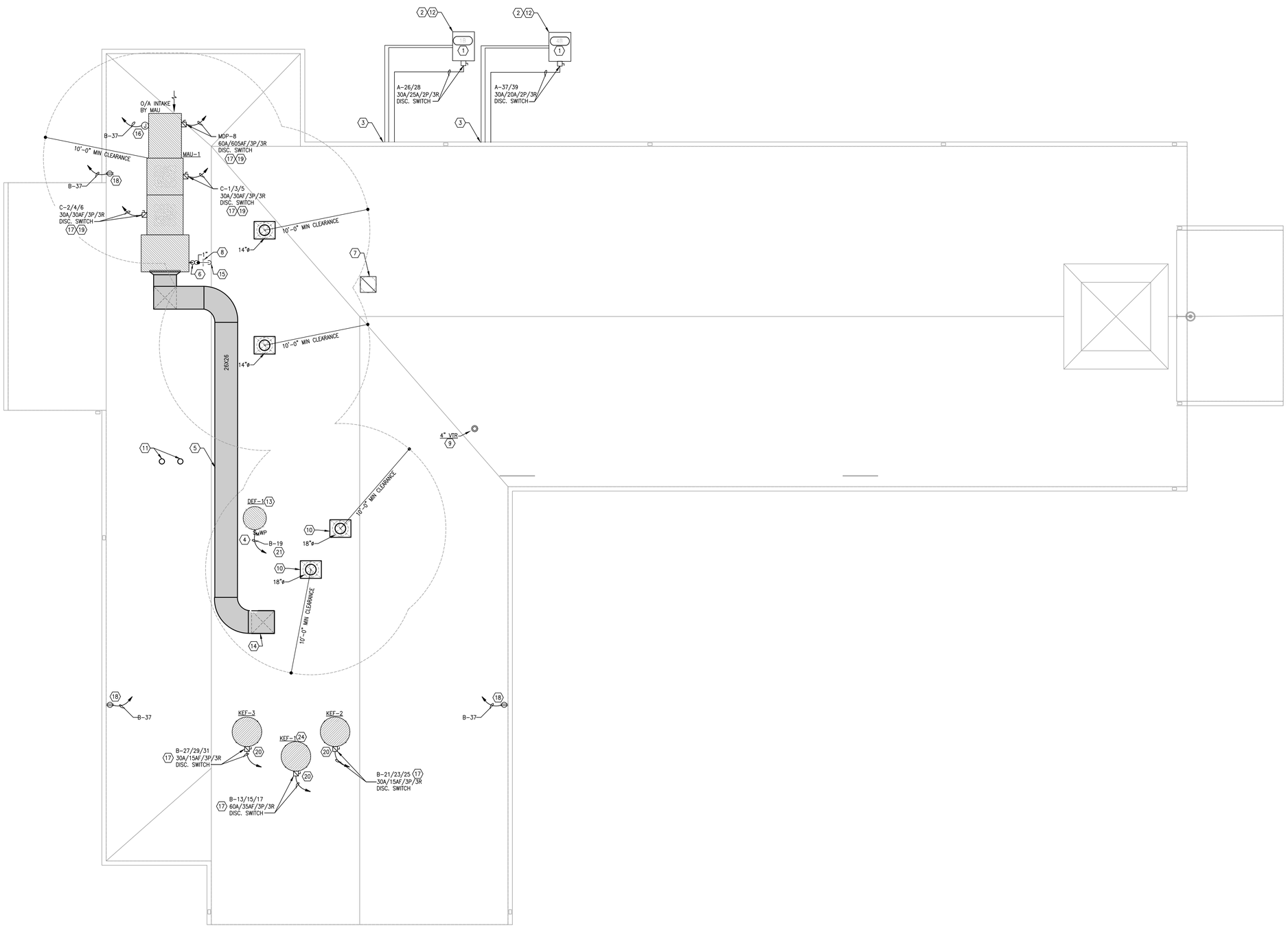

MEP ROOF PLAN
SCALE: 1/4" = 1'-0"

1

GENERAL NOTES

A.	ALL OUTDOOR AIR INTAKES BY MECHANICAL EQUIPMENT SHALL HAVE A MINIMUM 10'-0" HORIZONTAL CLEARANCE FROM THE DISCHARGE OF ANY EXHAUST FAN, COMBUSTION EXHAUST OR PLUMBING VENT.
B.	PROVIDE VIBRATION ISOLATION DEVICES AND FLEXIBLE DUCT/ PIPING CONNECTIONS TO ALL MOVING MACHINERY NOT INTERNALLY ISOLATED.
C.	ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL ELECTRICAL WORK SHOWN ON THE MECHANICAL DRAWINGS.
D.	ALL METALLIC NATURAL GAS PIPING EXPOSED ON THE ROOF SHALL BE FIELD PAINTED YELLOW WITH WEATHER RESISTANT PAINT, BY THE INSTALLING CONTRACTOR.

KEYED NOTES

1.	INTERWIRE SERVICE FROM FREEZER AND COOLER COMPRESSOR AND TIMECLOCK TO BLOWER COIL FOR AUTOMATIC DEFROST SYSTEM TO STOP COMPRESSOR BLOWER COIL FANS AND START HEATERS IN COIL. RUN CONDUIT ABOVE CEILING. THESE ITEMS ARE NOT PRE-WIRED AND WILL REQUIRE CONNECTIONS BY ELECTRICIAN AND FIELD WIRING.
2.	CONDENSING UNIT SHALL BE INSTALLED ON SLEEPERS (AS APPROVED BY THE MANUFACTURER). FIELD COORDINATE THE COMPLETE INSTALLATION.
3.	GANG THE REFREGERATION PIPING TOGETHER FOR A SINGLE PENETRATION THROUGH THE EXTERIOR WALL. PROVIDE FIELD FABRICATED WEATHER TIGHT JACK FOR ROUTING OF REFRIGERATION PIPING THROUGH THE WALL.
4.	WEATHERPROOF MOTOR RATED SWITCH. PROVIDE 24" FLEXIBLE LOOP CONNECTION TO UNIT FOR MAINTENANCE.
5.	ROOF MOUNTED MAKE UP AIR DUCTWORK ON THE BUILDING SHALL BE EXTERNALLY WRAPPED AND SECURED WITH MINIMUM R-8.0, 2" INSULATION WITH VAPOR BARRIER PER THE 2018 INTERNATIONAL MECHANICAL CODE, WITH LOCAL AMENDMENTS. INSULATION SHALL HAVE MAXIMUM RATINGS OF 25 FLAME SPREAD, 50 SMOKE DEVELOPED. INSTALL COMPLETE WITH A FINAL EXTERIOR LAYER OF CORROSION RESISTANT 24 GA. GALVANIZED SHEET METAL WITH A 1/12" TOP PITCH TO PREVENT STANDING WATER.
6.	CONDENSATE DRAIN PIPING FROM THE HVAC UNIT SHALL BE ROUTED ON THE ROOF AS SHOWN, AT A MINIMUM PITCH OF 1/4" PER FOOT IN THE DIRECTION OF FLOW. REFER TO THE PLUMBING DWV PLAN FOR CONTINUATION OF CONDENSATE DRAINAGE PIPING BELOW THE ROOF.
7.	PROVIDE ROOF CAP FOR RESTROOM EXHAUST DUCT. PROVIDE WEATHERPROOF FLASHING AT PENETRATION.
8.	ALL PIPING INSTALLED ON THE ROOF SHALL BE SUPPORTED WITH PRE-MANUFACTURED ADJUSTABLE PIPE SUPPORTS AT MAXIMUM 5'-0" ON CENTER AND EVERY CHANGE OF DIRECTION.
9.	ROOF MOUNTED VTR, SIZED AS SHOWN. INSTALLED LOCATION SHALL BE A MINIMUM OF 10'-0" FROM ANY OUTDOOR AIR INTAKE. TOP OF VTR STACK SHALL BE EVEN WITH PARAPET WALL.
10.	OUTSIDE AIR DUCT DOWN FROM GRAVITY INTAKE VENTILATOR ON ROOF. SIZE DUCT AS SHOWN. VERIFY ROUTING IN FIELD.
11.	CONCENTRIC COMBUSTION AIR VENTS FOR THE GAS FIRED WATER HEATER BELOW. A MANUFACTURER AVAILABLE CONCENTRIC VENT KIT IS REQUIRED FOR INSTALLATION. COORDINATE THE ROOF PENETRATION, FLASHING AND COUNTER-FLASHING WITH THE GENERAL CONTRACTOR AND LL ROOFING CONTRACTOR.
12.	CONDENSING UNIT SHALL BE INSTALLED ON GROUND MOUNTED PAD (AS APPROVED BY THE MANUFACTURER.) VERIFY FINAL LOCATION OF CONDENSER IN FIELD WITH BARTACO CONSTRUCTION MANAGER AND FIELD COORDINATE THE COMPLETE INSTALLATION.
13.	INSTALL COMPLETE WITH MANUFACTURER FURNISHED WINDBAND EXTENSION COLLAR TO PROVIDE A MINIMUM 26" VERTICAL SEPARATION PER SECTION 407.2 OF THE 2018 IMC, FROM THE EXHAUST TERMINATION ABOVE THE INTAKE OF ANY ADJACENT MECHANICAL EQUIPMENT.
14.	ROUTE DUCTWORK DOWN THROUGH ROOF. COORDINATE ROOF PENETRATION AND FLASHING WITH EXISTING ROOFTOP EQUIPMENT AND LANDLORD'S ROOFING CONTRACTOR.
15.	HVAC CONDENSATE DRAIN PIPING SHALL BE ROUTED DOWN THROUGH THE ROOF TO TERMINATION BELOW. REFER TO THE PLUMBING DWV PLAN FOR CONTINUATION OF CONDENSATE DRAINAGE PIPING BELOW THE ROOF.
16.	PROVIDE AND INSTALL A WEATHERPROOF JUNCTION BOX FOR MOTORIZED DAMPER WITHIN MUA UNIT. VERIFY EXACT LOCATION PRIOR TO ROUGH IN.
17.	CONTRACTOR SHALL PROVIDE ALL ELECTRICAL CONNECTIONS, WIRING AND CONDUITS NECESSARY FOR THE INTERLOCKING OF KITCHEN EXHAUST FANS AND MAKEUP AIR UNIT THROUGH THE KITCHEN CONTROL PANEL.
18.	CONTRACTOR SHALL PROVIDE WEATHERPROOF, WEATHER RATED, GFCI RECCEPTACLE.
19.	WEATHER PROOF DISCONNECT SWITCH, SIZE AS NOTED, ROUTE FEEDER DOWN TO PRE-WIRED ELECTRICAL CONTROL PANEL ON KITCHEN HOOD. DISCONNECT SWITCH TO ARRIVE FACTORY INSTALLED ON FAN.
20.	WEATHER PROOF DISCONNECT SWITCH TO ARRIVE FACTORY INSTALLED ON KEF.
21.	ROUTE ELECTRICAL POWER FROM EXHAUST FAN THROUGH DISHWASHER CONTROLLER. REFER TO DISHWASHER EXHAUST ELECTRICAL SCHEMATIC DIAGRAM.

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DATE	DESCRIPTION
10.25.21	ISSUE FOR PERMIT

DATE	DESCRIPTION

SHEET TITLE:

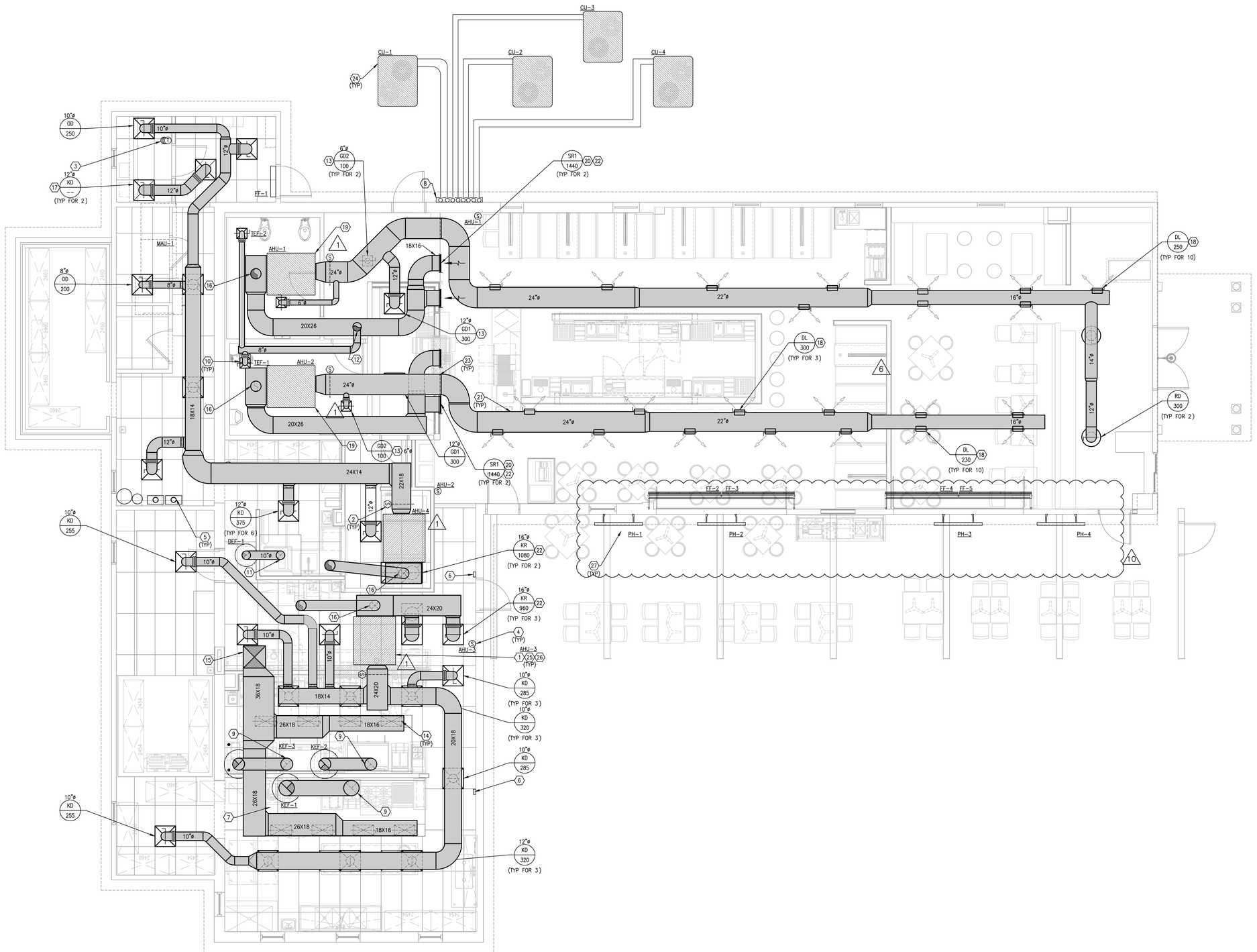
MEP ROOF PLAN

SHEET NUMBER:

MEP1.0

PROJECT NUMBER:

BAR21002



KEYED NOTES

1. FIELD COORDINATE PLACEMENT OF THE SPLIT SYSTEM AIR HANDLERS. HOLD TIGHT TO BOTTOM OF STRUCTURE BUT STILL ALLOWING FOR ACCESS TO UNIT FOR MAINTENANCE AND CLEANING. REFER TO MECHANICAL DETAILS FOR PROPOSED CONSTRUCTION OF HANGER SUPPORT ASSEMBLY.
2. DUCT MOUNTED SMOKE DETECTOR CAPABLE OF SHUTTING DOWN THE RESPECTIVE MECHANICAL UNIT UPON ACTIVATION.
3. PROGRAMMABLE THERMOSTATS TO BE MOUNTED AT 48" AFF STACKED AND CLEARLY LABELED. VERIFY PLACEMENT WITH ARCHITECTURAL FLOOR PLAN AND INTERIOR ELEVATIONS.
4. WALL MOUNTED REMOTE ZONE TEMPERATURE SENSORS SHALL BE MOUNTED AT 48" AFF, AND WIRED BACK TO RESPECTIVE PROGRAMMABLE THERMOSTAT IN MOR'S OFFICE. COORDINATE PLACEMENT WITH WALL DECOR AND EQUIPMENT. FIELD VERIFY WITH THE OWNER'S REPRESENTATIVE FOR THE FINAL LOCATION PRIOR TO INSTALLATION.
5. ROUTE THE COMBUSTION AIR INTAKE AND EXHAUST PIPING FROM THE WATER HEATERS TO TERMINATION LOCATIONS ON THE ROOF. INSTALL WITH THE MINIMUM ELBOWS AND OFFSETS AS NECESSARY FOR A COMPLETE INSTALLATION PER THE WATER HEATER MANUFACTURER'S REQUIREMENTS. PROVIDE WITH DIRECT VENT CONVERSION KIT. PIPING SHALL BE CLASS 3 STAINLESS STEEL.
6. MANUAL PULL STATION FOR KITCHEN HOOD FIRE SUPPRESSION SYSTEM ACTIVATION AND GAS SUPPLY SHUT-OFF TO BE PROVIDED BY THE FIRE SUPPRESSION SUBCONTRACTOR. GENERAL CONTRACTOR SHALL PROVIDE RECESSED JUNCTION BOX AND CONDUIT FOR PULL STATION LINKAGE. FIRE SUPPRESSION SUBCONTRACTOR SHALL VERIFY APPROVED LOCATION WITH THE LOCAL AUTHORITY AND COORDINATE THE COMPLETE INSTALLATION WITH ALL OTHER TRADES.
7. FIRE SUPPRESSION CABINET TO BE FURNISHED WITH THE HOOD PACKAGE, AND INSTALLED BY THE MECHANICAL CONTRACTOR. FINAL PIPING AND LINKAGE CONNECTIONS TO BE MADE BY THE HOOD FIRE SUPPRESSION SUBCONTRACTOR.
8. GANG REFRIGERATION PIPING TOGETHER FOR A SINGLE RISER ON EXTERIOR WALL TO UPPER LEVEL FOR SINGLE PENETRATION. PROVIDE FIELD FABRICATED WEATHER TIGHT JACK FOR ROUTING OF REFRIGERATION PIPING THROUGH WALL. COORDINATE EXACT WALL PENETRATION LOCATION WITH EXISTING PIPING AND LANDLORD.
9. EXTEND THE GREASE EXHAUST DUCT UP FROM THE HOOD COLLAR AND OFFSET HORIZONTALLY AS NECESSARY BEFORE ROUTING UP THRU ROOF TO THE EXHAUST FAN. HORIZONTAL DUCTWORK SHALL PITCH A MINIMUM 1/4" PER FOOT BACK TOWARDS THE HOOD. GREASE EXHAUST DUCT SHALL BE OF THE SAME SIZE AS THE HOOD COLLAR. FIELD COORDINATE THE REQUIRED TRANSITIONS OF EXHAUST DUCT FROM COMBUSTIBLE MATERIALS TO MAINTAIN THE MINIMUM CLEARANCES REQUIRED PER APPLICABLE CODE(S) AND FIRE WRAP MANUFACTURER'S INSTRUCTIONS.
10. PROVIDE EXHAUST DUCTS SIZED AS SHOWN. ROUTE EXHAUST DUCT FROM THE RESPECTIVE EXHAUST FAN TO RISER UP THROUGH THE ROOF.
11. ROUTE THE 10"ø CONDENSATE EXHAUST DUCT RISER UP AND OFFSET HORIZONTALLY AS NECESSARY BEFORE ROUTING UP THRU ROOF TO EXHAUST FAN. FIELD VERIFY REQUIRED TRANSITIONS OR OFFSETS OF EXHAUST DUCT FROM STRUCTURE. PITCH HORIZONTAL EXHAUST DUCT A MINIMUM OF 1/4" PER FOOT BACK TOWARDS THE HOOD. CONDENSATE EXHAUST DUCTWORK SHALL BE INSTALLED COMPLETE WITH EXTERNAL DUCT INSULATION SIMILAR TO OTHER HVAC DUCTWORK.
12. EXTEND THE 10"ø RESTROOM EXHAUST RISER UP TO THE ROOF MOUNTED GRAVITY VENT. FIELD VERIFY ANY REQUIRED TRANSITIONS OR OFFSETS TO AVOID EXISTING STRUCTURE.
13. AIR DEVICE IN HARD LID CEILING SHALL BE INSTALLED COMPLETE WITH OPPOSED BLADE DAMPER FOR MANUAL VOLUME ADJUSTMENT.
14. ROUTE MAKEUP AIR DUCTWORK TO PERFORATED SUPPLY PLENUM COLLAR CONNECTION. MAKEUP AIR DUCT CONNECTION SHALL BE OF THE SAME SIZE AS THE PLENUM COLLAR.
15. ROUTE MAKEUP AIR DUCTWORK FULL SIZE FROM THE UNIT CONNECTION AND DOWN THROUGH THE ROOF AS SHOWN. PROVIDE FLEXIBLE CONNECTION AND TRANSITION THROUGH THE JOISTS AS REQUIRED.
16. 12"ø OUTSIDE AIR DUCT UP TO GRAVITY RELIEF VENTILATOR ON ROOF. SIZE DUCT AS SHOWN. VERIFY ROUTING IN FIELD. PROVIDE WITH MOTORIZED DAMPERS AND ACTUATORS NECESSARY FOR COMPLETE OPERATION OF SYSTEM.
17. PROVIDE AIR DEVICES IN CEILING AND DUCTWORK BETWEEN FOR TRANSFER AIR. SIZE DUCT AS SHOWN.
18. REFER TO THE EXPOSED DUCT MOUNTED DIFFUSER DETAIL FOR PROPOSED MOUNTING OF THE DUCT MOUNTED AIR DEVICES. REFER TO ARCHITECTURAL ELEVATIONS FOR PROPOSED MOUNTING HEIGHT.
19. PROVIDE ACCESS PANEL FOR AHU HUNG ABOVE CEILING. RUN ALL BRANCHES IN CEILING SPACE TO MAINTAIN SINGLE PENETRATION THROUGH CEILING
20. REFER TO ARCHITECTURAL BUILDING INTERIOR ELEVATIONS FOR INSTALLATION HEIGHT OF SIDEWALL AIR DEVICES AND COORDINATE WITH LIGHTING.
21. EXPOSED DUCTWORK TO BE UNFINISHED GALVANIZED DOUBLE WALL SPIRAL DUCTWORK. BOTTOM OF DUCT WORK SHALL BE AT 12'-0" AFF. COORDINATE WITH ARCHITECTURAL DRAWINGS AND ELECTRICAL EQUIPMENT.
22. RETURN GRILLE AIR QUANTITY LISTED IS FOR PARTIAL RETURN DURING STANDARD OPERATING HOURS. RETURN DUCTS ARE SIZED FOR FULL RETURN DURING NIGHT SETBACK CONDITIONS. REFER TO SHEET M2.0 FOR AIR BALANCE REPORT ON DESIGN AIRFLOW RATES.
23. DUCTWORK CONCEALED BY FINISHED WALLS AND CEILINGS SHALL TRANSITION TO INTERNALLY INSULATED RIGID ROUND DUCT PRIOR TO BEING INSTALLED TO LINE OF SIGHT FROM GUESTS.
24. REMOTE GRADE-MOUNTED CONDENSER FOR SPLIT SYSTEM TO BE LOCATED ON EXISTING CONCRETE PAD. IF NOT EXISTING PROVIDE NEW. REFRIGERANT LINES NOT TO EXCEED MAXIMUM LINE LENGTH.
25. CONDENSATE DRAIN FROM AIR HANDLER. REFER TO PLUMBING DRAWINGS FOR CONTINUATION.
26. FIELD COORDINATE COMPLETE INSTALLATION OF REFRIGERATION PIPING TO THE HVAC AIR HANDLING UNITS. ALL PIPING SHALL BE INSTALLED IN STRAIGHT LINES AND SECURELY SUSPENDED FROM THE STRUCTURE TO PREVENT SAGGING. ROUTE REFRIGERANT LINES UP TO THE ROOF AND TO RESPECTIVE CONDENSING UNITS.
27. ELECTRIC PATIO HEATER SHALL BE MOUNTED ON FACTORY AVAILABLE MOUNTING BRACKET. REFER TO ARCHITECTURAL PLANS FOR MOUNTING HEIGHT.

MECHANICAL FLOOR PLAN
SCALE: 1/4" = 1'-0" 1

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DATE	DESCRIPTION
10.25.21	ISSUE FOR PERMIT
3.28.22	ISSUE FOR CONSTRUCTION

	DATE	DESCRIPTION
1	01.05.2022	CITY COMMENTS / CLARIFICATIONS
6	04.11.2022	OWNER COMMENTS
10	06.22.2022	DESIGN CLARIFICATIONS

SHEET TITLE:
MECHANICAL FLOOR PLAN

SHEET NUMBER:
M1.0

PROJECT NUMBER:
BAR21002

FAN SCHEDULE

MARK	SERVICE	CFM	E.S.P. "WG	RPM	MOTOR HP	VOLTS/PH	MANUFACTURER	MODEL	TYPE	WEIGHT	NOTES
KEF-1	HOOD #1	3583	1.875	968	5.00	208/3	CAPTIVEAIRE	DU240HFA	ROOF UPBLAST FAN	300	1,3,5,6,9
KEF-2	HOOD #2	1800	1.20	1064	1.00	208/3	CAPTIVE AIRE	DU180HFA	ROOF UPBLAST FAN	150	1,3,5,6,9
KEF-3	HOOD #3	1875	1.25	1089	1.50	208/3	CAPTIVEAIRE	DU180HFA	ROOF UPBLAST FAN	176	1,3,5,6,9
DEF-1	DISH MACHINE	600	0.50	1255	0.33	115/1	CAPTIVEAIRE	DU33HFA	ROOF UPBLAST FAN	69	3,4,6,9
TEF-1	RESTROOMS	150	0.20	765	0.09	115/1	CAPTIVE AIRE	CFA-D200-CA	CEILING CABINET FAN	13	2,4,7,9
TEF-2	RESTROOMS	150	0.20	765	0.09	115/1	CAPTIVE AIRE	CFA-D200-CA	CEILING CABINET FAN	13	2,4,7,9
MAU-1	COOKLINE HOODS	5806	0.55	1531	10.00	208/3	CAPTIVEAIRE	A3-D.500	ROOF MAKEUP FAN	1957	1,3,4,6,8,9

NOTES:

1. THE UTILITY CABINET SHALL BE FACTORY EQUIPPED WITH A PREWIRE PACKAGE TO INTERLOCK THE EXHAUST FANS WITH THE MAKEUP AIR UNIT.
2. THE FAN SHALL BE FACTORY EQUIPPED WITH AN INDEPENDENT WEATHER PROOF DISCONNECT SWITCH IN SIGHT OF THE EQUIPMENT.
3. WEATHER PROOF DISCONNECT SWITCH AND INTERNAL WIRING SHALL BE FACTORY INSTALLED.
4. THE FAN SHALL BE FACTORY EQUIPPED WITH A GRAVITY BACKDRAFT DAMPER.
5. THE FAN SHALL BE FACTORY EQUIPPED WITH CURB MOUNTED HINGE KITS.
6. FURNISHED WITH HOOD PACKAGE, INSTALLED BY THE MECHANICAL CONTRACTOR.
7. FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR.
8. THE MAKEUP AIR UNIT SHALL BE FACTORY EQUIPPED WITH (2) CIRCUITS OF DX COOLING FOR DUAL STAGE OPERATION, RATED FOR 112.4 MBH TOTAL CAPACITY/ 73.0 MBH SENSIBLE CAPACITY, AND A COOLING INTAKE THERMOSTAT. THE MECHANICAL CONTRACTOR SHALL FIELD ADJUST TO 75°F.
9. ALL EQUIPMENT SHALL BE INSTALLED AND STARTED-UP PER THE MANUFACTURER'S "INSTALLATION, OPERATION, AND MAINTENANCE MANUALS". THE MECHANICAL CONTRACTOR SHALL COMPLETE ALL FACTORY "START-UP AND MAINTENANCE DOCUMENTATION" INCLUDED WITH THE EQUIPMENT PACKAGE, AND PROVIDE A COPY TO THE BARTACO CONSTRUCTION MANAGER.
10. THE MAKEUP AIR UNIT IS FACTORY EQUIPPED WITH DIRECT FIRED GAS COMBUSTION HEAT EXCHANGER, RATED FOR 313 MBH INPUT / 288 MBH OUTPUT.

HVAC SEQUENCE OF OPERATION

MARK	SERVICE	FUNCTION	START TIME	COOLING SETPOINT(°F)	HEATING SETPOINT(°F)	NOTES
AHU-1	DINING	OCCUPIED	9:30 AM	72	72	1 THRU 3
		UNOCCUPIED	12:30 AM	85	55	
AHU-2	DINING	OCCUPIED	9:35 AM	72	72	1 THRU 3
		UNOCCUPIED	12:30 AM	85	55	
AHU-3	KITCHEN	OCCUPIED	9:40 AM	72	72	1 THRU 3
		UNOCCUPIED	12:30 AM	85	55	
AHU-4	KITCHEN	OCCUPIED	8:00 AM	72	72	1 THRU 3
		UNOCCUPIED	1:00 AM	85	55	

NOTES:

1. UNIT FAN SHALL RUN CONTINUOUSLY DURING OCCUPIED HOURS, AND CYCLE ON DEMAND DURING UNOCCUPIED HOURS.
2. UPON A CALL FOR COOLING:
   - COMPRESSORS TO CYCLE TO MAINTAIN THE SPACE SETTING, WITH THE GAS HEATER LOCKED OUT.
   - THERE SHALL BE A 2°F DEAD BAND (ADJUSTABLE) BETWEEN THE 1ST AND 2ND STAGE OF COOLING.
   - THERE SHALL BE A 5 MINUTE (ADJUSTABLE) TIME DELAY BETWEEN THE 1ST AND 2ND STAGE OF COOLING.
3. UPON A CALL FOR HEATING:
   - GAS FURNACE TO CYCLE TO MAINTAIN THE SPACE SETTING, WITH THE COMPRESSORS LOCKED OUT.
   - THERE SHALL BE A 2°F DEAD BAND (ADJUSTABLE) BETWEEN THE 1ST AND 2ND STAGE OF HEATING.
   - THERE SHALL BE A 5 MINUTE (ADJUSTABLE) TIME DELAY BETWEEN THE 1ST AND 2ND STAGE OF HEATING.

FLY FAN SCHEDULE

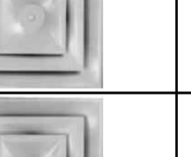
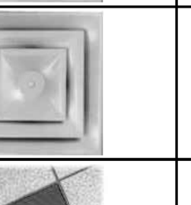
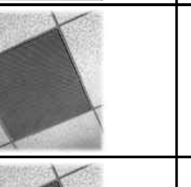
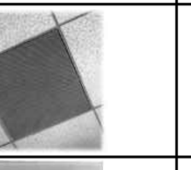
MARK	SERVICE	LENGTH	CFM	VOLTS/ PH	AMPS/HP	MANUFACTURER	MODEL	TYPE	WEIGHT	NOTES
~~FF-1~~	~~SERVICE DOOR~~	~~36"~~	~~1200~~	~~115/1~~	~~2.4 / 1/6~~	~~MARS~~	~~LPV236-1U-OB~~	~~WALL MNTD, DOWNBLAST~~	~~32~~	~~1 THRU 3~~
FF-2,3,4,5	DINING GARAGE DOOR	84"	2080	115/1	6.8 / 1/5	BERNER	PE06-C-2084A	WALL MNTD, DOWNBLAST	76	1 THRU 3

10

NOTES:

1. INSTALL COMPLETE WITH MANUFACTURER AVAILABLE DOOR LIMIT MICRO SWITCH.
2. UNIT SHALL HAVE A LOUVERED FACE.
3. FAN SHALL BE FURNISHED AND INSTALLED BY THE GENERAL CONTRACTOR.

AIR DEVICE SCHEDULE

MARK	PICTURE	FACE SIZE	TYPE	MOUNTING TYPE	MAXIMUM N.C.	DIRECTION	MANUFACTURER	MODEL	NOTES
CD1		24x24	SUPPLY	LAY-IN	30	4-WAY	TITUS	OMNI	2,3,4,6,7
DL		18x6	SUPPLY	DUCT MOUNTED	30	1-WAY	TITUS	DL	1,2,7
GD1		24x24	SUPPLY	SURFACE (GYP. CLG)	30	4-WAY	TITUS	TMSA-AA	2,3,4,6,7
GD2		12x12	SUPPLY	SURFACE (GYP. CLG)	30	4-WAY	TITUS	TMSA-AA	2,3,4,6,7
KD		24x24	SUPPLY	LAY-IN	30	1-WAY	TITUS	PAS-AA	1,3,7
KR		24x24	RETURN	LAY-IN	30	1-WAY	TITUS	PAR-AA	1,3,7
OD		24x24	SUPPLY	LAY-IN	30	4-WAY	TITUS	TMSA-AA	1,3,4,7
SR1		24x16	RETURN	SURFACE (SIDEWALL)	30	1-WAY	TITUS	350RS	1,3,7
RD		22"ø	SUPPLY	12"ø EXPOSED DUCT	30	RADIAL	TITUS	TMR	2,3,7

NOTES:

1. AIR DEVICES MOUNTED ON A WHITE SURFACE IN BACK OF HOUSE SHALL BE INSTALLED WITH FACTORY APPLIED OFF WHITE FINISH.
2. AIR DEVICES IN THE FRONT OF HOUSE SHALL BE INSTALLED WITH FACTORY MIL FINISH. THE PAINTING CONTRACTOR SHALL APPLY PAINT GRIP PRIMER.
3. PROVIDE NECESSARY MOUNTING HARDWARE AND ACCESSORIES AS REQUIRED FOR INTENDED INSTALLATION.
4. AIR DEVICE SHALL BE INSTALLED WITH MANUFACTURER AVAILABLE MOLDED INSULATION BACKING. FIELD FABRICATED INSULATION BACKING IS NOT ALLOWED (UNLESS FIRST APPROVED BY THE OWNER'S CONSTRUCTION MANAGER).
5. AIR DEVICE NEAR THE EXHAUST HOOD CANOPY SHALL BE INSTALLED COMPLETE WITHOUT SUPPLY AIR FLOW PATTERN CONTROLLERS, TO PREVENT INTERFERENCE WITH EXHAUST CAPTURE AND CONTAINMENT.
6. AIR DEVICE SHALL BE INSTALLED WITH ACCESSIBLE OPPOSED BLADE DAMPER FOR MANUAL VOLUME ADJUSTMENT.
7. ACCEPTABLE MANUFACTURER FOR INSTALLED AIR DEVICE IS AS LISTED ONLY.

O/A VENTILATION SCHEDULE

AREA SERVED	VENTILATION (OCCUPANCY)			VENTILATION (AREA)		
	# OF PEOPLE	CFM/PERSON	CFM	SQUARE FEET	CFM/SF	CFM
DINING	127	7.5	953	2109	0.18	380
KITCHEN	24	–	–	2002	–	–
RESTROOMS	–	–	–	494	–	–
SUBTOTALS			953			380
		TOTAL O/A REQUIRED	1333 CFM			

NOTES:

CALCULATIONS ARE BASED ON 2018 IMC, TABLE 402.1
1. OUTDOOR AIR DEMAND IS: – 1333 CFM
   OUTDOOR AIR PROVIDED IS: + 1440 CFM

   OUTDOOR AIR DIFFERENCE IS: + 107 CFM

SPLIT SYSTEM ELEC. COOLING/HEATING SCHEDULE

AIR HANDLING UNIT				
UNIT TAG	AHU-1	AHU-2	AHU-3	AHU-4
AREA SERVED	DINING	DINING	KITCHEN/BOH	KITCHEN/BOH
MANUFACTURER	CARRIER	CARRIER	CARRIER	CARRIER
MODEL NO.	40RUA	40RUA	40RUA	40RUA
INSTALLED (LBS)	425	425	425	404
FAN SECTION				
MOTOR HP	2.40	2.40	2.40	2.40
RATED CFM	3600	3600	3600	2700
DRIVE	STATIC	STATIC	STATIC	STATIC
E.S.P. (IWG)	0.80	0.80	0.80	0.80
MIN. OUTDOOR AIR (CFM)	720	720	720	540
ELECTRIC HEATING				
AMBIENT DB (°F)	18	18	18	18
M.A.T. DB (°F)	61.2	61.2	61.2	61.2
ELEC HEAT (KW@208V)	25.0	25.0	25.0	25.0
TEMPERATURE DIFF. (°F)	16.5	16.5	16.5	22.0
LEAVING AIR TEMP. (°F)	76.5	76.5	76.5	82.0
TOTAL UNIT ELECTRIC DATA				
VOLTS/PH/HZ	208/3/60	208/3/60	208/3/60	208/3/60
MCA (AMPS)	74.0	74.0	74.0	74.0
MOCP (AMPS)	80.0	80.0	80.0	80.0
MIN. COOLING PERFORMANCE				
NUMBER OF CIRCUITS	2	2	2	1
ENTERING DB/WB (°F)	80/67	80/67	80/67	80/67
AMBIENT DB (°F)	95	95	95	95
TOTAL CAP. (MBH)	123.2	123.2	123.2	94.0
SENSIBLE CAP. (MBH)	92.8	92.8	92.8	69.6
AIR COOLED CONDENSER UNIT				
UNIT TAG	CU-1	CU-2	CU-3	CU-4
MANUFACTURER	CARRIER	CARRIER	CARRIER	CARRIER
MODEL NO.	38AUD	38AUD	38AUD	38AUZ
NOMINAL CAPACITY (TONS)	10.0	10.0	10.0	7.5
NUMBER OF CIRCUITS	2	2	2	1
INSTALLED (LBS)	516	516	516	391
EER/IEER	10.3/13.0	10.3/13.0	10.3/13.0	11.2/14.0
ELECTRIC DATA				
VOLTS/PH/HZ	208/3/60	208/3/60	208/3/60	208/3/60
MIN. CKT AMPS	39.0	39.0	39.0	37.0
MOCP	50.0	50.0	50.0	60.0

NOTES:

1. CONDENSING UNIT SHALL BE FACTORY EQUIPPED WITH THE FOLLOWING OPTIONS/ ACCESSORIES: DX COIL, CONDENSER COIL HAIL GUARD, THERMAL EXPANSION VALVE, DRAIN PAN, SIGHT GLASS, LIQUID LINE FILTER, LOW AMBIENT CONTROL KIT, AND ANTI-SHORT CYCLE TIMER.
2. PROVIDE FIELD FABRICATED 20 GA. GALVANIZED STEEL AUXILIARY DRAIN PAN WITH WATERTIGHT SOLDERED CORNERS. PAN SHALL BE 2" DEEP AND EXTEND 2" BEYOND THE AIR HANDLING UNIT IN EACH DIRECTION. 1
3. PROVIDE DUCT MOUNTED SUPPLY AIR SMOKE DETECTOR, CAPABLE OF SHUTTING DOWN THE AIR HANDLING UNIT UPON ACTIVATION. COORDINATE POWER AND DISCONNECT REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR.
4. COORDINATE REFRIGERANT SUCTION AND LIQUID LINE SIZING WITH MANUFACTURER REQUIREMENTS, AGAINST THE MAXIMUM DEVELOPED HORIZONTAL AND VERTICAL LINE LENGTHS REQUIRED WITH SITE CONDITIONS.
5. COOLING LOADS LISTED ARE AT A.R.I. STANDARD.
6. PROVIDE MANUFACTURER SUITABLE 24/7 AUTO CHANGEOVER DIGITAL THERMOSTAT WITH NIGHT SETBACK PROGRAMMING, AND CLEAR ACRYLIC LOCKABLE COVER. COORDINATE INSTALLED LOCATION WITH DECOR.
7. FOR AIR HANDLERS INCLUDE TRANE CONDENSATE DRIP PANEL KITS, FIELD INSTALLED BY MECHANICAL CONTRACTOR.
8. CONTACT MR. BOB VAN GUILDER (TRANE) AT (214) 957-3692 FOR PRICING AND VERIFY FINAL SELECTIONS FOR EQUIPMENT SELECTION INFORMATION AND ORDERING.

