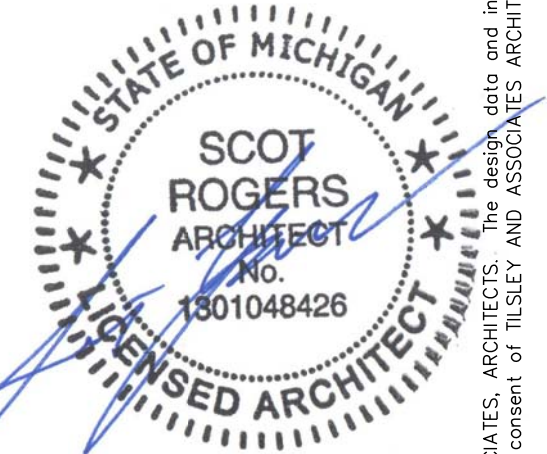


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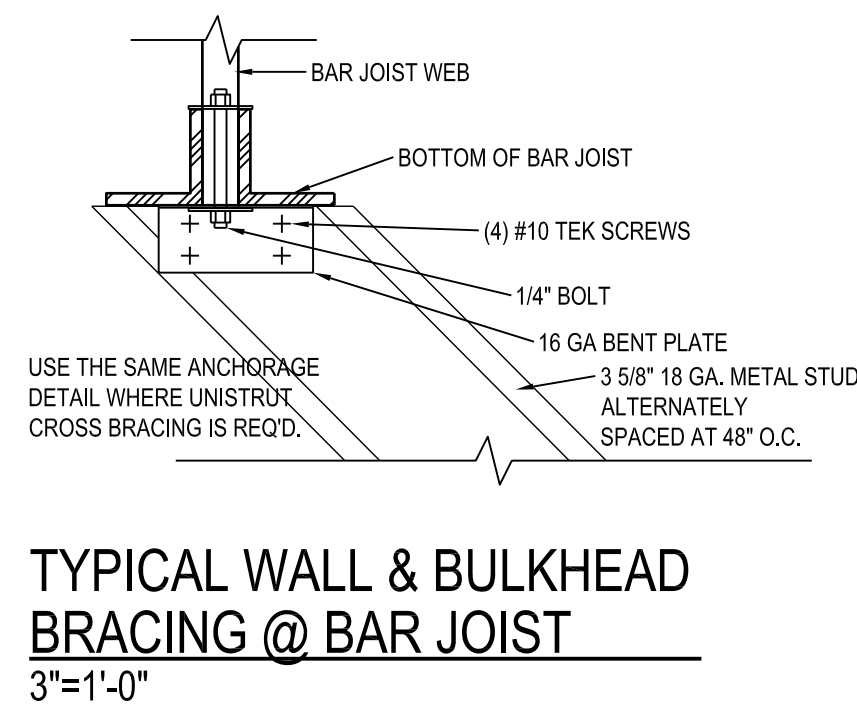
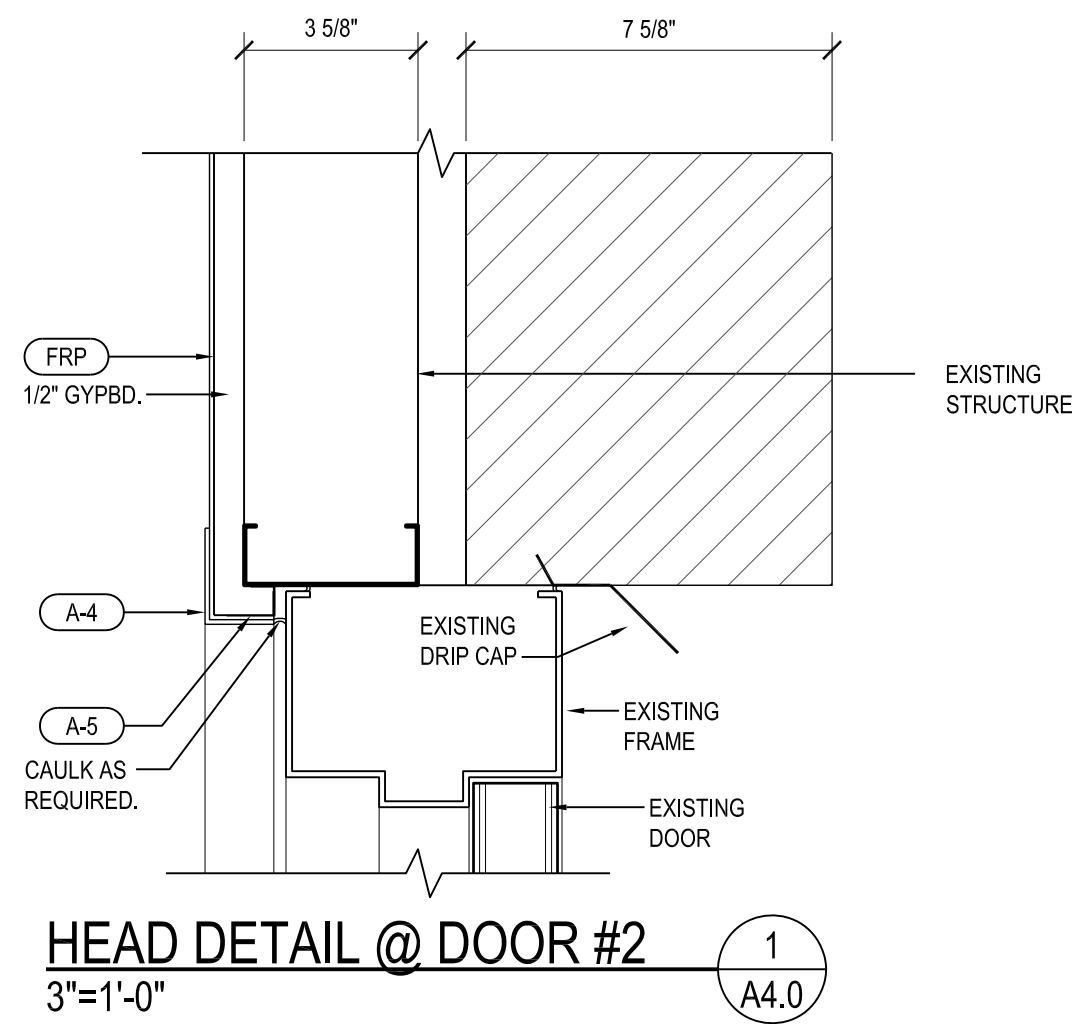
A New Penn Station Restaurant
Campus Collection
19 Mile & Garfield
Clinton Twp., MI 48038



No.	Revision

Sheet Title:
Floor Plan
Issued: 11/02/22
Scale: As Noted
Drawn: S. Rogers
22044 PS Clinton Twp. MI

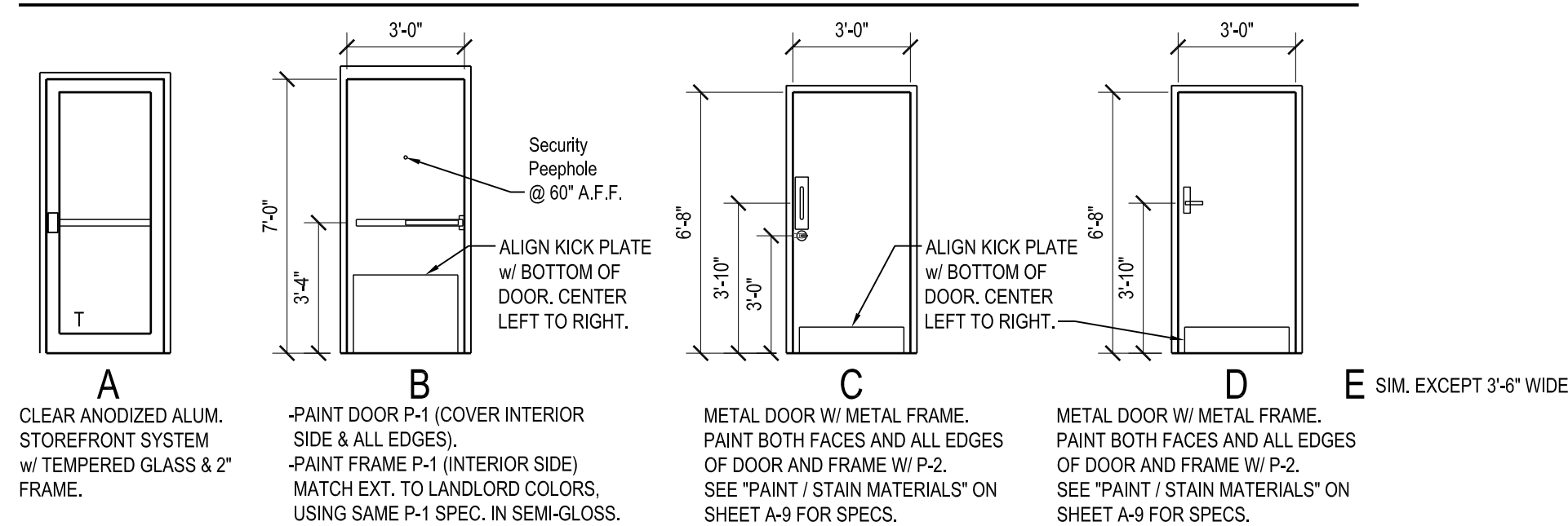
A4.0



DOOR SCHEDULE		# = TYPE, THERE MAY BE MORE THAN ONE DOOR PER EACH TYPE LISTED.					
CODE	SIZE	MATERIAL	TYPE	FRAME	HARDWARE	CLOSER	NOTES
1	3'0" x 7'0" x 1'34"	ALUM & GLASS	A	ALUM	PANIC BAR LATCH DEVICE COMPATIBLE WITH EXISTING DOOR.	EXIST	1, 3, 4
2	3'0" x 7'0" x 1'34"	METAL	B	METAL	VON DUPRIN SERIES 22 RIM DEVICE W/ 299 STRIKE IN SP28 FINISH AND CORBIN RUSWIN 3000-200-6-4-4-626 RIM CYLINDER. PROVIDE VON DUPRIN 22NL-F PULL DEVICE AND A LATCH GUARD IN ALUMINUM FINISH. SWEEP, THRESHOLD, WEATHERSTRIP, DRIP CAP & PEEPHOLE. 190S 24"x34" KICK PLATE INTERIOR SIDE.	EXIST	3 & 5
3	3'0" x 6'8" x 1'34"	METAL	C	METAL	SCHLAGE; PUSH PLATE (630 FINISH), 1 1/2 PR HINGES (652 FINISH), HAGER; 4" X 16" 34J PULL PLATE -INCL. 10" 4J PULL (630 FINISH), 190S 8"x34" KICK PLATE BOTH SIDES (630 FINISH), FALCON; D271K LOCK W/ 2" ACCESSIBLE LEVER (630 FINISH).	NEW	2
4	3'0" x 6'8" x 1'34"	METAL	D	METAL	SCHLAGE: RHODES LEVERS, (1) - LOCKSET (STORAGE FUNCTION), ALL 630 FINISH. CLOSET SIDE ALWAYS UNLOCKED.	NEW	2
5	3'0" x 6'8" x 1'34"	METAL	E	METAL	SCHLAGE: RHODES LEVERS, (1) - LOCKSET (ENTRANCE FUNCTION), ALL 630 FINISH. PREP AREA SIDE ALWAYS UNLOCKED.	NEW	2

- DOOR SCHEDULE NOTES:
1. SEE DOOR & WINDOW SPECIFICATIONS FOR PANIC DEVICE. IF ANOTHER TYPE IS REQUIRED FOR THE EXISTING DOOR, IT MUST MATCH THE PERFORMANCE SPECIFIED.
2. AT ALL DOORS THAT REQUIRE A STOP, PROVIDE HAGER 237W 630 FINISH CONCAVE WALL TYPE, MOUNT AT HEIGHT OF THE DOOR HARDWARE, PROVIDE BLOCKING.
3. UPGRADE / REPAIR EXISTING HARDWARE TO HARDWARE SPECIFICATION SHOWN.
4. USE BALL BEARING HINGES.
5. PROVIDE CHAIN GUARD SET @ 120 deg.
6. SEE PLAN FOR WHICH DOOR IS ACTIVE / INACTIVE. DO NOT PROVIDE EXTERIOR HANDLE ON INACTIVE DOOR.

DOOR TYPES



DOOR AND WINDOW SPECIFICATIONS

ALL EXTERIOR GLAZING IS EXISTING. FOR PURPOSES OF COMPARISON, ALL STOREFRONT IS SIMILAR TO THE FOLLOWING: "ALL ALUMINUM STOREFRONT SHALL BE CLEAR ANODIZED AND ALL GLAZING FOR DOORS & WINDOWS SHALL BE 1" INSULATED PANELS (EXCEPTION WOULD BE IN ORDER TO MATCH EXISTING STOREFRONT SYSTEM). ALL FRAMES SHALL BE EQUAL TO KAWNEER TRI-FAB 451-T (EXTRUDED SUB-SILL INCLUDED) USE SERIES 180 NARROW-STYLE DOOR OR EQUAL WITH INTER-MEDIATE OFFSET PIVOTS. SURFACE CLOSERS SHALL BE EQUAL TO LCN #1074. HARDWARE SHALL BE EQUAL TO F-2 STYLE PUSH/PULL W/ THUMB-TURN NIGHT BOLT. PANIC DEVICES (WHERE REQUIRED) SHALL BE EQUAL TO DOR-O-MATIC 1990 CONCEALED ROD EXIT DEVICE WITH G-2 PULL."

DOOR CLOSER

MODEL - 8501-690 BY NORTON
COLOR - STAT
NOTE: CLOSERS MUST BE ORDERED HAND SPECIFIC, REFER TO FLOOR PLAN

CODE	TITLE	FRAMING	MATERIAL - SEE "FLOOR PLAN NOTES" THIS SHEET	NOTES
1	DEMISING WALL	METAL STUDS	1 LAYER OF 5/8" TYPE 'X' GYPSUM BOARD EACH SIDE & INSULATION	1 & 3
2	EXTERIOR WALL	6" METAL / BRICK VENEER	EXISTING FRAMING & INSULATION	4
3	PARTITION WALL	3-5/8" METAL	1/2" GYPSUM BOARD BOTH SIDES	2
4	PARTITION WALL	6" METAL	1/2" GYPSUM BOARD BOTH SIDES	2
5	PARTITION WALL	3-5/8" METAL	1/2" GYPSUM BOARD BOTH SIDES w/ INSULATION	2
6	PARTITION WALL	6" METAL	1/2" GYPSUM BOARD BOTH SIDES w/ INSULATION	2
7	FURRED WALL	1-5/8" METAL	1/2" GYPSUM BOARD ONE SIDE	2

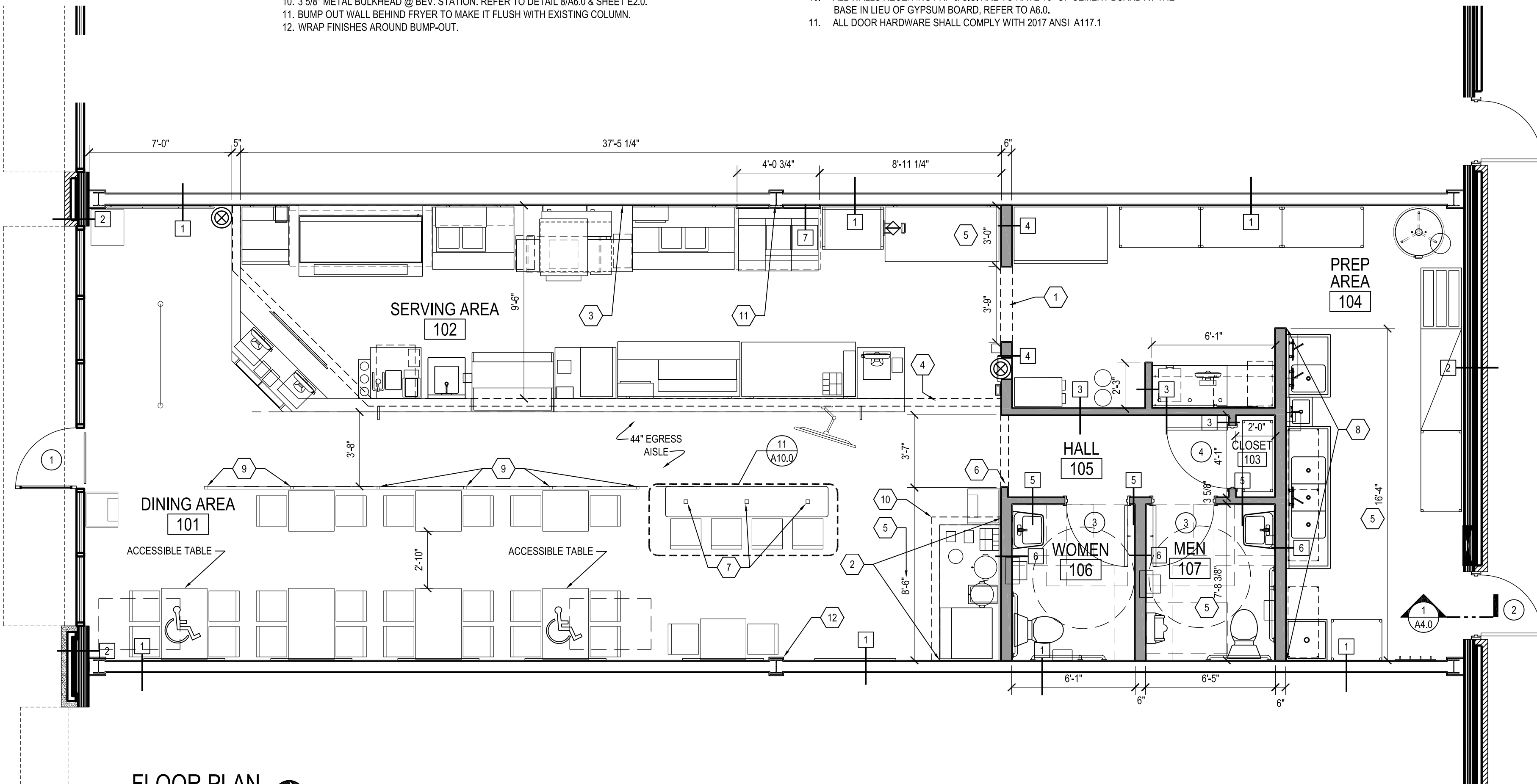
- WALL TYPE NOTES:
1. 1-HR RATED WALL TO ROOF DECK PER UL U419
2. GYPSUM BOARD, 3" ABOVE CEILING.
3. ANY CEMENT BOARD INSTALLED IN A FIRE-RATED ASSEMBLY MUST BE DUROCK NEXT GEN TO CONFORM WITH UL REQUIREMENTS FOR 1 OR 2 HOUR RATED WALLS.
4. EXISTING WALL. REPAIR ANY DISTURBED INSULATION OR GYPBD AS REQUIRED.

FLOOR PLAN KEYED NOTES

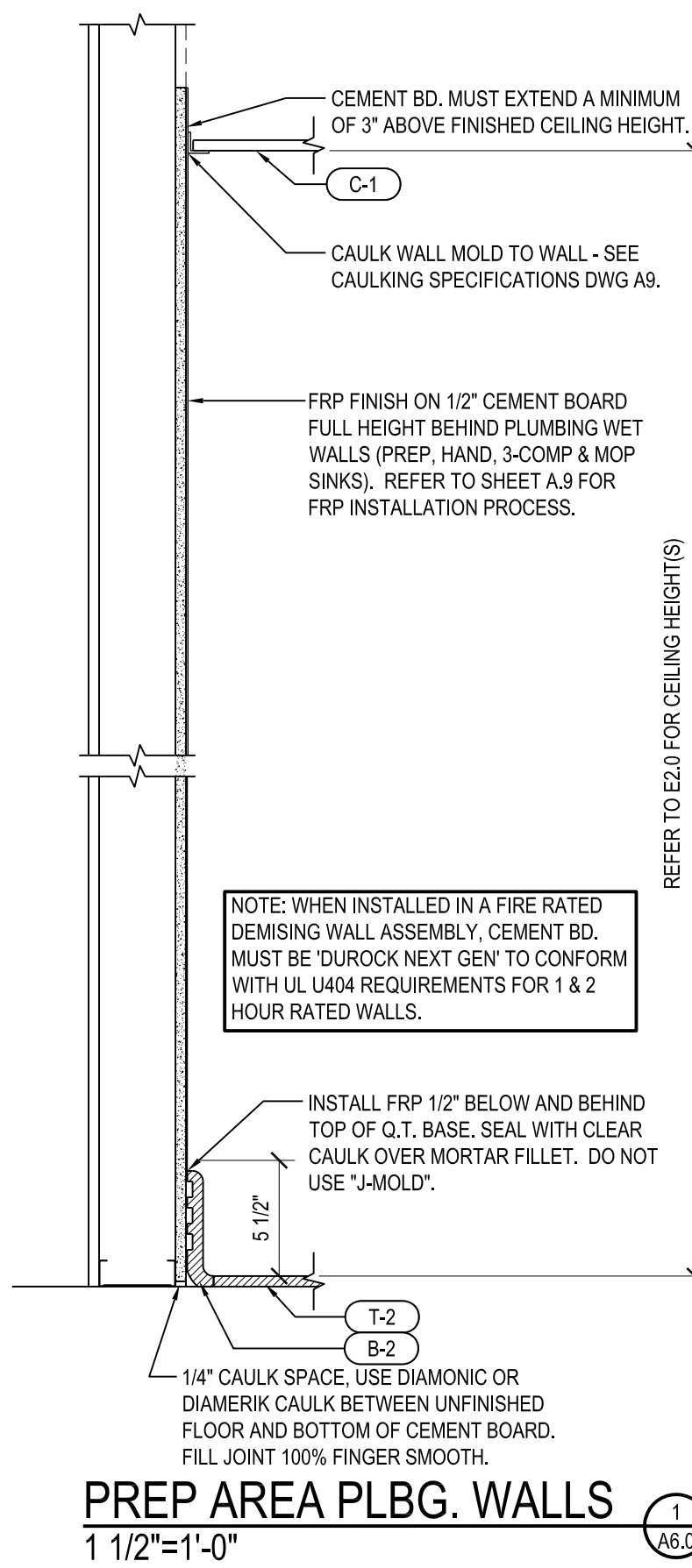
- HEADER = 7'-4" A.F.F. WRAP JAMB AND HEADER W/ FRP-1, STAINLESS STEEL CORNERS-CASHIER'S SIDE. FRP CORNERS- PREP SIDE. NOTES 3 & 7 ON SHEET A9.0
- PROVIDE 16" OF CEMENT BOARD AT BOTTOM OF WALL BEHIND AND ON SIDE OF BEVERAGE TABLE. SEE DETAIL 3/A6.0 & SHEET A9.0.
- REFER TO 14/A10.0 FOR SPECIAL WALL TREATMENT BEHIND COOK LINE.
- BULKHEAD ABV. PREFABRICATED SERVING COUNTER. REFER TO SECTION 7/A6.0.
- THIS DIMENSION IS FROM FINISHED FACE OF GYPSUM BOARD TO EDGE OF METAL STUD.
- 3/8" METAL STUD SOFFIT. REFER TO DETAIL 14/A6.0.
- CORED FLOOR PENETRATION REQUIRED FOR SEATING COUNTER POSTS. 4" DIA MAX CORE. DO NOT CORE FOR POSTS UNTIL THE TILE IS INSTALLED. SEE P.1.0.
- PROVIDE 1/2" CEMENT BOARD - FULL HEIGHT - ON PLUMBING WALL IN PREP AREA.
- SEE DINING RAIL DETAILS 13 & 13B/A6.0. SEE P.1.0 FOR CORED FLOOR PENETRATION. **DO NOT CORE FOR POSTS UNTIL THE TILE IS INSTALLED.**
- 3/8" METAL BULKHEAD @ BEV. STATION. REFER TO DETAIL 8/A6.0 & SHEET E2.0.
- BUMP OUT WALL BEHIND FRYER TO MAKE IT FLUSH WITH EXISTING COLUMN.
- WRAP FINISHES AROUND BUMP-OUT.

FLOOR PLAN NOTES

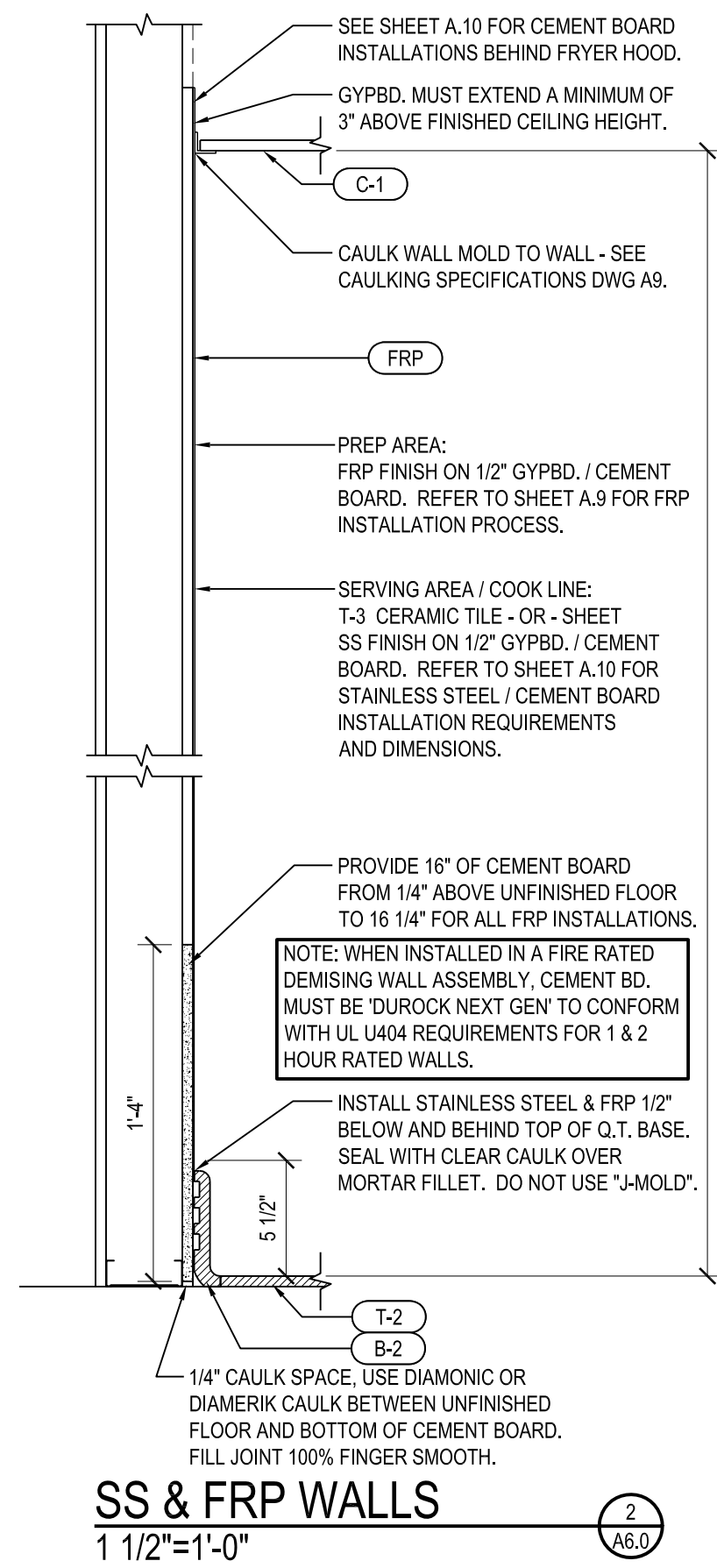
- ALL METAL STUD FRAMING IS 20 GAGE @ 16" O.C. UNLESS NOTED OTHERWISE.
- RESTORE OR PROVIDE NEW INSULATION MATERIALS IN EXTERIOR & DEMISING WALL(S) AFTER INSTALLING PENN STATION UTILITIES.
- PROVIDE BLOCKING IN ALL PARTITIONS WHERE REQUIRED FOR SUPPORT OF EQUIPMENT, FIXTURES, ETC. REFER TO BLOCKING SCHEDULE ON SHEET K1.0.
- ALL DIMENSIONS ARE STUD DIMENSIONS UNLESS NOTED OTHERWISE (I.E. FIN. = FINISHED DIMENSION).
- REFER TO SHEET A7.0 FOR RESTROOM ELEVATIONS.
- REFER TO SHEET P1.0 FOR FLOOR PENETRATIONS.
- REFER TO SHEETS A6.0 & E2.0 FOR SOFFIT INFORMATION.
- PROVIDE 2' x 2' FRP OUTSIDE CORNER GUARD AT ALL FRP OUTSIDE CORNER CONDITIONS UNLESS NOTED OTHERWISE. SEE SPEC. A-4 ON SHEET A.9.
- RETURN FINISHES TO ALL WINDOW & DOOR FRAMES.
- ALL WALLS RECEIVING FRP & S.S. ARE TO HAVE 16" OF CEMENT BOARD AT THE BASE IN LIEU OF GYPSUM BOARD. REFER TO A6.0.
- ALL DOOR HARDWARE SHALL COMPLY WITH 2017 ANSI A117.1



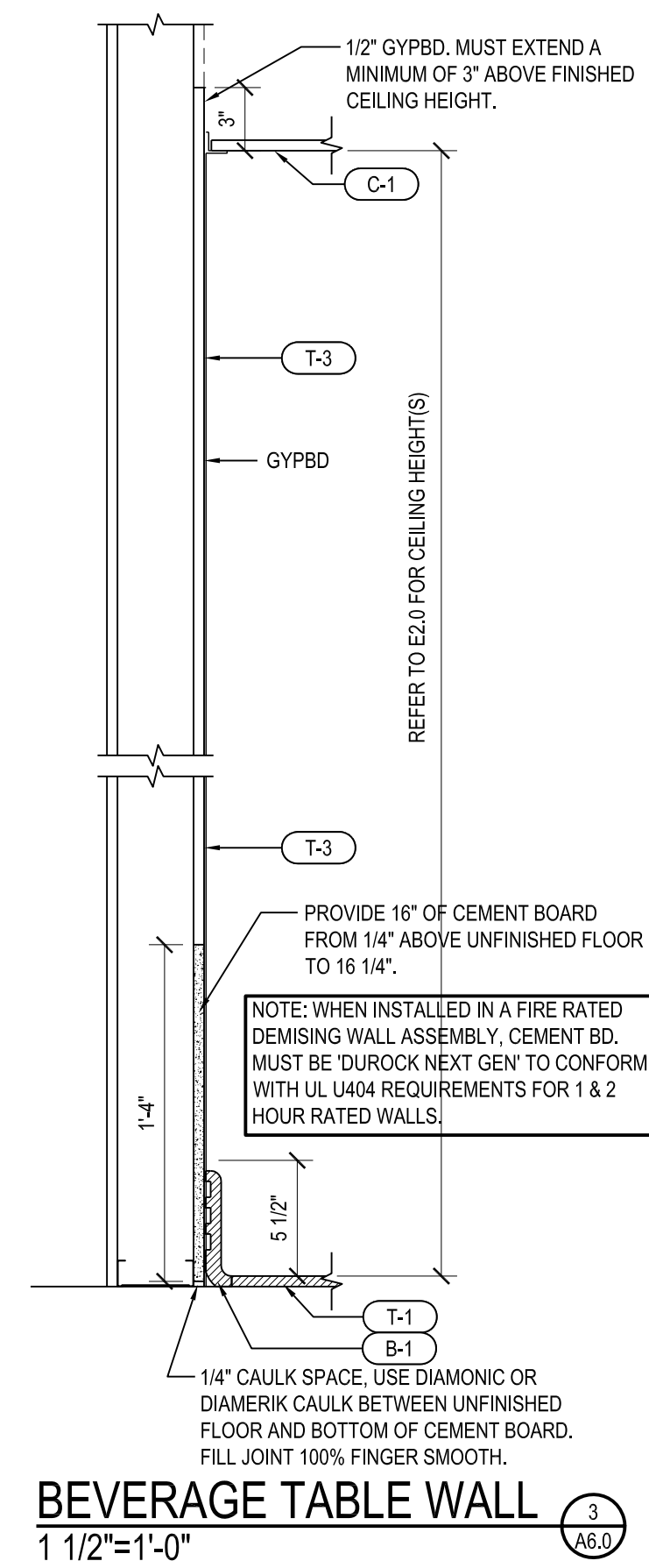
FLOOR PLAN
1/4"=1'-0" NORTH



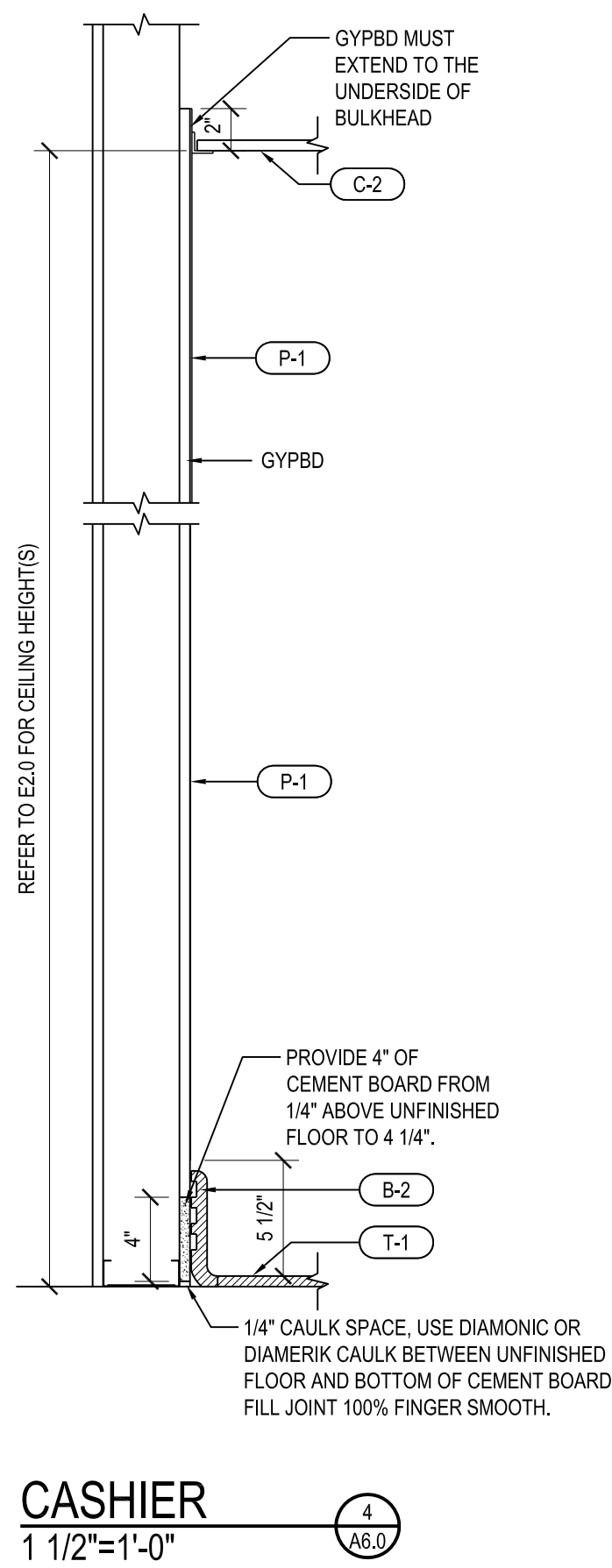
PREP AREA PLBG. WALLS
1 1/2"=1'-0"



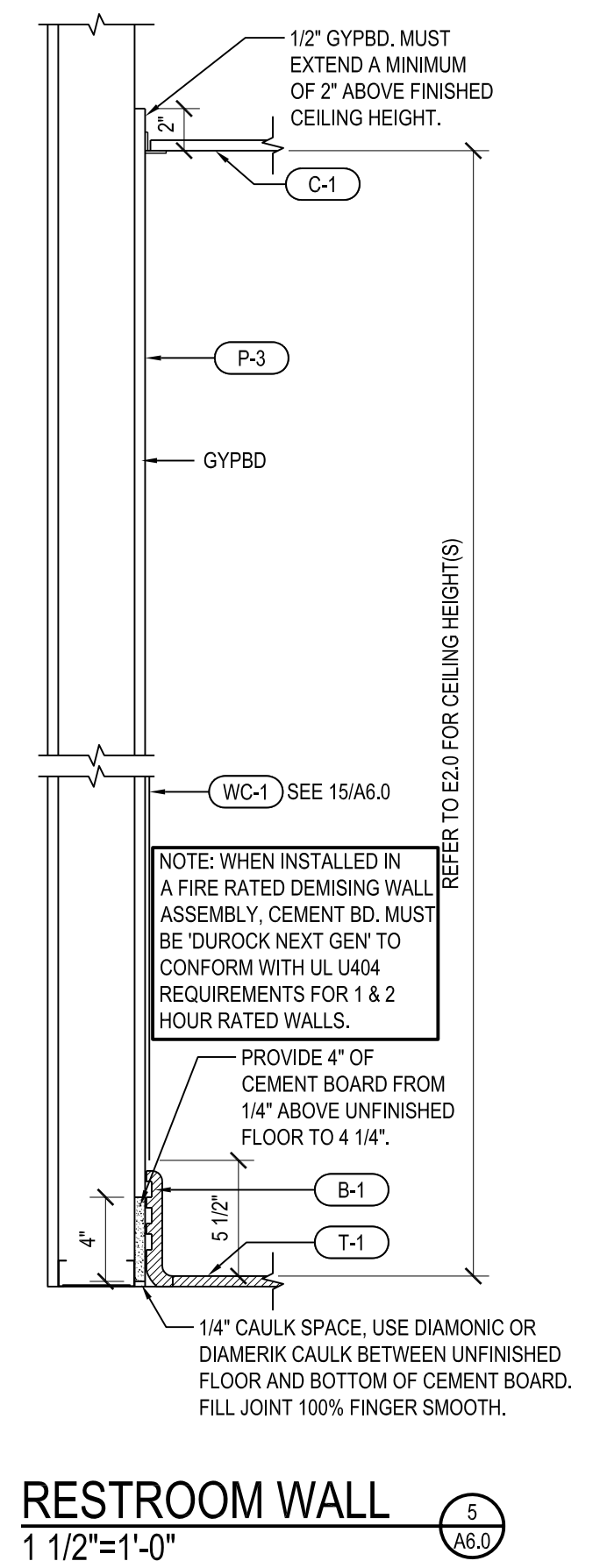
SS & FRP WALLS
1 1/2"=1'-0"



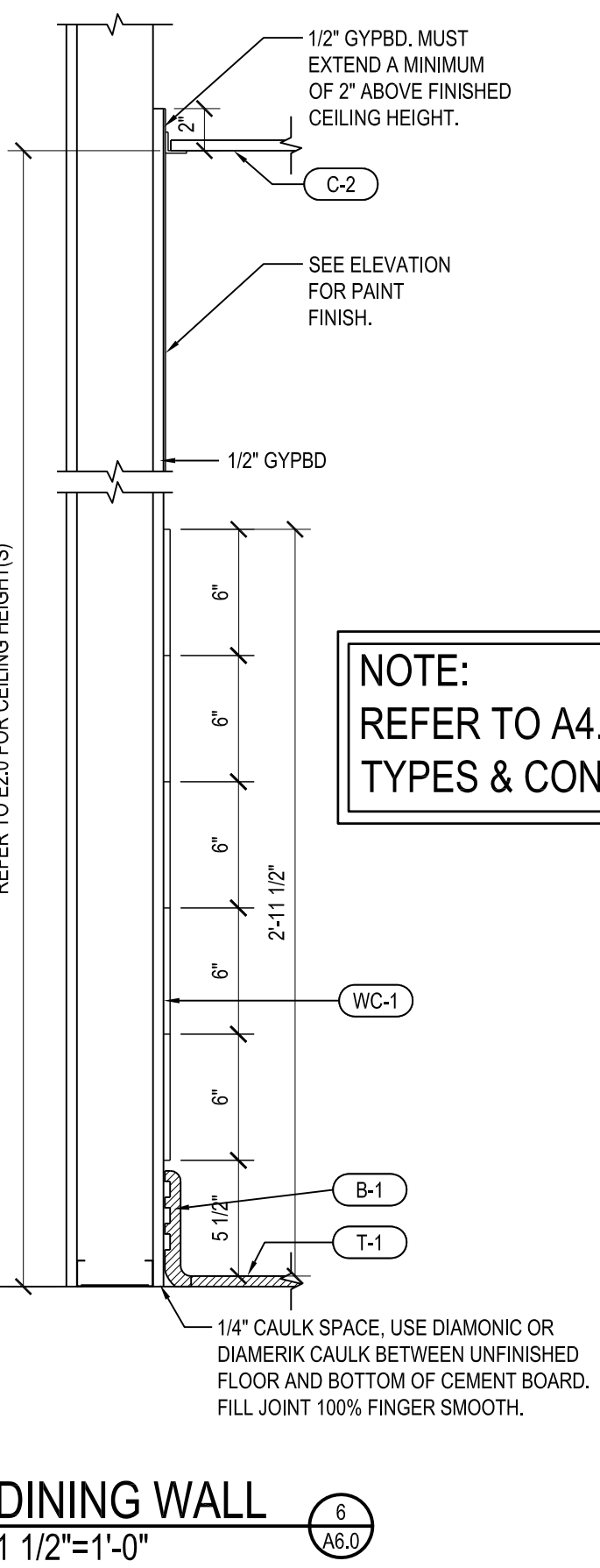
BEVERAGE TABLE WALL
1 1/2"=1'-0"



