

PLUMBING GENERAL NOTES

SIZING PROCEDURE FOR FOOD SERVICE ESTABLISHMENTS (FSE'S)

MINIMUM OF 1,000 GALLONS
VOLUME OF GREASE INTERCEPTOR (GALLONS) = $(J/A \times B) + C + D \times F$

A. GPM/FIXTURE — THESE VALUES ARE DERIVED FROM THE MANNING FORMULA. THE MANNING FORMULA TAKES INTO ACCOUNT THE 0.0005 ROUGHNESS OF THE PIPE, AND PIPE DIAMETER SIZE. LISTED BELOW ARE THE DRAINAGE RATES OF VARIOUS PIPE DIAMETERS USING THE MANNING FORMULA

0.5 INCH PIPE DIAMETER = 0.8 GPM/FIXTURE	1.0 INCH PIPE DIAMETER = 5.0 GPM/FIXTURE
1.5 INCH PIPE DIAMETER = 18 GPM/FIXTURE	2.0 INCH PIPE DIAMETER = 33 GPM/FIXTURE
2.5 INCH PIPE DIAMETER = 59 GPM/FIXTURE	3.0 INCH PIPE DIAMETER = 93 GPM/FIXTURE

B. FIXTURE RATINGS OF GREASY WASTE STREAMS — FIXTURES THAT HAVE MORE GREASE IN THEIR WASTE STREAM RECEIVED HIGHER VALUES WHILE LESS GREASE CORRESPONDS TO A LOWER RATING.

THE TABLE IS SHOWN BELOW-TABLE OF COMMON COMMERCIAL KITCHEN FIXTURES AND THEIR CORRESPONDING RATING:

POT SINK = 1.0	MEAT AND VEGETABLE PREP SINK = 0.10
PRE-RINSE SINK = 0.75	WOK = 1.0
TILT KETTLE = 0.00	FLOOR DRAIN = 0.00

C. DRAIN DIRECT FROM DISHWASHERS, SANITIZERS, GARAGE DISPOSAL, FOOD WASTE GRINDERS OR GLASS WASHERS — THESE FLOWS MUST BE ADDED DIRECTLY TO THE GPM FLOW. THE MANUFACTURER'S PEAK DISCHARGE RATE FOR FLOW IN GPM MUST BE USED.

D. FLOW IN CAN WASHES OR MOP SINK SCAN WASHES AND MOP SINKS ARE TYPICALLY USED INTERMITTENTLY. FOR THE PURPOSE OF SIZING, 7 GPM WILL BE USED FOR CAN WASHES AND MOP SINKS.

E. THIRTY (30) MINUTE RETENTION TIME PLEASE NOTE THAT ADDITIONAL FIXTURES ARE ALSO CONNECTED TO THE GREASE INTERCEPTOR.

LINE BUT ASSUMED TO HAVE INTERMITTENT FLOW AND ARE NOT ASSUMED TO ADD TO THE PEAK FLOW OF THE GREASE INTERCEPTOR.

ABBREVIATIONS	
BFP	BACKFLOW PREVENTER
CP	CONDENSATE PUMP
CO	CLEANOUT
DFU	DRAINAGE FIXTURE UNIT
EF	EXHAUST FAN
EX.	EXISTING
FD	FLOOR DRAIN
FS	FLOOR SINK
GC	GENERAL CONTRACTOR
GI	GREASE INTERCEPTOR
HS	HAND SINK
ID	INSIDE DIA.
LAV	LAVATORY
MS	MOP SINK
MV	MIXING VALVE
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIA.
O/F	OWNER/FRANCHISEE
PC	PLUMBING CONTRACTOR
PRV	PRESSURE REDUCING VALVE
RTU	ROOF TOP EQUIPMENT (HVAC)
TP	TRAP PRIMER
TYP	TYPICAL
UR	URINAL
WC	WATER CLOSET
WH	WATER HEATER
WHA	WATER HAMMER ARRESTOR

BFP-1 BACKFLOW PREVENTER
A. SEE CIVIL PLANS

CO-1 FLOOR CLEANOUT (ROUND)
A. SIOUX CHIEF #834-X PNR
B. TOP SHALL BE FLUSH WITH FLOOR
C. X=SIZE OF PIPE REQUIRED IN MODEL NUMBER.

CO-3 EXTERIOR CLEANOUT (ROUND)
A. SIOUX CHIEF #878-20/40/60 WITH COUNTER SUNK BRASS INSERT INSTALLED IN AN END OF LINE HUB/TWO-WAY HUB

CW-1 CAN WASH
A. BASIN - (EQ. #41) FIAT SB-3636 (36x36x6)
B. FAUCET - (EQ. #62) TRAP BRASS #8-0655-BSTR
C. HOSE AND HOSE BRACKET - FIAT #832-AA
D. PROVIDE 3" P-TRAP
E. SEE EQUIPMENT SCHEDULE AND DIVISION OF RESPONSIBILITY

DH-1 DEHUMIDIFIER
A. REFER TO MECHANICAL SHEETS.

FD-1 FLOOR DRAIN (ROUND)
A. FLOOR DRAIN - SIOUX CHIEF #833-3XDNR, PVC, ROUND
B. X=SIZE OF PIPE REQUIRED IN MODEL NUMBER.
C. PROVIDE DEEP SEAL P-TRAP
D. PROVIDE TRAP PRIMER AND CONNECTION WHERE INDICATED ON PLANS

FD-2 FLOOR DRAIN (ROUND) (DUCTILE IRON)
A. FLOOR DRAIN - SIOUX CHIEF #832-3XDNH, DUCTILE IRON, ROUND
B. 3" TRAP
C. BRONZE TAP

FS-1 FLOOR SINK
A. FLOOR SINK (W/ 1/2 GRATE) - SIOUX CHIEF #861-3P-D (8" DEEP) #861-51 1/2 GRATE AND DOME STRAINER

GI-1 GREASE INTERCEPTOR
A. 1,500 GRAVITY GREASE INTERCEPTOR

HB-1 EXTERIOR HOSE BIBB
A. WOODFORD MODEL 67 SERIES, FREEZELESS WALL HYDRANT WITH ANTI-SIPHON VB.

HB-2 INTERIOR HOSE BIBB
A. WOODFORD MODEL 24P-3/4 WALL FAUCET WITH ANTI-SIPHON VACUUM BREAKER.
B. CONNECT TO COLD WATER.

HS-1 HAND SINK
A. SINK - (EQ. #1) SERVE-WARE COWD CWP
B. FAUCET - (EQ. #1) SPLASH MOUNTED GOOSENECK WITH AERATOR SUPPLIES & MCGUIRE 167.
C. STRAINER - BASKET DRAIN PROVIDED WITH SINK
D. PROVIDE TRUEBRO (OR EQUAL) PIPING PROTECTION ON EXPOSED HOT WATER, COLD WATER, AND DRAIN PIPING BELOW SINK
E. SEE EQUIPMENT SCHEDULE AND DIVISION OF RESPONSIBILITY.

L-1 LAVATORY, WALL HUNG
A. LAVATORY - AMERICAN STANDARD MODEL: 0355.012 "LUCERNE".
B. SENSOR FAUCET - SLOAN EAF-200 WITH 120V PLUG IN TRANSFORMER
C. SUPPLIES - MCGUIRE 167.
D. STRAINER - MCGUIRE 155A.
E. P-TRAP - SEE TRAP PRIMER (TP-1)
F. PROVIDE TRUEBRO (OR EQUAL) PIPING PROTECTION ON EXPOSED HOT WATER, COLD WATER, AND DRAIN PIPING BELOW SINK.
G. PROVIDE MIXING VALVE (MV-1) ON EACH LAVATORY PER DETAIL 14/P301.

MV-1 MIXING VALVE
A. WATTS - MODEL: LFMMV, 1/2" MALE NPT CONNECTIONS.
B. MOUNT IN AN ACCESSIBLE LOCATION.
C. INSTALL PER MANUFACTURERS RECOMMENDATION.
D. SET TO 110 DEGREES MAX.

RD-1 ONE-PIECE COMBINATION ROOF DRAIN & SECONDARY OVERFLOW
A. ZURN MODEL RD2130-NH4, 4" CAST IRON WITH DECK FLANGE, FLASHING CLAMPS WITH INTERGRAL GRAVEL GUARD, SELF LOCKING DOME STRAINER, NO HUB OUTLETS WITH FLASHING CLAMP.
B. ZURN MODEL 4199-4ZARB-SS-PVC DOWN SPOUT NOZZLE FOR ROOF DRAIN OUTLET.
C. INSTALL PER MANUFACTURES RECOMMENDATION.

TD-1 TRENCH DRAIN
A. JAY R. SMITH #9895-5, WITH 4" BOTTOM OUTLET, END CAPS, AND REMOVABLE STAINLESS STEEL SLOTTED GRATE. 4" DEEP-SEAL P-TRAP. (1 METER LONG)

TD-2 TRENCH DRAIN
A. JAY R. SMITH #9895-5, WITH 4" BOTTOM OUTLET, END CAPS, AND REMOVABLE STAINLESS STEEL SLOTTED GRATE. 4" DEEP-SEAL P-TRAP. (1.5 METER LONG)

