

ADD
4

GREASE INTERCEPTOR				
MARK	LOCATION	CAPACITY (GAL.)	DIMENSIONS [LxWxH] (IN)	MAKE & MODEL
GI-1	WEST PARKING/ENTRANCE	1000	90x60x110	OLD CASTLE PRECAST 576-MU-1000

PUMP SCHEDULE												
MARK	LOCATION	FLOW [GPM]	HEAD [FT]	DESIGN TEMP. [°F]	V/PH	HP (W)	RPM @ DUTY POINT	MAKE	MODEL	CONNECTION [IN]	OPER. WEIGHT [LBS]	NOTES
CP-1	MECH ROOM	4	15	120	115/1	0.0469	4491	BELL & GOSSET	ECOCIRC 20-18	1	10	1,2
CP-2	STORAGE 204	4	15	120	115/1	0.0469	4491	BELL & GOSSET	ECOCIRC 20-18	1	10	1,2
CP-3	MECH ROOM	4	15	120	115/1	0.0469	4491	BELL & GOSSET	ECOCIRC 20-18	1	10	1,2
NOTES:												
1. PUMP PROVIDED WITH INTEGRAL VARIABLE SPEED DRIVE CONTROLLED BY SELFSENSING ALGORITHM THAT DOES NOT REQUIRE REMOTE DIFFERENTIAL PRESSURE TRANSDUCER.												
2. PUMPS TO BE MOUNTED AGAINST WALL. PROVIDE NECESSARY SUPPORT AND BRACING.												

PLUMBING EQUIPMENT				
MARK	EQUIPMENT DESCRIPTION	EQUIPMENT MANUFACTURER	MODEL NUMBER	NOTES
WH-1	GAS WATER HEATER	BRADFORD WHITE	D-100T-199-38	COMMERCIAL FLUE DAMPER ELECTRONIC IGNITION GAS WATER HEATER (98 GAL). 120-1, 5 AMPS. PROVIDE DISCONNECT, 194 GPH RECOVERY AND 100 DEG. RISE.
WH-2	GAS WATER HEATER	BRADFORD WHITE	D-100T-199-38	COMMERCIAL FLUE DAMPER ELECTRONIC IGNITION GAS WATER HEATER (98 GAL). 120-1, 5 AMPS. PROVIDE DISCONNECT, 194 GPH RECOVERY AND 100 DEG. RISE.
WH-3	GAS WATER HEATER	BRADFORD WHITE	RG250H6N	ATMOSPHERIC VENT HIGH INPUT RESIDENTIAL GAS WATER HEATER (48 GAL). 120-1, 5 AMPS. PROVIDE DISCONNECT, 70 GPH RECOVERY AND 90 DEG. RISE.
ET-1	EXPANSION TANK	AMTROL	ST-12C-DD	DIAPHRAGM TANK TYPE, 150 PSI AND 120F DESIGN , NSF CERTIFIED. TANK VOLUME 4.4 GALLONS, TANK ACCEPTANCE FACTOR 0.73. WEIGHT LBS. (DRY) 9.
ET-2	EXPANSION TANK	AMTROL	ST-12C-DD	DIAPHRAGM TANK TYPE, 150 PSI AND 120F DESIGN , NSF CERTIFIED. TANK VOLUME 4.4 GALLONS, TANK ACCEPTANCE FACTOR 0.73. WEIGHT LBS. (DRY) 9.
ET-3	EXPANSION TANK	AMTROL	ST-449C	DIAPHRAGM TANK TYPE, 150 PSI AND 120F DESIGN , NSF CERTIFIED. TANK VOLUME 2.0 GALLONS, TANK ACCEPTANCE FACTOR 0.45. WEIGHT LBS. (DRY) 5.

PLUMBING FIXTURE CONNECTIONS										
MARK	FIXTURE DESCRIPTION	FIXTURE MANUFACTURER	MODEL NUMBER	CONNECTION SIZE			MINIMUM BRANCH SIZE			NOTES
				W	CW	HW	W	V	CW	HW
DF-1	DRINKING FOUNTAIN	ELKAY	EMABFTL8WSLK	2"	3/4"	-	2"	2"	3/4"	-
EW-1	EYE WASH	SAFETY MANUFACTURING	S0560	2"	1/2"	1/2"	2"	1-1/2"	1/2"	1/2"
FD-1	FLOOR DRAIN	J.R. SMITH	2005	2"	-	-	2"	1-1/2"	-	-
FS-1	FLOOR SINK	MIFAB	FS720-150	4"	-	-	2"	1-1/2"	-	-
FS-2	FLOOR SINK	MIFAB	FS730-150	3"	-	-	2"	1-1/2"	-	-
FS-3	FLOOR SINK	MIFAB	FS720-175	2"	-	-	2"	1-1/2"	-	-
HB-1	NON-FREEZE WALL HYDRANT	WOODFORD	B67	-	3/4"	-	-	-	3/4"	-
LV-1	LAVATORY	SLOAN	SS-3017	2"	1/2"	1/2"	2"	1-1/2"	1/2"	1/2"
MS-1	MOP SINK	ZURN	Z1996-36	2"	1/2"	1/2"	2"	1-1/2"	1/2"	1/2"
PRZ-1	PRESSURE REDUCING BACKFLOW PREVENTER	WATTS	LF009	-	1"	-	-	-	1"	-
RD-1	DUAL OUTLET ROOF DRAIN/OVERFLOW	WATTS	RD700	3"	-	-	3"	-	-	-
S-1	SINK	ELKAY	LRAD202255	2"	1/2"	1/2"	2"	1-1/2"	1/2"	1/2"
S-2	SINK	ELKAY	LRAD312260	2"	1/2"	1/2"	2"	1-1/2"	1/2"	1/2"
S-3	SINK	-	-	2"	1/2"	1/2"	2"	1-1/2"	1/2"	1/2"
TP-1	ELECTRONIC TRAP PRIMER	J.R. SMITH	270FM SERIES	-	1/2"	-	-	-	1/2"	-
TP-2	PRESSURE DIFFERENTIAL TRAP PRIMER	J.R. SMITH	2694	-	1/2"	-	-	-	1/2"	-
WB-1	WASHER BOX	SIOUX CHIEF	MODEL	2"	3/4"	3/4"	2"	1-1/2"	3/4"	3/4"
WC-1	WATER CLOSET	AMERICAN STANDARD	BABY DEVORO	3"	1/2"	-	3"	2"	1/2"	-
WC-2	ADA WATER CLOSET	AMERICAN STANDARD	BABY DEVORO ADA	3"	1/2"	-	3"	2"	1/2"	-
WC-3	WATER CLOSET	AMERICAN STANDARD	CADET 2467.016	3"	1/2"	-	3"	2"	1/2"	-



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OREGON / CALIFORNIA

BID AND PERMIT SET
KCC CHILDCARE LEARNING CENTER

PROJECT # - 20230862
KLAMATH COMMUNITY COLLEGE
7390 S. 6TH ST.
KLAMATH FALLS, OR 97603

SHEET TITLE:
SCHEDULES

REVISIONS:		
#	DESCRP.	DATE
1	ADD 4	08/29/2025

ISSUE DATE: 08/29/2025

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STORM CALCULATION						
STORM DRAIN AREA	ROOF AREA [FT ²]	SIDE WALL TRIBUTARY AREA [FT2]	ADJUSTED ROOF AREA [FT ²]	VERT RAIN LEADER Ø [IN]	HORIZ LEADER Ø [IN]	RAIN LEADER GPM
SDA-1	685	200	885	2	3	12.0
SDA-2	865	250	1115	2	3	15.1
SDA-3	515	140	655	2	3	8.8
NOTES: 1. HORIZONTAL DIAMETERS ARE BASED ON 1/8 IN/FT SLOPE. 2. RAINFALL RATE BASED ON 1.3 IN/H.						

DFU CALCULATIONS						
MARK	FIXTURE GROUP	OCC. TYPE	QTY.	MIN TRAP SIZE	DFU EACH	TOT. DFU
SECTION 'A'						
<u>S-1</u>	SINK KITCHEN, DOMESTIC	PUBLIC	16	1-1/2"	2	32
<u>S-2</u>	SINK KITCHEN, DOMESTIC	PUBLIC	16	1-1/2"	2	32
<u>S-3</u>	SINK WASH, EACH SET OF FAUCETS	PUBLIC	48	-	2	96
<u>LV-1</u>	LAVATORY, SINGLE	PUBLIC	9	1-1/4"	1	9
<u>WC-1</u>	WATER CLOSET, 1.6 GPF FLUSHOMETER TANK	PUBLIC	8	3"	4	32
<u>WC-2</u>	WATER CLOSET, 1.6 GPF FLUSHOMETER TANK	PUBLIC	8	3"	4	32
<u>WC-3</u>	WATER CLOSET, 1.6 GPF FLUSHOMETER VALVE	PUBLIC	1	3"	4	4
<u>MS-1</u>	SINK SERVICE OR MOP BASIN	PUBLIC	1	2"	3	3
<u>WB-1</u>	CLOTHES WASHER, DOMESTIC, STANDPIPE	PUBLIC	3	2"	3	9
<u>FS-1</u>	FLOOR DRAIN	PUBLIC	1	2"	2	2
<u>FD-1</u>	FLOOR DRAIN, EMERGENCY	PUBLIC	11	2"	0	0
SECTION 'B'						SUBTOTAL
<u>DF-1</u>	DRINKING FOUNTAIN OR WATER COOLER	PUBLIC	1	1-1/4"	0.5	0.5
<u>S-1</u>	SINK KITCHEN, DOMESTIC	PUBLIC	8	1-1/2"	2	16
<u>S-2</u>	SINK KITCHEN, DOMESTIC	PUBLIC	8	1-1/2"	2	16
<u>S-3</u>	SINK WASH, EACH SET OF FAUCETS	PUBLIC	21	-	2	42
<u>LV-1</u>	LAVATORY, SINGLE	PUBLIC	7	1-1/4"	1	7
<u>WC-1</u>	WATER CLOSET, 1.6 GPF FLUSHOMETER TANK	PUBLIC	4	3"	4	16
<u>WC-2</u>	WATER CLOSET, 1.6 GPF FLUSHOMETER TANK	PUBLIC	4	3"	4	16
<u>WC-3</u>	WATER CLOSET, 1.6 GPF FLUSHOMETER TANK	PUBLIC	3	3"	4	12
<u>FD-1</u>	FLOOR DRAIN, EMERGENCY	PUBLIC	8	2"	0	0
						SUBTOTAL
						125.5
GREASE INTERCEPTOR CALCULATIONS						
MARK	FIXTURE GROUP	OCC. TYPE	QTY	MIN TRAP SIZE	DFU EACH	TOT. DFU
<u>FS-1</u>	INDIRECT WASTE RECEPTOR	-	-	4"	8	8
-	SINK WASH, EACH SET OF FAUCETS	PUBLIC	4	-	2	-
<u>FS-2</u>	INDIRECT WASTE RECEPTOR	-	-	1-1/2"	2	2
-	COMMERCIAL DISHWASHER	PUBLIC	1	-	2	-
<u>FS-3</u>	INDIRECT WASTE RECEPTOR	-	-	3"	6	6
-	SINK WASH, EACH SET OF FAUCETS	PUBLIC	3	-	2	-
<u>FD-1</u>	FLOOR DRAIN, EMERGENCY	PUBLIC	2	2"	0	0
						GREASE WASTE SUBTOTAL
						16
						SITE WASTE TOTAL
						414.5
NOTES: 1.						

