AIR BALANCE SCHEDULE

	ZONE 1 AHU-1 FLOOR 1	ZONE 2 RTU-1 FLOOR 2	ZONE 3 AHU-2 FLOOR 2	ZONE 4 RTU-2 FLOOR 2	ZONE 5 RTU-3 FLOOR 2	ZONE 6 RTU-4 FLOOR 3	ZONE 7 DS-1 FLOOR 3	ZONE 8 RTU-5 FLOOR 3	ZONE 9 RTU-6 FLOOR 3	ZONE 10 RTU-7 FLOOR 3	ZONE 11 RTU-8 FLOOR 3	ZONE 12 RTU-9 FLOOR 3	ZONE 13 RTU-10 FLOOR 3	ZONE 14 RTU-11 FLOOR 3	STAIRS-1 RTU-12	STAIRS-2 RTU-13	TOILET EXHAUST FANS	NAIL CLINIC EXHAUST FAN	COMMENTS
OUTSIDE AIR FLOW (CFM)	157	929	513	1007	1182	162	198	206	247	284	160	325	240	100	102	90			
RETURN AIR FLOW (CFM)	1843	5071	687	2993	6818	1838	402	994	953	1716	840	2275	960	1500	1098	1110			
SUPPLY AIR FLOW (CFM)	2000	6000	1200	4000	8000	2000	600	1200	1200	2000	1000	2600	1200	1600	1200	1200			
EXHAUST AIR FLOW (CFM)			513		510												75	308(*)	ZONE 3: E.F.= 513 CFM, ZONE 5: E.F.= 502 CFM & RTU EXHAUST= 510 CFM
BUILDING PRESSURE (CFM)	+157	+929	+0	+1007	+672	+162	+198	+206	+247	+284	+160	+325	+240	+100	+102	+90	-75	-308	
QUANTITIES	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	
TOTAL PRESSURIZATIONS	+157	+929	+0	+1007	+672	+162	+198	+206	+247	+284	+160	+325	+240	+100	+102	+90	-300	-308	
UNIT SIZE	5 TON	15 TON	3 TON	10 TON	20 TON	5 TON	1 1/2 TON	3 TON	3 TON	5 TON	2 1/2 TON	6 1/2 TON	3 TON	4 TON	3 TON	3 TON			
HEAT SOURCE	GAS	GAS	ELEC.	GAS	GAS	GAS	ELEC.	ELEC.	ELEC.	ELEC.	GAS	GAS	ELEC.	ELEC.	GAS	GAS			
RESULTING BUILDING PRESSURIZATION (CFM) = +4361																		(*) SEE NAIL CLINIC NOTES	

SPLIT SYSTEM A/C (AHU) SCHEDULE

NO.	TOTAL BTU	CFM	O.A.	HEAT	ELECTRICAL			COMMENTS
					VOLTAGE	MCA	CKT BRKR	
AHU-1	60,000 5 TON	2000	157	35,000 BTU/HR. GAS	208V, 3Ø	-	-	ZONE 1 - FIRST FLOOR
AHU-2	36,000 3 TON	1200	513	11.3 KW ELECTRIC	208V, 3Ø	-	-	ZONE 3 - SECOND FLOOR

