

**WASTE & VENT PLAN** 1/4"=1'-0" **A**

- A. NO ROOF PENETRATIONS PERMITTED WITHIN ROOF WATER PLY. REFER TO ROOF PLAN FOR LOCATIONS.
- B. REFER TO RISER DIAGRAM ON SHEET P5.0 FOR ALL WASTE AND VENT SIZES.
- C. STORM WATER PIPING IS SIZED FOR A RAINFALL OF 4" PER HOUR. ADJUST ROOF DRAIN (RD-1) / OVERFLOW DRAIN (OD-1) SIZE, AND STORM PIPE SIZE, PER THE LOCAL RAINFALL REQUIREMENTS AND BY THE AUTHORITY HAVING JURISDICTION. SEE KEYNOTES 14 AND 15, THIS SHEET.
- D. INSULATE ALL HORIZONTAL RUNS OF STORM DRAINAGE PIPING ABOVE THE CEILING OR EXPOSED WITH 1" CLOSED CELLULAR INSULATION WITH VAPOR BARRIER JACKET THAT CAN BE PAINTED.
- E. COORDINATE LOCATION OF STORM WATER PIPING ABOVE CEILING WITH ALL TRADES PRIOR TO INSTALLATION.

- 1 PROVIDE FLOOR SINK, IN LIEU OF HUB DRAIN, IF REQUIRED BY LOCAL CODE.
- 2 PROVIDE CONDENSATE LINE AND DRAIN LINE FROM ICE MACHINE TO FLOOR SINK. PROVIDE AIR GAP PER LOCAL CODE.
- 3 PROVIDE WASTE LINES FROM BEVERAGE UNIT TO FLOOR SINK. PROVIDE AIR GAP PER LOCAL CODE.
- 4 PROVIDE 3/4" COPPER CONDENSATE FROM DRAIN PROVIDED BY VENDOR TO RUN INSIDE WALL AND OUTFALL AT HUB DRAIN/FLOOR SINK AS PER COOLER MANUFACTURER (HEAT ROPE IS SUPPLIED W/ FREEZER CONDENSATE). EXPOSED PORTION OF CONDENSATE SHALL BE COPPER.
- 5 COPPER CONDENSATE DRAIN FROM HVAC UNITS ON ROOF, RUN ABOVE CEILING TO SINK/FLOOR SINK. PIPING SHALL SLOPE 1/4" PER FOOT AND SHALL BE INSULATED WITH 1" CLOSED CELLULAR INSULATION. REFER TO RISER DIAGRAM ON SHEET P5.0 FOR PIPE SIZES.
- 6 ENTIRE RUN OF DRAIN LINES TO INLET OF EXTERIOR GREASE INTERCEPTOR AND OULET OF INTERCEPTOR TO CONNECTION AT SANITARY MAIN SHALL BE SCHEDULE 40 PVC DWV OR AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
- 7 HEAT TRACE WASTE PIPING BELOW FREEZER/COOLER.