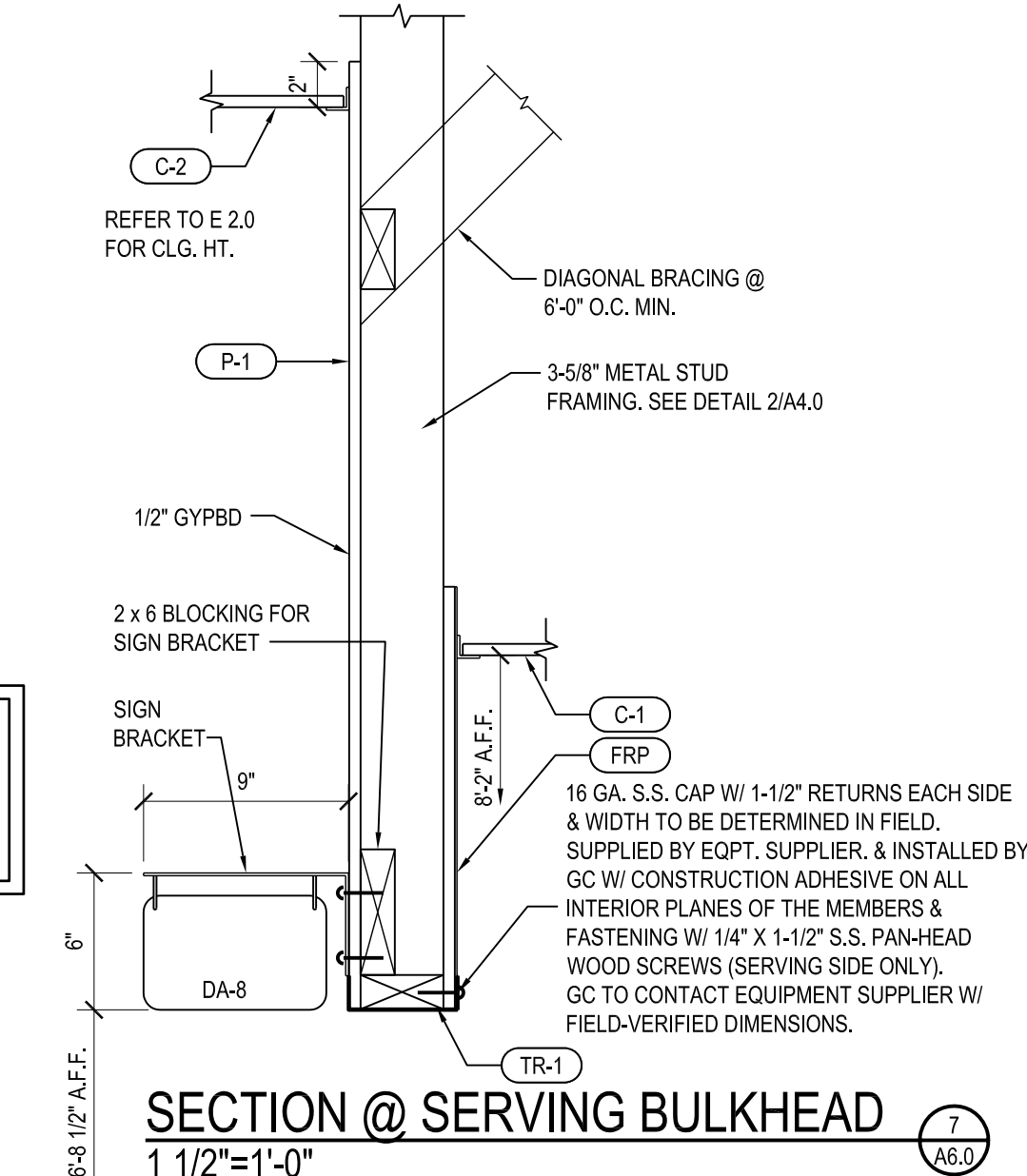
CASHIER
1 1/2"=1'-0"



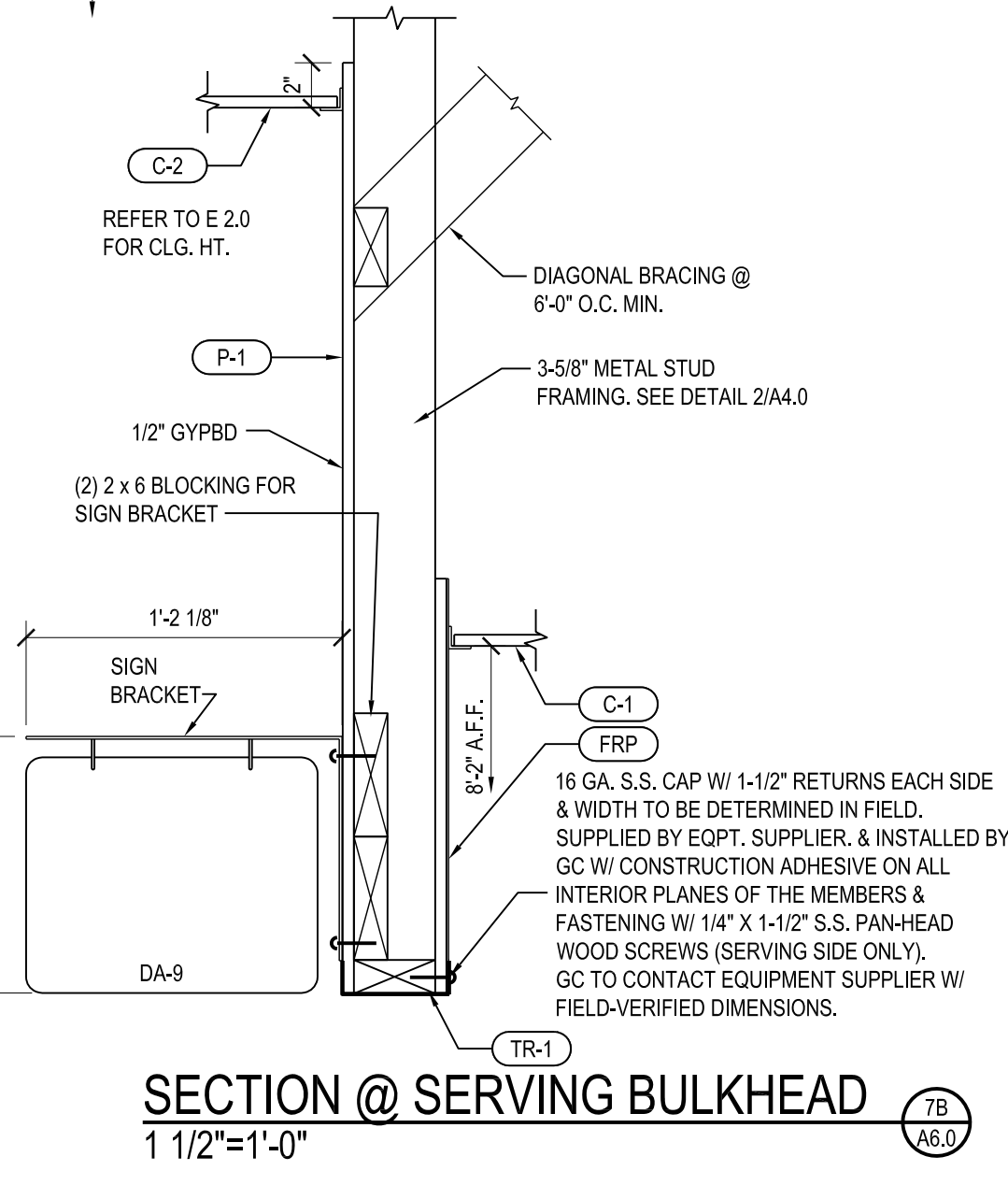
RESTROOM WALL
1 1/2"=1'-0"



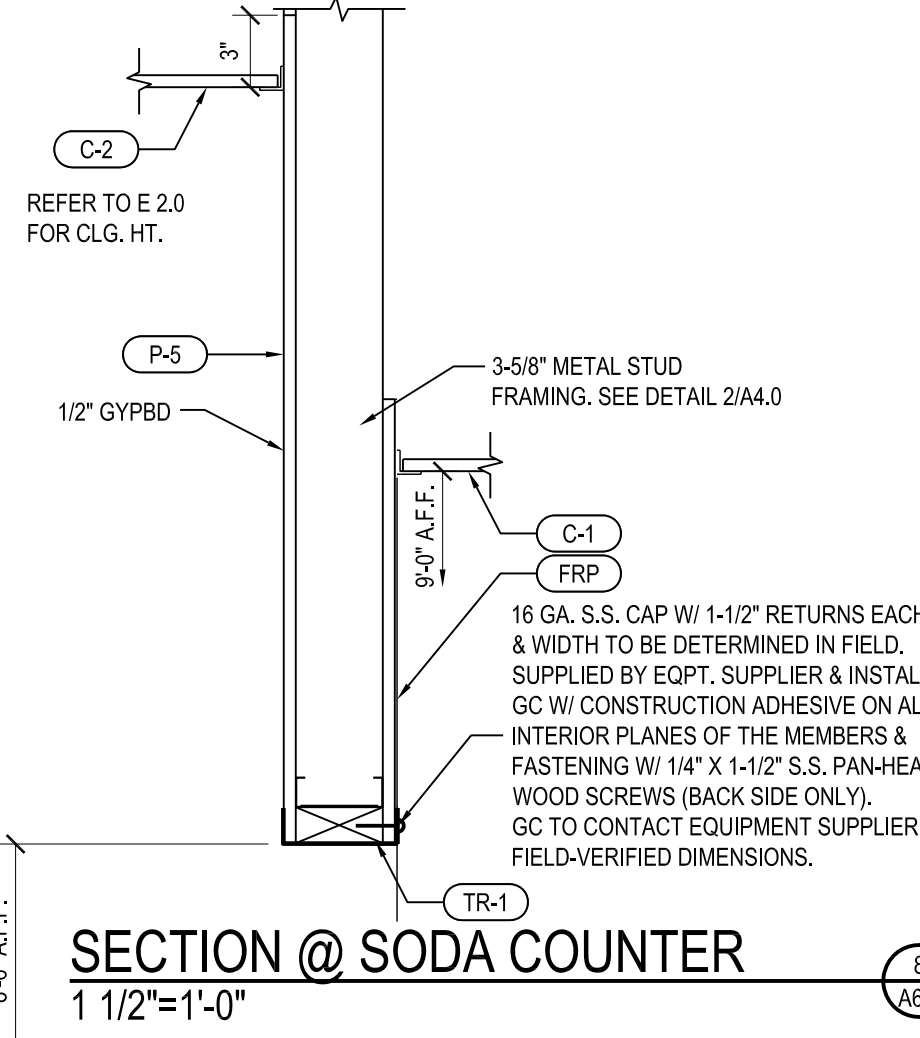
DINING WALL
1 1/2"=1'-0"



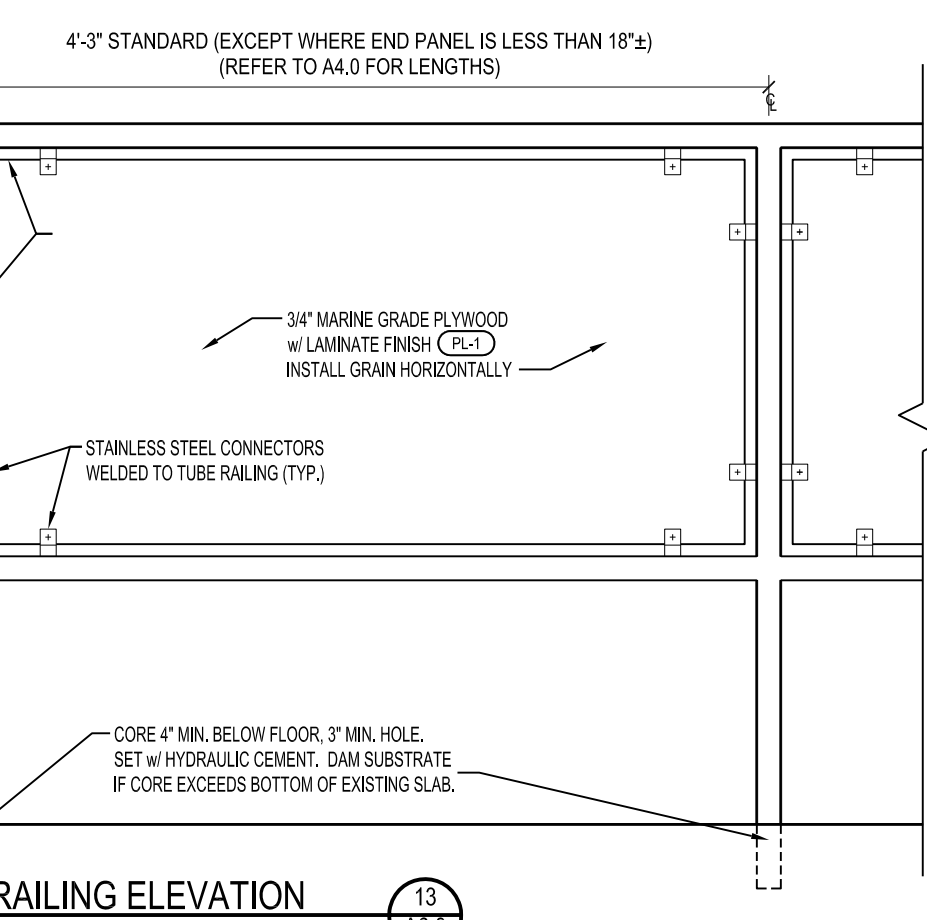
SECTION @ SERVING BULKHEAD
1 1/2"=1'-0"



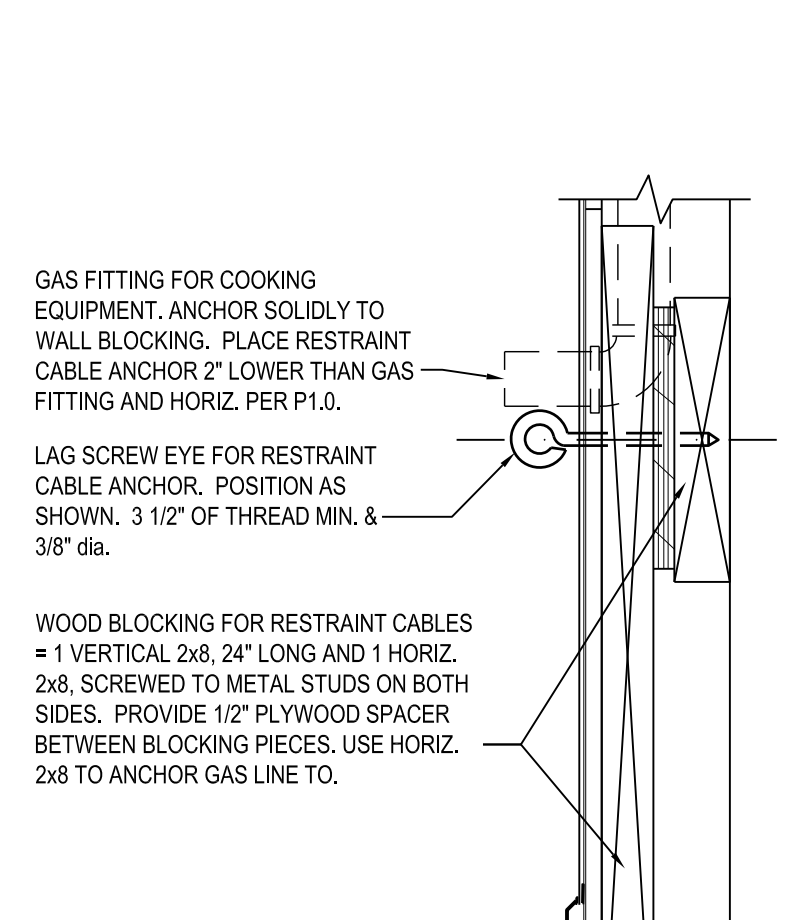
SECTION @ SERVING BULKHEAD
1 1/2"=1'-0"



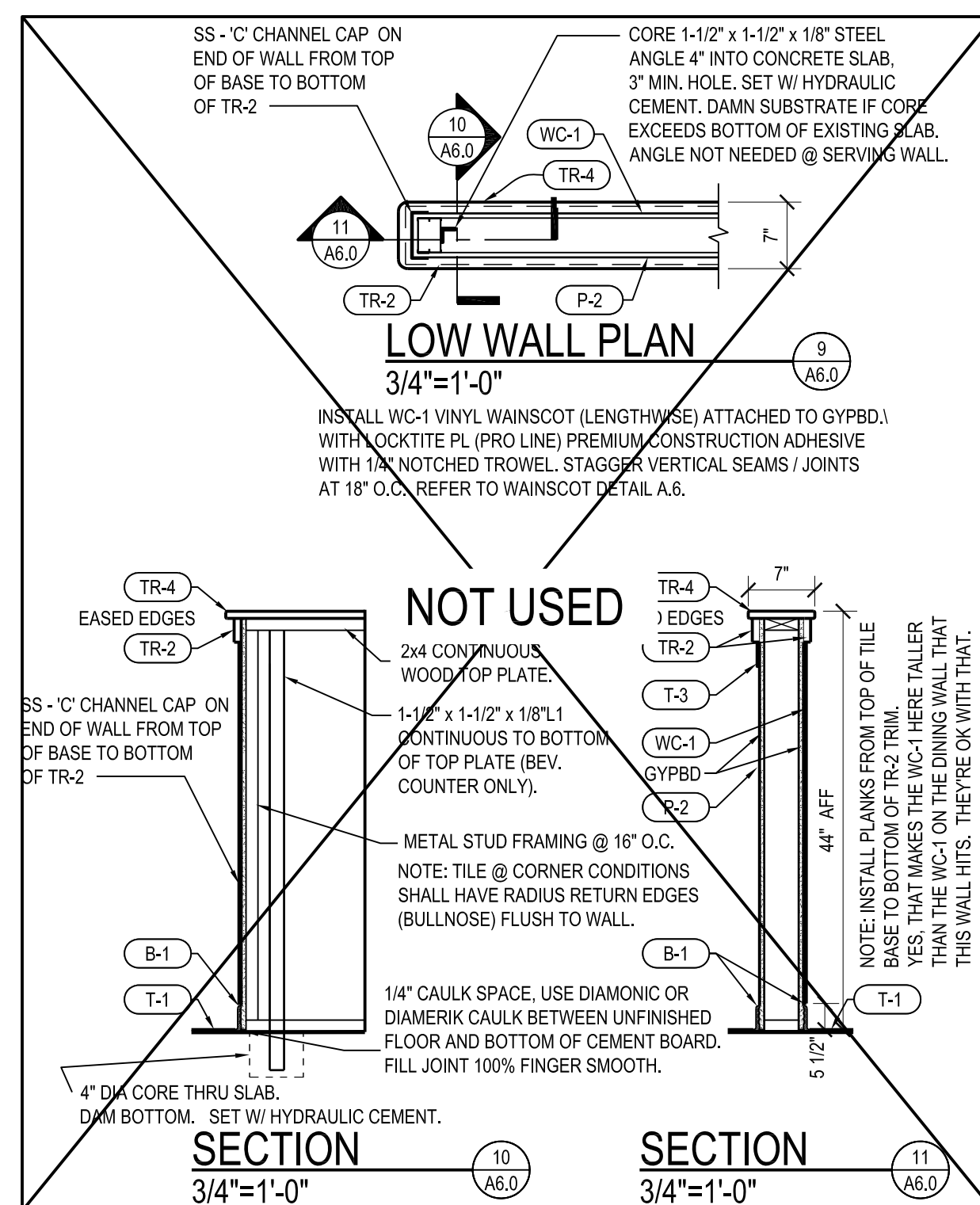
SECTION @ SODA COUNTER
1 1/2"=1'-0"



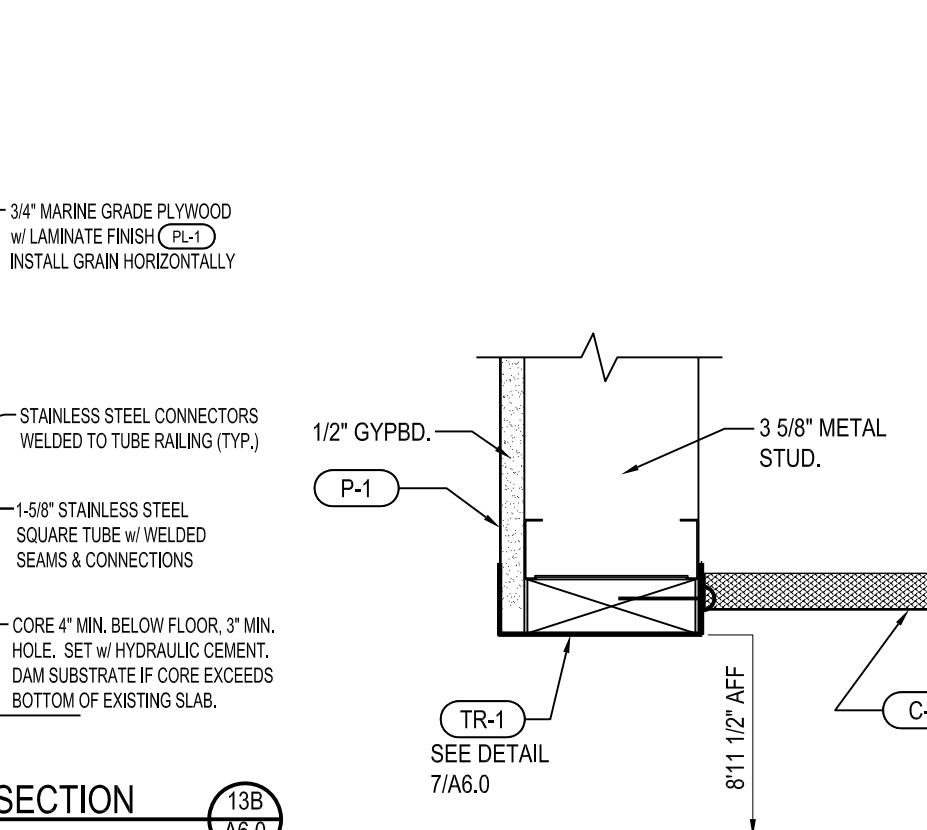
RAILING ELEVATION
1"=1'-0"



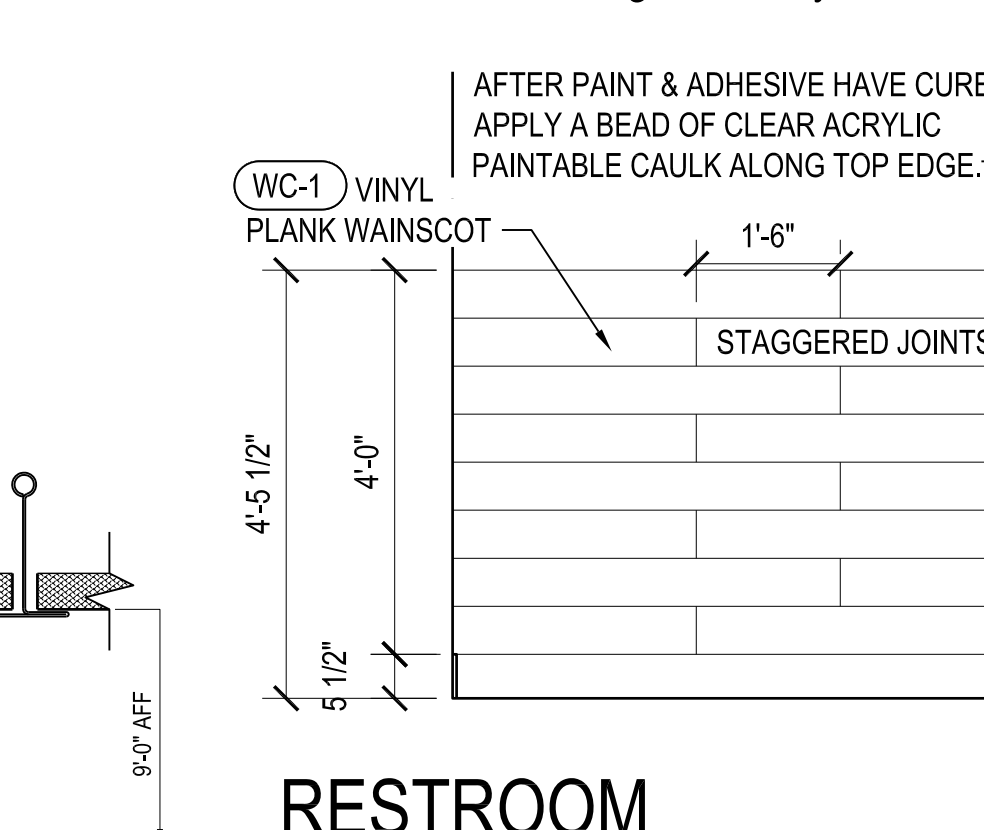
CABLE RESTRAINT DETAIL
3"=1'-0" Oven, griddle, Fryer



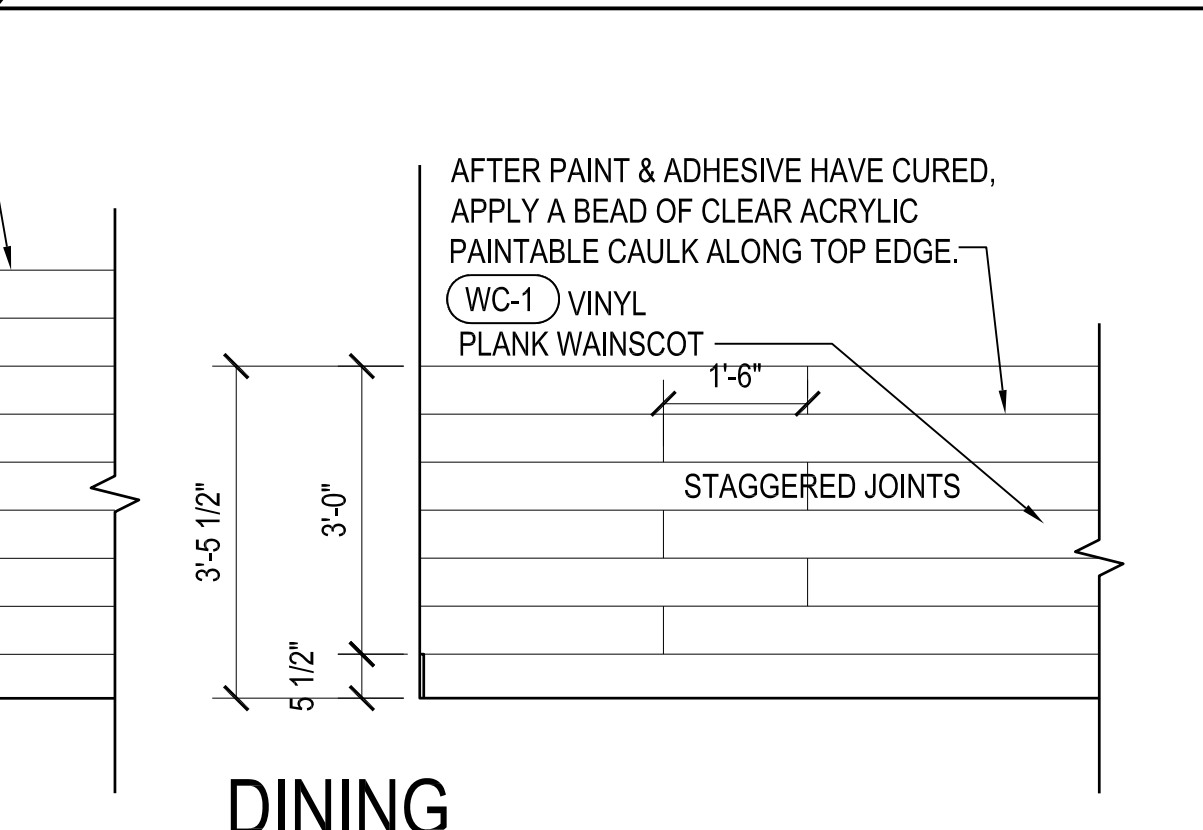
SECTION
3/4"=1'-0"



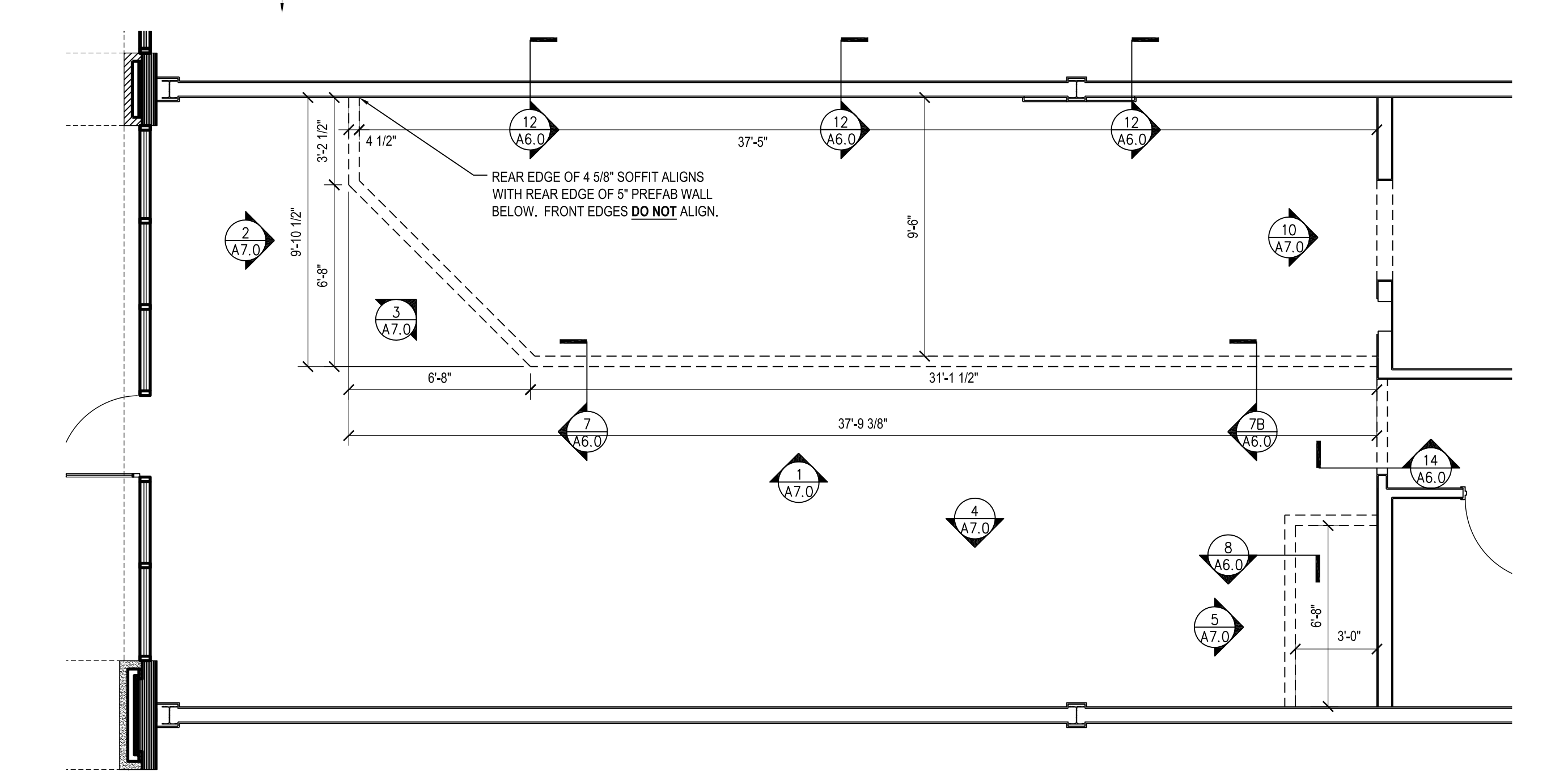
RAILING SECTION
1"=1'-0"



RESTROOM WAINSCOT ELEVATION
1/2"=1'-0"



DINING WAINSCOT ELEVATION
1/2"=1'-0"

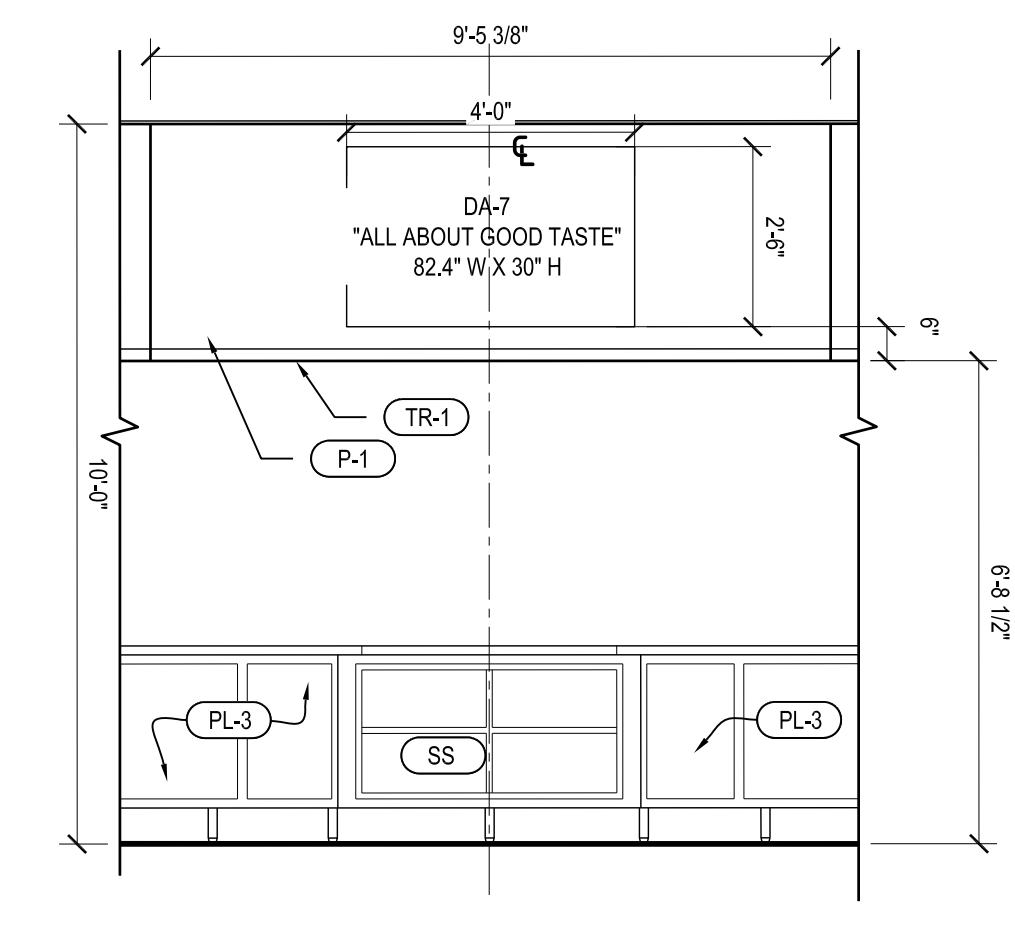
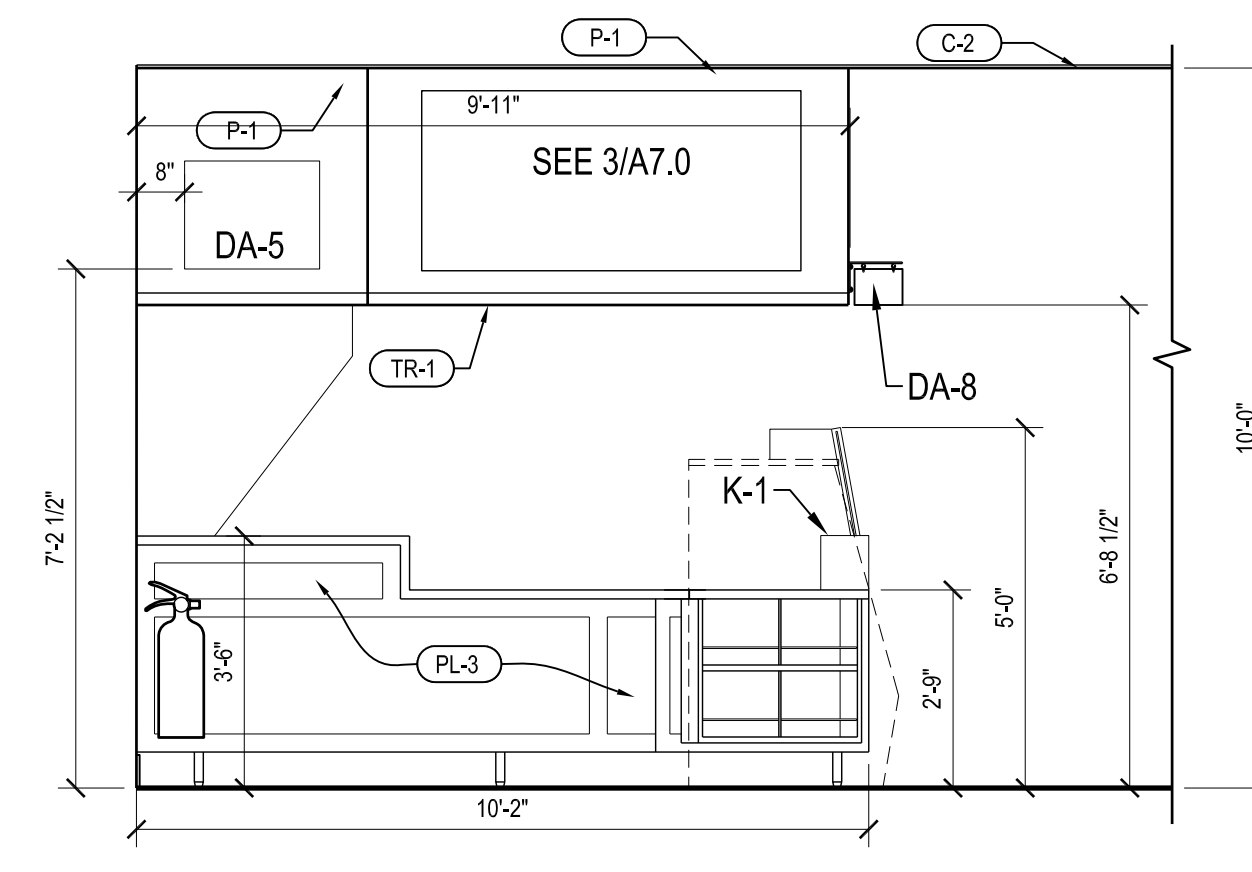
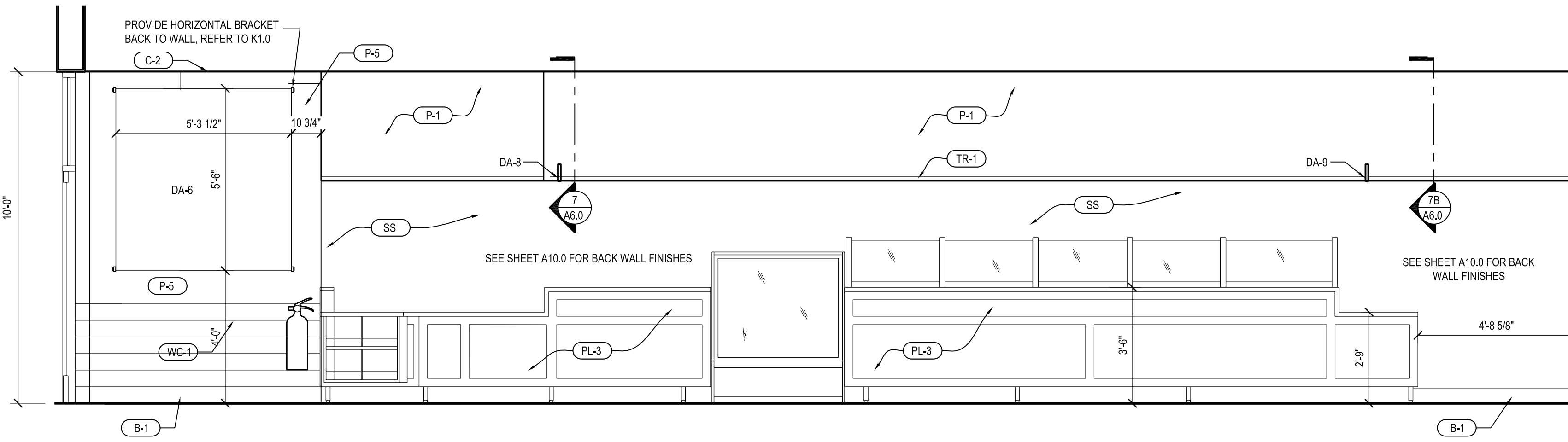


SERVING BULKHEAD FRAMING PLAN
1/4"=1'-0"



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DINING ELEVATION

3/8"=1'-0"

1
A7.0

END SERVING COUNTER

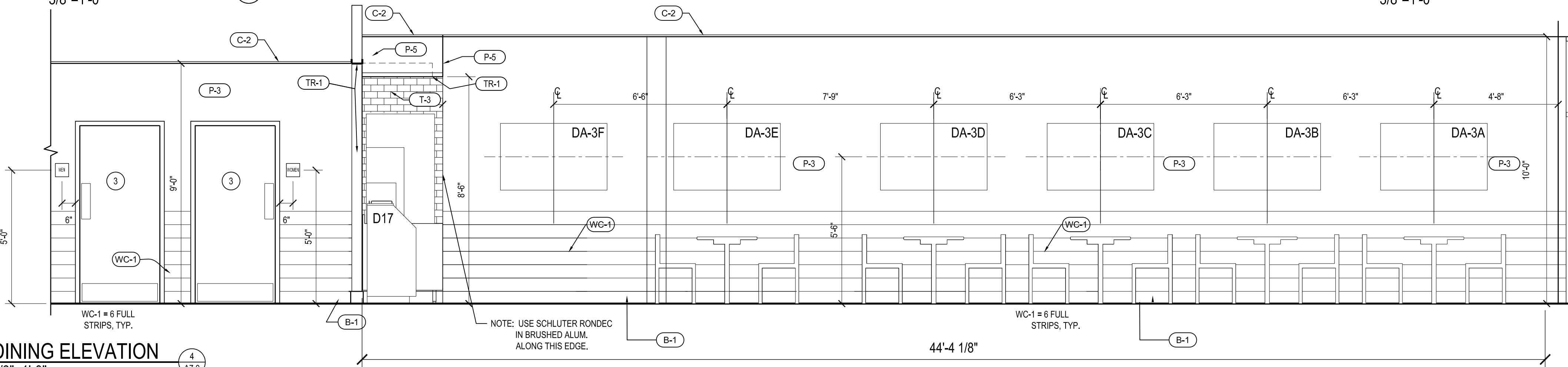
3/8"=1'-0"

2
A7.0

ANGLED SERVE WALL ELEV.