WATER SERVICE CALCULATIONS							
MARK	FIXTURE GROUP	OCC. TYPE	QTY	CW WSFU EACH	HW WSFU EACH	TOT. HW WSFU	TOT. CW WSFU
SECTION 'A'							
<u>S-1</u>	SINK, KITCHEN, DOMESTIC	PUBLIC	16	1.5	1.125	18	24
<u>S-2</u>	SINK, KITCHEN, DOMESTIC	PUBLIC	16	1.5	1.125	18	24
<u>S-3</u>	SINK, WASHUP, EACH SET OF FAUCETS	PUBLIC	48	2	1.5	72	96
<u>LV-1</u>	LAVATORY	PUBLIC	9	1	0.75	6.75	9
<u>WC-1</u>	WATER CLOSET, 1.6 GPF FLUSHOMETER TANK	PUBLIC	8	2.5	0	0	20
<u>WC-2</u>	WATER CLOSET, 1.6 GPF FLUSHOMETER TANK	PUBLIC	8	2.5	0	0	20
<u>WC-3</u>	WATER CLOSET, 1.6 GPF FLUSHOMETER VALVE	PUBLIC	1	5	0	0	5
<u>MS-1</u>	SINK, SERVICE OR MOP BASIN	PUBLIC	1	3	2.25	2.25	3
<u>WB-1</u>	CLOTHES WASHER	PUBLIC	3	4	3	9	12
<u>HB-1</u>	HOSE BIBB	PUBLIC	1	2.5	0	0	2.5
<u>HB-1</u>	HOSE BIBB, EACH ADDITIONAL	PUBLIC	5	1	0	0	5
SECTION 'B'						SUB TOTAL	126
<u>DF-1</u>	DRINKING FOUNTAIN OR WATER COOLER	PUBLIC	1	0.5	0	0	0.5
<u>S-1</u>	SINK, KITCHEN, DOMESTIC	PUBLIC	8	1.5	1.125	9	12
<u>S-2</u>	SINK, KITCHEN, DOMESTIC	PUBLIC	8	1.5	1.125	9	12
<u>S-3</u>	SINK, WASHUP, EACH SET OF FAUCETS	PUBLIC	21	2	1.5	31.5	42
<u>LV-1</u>	LAVATORY	PUBLIC	7	1	0.75	5.25	7
<u>WC-1</u>	WATER CLOSET, 1.6 GPF FLUSHOMETER TANK	PUBLIC	4	2.5	0	0	10
<u>WC-2</u>	WATER CLOSET, 1.6 GPF FLUSHOMETER TANK	PUBLIC	4	2.5	0	0	10
<u>WC-3</u>	WATER CLOSET, 1.6 GPF FLUSHOMETER VALVE	PUBLIC	3	5	0	0	15
<u>HB-1</u>	HOSE BIBB, EACH ADDITIONAL	PUBLIC	4	1	0	0	4
KITCHEN						SUB TOTAL	#N/A
-	DISHWASHER, COMMERCIAL	PUBLIC	1	1.5	1.125	1.125	1.5
-	SINK, KITCHEN, DOMESTIC	PUBLIC	6	1.5	1.125	6.75	9
-	SINK, BAR	PUBLIC	1	2	1.5	1.5	2
						SUB TOTAL	#N/A
						9.375	12.5
						BUILDING TOTAL WSFU:	190.125
						345.5	
						SYSTEM TYPE:	Flush Valves
						TOTAL WSFU FLOW:	#####
						117.3 GPM	
FLOW AND PRESSURE CALCULATIONS							
DESIGN FLOW RATE							117.3 GPM
SITE WATER SUPPLY DESIGN INFORMATION							
DAILY SITE SERVICE PRESSURE							55.0 PSIG
TOTAL EQUIVALENT PIPE LENGTH FROM METER TO POC 5 FEET FROM BUILDING							275.0 FT
MAIN SIZE FROM WATER METER TO POC 5 FEET FROM BUILDING							3" IN
A) PRESSURE LOSS FROM PIPING AT DESIGN FLOW RATE FROM WATER METER TO POC 5 FEET FROM BUILDING							3.5 PSIG
B) WATER METER PRESSURE LOSS							2" METER
							3.5 PSIG
C) BACKFLOW PREVENTER PRESSURE LOSS							3" BACKFLOW
							3.5 PSIG
D) STATIC (GRAVITY) HEAD REQUIRED FROM WATER METER TO POC 5 FEET FROM BUILDING							5.0 FT
							2.2 PSIG
TOTAL SITE LEVEL PRESSURE LOSS (A+B+C+D)							12.7 PSIG
BUILDING WATER SUPPLY DESIGN INFORMATION							
TOTAL PIPE LENGTH FROM POC 5 FEET FROM BUILDING TO MOST HYDRAULICALLY REMOTE FIXTURE							330.0 FT
TOTAL EQUIVALENT PIPE LENGTH FROM POC 5 FEET FROM BUILDING TO MOST HYDRAULICALLY REMOTE FIXTURE							400.0 FT
DAILY SERVICE PRESSURE AT POC 5 FEET FROM BUILDING (DAILY SITE SERVICE PRESSURE - TOTAL SITE LEVEL PRESSURE LOSS)							42.4 PSIG
PRV MAXIMUM PRESSURE SET POINT							NA
PRV ALLOWABLE FALLOFF PRESSURE LOSS							NA
DESIGN SERVICE PRESSURE AT BUILDING							42.4 PSIG
E) STATIC (GRAVITY) HEAD REQUIRED FROM POC 5 FEET FROM BUILDING TO MOST HYDRAULICALLY REMOTE FIXTURE							10.0 FT
F) HOT WATER MIXING VALVE PRESSURE DROP (IF MOST HYDRAULICALLY REMOTE FIXTURE HAS HOT WATER CONNECTION)							0.0 PSIG
TOTAL PRESSURE LOSS (E+F)							4.3 PSIG
REQUIRED RESIDUAL PRESSURE AT FURTHEST UNIT/FIXTURE							25.0 PSIG
AVAILABLE PRESSURE FOR PIPING							13.1 PSIG
SERVICE MAIN NOMINAL PIPE SIZE							3" IN
MAIN WATER SUPPLY LINE ALLOWABLE FRICTION LOSS							
AVAILABLE PIPING FRICTION LOSS							3 PSIG/100FT
AVAILABLE PIPING FRICTION LOSS							#####
NOTES: 1. SIZED IN ACCORDANCE WITH OPSC 2021, APPENDIX A. 2. CONTRACTOR SHALL VERIFY SUPPLY PRESSURE, METER/BACKFLOW SIZE & TYPE AND REPORT ANY DISCREPANCIES TO ENGINEER. 3. METER PRESSURE LOSS BASED ON 2" XYLEM OMNI+ COMPOUND C2 WATER METER AT DESIGN FLOW RATE. 4. BACKFLOW PREVENTER PRESSURE LOSS BASED ON 3" WATTS MASTERSERIES LF850 AT DESIGN FLOW RATE.							



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KCC CHILDCARE LEARNING
CENTER

PROJECT # : 20230862
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7390 S. 6TH ST.
KLAMATH FALLS, OR
97603

SHEET TITLE:
CALCULATIONS

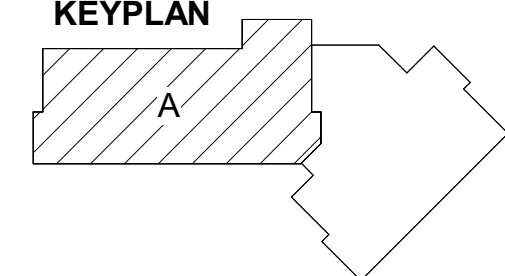
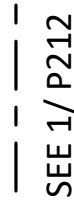
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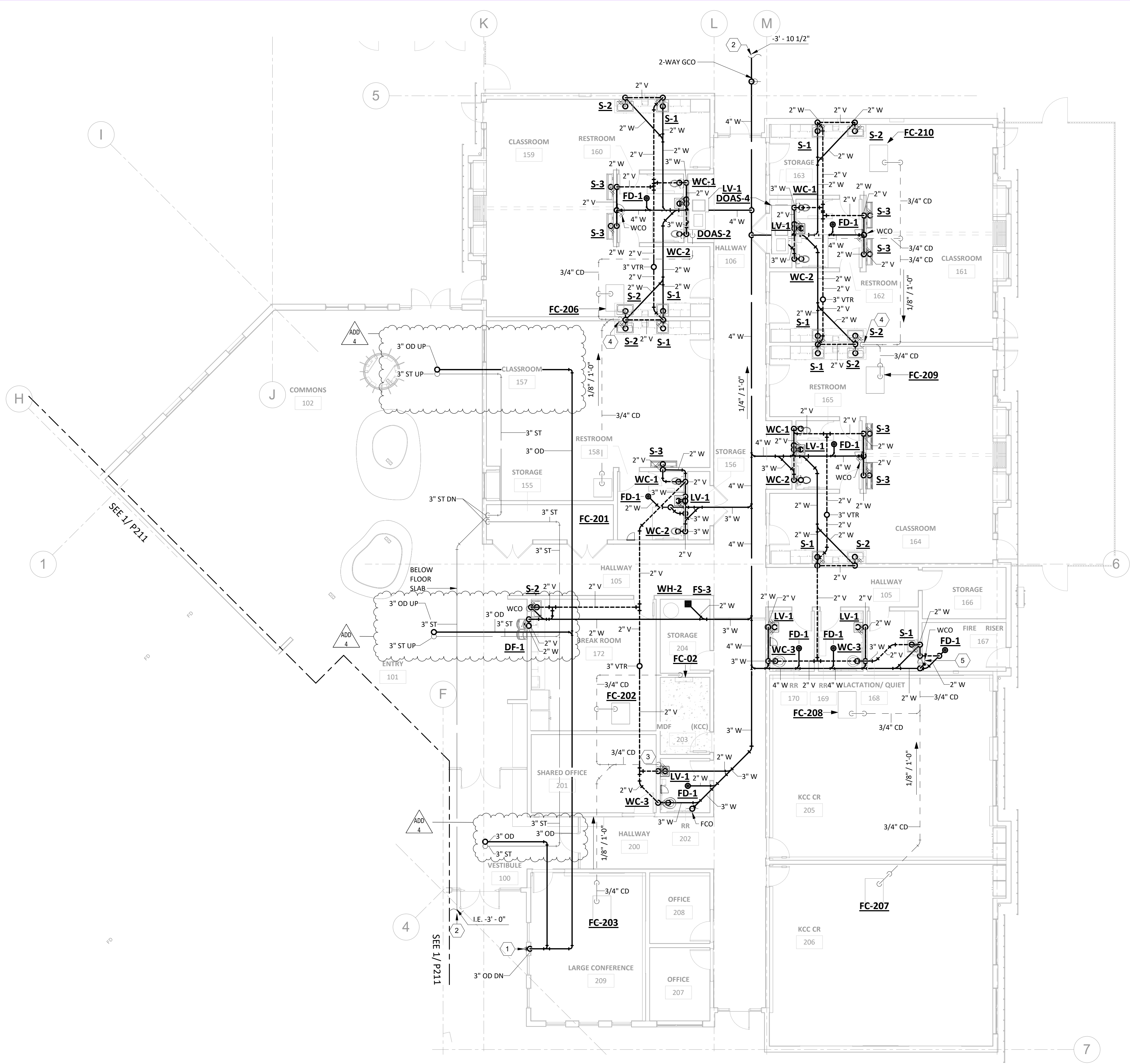
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(E