ROOFTOP A/C (RTU) SCHEDULE

NO.	TOTAL BTU	CFM	O.A.	HEAT	ELECTRICAL			COMMENTS
					VOLTAGE	MCA	CKT BRKR	
RTU-1	180,000 15 TON	6000	929	160,000 BTU/HR. GAS	208V, 3Ø	-	-	ZONE 2 - SECOND FLOOR
RTU-2	120,000 10 TON	4000	1007	110,000 BTU/HR. GAS	208V, 3Ø	-	-	ZONE 4 - SECOND FLOOR
RTU-3	240,000 20 TON	8000	1182	225,000 BTU/HR. GAS	208V, 3Ø	-	-	ZONE 5 - SECOND FLOOR
RTU-4	60,000 5 TON	2000	162	58,000 BTU/HR. GAS	208V, 3Ø	-	-	ZONE 6 - THIRD FLOOR
RTU-5	36,000 3 TON	1200	206	7.9 KW ELECTRIC	208V, 3Ø	-	-	ZONE 8 - THIRD FLOOR
RTU-6	36,000 3 TON	1200	247	8.3 KW ELECTRIC	208V, 3Ø	-	-	ZONE 9 - THIRD FLOOR
RTU-7	60,000 5 TON	2000	284	20 KW ELECTRIC *	208V, 3Ø	-	-	ZONE 10 - THIRD FLOOR
RTU-8	30,000 2 1/2 TON	1000	160	28,000 BTU/HR. GAS	208V, 3Ø	-	-	ZONE 11 - THIRD FLOOR
RTU-9	78,000 6 1/2 TON	2600	325	78,000 BTU/HR. GAS	208V, 3Ø	-	-	ZONE 12 - THIRD FLOOR
RTU-10	36,000 3 TON	1200	240	6.3 KW ELECTRIC	208V, 3Ø	-	-	ZONE 13 - THIRD FLOOR
RTU-11	48,000 4 TON	1600	100	11.2 KW ELECTRIC	208V, 3Ø	-	-	ZONE 14 - THIRD FLOOR
RTU-12	36,000 3 TON	1200	102	24,000 BTU/HR. GAS	208V, 3Ø	-	-	STAIRS-1
RTU-13	36,000 3 TON	1200	90	12,000 BTU/HR. GAS	208V, 3Ø	-	-	STAIRS-2

NOTES:
* 20 KW HEAT UNIT COMPOSED OF 2 EA. 10 KW HEATER ELEMENTS.
** CONTRACTOR SHALL ASSERTAIN & INSTALL CORRECT SIZE ELECTRICAL EQUIPMENT AND WIRING TO MEET REQUIREMENTS OF EQUIPMENT PURCHASED.

SPLIT-DUCTLESS A/C & HEATPUMP UNIT SCHEDULE

NO.	TOTAL BTU	CFM	O.A.	HEAT	ELECTRICAL			COMMENTS
					VOLTAGE	MCA	CKT BRKR	
DS-1	18,000 1 1/2 TON	600	198	2.6 KW ELECTRIC	208V, 3Ø	-	-	ZONE 7 - THIRD FLOOR MR. SLIM (MITSUBISHI) (VERIFY WITH OWNER)

MECHANICAL NOTES

1. CONCEALED DUCTWORK TO BE UL-181, CLASS 1, FIBERGLASS DUCTBOARD. DUCTS SHALL BE SIZED TO LIMIT MAIN DUCTS TO 1000 FPM & SECONDARY DUCTS TO 800 FPM. TO BE INSTALLED PER SMACNA STANDARDS.
2. ALL CONCEALED DUCTWORK TO BE GALVANIZED SHEET METAL PER SMACA STANDARDS. LINE WITH NEOPRENE COATED 1.0," 1.5 POUNDS PER CUBIC FOOT DUCT INSULATION.
3. ALL EXPOSED DUCTWORK TO BE ROUND KE FIBERTEC PERFORATED FABRIC DUCT OR EQUAL, PER OWNER'S CHOICE.
4. IN ALL SYSTEMS OVER 2000 CFM AND LESS THAN 15,000 CFM, SMOKE DETECTORS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 72E IN THE RETURN DUCT DOWNSTREAM OF THE AIR HANDLING UNIT AND ALL FILTERS TO AUTOMATICALLY STOP THE FAN.
5. PROVIDE U.L. LISTED 125 'F' FIRESTAT IN RETURN AIR OF EACH SYSTEM UNDER 2000 CFM TO SHUT DOWN THE FAN IN THE EVENT OF FIRE.
6. PROVIDE U.L. RATED FIRE DAMPERS WHERE REQUIRED AT ALL DUCT PENETRATIONS OF FIRE-RATED ASSEMBLIES AND WHERE REQUIRED BY CODE, INCLUDING OUTSIDE AIR INTAKES.
7. CONDENSATE DRAINS TO BE PVC PIPE RUN TO PLUMBERS P-TRAP WITHIN FIVE FEET OF AIR HANDLING UNITS.
8. ALL AIR HANDLING SYSTEMS TO BE BALANCED TO ASSURE PROPER AIR FLOWS PER PLANS.
9. ALL THERMOSTATS TO BE AUTOMATIC CHANGEOVER WITH HEAT SWITCH.
10. EXHAUST FAN EQUAL TO BROAN MODEL NO. L300 SERIES OR EQUAL. FAN SHALL BE CONTROLLED BY A SWITCH ON THE WALL AT FRONT OF STORE. PROVIDE BACK DRAFT DAMPER.
11. PROVIDE AND INSTALL WATER PROOF GRILLE VENT IN PROPER ROOF LOCATION FOR PLUMBING FIXTURE EXHAUST.
12. ALL SUPPLY AIR VENTS SHALL BE EQUIPPED WITH AIR CONTROL DAMPERS.
13. LOCATE OUTDOOR UNITS AS SHOWN ON ARCH. DWGS.
14. REFRIGERANT LINES SHALL BE SIZED BY UNIT MANUFACTURER AND INSTALLED ACCORDING TO MANUFACTURER'S INSTRUCTIONS.
15. FRESH AIR SHALL BE SUPPLIEDTO EACH AIR HANDLER THROUGH EXTERIOR WALL DUCT SUPPLIED WITH A CONTROL DAMPER.
16. INSTALL FIRE DAMPER WHERE S.A. & R.A. DUCTS PENETRATE RATED ASSEMBLIES.
17. ALL ELECTRICAL, MECHANICAL, AND PLUMBING PENETRATING FIRE WALLS SHALL BE FIRE CAULKED. (PENETRATIONS THROUGH RATED CONSTRUCTION SHALL BE SEALED WITH A MATERIAL CAPABLE OF PREVENTING THE PASSAGE OF FLAMESAND HOT GASES WHEN TESTED IN ACCORDANCE WITH ASTM-E8-14).
18. MECHANICAL PLANS ARE DRAWN SCHEMATICALLY. CONTRACTOR TO ROUTE DUCT SYSTEMS PER FIELD CONDITIONS.
19. AREA OF REFUGE SHALL BE DESIGNED IN ACCORDANCE WITH NFPA 92A, TO INCLUDE STAIRWELL PRESSURIZATION SYSTEMS. PROVIDE PROPER ACTIVATION AND CONTROL SYSTEMS.