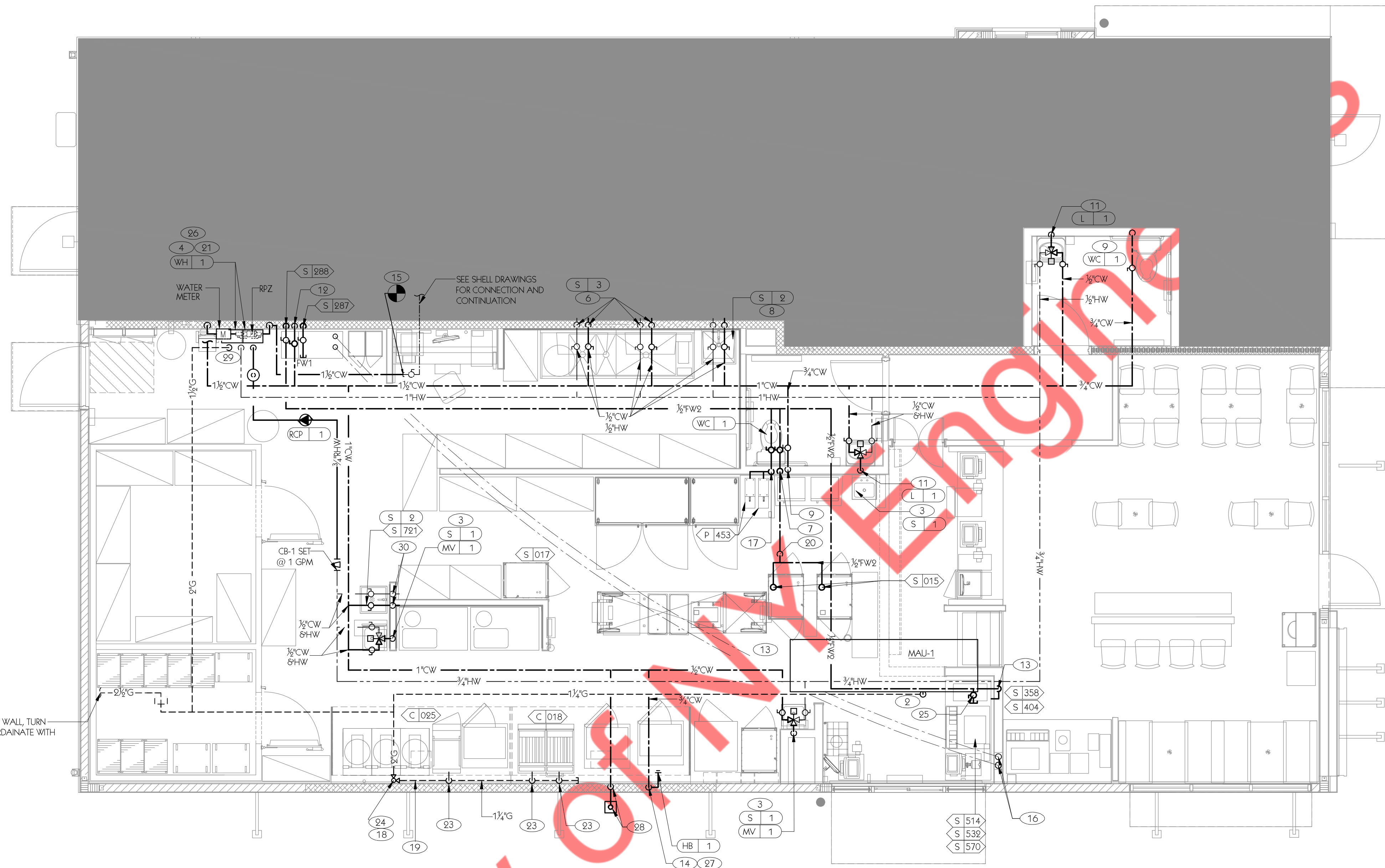
- 8 4" VENT UP THROUGH ROOF, COORDINATE W/ STRUCTURAL.
- 9 PIPE 3-COMPARTMENT SINK TO GREASE WASTE PIPING.
- 10 1-1/2" CONDENSATE DRAIN DOWN FROM RTU. SEE DETAIL 2 ON DWG. P6.0.
- 11 RUN DRAIN LINE FROM S/S DRINK MACHINE THRU WALL OPENING TO OUTFALL AT FLOOR SINK BENEATH D/T DRINK MACHINE.
- 12 WATER HEATER CONDENSATE. SEE DETAIL 6 / P6.0.
- 13 NOTE NOT USE.
- 14 4" STORM LINE FROM ROOF DRAIN, OVER TO AND DOWN INTERIOR WALL, TO BELOW SLAB. COORDINATE SLEEVE (IF REQUIRED) THROUGH FOUNDATION WITH STRUCTURAL. COORDINATE WITH CIVIL FOR CONTINUATION TO STORM LINE.
- 15 4" STORM LINE FROM OVERFLOW DRAIN, OVER TO AND DOWN EXTERIOR WALL, TO DOWNSPOUT NOZZLE. SEE SHEETS A4.0 AND A4.1 FOR COORDINATION.
- 16 CONNECT NEW GREASE SANITARY LINE TO EXISTING GREASE SANITARY LINE. CONTRACTOR TO VERIFY EXTERIOR GREASE TRAP SIZE AND LOCATION IN FIELD. SEE SHELL DRAWINGS FOR CONTINUATION.
- 17 CONNECT NEW SANITARY LINE TO EXISTING SANITARY LINE. CONTRACTOR TO VERIFY SIZE AND LOCATION IN FIELD. SEE SHELL DRAWINGS FOR CONTINUATION.

NOT USED **E**

NOT USED **D**

**WASTE & VENT PLAN NOTES** **C**

**KEY NOTES** **B**



RUN 2 1/2" GAS UP, WITHIN EXTERIOR WALL, TURN INTO BUILDING CEILING SPACE, COORDINATE WITH WALK-IN COOLER HEIGHT. (31)

**WATER & GAS PLAN** 1/4"=1'-0" **A**

- AS PER 2015 INTERNATIONAL ENERGY CONSERVATION CODE C404.4, PIPING FROM A WATER HEATER TO THE TERMINATION OF HEATED WATER FIXTURE SUPPLY PIPE SHALL BE INSULATED IN ACCORDANCE WITH TABLE OF MINIMUM PIPE INSULATION THICKNESS.

FLUID OPERATING TEMPERATURE RANGE AND USAGE (°F)	MINIMUM PIPE INSULATION THICKNESS		NOMINAL PIPE OR TUBE SIZE (INCHES)				
	INSULATION CONDUCTIVITY	MEAN RATING TEMPERATURE, °F					
			CONDUCTIVITY BTU-IN/(H·FT <sup>2</sup> ·°F)	<1	1 to <1 1/2	1 1/2 to <4	4 to <8
141-200	0.25-0.29	125	1.5	1.5	2	2	2
105-140	0.21-0.28	100	1.0	1.0	1.5	1.5	1.5
40-60	0.21-0.27	75	0.5	0.5	1.0	1.0	1.0

- HOT WATER SYSTEM PIPING IS DESIGNED AS PER MAXIMUM ALLOWED PIPE LENGTH METHOD AS PER 2015 INTERNATIONAL ENERGY CONSERVATION CODE C404.5. THE HOT WATER VOLUME FROM THE NEAREST SOURCE OF HEATED WATER TO THE TERMINATION OF THE FIXTURE SUPPLY PIPE SHALL BE AS PER MAXIMUM PIPING LENGTH TABLE.
- AS PER 2015 INTERNATIONAL ENERGY CONSERVATION CODE, AUTOMATIC CONTROLS SHALL BE INSTALLED THAT LIMITS THE OPERATION OF A RE-CIRCULATING PUMP AND THE SYSTEM RETURN PIPE SHALL BE A DEDICATED RETURN PIPE OR A COLD WATER SUPPLY PIPE.

