

AIR HANDLING UNITS																											
TAG	AREA SERVED	LOCATION	SUPPLY FAN				RETURN/EXHAUST FAN				FILTER				DX COOLING COIL BANK				STEAM COIL BANK				ELECTRIC		REPRESENTATIVE		REMARKS
			VENTILATION OA CFM	CFM	ESP	STYLE	HP	CFM	ESP	Style	HP	EFFICIENCY	NOMINAL CAPACITY (TONS)	TOTAL MBH	SENS MBH	EAT DB/WB	LAT DB/WB	MBH	EAT DB	LAT DB	PSIG	LBS/HR	MCA	VOLTS/PHASE	MANUFACTURER	MODEL	
AHU-A	BLDG A	Roof	3,500	25,000	3.0	BI	50	25,000	2.0	BI	20	MERV-A 8/MERV-A 13	75	820	563	77/65.2	53 Sat'd	618	39	55	10	649	238	480/3 PH	TRANE	SSHLF754	1 - 15
AHU-B	BLDG B & BRIDGE	Roof	4,000	21,000	3.0	BI	40	21,000	2.0	BI	15	MERV-A 8/MERV-A 13	60	634	441	77/65.2	53 Sat'd	570	33	55	10	598	181	480/3 PH	TRANE	SSHLF604	1 - 15

- REMARKS:
- OR APPROVED EQUIVALENT MANUFACTURER AND MODEL
 - PROVIDE VFD FOR SUPPLY AND RETURN FANS.
 - PROVIDE SEALED AND GASKETED ACCESS DOORS FOR COIL, FILTER AND FAN SECTIONS.
 - SUPPLY WITH OPPOSED BLADE DAMPER SECTIONS FOR OUTSIDE, RELIEF, AND MIXED AIR.
 - PROVIDE OUTSIDE AIR FLOW MEASUREMENT STATION.
 - SUPPLY UNIT WITH 100% ENTHALPY BASED OUTSIDE AIR ECONOMIZER OPERATION.
 - DOUBLE WALL UNITS.
 - VARIABLE VOLUME UNIT OPERATION.
 - PROVIDE WITH HOT GAS BYPASS
 - PROVIDE WITH CRANKCASE HEATER
 - PROVIDE UNIT MOUNTED DISCONNECT
 - PROVIDE WITH DUCT CONNECTIONS THRU ROOF CURB
 - REFRIGERANT TO BE R410A
 - CONTROLS TO BE COMPATIBLE WITH BUILDING MANAGEMENT SYSTEM.
 - PROVIDE VERTICAL STEAM COIL(S) DOWNSTREAM OF MIXING POINT

AIR CONDITIONING UNITS																						
TAG	DESIGNATION	LOCATION/SERVICE	SUPPLY FAN			DX COOLING COIL			HEATING CAPACITY			ELECTRIC			OPERATING WEIGHT		REPRESENTATIVE		REMARKS			
			CFM	ESP	HP	TOTAL MBH	EAT DB/WB	LAT DB/WB	TOTAL MBH	EAT DB	LAT DB	MCA	VOLTS/PHASE	MANUFACTURER	MODEL							
SACU-1	SPLIT SYSTEM AIR CONDITIONER	ELEVATOR MACH RM / MACH RM	320 - 425	N/A	N/A	12	80/68	55/54	N/A	N/A	N/A	1	208/230/1	40	25	25	MITSUBISHI	PKA SERIES	3.6,8,10,11,12			
SACC-1	SPLIT SYSTEM AIR COOLED CONDENSING UNIT	BRIDGE ROOF / SACU-1	N/A	N/A	N/A	12	95/75	N/A	N/A	N/A	N/A	13	208/230/1	90	25	25	MITSUBISHI	PUY SERIES	1.2,4.5,6,7,12			
SACU-2	SPLIT SYSTEM AIR CONDITIONER	BLDG. A, RM. 121A / PANTRY SOUTH	1,750	N/A	N/A	4.8	80/67	60/58	100	47	94	12.4	115/1/60	250	25	25	TRANE	TUX1C100	3.6,12,13,14			
SACC-2	SPLIT SYSTEM AIR COOLED CONDENSING UNIT	BLDG. A, RM. 121A / SACU-2	N/A	N/A	N/A	4.8	-	-	N/A	N/A	N/A	27.0	208/1/60	250	25	25	TRANE	4TTR3048	12			
SACU-3	SPLIT SYSTEM AIR CONDITIONER	BLDG. A, RM. 131A / PANTRY NORTH	1,750	N/A	N/A	4.8	80/67	60/58	100	47	94	12.4	115/1/60	250	25	25	TRANE	TUX1C100	3.6,12,13,14			
SACC-3	SPLIT SYSTEM AIR COOLED CONDENSING UNIT	BLDG. A, RM. 131A / SACU-3	N/A	N/A	N/A	4.8	-	-	N/A	N/A	N/A	27.0	208/1/60	250	25	25	TRANE	4TTR3048	12			

