MECHANICAL SPECIFICATIONS

1. HVAC SYSTEMS SHALL INCLUDE HIGH & LOW PRESSURE CONTROL SAFETY SWITCHES AND SHALL BE CHECKED FOR LOCAL CODE COMPLIANCE BY THE MECHANICAL CONTRACTOR.

2. COORDINATE ALL WORK WITH THE EQUIPMENT CONTRACTOR IN TERMS OF ITEMS PROVIDED, SCOPE OF WORK, AND HOOK UP REQUIREMENTS.

3. HOOD SUPPLIER SHALL PROVIDE SHOP DRAWINGS FOR EXHAUST HOOD INSTALLATION.

4. GENERAL NOTES:
   A. NO PENETRATIONS SHALL OCCUR THROUGH THE TILE BASE.
   B. 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.

5. 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 PENN STATION INC. SEE FORMS ON THIS SHEET.

6. LIMIT FLEX-PIPE RUNS TO 5'-0" MAXIMUM LENGTH.

7. USE HARD-PIPE, 90° ELBOWS AT ALL DIFFUSERS UNLESS DIRECTLY UNDER A MAIN TRUNK LINE.

8. ALL HANGERS AND INSTALLATION METHODS FOR HVAC DUCTWORK SHALL MEET SMACNA STANDARDS.

9. REFER TO CAPTIVEAIRE SHOP DRAWINGS FOR ELECTRICAL FEED DETAILS & LOCATIONS @ EXHAUST FANS.

~~10. 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.~~

11. 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).

12. IN OCCUPIED MODE, THE HVAC UNIT FANS SHALL BE IN THE 'ON' MODE FOR STORE CONSTANT BALANCE.

VENTILATION AIR SCHEDULE

									H	MUST BE ≤	K				
ROOM NAME	OCCUPANCY CLASIFICATION	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	TOTAL REQD. OUTSIDE AIR CFM	ACTUAL SUPPLY CFM	ACTUAL OUTSIDE AIR CFM	EXHAUST FLOW RATE CFM / SQ.FT.	EXHAUST CFM REQUIRED PER SQ.FT.	EXHAUST REQUIRED FOR R.R. FIXTURES	CFM EXHAUST PROVIDED
		A	B	C	D	E	F	G	H	J	K	L	M	N	O
		PER PLAN	PER IMC TABLE 403.3	= AxB	PER IMC TABLE 403.3	PER IMC TABLE 403.3	= CxD	= AxE	= F+G	= PROVIDED SUPPLY AIR	= PROVIDED FRESH AIR	PER IMC TABLE 403.3	= AxL	= FIXTURE CFM TOTAL	= PROVIDED EXHAUST
101 DINING	DINING	650	70/1000	46	7.5	0.18	345	117	462	1900	1101	NA	NA	NA	NA
102 SERVING AREA	KITCHEN	342								1400	1032.5	0.7	239.4	NA	2653
103 CLOSET	NONE	9													
104 PREP AREA	MEAT PROCESSING	246	10/1000	3	15	-	45	-	45	600	442.5	NA	NA	NA	NA
105 HALL	NONE	72								100	58				
106 WOMEN	NONE	48								70	40.5			50	75
107 MEN	NONE	60								130	75.5			100	150
								TOTAL	507	4200	2750				

