

PACKAGED AIR COOLED WATER CHILLER SCHEDULE																						
UNIT NO.	SERVICE	LOCATION	CHILLER DATA					COMPRESSOR DATA				CONDENSER DATA					TOTAL KW UNIT	V/PH/HZ	WEIGHT (LBS)	MFG. & MODEL NO.	REMARKS	
			MIN RATED TONS (ARI)	TOTAL GPM	TEMP ENT (°F)	LVG (°F)	MAX PD FT.	FOULING FACTOR	NO.	TYPE	MAX POWER KW	REFRIG.	CHARGE (LBS/COMP)	NO. OF FANS	NO. OF MOTORS	H.P. EACH						AMBIENT TEMP
RM-1	CHW SYSTEM	WEST LOW ROOF	200	311.6	58	42	5.3	0.0001	2	ROTARY	203.1	R-134a	215	12	12	1.5	82	221.6	460/3/60	12,784	TRANE RTAC 200	SEE BELOW
RM-2	CHW SYSTEM	WEST LOW ROOF	200	311.6	58	42	5.3	0.0001	2	ROTARY	203.1	R-134a	215	12	12	1.5	82	221.6	460/3/60	12,784	TRANE RTAC 200	SEE BELOW

1. PROVIDE SINGLE POINT POWER CONNECTION. MCA: 412 AMPS, MOCBP: 500 AMPS
2. PROVIDE UNIT MOUNTED WYE-DELTA STARTER.
3. PROVIDE LOW AMBIENT CONTROL ON CONDENSER AND FREEZE PROTECTION KIT ON EVAPORATOR. PROVIDE LOW POINT DRAINS AND ATOMSPHERIC FILL PORT ON EVAPORATOR.
4. UNIT EFFICIENCY MUST MEET MINIMUM ASHRAE STANDARD 90.1-2007 REQUIREMENTS.
5. UNIT WEIGHT, DIMENSIONS & UNIT CONNECTIONS TO BE VERIFIED WITH MANUFACTURER. COORDINATE VARIATIONS WITH OTHER TRADES AT NO COST TO OWNER.
6. SELECTION BASED ON 82 DEG F AMBIENT.

PUMP SCHEDULE												
PUMP NO.	SERVICE	4. PROVIDE COIL FREEZE/STATE WITH PUMP INTERLOCK AND BMS ALARM.	TYPE	GPM	TOTAL HEAD FEET	MIN. DESIGN WORKING PRESS. P.S.I.G.	MOTOR				MANUFACTURER & MODEL NO.	REMARKS
							BHP	HP	RPM	V/Ph/Hz		
P-1	CHILLED WATER	301 MECHANICAL RM	VERTICAL SPLIT IN-LINE	315	80	150	9.08	15	1750	480/3/60	B&G SERIES 80SC 4x4x11	1
P-2	CHILLED WATER	301 MECHANICAL RM	VERTICAL SPLIT IN-LINE	315	80	150	9.08	15	1750	480/3/60	B&G SERIES 80SC 4x4x11	1
P-3	CHILLED WATER	301 MECHANICAL RM	VERTICAL SPLIT IN-LINE	315	80	150	9.08	15	1750	480/3/60	B&G SERIES 80SC 4x4x11	1, 50% CAPACITY STANDBY
P-4	HEATING HOT WATER	301 MECHANICAL RM	VERTICAL SPLIT IN-LINE	560	80	150	9.02	15	1750	480/3/60	B&G SERIES 80SC 4x4x9-1/2	1
P-5	HEATING HOT WATER	301 MECHANICAL RM	VERTICAL SPLIT IN-LINE	560	80	150	9.02	15	1750	480/3/60	B&G SERIES 80SC 4x4x9-1/2	1
P-6	HEATING HOT WATER	301 MECHANICAL RM	VERTICAL SPLIT IN-LINE	560	80	150	9.02	15	1750	480/3/60	B&G SERIES 80SC 4x4x9-1/2	1, 50% STANDBY/ 100% SNOW MELT
P-7	BOILER CIRCULATING	301 MECHANICAL RM	INLINE	280	25	150	2.71	5	1750	480/3/60	B&G SERIES 80 5x5x7	1, 2
P-8	BOILER CIRCULATING	301 MECHANICAL RM	INLINE	280	25	150	2.71	5	1750	480/3/60	B&G SERIES 80 5x5x7	1, 2
P-9	BOILER CIRCULATING	301 MECHANICAL RM	INLINE	280	25	150	2.71	5	1750	480/3/60	B&G SERIES 80 5x5x7	1, 2
P-9	BOILER CIRCULATING	301 MECHANICAL RM	INLINE	280	25	150	2.71	5	1750	480/3/60	B&G SERIES 80 5x5x7	1, 2
P-11	HW PRESSURE FILL	301 MECHANICAL RM	END SUCTION CENT	1035 GPH	20 PSI	150	-	1/3	1750	120/1/60	B&G BPF-3H3005M	
P-12	CHW PRESSURE FILL	301 MECHANICAL RM	END SUCTION CENT	1035 GPH	20 PSI	150	-	1/3	1750	120/1/60	B&G BPF-3H3005M	
P-13	TUG TUNNEL RAMP SNOW MELT	301 MECHANICAL RM	INLINE	40	75	150	-	5	1750	480/3/60	B&G SERIES 80 2x2x9-1/2B	1, 2, 3 (50% ETHYLENE GLYCOL)
P-14	TUG TUNNEL HC-1&2 RECIRC	TUG TUNNEL	INLINE	150	20	150	1.21	1.5	1750	480/3/60	B&G SERIES 80 3x3x7B	1, 4
P-15	TUG TUNNEL HC-1.3 THRU 6 CIRC	TUG TUNNEL	INLINE	250	40	150	4.62	7.5	1750	480/3/60	B&G SERIES 80 3x3x9-1/2B	1 (50% ETHYLENE GLYCOL)