TP-1 TRAP PRIMER
A. TRAP - ZURN Z1021WL-PC WATER SAVER TRAP PRIMER

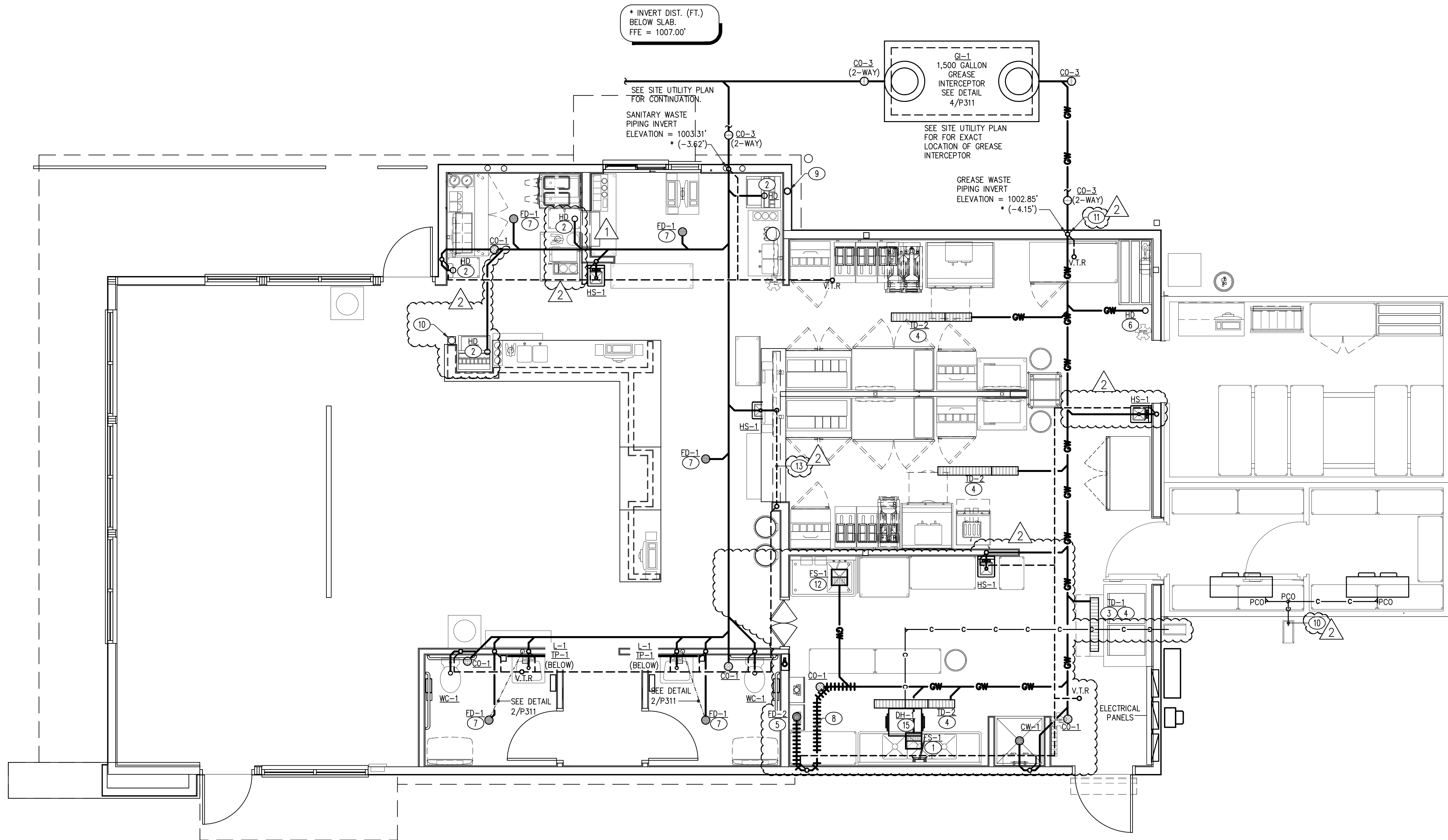
WC-1 WATER CLOSET, FLOOR MOUNTED, FLUSH VALVE (HANDICAP)
A. AMERICAN STANDARD MADEIRA FLOWISE, 16 1/2" HGL, EL 1.6, 304X3.001, 1.6 GPF
B. FLUSH VALVE - SLOAN MODEL 111-128 ESS HARD WIRED SENSOR FLUSH VALVE.
C. SEAT - CHURCH #9500C OPEN FRONT LESS COVER.
D. PROVIDE WITH SENSOR MOUNTED PER ADA ACCESSIBILITY.

WH-1 INTERIOR GAS WATER HEATER PACKAGE (EQ. #92)
A. WATER HEATER - NORITZ MODEL: NCG199-ODV CONTINUOUS FLOW WATER HEATER FOR COMMERCIAL USE AT 21 GPM (EQA.) 100° F RISE.
B. 199,000 BTU/Hr NATURAL GAS INPUT (MODULATING MAX.) (EACH)
C. CERTIFIED TO ANSI Z21.10.3 STANDARD BY CSA
D. PROVIDE (1) NORITZ CONNECT CABLE PART # 02-2
E. PROVIDE (2) NORITZ CONCENTRIC VENT PART # PVC-3CT
F. PROVIDE (2) TRIP ISOLATION VALVE W/ RELIEF VALVE PART # IK-WV-200-3
G. PROVIDE FLAT ROOF FLASHING AND VENT PIPE AS REQUIRED
H. PROVIDE (1) NORITZ COMMERCIAL CONTROLLER SC-401-6M (COORDINATE LOCATION WITH GC)
I. E.C. SMITH PROVIDE ALL ELECTRICAL CONNECTIONS.
J. SET FOR OPERATION AT 140°F.
K. SEE EQUIPMENT SCHEDULE AND DIVISION OF RESPONSIBILITY.

