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					OL LEGENI
A ABV	ABOVE	l ID		S S	– SANITARY DRAIN
AD AFF	AREA DRAIN ABOVE FINISHED FLOOR	IE IND	INSIDE ELEVATION INDIRECT WASTE		
P	ACCESS PANEL	INV IV	INVERT INDUSTRIAL WASTE VENT		– (SANITARY) VENT PIPE
SFP	BACK FLOW PREVENTER	IW	INDUSTRIAL WASTE	RWC	- STORM DRAIN
SMT NV	BASEMENT BACKWATER VALVE	J JP	JOCKEY PUMP		- DOMESTIC COLD WATER
S		L	LAVATORY		- DOMESTIC HOT WATER
) }	CUBIC FEET PER SECOND CAST IRON CEILING	LAV M			- DOMESTIC HOT WATER RE
G	CLEANOUT CLEANOUT TO GRADE	MH MR	MANHOLE MOP RECEPTOR	CO2	- CARBON DIOXIDE
	CONCRETE	MV	MIXING VALVE	N20	- NITROUS OXIDE
NT	CONTINUATION CONCRETE PIPE	N (N)	 NEW		- NITROGEN
	COUNTERTOP LAVATORY COUNTERTOP SINK	NC NIC	NORMALLY CLOSED NOT IN CONTRACT	N2	
/ W	DOMESTIC COLD WATER CLEAR WATER WASTE	NO	NORMALLY OPEN	WAGD —	<ul> <li>WASTE ANESTHETIC GAS E</li> </ul>
		O ORWC	OVERFLOW RAINWATER CONDUCTOR	NG	– GAS (NATURAL)
	DRY SPRINKLER PIPE DIALYSIS BOX	Ρ		PD	– PUMP DISCHARGE PIPING
	DRINKING FOUNTAIN DOWN	PD PH	PUMP DISCHARGE PENTHOUSE	F	- FIRE MAIN
Μ	DOMESTIC DEEP	PIV PO	POST INDICATOR VALVE PLUGGED OUTLET		– MEDICAL AIR
	DRAIN DRY STANDPIPE	PRV PS	PRESSUE REDUCING VALVE PLUMBING SECTION		
N	DOWNSPOUT NOZZLE DRUM TRAP	R		VAC	– VACUUM
G	DRAIN VALVE DRAWING	(R) RCP	REMOVE REINFORCED CONCRETE PIPE	02	– OXYGEN
P	DOMESTIC WATER PUMP	RD RWC	ROOF DRAIN RAIN WATER CONDUCTOR	SP	- SPRINKLER MAIN/BRANCH
	EXISTING TO REMAIN	S		PA	- PRE-ACTION PIPE
	ELEVATION ELECTRICAL SECTION	S SAN	SOIL SANITARY		
C COMP	ELECTRIC WATER COOLER EXPANSION COMPENSATOR	SF SHR	SQUARE FEET SHOWER	D	– DRY PIPE
		SIAM SK	SIAMESE SINK	∥ ∥ ── тр ──	- TRAP PRIMER PIPING
	FIRST AID FRESH AIR INLET	SP SPR	STANDPIPE SPRINKLER	— т —	- TEMPERED WATER PIPING
	FLOW CONTROL FLOOR DRAIN	SS SWDR	SERVICE SINK SAFE WASTE DRAIN		
	FIRE DEPARTMENT VALVE FIRE DEPARTMENT VALVE CABINET	T		$\left  \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	PLUMBING RISER SOIL STACK DESIGNATION
	FIRE EXTINGUISHER CABINET FIRE HYDRANT	TAP TB	TRIPLE ALARM PANEL THRUST BLOCK		
L	FIRE HOSE CABINET FIRE HOSE RACK	TE TP	TOP ELEVATION TRAP PRIMER	$\left( \begin{array}{c} v \\ x \end{array} \right)$	PLUMBING RISER VENT STACK DESIGNATION
	FINISHED FLOOR FLOOR	TW TZV	TEMPERED WATER TRIPLE ZONE VALVE BOX		
	FIRE PUMP FLOW SWITCH FIXTURE UNIT(S)	U UR	URINAL	RWC X	PLUMBING RISER RAINWATER CONDUCTOR
	FLUSH VALVE	V			STACK DESIGNATION
	GROUND HYDRANT	V V VB	 VENT VACUUM BREAKER		
;	GROUND HYDRANT GALLON PER MINUTE GREEN ROOF RAINWATER CONDUCTOR	VB VI VO	VIERATION ISOLATOR VIERATION UTLET		
	GREEN ROOF RAINWATER CONDUCTOR GENERAL SECTION	VO VTR	VALVED OUTLET VENT THROUGH ROOF		
	 HUB DRAIN	W W	WASTE		
R	HEADER HORSEPOWER	WC WCO	WASTE WATER CLOSET WALL CLEANOUT		
AC /	HEATING, VENTILATION, AIR CONDITIONING DOMESTIC HOT WATER		WALL CLEANOUT WASH FOUNTAIN WALL HYDRANT		
'G 'R	HOT WATER GENERATOR HOT WATER RETURN	WHA WSP	WALL INDICANT WATER HAMMER ARRESTOR WET STANDPIPE		
-		WSP	WELL WATER		

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HDC-----

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HWR BALANCING SYSTEM

BALANCING VALVE

CHECK VALVE

VALVE IN DROP

MONITORED FIRE VALVE

OUTSIDE WALL HYDRANT

POST INDICATOR VALVE

PRESSURE GAUGE & COCK

(SAFETY) VALVE

THREE-WAY VALVE

TWO-WAY VALVE

PIPE ANCHOR

PITCH OF PIPE DOWN

SERVICE RISER-DOWN

STRAINER W/GATE VALVE W/NIPPLE & CAP

UNION OR FLANGED CONNECTION

POINT OF CONNECTION

HOT WATER RECIRC. PUMP

NEW TO EXISTING

CLEANOUT

SERVICE RISER-UP

PRESSURE TEMPERATURE RELIEF

GAS COCK

SHUT-OFF VALVE (BALL VALVE)