1. PROVIDE VFD WITH INTEGRAL DISCONNECT.
2. INTEGRATE WITH BOILER CONTROLS.
3. INTEGRATE WITH SNOW MELT SYSTEM CONTROLS.
4. PROVIDE PUMP FREEZE/STATE WITH PUMP INTERLOCK AND BMS ALARM.

HIGH EFFICIENCY GAS FIRED HOT WATER BOILER SCHEDULE															
UNIT NO.	LOCATION	INPUT MBH	OUTPUT MBH	BOILER HP	GPM	WATER TEMP (°F)		PD (FT, MAX FLOW)	FLUE OUTLET	FUEL	TYPE	MIN. DESIGN WORKING PRESS. (PSIG)	OPERATING WEIGHT (LBS)	MANUF & MODEL NO.	REMARKS
						ENT.	LVG.								
B-1	301 MECH RM	3,000	2,850	85.1	260	140	180	18	10"	NATURAL GAS	CONDENSING	150	1600	PATTERSON-KELLEY MACH 3000	
B-2	301 MECH RM	3,000	2,850	85.1	260	140	180	18	10"	NATURAL GAS	CONDENSING	150	1600	PATTERSON-KELLEY MACH 3000	
B-3	301 MECH RM	3,000	2,850	85.1	260	140	180	18	10"	NATURAL GAS	CONDENSING	150	1600	PATTERSON-KELLEY MACH 3000	
B-4	301 MECH RM	3,000	2,850	85.1	260	140	180	18	10"	NATURAL GAS	CONDENSING	150	1600	PATTERSON-KELLEY MACH 3000	

1. BOILERS CONTROLS SHALL BE NON-PROPRIETARY AND FULLY INTEGRATABLE TO BUILDING MANAGEMENT SYSTEM.
2. PROVIDE 12" SEALED COMBUSTION AIR INTAKE. INTAKE & VENT MATERIAL PER MANUFACTURER'S RECOMMENDATION.
3. INLET GAS PRESSURE SHALL BE 4.5"-14" W.C. (MAY VARY BY MANUF).
4. PROVIDE CONDENSATE NEUTRALIZATION SYSTEM.
5. ELECTRICAL REQUIREMENTS ARE 208V/3-PH, LESS THAN 20 AMPS PER BOILER.
6. AJAX, CAMUS & FULTON ACCEPTABLE MANUFACTURER