TEST AND BALANCE NOTES

1. THE GENERAL CONTRACTOR SHALL SUBCONTRACT TO AN INDEPENDENT AIR TEST AND BALANCE CONTRACTOR FOR THE TESTING, ADJUSTING AND BALANCING OF ALL ENVIRONMENTAL SYSTEMS SHOWN OR SPECIFIED ON THE CONTRACT DOCUMENTS. THIS SHALL INCLUDE EQUIPMENT OPERATION IN COOLING, HEATING, AND DEHUMIDIFCATION OPERATIONAL MODES. THE WORK SHALL BE PERFORMED BY A FIRM CERTIFIED BY EITHER AABC OR NEBB, AND FOUR (4) COPIES OF THE FINAL REPORT, SUBMITTED ON CERTIFYING AGENCY FORMS, SHALL BE SUBMITTED TO THE BARTACO CONSTRUCTION MANAGER FOR APPROVAL. THE REPORT SHALL BEAR THE CERTIFICATION SEAL OF THE TAB SUPERVISOR IN CHARGE. REPORTS SHALL CONTAIN ALL AIR SIDE BALANCING DATA, INSTRUMENTS USED AND THEIR LATEST CALIBRATION DATES, PERSON(S) PERFORMING THE WORK AND A WRITTEN GUARANTEE THAT ALL TAB WORK WAS PERFORMED IN ACCORDANCE WITH THE CERTIFYING AGENCY STANDARDS AND PROCEDURES.
2. THE TEST AND BALANCE REPORT SHALL INCLUDE OPERATIONAL DATA FOR EVERY COMPONENT OF THE COMPLETE MECHANICAL SYSTEM INCLUDING HVAC EQUIPMENT, HVAC AIR DEVICES, KITCHEN FANS, RESTROOM FANS, ETC. THIS DATA SHALL INCLUDE THE BALANCED OPERATING DATA FOR EQUIPMENT AS COMPARED TO THE DESIGN AIR BALANCE SCHEDULE ON THIS SHEET.
3. FOR CLARIFICATION, THE ENGINEER OF RECORD WILL NOT BE ABLE TO REVIEW THE INSTALLED MECHANICAL SYSTEMS FOR POTENTIAL OPERATIONAL ISSUES OR INSTALLATION DEFICIENCIES WITHOUT THE FULL AND COMPLETE TEST AND BALANCE REPORT.

AIR BALANCE SCHEDULE

MARK	DINING (CFM)			KITCHEN (CFM)		
	S/A	O/A	E/A	S/A	O/A	E/A
AHU-1	3600	720	–	–	–	–
AHU-2	3600	720	–	–	–	–
AHU-3	–	–	–	3600	720	–
AHU-4	–	–	–	2700	540	–
KEF-1	–	–	–	–	–	3583
KEF-2	–	–	–	–	–	1800
KEF-3	–	–	–	–	–	1875
DEF-1	–	–	–	–	–	600
TEF-1	–	–	150	–	–	–
TEF-2	–	–	150	–	–	–
MAU-1	–	–	–	–	5806	–
TOTAL	7200	1440	500	6300	7066	7858

DINING PRESSURIZATION (O/A) – (E/A)= 1140 CFM

KITCHEN PRESSURIZATION (O/A) – (E/A)= –792 CFM

NET BUILDING PRESSURIZATION (DINING + KITCHEN)= +348 CFM

ELECTRIC HEATER SCHEDULE

MARK	TYPE	AREA SERVED	HEATING CAPACITY	MAXIMUM CFM	ELECTRICAL VOLT / PH	MANUFACTURER	MODEL	NOTES
PH-1,2,3,4	UNIT/CABINET	PATIO	6.0 kW	--	208/ 1	BROMIC	BH0420035	1,6,7,8

10

NOTES:

1. COORDINATE POWER AND DISCONNECT REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR.
2. INSTALL COMPLETE WITH MANUFACTURER AVAILABLE SUSPENSION MOUNTING BRACKET.
3. INCLUDE MANUFACTURER AVAILABLE INTEGRAL THERMOSTAT TO PREVENT FREEZING.
4. INSTALL PER MANUFACTURER'S RECOMMENDATIONS FURNISHED BY OWNER, INSTALLED BY CONTRACTOR. STAINLESS STEEL CONSTRUCTION. POST MOUNT/WALL MOUNT
5. MANUAL IGNITION.
6. PROVIDE WITH OPTIONAL MOUNTING KIT.
7. INSTALL PER MANUFACTURER'S RECOMMENDATIONS FURNISHED AND INSTALLED BY CONTRACTOR.
8. STAINLESS STEEL CONSTRUCTION.

MECHANICAL LEGEND

SYMBOL	ABBR.	DESCRIPTION
	CD	CEILING DIFFUSER – SUPPLY
	CD	CEILING DIFFUSER BELOW DUCT – SUPPLY
	SAD	RISER – SUPPLY AIR DUCT
	SAD	DROP – SUPPLY AIR DUCT
	CR	CEILING REGISTER – RETURN
	CR	CEILING REGISTER BELOW DUCT – RETURN
	RAD	RISER – RETURN AIR DUCT
	RAD	DROP – RETURN AIR DUCT
	CE	CEILING REGISTER – EXHAUST
	CE	CEILING REGISTER BELOW DUCT – EXHAUST
	EAD	RISER – EXHAUST AIR DUCT
	(L)	LINED DUCTWORK
	VD	MANUAL VOLUME DAMPER
M	MD	MOTORIZED VOLUME DAMPER
	FC	FLEXIBLE CONNECTION
		NEW DUCT
TAG CFM		AIR DEVICE DESIGNATION
T	TSTAT	PROGRAMMABLE THERMOSTAT
S	SENS	REMOTE TEMPERATURE SENSOR
S	SD	SMOKE DETECTOR
	POC	POINT OF CONNECTION
	CFM	CUBIC FEET PER MINUTE
	S/A	SUPPLY AIR
	O/A	OUTSIDE AIR
	E/A	EXHAUST AIR
	S.P.	STATIC PRESSURE
	FOH	FRONT OF HOUSE
	BOH	BACK OF HOUSE

MECHANICAL GENERAL NOTES

1. NOTE: FOR THE PURPOSE OF CLEARNESS AND LEGIBILITY, THE DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND ALTHOUGH SIZES AND LOCATIONS OF EQUIPMENT ARE DRAWN TO SCALE WHEREVER POSSIBLE, THE CONTRACTOR SHALL MAKE USE OF ALL DATA IN ALL OF THE CONTRACT DOCUMENTS AND VERIFY THIS INFORMATION PRIOR TO ORDERING, FABRICATING OR INSTALLING ANY MATERIALS.
2. THE MECHANICAL CONTRACTOR SHALL PROVIDE COMPLETE INFORMATION AND COOPERATE WITH THE OTHER CONTRACTORS AND TRADES AS REQUIRED FOR THE COMPLETION AND COORDINATION OF THE COMPLETE PROJECT.
3. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ADMINISTERING ALL WARRANTIES ON EQUIPMENT WHICH THEY FURNISH AND INSTALL.
4. PROVIDE WRITTEN WARRANTY TO REPLACE ALL FAULTY MATERIALS AND/OR LABOR, AT NO COST TO TENANT, FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE.
5. ALL OUTDOOR AIR INTAKE BY MECHANICAL EQUIPMENT SHALL HAVE A MINIMUM 10'-0" HORIZONTAL CLEARANCE FROM THE DISCHARGE OF ANY EXHAUST FAN, RTU GAS EXHAUST OR PLUMBING VENT.
6. PROVIDE VIBRATION ISOLATION DEVICES AND FLEXIBLE DUCT/ PIPING CONNECTIONS TO ALL MOVING MACHINERY NOT INTERNALLY ISOLATED.
7. ALL DUCT DIMENSIONS SHOWN ON DRAWINGS ARE CLEAR INSIDE DIMENSIONS.
8. THE MECHANICAL CONTRACTOR SHALL COORDINATE ALL DUCT AND DIFFUSER LOCATIONS WITH SPRINKLER PIPING, SPRINKLER HEADS AND LIGHT FIXTURES AS REQUIRED FOR A COMPLETE INSTALLATION.
9. THE MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR AND OTHER TRADES ALL REQUIRED OPENINGS AND PENETRATIONS. ALL REQUIRED OPENINGS IN FOUNDATIONS, FLOORS, WALLS AND ROOF SHALL BE CONSTRUCTED INTO THE STRUCTURE WITH THE USE OF SLEEVES, CURBS, ETC. CUTTING AND PATCHING SHALL BE HELD TO A MINIMUM.
10. ALL ITEMS PROJECTING THROUGH THE ROOF SHALL BE FLASHED THROUGH CURBS OR PIPE SEALS A MINIMUM OF 12" ABOVE THE ROOF. THE PIPE CURBS AND SEALS SHALL BE INSTALLED BY THE ROOFING CONTRACTOR. ENSURE THAT AMPLE BOOT OPENINGS ARE PROVIDED TO ACCOMMODATE ANY ELECTRICAL CONDUIT PENETRATIONS REQUIRED FOR POWER.
11. COORDINATE THE INSTALLATION AND FINISH OF ALL SUPPLY AND RETURN AIR DEVICES. AIR DEVICES LOCATED IN GUEST AREAS (INCLUDING DINING AND BAR) SHALL BE PAINTED PER THE ARCHITECTURAL DRAWINGS FINISH SCHEDULE. ALL INTERIOR FACES OF DUCTWORK BEHIND RETURN AIR GRILLES SHALL BE PAINTED FLAT BACK FOR LINE OF SIGHT.
12. ALL SUPPLY, RETURN, AND RESTROOM EXHAUST DUCTWORK SHALL BE INSTALLED AS HIGH AS POSSIBLE UNDER THE ROOF STRUCTURE.
13. ALL RECTANGULAR, ROUND, AND FLEXIBLE DUCTWORK SHALL BE SIZED AS SHOWN ON THESE DRAWINGS; AND SHALL BE FABRICATED AND INSTALLED ACCORDING TO THE MOST RECENTLY PUBLISHED SMACNA STANDARDS. ALL JOINTS, SEAMS, AND CONNECTIONS MUST BE SECURELY FASTENED & SEALED BY APPROVED METHODS.
14. ANY FLEXIBLE DUCTS SHALL BE INSTALLED IN CONCEALED SPACES ONLY. THE MAXIMUM ALLOWABLE LENGTH OF FLEXIBLE DUCT SHALL BE 5'-0". ALL FLEXIBLE DUCTS SHALL BE CONNECTED TO BRANCH RUNS AND FITTINGS WITH A PANDUIT-TYPE BAND, AND SHALL NOT BE ATTACHED DIRECTLY TO THE AIR DEVICE COLLAR.
15. ALL PENETRATIONS IN FIRE RATED WALL ASSEMBLIES SHALL BE SEALED WITH UL LISTED FIRE STOPPING MATERIAL.
16. MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL 4" HIGH BLACK OVER WHITE LAMINATE NAMEPLATE WITH 2" LETTERS VISIBLE ADJACENT TO DISCONNECT SWITCH FOR ROOFTOP UNITS AND ROOF MOUNTED FANS WITH THE AREAS THE UNITS SERVE.
17. HVAC CONTROLS WORK SHALL BE INSTALLED AS FOLLOWS:
    - ALL LINE VOLTAGE WIRING, CONDUIT, DISCONNECT SWITCHES AND FINAL CONNECTION TO EQUIPMENT SHALL BE BY THE ELECTRICAL CONTRACTOR.
    - ALL LOW VOLTAGE WIRING AND CONDUIT SHALL BE BY THE MECHANICAL CONTRACTOR.
    - REMOTE ZONE COMBINATION TEMPERATURE/HUMIDITY SENSORS SHALL BE WALL MOUNTED AT 48" AFF, AND CLEARLY LABELED.
    - PROGRAMMABLE THERMOSTATS IN THE MANAGER'S OFFICE SHALL BE WALL MOUNTED AT 48" AFF AND VERTICALLY STACKED AND CLEARLY LABELED.
    - TEMPERATURE CONTROL OF THE ROOFTOP UNIT OPERATION SHALL BE MADE BY WIRING FROM THE COMBINATION SENSOR BACK TO THE RESPECTIVE PROGRAMMABLE THERMOSTAT IN THE MANAGER'S OFFICE AND THEN TO THE APPROPRIATE ROOFTOP UNIT CONTROL BOARD. WIRING SHALL BE MADE WITH A SHIELDED 4-20mA SIGNAL GROUNDED TWISTED PAIR INSTALLED WITH CONTINUOUS NON-SPLICED LENGTH BETWEEN EACH DEVICE CONNECTION.
    - HUMIDITY CONTROL OF THE ROOFTOP UNIT OPERATION SHALL BE MADE BY WIRING FROM THE COMBINATION SENSOR DIRECT BACK TO THE APPROPRIATE ROOFTOP UNIT CONTROL BOARD. WIRING SHALL BE MADE WITH A SHIELDED 4-20mA SIGNAL GROUNDED TWISTED PAIR INSTALLED WITH CONTINUOUS NON-SPLICED LENGTH BETWEEN EACH DEVICE CONNECTION.
    - ROOFTOP UNITS SHALL BE SET TO RUN IN "FAN CONTINUOUS" MODE DURING OCCUPIED HOURS. DURING NIGHT SET-BACK HOURS, THE ROOFTOP UNITS SHALL RUN IN "FAN AUTO" MODE.
18. ALL HVAC SUPPLY AND RETURN DUCTWORK SHALL BE INSTALLED AS FOLLOWS:
    - CONCEALED HVAC AND MAKEUP AIR DUCTWORK WITHIN THE BUILDING SHALL BE EXTERNALLY WRAPPED AND SECURED WITH MINIMUM R-8.0, 2" INSULATION WITH VAPOR BARRIER PER THE 2018 INTERNATIONAL MECHANICAL CODE, WITH LOCAL AMENDMENTS. INSULATION SHALL HAVE MAXIMUM RATINGS OF 25 FLAME SPREAD, 50 SMOKE DEVELOPED.
    - EXPOSED DUCTWORK WITHIN THE BUILDING SHALL BE INTERNALLY LINED AND PINNED WITH MINIMUM R-6.0, 1-1/2" INSULATION WITH VAPOR BARRIER PER THE 2018 INTERNATIONAL MECHANICAL CODE WITH LOCAL AMENDMENTS. INSULATION SHALL HAVE MAXIMUM RATINGS OF 25 FLAME SPREAD, 50 SMOKE DEVELOPED. EXPOSED DUCTWORK SHALL BE INSTALLED COMPLETE WITH FACTORY APPLIED PAINT GRIP FINISH, SUITABLE FOR FINAL FIELD APPLIED PAINT BY THE GENERAL CONTRACTOR.
    - DUCT CONSTRUCTION SHALL BE OF GALVANIZED STEEL. GAUGES, SWAY BRACING (AS REQUIRED) AND SUSPENSION SHALL CONFORM TO SMACNA STANDARDS. SEAL ALL SEAMS AND JOINTS AIR AND WATERTIGHT. FLEXIBLE ALUMINUM DUCTWORK OR FIBERGLASS DUCTBOARD IS NOT ALLOWED (UNO).
    - EXTERIOR DUCTWORK ON THE BUILDING SHALL BE EXTERNALLY WRAPPED AND SECURED WITH MINIMUM R-8.0, 2" INSULATION WITH VAPOR BARRIER PER THE 2018 INTERNATIONAL MECHANICAL CODE, WITH LOCAL AMENDMENTS. INSULATION SHALL HAVE MAXIMUM RATINGS OF 25 FLAME SPREAD, 50 SMOKE DEVELOPED. INSTALL COMPLETE WITH A FINAL EXTERIOR LAYER OF CORROSION RESISTANT 24 GA. GALVANIZED SHEET METAL WITH A 1/12 TOP PITCH TO PREVENT STANDING WATER.
19. ALL PENETRATIONS IN FIRE RATED WALL ASSEMBLIES SHALL BE SEALED WITH UL LISTED FIRE STOPPING MATERIAL.
20. ALL KITCHEN EXHAUST DUCTWORK SHALL BE INSTALLED AS FOLLOWS:
    - TYPE II DISH MACHINE CONDENSATE EXHAUST DUCTWORK SHALL BE ETL LISTED, UL COMPLIANT CORROSION RESISTANT FACTORY BUILT DUCT AND FITTINGS.
    - TYPE I COOKLINE GREASE EXHAUST DUCTWORK SHALL BE ETL LISTED, UL COMPLIANT CORROSION RESISTANT FACTORY BUILT DUCT AND FITTINGS.
    - EACH GREASE EXHAUST DUCT RISER BETWEEN THE HOOD COLLAR AND EXHAUST FAN SHALL BE OF THE SAME SIZE AS THE RESPECTIVE HOOD COLLAR SIZE, UNO. REFER TO THE HOOD SHEETS FOR THE HOOD COLLAR SIZES AS SPECIFIED BY THE HOOD MANUFACTURER.
    - ALL KITCHEN EXHAUST DUCTWORK AND FITTINGS SHALL BE FURNISHED WITH THE EXHAUST HOOD PACKAGE, AND INSTALLED COMPLETE BY THE MECHANICAL CONTRACTOR.
21. ALL GREASE EXHAUST FAN ROOF CURBS SHALL BE VENTED PER NFPA 96. PROVIDE REQUIRED ACCESS FOR SERVICING AND CLEANING, AND VERIFY THE HINGED CURB OPENING OPERATES PROPERLY.
22. ROOF CURBS FOR EXHAUST FANS AND THE MAKEUP AIR UNIT SHALL BE FACTORY FABRICATED AND FURNISHED WITH THE HOOD PACKAGE. VERIFY REQUIREMENTS FOR THE ROOF CURBS WITH THE EQUIPMENT SUPPLIER. THE GENERAL CONTRACTOR SHALL FLASH ROOF CURBS AND SHIM DEAD LEVEL. COORDINATE EXACT SIZE AND LOCATION OF ROOF OPENINGS WITH THE STRUCTURAL FRAMING. CUTTING OF STRUCTURAL MEMBERS IS NOT PERMITTED.
23. ROOF CURBS FOR ROOFTOP UNITS SHALL BE FACTORY FABRICATED OF FULL WELDED STEEL CONSTRUCTION WITH WOOD NAILER, AND FURNISHED WITH THE HVAC EQUIPMENT PACKAGE. VERIFY REQUIREMENTS FOR THE ROOF CURBS WITH THE EQUIPMENT SUPPLIER. THE GENERAL CONTRACTOR SHALL FIELD ASSEMBLE THE ROOF CURBS, FLASH AND SHIM DEAD LEVEL. COORDINATE EXACT SIZE AND LOCATION OF ROOF OPENINGS WITH THE STRUCTURAL FRAMING. CUTTING OF STRUCTURAL MEMBERS IS NOT PERMITTED.
24. THE KITCHEN EXHAUST HOODS SHALL BE INSTALLED AT 6'-8" AFF (UNO). COORDINATE THE INSTALLATION AND PLACEMENT OF THE EXHAUST HOODS WITH THE ARCHITECTURAL REFLECTED CEILING PLAN.
25. THE KITCHEN HOOD PACKAGE WILL BE FURNISHED WITH UTILITY END CABINETS HOUSING THE FIRE SUPPRESSION TANKS, ELECTRICAL PREWIRE PACKAGE, HOOD EXHAUST FAN SWITCHES, AND LIGHT SWITCHES.
26. REFER TO MANUFACTURER SHEETS FOR THE HOOD CONTROL WIRING DIAGRAM FOR OPERATION OF THE KITCHEN HOOD EQUIPMENT.
27. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING THE AIR FILTERS AT THE ROOFTOP UNITS WITH 2" THICK PLEATED MERV 8 THROW AWAY TYPE AIR FILTERS AT THE COMPLETION OF CONSTRUCTION AND PRIOR TO AIR BALANCE AND STORE TURNOVER.
28. PER THE 2018 INTERNATIONAL MECHANICAL CODE, WITH LOCAL AMENDMENTS WHEN REQUIRED, EACH SINGLE SYSTEM PROVIDING HEATING OR COOLING AIR IN EXCESS OF 2000 CUBIC FEET PER MINUTE SHALL BE EQUIPPED WITH AN AUTOMATIC SHUTOFF. AUTOMATIC SHUTOFF SHALL BE ACCOMPLISHED BY INTERRUPTING THE POWER SOURCE OF THE AIR MOVING EQUIPMENT DEVICES WHICH WILL DETECT PRODUCTS OF COMBUSTION OTHER THAN HEAT, AND WHICH COMPLY WITH THE APPLICABLE BUILDING CODE, SHALL BE LABELED BY AN APPROVED AGENCY FOR AIR DUCT INSTALLATION AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. SUCH DEVICES SHALL BE COMPATIBLE WITH THE OPERATING VELOCITIES, PRESSURES, TEMPERATURES AND HUMIDITIES OF THE SYSTEM WHERE FIRE DETECTION OR ALARM SYSTEMS ARE PROVIDED FOR THE BUILDING, SMOKE DETECTORS SHALL BE SUPERVISED BY SUCH SYSTEMS.
29. MECHANICAL CONTRACTOR SHALL BE ON SITE AND PRESENT AT THE DATE OF STORE TURNOVER.