3/8"=1'-0"

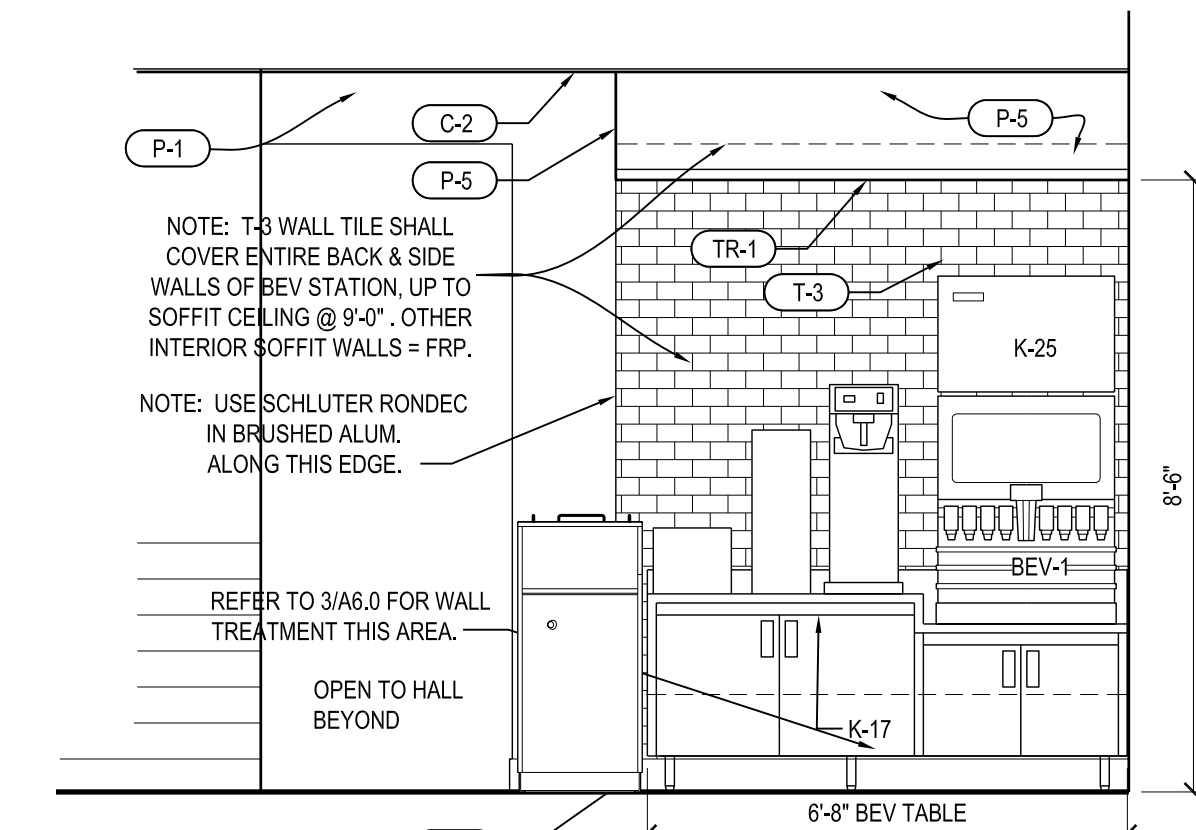
3
A7.0



DINING ELEVATION

3/8"=1'-0"

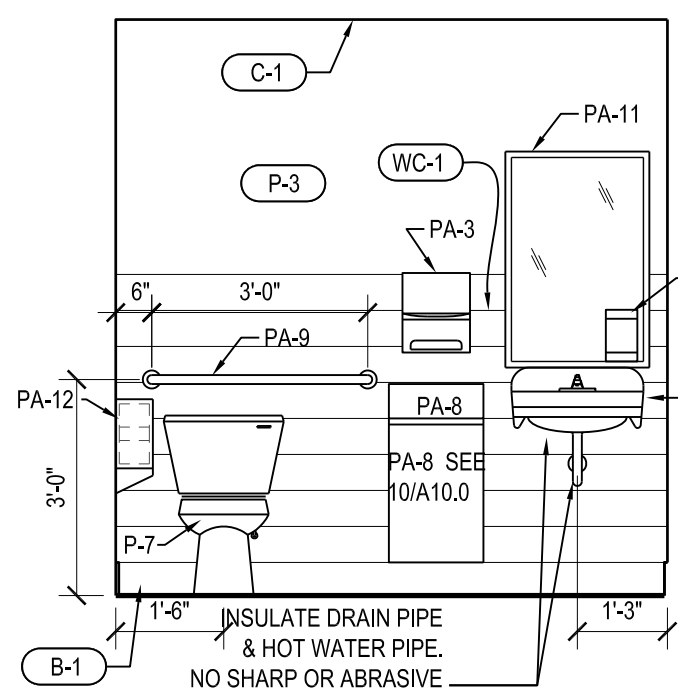
4
A7.0



BEVERAGE TABLE

3/8"=1'-0"

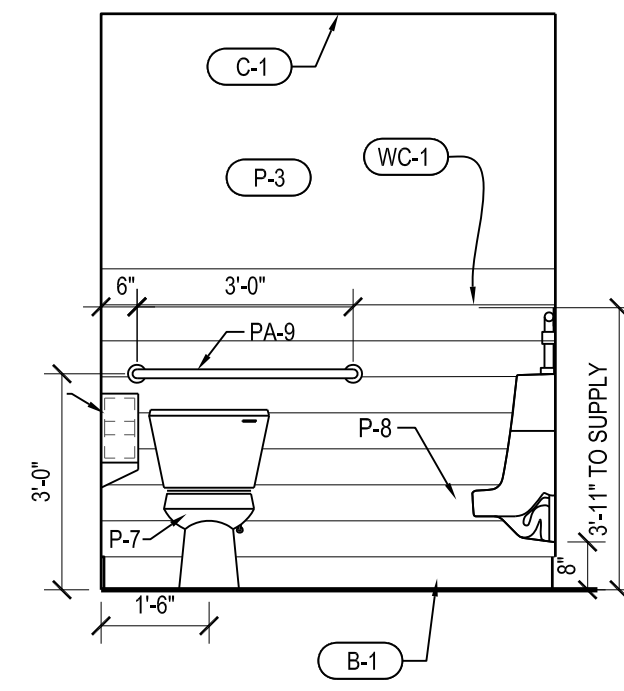
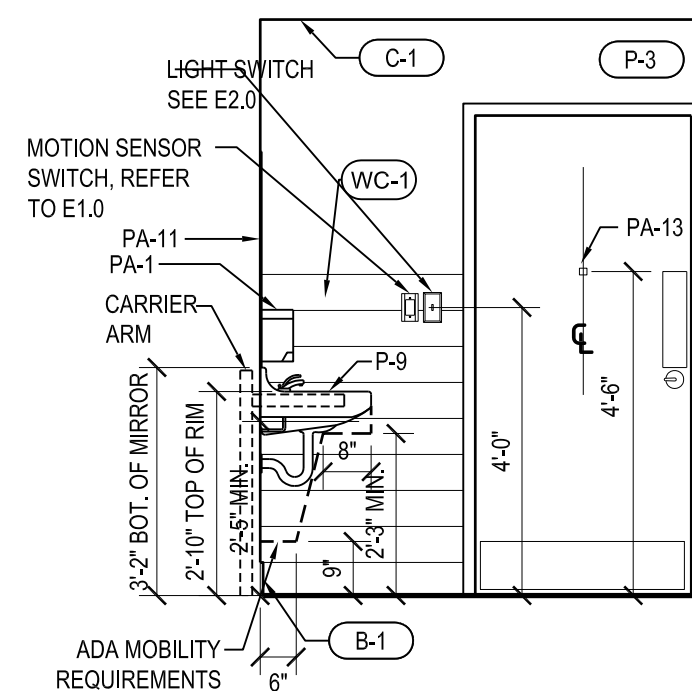
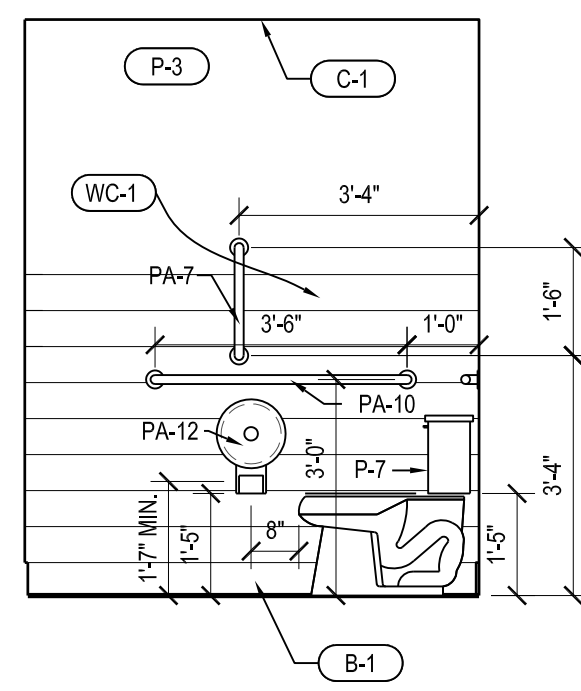
5
A7.0



ELEVATIONS @ WOMEN'S RESTROOM

3/8"=1'-0"

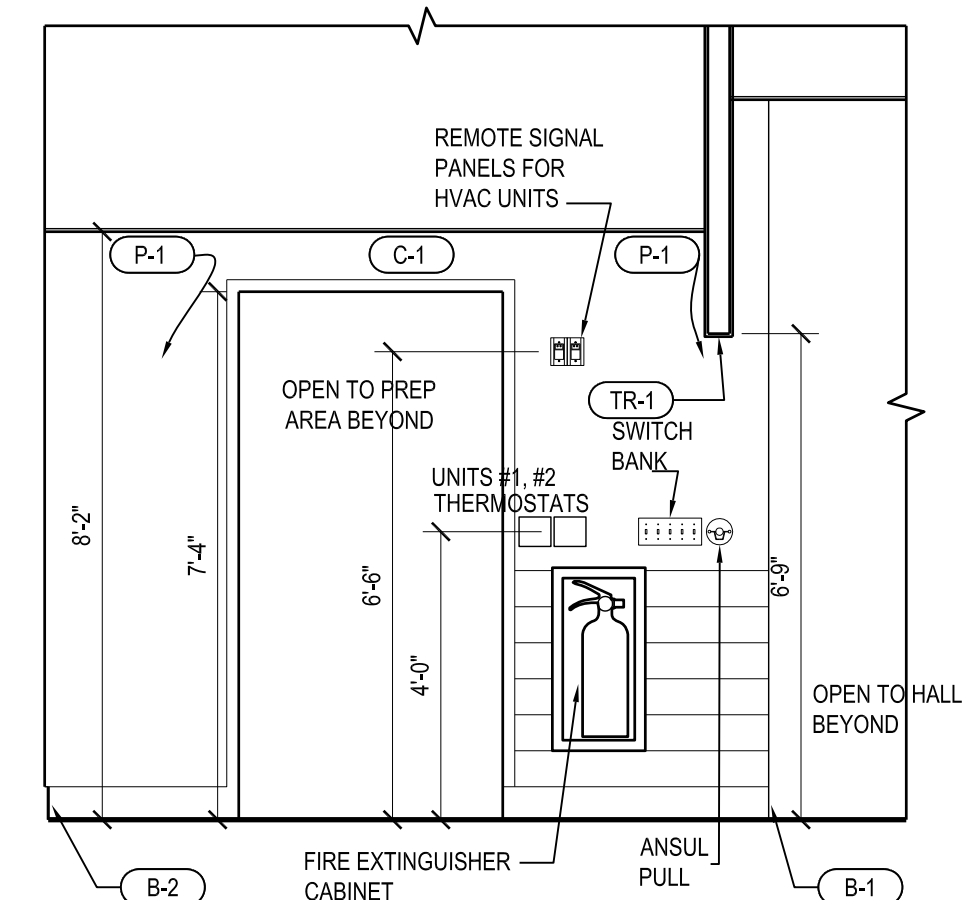
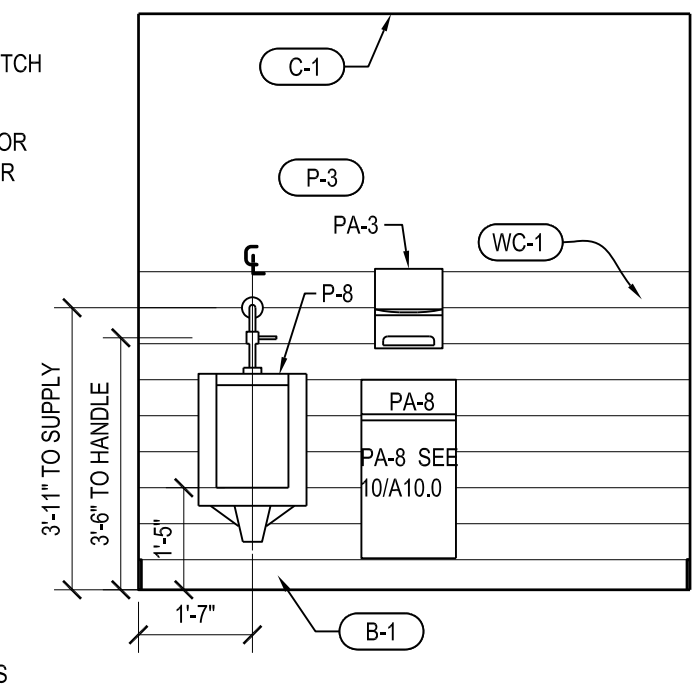
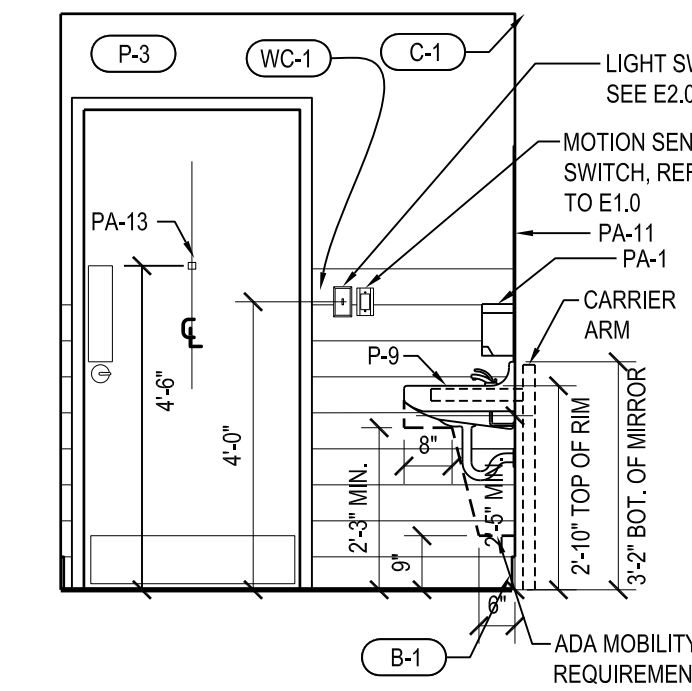
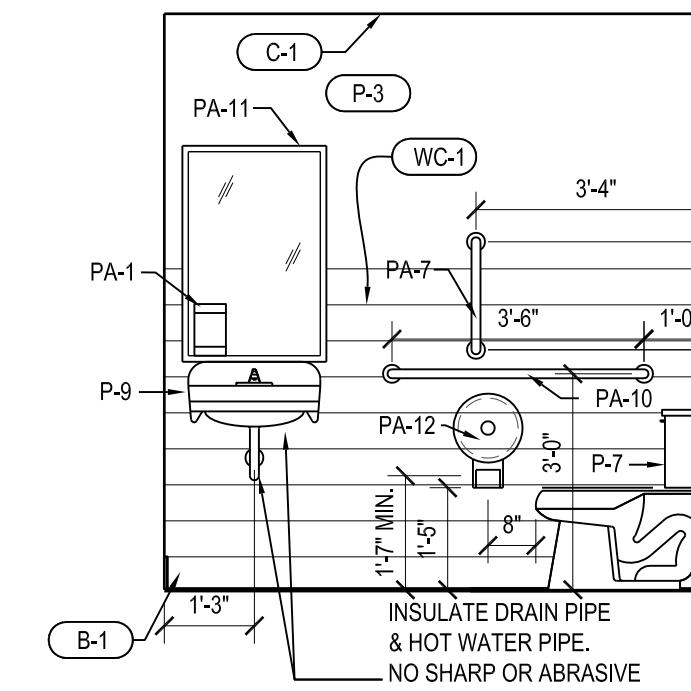
6
A7.0



ELEVATIONS @ MEN'S RESTROOM

3/8"=1'-0"

7
A7.0



CASHIER'S AREA ELEVATION

3/8"=1'-0"

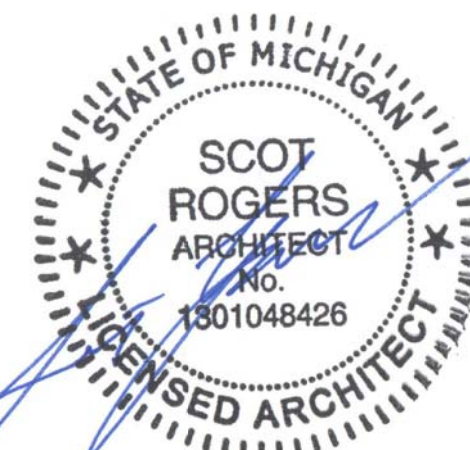
10
A7.0

ARTWORK KEY

SEE K1.0 & THIS PAGE FOR LOCATIONS & MOUNTING HEIGHTS.

- DA-3A CHEESESTEAK
- DA-3B COLD DELI CLASSICS
- DA-3C FRESH-CUT FRIES
- DA-3D LEMONADE
- DA-3E COOKIES
- DA-3F BREAD
- DA-3G ITALIAN
- DA-3H CHICKEN GORDON BLEU

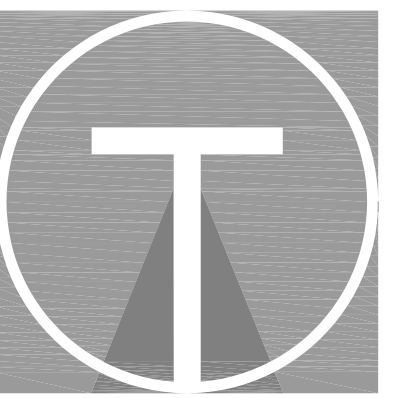
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No.	Revision

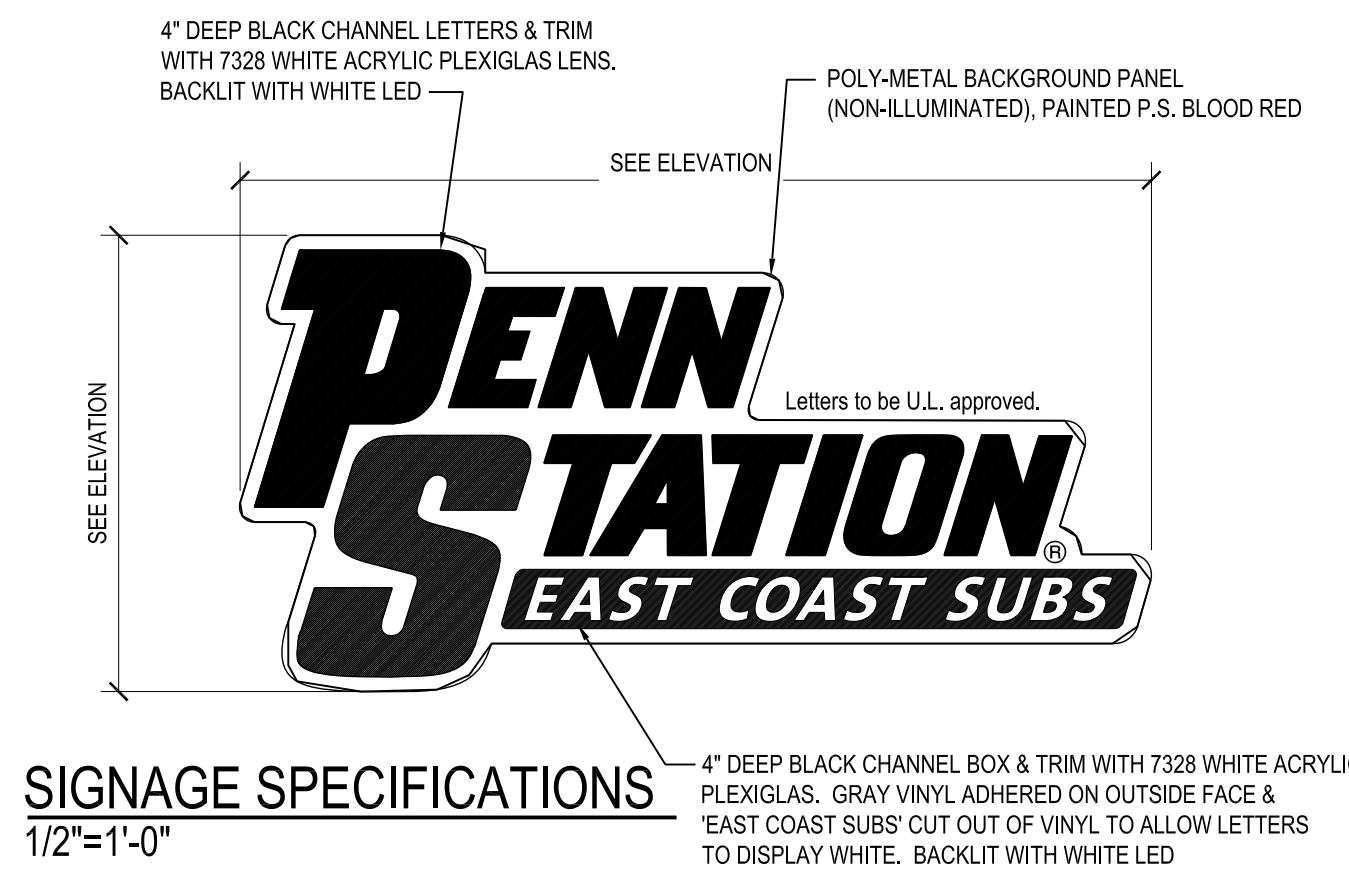
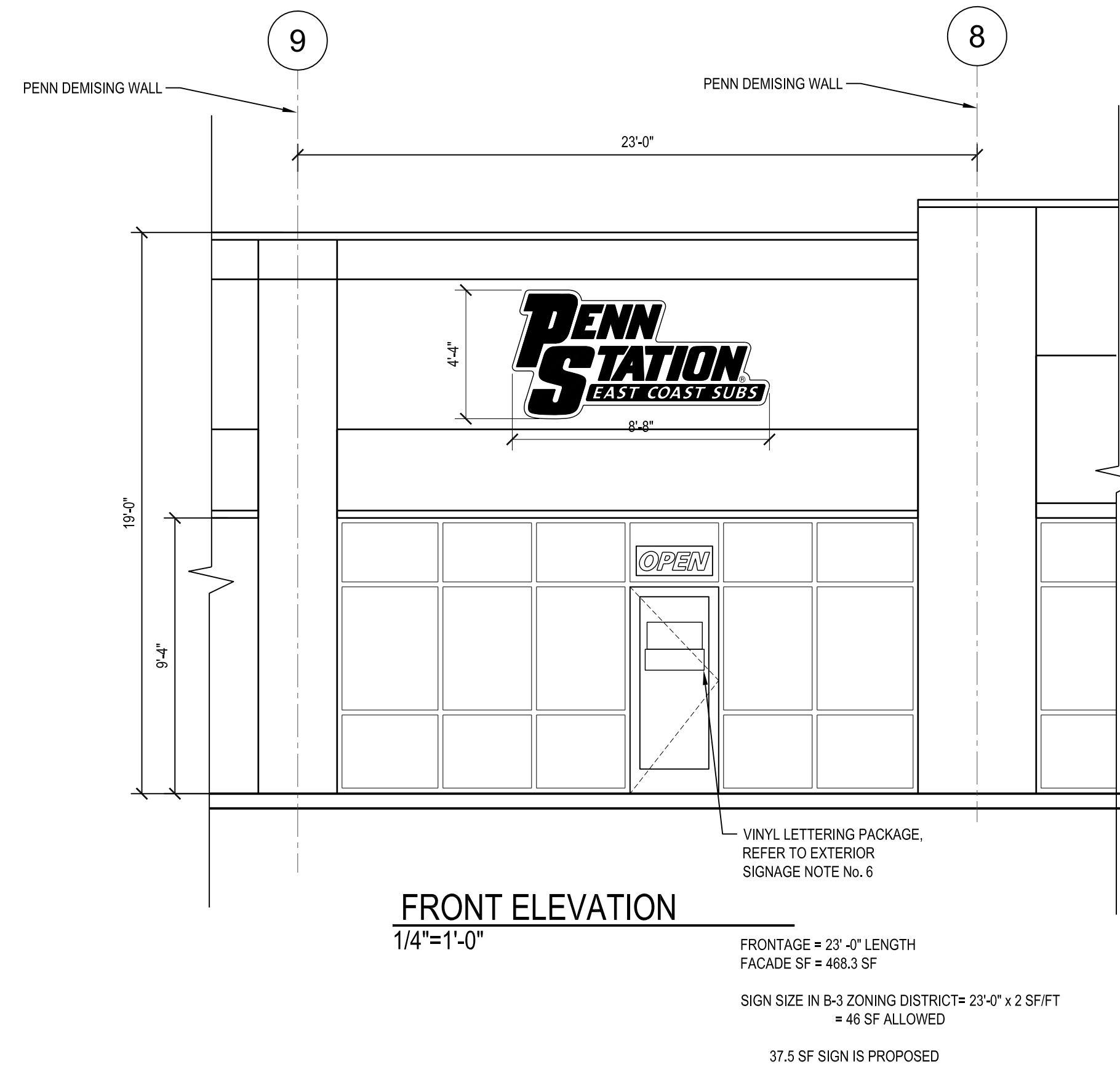
Sheet Title
Interior Elevations

Issued 11/02/22
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 Campus Collection
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 Clinton Twp., MI 48038



EXTERIOR SIGNAGE

- EXTERIOR LED SIGNAGE IS PROVIDED AND INSTALLED BY INDEPENDENT SIGNAGE CONTRACTOR PROVIDED BY OWNER. ALL WORKMANSHIP, MATERIAL & LABOR SHALL BE GUARANTEED FOR (1) YEAR FROM INSTALLATION.
- EXTERIOR SIGNAGE SHALL BE SURFACE MOUNTED AS SHOWN IN SCHEMATIC. THIS SHEET. INSTALLATION INCLUDES HOOK-UP TO PRIMARY ELECTRIC (FEED BY ELECTRICIAN). ALL WIRING MUST MEET LOCAL CODES.
- SIGN CONTRACTOR MUST SUBMIT SHOP DRAWINGS FOR FRANCHISOR'S APPROVAL PRIOR TO STARTING FABRICATION. SHOP DRAWINGS MUST SHOW U.L. LISTING FOR ALL SIGNS.
- GENERAL CONTRACTOR SHALL STUB OUT ELECTRICAL FEEDS FOR ALL SIGN LOCATIONS. REFER TO E1.0 FOR MORE INFORMATION. ELECTRICIAN PROVIDES JUNCTION & FINAL HOOK-UP OF SIGNS. SIGNAGE CONTRACTOR TO STUB SEALTIGHT THROUGH WALL FOR FINAL CONNECTION.
- INSTALL OWNER PROVIDED SIGNAGE "COMING SOON" AND "GRAND OPENING" SIGN / BANNER PER OWNER INSTRUCTION. G.C. MAY BE REQUIRED TO INSTALL HOOKS WITH FASTENERS. INQUIRE WITH PENN STATION CORP.
- INSTALL OWNER PROVIDED PENN STATION VINYL LETTERING PACKAGE AT FRONT DOOR.
 - RED PENN STATION W/ GRAY EAST COAST SUBS VINYL LOGO. OVERALL DIMENSIONS ARE 23" W X 11" H
 - STORE HOUR INFO. OVERALL DIMENSIONS ARE: 24" W X 8.5" H. WHITE VINYL LETTERS
 - APPLY LOGO & LETTERING WITH ADHESIVE BACK FOR OUTSIDE APPLICATION.
 - INSTALL @ CENTERLINE OF FRONT DOOR W/ BOTTOM OF 'STORE INFO' MOUNTED 3" ABOVE PUSH BAR.
 - BOTTOM OF 'PS LOGO' MOUNTED 2" ABOVE TOP OF 'STORE INFO'.



STORE HOURS
 MONDAY THRU SATURDAY 11: AM TO 10: PM
 SUNDAY NOON TO 8: PM
 THIS IS A NON-SMOKING RESTAURANT INCLUDING E-CIGARETTES
 GENERAL MANGER: JOHN DOE

- EXTERIOR LED SIGNAGE SHALL BE INSTALLED MINIMUM ONE MONTH PRIOR TO OPENING.
- THE EXTERIOR SIGNAGE PERMIT SHALL BE SUBMITTED SEPARATELY BY THE SIGN CONTRACTOR
- SIGNS ARE TYPICALLY TO BE LED WITH ACRYLIC PLEXIGLAS FACES WITH THE SIGN PROPORTIONS OF 1:2 FOR THE 'STACKED' LOGO & 1:4 FOR THE 'HORIZONTAL' LOGO. SIGNS MUST ALSO COMPLY & BE APPROVED BY THE LOCAL AUTHORITIES FOR THE SIZE & CONSTRUCTION. VERIFY THAT SIGNS ARE AN ACCEPTABLE PART OF THE LEASE.

SPECIFICATIONS FOR EXTERIOR SIGNAGE

PENN STATION -
 .040 ALUMINUM RETURNS - 4" DEEP
 PAINT INSIDE LETTER = WHITE
 PAINT OUTSIDE OF RETURNS & BACKS - BLACK
 FACE OF LETTERS TO BE WHITE ACRYLIC - 7328
 BLACK TRIM CAP

EAST COAST SUBS -
 .040 ALUMINUM RETURNS - 4" DEEP
 PAINT INSIDE OF CHANNEL BOX = WHITE
 PAINT OUTSIDE OF RETURNS & BACKS - BLACK
 FACE OF BOX TO BE WHITE ACRYLIC - 7328
 DARK GRAY (PMS 7540C) VINYL ADHERED TO OUTSIDE FACE OF ACRYLIC WITH 'EAST COAST SUBS' CUT OUT TO ALLOW LETTERS TO DISPLAY WHITE
 BLACK TRIM CAP

BACKGROUND
 POLY-METAL BACKGROUND PANEL
 PAINT FACE OF PANEL RED

INTERIOR SIGNAGE / ARTWORK SPECIFICATIONS

- PROVIDE AND INSTALL ONE "MENS" AND ONE "WOMENS" SIGN AT RESTROOM DOOR LOCATIONS. MOUNT SIGNAGE AT 60" AFF TO CENTER OF SIGN. SIGNAGE STYLE SHALL BE PRE-APPROVED BY FRANCHISER PRIOR TO ORDERING. SIGNAGE MUST MEET US-ADAAG 4.30.4 AND LOCAL ACCESSIBILITY REQUIREMENTS. MOUNT SIGNS AT LATCH SIDE OF RESTROOM DOORS ON WALL. AN APPROVED DESIGN IS AS PROVIDED BY CAL-ROYAL PRODUCTS, INC. 2110 TUBEWAY AVE. CITY OF COMMERCE, CA 90040 (800)876-9258. USE BLUE BACKGROUND WITH WHITE LETTERING. LETTERS AND NUMERALS SHALL BE RAISED 1/32 IN., UPPER CASE. SANS SERIF OR SIMPLE SERIF TYPE AND SHALL BE ACCOMPANIED WITH GRADE 2 BRAILLE.
- INSTALL OWNER PROVIDED FOOD PHOTOS ON WALLS ADJACENT TO ENTRY AND OVER SEATING PER OWNER INSTRUCTION. REFER TO SHEET A7.0 & K1.0.
- INSTALL OWNER PROVIDED MENU BOARDS PER A7.0 & K1.0.
- INSTALL OWNER PROVIDED DIRECTIONAL FOOD SIGN AT SOFFIT ABOVE FOOD LINE. REFER TO SHEETS A6.0, A7.0 & K1.0.
- INSTALL "PENN STATION OPEN" SIGN(S) AS SHOWN. SUSPEND JUST INSIDE WINDOW (HOLD AS HIGH AS POSSIBLE).
- GENERAL CONTRACTOR SHALL STUB OUT ELECTRICAL FEEDS FOR ALL SIGN LOCATIONS. REFER TO E1.0 FOR MORE INFORMATION. ELECTRICIAN PROVIDES JUNCTION & FINAL HOOK UP OF SIGNS.
- PROVIDE AN 8' X 10' OCCUPANCY SIGN CONSTRUCTED OF PLASTIC LAMINATE STATING THE ALLOWABLE OCCUPANCY FOR THE SPACE AS STATED ON SHEET A1.0 & CONFIRMED BY THE FIRE DEPARTMENT. MOUNT 60" AFF TO CENTERLINE AND LOCATE AS SHOWN ON DRAWINGS A7.0 & K1.0.
- PROVIDE TACTILE EXIT SIGNS (OWNER'S COLOR CHOICE) AS INDICATED ON SHEET K1.0. SIGN SHALL MEET ADAAG SECTION A.30 REQUIREMENTS. EXAMPLES AS MANUFACTURED BY "TACTILE SIGNAGE" (WWW.TACTILESIGN.COM) AND "HY-KO" (WWW.SAFETYCENTRAL.COM) ARE ACCEPTABLE. MOUNT AT 48" A.F.F. TO BOTTOM OF SIGN.

PAINT SPECS FOR BACKER

Manufacturer: Sherwin Williams
 Color Name: Penn Station Red
 Quality: LST3-Genesis Lustral Satin
 Product Type: LST3
 Formula: red95a
 Version: 2
 Batch Number: 26664544
 Batch Created: 8/9/2022
 User Name: colorlab3

LED LIGHTING SPECS

LED LIGHT FIXTURE
 MFR: Z LIGHT TECHNOLOGY
 MODEL: Z-ECO2-MINI-W (WHITE)

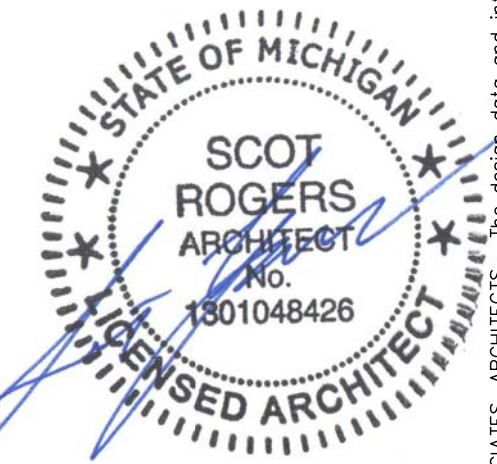
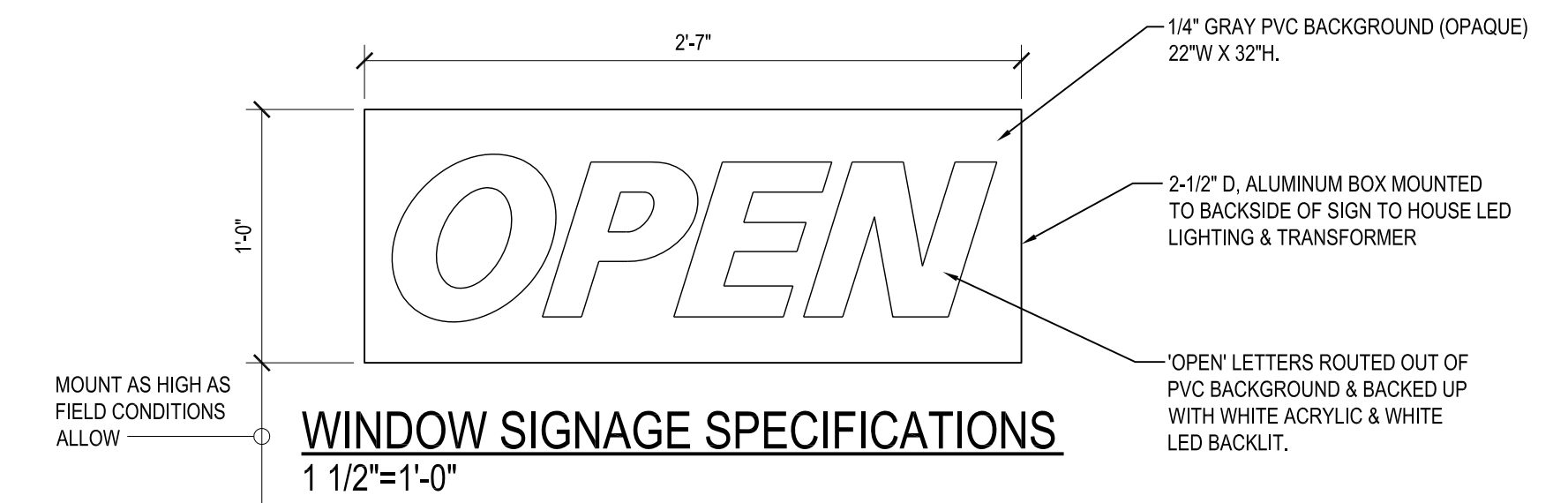
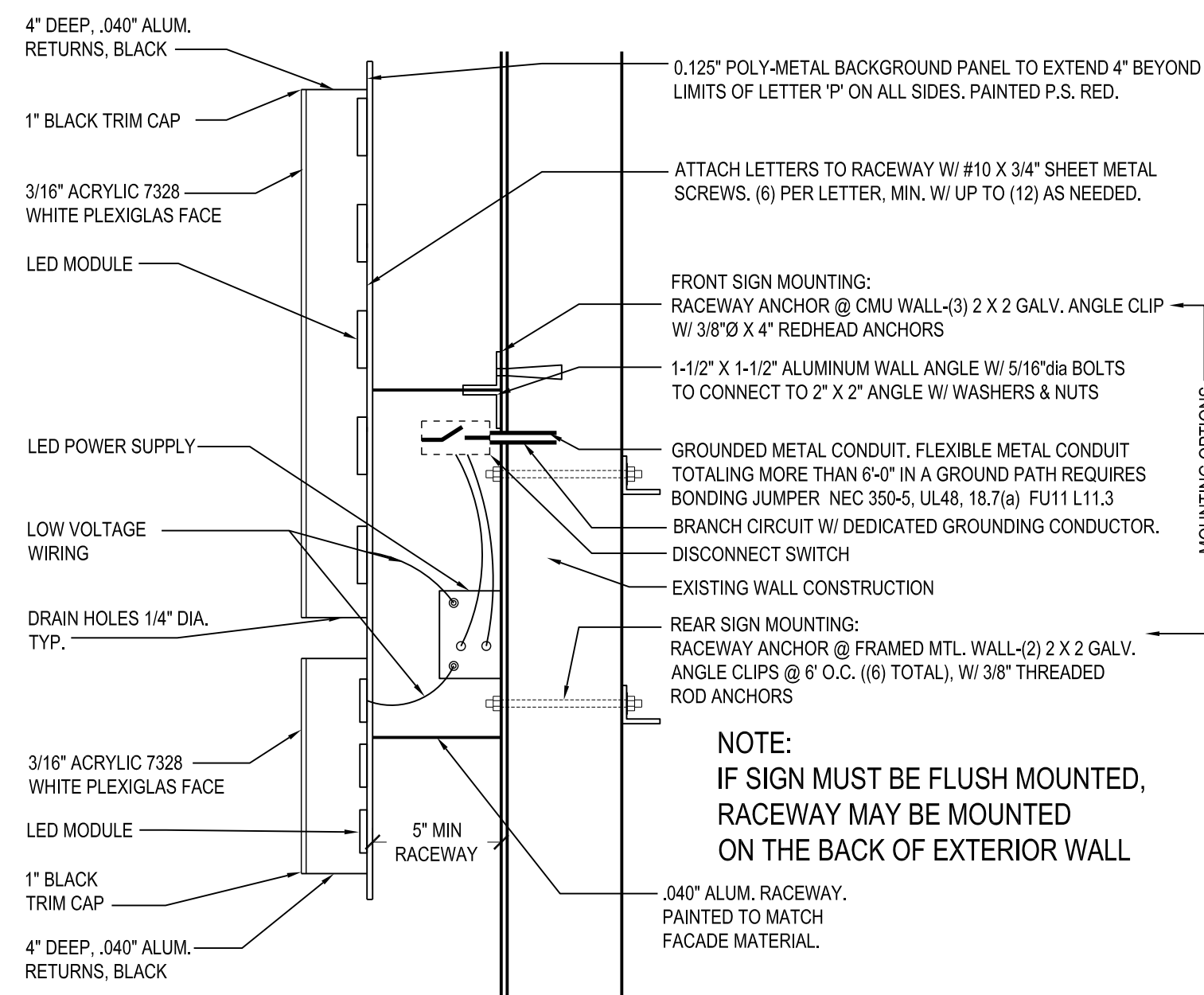
LED POWER SUPPLY
 MFR: ALLANSON
 MODEL: CV125-120

SIGN CONTRACTOR

DUALITE SIGNS
 JUSTIN YOUNG
 M: 815-641-4269
 O: 513-636-4605
 jyoung@dualitesign.com

'OPEN' SIGN SUPPLIER

DUALITE SIGNS
 JUSTIN YOUNG
 M: 815-641-4269
 O: 513-636-4605
 jyoung@dualitesign.com



No. Revision

Sheet Title
 Signage

Issued 11/02/22

Scale As Noted

Drawn S. Rogers

22044 PS Clinton Twp. MI

MECHANICAL SPECIFICATIONS

- HVAC SYSTEMS SHALL INCLUDE HIGH & LOW PRESSURE CONTROL SAFETY SWITCHES AND SHALL BE CHECKED FOR LOCAL CODE COMPLIANCE BY THE MECHANICAL CONTRACTOR.
- COORDINATE ALL WORK WITH THE EQUIPMENT CONTRACTOR IN TERMS OF ITEMS PROVIDED, SCOPE OF WORK, AND HOOK UP REQUIREMENTS.
- HOOD SUPPLIER SHALL PROVIDE SHOP DRAWINGS FOR EXHAUST HOOD INSTALLATION.
- GENERAL NOTES:
 - NO PENETRATIONS SHALL OCCUR THROUGH THE TILE BASE.
 - GAS LINE PENETRATIONS BEHIND SERVICE LINE MUST BE SUCH THAT OVEN, GRILLE AND FRYER CAN BE PULLED OUT TO NEAR FULL LENGTH OF FLEXIBLE GAS LINE CONNECTIONS. WALL PENETRATIONS MUST BE POSITIONED VERY NEAR TO THE GAS LINE CONNECTION LOCATIONS ON THESE PIECES OF EQUIPMENT, BUT NOT SO CLOSE THAT FITTINGS INTERFERE WITH EACH OTHER WHEN EQUIPMENT IS AGAINST THE WALL. GAS LINE MUST RUN INSIDE WALLS EXCEPT AT EQUIPMENT FEEDS. SEE "CABLE RESTRAINT DETAIL" #12 ON SHEET A6.0.
- GENERAL CONTRACTOR MUST COORDINATE THE HVAC & HOOD CONTRACTORS SUCH THAT HVAC & HOOD SYSTEMS ARE INSTALLED TOGETHER PRIOR TO STORE OPENING. BOTH HVAC & HOOD SYSTEMS MUST BE COMPLETED AT LEAST 4 WORKING DAYS PRIOR TO AIR TEST & BALANCE TO ALLOW ENOUGH TIME FOR BALANCE TO TAKE PLACE. CHECKLIST SCHEDULE MUST BE COMPLETED AND TURNED IN TO NATIONAL T & B.
- LIMIT FLEX-PIPE RUNS TO 5'-0" MAXIMUM LENGTH.
- USE HARD-PIPE, 90° ELBOWS AT ALL DIFFUSERS UNLESS DIRECTLY UNDER A MAIN TRUNK LINE.
- ALL HANGERS AND INSTALLATION METHODS FOR HVAC DUCTWORK SHALL MEET SMACNA STANDARDS.
- REFER TO CAPTIVEAIRE SHOP DRAWINGS FOR ELECTRICAL FEED DETAILS & LOCATIONS @ EXHAUST FANS.
- ~~PRIOR TO BALANCING STORE, SET THE MOTORIZED DAMPER(S) IN THE ROOF TOP UNIT(S) @ 1" FOR 20% FRESH AIR, 1 1/4" FOR 25% FRESH AIR, 1 3/8" FOR 27.5% FRESH AIR. REFER TO "AIR BALANCE" THIS SHEET FOR % OF FRESH AIR BROUGHT IN BY UNIT(S). FINE TUNE SETTING DURING BALANCING.~~
- EXHAUST FANS BY NUTONE OR EQUAL. EXHAUST TO EXTERIOR. WHITE. PROVIDE TWO INDIVIDUAL SINGLE PORT IN-LINE VENTILATOR TYPE FANS. COMBINE DUCTS AT END OF LINE FOR SINGLE ROOF OR WALL PENETRATION IF FIELD CONDITIONS PERMIT (REFER TO ROOF / HVAC PLAN FOR EXIT TYPE).
- IN OCCUPIED MODE, THE HVAC UNIT FANS SHALL BE IN THE 'ON' MODE FOR STORE CONSTANT BALANCE.

