

ROOM VENTILATION CALCULATIONS (23 PERCENT OUTDOOR AIR)							PG. 1 OF 3
VAV BOX	ROOM NAME	AREA (F.)	PEOPLE	CFM / S.F. CFM / PEOPLE	O.A. CFM REQUIRED	TOTAL CFM REQUIRED	MINIMUM CFM PROVIDED
101	HOLDING	65	2	0.12	5	18	80
	HOLDING	65	2	0.12	5	18	80
	VESTIBULE	100		0.06	5	6	26
	VESTIBULE	100		0.06	5	6	26
							220
102	LOBBY	300	3	0.06	5	33	140
103	WOMEN'S LOCKERS	210	4	0.06	5	33	140
104	MEN'S LOCKERS	355	6	0.06	5	46	230
105	BREAK ROOM	200	3	0.06	5	26	120
106	VESTIBULE	120	3	0.06	5	23	100
107	LOBBY	830	9	0.06	5	95	420
108	OFFICE	600	7	0.06	5	71	320
109	INTERVIEW	100	3	0.06	5	21	80
110	OFFICE	195	3	0.06	5	27	120
111	VISITATION	190	7	0.06	5	47	210
	VISITATION	190	7	0.06	5	47	210
	SALLYPORT	85	-	0.06	5	6	26
							460
112	OFFICE	195	3	0.06	5	27	120
113	CONTROL ROOM	105	3	0.06	5	21	100
114	HALLWAY	490	-	0.06	5	29	130
201	FEMALE HOLDING	207	6	0.12	5	55	240
	HALLWAY	100	-	0.06	5	6	26
							260
202	MALE HOLDING	249	7	0.12	5	65	280
203	HOLDING	65	2	0.12	5	18	80
	HOLDING	65	2	0.12	5	18	80
	HOLDING	65	2	0.12	5	18	80
	HOLDING	65	2	0.12	5	18	80
							320
204	LOBBY	500	7	0.06	5	65	280
205	MALE HOLDING	249	7	0.12	5	65	280
206	PROCESS DESK	150	3	0.06	5	24	110
207	VIDEO ARRANGMENT	137	3	0.06	5	24	110
208	VIDEO ARRANGMENT	137	3	0.06	5	24	110
209	PHLEBOTOMIST	125	3	0.06	5	23	100
210	FINGER PRINTER	125	3	0.06	5	23	100
211	WORK STATIONS	1085	16	0.06	5	140	620
	HALLWAY	300	-	0.06	5	16	80
							700
							800

EXHAUST FAN SCHEDULE SCHEDULE										
MARK	TYPE	CFM	SP	RPM	HP	VOLTAGE	SONES	WEIGHT (LBS.)	MANUFACTURER	MODEL
EF-101	POWER ROOF VENTILATOR	250	.25	1550	1/10	120	5	100	GREENHECK	G-070-VG
EF-102	POWER ROOF VENTILATOR	550	.25	1550	1/10	120	7	200	GREENHECK	G-090-VG
EF-103	POWER ROOF VENTILATOR	1220	.75	1400	3/4	120	8	200	GREENHECK	G-140-VG
EF-104	POWER ROOF VENTILATOR	290	.50	1550	1/10	120	7	200	GREENHECK	G-080-VG
EF-105	POWER ROOF VENTILATOR	610	.50	1245	1/4	120	7	200	GREENHECK	G-100-VG
SEF-101	SMOKE POWER ROOF VENTILATOR	2600	1.00	1075	1	208-30	14	300	GREENHECK	USGF-180-VG

PROVIDE WITH 14" HIGH ROOF CURB WITH BACKDRAFT DAMPER, 2X6 WOOD NAILER, UNIT MOUNTED DISCONNECT BY MANUFACTURER, INSTALL EXHAUST FANS LEVEL, CURBS TO BE SLOPED TO MATCH ROOF SLOPE. MANUAL MOTOR STARTER BY E.C.

