

MECHANICAL
CONTRACTOR:

PURE MECHANICAL

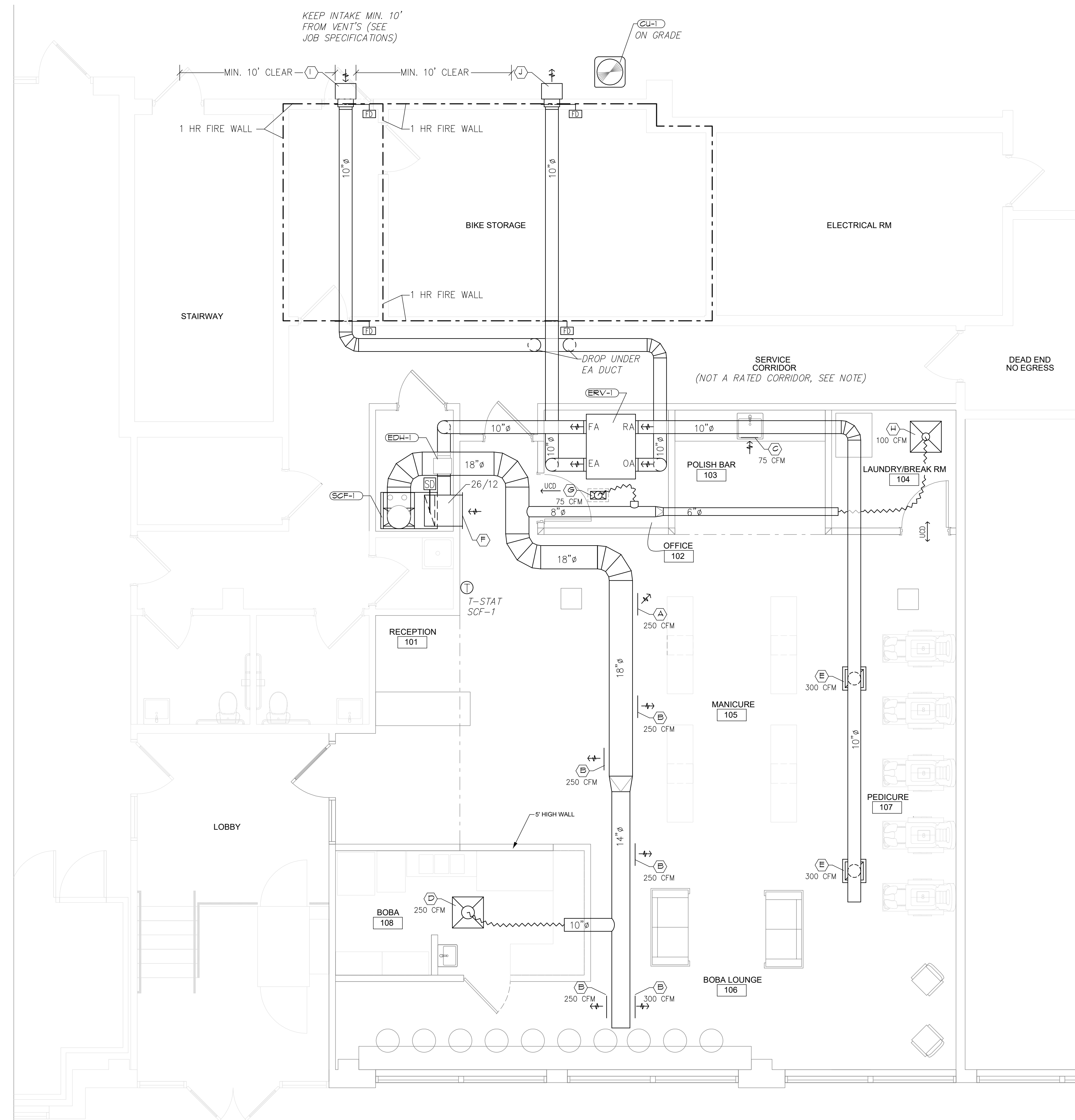
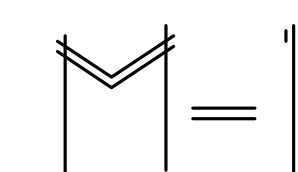
WALKESHA, WI

HVAC PLAN FOR:

