

AIR HANDLING UNIT SCHEDULE																																							
AHU #	LOCATION	DESIGN OUTSIDE AIR CFM	SUPPLY FAN CHARACTERISTICS							FILTER SECTION			HOT WATER HEATING COIL								DIRECT EXPANSION COOLING COIL										REMARKS								
			CFM	RPM	WHEEL TYPE	FAN CLASS	T.S.P. (IN. WG)	ESP. (IN. WG)	BHP INCL. DRIVE	MOTOR			PRE-FILTER	FANAL FILTER	DESIGN HEATING AIRFLOW (CFM)	CAP. MBH	EAT (°F)	LAT (°F)	MAX. FACE VELOCITY (FPM)	MAX. AIR PD (IN.WG)	MAX. WATER PD (FT)	GPM	EWT (°F)	LWT (°F)	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	EAT (°F)					LAT (°F)		MAX. FACE VELOCITY (FPM)	MAX. AIR PD (IN.WG)	REFRIGERANT	ROWS	SUCTION TEMP (°F)	# OF CIRCUITS
										HP	VOLT	PH															DB	WB	DB	WB		DB	WB						
1	103 HOSE TOWER	350	3200	1643	PLENUM	—	3.0	1.5	2.05	4.0	208	3	2" MERV 7	4" MERV 11	1125	28	44	65	450	0.08	5	1.7	140	110	106	81.5	78.13	64.29	54.75	52.98	450	0.52	R-410A	6	44	2	1,2,3		

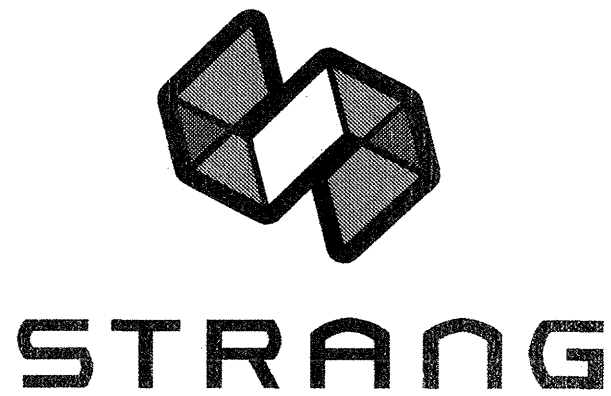
REMARKS:

1. PROVIDE SUPPLY FAN WITH DIRECT DRIVE, ELECTRONICALLY COMMUTATED VARIABLE SPEED MOTOR (ECM).
2. PROVIDE FACTORY INSTALLED DISCONNECT.
3. BASED ON AAOB V3.

AIR COOLED CONDENSING UNIT SCHEDULE											
ACCA E	MBH @45°F SUCTION)	MODEL	COMPRESSOR (QUANTITY x TYPE)	CIRCUITS	UNIT		ELECTRIC			REMARKS	
					AMBIENT	EER	MCA	FLA	MOPC		VOLT/PH
1	112	CC-B-010	2 x SCROLL	2	95.0°F	12.6	44	40	60	208/3	1,2,3

REMARKS:

1. BASED ON A/CN.
2. PROVIDE ONE MODULATING SCROLL COMPRESSOR (DIGITAL SCROLL)
3. NON-FUSED DISCONNECT BY E.C.



VAV #	SERVES	MAX COOLING CFM	MIN CFM	MAX HEATING CFM	MIN. INLET SIZE	BOOSTER COIL		LAT (°F)	REMARKS
						CAP. (MBH)	GPM		
01	B1 Day	450	145	300	8	14.28	0.95	88.9	
02	B3 Fitness	400	145	200	8	8.46	0.56	94.0	
03	B6/B7 Dining/Kitchen	400	145	200	8	9.71	0.65	99.7	
04	106 Watch	450	145	300	8	13.67	0.91	97.0	
05	107/118 Corridor	200	80	200	6	4.96	0.33	77.8	
06	108 Office	200	80	150	6	6.44	0.43	94.6	
07	109 Officers	150	80	150	6	5.64	0.38	89.7	
08	115 Officer Quarters	150	80	150	6	6.74	0.45	96.4	
09	116 Dormitory	260	80	180	6	7.73	0.52	94.6	
10	117 Dormitory	325	160	320	8	22.76	1.52	95.3	

GENERAL COMMENTS:

1. PROVIDE SIZES AS INDICATED
2. MAXIMUM TOTAL COIL & VALVE AIR STATIC PRESSURE DROP = 0.6" W.C.
3. MAXIMUM WAY RADIATED AND DISCHARGE NC = 25
4. COIL CAPACITY BASED ON 55° EAT, MAX HEATING CFM, 140°F EWT, 30°F WTD.
5. BASED ON TITUS DESY.