PROPELLER UNIT HEATER SCHEDULE									
MARK	CFM	HP	E.A.T. (°F)	L.A.T. (°F)	CAPACITY (BTUH)	GPM	VOLTAGE	MANUFACTURER	MODEL
PUH-101	1120	1/12	55	85	37,000	2.0	120-140	MODINE	HSB-63L
PUH-102	630	1/25	55	82	18,500	1.0	120-140	MODINE	HSB-33L
MANUAL MOTOR STARTER AT UNIT BY E.C.									

PACKAGE ROOFTOP UNIT SCHEDULE																	
MARK	TOTAL CFM	MIN. O.A. CFM	EXTERNAL S.P.	FAN	COOLING CAPACITY (95 AMBIENT)	COOLING SENSIBLE	ENTERING AIR	LEAVING AIR	HEATING KW	HEATING OUTPUT	FILTERS	VOLTAGE	MCA	MOP	WEIGHT	MANUFACTURER	MODEL
RTU-101	3100	710	2.0 INCHES	2.7 HP	101.3 MBH	78.8 MBH	78 / 67	55 / 54	6.8	23.2 MBH	2", MERV 8	208-360	42	60	1000 LBS.	TRANE	TZC102F3/ BAYHTRA309
RTU-102	3100	710	2.0 INCHES	2.7 HP	101.3 MBH	78.8 MBH	78 / 67	55 / 54	6.8	23.2 MBH	2", MERV 8	208-360	42	60	1000 LBS.	TRANE	TZC102F3/ BAYHTRA309
UNITS TO HAVE VARIABLE SPEED SUPPLY FAN AND COMPRESSOR, BAROMETRIC RELIEF, BACKET CARD & FACTORY CONTROLS FOR MULTI-ZONE VAV OPERATION. FUSED DISCONNECT AT UNIT BY E.C.																	

ROOF HOOD SCHEDULE				
MARK	THROAT SIZE	DAMPER TYPE	MANUFACTURER	MODEL
RH-1	24 x 24	BACK DRAFT	GREENHECK	FGR

AIR HANDLING UNIT SCHEDULE											
MARK	TOTAL CFM	MIN. O.A. CFM	EXTERNAL S.P.	FAN	COOLING CAPACITY	ENTERING AIR	LEAVING AIR	FILTERS	VOLTAGE	MANUFACTURER	MODEL
AHL-1	800	100	0.7 INCHES	.75 HP	24 MBH	80 / 67	58 / 56.5	2", MERV 8	208-140	TRANE	
COMBINATION STARTER WITH CIRCUIT BREAKERS AT UNIT BY E.C.											

AIR TERMINAL UNIT SCHEDULE								
MARK	INLET DIA. (IN.)	MAX. CLG. CFM	MIN. CLG. CFM	HTG. CFM	E.A.T. (°F)	L.A.T. (°F)	REQUIRED (BTU/H)	CAPACITY (KW)
VAV 101	8	220	220	220	56	90	8230	0.5
VAV 102	6	140	140	140	56	90	5240	0.5
VAV 103	6	150	150	150	56	90	5610	0.5
VAV 104	8	210	210	210	56	90	7850	0.5
VAV 105	6	120	120	120	56	90	4500	0.4
VAV 106	6	120	120	120	56	126	9,240	1.0
VAV 107	10	500	420	420	56	90	15,700	1.0
VAV 108	10	600	320	320	56	90	12,000	0.8
VAV 109	6	90	90	90	56	90	3366	0.3
VAV 110	6	120	120	120	56	90	4500	0.4
VAV 111	10	460	460	460	56	89	16,700	1.2
VAV 112	6	120	120	120	56	90	4500	0.4
VAV 113	6	160	100	100	56	90	3740	0.3
VAV 114	6	130	130	130	56	126	10,100	1.0
VAV 201	8	280	280	280	56	90	10,470	0.8
VAV 202	8	280	280	280	56	90	10,470	0.8
VAV 203	8	320	320	320	56	90	11,970	1.0
VAV 204	8	280	280	280	56	90	10,470	0.8
VAV 205	8	280	280	280	56	90	10,470	0.8
VAV 206	6	120	120	120	56	90	4500	0.4
VAV 207	6	120	120	120	56	90	4500	0.4
VAV 208	6	150	120	120	56	90	4500	0.4
VAV 209	6	150	100	100	56	90	3740	0.3
VAV 210	6	140	100	100	56	90	3740	0.3
VAV 211	12	980	700	700	56	88	23,390	1.7