SHUT-OFF VALVE

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P-001

PD100

P-100

P-101

P-102

P-500

P-601

P-701

P-702

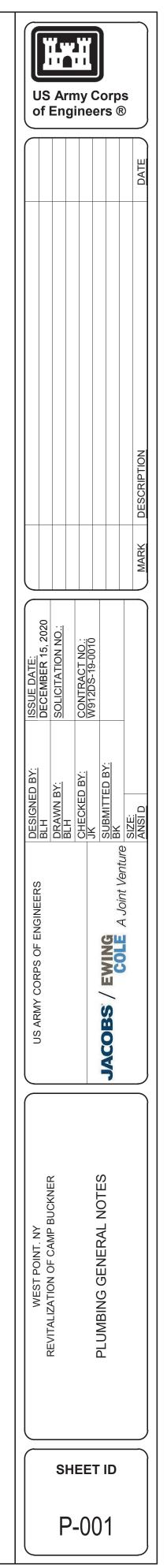
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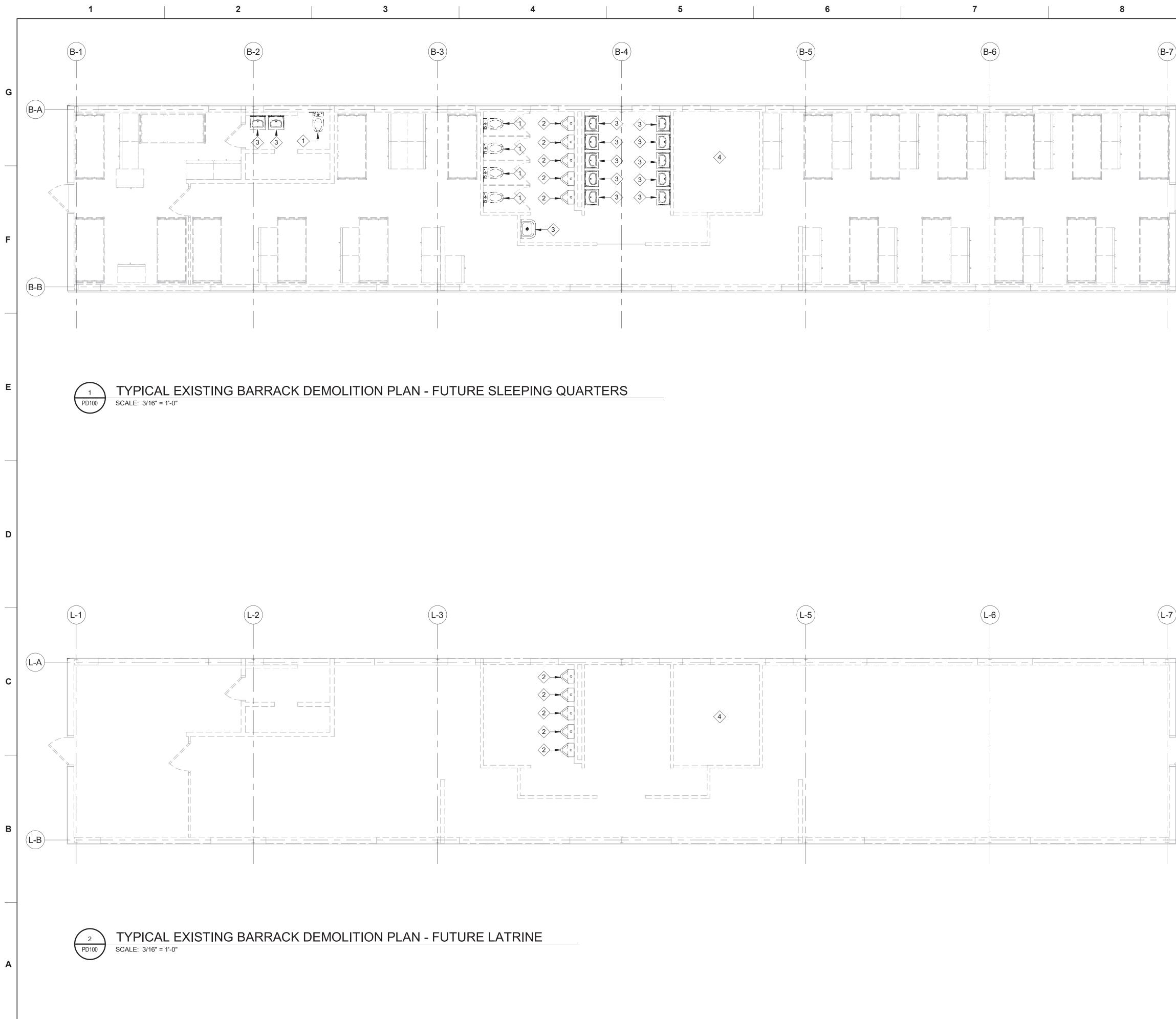
- ISPOSAL
- \_\_\_\_K|-THROTTLING VALVE PIPE GUIDE \_\_\_\_\_ PRESSURE REGULATING VALVE  $\longrightarrow$ DIRECTION OF FLOW E.J. EXPANSION JOINT \_\_\_\_ \_\_\_\_\_ 0------\_\_\_\_ STRAINER \_\_\_\_

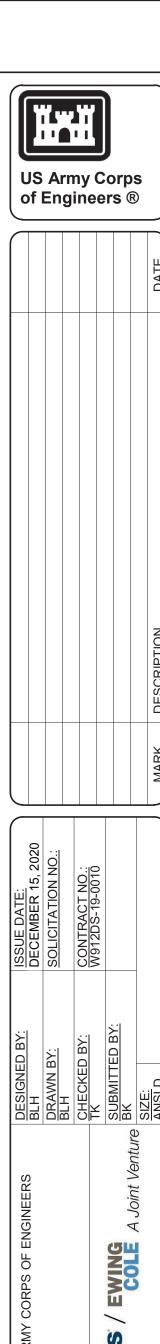
- **PLUMBING GENERAL NOTES**
- REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF ALL EQUIPMENT, ROOF 1. DRAINS AND FIXTURES. 2.