VENTILATION AIR SCHEDULE

ROOM NAME	OCCUPANCY CLASSIFICATION	NET AREA SQ.FT.	OCC. DENSITY PER SQ.FT.	REQUIRED OCCUPANTS	CFM PER OCCUPANT	CFM PER SQ.FT.	REQD. OCC. OUTSIDE AIR CFM	REQD. SQ.FT. OUTSIDE AIR CFM	H		MUST BE ≤		K		EXHAUST FLOW RATE CFM / SQ.FT.	EXHAUST REQUIRED PER SQ.FT.	EXHAUST REQUIRED FOR R.R. FIXTURES	CFM EXHAUST PROVIDED	
									TOTAL REQD. OUTSIDE AIR CFM	ACTUAL SUPPLY CFM	ACTUAL OUTSIDE AIR CFM	EXHAUST CFM	EXHAUST REQUIRED PER SQ.FT.	EXHAUST REQUIRED FOR R.R. FIXTURES					CFM EXHAUST PROVIDED
									A	B	C	D	E	F					G
101 DINING	DINING	659	70/1000	47	7.5	0.18	352.5	118.6	493.5	2000	1160	NA	NA	NA	NA	NA	NA	NA	
102 SERVING AREA	KITCHEN	350								1400	1032	0.7	245	NA	2625	NA	NA	NA	
103 CLOSET	NONE	7.5																	
104 PREP AREA	MEAT PROCESSING	327	10/1000	4	15	-	60	-	45	500	388.5	NA	NA	NA	NA	NA	NA	NA	
105 HALL	NONE	44								100	74.5								
106 WOMEN	NONE	46								70	40.5					50	75		
107 MEN	NONE	48								130	75.5					100	150		
TOTAL									538.5	4200	2925								

HVAC SYMBOL LEGEND

SYMBOL	DESCRIPTION	SIZE	COLOR
	2x2 SQUARE CONE DIFFUSER (FIXED AIR PATTERN) PRICE - ASCD40/B12 ALUMINUM. W/ 3800-SERIES BUTTERFLY DAMPER	2' x 2'	FACTORY WHITE
	2X2 DIFFUSER (perforated LOW-VELOCITY) HART & COOLEY - RFPS W/ 3800-SERIES BUTTERFLY DAMPER	2' x 2'	FACTORY WHITE
	LOW VOLUME CEILING DIFFUSER W/ 3800-SERIES BUTTERFLY DAMPERS	8" Ø	FACTORY WHITE
	SLOT CEILING DIFFUSER	4' x 48"	FACTORY WHITE
	RETURN AIR GRILLE, MFR: PRICE. LOUVERED RETURN GRILLE, REMOVABLE FOR CLEANING; #6304FR. 60/70 RETURN 22" X 22" 60D/TB/24X24 B12 Do not install filter (filter covered by hvac unit), angle diffusers away from wall, spray paint pan & collar of cold air return black.	2' x 2'	FACTORY WHITE
	HONEYWELL VISIONPRO 8000 WIFI PROGRAMMABLE THERMOSTAT @ 4'-6" AFF PER HVAC PLAN.	-	WHITE
	SIDE WALL DUCT DIFFUSER HART & COOLEY # 651 POINT FINS UP	6" x 12" MOUNT @ 9'-6" AFF	PAINT TO MATCH WALLS.

USE BUTTERFLY DAMPERS FOR ALL TEMPERED SUPPLY DIFFUSERS (FEED FROM HVAC UNITS). USE LOUVERS AND DAMPERS W/ LOCKING QUADRANTS FOR ALL MAKE-UP AIR FEEDS.

AIR BALANCE

- 2625 EXHAUST HOODS
- 225 R.R. EXHAUST FANS
- 2850 CFM
- + 1475 FRESH AIR DOAS HVAC UNIT No. 1
- + 1450 FRESH AIR DOAS HVAC UNIT No. 2
- + 75 CFM TOTAL

HVAC GENERAL NOTES

- SUPPLY DUCT SHALL BE IN THE FOLLOWING GAUGES (I.N.O.):
 - ROUND:
 - UP TO 12" Ø = 26 GAUGE
 - 14" AND LARGER = 26 GAUGE
 - SQUARE / RECTANGULAR:
 - UP TO 10" X 12" = 26 GAUGE
 - 10" X 14" OR 12" X 12" AND LARGER = 26 GAUGE
- SUPPLY DROPS SHALL BE GALVANIZED IN 24 GAUGE MATERIAL.
- RETURN DUCT SHALL BE GALVANIZED IN 22 GAUGE MATERIAL.
- FOR ALL SQUARE / RECTANGULAR DUCT AND RETURN AIR DUCT, THE FIRST NUMBER = DUCT HEIGHT AND THE SECOND NUMBER = DUCT WIDTH (EXAMPLE: FOR A 6' x 10' DUCT, IT IS 6' HIGH BY 10' WIDE).
- INSTALL ALL BOOTS FROM INSIDE DUCTWORK.
- ALL DUCTWORK WITHIN CEILING CAVITIES SHALL BE WRAPPED WITH INSULATION AND VAPOR RETARDER HAVING A MAXIMUM PERMEANCE OF 0.05 PERM - OR - ALUMINUM FOIL HAVING A THICKNESS OF 2 MILS.
- FLEXIBLE DUCT CONNECTORS SHALL BE TESTED IN ACCORDNACE WITH UL181 AND SHALL BE LISTED AND LABELED AS CLASS 0 OR CLASS 1 DUCT.
- DUCT COVERINGS SHALL HAVE A FLAME SPREAD INDEX NOT MORE THAN 25 AND A SMOKE DEVELOPED INDEX NOT MORE THAN 50.
- ALL JOINTS, SEAMS, AND CONNECTIONS SHALL BE SECURELY SEALED AND FASTENED.
- RETURN DUCT SMOKE DETECTORS SHALL BE IN COMPLIANCE WITH SECTION 606 IMC.
- VERIFY LOCATION OF CONTROLS AND USE ALTERNATE POSITION IF REQUIRED.
- IF A BUILDING FIRE ALARM SYSTEM EXISTS, ALL HVAC DUCT SMOKE DETECTORS AND HOOD CONTROL PANEL MUST REPORT TO IT. COORDINATE W/ LANDLORD.

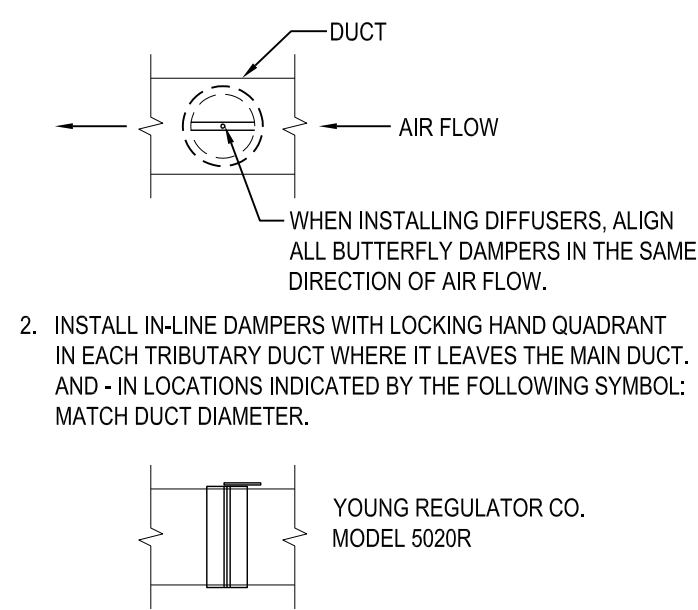
HVAC EQUIPMENT

- HVAC UNIT No. 1 & 2: CAPTIVEAIRE
7.5 TON PACKAGED DOAS/RTU (197,729 BTUH) (208V, 3Ø)
CASRTU14-200-15-7.5T-DOAS
- FIELD INSTALLED OPTIONS (TYP. EACH UNIT)
- KIT - SMOKE DETECTOR (RETURN AIR) USE CAS INTERLOCK
 - BOTTOM or TOP ACCESS FILTER BOX (BY CAS)
 - THERMOSTAT
 - THERMOSTAT GUARD
 - MOTORIZED FRESH AIR DAMPER W/ BIRD SCREEN (BY CAS)
 - UNIT-MOUNTED HEAVY-DUTY DISCONNECT (BY CAS)
 - UNIT-MOUNTED WP, GFCl RECEPTACLE. (BY CAS)
- SEE M2.0 FOR CIRCUIT.

VERIFY HVAC EQUIPMENT BEFORE ORDERING.

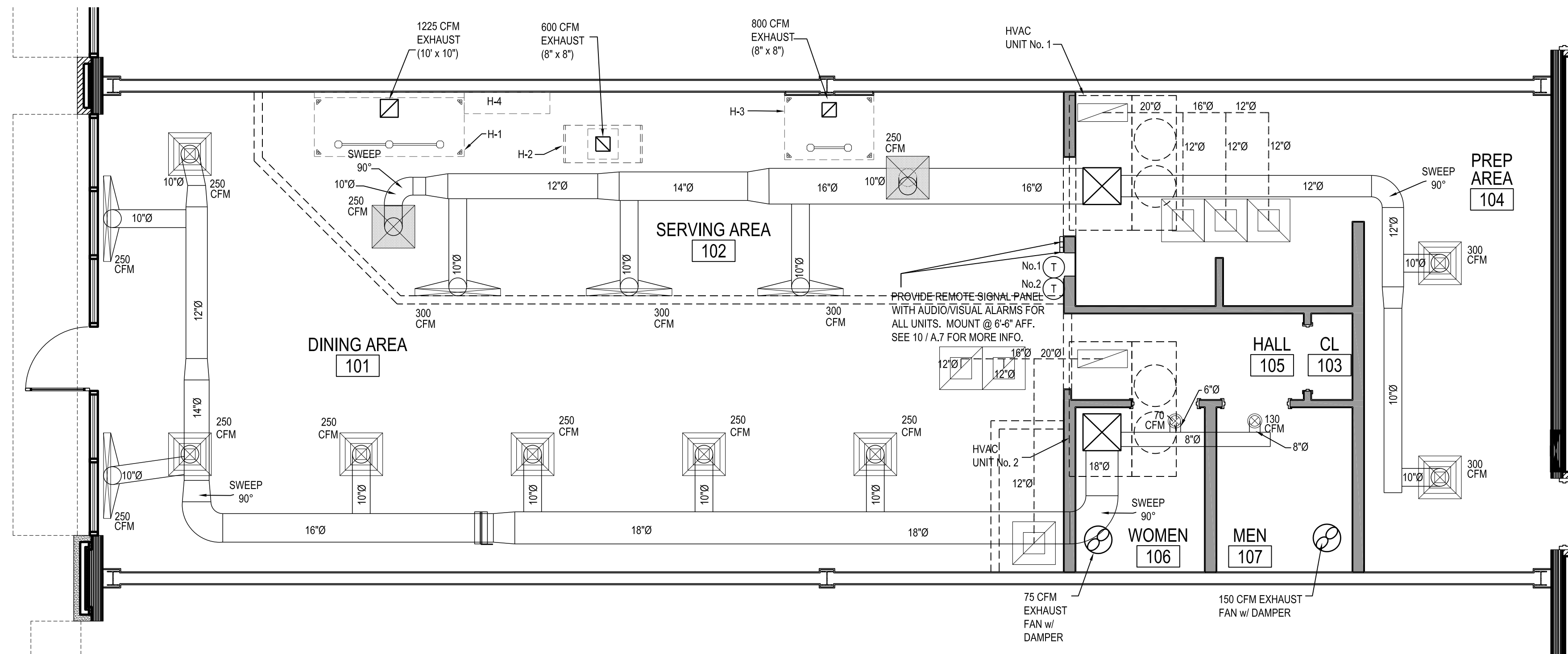
DAMPER NOTES:

- INSTALL KEYED BUTTERFLY DAMPERS AT ALL SQUARE & ROUND DIFFUSERS (NOT LINEARS).

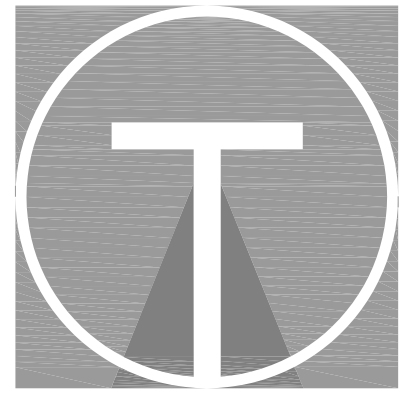


REQUIRED TESTING

- CONDUCT A LIGHT-TEST TO CHECK WELDS ON KITCHEN GREASE DUCTS. THE TEST MUST BE WITNESSED BY THE FIRE DEPARTMENT. NOTE: INSPECTORS MAY REQUIRE ALTERNATIVE TESTING UNDER CERTAIN CIRCUMSTANCES.
- A PUFF TEST IS REQUIRED ON THE KITCHEN SUPPRESSION SYSTEM
- AN AIR-CAPTURE TEST IS REQUIRED ON THE KITCHEN HOOD(S)
- A TEST AND BALANCE REPORT IS REQUIRED



HVAC PLAN
1/4" = 1'-0" NORTH



TILSLEY ARCHITECTS

1140 SAINT GREGORY ST. CINCINNATI, OH 45202
TEL: 513.631.4300
WWW.TILSLEYARCHITECTS.COM

A New Penn Station Restaurant
Campus Collection
19 Mile & Garfield
Clinton Twp, MI 48038



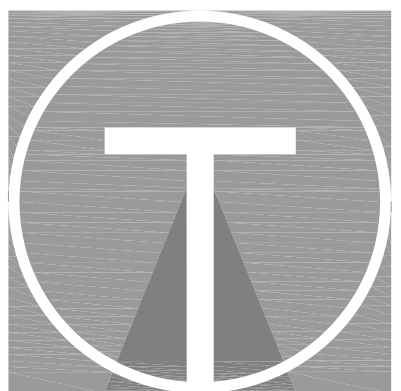
No. Revision

Sheet Title
HVAC Plan

Issued 11/02/22

Scale As Noted Drawn S.Rogers

22044 PS Clinton Twp MI



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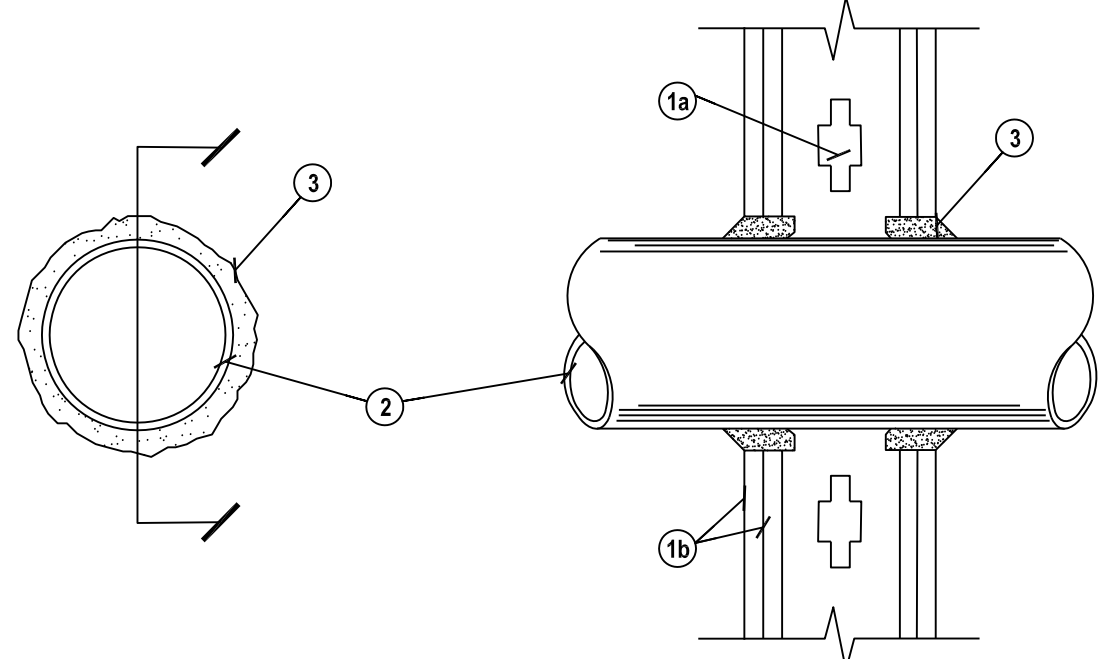
Revision table with columns for No. and Reason. Includes sheet title 'Roof Plan & Details', date '11/02/22', and scale 'As Noted'.

22044 PS Clinton Twp MI

M2.0

SYSTEM NO. W-L-1001
JUNE 15, 2005

F RATINGS - 1,2,3 AND 4 HR (SEE ITEMS 2 & 3)
T RATINGS - 0,1,2,3 AND 4 HR(SEE ITEM 3)
L RATING AT AMBIENT - LESS THAN 1 CFMSQ. FT.
L RATING AT 400F - LESS THAN 1 CFMSQ. FT.



- 1. Wall Assembly - The 1,2,3 or 4 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
A. Studs - Wall framing may consist of either wood framing (max 2 hr fire rated assemblies) or steel channel studs. Wood studs to consist of braces. Steel studs to be min 3-3/8 in., (92 mm) wide by 1-3/8 in., (35 mm) deep channels spaced max 24 in., (610 mm) o.c.
B. Gypsum Board* - Nom 1/2 or 5/8 in., (13 or 16 mm) thick, 4 ft (122 cm) wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Maximum diameter of opening is 26 in. (660 mm).
2. Through Penetrant - One metallic pipe, conduit or tubing installed either concentrically or eccentrically within the freestop system. The annular space between pipe, conduit or tubing and periphery of opening shall be min of 0 in., (0 mm)(point contact) to max 2 in., (51 mm). Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:
A. Steel Pipe - Nom 24 in., (610 mm) diameter (or smaller) Schedule 10 (or heavier) steel pipe.
B. Iron Pipe - Nom 24 in., (610 mm) diameter (or smaller) service weight (or heavier) cast iron soil pipe, nom 12 in., (305 mm) diameter (or smaller) or class 50 (or heavier) ductile iron pressure pipe.
C. Conduit - Nom 6 in (152 mm) diameter (or smaller) steel conduit or nom 4 in., (102 mm) diameter (or smaller) steel electrical metallic tubing.
D. Copper Tubing - Nom 6 in (152 mm) diameter (or smaller) Type L (or heavier) copper tubing.
E. Copper Pipe - Nom 6 in. (152 mm) diameter (or smaller) Regular (or heavier) copper pipe.
F. Through Penetrating Product* - Flexible Metal Piping - The following types of steel flexible metal gas piping may be used:

- 1. Nom 2 in. (51 mm) diameter (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly. OMEGA FLEX INC
2. Nom 1in. (25 mm) diameter (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly. TITIFLEX CORP A BUNDY CO
3. Nom 1 in. (25mm) diameter (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly. WARD MFG INC

- 3. Fill, Void or Cavity Material* - Caulk or Sealant - Min 1/4", 1/2" and 2 1/2" (16,32,48 and 64 mm) thickness of caulk for 1,2,3 and 4 hr rated assemblies, respectively, applied within annulus, flush with both surfaces of wall.Min 1/2" (6 mm) diameter bead of caulk applied to gypsum board/penetrant interface at point contact location on both sides of wall. The hourly F rating of the freestop system is dependant upon the hourly fire rating of the wall assembly which it install, as shown in the following table. The hourly T rating of the freestop system is dependant upon the type or size of the pipe or conduit and the hourly fire rating of the wall assembly in which it is install, as tabulated below:

Table with 3 columns: Max Pipe/or Conduit Diameter in., (mm), F Rating Hr., T Rating Hr. Rows include diameters 1 (25), 1 (25), 4 (102), 6 (152), 12 (305).

* When copper pipe is used, T Rating is 0 hr. *Bearing the UL Classification Marking
3M COMPANY - CP 25WB+ caulk or FB-3000 WT sealant.

HVAC TEST & BALANCE SPECIFICATIONS

ALL BALANCING IS CONTRACTED BY THE RESTAURANT OWNER AND PERFORMED BY OUR PREFERRED TAB FIRM - NATIONAL TAB. NATIONAL TAB ASSISTS THE OWNER IN THE BALANCING PROCESS FROM INITIAL PLANNING THRU DOCUMENTATION CLOSEOUT. ANY QUESTIONS, PLEASE CONTACT NATIONAL TAB AT (855)852-8822 EXT. 706 (JENNIFER) OR SUBMIT REQUEST TO BIDS@NATIONALTAB.COM

1.0 GENERAL REQUIREMENTS: TEST AND BALANCE (TAB) OVERVIEW IS A GENERAL GUIDELINE OF THE PROPER FLOW OF PLANNING & BALANCING OF THE SYSTEM. IT MANDATES ALL TRADES, OWNERS, CONSTRUCTION PERSONNEL, VENDORS & BALANCING FIRM PARTICIPANTS IN THE PROCESS. PLANNING ENSURES PREPAREDNESS, PROPER INSTALLATION, AND SYSTEM READINESS. BALANCING ENSURES FUNCTION & PERFORMANCE OF THE VENTILATION SYSTEM. THE SPECIFIC TRADE REQUIREMENTS ARE TO BE CARRIED OUT TO THEIR FULLEST EXTENT. EACH ASSIGNED TRADE WILL BE HELD ACCOUNTABLE. FINAL RETAINAGE (PAYMENT) IS NOT TO BE PAID BY THE OWNER UNTIL THE SPECIFIC TRADE REQUIREMENTS HAVE BEEN MET.

2.0 PHASE I (INITIAL PLANNING & REVIEW): PLANS & SUBMITTALS DISBURSED FOR REVIEW AND SCHEDULING. TAB PROCEDURES FINALIZED AND JOB READINESS CONFIRMED.

2.1 OWNER RESPONSIBILITIES: DISTRIBUTE ALL PLANS / SUBMITTALS TO NATIONAL TAB AND PROVIDE THE REQUIRED OPENING DATES FOR THE RESTAURANT. 2.2 GENERAL CONTRACTOR RESPONSIBILITIES: CONSTRUCT A JOB SCHEDULE BASED UPON OWNER REQUIREMENTS. DATA & SCHEDULES COLLECTED FROM ALL TRADES. COMMUNICATE THE INFORMATION TO NATIONAL TAB TO OBTAIN THE PRELIMINARY FIELD CHECKLIST FROM THE BALANCING CO. MANAGE ALL TRADES TO ENSURE THEY COMPLETE & SIGN OFF ON THEIR REQUIREMENTS BEFORE THE BALANCER IS SCHEDULED TO PERFORM ON SITE WORK. ENSURE THE GENERAL CONDITION OF THE BUILDING IS SIGNED OFF BY THE JOB SUPERVISOR. 2.3 NATIONAL TAB (BALANCING) RESPONSIBILITIES: REVIEW ANY PLANS & SUBMITTALS FOR ANY POSSIBLE DEFICIENCIES AND DISCREPANCIES IN DATA OR DRAWINGS. FINALIZE TAB START DATE WITH THE GENERAL CONTRACTOR AND THE PRELIMINARY CHECKLIST IS COMPLETED OR ACTION STEPS DOCUMENTED FOR ITEMS ON THE CHECKLIST THAT ARE NOT COMPLETED BEFORE EXECUTION OF BALANCING.

3.0 PHASE II (PRELIMINARY FIELD PROCEDURE): VERIFICATION OF SITE AND EQUIPMENT CONDITIONS. ANALYSIS OF PROPER INSTALLATION AND PERFORMANCE OF OPERATIONAL AND FUNCTIONAL TESTS.

3.1 GENERAL CONTRACTOR RESPONSIBILITIES: ENSURE ALL REQUIRED TRADES ARE PRESENT OR READILY AVAILABLE FOR THE BALANCER'S INITIAL "WALK-THRU" & START-UP VERIFICATION. ENSURE ALL TRADES IMMEDIATELY FIX ANY ISSUE THAT THE BALANCER MAY UNCOVER DURING THE INITIAL "WALK-THRU" THAT MAY AFFECT EQUIPMENT PERFORMANCE.

3.2 NATIONAL TAB (BALANCING) RESPONSIBILITIES: BALANCER TO PERFORM A "WALK-THRU" IMMEDIATELY UPON ARRIVAL. ALL REQUIRED TRADES ARE TO BE PRESENT DURING THIS PROCESS OR READILY AVAILABLE. THE BALANCER MUST INFORM THE REGIONAL MANAGER AND OWNER OF ANY DEFICIENCIES THAT THE BALANCER AND TRADES NEED RESOLVED BEFORE THE BALANCING IS COMPLETED. THE FOLLOWING GENERAL TASKS ARE TO BE PERFORMED:

- 3.2.1. VERIFICATION OF PROPER EQUIPMENT INSTALLED ON SITE.
3.2.2. VERIFICATION OF PROPER INSTALLATION OF MECHANICAL SYSTEMS.
3.2.3. START UP ALL EQUIPMENT TO ENSURE THAT IT WAS PROPERLY STARTED UP BY TRADES.
3.2.4. COORDINATE WITH SPECIFIC TRADES ANY DEFICIENCIES THAT NEED TO BE RESOLVED BEFORE INITIATING ANY BALANCING ON EACH SPECIFIC SYSTEM.

3.3 BALANCING AND TESTING PROCEDURE: INITIATE & COMPLETE ALL REQUIRED BALANCING PROCEDURES AS STIPULATED FOR THE ACCOUNT.

3.3.1 NATIONAL TAB (BALANCING) RESPONSIBILITIES: INITIATE BALANCING OF THE SYSTEMS AS REQUIRED UNDER STRICT GUIDELINES SET FORTH UNDER NATIONAL TAB PROCEDURES & NEBB STANDARDS & PROCEDURES.

ANY ISSUES THAT ARISE DURING THE BALANCING SHALL BE DISCUSSED EXCLUSIVELY OR INCLUSIVELY WITH THE GENERAL CONTRACTOR, OWNER / CONSTRUCTION MANAGER, AND THE NATIONAL TAB BALANCING MANAGER.

3.4 FINAL ON-SITE ANALYSIS & PERFORMANCE TEST: ENSURES PERFORMANCE AND COMFORT.

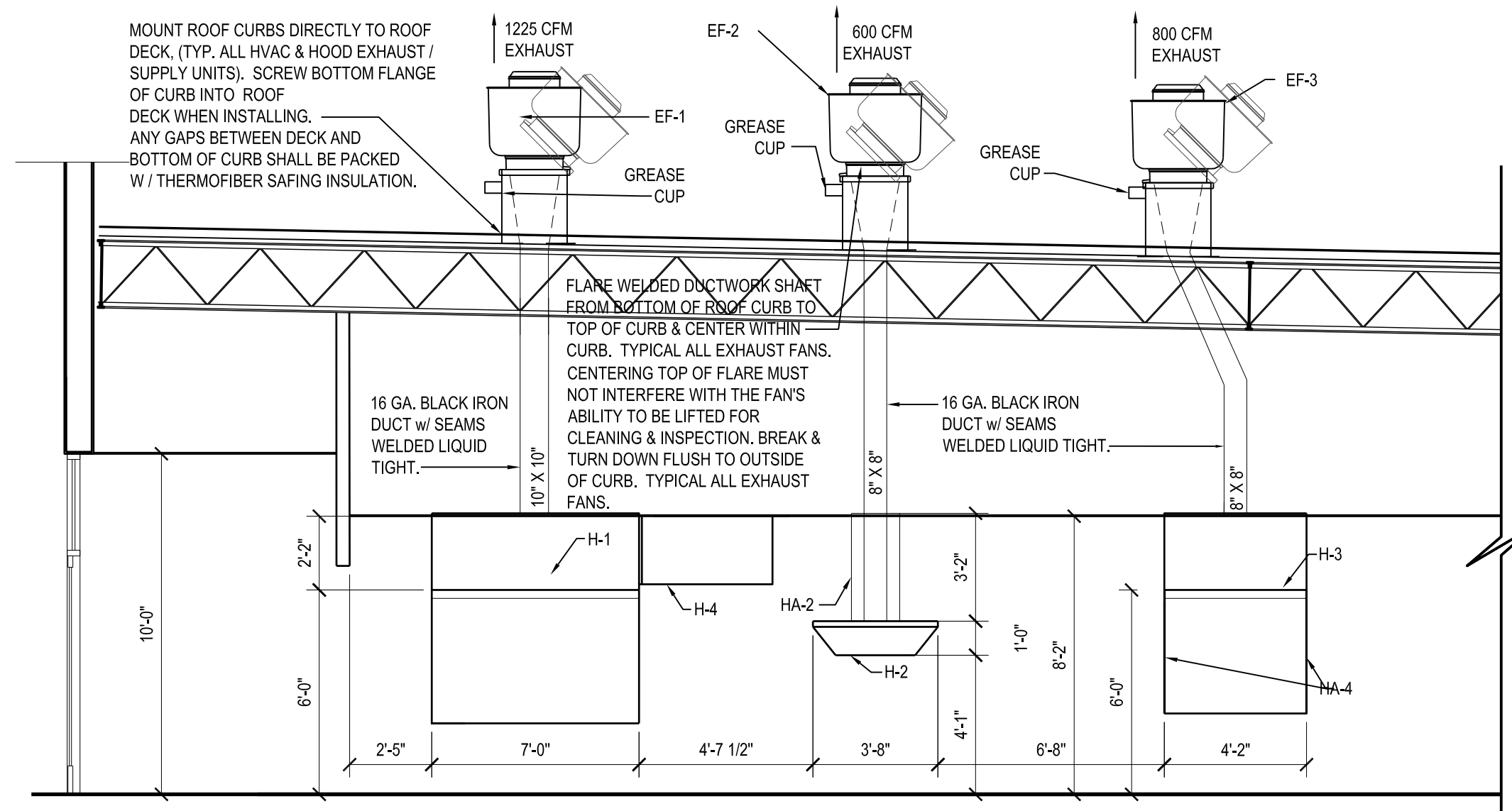
3.4.1 OWNER / GENERAL CONTRACTOR RESPONSIBILITIES: PROVIDE REPRESENTATIVE TO BE PRESENT FOR ALL FINAL TESTS (SMOKE, BUILDING, ETC.) THAT THE BALANCER WILL PERFORM. SIGN OFF ON TEST IF IT MEETS REQUIREMENTS. IF ANY DEFICIENCIES STILL REMAIN UPON THE COMPLETION OF THE BALANCING, COORDINATE WITH THE REQUIRED TRADE(S) AND OWNER TO RESOLVE THE ISSUE. IF THE BALANCER IS REQUIRED TO RETURN DUE TO THE DEFICIENCY, A FEE MAY BE ASSESSED. THE FEE SHOULD BE PASSED ON TO THE TRADE THAT WAS DEFICIENT DURING THE BALANCING OF THE SYSTEM.

3.4.2 NATIONAL TAB (BALANCING) RESPONSIBILITIES: PERFORM A KITCHEN HOOD SMOKE TEST AND BUILDING PRESSURE TEST WITNESSED BY THE OWNER AND/OR GENERAL CONTRACTOR. PERFORM A FINAL WALK-THRU TO ENSURE NO EXTREME CONDITIONS OCCUR DUE TO AIRFLOW MOVEMENTS. ANY DEFICIENCIES OR UNSATISFACTORY CONDITIONS NOTED BY PERSONNEL WITNESSING THE TEST SHALL BE RESOLVED & RETESTED. IF FINAL ADJUSTMENTS ARE REQUIRED THAT ARE NOT WITHIN 10% OF DESIGN CRITERIA TO ENSURE EFFECTIVENESS OR COMFORT, CONTACT OWNER AND/OR MANAGING MEMBER FOR FURTHER EXECUTION. FINALIZE & SUBMIT FINAL DOCUMENTS FOR FINAL TAB SUPERVISOR REVIEW.

3.4.2.1 NATIONAL TAB TO ENSURE THERMOSTATS ARE PROGRAMMED AS FOLLOWS: OCCUPIED TIME: 8:00AM TO 10:00PM UNOCCUPIED TIME: 10:00PM TO 8:00AM OCCUPIED MODE: FANS ON, HEATING TEMP SET POINT: 68, COOLING TEMP SET POINT: 70 UNOCCUPIED MODE: FANS AUTO, HEATING TEMP SET POINT: 65, COOLING TEMP SET POINT: 73

4.0 PHASE III (FINAL DOCUMENTATION & CLOSEOUT): SUBMISSION AND APPROVAL OF BALANCE WORK.

4.1 OWNER RESPONSIBILITIES: ASSIST ON THE EXECUTION OF RESOLUTION OF ITEMS NOT RESOLVED DURING BALANCING. 4.2 NATIONAL TAB (BALANCING) RESPONSIBILITIES: ENSURE BALANCER DOCUMENTATION HAS BEEN SUBMITTED FOR MANAGEMENT & OWNER REVIEW IN A TIMELY FASHION. VERIFY COMPLETENESS OF BALANCING REPORT & DEFICIENCIES. IF ANY BALANCING ISSUES ARE UNCOVERED BY THE MANAGEMENT TEAM DURING REVIEW, IT WILL REQUIRE THE BALANCER TO PROVIDE RESOLUTION.



EXHAUST DETAIL
NO SCALE

NOTE: SEE CAPTIVEAIRE SHOP DWGS (H - SHEETS) FOR DETAILED INSTALLATION INFORMATION REGARDING HOODS AND EXHAUST FANS.

FAN SCHEDULE

Table with columns: ITEM NO., QTY, DESCRIPTION, MANUFACTURER, MODEL #, ELECTRICAL (VOLT, PH, LOAD), EXHAUST (CFM), SUPPLY (CFM), GAS (SIZE, AMT), SIZE (W x D x H), NOTES, ITEM NO., BY.

FAN SCHEDULE CODES: * = PROVIDE BY EC / INSTALLED BY GC

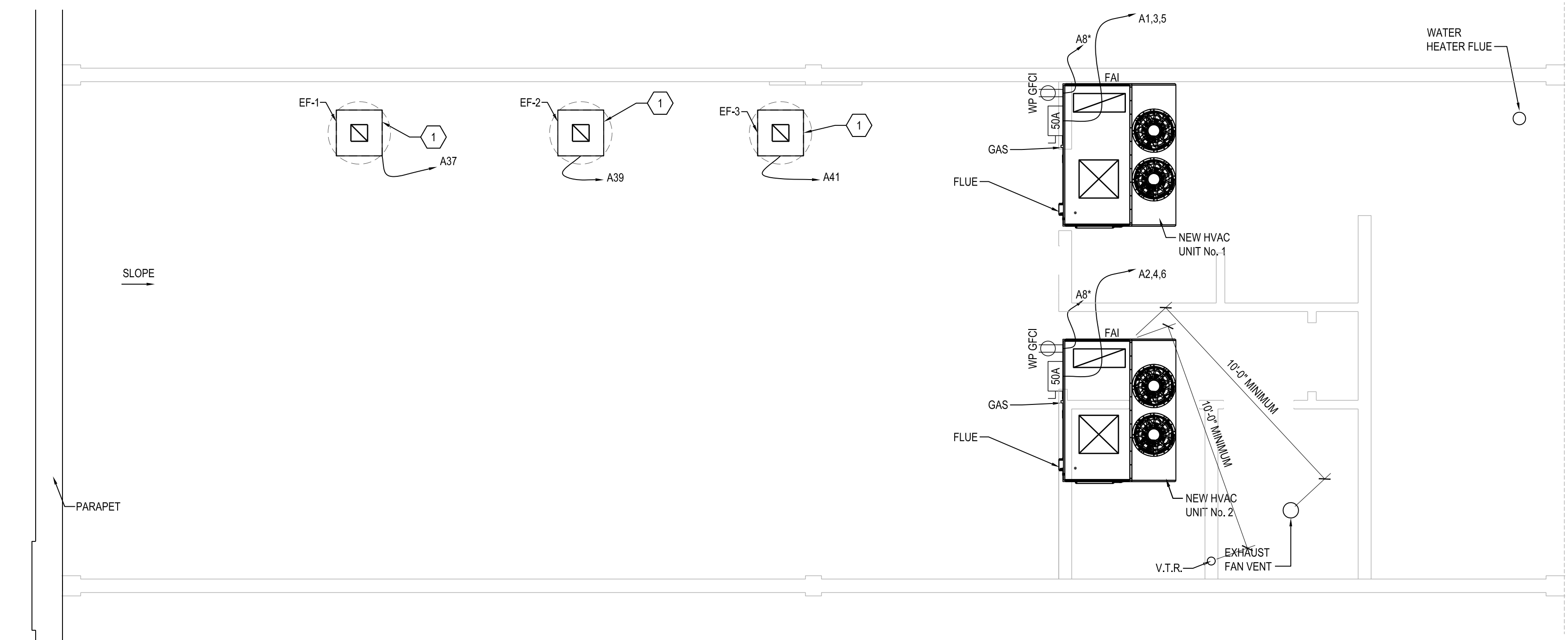
ROOF PLAN NOTES

- 1. SAND, PRIME AND PAINT EXISTING AND NEW EXPOSED GAS PIPING ON ROOF. (FEEDING PENN STATION ONLY) USE SAFETY YELLOW - OIL BASE.

ROOF PLAN KEYED NOTES

- 1. HINGE SIDE OF EXHAUST CURB.