- AS PER 2015 INTERNATIONAL ENERGY CONSERVATION CODE C404.7, PUMPS SHALL HAVE CONTROLS THAT COMPLY WITH BOTH OF THE FOLLOWING:
  - THE CONTROL SHALL START THE PUMP UPON RECEIVING A SIGNAL FROM THE ACTION OF A USER OF A FIXTURE OR APPLIANCE, SENSING THE PRESENCE OF A USER OF A FIXTURE OR SENSING THE FLOW OF HOT OR TEMPERED WATER TO A FIXTURE FITTING OR APPLIANCE.
  - THE CONTROL SHALL LIMIT THE TEMPERATURE OF THE WATER ENTERING THE COLD-WATER PIPING TO 104°F (40°C).
- AS PER 2015 INTERNATIONAL ENERGY CONSERVATION CODE C404.3, WATER HEATING EQUIPMENT NOT SUPPLIED WITH INTEGRAL HEAT TRAPS AND SERVING NON RE-CIRCULATING SYSTEM SHALL BE PROVIDED WITH HEAT TRAPS ON SUPPLY AND DISCHARGE PIPING ASSOCIATED WITH EQUIPMENT.

**WATER & GAS PLAN NOTES** **C**

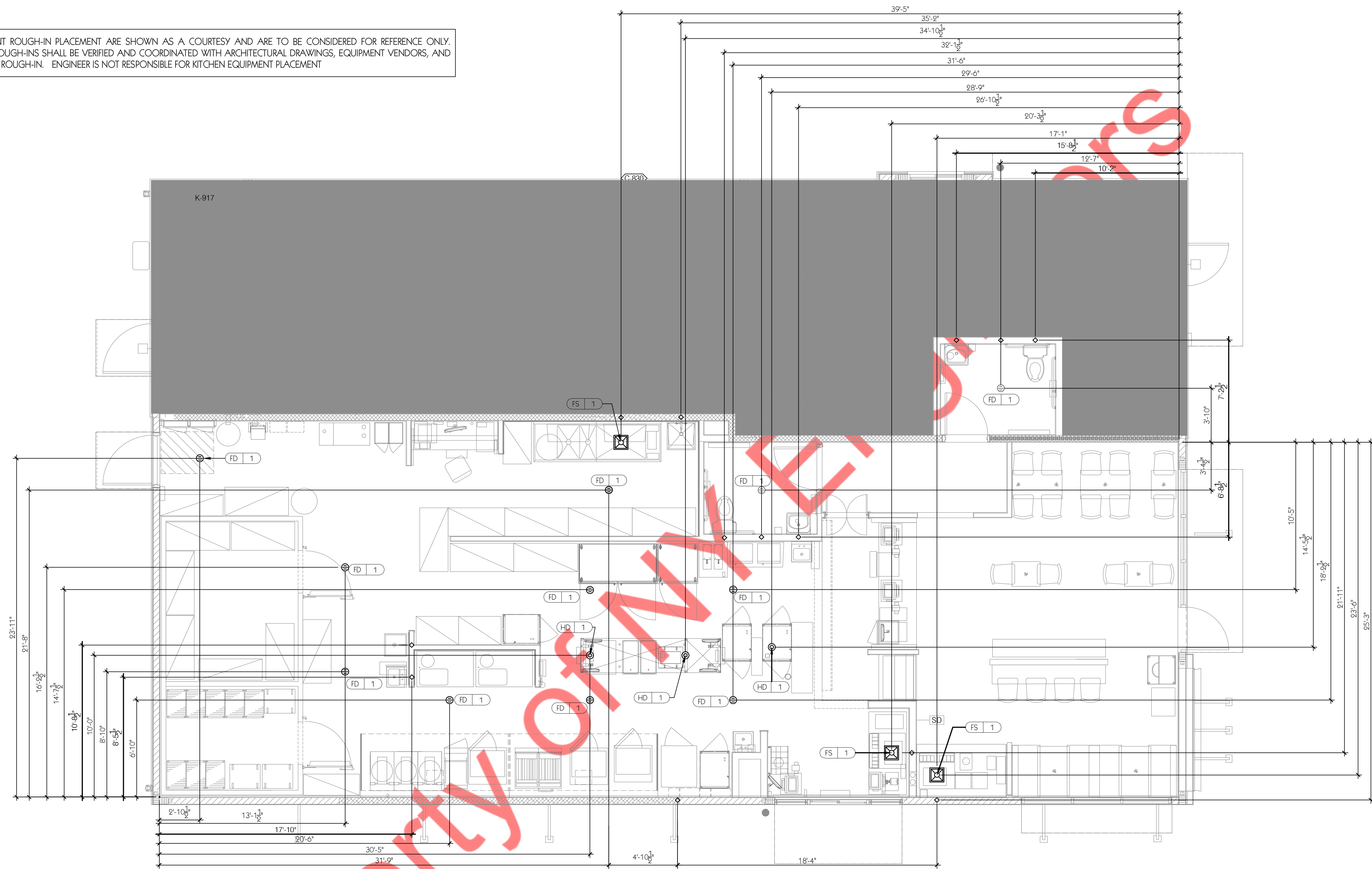
- NOT IN USE
- 1 1/4" GAS PIPE UP TO MUA-1 WITH DIRT LEG, GAS COCK, AND UNION
- 3/8" TEMPERED WATER LINE DOWN IN WALL TO HAND SINK.
- 1" HOT AND COLD WATER LINES TO WATER HEATERS.
- NOTE NOT USE.
- 3/8" HOT AND COLD WATER LINES DOWN IN WALL TO THREE COMPARTMENT SINK.
- 3/8" FILTERED WATER LINE DOWN IN WALL TO BELOW SLAB. DO NOT INSTALL ANY JOINTS BELOW SLAB.
- 3/8" HOT AND COLD WATER LINES DOWN IN WALL TO THE MOP SINK.
- 3/8" COLD WATER LINE DOWN IN WALL TO WATER CLOSET FLUSHMETER TANK.
- NOT IN USE.
- 3/8" TEMPERED WATER LINE DOWN IN WALL TO LAVATORY.
- 3/4" COLD WATER LINE DOWN IN WALL TO WATER FILTERS <S-287> and <S-288>. SEE KEYNOTES 13 AND 16, THIS SHEET.
- 3/8" FILTERED WATER LINE FROM WATER FILTER <S-288> TO HOT HOLDING CABINETS <S-015> / <S-017> AND HOT WATER MACHINES <P-721>. SEE DRAWINGS A2.0, P5.0, AND P6.0. SEE KEYNOTES 7 AND 17, THIS SHEET.
- 3/8" COLD WATER LINE DOWN IN WALL TO INTERIOR HOSE BIBB. SEE KEYNOTE 27, THIS SHEET.
- CONNECT NEW 1 1/2" WATER SUPPLY LINE FROM EXISTING WATER SUPPLY STUB. CONTRACTOR TO VERIFY SIZE AND LOCATION IN FIELD. SEE SHELL DRAWINGS FOR CONTINUATION