ULTRA VIOLET SALON

926 WEST JUNEAU STREET
MILWAUKEE, WI

DRAWN	TJS
APPROVED	TJS
DATE	5/1/2024
JOB NO.	4010
SHEET	



KEEP INTAKE MIN. 10'
FROM VENT'S (SEE
JOB SPECIFICATIONS)

ON GRADE

MIN. 10' CLEAR

1 HR FIRE WALL

1 HR FIRE WALL

BIKE STORAGE

ELECTRICAL RM

STAIRWAY

DROP UNDER
EA DUCT

SERVICE CORRIDOR
(NOT A RATED CORRIDOR, SEE NOTE)

DEAD END
NO EGRESS

ERV-1

POLISH BAR
103

LAUNDRY/BREAK RM
104

OFFICE
102

RECEPTION
101

T-STAT
SCF-1

MANICURE
105

PEDICURE
107

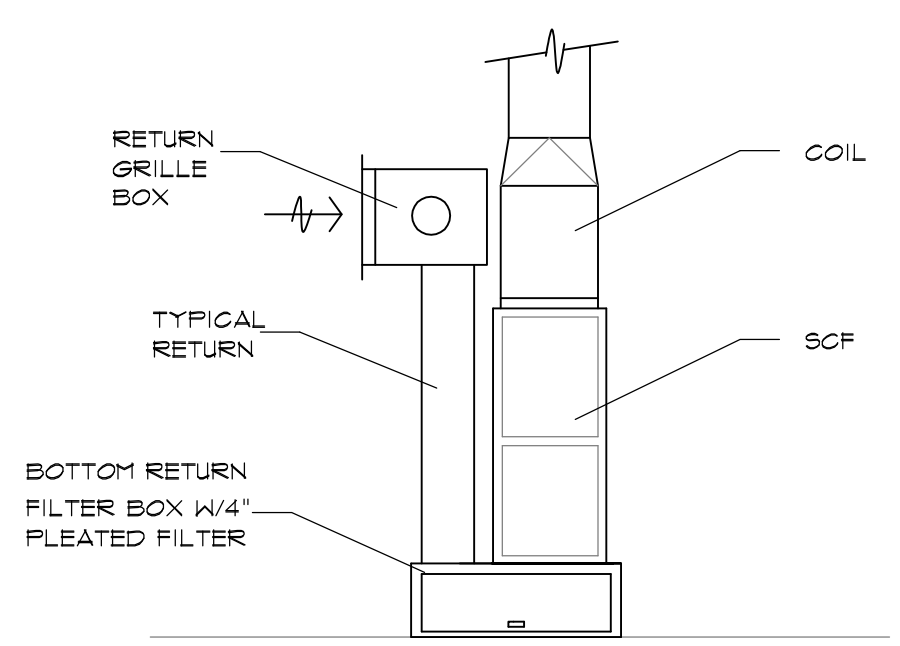
LOBBY

BOBA
108

BOBA LOUNGE
106

FLOOR PLAN

SCALE - 1/4" = 1'-0"



SCF DETAIL
NO SCALE

PLAN SYMBOLS

- (A) - 15" X 6" LINDAB R65-3 SPIRAL SA GRILLE W/DAMPER ON SIDE OF DUCT AT 9/3 O'CLOCK POSITION.
- (B) - 17" X 6" LINDAB R65-3 SPIRAL SA GRILLE W/DAMPER ON SIDE OF DUCT AT 9/3 O'CLOCK POSITION.
- (C) - 15" X 3" LINDAB R65-3 SPIRAL EA GRILLE W/DAMPER ON BOTTOM OF DUCT AT 6 O'CLOCK POSITION.
- (D) - 2' X 2' LAYIN PLAQUE STYLE DIFFUSER W/6" NECK. CONNECT DIFFUSER TO 10" BRANCH DUCT.
- (E) - 12" X 12" HART & COOLEY RES EA GRILLE ON BOTTOM OF EA DUCT. DROP DOWN FROM MAIN DUCT W/10" DUCT TO 10" X 10" SHEET METAL BOX ON BACK OF GRILLE.
- (F) - 24" X 24" HART & COOLEY R445 RA GRILLE IN HIGH SIDEWALL. HC TO BUILD SOUND LINED SHEET METAL BOX ON BACK GRILLE, CONNECT TO RA DUCT AS SHOWN.
- (G) - 10" X 6" HART & COOLEY 92VHV SA GRILLE IN LAYIN CEILING. BUILD INSULATED SHEET METAL BOX W/6" COLLAR ON BACK OF GRILLE AND CONNECT TO 6" DUCT.
- (H) - 2' X 2' LAYIN PLAQUE STYLE DIFFUSER W/6" NECK. CONNECT DIFFUSER TO 6" BRANCH DUCT.
- (I) - HC TO BUILD 14" X 14" WEATHER PROOF SCREENED 45" INTAKE HOOD ON SIDE OF BUILDING. HC TO BUILD HOOD SO FIRE DAMPER IS ACCESSIBLE FROM HOOD. (PAINT HOOD IF REQUIRED)
- (J) - HC TO BUILD 14" X 14" WEATHER PROOF SCREENED 45" EXHAUST HOOD ON SIDE OF BUILDING. HC TO BUILD HOOD SO FIRE DAMPER IS ACCESSIBLE FROM HOOD. (PAINT HOOD IF REQUIRED)
- (K) - HC TO INSTALL THERMOSTAT 48" A.F.F., VERIFY LOCATION WITH OWNER.
- (SD) - INDICATES SMOKE DETECTOR (SEE NOTE).
- (FD) - INDICATES REQUIRED FIRE DAMPER AT 1 HOUR RATED FIRE WALL (SEE FIRE DAMPER NOTE).