NOTE: COORDINATE ALL PENETRATIONS WITH OWNERS ROOFER SO AS NOT TO VOID WARRANTY. MOUNT UNITS LEVEL TO ENSURE PROPER CONDENSATE DRAINING. ALL VENTING SHALL BE DONE THROUGH THE ROOF AND NOT THE BACK WALL.

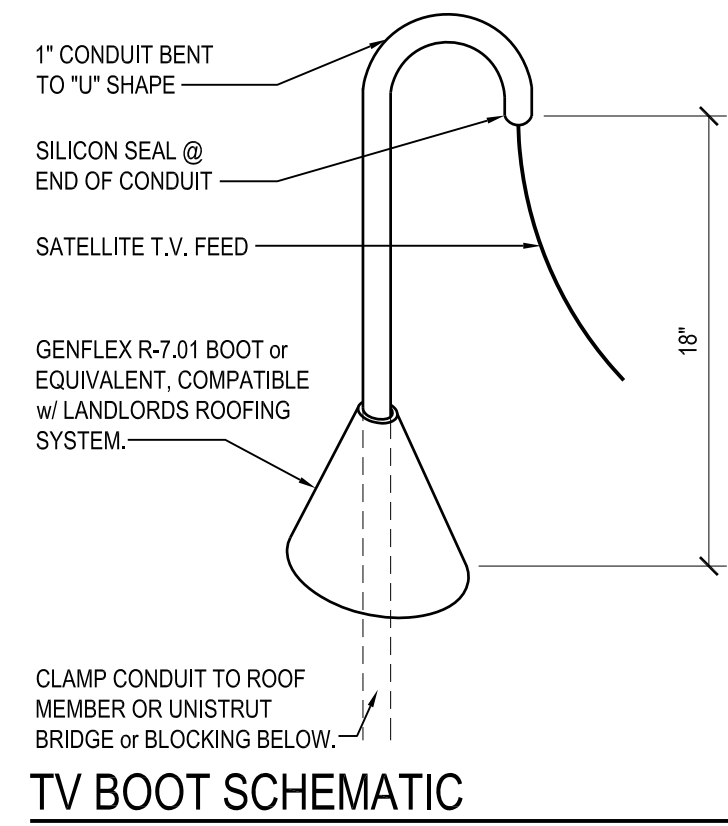


NOTE: ALL LEADERS LABELED WITH AN "*" (I.E. A9*) INDICATES THAT THERE ARE MORE ITEMS ON THAT CIRCUIT. SEE PANEL NOTES.

NOTE: SEE CAPTIVEAIRE SHOP DWGS FOR DETAIL INFORMATION REGARDING HOODS AND EXHAUST FANS.

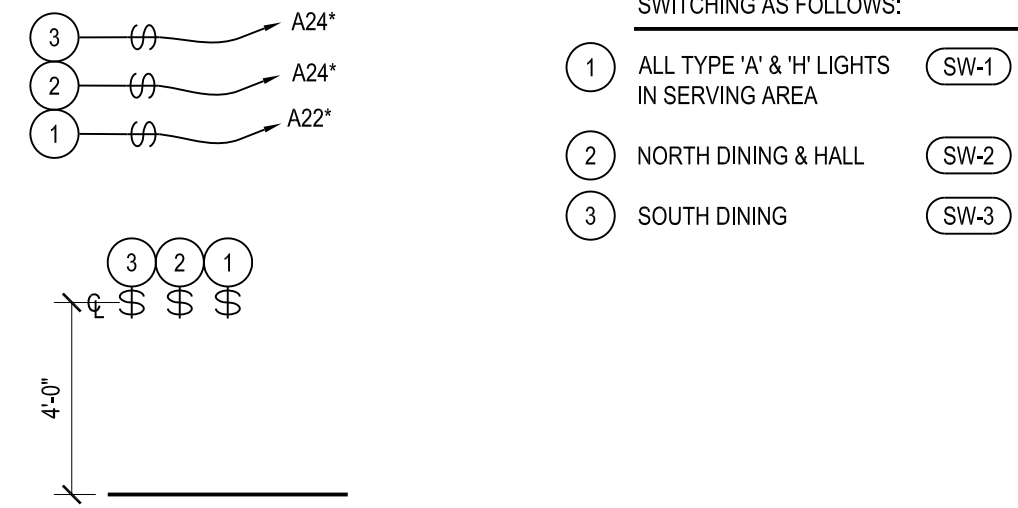
ROOF PLAN
1/4"=1'-0" FAI = FRESH AIR INLET





ELECTRICAL SPECIFICATIONS

- ALL FIXTURES ARE LED W/ SELF CONTAINED LAMPS. ELECTRICAL CONTRACTOR SHALL CONTACT SCOTT BALLARD OF WINSUPPLY FOR FIXTURE PACKAGE QUOTE & DELIVERY SCHEDULE. CONTACT INFO: CELL: (937)620-7375 EMAIL: SMBALLARD@WINSUPPLY.COM
 - ALL SS MOTION DETECTOR SWITCHES SHALL BE TIED INTO RESTROOM EXHAUST FANS.
 - KEEP ALL WIRING CONCEALED BEHIND FRP PANELS, CEILING PANELS, ETC. THIS INCLUDES: STEREO WIRING, PHONE WIRES, SENSOR WIRES FOR WATER FILTERS, DOOR BUZZER WIRES, ALARM SYSTEM WIRES, ETC. ANY EXTRA SYSTEMS: ALARM, STEREO, ETC. DESIRED BY THE OWNER SHALL BE ADDRESSED AS EARLY AS POSSIBLE IN THE CONSTRUCTION PROCESS SO AS TO ALLOW THE PROPER CONCEALMENT OF WIRING. NO LOOSE OR EXPOSED WIRES ARE PERMITTED.
 - ALL WIRING SHALL BE IN METAL CONDUIT OR METAL RACEWAY.
 - NO SUBSTITUTIONS ALLOWED FOR FIXTURES. USE SPECIFIED ITEMS. USE PENN STATION FIXTURE PACKAGE. FIXTURE ALTERNATES MUST BE APPROVED BY PENN STATION INC.
 - LED LAMPS IN PACKAGE ARE DESIGNED TO FIT THE FIXTURES LISTED. DO NOT SUBSTITUTE ANY FIXTURE.
 - REFER TO SHEET E1.0 FOR POSITIONS OF ALL OUTLETS.
 - ELECTRICIAN TO PROVIDE A 4X4 JUNCTION BOX CLOSE TO CENTER LINE OF SIGN LOCATION. SIGN INSTALLER TO STUB FEED BACK TO JUNCTION BOX & SEAL PENETRATION WEATHERTIGHT. ELECTRICIAN TO MAKE FINAL CONNECTION.
 - CLAMP TV CONDUIT THROUGH ROOF TO ROOF FRAMING. IF NOT POSSIBLE DUE TO LOCATION OF FRAMING MEMBER (JOIST, PURLIN, TRUSS ETC.), SUPPLY UNISTRUT BRIDGE OR BLOCKING AND SECURE CONDUIT TO THAT. REFER TO TV BOOT SCHEMATIC THIS PAGE.
 - PROVIDE AND INSTALL INTERMATIC ET 173C / 120 DPST DIGITAL SEVEN DAY TIMER ABOVE DESK IN OFFICE. TIMER SHALL OPERATE ALL SIGNAGE, INCLUDING "OPEN" SIGN OUTLET.
- NOTE: ELECTRICAL CONTRACTOR SHALL VERIFY LOADS AND SHALL CONFIRM THAT SERVICE EQUIPMENT MEETS LOCAL CODES.



SYMBOL	DESCRIPTION	SIZE	MOUNT	HEIGHT	LAMP	TYPE	MANUFACTURER	PRODUCT CODE #	NOTES	ALTERNATES
A	2' x 4' LED TROFFER	2' x 4'	RECESSED CEILING GRID	CEILING REFER TO PLAN	48.1W 6400 LUMEN	5000K LED	SATCO	WS2450WSEL	LED BACKLIT FLAT PANEL: 50 WATT, 2FT. X 4 FT. SELECTABLE CCT, 100 - 277 VOLT	NO
B	DOWNLIGHT CAN	6" Ø	RECESSED	CEILING	11W	BR-30 LED	SATCO	WSSCANN	5" RECESSED CAN - NEW CONSTRUCTION	NO
C	ROUNDBACK LAMPHOLDER	4 31/2" Ø x 6 7/8" L.	TRACK	CEILING	11W	BR-30 LED	SATCO	WS4TRBK - WS4TRBK WS12WTRBK36 WSLC8K	8-TRACK, black finish (USE WS4TRBK FOR 4' TRACK) 12W LED track head - pinch back - black finish - 36 degree beam LIVE END WITH CANOPY, black finish	NO
D	SEATING COUNTER PENDANT	10" Ø x 11" H	CEILING	6'-6" AFF TO BOTTOM	11W	BR-30 LED	SATCO	WSPENSMBK	BELLCAP, 1 LIGHT, SMALL PENDANT FIXTURE. MATT BLACK FINISH	NO
E	EXIT SIGN	13" x 7 1/2" x 2 1/8"	SURFACE (VERIFY)	ABOVE DOOR	3.8W	LED	NICOR	WSNCEML	WHITE w/ RED LETTERS / BATT. BACK-UP	NO
EX	EXIT SIGN & EGRESS LIGHT	13" x 10" x 2 3/4"	SURFACE (VERIFY)	ABOVE DOOR	3.8W	LED	MAXLITE	WSMLEMRLCOMRC	WHITE w/ RED LETTERS / EMER. LIGHT, BATT. BACK-UP REMOTE CAPABLE	NO
F	EGRESS LIGHT	13" x 4 3/4"	SURFACE	8'-0" (7'-6" R.R.)	2W	LED	MAXLITE	WSMLEM2HBE	WHITE / EMER. LIGHT 2-HEAD BUGEYE, BATT. BACK-UP	NO
G	2 HEAD EXTERIOR EGRESS LIGHT	5" PLATE	SURFACE	ABOVE DOOR	1W	LED	MAXLITE	WSMLEM2HRH	GREY FINISH / 2-HEAD, REMOTE HEAD	NO
H	DOORBELL BUZZER	-	-	-	-	-	-	-	LOCATE IN CEILING, NEAR FRYER (SEE E2.0 PLAN) USE EDWARDS #1065 strap mounted BUZZER (82 dB @ 3 ft). EDWARDS #800 DOOR BUTTON see plan for location(s).	NO
H	DOWNLIGHT CAN	6" Ø	RECESSED	CEILING	11W	BR-30 LED	SATCO	WS9W56ADJRET	9 WATT LED DOWNLIGHT RETROFIT, 5-6" ADJUSTABLE COLOR TEMP, 120V, DIMMABLE	NO

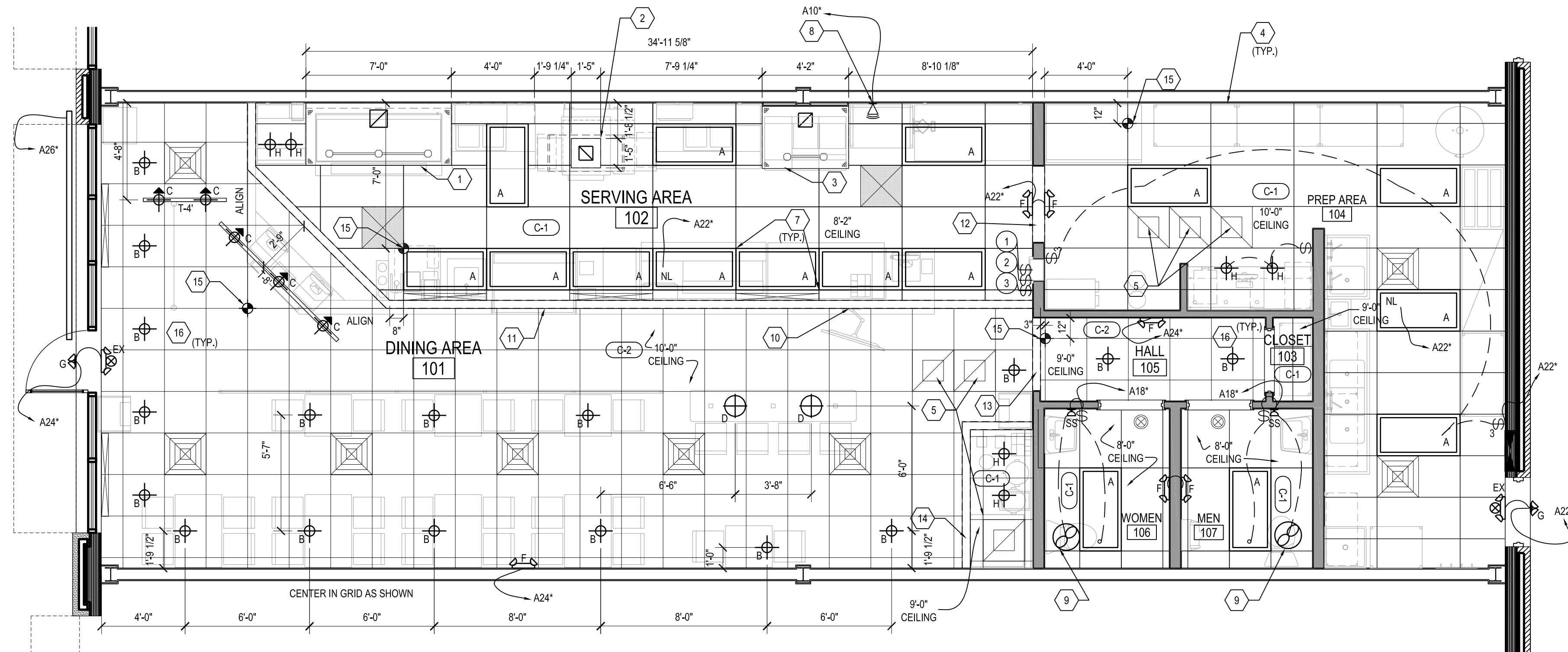
NOTE: 'NL' = NIGHTLIGHT (ON EMERGENCY CIRCUIT No. 8)

DRAWING KEYED NOTES

- GRIDDLE EXHAUST HOOD, SEE CEILING ANCHOR DETAIL, ON E2.0.
- OVEN EXHAUST SHAFT SS WRAP. CUT OUT CEILING PANEL FOR OVEN EXHAUST INCLUDING DUCT WRAP.
- FRYER EXHAUST HOOD, SEE CEILING ANCHOR DETAIL, ON E2.0.
- ATTACH ALL EDGE RUNNERS OF SUSPENDED CEILINGS TO WALL BY USING 1 1/4" DRYWALL SCREWS 32" O.C. SCREW INTO EVERY OTHER WALL STUD. DO NOT SCREW EDGE RUNNER INTO EXHAUST HOODS IN SERVING AREA. USE RIVETS. CAULK BETWEEN EDGE RUNNER AND WALL. (MATCH CEILING COLOR).
- RETURN AIR GRILLE, REFER TO SHEET M1.0.
- SUPPLY REGISTER (POINT FINE UP) REFER TO SHEET M1.0.
- PROVIDE A WIRE CEILING HANGER AT EACH OF TWO, DIAGONALLY OPPOSED CORNERS FOR EACH LAY-IN LIGHT FIXTURE AND HVAC REGISTER.
- MOUNT BUZZER FOR DOORBELL IN CEILING AT THIS LOCATION. USE EDWARDS #1065 STRAP MOUNTED BUZZER (82 dB @ 3 ft). CONCEAL ALL WIRES IN WALL. REFER TO K1.0 FOR EXTERIOR BUTTON LOCATIONS.
- EXHAUST FAN, REFER TO SHEET M1.0.
- OWNER PROVIDED TV LOCATION. PRE-WIRE FOR ANTENNA OR CABLE PER OWNER INSTRUCTIONS. IF SATELLITE DISH, USE GENFLEX BOOT SPECS, R-7.01 DETAIL. STRAP VERTICAL CONDUIT FEED TO SIDE OF ROOF FRAMING, REFER TO K1.0 FOR BLOCKING AND INSTALLATION NOTES.
- MAIN SERVING SOFFIT = 6'-8 1/2" A.F.F. TO BOTTOM
- HEADER = 7'-4" A.F.F. WRAP JAMB AND HEADER W/ FRP-1. 1 1/2" x 1 1/2" STAINLESS STEEL CORNERS PUBLIC SIDE. 1 1/2" x 1 1/2" FRP CORNERS PREP SIDE.
- HEADER @ 6'-11/2". REFER TO DETAIL ON SHEET A6.0.
- BEVERAGE SOFFIT = 6'-8" A.F.F. TO BOTTOM, SEE DETAIL ON SHEET A6.0.
- START CEILING GRID HERE.
- CENTER FIXTURE IN CEILING PANEL.

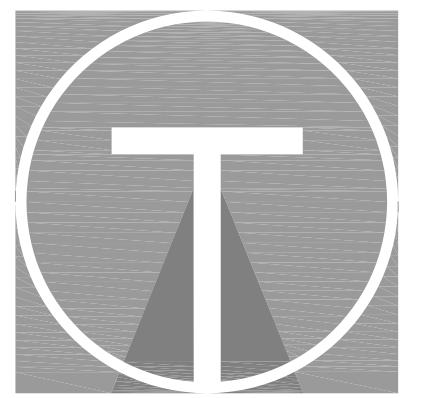
REFLECTED CEILING PLAN
1/4" = 1'-0"

- NOTES:
- ALL DIMENSIONS GIVEN ARE FINISHED DIMENSIONS.
 - DINING DUCTWORK SHALL BE ABOVE CEILING & INSULATED. SEE M1.0 FOR ADDITIONAL NOTES.



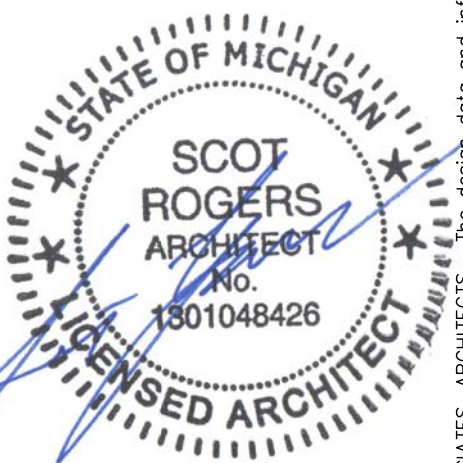
NOTE: ALL LEADERS LABELED WITH AN "*" (I.E. A9") INDICATES THAT THERE ARE MORE ITEMS ON THAT CIRCUIT. SEE PANEL NOTES.

PER NEC, 700-12, ALL EGRESS LIGHTS MUST BE POWERED BY TAPPING INTO EACH PARTICULAR ROOM'S LIGHTING CIRCUIT AHEAD OF THE SWITCH. DOES NOT APPLY IF THERE ARE MULTIPLE LIGHTING CIRCUITS SERVING A ROOM OR SPACE.



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1140 SAINT GREGORY ST. CINCINNATI, OH 45202
TEL: 513.631.4300
WWW.TILSLEYARCHITECTS.COM

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19 Mile & Garfield
Clinton Twp, MI 48038



No. Revision

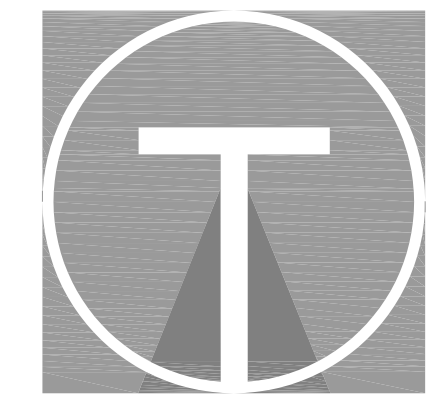
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Issued: 11/02/22

Scale: As Noted

Drawn: S.Rogers

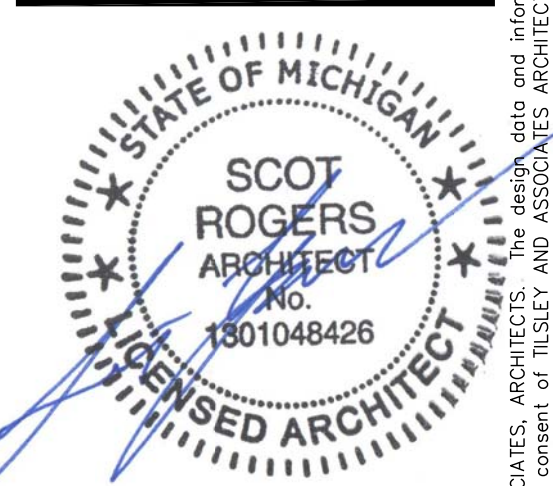
22044 PS Clinton Twp MI



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Revision table with columns for No., Description, and Date. Includes a title block with 'Plumbing Plan', 'S. Rogers', and '11/02/22'.

Sheet Title: Plumbing Plan
Issued: 11/02/22
Scale: As Noted
Drawn: S. Rogers
22044

P1.0

PLUMBING EQUIPMENT SCHEDULE = BLUE. Table with columns: ITEM NO., QTY, DESCRIPTION, MANUFR, MODEL #, FINISH, ELECTRICAL, WATER, WASTE, GAS, SIZE, NOTES, ITEM NO., BY.

PLUMBING ACCESSORY EQUIPMENT SCHEDULE = BLUE. Table with columns: ITEM NO., QTY, DESCRIPTION, MANUFR, MODEL #, FINISH, ELECTRICAL, WATER, WASTE, GAS, SIZE, NOTES, ITEM NO., BY.

1. IN CASE OF BACK TO BACK LAVATORY CONDITION, USE A 'BACK-TO-BACK' OR 'DOUBLE' CARRIER ARM. NOTE: ALL HAND SINKS & PUBLIC LAVATORIES MUST HAVE LEVER HANDLE CONTROLS MEETING ANSI / ADAAG.

EQUIPMENT SCHEDULE CODES: P = PLUMBER, EC = EQUIPMENT CONTRACTOR, GC = GENERAL CONTRACTOR, * = PROVIDED BY EC INSTALLED BY GC, # = PROVIDED BY U.S. FOOD / INSTALLED BY GC, O = PROVIDED BY OWNER. NOTE: EQUIPMENT PROVIDED BY EC WILL BE COLOR CODED PER THE FOLLOWING: K' ITEMS = RED, K'A' ITEMS = YELLOW, S' ITEMS = GREEN, P' ITEMS = BLUE.

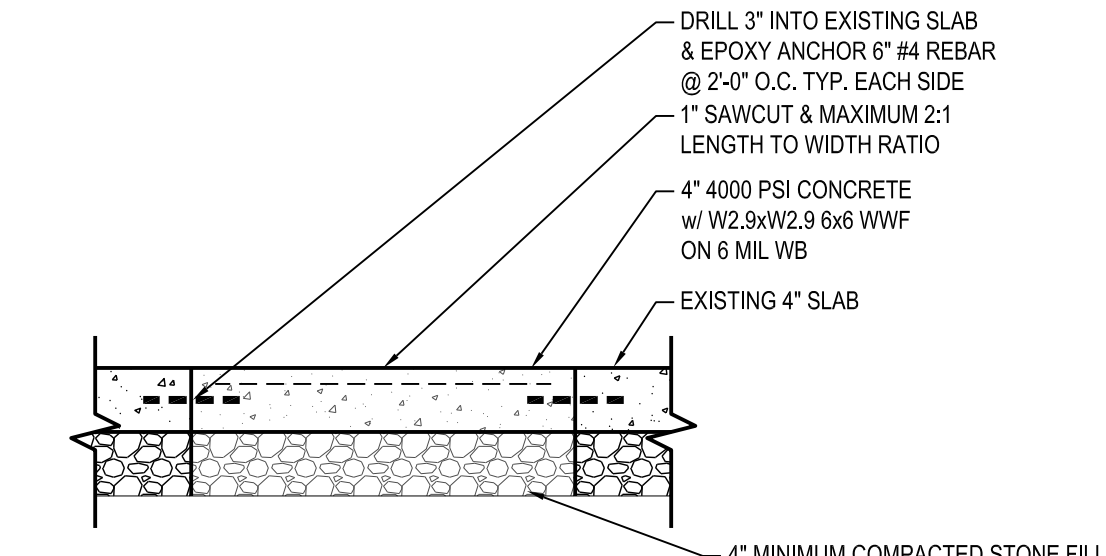
PLUMBING GENERAL NOTES

- 1. WATER HEATER: SET TEMPERATURE SO HOT WATER @ PREP SINK = 130".
- 2. GREASE TRAP: EXISTING EXTERIOR 1500 GAL.
- 3. HOSE BIBB: FREEZE PROOF THROUGH THE WALL UNIT WITH KEY HANDLE.
- 4. VENT LINES: MINIMUM VERTICAL CLEARANCE BELOW ALL LATERAL VENT LINES SHALL BE 10'-6" TO FINISHED FLOOR OR JUST BELOW TOP CHORD OF TRUSS...
- 5. CENTERLINE OF ALL PIPING PENETRATING WALLS TO BE MIN. 9" A.F.F. UNLESS NOTED OTHERWISE.
- 6. PAINT ALL EXPOSED GAS PIPING AND METER TO MATCH EXTERIOR WALL.
- 7. TROWEL SURFACE OF CONCRETE FLOOR SLAB TO SLOPE TOWARD ALL FLOOR DRAINS / SINKS.
- 8. PROVIDE FLOOR SINK @ PREP SINK. SIOUX CHIEF: #661-3PX (9X9X6) PVC SQUARE FLOOR SINK W/ 6" SUMP.
- 9. PROVIDE ESCUTCHEON PLATES AT ALL MECHANICAL, PLUMBING AND ELECTRICAL WALL PENETRATIONS.
- 10. NO PIPING, WIRE, CONDUIT, ETC. SHALL BE EXPOSED MORE THAN THE MINIMUM REQUIRED TO INSTALL PROPER FITTINGS AND ESCUTCHEON PLATES.
- 11. PROVIDE TEMPERING VALVES @ EACH HAND SINK & LAVATORY.
- 12. ALL FLOOR DRAINS & CLEANOUTS ARE OF SOLID BRASS/BRONZE CONSTRUCTION AND MUST BE ADJUSTABLE.
- 13. ALL HAND SINKS & PUBLIC LAVATORIES MUST HAVE LEVER HANDLE CONTROLS MEETING ACCESSIBILITY STANDARDS PER ICC A117.1-2009 & 2010 ADAAG.
- 14. UNPLUGGING A DEVICE CONSTITUTES A "MEANS OF DISCONNECT" WHEN WORKING ON DEVICE.
- 15. COLD WATER FILTER: THE ONLY TO ICE MACHINE, PEPSI MACHINE AND UPPER PREP SINK FAUCET.
- 16. HOT WATER FILTER: THE ONLY TO FILTERED FAUCET ABOVE PREP SINK.
- 17. GENERAL CONTRACTOR: FAUCET @ MOP SINK BY GC TO BE T&S BRASS MODEL NO. B-0665-BSTR (ROUGH CHROME PLATED FINISH).
- 18. BACKFLOW PREVENTION ASSEMBLY: ZURN WILKINS MODEL 975XL2.
- 19. SUPPORT VENT PIPES AS THEY EXIT THE ROOF W/ BRACE(S) IN TRUSS CAVITY.

PLUMBING PLAN DRAWING NOTES

- 1. DRINK & ICE DISPENSER (BEV-1) BACKFLOW PREVENTION = WATTS 9BD BACKFLOW PREVENTER WATER SUPPLY = 18" A.F.F., 1"-6" FINISHED FROM CORNER.
- 2. TEA BREWER (KA-15) BACKFLOW PREVENTION = WATTS 9BD BACKFLOW PREVENTER WATER SUPPLY = 18" A.F.F., 2"-6" FINISHED FROM CORNER.
- 3. SODA TOWER ICE MAKER (K-25) BACKFLOW PREVENTION = INTERNAL AIR GAP WATER SUPPLY = 78" A.F.F., 2"-6" FINISHED FROM CORNER.
- 4. INSTALL ANSUL GAS SHUT-OFF VALVE IN CEILING BETWEEN 9'-0" & 10'-0" A.F.F. FOR ACCESSIBILITY.
- 5. CORED FLOOR PENETRATION REQUIRED IN ADDITION TO PLUMBING LINES. 4"Ø MAXIMUM CORE.
- 6. ANCHOR SAFE TO FLOOR. USE SS FASTENERS & GROUT TO FLOOR.
- 7. STRAP ICE MAKER RELIEF TUBE TO BIN DRAIN. POSITION BOTH OVER HUB DRAIN.
- 8. RUN PRESSURE RELIEF TUBE & PAN DRAIN THROUGH WALL AND STUB OUT OVER FLOOR DRAIN.
- 9. BACKFLOW PREVENTER & SHUT-OFF VALVE LOCATION. VERIFY IF NEEDED IN STRIP CENTER CONDITION. MAIN SYSTEM MAY BE COVERED. ZURN WILKINS MODEL 975XL2 IF RECD.
- 10. FRANCHISEE TO PURCHASE 3/4" MALE TO 3/4" MALE COUPLER (WATTS A-60 LOWES SKU 34766), 4' BRAIDED METAL HOSE (EASTMAN 98503 LOWES SKU 0246987) AND HEAVY DUTY GARDEN HOSE SPRAYER (GILMORE 1323GF LOWES SKU 62326).
- 11. FLUSH CONTROL MUST BE MOUNTED ON OPEN SIDE OF TOILET AREA.
- 12. CENTERLINE OF ELECTRIC, PHONE & CPU FEEDS TO PREFABRICATED SERVING COUNTER.
- 13. 6" PVC SODA SLEEVE FROM 12" A.F.F. @ SODA SHELVING RUN UNDER SLAB AND STUBBED UP 6" A.F.F. UNDER BEVERAGE TABLE.
- 14. LOCATE HUB DRAIN BELOW BEVERAGE TABLE AS SHOWN. TOP = 4" A.F.F. - 10" TO CENTER OF DRAIN FROM CORNER.
- 15. HAND SINK EQUIPPED W/ SPLASH GUARDS, BOTH SIDES.
- 16. SPLASH GUARD @ MOP SINK - 2'-0" TALL - PROJECT 3/8" FROM WALL FOLDED EDGES. ANCHOR TO FLOOR AND WALL. SHOP DRAWINGS REQUIRED FROM PREFAB MANUFACTURER PRIOR TO FABRICATION.
- 17. REFER TO GAS PIPING ROUGH DETAIL 12/A6.0.
- 18. APPROXIMATE LOCATION OF THE EXISTING 6" SANITARY LINE. CONTRACTOR TO VERIFY BEFORE CONSTRUCTION AND REPORT EXACT LOCATION, IF IT REQUIRES DRAWING REVISIONS.
- 19. APPROXIMATE LOCATION OF THE EXISTING 4" GREASE SANITARY LINE. CONTRACTOR TO VERIFY BEFORE CONSTRUCTION AND REPORT EXACT LOCATION, IF IT REQUIRES DRAWING REVISIONS.
- 20. PROVIDE 2" GAP AT PREP SINK INDIRECT DRAIN.
- 21. INSTALL FLOOR DRAINS IN COOK LINE AND PREP AREAS FLUSH WITH FINISHED FLOOR.
- 22. CATV / TELEPHONE / ELECTRIC IN UNDER SLAB CONDUITS. 1" FOR CATV & TELE. 1 1/2" FOR ELEC. STUB UP FROM SLAB AT CENTERLINE OF SERVING WALL.
- 23. FLOOR DRAIN AT THIS LOCATION SHALL HAVE A 9" dia TOP GRATING.

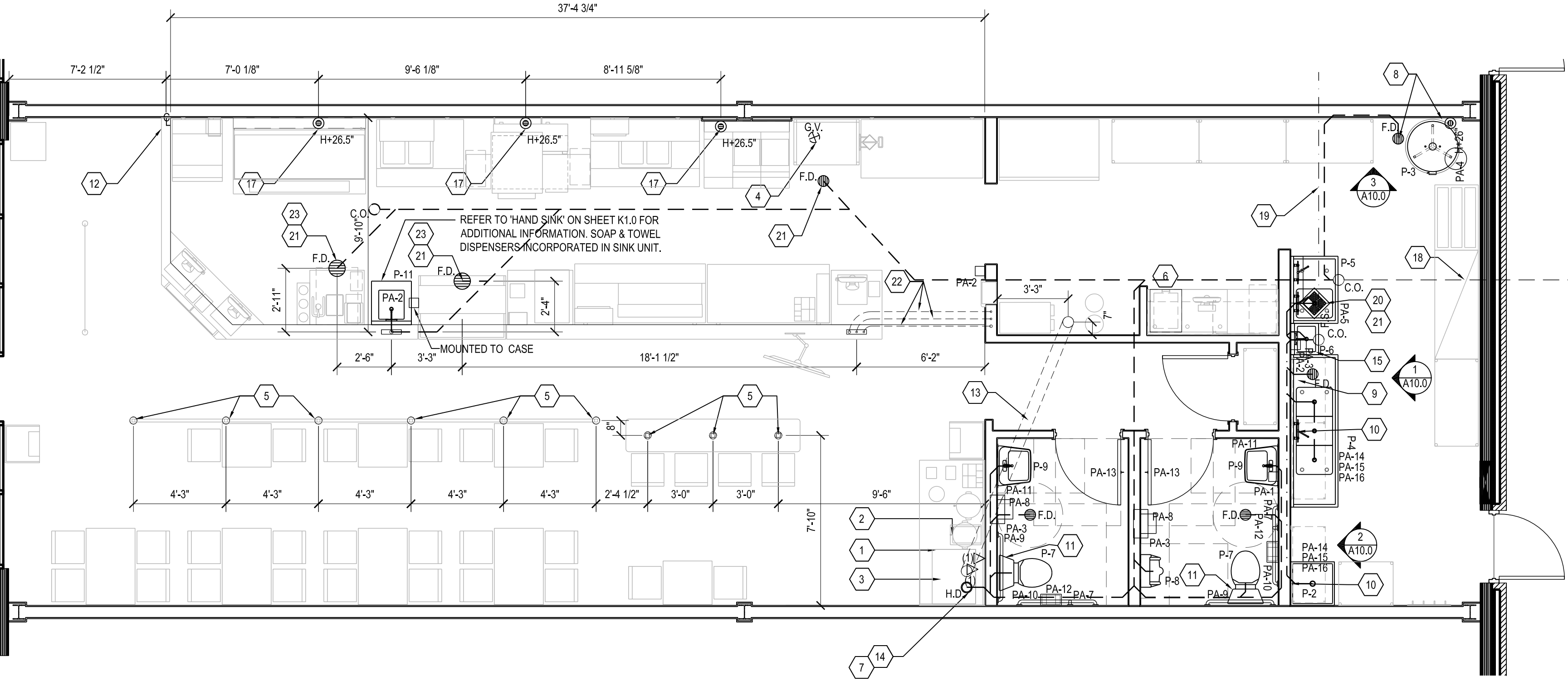
NOTE: FLUSH THE POTABLE WATER SUPPLY SYSTEM PREVIOUS TO FINAL CONNECTION OF EQUIPMENT.



CONCRETE FLOOR PATCH
1"=1'-0"

SLAB SPECIFICATION

NOTE: THIS PROJECT IS THE FIRST BUILD-OUT IN THIS TENANT SPACE OF A NEW BUILDING SHELL. AS SUCH, THE ENTIRE SLAB FOR THIS SPACE WILL BE NEW. PER THE SHELL DOCUMENTS, THE SLAB WILL BE: 4\"/>



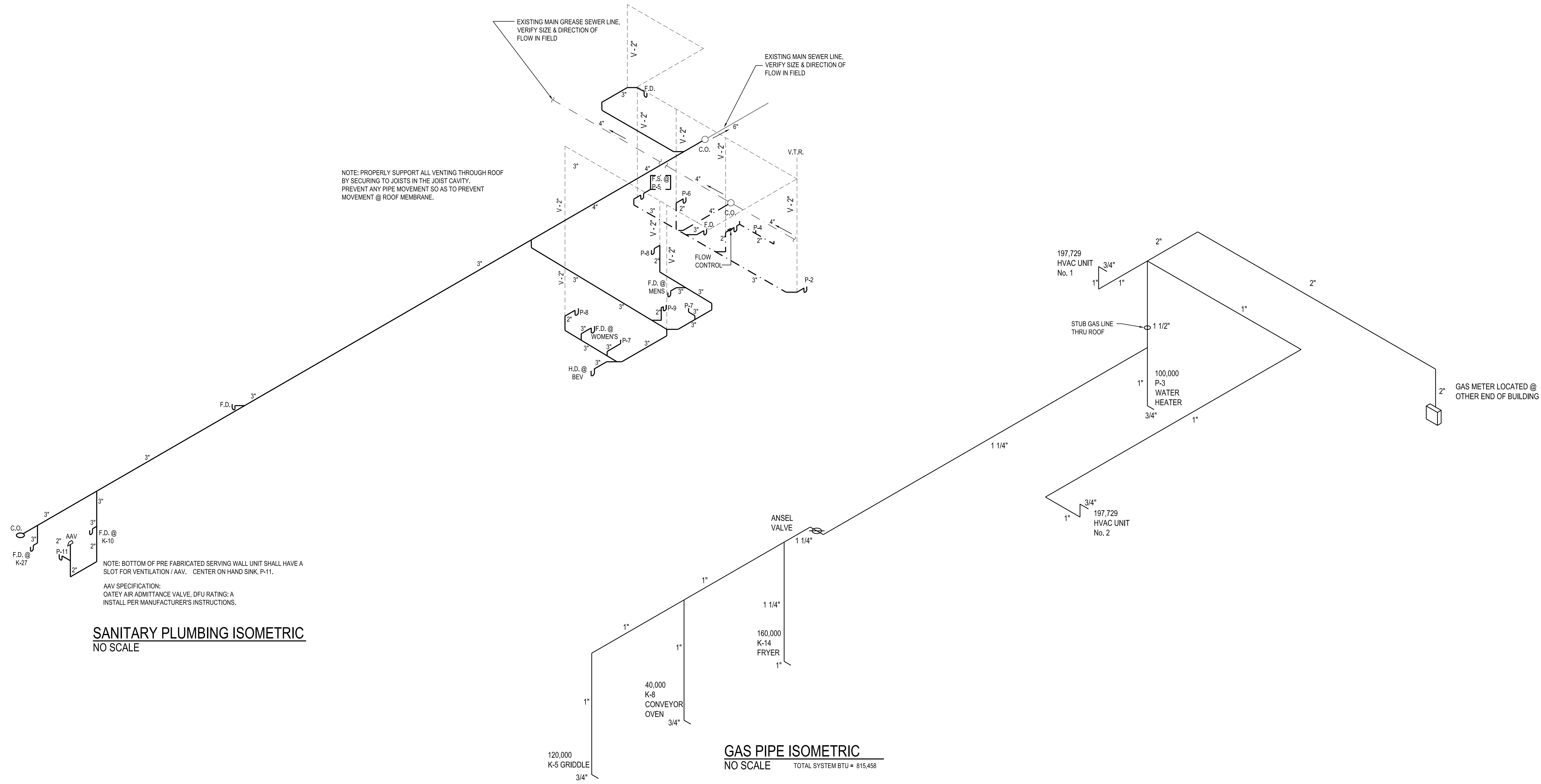
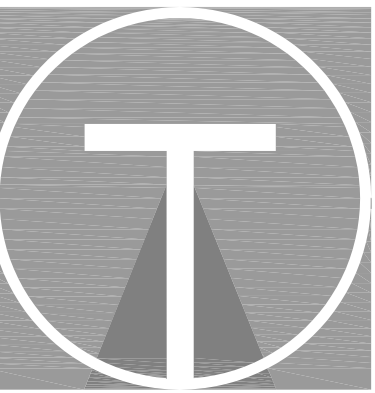
PLUMBING PLAN
1/4"=1'-0"

REFER TO RESTROOM ELEVATIONS ON DRAWING A7.0 FOR PLUMBING FIXTURE DIMENSIONS AND ACCESSORY DETAILS.

KEY

- NEW SANITARY
- EXISTING SANITARY
- NEW SANITARY GREASE
- EXISTING SANITARY GREASE

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NOTE: BOTTOM OF PRE FABRICATED SERVING WALL UNIT SHALL HAVE A SLOT FOR VENTILATION / AAV. CENTER ON HAND SINK. P-11.

AAV SPECIFICATION:
QATEY AIR ADMITTANCE VALVE, DPU RATING: A
INSTALL PER MANUFACTURER'S INSTRUCTIONS.

SANITARY PLUMBING ISOMETRIC
NO SCALE

GAS PIPE ISOMETRIC
NO SCALE
TOTAL SYSTEM BTU = 815,458

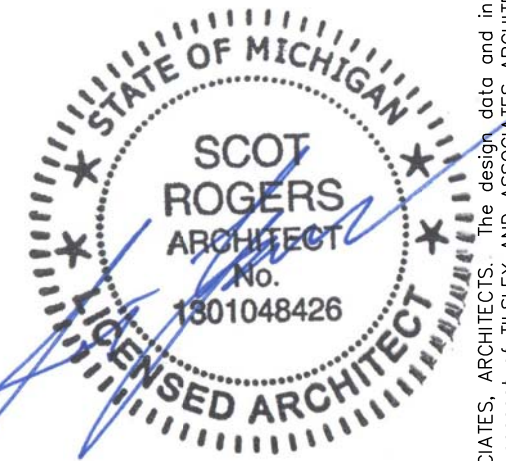
KEY

NEW SANITARY	_____
NEW GREASE SANITARY	- . - . - . - . - . - . - . - . - .
EXISTING SANITARY	_____
EXISTING GREASE SANITARY	- . - . - . - . - . - . - . - . - .
VENT	- - - - -

NOTE: UNDER SOME CONDITIONS, DISTANCE TO METER MAY VARY. CHECK WITH PLUMBER AND/OR UTILITY CO. TO UPSIZE THE PIPE AS REQ'D IN ORDER TO PROVIDE THE BTU NEEDED.