AIR BALANCE

- 2450 EXHAUST HOODS
- 225 R.R. EXHAUST FANS
- 2675 CFM

+ 1475 FRESH AIR DOAS UNIT No. 1
+ 1275 FRESH AIR DOAS UNIT No. 2
+ 75 CFM TOTAL

HVAC GENERAL NOTES

1. SUPPLY DUCT SHALL BE IN THE FOLLOWING GAUGES (U.N.O.):
   ROUND:
   -UP TO 12" Ø = 28 GAUGE
   -14" AND LARGER = 26 GAUGE
   SQUARE / RECTANGULAR:
   -UP TO 10" X 12" = 28 GAUGE
   -10" X 14" OR 12" X 12" AND LARGER = 26 GAUGE
2. SUPPLY DROPS SHALL BE GALVANIZED IN 24 GAUGE MATERIAL.
3. RETURN DUCT SHALL BE GALVANIZED IN 22 GAUGE MATERIAL.
4. 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).
5. INSTALL ALL BOOTS FROM INSIDE DUCTWORK.
6. 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.
7. FLEXIBLE DUCT CONNECTORS SHALL BE TESTED IN ACCORDNACE WITH UL181 AND SHALL BE LISTED AND LABELED AS CLASS O OR CLASS I DUCT.
8. DUCT COVERINGS SHALL HAVE A FLAME SPREAD INDEX NOT MORE THAN 25 AND A SMOKE DEVELOPED INDEX NOT MORE THAN 50.
9. ALL JOINTS, SEAMS, AND CONNECTIONS SHALL BE SECURELY SEALED AND FASTENED.
10. RETURN DUCT SMOKE DETECTORS SHALL BE IN COMPLIANCE WITH SECTION 606 IMC.
11. VERIFY LOCATION OF CONTROLS AND USE ALTERNATE POSITION IF REQUIRED.
12. 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

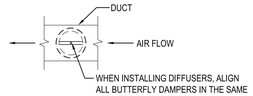
HVAC UNIT No. 1 & 2: CAPTIVEAIRE
7.5 TON PACKAGED DOAS/RTU (197,729 BTUH) (208V, 3Ø)
CASRTU1-L200-15-7.5T-DOAS

FIELD INSTALLED OPTIONS (TYP. EACH UNIT)
1 KIT - SMOKE DETECTOR (RETURN AIR) USE CAS INTERLOCK
1 BOTTOM or TOP ACCESS FILTER BOX (BY CAS)
1 THERMOSTAT
1 THERMOSTAT GUARD
1 MOTORIZED FRESH AIR DAMPER W/ BIRD SCREEN (BY CAS)
1 UNIT-MOUNTED HEAVY-DUTY DISCONNECT (BY CAS)
1 UNIT-MOUNTED WP, GFCI RECEPTACLE. (BY CAS)
SEE M2.0 FOR CIRCUIT.

VERIFY HVAC EQUIPMENT BEFORE ORDERING:

DAMPER NOTES:

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



2. INSTALL IN-LINE DAMPERS WITH LOCKING HAND QUADRANT IN EACH TRIBUTARY DUCT WHERE IT LEAVES THE MAIN DUCT. AND - IN LOCATIONS INDICATED BY THE FOLLOWING SYMBOL: MATCH DUCT DIAMETER.