1. ALL WORK SHALL BE PERFORMED BY A LICENSED CONTRACTOR. CONTRACTOR SHALL INSTALL SYSTEMS, EQUIPMENT & COMPONENTS IN ACCORDANCE WITH MINIMUM REQUIREMENTS SHOWN IN THESE PLANS. ANY DEVIATION FROM THE DESIGN PLANS SHALL ONLY BE APPROVED IF APPROVED BY THE OWNER REPRESENTATIVE OR DESIGN ENGINEER. ALL WORK SHALL MEET OR EXCEED THE MINIMUM REQUIREMENTS OF ALL APPLICABLE CODES AND STANDARDS. HOWEVER, ANY DEVIATION FROM THE DESIGN PLANS IMPLIED BY LOCAL CODES THAT SUGGESTS INSTALLATION OF LESS THAN THE REQUIREMENTS SPECIFIED IN THESE DESIGN PLANS SHALL NOT BE ALLOWED WITHOUT APPROVAL BY THE OWNER REPRESENTATIVE OR THE DESIGN ENGINEER.
2. IT WILL BE THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO INSURE THAT ITEMS TO BE FURNISHED UNDER PLUMBING CONTRACT WILL FIT THE SPACE AVAILABLE. PLUMBING CONTRACTOR SHALL MAKE NECESSARY FIELD MEASUREMENTS TO ASCERTAIN SPACE REQUIREMENTS, INCLUDING THOSE FOR CONNECTIONS AND SHALL FURNISH AND INSTALL SUCH SIZES AND SHAPES OF EQUIPMENT THAT ARE THE TRUE INTENT OF THE DRAWINGS AND SPECIFICATIONS.
3. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR WATER, VENT, AND WASTE SYSTEM TESTS, PER LOCAL CODE REQUIREMENTS. ALL HVAC AND EXHAUST SYSTEMS MUST BE RUNNING WHILE THESE WASTE/VENT TESTS ARE BEING PERFORMED. A CERTIFICATE WILL BE REQUIRED FROM THE PLUMBING CONTRACTOR CERTIFYING COMPLIANCE AND ACCEPTANCE OF THESE TESTS.
4. INSTALL ALL PLUMBING FIXTURES TO BE FULLY ACCESSIBLE TO INDIVIDUALS WITH DISABILITIES IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT OF 2010 AND 1997 ILL. ACC. CODE. FIXTURES AND THEIR INSTALLATION SHALL ALSO COMPLY WITH AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) PUBLICATION A117.1 - PROVIDING ACCESSIBILITY AND USABILITY FOR PHYSICALLY HANDICAPPED PEOPLE AND/OR GOVERNING CODES. ALL PLUMBING FIXTURES, EQUIPMENT, TOWN & FITTINGS SHALL COMPLY WITH LOCAL, STATE, AND FEDERAL REGULATIONS AND CODES, INCLUDING, BUT NOT LIMITED TO, WATER AND ENERGY CONSERVATION CODES.
5. THE SCHEDULED AND/OR SPECIFIED PLUMBING FIXTURES AND EQUIPMENT REPRESENT THE MINIMUM CRITERIA AND SHALL BE THE BASIS FOR THE CONTRACTOR'S BASE BID. IF THE SCHEDULED OR SPECIFIED FIXTURES OR EQUIPMENT DO NOT COMPLY WITH GOVERNING CODES OR REGULATIONS IN ALL RESPECTS, THE CONTRACTOR SHALL PROVIDE AN ALTERNATE BID FOR COMPLYING FIXTURES, EQUIPMENT, TOWN, OR FITTINGS. THE ABSENCE OF AN ALTERNATE BID SHALL BE CONSTRUED TO MEAN THAT THE CONTRACTOR'S BID INCLUDES ALL COSTS NECESSARY TO MEET ALL REGULATIONS & CODES.
6. GENERAL CONTRACTOR SHALL PROVIDE ALL OPENINGS IN WALLS, FLOORS, AND ROOF WITH EACH CONTRACTOR BE RESPONSIBLE FOR VERIFYING LOCATION AND SIZES OF ALL OPENINGS REQUIRED UNDER HIS CONTRACT, UNLESS NOTED OTHERWISE ON THE PLANS.
7. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINAL CONNECTIONS TO KITCHEN EQUIPMENT THAT REQUIRES A WATER AND/OR WASTE CONNECTIONS, ALONG WITH ALL PIPE, VALVES, WATER HAMMER ARRESTORS, PRESSURE REGULATORS, ETC., REQUIRED FOR A COMPLETE INSTALLATION.
8. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR APPROVED FLOOR PLAN AND DIMENSIONS. DO NOT SCALE PLUMBING DRAWINGS.
9. ANY DEVIATIONS FROM SPECIFIED PLUMBING FIXTURES AND LISTED IN FUTURE SCHEDULE SHALL OBTAIN PRIOR APPROVAL FROM THE OWNER'S REPRESENTATIVE.
- EXISTING CONDITIONS**
10. EXISTING WASTE/VENT AND WATER SUPPLY LINES AND FIXTURES ARE SHOWN IN APPROXIMATE LOCATION. PLUMBING CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND SIZES BEFORE INSTALLATION OF ANY NEW EQUIPMENT. MAKE NECESSARY ADJUSTMENTS AS REQUIRED.
- COORDINATION**
11. IT WILL BE THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO ENSURE THAT ITEMS TO BE FURNISHED UNDER PLUMBING CONTRACT WILL FIT THE SPACE AVAILABLE. PLUMBING CONTRACTOR SHALL MAKE NECESSARY FIELD MEASUREMENTS TO ASCERTAIN SPACE REQUIREMENTS, INCLUDING THOSE FOR CONNECTIONS AND SHALL FURNISH AND INSTALL SUCH SIZES AND SHAPES OF EQUIPMENT THAT ARE THE TRUE INTENT OF THE DRAWINGS AND SPECIFICATIONS.
12. PLUMBING CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL PRIME CONTRACTORS PRIOR TO INSTALLATION OF HIS WORK.
13. MECHANICAL DUCTWORK SHALL HAVE RIGHT-OF-WAY OVER ALL PLUMBING PIPES AND ELECTRICAL CONDUITS.
14. PLUMBING CONTRACTOR SHALL COORDINATE WITH EQUIPMENT SHEETS.
- INSTALLATION**
15. ALL PLUMBING PIPING SYSTEMS AT WALLS SHALL BE FULLY RECESSED WITHIN WALL CAVITIES UNLESS SPECIFICALLY NOTED OTHERWISE ON PLANS AND APPROVED BY KRISPY KREME. THIS SHALL INCLUDE WALLS WHICH ARE CONSTRUCTED FROM CMU. CAULKED COORDINATE INSTALLATION OF PIPING IN CMU WALLS WITH MASON.
16. ALL PLUMBING FIXTURES SHALL BE NEATLY CAULKED WITH SILICONE COMPOUND WHERE FIXTURE MEETS WALL.
17. ALL PIPES PASSING THROUGH FLOOR SLAB OR WALLS SHALL BE INSTALLED WITH FOAM RUBBER INSULATION.
19. PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL A BACKFLOW PREVENTER OR VACUUM BREAKER AT ALL FIXTURE CONNECTIONS AND AS REQUIRED BY LOCAL CODES AT ANY POINT WHERE THERE IS DANGER OF NON-POTABLE WATER COMING IN CONTACT WITH THE POTABLE WATER SYSTEM OR ANY DANGER OF BACK-FLOW. COORDINATE WITH LOCAL INSPECTOR.
20. WHERE TUBING PASSES BEHIND STUCCO, PLASTER OR AREAS WHERE STAPLES ARE USED, IT SHALL BE PROTECTED BY CONTINUOUS SLEEVE OR APPROVED SHIELD THAT IS TWICE THE DIAMETER OF THE TUBING BEING PROTECTED.
21. PLUMBING CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR APPROVED FLOOR PLAN AND DIMENSIONS.
DO NOT SCALE PLUMBING DRAWINGS.
- DWV PIPING**
22. INSTALL ALL THREADED CLEANOUT PLUGS WITH PIPE DOPE TO ALLOW EASY REMOVAL IN THE FUTURE.
23. ALL INDIRECT WASTE LINES SHALL HAVE A MINIMUM OF 2" AIR GAP OR TWICE THE EFFECTIVE DRAIN DIAMETER (WHICH EVER IS LARGER) WHERE IT TERMINATES AT THE RECEPTOR.
24. ALL HUB/FLOOR/TRENCH DRAINS AND FLOOR SINKS SHALL BE PROVIDED WITH DEEP SEAL TRAPS.
25. SET TOP RIM OF ALL IN-FLOOR FIXTURES (DRAINS, FLOOR SINKS, CLEAN-OUTS, ETC.) FLUSH WITH FINISHED FLOOR UNLESS DRAWINGS EXPLICITLY SPECIFY OTHERWISE.
26. CLEANOUTS LOCATED IN TRAFFIC-BEARING AREAS SHALL BE INSTALLED WITH A VEHICLE TRAFFIC BEARING BOX. THE BOX SHALL BE SET IN CONCRETE SLAB, EXTENDING AT LEAST 12" FROM THE PERIMETER OF THE CLEANOUT. THE SLAB SHALL BE NOT LESS THAN 6" THICK. THE CONCRETE SHALL BE NOT LESS THAN 2,500 PSI.
- WATER PIPING**
27. PLUMBING CONTRACTOR SHALL INSTALL SHOCK ABSORBERS/WATER HAMMER ARRESTORS TO MEET ALL STATE AND LOCAL CODE REQUIREMENTS.
28. PLUMBING CONTRACTOR SHALL INSTALL WATER SUPPLY PIPES SO THAT NO PIPE JOINTS ARE UNDER FLOOR SLAB - ALL JOINTS WILL BE ABOVE THE FLOOR IN ACCESSIBLE WALLS.
29. ALL NEW HOT AND COLD WATER PIPING IN WALLS, ABOVE CEILINGS, AND EXPOSED SHALL BE INSULATED WITH AN INSULATION HAVING A MAXIMUM K FACTOR OF 0.28 @ 75°F MINIMUM TEMPERATURE FOR 2" WALL, FLEXIBLE ELASTOMERIC THERMAL TYPE, CLOSED CELL INSULATION SIMILAR TO AP ARMAFLEX TUBE INSULATION (ARMACELL). INSULATE FITTINGS CONTINUOUSLY, BUT DO NOT INSULATE VALVE BODIES, NOR FIXTURE SUPPLIES.
- a. LONGITUDINAL SEAMS SHALL BE SEALED.
- b. LATERAL SEAMS (BUTT JOINTS) SHALL BE SEALED ON COLD WATER PIPES ONLY.
- c. THICKNESS SHALL BE 1/2" FOR COLD WATER PIPES UP TO 1-1/4" AND 1" FOR COLD WATER PIPES 1-1/2" AND GREATER.
- d. THICKNESS SHALL BE 1" MINIMUM FOR ALL HOT WATER AND HOT WATER RETURN PIPES.
30. PLUMBING CONTRACTOR SHALL INSTALL ALL DOMESTIC HOT AND COLD WATER PIPING LOCATED IN EXTERIOR WALLS AND CEILING ON HEATED OR WARM SIDE OF THE INSULATION.
31. PLUMBING CONTRACTOR SHALL CLOSELY COORDINATE PIPING INSTALLATION WITH GENERAL CONTRACTOR AND VERIFY NO BUILDING INSULATION IS COMPROMISED IN EXTERIOR WALLS.
32. HOT AND COLD WATER PIPING ABOVE GROUND SHALL BE TYPE "L" HARD DRAWN COPPER PIPING ASSEMBLED WITH WROUGHT SWEAT FITTINGS. AS AN ALTERNATE, WATER PIPING CAN BE CROSS-LINKED POLYETHYLENE (PEX-A) TUBING AND ASTM F-1960 COLD EXPANSION FITTINGS. ALL WATER PIPING BELOW GROUND OR BELOW CONCRETE SLAB SHALL BE TYPE "K", COPPER TUBING, JOINTS IN COPPER TUBING SHALL BE WITH SILVER SOLDER SIMILAR OR EQUAL TO SIL-FOS.
33. ALL VALVES SHALL BE SAME SIZE AS PIPING SERVED (MINIMUM).
- GAS PIPING**
34. PLUMBING CONTRACTOR SHALL SUPPLY AND INSTALL GAS PIPING AS SHOWN ON PLANS. ALL GAS PIPING SHALL COMPLY WITH LOCAL CODES. PLUMBING CONTRACTOR SHALL MAKE FINAL CONNECTIONS TO ALL GAS EQUIPMENT. INSTALL REGULATORS AT EQUIPMENT WHERE REQUIRED BY MANUFACTURER OR CUTS SUPPLIED BY FURNISHING CONTRACTOR.
35. GAS PIPING SHALL BE SCHEDULE 40 ASTM A53 TYPE B BLACK STEEL WITH MALLEABLE FITTINGS. PROVIDE GAS COCK, UNION AND DIRECT LEG AT EVERY CONNECTION. PIPING 2-1/2" AND LARGER OR EXCEEDING 11WC SHALL BE WELDED. TEST GAS PIPING AT 25 PSI-REPAIR LEAKS AND RE-TEST.

PROJECT DATE	01/07/2022
Drawn By	JCL
Checked By	SDS
Sheet No.	

P001



1 PLUMBING WASTE/VENT PLAN
P111 SCALE: 1/4" = 1'-0"

GENERAL NOTES:

- SEE SHEET P003 FOR ALL GENERAL NOTES.
- SEE RISER DIAGRAMS FOR ALL PIPE SIZES NOT SHOWN.
- FIELD VERIFY ALL INVERTS BEFORE THE START OF ANY WORK.
- SEE FOUNDATION PLANS FOR PIPES THROUGH WALLS AND FOOTING DETAILS.

CONSTRUCTION NOTES:

- ROUTE 2" SINK COMPARTMENT DRAIN TO FLOOR SINK. PROVIDE AIR GAP TWICE THE DIAMETER OF THE DRAIN PIPE. SEE DETAIL 5/P311.
- ROUTE EQUIPMENT DRAIN(S) DOWN TO HUB DRAIN. PROVIDE AIR GAP TWICE THE DIAMETER OF THE DRAIN PIPE.
- ROUTE ICE MACHINE DRAIN PIPING INDIRECTLY AT 1/8" PER/FT SLOPE TO TRENCH DRAIN. TERMINATE WITH AIR GAP TWICE THE DIAMETER OF THE DRAIN PIPING.
- TRENCH DRAIN. INSTALL 1/4" BELOW FINISHED FLOOR AND SLOPE SLAB TOWARD DRAIN AT 1/8" PER FOOT. DRAIN SHALL BE SET LEVEL WITH CONCRETE, 1/4" BELOW FINISHED FLOOR. ADJUST AS REQUIRED. SEE DETAIL 8/P311.
- ROUTE WATER HEATER T&P RELIEF VALVE INDIRECTLY TO FLOOR DRAIN AND TERMINATE WITH AIR GAP TWICE THE DIAMETER OF THE DRAIN PIPE.
- ROUTE WATER FILTER FLUSH SYSTEM DRAIN PIPING DOWN INSIDE WALL AND DISCHARGE INTO HUB DRAIN. PROVIDE AIR GAP TWICE THE DIAMETER OF THE DRAIN.
- NEW FLOOR DRAIN SHALL BE INSTALLED 3/8" BELOW FINISH FLOOR. AND SLOPE SLAB TOWARD DRAIN AT 1/8" PER FOOT. DRAIN SHALL BE SET LEVEL WITH CONCRETE. SEE DETAIL 9/P311.
- THE PLUMBING CONTRACTOR SHALL PROVIDE CAST IRON P-TRAP AND 10' MINIMUM OF CAST IRON WASTE PIPING LEADER.
- ROUTE SYRUP LINES OVERHEAD, DOWN INSIDE WALL IN A PVC CHASE AND PENETRATE BELOW EQUIPMENT AND ROUTE TO SODA SYSTEM. COORDINATE WITH BEVERAGE VENDOR.
- ROUTE SYRUP LINES OVERHEAD, DOWN INSIDE S.S. CHASE AND PENETRATE BELOW EQUIPMENT AND ROUTE TO SODA SYSTEM. COORDINATE WITH BEVERAGE VENDOR.
- 1" TRAPPED CONDENSATE PIPING FROM COOLER/FREEZER CONDENSING COILS. PROVIDE AND INSTALL HEAT TRACE TAPE (10 W/LIN. FT.) ON PIPING WITHIN FREEZER. SLEEVE AND SEAL THRU COOLER/FREEZER WALL AT 12" ABOVE FINISHED GRADE OVER SPLASH BLOCK. TURN DOWN TO 6" (MIN.) ABOVE GRADE. PROVIDE INSECT/VERMIN SCREEN AT OPEN END OF PIPE.
- PC SHALL ATTEMPT TO LOCATE VENT WITHIN 15' OF GREASE TRAP.
- ROUTE 1 1/2" SINK COMPARTMENT DRAIN TO FLOOR SINK. PROVIDE AIR GAP TWICE THE DIAMETER OF THE DRAIN PIPE.
- ROUTE 1 1/2" VENT HORIZ. INSIDE LOW WALL TO FULL HEIGHT WALL AND ABOVE CEILING. CONNECT TO BRANCH VENT PIPING.
- ROUTE 3/4" CONDENSATE PIPING FROM DEHUMIDIFIER DOWN INSIDE WALL AND TERMINATE PIPING OVER EXTERIOR SPLASH BLOCK W/ 2" AIR GAP (MIN.) INSULATE LINE WITH CLOSED CELL ARMAFLEX. PROVIDE INSECT/VERMIN SCREEN AT OPEN END OF PIPE.

