of Columbus Construction and Materials Specifications.	American Ductile Iron (ACIPCO) Clow Corporation Sigma Star Pipe Products Tyler Union United-NAPAC, Inc. NACIP				

Item	Description	Manufacturer	Size	Product No.	Selection	Comments
Ductile Iron Fitting (49	Mechanical joint or push-on 45 degree bends, for water	American Ductile Iron (ACIPCO)				
Degree Bend)	lines 3-inch and larger, manufactured per AWWA C110 /	Clow Corporation				
	C111 / C153 and in accordance with City of Columbus	Sigma				
	Construction and Materials Specifications.	Star Pipe Products				
		Tyler Union				
		United-NAPAC, Inc.				
		NACIP				
Ductile Iron Fitting (90	Mechanical joint or push-on 90 degree bends, for water	American Ductile Iron (ACIPCO)				
Degree Bend)	lines 3-inch and larger, manufactured per AWWA C110 /	Clow Corporation				
Degree Dena,	C111 / C153 and in accordance with City of Columbus					
	Construction and Materials Specifications.	Sigma				
		Star Pipe Products				
		Tyler Union United-NAPAC, Inc.				
		NACIP				
Ductile Iron Fitting	Mechanical joint or push-on offset fitting. Permitted for	-				
(Offset)	use only on 6-inch diameter fire hydrant leads.	Clow Corporation				
(Oliset)	Manufactured per AWWA C110 / C111 / C153 and in	Sigma				
	accordance with City of Columbus Construction and	Star Pipe Products				
	Materials Specifications.	Tyler Union				
	materials opcomoditions.	•				
. [United-NAPAC, Inc.				
Ductile Iron Fitting (Solid Sleeve - Long) Ductile Iron Fitting (Reducer) Ductile Iron Fitting (Plug		NACIP	<u></u>			
Ductile Iron Fitting (Solid	MJ solid sleeve full body fitting, for water lines 3-inch and					
Sleeve - Long)	larger, in accordance with City of Columbus Construction	Clow Corporation				
	and Materials Specifications and DOPW Standard	Sigma .				
	Drawing L-7401.	Star Pipe Products				
<u>.</u>		Tyler Union				
		United-NAPAC, Inc.				
,		NACIP				
Ductile Iron Fitting	Mechanical joint or push-on concentric reducers, for	American Ductile Iron (ACIPCO)				
(Reducer)		Clow Corporation				
	C110 / C111 / C153 and in accordance with City of	Sigma				
	Columbus Construction and Materials Specifications.	Star Pipe Products				
)		Tyler Union				
		United-NAPAC, Inc.				
Describe Laws Eight and (Dlaws	Mark Control Control	NACIP	ļ			
Ductile Iron Fitting (Plug	Mechanical joint or push-on plugs, for water lines 3-inch and larger, manufactured per AWWA C110 / C111 /	Clow Corporation				
	C153 and in accordance with City of Columbus	Sigma				
	Construction and Materials Specifications.	Star Pipe Products				
	Construction and Materials opecifications.	Tyler Union				
		United-NAPAC, Inc.				
		NACIP				
Ductile Iron Fitting	Mechanical joint or push-on caps, for water lines 3-inch and	American Ductile Iron (ACIPCO)				
(Cap)	larger, manufactured per AWWA C110 / C111 / C153 and in accordance with City of Columbus Construction and Materials	Clow Corporation				
ĺ	Specifications.	Sigma Star Pipe Products				
	oposition.	Tyler Union				
ĺ		United-NAPAC, Inc.				
ĺ		NACIP				
Mechanical Joint	Compact adapter that allows MJ fittings (ie. tees &	Infact Corporation		Foster		
Adaptor (Compact)	valves) to be restrained to one another with stainless]	
	steel bolts, and in accordance with City of Columbus					
	Construction and Materials Specifications.]]	
