

ROOF TOP UNIT SCHEDULE

TAG	MER & MODEL	FAN DATA										COOLING COIL DATA										HEATING COIL DATA										DIRTY FILTER ALLOWANCE	BI-POLAR ION GENERATOR (C)			REMARKS	TAG							
		CFM	DESIGN O.A. CFM (A)	ASRAE DESIGN O.A. CFM	O.A. MIN. CFM (B)	SWR TYPE	RPM	HP	EXT. SP. (IN. H.G.)	TOTAL SP. (IN. H.G.)	ELEC.	ROWS	FAT (°F)	ΔT (°F)	MIN. ΔT (°F)	MIN. SENS.	HEAT CAP. TOTAL	EXT. (CF)	MATER. Δ-T	GPM	COIL LEAK VEL. (FPS)	ASD (IN. H.G.)	HP (FT)	WATER Δ-T	WATER Δ-T	GPM	COIL LEAK VEL. (FPS)	ASD (IN. H.G.)	HP (FT)	WATER Δ-T	WATER Δ-T		GPM	COIL LEAK VEL. (FPS)	ASD (IN. H.G.)			HP (FT)	WATER Δ-T	WATER Δ-T	MER/MODEL	VOLTAGE	POWER	
RTU-B	DAIKIN 'SKYLINE'	22,000	8,000	6200	2750	33 AIRFLOW	1160	40	3.0	5.45	460/3	10	82.2	50.4	50.2	764.3	119.4	45	14.2	157.7	56	1.34	12.0	4'	3.0	2	19	49.1	76.0	646.3	160	31.2	4.5	533	0.12	8.2	2"	3.0	1.0	GPS-1100D	24V/1R/200V	15 W	(1)(2)(3)(4)(5)(6)(7)(8)(9)	RTU-B

NOTES: - EXT. STATIC PRESS. INCLUDES ALL LOSSES EXTERNAL TO THE CABINET. TOTAL STATIC PRESS. INCLUDES E.S.P., INTERNAL LOSSES, AND DIRTY FILTER. - FILTER HOUSING SHALL HAVE 4" FILTER CAPABILITY (SEE SPECIFICATIONS FOR SIZE/TYPE OF FILTERS REQUIRED). - COIL FAN VELOCITY SHALL NOT EXCEED 525 FPM. - SEE DETAILS ON THIS SHEET FOR COMPONENTS AND UNIT CONFIGURATION.

OPERATING ON CFM BASED ON BUILDING PRESSURIZATION (UNIT DESIGN CFM IS HIGHER THAN ASRAE DESIGN CFM TO PROVIDE MAKEUP FOR LAB EXHAUST FANS).

MINIMUM CFM BASED ON DEMAND CONTROLLED VENTILATION SEQUENCE. SEE SPECIFICATIONS.

BI-POLAR IONIZATION (FIELD INSTALL, PROVIDED BY HVAC CONTRACTOR). SYSTEMS SHALL BE DESIGNED TO ALLOW FOR THE REDUCTION IN VENTILATION RATE TO 5 CFM/PERSON IN ACCORDANCE WITH THE ASHRAE 62.1 "INDOOR AIR QUALITY PROCEDURE. IONIZATION SYSTEMS SHALL ALLOW THE VAV TERMINAL MINIMUMS TO BE SET AT 5 CFM/PERSON MINIMUM PRIMARY AIR.

REMARKS: 1) VARIABLE FREQUENCY DRIVE 2) SMOKE DETECTOR. (PROVIDED BY ELECTRICAL CONTRACT.) 3) PROVIDE HINGED ACCESS DOORS ON BOTH SIDES OF UNIT 4) ULTRA-LOW LEAKAGE ECONOMIZER DAMPERS (OUTDOOR AIR AND RETURN) 5) EXTERNAL PIPING ENCLOSURE W/ ROOF CURB

SPRING ISOLATED, WIND RATED ROOF CURB (PROVIDE NECESSARY SLOPE TO MOUNT UNIT LEVEL. SEE ARCH. ROOF PLAN.)

