

DIFFUSER / REGISTER SCHEDULE

UNIT NO	FACE SIZE IN	NECK SIZE IN	MAX PRESSURE DROP IN WC	MAX NOISE CRITERIA	CFM RANGE	TYPE	BASIS OF DESIGN	NOTES
S-1	24x24	6#	0.05	<25	0-100	LAY-IN CEILING SQUARE CONE DIFFUSER	PRICE SCD	1,4,6,8,9
S-2	24x24	8#	0.05	<25	101-230	LAY-IN CEILING SQUARE CONE DIFFUSER	PRICE SCD	1,4,6,8,9
S-3	24x24	10#	0.05	<25	231-400	LAY-IN CEILING SQUARE CONE DIFFUSER	PRICE SCD	1,4,6,8,9
S-4	24x24	12#	0.05	<25	401-650	LAY-IN CEILING SQUARE CONE DIFFUSER	PRICE SCD	1,4,6,8,9
S-5	24x12	6#	0.1	<25	0-110	LAY-IN CEILING PERFORATED DIFFUSER	PRICE PDF	1,4,6,8,9
S-6	24x12	6x6	0.1	27	111-175	LAY-IN CEILING PERFORATED DIFFUSER	PRICE PDF	1,4,6,8,9
S-7	24x12	18x6	0.1	30	230-375	LAY-IN CEILING PERFORATED DIFFUSER	PRICE PDF	1,4,6,8,9
S-8	8x4	-	0.1	<25	50-120	SURFACE MTD LOUVERED SUPPLY REGISTER	PRICE 620D	2,6,7,10,11,12,13
S-9	8x4	-	0.1	<25	50-120	SURFACE MTD LOUVERED SUPPLY REGISTER	PRICE 620D	2,6,7,10,11,12,13
S-10	24x12	-	0.1	<25	600	SURFACE MTD LOUVERED SUPPLY REGISTER	PRICE 620D	2,6,7,10,11,12,13
S-11	14x6	-	0.1	<25	225	SURFACE MTD LOUVERED SUPPLY REGISTER	PRICE 620D	2,6,7,10,11,12,13
S-12	20x6	-	0.1	<20	380-385	SPIRAL DUCT GRILLE	PRICE SDGE	3,10,12,13,14
S-13	18x8	-	0.1	<20	325-375	SPIRAL DUCT GRILLE	PRICE SDGE	3,10,12,13,14
S-14	22x8	-	0.1	<20	400-450	SPIRAL DUCT GRILLE	PRICE SDGE	3,10,12,13,14
S-15	22x10	-	0.1	<20	750	SPIRAL DUCT GRILLE	PRICE SDGE	3,10,12,13,14
S-16	24x24	14x14	0.1	<20	300-400	SURFACE MOUNT CEILING PERFORATED DIFFUSER	PRICE PDF	1,4,6,7,9,12
R-1	24x24	6#	0.1	<20	0-100	LAY-IN PERFORATED RETURN GRILLE	PRICE PDDR	1,6,8,9
R-2	24x24	8#	0.1	<20	101-230	LAY-IN PERFORATED RETURN GRILLE	PRICE PDDR	1,6,8,9
R-3	24x24	10#	0.1	<20	231-400	LAY-IN PERFORATED RETURN GRILLE	PRICE PDDR	1,6,8,9
R-4	24x24	12#	0.1	<20	401-650	LAY-IN PERFORATED RETURN GRILLE	PRICE PDDR	1,6,8,9
R-5	24x24	14#	0.1	<20	601-815	LAY-IN PERFORATED RETURN GRILLE	PRICE PDDR	1,6,8,9
R-6	24x24	15#	0.1	<20	816-960	LAY-IN PERFORATED RETURN GRILLE	PRICE PDDR	1,6,8,9
R-7	24x24	20x20	0.1	<20	0-350	LAY-IN PERFORATED FACE FILTER RETURN	PRICE 10FF	1,6,8,9,15
R-8	24x12	6#	0.1	<20	0-100	LAY-IN PERFORATED RETURN GRILLE	PRICE PDDR	1,6,8,9
R-9	24x12	6x6	0.1	<20	101-160	LAY-IN PERFORATED RETURN GRILLE	PRICE PDDR	1,6,8,9
R-10	24x12	18x6	0.1	<20	161-450	LAY-IN PERFORATED RETURN GRILLE	PRICE PDDR	1,6,8,9
R-11	38x24	-	0.1	<25	2250	SURFACE MOUNTED LOUVERED RETURN GRILLE	PRICE 620	3,5,6,7,9,11
R-12	48x24	-	0.1	<25	2700	SURFACE MOUNTED LOUVERED RETURN GRILLE	PRICE 620	3,5,6,7,9,11
R-13	36x12	-	0.1	<25	1035	SPIRAL DUCT PERFORATED FACE RETURN GRILLE	PRICE SDGER	3,10
E-1	24x12	6#	0.1	<20	0-100	LAY-IN CEILING PERFORATED EXHAUST GRILLE	PRICE PDDR	1,6,8,9
E-2	24x12	6x6	0.1	<20	101-160	LAY-IN CEILING PERFORATED EXHAUST GRILLE	PRICE PDDR	1,6,8,9
E-3	24x12	18x6	0.1	<20	161-450	LAY-IN CEILING PERFORATED EXHAUST GRILLE	PRICE PDDR	1,6,8,9
E-4	8x4	-	0.1	<25	0-100	SURFACE MOUNTED LOUVERED EXHAUST REGISTER	PRICE 635D	2,5,6,7,10,11,12
E-5	14x6	-	0.1	<25	200-250	SURFACE MOUNTED LOUVERED EXHAUST REGISTER	PRICE 635D	2,5,6,7,10,11,12
E-6	26x6	-	0.1	<25	350-390	SURFACE MOUNTED LOUVERED EXHAUST REGISTER	PRICE 635D	2,5,6,7,10,11,12
E-7	8x8	-	0.1	<20	0-150	SURFACE MOUNTED LOUVERED EXHAUST REGISTER	PRICE 635D	1,5,6,7,9,12
TG-1	18x10	-	0.1	<25	375	SURFACE MOUNTED LOUVERED TRANSFER GRILLE	PRICE 535	3,5,6,7,9
TG-2	24x24	10#	0.05	<25	375	LAY-IN CEILING SQUARE CONE DIFFUSER	PRICE SCD	1,4,6,8,9