			<u> </u>			
Mechanical Joint Gland	Standard or compact mechanical joint gland, for water	Clow Corporation				
	lines 3-inch and larger, manufactured per AWWA C110 /					
1	C111 / C153 and in accordance with City of Columbus	Sigma				
	Construction and Materials Specifications.	Star Pipe Products				
		Tyler Union				
		United-NAPAC, Inc.				
<u></u>		NACIP	ļ			
Gasket	Gaskets used at joints, for water lines 3-inch and larger,	Clow Corporation				
	manufactured per AWWA C110 / C111 / C153 and in accordance with City of Columbus Construction and Materials	Ferguson/Pro Select				
	Specifications. No asbestos content.	Star Pipe Products				
		Tyler Union				
1	1	1,7.01 01011				

	Item	Description	Manufacturer	Size	Product No.	Selection	Comments
	Joint Restraining Glands		EBBA Iron, Inc.		Megalug Series 1100		
	(Temporary)	manufactured per AWWA C110 / C111 / C153 and C301, and			Uni-Flange Series 1400		
		l	Romac Ind., Inc.		RomaGrip		
		l ·	Sigma		One-Lok Series SLDE		
			Smith-Blair		Cam-Lock Series 111		
			Star Pipe Products Tyler Union		Stargrip Series 3000 TUFGrip Series 1000		
			Tyler Onion		TOFGIIP Series 1000	Ш	
	Factory-Coated Carbon		Sigma		TTB		Blue Flourocarbon Tee Head Bolts and Nuts
	Steel nuts & bolts	pipe restraint products, etc.	Tyler Union		Cor-Blue T-bolts		Blue Flourocarbon Tee Head Bolts and Nuts
			Star Pipe Prducts		Star Blue		Blue Flouropolymer Tee Head Bolts and Nuts
-	0		Birmingham Fastener, Inc.		0.4-00		Blue Flourocarbon Tee Head Bolts and Nuts 18" & Larger Water Mains.
	Coupling	For Connection to cast iron water lines 2-inch and larger, in accordance with City of Columbus Construction and Materials	Dresser Ford Meter Co		Style 38 Ultra Flex		Extended Range (4"-12")
		Specifications.	Power Seal		Power Max		Extended Range (4 -12) Extended Range (2"-12")
			Romac Ind., Inc.		Style XR 501		Extended Nange (2 -12)
gs			Romac Ind., Inc.		"MACRO"		
<u>≃</u>			Smith Blair		461 Series		2" to 12" Water Mains.
and Fittings			Smith Blair		441 Series		2" to 16" Water Mains.
느			Total Piping Solutions, Inc.		Hymax 2000 Series		
2	Polyethylene Encasement	8-mil. thick polyethylene encasement sleeve for ductile iron	KMA Enterprises		"PET" Series		
e l	Tubing	pipe (DIP) per AWWA C105.	Sigma				
Laying Pipe	· ·		T. Christy Enterprises, Inc.				
•	Polyethylene Encasement	1 1/2" wide, 6-mil. thick adhesive PVC outer wrap tape for	KMA Enterprises				2" Wide Tape
g	Tubing Tape	underground applications.	Sigma				
≅			T. Christy Enterprises, Inc.				
Ľ	Underground Corrosion	Corrosive protection for underground metal surfaces (bolts,	Denso		"LT" Tape		Low Temperature Petrolatum Tape
◙	Protection-Metal Surfaces	restraint rodding, etc.) For aerosol undercoating products,	Trenton		#1 Wax Tape		·
a		follow manufacturer temperature restrictions for product	3M		08881		Underseal Rubberized Undercoating Black
g		application. For Black Gilsonite Asphalt Paint, keep product			80072 (117EA)		Undercoating - Aerosol coating
Ė			Permatex		,		ů ů
<u></u>		product with mineral spirits or other agents.	Carquest		CCM 26903		Undercoating - Aerosol coating
Ε			J.C. Whitlam Mfg. Co.		Black Dragon		Black Gilsonite Asphalt Paint
<u></u>			Hercules Chemical Company		Black Magic		Black Gilsonite Asphalt Paint
	Concrete Bonding	For cement mortar lining field repair on Steel Pipe, in	Larsen Products Corp.		"Weld-Crete"		
8	Agent	accordance with City of Columbus Construction and Materials Specifications.					
Item 801 - Furnishing and	Detectable Underground	6" wide, Warning/Identification (Detectable) Marking Tape for	Harris Industries, Inc.				