- BUNDLED SYRUP LINES FROM FILTER <S-287> TO BEVERAGE DISPENSERS <S-539> AND FILTERED WATER LINES TO ICE CUBERS <S-514>. SEE DRAWINGS A2.0, A7.1, P5.0 AND P6.0.
- 3/8" FILTERED WATER DOWN IN WALL TO BUNN HOT WATER MACHINES <P-453> (Qty. 2). BRANCH-OFF FOR EACH DISPENSER, STUB OUT OF WALL @ 6'-0" A.F.F. PROVIDE MANUAL CUT-OFF VALVE FOR EACH DISPENSER. SEE ELEVATION 7 / A8.2 FOR REFERENCE.
- 2" WALL-MOUNTED GAS PIPE DOWN WALL TO COOKING EQUIPMENT. COORDINATE LOCATION w/ WALK-IN COOLER BOX.
- 2" GAS MANIFOLD ALONG WALL TO COOKING EQUIPMENT. MOUNTING HEIGHT @ 12" A.F.F.
- 3/8" FILTER WATER STUB-UP FROM BELOW SLAB TO 1" A.F.F. FOR CONNECTION TO HEATED CABINETS <S-015> (Qty. 2) and <S-017> (Qty. 2). SEE KEYNOTE 7, THIS SHEET.
- 3" PVC EXHAUST AND INTAKE FLUES FROM WATER HEATERS, PIPE INTAKE THRU ROOF AND EXHAUST THRU REAR WALL AS RECOMMENDED BY MANUFACTURER. SEE SHEET M2.0 AND DETAIL 2/P6.0.
- NOT IN USE.
- 1" GAS CONNECTION TO 6 HEAD FRYER AND 1 1/2" GAS CONNECTION TO DUAL FRYER. PROVIDE FLEXIBLE HOSE KIT AS INDICATED ON ARCHITECTURAL DRAWING A2.1.
- EMERGENCY GAS SHUT-OFF VALVE LOCATED BELOW CEILING.
- OPTIONAL COFFEE AND TEA MAKERS. VERIFY WITH OWNER IF REQUIRED. PROVIDE 3/8" FILTER WATER TO EACH IF REQUIRED.
- WATER HEATER WH-1. PIPE CONDENSATE LINE, T&P DISCHARGE AND DRAIN PAN TO FLOOR SINK. SEE WATER HEATER DETAIL 6/P6.0.
- PROVIDE 3/4" HOSE BIB CONNECTION. ROUGH-IN @ 24" A.F.F.
- 1 1/2" GAS PIPE DOWN TO WATER HEATERS.
- 3/8" HOT AND COLD WATER LINES DOWN IN WALL TO THE PEDESTAL SINK.
- CONNECT NEW 2" GAS LINE TO 2" GAS STUB-OUT. REFER SHELL DRAWINGS FOR MORE DETAILS

**KEY NOTES** **B**

**ENERGY CONSERVATION NOTES** **D**

DIMENSIONS FOR EQUIPMENT ROUGH-IN PLACEMENT ARE SHOWN AS A COURTESY AND ARE TO BE CONSIDERED FOR REFERENCE ONLY. ACTUAL DIMENSIONS FOR ROUGH-INS SHALL BE VERIFIED AND COORDINATED WITH ARCHITECTURAL DRAWINGS, EQUIPMENT VENDORS, AND ALL OTHER TRADES PRIOR TO ROUGH-IN. ENGINEER IS NOT RESPONSIBLE FOR KITCHEN EQUIPMENT PLACEMENT