ENGINEER:

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GEORGIA REGISTERED No. 033313 PROFESSIONAL ENGINEER BRIAN EDWARD CHANDLER

5.10.22

bartaco - JUBILEE COURTYARD ATLANTA, GEORGIA

2950 New Paces Ferry Rd, Suite 200
Atlanta, Georgia 30339

CLIENT: bartaco, LLC
Becky Holler

DATE	DESCRIPTION
10.25.21	ISSUE FOR PERMIT
3.28.22	ISSUE FOR CONSTRUCTION

△	DATE	DESCRIPTION
1	01.05.2022	CITY COMMENTS / CLARIFICATIONS
10	06.22.2022	DESIGN CLARIFICATIONS

SHEET TITLE:

MECHANICAL SCHEDULES

SHEET NUMBER:

M2.0

PROJECT NUMBER:

BAR21002

FAN SCHEDULE

MARK	SERVICE	CFM	E.S.P. "WG	RPM	MOTOR HP	VOLTS/PH	MANUFACTURER	MODEL	TYPE	WEIGHT	NOTES
KEF-1	HOOD #1	3583	1.875	968	5.00	208/3	CAPTIVEAIRE	DU240HFA	ROOF UPBLAST FAN	300	1,3,5,6,9
KEF-2	HOOD #2	1800	1.20	1064	1.00	208/3	CAPTIVE AIRE	DU180HFA	ROOF UPBLAST FAN	150	1,3,5,6,9
KEF-3	HOOD #3	1875	1.25	1089	1.50	208/3	CAPTIVEAIRE	DU180HFA	ROOF UPBLAST FAN	176	1,3,5,6,9
DEF-1	DISH MACHINE	600	0.50	1255	0.33	115/1	CAPTIVEAIRE	DU33HFA	ROOF UPBLAST FAN	69	3,4,6,9
TEF-1	RESTROOMS	150	0.20	765	0.09	115/1	CAPTIVE AIRE	CFA-D200-CA	CEILING CABINET FAN	13	2,4,7,9
TEF-2	RESTROOMS	150	0.20	765	0.09	115/1	CAPTIVE AIRE	CFA-D200-CA	CEILING CABINET FAN	13	2,4,7,9
MAU-1	COOKLINE HOODS	5806	0.55	1531	10.00	208/3	CAPTIVEAIRE	A3-D.500	ROOF MAKEUP FAN	1957	1,3,4,6,8,9

NOTES:
1. THE UTILITY CABINET SHALL BE FACTORY EQUIPPED WITH A PREWIRE PACKAGE TO INTERLOCK THE EXHAUST FANS WITH THE MAKEUP AIR UNIT.
2. THE FAN SHALL BE FACTORY EQUIPPED WITH AN INDEPENDENT WEATHER PROOF DISCONNECT SWITCH IN SIGHT OF THE EQUIPMENT.
3. WEATHER PROOF DISCONNECT SWITCH AND INTERNAL WIRING SHALL BE FACTORY INSTALLED.
4. THE FAN SHALL BE FACTORY EQUIPPED WITH A GRAVITY BACKDRAFT DAMPER.
5. THE FAN SHALL BE FACTORY EQUIPPED WITH CURB MOUNTED HINGE KITS.
6. FURNISHED WITH HOOD PACKAGE, INSTALLED BY THE MECHANICAL CONTRACTOR.
7. FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR.
8. THE MAKEUP AIR UNIT SHALL BE FACTORY EQUIPPED WITH (2) CIRCUITS OF DX COOLING FOR DUAL STAGE OPERATION, RATED FOR 112.4 MBH TOTAL CAPACITY/ 73.0 MBH SENSIBLE CAPACITY, AND A COOLING INTAKE THERMOSTAT. THE MECHANICAL CONTRACTOR SHALL FIELD ADJUST TO 75°F.
9. ALL EQUIPMENT SHALL BE INSTALLED AND STARTED-UP PER THE MANUFACTURER'S "INSTALLATION, OPERATION, AND MAINTENANCE MANUALS". THE MECHANICAL CONTRACTOR SHALL COMPLETE ALL FACTORY "START-UP AND MAINTENANCE DOCUMENTATION" INCLUDED WITH THE EQUIPMENT PACKAGE, AND PROVIDE A COPY TO THE BARTACO CONSTRUCTION MANAGER.
10. THE MAKEUP AIR UNIT IS FACTORY EQUIPPED WITH DIRECT FIRED GAS COMBUSTION HEAT EXCHANGER, RATED FOR 313 MBH INPUT / 288 MBH OUTPUT.

HVAC SEQUENCE OF OPERATION

MARK	SERVICE	FUNCTION	START TIME	COOLING SETPOINT(°F)	HEATING SETPOINT(°F)	NOTES
AHU-1	DINING	OCCUPIED	9:30 AM	72	72	1 THRU 3
		UNOCCUPIED	12:30 AM	85	55	
AHU-2	DINING	OCCUPIED	9:35 AM	72	72	1 THRU 3
		UNOCCUPIED	12:30 AM	85	55	
AHU-3	KITCHEN	OCCUPIED	9:40 AM	72	72	1 THRU 3
		UNOCCUPIED	12:30 AM	85	55	
AHU-4	KITCHEN	OCCUPIED	8:00 AM	72	72	1 THRU 3
		UNOCCUPIED	1:00 AM	85	55	

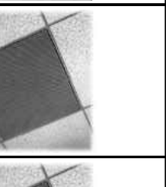
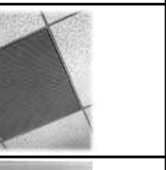
NOTES:
1. UNIT FAN SHALL RUN CONTINUOUSLY DURING OCCUPIED HOURS, AND CYCLE ON DEMAND DURING UNOCCUPIED HOURS.
2. UPON A CALL FOR COOLING:
   - COMPRESSORS TO CYCLE TO MAINTAIN THE SPACE SETTING, WITH THE GAS HEATER LOCKED OUT.
   - THERE SHALL BE A 2°F DEAD BAND (ADJUSTABLE) BETWEEN THE 1ST AND 2ND STAGE OF COOLING.
   - THERE SHALL BE A 5 MINUTE (ADJUSTABLE) TIME DELAY BETWEEN THE 1ST AND 2ND STAGE OF COOLING.
3. UPON A CALL FOR HEATING:
   - GAS FURNACE TO CYCLE TO MAINTAIN THE SPACE SETTING, WITH THE COMPRESSORS LOCKED OUT.
   - THERE SHALL BE A 2°F DEAD BAND (ADJUSTABLE) BETWEEN THE 1ST AND 2ND STAGE OF HEATING.
   - THERE SHALL BE A 5 MINUTE (ADJUSTABLE) TIME DELAY BETWEEN THE 1ST AND 2ND STAGE OF HEATING.

FLY FAN SCHEDULE

MARK	SERVICE	LENGTH	CFM	VOLTS/ PH	AMPS/HP	MANUFACTURER	MODEL	TYPE	WEIGHT	NOTES
FF-1	SERVICE DOOR	36"	1200	115/1	2.4 / 1/6	MARS	LPV236-1U-OB	WALL MNTD, DOWNBLAST	32	1 THRU 3

NOTES:
1. INSTALL COMPLETE WITH MANUFACTURER AVAILABLE DOOR LIMIT MICRO SWITCH.
2. UNIT SHALL HAVE A LOUVERED FACE.
3. FAN SHALL BE FURNISHED AND INSTALLED BY THE GENERAL CONTRACTOR.

AIR DEVICE SCHEDULE

MARK	PICTURE	FACE SIZE	TYPE	MOUNTING TYPE	MAXIMUM N.C.	DIRECTION	MANUFACTURER	MODEL	NOTES
CD1		24x24	SUPPLY	LAY-IN	30	4-WAY	TITUS	OMNI	2,3,4,6,7
DL		18x6	SUPPLY	DUCT MOUNTED	30	1-WAY	TITUS	DL	1,2,7
GD1		24x24	SUPPLY	SURFACE (GYP. CLG)	30	4-WAY	TITUS	TMSA-AA	2,3,4,6,7
GD2		12x12	SUPPLY	SURFACE (GYP. CLG)	30	4-WAY	TITUS	TMSA-AA	2,3,4,6,7
KD		24x24	SUPPLY	LAY-IN	30	1-WAY	TITUS	PAS-AA	1,3,7
KR		24x24	RETURN	LAY-IN	30	1-WAY	TITUS	PAR-AA	1,3,7
OD		24x24	SUPPLY	LAY-IN	30	4-WAY	TITUS	TMSA-AA	1,3,4,7
SR1		24x16	RETURN	SURFACE (SIDEWALL)	30	1-WAY	TITUS	350RS	1,3,7
RD		22"ø	SUPPLY	12"ø EXPOSED DUCT	30	RADIAL	TITUS	TMR	2,3,7

NOTES:
1. AIR DEVICES MOUNTED ON A WHITE SURFACE IN BACK OF HOUSE SHALL BE INSTALLED WITH FACTORY APPLIED OFF WHITE FINISH.
2. AIR DEVICES IN THE FRONT OF HOUSE SHALL BE INSTALLED WITH FACTORY MIL FINISH. THE PAINTING CONTRACTOR SHALL APPLY PAINT GRIP PRIMER.
3. PROVIDE NECESSARY MOUNTING HARDWARE AND ACCESSORIES AS REQUIRED FOR INTENDED INSTALLATION.
4. AIR DEVICE SHALL BE INSTALLED WITH MANUFACTURER AVAILABLE MOLDED INSULATION BACKING. FIELD FABRICATED INSULATION BACKING IS NOT ALLOWED (UNLESS FIRST APPROVED BY THE OWNER'S CONSTRUCTION MANAGER).
5. AIR DEVICE NEAR THE EXHAUST HOOD CANOPY SHALL BE INSTALLED COMPLETE WITHOUT SUPPLY AIR FLOW PATTERN CONTROLLERS, TO PREVENT INTERFERENCE WITH EXHAUST CAPTURE AND CONTAINMENT.
6. AIR DEVICE SHALL BE INSTALLED WITH ACCESSIBLE OPPOSED BLADE DAMPER FOR MANUAL VOLUME ADJUSTMENT.
7. ACCEPTABLE MANUFACTURER FOR INSTALLED AIR DEVICE IS AS LISTED ONLY.

O/A VENTILATION SCHEDULE

AREA SERVED	VENTILATION (OCCUPANCY)			VENTILATION (AREA)		
	# OF PEOPLE	CFM/PERSON	CFM	SQUARE FEET	CFM/SF	CFM
DINING	127	7.5	953	2109	0.18	380
KITCHEN	24	–	–	2002	–	–
RESTROOMS	–	–	–	494	–	–
SUBTOTALS			953			380
		TOTAL O/A REQUIRED	1333 CFM			

NOTES:
CALCULATIONS ARE BASED ON 2018 IMC, TABLE 402.1
1. OUTDOOR AIR DEMAND IS: – 1333 CFM
   OUTDOOR AIR PROVIDED IS: + 1440 CFM

   OUTDOOR AIR DIFFERENCE IS: + 107 CFM

SPLIT SYSTEM ELEC. COOLING/HEATING SCHEDULE

AIR HANDLING UNIT				
UNIT TAG	AHU-1	AHU-2	AHU-3	AHU-4
AREA SERVED	DINING	DINING	KITCHEN/BOH	KITCHEN/BOH
MANUFACTURER	CARRIER	CARRIER	CARRIER	CARRIER
MODEL NO.	40RUA	40RUA	40RUA	40RUA
INSTALLED (LBS)	425	425	425	404
FAN SECTION				
MOTOR HP	2.40	2.40	2.40	2.40
RATED CFM	3600	3600	3600	2700
DRIVE	STATIC	STATIC	STATIC	STATIC
E.S.P. (IWG)	0.80	0.80	0.80	0.80
MIN. OUTDOOR AIR (CFM)	720	720	720	540
ELECTRIC HEATING				
AMBIENT DB (°F)	18	18	18	18
M.A.T. DB (°F)	61.2	61.2	61.2	61.2
ELEC HEAT (KW@208V)	25.0	25.0	25.0	25.0
TEMPERATURE DIFF. (°F)	16.5	16.5	16.5	22.0
LEAVING AIR TEMP. (°F)	76.5	76.5	76.5	82.0
TOTAL UNIT ELECTRIC DATA				
VOLTS/PH/HZ	208/3/60	208/3/60	208/3/60	208/3/60
MCA (AMPS)	74.0	74.0	74.0	74.0
MOCP (AMPS)	80.0	80.0	80.0	80.0
MIN. COOLING PERFORMANCE				
NUMBER OF CIRCUITS	2	2	2	1
ENTERING DB/WB (°F)	80/67	80/67	80/67	80/67
AMBIENT DB (°F)	95	95	95	95
TOTAL CAP. (MBH)	123.2	123.2	123.2	94.0
SENSIBLE CAP. (MBH)	92.8	92.8	92.8	69.6
AIR COOLED CONDENSER UNIT				
UNIT TAG	CU-1	CU-2	CU-3	CU-4
MANUFACTURER	CARRIER	CARRIER	CARRIER	CARRIER
MODEL NO.	38AUD	38AUD	38AUD	38AUZ
NOMINAL CAPACITY (TONS)	10.0	10.0	10.0	7.5
NUMBER OF CIRCUITS	2	2	2	1
INSTALLED (LBS)	516	516	516	391
EER/IEER	10.3/13.0	10.3/13.0	10.3/13.0	11.2/14.0
ELECTRIC DATA				
VOLTS/PH/HZ	208/3/60	208/3/60	208/3/60	208/3/60
MIN. CKT AMPS	39.0	39.0	39.0	37.0
MOCP	50.0	50.0	50.0	60.0

NOTES:
1. CONDENSING UNIT SHALL BE FACTORY EQUIPPED WITH THE FOLLOWING OPTIONS/ ACCESSORIES: DX COIL, CONDENSER COIL HAIL GUARD, THERMAL EXPANSION VALVE, DRAIN PAN, SIGHT GLASS, LIQUID LINE FILTER, LOW AMBIENT CONTROL KIT, AND ANTI-SHORT CYCLE TIMER.
2. PROVIDE FIELD FABRICATED 20 GA. GALVANIZED STEEL AUXILIARY DRAIN PAN WITH WATERTIGHT SOLDERED CORNERS. PAN SHALL BE 2" DEEP AND EXTEND 2" BEYOND THE AIR HANDLING UNIT IN EACH DIRECTION. 1
3. PROVIDE DUCT MOUNTED SUPPLY AIR SMOKE DETECTOR, CAPABLE OF SHUTTING DOWN THE AIR HANDLING UNIT UPON ACTIVATION. COORDINATE POWER AND DISCONNECT REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR.
4. COORDINATE REFRIGERANT SUCTION AND LIQUID LINE SIZING WITH MANUFACTURER REQUIREMENTS, AGAINST THE MAXIMUM DEVELOPED HORIZONTAL AND VERTICAL LINE LENGTHS REQUIRED WITH SITE CONDITIONS.
5. COOLING LOADS LISTED ARE AT A.R.I. STANDARD.
6. PROVIDE MANUFACTURER SUITABLE 24/7 AUTO CHANGEOVER DIGITAL THERMOSTAT WITH NIGHT SETBACK PROGRAMMING, AND CLEAR ACRYLIC LOCKABLE COVER. COORDINATE INSTALLED LOCATION WITH DECOR.
7. FOR AIR HANDLERS INCLUDE TRANE CONDENSATE DRIP PANEL KITS, FIELD INSTALLED BY MECHANICAL CONTRACTOR.
8. CONTACT MR. BOB VAN GUILDER (TRANE) AT (214) 957-3692 FOR PRICING AND VERIFY FINAL SELECTIONS FOR EQUIPMENT SELECTION INFORMATION AND ORDERING.