AIR TERMINAL UNIT SCHEDULE								
MARK	INLET DIA. (IN.)	MAX. C.G. CFM	MIN. C.G. CFM	HTG. CFM	E.A.T. (°F)	L.A.T. (°F)	REQUIRED (BTU/H)	CAPACITY (KW)
VAV 301	8	320	320	320	56	84	9660	3.0
VAV 302	8	310	310	310	56	84	9550	3.0
VAV 303	8	300	300	300	56	84	9240	3.0
VAV 304	6	70	70	70	56	84	3762	1.1
ELECTRIC REHEAT COILS TO BE 277 VOLTS SINGLE PHASE								

GRILLES, REGISTERS & DIFFUSER SCHEDULE			
SIZE	MANUFACTURER	MODEL	DESCRIPTION
4x24 w/ 6"Ø NECK	PRICE	SPD	LAY IN, PLAQUE STYLE STEEL DIFFUSER, OPPOSED BLADE DAMPER, WHITE FINISH, PROVIDE BRANCH DUCTS SAME SIZE AS NECK
4x24 w/ 8"Ø NECK	PRICE	SPD	LAY IN, PLAQUE STYLE STEEL DIFFUSER, OPPOSED BLADE DAMPER, WHITE FINISH, PROVIDE BRANCH DUCTS SAME SIZE AS NECK
4x24 w/ 10"Ø NECK	PRICE	SPD	LAY IN, PLAQUE STYLE STEEL DIFFUSER, OPPOSED BLADE DAMPER, WHITE FINISH, PROVIDE BRANCH DUCTS SAME SIZE AS NECK
2x12 w/ 6"Ø NECK	PRICE	SPD	LAY IN, PLAQUE STYLE STEEL DIFFUSER, OPPOSED BLADE DAMPER, WHITE FINISH, PLASTER FRAME, PROVIDE BRANCH DUCT SAME SIZE AS NECK
4x12 w/ 8" BOOT	PRICE	635	LAY IN, ALUMINUM W/ 1/2", 45 DEGREE FIXED FINS, WHITE FINISH, PROVIDE DUCT AS SHOWN ON FLOOR PLANS SAME SIZE AS BOOT
4x12 w/ 14" BOOT	PRICE	635	LAY IN, ALUMINUM W/ 1/2", 45 DEGREE FIXED FINS, WHITE FINISH, PROVIDE DUCT AS SHOWN ON FLOOR PLANS SAME SIZE AS BOOT
6x6	PRICE	635	LAY IN W/ PLASTER FRAME, ALUMINUM W/ 1/2", 45° FIXED FINS, OPPOSED BLADE DAMPER, WHITE FINISH
12x12	PRICE	635	LAY IN W/ PLASTER FRAME, ALUMINUM W/ 1/2", 45° FIXED FINS, OPPOSED BLADE DAMPER, WHITE FINISH
8x8	PRICE	RCG	REVERSIBLE CORE SURFACE MOUNT, FLAT FRAME, ALUMINUM, 22.5°, OPPOSED BLADE DAMPER, CONCEALED SCREWS, WHITE FINISH
12x6	PRICE	RCG	REVERSIBLE CORE SURFACE MOUNT, SQUARE FRAME, ALUMINUM, 22.5°, OPPOSED BLADE DAMPER, CONCEALED SCREWS, WHITE FINISH
18x8	PRICE	RCG	REVERSIBLE CORE SURFACE MOUNT, SQUARE FRAME, ALUMINUM, 22.5°, OPPOSED BLADE DAMPER, CONCEALED SCREWS, WHITE FINISH
6x9 w/ 6"Ø BOOT	PRICE	MSRRCD	RISK RESISTANT SECURITY DIFFUSER , WHITE FINISH, PROVIDE BRANCH DUCT SAME SIZE AS BOOT
6x9 w/ 8"Ø BOOT	PRICE	MSRRCD	RISK RESISTANT SECURITY DIFFUSER , WHITE FINISH, PROVIDE BRANCH DUCT SAME SIZE AS BOOT
6x9 w/ 10"Ø BOOT	PRICE	MSRRP	RISK RESISTANT SECURITY GRILLE, WHITE FINISH, PROVIDE DUCT AS SHOWN ON FLOOR PLANS SAME SIZE AS BOOT
6x12 w/ 6"Ø BOOT	PRICE	MSRRP	RISK RESISTANT SECURITY GRILLE, WHITE FINISH, PROVIDE DUCT AS SHOWN ON FLOOR PLANS SAME SIZE AS BOOT
6x16 w/ 16"Ø BOOT	PRICE	MSRRP	RISK RESISTANT SECURITY GRILLE, WHITE FINISH, PROVIDE DUCT AS SHOWN ON FLOOR PLANS SAME SIZE AS BOOT
0x30	PRICE	MSRRP	RISK RESISTANT SECURITY GRILLE, WHITE FINISH, PROVIDE DUCT AS SHOWN ON FLOOR PLANS SAME SIZE AS BOOT
8x8	PRICE	RCG	REVERSIBLE CORE SURFACE MOUNT, SQUARE FRAME, ALUMINUM, 22.5°, OPPOSED BLADE DAMPER, CONCEALED SCREWS, WHITE FINISH
12x12	PRICE	RCG	REVERSIBLE CORE SURFACE MOUNT, SQUARE FRAME, ALUMINUM, 22.5°, OPPOSED BLADE DAMPER, CONCEALED SCREWS, WHITE FINISH
8x8	PRICE	RCG	REVERSIBLE CORE SURFACE MOUNT, SQUARE FRAME, ALUMINUM, 22.5°, OPPOSED BLADE DAMPER, CONCEALED SCREWS, WHITE FINISH
16x12	PRICE	RCG	REVERSIBLE CORE SURFACE MOUNT, SQUARE FRAME, ALUMINUM, 22.5°, OPPOSED BLADE DAMPER, CONCEALED SCREWS, WHITE FINISH
16x8	PRICE	RCG	REVERSIBLE CORE SURFACE MOUNT, SQUARE FRAME, ALUMINUM, 22.5°, CONCEALED SCREWS, WHITE FINISH