- NOTES: 1. FINISH: WHITE POWDER COAT. 2. FINISH: BRUSHED ALUMINUM. 3. FINISH: PRIME COAT, READY FOR FIELD PAINTING. 4. DIFFUSERS ARE 4-WAY THROW UNLESS NOTED OTHERWISE. 5. 45° DEFLECTION, 1/2" BLADE SPACING. 6. PROVIDE TRANSITION FROM DUCT TO GRILLE AS NEEDED. 7. SURFACE MOUNT. 8. FOR INSTALLATION IN T-BAR CEILING.
9. STEEL CONSTRUCTION. 10. ALUMINUM CONSTRUCTION. 11. BLADES PARALLEL TO LONG DIMENSION. 12. PROVIDE INTEGRAL OPPOSED BLADE DAMPER. 13. DOUBLE DEFLECTION, 3/4" BLADE SPACING. 14. AIR SCOOP. 15. ACCEPTS STANDARD 20"x20"x1", MERV 8 FILTER MEDIA. PROVIDE FILTER, QUARTER TURN QUICK RELEASE FASTENERS, HINGE-TAB MECHANISM TO PERMIT CLEANING OF GRILLE.

FAN SCHEDULE

UNIT NO	SERVES	CFM	ESP IN WC	DRIVE TYPE	FAN TYPE	FAN RPM	SONES	HP	VOLTS/PHASE	BASIS OF DESIGN	ACCESSORIES /NOTES
EF-1	KITCHEN	375	0.25	DIRECT	INLINE	1300	5.5	1/25	115/1	GREENHECK SQ 90-G	A,C
EF-2	KITCHENETTE 114/CUSTODIAN 122	200	0.25	DIRECT	INLINE	1300	5.4	1/20	115/1	GREENHECK SQ 80-G	A,C
EF-3	MECHANICAL ROOM 205	1360	0.25	DIRECT	INLINE	1140	7.4	1/4	115/1	GREENHECK SQ 130	A,C
EF-4	CLOSET 146A (OXYGEN TANK STORAGE)	40	0.25	DIRECT	INLINE	1300	2.5	1/80	115/1	GREENHECK SQ-60-G	A,C,F
DSF-1	LG FUNCTION RM/PRE-FUNCTION RM (MULTIPLE UNITS)	540	0.0	DIRECT	AXIAL	1650	45 dB(A)	45W	277/1	AIRIUS-25-SP-STD	D,E

- ACCESSORIES: A. PROVIDE MFR FAN MOUNTED DISCONNECT SWITCH. B. PROVIDE GRAVITY BACKDRAFT DAMPER. C. PROVIDE SPEED CONTROLLER. D. PROVIDE FAN MANUFACTURERS SPEED CONTROL BOX FOR LARGE FUNCTION ROOM FANS; AND ANOTHER FOR THE PRE-FUNCTION ROOM FANS. E. PROVIDE INTAKE GRILLE. F. PROVIDE ALUMINUM HOODED EXHAUST WALL CAP WITH DAMPER.

