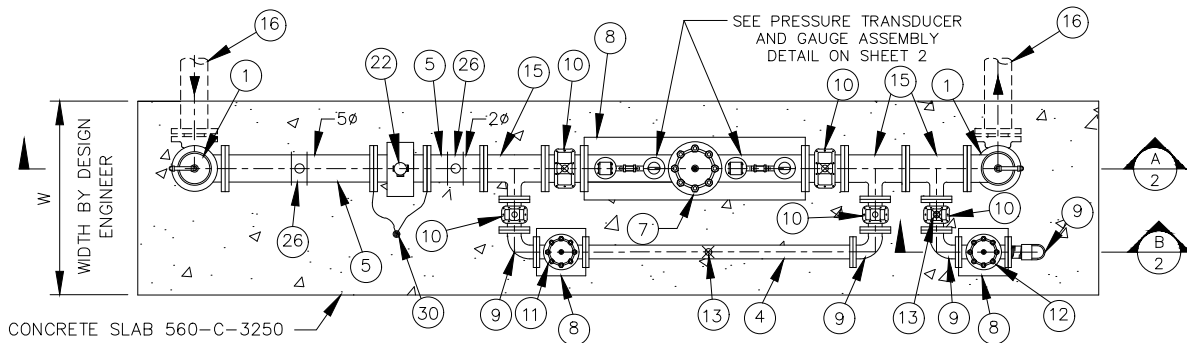
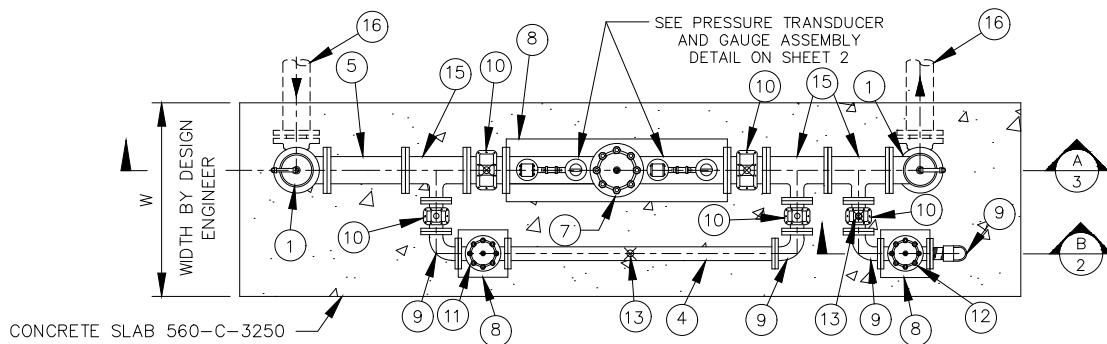


SITE PLAN



PIPING PLAN - OPTION 1 (WITH FLOW METER)



PIPING PLAN - OPTION 2 (WITHOUT FLOW METER)

SEE GENERAL NOTES ON SHEET 3.

NOT TO SCALE

PRESSURE REGULATING STATION

REVISION		
NO.	APPROVED	DATE
1	VRW	06/18/18

APPROVED:

*Nelson D Nelson*

NELSON D. NELSON, PE,  
PUBLIC WORKS DIRECTOR

*Vernon R. Weisman*

VERNON R. WEISMAN, PE,  
DISTRICT ENGINEER

6/21/2018

DATE

6/21/2018

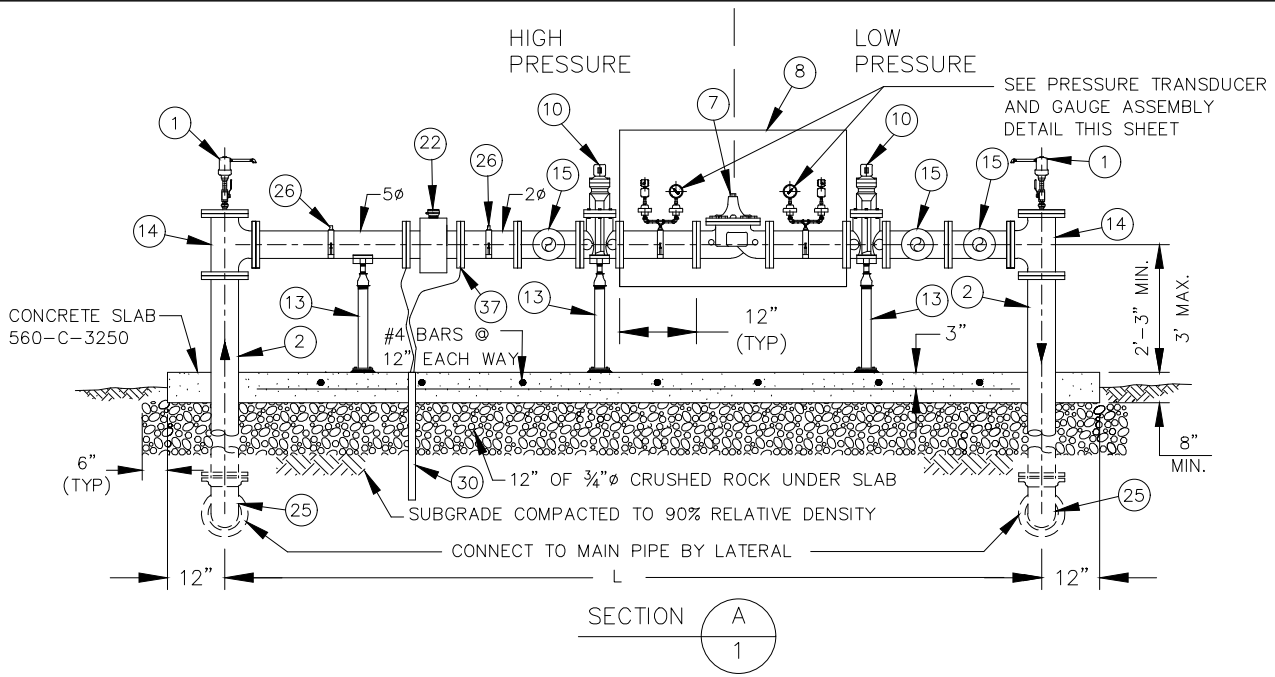
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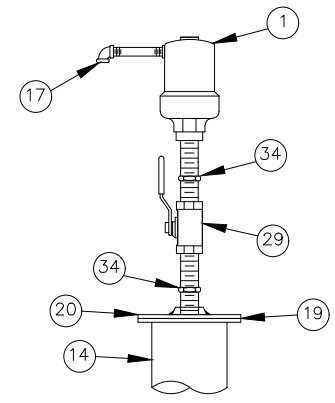
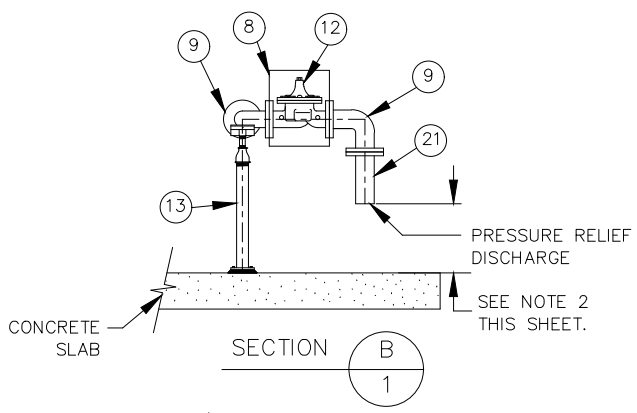
CITY OF CORONA

STD 410

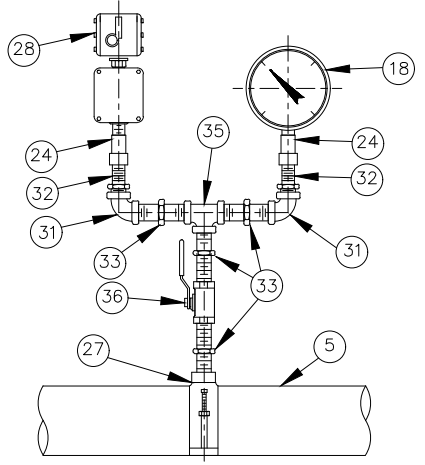
SHEET 1 OF 5



SECTION A  
1  
PIPING PLAN - OPTION 1 (WITH FLOW METER)



AIR RELEASE ASSEMBLY DETAIL



PRESSURE TRANSDUCER AND GAUGE ASSEMBLY DETAIL

NOTES:

1. COAT ALL PIPES, FITTINGS, AND EQUIPMENT ABOVE GROUND, EXCEPT BRASS, BRONZE AND STAINLESS STEEL, WITH TNEMEC EPOXY; PRIMED WITH SERIES 66 OR 69 HI-BUILD EPOXOLINE 3 TO 5 MILS THICK, AND FINISHED WITH SERIES 73, 74, OR 75 ENDURE-SHIELD 2 OR 3 MILS THICK, COLOR TO BE GREEN IF IN AN AREA WHERE LANDSCAPING LIKELY, OTHERWISE COLOR SHALL BE BLUE.
2. THE GREATER OF THE FOLLOWING: 2X DIAMETER OF OVERFLOW (MIN.) OR 18 INCHES (MIN.).