GRILLES & DIFFUSERS ARE USED IN DRYWALL CEILINGS. ALL SECURITY DIFFUSERS AND GRILLES TO HAVE 10" LONG 12 GAGE SLEEVE & 1-1/2x1-1/2 BOLTED BACK ANGLE FRAME AND NO HOLES IN FACE

CONVECTOR SCHEDULE								
MARK	BTUH	GPM	LENGTH	HEIGHT	DEPTH	TYPE	MANUFACTURER	MODEL
CONV-101	3800	0.5	40	32	4	FULLY RECESSED	MODINE	PL
CAPACITY IS BASED ON 180 DEGREES ENTERING WATER TEMPERATURE AND 70 DEGREES ENTERING AIR TEMPERATURE								

RADIANT PANEL SCHEDULE							
MARK	BTUH	GPM	LENGTH	WIDTH	TYPE	MANUFACTURER	MODEL
RP-101	1840	0.5	47'-3/4"	23'-3/4"	CEILING LAY IN	STERLING	HYDRONIC FLUTED ALUMINUM

SE	MANUFACTURER	MODEL
0	TRANE	

HOT WATER COIL SCHEDULE								
MARK	CFM	FACE SIZE	E.W.T. (°F)	E.A.T. (°F)	L.A.T. (°F)	CAPACITY (BTUH)	GPM	AIR PRESSURE DROP (IN.)
HWC-1	600	16x15	180	55	104	42,000	2.0	0.20



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