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- PROVIDE ACCESSIBLE CLEANOUTS AT THE BASE OF ALL SANITARY STACKS AND AT THE BASE OF ALL VERTICAL RAINWATER CONDUCTORS. ALL EXCAVATION SHALL BE PERFORMED IN STRICT COMPLIANCE WITH THE REGULATIONS
- 3. OF [OSHA] THE OCCUPATIONAL SAFETY AND HEALTH ASSOCIATION. PLUMBING PIPING SHALL NOT BE RUN THROUGH 4
- ELECTRICAL ROOMS, TELECOMMUNICATIONS ROOMS, OR ELEVATOR MACHINE ROOMS. EXCEPT FOR BRANCH PIPING SERVING EQUIPMENT IN THESE ROOMS. 5.
- ALL PENETRATIONS THROUGH FIRE RATED CONSTRUCTION SHALL BE FIRE STOPPED IN ACCORDANCE WITH SPECIFICATION. UNLESS NOTED OTHERWISE ALL DRAINAGE PIPING SHALL HAVE A MINIMUM 0.01 SLOPE
- 6. EXCEPT PIPING 3" AND SMALLER WHICH SHALL HAVE A 0.02 SLOPE.
- ALL FLOOR DRAINS SHALL BE PROVIDED WITH A TRAP PRIMER CONNECTION. PROVIDE A 1/2" 7 COPPER LINE EXTENDED FROM TRAP PRIMER AS SPECIFIED TO THE PRIMER CONNECTION. ALL DOMESTIC HOT WATER RETURN BRANCH CONNECTIONS SHALL BE EQUIPPED WITH A 8.
- BALL VALVE, CHECK VALVE, AND BALANCING VALVE. PLUMBING CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK OF ALL OTHER 9.
- CONTRACTORS PRIOR TO START OF PLUMBING SYSTEM INSTALLATION. 10. ALL DRAIN GRATES, CLEANOUT COVERS, AND OTHER FINISH-EXPOSED COMPONENTS SHALL
- BE PROTECTED FROM DAMAGE. DAMAGED COMPONENTS SHALL BE REPLACED BY CONTRACTOR AT NO ADDITIONAL COST TO CONTRACT. 11. DRAINAGE PIPING CLEANOUTS SHALL BE LOCATED IN UNFINISHED ROOMS, STORAGE
- ROOMS, CLOSETS, AND JANITOR'S CLOSETS WHERE POSSIBLE. EXTEND FLOOR CLEANOUTS FROM MAIN DRAIN TO THESE ROOMS. CLEANOUT LOCATIONS IN FINISHED ROOMS ARE TO BE SUBMITTED TO ARCHITECT FOR REVIEW PRIOR TO INSTALLATION.
- 12. PLUMBING CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK OF ALL OTHER CONTRATORS PRIOR TO START OF PLUMBING SYSTEM INSTALLATION. 13. ALL EXPOSED STORM PIPING TO BE INSULATED SHALL HAVE A WHITE FINISH.
- 14. ALL DIMENSIONS AND EXISTING CONDITIONS SHALL BE CHECKED AND VERIFIED BY THE
- CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH ANY WORK. 15. MECHANICAL CONTRACTOR SHALL COORDINATE THE LOCATIONS OF FLOOR DRAINS IN
- MECHANICAL ROOMS WITH HVAC EQUIPMENT. 16. THE PLUMBING CONTRACTOR SHALL ROUGH-IN AND MAKE FINAL CONNECTIONS TO ALL OWNER FURNISHED EQUIPMENT. FINAL CONNECTIONS SHALL INCLUDE DOMESTIC HOT AND COLD WATER, FUEL GAS, DIRECT SANITARY WASTE CONNECTIONS, AND INDIRECT SANITARY WASTE CONNECTIONS FROM EQUIPMENT TO RECEPTOR. THE PLUMBING CONTRACTOR SHALL MAKE ALL CONNECTIONS IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE CODES.
- 17. PROVIDE ALL NECESSARY TEMPORARY OR PERMANENT CAPS OR PLUGS FOR PIPING. DO NOT LEAVE PIPING OPEN ENDED.
- 18. PRIOR TO STARTING CONSTRUCTION, DETERMINE EXACT INVERT ELEVATION, SIZE, DEPTH, AND LOCATION OF EXISTING UTILITIES WHERE CONNECTIONS ARE TO BE MADE OR INTERSECTIONS OCCUR. NOTIFY DESIGN PROFESSIONAL OF ANY DISCREPANCY BETWEEN DRAWINGS AND ACTUAL FIELD CONDITIONS. WORK BACK TOWARD BUILDING FROM UTILITY CONNECTION FOR ALL PIPING SYSTEMS.
- 19. MECHANICAL CONTRACTOR SHALL COORDINATE THE LOCATIONS OF FLOOR DRAINS IN MECHANICAL ROOMS WITH HVAC EQUIPMENT.
- 20. PIPING RISING WITHIN A STORY DESIGNATED AS "RISE". PIPING RISING TO ANOTHER STORY IS NOTED AS "UP". PIPING DROPPING WITHIN A STORY IS NOTED AS "DROP" PIPING DROPPING TO ANOTHER STORY IS NOTED AS "DOWN".
- 21. PRESSURE PIPING, STORM PIPING, AND VENT PIPING SHOWN ON RESPECTIVE FLOOR PLANS OCCUR ABOVE THAT FLOOR OR @ THE CEILING UNLESS OTHERWISE NOTED. 22. WASTE PIPING SHOWN ON RESPECTIVE FLOOR PLANS OCCUR BELOW FLOOR OR ABOVE
- CEILING BELOW UNLESS OTHERWISE NOTED. 23. BRANCH TAKE OFF'S SHALL CONNECT TO THE TOP OF MAIN PIPE WHENEVER POSSIBLE.
- HOSE BIBBS AND WALL HYDRANTS SHALL BE MOUNTED 3'-0" ABOVE FINISHED / GRADE 24. FLOOR EXCEPT WHERE INSTALLED UNDER COUNTERS / LAVS OR UNLESS NOTED OTHERWISE.
- 25. PROVIDE WATER HAMMER ARRESTORS SIZED PER PLUMBING DRAINAGE INSTITUTE REQUIREMENTS FOR ALL FLUSH VALVE FIXTURES AND ELECTRONIC FAUCETS.
- 26. LOCATION OF NEW PLUMBING PIPING PENETRATIONS IN THE EXISTING BUILDING SHALL BE CAREFULLY COORDINATED. NEW PENETRATIONS SHALL NOT DROP THRU SLAB RIBS OR CONCRETE BEAMS.
- 27. INSTALLATION SHALL COMPLY WITH ALL REQUIREMENTS OR ASHRAE STANDARD 90.1 2019, SERVICE WATER HEATING.