PANEL RADIATION SCHEDULE

UNIT NO	TUBE SIZE	ELEMENT PANNELS	ENCLOSURE MOUNTING HEIGHT (IN)	ENCLOSURE HEIGHT (IN)	CAPACITY BTUH/LF	AVERAGE WATER TEMP	BASIS OF DESIGN	NOTES
PR-1	3/4"	5	SEE PLAN	0'-4" AFF	1020/865	170	RUNTAL RF-5	1,2,3,4,5
PR-2	3/4"	9	SEE PLAN	0'-4" AFF	1500/1275	170	RUNTAL RF-9	1,2,3,4,5

- NOTES: 1. PROVIDE PANEL MANUFACTURER SCREW-ON TYPE AIR VENT. 2. PROVIDE FULL TRIM ACCESSORIES AS REQUIRED. 3. PROVIDE FINISH IN CUSTOM COLOR SELECTED BY ARCHITECT. 4. PERFORMANCE BASED ON 33% PROPYLENE GLYCOL SOLUTION. 5. THE CAPACITY LISTED FIRST INCLUDES HEAT EFFECT FOR PANEL RADIATOR PLACEMENT ALONG OUTSIDE WALLS. THE SECOND LISTED CAPACITY IS FOR PANEL RADIATOR PLACEMENT ALONG INSIDE WALLS. INSURE THE APPROPRIATE PERFORMANCE CAPACITY IS USED WHEN DETERMINING THE NECESSARY PANEL RADIATOR LENGTH.

FINTUBE RADIATION SCHEDULE

UNIT NO	TUBE SIZE	ROWS	FINS/FOOT	SIZE (IN)	ENCLOSURE MOUNTING HEIGHT (IN)	ENCLOSURE HEIGHT (IN)	CAPACITY BTUH/LF	AVERAGE SOLUTION TEMP	MANUFACTURER AND MODEL	NOTES
FR-1	3/4"	1	40	3-3/4" SQ.	15	11	680	170	STERLING VERSALINE JVA-11	1,2
FR-2	1"	1	50	3-3/4" SQ.	15	11	730	170	STERLING VERSALINE JVA-11	1,2

- NOTES: 1. PERFORMANCE BASED ON 33% PROPYLENE GLYCOL SOLUTION. 2. PROVIDE FINISH IN COLOR SELECTED BY ARCHITECT.

STEAM-TO-WATER CONVERTER SCHEDULE

UNIT NO	SERVES	STEAM INLET PRESS	LB/HR	HOT WATER FLOW	EW T	LWT	MAX WPD	FOULING FACTOR	BASIS OF DESIGN	NOTES
HX-1	BLDG HYDRONIC HEAT LOOP	2 PSI	1229	126	180	160	2.0 FT	0.001	TACO G1240B	1

- NOTES: 1. PERFORMANCE BASED ON 33% PROPYLENE GLYCOL SOLUTION.

VRF SPLIT SYSTEM HEAT PUMP FAN COIL SCHEDULE (AC UNITS)