IF ANY DISCREPANCIES ARE FOUND ON THE PLANS, THE PLUMBING CONTRACTOR SHALL BID THE MORE CONSERVATIVE SPECIFICATION AND CALL ENGINEER FOR CLARIFICATION.

WHILE EVERY ATTEMPT HAS BEEN MADE IN THE PREPARATION OF THIS PLAN TO AVOID MISTAKES, THE DESIGNER AND COMPANY CANNOT GUARANTEE AGAINST ERROR OR UNFORESEEN FIELD CONDITIONS. THE CONTRACTOR OR BUILDER MUST CHECK ALL DIMENSIONS, DETAILS AND REPORT ANY DISCREPANCIES.

LMHT Project No. 21318

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LMHT ENGINEER LICENSE
NUMBER - C-1369

PROJECT: **HIGHWAY 55**
30 PROTOTYPE
1424 CURTIS BRIDGE ROAD
WILKESBORO, NC 28697
DRAWING: PLUMBING WASTE/VENT PLAN

Revisions

THRU ADDENDUM	"A"
01/20/2022	
ADDENDUM "A" - 4.26.2022	
EQUIP. UPDATE - 06.24.2022	

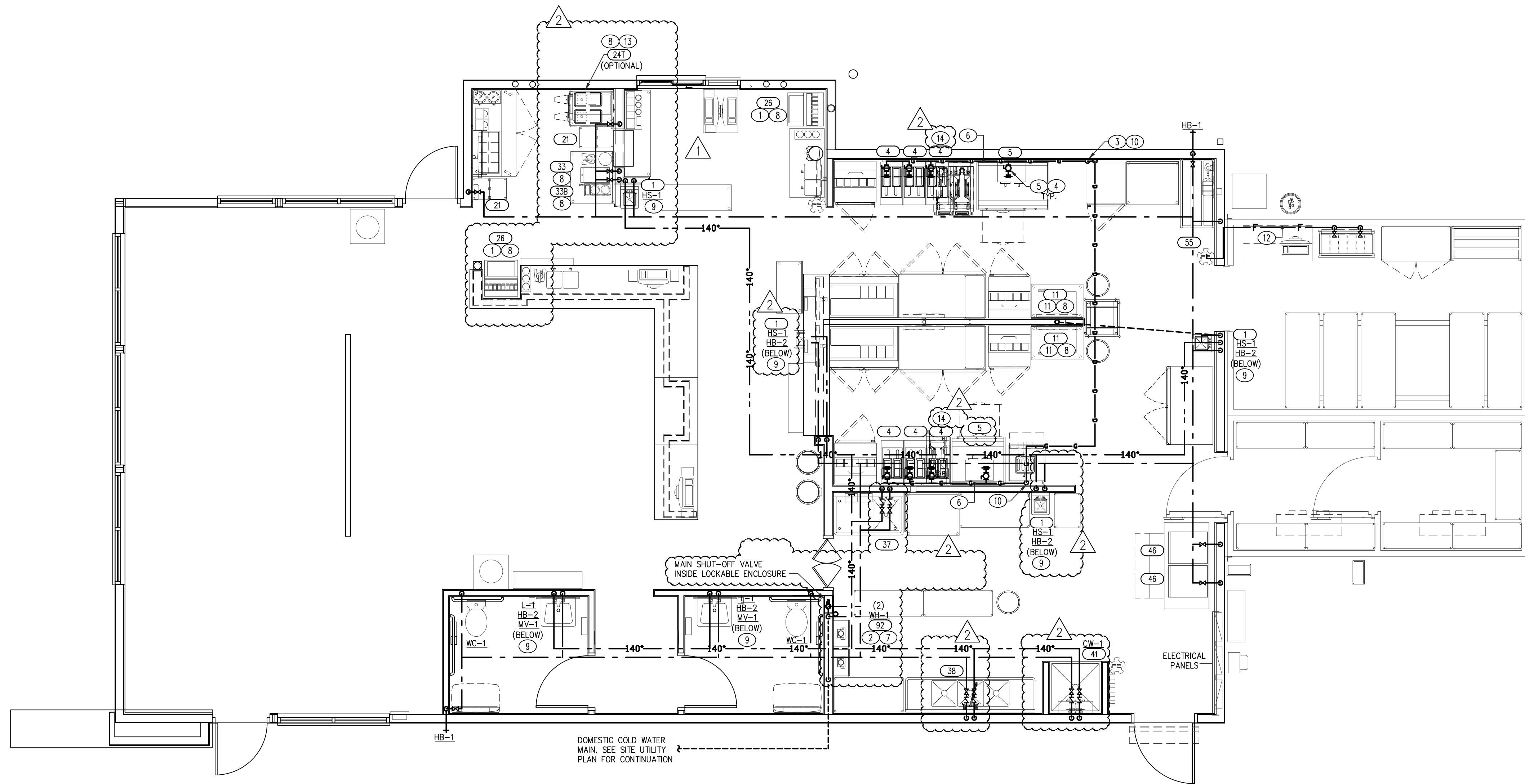
PROJECT DATE
01/07/2022

Drawn By
JCL

Checked By
SDS

Sheet No.

P111



1 PLUMBING WATER AND GAS PLAN
P112 SCALE: 1/4" = 1'-0"

GENERAL NOTES:

- SEE SHEET P001 FOR ALL GENERAL NOTES.
- SEE RISER DIAGRAMS SHEET P211 FOR ALL PIPE SIZES NOT SHOWN.
- SEE FOUNDATION PLANS FOR PIPES THROUGH WALLS AND FOOTING DETAILS.
- PC SHALL VERIFY AVAILABLE WATER PRESSURE AT THE BUILDING. WATER PRESSURE REQUIRED AT WATER HEATER SHALL BE 30 PSIG MIN AND 20 PSIG AT FLUSH VALVE WATER CLOSERS. IF AVAILABLE PRESSURE IS LESS PROVIDE BOOSTER PUMP TO MAINTAIN ADEQUATE PRESSURE. CONTACT ENGINEER FOR PROPER SIZING OF BOOSTER PUMP SYSTEM DOWNSTREAM OF BACKFLOW PREVENTER AS REQUIRED.

CONSTRUCTION NOTES:

- PROVIDE 1/2" CW LINE FROM PYTHON TO SODA MACHINE. COORDINATE WITH BEVERAGE COMPANY FOR CONNECTIONS TO TAKE PLACE INSIDE THE CABINET. PROVIDE IN-LINE ASSE 1022 BACKFLOW PREVENTER AND SHUT OFF VALVE.
- GAS PIPING FROM ABOVE CEILING TO WATER HEATERS. SEE DETAIL 1/P301 AND GAS RISER 2/P211.
- INSTALL ANSUL SUPPLIED MECHANICAL VALVE, VALVE PROVIDED WITH HOOD ANSUL SYSTEM PACKAGE. FIELD COORDINATE. MOUNT BELOW CEILING. SECURE GAS TO ADJACENT WALLS AS REQUIRED.
- PROVIDE AND INSTALL GAS CONNECTIONS TO EQUIPMENT PER MANUFACTURERS RECOMMENDATIONS. PROVIDE 6" DIRT LEG, UNION, GAS COCK AND MANIFOLD REGULATOR ON OR BEFORE ALL GAS FIRED EQUIPMENT.
- PC SHALL INSTALL 18" GAS FLEX HOSE FLEXIBLE CONNECTION TO ALLOW EQUIPMENT TO BE MOVED FOR CLEANING WITH QUICK DISCONNECT (PROVIDED BY F.E.C).
- PC SHALL ROUTE GAS HEADER AT 12" A.F.F. TO COOKING EQUIPMENT AS SHOWN ON PLAN. SEE GAS RISER 2/P211 FOR BRANCH PIPE SIZES. SECURE GAS TO ADJACENT WALLS AS REQUIRED.
- PC SHALL INSTALL CPVC PIPING AND CONNECTIONS TO WATER HEATER, AND ALL OTHER EQUIPMENT PER ALL LOCAL AND STATE PLUMBING CODE REQUIREMENTS AS CONCERNING CPVC PIPING.
- PC SHALL PROVIDE CUT-OFF VALVE W/ QUICK DISCONNECT ACCESSIBLE FOR CLEANING.
- PROVIDE MIXING VALVE BELOW EACH HAND SINK/LAVATORY. SET TEMPERATURE TO MAINTAIN 110" (MAX.) AND HOSE BIBB WHERE INDICATED ON PLANS. SEE DETAIL 10/P311.
- ROUTE GAS PIPING FROM ABOVE CEILING, DOWN SECURE ALONG WALL. SEE DETAIL 7/P311.
- PROVIDE 3/4", INSULATED, HW LINE BELOW SLAB AND UP TO STEAMERS.
- ROUTE FILTERED WATER PIPING HIGH SECURE ALONG WALL AND TERMINATE PER VENDORS DIRECTION.
- OPTIONAL EQUIPMENT - G.C. TO VERIFY/COORDINATE FINAL EQUIPMENT PACKAGE PRIOR TO INSTALLING UTILITIES OR CONNECTING EQUIPMENT. IF OPTIONAL CUSTARD MACHINE #24T IS PURCHASED, BRANCH 1/2" CW PIPING FROM MAIN DOWN WALL TO NEW CUSTARD MACHINE.
- OPTIONAL EQUIPMENT - G.C. TO VERIFY/COORDINATE FINAL EQUIPMENT PACKAGE PRIOR TO INSTALLING UTILITIES OR CONNECTING EQUIPMENT. IF OPTIONAL CLAMSHELL #65D GRILL IS PURCHASED, KEEP 1-1/4" GAS MANIFOLD WITH TWO FRYERS IN THIS LOCATION.