### **GENERAL NOTES:**

REFER TO SHEET P-001 FOR ABBREVIATIONS, SYMBOLS AND PROJECT GENERAL NOTES.

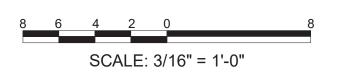
SEE ARCHETECTURAL PLANS FOR ROOM NAMES.

ALL PLUMBING FIXTURES AND ASSOCIATED VALVES AND PIPING SHALL BE REMOVED.

SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR WALLS AND FLOOR SLAB PENETRATION REPAIRS LEFT AFTER FIXTURES AND PIPES ARE REMOVED.

### **DEMOLITION NOTES:**

- REMOVE WATER CLOSET AND ALL ASSOCIATED VALVES AND PIPING.
- (2) REMOVE URINAL AND ALL ASSOCIATED VALVES AND PIPING.
- REMOVE LAVATORY AND ALL ASSOCIATED VALVES AND PIPING.  $\langle 3 \rangle$
- A REMOVE SHOWER, MIXING VALVES AND ALL ASSOCIATED VALVES AND PIPING. REMOVE SHOWER DRAINS AND ASSOCIATED PIPING.



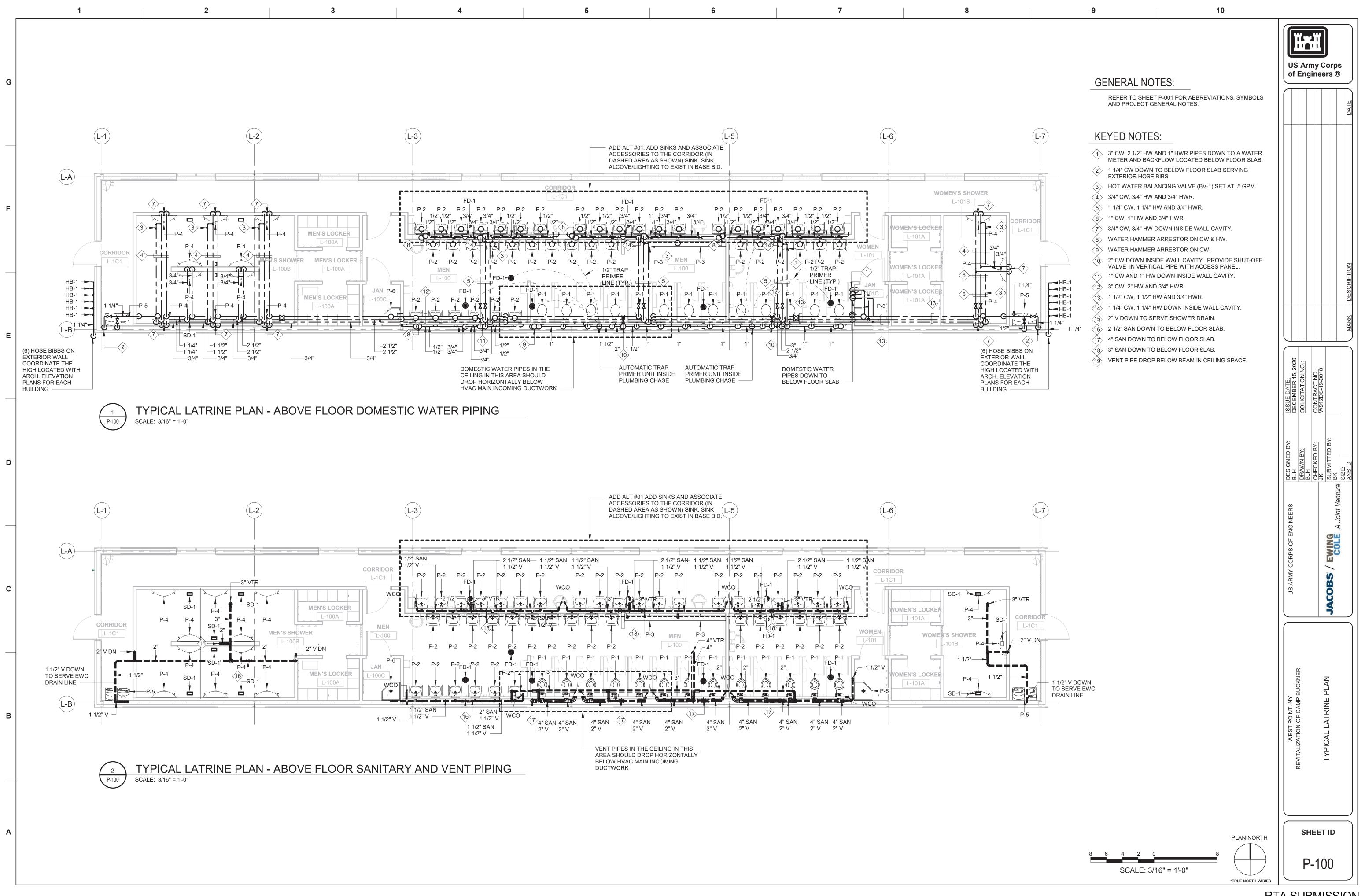


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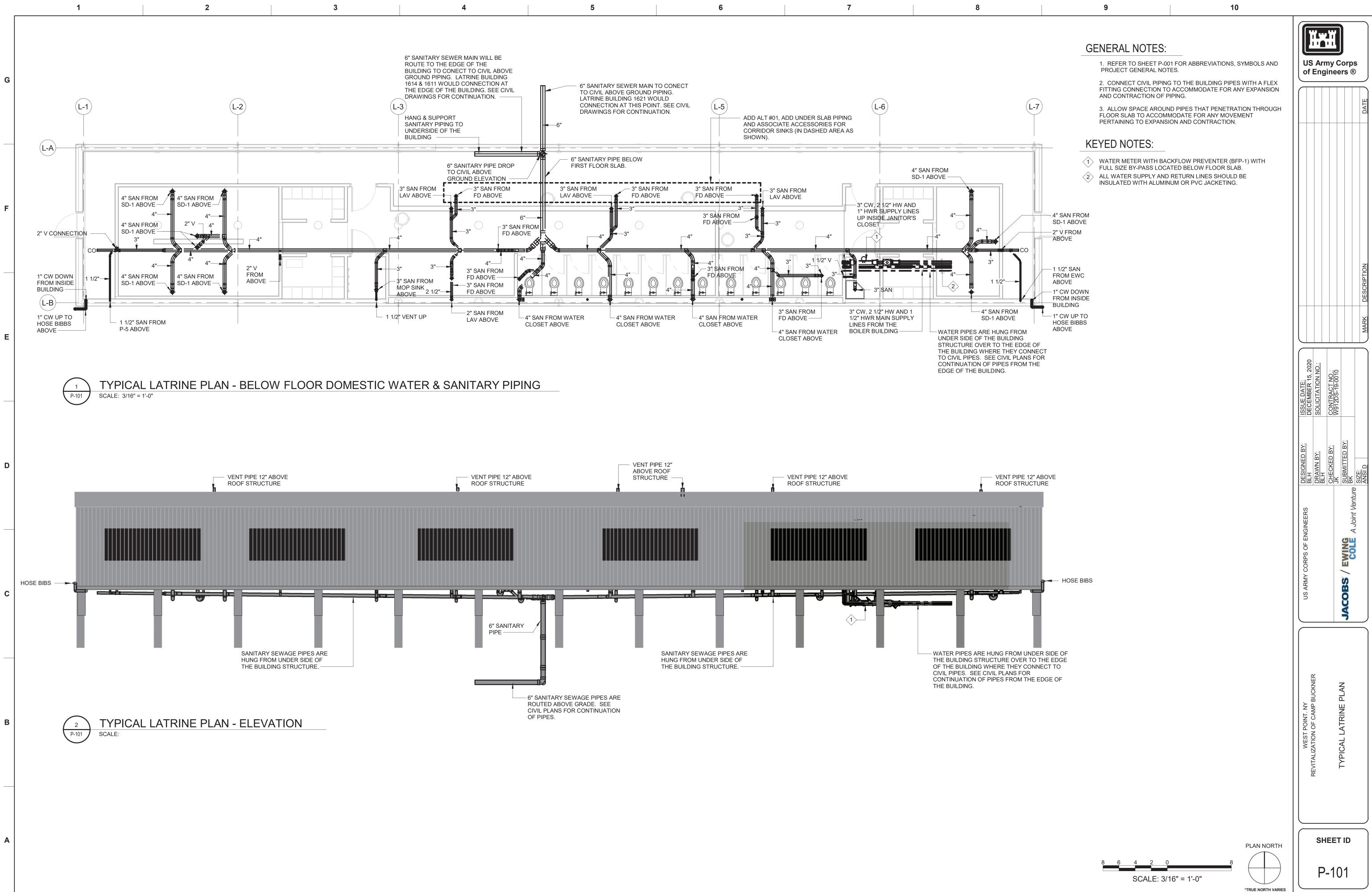
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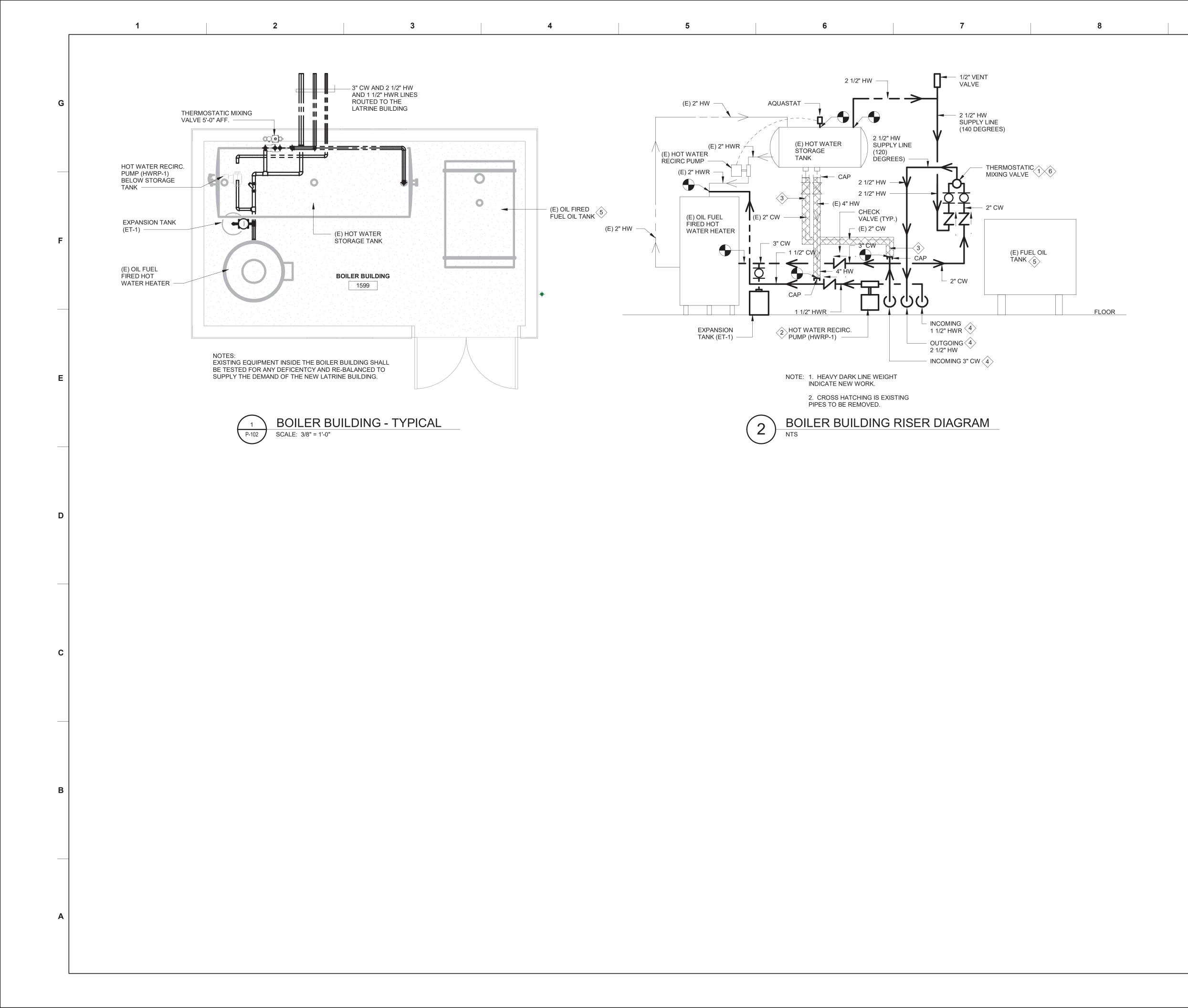
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**RTA SUBMISSION** 