- REMARKS:
- PROVIDE WITH LOW AMBIENT KIT
 - PROVIDE WITH CURB(S) FOR ROOF MOUNTING
 - SUPPLY WITH FILTER SECTION AND 35% FILTERS
 - PROVIDE WITH CRANKCASE HEATER
 - PROVIDE UNIT MOUNTED DISCONNECT
 - REFRIGERANT TO BE R410A
 - PROVIDE WIND BAFFLE
 - PROVIDE CONDENSATE PUMP
 - PROVIDE WITH DC INVERTER TYPE COMPRESSOR
 - EVAPORATOR TO BE WALL MOUNTED UNIT
 - PROVIDE UNIT CONTROLS WITH REMOTE T-STAT
 - OR APPROVED EQUIVALENT MANUFACTURER AND MODEL
 - MANUFACTURER SUPPLIED SET BACK THERMOSTAT
 - NATURAL GAS SERVICE

VARIABLE AIR VOLUME BOX SCHEDULE W/ HYDRONIC REHEAT COIL (VAVR)									
PLAN CODE	INLET DIA. (IN.)	MAXIMUM AIR FLOW COOLING (CFM)	REPRESENTATIVE		WATER REHEAT COIL			CONTROLS	NOTES
			MANUFACTURER	MODEL	ROWS/COILS	MAX GPM	HEADLOSS		
VAVR-5	5	350	TITUS	DESV	1	1.0		24V DC	1,2
VAVR-6	6	500	TITUS	DESV	1	1.0		24V DC	1,2
VAVR-8	8	900	TITUS	DESV	1	2.0		24V DC	1,2
VAVR-10	10	1400	TITUS	DESV	1	2.0		24V DC	1,2

- NOTES
- PROVIDE 1" DUAL DENSITY INSULATION INTERNALLY (INCLUDING END CAPS) TO COMPLY WITH NFPA 90A & UL 181.
 - OR APPROVED EQUIVALENT MANUFACTURER AND MODEL

SHELL AND TUBE STEAM/HOT WATER HEAT EXCHANGERS												
TAG	DESIGNATION	LOCATION	SERVICE	TUBE				SHELL		REPRESENTATIVE		REMARKS
				GPM	EWT	LWT	WPD	#STEAM/HR	STEAM PRESSURE (PSIG)	MANUFACTURER	MODEL	
HX-1	REHEAT WATER HEAT EXCHANGER	EQUIP ROOM	HW	200	170	180		1000	10	BELL & GOSSETT	QSU-103-2	1
HX-2	DOMESTIC HOT WATER HEAT EXCHANGER	EQUIP ROOM	DHW	50	40	120		1820	10	ARMSTRONG FLORITE	665-DW-P-P-P-TW-DMC1-2	1 - 7

- REMARKS:
- OR APPROVED EQUIVALENT MANUFACTURER AND MODEL
 - PRE-PIPED PACKAGE WITH AUTOMATIC TEMPERATURE CONTROLS & HOT WATER RECIRCULATION CONNECTION AND PUMP
 - PROVIDE DIGITAL TEMPERED WATER MIX VALVE
 - PROVIDE DATA CONNECTION FOR INTERFACE WITH THE BUILDING MANAGEMENT SYSTEM
 - PROVIDE SAFETY CONTROLS TO ELIMINATE POTENTIAL FOR SCALDING WATER TEMPERATURE
 - HOT WATER SYSTEM TO BE CONTROLLABLE TO 115F +/- 2F
 - PROVIDE AUTOMATIC SHUTOFF OF HOT WATER FLOW IN THE EVENT OF A POWER FAILURE OR LOSS OF COLD WATER PRESSURE.