Revisions

THRU ADDENDUM	"A"
01/20/2022	
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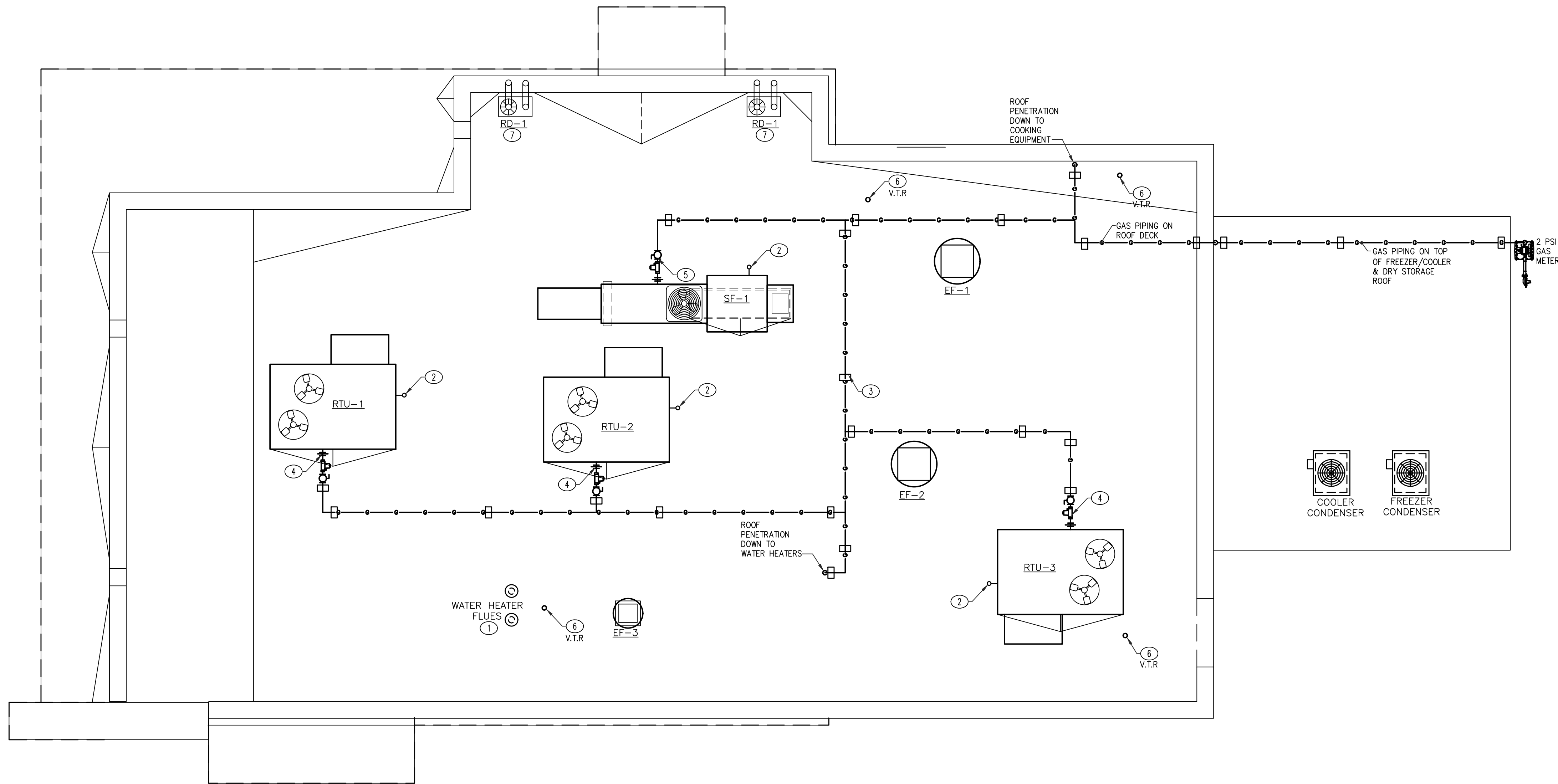
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SDS

Sheet No.

P112

IF ANY DISCREPANCIES ARE FOUND ON THE PLANS, THE PLUMBING CONTRACTOR SHALL BID THE MORE CONSERVATIVE SPECIFICATION AND CALL ENGINEER FOR CLARIFICATION.

WHILE EVERY ATTEMPT HAS BEEN MADE IN THE PREPARATION OF THIS PLAN TO AVOID MISTAKES, THE DESIGNER AND COMPANY CANNOT GUARANTEE AGAINST ERROR OR UNFORESEEN FIELD CONDITIONS. THE CONTRACTOR OR BUILDER MUST CHECK ALL DIMENSIONS, DETAILS AND REPORT ANY DISCREPANCIES.



1 PLUMBING ROOF PLAN
P113 SCALE: 1/4" = 1'-0"

GENERAL NOTES:

- A. SEE SHEET P001 FOR ALL GENERAL NOTES.
- B. TYPICAL VENT THRU-ROOF DETAIL 11/P311.
- C. ALL PENETRATIONS THRU ROOF SHALL BE BY GENERAL CONTRACTOR AS PER ROOF MANUFACTURER'S STANDARD.
- D. DO NOT SCALE DRAWING. ALL PLUMBING VENT OUTLETS THROUGH ROOF SHALL TERMINATE AT PARAPET HEIGHT (MIN.).
- E. ALL PLUMBING ON ROOF MUST BE PERMANENTLY SECURED AND ABLE TO WITHSTAND HIGH WIND LOADS.

CONSTRUCTION NOTES:

- 1 PC SHALL ROUTE WATER HEATER CONCENTRIC VENT SYSTEM TO ROOF AND INSTALL PER MANUFACTURERS RECOMMENDATIONS. PIPING SHALL NOT EXHAUST WITHIN 10'-0" FROM ANY FRESH AIR INTAKE. MINIMUM DISTANCE FROM PARAPET WALL SHALL BE 2'-0". OFFSET AS REQUIRED PER MANUFACTURERS RECOMMENDATION.
- 2 PC SHALL INSTALL SCH. 40 1" PVC CONDENSATE DRAIN LINE FROM EACH RTU AND SF ROUTE TO SPLASH BLOCK ON ROOF. SEE DETAIL 6/P311.
- 3 PIPE SUPPORTS SPACED AT EVERY 10' AND AT ALL CHANGES IN DIRECTION (TYP.). SEE DETAIL 3/P311
- 4 PC SHALL PROVIDE/INSTALL UNION, GAS COCK, DRIP LEG AND REGULATOR AT EACH GAS CONNECTION. REGULATOR VENT SHALL FACE DOWN TO PREVENT ANY RAIN FROM ENTERING THE VALVE.
- 5 HEATED MAKE-UP AIR GAS CONNECTION, SEE THIS SHEET AND HOOD SHEETS.
- 6 VENT THROUGH ROOF, SEE DETAIL 11/P311.
- 7 ROUTE 4" SCH 40 PVC HORIZONTAL AND VERTICAL ROOF DRAIN PIPING DOWN INSIDE WALL AND TERMINATE PER DETAIL ON SHEET A501. SEE DETAIL 6/A161 FOR ROOF DRAIN FUTURE RD-1 INSTALLATION.

ROOF DRAIN SIZING

Physical Data			
Roof Area (ft²):	A.	2058.08	
Are vertical surfaces draining onto roof (Y/N)?:		y	
Front Parapet Area (SF):	B.	199.55	
Rear Parapet Area (SF):	C.	207.55	
Side Parapet Areas (SF):	C.1	689.41	
Parapet Area (ft²) (BxCx0.5):	D.	548.26	
Towers or other large vertical area (not parapet) (Y/N):	n		
Tower 1 Drainage Front Area (SF):	E1.	0.00	
Tower 1 Side Drainage Area (SF):	F1.	0.00	
Tower 1 Vertical Area (ft²) (E1xF1x0.5):	G1.	0.00	
Tower 2 Drainage Front Area (SF):	E2.	0.00	
Tower 2 Side Drainage Area (SF):	F2.	0.00	
Tower 2 Vertical Area (ft²) (E2xF2x0.5):	G2.	0.00	
Vertical Area Requirement (ft²) (D+G1+G2):	H.	548.26	
Total Developed Area (ft²) (A+H):	J.	2606.34	
Table Lookup Data		Primary Conductors	Secondary Conductors
Rainfall Rate (in/hr):		4.00	5.00
Area Correction Factor:		1.00	1.00
VERTICAL CONDUCTORS			
Number of Vertical Conductors:	K.	2	2
Vertical conductor Size (in):		4	4
Calc. Area/Vertical Conductor (ft²) (J/K):	L.	274	274
Maximum Area per Conductor (ft²):		4600	3680
Result:			OK
HORIZONTAL CONDUCTORS			
Large Rainfall Correction Factor:		4.00	5.00
Horizontal conductor Size (in):		4	4
Conductor Slope (% - 1/8 in):		1	1
Calc. Area/Horizontal Conductor (ft²) (J/L):		274	274
Maximum Area per Conductor (ft²):		7200	15050
Result:		OK	OK

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WHILE EVERY ATTEMPT HAS BEEN MADE IN THE PREPARATION OF THIS PLAN TO AVOID MISTAKES, THE DESIGNER AND COMPANY CANNOT GUARANTEE AGAINST ERROR OR UNFORESEEN FIELD CONDITIONS. THE CONTRACTOR OR BUILDER MUST CHECK ALL DIMENSIONS, DETAILS AND REPORT ANY DISCREPANCIES.

