

SECTION 01630
PIPELINE SCHEDULE
Addendum No. 3

1. SCOPE. This section consists of a schedule of 4 inch [100 mm] and larger pipelines indicating the type of pipe to be used. Pipe materials, installation, testing, and disinfection, when specified, are covered in other sections.

Piping smaller than 4 inches [100 mm] is covered in the various miscellaneous piping sections. Piping for plumbing, heating and air conditioning systems is covered in other sections. Piping to be furnished with equipment is covered in the applicable equipment section.

2. SCHEDULE INDEX. Pipe material abbreviations and their applicable specification section number are as indicated:

<u>Abbreviation</u>	<u>Pipe Material</u>	<u>Section No.</u>
RCP	Reinforced Concrete Pipe	02433
PVC	Polyvinyl Chloride Sewer Pipe	02762
PVC	Polyvinyl Chloride (PVC) Pressure Pipe	15064
SP	Steel Pipe	15061
SS	Stainless Steel Pipe and Allow Pipe, Tubing, and Accessories	15063
PVC/CPVC	Miscellaneous Plastic Pipe, Tubing, and Accessories	15067
FRP	Fiberglass Reinforced Plastic Pressure Pipe	15071

3. SCHEDULE. Pipe materials shall conform to Schedule 01630-S01. All pipelines indicated on the drawings and all pipelines required for proper operation of the equipment furnished shall be provided whether listed in the schedule or not.

4. PRESSURE TESTING. All furnished pressurized piping whether listed in the schedule or not shall be pressure tested to conform the Installation of Water Pipeline section.

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**Schedule 01630-S01
Pipeline Schedule**

1.000	General
1.010	Specification Section 01630
2.000	Requirements

Service Code	Service	Nominal Size (in)	Type of Installation ^[1]	Material	Thickness	Design Pressure (psi)	Field Test Pressure ^[2] (psi)	Spec
Pressurized Pipes								
FW	Finished Water	2" - 24"	B	PVC	AWWA C900, DR 18	110	170	15064
			IB	SP	0.25	110	170	15061
			B	SP	0.25	110	170	15061
			B	SS-1	SCH 10S	110	170	15063
			E	SS-1	SCH 10S	110	170	15063
			E	SP	0.25	110	170	15061
PRW	Perris I Raw Water	30"	B	PVC	AWWA C900, DR 18	70	110	15064
			E	FRP	AWWA C950	70	110	15071
ROB	RO Bypass to Decarbonators	10" - 16"	B	PVC	AWWA C900, DR 18	95	150	15064
			E	FRP	AWWA C950	70	110	15071
			E	SS-1	SCH 10S	25	40	15063

Service Code	Service	Nominal Size (in)	Type of Installation ^[1]	Material	Thickness	Design Pressure (psi)	Field Test Pressure ^[2] (psi)	Spec
ROF	RO Feed - Forebay Influent	16" - 30"	E	FRP	AWWA C950	70	110	15071
			S	PVC	AWWA C900, DR 18	70	110	15064
	RO Feed – Transfer Pump Discharge (Transfer Pump Station & Yard Piping)	14" – 30"	E	FRP	AWWA C950	95	205	15071
			B	PVC	AWWA C900, DR 18	95	150	15064
			IB	FRP	AWWA C950	95	150	15071
	RO Feed – Transfer Pump Discharge (Process Building before Cartridge Filters)	14" – 30"	IB	SS-1	SCH 10S	95	150	15063
	RO Feed – Recirculation Pipe	6"	E	FRP/SS-1	AWWAC950/SCH10S	95	150	15063 15071
			S	FRP/SS-1	AWWAC950/SCH10S	95	150	15063 15071
	RO Feed – After Cartridge Filters	12" – 20"	IB	SS-1	SCH 10S	70	110	15063
RO Feed – RO Feed Pump Discharge	8"	IB	SS-1	SCH 10S	190	285	15063	
W1	Finished Water for Plant	1" – 6"	B	PVC	AWWA C900, DR 18	110	170	15064
			E	SP	0.25	110	170	15061
W2	Finished Water for Fire Suppression System	12"	B	PVC	AWWA C900, DR 18	110	170	15064
Low Pressured/Gravity Pipes								
SAN	Sanitary Sewer	10"	B	PVC	SDR 35	N/A	5	02762

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Service Code	Service	Nominal Size (in)	Type of Installation ^[1]	Material	Thickness	Design Pressure (psi)	Field Test Pressure ^[2] (psi)	Spec
BW	Blended Water	16 - 30"	B	PVC	AWWA C900, DR 18	25	40	15064
			IV	SS-1	SCH 10S	25	40	15063
DN	Drains (RO Flush Tank, Decarbonators, and other locations)	3" - 12"	B	PVC-2	SDR 35	N/A	5	15067
			S	SS-9	SCH 10S	25	40	15063
			IB	PVC-2	SCH 80	N/A	5	15067
	Drains (CIP and Neutralization Tanks)	3" - 12"	E	CPVC-1	SCH 80	N/A	5	15067
			B	PVC	SDR 35	N/A	5	02762
			IB	CPVC-1	SCH 80	N/A	5	15067
OF	Overflow (RO Flush Tank, Decarbonators, and other locations)	10" - 24"	IB	PVC-2	SCH 80	N/A	5	15067
			B	PVC	SDR 35	N/A	5	02762
			E	PVC-2	SCH 80	N/A	5	15067
			E	SP	0.25	25	40	15061
			E	SS-1	SCH 10S	25	40	15063
	CIP and Neutralization Overflow	10" - 12"	E	CPVC-1	SCH 80	N/A	5	15067
			IB	CPVC-1	SCH 80	N/A	5	15067
	Forebay Overflow	48"	B	RCP	N/A	N/A	5	02433
PRG	Purge	8" - 12"	B	PVC	AWWA C900, DR 18	30	45	15064
			E	SP	0.25	30	45	15061
			IB	SS-1	SCH 10S	30	45	15063
ROP	RO Permeate	8" - 24"	B	PVC	AWWA C900, DR 18	25	40	15064
			E	SS-1	SCH 10S	25	40	15063
			IB	SS-1	SCH 10S	25	40	15063