UNIT NO	SERVES	NOMINAL COOLING MBH	NOMINAL HEATING MBH	CABINET TYPE	PEAK CFM	ESP IN WC	COOLING LOAD TC/SC MBH	HEATING LOAD MBH	ELECTRICAL			BASIS OF DESIGN	NOTES
									VOLTS/PH	MCA/MOCP			
AC-1.1	DEBRIEF 134	15.0	17.0	CEILING CONCEALED (DUCTED)	494	0.6/0.6	13.8/11.1	5.7	208/1	1.45/15	1.45/15	1,2,3,4,5	
AC-1.2	DEBRIEF 137	15.0	17.0	CEILING CONCEALED (DUCTED)	494	0.6/0.6	13.5/10.9	6.1	208/1	1.45/15	1.45/15	1,2,3,4,5	
AC-1.3	DEBRIEF 142	15.0	17.0	CEILING CONCEALED (DUCTED)	494	0.6/0.6	16.9/12.9	8.0	208/1	1.45/15	1.45/15	1,2,3,4,5	
AC-1.4	DEBRIEF 161	15.0	17.0	CEILING CONCEALED (DUCTED)	494	0.6/0.6	16.1/12.2	8.1	208/1	1.45/15	1.45/15	1,2,3,4,5	
AC-1.5	DEBRIEF 155	15.0	17.0	CEILING CONCEALED (DUCTED)	494	0.6/0.6	11.9/9.2	5.9	208/1	1.45/15	1.45/15	1,2,3,4,5	
AC-1.6	CONFERENCE RM 154	12.0	13.5	CEILING CASSETTE (4-WAY AIRFLOW)	390	0.0	9.9/7.5	6.4	208/1	0.35/15	0.35/15	1,2,3,4,5	
AC-1.7	INNOVATION HUB 153	24.0	27.0	CEILING CASSETTE (4-WAY AIRFLOW)	700	0.0	24.9/19.5	16.3	208/1	0.64/15	0.64/15	1,2,3,4,5	
AC-1.8	CORRIDOR 126	12.0	13.5	CEILING CASSETTE (4-WAY AIRFLOW)	390	0.0	13.6/8.7	0.0	208/1	0.35/15	0.35/15	1,2,3,4,5	
AC-1.9	OFFICE 130/CORRIDOR 148	6.0	6.7	CEILING CONCEALED (DUCTED)	300	0.6/0.6	4.4/3.0	0.7	208/1	1.05/15	1.05/15	1,2,3,4,5	
AC-1.10	BED LAB 147	12.0	13.5	CEILING CASSETTE (4-WAY AIRFLOW)	390	0.0	11.6/8.2	0.0	208/1	0.35/15	0.35/15	1,2,3,4,5	
AC-1.11	BED LAB 147	12.0	13.5	CEILING CASSETTE (4-WAY AIRFLOW)	390	0.0	11.6/8.2	0.0	208/1	0.35/15	0.35/15	1,2,3,4,5	
AC-1.12	MAKER SPACE 124	12.0	13.5	CEILING CASSETTE (4-WAY AIRFLOW)	390	0.6/0.6	9.7/7.4	10.7	208/1	0.35/15	0.35/15	1,2,3,4,5	

- NOTES: 1. PROVIDE WITH CONDENSATE PUMP. 2. PROVIDE WITH MANUFACTURER'S WIRED, WALL MOUNTED TEMPERATURE SENSOR. 3. HEATING AND COOLING UNIT. 4. POWERED SEPERATELY. 5. PROVIDE EQUIPMENT MFR SIZED INSULATED LINE SETS FROM INDOOR UNIT TO BRANCH CONTROLLER. PROVIDE ISOLATION BALL VALVES FOR LINE SET AT THE BRANCH CONTROLLER.

VRF REFRIGERANT CONDENSING UNIT AND EQUIPMENT SCHEDULE

UNIT NO	SERVES	TYPE	NOMINAL COOLING (TONS)	NOMINAL HEATING MBH	COOLING EFFICIENCY SEER/EER	HEATING COP @ 47F	DESIGN COOLING OUTDOOR DB (F)	DESIGN HEATING OUTDOOR DB (F)	REFRIG TYPE	ELECTRICAL			BASIS OF DESIGN	NOTES
										VOLTS/PH	MCA	MOCP		
CU-1	AC-1.1 - AC-1.12	VARIABLE SPEED, INVERTER DRIVE	14.0	188	18	3.6/3.5	87.0	-6.5	R-410A	406/3	34/31, 23/21	57/52, 38/35	MITSUBISHI PUY-P168TSMU-A	1,2,3
BC-1	AC-1.1 - AC-1.12	REFRIGERANT BRANCH CONTROLLER	N/A	N/A	N/A	N/A	N/A	N/A	R-410A	208/1	1.08	-	MITSUBISHI CMB-P1013NU-GA1	

- NOTES: 1. PROVIDE DRAIN PAN HEATER. 2. PROVIDE NECESSARY MATERIALS TO SECURE UNIT TO ELEVATED STEEL FRAME ON ROOF. 3. PROVIDE SNOW AND HAIL GUARDS.

SPLIT SYSTEM HEAT PUMP FAN COIL SCHEDULE (AC UNITS)

