AIR HANDLING UNIT SCHEDULE

AHU NO.	AREA SERVED	LOCATION	CFM	MIN. O.A. CFM	TSP (IN.)	ESP (IN.)	FAN DATA									COOLING COIL DATA											HEATING COIL DATA									MIN. FILTER APD (IN.)		
							QTY.	MOTOR				RPM	MIN. FAN DIA.	WHEEL TYPE	CLASS	TYPE	MBH TOTAL	MBH SENS.	EAT DB/WB (°F)	LAT DB/WB (°F)	EWT (°F)	LWT (°F)	GPM	MAX. WPD (FT.)	MAX. APD (IN.)	MAX. FV (FPM)	MIN. ROWS	MAX. FPI	TYPE	MBH	EAT (°F)	LAT (°F)	EWT (°F)	LWT (°F)	GPM	MAX. WPD (FT.)	MAX. APD (IN.)	MAX. FV (FPM)	30% EFF.	85% EFF.	REMARKS
								HP	MAX. BHP	VOLTS	PHASE																													
AHU-1	BUILDING 15	MECH ROOM	9,000	1,350	4.0	2.0	1	15	13.0	208	3	1725	15	AF	2	HYDRONIC	304.4	230.4	78.0/65.0	54.6/53.7	44.0	54.0	60	15	1.0	500	6	12	HYDRONIC	242.2	58.0	82.6	180	140	11.8	2.0	0.5	500	0.5	1.0	PROVIDE VFD

NOTE: 1. AHU'S SHALL BE COMPLETE W/ 30% (AND 85%) ASHRAE EFFICIENT FILTERS.

HOT WATER RADIANT PANEL SCHEDULE

SYMBOL	BTU/LF	EWT (°F)	LWT (°F)	WIDTH	# TUBES	MAX WPD (FT.)	MANUFACTURER (BASIS OF DESIGN)	REMARKS
1	389	180	160	24"	4	0.2	AIRTITE / AR-X	-

NOTES:
1. REFER TO 15H-6 AND 15H-7 FOR TOTAL PANEL HEATING CAPACITY AND GPM.

PACKAGED AIR-COOLED CHILLER SCHEDULE

UNIT NO.	TONS	MBH	GPM	EWT (°F)	LWT (°F)	MAX. WPD (FT.)	OUTDOOR AMBIENT	FLUID TYPE	VOLT/ PHASE	SIZE L x W x H	OPERATING WEIGHT (LBS)	MANUFACTURER / MODEL	REMARKS
ACC-1	28.0	336.5	65.5	54.0	44.0	10.0	95	WATER	208/3	94 x 88 x 100	3,200	McQUAY/AGZ025D	-

PUMP SCHEDULE

DESIG.	SERVICE	LOCATION	GPM	HEAD (FT.)	MOTOR				RPM	CONTROL	MANUFACTURER / MODEL	TYPE
					HP	MAX. BHP	VOLTS	PHASE				
CWP-1	CHILLED WATER	MECH RM	66	60	3.0	2.50	208	3	1750	ATC	B & G / MODEL 1 1/4 BC	BASE MOUNTED END SUCTION
CWP-2	CHILLED WATER	MECH RM	66	60	3.0	2.50	208	3	1750	ATC	B& G / MODEL 1 1/4 BC	BASE MOUNTED END SUCTION
HWP-1	HEATING WATER	MECH RM	20	60	1.5	1.10	208	3	1750	ATC	B & G / MODEL 2AC	BASE MOUNTED END SUCTION
HWP-2	HEATING WATER	MECH RM	20	60	1.5	1.10	208	3	1750	ATC	B & G / MODEL 2AC	BASE MOUNTED END SUCTION
CCC-1	CHILLED WATER COIL CIRCULATOR	MECH RM	20	14	1.0	0.30	120	1	1750	ATC	B & G / MODEL PL 36	INLINE CIRCULATOR
HCC-1	HEATING WATER COIL CIRCULATOR	MECH RM	5	14	1.0	0.30	120	1	1750	ATC	B & G / MODEL PL 36	INLINE CIRCULATOR