ALL GAS PIPING IS BLACK IRON PIPE WITH THREADED JOINTS.
ALL PIPING @ COOK LINE TO BE STUBBED OUT OF WALL AT HEIGHTS INDICATED ON PLAN. REFER TO 'CABLE RESTRAINT DETAIL' ON SHEET A6.0.

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No.	Revision

Sheet Title: **Plumbing Isometrics**
Issued: 11/02/22
Scale: As Noted
Drawn: S. Rogers

HOOD INFORMATION - JOB#5126207

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S)				HOOD CONSTRUCTION	HOOD CONFIG			
										WIDTH	LENG	HEIGHT	DIA		CFM	VEL	SP	END TO END
1	HD1-Grill	3650 BD-2	CAPTIVEAIRE	7' 0"	600 DEG	I	HEAVY	175	1225	10"	11"	4"	1225	1604	-0.662"	430 SS WHERE EXPOSED	ALONE	ALONE
2	HD2-Oven	4412 PS-Ovn		1' 9.25"	300 Deg.	I	Light	200	600	8"	8"	4"	600	1500	-0.376"	430 SS 100%	ALONE	ALONE
3	HD3-Fry	3650 BD-2	CAPTIVEAIRE	4' 2"	600 DEG	I	HEAVY	192	800	9"	8"	4"	800	1600	-0.706"	430 SS WHERE EXPOSED	ALONE	ALONE

FOR QUESTIONS, CALL THE CAPTIVE-AIRE (TRI-STATE) OFFICE
 1329 E. KEMPER RD., SUITE 4210
 PHONE: (513) 860-5555
 joe.hertenstein@captivaire.com

HOOD INFORMATION

HOOD NO	TAG	FILTER(S)					LIGHT(S)					UTILITY CABINET(S)				FIRE SYSTEM PIPING	HOOD HANGING WEIGHT	
		TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	QTY	TYPE	WIRE GUARD	LOCATION	SIZE	TYPE	SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY			
1	HD1-Grill	CAPTRATE SOLO FILTER	4	16"	16"	85% SEE FILTER SPEC	3	L55 SERIES E26	NO								YES	249 LBS
2	HD2-Oven	SS Baffle w/ Handles	2	10"	20"	30%	0										YES	248 LBS
3	HD3-Fry	CAPTRATE SOLO FILTER	3	16"	16"	85% SEE FILTER SPEC	2	L55 SERIES E26	NO	WALL MNT	12"x48"x24"	ANSUL R102	3.0/3.0	SC-130220MA_MA4	2 LIGHT 2 FAN	YES	226 LBS	

HOOD OPTIONS

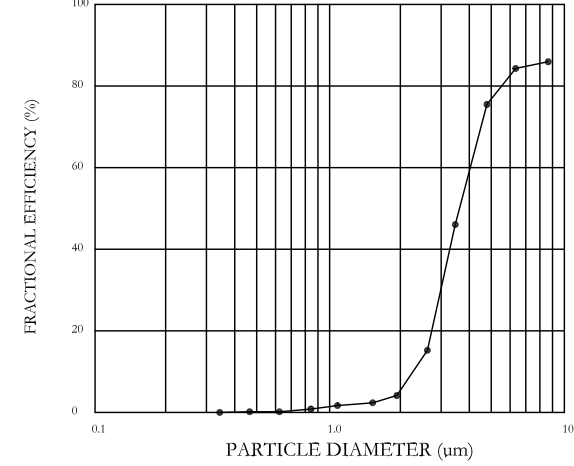
HOOD NO	TAG	OPTION
1	HD1-Grill	FIELD WRAPPER 14.50" HIGH FRONT, LEFT, RIGHT.
		RIGHT QUARTER END PANEL 26" TOP WIDTH, 0" BOTTOM WIDTH, 26" HIGH 430 SS.
		LEFT QUARTER END PANEL 26" TOP WIDTH, 0" BOTTOM WIDTH, 26" HIGH 430 SS.
		SENSOR-CV.
2	HD3-Fry	FIELD WRAPPER 14.50" HIGH FRONT, LEFT, RIGHT.
		RIGHT QUARTER END PANEL 26" TOP WIDTH, 0" BOTTOM WIDTH, 26" HIGH 430 SS.
		LEFT VERTICAL END PANEL 26" TOP WIDTH, 26" BOTTOM WIDTH, 61" HIGH INSULATED 430 SS.
		SENSOR-CV.

SPECIFICATION: CAPTRATE GREASE-STOP SOLO FILTER

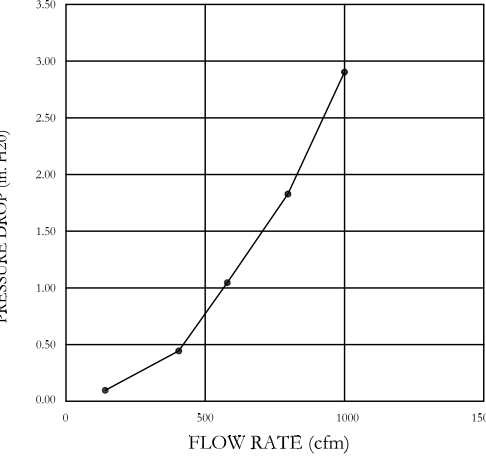
THE CAPTRATE GREASE-STOP SOLO FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-Baffle DESIGN IN CONJUNCTION WITH A SLOTTED REAR Baffle DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY. FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNEL(S). UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED. GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES OF WATER GAUGE.

THE CAPTRATE GREASE-STOP SOLO WAS TESTED TO ASTM STANDARD ASTM F2519-05.

EFFICIENCY VS. PARTICLE DIAMETER



PRESSURE DROP VS. FLOW RATE



CAPTIVE FILTERS ARE BUILT IN COMPLIANCE WITH:
 NFPA #66
 NSF STANDARD #2
 UL STANDARD #1046
 INT. MECH. CODE (MC)
 ULC-5649



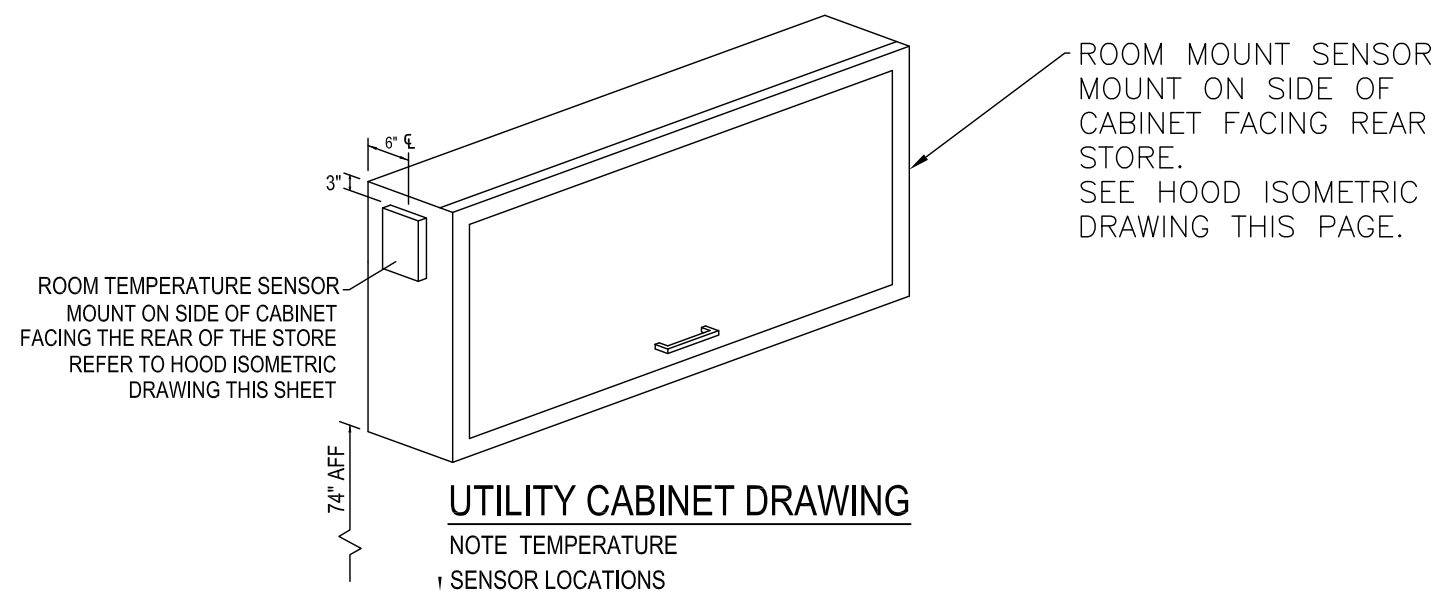
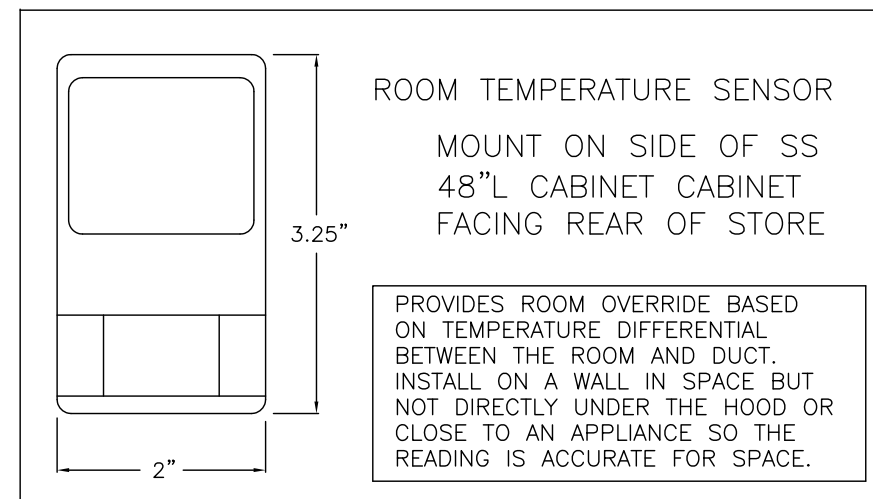
WALL-MOUNT UTILITY CABINET

HOOD NO	LOCATION	SIZE	UTILITY CABINET(S)				WEIGHT
			TYPE	SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY	
2	WALL MNT	12"x48"x24"	ANSUL R102	3.0/3.0	SC-130220MA_MA4	2 LIGHT 2 FAN	254.00 LBS

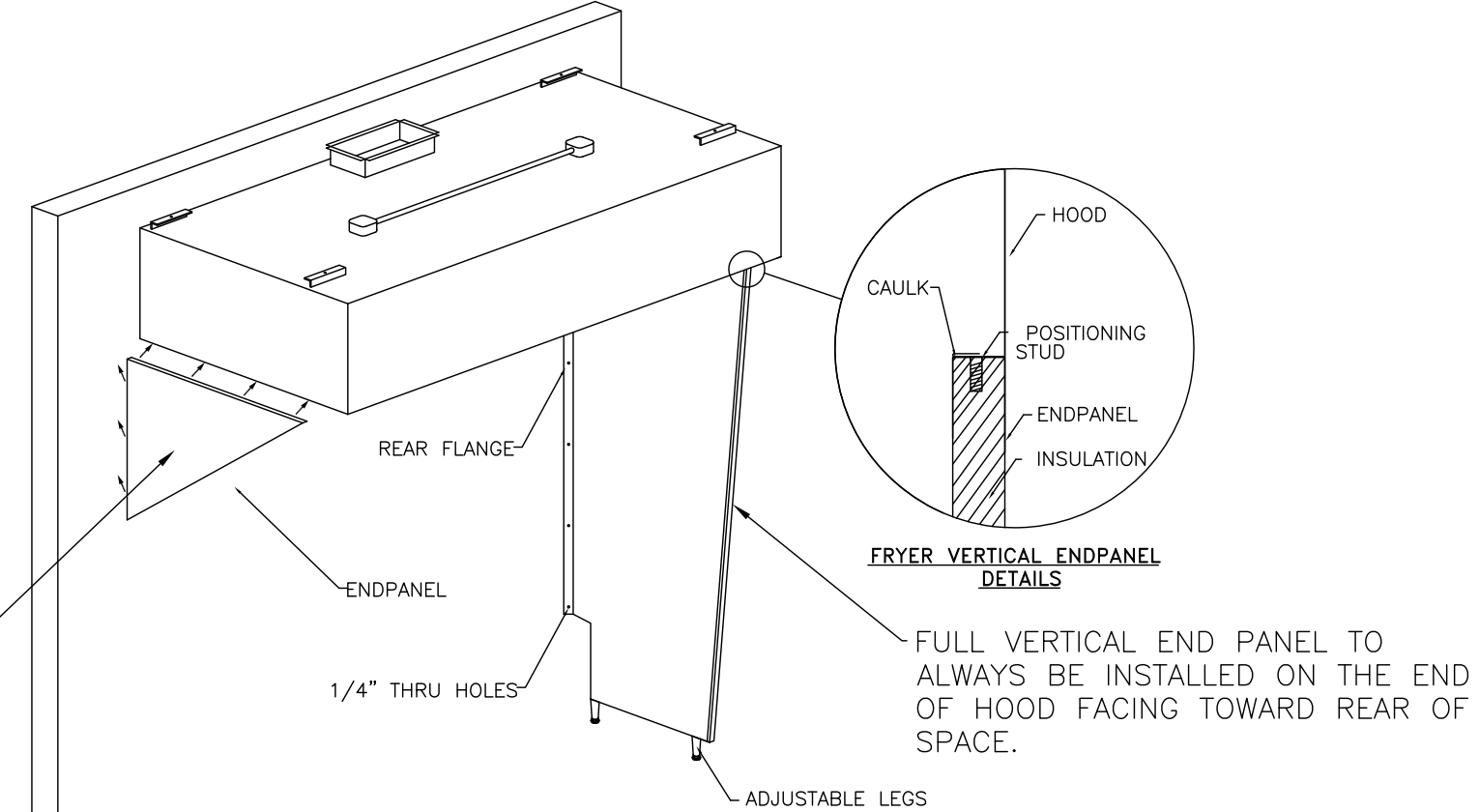
CAS VALVE(S)

FIRE SYSTEM NO	TAG	TYPE	SIZE	SUPPLIED BY
1	FS-1	MECHANICAL	1.250	CAPTIVEAIRE SYSTEMS

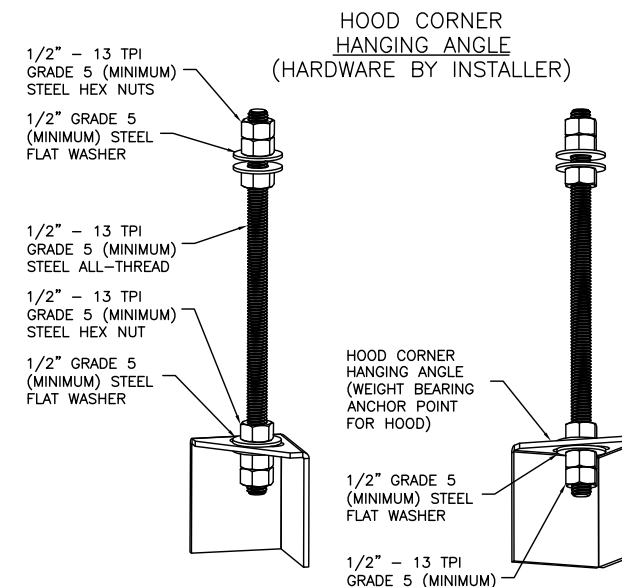
LOCATED IN 48"L X24"H 12" T SS CABINET MOUNTED NEXT TO GRILL HOOD



QUARTER END PANEL ON SIDE OF HOOD THAT FACES TO THE FRONT OF THE STORE.



(FRYER HOOD)



ASSEMBLY INSTRUCTIONS

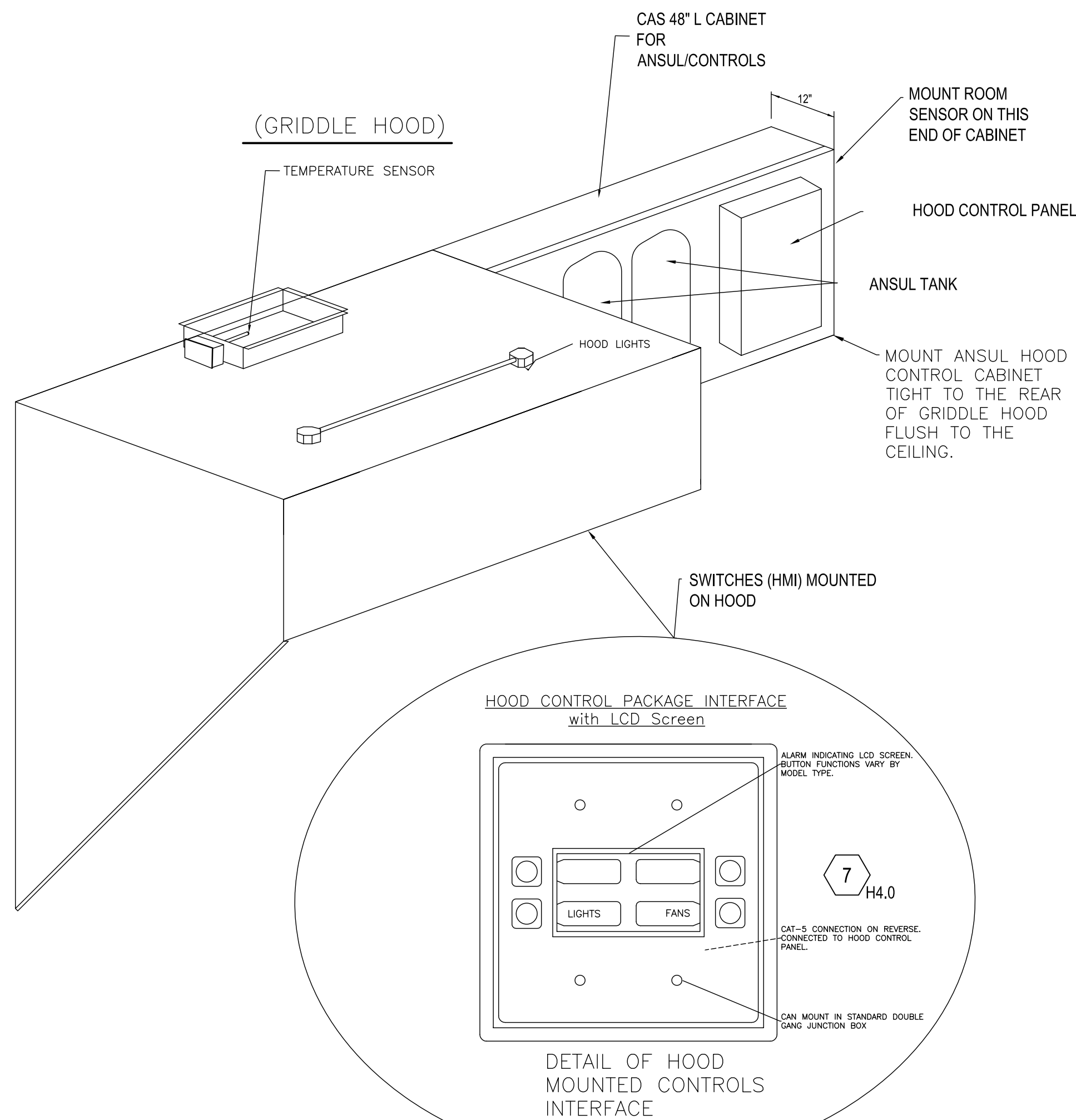
HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD, SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH HOOD HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

CAPTIVE-AIRE HOODS ARE BUILT IN COMPLIANCE WITH UL 710 AND NFPA 96 AND ARE RECOGNIZED BY ONE OR MORE OF THE FOLLOWING:

ETL SANITATION LISTED
 ETL LISTED FILE# 3054804-001

HOOD SYSTEM IS FABRICATED & DESIGNED PER UL-710 STANDARDS

GENERAL WIRING COMPONENTS ONLY (MUST READ ALL DETAILED DIRECTIONS ON THE CAPTIVE-AIRE ELECTRICAL DWG SHEET PROVIDED)



REVISIONS

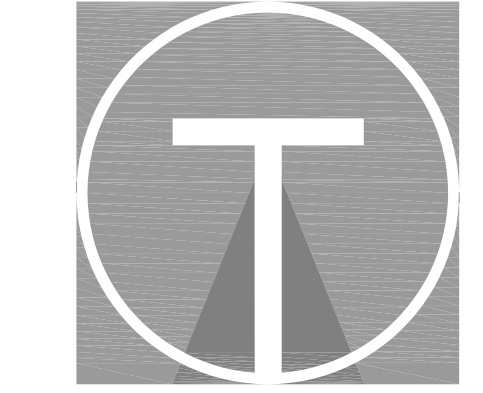
DESCRIPTION	DATE:

CAPTIVE-AIRE
 Air Solutions
 1329 East Kemper Rd., Ste. 4210, Cincinnati, OH, 45246 PHONE: (513) 860-5555 EMAIL: reg.20@captivaire.com
 www.captivaire.com

Penn Station v2BRD2
 (Various)

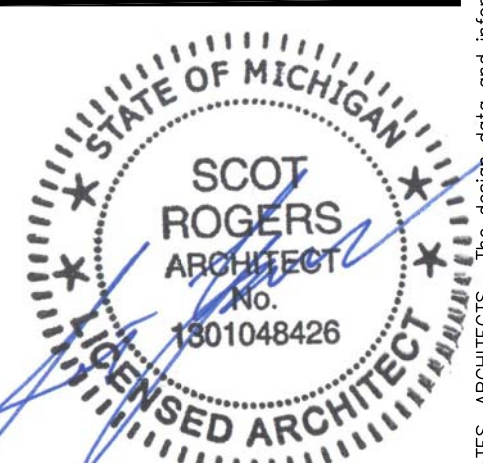
DATE: 12/15/2021
DWG.#: 5234814
DRAWN BY:
SCALE: 3/4" = 1'-0"
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SHEET NO.
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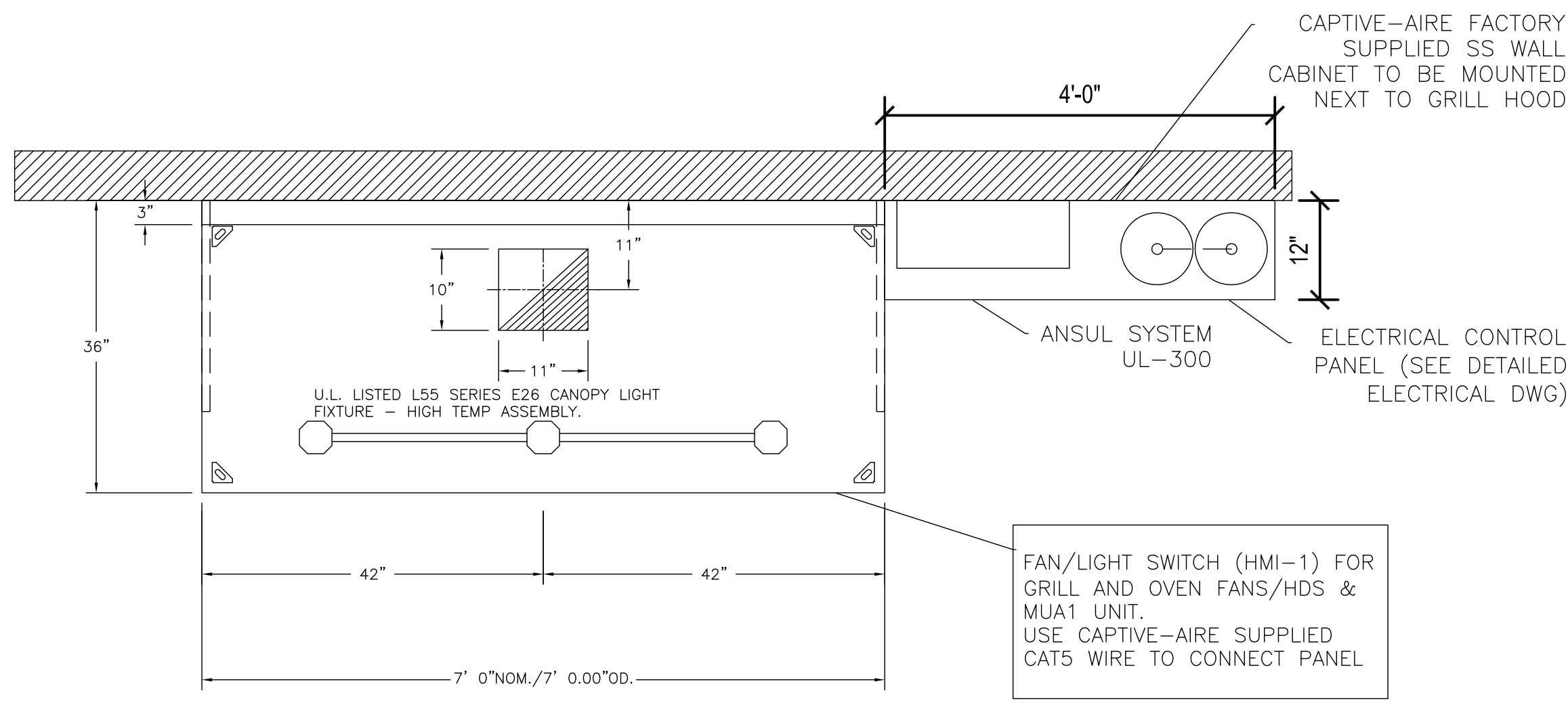
TILSLEY ARCHITECTS
 1140 SAINT GREGORY ST. CINCINNATI, OH 45202
 TEL: 513.851.4300
 WWW.TILSLEYARCHITECTS.COM

A New Penn Station Restaurant
 Campus Collection
 19 Mile & Garfield
 Clinton Twp, MI 48038

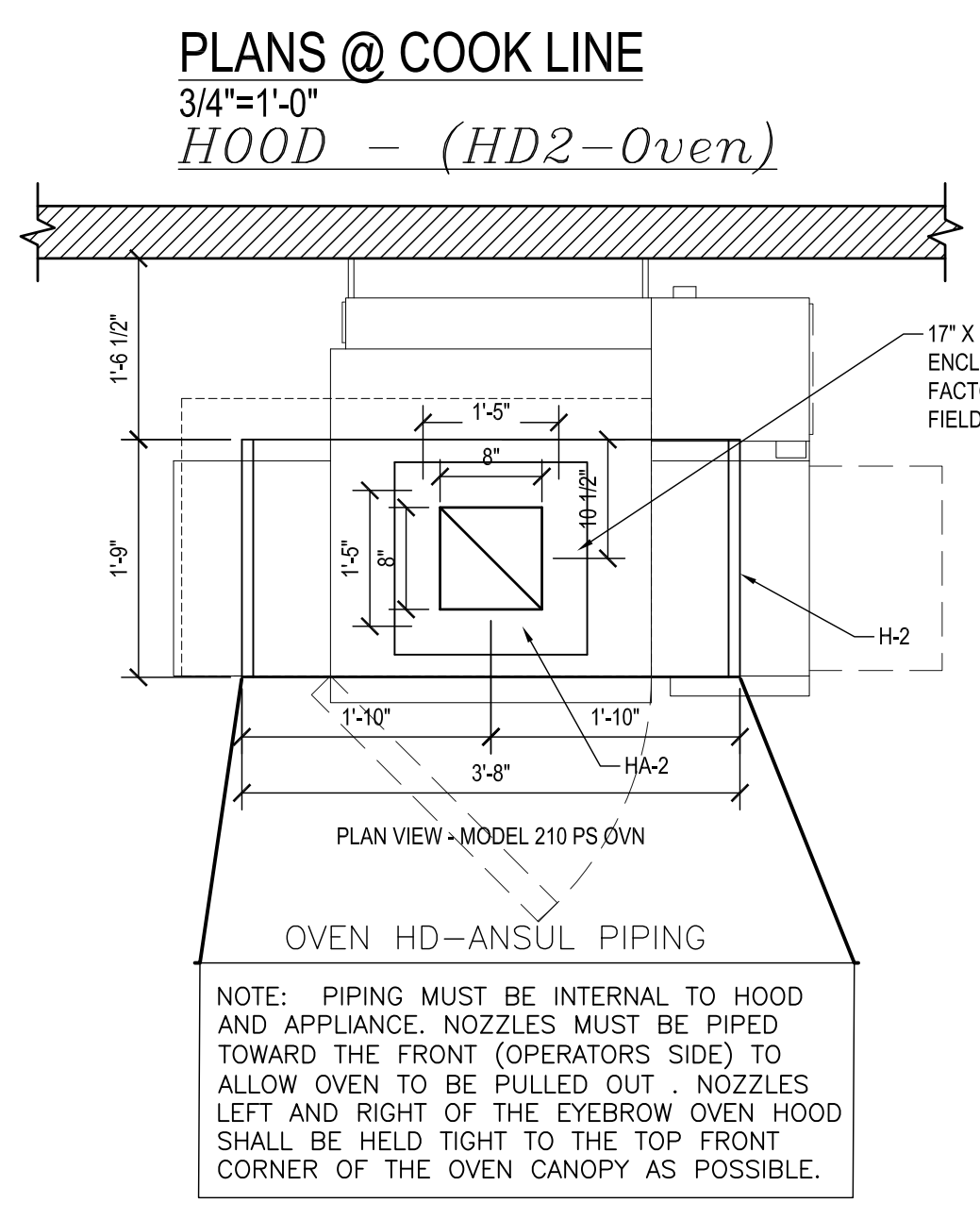


No. Revision

Sheet Title: Captivaire Shop
Drawings: Issued 11/02/22
 Scale: As Noted
 Drawn: S.Rogers
 22044 PS Clinton Twp MI

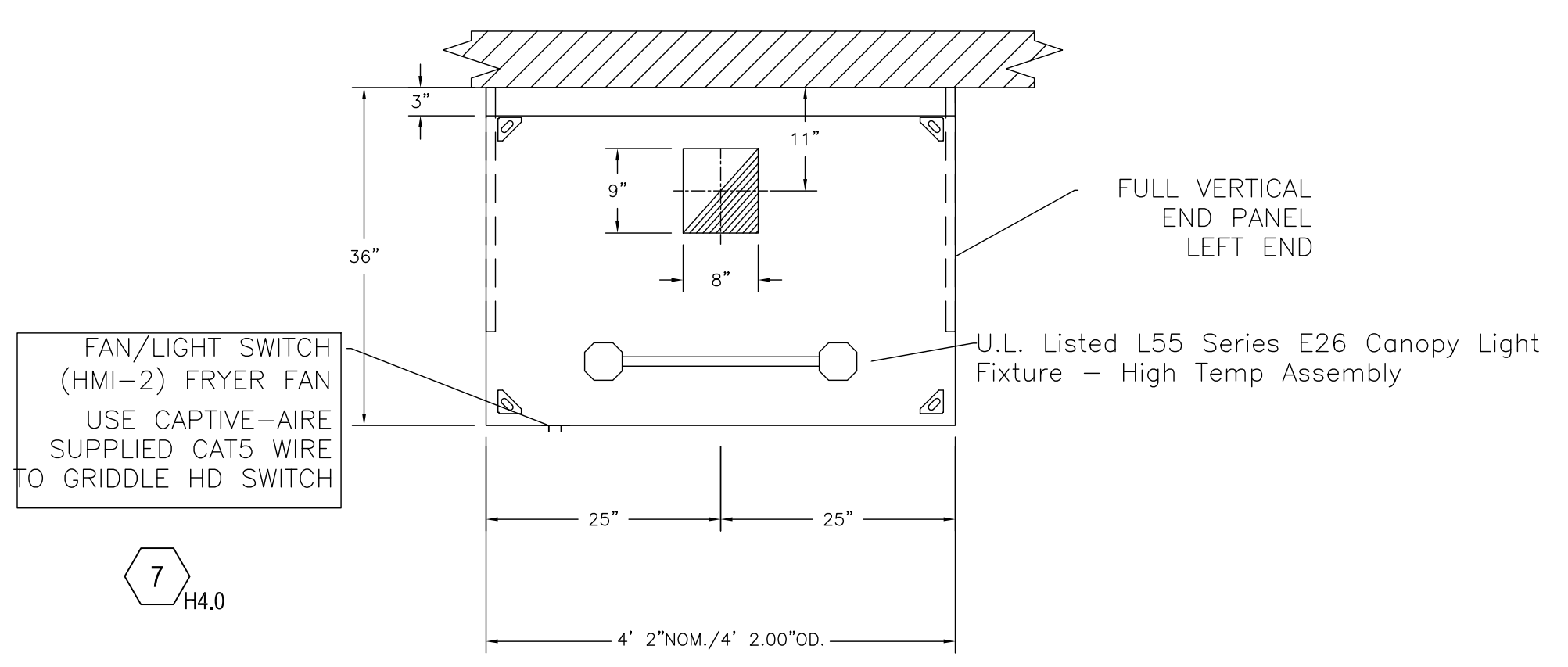


PLAN VIEW - Hood #HD1-Grill
7' 0" LONG 3650BD-2



CAPTIVE-AIRE HOODS ARE BUILT IN COMPLIANCE WITH UL 710 AND NFPA 96 AND ARE RECOGNIZED BY ONE OR MORE OF THE FOLLOWING:
ETL SANITATION LISTED
ETL LISTED FILE# 3054804-001

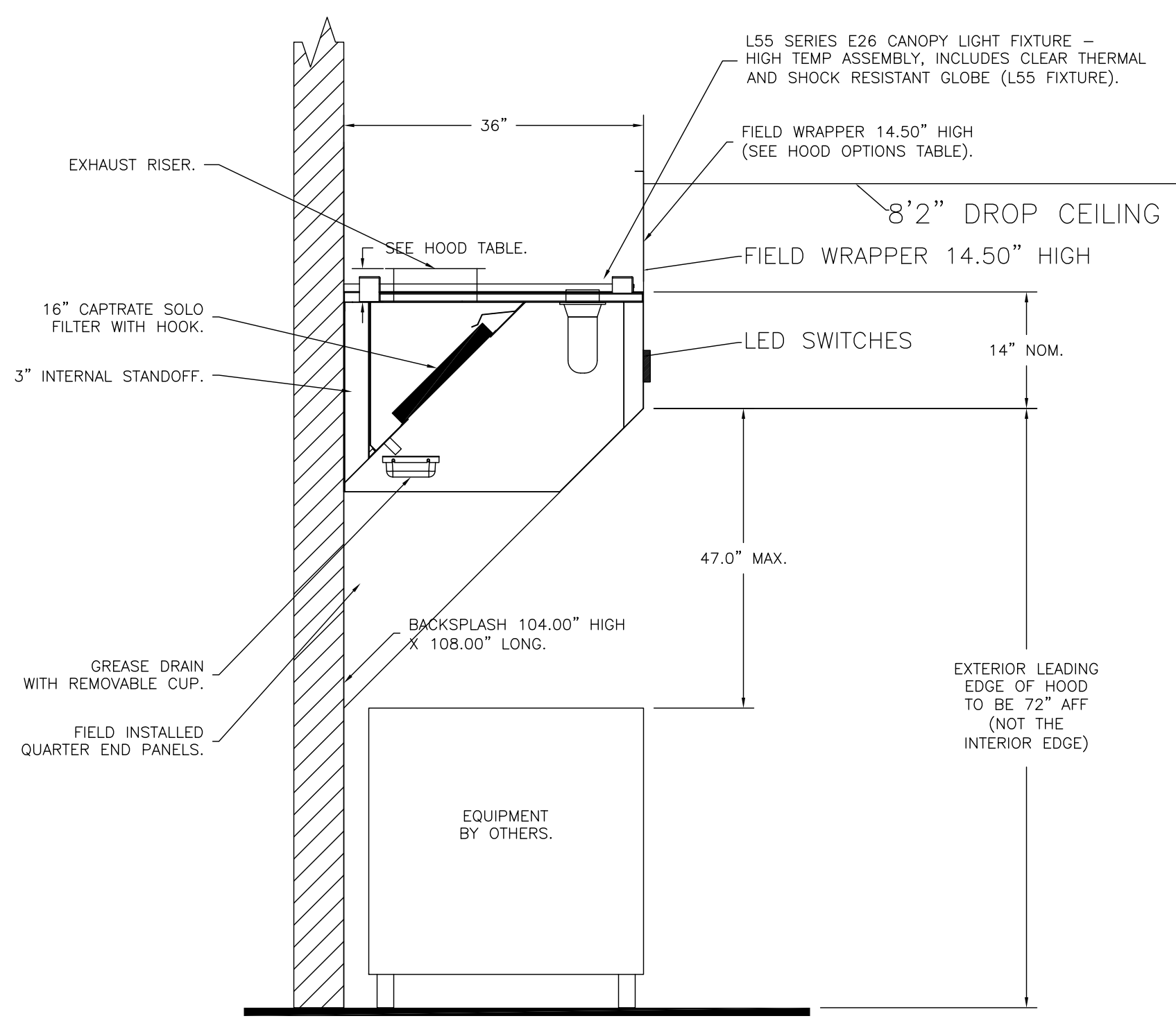
HOOD SYSTEM IS FABRICATED & DESIGNED PER UL-710 STANDARDS



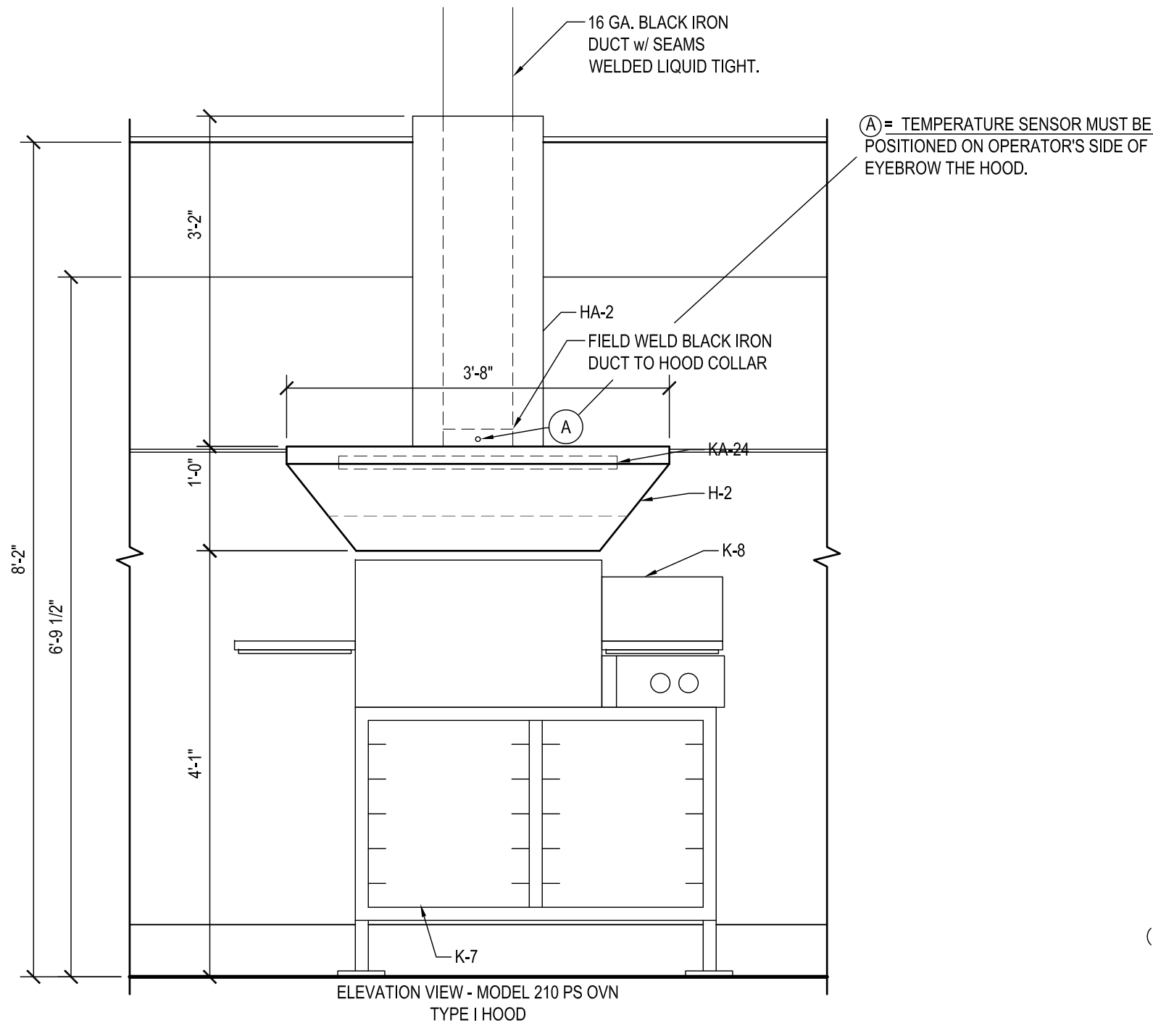
PLAN VIEW - (Hood #3-Fry)
4' 2.00" LONG 3650BD-2
4' 2.00" LONG 246ACPSP-PLENUM

AIR BALANCE SCHEDULE			
TAG	ROOMS SERVED	O.A. CFM	EXHAUST CFM
KEF-1	HD1 (GRILL)	-	- 1225
KEF-2	HD2 (OVEN)	-	- 600
KEF-3	HD3 (FRYER)	-	- 800
RTU-DOAS1	KITCHEN + HOODS	+ 1475	-
EF 4/5	TOILETS	-	- 225
RTU-DOAS2	BUILDING	+ 1450	-
NET		+75 CFM	