PLUMBING ROUGH-IN PLAN 1/4"=1'-0" A

EQUIP #	EQUIPMENT ITEM	TYPE	ELEVATION	REMARKS	EQUIP #	EQUIPMENT ITEM	TYPE	ELEVATION	REMARKS
(FCC) 1	FLOOR CLEAN OUT			FLUSH W/ FINISH FLOOR	(SD) 1	SLOT DRAIN			FLOOR MOUNT
(FD) 1	FLOOR DRAIN			FLOOR MOUNT	(WC) 1	WATER CLOSET	CW	+99" A.F.F.	ALL FIXTURES ADA COMPLIANT
(FS) 1	FLOOR SINK			FLOOR MOUNT	(WCO) 1	WALL CLEAN OUT		+12" A.F.F.	COORDINATE WITH HAND SINK (S-1)
(HB) 1	HOSE BIB (EXTERIOR)		+ 90" A.F.F.	COORDINATE W/ SHEETS A4.0, A4.1	(WH) 1	WATER HEATER	CW		
(HB) 2	HOSE BIB (INTERIOR)		+ 94" A.F.F.	COORDINATE W/ EQUIP. <C-134>	(WH) 1	WATER HEATER	G	+15" A.F.F.	
(HD) 1	HUB DRAIN			FLOOR MOUNT					
(L) 1	LAVATORY	TW	+90" A.F.F.	VERIFY W/ ADA REQUIREMENTS	(B-215)	WATER HEATER	CW/HW		
(L) 1	LAVATORY WASTE LINE		+16-1/2" A.F.F.	VERIFY W/ ADA REQUIREMENTS	(C-017)	SINGLE OPEN FRYER - OPTIONAL	G	+12" A.F.F.	
(OFD) 1	ROOF OVERFLOW DRAIN LEADER	(3)	SW	+12" A.F.F. DISCHARGES AT BUILD. EXTERIOR	(C-018)	DUAL OPEN FRYER	G	+12" A.F.F.	
(RD) 1	ROOF DRAIN LEADER	(2)	SW	CONTINUES BELOW SLAB	(P-721)	HOT WATER MACHINE (Qty. 2)	FW	+48" A.F.F.	SITS ON COUNTER TOP
(S) 1	HAND SINK	TW	+18" A.F.F.	RIM OF LAV @ +2'-8" A.F.F.	(S-015)	1/2 -HEIGHT HEATED CABINET (Qty. 2)	FW	+1" A.F.F.	STUB UP FROM BELOW SLAB
(S) 2	MOP SINK	W	-6" A.F.F.	RECESSED IN FLOOR	(S-017)	FULL-HEIGHT HEATED CABINET (Qty. 2)	FW	+1" A.F.F.	STUB UP FROM BELOW SLAB
(S) 2	MOP SINK FAUCET	CW/HW	+36" A.F.F.		(S-287)	WATER FILTER SYSTEM	CW		SUPPLIED / INSTALLED BY PEPSI
(S) 3	3-COMPARTMENT SINK	W	+19" A.F.F.		(S-288)	WATER FILTER SYSTEM	CW	+94" A.F.F.	INLET / OUTLET TO FILTER BY G.C.
(S) 3	3-COMPARTMENT SINK FAUCET	CW/HW	+38" A.F.F.						
(S) 4	PREP SINK	W	+19" A.F.F.						
(S) 4	PREP SINK FAUCET	CW/HW	+38" A.F.F.						

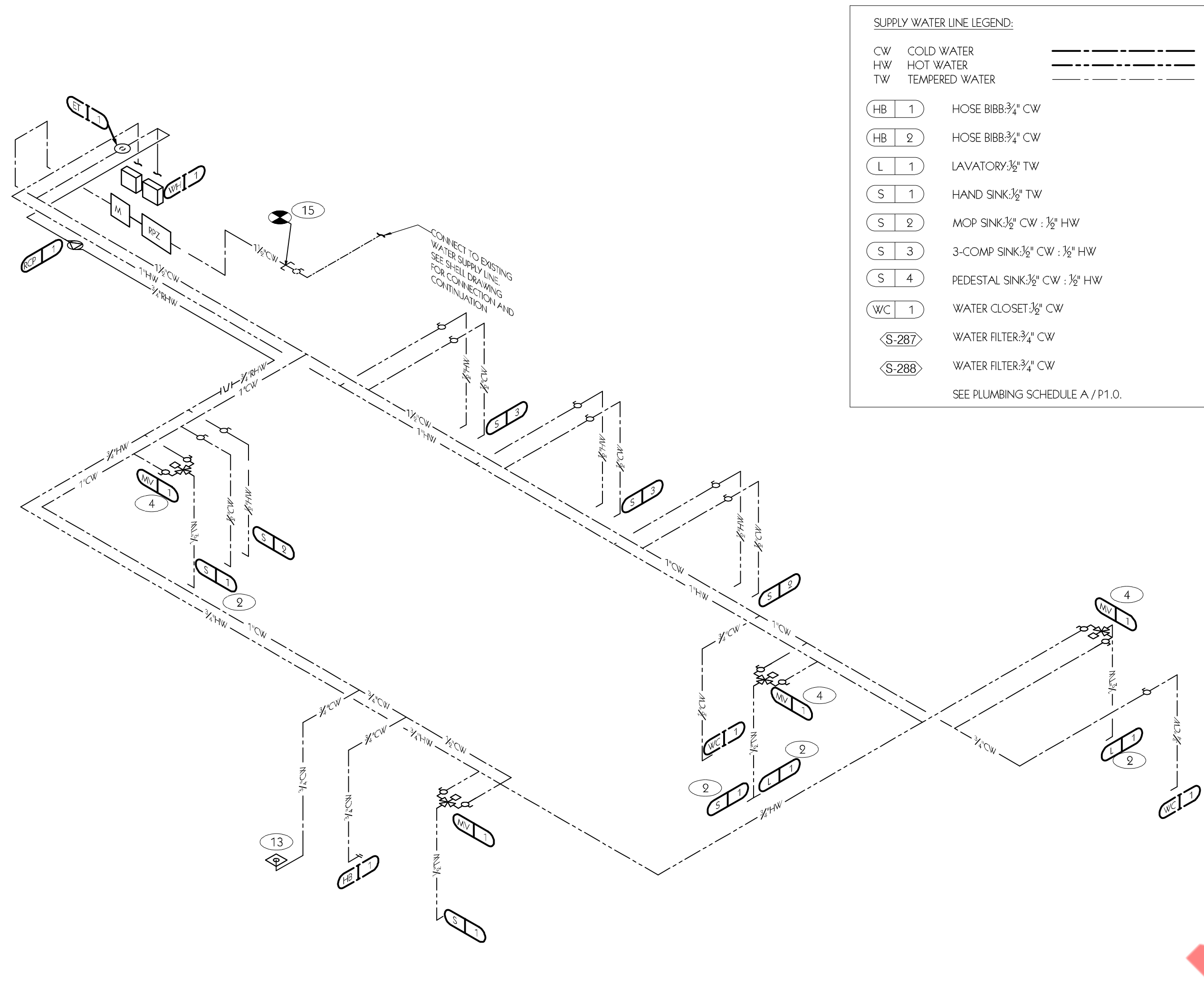
PLUMBING ROUGH-IN SCHEDULE D

- HOT WATER
- COLD WATER
- ⊗ TEMPERED WATER
- GAS
- ⊖ FLOOR DRAIN
- ⊗ FLOOR SINK
- ⊖ HUB DRAIN
- ⊖ FLOOR CLEANOUT
- WALL CLEANOUT
- FILTERED WATER
- ◇ VENT UP FROM UNDER SLAB
- ◇ VENT THROUGH ROOF (VTR)
- FILTER WATER LINE THRU SLAB.
- ▲ ROOF DRAIN LEADER