a l	Tape	buried facilities, blue in color.	Pro-Line				
			ProPak				
			Sigma				
Ŀ		For the in Olegain and New Mater Mains 40 in 1	T. Christy Enterprises, Inc.		Maria DA		
	.,		Pipeline Pigging Products		Model B4		
	Density)	in accordance with City of Columbus Construction and Materials Specifications.	Pipeline Pigging Products Girard		Model RX4 Model RCC		
		inaterials opeomoations.	Girard Knapp		Model 1-C		
ŀ	Chlorination Tap	For use in chlorinating newly installed water mains in	ιτιαρρ		INIOUGI I=C		Refer to approved corporation stop valves listed under Item 805 on page 7.
	(B.O./Sampling Outlet)	accordance with AWWAC-651 along with City of Columbus					The service services of the service and the services of page 7.
	(D.C., Camping Cauet)	Construction and Materials Specifications. Note that all taps					
		are to be removed once chlorination is complete and shall be					
		plugged with an approved brass plug.					
L							
	Brass Plug	l. 1 77=7	A.Y. McDonald		73206		3/4" - 2"
			Cambridge Brass		Model 98NL		3/4" - 2"
			Ford Meter Co.		CSP-NL		3/4" - 1"
			Mueller Co.		H-10033N		3/4" - 2"

valves listed under Item 805 on page 7. pping)
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ces listed under Item 805 on page 7.
s listed under Item 805 on page 7.
Linkage

	Item	Description	Manufacturer	Size	Product No.	Selection	Comments
		Full body iron or fabricated steel tapping sleeve for 3"	American Flow Control		2800-C Series		4"x4" through 16"x12" (Ductile or Cast Iron)
		and larger wet taps on CI or DI pipe in accordance with City of Columbus Construction and Materials	Cascade		CST-EX		(Ductile Iron Only)
		Specifications.	Cascade		CFT-ESS		(Ductile Iron Only)
			Ford Meter Co.		FTSC		(Ductile Iron Only)
			JCM Industries Inc.		JCM 412		6"x3" through 36"x12" (Ductile Iron Only)
			JCM Industries Inc.		JCM 432		4"x2" through 24"x8" (Ductile or Cast Iron)
			JCM Industries Inc.		JCM 452		(Ductile Iron Only)
			Mueller Co.		H-615		4"x4" through 24"x24" (Ductile or Cast Iron)
			Mueller Co.		H-616		4"x10" through 24"x24" (Cast Iron Only)
S			Powerseal		3490		(Ductile or Cast Iron)
<u> </u>			Romac Ind., inc.		FTS420		(Ductile Iron Only)
٧a			Romac Ind., inc.		SSTIII		(Ductile or Cast Iron)
and Valves			Smith-Blair		622		4"x4" through 24"x12" (Ductile Iron Only)
SS			Smith-Blair		665		(Ductile or Cast Iron)
Sleeves			Tyler Union		25-U		6"x4" through 12"x12" (Ductile or Cast Iron)
Sle		Iron tapping sleeve (full body) for 3" and larger wet taps on CI or DI pipe in accordance with City of Columbus	American Flow Control		2800-C Series		4"x4" through 16"x12" (Ductile or Cast Iron)
ng	(Size-on-Size Taps) Construction and Materials Specifications.		Mueller Co.		H-615		4"x4" through 24"x24" (Ductile or Cast Iron)
Tapping			Mueller Co.		H-616		4"x10" through 24"x24" (Cast Iron Only)
Ta			Tyler Union		25-U		6"x4" through 12"x12" (Ductile or Cast Iron)
ق		Fabricated steel tapping sleeve for 3" and larger wet taps on concrete pipe in accordance with City of	JCM Industries Inc.		415		Sized to fit actual OD of pipe, OD must
