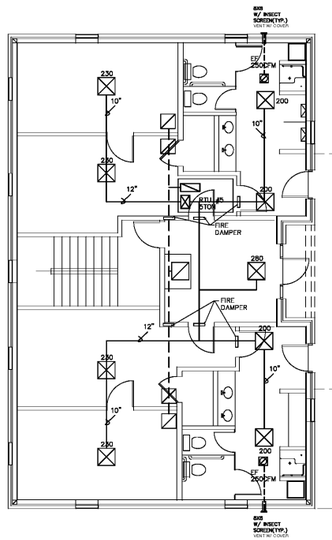
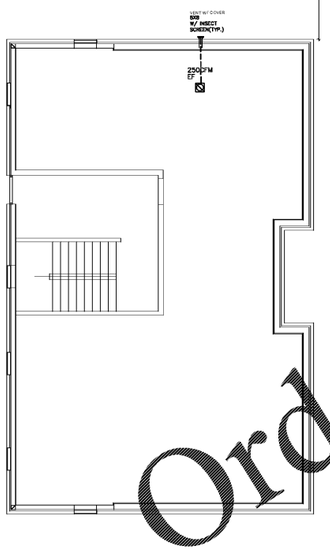


MECHANICAL PLAN
1/8" = 1'-0"



MECHANICAL NOTES

1. Mechanical contractor shall obtain the mechanical permit for the work.
2. Contractor shall make the existing heatingand air condition equipment operable for the intended use to meet the current code requirements.
3. Duct work shall pass leak test.
4. All duct work shall have proper fire insulation and shall have access door to clean inside of the ducts.
5. Clean all existing air handling diffusers in the space.
6. All fans supplying more than 2,000 cfm shall be controlled with a smoke detector in compliance with Section 606.2.1 of the I.M.C. The smoke detector shall be wired to stop the fan upon detection of smoke.

AIR CALCULATION

FRESH AIR CALCULATED BASED ON IMC TABLE 403.3 50 CFM/PERSON AT NON-SMOKING AREA. AND REQUIRER FRESH AIR CALCULATION AS FOLLOWS:

1. NON SMOKING

1. WORSHIP AREA (2916 SF)
(120/1000)X2916=(349.92X5)+(2916X0.06)=(1750+175)=1925

2. BEDROOM AREA (974 SF)
(100X5)+(974X0.06)=(500+58)=558

3. BREAKROOM AREA (54 SF)
(70/1000)X54=(3.78X7.5)+(54X0.18)=(28+10)=38

4. CONFERENCE AREA (202 SF)
(50/1000)X202=(10.1X5)+(202X0.06)=(51+12)=63

5. HALL AREA (152 SF)
(30/1000)X152=(4.56X5)+(152X0.06)=(23+9)=32

2616 CFM (FRESH AIR REQUIRED)

2640 CFM (FRESH AIR PROVIDED BY A/C)

NOTE:
Low pressure insulated flexible duct shall be designed in accordance with ACCA (Air Conditioning Contractors of America) duct sizing calculation based on a friction loss of 0.1.
The degree and amount of radius bends will also affect the calculated air flow. route duct to prevent oval flex as recommended by the manufacture. The following chart is based on straight runs and is taken from the ACCA duct sizing calculations.

CFM	FLEXDUCT DIAMETER
0 – 80	6"
81 – 165	8"
166 – 300	10"
301 – 500	12"
501 – 650	14"

FAN SCHEDULE

MARK	LOCATION	TYPE	MANUFACTURER & MODEL NO.	CFM	MIN E.S.P. (IN.WG)	FAN SPEED (RPM)	DRIVE TYPE	ELECTRICAL DATA		CONTROL SCHEDULE NOTE	ACCESSORIES NOTE
								HP/WATTS	VOLT/PH		
EF-1	HALL	CEILING MOUNT	GREENHECK	1000	0.5	0.65	DIRECT	50W	120V/1	A	GO THRU WALL
EF-2	HALL	CEILING MOUNT	GREENHECK	600	0.5	0.65	DIRECT	50W	120V/1	A	GO THRU WALL
EF-3	TOILET	CEILING MOUNT	GREENHECK SP-B50	75	0.75	0.75	DIRECT	10W	120V/1	A	GO THRU WALL
EF-4	TOILET	CEILING MOUNT	GREENHECK SP-B55	200	0.25	0.25	DIRECT	20W	120V/1	A	GO THRU WALL
EF-5	TOILET	CEILING MOUNT	GREENHECK SP-B55	250	0.25	0.25	DIRECT	20W	120V/1	A	GO THRU WALL

NOTES:
1. SCREEN
2. BACKDRAFT DAMPER
3. COLOR BY ARCHITECT
4. INTEGRAL DISCONNECT SWITCH
5. UL.