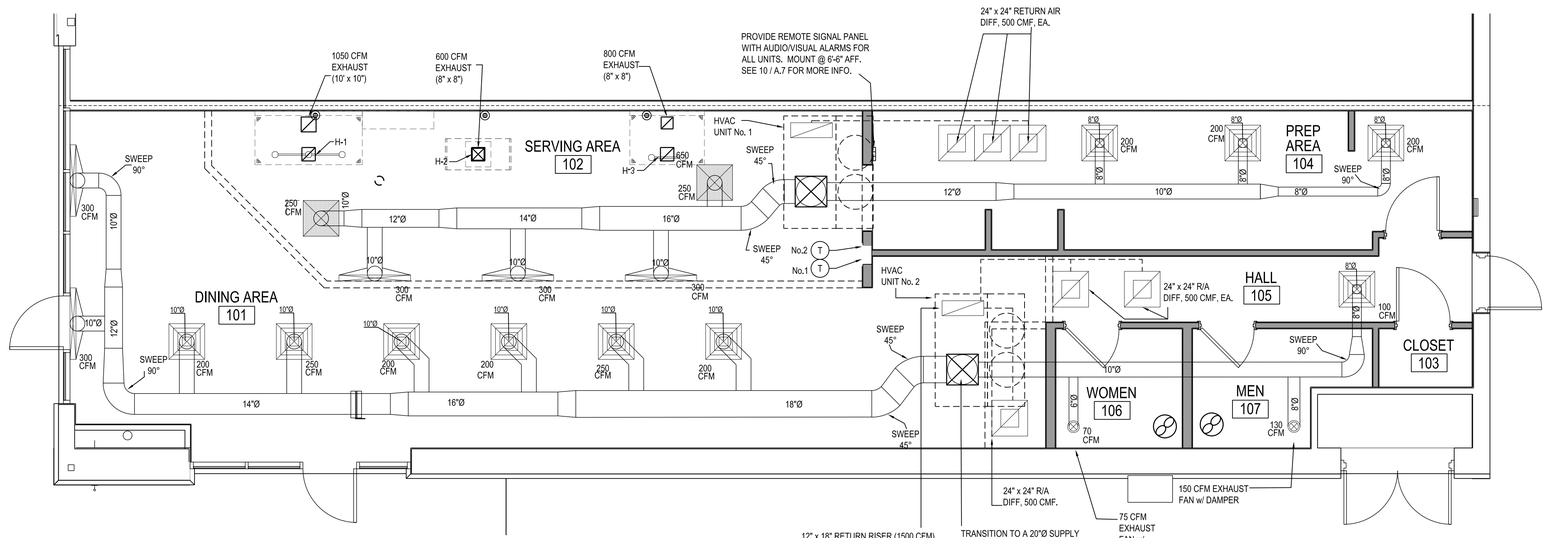
HVAC SYMBOL LEGEND

SYMBOL	DESCRIPTION	SIZE	COLOR
	2'x2' SQUARE CONE DIFFUSER (FIXED AIR PATTERN) "PRICE" - ASCD/AC/B12 ALUMINUM. W/ 3800-SERIES BUTTERFLY DAMPER	2' x 2'	FACTORY WHITE
	2'x2' 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: #530-FR, 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
T	HONEYWELL VISIONPRO 8000 WIFI PROGRAMMABLE THERMOSTAT @ 4'-6"AFF PER HVAC PLAN.	-	WHITE
KEYED	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.

REQUIRED TESTING

1. 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.
2. A PUFF TEST IS REQUIRED ON THE KITCHEN SUPPRESSION SYSTEM
3. AN AIR-CAPTURE TEST IS REQUIRED ON THE KITCHEN HOOD(S)
4. A TEST AND BALANCE REPORT IS REQUIRED



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

TILSLEY ARCHITECTS
1140 SAINT GREGORY ST, CINCINNATI, OHIO 45202
TEL 513.651.4300
WWW.TILSLEYARCHITECTS.COM

A New Penn Station Restaurant
6424 Ronald Reagan Dr.
Lake St, Louis, MO 63367

STATE OF MISSOURI SCOT ROGERS NUMBER A-2002002780 ARCHITECT
1/14/22

NO.	ISSUE DESCRIPTION	DATE

Sheet Title: HVAC Plan
Issued For Permit Date: 01-14-2022
Scale: As Noted
Drawn By: S. Rogers
21052 PS Hawk Ridge

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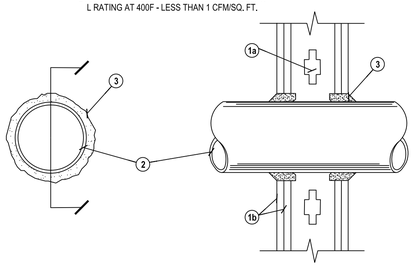
M1.0