EXHAUST FAN SCHEDULE

NO.	LOCATION	CFM	VOLTAGE	TYPE	REMARKS
EF-1	WOMENS RESTROOM-SECOND FLOOR	75	120	VENT	
EF-2	MENS RESTROOM-SECOND FLOOR	75	120	VENT	
EF-3	NAIL CLINIC-SECOND FLOOR	513	120	VENT	SEE NOTES
EF-4	COLOR BAR AREA-SECOND FLOOR	502	120	VENT	
EF-5	MENS RESTROOM-THIRD FLOOR	75	120	VENT	
EF-6	WOMENS RESTROOM-THIRD FLOOR	75	120	VENT	

NAIL CLINIC NOTES:

1. PROVIDE SWITCH TO ACTIVATE NEW EXHAUST FANS. HVAC BLOWER MOTORS MUST ENGAGE WHEN EXHAUST FANS ARE RUNNING TO ENSURE PROPER AIR CIRCULATION AND VENTILATION.
2. NEW EXHAUST FANS AND PARTS OF EXHAUST SYSTEM IN CONTACT WITH EXPLOSIVE OR FLAMMABLE VAPORS, FUMES, OR DUSTS SHALL BE OF NONFERROUS OR NONSPARKING MATERIALS, OR THEIR CASING SHALL BE LINED OR CONSTRUCTED OF SUCH MATERIAL IN ACCORDANCE WITH IMC 2006, SEC 503.2
3. FIELD VERIFY ALL PARTITION WALLS ARE CONSTRUCTED TIGHT TO ROOF DECK AND SEALED WITH AN APPROVED FIRE CAULK.

STAIRWELL INTAKE FAN SCHEDULE

NO.	LOCATION	CFM	VOLTAGE	TYPE	REMARKS
IF-1	TOP OF STAIRWELL-1 AT ROOF	3500	-	FAN	3/4 H.P. MOTOR
IF-2	TOP OF STAIRWELL-2 AT ROOF	3500	-	FAN	3/4 H.P. MOTOR

INTAKE FAN NOTES:

1. STAIRWELL INTAKE FANS SHALL BE CONNECTED TO THE BUILDING'S FIRE ALARM SYSTEM.
2. PROVIDE PROPER ACTIVATION AND CONTROL SYSTEMS FOR FANS TO ACTIVATE IN THE EVENT OF FIRE OR SMOKE TO KEEP STAIRWELLS SMOKE-FREE.

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MECHANICAL
NOTES
AND
SCHEDULES

REV:

SCALE: AS NOTED

JOB#: 2051

DATE: 01-04-10

SHEET

M-4

OF