TEST AND BALANCE NOTES

1. THE GENERAL CONTRACTOR SHALL SUBCONTRACT TO AN INDEPENDENT AIR TEST AND BALANCE CONTRACTOR FOR THE TESTING, ADJUSTING AND BALANCING OF ALL ENVIRONMENTAL SYSTEMS SHOWN OR SPECIFIED ON THE CONTRACT DOCUMENTS. THIS SHALL INCLUDE EQUIPMENT OPERATION IN COOLING, HEATING, AND DEHUMIDIFCATION OPERATIONAL MODES. THE WORK SHALL BE PERFORMED BY A FIRM CERTIFIED BY EITHER AABC OR NEBB, AND FOUR (4) COPIES OF THE FINAL REPORT, SUBMITTED ON CERTIFYING AGENCY FORMS, SHALL BE SUBMITTED TO THE BARTACO CONSTRUCTION MANAGER FOR APPROVAL. THE REPORT SHALL BEAR THE CERTIFICATION SEAL OF THE TAB SUPERVISOR IN CHARGE. REPORTS SHALL CONTAIN ALL AIR SIDE BALANCING DATA, INSTRUMENTS USED AND THEIR LATEST CALIBRATION DATES, PERSON(S) PERFORMING THE WORK AND A WRITTEN GUARANTEE THAT ALL TAB WORK WAS PERFORMED IN ACCORDANCE WITH THE CERTIFYING AGENCY STANDARDS AND PROCEDURES.
2. THE TEST AND BALANCE REPORT SHALL INCLUDE OPERATIONAL DATA FOR EVERY COMPONENT OF THE COMPLETE MECHANICAL SYSTEM INCLUDING HVAC EQUIPMENT, HVAC AIR DEVICES, KITCHEN FANS, RESTROOM FANS, ETC. THIS DATA SHALL INCLUDE THE BALANCED OPERATING DATA FOR EQUIPMENT AS COMPARED TO THE DESIGN AIR BALANCE SCHEDULE ON THIS SHEET.
3. FOR CLARIFICATION, THE ENGINEER OF RECORD WILL NOT BE ABLE TO REVIEW THE INSTALLED MECHANICAL SYSTEMS FOR POTENTIAL OPERATIONAL ISSUES OR INSTALLATION DEFICIENCIES WITHOUT THE FULL AND COMPLETE TEST AND BALANCE REPORT.

AIR BALANCE SCHEDULE

MARK	DINING (CFM)			KITCHEN (CFM)		
	S/A	O/A	E/A	S/A	O/A	E/A
AHU-1	3600	720	–	–	–	–
AHU-2	3600	720	–	–	–	–
AHU-3	–	–	–	3600	720	–
AHU-4	–	–	–	2700	540	–
KEF-1	–	–	–	–	–	3583
KEF-2	–	–	–	–	–	1800
KEF-3	–	–	–	–	–	1875
DEF-1	–	–	–	–	–	600
TEF-1	–	–	150	–	–	–
TEF-2	–	–	150	–	–	–
MAU-1	–	–	–	–	5806	–
TOTAL	7200	1440	500	6300	7066	7858

DINING PRESSURIZATION (O/A) – (E/A)= 1140 CFM

KITCHEN PRESSURIZATION (O/A) – (E/A)= –792 CFM

NET BUILDING PRESSURIZATION (DINING + KITCHEN)= +348 CFM

ELECTRIC HEATER SCHEDULE

MARK	TYPE	AREA SERVED	HEATING CAPACITY	MAXIMUM CFM	ELECTRICAL VOLT / PH	MANUFACTURER	MODEL	NOTES
PH-1,2,3,4,5	UNIT/CABINET	PATIO	6.0 kW	--	208/ 1	BROMIC	BH0420035	1,6,7,8

NOTES:
1. COORDINATE POWER AND DISCONNECT REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR.
2. INSTALL COMPLETE WITH MANUFACTURER AVAILABLE SUSPENSION MOUNTING BRACKET.
3. INCLUDE MANUFACTURER AVAILABLE INTEGRAL THERMOSTAT TO PREVENT FREEZING.
4. INSTALL PER MANUFACTURER'S RECOMMENDATIONS FURNISHED BY OWNER, INSTALLED BY CONTRACTOR. STAINLESS STEEL CONSTRUCTION.
   POST MOUNT/WALL MOUNT
5. MANUAL IGNITION.
6. PROVIDE WITH OPTIONAL MOUNTING KIT.
7. INSTALL PER MANUFACTURER'S RECOMMENDATIONS FURNISHED AND INSTALLED BY CONTRACTOR.
8. STAINLESS STEEL CONSTRUCTION.

MECHANICAL LEGEND

SYMBOL	ABBR.	DESCRIPTION
	CD	CEILING DIFFUSER – SUPPLY
	CD	CEILING DIFFUSER BELOW DUCT – SUPPLY
	SAD	RISER – SUPPLY AIR DUCT
	SAD	DROP – SUPPLY AIR DUCT
	CR	CEILING REGISTER – RETURN
	CR	CEILING REGISTER BELOW DUCT – RETURN
	RAD	RISER – RETURN AIR DUCT
	RAD	DROP – RETURN AIR DUCT
	CE	CEILING REGISTER – EXHAUST
	CE	CEILING REGISTER BELOW DUCT – EXHAUST
	EAD	RISER – EXHAUST AIR DUCT
	(L)	LINED DUCTWORK
	VD	MANUAL VOLUME DAMPER
M	MD	MOTORIZED VOLUME DAMPER
	FC	FLEXIBLE CONNECTION
		NEW DUCT
TAG CFM		AIR DEVICE DESIGNATION
T	TSTAT	PROGRAMMABLE THERMOSTAT
S	SENS	REMOTE TEMPERATURE SENSOR
S	SD	SMOKE DETECTOR
	POC	POINT OF CONNECTION
	CFM	CUBIC FEET PER MINUTE
	S/A	SUPPLY AIR
	O/A	OUTSIDE AIR
	E/A	EXHAUST AIR
	S.P.	STATIC PRESSURE
	FOH	FRONT OF HOUSE
	BOH	BACK OF HOUSE

MECHANICAL GENERAL NOTES

1. NOTE: FOR THE PURPOSE OF CLEARNESS AND LEGIBILITY, THE DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND ALTHOUGH SIZES AND LOCATIONS OF EQUIPMENT ARE DRAWN TO SCALE WHEREVER POSSIBLE, THE CONTRACTOR SHALL MAKE USE OF ALL DATA IN ALL OF THE CONTRACT DOCUMENTS AND VERIFY THIS INFORMATION PRIOR TO ORDERING, FABRICATING OR INSTALLING ANY MATERIALS.
2. THE MECHANICAL CONTRACTOR SHALL PROVIDE COMPLETE INFORMATION AND COOPERATE WITH THE OTHER CONTRACTORS AND TRADES AS REQUIRED FOR THE COMPLETION AND COORDINATION OF THE COMPLETE PROJECT.
3. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ADMINISTERING ALL WARRANTIES ON EQUIPMENT WHICH THEY FURNISH AND INSTALL.
4. PROVIDE WRITTEN WARRANTY TO REPLACE ALL FAULTY MATERIALS AND/OR LABOR, AT NO COST TO TENANT, FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE.
5. ALL OUTDOOR AIR INTAKE BY MECHANICAL EQUIPMENT SHALL HAVE A MINIMUM 10'-0" HORIZONTAL CLEARANCE FROM THE DISCHARGE OF ANY EXHAUST FAN, RTU GAS EXHAUST OR PLUMBING VENT.
6. PROVIDE VIBRATION ISOLATION DEVICES AND FLEXIBLE DUCT/ PIPING CONNECTIONS TO ALL MOVING MACHINERY NOT INTERNALLY ISOLATED.
7. ALL DUCT DIMENSIONS SHOWN ON DRAWINGS ARE CLEAR INSIDE DIMENSIONS.
8. THE MECHANICAL CONTRACTOR SHALL COORDINATE ALL DUCT AND DIFFUSER LOCATIONS WITH SPRINKLER PIPING, SPRINKLER HEADS AND LIGHT FIXTURES AS REQUIRED FOR A COMPLETE INSTALLATION.
9. THE MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR AND OTHER TRADES ALL REQUIRED OPENINGS AND PENETRATIONS. ALL REQUIRED OPENINGS IN FOUNDATIONS, FLOORS, WALLS AND ROOF SHALL BE CONSTRUCTED INTO THE STRUCTURE WITH THE USE OF SLEEVES, CURBS, ETC. CUTTING AND PATCHING SHALL BE HELD TO A MINIMUM.
10. ALL ITEMS PROJECTING THROUGH THE ROOF SHALL BE FLASHED THROUGH CURBS OR PIPE SEALS A MINIMUM OF 12" ABOVE THE ROOF. THE PIPE CURBS AND SEALS SHALL BE INSTALLED BY THE ROOFING CONTRACTOR. ENSURE THAT AMPLE BOOT OPENINGS ARE PROVIDED TO ACCOMMODATE ANY ELECTRICAL CONDUIT PENETRATIONS REQUIRED FOR POWER.
11. COORDINATE THE INSTALLATION AND FINISH OF ALL SUPPLY AND RETURN AIR DEVICES. AIR DEVICES LOCATED IN GUEST AREAS (INCLUDING DINING AND BAR) SHALL BE PAINTED PER THE ARCHITECTURAL DRAWINGS FINISH SCHEDULE. ALL INTERIOR FACES OF DUCTWORK BEHIND RETURN AIR GRILLES SHALL BE PAINTED FLAT BACK FOR LINE OF SIGHT.
12. ALL SUPPLY, RETURN, AND RESTROOM EXHAUST DUCTWORK SHALL BE INSTALLED AS HIGH AS POSSIBLE UNDER THE ROOF STRUCTURE.
13. ALL RECTANGULAR, ROUND, AND FLEXIBLE DUCTWORK SHALL BE SIZED AS SHOWN ON THESE DRAWINGS; AND SHALL BE FABRICATED AND INSTALLED ACCORDING TO THE MOST RECENTLY PUBLISHED SMACNA STANDARDS. ALL JOINTS, SEAMS, AND CONNECTIONS MUST BE SECURELY FASTENED & SEALED BY APPROVED METHODS.
14. ANY FLEXIBLE DUCTS SHALL BE INSTALLED IN CONCEALED SPACES ONLY. THE MAXIMUM ALLOWABLE LENGTH OF FLEXIBLE DUCT SHALL BE 5'-0". ALL FLEXIBLE DUCTS SHALL BE CONNECTED TO BRANCH RUNS AND FITTINGS WITH A PANDUIT-TYPE BAND, AND SHALL NOT BE ATTACHED DIRECTLY TO THE AIR DEVICE COLLAR.
15. ALL PENETRATIONS IN FIRE RATED WALL ASSEMBLIES SHALL BE SEALED WITH UL LISTED FIRE STOPPING MATERIAL.
16. MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL 4" HIGH BLACK OVER WHITE LAMINATE NAMEPLATE WITH 2" LETTERS VISIBLE ADJACENT TO DISCONNECT SWITCH FOR ROOFTOP UNITS AND ROOF MOUNTED FANS WITH THE AREAS THE UNITS SERVE.
17. HVAC CONTROLS WORK SHALL BE INSTALLED AS FOLLOWS:
   - ALL LINE VOLTAGE WIRING, CONDUIT, DISCONNECT SWITCHES AND FINAL CONNECTION TO EQUIPMENT SHALL BE BY THE ELECTRICAL CONTRACTOR.
   - ALL LOW VOLTAGE WIRING AND CONDUIT SHALL BE BY THE MECHANICAL CONTRACTOR.
   - REMOTE ZONE COMBINATION TEMPERATURE/HUMIDITY SENSORS SHALL BE WALL MOUNTED AT 48" AFF, AND CLEARLY LABELED.
   - PROGRAMMABLE THERMOSTATS IN THE MANAGER'S OFFICE SHALL BE WALL MOUNTED AT 48" AFF AND VERTICALLY STACKED AND CLEARLY LABELED.
   - TEMPERATURE CONTROL OF THE ROOFTOP UNIT OPERATION SHALL BE MADE BY WIRING FROM THE COMBINATION SENSOR BACK TO THE RESPECTIVE PROGRAMMABLE THERMOSTAT IN THE MANAGER'S OFFICE AND THEN TO THE APPROPRIATE ROOFTOP UNIT CONTROL BOARD. WIRING SHALL BE MADE WITH A SHIELDED 4-20mA SIGNAL GROUNDED TWISTED PAIR INSTALLED WITH CONTINUOUS NON-SPLICED LENGTH BETWEEN EACH DEVICE CONNECTION.
   - HUMIDITY CONTROL OF THE ROOFTOP UNIT OPERATION SHALL BE MADE BY WIRING FROM THE COMBINATION SENSOR DIRECT BACK TO THE APPROPRIATE ROOFTOP UNIT CONTROL BOARD. WIRING SHALL BE MADE WITH A SHIELDED 4-20mA SIGNAL GROUNDED TWISTED PAIR INSTALLED WITH CONTINUOUS NON-SPLICED LENGTH BETWEEN EACH DEVICE CONNECTION.
   - ROOFTOP UNITS SHALL BE SET TO RUN IN "FAN CONTINUOUS" MODE DURING OCCUPIED HOURS. DURING NIGHT SET-BACK HOURS, THE ROOFTOP UNITS SHALL RUN IN "FAN AUTO" MODE.
18. ALL HVAC SUPPLY AND RETURN DUCTWORK SHALL BE INSTALLED AS FOLLOWS:
   - CONCEALED HVAC AND MAKEUP AIR DUCTWORK WITHIN THE BUILDING SHALL BE EXTERNALLY WRAPPED AND SECURED WITH MINIMUM R-8.0, 2" INSULATION WITH VAPOR BARRIER PER THE 2018 INTERNATIONAL MECHANICAL CODE, WITH LOCAL AMENDMENTS. INSULATION SHALL HAVE MAXIMUM RATINGS OF 25 FLAME SPREAD, 50 SMOKE DEVELOPED.
   - EXPOSED DUCTWORK WITHIN THE BUILDING SHALL BE INTERNALLY LINED AND PINNED WITH MINIMUM R-6.0, 1-1/2" INSULATION WITH VAPOR BARRIER PER THE 2018 INTERNATIONAL MECHANICAL CODE WITH LOCAL AMENDMENTS. INSULATION SHALL HAVE MAXIMUM RATINGS OF 25 FLAME SPREAD, 50 SMOKE DEVELOPED. EXPOSED DUCTWORK SHALL BE INSTALLED COMPLETE WITH FACTORY APPLIED PAINT GRIP FINISH, SUITABLE FOR FINAL FIELD APPLIED PAINT BY THE GENERAL CONTRACTOR.
   - DUCT CONSTRUCTION SHALL BE OF GALVANIZED STEEL. GAUGES, SWAY BRACING (AS REQUIRED) AND SUSPENSION SHALL CONFORM TO SMACNA STANDARDS. SEAL ALL SEAMS AND JOINTS AIR AND WATERTIGHT. FLEXIBLE ALUMINUM DUCTWORK OR FIBERGLASS DUCTBOARD IS NOT ALLOWED (UNO).
   - EXTERIOR DUCTWORK ON THE BUILDING SHALL BE EXTERNALLY WRAPPED AND SECURED WITH MINIMUM R-8.0, 2" INSULATION WITH VAPOR BARRIER PER THE 2018 INTERNATIONAL MECHANICAL CODE, WITH LOCAL AMENDMENTS. INSULATION SHALL HAVE MAXIMUM RATINGS OF 25 FLAME SPREAD, 50 SMOKE DEVELOPED. INSTALL COMPLETE WITH A FINAL EXTERIOR LAYER OF CORROSION RESISTANT 24 GA. GALVANIZED SHEET METAL WITH A 1/12 TOP PITCH TO PREVENT STANDING WATER.
19. ALL PENETRATIONS IN FIRE RATED WALL ASSEMBLIES SHALL BE SEALED WITH UL LISTED FIRE STOPPING MATERIAL.
20. ALL KITCHEN EXHAUST DUCTWORK SHALL BE INSTALLED AS FOLLOWS:
   - TYPE II DISH MACHINE CONDENSATE EXHAUST DUCTWORK SHALL BE ETL LISTED, UL COMPLIANT CORROSION RESISTANT FACTORY BUILT DUCT AND FITTINGS.
   - TYPE I COOKLINE GREASE EXHAUST DUCTWORK SHALL BE ETL LISTED, UL COMPLIANT CORROSION RESISTANT FACTORY BUILT DUCT AND FITTINGS.
   - EACH GREASE EXHAUST DUCT RISER BETWEEN THE HOOD COLLAR AND EXHAUST FAN SHALL BE OF THE SAME SIZE AS THE RESPECTIVE HOOD COLLAR SIZE, UNO. REFER TO THE HOOD SHEETS FOR THE HOOD COLLAR SIZES AS SPECIFIED BY THE HOOD MANUFACTURER.
   - ALL KITCHEN EXHAUST DUCTWORK AND FITTINGS SHALL BE FURNISHED WITH THE EXHAUST HOOD PACKAGE, AND INSTALLED COMPLETE BY THE MECHANICAL CONTRACTOR.
21. ALL GREASE EXHAUST FAN ROOF CURBS SHALL BE VENTED PER NFPA 96. PROVIDE REQUIRED ACCESS FOR SERVICING AND CLEANING, AND VERIFY THE HINGED CURB OPENING OPERATES PROPERLY.
22. ROOF CURBS FOR EXHAUST FANS AND THE MAKEUP AIR UNIT SHALL BE FACTORY FABRICATED AND FURNISHED WITH THE HOOD PACKAGE. VERIFY REQUIREMENTS FOR THE ROOF CURBS WITH THE EQUIPMENT SUPPLIER. THE GENERAL CONTRACTOR SHALL FLASH ROOF CURBS AND SHIM DEAD LEVEL. COORDINATE EXACT SIZE AND LOCATION OF ROOF OPENINGS WITH THE STRUCTURAL FRAMING. CUTTING OF STRUCTURAL MEMBERS IS NOT PERMITTED.
23. ROOF CURBS FOR ROOFTOP UNITS SHALL BE FACTORY FABRICATED OF FULL WELDED STEEL CONSTRUCTION WITH WOOD NAILER, AND FURNISHED WITH THE HVAC EQUIPMENT PACKAGE. VERIFY REQUIREMENTS FOR THE ROOF CURBS WITH THE EQUIPMENT SUPPLIER. THE GENERAL CONTRACTOR SHALL FIELD ASSEMBLE THE ROOF CURBS, FLASH AND SHIM DEAD LEVEL. COORDINATE EXACT SIZE AND LOCATION OF ROOF OPENINGS WITH THE STRUCTURAL FRAMING. CUTTING OF STRUCTURAL MEMBERS IS NOT PERMITTED.
24. THE KITCHEN EXHAUST HOODS SHALL BE INSTALLED AT 6'-8" AFF (UNO). COORDINATE THE INSTALLATION AND PLACEMENT OF THE EXHAUST HOODS WITH THE ARCHITECTURAL REFLECTED CEILING PLAN.
25. THE KITCHEN HOOD PACKAGE WILL BE FURNISHED WITH UTILITY END CABINETS HOUSING THE FIRE SUPPRESSION TANKS, ELECTRICAL PREWIRE PACKAGE, HOOD EXHAUST FAN SWITCHES, AND LIGHT SWITCHES.
26. REFER TO MANUFACTURER SHEETS FOR THE HOOD CONTROL WIRING DIAGRAM FOR OPERATION OF THE KITCHEN HOOD EQUIPMENT.
27. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING THE AIR FILTERS AT THE ROOFTOP UNITS WITH 2" THICK PLEATED MERV 8 THROW AWAY TYPE AIR FILTERS AT THE COMPLETION OF CONSTRUCTION AND PRIOR TO AIR BALANCE AND STORE TURNOVER.
28. PER THE 2018 INTERNATIONAL MECHANICAL CODE, WITH LOCAL AMENDMENTS WHEN REQUIRED, EACH SINGLE SYSTEM PROVIDING HEATING OR COOLING AIR IN EXCESS OF 2000 CUBIC FEET PER MINUTE SHALL BE EQUIPPED WITH AN AUTOMATIC SHUTOFF. AUTOMATIC SHUTOFF SHALL BE ACCOMPLISHED BY INTERRUPTING THE POWER SOURCE OF THE AIR MOVING EQUIPMENT DEVICES WHICH WILL DETECT PRODUCTS OF COMBUSTION OTHER THAN HEAT, AND WHICH COMPLY WITH THE APPLICABLE BUILDING CODE, SHALL BE LABELED BY AN APPROVED AGENCY FOR AIR DUCT INSTALLATION AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. SUCH DEVICES SHALL BE COMPATIBLE WITH THE OPERATING VELOCITIES, PRESSURES, TEMPERATURES AND HUMIDITIES OF THE SYSTEM WHERE FIRE DETECTION OR ALARM SYSTEMS ARE PROVIDED FOR THE BUILDING, SMOKE DETECTORS SHALL BE SUPERVISED BY SUCH SYSTEMS.
29. MECHANICAL CONTRACTOR SHALL BE ON SITE AND PRESENT AT THE DATE OF STORE TURNOVER.