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 CFM/SQ. FT.
L RATING AT 400F - LESS THAN 1 CFM/SQ. 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 3-⅝ in.. (92 mm) wide by 1-⅜ in. (35 mm(deep channels spaced max 24 in. (610 mm) o.c.
   B. Gypsum Board* - Nom ½ or ⅝ in. (13 or 16 mm) thick, 4 ft (122 cm) wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastner 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 firestop 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 sided 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.
   TITEFLEX 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 -** Miin ⅝, 1/4", 1⅛" and 2½" (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 ¼" (6 mm) diameter bead of caulk applied to gypsum board/penetrant interface at point contact location on both sides of wall. The hourly F rtaing of the firestop system is dependant upon the hourly fire rating of the wall assembly which it is install, as shown in the following table. The hourly T rating of the firestop 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 installe, as tabulated below:

Max Pipeor Conduit Diameter in. (mm)	F Rating Hr.	T Rating Hr.
1 (25)	1 or 2	0+, 1 or 2
1 (25)	3 or 4	3 or 4
4 102)	1 or 2	0
6 (152)	3 or 4	0
12 (305)	1 or 2	0

+ 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,

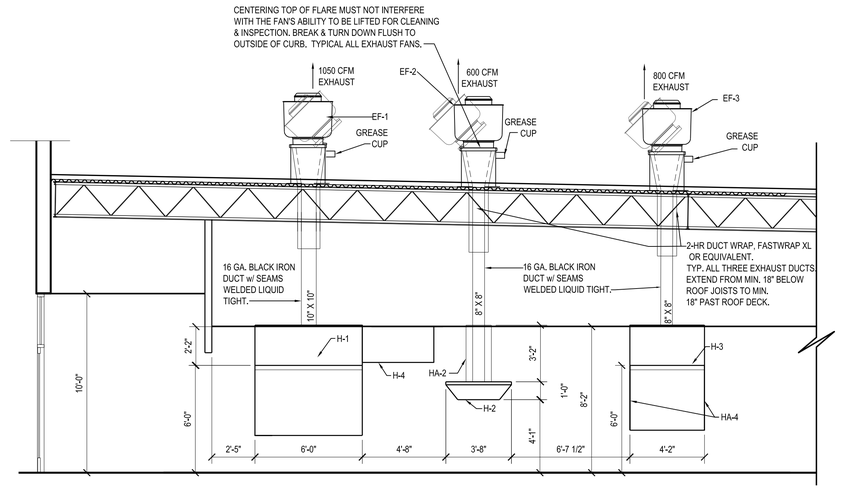
HVAC TEST & BALANCE SPECIFICATIONS

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)682-6822 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. 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.