LHMT Project No. 21318

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PROJECT: HIGHWAY 5530 PROTOTYPE1424 CURTIS BRIDGE ROADWILKESBORO, NC 28697DRAWING: PLUMBING ROOF PLAN

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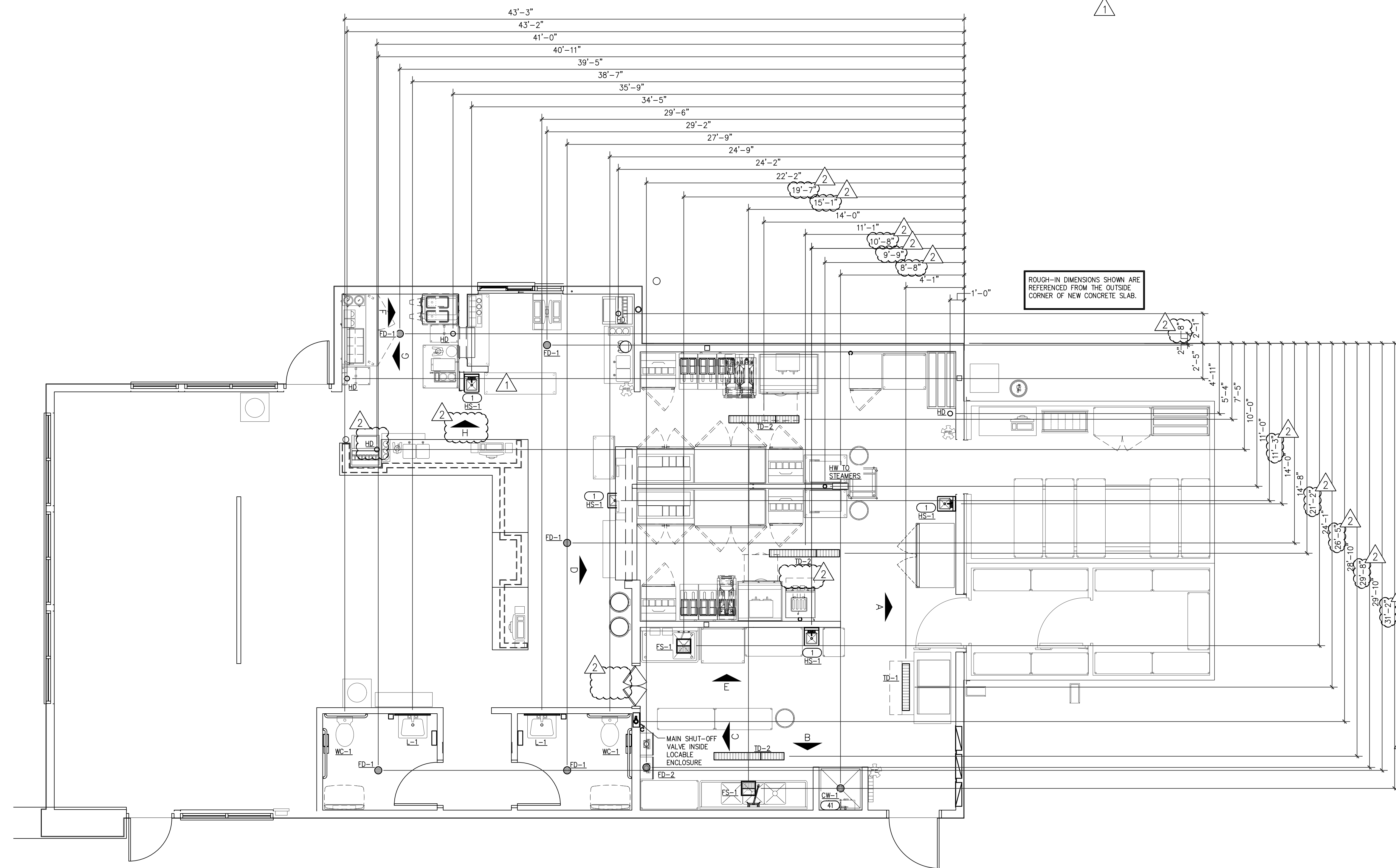