$$1/8'' = 1'-0''$$



GENERAL PLUMBING NOTES:

- A. COORDINATE ALL BELOW GRADE PLUMBING ROUTING WITH STRUCTURAL ENGINEER PRIOR TO INSTALLATION.

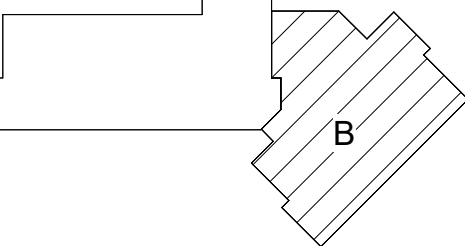
KEY NOTES

1. 3" DOWNSPOUT, MOUNT 18" ABOVE GRADE.
2. SEE CIVIL FOR CONTINUATION
3. ROUTE CONDENSATE TO LV-1 TAILPIECE.
4. ROUTE CONDENSATE TO S-2 TAILPIECE.
5. ROUTE CONDENSATE TO S-1 TAILPIECE.

1 FLOOR PLAN SECTOR 'B' WASTE - PLUMBING
P212 1/8" = 1'-0"



KEYPLAN



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KCC CHILDCARE LEARNING CENTER

PROJECT #: 20230862
KLAMATH COMMUNITY COLLEGE
7390 S. 6TH ST.
KLAMATH FALLS, OR 97603

SHEET TITLE:

FLOOR PLAN
SECTOR B
WASTE -
PLUMBING

REVISIONS:

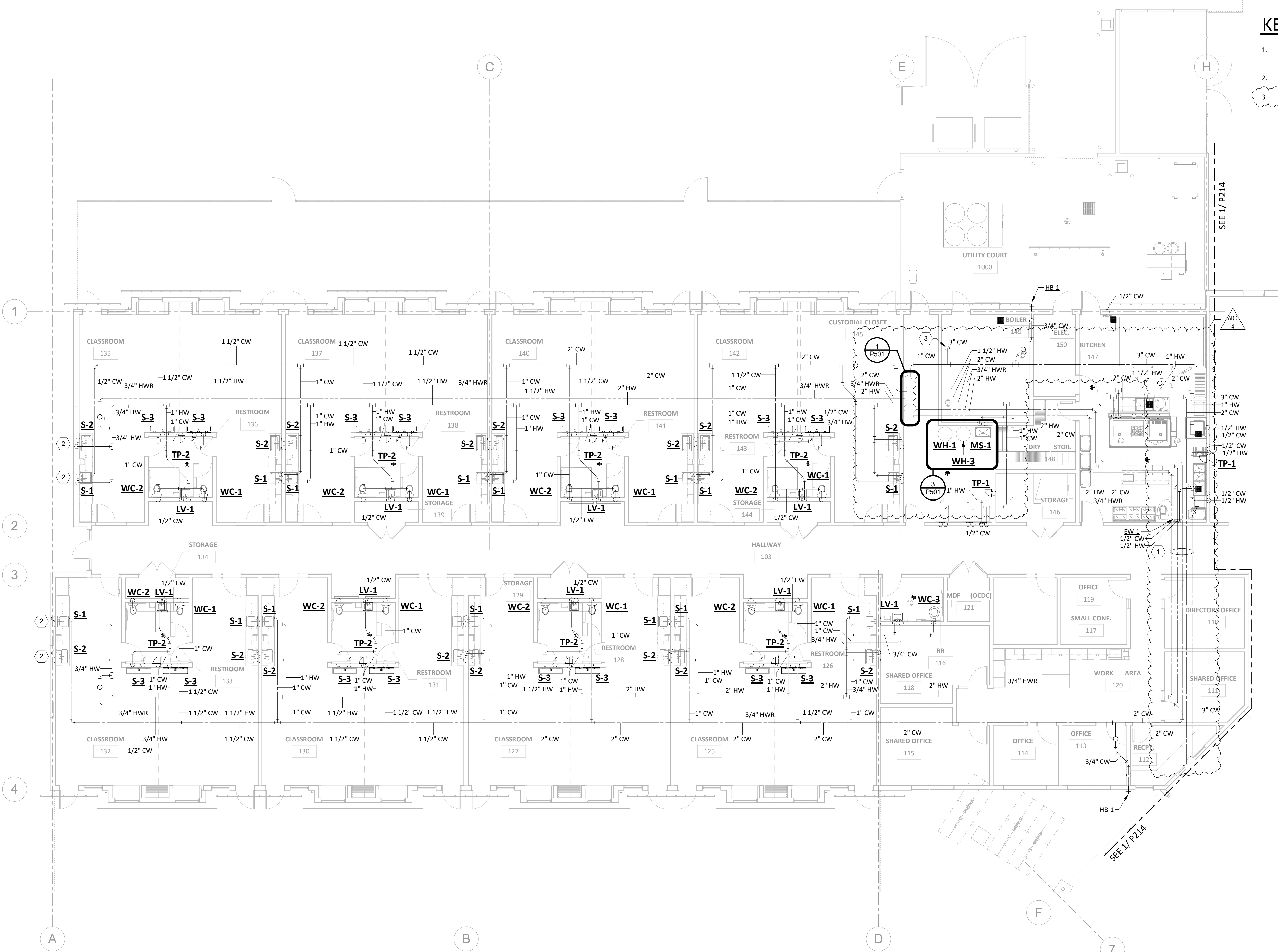
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P212



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KEY NOTES

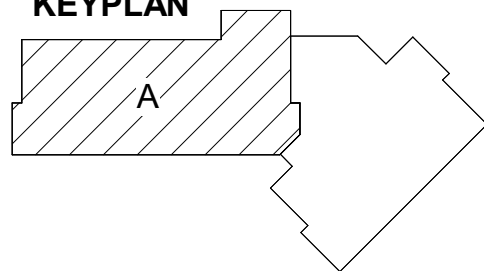
- COORDINATE CROSSING LOCATION WITH MECHANICAL HYDRONIC PIPING AND ARCHITECT PRIOR TO INSTALLATION.
- PROVIDE HEAT TRACE ON ALL HW AND CW LINES WITHIN EXTERIOR WALLS.
- 1" CW DOWN. SEE 8/P601 FOR FURTHER DETAIL.

ADD 4

SEE 1/P214

SEE 1/P214

KEYPLAN



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P213

FLOOR PLAN SECTOR 'A' WATER - PLUMBING

1/8" = 1'-0"