UNIT NO	SERVES	NOMINAL COOLING TONS	NOMINAL HEATING MBH	CABINET TYPE	PEAK CFM	ESP IN WC	COOLING LOAD TC/SC MBH	HEATING LOAD MBH	ELECTRICAL			BASIS OF DESIGN	NOTES	
									VOLTS/PH	MCA/FLA				
AC-2	ELECTRICAL 128	1.0	N/A	WALL MOUNTED	425	N/A	11.0	N/A	208/1	1 / 0.33			MITSUBISHI PKA-A12HA6	1,2,3,4
AC-3	SERVER 150	1.0	N/A	WALL MOUNTED	425	N/A	11.0	N/A	208/1	1 / 0.33			MITSUBISHI PKA-A12HA6	1,2,3,4
AC-4	ELECT / DATA 220	1.0	N/A	WALL MOUNTED	425	N/A	11.0	N/A	208/1	1 / 0.33			MITSUBISHI PKA-A12HA6	1,2,3,4
AC-5	CONFERENCE 153A	1.0	N/A	CEILING CASSETTE (4-WAY AIRFLOW)	530	N/A	11.0	N/A	208/1	1 / 0.51			MITSUBISHI PLA-A12BA6	1,2,3,4
AC-6	ENTRY 100	3.5	48	CEILING CASSETTE (4-WAY AIRFLOW)	1090	N/A	42.0	48	208/1	2.0 / 1.0			MITSUBISHI PLA-A42BA6	1,2,3,4,5
AC-7	ENTRY 200	2.75	38	WALL MOUNTED	920	N/A	33.4	38	208/1	1.0 / 0.57			MITSUBISHI PKA-A36KA4	1,2,3,4,5

- NOTES: 1. PROVIDE WITH CONDENSATE PUMP. 2. PROVIDE WITH MANUFACTURER'S WIRED, WALL MOUNTED CONTROLLER. 3. POWERED BY OUTDOOR UNIT. 4. COOLING ONLY UNIT. 5. COOLING AND HEATING.

REFRIGERANT CONDENSING UNIT SCHEDULE

UNIT NO	SERVES	TYPE	NOMINAL COOLING (TONS)	NOMINAL HEATING MBH	COOLING EFFICIENCY SEER/EER	HEATING COP @ 47F	DESIGN COOLING OUTDOOR DB (F)	DESIGN HEATING OUTDOOR DB (F)	REFRIG TYPE	ELECTRICAL			BASIS OF DESIGN	NOTES
										VOLTS/PH	MCA	MOCP		
CU-2	AC-2	DC INVERTER-DRIVEN TWIN ROTARY	1.0	N/A	15.2/10.1	N/A	87.0	-6.5	R-410A	208/1	13	15	MITSUBISHI PUY-A12NHA4	1,2,3,5
CU-3	AC-3	DC INVERTER-DRIVEN TWIN ROTARY	1.0	N/A	15.2/10.1	N/A	87.0	N/A	R-410A	208/1	13	15	MITSUBISHI PUY-A12NHA4	1,2,3,5
CU-4	AC-4	DC INVERTER-DRIVEN TWIN ROTARY	1.0	N/A	15.2/10.1	N/A	87.0	N/A	R-410A	208/1	13	15	MITSUBISHI PUY-A12NHA4	1,2,3,5
CU-5	AC-5	DC INVERTER-DRIVEN TWIN ROTARY	1.0	N/A	14.0/9.5	N/A	87.0	N/A	R-410A	208/1	13, FLA: 0.35	15	MITSUBISHI PUY-A12NHA6	1,2,3,5
CU-6	AC-6	DC INVERTER-DRIVEN TWIN ROTARY	3.5	48	14.8/9.7	3.0	87.0	-6.5	R-410A	208/1	37	32	MITSUBISHI PUZ-HA42NKA	1,4,5
CU-7	AC-7	DC INVERTER-DRIVEN TWIN ROTARY	2.75	38	16.2/-	3.0	87.0	-6.5	R-410A	208/1	28	40	MITSUBISHI PUZ-HA36NHA4	1,4,5

- NOTES: 1. PROVIDE PRE-MANUFACTURED, GALVANIZED STEEL, 24 INCH HIGH MODULAR EQUIPMENT SUPPORT FRAME WITH EQUIPMENT CLAMPS FOR INSTALLATION ON ROOF. PROVIDE SUPPORT MANUFACTURER'S RUBBER PAD FOR INSTALLATION BELOW SUPPORT FOOT FOR VIBRATION REDUCTION. EQUIPMENT SUPPORT FRAME SHALL BE SIMILAR TO BIGFOOT CO. SUPPORTS. ANCHOR FRAME TO SUBROOF FRAMING. 2. PROVIDE 100% COOLING AT 0°F. 3. COOLING ONLY. 4. PROVIDE 100% HEAT AT 5°F. 5. PROVIDE WIND BAFFLE

HOT WATER CABINET UNIT HEATER SCHEDULE

UNIT NO	LOCATION	CFM	HEATING MBH	GPM	WATER TEMP °F		PD FT WC	FAN DATA		BASIS OF DESIGN	NOTES
					ENTERING	LEAVING		HP	VOLTS/PHASE		