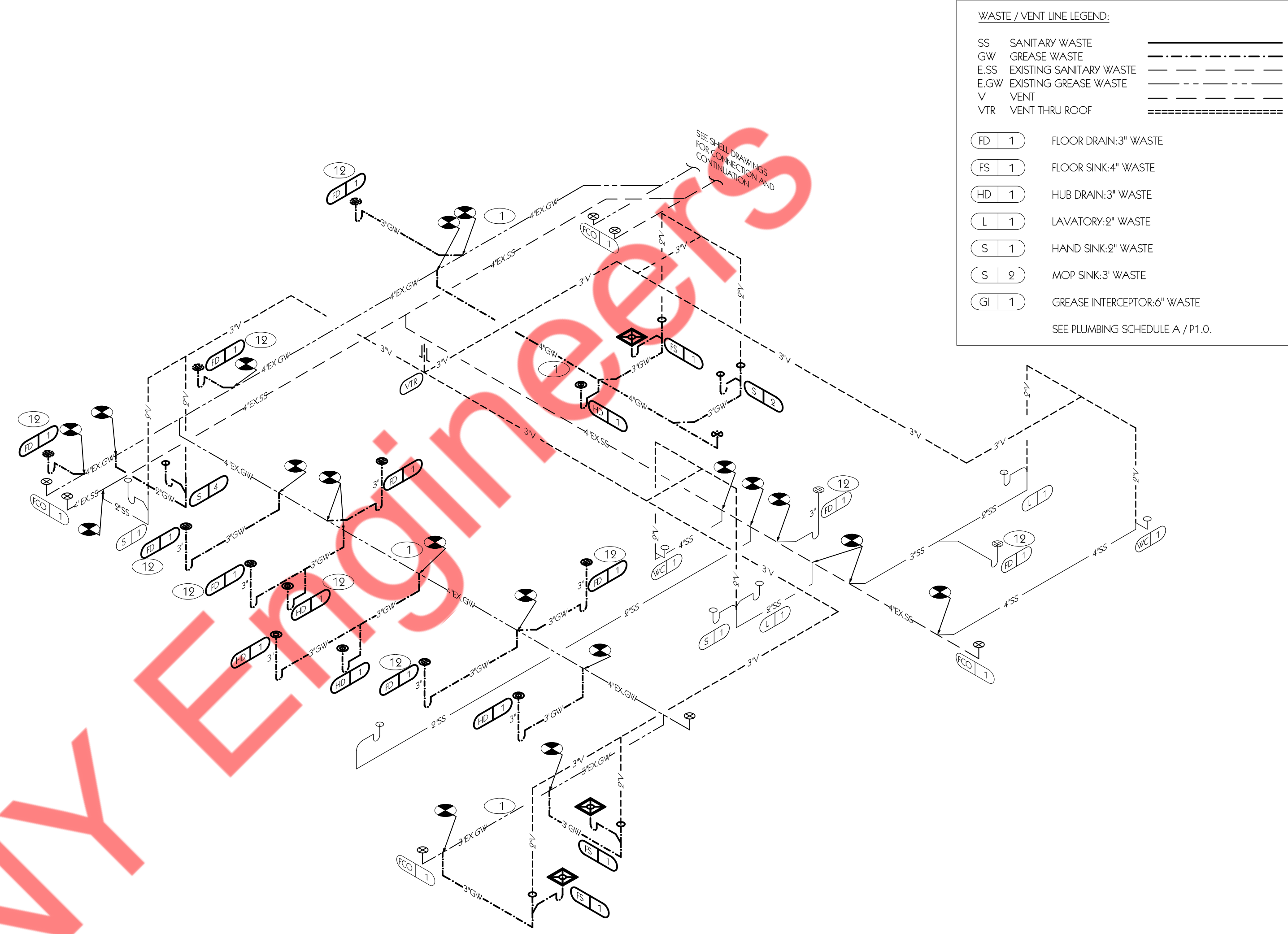
SYMBOL LEGEND C

- GENERAL NOTES:**
- ALL DIMENSIONS TO FLOOR SINKS, FLOOR DRAINS AND HUB DRAINS ARE TO CENTER OF FIXTURE.
  - IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THIS DATA ON THE LOCATION OF ALL PLUMBING ROUGH-INS WITH INFORMATION PROVIDED ON THE ARCH AND STRUCTURAL DRAWINGS, AND THE EQUIPMENT ACTUALLY SUPPLIED AND TO CONFIRM THE CORRECTNESS OF ANY DIMENSIONS INDICATED HEREIN.
- KEYNOTES:**
- WASTE VENT (VTR) CONTINUES UP THROUGH ROOF. REFER TO KEYNOTE 8 / P2.0.
  - TIE ROOF DRAIN LEADER INTO SITE STORM WATER LINE; COORDINATE WITH CIVIL DRAWINGS. REFER TO KEYNOTE 14 / P2.0.
  - OVERFLOW DRAIN LEADER DISCHARGES THROUGH BUILDING WALL AT 12" A.F.F. REFER TO KEYNOTE 15/ P2.0. COORDINATE WITH EXTERIOR ELEVATIONS, SHEET A4.0 and A4.1.
  - COORDINATE LOCATION OF COLD WATER MAIN LINE WITH DOMESTIC WATER SERVICE. SEE CIVIL DRAWINGS.
  - GAS ROUGH-IN FOR FUTURE / OPTIONAL SINGLE OPEN FRYER <C-017>; SEE SHEET P5.0. VERIFY WITH OWNER.