NON-POWERED GFI RECEPTICAL (POWER BY ELEC.)

SOUND ATTENUATOR (SEE SOUND POWER LEVEL SCHEDULE\* FOR AIR HANDLING UNIT SOUND DATA.

AIRFLOW MONITORING STATION AT OUTDOOR AIR INLET (EBTRON GTX16-P+, PROVIDED BY CONTROLS.)

AIR HANDLING EQUIPMENT NOT TO EXCEED SOUND POWER LEVELS

OCTAVE BAND SOUND POWER RATINGS (DB RE 10<sup>12</sup> WATTS)

TAG	SERVICE	63	125	250	500	1000	2000	4000	8000
RTU-B	SUPPLY	91	87	95	94	96	96	84	79
	RETURN	81	77	82	73	73	68	51	51

VAV TERMINAL SCHEDULE

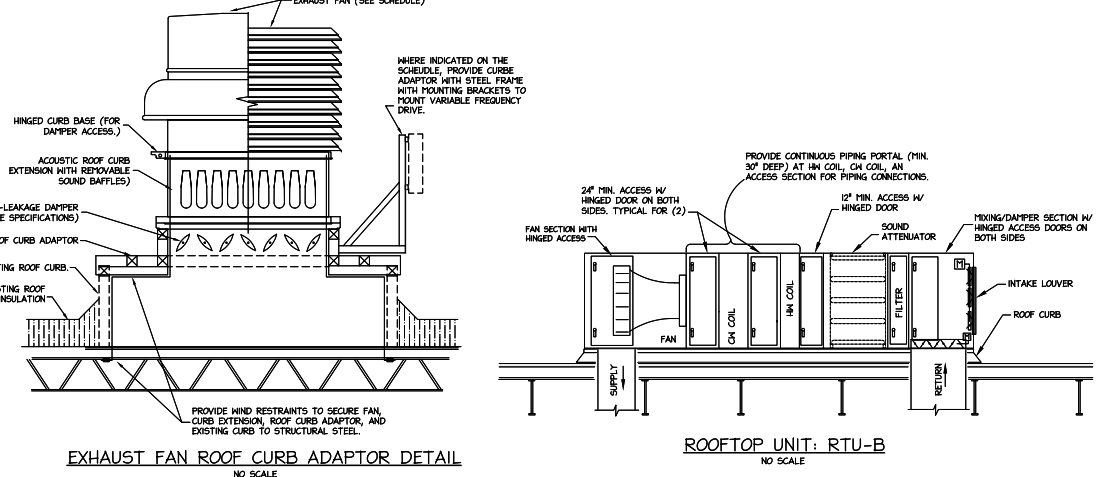
Tag	Room	Model	Mfr	Size	Inlet Dia	Max Primary (CFM)	Min Primary (CFM)	Min Occupied Setting (CFM) (A)	Inlet SP (in. w.g.)	Downstream SP (in. w.g.)	Min Oper PD (in. w.g.)	Max Dis NC (B)	Max Rad NC (B)	Fan Flow (CFM)	Motor HP	WC Capacity (MBH)	EAT (°F)	LAT (°F)	Supply Air Temp (°F)	Return Air Temp (°F)	Fluid Flow (GPM)	FPD (ft. w.g.)	Fluid Type	Rows	Max Coil APD (in. w.g.)	EWT (°F)	LWT (°F)	MOP	MCA	V/δ/Hz	Branch Pipe and Trim Size	Control Valve Pressure Drop	Remarks	Tag		
T-801	B1 Lab	FDV5	Price	5014	14	2700	670	305	1.50	0.45	0.01	31	35	1800	1	59.0	72.0	89.1	54.0	72.0	2.7	0.9	WTR	2R	0.3	160.0	115.3	15.0	7.4	277-ECM	3/4"	2 psi	(1)	T-801		
T-801S	B1S Storage	FDV5	Price	2008	8	600	20	20	1.50	0.45	0.04	28	34	480	1/3	10.2	72.0	90.0	54.0	72.0	0.7	0.6	WTR	1R	0.0	160.0	128.2	15.0	2.6	277-ECM	3/4"	2 psi	(1)	T-801S		
T-802	B02 Classroom	FDV5	Price	3012	12	1200	390	80	1.50	0.45	0.01	24	28	910	1/2	33.0	72.0	90.0	54.0	72.0	1.8	0.8	WTR	2R	0.3	160.0	122.9	15.0	5.0	277-ECM	3/4"	2 psi	(1)	T-802		
T-803	B03 Classroom	FDV5	Price	3012	12	1000	390	80	1.50	0.45	0.01	21	25	610	1/2	27.2	72.0	90.0	54.0	72.0	1.6	0.7	WTR	2R	0.1	160.0	126.3	15.0	5.0	277-ECM	3/4"	2 psi		T-803		
T-804	B04 Classroom	FDV5	Price	3012	12	1000	390	80	1.50	0.45	0.01	21	25	610	1/2	27.2	72.0	90.0	54.0	72.0	1.6	0.7	WTR	2R	0.1	160.0	126.3	15.0	5.0	277-ECM	3/4"	2 psi		T-804		
T-805	B5 Lab	FDV5	Price	6016	16	2800	670	300	1.50	0.45	0.01	26	30	1800	1	55.9	72.0	89.5	54.0	72.0	2.4	0.7	WTR	2R	0.3	160.0	113.2	15.0	6.8	277-ECM	3/4"	2 psi		T-805		
T-806	B06 Classroom	FDV5	Price	3012	12	1000	390	80	1.50	0.45	0.01	21	25	610	1/2	27.2	72.0	90.0	54.0	72.0	1.6	0.7	WTR	2R	0.1	160.0	126.3	15.0	5.0	277-ECM	3/4"	2 psi		T-806		
T-807	B07 Classroom	FDV5	Price	3012	12	1000	390	80	1.50	0.45	0.01	21	25	610	1/2	27.2	72.0	90.0	54.0	72.0	1.6	0.7	WTR	2R	0.1	160.0	126.3	15.0	5.0	277-ECM	3/4"	2 psi		T-807		