ENGINEER:

BRIAN EDWARD CHANDLER, PE

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CLIENT:

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GEORGIA REGISTERED No. 033313 PROFESSIONAL ENGINEER BRIAN EDWARD CHANDLER

01.05.22

bartaco - JUBILEE COURTYARD ATLANTA, GEORGIA

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Atlanta, Georgia 30339

CLIENT: bartaco, LLC Becky Holler

DATE	DESCRIPTION
10.25.21	ISSUE FOR PERMIT

△	DATE	DESCRIPTION
1	01.05.2022	CITY COMMENTS AND CLARIFICATIONS

SHEET TITLE:

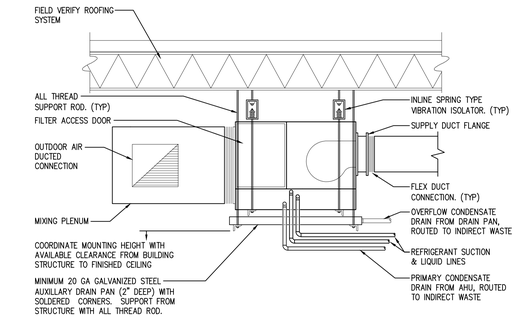
MECHANICAL SCHEDULES

SHEET NUMBER:

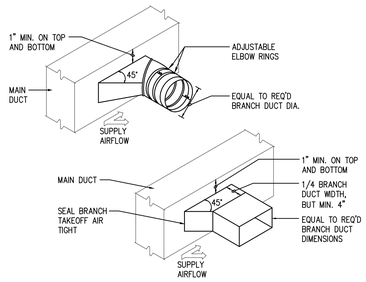
M2.0

PROJECT NUMBER:

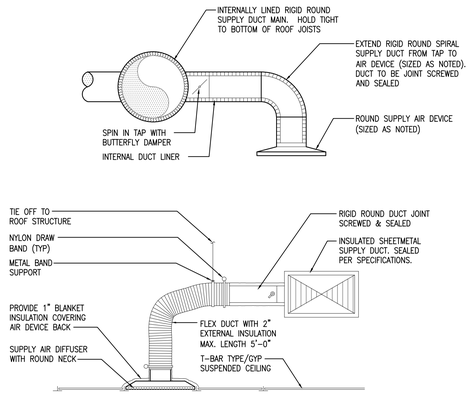
BAR21002



SUSPENDED AIR HANDLING UNIT DETAIL 1
SCALE: NONE

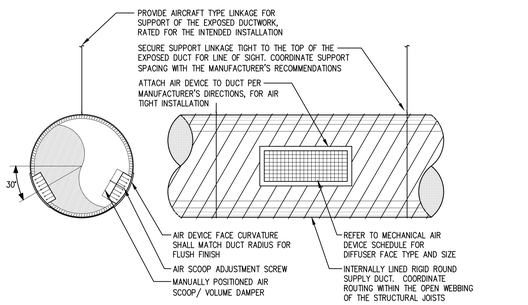


BRANCH TAKE-OFF FITTING DETAIL 2
SCALE: NONE



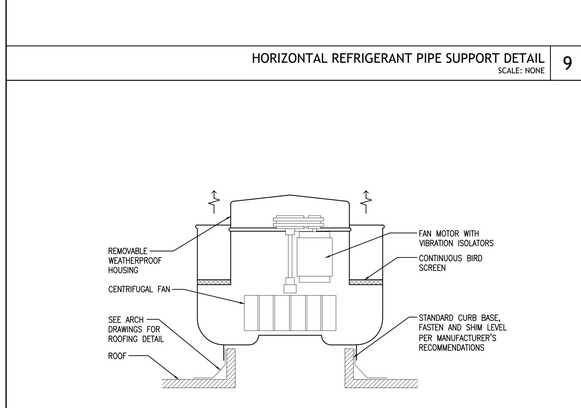
SUPPLY DUCT TAKE-OFF DETAIL
SCALE: NONE

3



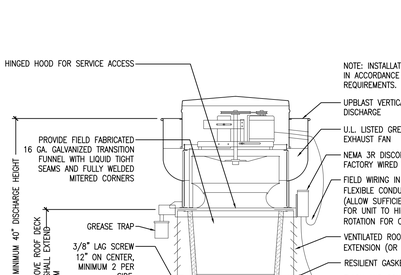
EXPOSED SUPPLY AIR DUCT DEVICE
SCALE: NONE

4



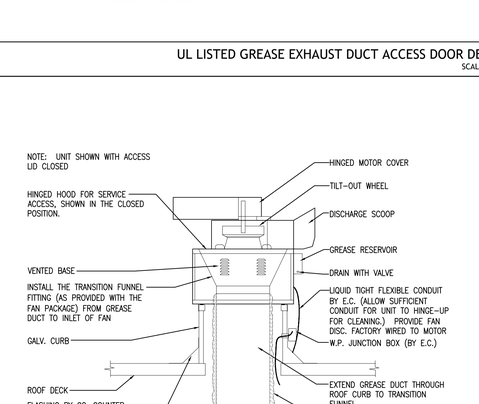
EXPOSED DUCTWORK LAYOUT SCHEMATIC
SCALE: NONE

5



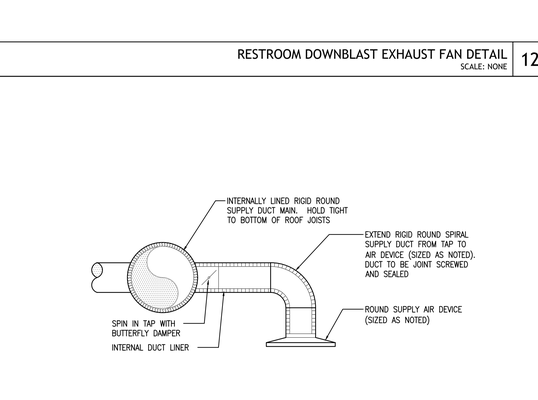
CEILING MNTD. RETURN AIR GRILLE DETAIL
SCALE: NONE

6



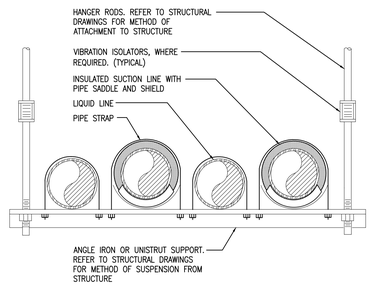
PIPING AND CONDUIT ROOF PENETRATION DETAIL
SCALE: NONE

7



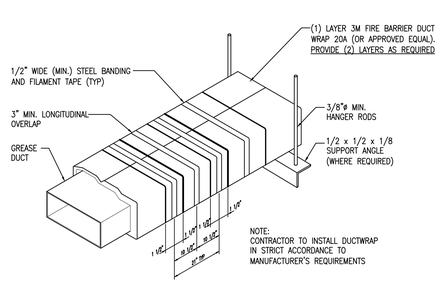
VERTICAL REFRIGERANT PIPE SUPPORT DETAIL
SCALE: NONE

8



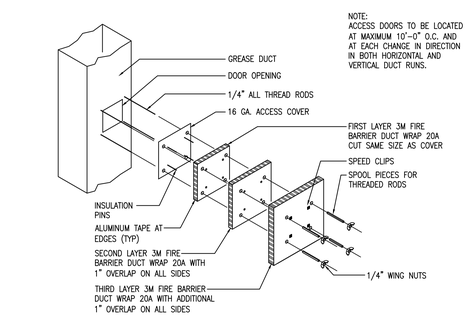
HORIZONTAL REFRIGERANT PIPE SUPPORT DETAIL
SCALE: NONE

9



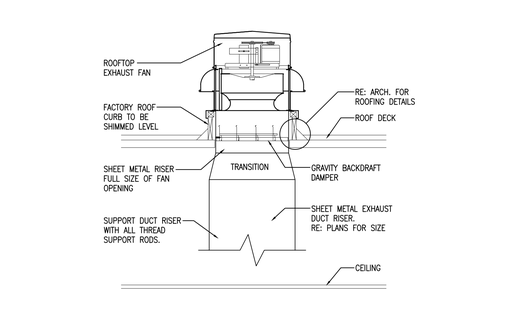
UL LISTED GREASE EXHAUST DUCT WRAP DETAIL
SCALE: NONE

10



UL LISTED GREASE EXHAUST DUCT ACCESS DOOR DETAIL
SCALE: NONE

11



RESTROOM DOWNBLAST EXHAUST FAN DETAIL
SCALE: NONE

12

DISHMACHINE UPBLAST EXHAUST FAN DETAIL
SCALE: NONE

13

KITCHEN UPBLAST GREASE EXHAUST FAN DETAIL
SCALE: NONE

14

KITCHEN UTILITY GREASE EXHAUST FAN DETAIL
SCALE: NONE

15

OPEN CEILING SUPPLY AIR DIFFUSER DETAIL
SCALE: NONE

16

ENGINEER:
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IRVING, TEXAS 75063
TEL: 972.870.1288
WWW.IDSTUDIO4.COM
E-MAIL: bchandler@idstudio4.com

CLIENT:
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2920 District Ave.
Fairfax, VA 22031
Contact: Becky Holler

GEORGIA REGISTERED No. 033313 PROFESSIONAL ENGINEER BRIAN EDWARD CHANDLER
10.27.21

bartaco - JUBILEE COURTYARD
ATLANTA, GEORGIA

2950 New Paces Ferry Rd, Suite 200
Atlanta, Georgia 30339

CLIENT: bartaco, LLC
Becky Holler

DATE	DESCRIPTION
10.25.21	ISSUE FOR PERMIT

△	DATE	DESCRIPTION

SHEET TITLE:
MECHANICAL DETAILS

SHEET NUMBER:
M3.0

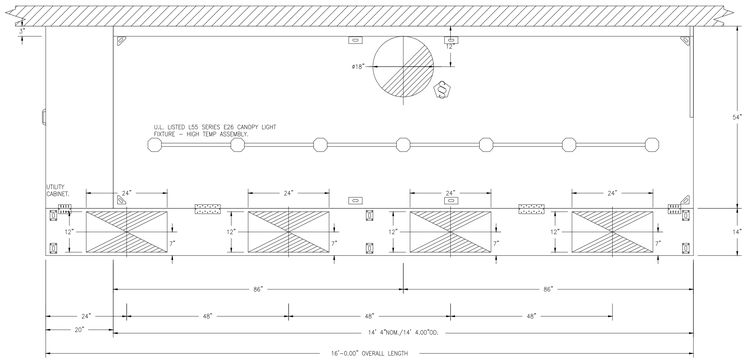
PROJECT NUMBER:
BAR21002

HOOD INFORMATION – JOB#5104545

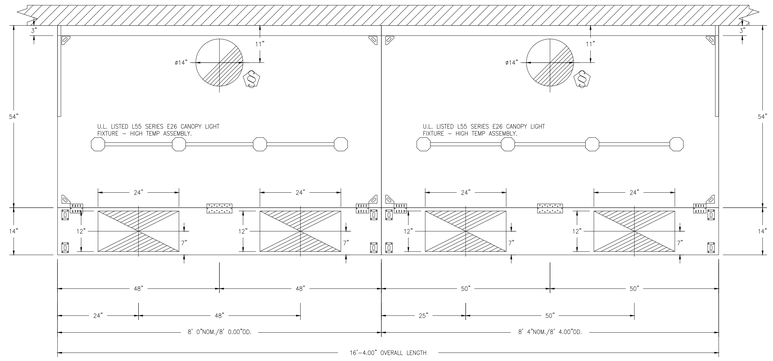
HOOD NO.	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S) WIDTH	LENG	HEIGHT	DIA	CFM	VEL	SP	TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG END TO END	ROW
1		5430 ND-2-PSP-F	CAPTIVEAIRE	14' 4"	600 DEG	I	HEAVY	250	3583			4"	18"	3583	2028	-1.295"	2866	430 SS WHERE EXPOSED	ALONE	ALONE
2		5430 ND-2-PSP-F	CAPTIVEAIRE	8' 0"	600 DEG	I	HEAVY	225	1800			4"	14"	1800	1684	-0.698"	1440	430 SS WHERE EXPOSED	LEFT	ALONE
3		5430 ND-2-PSP-F	CAPTIVEAIRE	8' 4"	600 DEG	I	HEAVY	225	1875			4"	14"	1875	1754	-0.756"	1500	430 SS WHERE EXPOSED	RIGHT	ALONE
4		4830 VHB-G	CAPTIVEAIRE	4' 0"	700 DEG	II	N/A	150	600			4"	10"	600	1100	-0.090"	0	430 SS 100%	ALONE	ALONE

HOOD INFORMATION

HOOD NO.	TAG	FILTER(S) TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	LIGHT(S) QTY	TYPE	WIRE GUARD	LOCATION	SIZE	UTILITY CABINET(S) FIRE SYSTEM TYPE	SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY	FIRE SYSTEM PIPING	HOOD HANGING WEIGHT
1		CAPTRATE SOLO FILTER	10	20"	16"	85% SEE FILTER SPEC	7	L55 SERIES E26	NO	LEFT	20"x54"x30"	ANSUL R102	3.0/3.0	SC-331110MA	1 LIGHT 1 FAN	YES	1082 LBS
2		CAPTRATE SOLO FILTER	5	20"	16"	85% SEE FILTER SPEC	4	L55 SERIES E26	NO							YES	552 LBS
3		CAPTRATE SOLO FILTER	6	20"	16"	85% SEE FILTER SPEC	4	L55 SERIES E26	NO							YES	572 LBS
4							0									NO	167 LBS

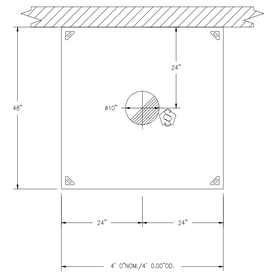


PLAN VIEW – HOOD #1
14' 4.00" LONG 5430ND-2-PSP-F
NOTE: ADDITIONAL HANGING ANGLES PROVIDED FOR HOODS 12' AND LONGER.

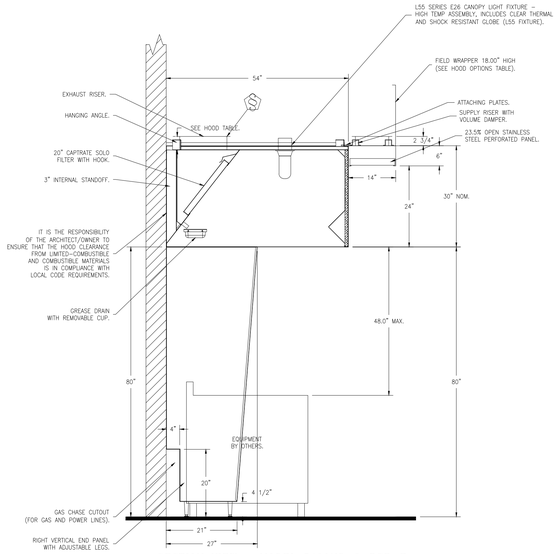


PLAN VIEW – HOOD #2
8' 0.00" LONG 5430ND-2-PSP-F

PLAN VIEW – HOOD #3
8' 4.00" LONG 5430ND-2-PSP-F



PLAN VIEW – HOOD #4
4' 0.00" LONG 4830VHB-G



SECTION VIEW – MODEL 5430ND-2-PSP-F
HOOD – #3

SECTION VIEW – MODEL 4830VHB-G
HOOD – #4

REVISIONS

DESCRIPTION	DATE

CAPTIVEAIRE
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BARTACO ATLANTA
ATLANTA, GA, 30305

DATE: 10/08/2021
DWG.#: 5104545
DRAWN BY: SPT
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 1

ENGINEER:

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Becky Holler

DATE	DESCRIPTION
10.25.21	ISSUE FOR PERMIT

DATE	DESCRIPTION

SHEET TITLE:
KITCHEN HOOD DETAILS

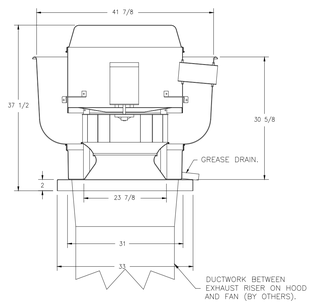
SHEET NUMBER:
M4.0

PROJECT NUMBER:
BAR21002

EXHAUST FAN INFORMATION – JOB#5104545

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	HOOD 1	1	DU240HFA	CAPTIVEAIRE	3583	1,875	968	ODP,PREMIUM	5.000	2.3760	3	208	15.8	814 FPM	300	19.4
2	HOOD 2	1	DU180HFA	CAPTIVEAIRE	1800	1,200	1064	ODP,PREMIUM	1.000	0.7710	3	208	3.8	416 FPM	150	12.4
3	HOOD 3	1	DU180HFA	CAPTIVEAIRE	1875	1,250	1089	ODP,PREMIUM	1.500	0.8320	3	208	6.6	433 FPM	176	12.9
4	DISH FAN	1	DU33HFA	CAPTIVEAIRE	600	0.500	1255	TEAO-ECM	0.333	0.1190	1	115	4.3	297 FPM	69	10.8
6		1	CFA-D200-CA	CAPTIVEAIRE	150	0.200	765	GENERALPURPOSE	0.094	0.0640	1	115	0.4		13	4
7		1	CFA-D200-CA	CAPTIVEAIRE	150	0.200	765	GENERALPURPOSE	0.094	0.0640	1	115	0.4		13	4

FAN #1 DU240HFA – EXHAUST FAN



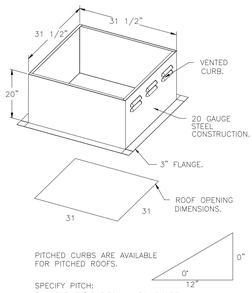
FEATURES:

- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.