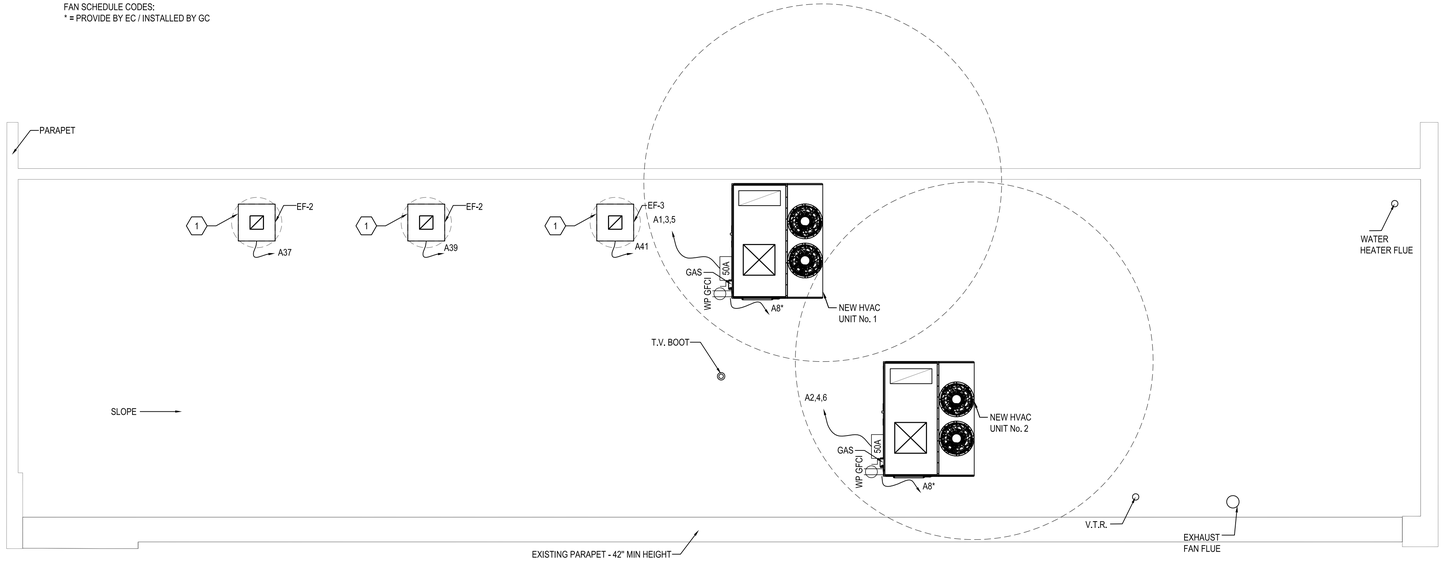
EXHAUST DETAIL
NO SCALE
1 / M2.0

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

FAN SCHEDULE

ITEM NO.	QTY	DESCRIPTION	MANUFACTURER	MODEL #	ELECTRICAL VOLT	PH	LOAD	EXHAUST CFM	SUPPLY CFM	GAS SIZE	GAS AMT	SIZE (W x D x H)	NOTES	ITEM NO.	BY
EF-1	1	GRIDDLE FAN	CAPTIVE-AIRE	DU85HFA	115	1Ø	8.8 AMP/ 3/4 hp	1050				33 3/4" DIA. x 30 1/2" + CURB	REFER TO H.2	EF-1	*
EF-2	1	OVEN FAN	CAPTIVE-AIRE	DU33HFA	115	1Ø	4.4 AMP/ 1/3 hp	600				33 3/4" DIA. x 30 1/2" + CURB	REFER TO H.2	EF-2	*
EF-3	1	FRYER FAN	CAPTIVE-AIRE	DU50HFA	115	1Ø	5.6 AMP/ 1/2 hp	800				33 3/4" DIA. x 30 1/2" + CURB	REFER TO H.2	EF-3	*
~~EF-4~~	~~0~~	~~GRIDDLE & OVEN FAN~~	~~CAPTIVE-AIRE~~	~~NGA14HPFA~~	~~208~~	~~3Ø~~	~~4.0 AMP/ 1 hp~~	~~3650~~				~~33 3/4" DIA. x 30 1/2" + CURB~~	~~REFER TO H.2~~	~~EF-4~~	~~+~~
~~SF-1~~	~~1~~	~~HEATED MAKE UP AIR UNIT~~	~~CAPTIVE-AIRE~~	~~A1-D,250-15D~~	~~208~~	~~3Ø~~	~~3.1 AMP/ 1.0 hp~~		~~1650~~	~~4"~~	~~112,608 btu~~	~~27 3/8" x 74 7/16" x 27 3/8"~~	~~REFER TO H.2~~	~~SF-1~~	~~+~~

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



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.

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

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:
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.

TILSLEY
ARCHITECTS
1140 SAINT GREGORY ST. CINCINNATI, OHIO 45202
TEL 513.651.4300
WWW.TILSLEYARCHITECTS.COM

A New Penn Station Restaurant
6424 Ronald Reagan Dr.
Lake St, Louis, MO 63367

STATE OF MISSOURI
SCOT ROGERS
NUMBER A-2002002790
ARCHITECT
1/14/22

NO.	ISSUE DESCRIPTION	DATE

Sheet Title
Roof Plan & Details

Issued For Permit Date
01-14-2022

Scale: As Noted
Drawn By: S. Rogers
Checked By: PS Hawk Ridge
21052

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