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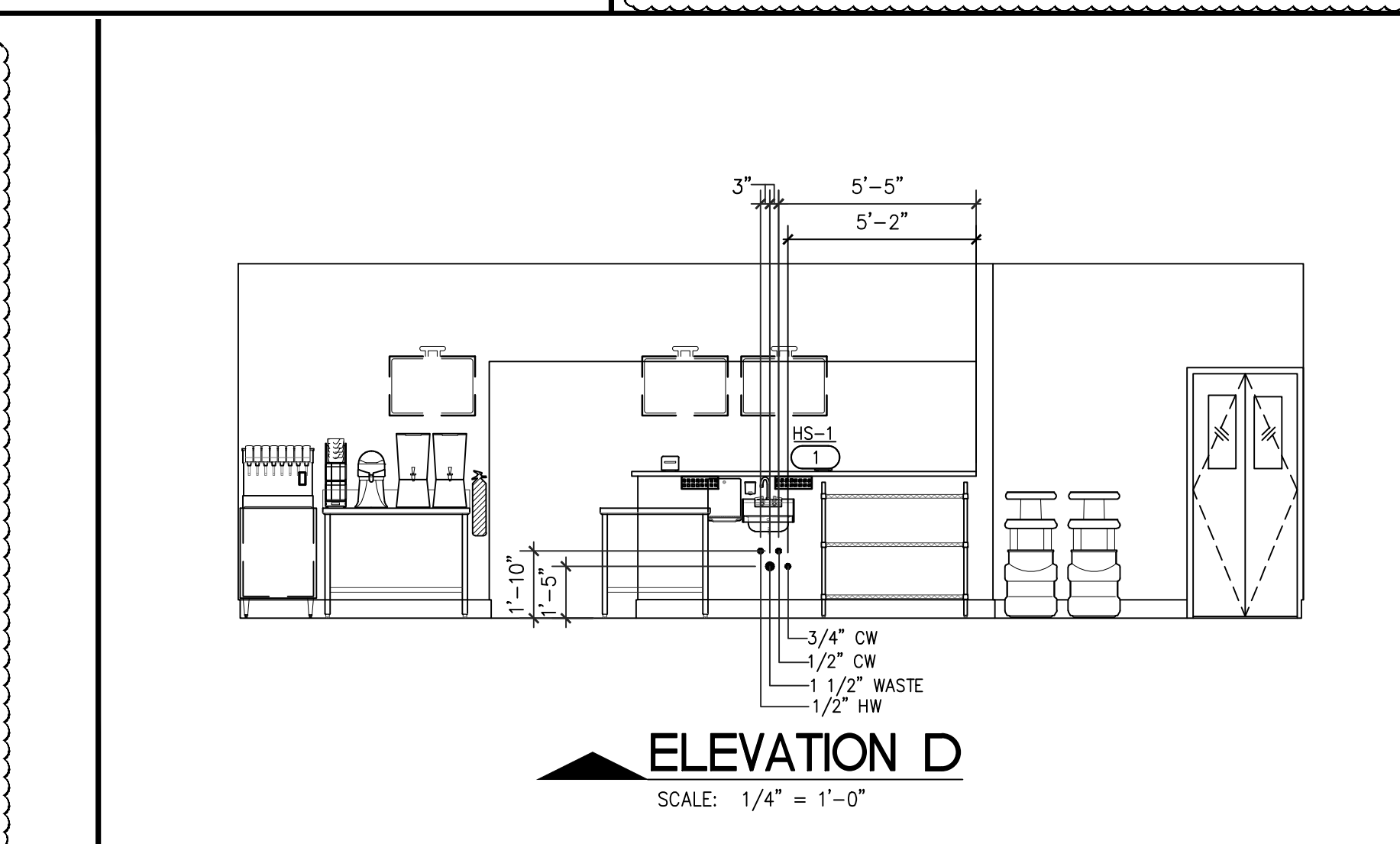
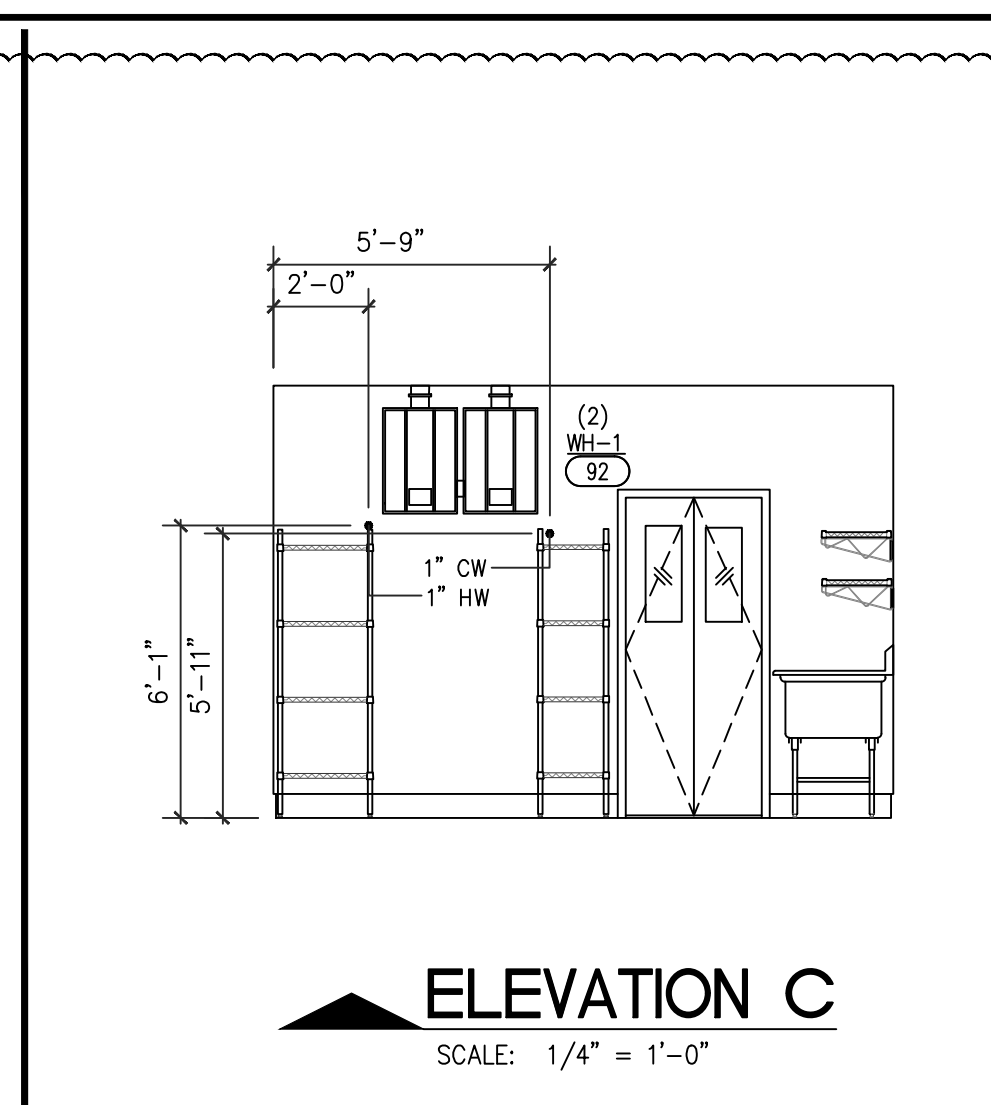
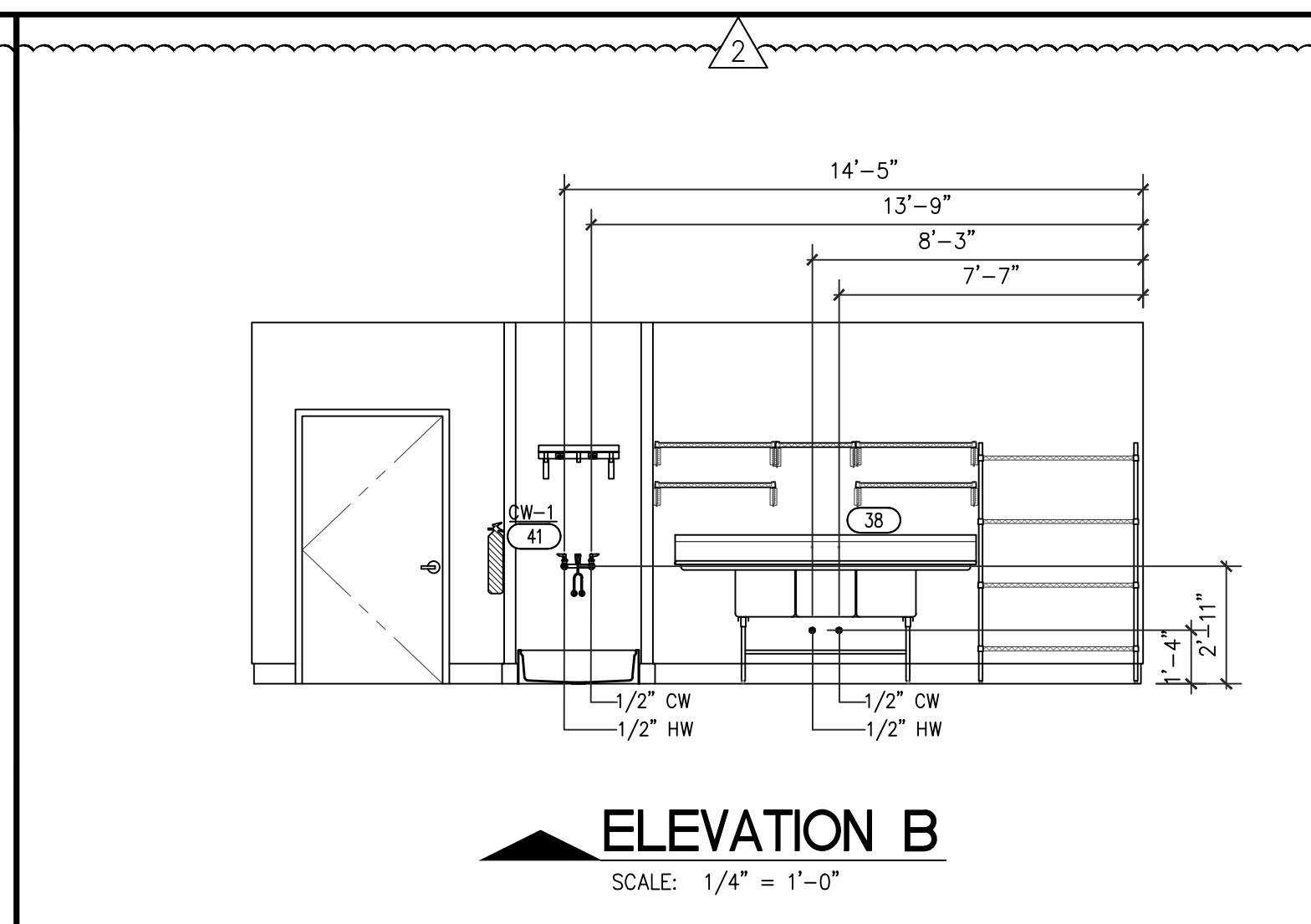
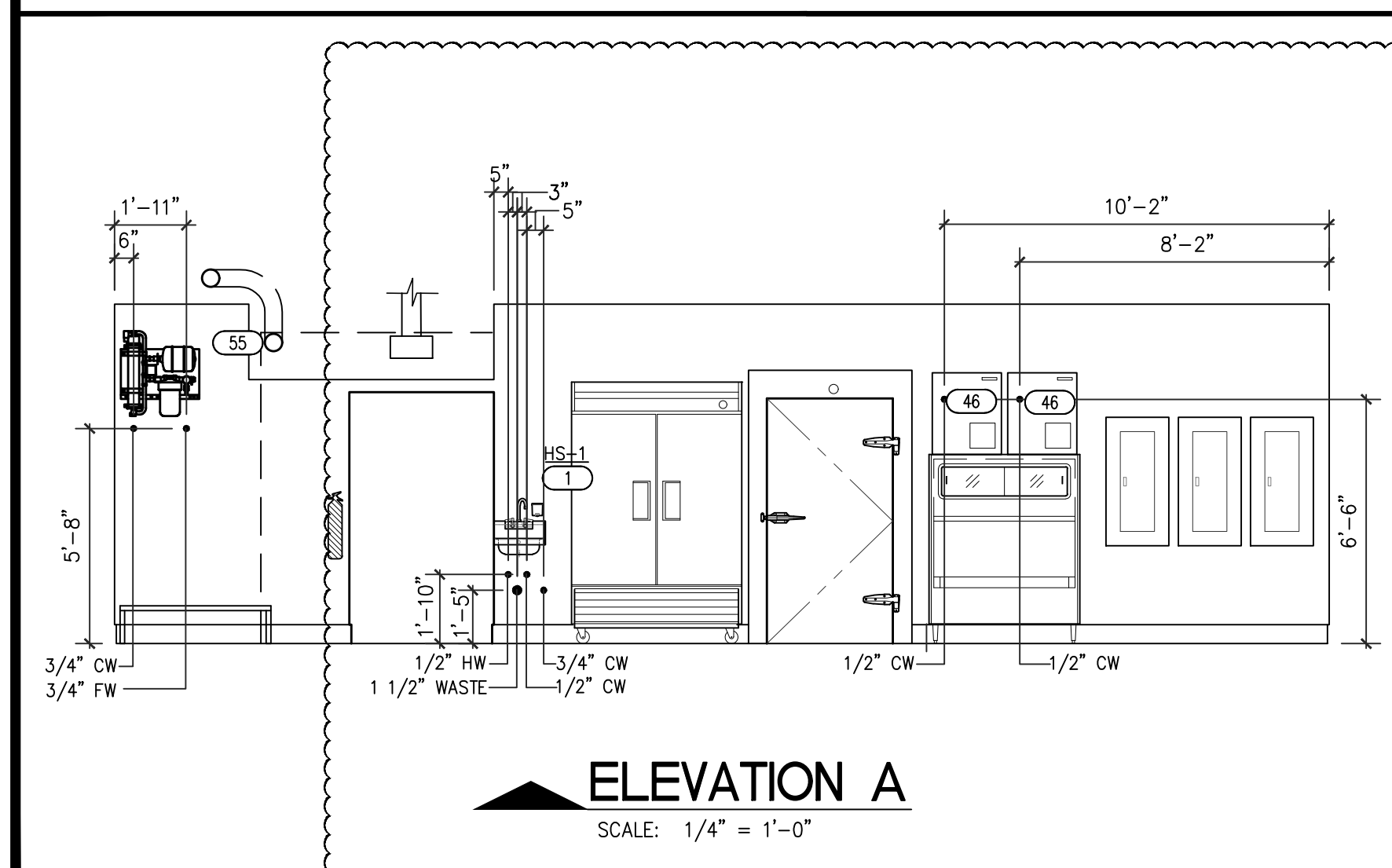
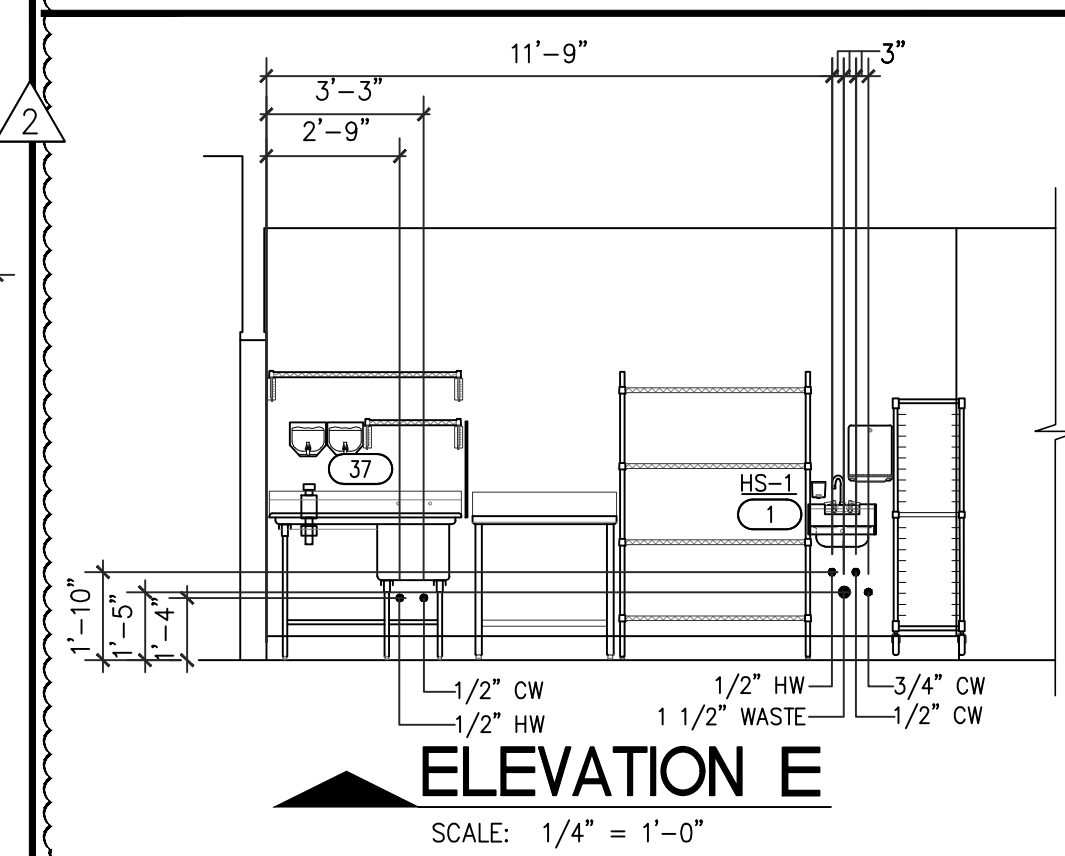