8		Columbus Construction and Materials Specifications.	Smith-Blair		625		be field verified prior to order.
Item 803							
=							

	Item	Description	Manufacturer	Size	Product No.	Selection	Comments
	Corporation Stop	For water services 2-inch and smaller, in accordance with City	A.Y. McDonald		74701BT		3/4" thru 2" Water Services
		of Columbus Construction and Materials Specifications. Dimensions shall be copper tubing size (CTS). Compression	Cambridge Brass		Series 301NL		3/4" thru 2" Water Services
		connection x AWWA taper thread. Pressure rated at 150 psi or higher. Product must be certified to meet the requirements on NSF/ANSI 61. For services 3-inch and larger an approved	· ·		"FB1000-NL" Series		3/4" thru 2" Water Services
		tapping sleeve and valve shall be used for any hot-tap	Mueller Co.		B-25008N		3/4" thru 2" Water Services
		installation in accordance with Item 802.	Mueller Co.		H-15013N		For 1 1/2" & 2" Water Services
	Curb Stop	For water services 2-inch and smaller, in accordance with City					3/4" thru 2" Water Services
	(Water Service Valve)	of Columbus Construction and Materials Specifications. Dimensions shall be copper tubing size (CTS) with	A.Y. McDonald Cambridge Brass		76100T Series 202NL		3/4" thru 2" Water Services
		compression connections and pressure rated at 150 psi or	*				3/4" thru 2" Water Services
		higher. Product must be certified to meet the requirements on NSF/ANSI 61. For services 3-inch and larger an approved	Ford Meter Co.		"B44-NL" Series		
		gate valve shall be used in accordance with Item 802.	Mueller Co.		B-25209N		3/4" thru 2" Water Services
			Mueller Co.		H-15209N		3/4" thru 2" Water Services
	Curb Box, Standard	For water service valves 2-inch and smaller, in accordance with City of Columbus Construction and Materials	General Foundries Inc. General Foundries Inc.		37094E 38094E		
		Specifications. For services 3-inch and larger an approved	Sigma		VB-794E		
		valve box shall be used in accordance with Item 802.	Star Pipe Products		SB94ES		94-E
	Curb Box, Ferrule Box	For water services 2-inch and smaller, located within a	Tyler Union		6500 Series		74° ∟
	Ca. D DOX, I CITUIG DOX	traveled area, in accordance with City of Columbus	General Foundries Inc.		36108		
		Construction and Materials Specifications and per DOPW	0:		\(\tag{P}\) = 0.00		
လ		Standard Drawing "L-6320". For services 3-inch and larger an approved valve box shall be used in accordance with Item	Sigma		VB-636		
lä		802.					
Item 805 - Water Service Taps	Copper Service Tubing	For water services 2-inch and smaller, all tubing shall be type	Mueller Industries, Inc.		Type K Soft Copper		
Ϋ́		K soft temper conforming to ASTM B 88 and in accordance	Cambridge-Lee Industries, Inc.		Type K Soft Copper		
ē		with City of Columbus Construction and Materials Specifications. Material dimensions shall be Copper Tubing	Cerro Flow Products, Inc.		Type K Soft Copper		
5		I-!	Great Lakes Copper, Inc.		Type K Soft Copper		
ate		ductile iron pipe shall be used.	Kessler		Type K Soft Copper		
>			Wieland Coppoer Products, LLC		Type K Soft Copper		
5-	Service Saddle		A.Y. McDonald		3801		For use on ex. IPS OD PVC pipe
80			A.Y. McDonald		4835A		Single S.S. Strap
Le		conner tubing cize (CTC). Provide cingle etrap convice	A.Y. McDonald		4855A Series 822		Double S.S. Strap Single S.S. Strap
Ŧ		saddles for 2-inch and smaller water lines. Provide double	Cambridge Brass Cambridge Brass		Series 822 Series 812		Single S.S. Strap Double S.S. Strap