## GENERAL NOTES:

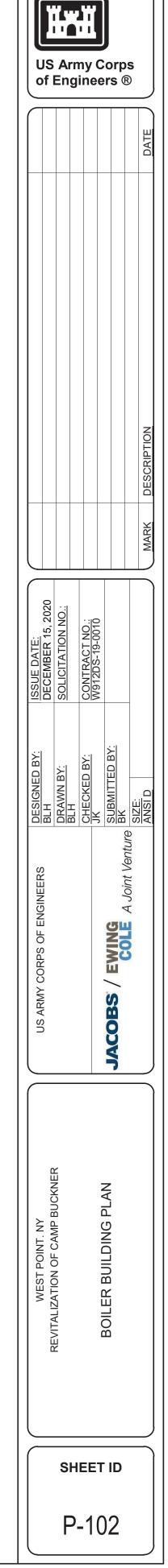
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REFER TO SHEET P-001 FOR ABBREVIATIONS, SYMBOLS AND PROJECT GENERAL NOTES.

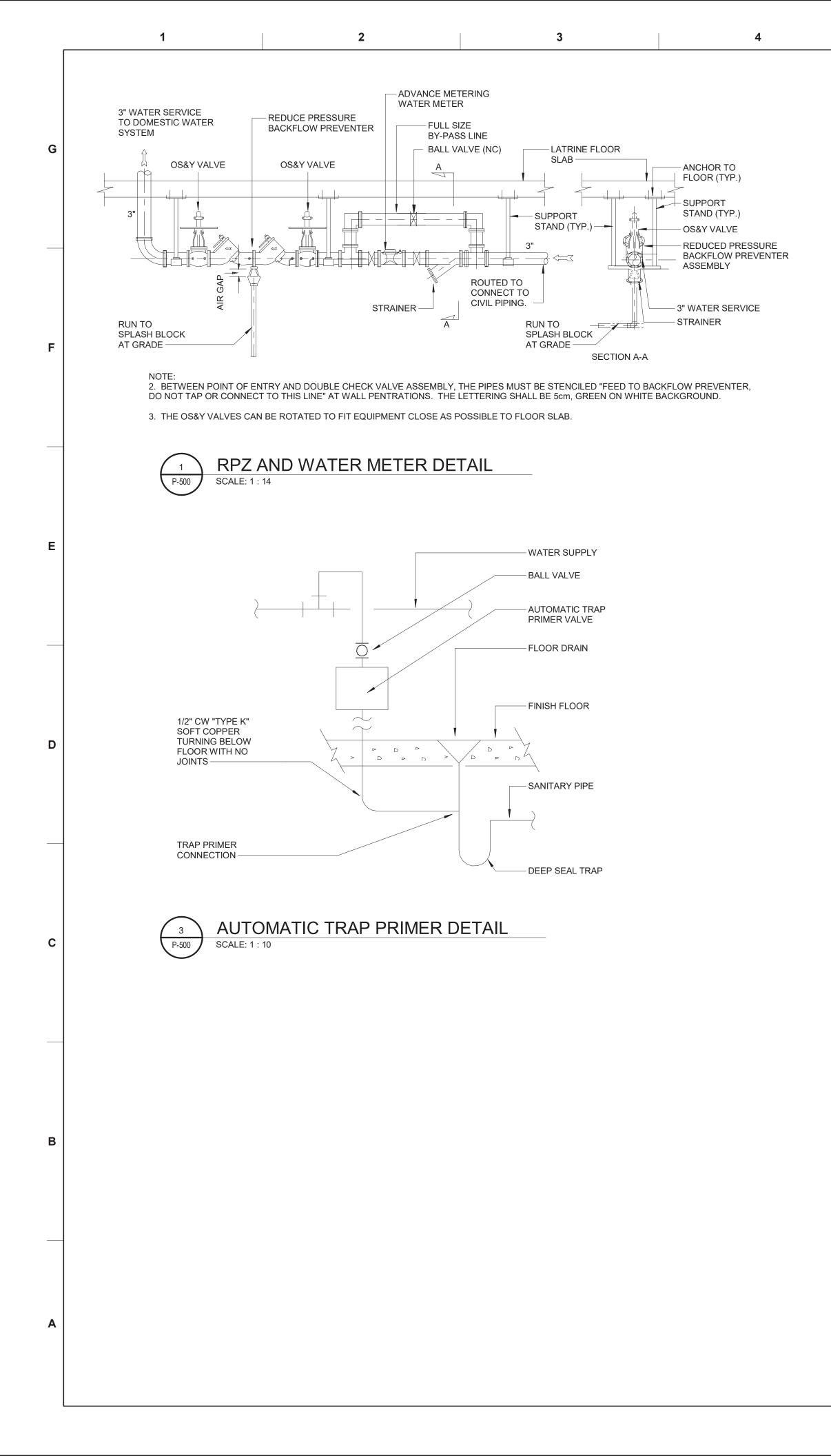
HEAVY LINE WEIGHT INDICATE NEW WORK AND LIGHT WEIGHT INDICATE EXISTING TO REMAIN.