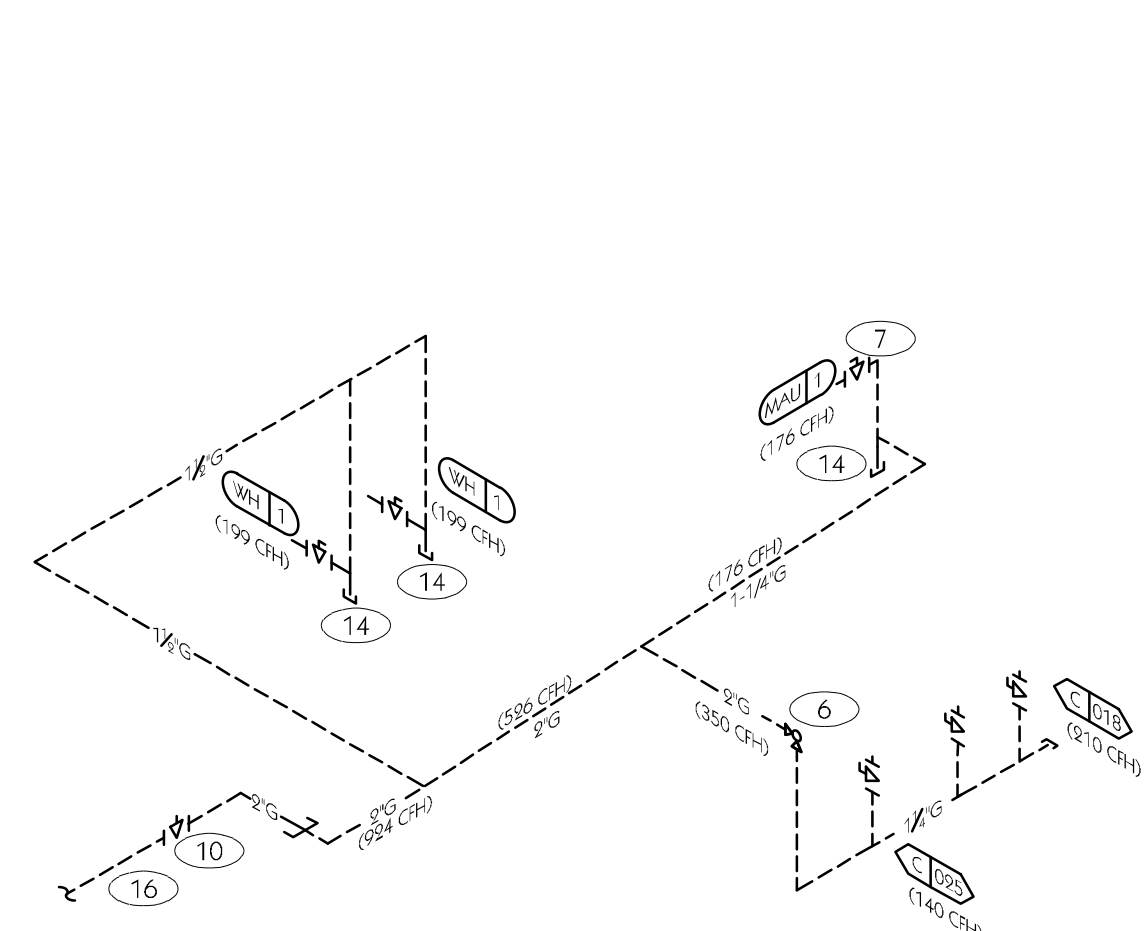
PLUMBING ROUGH-IN NOTES B



**HOT / COLD / TEMPERED WATER ISOMETRIC** N.T.S. **2**



**WASTE / VENT ISOMETRIC** N.T.S. **1**

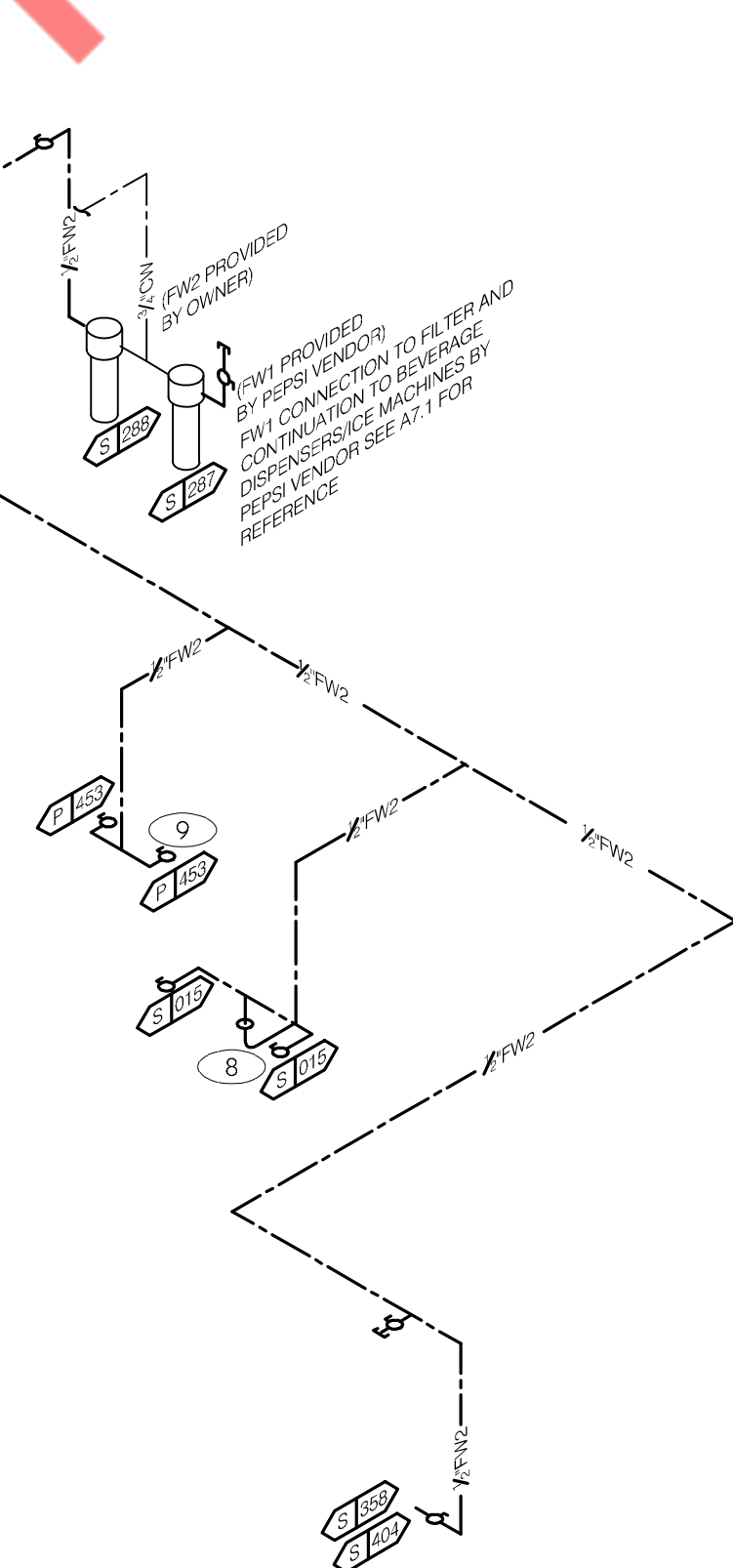


**GAS DEMAND SCHEDULE**

RTU-1(E)	150 CFH
RTU-2(E)	120 CFH
MUA-1	176 CFH
WH-1 (QTY-2)	398 CFH
C-018 DUAL OPEN FRYER	210 CFH
C-025 6-HEAD FRYER	140 CFH
<b>TOTAL DEMAND</b>	<b>1,194 CFH = 1,194,000 BTUH</b>

DELIVERY PRESSURE = 7" W.C., SIZING BASED ON 2018 IFGC TABLE 402.4(2)-SCHEDULE 40 METALLIC PIPE, INLET PRESSURE LESS THAN 2 PSI, PRESSURE DROP OF 0.5" W.C., 0.60 SPECIFIC GRAVITY, 120' TOTAL DEVELOPED LENGTH.

**GAS ISOMETRIC** N.T.S. **5**



**FILTERED WATER ISOMETRIC** N.T.S. **4**

- ENTIRE RUN OF DRAIN LINES ON INLET TO GREASE TRAP SHALL BE SCHEDULE 40 PVC OR AS REQUIRED BY CODE.
- 1/2" TEMPERED WATER DOWN IN WALL TO HAND SINK / LAVATORY.
- NOTE NOT IN USE
- THERMOSTATIC MIXING VALVE.
- REDUCED PRESSURE BACKFLOW PREVENTER PER LOCAL UTILITY REQUIREMENTS. PROVIDE SHUT-OFF VALVES AT BOTH SIDES OF BACKFLOW PREVENTER. VERIFY LOCATIONS WITH CIVIL DRAWINGS.