CABINET UNIT HEATER SCHEDULE											
TAG	SERVICE	LOCATION	MBH	EWT (F)	LWT (F)	GPM	CFM	HP	V/PH/Hz	MANUF. & MODEL NUMBER	REMARKS
CUH-1.0	STAIRS #192	STAIRS #192	29.8	180	160	3	400	1/10	115/1/60	STERLING FI-1050	1, 2, 3
CUH-1.1	ELEVATOR #175	ELEVATOR #175	22.8	180	160	2.3	300	1/10	115/1/60	STERLING FI-1050	1, 2, 3
CUH-1.2	STAIRS #190	STAIRS #190	29.8	180	160	3	400	1/10	115/1/60	STERLING FI-1050	1, 2, 3
CUH-2.1	VEST. #232	VEST. #232	29.8	180	160	3	400	1/10	115/1/60	STERLING FI-1050	1, 2, 3
CUH-3.1	STAIRS #391	STAIRS #391	29.8	180	160	3	400	1/10	115/1/60	STERLING FI-1050	1, 2, 3
CUH-3.2	STAIRS #390	STAIRS #390	29.8	180	160	3	400	1/10	115/1/60	STERLING FI-1050	1, 2, 3
CUH-3.3	CORRIDOR #304	CORRIDOR #304	29.8	180	160	3	400	1/10	115/1/60	STERLING FI-1050	1, 2, 3
CUH-3.4	STORAGE #319	STORAGE #319	29.8	180	160	3	400	1/10	115/1/60	STERLING FI-1050	1, 2, 3

1. SIZES 53"L x 47"H x 9 1/2" DEEP
2. INCLUDE 1" AIR FILTER
3. PROVIDE INTEGRAL LINE VOLTAGE THERMOSTAT AND NON-FUSED DISCONNECT.

EXPANSION TANK SCHEDULE									
UNIT NO.	SERVICE	LOCATION	LENGTH (IN)	DIAM. (IN)	CAPAC. (GAL)	WORK. PRESS. (PSIG)	OPERATING WEIGHT	MANUFACTURER & MODEL NO.	REMARKS
ET-1	CHILLED WATER	301 MECH RM				125		BELL & GOSSETT	DIAPHRAGM TYPE, ASME CONSTRUCTION
ET-2	HOT WATER	301 MECH RM				125		BELL & GOSSETT	DIAPHRAGM TYPE, ASME CONSTRUCTION

AIR SEPARATOR SCHEDULE						
TAG	SERVICE	LOCATION	SIZE	GPM	SIZE-DIM	REMARKS
AS-1	HOT WATER HEATING	MECH. ROOM	6"	650	14" D x 33" H	TACO # 4906AD
AS-2	CHILLED WATER	MECH. ROOM				

FINNED-TUBE RADIATION SCHEDULE														
SYMBOL	BTU/HLF	E.W.T. (°F)	L.W.T. (°F)	FINS				PIPE		ENCLOSURE			MODEL	REMARKS
				SIZE	PER FT.	MAT.	ROWS	SIZE	MAT.	HGT.	DEPTH	TYPE		
FT-1	1100	180	160	4-1/4" SQ	40	AL	2	1-1/2"	CU	-	-	-	STERLING BARE "B"	1
FT-2	650	180	160	3-1/4" SQ	40	AL	1	1"	CU	8"	8"	TROUGH	STERLING BARE "A"	1, 2, 3
FT-3	350	180	160	-	-	-	-	3/4"	-	11-1/2"	2"	PANEL RADIATOR	RUNTAL R-4	3, 6
FT-4	500	180	160	3-1/4" SQ	32	AL	1	1"	CU	14-7/16"	4-3/8"	CLASSIC, TOP OUTLET	STERLING JVA VA-AR14	2, 3, 4
FT-5	900	180	160	3-5/8"x4-1/4"	50	AL	1	3/4"	CU	-	-	-	STERLING BARE "B"	1
FT-6	450	180	160	4-1/4"x3-5/8"	40	AL	1	3/4"	CU	10-3/4"	6-1/16"	PEDESTAL, TOP OUTLET	STERLING CUSTOM	2, 3, 5

1. TO BE INSTALLED WITHIN CUSTOM ARCHITECTURAL ENCLOSURE. MOUNT PER MANUFACTURER RECOMMENDATIONS. SEE ARCH & MECH DETAILS.
2. PROVIDE 14 GA STAINLESS STEEL FINISH.
3. PROVIDE TRIM & MITERED END ENCLOSURE PIECES FOR CONTINUOUS APPEARANCE. FINISH SELECTION & MOUNTING HEIGHT BY ARCH. SEE SPECS FOR MORE INFO.
4. PROVIDE EXTRUDED ALUMINUM INLET GRILLES AT UNDERSIDE OF ENCLOSURE.
5. MOUNTING HEIGHT INCLUDES SUPPORTS. SEE ARCH DWGS FOR CUSTOM ENCLOSURE DETAILS.
6. SIDE INLET & OUTLET CONCEALED. SAME-END PIPING CONNECTIONS. SEE MANUF INFO FOR REQUIRED # OF CONNECTIONS. SURFACE WALL MOUNT W/ CONCEALED BRACKET, FASTENERS & STIFFENERS.