FAN SCHEDULE

FAN NO.	LOCATION	AREA SERVED	CFM	E.S.P. (IN.)	MOTOR				RPM	MIN. FAN DIA.	WHEEL TYPE	CLASS	DRIVE TYPE	METHOD OF CONTROL	MANUFACTURER / MODEL
					HP	MAX. BHP	VOLTS	PHASE							
EF-1	ROOF	FIRST FLOOR TR/JANITOR	350	0.4	1/3	0.25	120	1	1,105	8"	BI	I	BELT	ATC	GREENHECK / GB-081
EF-2	CRAWL SPACE	CRAWL SPACE	300	0.5"	1/10	"	120	1	1550	9"	BI	I	DIRECT	ATC	GREENHECK / SQ90
RAF-1	PENTHOUSE	AHU-1	9000	1.0"	5	4.25	208	3	1100	24"	BI	I	BELT	ATC	GREENHECK / BSQ-240-50 W/ VFD

COMPUTER ROOM AIR CONDITIONING (CRAC) UNIT SCHEDULE

AREA SERVED	DESIGNATION		CFM	UNIT TYPE	COOLING			REHEAT			ELECTRICAL CHARACTERISTICS						HUMIDIFICATION		R407C REFRIGERANT	MANUFACTURER / MODEL	REMARKS
	INDOOR UNIT	OUTDOOR UNIT			TOTAL MBH	SENS MBH	EAT DB/WB	KW	VOLTS/Ø	STAGES	INDOOR			OUTDOOR			TYPE	CAPACITY #/HR	R407C		
											MIN. AMPACITY	VOLTS/Ø	MFS	MIN. AMPACITY	VOLTS/Ø	MFS					
DATA CENTER	CRAC-1	ACCU-1	8,670	DOWNFLOW	98.3	98.3	72/60.1	15	208/3	2	38.6	480/3	40	4.6	208/3	15	ELEC	15		STULZ / VFS-120-DAR-D-EC STULZ / SCS-252-DSA	-
DATA CENTER	CRAC-2	ACCU-2	8,670	DOWNFLOW	98.3	98.3	72/60.1	15	208/3	2	38.6	480/3	40	4.6	208/3	15	ELEC	15		STULZ / VFS-120-DAR-D-EC STULZ / SCS-252-DSA	-

NOTES:
1. QUANTITY AND SIZE OF REFRIGERANT PIPING SHALL BE AS RECOMMENDED BY MANUFACTURER.
2. PROVIDE CONDENSATE PUMP SUITABLE FOR 15 FEET OF LIFT MINIMUM.
3. PROVIDE SMOKE DETECTOR TO DE-ENERGIZE UNIT AND AIR COOLED CONDENSING UNIT. SMOKE DETECTOR SHALL BE SUITABLE FOR CONNECTION TO EXISTING FIRE ALARM SYSTEM.
4. PROVE UNITS WITH DISCONNECT SWITCHES.
5. PROVIDE 30" RETURN AIR COLLAR WITH ACCESS PANELS AND BDD.
6. PROVIDE NEW ROPE LEAK DETECTOR.
7. PROVIDE FILTER BOX AND HIGH STATIC SUPPLY FAN.