SEALED COMBUSTION GAS FURNACE SCHEDULE														
No.	MFR.	MODEL	NET INPUT	NET OUTPUT	CFM	VOLTAGE	MIN CIRCUIT CAPACITY	T-STAT	AFUE %	WEIGHT	MIN. CFM O.A.	DISCONNECT SWITCH FURNISHED & INSTALLED BY EC	BLWR HP	REMARKS
SCF-1	COMFORTMAKER	N42ESN0802120	80	75	1475	120-1-60	12.9	See Plan	92.1	150	675		ECM	1,2,3

1. HC TO INSTALL SCF-1 ONTO LS2843 BOTTOM MOUNT FILTER BASE ASSEMBLY.
2. PLUMBER TO PROVIDE FLOOR DRAIN FOR FURNACE AND AIR CONDITIONING CONDENSATE IN MECHANICAL ROOM.
3. HC TO VENT SCF-1 OUT SIDE OF BUILDING APPROX. NEAR ERV-1 EXHAUST IS SHOWN (FIELD VERIFY LOCATIONS AND FOLLOW MANUFACTURERS VENTING REQUIREMENTS). ALSO KEEP FURNACE VENTS MIN. 12" OR GREATER FROM ERV-1 EXHAUST HOOD.

CONDENSING UNIT SCHEDULE													
No.	MFR.	MODEL	TONS	VOLTAGE	MIN CIRCUIT CAPACITY	MAX FUSE	REF. LINES	EER	SEER	WEIGHT	LOCATION	DISCONNECT SWITCH FURNISHED & INSTALLED BY EC	REMARKS
CU-1	COMFORTMAKER	N4ATT60AKA	5.0	230-1-60	33.2	50	7/8" X 3/8"	14.5	18.0	233	GROUND		1,2

1. HC TO INSTALL CU ONTO 3" MOUNTING PAD.
2. HC TO WIRE Y1 AND Y2 AT CONDENSER TOGETHER TO Y1 FROM THE THERMOSTAT. THIS UNIT WILL NOT UTILIZE ITS TWO-STAGE FEATURE.

ENERGY RECOVERY VENTILATOR SCHEDULE													
No.	MFR.	MODEL	CFM OA	CFM EA	BLOWER	VOLTAGE	MCA	HQCP	CONTROL	TYPE	FURNISHED BY	INSTALLED BY	REMARKS
ERV-1	RENEWAIRE	HE07-JINH	675	675	DUAL ECM	208-1-60	3.5	15	SEE NOTE	SUSPENDED	HC	HC	1

1. DISCHARGE AIR TEMPERATURE 42°F AT -10°F OUTDOOR DESIGN CONDITIONS.

ELECTRIC DUCT HEATER SCHEDULE												
No.	MFR.	MODEL	BTU/Hr UNIT	VOLTAGE	RATED KW	ACTUAL KW	T-STAT	INSTALLED	AMPS	DIMENSIONS	REMARKS	
EDH-1	THERMOLEC	TER-10-5208	17,060	208-1-60	5.0	5.0	DISCHARGE SCR	HC	24.0	12" L X 14" W X 10" H	1,2,3,4,5	