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CENTER

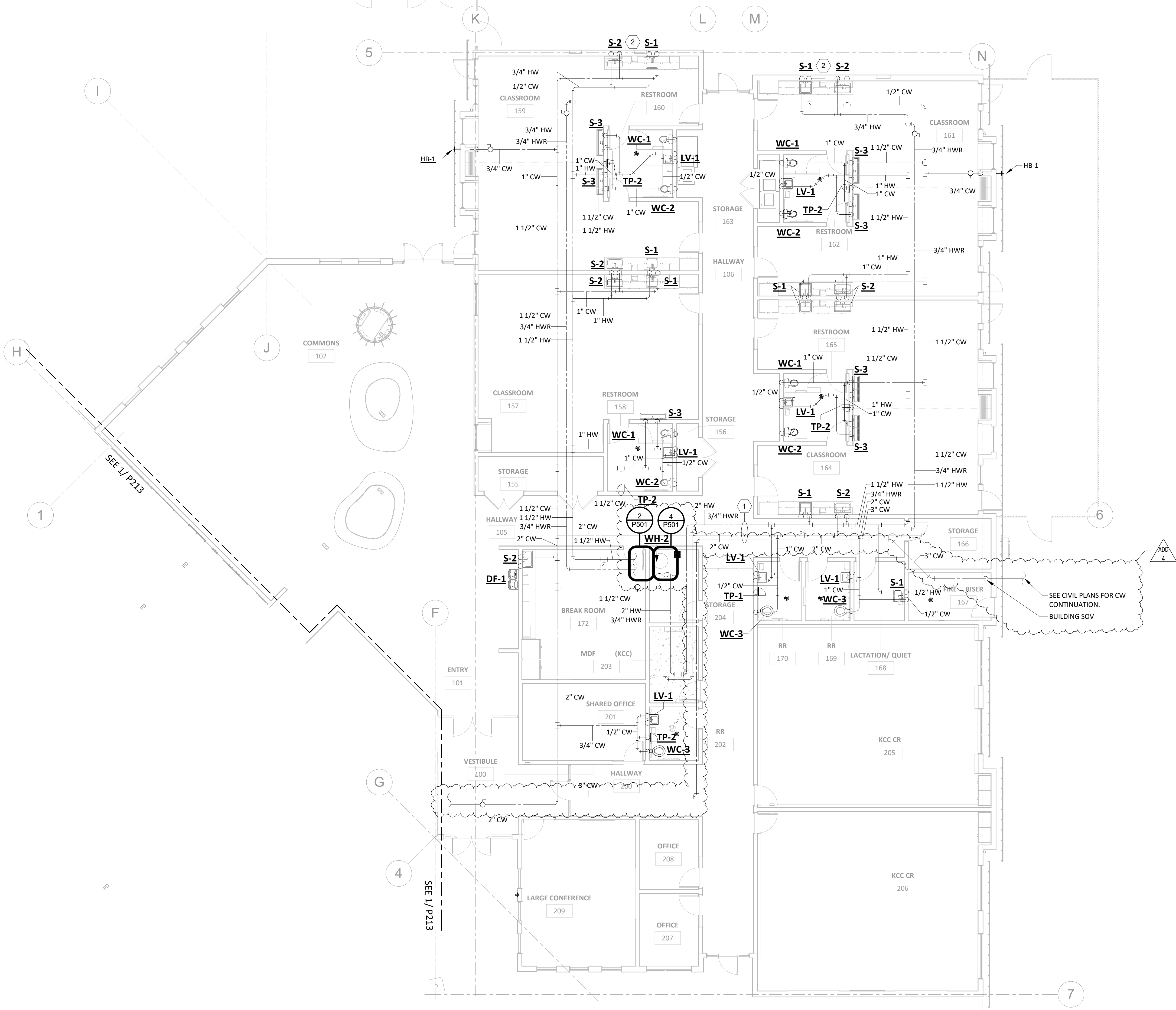
PROJECT #: 20230862
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97603

SHEET TITLE:
FLOOR PLAN
SECTOR A
WATER -
PLUMBING

REVISIONS:		
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1	ADD 4	08/29/2025

ISSUE DATE: 08/29/2025

P213



KEY NOTES

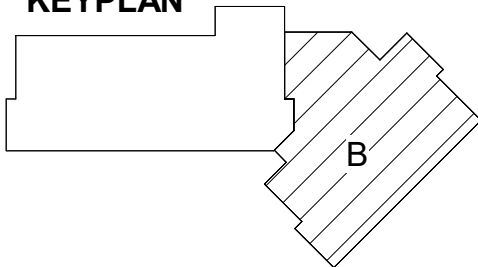
- COORDINATE CROSSING LOCATION WITH MECHANICAL HYDRONIC PIPING AND ARCHITECT PRIOR TO INSTALLATION.
- PROVIDE HEAT TRACE ON ALL HW AND CW LINES WITHIN EXTERIOR WALLS.

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P214

FLOOR PLAN SECTOR 'B' WATER - PLUMBING

1/8" = 1'-0"

KEYPLAN



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KCC CHILDCARE LEARNING
CENTER

PROJECT #: 20230862
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7390 S. 6TH ST.
KLAMATH FALLS, OR
97603

SHEET TITLE:

FLOOR PLAN
SECTOR B
WATER -
PLUMBING

REVISIONS:

#	DESCRP.	DATE
1	ADD 4	08/29/2025

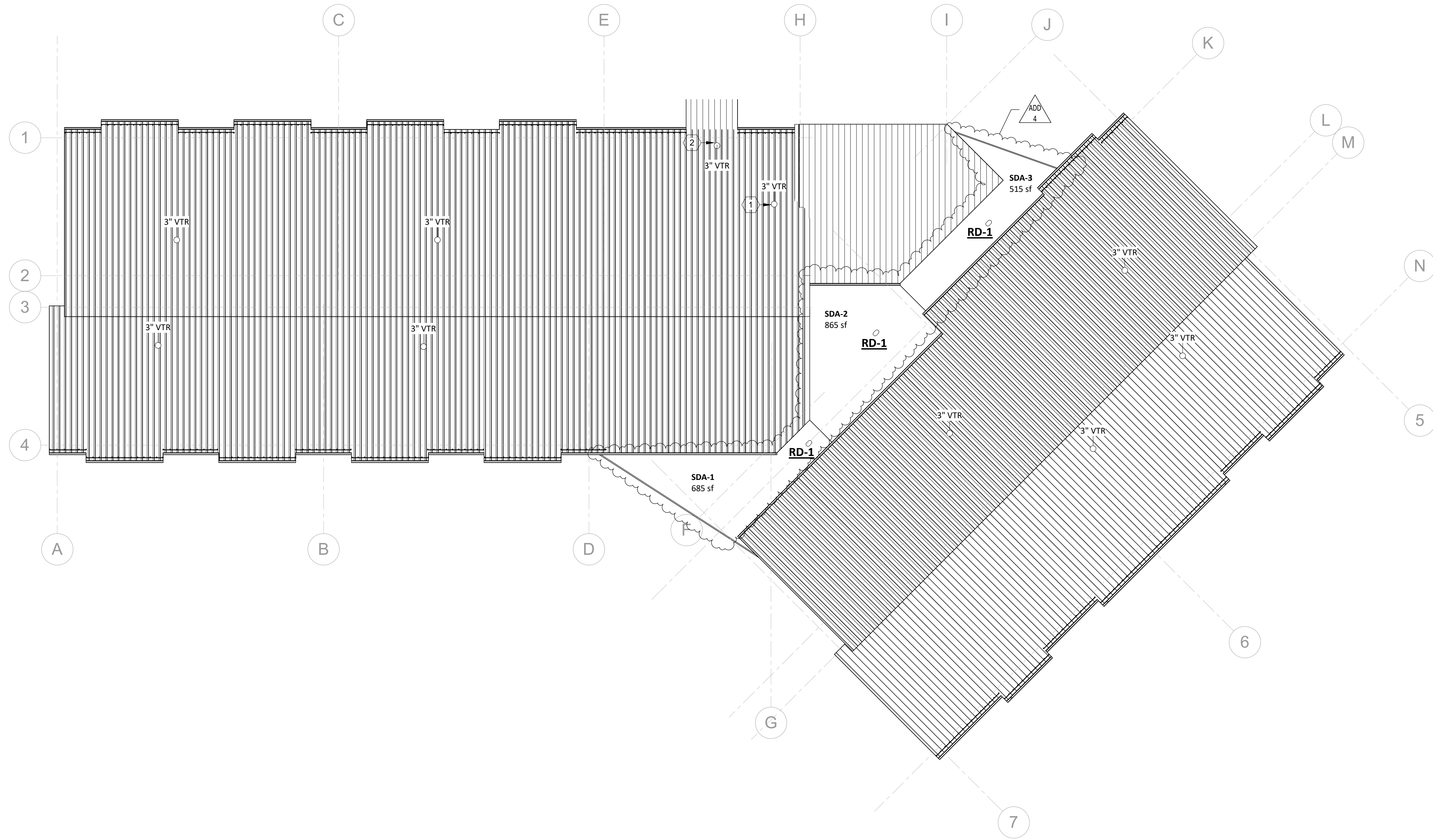
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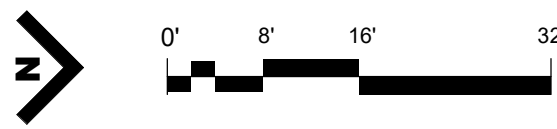
PIVOT
ARCHITECTURE



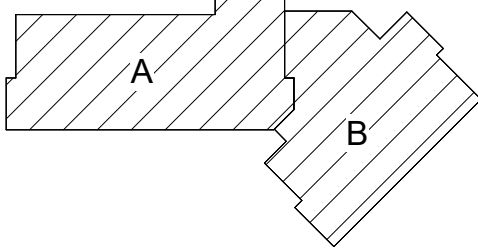
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P231

ROOF - PLUMBING

1/16" = 1'-0"



KEYPLAN



KEY NOTES

- GREASE WASTE VENT, DO NOT COMBINE WITH ANY OTHER VENTING SYSTEM.
- GREASE INTERCEPTOR VENT, DO NOT COMBINE WITH ANY OTHER VENTING SYSTEM.

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KCC CHILDCARE LEARNING CENTER
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7390 S. 6TH ST.
KLAMATH FALLS, OR 97603

SHEET TITLE:
ROOF - PLUMBING

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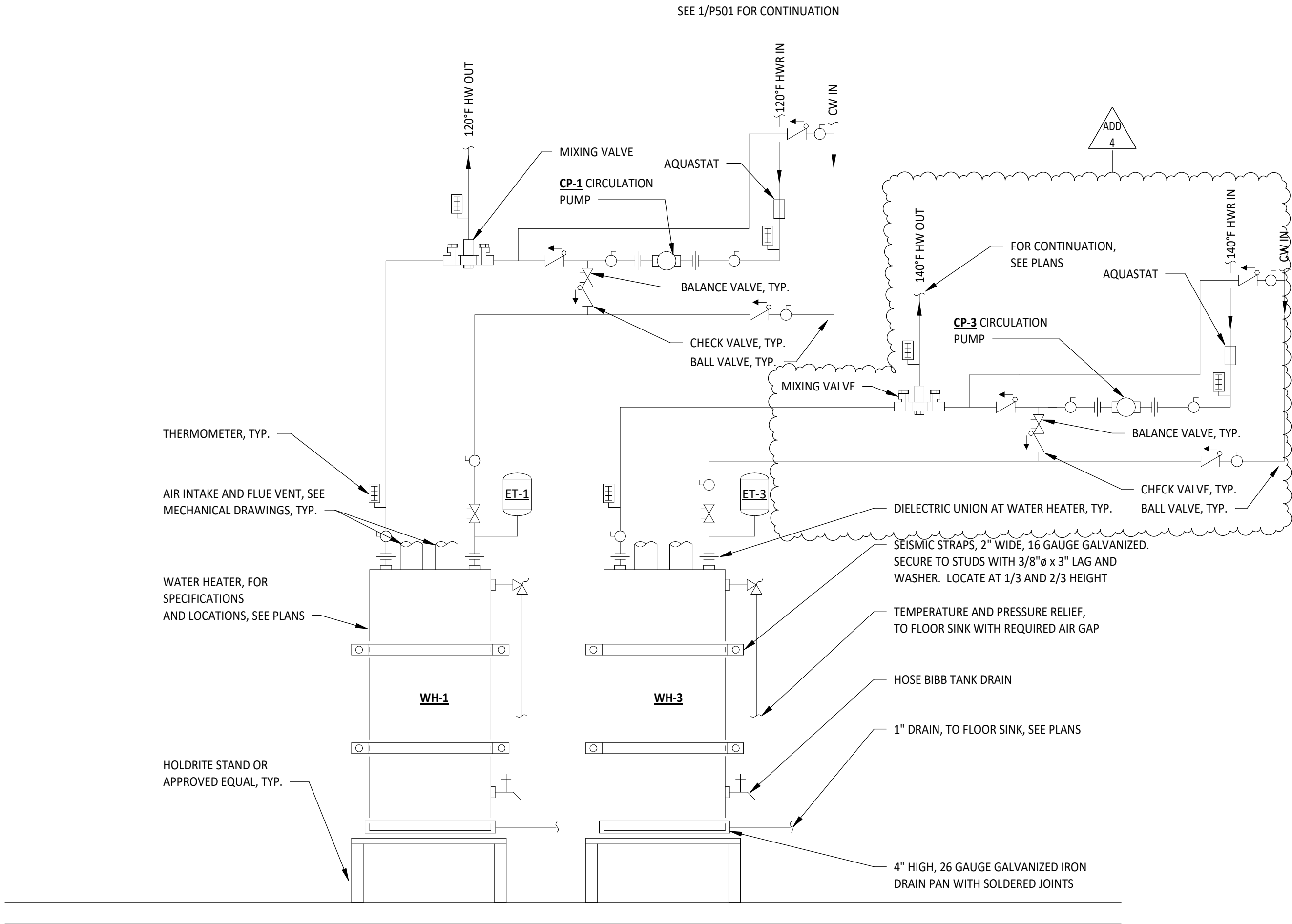
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P231