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 DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

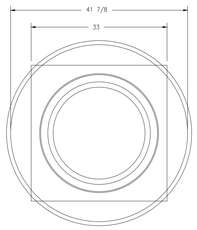
ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS
GREASE BOX.
2 YEAR PARTS WARRANTY.

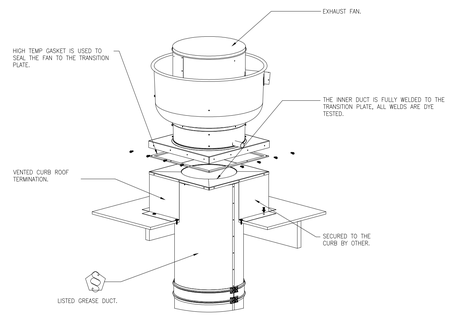


PITCHED CURBS ARE AVAILABLE FOR PITCHED ROOFS.

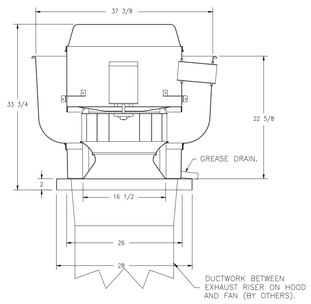
SPECIFY PITCH:
EXAMPLE: 7/12 PITCH = 30° SLOPE.



TOP VIEW



FANS #2, #3 – DU180HFA EXHAUST FAN



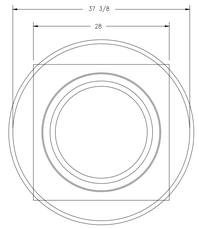
FEATURES:

- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.

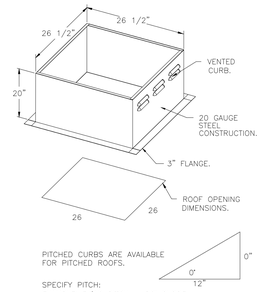
NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

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.
2 YEAR PARTS WARRANTY.



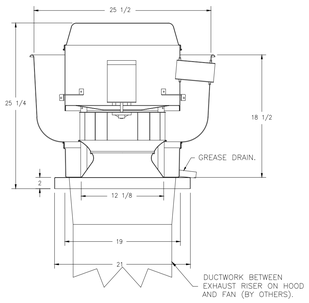
TOP VIEW



PITCHED CURBS ARE AVAILABLE FOR PITCHED ROOFS.

SPECIFY PITCH:
EXAMPLE: 7/12 PITCH = 30° SLOPE.

FAN #4 DU33HFA – EXHAUST FAN



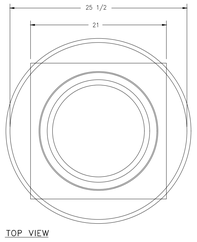
FEATURES:

- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.

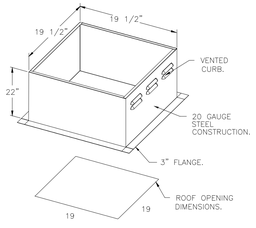
NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

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.
ECM WIRING PACKAGE = EXHAUST – MANUAL OR 0-10VDC REFERENCE SPEED CONTROL –MSC– (TELCO). CCW ROTATION.
2 YEAR PARTS WARRANTY.



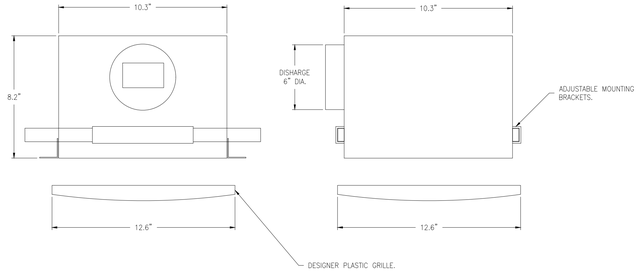
TOP VIEW



PITCHED CURBS ARE AVAILABLE FOR PITCHED ROOFS.

SPECIFY PITCH:
EXAMPLE: 7/12 PITCH = 30° SLOPE.

FANS #6, #7 – CFA-D200-CA EXHAUST FAN



FEATURES:

- 20 GA. GALVANIZED STEEL HOUSING.
- PLUG TYPE DISCONNECT.
- BUILT IN AUTOMATIC BACKDRAFT DAMPER.
- UL LISTED.
- MOUNTING BRACKETS.

OPTIONS
FAN CONTROL – 3 AMP WHITE SPEED CONTROL FOR CFA CEILING FAN.
2 YEAR PARTS WARRANTY.

CAPTIVEAIRE
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Central Florida Office
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BARTACO ATLANTA
ATLANTA, GA, 30305

DATE: 10/08/2021
DWG.#: 5104545
DRAWN BY: SPT
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 3

REVISIONS

	DESCRIPTION	DATE
1		
2		
3		
4		

ENGINEER:
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E-MAIL: bchandler@idstudio4.com

CLIENT:
bartaco, LLC
2920 District Ave.
Fairfax, VA 22031
Contact: Becky Holler

GEORGIA REGISTERED No. 033313 PROFESSIONAL ENGINEER BRIAN EDWARD CHANDLER
10.27.21

bartaco - JUBILEE COURTYARD
ATLANTA, GEORGIA
2950 New Paces Ferry Rd, Suite 200
Atlanta, Georgia 30339
CLIENT: **bartaco, LLC**
Becky Holler

DATE	DESCRIPTION
10.25.21	ISSUE FOR PERMIT

	DATE	DESCRIPTION

SHEET TITLE:
KITCHEN HOOD DETAILS

SHEET NUMBER:
M4.2

PROJECT NUMBER:
BAR21002

CONDENSER DETAILS

FAN UNIT NO	TAG	FAN UNIT MODEL #	CONDENSER NO	TONNAGE	VOLTAGE	PHASE	FREQUENCY	MCA	RLA	MAX FUSE SIZE	MIN WIRE SIZE	SEER
5		A3-D.500-24D-MPU	1	5	208-230	3 PHASE	60 HZ	21.4 AMPS	17.4 AMPS	30 AMPS	10 AWG	14
			2	5	208-230	3 PHASE	60 HZ	21.4 AMPS	17.4 AMPS	30 AMPS	10 AWG	14

MUA FAN INFORMATION – JOB#5104545

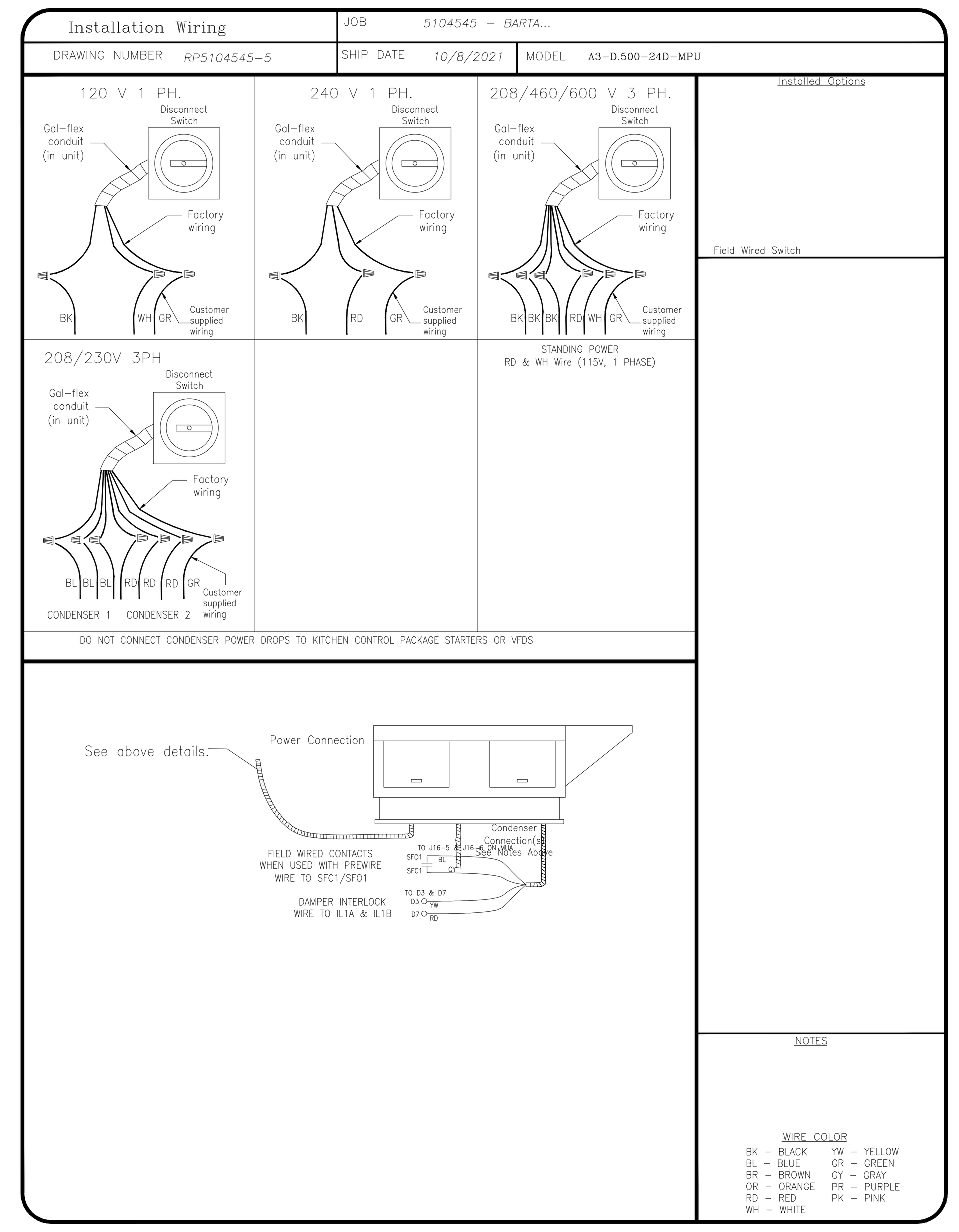
FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	MCA	MOCP	WEIGHT (LBS)	SONES
5		1	A3-D.500-24D-MPU	24MF-3-MOD	A3-D.500	3600	5806	0.550	1531	ODP,PREMIUM	10.000	6.6300	3	208	27.0	33.8A	60A	1957	15.9

COILS – JOB#5104545

FAN UNIT NO	TAG	COIL TYPE	DESIGN CFM	COOLING											HEATING								
				ENTERING DB TEMP	ENTERING WB TEMP	LEAVING DB TEMP	LEAVING WB TEMP	ENTERING FLUID TEMP	LEAVING FLUID TEMP	FLUID FLOW RATE	PERCENT GLYCOL	TOTAL CAPACITY	SENSIBLE CAPACITY	LATENT CAPACITY	ENTERING DB TEMP	LEAVING DB TEMP	ENTERING FLUID TEMP	LEAVING FLUID TEMP	FLUID FLOW RATE	PERCENT GLYCOL	STEAM PRESSURE	TOTAL CAPACITY	SENSIBLE CAPACITY
5		DX	5806	91.0°F	74.0°F	78.7°F	68.7°F	---	---	---	---	112.4 MBH	73.0 MBH	39.4 MBH	---	---	---	---	---	---	---	---	---

GAS FIRED MAKE-UP AIR UNIT(S)

FAN UNIT NO	TAG	INPUT BTUs	OUTPUT BTUs	TEMP RISE	REQUIRED INPUT GAS PRESSURE	GAS TYPE	BURNER EFFICIENCY(%)
5		312553	287549	48°F	7 IN. W.C. – 14 IN. W.C.	NATURAL	92

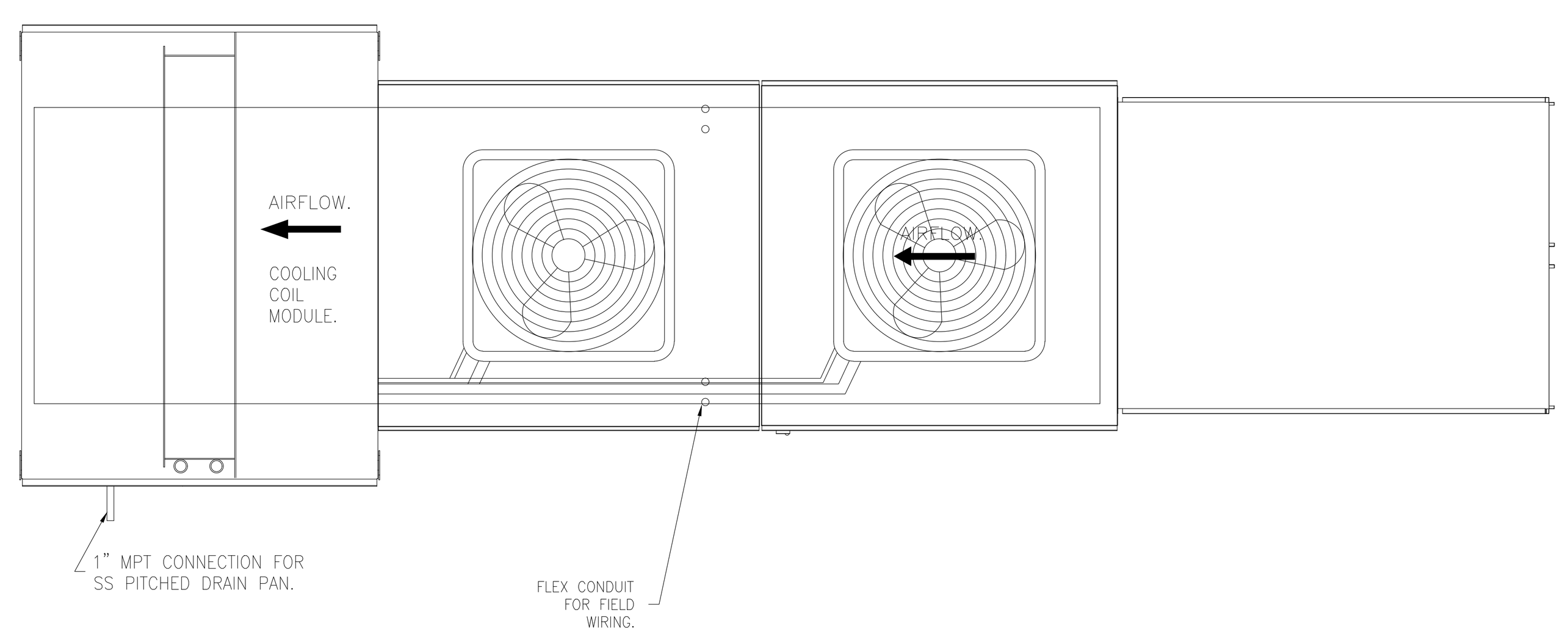


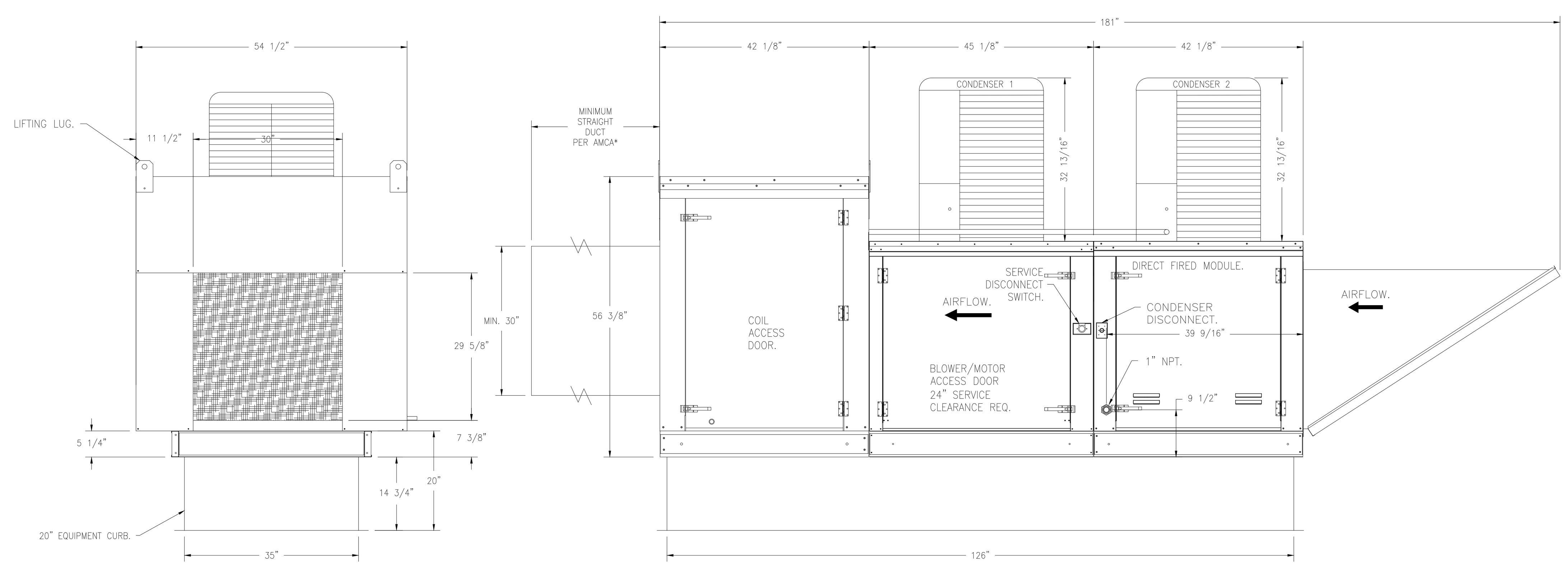
FAN #5 A3-D.500-24D-MPU – HEATER
1. DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 24" MIXED FLOW DIRECT DRIVE FAN AND 12" BURNER.
2. INTAKE HOOD WITH EZ FILTERS.
3. SIDE DISCHARGE – AIR FLOW RIGHT -> LEFT.
4. GAS PRESSURE GAUGE, 0-35", 2.5" DIAMETER, 1/4" THREAD SIZE.
5. GAS PRESSURE GAUGE, -5 TO +15 INCHES WC., 2.5" DIAMETER, 1/4" THREAD SIZE.
6. MOTORIZED BACK DRAFT DAMPER 30" X 30" FOR SIZE 3 STANDARD & MODULAR HEATER UNITS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LOW LEAKAGE, NFBUP-S ACTUATOR INCLUDED.
7. 10 TON, DUAL CIRCUIT (5/5) MODULAR PACKAGED COOLING OPTION FOR SIZE 3 DF/EH MODULAR PACKAGED UNIT. INCLUDES CONDENSER, DX COIL, FILTER/DRYER KIT, THERMAL EXPANSION VALVE, R410A REFRIGERANT, AND REFRIGERANT PIPING. (3,600 TO 6,000 CFM) WHEN ORDERED WITH OPPOSITE AIRFLOW CONDENSERS ACCESS AND COIL PIPING WILL REMAIN IN STANDARD POSITION. DRAIN AND SLEDS WILL MOVE TO THE OPPOSITE SIDE. ANY OTHER CHANGE WILL REQUIRE CLI. CONDENSERS REQUIRE SEPARATE 208V, 3 PHASE POWER SUPPLY UNLESS ORDERED WITH SINGLE POINT CONNECTION. COIL = 3EZ0602M.
8. DX COOLING INTAKE AIR THERMOSTAT AND RELAYS MOUNTED IN UNIT – SET POINT FOR THERMOSTAT SHOULD BE 85°F.
9. HINGED DOUBLE WALL INSULATED DOOR ASSEMBLY (BURNER/BLOWER/MPU SECTION).
10. 2 YEAR PARTS WARRANTY.