DIRECT FIRED MAKE-UP AIR UNIT SCHEDULE														
UNIT #	LOCATION	MODEL	CAPACITY (MBH)	AVG TEMP RISE (°F)	AIRFLOW (CFM)	EXT. S.P. (IN)	FAN MOTOR			FUEL				REMARKS
							HP	VOLTS	PHASE	TYPE	INLET PRESSURE	BURNER	TURNDOWN	
1	ROOF	DGK	105	80	1200	0.25	3/4	208	3	NAT GAS	14" W.C.	MODULATING	20:1	1,2,3,4,5
2	ROOF	DGK	175	80	2000	0.25	1.0	208	3	NAT GAS	14" W.C.	MODULATING	20:1	1,2,3,4,5

REMARKS:

1. BASED ON GREENHECK.
2. INCLUDE MOTOR OPERATED INTAKE DAMPER, V-BANK FILTER SECTION W/ 2" MERV 8 FILTERS, ROOF CURB, AND INLET HOOD W/ BIRD SCREEN.
3. FACTORY INSTALLED 115V GR SERVICE RECEPTACLE (POWER BY E.C.).
4. DISCONNECT AND MOTOR STARTER PACKAGE WITH BAS CONTROL RELAYS PROVIDED BY EQUIPMENT MFR.
5. ROOF CURB PROVIDED BY M.C., INSTALLED BY G.C.

BOILER SCHEDULE															
	LOCATION	TYPE	HEATING MEDIUM	WORKING PRESSURE	INPUT MBH	EFFICIENCY	FUEL	DRAFT	STACK DIA.	VOLT/PH/FLA	GAS TRAIN INLET PRESS.	BURNER FRING	MINIMUM TURNDOWN	MODEL	REMARKS
1	MECH RM B2	CONDENSING	WATER	30 PSI	303	91+%	NAT GAS	SEALED COMBUSTION	3"	120/1/1/2A	14" W.C.	MODULATING	6:1	MLX-303	1,2,3,4,5
2	MECH RM B2	CONDENSING	WATER	30 PSI	303	91+%	NAT GAS	SEALED COMBUSTION	3"	120/1/1/2A	14" W.C.	MODULATING	6:1	MLX-303	1,2,3,4,5

REMARKS:

1. BASED ON AERCO MODULEX.
2. PROVIDE FORCED DRAFT BURNER AND STANDARD WATER TRIM - INSTALL PER MANUFACTURER'S RECOMMENDATIONS
3. EWT = 110°F LWT = 140°F (AT DESIGN OUTSIDE TEMPERATURE)
4. INCLUDE APPROVED VENTING, SEALED PER MANUFACTURER'S RECOMMENDATIONS, AND DUCTED COMBUSTION AIR
5. UNIT EFFICIENCY IS DEFINED AT FULL FIRE, 80°F EWT, 20°F RISE.

PUMP SCHEDULE														
P I	LOCATION	SERVICE	TYPE	CAPACITY (GPM)	DISCHARGE HEAD (FEET)	MIN. NPSH (FEET)	MIN. EFF. (%)	SIZE		MOTOR			REMARKS	
								SUCTON	DISCH.	HP	NPSH	VOLT		PH
1	MECH RM B2	HW	INLINE	30	25	5	50	1"	1"	1/2	1750	208	3	1,2,3,4,5
2	MECH RM B2	HW	INLINE	30	25	5	50	1"	1"	1/2	1750	208	3	1,2,3,4,5

REMARKS:

1. IN-LINE MOUNTED PUMP
2. DUPLEX PUMPS, SINGLE OPERATION (100% STANDBY)
3. PROVIDE WITH VFD DUTY MOTOR.
4. VFD PROVIDED AND INSTALLED BY T.C.C.
5. BASED ON B&G SERIES 60.

VFD SCHEDULE					
EQUIP.	LOCATION	MOTOR			REMARKS
		HP	VOLT	PH	
P-1	103	1/2	208	3	1
P-2	103	1/2	208	3	1

NOTES:

1. VFD PROVIDED BY SECTION 23 90 00 CONTRACTOR

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REMARKS:

1. BASED ON GREENHECK FGR, COOK GR
2. INCLUDE ALUMINUM BIRD SCREEN
3. INCLUDE CONDENSATE COATING
4. PROVIDE INSULATED ROOF CURB, REFER TO DETAIL FOR REQUIRED HEIGHT.