T-808	B08 Classroom	FDV5	Price	3012	12	1000	390	80	1.50	0.45	0.01	21	25	610	1/2	27.2	72.0	90.0	54.0	72.0	1.6	0.7	WTR	2R	0.1	160.0	126.3	15.0	5.0	277-ECM	3/4"	2 psi		T-808		
T-809	B9 / A39 Office	FDV5	Price	2006	6	350	60	60	1.50	0.45	0.10	28	--	300	1/3	8.3	72.0	90.0	54.0	72.0	0.6	0.5	WTR	1R	0.0	160.0	130.9	15.0	2.6	277-ECM	3/4"	2 psi		T-809		
T-810	B10 Lab	FDV5	Price	6014	14	2100	600	250	1.50	0.45	0.50	--	22	1800	1	58.5	67.5	90.0	54.0	72.0	2.2	0.6	WTR	2RD	0.5	160.0	104.5	15.0	6.8	277-ECM	3/4"	2 psi		T-810		
T-811	B11 Classroom	FDV5	Price	4012	12	1400	300	80	1.50	0.45	0.01	30	28	1000	1/2	37.0	72.0	94.1	54.0	72.0	1.8	1.1	WTR	2R	0.2	160.0	118.7	15.0	4.4	277-ECM	3/4"	2 psi		T-811		
T-812	B12 Classroom	FDV5	Price	4012	12	1400	300	80	1.50	0.45	0.01	30	28	1000	1/2	37.0	72.0	94.1	54.0	72.0	1.8	1.1	WTR	2R	0.2	160.0	118.7	15.0	4.4	277-ECM	3/4"	2 psi		T-812		
T-813	B Corridor	FDV5	Price	2008	8	550	60	0	1.50	0.45	0.03	26	22	490	1/3	12.0	72.0	90.0	54.0	72.0	0.9	1.0	WTR	1R	0.0	160.0	132.7	15.0	2.6	277-ECM	3/4"	2 psi		T-813		
T-814	B-C Corridor	FDV5	Price	4012	12	1400	170	0	1.50	0.45	0.01	30	28	1120	1/2	31.0	72.0	91.8	54.0	72.0	1.2	0.5	WTR	2R	0.2	160.0	108.8	15.0	4.4	277-ECM	3/4"	2 psi		T-814		
T-815	NOT USED	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	T-815
T-816	B16, B22, B24 Office	FDV5	Price	2006	6	300	40	40	1.50	0.45	0.08	25	--	300	1/3	7.5	72.0	90.0	54.0	72.0	0.5	0.3	WTR	1R	0.0	160.0	127.7	15.0	2.6	277-ECM	3/4"	2 psi		T-816		
T-817	B17 Art	FDV5	Price	5012	12	1500	545	204	1.50	0.45	0.01	25	25	955	1	49.5	72.0	95.9	54.0	72.0	3.2	1.1	WTR	2R	0.1	160.0	128.1	15.0	7.4	277-ECM	3/4"	2 psi		T-817		
T-817S	B17S Storage	FDV5	Price	2006	6	400	25	25	1.50	0.45	0.13	29	20	320	1/3	7.2	72.0	90.0	54.0	72.0	0.4	0.3	WTR	1R	0.0	160.0	125.8	15.0	2.6	277-ECM	3/4"	2 psi		T-817S		
T-818	NOT USED	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	T-818
T-819	NOT USED	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	T-819
T-820	B21, 23, 30, 32 Office	FDV5	Price	2006	6	450	60	60	1.50	0.45	0.10	23	21	300	1/3	8.3	72.0	90.0	54.0	72.0	0.6	0.5	WTR	1R	0.0	160.0	130.9	15.0	2.6	277-ECM	3/4"	2 psi		T-820		
T-821	B20, 31, 29 Office	FDV5	Price	2006	6	300	40	40	1.50	0.45	0.08	25	--	300	1/3	7.5	72.0	90.0	54.0	72.0	0.5	0.3	WTR	1R	0.0	160.0	127.7	15.0	2.6	277-ECM	3/4"	2 psi		T-821		
T-822	B25-B28 Offices	FDV5	Price	3012	12	1000	90	90	1.50	0.45	0.01	21	25	800	1/2	23.9	72.0	94.9	54.0	72.0	1.0	0.3	WTR	2R	0.2	160.0	111.9	15.0	5.0	277-ECM	3/4"	2 psi		T-822		