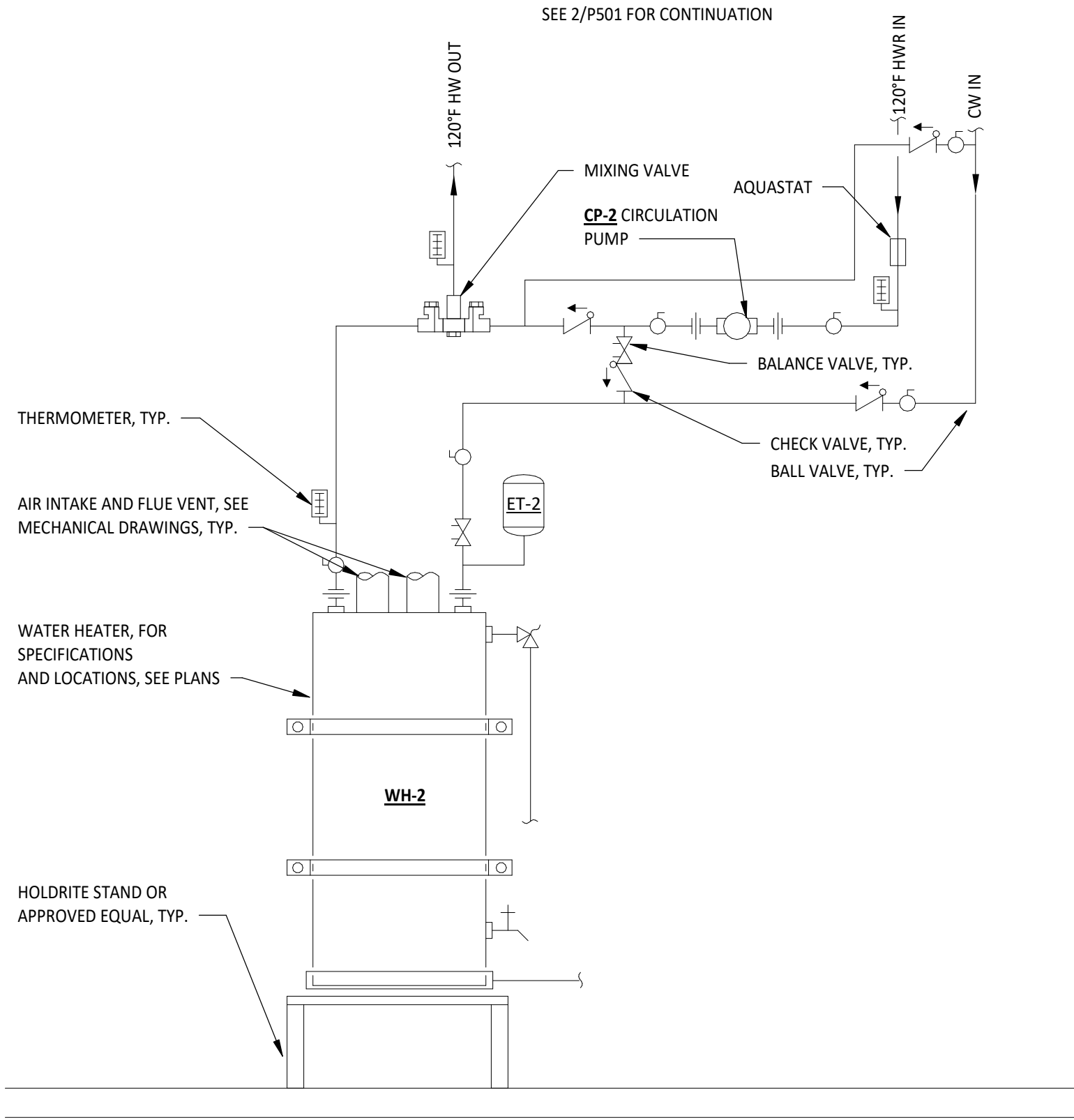
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PIVOT
ARCHITECTURE