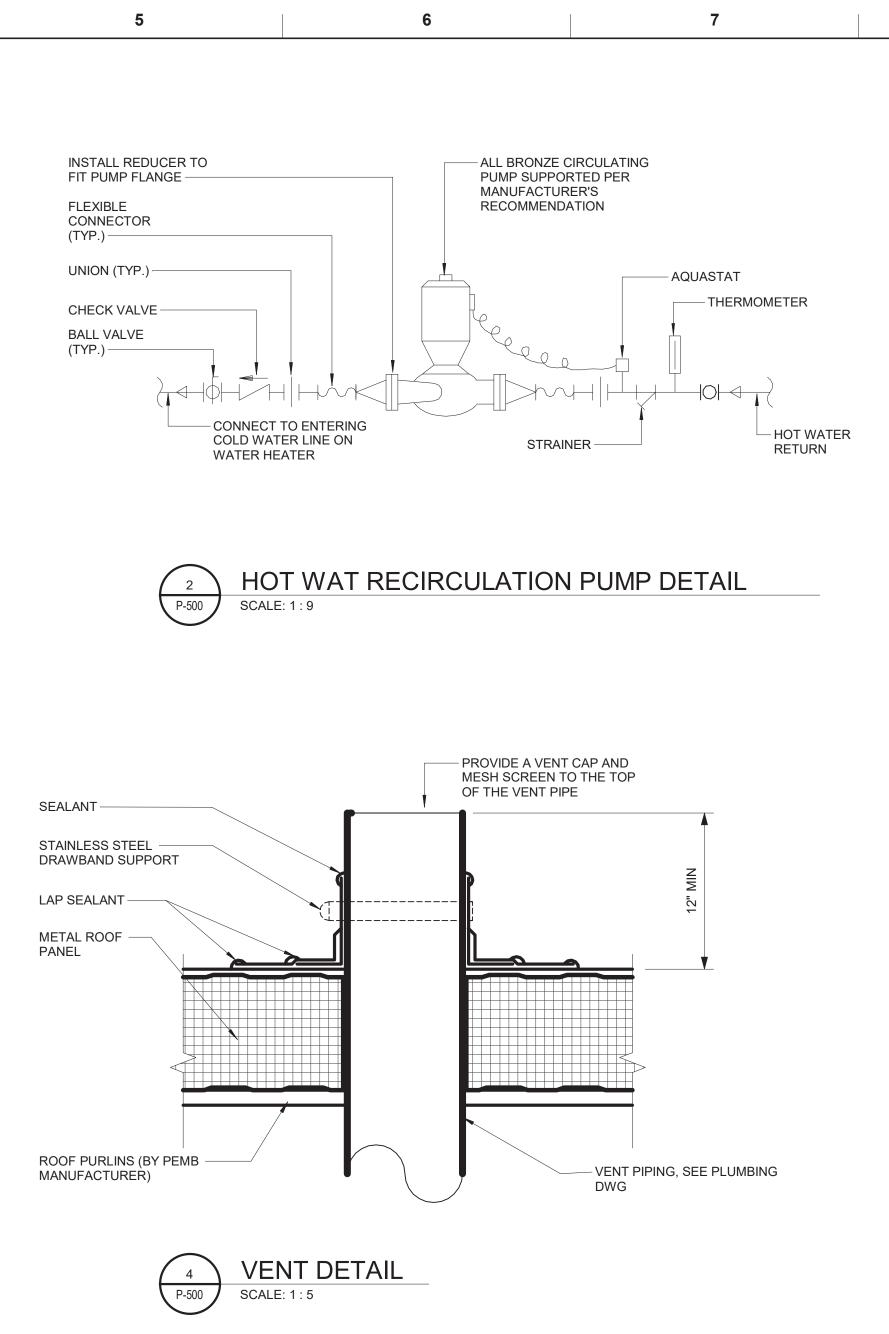
# KEYED NOTES:

- THE THERMOSTATIC MIXING VALVE SHALL BE INSTALLED PER THE MANUFACTURER'S INSTALLATION AND OPERATION REQUIREMENTS. SUBMIT WITH THE SHOPS, DRAWINGS THE PROPOSED MIXING VALVE ALONG WITH THE INSTALLATION AND PIPE CONFIGURATION DIAGRAM.
- THE AQUASTAT SHOULD CONNECT TO THE RECIRCULATION PUMP TO ENERGIZE PUMP TO MAINTAIN SET WATER TEMPERATURE TO THE HOT WATER SYSTEM. SEE DETAIL 2/P-500 FOR MORE INFORMATION.
- 3 REMOVE AND CAP EXISTING 2" CW LINE THAT CONNECT TO THE STORAGE TANK.
- 4 ALL WATER PIPES ARE ROUTED OUT OF THE BOILER BUILDING TO THE LATRINE BUILDINGS.
- 5 EXISTING FUEL OIL TANK SERVING HOT WATER HEATER. NO MODIFICATIONS TO THE EXISTING SYSTEM IS DONE IN THIS CONTRACT. CONTRACTOR SHALL TEST THE EXISTING HOT WATER SYSTEM TO MAKE SURE THE EQUIPMENT ARE IN WORKING ORDER.
- 6 PROVIDE A THERMOMETER ON THE INLET AND OUTLET TO THE MIXING VALVE.



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		S	CALE	: 3/8"	= 1'-0"	





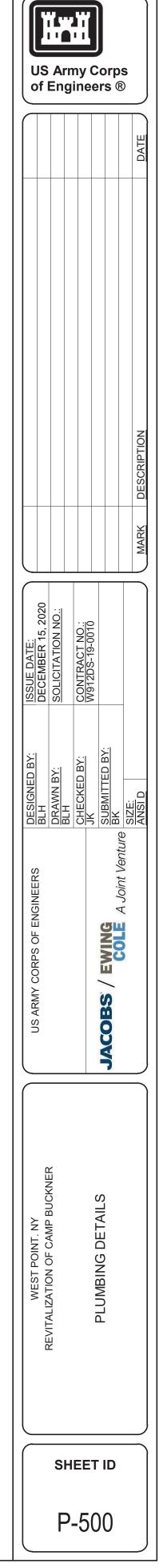
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# GENERAL NOTES:

1. REFER TO SHEET P-001 FOR ABBREVIATIONS, SYMBOLS AND PROJECT GENERAL NOTES.

2. CONNECT CIVIL PIPING TO THE BUILDING PIPES WITH A FLEX FITTING CONNECTION TO ACCOMMODATE FOR ANY EXPANSION AND CONTRACTION OF PIPING.

3. ALLOW SPACE AROUND PIPES THAT PENETRATION THROUGH FLOOR SLAB TO ACCOMMODATE FOR ANY MOVEMENT PERTAINING TO EXPANSION AND CONTRACTION.