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PRESSURE REGULATING STATION

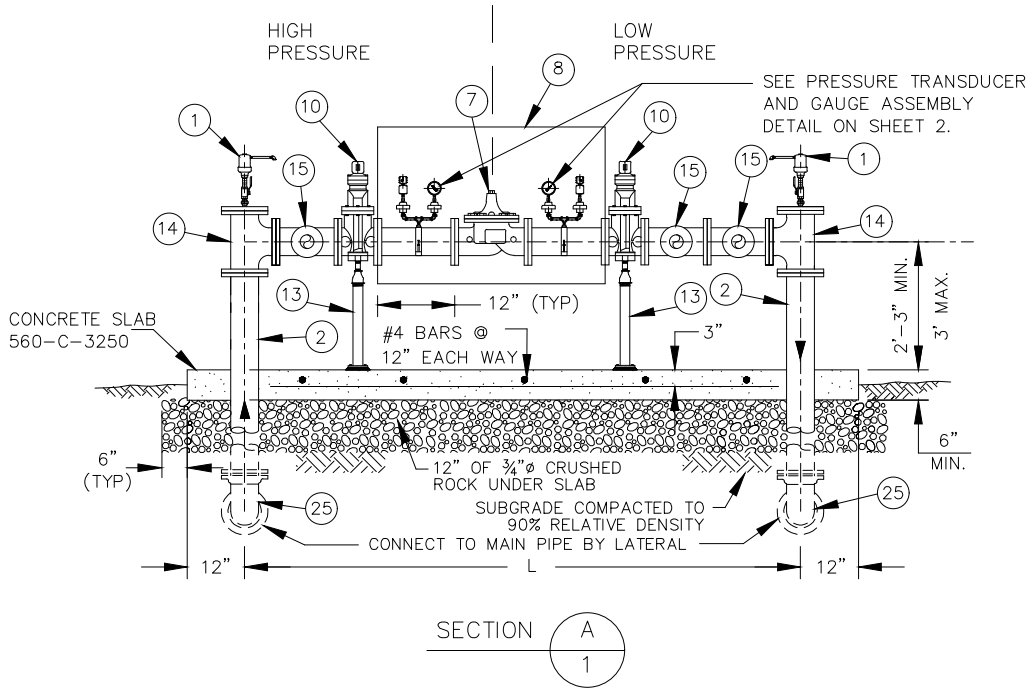
REVISION		
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1	VRW	06/18/18

APPROVED:  
*Nelson D Nelson*  
 NELSON D. NELSON, PE,  
 PUBLIC WORKS SUPERVISOR  
*Vernon R. Weisman*  
 VERNON R. WEISMAN, PE,  
 DISTRICT ENGINEER

6/21/2018  
 DATE  
 6/21/2018  
 DATE



CITY OF CORONA  
 STD 410  
 SHEET 2 OF 5




SECTION A  
1  
PIPING PLAN – OPTION 2 (WITHOUT FLOW METER)

GENERAL NOTES:

1. PROVIDE CALCULATIONS AND CAPACITY/PRESSURES TO THE DEPARTMENT OF WATER AND POWER.
2. ALL MATERIALS, MATERIALS TESTING, AND INSPECTION SHALL BE IN ACCORDANCE WITH CITY STANDARD REQUIREMENTS.
3. NOTIFY CITY AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.
4. CONTRACTOR SHALL SHORE ALL EXCAVATIONS IN ACCORDANCE WITH CAL-OSHA REQUIREMENTS.
5. ALL MATERIALS USED FOR POTABLE WATER APPLICATIONS SHALL BE NSF 61 APPROVED AND IN COMPLIANCE WITH THE MOST RECENT CALIFORNIA VOLATILE ORGANIC COMPOUNDS (VOC) REGULATIONS.
6. BELOW GROUND FITTINGS SHALL BE MECHANICAL JOINT WITH "MEGA-LUG" TYPE RESTRAINTS RATED FOR THE TEST PRESSURE OF THE PIPE.
7. PROVIDE 100A ELECTRICAL SERVICE TO PRESSURE REGULATING STATION.
8. INSTALL CONDUITS AND WIRING TO ALL DEVICES REQUIRING POWER AND SCADA COMMUNICATIONS. CONNECT WIRING TO ALL DEVICES, ELECTRICAL PANEL, AND RADIO/SCADA PANEL. CITY WILL FURNISH RADIO/SCADA PANEL.
9. RESTRAIN ALL JOINTS BETWEEN WATER MAIN AND PRESSURE REGULATING STATION (BOTH UPSTREAM AND DOWNSTREAM).
10. IF EXISTING MAIN LINE IS ACP, REMOVE WHOLE STICKS OF PIPE AND DISPOSE OF LEGALLY. USE TRANSITION COUPLINGS AND DUCTILE IRON RESTRAINED MECHANICAL JOINT PIPE AND FITTINGS (MEGA-LUG TYPE OR EQUAL) AS NEEDED.
11. IF EXISTING MAIN LINE IS STEEL JOIN MAINLINE WITH NOZZLE AND FULLY WELDED FULL WRAPPER. REPAIR LINING AND COATING PER APPLICABLE AWWA STANDARDS IN KIND.
12. MATERIALS LIST MAY VARY DEPENDING ON FINAL DESIGN.
13. ALL FITTINGS, PIPE, VALVES, AND FIXTURES SHALL BE LEAD FREE IN COMPLIANCE WITH FEDERAL AND STATE LAWS.
14. THE DESIGN ENGINEER MUST SUBMIT TO THE DWP GENERAL MANAGER OR DESIGNEE A SPECIFIC DESIGN BASED ON THE TYPICAL LAYOUT FOR EACH INSTALLATION FOR REVIEW AND WRITTEN APPROVAL PRIOR TO CONSTRUCTION. THE PRESSURE CLASS, ALONG WITH THE SYMMETRICAL DESIGN SHOWN, SHALL BE MODIFIED ACCORDINGLY BY THE DWP GENERAL MANAGER OR DESIGNEE.
15. PROVIDE MINIMUM 3-FOOT CLEARANCE BETWEEN GUARD POSTS AND ABOVE GROUND PIPING AND EQUIPMENT.

NOT TO SCALE




PRESSURE REGULATING STATION

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1	VRW	06/18/18	NELSON D. NELSON, PE. PUBLIC WORKS SUPERVISOR <i>Vernon R. Weisman</i>	6/21/2018		SHEET 3 OF 5
			VERNON R. WEISMAN, PE. DISTRICT ENGINEER	DATE		