HORIZONTAL TYPE UNIT HEATERS SCHEDULE											
TAG	AREA SERVED	LOCATION	OUTPUT MBH	EWT (F)	LWT (F)	RPM	CFM	HP	V/PH/Hz	MANUF. & MODEL NUMBER	REMARKS
UH-1.1 TO 1.7	TUG TUNNEL	TUG TUNNEL	34.8	180	160	1070	300	1/20	115/1/60	STERLING HS-48	1
UH-1.8	SPRINKLER ROOM #128	SPRINKLER ROOM #128	26.1	180	160	1070	400	1/20	115/1/60	STERLING HS-36	1
UH-1.9	LOADING DOCK #126	LOADING DOCK #126	45	180	160	1070	400	1/20	115/1/60	STERLING HS-60	1
UH-3.1,3.2, 3.3, 3.4	MECH. ROOM #333	MECH. ROOM #333	34.8	180	160	1070	400	1/20	115/1/60	STERLING HS-48	1
UH-3.5, 3.6 & 3.7	MECH ROOM #304	MECH ROOM #304	34.8	180	160	1070	400	1/20	115/1/60	STERLING HS-48	1

1. PROVIDE LINE VOLTAGE THERMOSTAT AND NON-FUSED DISCONNECT.

HOT WATER COIL SCHEDULE														
TAG	SERVICE	LOCATION	CFM	EAT (°F)	LAT (°F)	MBH	GPM	EWT (°F)	LWT (°F)	FLUID PD (FT)	AIR PD (IN)	MAX FACE VELOCITY (FPM)	NO. ROWS	REMARKS
HC-1.1	TUG SERVICE TUNNEL	TUG SERVICE TUNNEL	8000	-21	60	702	75	160	140	6.3	0.16	500	4	
HC-1.2	TUG SERVICE TUNNEL	TUG SERVICE TUNNEL	8000	-21	60	702	75	160	140	6.3	0.16	500	4	
HC-1.3	TUG SUPPLY HEAT RECOVERY	TUG SERVICE TUNNEL	8000	-21	-8	115	125	20.8	18.9	7.1	0.16	500	2	SEE BELOW
HC-1.4	TUG SUPPLY HEAT RECOVERY	TUG SERVICE TUNNEL	8000	-21	-8	115	125	20.8	18.9	7.1	0.16	500	2	SEE BELOW
HC-1.5	TUG EXHAUST HEAT RECOVERY	TUG SERVICE TUNNEL	8800	60 DB/48 WB	48.1 DB/42.4 WB	115	125	18.9	20.8	6.8	0.19	500	2	SEE BELOW
HC-1.6	TUG EXHAUST HEAT RECOVERY	TUG SERVICE TUNNEL	8800	60 DB/48 WB	48.1 DB/42.4 WB	115	125	18.9	20.8	6.8	0.19	500.0	2	SEE BELOW

NOTES:
1. HC-1.3 THRU 1.6 SHALL CIRCULATE A 50% ETHYLENE GLYCOL SOLUTION.

HYDRONIC AIR CURTAIN SCHEDULE																		
UNIT NO.	AREA SERVED	LOCATION	TYPE	CFM (HI SPEED)	AIR TEMP RISE @ HI SPEED (°F)	TOTAL CAPACITY MBH	HEATING COIL					FAN MOTOR				WEIGHT (LBS)	MANUF. & MODEL	REMARKS
							HOT WATER				PRESS. (PSIG)	QUANTITY	HP	RPM	V/PH/Hz			
							TEPM (°F)	LVG	GPM	WATER PD (FT)								
ACN-1.1	VESTIBULE 100	VESTIBULE 100	SUSPENDED	2093	37	87	140	120	8.7		150	2	1/2	1075	208/1/60	271	POWERED AIRE CHS 2-84	1, 2
ACN-1.2	VESTIBULE 100	VESTIBULE 100	SUSPENDED	2093	37	87	140	120	8.7		150	2	1/2	1075	208/1/60	271	POWERED AIRE CHS 2-84	1, 2
ACN-1.3	VESTIBULE 101	VESTIBULE 101	SUSPENDED	2093	37	87	140	120	8.7		150	2	1/2	1075	208/1/60	271	POWERED AIRE CHS 2-84	1, 2
ACN-1.4	VESTIBULE 101	VESTIBULE 101	SUSPENDED	2093	37	87	140	120	8.7		150	2	1/2	1075	208/1/60	271	POWERED AIRE CHS 2-84	1, 2