PUMP SCHEDULE										
TAG	LOCATION	SERVICE	TYPE	GPM	P.D.FT	ELECTRICAL	H.P.	RPM	REP. MANUFACTURER & MODEL NO.	Notes
HWP-1	EQUIP ROOM	HOT WATER REHEAT	INLINE	200	60	460/60/3	7.5	1750	BELL & GOSSETT SERIES 80	1 - 3
HWP-2	EQUIP ROOM	HOT WATER REHEAT	INLINE	200	60	460/60/3	7.5	1750	BELL & GOSSETT SERIES 80	1 - 3

- NOTES
- PROVIDE WITH TRIPLE DUTY VALVES AND SUCTION DIFFUSERS
 - PROVIDE WITH VFD DRIVES
 - OR APPROVED EQUIVALENT MANUFACTURER AND MODEL

REGISTER, GRILLE & DIFFUSER SCHEDULE									
TYPE	LOCATION	MOUNTING TYPE	MODULE SIZE	USE	SIZE (DIAMETER)	VOLUME (CFM)	MANUFACTURER & MODEL NO.		REMARKS
1	BLDG. A & B	SURFACE	12" X 12"	SUPPLY	PER DWG	PER DWG	TITUS TMSA		1 - 3
2	BLDG. A & B	SURFACE	24" X 24"	SUPPLY	PER DWG	PER DWG	TITUS TMSA		1 - 3
3	BLDG. A & B	LAY-IN	24" X 24"	SUPPLY	PER DWG	PER DWG	TITUS TMSA		1 - 3
4	BLDG. A & B	SURFACE	N/A	SUPPLY	PER DWG	PER DWG	TITUS 272RL		1 - 4, 9
A	BLDG. A & B	SURFACE	N/A	RETURN	PER DWG	PER DWG	TITUS 350RL		1 - 5
B	BLDG. A & B	LAY-IN	N/A	RETURN	PER DWG	PER DWG	TITUS 350RL		1 - 5
C	BLDG. B	SURFACE	N/A	FLOOR RETURN	PER DWG	PER DWG	TITUS CT-PP-0		1,3, 5 - 8

- REMARKS:
- PROVIDE WITH OPPOSED BLADE DAMPER
 - STEEL CONSTRUCTION, WHITE FINISH
 - OR APPROVED EQUIVALENT MANUFACTURER AND MODEL
 - 35 DEGREE DEFLECTION, 3/4" SPACING
 - BLADES PARALLEL TO LONG DIMENSION
 - ALUMINUM CONSTRUCTION, WHITE FINISH
 - 7/32" SPACING, 0 DEGREE DEFLECTION
 - PROVIDE WITH HEAVY HEAVY DUTY MOUNTING FRAME FOR FLOORS
 - DOUBLE DEFLECTION, FRONT BLADE PARALLEL TO LONG DIMENSION

ROOFTOP MOUNTED- GRAVITY VENTILATOR						
TAG	LOCATION	SERVICE	CFM	MANUFACTURER	MODEL	REMARKS
GV-1A	BLDG. A-ROOF	ATTIC VENT	187	COOK	PR	8 1,2
GV-1B	BLDG. B-ROOF	ATTIC VENT	187	COOK	PR	8 1,2

- NOTES
- PROVIDE CURB FOR ROOF MOUNT
 - ALUMINUM HOUSING

SEPARATORS AND TANKS										
TYPE	DESCRIPTION	CAPACIT Y	ACCEPTANCE GAL	DIAMETE R INCHES	LENGT H INCHES	DISCHARGE PRESSURE	PUMP HP	REPRESENTATIVE MANUFACTURER & MODEL		REMARKS
AS-1	TANGENTIAL AIR SEPARATOR	200 GPM	13	16	27	N/A	N/A	ITT BELL & GOSSETT		1,2
ET-1	VERTICAL EXPANSION TANK	N/A	80	24	51	N/A	N/A	ITT BELL & GOSSETT		1
BFW-1	BOILER FEEDWATER RECEIVER	18 GPM	117	N/A	N/A	30 PSIG	1/2	SARCO GB3D1171		1, 3 - 7
CRT-1	CONDENSATE RECEIVER TANK	18 GPM	45	N/A	N/A	20 PSIG	1/3	SARCO GS2D451		1,3,5,6,8
BDS-1	BLOWDOWN SEPARATOR	N/A	N/A	20	22	N/A	N/A	CLEAVER BROOKS A20		9,10