Service Code	Service	Nominal Size (in)	Type of Installation ^[1]	Material	Thickness	Design Pressure (psi)	Field Test Pressure ^[2] (psi)	Spec
SD	Storm Drain	18" – 48"	B	RCP	N/A	N/A	5	02433
FW ROP ROC PRG ROF	Sample Lines Inside RO Building	Less than 2"	IB	PVC	SCH 80	Per Spec	Per Spec	15067
Confirmed by ROSS								
CIPCR	CIP Concentrate Return to CIP Tank and or Neutralization Tank	10"	B	CPVC-1	*	*	*	15067
			E	CPVC-1	*	*	*	15067
			IB	CPVC-1	*	*	*	15067
CIPF	CIP Feed	10"	IB	CPVC-1	*	*	*	15067
CIPPR	CIP Permeate Return to CIP Tank and or Neutralization Tank	10"	B	CPVC-1	*	*	*	15067
			E	CPVC-1	*	*	*	15067
			IB	CPVC-1	*	*	*	15067
CIPR	CIP Return	10"	IB	CPVC-1	*	*	*	15067
CIP	CIP Feed	10"	IB	CPVC-1	*	*	*	15067
			IB	SS-1	*	*	*	15063
ROC	RO Concentrate and Brine Pump Station	4" - 16"	B	PVC	*	*	*	15064
			E	SS-9	SCH 10S	80	145	15063
			IB	SS-9	SCH 10S	*	*	15063
ROFL	RO Flush	8"	IB	PVC	*	*	*	15064
			IB	SS-1	*	*	*	15063

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Service Code	Service	Nominal Size (in)	Type of Installation ^[1]	Material	Thickness	Design Pressure (psi)	Field Test Pressure ^[2] (psi)	Spec
Chemical Pipes								
NOCL	Sodium Hypochlorite	3/8" - 10"	IB	CPVC-1	Per Spec	Per Spec	Per Spec	15067
		1" - 2"	E	CPVC-2	Per Spec	Per Spec	Per Spec	15067
		1" - 2"	B	CPVC-2	Per Spec	Per Spec	Per Spec	15067
		1/2" - 1"	IB	HST-1	Per Spec	Per Spec	Per Spec	15067
		1/2" - 1"	E	TEFL-1	Per Spec	Per Spec	Per Spec	15067
		1/2" - 1"	E	TEFL-1	Per Spec	Per Spec	Per Spec	15067
LAS	Liquid Ammonium Sulfate	1" - 2"	IB	PVC-2	Per Spec	Per Spec	Per Spec	15067
		1"	IB	SS-8	Per Spec	Per Spec	Per Spec	15063
		1"	E	TELF-1	Per Spec	Per Spec	Per Spec	15067
		1"	B	TELF-1	Per Spec	Per Spec	Per Spec	15067
TI	Threshold Inhibitor	1" - 2"	IB	PVC-2	Per Spec	Per Spec	Per Spec	15067
		2"	E	PVC-2	Per Spec	Per Spec	Per Spec	15067
ZOP	Zinc Orthophosphate (To Chemical Injection Vault)	1"	B	PVC-7	Per Spec	Per Spec	Per Spec	15067
		1"	IB	PVC-7	Per Spec	Per Spec	Per Spec	15067
	Zinc Orthophosphate (In Chemical Injection Vault)	1"	IB	PVC-2	Per Spec	Per Spec	Per Spec	15067
CA	Citric Acid	2"	E	PVC-2	Per Spec	Per Spec	Per Spec	15067
		2" - 4"	IB	PVC-2	Per Spec	Per Spec	Per Spec	15067
		2"	B	PVC-7	Per Spec	Per Spec	Per Spec	15067
NAOH	Sodium Hydroxide	1" - 3"	IB	CS-2	Per Spec	Per Spec	Per Spec	15065
		1"	IB	PE-4	Per Spec	Per Spec	Per Spec	15067
		1"	B	PE-4	Per Spec	Per Spec	Per Spec	15067

Service Code	Service	Nominal Size (in)	Type of Installation ^[1]	Material	Thickness	Design Pressure (psi)	Field Test Pressure ^[2] (psi)	Spec
Chemical Containment Pipes								
NOCL	Sodium Hypochlorite	As Required	B	PVC-1	Per Spec	Per Spec	Per Spec	15067
LAS	Liquid Ammonium Sulfate	As Required	B	PVC-1	Per Spec	Per Spec	Per Spec	15067
NAOH	Sodium Hydroxide	As Required	B	PVC-1	Per Spec	Per Spec	Per Spec	15067

* To be confirmed by RO System suppliers.

[1] Abbreviations for installation types are as follows:

- E Exterior above grade
- B Buried
- IB Inside Building above grade
- S Submerged
- IV Inside a Vault below grade

[2] Pressure pipe testing to be in accordance with Section 02718. Sanitary sewer pipe leakage testing to be in accordance with Section 02762.

[3] Table above shall be used as guidance. Contractor shall refer to Civil, Mechanical, and Instrumentation Drawings for pipe locations.

END OF SECTION

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