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# PLUMBING FIXTURE SCHEDULE

	FIXTURE	MOUNTING	MINIMUM CONNECTION SIZE						DESCRIPTION
Type Mark	FIXTURE	MOUNTING	MANUFACTURER NAME & MODEL	SS	V	CW	HW	TW	DESCRIPTION
				0"	0"	0"	0"	0"	
P-1	WATER CLOSET	FLOOR MOUNTED	TOILET: AMERICAN STANDARD, MODEL 3690.001, FLUSH VALVE: ROYAL 115-1.28	4"	2"	1"	0"	0"	VITREOUS CHINA, FLOOR MOUNTED WALL OUTLET, 1.28 GPF, ELONGATED BOWL
P-2	LAVATORY	WALL HUNG	SINK: KOHLER, MODEL K-2035-4, FAUCET MODEL LK423L4	1 1/2"	1 1/2"	1/2"	1/2"	0"	VITREOUS CHINA, 4" CENTER, OVAL BASIN WITH OVERFLOW DRAIN
P-3	WASHOUT URINAL	WALL MOUNTED	URINAL: ACORN, MODEL 1713, FLUSH VALVE: MODEL FVL1.0 GPF	1 1/2"	1 1/2"	3/4"	3/4"	0"	14 GAGE, TYPE 304 STAINLESS STEEL, EXTERIOR SATIN FINISH, DOME STRAINER AND P-TRAP.
P-4	3 SHOWER HEAD UNIT	WALL MOUNTED	BRADLEY, MODEL WS-3W	0"	0"	3/4"	3/4"	0"	18 GAGE, TYPE 304 STAINLESS STEEL, SOAP DISH, 2.0 GPM.
P-5	ELECTRIC WATER COOLER	WALL MOUNTED	HAWSEY TAYLOR, MODEL HTHB-HAC8BLSS-WF	1 1/2"	1 1/2"	1/2"	0"	0"	BI-LEVEL WITH BOTTLE FILLER, SENSOR ACTIVATED
P-6	MOP SINK	FLOOR MOUNTED	FIAT, MODEL TSBCR100					0"	TERRAZZO, 12" HIGH CURBS, STAILESS STEEL DRAIN BODY
FD-1	FLOOR DRAIN	FLOOR	JOSAM, MODEL 3000-A	3"	1 1/2"	0"	0"	0"	ADJUSTABLE FLOOR DRAIN, ROUND STRAINER
HB-1	HOSE BIBB	WALL MOUNTED	J.R. SMITH, 5670	0"	0"	1/2"	0"	0"	PROVIDE VACUUM BREAKER WITH THE HOSE BIBS.
SD-1	SHOWER DRAIN	FLOOR	JOSAM, MODEL R SERIES	4"	0"	0"	0"	0"	RECTANGULAR DRAIN, SECURED GRATE, VANDAL PROOF SCREWS

			HO	T WATER CIRCULATING	PUMF	P SCHEDU	<u>LE</u>				
		BASIS OF D	DESIGN			PUMP HEAD		ELECT	RICAL	DATA	
Type Mark	LOCATION	MANUFACTURER	MODEL	SYSTEM	GPM	(FT H2O)	RPM	HP	PH	Hz	NOTES
HWRP-1	BOILER BUILDING	BELL & GOSSETT	E-60 SERIES	DOMESTIC HOT WATER SYSTEM	15	28	1750	0.500	3	60	BRONZEL BODY, INLINE PUMP

	PLUMBING EXPANSION TANK SCHEDULE											
		BASIS OF DE	ESIGN	_						PRESSU	· · · /	
						TANK VOLUME					MAX	
TYPE MARK	LOCATION	MANUFACTURER	MODEL	SYSTEM	TYPE	(gal)	VOLUME (gal)	DIAMETER	HEIGHT	PRE-CHARGE	OPERATING	NOTES
ET-1	BOILER BUILDING	A.O. SMITH	PMET-14	DOMESTIC HOT WATER SYSTEM	PRE-CHARGE D	14.00	10.50	16"	16"	38	150	IAPMO APPROVED

	MIXING VALVE SCHEDULE									
		BASIS OF DESIGN		WATER TEMPERATURE				PIPE SIZE		
TYPE MARK	LOCATION	MANUFACTURER	SYSTEM	GPM	IN	OUT	CW IN	HW IN	TW OUT	NOTES
MV-1	BOILER BUILDING	HOLBY	HOT WATER SYSTEM	126	140 °F	120 °F	2"	2"	2"	CONSTRUCTED ENTIRELY OF BRONZE AND COPPER.

BACKFLOW PREVENTER SCHEDULE										
Type Mark	FLOW	CW CONNECTION	MANUFACTU RER	MODEL	DESCRIPTION					
BFP-1	127 GPM	3"	ZURN	MODEL 375	REDUCED PRESSURE TYPE BACKFLOW PREVENTER, DUCTILE IN FREE CONSTRUCTION					

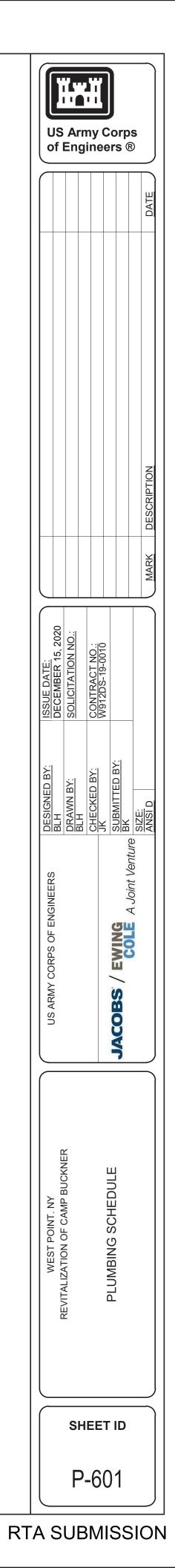
	WATER HAMMER ARRESTER SCHEDULE										
MARK	RK FIXTURE UNITS PIPE SIZE HEIGHT DIAMETER NOTES										
WHA-A	1-11	1/2"	2.62"	3.25"	COPPER LEAD FREE, PISTON TYPE						
WHA-B	12-32	3/4"	2.97"	3.25"	COPPER LEAD FREE, PISTON TYPE						
WHA-C	33-60	1"	3.59"	3.25"	COPPER LEAD FREE, PISTON TYPE						
WHA-D	61-113	1"	5.14"	3.25"	COPPER LEAD FREE, PISTON TYPE						
WHA-E	114-154	1"	5.52"	3.25"	COPPER LEAD FREE, PISTON TYPE						
WHA-F	155-330	1"	6.67"	3.25"	COPPER LEAD FREE, PISTON TYPE						

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