- EMERGENCY GAS SHUT-OFF VALVE SHALL BE A MECHANICALLY OPERATED VALVE ACTIVATED BY THE EXHAUST HOOD FIRE SUPPRESSION SYSTEM IN ACCORDANCE WITH IBC AND NFPA. LOCATE SHUT-OFF BELOW FINISH CEILING.
- FACTORY GAS PIPING AT ROOF TOP UNIT FOR THROUGH THE BASE PIPE CONNECTION. SHUT-OFF VALVE SHALL BE LOCATED OUTSIDE OF THE UNIT.
- 1/2" FILTERED WATER, CONTINUE BELOW SLAB, ROUTE UP THROUGH FLOOR CAP PIPE 1" A.F.F. FOR CONNECTION TO HEATED CABINETS <S-015> / <S-017>.
- 1/2" FILTERED WATER; TERMINATE WITH BALL VALVE / TRANSITION TO 1/2" LINE FOR CONNECTION TO EQUIPMENT.
- GAS SHUT-OFF VALVE IN CEILING SPACE BY G.C.
- PIPE T&P RELIEF VALVE TO OUTSIDE OF BUILDING OR TO HUB DRAIN. RUN FULL SIZE PIPE FROM VALVE WITH TYPE "K" COPPER TUBING.
- PROVIDE TRAP PRIMERS AS REQUIRED PER CODE.
- IRRIGATION VALVE BOX. COORDINATE WITH ENLARGED PLAN 3 / E3.1 and COMMUNICATIONS PLAN ES.0.
- DIRT LEG.
- CONNECT NEW 1 1/2" COLD WATER LINE TO EXISTING WATER SERVICE STUB LINE ABOVE CEILING. FIELD VERIFY EXACT LOCATION AND CONNECTION REQUIREMENTS.
- CONNECT NEW 2" GAS PIPING TO EXISTING 2" GAS STUB-OUT. REFER SHELL DRAWINGS FOR MORE DETAILS.

**KEYNOTES** **3**