ENERGY RECOVERY UNIT																									
UNIT CHARACTERISTICS												COOLING (SUMMER)				HEATING (WINTER)				REMARKS					
	SERIES	TYPE	UNIT ELECTRICAL				EXH FAN				OA FAN		OUTSIDE/AIR SUPPLY		EXHAUST AIR		OUTSIDE/SUPPLY AIR		EXHAUST AIR						
			VOLTS	PH	FLA	MCA	CFM	ESP	HP	CFM	ESP	HP	EA1(°F)	LA1(°F)	EA1(°F)	RA (%)	EA1(°F)	LA1(°F)	EA1(°F)		RA (%)	EA1(°F)	RA (%)		
ERV-1	AHU-1	ENTHALPY	208	3	1.7	2.1	350	0.5	1/2	350	0.25	1/2	90.0	73.0	78.5	66.8	75.0	90.0	-11.0	-13.0	50.9	41.1	70.0	35.0	1,2

REMARKS:

1. BASED ON RENEWAIRE EV450RT.
2. INCLUDE DISCONNECT AND INDIVIDUAL FAN MOTOR STARTERS BY MANUFACTURER

DIFFUSER, REGISTER AND GRILLE SCHEDULE														
MARK	SERVICE	MOUNTING TYPE	FRAME	FASTENER	SIZE	STYLE	PATTERN	MATERIAL	DAMPER	FINISH	COLOR	MAX. P.D. (HORIZ.)	MANUFACTURER / MODEL	REMARKS
PSD-1	SUPPLY	CEILING	T-GRID	NONE	2 SLOT, 24" LONG	ADJ 1-1/2" WIDE SLOT	2-WAY	STEEL	NO	BAKED ENAMEL	OFF WHITE	0.09	DOMCO DCD	1
PSD-2	SUPPLY	CEILING	T-GRID	NONE	4 SLOT, 24" LONG	ADJ 1-1/2" WIDE SLOT	2-WAY	STEEL	NO	BAKED ENAMEL	OFF WHITE	0.09	DOMCO DCD	1
SR-1	SUPPLY	WALL	SURFACE	SCREW	SEE PLAN	DOUBLE DEFLECTION	ADJUSTABLE HOR/VERT	STEEL	YES	BAKED ENAMEL	OFF WHITE	0.09	CARNES RSDSH	2
CO-1	SUPPLY	CEILING	T-GRID	NONE	72x24	1/2"x1/2"x1" EGG CRATE	-	ALUMINUM	NO	BAKED ENAMEL	OFF WHITE	0.09	CARNES RAPAF	4
EG/TO-1	EXH/RET	CEILING	SURFACE	SCREW	SEE PLAN	1/2"x1/2"x1/2" EGG CRATE	-	ALUMINUM	NO	BAKED ENAMEL	OFF WHITE	0.05	CARNES RAPAF	2
EG/TO-2	EXH/RET	CEILING	T-GRID	NONE	24x24	1/2"x1/2"x1/2" EGG CRATE	-	ALUMINUM	NO	BAKED ENAMEL	OFF WHITE	0.05	CARNES RAPAF	3

REMARKS:

1. INLET SIZE AS NOTED ON PLANS
2. NECK SIZE AS NOTED ON PLANS
3. 22"x22" NECK
4. PROVIDE SHEETMETAL SUPPLY PLENUM, BLACK INTERIOR.

HOT WATER WALL FIN RADIATION SCHEDULE																
WF F	STYLE	MOUNTING	BTU/HR/FT	AWT (DEG F)	TUBE			HEATING ELEMENT			ENCLOSURE				INSTALLED HEIGHT	REMARKS
					MATERIAL	SIZE	ROWS	FIN/FT	MATERIAL	FIN SIZE	DEPTH	HEIGHT	THICKNESS	MOUNTING		
1	FLAT-TOP STAMPED GRILLE	WALL	370	130	COPPER	¾"	1	50	ALUMINUM	3-1/4x3-1/4"	4"	6"	14 GA.	WALL	6" AFF	1,2,3,4

REMARKS:

1. BASED ON STERLING VA-C
2. EWT = 140°F, EAT = 65 °F
3. PROVIDE ACTIVE FIN LENGTHS AS SHOWN ON DRAWINGS.
4. PROVIDE END CAPS AND CABINET ACCESSORIES FOR COMPLETE INSTALLATION.