1. EDH-1 COMES AS A COMPLETE ASSEMBLY (DUCT HEATER, CONTROLS, TRANSFORMER).
2. EDH-1 COMES WITH FACTORY DIGITAL SCR DISCHARGE CONTROLLER. HC TO SET TEMPERATURE TO 60°F.
3. EDH-1 COMES WITH FACTORY AIRFLOW SWITCH THAT WILL ONLY ALLOW UNIT TO OPERATE ONLY WHEN AIR FLOW IS PRESENT.
4. EDH-1 IS PLANNED TO BE LOCATED WHERE SHOWN. HC TO MAINTAIN ALL UNIT CLEARANCE REQUIREMENTS INCLUDING 36" NEG CLEARANCE REQUIREMENTS IN FRONT OF UNIT.
5. HC TO RELOCATE DISCHARGE AIR TEMPERATURE SENSOR FOR LEFT TO RIGHT AIRFLOW (SEE INSTALL MANUAL).

MINIMUM DUCT INSULATION SCHEDULE				
ITEM	INSULATED (Y/N)	MINIMUM R-VALUE	NOTES	REMARKS
RETURN AIR DUCTS WITHIN BUILDING ENVELOPE	NO	---		1
SUPPLY AIR DUCTS WITHIN BUILDING ENVELOPE	YES	4.2	ONLY SUPPLY DUCTS IN MECH. ROOM AND ABOVE CEILING, EXPOSED SPIRAL EXCLUDED	1
FRESH AIR INTAKE DUCTS	YES	6.0	ALL FRESH AIR INTAKE DUCTS ON ERV-1 UP TO EDH-1	1
ENVIRONMENTAL EXHAUST	YES	4.2	ALL EXHAUST DUCT ON DISCHARGE SIDE OF ERV-1.	1

1. ALL DUCTWORK LOCATED WITHIN THE BUILDING ENVELOPE DOES NOT REQUIRE INSULATION PER ICC COUNCIL. ALL DUCTS LISTED TO BE INSULATED IS TO PREVENT CONDENSATION.

FIRE DAMPER INSTALL NOTE

HEATING CONTRACTOR TO REVIEW MANUFACTURERS FIRE DAMPER INSTALLATION INSTRUCTIONS. ALL FIRE DAMPERS REQUIRE SPECIFIC INSTALLATION CRITERIA THAT ALLOW THE DAMPER TO FUNCTION PROPERLY IN THE EVENT OF A FIRE. SOME INSTALLATION REQUIREMENTS INCLUDE FASTENING METHODS, BREAK AWAY REQUIREMENTS, DAMPER EXPANSION CLEARANCE REQUIREMENTS, ETC.

HC TO PROVIDE A LABELED ACCESS AT ALL FIRE DAMPERS DAMPERS. DAMPERS AND DAMPER ACCESS SHALL BE LABELED WITH 1/2" LETTERING INDICATING "FIRE DAMPER".

ECONOMIZER OMISSION NOTE

FORCED AIR ECONOMIZERS ARE NOT PROVIDED/REQUIRED PER IECC G401 WHICH PERMITS THE USE OF HIGH EFFICIENCY COOLING EQUIPMENT IN LIEU OF ECONOMIZERS DEMONSTRATED VIA COMPARISON CALCULATIONS. THE INCLUDED HIGH SEER RATED CONDENSER EFFICIENT OPERATION THAT EXCEEDS THE ENERGY SAVINGS THAT A STANDARD 13 SEER SYSTEM AND ECONOMIZER WOULD PROVIDE. THIS HIGH EFFICIENCY OPTION WAS SELECTED BECAUSE LARGE INTAKE AND EXHAUST LOUVERS WOULD NOT HAVE BEEN POSSIBLE ON THIS EXISTING BUILDING.

SMOKE DETECTOR NOTE

HC TO INSTALL A "SYSTEM SENSOR" BRAND DUCT MOUNTED SMOKE DETECTOR ON SCF-1 RETURN AIR DUCT. LOCATE THE DETECTOR ON THE RETURN DUCT DROP DROP FOR SERVICE AND MAINTENANCE ACCESS. INSTALL ACCORDING TO THE MANUFACTURES INSTRUCTIONS. DETECTOR COMES WITH AN AIR DUCT SAMPLING TUBE. HC TO INSTALL AS REQUIRED AND WIRE 24 VOLT CONTACTS TO THE FURNACE BLOWER CIRCUIT OR 1Ø CIRCUIT SO THAT WHEN THE DETECTOR IS IN ALARM MODE, THE BLOWER IS DE-ENERGIZED.