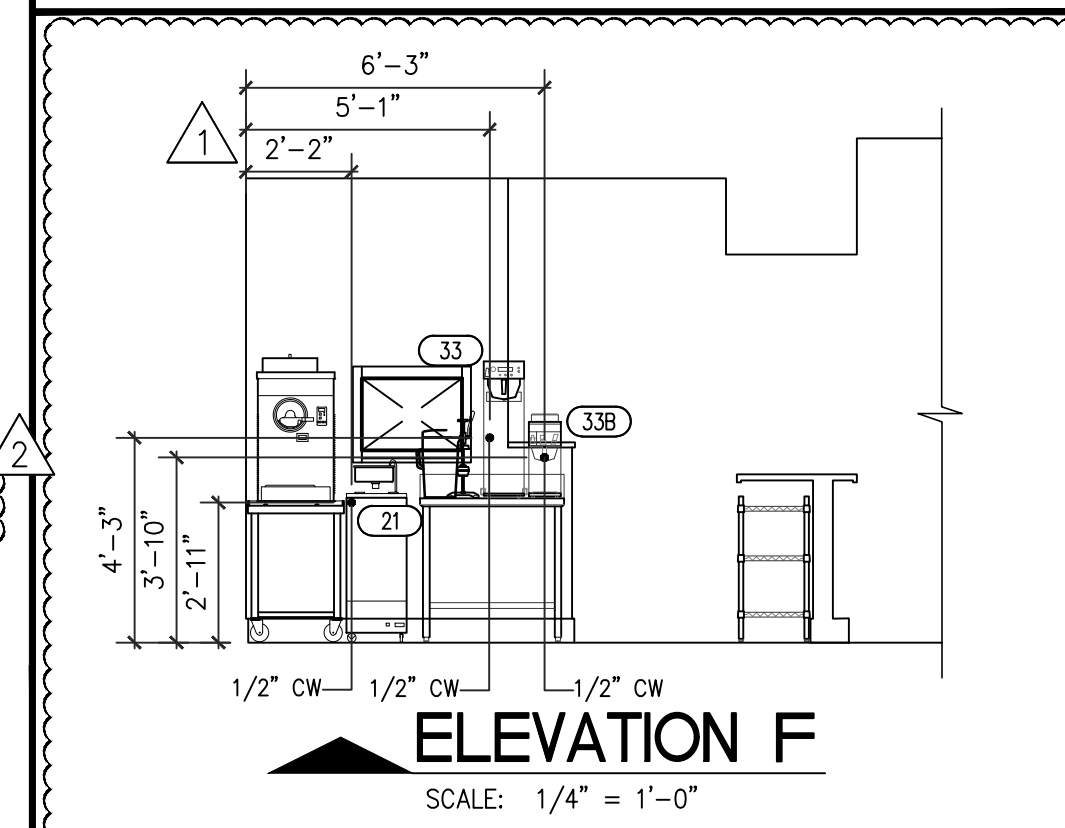
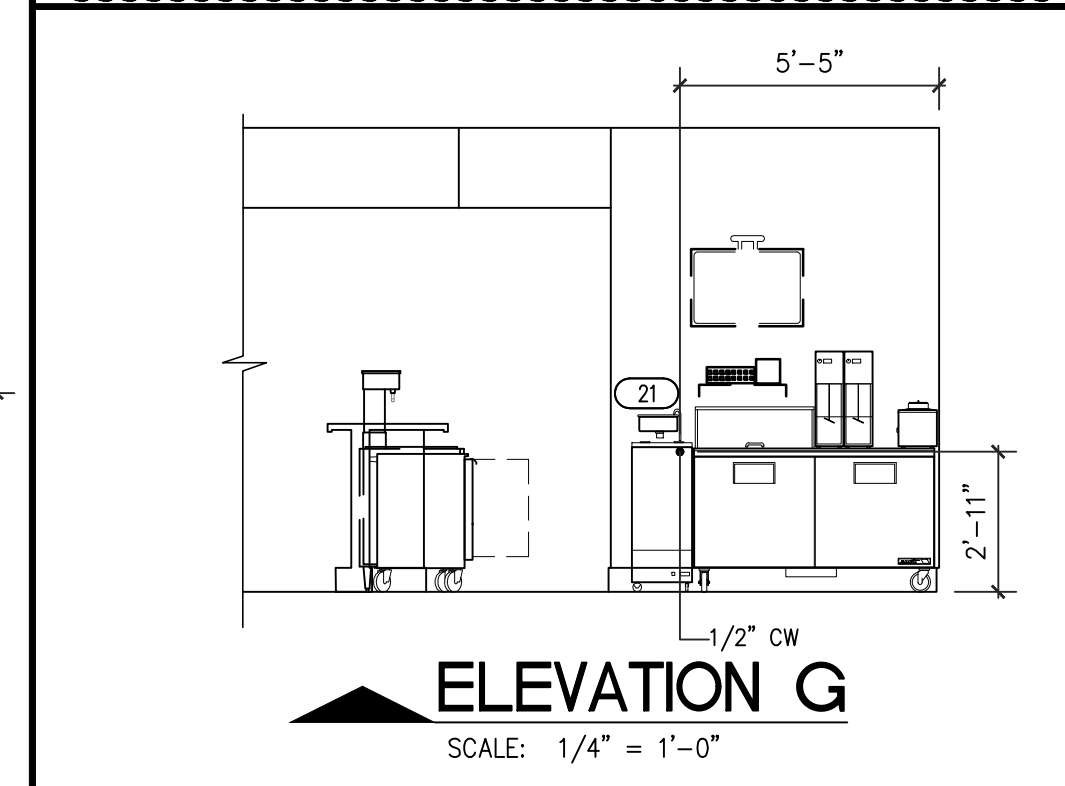
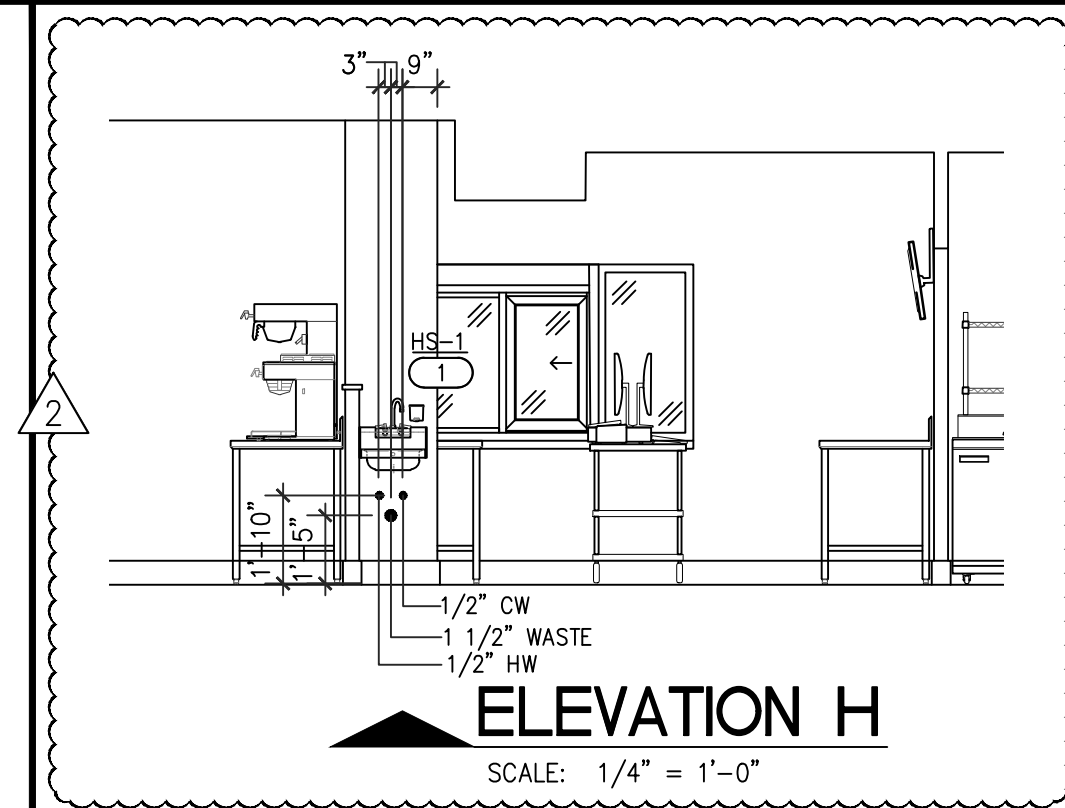
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Sheet No. P1132



1 PLUMBING ROUGH-IN PLAN
SCALE: N.T.S.



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