NOTES: • ALL HOT WATER COILS SHALL BE LOCATED ON THE TERMINAL INLET. ROOF W/ LEVEL SHALL BE BASED ON ARI STANDARD 066-2006. (DASHED LINES INDICATE SOUND POWER LEVELS BELOW SIGNIFICANCE PER ARI-066) • SOUND DATA SHALL BE OBTAINED FROM TESTS CONDUCTED IN ACCORDANCE WITH ARI STANDARD 060. • IN COIL POSITION PARALLEL BOX - BOX INLET • ALL UNITS SHALL HAVE 1", 3 LB/CUFT. DENSITY LINER • ALL VAV TERMINALS SHALL HAVE FACTORY MOUNTED SIEMENS CONTROLLERS. (CONTROLLERS SHALL BE FURNISHED BY SIEMENS) • SEE VAV TERMINAL DETAIL FOR UNIT CONFIGURATION AND PIPING DETAILS.

REMARKS: 1) 3-WAY VALVE SHALL BE INSTALLED IN LIEU OF 2-WAY VALVE. SEE VAV TERMINAL DETAIL.

(A) MINIMUM PRIMARY AIR SETTING BASED ON DEMAND CONTROLLED VENTILATION SEQUENCE. (SEE SPECIFICATIONS.) \*MINIMUM OCCUPIED SETTING\* IS THE MINIMUM PRIMARY CFM SETTING DURING OCCUPIED MODE WHEN ROOM CARBON DIOXIDE SENSOR IS BELOW SETPOINT.