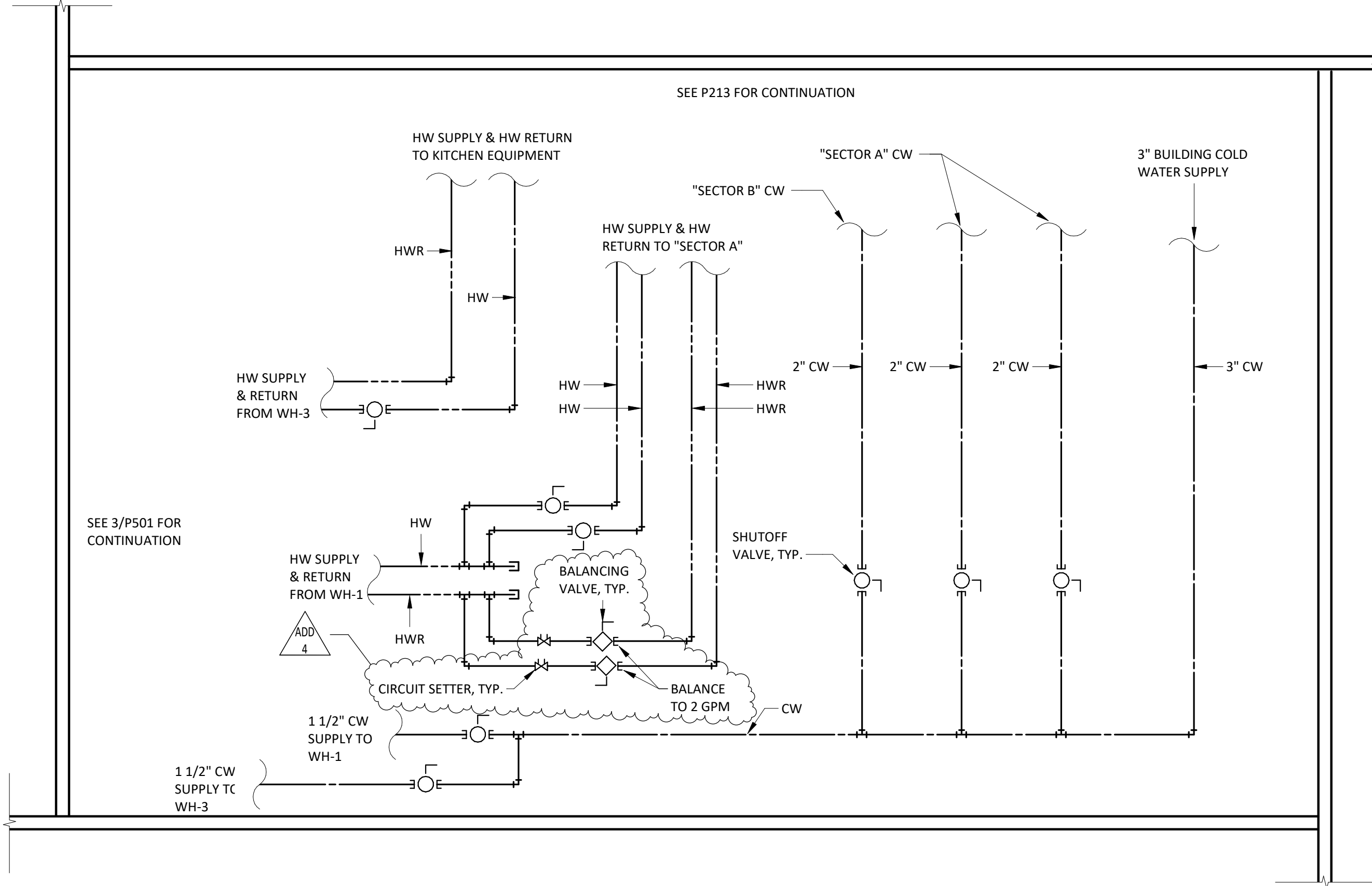
WATER HEATER 1 & 3 SCHEMATIC

NTS



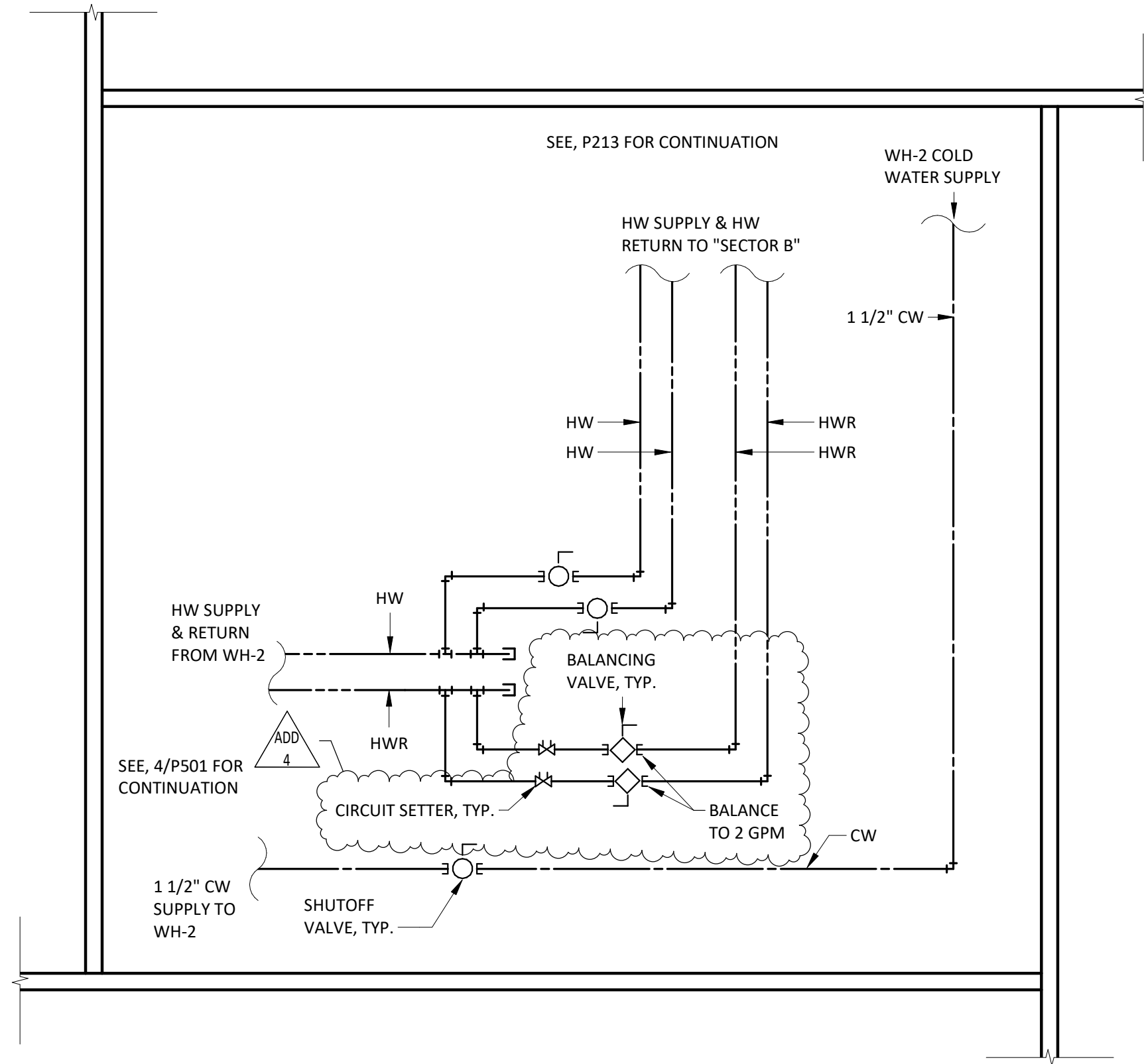
WATER HEATER 2 SCHEMATIC

NTS



CUSTODIAL CLOSET 145 PIPING DETAIL

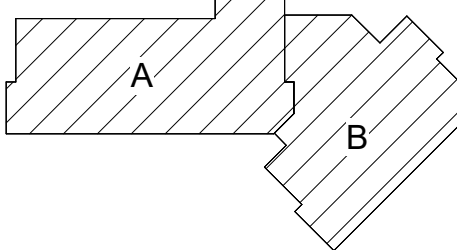
NTS

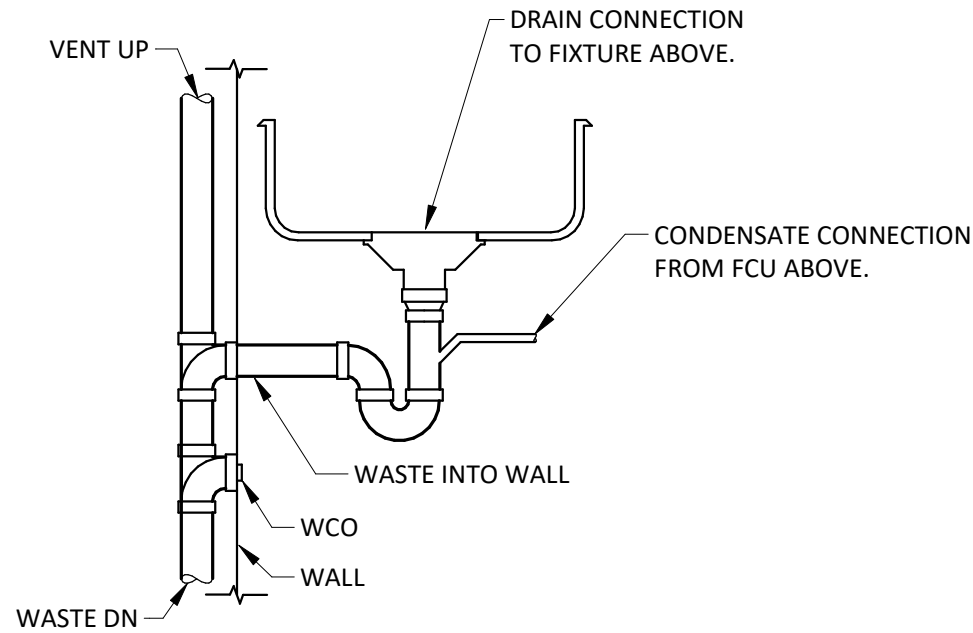


STORAGE 204 PIPING DETAIL

NTS

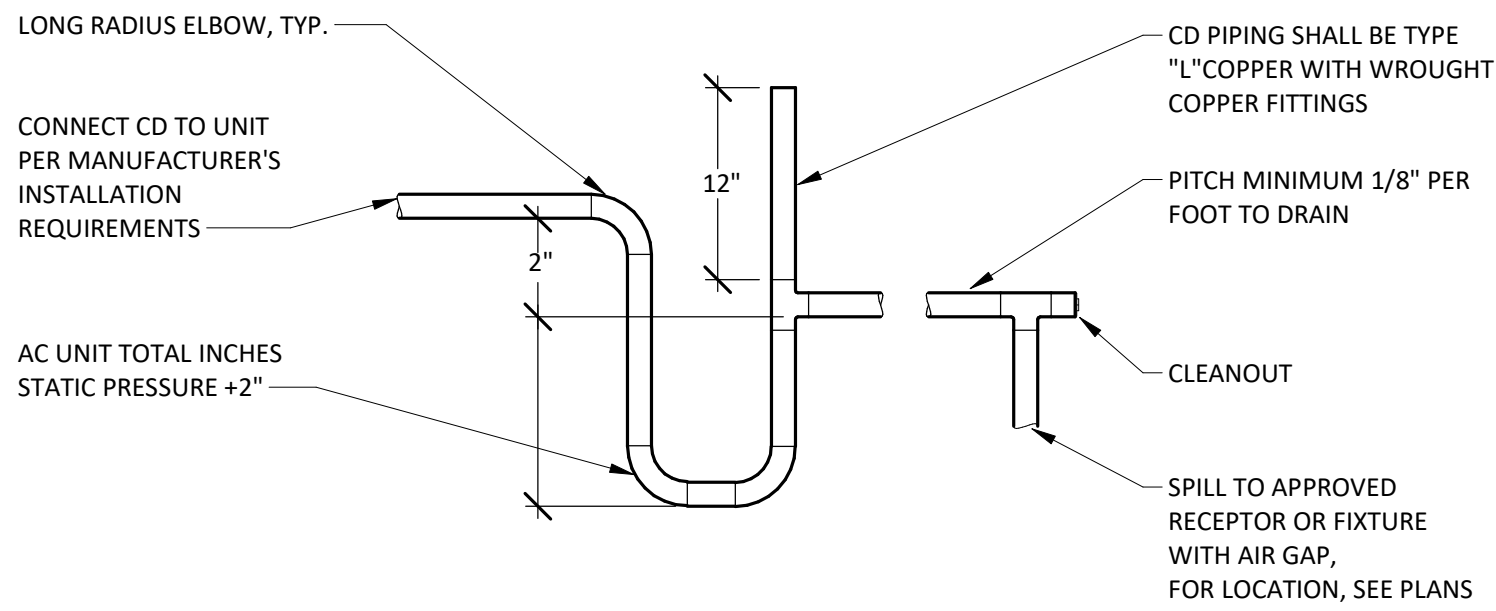
KEYPLAN





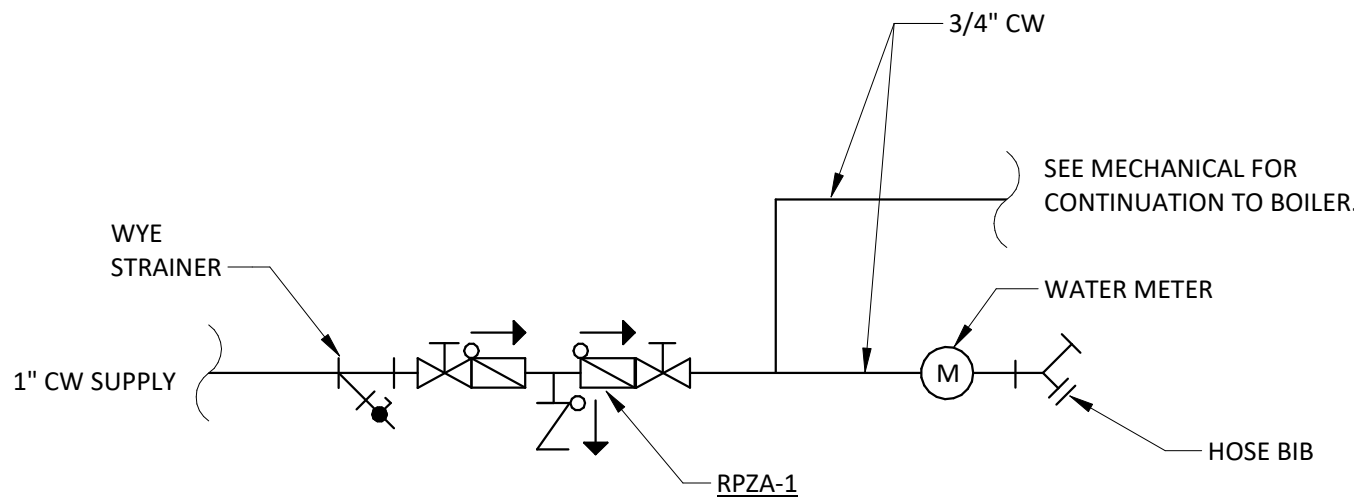
- NOTES:
1. INSTALL PER MANUFACTURER'S RECOMMENDATION
 2. ACTUAL CONFIGURATION MAY VARY WITH MANUFACTURER AND FIXTURE LOCATIONS
 3. MAY BE USED IN PLACE OF ROUTING CONDENSATE TO A MOP SINK OR FLOOR SINK