CONTROL:
A. INTERLOCK W/ LIGHTS

ROOF TOP UNIT SCHEDULE

TAG	AREA SERVED	NOMINAL TONS	CARRIER MODEL NO.	TOTAL CFM	ESP (INCHES)	O.A CFM	MAX. FAN H.P.	COOLING					HEATING NAT. GAS			MAX. WEIGHT LBS	(ALL NOTES APPLY) ACCESSORIES
								TOTAL MBH	SENS. MBH	EAT (COIL) DB/WB	LAT (COIL) DB	MIN. SEER /EER	INPUT MBH	OUTPUT MBH	AFUE %		
RTU – 1	AS SHOWN	5TON	42HJ 005	2000	0.6	600	2.4	76.2	56.8	80.0/67.0	95.0	SEER 13.0	80.8	65.0	80.0	320	1,2,3,4,
RTU – 2	AS SHOWN	5TON	42HJ 005	2000	0.6	600	2.4	76.2	56.8	80.0/67.0	95.0	SEER 13.0	80.8	65.0	80.0	320	1,2,3,4,
RTU – 3	AS SHOWN	5TON	42HJ 005	2000	0.6	600	2.4	76.2	56.8	80.0/67.0	95.0	SEER 13.0	80.8	65.0	80.0	320	1,2,3,4,
RTU – 4	AS SHOWN	2TON	42HJ 002	800	0.3	240	1.2	34.2	29.6	50.0/43.0	55.0	SEER 13.0	35	310.0	80.0	180	1,2,3,4,
RTU – 5	AS SHOWN	5TON	42HJ 005	2000	0.6	600	2.4	76.2	56.8	80.0/67.0	95.0	SEER 13.0	80.8	65.0	80.0	320	1,2,3,4,

NOTES: (APPLIES TO ALL ROOF TOP UNITS)
1. UNIT COOLING CAPACITIES, AND MINIMUM SEER/EER RATING ARE BASED AT 80 DB/67 WB COIL EAT AND 95° DB ENTERING CONDENSER COIL.
COOLING CAPACITIES SHALL BE WITHIN 80K OF THE VALUES SCHEDULES COOLING VALUES SHOWN ARE GROSS.
2. FOR SHELL FINISH SUITES THE FINAL MINIMUM OUTSIDE AIR QUANTITY SHALL BE DETERMINED DURING THE TENANT FINISH PHASE OF WORK SET DAMPER AT 20% FOR THIS PHASE OF WORK. FOR "WHITE BOX" FINISH SUITES, SEE OUTSIDE AIR.
3. WEIGHT INCLUDES BASE UNIT ALL ACCESSORIES ROOF CURB AND 150LBS FOR SOUND ALTERLATION INSULATION WITHIN THE ROOF CURB AND A MODEST SAFETY FACTOR. IF CONTRACTOR WANT TO PROVIDE AN ALTERNATE UNIT. HE SHALL COORDINATE THE TOTAL WEIGHT OF UNIT AND THE REQUIRED ROOF PENETRATION SIZES AND OPENATAIONS WITH THE STRUCTURAL ENGINEER AND THE ARCHITECT PRIOR TO ORDERING EQUIPMENT. FOR ADDITIONAL INFORMATION.
4. SUBMIT SHOP DRAWINGS INDICATING THE PROPOSED UNIT'S CAPACITIES OF THE SCHEDULED VALUE VALUES.

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MECHANICAL PLAN NOTES & SCHEDULE

REVISION	BY

DRAWN BY:

SCALE: AS NOTED

PROJECT NO:

DATE: 06/06/17

SHEET
M1
OF SHEETS