FAN SCHEDULE																	
TAG	LOCATION	SERVICE	FAN TYPE	WHEEL TYPE		CFM	RPM	TOTAL S.P. (W.G)	BHP	DRIVE	DAMPER	INTERLOCK	MOTOR			CONTROLS	REMARKS
				CENT	MIN DIA								HP	VOLT	PH		
EF-1	ROOF	TYPE I KITCHEN HOOD	UPBLAST	CENT	13.5	1200	1400	1.0	0.32	DIRECT	-	HOOD HEAT SENSOR	1/2	120	1	A	1,3,4,5
EF-2	ROOF	101 VEHICLE BAY	DOWNBLAST	CENT	13.5	2400	1229	.325	0.35	DIRECT	MOD	BAS	3/4	120	1	A	2,3,4,5
CEF-1	CEILING	RESTROOM	BATHROOM	CENT	-	80	1280	0.125	-	DIRECT	BOD	LIGHT SWITCH	48 WATT	120	1	F	3
CEF-2	CEILING	RESTROOM	BATHROOM	CENT	-	100	1280	0.125	-	DIRECT	BOD	LIGHT SWITCH	150 WATT	120	1	F	3

REMARKS:	CONTROLS:
1. FAN SHALL BE UL762 LISTED FOR GREASE EXHAUST	A. T.C.C. TO INTERLOCK WITH B.A.S.
2. PROVIDE ROOF CURB.	B. MANUAL CONTROL WITH WALL SWITCH BY E.C.
3. INCLUDE SPEED CONTROLLER AT UNIT FOR BALANCING.	C. MANUAL CONTROL WITH UNIT SWITCH, WIRED BY E.C.
4. MOTOR STARTER PROVIDED BY E.C.	D. INCLUDE ON-OFF-SPEED CONTROLLER FOR WALL MOUNTING BY E.C.
5. PROVIDE FACTORY INSTALLED DISCONNECT.	E. INTERLOCK WITH TIMECLOCK
	F. INTERLOCK WITH LIGHTS BY E.C.
	G. LINE VOLTAGE THERMOSTAT CONTROL. (REVERSE ACTING)

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REMARKS:

1. BASED ON GREENHECK.
2. PROVIDE UL LISTED FLUORESCENT LIGHT FIXTURES.
3. HOOD CFM IS SCHEDULED PER MFR ENGINEERING ANALYSIS. HOODS MUST NOT EXCEED TOTAL SUM AMOUNT OF AIRFLOW SCHEDULED, I.E. SHALL BE RESPONSIBLE FOR PROPER HOOD SELECTION FROM MFR.
4. PROVIDE WITH STAINLESS STEEL Baffle FILTERS.
5. HOOD IS SIZED TO PROVIDE MIN. 6" OVERHANG OF EQUIPMENT BASED ON 6" DISTANCE BETWEEN EQUIPMENT AND WALL.
6. PROVIDE WITH FACTORY MOUNTED AND PIPED KITCHEN HOOD FIRE SUPPRESSION SYSTEM.

CABINET UNIT HEATER SCHEDULE																
 CUB #	LOCATION	CABINET	INLET	OUTLET	AIR SIDE		WATER SIDE		SPEED RPM	DEPTH OF RECESS (IN.)	FOUR SIDE OVERLAP	MOTOR				REMARKS
					CFM	MGH	GPM	FO FT				HP	QTY	VOLT	PH	
1	STAIR A 001	INVERTED RECESSED	FRONT STAMPED	FRONT STAMPED	185	7.7	0.9	0.1	875	9	0	1/15	1	120	1	1,2,3,4,5

REMARKS:

1. CAPACITY BASED ON 140 EWT, 110 LWT, AND 60 EAT.
2. PROVIDE 1" THICK PANEL FILTERS
3. SOUND CRITERIA AHRH STANDARD 350-2000; SOUND POWER LEVEL IN dB SHALL NOT EXCEED 55 IN ANY OCTAVE BAND.
4. ELECTRICAL DISCONNECT BY UNIT MANUFACTURER.
5. BASED ON STERLING.

UNIT HEATER SCHEDULE													
	LOCATION	TH (PROJECTION)	MBH	CFM (WATER)	PD (FT)	DISH LOWER	CFM	LAT (FT)	THROW	MOTOR			REMARKS
										HP	VOLTS	PH	
1	101	HORIZONTAL	100	7.0	1.0	YES	4,200	82	57	1/2	120	1	1,2,3
2	101	HORIZONTAL	100	7.0	1.0	YES	4,200	82	57	1/2	120	1	1,2,3
3	102	VERTICAL	24	1.6	0.5	NO	1,200	78.4	20	1/20	120	1	1,2,3
4	103	VERTICAL	24	1.6	0.5	NO	1,200	78.4	20	1/20	120	1	1,2,3

REMARKS:

1. 140°F EWT, 110°F LWT, 60°F EAT
2. BASED ON STERLING
3. DISCONNECT BY E.C.