AIR VOLUME TERMINAL WITH HOT WATER REHEAT SCHEDULE

DESIG.	MAXIMUM CFM	MINIMUM CFM	HEATING CFM	MINIMUM INLET SIZE (IN) (2)	OUTLET SIZE (3) (INxIN)	MAXIMUM APD (IN) (4)	MAXIMUM NC (5)	INLET SP (IN)	MINIMUM SOUND ATTENUATOR SIZE (INxINxIN) (6)	HEATING CAPACITY								
										CFM	EAT (°F)	LAT (°F)	BTUH	EWT (°F)	LWT (°F)	GPM	PIPE SIZE	REMARKS
1	470	145	235	7"Ø	12x10	0.60	35	1.50	16x10x36	235	55	95	10,150	180	140	0.6	3/4"	-
2	720	220	330	8"Ø	12x10	0.60	35	1.50	20x10x36	330	55	95	14,300	180	140	0.8	3/4"	-
3	425	130	245	6"Ø	12x8	0.60	35	1.50	16x8x36	245	55	95	10,590	180	140	0.6	3/4"	-
4	1035	310	525	10"Ø	14x12	0.60	35	1.50	24x14x36	525	55	95	22,680	180	140	1.2	3/4"	-
5	1035	310	525	10"Ø	14x12	0.60	35	1.50	24x14x36	525	55	95	22,680	180	140	1.2	3/4"	-
6	160	50	50	5"Ø	12x8	0.60	35	1.50	12x8x36	50	55	85	1,620	180	140	0.1	3/4"	-
7	990	300	435	10"Ø	14x12	0.60	35	1.50	24x14x36	435	55	95	18,800	180	140	1.0	3/4"	-
8	235	75	215	5"Ø	12x8	0.60	35	1.50	12x8x36	215	55	95	9,290	180	140	0.5	3/4"	-
9	125	50	50	5"Ø	12x8	0.60	35	1.50	12x8x36	50	55	90	1,890	180	140	0.1	3/4"	-
10	350	105	250	6"Ø	12x8	0.60	35	1.50	16x8x36	250	55	95	10,800	180	140	0.6	3/4"	-
11	1050	315	700	10"Ø	14x12	0.60	35	1.50	24x14x36	700	55	95	30,240	180	140	1.6	3/4"	-
12	1130	340	800	12"Ø	16x15	0.60	35	1.50	28x16x36	800	55	95	34,560	180	140	1.8	3/4"	-
13	325	100	325	6"Ø	12x8	0.60	35	1.50	16x8x36	325	55	95	14,040	180	140	0.8	3/4"	-
14	800	800	-	9"Ø	14x12	0.60	35	1.50	14x12x36	-	-	-	-	-	-	-	-	-

NOTES:
1. AIR VOLUME TERMINALS SHALL BE PRESSURE INDEPENDENT TYPE.
2. PROVIDE MINIMUM OF THREE (3) DUCT DIAMETERS OR TWO (2) FEET (WHICHEVER IS GREATER) OF STRAIGHT SHEET METAL DUCT AT TERMINAL UNIT INLET. MEDIUM PRESSURE FLEXIBLE DUCTWORK WILL NOT BE PERMITTED.
3. WHERE OUTLET SIZE IS INDICATED OTHERWISE ON HVAC PLANS, PROVIDE DUCT TRANSITION AS REQUIRED. WHERE SOUND ATTENUATORS ARE REQUIRED, PROVIDE TRANSITION FROM TERMINAL OUTLET TO SOUND ATTENUATOR AND FROM SOUND ATTENUATOR TO DUCT SIZE INDICATED ON PLANS.
4. MAX. APD SHALL BE FOR AIR VOLUME TERMINAL PLUS HEATING COIL AND SOUND ATTENUATOR.
5. MAXIMUM NOISE CRITERIA (NC) LEVELS FOR DISCHARGE AND RADIATED SOUND SHALL NOT BE EXCEEDED IN ANY OF THE 2ND THRU 7TH OCTAVE BANDS AT THE SCHEDULED INLET STATIC PRESSURE. STANDARD CATALOGUED ATTENUATION CREDITS SHALL NOT BE USED. SEE SPECIFICATIONS FOR ALLOWABLE SOUND ADJUSTMENT FACTORS. PROVIDE SOUND ATTENUATORS AS REQUIRED TO MEET NC VALUES INDICATED.
6. PROVIDE WHERE REQUIRED TO MEET NC VALUES SCHEDULED. SOUND ATTENUATOR PRESSURE DROP SHALL NOT EXCEED 0.15 IN WC.