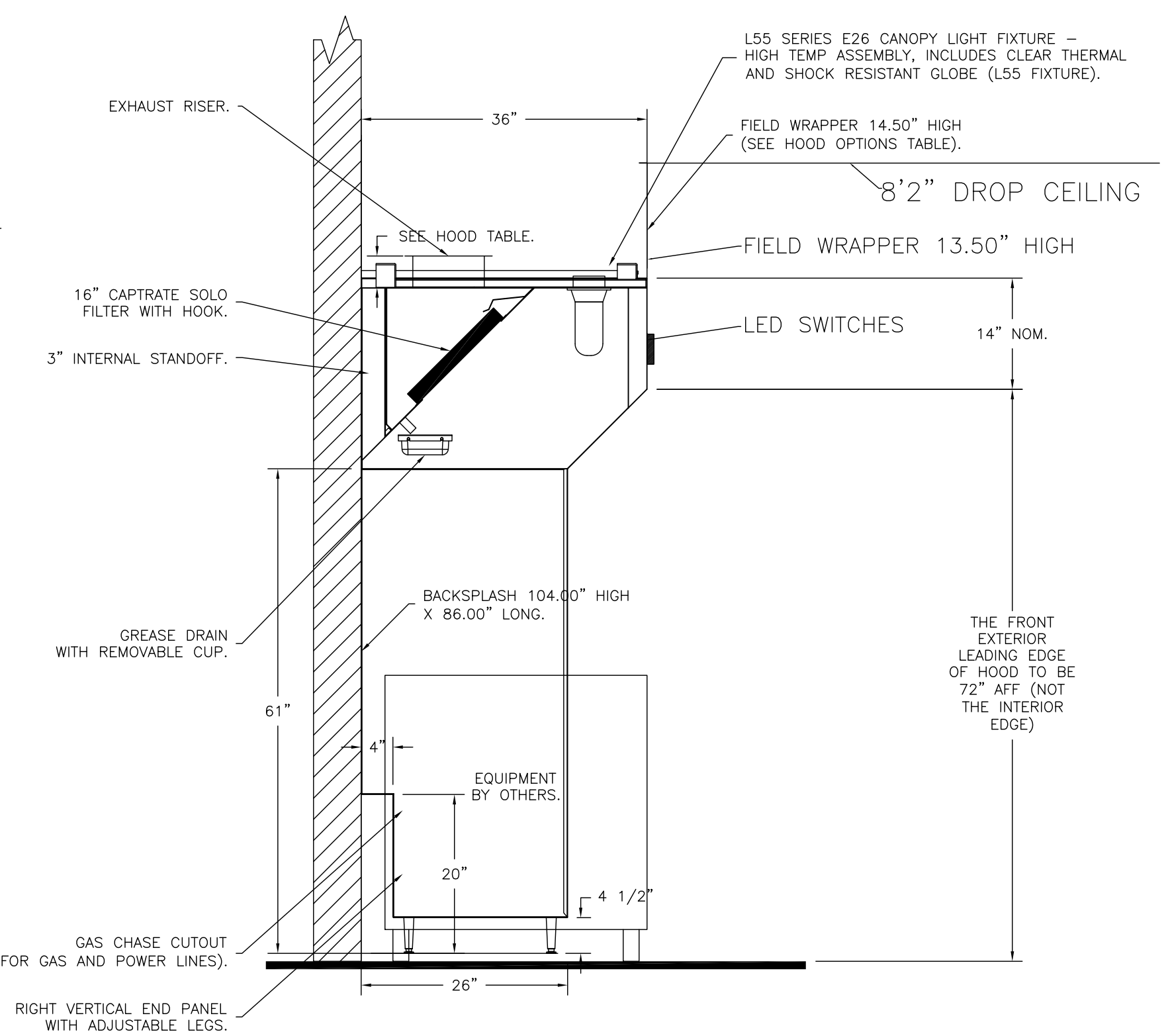
KITCHEN TO MAINTAIN A SLIGHTLY NEGATIVE PRESSURE, OVERALL BUILDING PRESSURE TO BE BETWEEN -0.02" TO +0.02" WC PER IMC COMMENTARY RECOMMENDATIONS



SECTION VIEW - MODEL 3650BD-2
HOOD - #HD1-Grill



ELEVATIONS @ COOK LINE
3/4"=1'-0"
HOOD - (HD2-Oven)



SECTION VIEW - MODEL 3650BD-2
HOOD - (HD3-Fry)

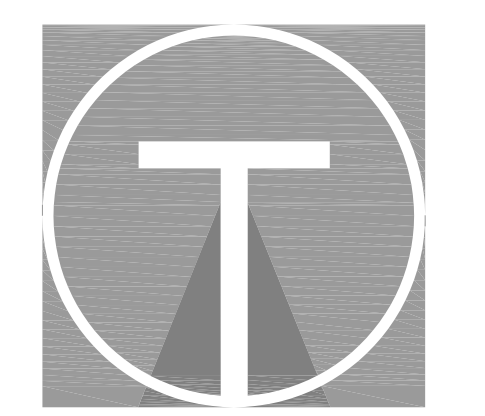
FOR QUESTIONS, CALL THE CAPTIVE-AIRE (TRI-STATE) OFFICE
1329 E. KEMPER RD., SUITE 4210
PHONE: (513) 860-5555
joe.hertenstein@captiveaire.com

REVISIONS	
DESCRIPTION	DATE

CAPTIVE-AIRE
Air Solutions
www.captiveaire.com
1329 East Kemper Rd., Ste. 4210, Cincinnati, OH, 45246 PHONE: (513) 860-5556 EMAIL: reg.120@captiveaire.com

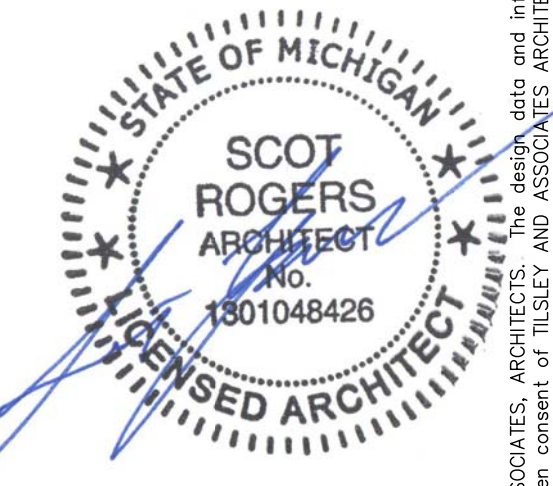
Penn Station V2BRD2
(Various)

DATE: 12/15/2021
DWG.#: 5234814
DRAWN BY:
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 2



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No. Revision
DATE: 11/02/22
Scale: As Noted
Drawn: S.Rogers
PS Clinton Twp MI 22044

EXHAUST FAN INFORMATION - JOB#5234814

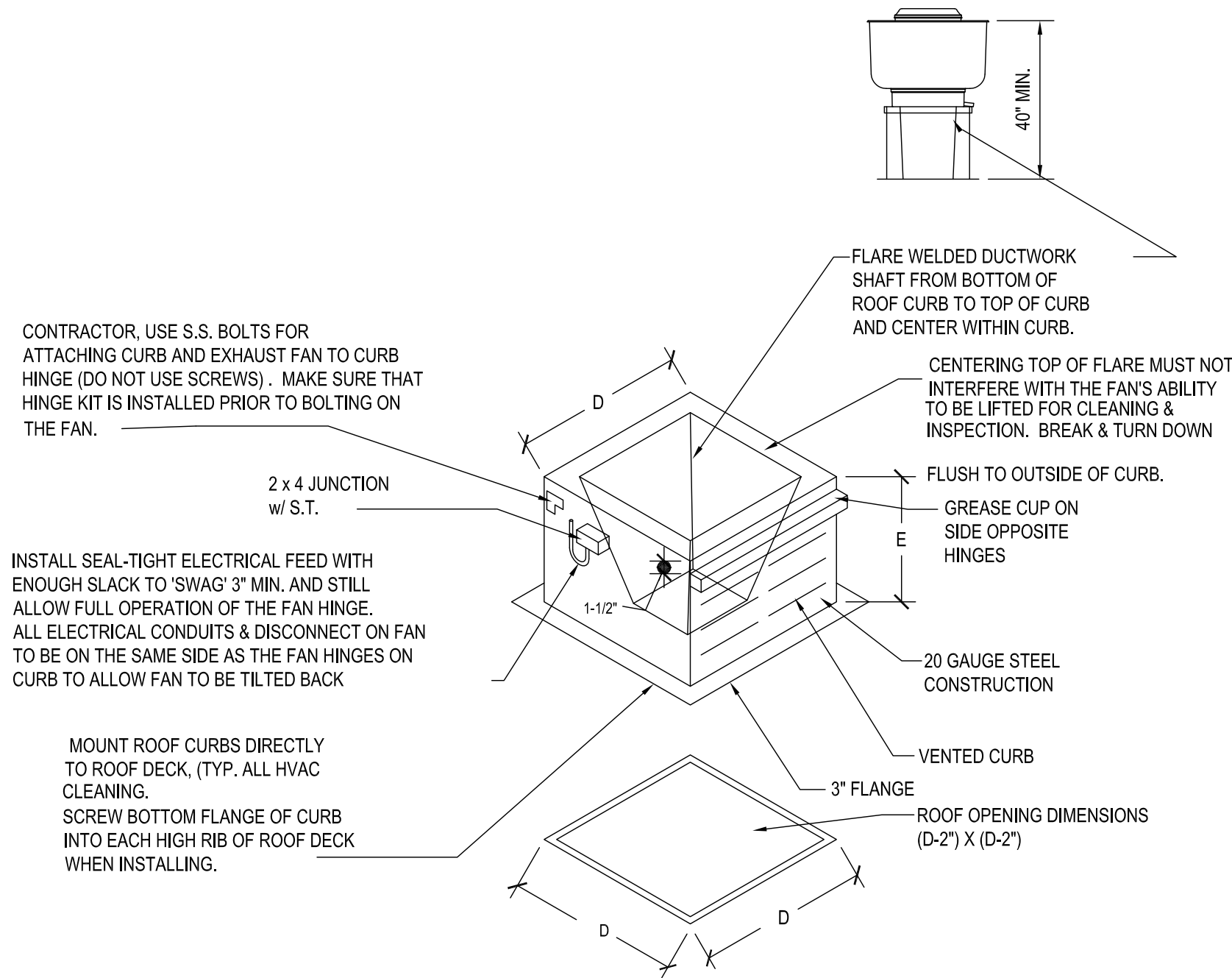
FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SONES
1	EF-1 (GRILL)	1	DUB5HFA	CAPTIVEAIRE	1225	1.150	1240	TEAO-ECM	0.750	0.3630	1	115	8.9	388 FPM	89	10.5
2	KEF2 (OVEN)	1	DU33HFA	CAPTIVEAIRE	600	0.600	1296	TEAO-ECM	0.333	0.1420	1	115	4.3	297 FPM	70	11.5
3	KEF3 (FRY)	1	DUB5HFA	CAPTIVEAIRE	800	1.200	1210	TEAO-ECM	0.750	0.3090	1	115	8.9	253 FPM	89	10.1

CURB ASSEMBLIES

NO.	ON FAN	TAG	WEIGHT	ITEM	SIZE	LOCATION
					(D) x (D) x (E)	
1	# 1	KEF1 - GRIDDLE	44 LBS	Curb	23.000"W x 23.000"L x 30.000"H	Vented Hinged Grill Hood Curb
2	# 2	KEF2 - OVEN	38 LBS	Curb	19.500"W x 19.500"L x 30.000"H	Vented Hinged Oven Hood Curb
3	# 3	KEF3 - FRYER	44 LBS	Curb	23.000"W x 23.000"L x 30.000"H	Vented Hinged Fryer Hood Curb

FAN ACCESSORIES

FAN UNIT NO	TAG	EXHAUST				SUPPLY		
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
1	EF-1 (GRILL)	YES						
2	KEF2 (OVEN)	YES						
3	KEF3 (FRY)	YES						



TYPICAL ROOF CURB DETAIL

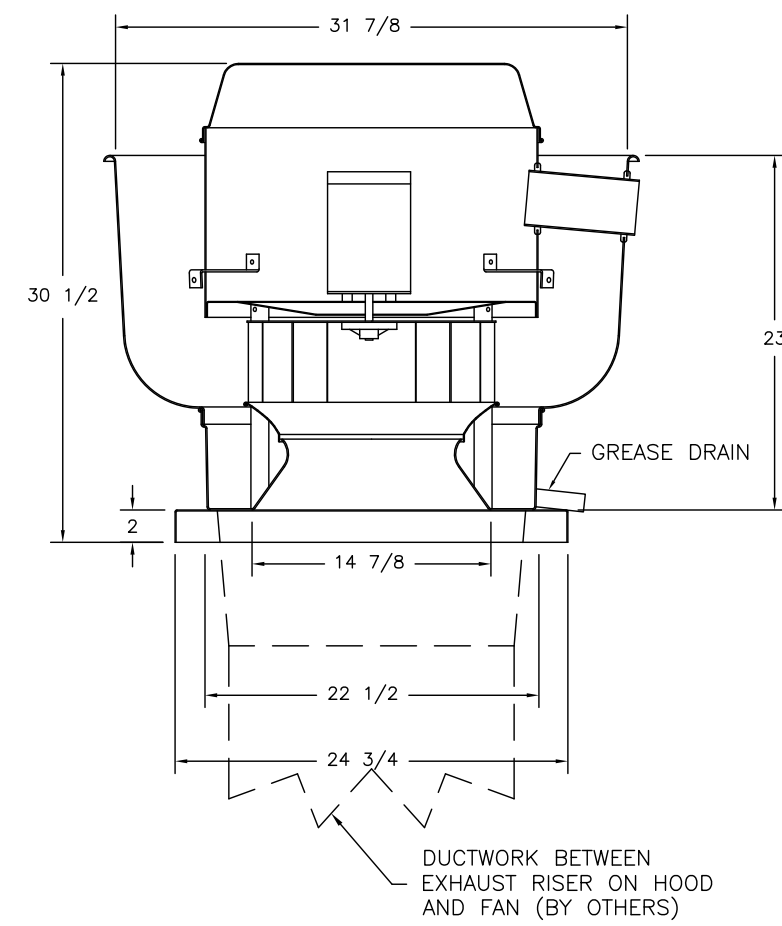
FAN OPTIONS

FAN UNIT NO	TAG	QTY	DESCRIPTION
1	EF-1 (GRILL)	1	GREASE BOX.
		1	EXHAUST FAN HEAT BAFFLE.
2	KEF2 (OVEN)	1	ECM WIRING PACKAGE - PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION.
		1	GREASE BOX.
3	KEF3 (FRY)	1	EXHAUST FAN HEAT BAFFLE.
		1	ECM WIRING PACKAGE - PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION.

6 H4.0
6 H4.0
6 H4.0

FOR QUESTIONS, CALL THE
CAPTIVE-AIRE (TRI-STATE) OFFICE
1329 E. KEMPER RD. SUITE 4210
PHONE: (513) 860-5555
joe.hertenstein@captiveaire.com

FAN #1 DUB5HFA - EXHAUST FAN (KEF1)



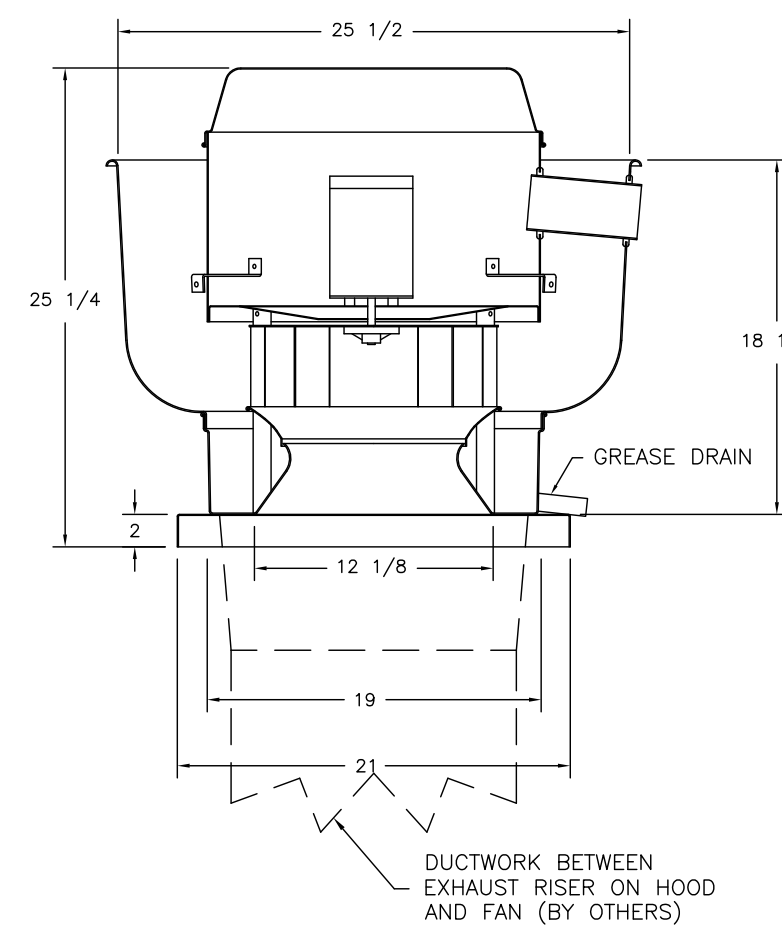
- FEATURES:**
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS)
 - ROOF MOUNTED FANS
 - RESTAURANT MODEL
 - UL705 AND UL762 AND ULC-8645
 - VARIABLE SPEED CONTROL
 - INTERNAL WIRING
 - WEATHERPROOF DISCONNECT
 - THERMAL OVERLOAD PROTECTION (SINGLE PHASE)
 - HIGH HEAT OPERATION 300°F (149°C)
 - GREASE CLASSIFICATION TESTING

NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETEIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

- OPTIONS**
- GREASE BOX.
 - EXHAUST FAN HEAT BAFFLE.
 - FAN BASE CERAMIC SEAL - INSTALLED AT PLANT - FOR GREASE DUCTS.
 - ECM WIRING PACKAGE-EXHAUST - PWM SIGNAL FROM ECPM03 PREWIRE (NIDEC MOTOR).

FAN #2 DU33HFA - EXHAUST FAN (KEF2)



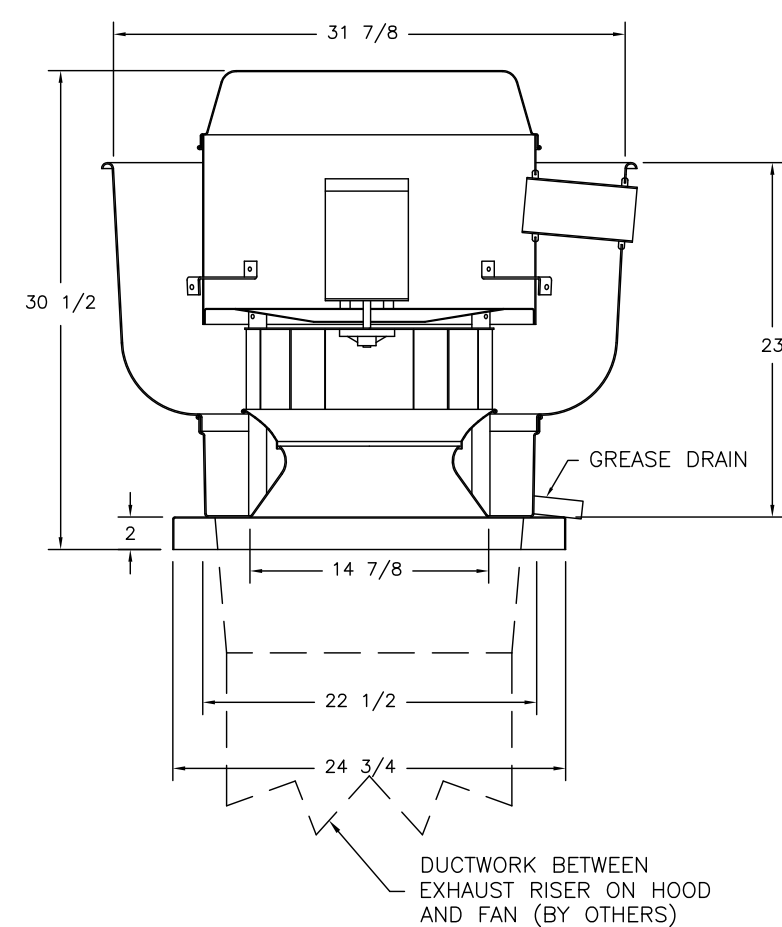
- FEATURES:**
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS)
 - ROOF MOUNTED FANS
 - RESTAURANT MODEL
 - UL705 AND UL762 AND ULC-8645
 - VARIABLE SPEED CONTROL
 - INTERNAL WIRING
 - WEATHERPROOF DISCONNECT
 - THERMAL OVERLOAD PROTECTION (SINGLE PHASE)
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 - EXHAUST FAN HEAT BAFFLE.
 - FAN BASE CERAMIC SEAL - INSTALLED AT PLANT - FOR GREASE DUCTS.
 - ECM WIRING PACKAGE-EXHAUST - PWM SIGNAL FROM ECPM03 PREWIRE (NIDEC MOTOR).

FAN #1 DUB5HFA - EXHAUST FAN (KEF1)

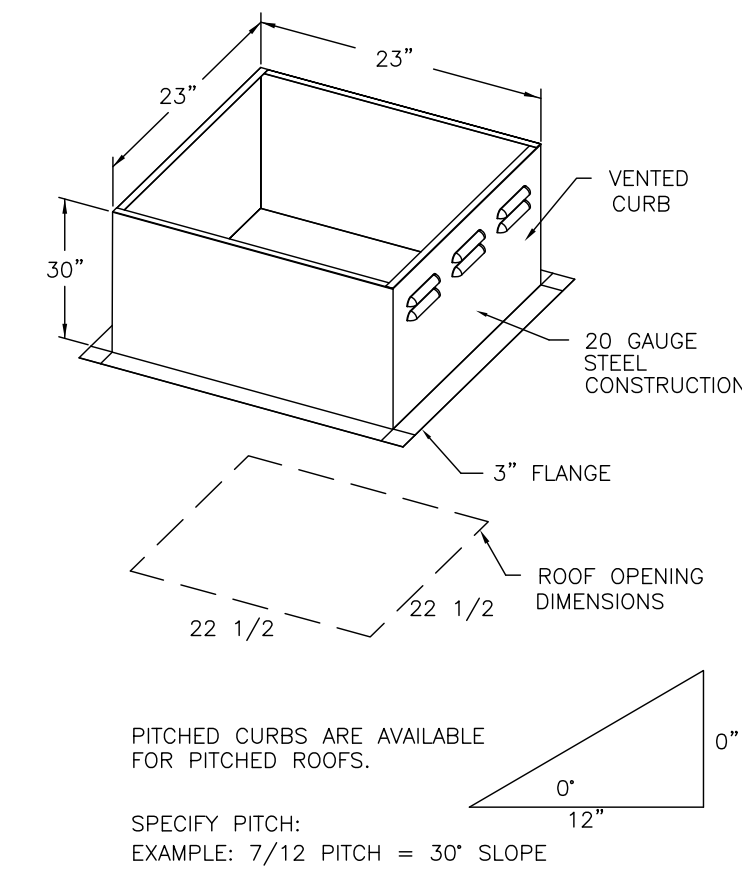


- FEATURES:**
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS)
 - ROOF MOUNTED FANS
 - RESTAURANT MODEL
 - UL705 AND UL762 AND ULC-8645
 - VARIABLE SPEED CONTROL
 - INTERNAL WIRING
 - WEATHERPROOF DISCONNECT
 - THERMAL OVERLOAD PROTECTION (SINGLE PHASE)
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 - GREASE CLASSIFICATION TESTING

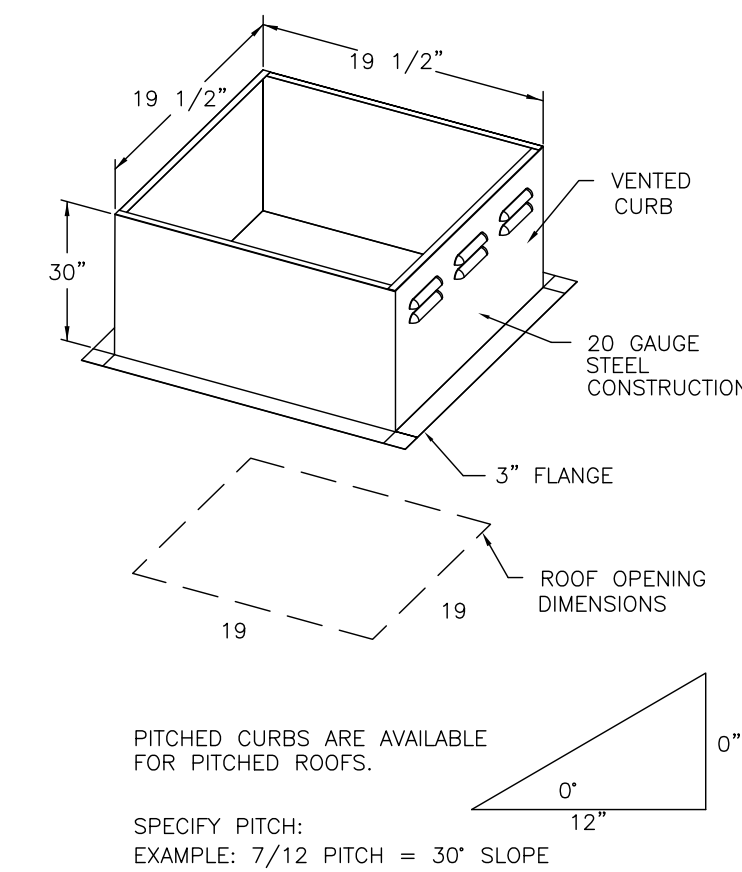
NORMAL TEMPERATURE TEST
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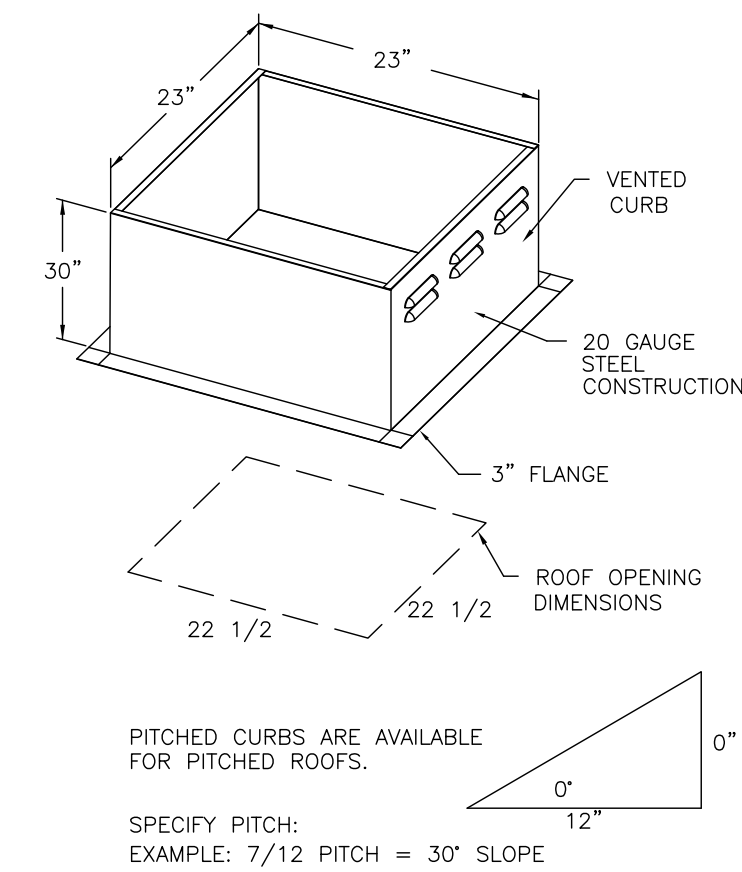
- OPTIONS**
- GREASE BOX.
 - EXHAUST FAN HEAT BAFFLE.
 - FAN BASE CERAMIC SEAL - INSTALLED AT PLANT - FOR GREASE DUCTS.
 - ECM WIRING PACKAGE-EXHAUST - PWM SIGNAL FROM ECPM03 PREWIRE (NIDEC MOTOR).



PITCHED CURBS ARE AVAILABLE FOR PITCHED ROOFS.
SPECIFY PITCH:
EXAMPLE: 7/12 PITCH = 30° SLOPE



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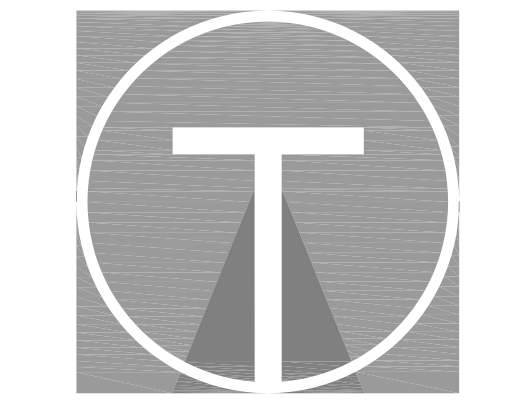
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DESCRIPTION	DATE:

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Air Solutions
1329 East Kemper Rd., Ste. 4210, Cincinnati, OH, 45246 PHONE: (513) 860-5555 EMAIL: reg.20@captiveaire.com

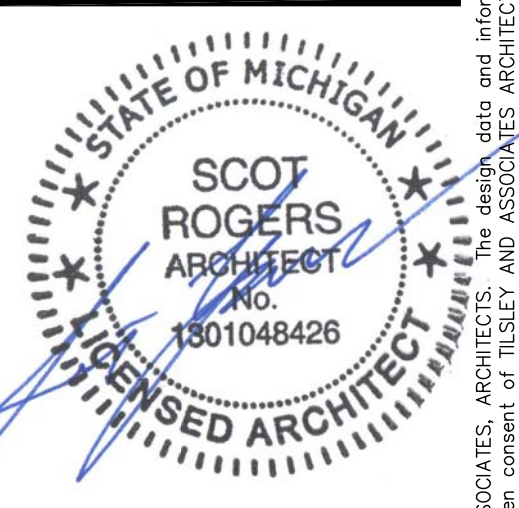
Penn Station v2BRD2
(Various)

DATE: 12/15/2021
DWG.#: 5234814
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SCALE: 3/4" = 1'-0"
MASTER DRAWING
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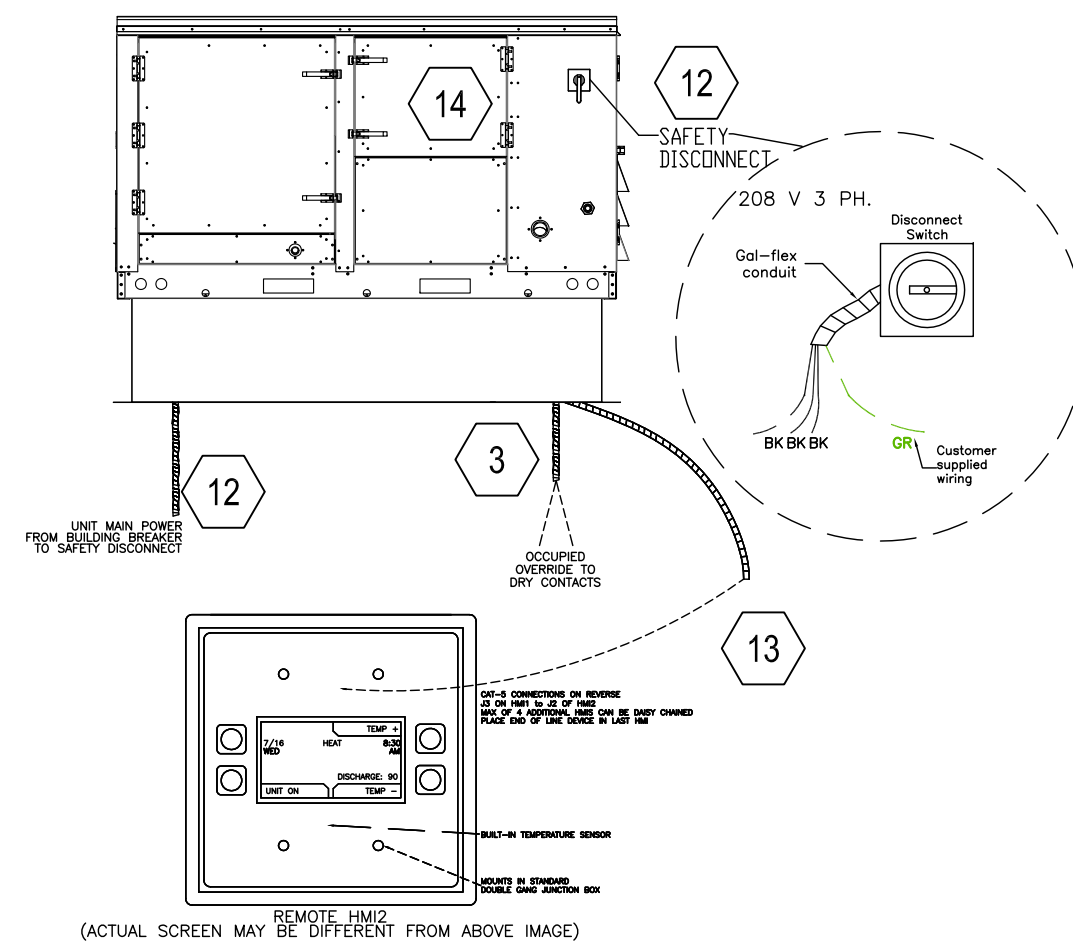
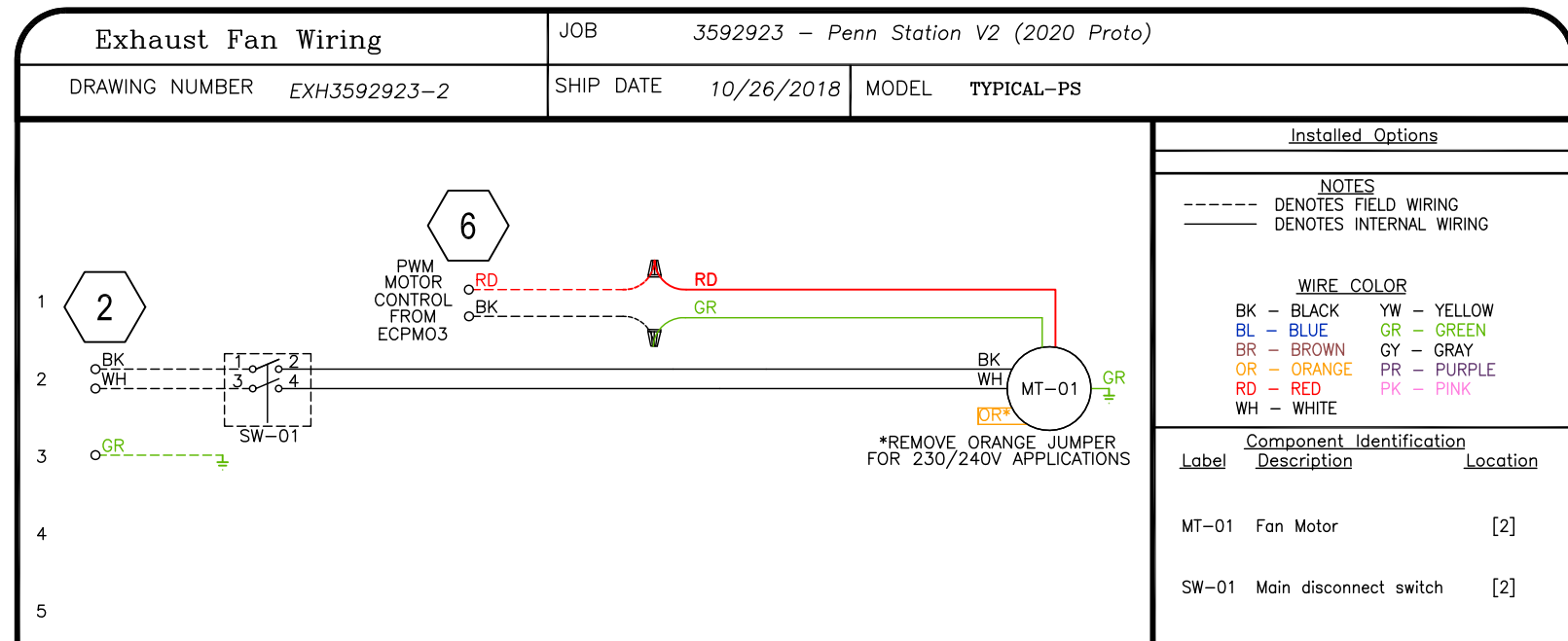
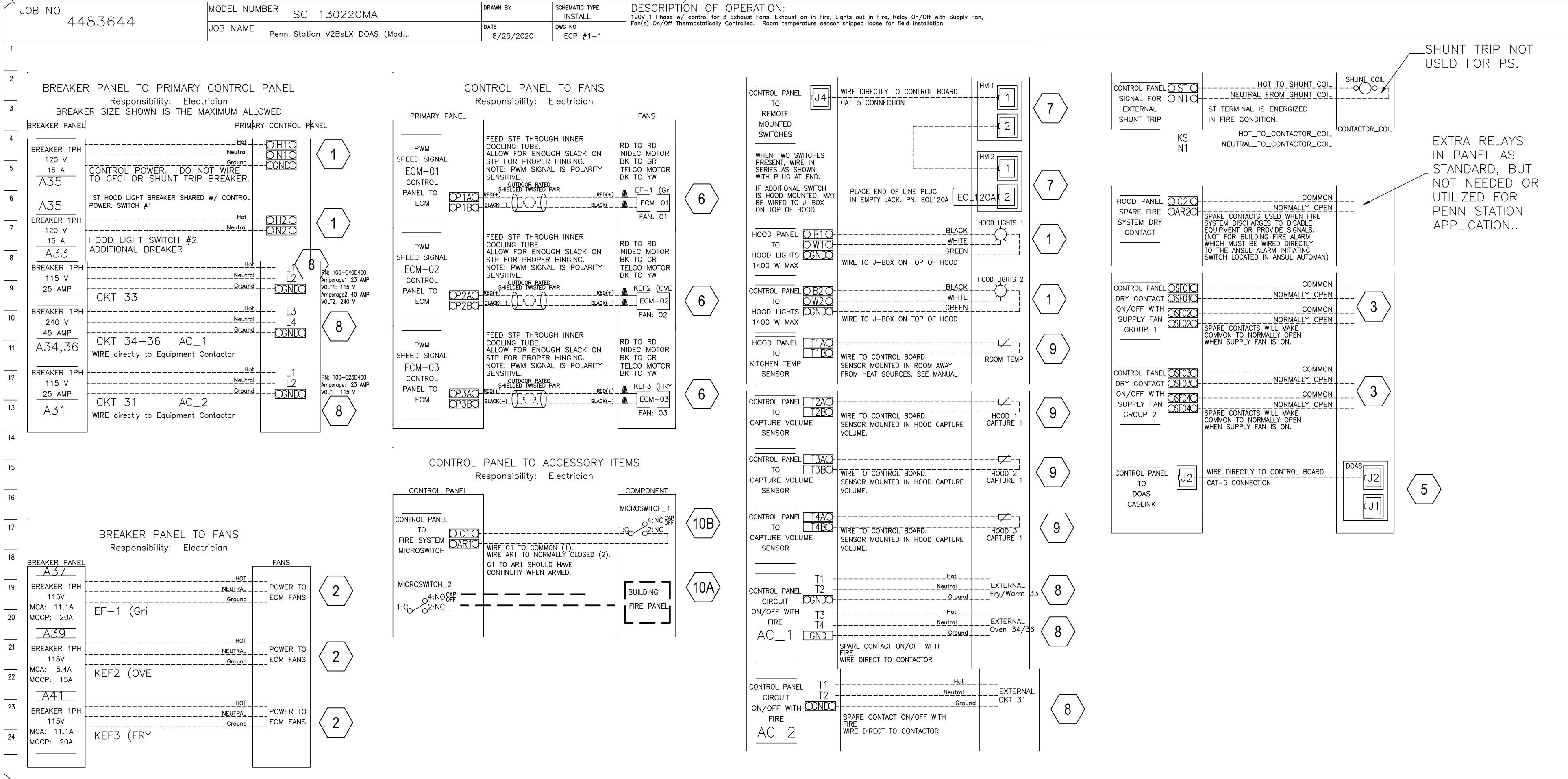


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SHEET NO. 3
Sheet Title: Captiveaire Shop
Drawings Issued: 11/02/22
Scale: As Noted
Drawn: S.Rogers
22044 PS Clinton Twp MI

ELECTRICAL PACKAGE - JOB#4483644

NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED					
				LOCATION	QUANTITY		FAN TAG	TYPE	φ	HP	VOLT	FLA
1	EP1	SC-130220MA	WALL UTILITY CABINET RIGHT	O2 - FACE MOUNT RIGHT SIDE OF HOOD	2 LIGHT	SMART CONTROLS THERMOSTATIC CONTROL W/ RELAY ON/OFF WITH SUPPLY	EF-1 (Grill)	EXHAUST	1	0.750	115	8.9
				HOOD # 1	2 FAN		KEF2 (OVEN)	EXHAUST	1	0.333	115	4.3
							KEF3 (FRY)	EXHAUST	1	0.750	115	8.9

(HOOD CONTROL PANEL-MOUNTED NEXT TO GRIDDLE HOOD)



FOR QUESTIONS, CALL THE
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 1329 E. KEMPER RD. SUITE 4210
 PHONE: (513) 860-5555
 joe.hertenstein@captivaire.com

HOOD SYSTEM WIRING INSTRUCTIONS BY ELECTRICIAN

- WIRE 120V, 1 PHASE CIRCUIT FROM BUILDING PANEL TO HOOD CONTROL PANEL TO BE USED FOR CONTROLS & LIGHT CIRCUIT.
- WIRE 120V, 1 PHASE CIRCUITS FROM BUILDING PANEL TO EACH EXHAUST FAN (SEPARATELY) TO CAPTIVE-AIRE SUPPLIED FAN EXTERNAL DISCONNECTS (TYPICAL OF ALL EXHAUST FANS).
- RUN 18-5 THERMOSTAT WIRE FROM EACH RTU-DOAS UNITS TO HOOD CONTROL PANEL & CONNECT AS FOLLOWS:
 - Hood Panel SFC1 Connected to R in Kitchen RTU
 - Hood Panel SFC0 Connected to AUXN1 in Kitchen RTU
 - Hood Panel SFC3 Connected to R in Dining RTU
 - Hood Panel SFC03 Connected to AUXN1 in Dining RTU
 - Tie the Front Microswitch Common (Red Wire) to Terminal SD1 of Each of the RTU Units.
 - Tie the Front Microswitch Normally Open (Black Wire) to SD3 of Each of the RTU Units.
- Not Used
- Run the additional supplied cat-5 cable from the hood control package J2 to the DOAS unit J2 Plug. Captive Aire Service Technician can land the final location in panel & DOAS to allow the hood system along with the DOAS unit to view it remotely via CASLINK
- THERE IS A RED & BLACK PAIR OF TWISTED WEATHERPROOF WIRE ALREADY FACTORY CONNECTED TO EACH MOTOR OF EACH EXHAUST FAN LOCATED UNDER THE FAN HOUSING LID. RUN EACH WIRE THROUGH MOTOR BREATHER TUBE & THEN DOWN TO HOOD CONTROL PANEL NEXT TO GRILL HOOD. TIE EACH ONE INTO P#A & P#B RESPECTIVELY FOR EACH FAN AS SHOWN ON SCHEMATIC TO THE LEFT.
- WIRE THE CAT5 CABLE SUPPLIED BY CAPTIVE AIRE FROM J4 PLUG TO THE JUNCTION BOX LOCATED ON TOP OF THE GRILL HOOD & PLUG IN FOR GRILL HD SWITCH (HMI-1). THEN WIRE THE OTHER CAT5 CABLE FROM THE GRILL HOOD JUNCTION BOX TO THE FRY HOOD JUNCTION BOX ON TOP OF HOOD & PLUG INTO J PLUG FOR THE FRY HOOD SWITCH (HMI-2). YOU ARE WIRING THE SWITCHES TO THE PANEL IN SERIES. SEE H1.0, H2.0
- WIRE THE 120V 1 PHASE FRYER(S)/WARMER CIRCUITS & THE 240V 1 PHASE OVEN CIRCUIT FROM BUILDING PANEL TO HOOD CONTROL PANEL TO THE RESPECTIVE 120V & 240V CONTACTERS & THEN FROM HOOD CONTROL PANEL TO THE RESPECTIVE WALL OUTLETS.
- USING THE WHITE WIRE SUPPLIED BY CAPTIVE-AIRE WIRE FROM EACH HOOD DUCT SENSOR LOCATED IN HOOD EXHAUST COLLAR OR TOP OF HOOD IN JUNCTION BOX TO HOOD CONTROL PANEL & TIE INTO T2A & T2B, T3A & T3B, T4A & T4B. THEN INSTALL WHITE TEMP SENSOR SUPPLIED BY CAPTIVE AIRE ON RIGHT SIDE OF HOOD SS PANEL & WIRE TO T1A & T2B.
- IF BUILDING ALARM IS PROVIDED WITH BUILDING THEN WIRE DIRECTLY INTO THE FRONT SECTION OF THE ANSUL MICROSWITCH PER THE BUILDING FIRE PANEL REQUIREMENTS TO RECEIVE AN ALARM SIGNAL UPON FIRE SYSTEM ACTUATION. IF NO BUILDING ALARM, THEN SUPPLY A HORN/LIGHT STROBE & MOUNT IN SIGHT OF HOODS AND TIE DIRECTLY INTO ANSUL MICROSWITCH AT NO CONTACT ON SWITCH (BLACK WIRE OF MICROSWITCH) & A NEUTRAL FROM CONTROL PANEL.
- INSTALL LIGHT BULBS IN HOODS SUPPLIED BY OWNER. VERIFY ALL FANS & LIGHTS POWER UP. CHECK ROTATION FOR SUPPLY FAN. ANY QUESTIONS CONTACT JOE AT 513-860-5555. 5 BULBS REQ'D - SUPPLIED IN GENERAL LIGHTING PACKAGE.
- RUN 208V/3 PHASE CIRCUIT TO CONNECT TO EACH OF THE RTU-DOAS UNITS (QTY 2). SINGLE POINT CONNECTION.
- MOUNT HMI-STAT ON WALL PER M PLANS & RUN CAPTIVE AIRE SUPPLIED CAT5 UNIT FROM EACH UNIT TO EACH OF THE UNITS HMI WALL LOCATION.
- RTU1 CONVENIENCE OUTLET (GFCI), 15 AMP SUPPLIED WITH EACH RTU - REQUIRES ELECTRICIAN TO RUN SEPARATE 120V CONNECTION.
 INCLUDES RECEPTACLE, COVER AND J BOX.