6 CONDENSATE TAILPIECE CONNECTION
P601 NTS



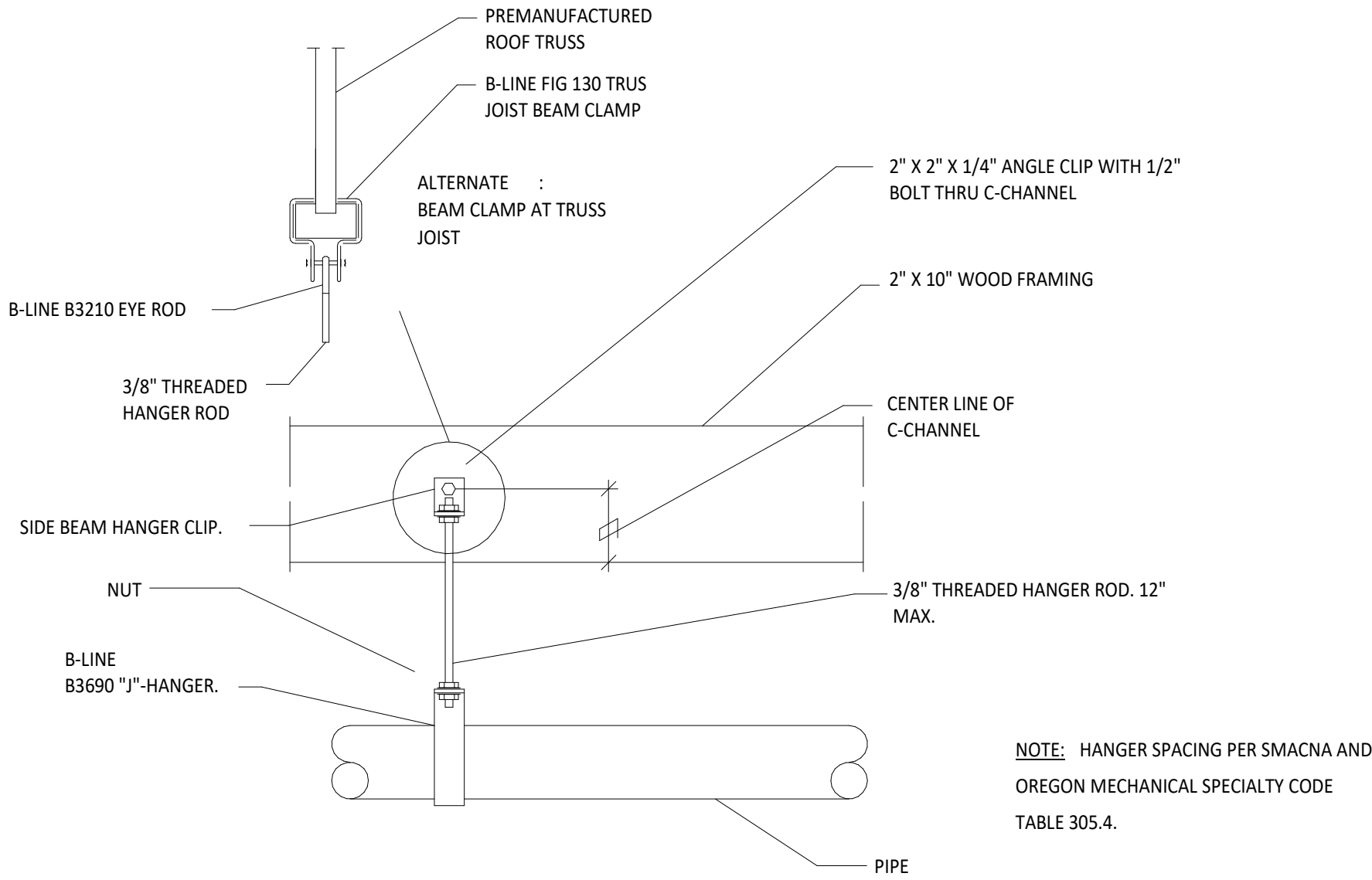
- NOTES:
1. CD PIPE SIZE SHALL NOT BE SMALLER THAN UNIT DRAIN CONNECTION SIZE.
 2. FOR PIPE SIZES AND LOCATIONS, SEE PLANS.

7 CONDENSATE TRAP
P601 NTS

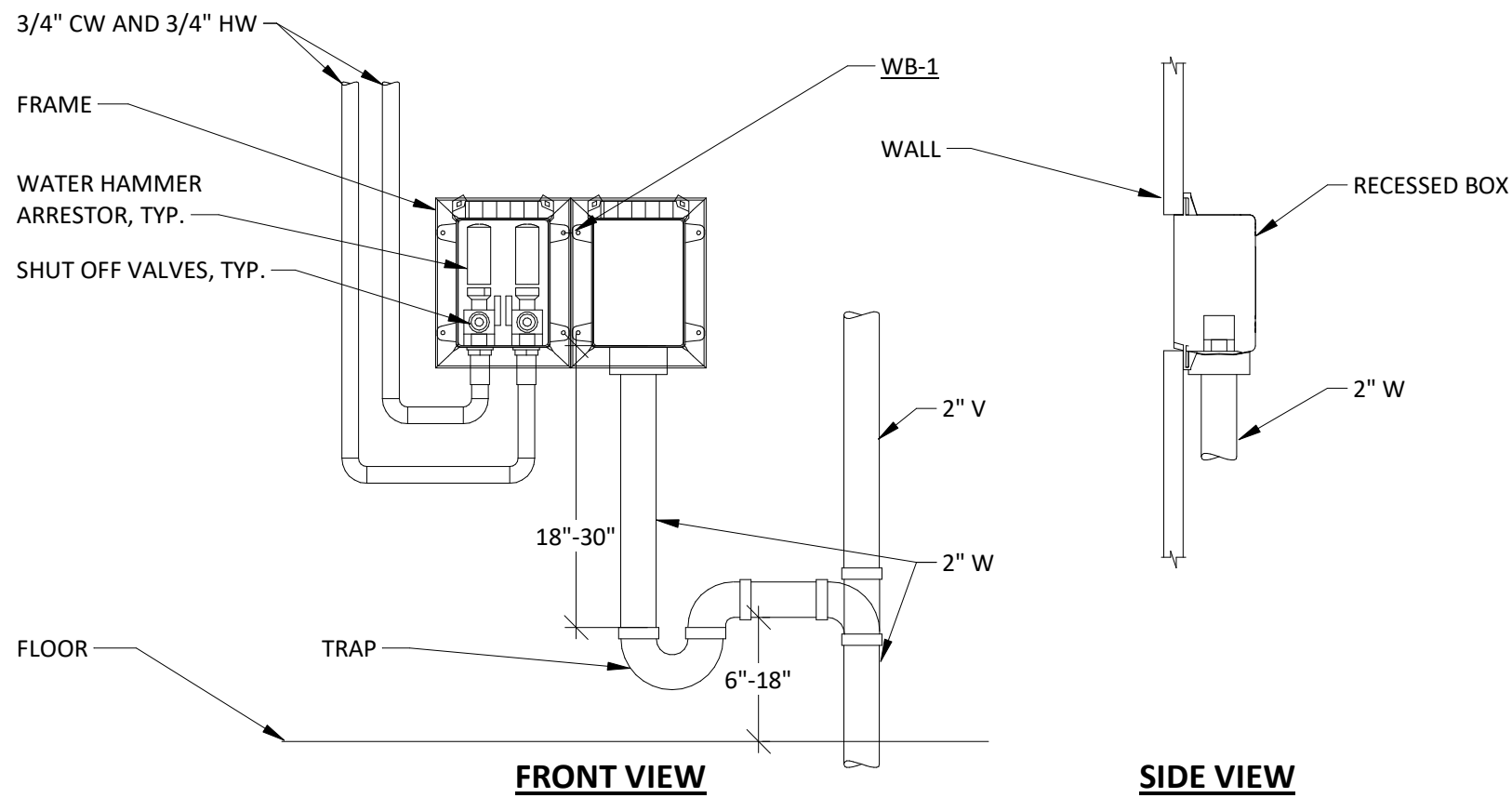


- NOTES:
1. ROUTE RPZA-1 DRAIN TO BOILER 149 FS-3. INCLUDE AIR BREAK FUNNEL DRAIN OPTION IN RPZA-1 SELECTION.