- REMARKS:
- OR APPROVED EQUIVALENT MANUFACTURER AND MODEL
 - 4" FLANGED CONNECTIONS
 - DUPLEX UNIT
 - PROVIDE INTERFACE TO BOILER CONTROLS
 - WELDED STEEL RECEIVER
 - 115V, 1 PHASE POWER
 - PROVIDE WATER LEVEL GAUGE GLASS & FLOAT OPERATED MAKEUP VALVE
 - PROVIDE WITH PUMP ALTERNATOR CONTROL MECHANISM
 - PROVIDE WITH DRAIN AFTER-COOLER
 - PROVIDE WITH WELDED ANGLE LEGS

LP STEAM BOILERS											
TAG	DESIGNATION	LOCATION	SERVICE	OUTPUT(MBH)	GAS INPUT(MBH)	STEAM PRESSURE (PSIG)	STEAM OUTPUT (PPH)	SHIPPING WGT (LBS)	MANUFACTURER	MODEL NO.	REMARKS
B-1	STEAM BOILER	BOILER ROOM	REHEAT & DOMESTIC HW	2027	2365	12	2070	5200	CLEAVER BROOKS	CFH-60	1 - 6
B-2	STEAM BOILER	BOILER ROOM	REHEAT & DOMESTIC HW	2027	2365	12	2070	5200	CLEAVER BROOKS	CFH-60	1 - 6

- REMARKS:
- PROVIDE GAS TRAIN FOR NATURAL GAS SERVICE
 - PROVIDE INTEGRATED BOILER CONTROLS INCLUDING HI-LIMIT PRESSURE CONTROL, LOW WATER CUTOFF AND LEAD LAG CONTROLS FOR (2) BOILERS.
 - PROVIDE PRESSURE RELIEF VALVES, PRESSURE/TEMPERATURE GAUGES, AND WATER LEVEL GAUGE
 - BOILERS TO HAVE A MINIMUM AFUE RATING OF 85%
 - BOILERS TO BE DIRECT VENT WITH SEALED COMBUSTION
 - OR APPROVED EQUIVALENT MANUFACTURER AND MODEL

HOT WATER FIN TUBE RADIATORS								
TAG	DESCRIPTION	LOCATION	OUTPUT (BTU/H/FT)	ENCLOSURE HGT (INCHES)	MTG HGT (INCHES)	MANUFACTURER	MODEL	REMARKS
FTR-1	FIN TUBE RADIATOR	PER PLAN	250	14	4	VULCAN	LINVECTOR II	1 - 4

- HOT WATER SUPPLY TEMPERATURE TO BE 180F
- PROVIDE WALL MOUNTED UNITS WITH SLOPED TOPS PER ARCHITECT'S SELECTION
- PROVIDE CABINET MOUNTED HOT WATER CONTROL VALVE AND THERMOSTAT
- OR APPROVED EQUIVALENT MANUFACTURER AND MODEL

HOT WATER UNIT HEATERS											
TAG	DESCRIPTION	LOCATION	CFM	OUTPUT (MBH)	GPM	ELEC	FAN HP	# OF FANS	MANUFACTURER	MODEL	REMARKS
CUH-1	CABINET UNIT HEATER	BLDG. A, EAST STAIRS	1060/845	60.4	4	115/1/60	1/10	2	VULCAN	FS - 10	1 - 5
CUH-2	CABINET UNIT HEATER	BLDG. A, WEST STAIRS	1060/845	60.4	4	115/1/60	1/10	2	VULCAN	FS - 10	1 - 5
CUH-3	CABINET UNIT HEATER	BLDG. A/B, LOBBY	230/185	12.8	0.5	115/1/60	1/15	1	VULCAN	FS - 02	1 - 5
CUH-4	CABINET UNIT HEATER	BLDG. B, NORTH STAIRS	230/185	12.8	0.5	115/1/60	1/15	1	VULCAN	FS - 02	1 - 5

- HOT WATER SUPPLY TEMPERATURE TO BE 180F
- PROVIDE TWO SPEED FANS
- PROVIDE FLOOR MOUNTED UNITS WITH SLOPED TOPS
- PROVIDE CABINET MOUNTED HOT WATER CONTROL VALVE AND REMOTE THERMOSTAT
- OR APPROVED EQUIVALENT MANUFACTURER AND MODEL