MATERIALS LIST

EQUIPMENT	SIZE	MATERIALS/MAKE/MODEL
① COMBINATION AIR/VAC VALVE ASSEMBLY	1"	ARI D-040-C
② PIPE	8"	DI, FLG x PE, AWWA C115
③ TEE ON WATER MAIN	MAINSIZE X 8"	DI, MJ x FLG, CL 350
④ PIPE	4"	DI, FLG, AWWA C115
⑤ PIPE	8"	DI, FLG, AWWA C115
⑥ RW GATE VALVE WITH 2" OPERATING NUT AND VALVE CAN, FLG x MJ OR MJ x MJ RESTRAINT GLAND. SEE SHEET 1.	AS REQ'D	PER CITY STD. DWGS. 420, 421, AND 422
⑦ LARGE PRESSURE REDUCING VALVE--SIZE SUBJECT TO CITY APPROVAL	8"	CLA-VAL MODEL 90-01BPSVYKCX (FLG) WITH STAINLESS STEEL PILOT SYSTEM FITTED WITH WYE STRAINERS AND BALL VALVE FLUSHING POINTS. WORKING PRESSURE 0-150 PSI. VALVE ADJUSTMENT RANGE 30 TO 300 PSI. OPERATING PRESSURE TO BE SET AS DIRECTED BY THE CITY.
⑧ TYPE 316SS CAGE WITH EXPANDED METAL	-	PAINTED SAME AS ABOVE-GROUND PIPING
⑨ 90° ELBOW	4"	DI, FLG, AWWA C153
⑩ RW GATE VALVE WITH 2" OPERATING NUT AND LOCKING COVER FOR ABOVE GROUND	AS REQ'D	AWWA C515, FLG
⑪ SMALL PRESSURE REDUCING VALVE	4"	CLA-VAL MODEL 90-01BPDVYKCX (FLG) WITH STAINLESS STEEL PILOT SYSTEM FITTED WITH WYE STRAINERS AND BALL VALVE FLUSHING POINTS. WORKING PRESSURE 0-150 PSI. VALVE ADJUSTMENT RANGE 30 TO 300 PSI. OPERATING PRESSURE TO BE SET AS DIRECTED BY THE CITY.
⑫ PRESSURE RELIEF VALVE	4"	CLA-VAL MODEL 50G-01BPKCX WITH STAINLESS STEEL PILOT SYSTEM FITTED WITH WYE STRAINERS AND BALL VALVE FLUSHING POINTS. WORKING PRESSURE 0-150 PSI. VALVE ADJUSTMENT RANGE 30 TO 300 PSI.
⑬ ADJUSTABLE PIPE SUPPORT	3" DIA.	CITY STD. DWG. 418
⑭ TEE	8"	DI, FLG, AWWA C153
⑮ TEE	8" x 4"	DI, FLG, AWWA C153
⑯ LATERAL PIPE	8"	DIP, CLASS 350, RESTRAIN ALL JOINTS
⑰ SCREEN	-	THREADED TYPE 316SS
⑱ LIQUID FILLED PRESSURE GAUGE	4½" DIAL	0-300 PSI, ASHCROFT TYPE 1009, STAINLESS STEEL
⑲ FLANGE INSULATING KIT	-	CITY STD. DWG. 458
⑳ BLIND FLANGE	8"	TYPE 316SS WITH 1" WELDED HEAVY DUTY HALF COUPLING
㉑ PIPE	4"	DI, FLG X PE, AWWA C115


PRESSURE REGULATING STATION

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1	<b>VRW</b>	06/18/18	 VERNON R. WEISMAN, PE, DISTRICT ENGINEER		6/21/2018		SHEET 4 OF 5
					DATE		

## MATERIALS LIST (CONT.)

EQUIPMENT	SIZE	MATERIALS/MAKE/MODEL
(22) MAGNETIC FLOW METER	8"	ELECTROMAGNETIC FLOW METER ENDRESS+HAUSER PROLINE PROMAG W400 5W4C2H WITH GROUNDING RINGS
(23) REMOVABLE GUARD POST	-	PER CITY STD. DWG. 405
(24) PRESSURE SNUBBER	½"	TYPE 316SS, OMEGA MOD. PS-4E, NOSHOK MOD, 5050
(25) 90° ELBOW	AS REQ'D	DI, MJ, AWWA C153
(26) PITOT TUBE INSERTION POINT	1"	TYPE 316SS, DOUBLE STRAP SADDLE TAP, CLOSE NIPPLE, FULL PORT BALL VALVE, THREADED PLUG
(27) SADDLE TAP	¾"	TYPE 316SS, DOUBLE STRAP
(28) PRESSURE TRANSDUCER	0-300 PSI	ENDRESS+HAUSER CERABAR SPMC71
(29) BALL VALVE W/ LOCKABLE HANDLE	1"	TYPE 316SS, FIPT
(30) GROUND ROD	10' LONG (MINIMUM)	COPPER CLAD STEEL GROUND ROD, HARDENED STEEL POINT.
(31) REDUCING 90° ELBOW	¾" X ½"	TYPE 316SS
(32) EXTRA HEAVY HEX HEAD PIPE NIPPLE	½"	TYPE 316SS
(33) EXTRA HEAVY HEX HEAD PIPE NIPPLE	¾"	TYPE 316SS
(34) EXTRA HEAVY HEX HEAD PIPE NIPPLE	1"	TYPE 316SS
(35) TEE	¾"	TYPE 316SS, FIPT
(36) BALL VALVE	¾"	TYPE 316SS, FIPT
(37) GROUNDING RINGS WITH GROUND CABLE. CONNECT GROUND CABLE TO GROUND ROD	-	AWG9 (MIN.) GROUND CABLE

## PRESSURE REGULATING STATION

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			VERNON R. WEISMAN, PE, DISTRICT ENGINEER	DATE		SHEET 5 OF 5	