REVISIONS

NO	DESCRIPTION	DATE

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Air Solutions

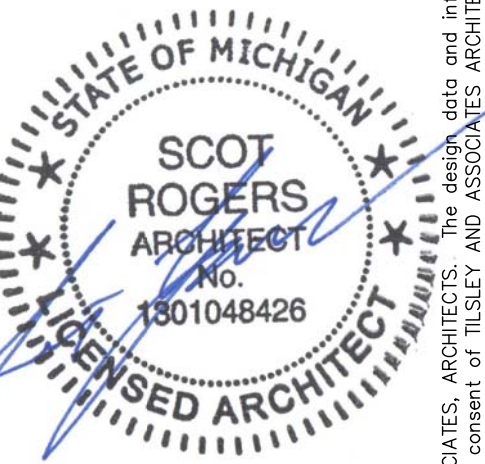
1329 East Kemper Rd., Ste. 4210, Cincinnati, OH, 45246 PHONE: (513) 860-5555 EMAIL: reg120@captiveaire.com

Penn Station V2BRD2 (Various)

DATE: 12/15/2021
 DWG.#: 5234814
 DRAWN BY:
 SCALE: 3/4" = 1'-0"
 MASTER DRAWING

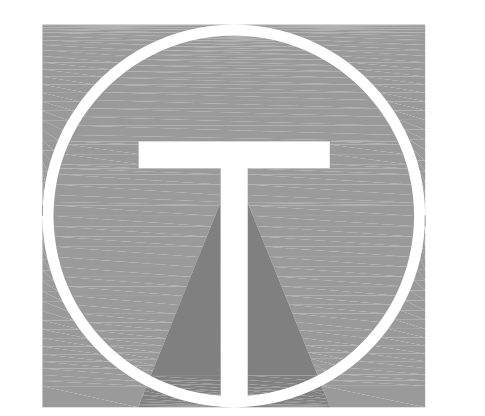
SHEET NO.
 4

A New Penn Station Restaurant
 Campus Collection
 19 Mile & Garfield
 Clinton Twp, MI 48038



No.	Revision

Sheet Title: Captivaire Shop
 Drawings
 Issued: 11/02/22
 Scale: As Noted
 Drawn: S.Rogers



TILSLEY ARCHITECTS
 1140 SAINT GREGORY ST. CINCINNATI, OH 45202
 TEL: 513.851.4300
 WWW.TILSLEYARCHITECTS.COM

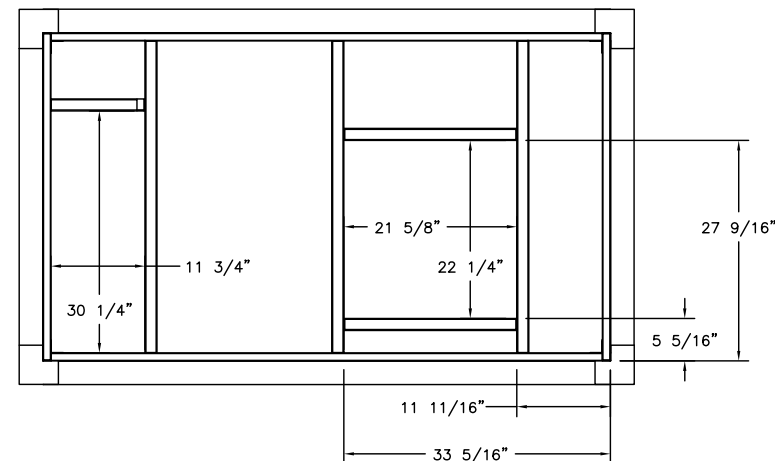
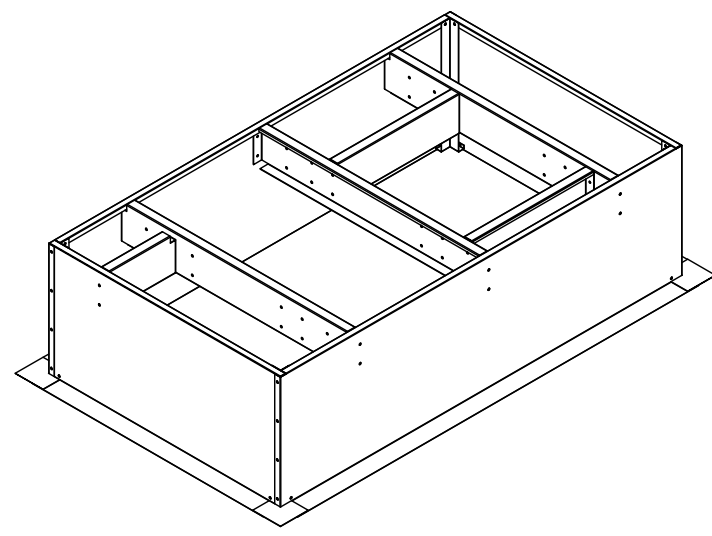
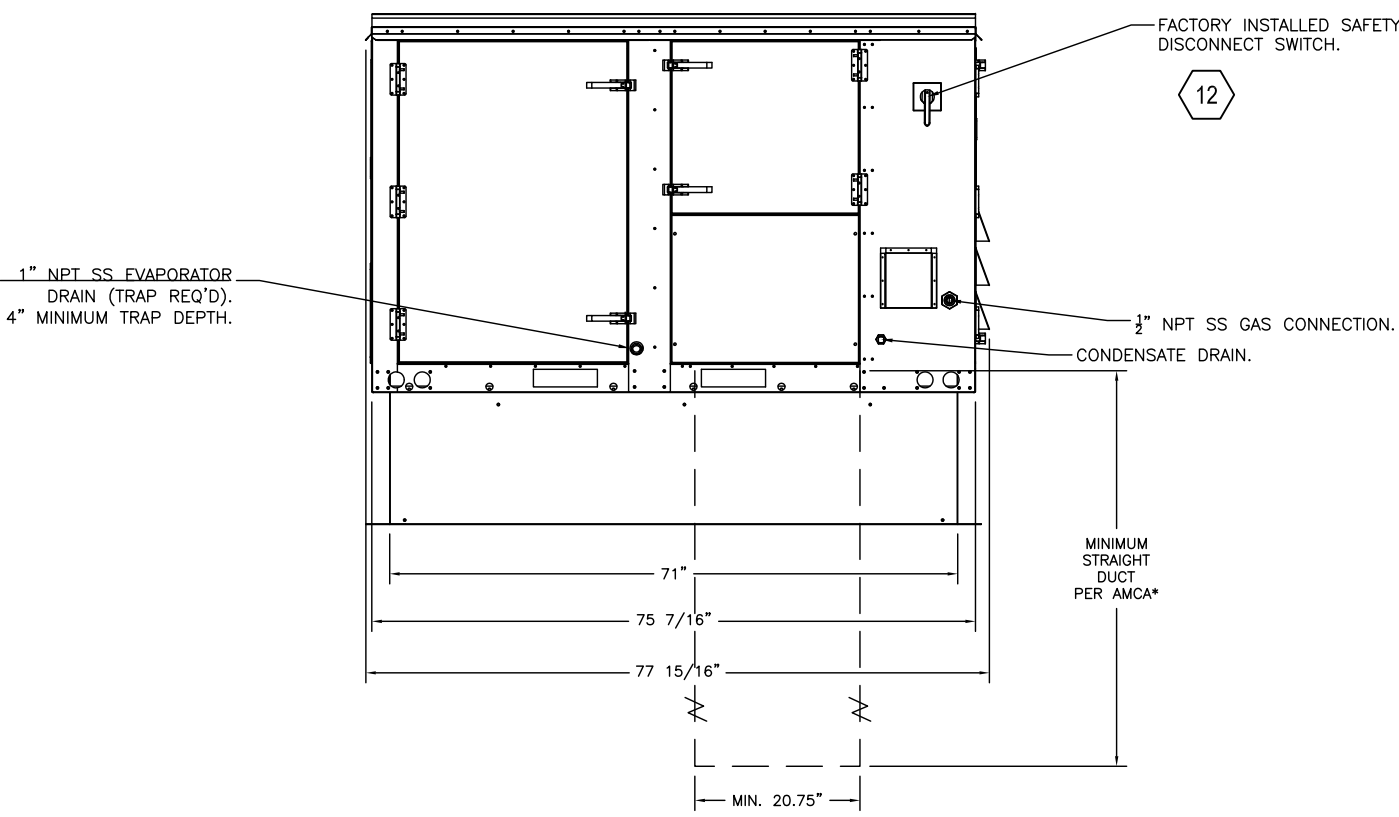
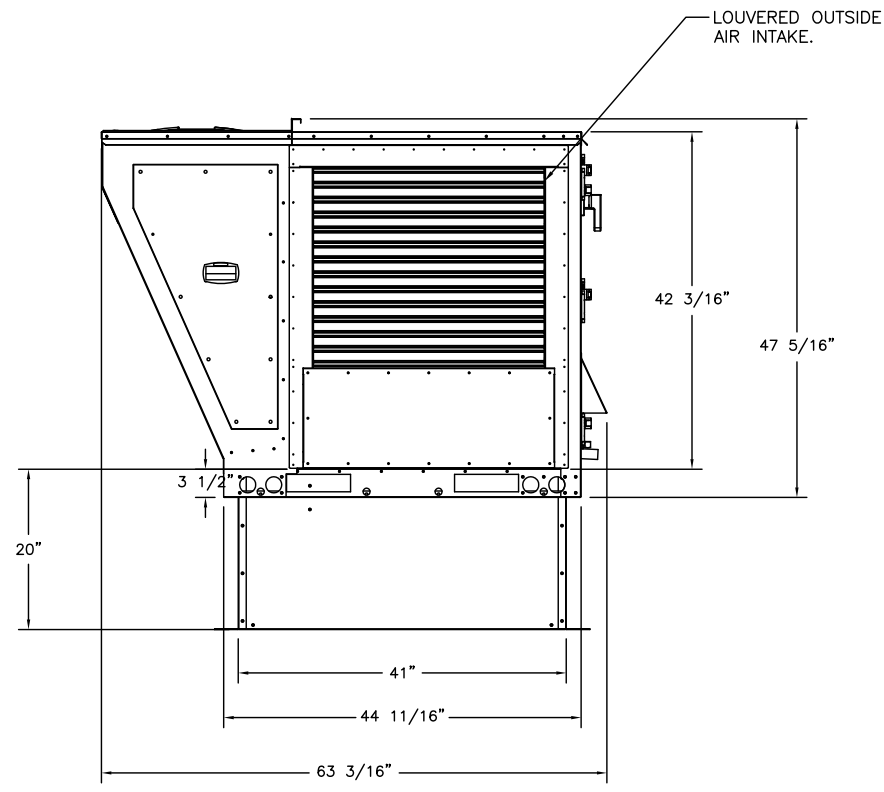
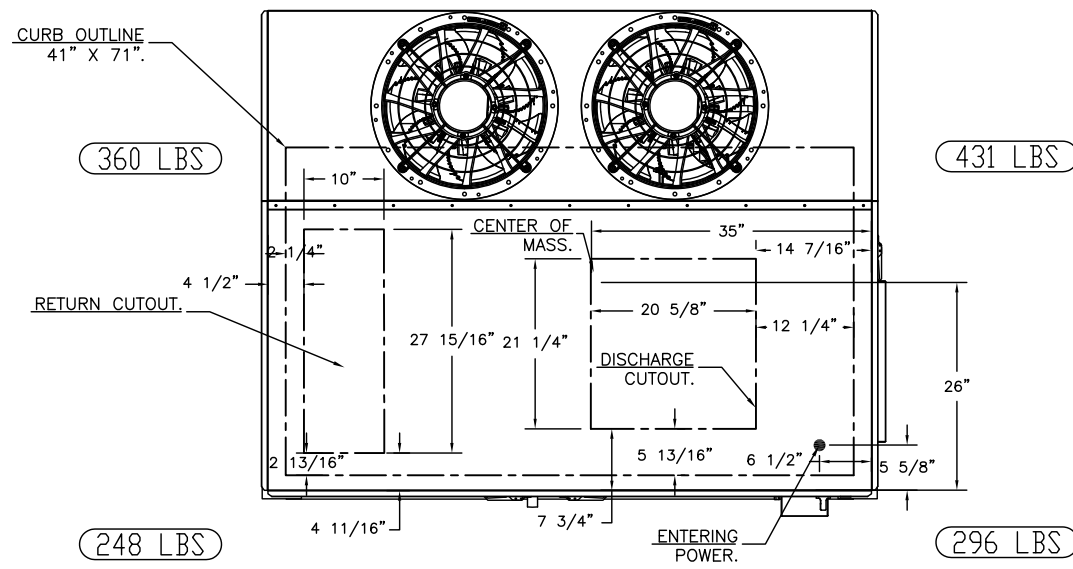
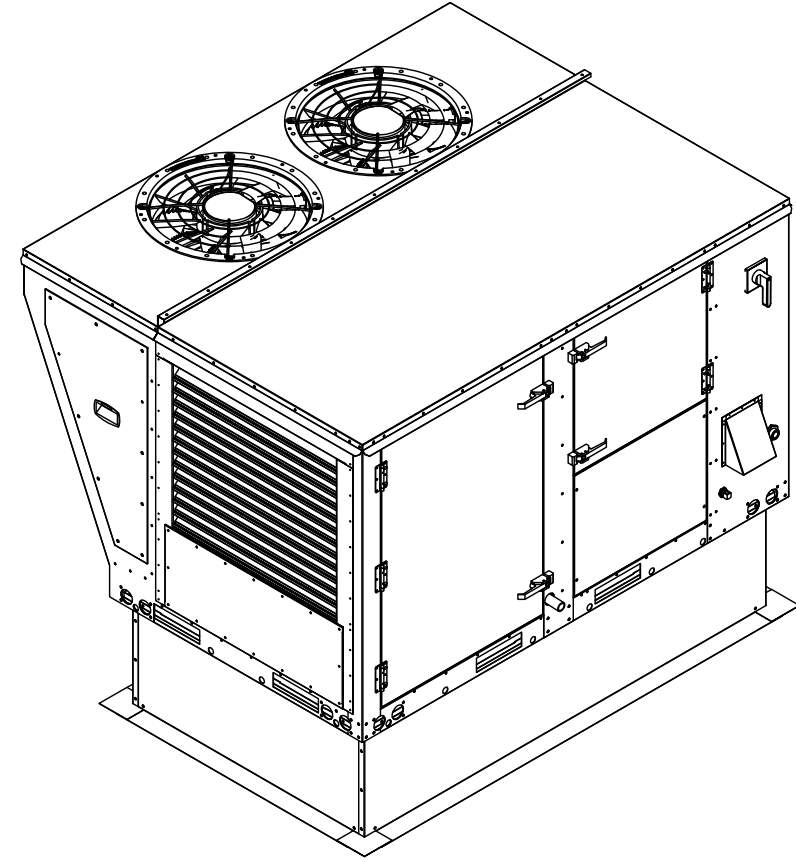
DETAILS OF (DOAS-RTU-KITCHEN) & (DOAS-RTU2-DINING) UNITS

NOTES:

- DO NOT OBSTRUCT OUTSIDE AIR INLET, OUTSIDE AIR COIL OR OUTSIDE AIR FAN.
- DENOTES CORNER WEIGHT.
- ROOF OPENING MUST BE 2" SMALLER THAN CURB DIMENSIONS IN BOTH DIRECTIONS.

FOR QUESTIONS, CALL THE CAPTIVE-AIRE (TRI-STATE) OFFICE
1329 E. KEMPER RD. SUITE 4210
PHONE: (513) 860-5555
joe.hertenstein@captveaire.com

*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT.
SUGGESTED STRAIGHT DUCT SIZE IS 20.75" x 21.5".

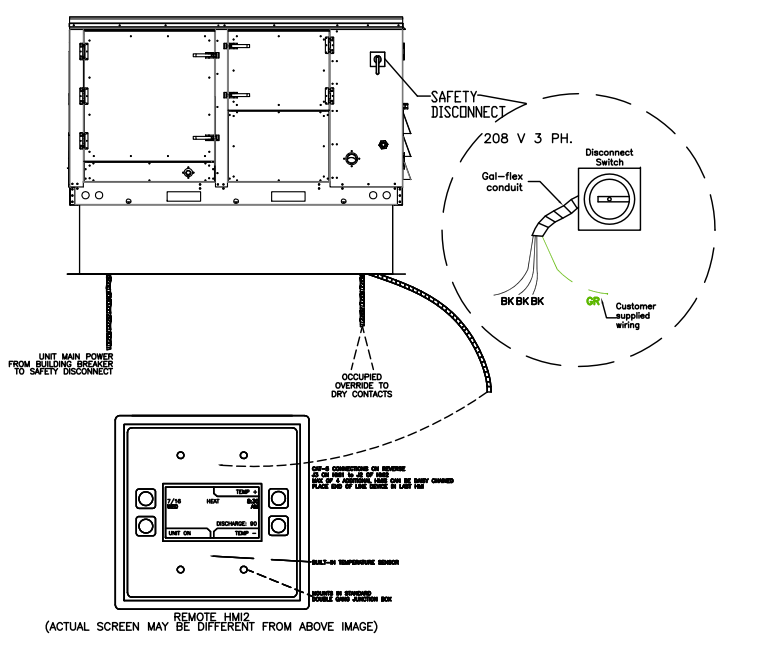
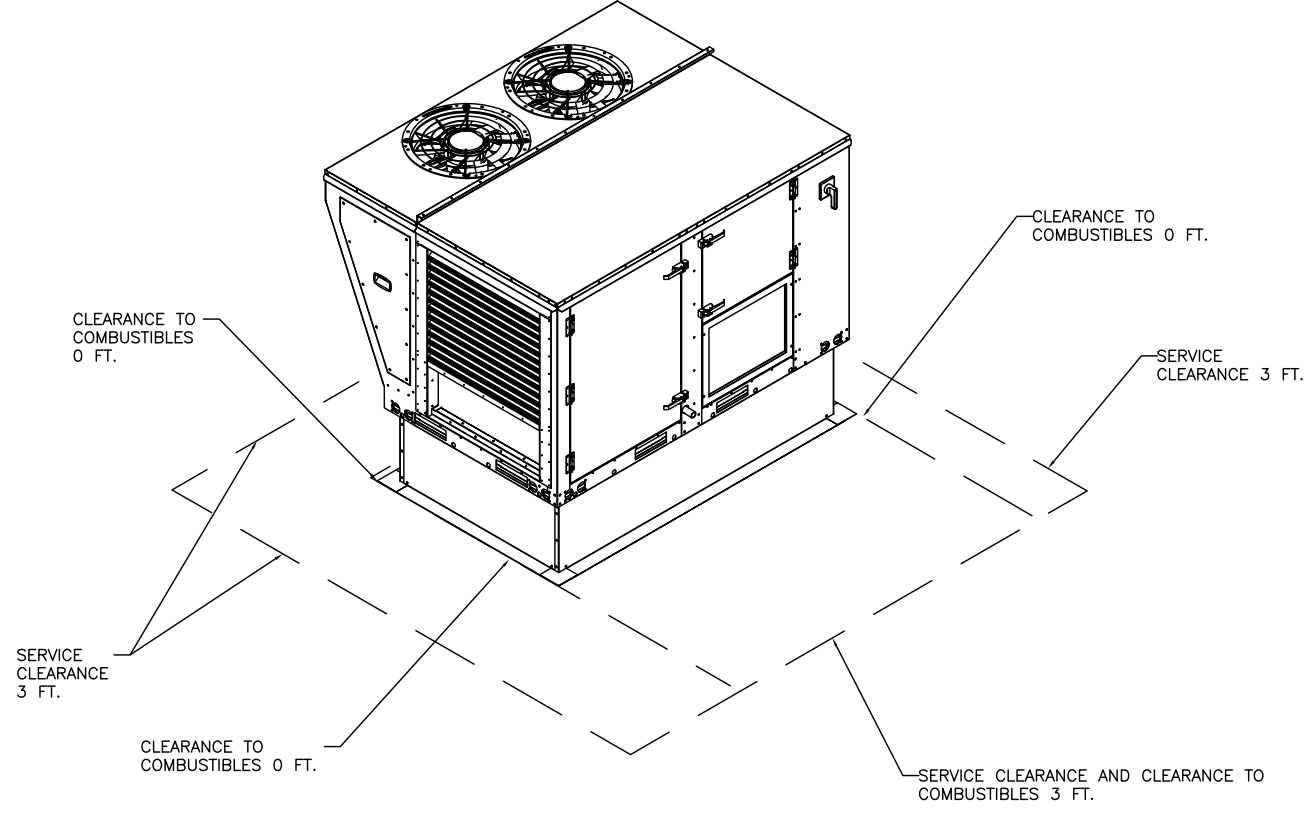


OPTIONS

- INLET PRESSURE GAUGE, 0-35".
- MANIFOLD PRESSURE GAUGE, 0 TO 10" WC, 1 FURNACE.
- TOTAL CFM MONITORING FOR DOAS.
- SINGLE POINT ELECTRICAL CONNECTION FOR RTU. QNTY 1 750VA TRANSFORMER USED. IF A NON-DCV PREWIRE CONTROLS THIS UNIT, THE #28, #47, "MA", OR "E2" OPTION PREWIRE MUST BE SELECTED. DO NOT PROVIDE SUPPLY STARTER IN PREWIRE.
- CASLINK BUILDING MONITORING SYSTEM - INTERNET OR CELLULAR CONNECTION REQUIRED.
- LOW AMBIENT COOLING OPERATION.
- 2" MERV 13 FILTERS FOR SIZE 1 RTU. QTY. 4.
- 2" MERV 8 FILTERS SIZE 1 RTU. QTY 4.
- OVERHEAT STAT.
- VFD FACTORY MOUNTED AND WIRED IN COMMERCIAL CONTROL VESTIBULE FOR RTU.
- RTU SIZE 1 DOWN DISCHARGE.
- 7.5 TON MODULATING COOLING OPTION, 208/230V. R410A REFRIGERANT, VARIABLE SPEED COMPRESSOR, ECM CONDENSING FANS.
- 7.5 TON MODULATING REHEAT OPTION. SPACE DEWPOINT CONTROL.
- SIZE 1 RTU CURB DUCT HANGER.
- RTU SIZE 1 DOWN RETURN.
- VAV PACKAGE W/ MANUAL/DDC CONTROL (571 VFD INCLUDED).
- LINE REACTOR MOUNTED IN FAN.
- RTU MANUAL INTAKE/RETURN DAMPER CONTROL VIA HMI.
- CONNECTION POINT IN UNIT FOR HVAC CONTRACTOR TO SUPPLY SMOKE DETECTOR & INSTALL IN RETURN & CONNECT TO UNIT.
- 120V CONVENIENCE OUTLET (POWER BY ELECTRICIAN)
- 5 YEAR ENTIRE UNIT PARTS WARRANTY, 10 YEAR ENTIRE UNIT PARTS WARRANTY WITH REMOTE MONITORING AND CAPTIVEAIRE SERVICE CONTRACT, 25 YEAR STAINLESS STEEL FURNACE PARTS WARRANTY (SEE ADDITIONAL DETAILS).

FAN OPTIONS

FAN UNIT NO.	TAG	QTY	DESCRIPTION
4	DOAS-RTU1	1	INLET PRESSURE GAUGE, 0-35"
		1	MANIFOLD PRESSURE GAUGE, 0 TO 10" WC, 1 FURNACE.
		1	RTU TOTAL CFM MONITORING.
		1	SINGLE POINT ELECTRICAL CONNECTION FOR RTU. 750VA TRANSFORMER USED. IF A NON-DCV PREWIRE CONTROLS THIS UNIT, THE #28, #47, "MA", OR "E2" PREWIRE OPTION MUST BE SELECTED. DOES NOT PROVIDE SUPPLY STARTER IN PREWIRE.
		1	CASLINK BUILDING MONITORING SYSTEM - INTERNET OR CELLULAR CONNECTION REQUIRED.
		1	LOW AMBIENT COOLING OPERATION - DOWN TO 15F AMBIENT.
		1	2" MERV 13 FILTERS FOR RTU1 (QTY. 4).
		1	2" MERV 8 FILTERS FOR RTU1 (QTY. 4).
		1	OVERHEAT STAT.
		1	VFD FACTORY MOUNTED AND WIRED IN RTU COMMERCIAL CONTROL VESTIBULE.
		1	RTU1 DOWN DISCHARGE.
		1	7.5 TON MODULATING COOLING OPTION, 208/230V. R410A REFRIGERANT, VARIABLE SPEED COMPRESSOR, ECM CONDENSING FANS.
		1	7.5 TON MODULATING REHEAT OPTION - SPACE DEWPOINT CONTROL.
		1	RTU1 CURB DUCT HANGER.
		1	RTU1 DOWN RETURN.
		1	VAV PACKAGE W/ MANUAL/DDC CONTROL (571 VFD INCLUDED).
		1	LINE REACTOR MOUNTED IN FAN.
		1	RTU INTAKE/RETURN DAMPER - MANUAL CONTROL VIA HMI.
		5	DOAS-RTU2
1	COMMERCIAL SMOKE DETECTOR/ALARM INTERLOCK - ALARM SUPPLIED BY OTHERS.		
1	RTU1 CONVENIENCE OUTLET (GPO), 15 AMP - REQUIRES SEPARATE 120V CONNECTION. INCLUDES RECEPTACLE, COVER AND J BOX.		
1	5 YEAR ENTIRE UNIT PARTS WARRANTY, 10 YEAR ENTIRE UNIT PARTS WARRANTY WITH REMOTE MONITORING AND CAPTIVEAIRE SERVICE CONTRACT, 25 YEAR STAINLESS STEEL FURNACE PARTS WARRANTY (SEE ADDITIONAL DETAILS).		
1	INLET PRESSURE GAUGE, 0-35"		
1	MANIFOLD PRESSURE GAUGE, 0 TO 10" WC, 1 FURNACE.		
1	RTU TOTAL CFM MONITORING.		
1	SINGLE POINT ELECTRICAL CONNECTION FOR RTU. 750VA TRANSFORMER USED. IF A NON-DCV PREWIRE CONTROLS THIS UNIT, THE #28, #47, "MA", OR "E2" PREWIRE OPTION MUST BE SELECTED. DOES NOT PROVIDE SUPPLY STARTER IN PREWIRE.		
1	CASLINK BUILDING MONITORING SYSTEM - INTERNET OR CELLULAR CONNECTION REQUIRED.		
1	LOW AMBIENT COOLING OPERATION - DOWN TO 15F AMBIENT.		
1	2" MERV 13 FILTERS FOR RTU1 (QTY. 4).		
1	OVERHEAT STAT.		
1	VFD FACTORY MOUNTED AND WIRED IN RTU COMMERCIAL CONTROL VESTIBULE.		
1	RTU1 DOWN DISCHARGE.		
1	RTU1 CURB DUCT HANGER.		
1	RTU1 DOWN RETURN.		
1	VAV PACKAGE W/ MANUAL/DDC CONTROL (571 VFD INCLUDED).		
1	RTU INTAKE/RETURN DAMPER - MANUAL CONTROL VIA HMI.		
1	OCCUPIED SCHEDULING.		
1	7.5 TON MODULATING COOLING OPTION, 208/230V. R410A REFRIGERANT, VARIABLE SPEED COMPRESSOR, ECM CONDENSING FANS.		
1	7.5 TON MODULATING REHEAT OPTION - SPACE DEWPOINT CONTROL.		
1	LINE REACTOR MOUNTED IN FAN.		
1	COMMERCIAL SMOKE DETECTOR/ALARM INTERLOCK - ALARM SUPPLIED BY OTHERS.		
1	RTU1 CONVENIENCE OUTLET (GPO), 15 AMP - REQUIRES SEPARATE 120V CONNECTION. INCLUDES RECEPTACLE, COVER AND J BOX.		
1	5 YEAR ENTIRE UNIT PARTS WARRANTY, 10 YEAR ENTIRE UNIT PARTS WARRANTY WITH REMOTE MONITORING AND CAPTIVEAIRE SERVICE CONTRACT, 25 YEAR STAINLESS STEEL FURNACE PARTS WARRANTY (SEE ADDITIONAL DETAILS).		



TAG	ROOMS SERVED	O.A. CFM	EXHAUST CFM
KEF-1	H01 (GRILL)	-	- 1225
KEF-2	H02 (OVEN)	-	- 600
KEF-3	H03 (FRYER)	-	- 800
RTU-DOAS1	KITCHEN + H0000S	+ 1475	-
EF 4/5	TOILETS	-	- 225
RTU-DOAS2	BUILDING	+ 1450	-
NET		+75 CFM	

KITCHEN TO MAINTAIN A SLIGHTLY NEGATIVE PRESSURE. OVERALL BUILDING PRESSURE TO BE BETWEEN -.02" TO +0.02" WC PER MC COMMENTARY RECOMMENDATIONS

DOAS/RTU FAN SCHEDULE - JOB#5234814

FAN UNIT NO.	TAG	QTY	DOAS/RTU MODEL #	MANUFACTURER	BLOWER	RETURN AIR CFM	MAX OUTSIDE AIR CFM	TOTAL CFM	ESP	HP	BHP	PHASE	VOLT	MCA	MOCP	WEIGHT (LBS)
4	DOAS-RTU1	1	CASRTU1-1200-15-7.5T-DOAS	CAPTIVEAIRE	15P-1	525	1475	2000	0.700	2.000	1.2750	3	208	37.7A	40A	1368
5	DOAS-RTU2	1	CASRTU1-1200-15-7.5T-DOAS	CAPTIVEAIRE	15P-1	750	1450	2200	0.700	2.000	1.5780	3	208	37.7A	40A	1368

DOAS/RTU COOLING SCHEDULE

FAN UNIT NO.	TAG	COMPRESSOR			OUTDOOR FAN			INDOOR COIL		OUTSIDE AIR DB TEMP	OUTSIDE AIR WB TEMP	MIXED AIR DB TEMP	MIXED AIR WB TEMP	LEAVING DB TEMP	LEAVING WB TEMP	LEAVING DP TEMP	TOTAL CAPACITY	SENSIBLE CAPACITY	LATENT CAPACITY	REHEAT LEAVING DB TEMP	REHEAT LEAVING WB TEMP	DESIRED CAPACITY	MAX REHEAT CAPACITY	REHEAT LEAVING HUMIDITY	MOISTURE RATIO	IEER	
		TONNAGE	VOLTAGE	PHASE	MOTOR VOLTAGE	MOTOR #	MOTOR FREQUENCY	MOTOR QTY	ROWS																		FACE AREA
4	DOAS-RTU1	7.5	190-240	3	200-240	3	60	2	5	6.2 SGFT	82.8F	76.9F	80.8F	72.0F	59.1F	58.4F	58.0F	102.0 MBH	45.9 MBH	56.1 MBH	71.0F	62.8F	26.1 MBH	60 MBH	64	50.7 LBS/HR	18.6
5	DOAS-RTU2	7.5	190-240	3	200-240	3	60	2	5	6.2 SGFT	80.8F	75.2F	78.8F	70.0F	57.0F	56.7F	56.6F	102.0 MBH	51.0 MBH	51.0 MBH	71.0F	61.8F	33.9 MBH	60 MBH	60	46.3 LBS/HR	18.6

DOAS/RTU HEATING SCHEDULE

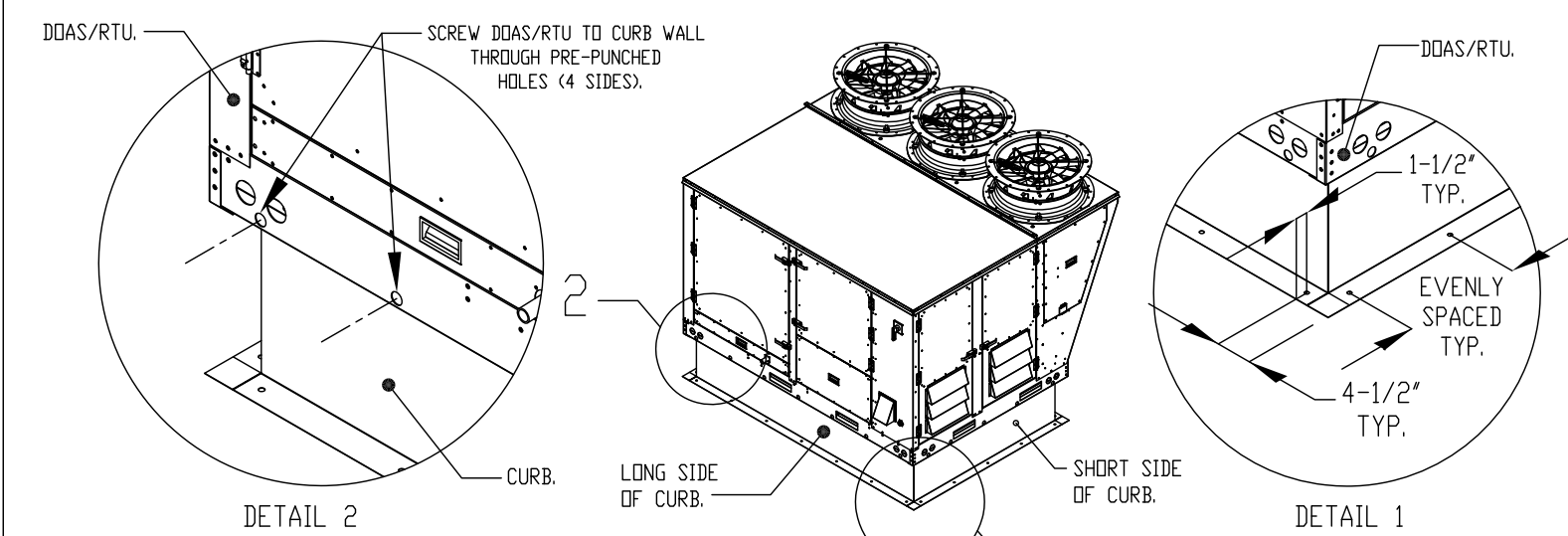
FAN UNIT NO.	TAG	INPUT BTUs	OUTPUT BTUs	TEMP RISE	REQUIRED INPUT GAS PRESSURE	GAS TYPE	BURNER EFFICIENCY(%)
4	DOAS-RTU1	197729	158183	67F	7 IN. W.C. - 14 IN. W.C.	NATURAL	80
5	DOAS-RTU2	197195	157756	61F	7 IN. W.C. - 14 IN. W.C.	NATURAL	80

CURB ASSEMBLIES

NO	ON FAN	TAG	WEIGHT	ITEM	SIZE
4	# 4	DOAS-RTU1	59 LBS	CURB	41.000"W X 71.000"L X 20.000"H ALONG WIDTH, RIGHT INSULATED.
5	# 5	DOAS-RTU1	59 LBS	CURB	41.000"W X 71.000"L X 20.000"H ALONG WIDTH, RIGHT INSULATED.

TYPICAL DOAS/RTU ROOF MOUNTING INSTALLATION INSTRUCTIONS

- SECURE THE CURB TO THE ROOF FRAMING MEMBERS BY DRILLING 1/4" PILOT HOLES IN THE CURB FLANGES AT LOCATIONS SHOWN IN THE DIAGRAM BELOW. USING 3/8" X 2" ZINC PLATED STEEL LAG BOLTS, AND ZINC PLATED WASHERS, SCREW THROUGH THE CURB FLANGES AND INTO THE ROOF FRAMING MEMBERS. A MINIMUM OF 3" LAG BOLTS ON EACH SHORT SIDE, AND 17" LAG BOLTS ON EACH LONG SIDE IS REQUIRED.
- SECURE THE UNIT BASE TO THE SIDE WALLS OF THE CURB USING G24 1/4"-14 X 2" SELF-DRILLING, STEEL ZINC PLATED SCREWS. PRE-PUNCHED HOLES HAVE BEEN PROVIDED FOR EACH SCREW LOCATION.



REVISIONS	DESCRIPTION	DATE:

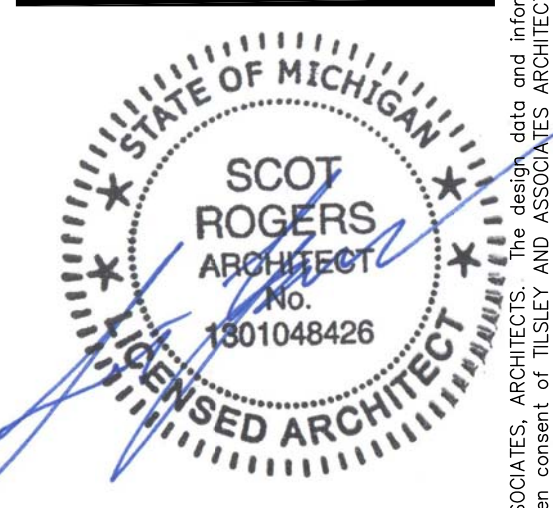
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As Noted
S.Rogers
PS Clinton Twp MI
22044