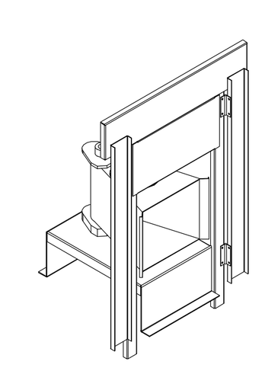
*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE 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 30" x 30".

SUPPLY SIDE HEATER INFORMATION:

WINTER TEMPERATURE = 27°F. TEMP. RISE = 48°F.
BTUs CALCULATED OFF ACTUAL AIR DENSITY.
OUTPUT BTUs AT ALTITUDE OF 0.0 FT. = 297734.
INPUT BTUs AT ALTITUDE OF 0.0 FT. = 323623.
OUTPUT BTUs AT ALTITUDE OF 960 FT. = 287549.
INPUT BTUs AT ALTITUDE OF 960 FT. = 312553.







DIRECT FIRED (DF) PROFILE PLATE ASSEMBLY

DIRECT FIRED PROFILE PLATE SPECIFICATIONS:

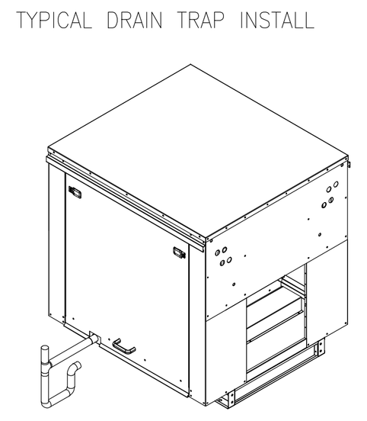
DESCRIPTION:
DIRECT FIRED BURNERS SHALL HAVE PATENTED (US PATENT NO.: US6629523B2), SELF-ADJUSTING PROFILE PLATES DESIGNED TO ENSURE PROPER AIR VELOCITY AND PRESSURE DROP ACROSS THE BURNER. PROFILE PLATES SHALL ALLOW BURNERS TO ACHIEVE CLEAN COMBUSTION BY LIMITING BY-PRODUCT LEVELS TO A MAXIMUM OF 5PPM OF CARBON MONOXIDE (CO), AND 0.5PPM OF NITROGEN DIOXIDE (NO2). DIRECT FIRED UNITS SHALL BE CONFIGURED WITH THE BLOWER MOUNTED DOWNSTREAM OF THE BURNER. THIS ARRANGEMENT WILL ENSURE A CONSISTENT AIRFLOW, REGARDLESS OF INLET AIR TEMPERATURE.

APPLICATION:
SPRING-LOADED BURNER PROFILE PLATES ARE ENGINEERED TO AUTOMATICALLY REACT TO THE MOMENTUM OF A FRESH AIR STREAM, WITHOUT THE NEED FOR ANY MOTORS OR ACTUATORS TO MECHANICALLY ADJUST THEM. WITH THIS FEATURE, ALL DF UNITS ARE DESIGNED FOR DEMAND CONTROL VENTILATION (DCV) REQUIREMENTS.

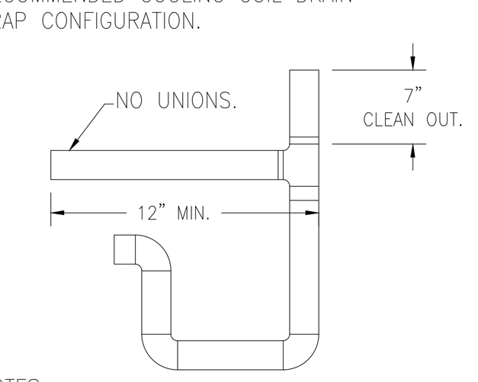
CERTIFICATIONS:
ALL PROFILE PLATE ASSEMBLIES SHALL BE INCLUDED IN THE DF UNIT'S ETL LISTING AND COMPLY WITH COMBINED SAFETY STANDARDS ANSI Z83.4 AND CSA 3.7 (NON-RECIRCULATING DF HEATERS) AND ANSI Z83.18 (RECIRCULATING DF HEATERS).

GENERAL CONSTRUCTION:
- PROFILE PLATES SHALL BE FORMED FROM G90 GALVANIZED STEEL.
- PROFILE PLATES SHALL VARY IN SIZE PER UNIT.
- PROFILE PLATES SHALL BE MOUNTED ALONG THE SAME PLANE AS THE DISCHARGE OF THE BURNER.
- DESIGN SHALL INCORPORATE PROPERLY TORQUED, PERMANENTLY MOUNTED SPRING HINGES.
- SPRING HINGES SHALL BE MADE FROM PLATED STEEL.

TYPICAL DRAIN TRAP INSTALL



RECOMMENDED COOLING COIL DRAIN TRAP CONFIGURATION.



NOTES:
1) 1" DIAMETER PVC PIPE ONLY.
2) USE ONLY LOW PROFILE COUPLINGS.
3) ADD CLEAN OUT AS SHOWN.

REVISIONS

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ATLANTA, GA, 30305

DATE: 10/08/2021
DWG.#: 5104545
DRAWN BY: SPT
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 4

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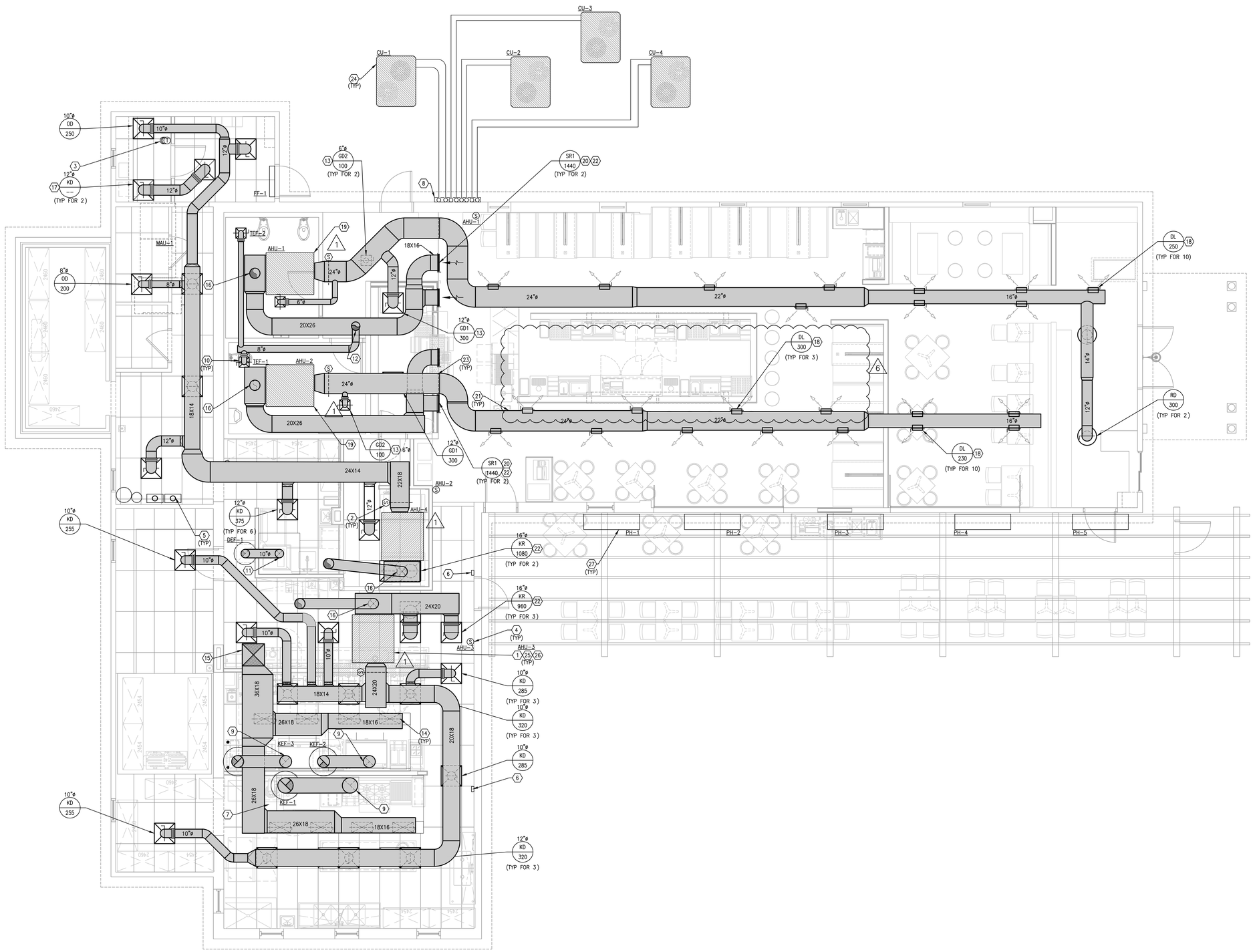
DATE	DESCRIPTION
10.25.21	ISSUE FOR PERMIT

SHEET TITLE:
KITCH HOOD DETAILS

SHEET NUMBER:
M4.3

PROJECT NUMBER:
BAR21002



KEYED NOTES

1. FIELD COORDINATE PLACEMENT OF THE SPLIT SYSTEM AIR HANDLERS. HOLD TIGHT TO BOTTOM OF STRUCTURE BUT STILL ALLOWING FOR ACCESS TO UNIT FOR MAINTENANCE AND CLEANING. REFER TO MECHANICAL DETAILS FOR PROPOSED CONSTRUCTION OF HANGER SUPPORT ASSEMBLY.
2. DUCT MOUNTED SMOKE DETECTOR CAPABLE OF SHUTTING DOWN THE RESPECTIVE MECHANICAL UNIT UPON ACTIVATION.
3. PROGRAMMABLE THERMOSTATS TO BE MOUNTED AT 48" AFF STACKED AND CLEARLY LABELED. VERIFY PLACEMENT WITH ARCHITECTURAL FLOOR PLAN AND INTERIOR ELEVATIONS.
4. WALL MOUNTED REMOTE ZONE TEMPERATURE SENSORS SHALL BE MOUNTED AT 48" AFF, AND WIRED BACK TO RESPECTIVE PROGRAMMABLE THERMOSTAT IN MOR'S OFFICE. COORDINATE PLACEMENT WITH WALL DECOR AND EQUIPMENT. FIELD VERIFY WITH THE OWNER'S REPRESENTATIVE FOR THE FINAL LOCATION PRIOR TO INSTALLATION.
5. ROUTE THE COMBUSTION AIR INTAKE AND EXHAUST PIPING FROM THE WATER HEATERS TO TERMINATION LOCATIONS ON THE ROOF. INSTALL WITH THE MINIMUM ELBOWS AND OFFSETS AS NECESSARY FOR A COMPLETE INSTALLATION PER THE WATER HEATER MANUFACTURER'S REQUIREMENTS. PROVIDE WITH DIRECT VENT CONVERSION KIT. PIPING SHALL BE CLASS 3 STAINLESS STEEL.
6. MANUAL PULL STATION FOR KITCHEN HOOD FIRE SUPPRESSION SYSTEM ACTIVATION AND GAS SUPPLY SHUT-OFF TO BE PROVIDED BY THE FIRE SUPPRESSION SUBCONTRACTOR. GENERAL CONTRACTOR SHALL PROVIDE RECESSED JUNCTION BOX AND CONDUIT FOR PULL STATION LINKAGE. FIRE SUPPRESSION SUBCONTRACTOR SHALL VERIFY APPROVED LOCATION WITH THE LOCAL AUTHORITY AND COORDINATE THE COMPLETE INSTALLATION WITH ALL OTHER TRADES.
7. FIRE SUPPRESSION CABINET TO BE FURNISHED WITH THE HOOD PACKAGE, AND INSTALLED BY THE MECHANICAL CONTRACTOR. FINAL PIPING AND LINKAGE CONNECTIONS TO BE MADE BY THE HOOD FIRE SUPPRESSION SUBCONTRACTOR.
8. GANG REFRIGERATION PIPING TOGETHER FOR A SINGLE RISER ON EXTERIOR WALL TO UPPER LEVEL FOR SINGLE PENETRATION. PROVIDE FIELD FABRICATED WEATHER TIGHT JACK FOR ROUTING OF REFRIGERATION PIPING THROUGH WALL. COORDINATE EXACT WALL PENETRATION LOCATION WITH EXISTING PIPING AND LANDLORD.
9. EXTEND THE GREASE EXHAUST DUCT UP FROM THE HOOD COLLAR AND OFFSET HORIZONTALLY AS NECESSARY BEFORE ROUTING UP THRU ROOF TO THE EXHAUST FAN. HORIZONTAL DUCTWORK SHALL PITCH A MINIMUM 1/4" PER FOOT BACK TOWARDS THE HOOD. GREASE EXHAUST DUCT SHALL BE OF THE SAME SIZE AS THE HOOD COLLAR. FIELD COORDINATE THE REQUIRED TRANSITIONS OF EXHAUST DUCT FROM COMBUSTIBLE MATERIALS TO MAINTAIN THE MINIMUM CLEARANCES REQUIRED PER APPLICABLE CODE(S) AND FIRE WRAP MANUFACTURER'S INSTRUCTIONS.
10. PROVIDE EXHAUST DUCTS SIZED AS SHOWN. ROUTE EXHAUST DUCT FROM THE RESPECTIVE EXHAUST FAN TO RISER UP THROUGH THE ROOF.
11. ROUTE THE 10"ø CONDENSATE EXHAUST DUCT RISER UP AND OFFSET HORIZONTALLY AS NECESSARY BEFORE ROUTING UP THRU ROOF TO EXHAUST FAN. FIELD VERIFY REQUIRED TRANSITIONS OR OFFSETS OF EXHAUST DUCT FROM STRUCTURE. PITCH HORIZONTAL EXHAUST DUCT A MINIMUM OF 1/4" PER FOOT BACK TOWARDS THE HOOD. CONDENSATE EXHAUST DUCTWORK SHALL BE INSTALLED COMPLETE WITH EXTERNAL DUCT INSULATION SIMILAR TO OTHER HVAC DUCTWORK.
12. EXTEND THE 10"ø RESTROOM EXHAUST RISER UP TO THE ROOF MOUNTED GRAVITY VENT. FIELD VERIFY ANY REQUIRED TRANSITIONS OR OFFSETS TO AVOID EXISTING STRUCTURE.
13. AIR DEVICE IN HARD LID CEILING SHALL BE INSTALLED COMPLETE WITH OPPOSED BLADE DAMPER FOR MANUAL VOLUME ADJUSTMENT.
14. ROUTE MAKEUP AIR DUCTWORK TO PERFORATED SUPPLY PLENUM COLLAR CONNECTION. MAKEUP AIR DUCT CONNECTION SHALL BE OF THE SAME SIZE AS THE PLENUM COLLAR.
15. ROUTE MAKEUP AIR DUCTWORK FULL SIZE FROM THE UNIT CONNECTION AND DOWN THROUGH THE ROOF AS SHOWN. PROVIDE FLEXIBLE CONNECTION AND TRANSITION THROUGH THE JOISTS AS REQUIRED.
16. 12"ø OUTSIDE AIR DUCT UP TO GRAVITY RELIEF VENTILATOR ON ROOF. SIZE DUCT AS SHOWN. VERIFY ROUTING IN FIELD. PROVIDE WITH MOTORIZED DAMPERS AND ACTUATORS NECESSARY FOR COMPLETE OPERATION OF SYSTEM.
17. PROVIDE AIR DEVICES IN CEILING AND DUCTWORK BETWEEN FOR TRANSFER AIR. SIZE DUCT AS SHOWN.
18. REFER TO THE EXPOSED DUCT MOUNTED DIFFUSER DETAIL FOR PROPOSED MOUNTING OF THE DUCT MOUNTED AIR DEVICES. REFER TO ARCHITECTURAL ELEVATIONS FOR PROPOSED MOUNTING HEIGHT.
19. PROVIDE ACCESS PANEL FOR AHU HUNG ABOVE CEILING. RUN ALL BRANCHES IN CEILING SPACE TO MAINTAIN SINGLE PENETRATION THROUGH CEILING
20. REFER TO ARCHITECTURAL BUILDING INTERIOR ELEVATIONS FOR INSTALLATION HEIGHT OF SIDEWALL AIR DEVICES AND COORDINATE WITH LIGHTING.
21. EXPOSED DUCTWORK TO BE UNFINISHED GALVANIZED DOUBLE WALL SPIRAL DUCTWORK. BOTTOM OF DUCT WORK SHALL BE AT 12'-0" AFF. COORDINATE WITH ARCHITECTURAL DRAWINGS AND ELECTRICAL EQUIPMENT.
22. RETURN GRILLE AIR QUANTITY LISTED IS FOR PARTIAL RETURN DURING STANDARD OPERATING HOURS. RETURN DUCTS ARE SIZED FOR FULL RETURN DURING NIGHT SETBACK CONDITIONS. REFER TO SHEET M2.0 FOR AIR BALANCE REPORT ON DESIGN AIRFLOW RATES.
23. DUCTWORK CONCEALED BY FINISHED WALLS AND CEILINGS SHALL TRANSITION TO INTERNALLY INSULATED RIGID ROUND DUCT PRIOR TO BEING INSTALLED TO LINE OF SIGHT FROM GUESTS.
24. REMOTE GRADE-MOUNTED CONDENSER FOR SPLIT SYSTEM TO BE LOCATED ON EXISTING CONCRETE PAD. IF NOT EXISTING PROVIDE NEW. REFRIGERANT LINES NOT TO EXCEED MAXIMUM LINE LENGTH.
25. CONDENSATE DRAIN FROM AIR HANDLER. REFER TO PLUMBING DRAWINGS FOR CONTINUATION.
26. FIELD COORDINATE COMPLETE INSTALLATION OF REFRIGERATION PIPING TO THE HVAC AIR HANDLING UNITS. ALL PIPING SHALL BE INSTALLED IN STRAIGHT LINES AND SECURELY SUSPENDED FROM THE STRUCTURE TO PREVENT SAGGING. ROUTE REFRIGERANT LINES UP TO THE ROOF AND TO RESPECTIVE CONDENSING UNITS.
27. ELECTRIC PATIO HEATER SHALL BE MOUNTED ON FACTORY AVAILABLE MOUNTING BRACKET. REFER TO ARCHITECTURAL PLANS FOR MOUNTING HEIGHT.

MECHANICAL FLOOR PLAN
SCALE: 1/4" = 1'-0"

1

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DATE	DESCRIPTION
10.25.21	ISSUE FOR PERMIT
3.28.22	ISSUE FOR CONSTRUCTION

	DATE	DESCRIPTION
1	01.05.2022	CITY COMMENTS AND CLARIFICATIONS
6	04.11.2022	OWNER COMMENTS

SHEET TITLE:
MECHANICAL FLOOR PLAN

SHEET NUMBER:
M1.0

PROJECT NUMBER:
BAR21002