ONCE INSTALLED, HC TO TEST THE DETECTOR FOR PROPER FUNCTIONING. SENSING TUBE TO BE LOCATED SUCH THAT IT SENSES ALL OF THE RETURN AIR TO THE UNIT.

SMOKE DETECTOR IS 120 VOLT AND IS TO BE WIRED BY THE ELECTRICAL CONTRACTOR. IF BUILDING OWNER, SPRINKLER CONTR. OR ADDITIONAL CODES REQUIRE EACH DETECTOR TO BE WIRED INTO THE BUILDING ALARM OR SPRINKLER SYSTEM OR MONITORING STATION, THIS INTERLOCKING AND WIRING IS TO BE BY OTHERS. IF A CENTRAL OR REMOTE MONITORING PANEL IS REQUIRED, IT SHALL BE BY OTHERS.

THERMOSTAT NOTE

SCF-1 THERMOSTAT TO BE HONEYWELL TH810R SINGLE-STAGE PROGRAMMABLE SETBACK TYPE. HC TO PROGRAM FAN TO OPERATE CONTINUOUSLY DURING OCCUPIED HOURS.

INSTALL THERMOSTATS 48" A.F.F. VERIFY LOCATIONS WITH OWNER.

VENTILATION CONTROL NOTE

EC TO PROVIDE INTERLOCK FROM THE SALON LIGHTING SYSTEM TO ENERGIZE ERV-1. TURNING ON THE LIGHTS IN THE SPACE SHALL INDICATE OCCUPANCY TO ENERGIZE A RELAY OR CONTACTOR TO ENERGIZE UNIT. THE RELAY CONTACTS SHALL BE WIRED TO ERV-1 TERMINALS COM, EN AND VAR (SEE INSTALL MANUAL). CLOSING THIS 24V CONTROL CIRCUIT WILL ALLOW THE ERV UNIT TO OPERATE AT FULL SPEED TO PROVIDE THE REQUIRED VENTILATION. THE EDH-1 WILL OPERATE AUTOMATICALLY WHEN AIR FLOW IS SENSED AND WHEN INTERNAL TEMPERATURE SENSOR SENSES AN AIRFLOW TEMPERATURE FROM ERV-1 BELOW SETPOINT.

COOLER CONDENSER NOTE

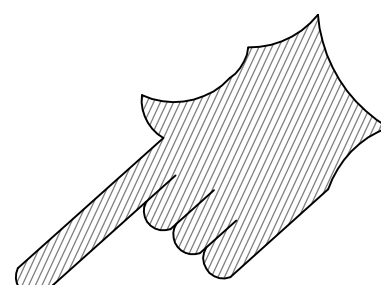
ALL LARGE CAPACITY COOLERS, REFRIGERATORS AND FREEZER CONDENSERS TO BE LOCATED OUTSIDE THE OCCUPIED SPACE SO NOT TO CREATE EXCESSIVE HEAT LOAD ON THE HVAC EQUIPMENT. THE HVAC SYSTEMS HAVE BEEN SIZED TO PROVIDE ADEQUATE COOLING BASED ON A LIMITED AMOUNT OF SMALLER CAPACITY REFRIGERATOR CONDENSERS THAT ARE NOT REMOTE CONDENSER CAPABLE.

BOBA 108 ROOM NOTE

THIS ROOM IS NOT FOR COOKING OF FOOD. THE OUTLINED OBJECTS SHOWN ON THIS PLAN INDICATE SINK, COUNTER AND REFRIGERATOR.

FIREWALL NOTE

NOTED EXISTING FIREWALLS ARE SHOWN ON THIS PLAN PER THE DIRECTION OF THE GENERAL CONTRACTOR AND AS NOTED ON THE REMODELED SPACE BUILDING PLANS. ALL FIRE WALLS AND FINAL PENETRATIONS TO REVIEWED AND VERIFIED IN THE FIELD.