(B) VAV TERMINALS MAY BE "OVERSIZED" BASED ON THEIR NOMINAL DESIGN CAPACITY TO ACHIEVE THE SCHEDULED SOUND DATA



EXHAUST FAN SCHEDULE

TAG	LOCATION	SERVICE	CFM	SP. IN. H.G.	HP OR MATTS	DRIVE	ELEC. DEL.	FAN RPM	ROWS	HOUSING	MER & MODEL	REMARKS
EF-801												NOT USED
EF-802	CHEMISTRY LAB B5	HOOD EXHAUST	720	1.3	1 HP	DIRECT	460/3	2852	70	ROOF	GREENHECK VECTOR H-10	(1)(2)(3)(4)(5)
EF-803	CHEMISTRY LAB B5	HOOD EXHAUST	720	1.3	1 HP	DIRECT	460/3	2852	70	ROOF	GREENHECK VECTOR H-10	(1)(2)(3)(4)(5)
EF-804	CHEMISTRY LAB B5	HOOD EXHAUST	720	1.3	1 HP	DIRECT	460/3	2852	70	ROOF	GREENHECK VECTOR H-10	(1)(2)(3)(4)(5)
EF-805	CHEMISTRY LAB B5	HOOD EXHAUST	720	1.3	1 HP	DIRECT	460/3	2852	70	ROOF	GREENHECK VECTOR H-10	(1)(2)(3)(4)(5)
EF-806	CHEMISTRY LAB B5	HOOD EXHAUST	720	1.3	1 HP	DIRECT	460/3	2852	70	ROOF	GREENHECK VECTOR H-10	(1)(2)(3)(4)(5)
EF-807	CHEMISTRY LAB B5	ROOM EXHAUST	1700	0.5	3/4 HP	DIRECT	277/1	1165	9.5	ROOF	GREENHECK G-148-VG	(1)(2)(3)(4)(5)(6)
EF-808	CHEMISTRY LAB B5	ROOM EXHAUST	1400	0.5	1/2 HP	DIRECT	277/1	1054	8.1	ROOF	GREENHECK G-148-VG	(1)(2)(3)(4)(5)(6)
EF-809	CHEMISTRY LAB B10	HOOD EXHAUST	720	1.3	1 HP	DIRECT	460/3	2852	70	ROOF	GREENHECK VECTOR H-10	(1)(2)(3)(4)(5)
EF-B10	B-WING	BUILDING RELIEF	13,000	0.5	5 HP	BELT	460/3	405	14.4	ROOF	GREENHECK GB-420-VGD	(1)(2)(3)(4)(5)(6)(7)(8)(9)(10)(11)(12)
EF-B11	STORAGE B105	GENERAL EXHAUST	450	0.375	1/4	DIRECT	115/1	1406	6.4	ROOF	GREENHECK 50-95-VG	(1)(2)(3)

REMARKS / ACCESSORIES: 1) DISCONNECT SWITCH 2) BACKDRAFT DAMPER 3) BIRDSCREEN 4) ROOF CURB (WIND RATED) TO MATCH ROOF SLOPE (SEE ARCH DRAWINGS.) 5) MOTOR STARTER 6) VARIABLE FREQUENCY DRIVE 7) INTEGRAL VARIABLE FREQUENCY DRIVE 8) TIMED HALL SWITCH BY CONTROLS 9) ACID RESISTANT COATING 10) BIRDSCREEN 11) 18\"/>



SPARTANBURG COMMUNITY COLLEGE  
POWERS BUILDING B WING  
MECHANICAL PACKAGE  
OSE # H59-6148-JM-B  
SPARTANBURG, SC

SHEET TITLE:  
NO. DATE DESCRIPTION BY  
A 02.23.2021 ISSUED FOR PRICING STB

PRINCIPAL IN CHARGE: STB  
PROJECT ENGINEER: STB  
DRAWN BY: JF

SHEET TITLE:  
HVAC SCHEDULES

SHEET NO. CBE PROJ. NO. 2002

HVAC-1