FAN SCHEDULE												
TAG	LOCATION	SERVICE	CFM	SP	DRIVE	TYPE	RPM	MOTOR HP	STARTER	MANUFACTURER	MODEL	REMARKS
EF-1A	BLDG. A - ROOF	TOILET EXHAUST	1,500	2.5	BELT	ROOF EXHAUSTER	1942	1.5	LINE	COOK	180RX8B	1-3, 5,6,8-12
EF-1B	BLDG. B - ROOF	TOILET EXHAUST	1,650	2.5	BELT	ROOF EXHAUSTER	1761	1.5	LINE	COOK	195RX8B	1-3, 5,6,8-12
EF-1AB	BRIDGE - 1ST FL	GENERAL EXHAUST	170	1.0	BELT	WALL EXHAUSTER	1500	160W	LINE	COOK	GN184	2,4,6,16
EF-2AB	BRIDGE - 2ND FL	TOILET EXHAUST	80	1.0	N/A	CEILING FAN	N/A	N/A	LINE	NUTONE	QTXEN080	2,4,6,16
EF-3AB	BLDG. A - ELEC. RM	1ST FL ELEC. RM EXHAUST	400	1.0	BELT	IN-LINE CENTRIFUGAL	2850	0.5	LINE	COOK	70SQN-B	1,2,4,6,8,11,12,16
EF-4AB	BRIDGE - EQUIP. RM	1ST FL EQUIP. RM EXHAUST	400	0.125	DIRECT	WALL MOUNTED	1550	1/50	LINE	GREENHECK	SE1-10-424-D	4,6,8,13,14,15
EF-2A	BLDG. A - ROOF	ATTIC EXHAUST	187	0.125	DIRECT	ROOF EXHAUSTER	1670	1/20	LINE	COOK	ACED70C15DM	2,4-8,10-12,14
EF-2B	BLDG. B - ROOF	ATTIC EXHAUST	187	0.125	DIRECT	ROOF EXHAUSTER	1670	1/20	LINE	COOK	ACED70C15DM	2,4-8,10-12,14
EF-3A	BLDG. A - 1ST FL	TOILET EXHAUST	80	1.0	N/A	CEILING FAN	N/A	N/A	LINE	NUTONE	QTXEN080	2,4,6,16
EF-4A	BLDG. A - 1ST FL	TOILET EXHAUST	80	1.0	N/A	CEILING FAN	N/A	N/A	LINE	NUTONE	QTXEN080	2,4,6,16

- NOTES
- PROVIDE WITH OSHA APPROVED BELT GUARD
 - PROVIDE WITH GRAVITY OPERATED BACKDRAFT DAMPER AT DISCHARGE POINT
 - MOTORS TO BE WIRED FOR 208V, 3 PH, 60 HZ
 - MOTOR TO BE WIRED FOR 120V, 1 PH, 60 HZ
 - PROVIDE CURB WITH DAMPER TRAY FOR ROOF MOUNT
 - OR APPROVED EQUIVALENT MANUFACTURER AND MODEL
 - PROVIDE CURB CAP AND INLET BOX
 - PROVIDE FAN DISCONNECT
 - ADJUSTABLE PITCH DRIVE
 - ALUMINUM HOUSING
 - EXTENDED LUBE LINES
 - PROVIDE STARTER WITH UNIT
 - WALL HOUSING MOUNTING WITH GRAVITY OPERATED BACKDRAFT DAMPER, GAURDS & DISCHARGE WEATHER HOOD
 - THERMOSTATIC CONTROL
 - PROVIDE WITH WEATHER HOOD AT BUILDING WALL DISCHARGE POINT
 - PROVIDE DISCHARGE WEATHER HOOD

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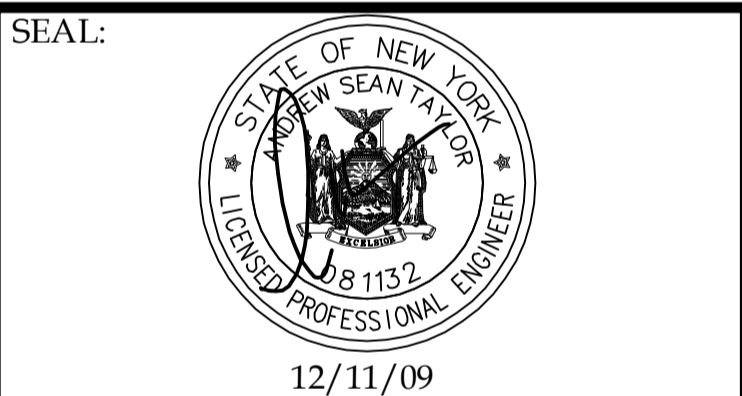
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SA JOB #: 04312 DATE: 12-11-