STEAM TO WATER HEAT EXCHANGER SCHEDULE

HX. NO.	SERVICE	WATER SIDE						STEAM SIDE		CONDENSATE SIDE	TYPE	MANUFACTURER / MODEL
		MBH	GPM	EWT (°F)	LWT (°F)	MAX. WPD (FT.)	WATER TYPE	INITIAL PRESSURE	LBS/HR	TRAP CAPACITY (LBS/HR)		
HX-1	HEATING WATER	1000	50	140	180	0.2	WATER	5 PSI	1020	1020	F & T	BELL & GOSSETT MODEL SU 8 4-2

AIR DEVICE SCHEDULE

DESIG.	DUTY	SIZE (IN.)	CFM RANGE	INLET/ NECK SIZE (IN.)	MAX. S.P.	MAX. NC	DESCRIPTION	MANUFACTURER / MODEL
A	SUPPLY	24 x 24 MODULE	0 - 125	6"Ø	0.10"	20	18 x 18 LOUVERED FACE PANEL	TITUS TDC
B	SUPPLY	24 x 24 MODULE	126 - 210	8"Ø	0.10"	20	18 x 18 LOUVERED FACE PANEL	TITUS TDC
C	SUPPLY	24 x 24 MODULE	211 - 325	10"Ø	0.10"	25	18 x 18 LOUVERED FACE PANEL	TITUS TDC
D	RETURN / EXHAUST	10 x 10	0 - 295	10 x 10	0.06"	20	FIXED LOUVER, 35° DEFLECTION 3/4" SPACING - REGISTER	TITUS 350 FL
E	RETURN / EXHAUST	12 x 12	296 - 440	12 x 12	0.06"	20	FIXED LOUVER, 35° DEFLECTION 3/4" SPACING - REGISTER	TITUS 350 FL
F	RETURN / EXHAUST	14 x 14	441 - 610	14 x 14	0.06"	20	FIXED LOUVER, 35° DEFLECTION 3/4" SPACING - REGISTER	TITUS 350 FL
G	RETURN / EXHAUST	16 x 16	611 - 800	16 x 16	0.06"	20	FIXED LOUVER, 35° DEFLECTION 3/4" SPACING - REGISTER	TITUS 350 FL
H	SUPPLY	24 x 24 MODULE	326 - 525	12"Ø	0.10"	20	18 x 18 LOUVERED FACE PANEL	TITUS TDC
J	RETURN	18 x 18	801 - 1030	18 x 18	0.06"	20	FIXED LOUVER, 35° DEFLECTION 3/4" SPACING - REGISTER	TITUS 350 FL

NOTES:
1. MANUFACTURERS MAY PROVIDE ALUMINUM OR STEEL AIR DEVICES UNLESS OTHERWISE INDICATED. ALL AIR DEVICES IN HIGH HUMIDITY AREAS (ie. TOILET ROOMS, LOCKER ROOMS, KITCHENS, ETC.) SHALL BE ALUMINUM.
2. PROVIDE KEY OPERATED OPPOSED BLADE DAMPER FOR ALL RETURN REGISTERS MOUNTED IN WALL.

Additions: Date:

Revisions:

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Drawing Scale:

Drawing Start Date:

Drawing Finish Date:

Drawing Approved:

Drawing Title: MECHANICAL SCHEDULES

Approved: Associate Director for Operations:

Approved: Chief, Facilites Engineer:

Approved: Director, Medical Center:

Project Title: BUILDING 15 RENOVATION

Building No: 15

Checked: JDS

Drawn: LMA

Location: VAMHCS MEDICAL CENTER WILMINGTON, DELAWARE

Date: 12-19-2012

Project No: xxx-10-xxx

DRAWING NO: 15H-19

Dwg. – Of xx

DEPARTMENT OF VETERANS AFFAIRS

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