		strap service saddles for 3-inch and larger water lines. For	Ford Meter Co.		Style FS101		Single S.S. Strap
			Ford Meter Co.		Style FSD202		Double S.S. Strap
		Item 802.	JCM Industries Inc.		418		3/4" thru 1 1/2" Taps on 20" & Larger W.M.'s
			JCM Industries Inc.		425		3/4" thru 2" Taps on Conc. Steel Cylinder Pipe
			Mueller Co.		DR 1 S or BR 1 S		Single S.S. Strap
			Mueller Co. Romac Ind., inc.		DR 2 S or BR 2 S 101S or 101BS		Double S.S. Strap Single S.S. Strap
			Romac Ind., inc.		202S or 202BS		Double S.S. Strap
			Smith-Blair		315 Series		Single S.S. Strap
			Smith-Blair		317 Series		Double S.S. Strap
	Service Tubing Couplings		Cambridge Brass		Series 118NL		Copper to Copper (CTS to CTS)
		Specifications Product must be certified to meet the	Ford Meter Co.		Style C44-xx-Q-NL		Copper to Copper (CTS to CTS)
		requirements on NSF/ANSI 61.	Mueller Co.		H-15403N		Copper to Copper (CTS to CTS)
			A.Y. McDonald		74758T		Copper to Copper (CTS to CTS)
			Smith-Blair		411 w/ Adapter Gasket		Copper to Galvanized (CTS to IPS)
			Smith-Blair		525 w/ Adapter Gasket		Copper to Galvanized (CTS to IPS)
			Ford Meter Co.		C45-xx-G-NL		Copper to Galvanized (CTS to IPS)
			Ford Meter Co.		Q24-xx-NL		Copper to Lead (CTS to XS)
	Caman Diag	For abandoning water services, placed at oulet of corporation	A.Y. McDonald		74758T-67		Copper to Lead (CTS to XS)
	Copper Disc	eton in accordance with City of Columbus Construction and	Ford Meter Co.		Disc-x Style		3/4" thru 2"
		Materials Specifications. Material dimensions shall be copper	Mueller Co.		H-15535		3/4" thru 2"
		tubing size (CTS).	A.Y. McDonald		6125		3/4" thru 1"

	Item	Description	Manufacturer	Size	Product No.	Selection	Comments
Casing	g Pipe	Steel casing pipe for protection/installation of water lines 6-inch and larger, manufactured per ASTM A-139 Grade B, in accordance with City of Columbus Construction and Materials Specifications and DOPW standard drawing L-6324.	American Steel Pipe Lally Pipe & Tube Northwest Pipe Co. Pittsburgh			0	
Casing	g Spacers	Spacers used with casing pipe installations, in accordance with City of Columbus Construction and Materials Specifications and DOPW standard drawing L-6324.	Advanced Product & Systems Pipeline Seal & Insulator, Inc. CCI		SI C8G-2 or C12G-2 CSC	0	
Casing	g Pipe End Seals	Synthetic rubber molded end seals used on casing pipe, in accordance with City of Columbus Construction and Materials Specifications and DOPW standard drawing L-6324.	Advanced Product & Systems Pipeline Seal & Insulator, Inc.		Model AM Model S	0	
Pipe							
06 - Casing Pipe							
Item 806							
						0	

	em	Description	Manufacturer	Size	Product No.	Selection	Comments
Fire Hydrant		For fire hydrant settings in accordance with City of	American Flow Control		Mark 73 Series		"No Drain" only
		Columbus Construction and Materials Specifications DOPW standard drawings L-6409, L-6637 and L-7601.	Clow Corporation		Eddy F2641		
		DOF W standard drawlings E-0409, E-0037 and E-7001.	Mueller Co.		Centurion		Super 200
Hydrant Exte	ension Kits	For vertically extending fire hydrant settings in accordance with City of Columbus Construction and	American Flow Control				
		Materials Specifications and DOPW standard drawings L	Clow Corporation				
		6409, L-6637 and L-7601.	Mueller Co.				
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Item 809 - Fire Hydrants							
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