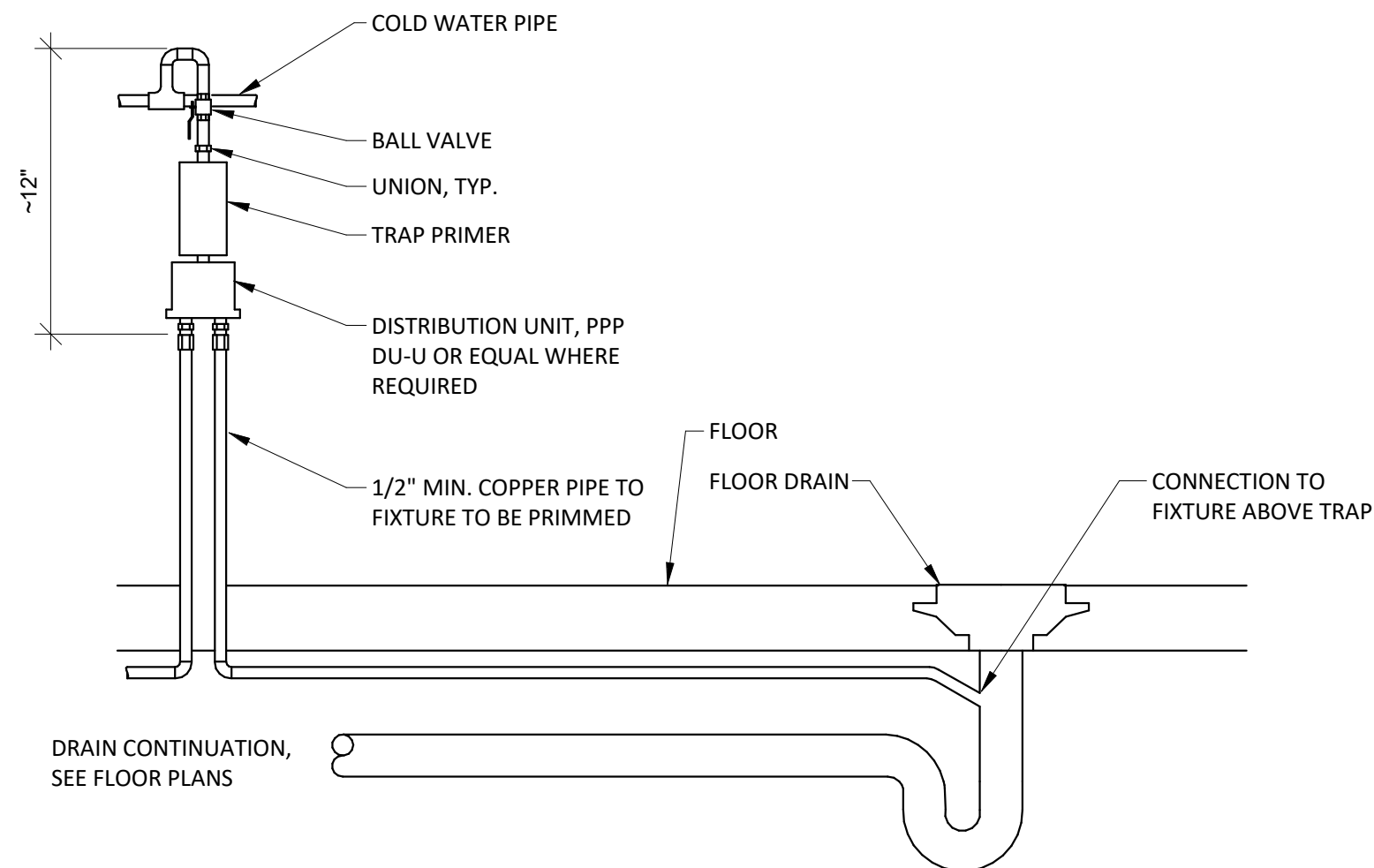
8 BOILER BACKLOW SCHEMATIC
P601 NTS



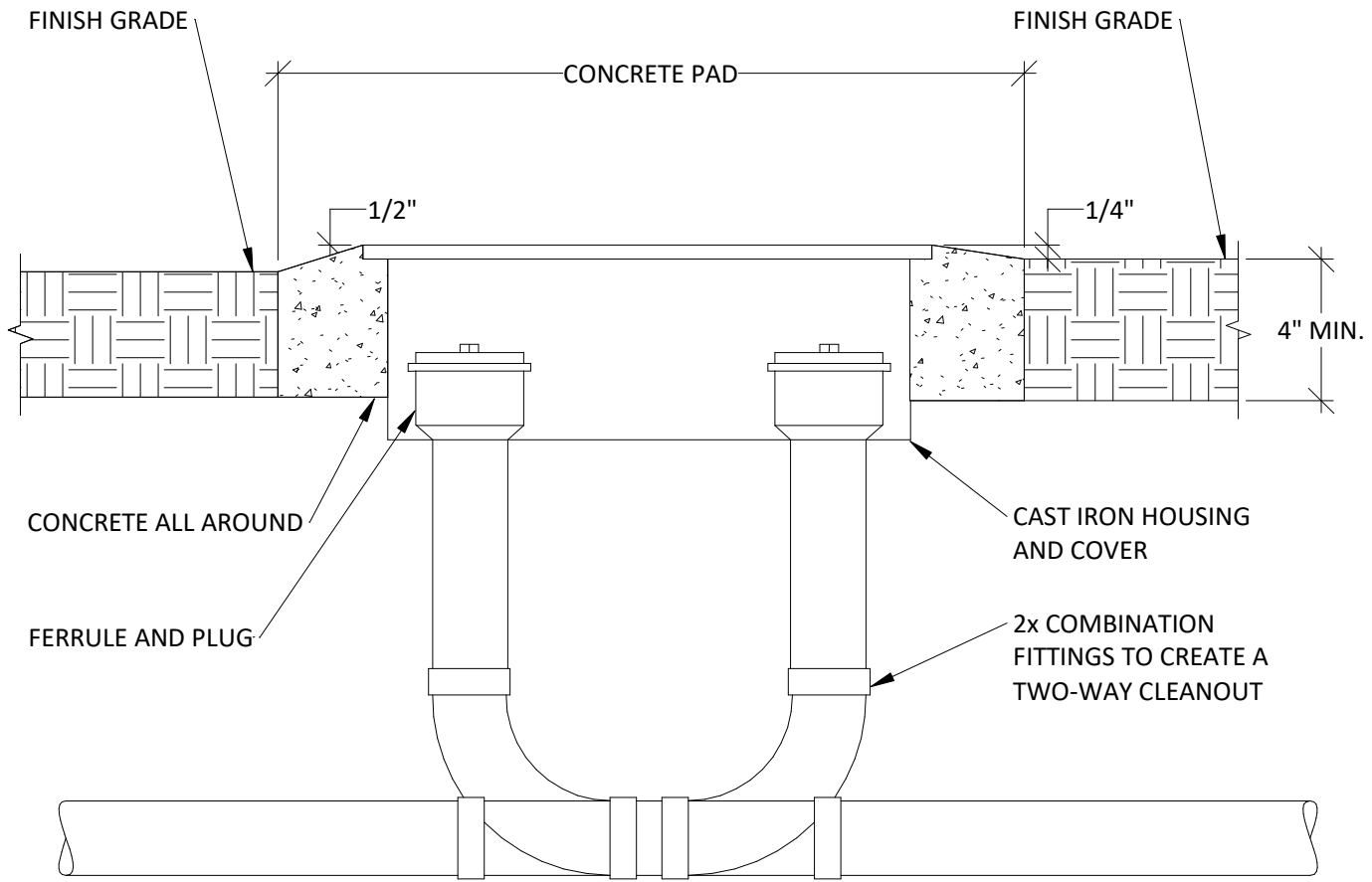
3 PIPE HANGER DETAIL
P601 NTS



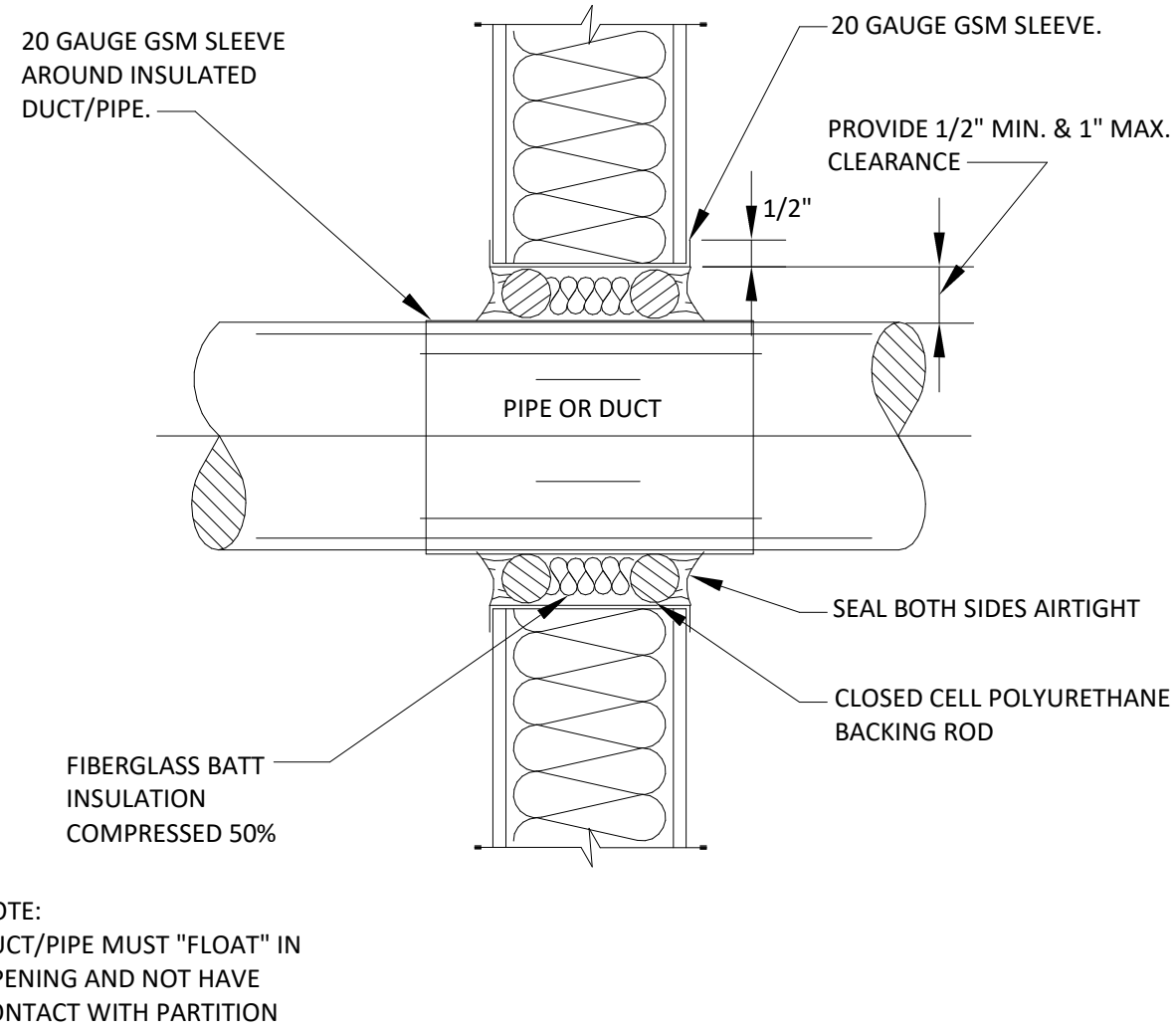
4 WASHING MACHINE CONNECTION
P601 NTS



5 TRAP PRIMER
P601 NTS



1 TWO-WAY CLEAN OUT
P601 NTS



2 PIPE THROUGH NON RATED PARTITION
P601 NTS