JOB SPECIFICATIONS

- 1001: ALL DUCTWORK SHALL COMPLY TO THE WISCONSIN IBC/IMC CODE 2015 EDITION -- ALL DUCT DIMENSIONS ARE INSIDE DIMENSIONS.
- 1002: ALL METALLIC DUCTWORK TO CONFORM TO SMACNA DUCT CONSTRUCTION STANDARDS-2009 THIRD ADDITION.
- 1003: ALL LOW VOLTAGE WIRING, PIPES, DRAINS (EXCEPT AS NOTED), DUCTS AND REQUIRED BUILDING HOLES TO BE BY HC.
- 1004: ALL LINE VOLTAGE WIRING AND REQUIRED DISCONNECT SWITCHES TO BE FURNISHED AND INSTALLED BY EC.
- 1005: HC TO PROVIDE CHECK, TEST AND START UP OF ALL HVAC EQUIPMENT.
- 1006: HC TO BALANCE HVAC SYSTEM ACCORDING TO THE PLAN AND OWNERS COMFORT -- DOCUMENT IN WRITING THE RESULTS.
- 1007: HC TO GO THROUGH THE SYSTEM OPERATION WITH THE OWNER ONCE THE OWNER HAS SETTLED INTO THE BUILDING.
- 1008: HC TO INSTALL AND VENT ALL OF THE HVAC EQUIPMENT ACCORDING TO THE MANUFACTURES INSTRUCTIONS.
- 1009: ALL FRESH AIR INTAKES TO BE MINIMUM 10' - 0" FROM ALL PLUMBING VENTS, FLUES, EXHAUST VENTS ETC.
- 1010: 'HC' ON PLANS REFERS TO THE HEATING CONTRACTOR, 'EC' ON PLANS REFERS TO THE ELECTRICAL CONTRACTOR.
- 1011: HC TO FURNISH AND INSTALL MANUAL BALANCING DAMPERS IN EACH SUPPLY, FRESH AIR AND ENVIRONMENTAL EXHAUST AIR BRANCH DUCTS.
- 1012: HC TO FURNISH TO OWNER UPON COMPLETION (2) SETS OF OPERATION AND MAINTENANCE MANUALS FOR ALL MAJOR HVAC EQUIPMENT.
- 1013: HC TO EXTERNALLY INSULATE ALL DUCTS ACCORDING TO THE SCHEDULE ON PAGE M-1.
- 1014: HC TO CALIBRATE AND TEST THE OPERATION OF ALL HVAC CONTROLS.
- 1015: ALL REQUIRED PERMITS AND FEES TO BE BY HC.
- 1016: HC TO FIELD VERIFY THE FIT AND FINISH OF ALL DUCTWORK PRIOR TO FABRICATING.
- 1017: FLEXIBLE DUCT RUNS NOT TO EXCEED 20'.
- 1018: HC TO SECURELY FASTEN AND SEAL ALL SUPPLY, RETURN AND EXHAUST DUCT JOINTS. TRANSVERSE/LONGITUDINAL SEAMS AND CONNECTIONS. APPROVED SEALANTS TO INCLUDE WELDS, GASKETS, MASTICS AND ADHESIVE TAPES AS REQUIRED BY IMC 2015.
- 1019: ALL GAS PIPING TO BE SIZED, FURNISHED AND INSTALLED BY OTHERS. GAS PIPING SHALL COMPLY WITH NFPA 54-2015 NATIONAL FUEL GAS CODE.
- 1020: HC TO INSTALL GAS PRESSURE REGULATORS AT ALL HVAC UNIT AS REQUIRED.
- 1021: ALL MAIN DUCTS TO BE SUPPORTED NO MORE THAN EVERY 10' USING APPROVED HANGERS IN ACCORDANCE WITH IMC 603.10.
- 1022: ALL FLEXIBLE DUCTS SHALL BEAR THE UL (B) LISTING TO IDENTIFY AS FLEXIBLE 'DUCTS' PER IMC 603.31.
- 1023: ALL THERMOSTATS AND CONTROLS TO BE LOCATED 48" A.F.F.

MECHANICAL CONTRACTOR:

PURE MECHANICAL

WALKESHA, WI

HVAC PLAN FOR:

ULTRA VIOLET SALON

926 WEST JUNEAU STREET
MILWAUKEE, WI

DRAWN	TJS
APPROVED	TJS
DATE	5/1/2024
JOB NO.	4010
SHEET	

M=2

OF 2 SHEETS

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