

FAN COIL UNIT SCHEDULE											
DESIGN	SERVICE	TYPE	SUPPLY CFM	OUTSIDE AIR CFM	COOLING CAPACITY (MBH)	HEATING CAPACITY (MBH)	ESP (IN. W.G.)	ELECTRICAL		BASIS OF DESIGN	REMARKS
								V/PH/Hz	MCA		
FCU-1	COMMUNITY ROOM - 101	DUCTED	865	135	23.7	18.2	0.6	208/1/60	2.73	MITSUBISHI - TPEFYD02MA143A	1
FCU-2	TOILET - 109	CEILING CASSETTE	280	--	4.9	3.8	--	208/1/60	0.24	MITSUBISHI - TPEFYD05FM140A	2
FCU-3	TOILET - 104	CEILING CASSETTE	280	--	4.9	3.8	--	208/1/60	0.24	MITSUBISHI - TPEFYD05FM140A	2
FCU-4	ADOPTION CAT ROOM - 109	CEILING CASSETTE	280	35	4.9	3.8	--	208/1/60	0.24	MITSUBISHI - TPEFYD05FM140A	2
FCU-5	ADOPTION CAT ROOM - 110	CEILING CASSETTE	280	35	4.9	3.8	--	208/1/60	0.24	MITSUBISHI - TPEFYD05FM140A	2
FCU-6	ADOPTION CAT ROOM - 112	CEILING CASSETTE	280	35	4.9	3.8	--	208/1/60	0.24	MITSUBISHI - TPEFYD05FM140A	2
FCU-7	ADOPTION CAT ROOM - 111	CEILING CASSETTE	280	35	4.9	3.8	--	208/1/60	0.24	MITSUBISHI - TPEFYD05FM140A	2
FCU-8	CORRIDOR - 130	DUCTED	300	30	5.9	4.5	0.6	208/1/60	1.05	MITSUBISHI - TPEFYD01MA143A	1
FCU-9	CORRIDOR	DUCTED	550	80	11.8	9.0	1.2	208/1/60	2.10	MITSUBISHI - TPEFYD01MA143A	1
FCU-10	OFFICE - 107	CEILING CASSETTE	280	25	4.9	3.8	--	208/1/60	0.24	MITSUBISHI - TPEFYD05FM140A	2
FCU-11	LABORATORY - 114	DUCTED	300	45	5.9	4.5	0.6	208/1/60	1.05	MITSUBISHI - TPEFYD01MA143A	1
FCU-12	FOOD STORAGE - 115	DUCTED	300	30	5.9	4.5	0.6	208/1/60	1.05	MITSUBISHI - TPEFYD01MA143A	1
FCU-13	STAFF TOILET - 116	CEILING CASSETTE	280	--	4.9	3.8	--	208/1/60	0.24	MITSUBISHI - TPEFYD05FM140A	2
FCU-14	STAFF WORK AREA - 117	DUCTED	300	55	5.9	4.5	0.6	208/1/60	1.05	MITSUBISHI - TPEFYD01MA143A	1
FCU-15	PUBLIC LOBBY - 100	DUCTED	495	60	15.0	17.0	0.9	208/1/60	1.45	MITSUBISHI - TPEFYD01MA143A	1
FCU-16	NON-PROFIT - 102 / STORAGE - 103	DUCTED	300	30	5.9	4.5	0.6	208/1/60	1.05	MITSUBISHI - TPEFYD01MA143A	1
FCU-17	GROOVING - 125	CEILING CASSETTE	280	30	4.9	3.8	--	208/1/60	0.24	MITSUBISHI - TPEFYD05FM140A	2
FCU-18	INTAKE EXAM ROOM - 126	DUCTED	300	60	5.9	4.5	0.6	208/1/60	1.05	MITSUBISHI - TPEFYD01MA143A	1
FCU-19	DOG ISOLATION - 127	DUCTED	300	50	5.9	4.5	0.6	208/1/60	1.05	MITSUBISHI - TPEFYD01MA143A	1
FCU-20	CAT ISOLATION - 128	DUCTED	300	35	5.9	4.5	0.6	208/1/60	1.05	MITSUBISHI - TPEFYD01MA143A	1

1. PROVIDE CONDENSATE PUMP, MERV 8 FILTER WITH FILTER BOX, VIBRATION ISOLATORS AND UNIT MOUNTED DISCONNECT SWITCH.
2. PROVIDE CONDENSATE PUMP, VIBRATION ISOLATORS AND UNIT MOUNTED DISCONNECT SWITCH.

AIR DEVICE SCHEDULE										
NO.	SERVICE	CFM RANGE LOW-HIGH	MODULE SIZE (IN)	NECK SIZE (IN)	FRAME TYPE	BLOW	NC	AIR PRESSURE DROP (INWG)	BASIS OF DESIGN	REMARKS
101	SUPPLY	0-115	24"x24"	6"	LAY-IN	4-WAY	<10	0.03	TITUS - OMNI AA	1,2,4,5
102	SUPPLY	115-205	24"x24"	8"	LAY-IN	4-WAY	<10	0.04	TITUS - OMNI AA	1,2,4,5
103	SUPPLY	205-325	24"x24"	10"	LAY-IN	4-WAY	<10	0.05	TITUS - OMNI AA	1,2,4,5
104	SUPPLY	0-330	24"x24"	9"x9"	LAY-IN	4-WAY	25	0.09	TITUS - TDC	1,2,4,5
105	SUPPLY	0-245	16"x4"	16"x4"	LAY-IN	4-WAY	25	0.09	TITUS - S300FL	1,2,4,5
201	RETURN	0-400	24"x12"	24"x12"	WALL GRILLE	N/A	16	0.02	TITUS - 3FL	1,2,4,5
202	RETURN	0-755	24"x16"	24"x16"	WALL GRILLE	N/A	24	0.04	TITUS - 3FL	1,2,4,5
203	RETURN	0-300	24"x24"	12"x12"	LAY-IN	N/A	21	0.04	TITUS - 3FS	1,2,4,5
204	RETURN	0-500	24"x24"	16"x16"	LAY-IN	N/A	22	0.04	TITUS - 3FS	1,2,4,5
301	EXHAUST	0-150	8"x8"	8"x8"	LAY-IN	N/A	22	0.07	TITUS - 3FS	1,2,3,4,5

1. PROVIDE INSULATION FOR ALL DIFFUSERS AND GRILLES WITH PLENUM BOXES.
2. SEE SPECIFICATION 23.37.13 FOR EQUIVALENT MANUFACTURERS.
3. PROVIDE NECK SIZE DUCT ELBOW PRIOR TO TRANSITIONING TO EXHAUST DUCT.
4. ALL DEVICES SHALL BE INDEPENDENTLY SUPPORTED.
5. ALL AIR DEVICES ARE SPECIFIC TO A CEILING TYPE. COORDINATE WITH ARCHITECTURAL DRAWING FOR PROPER APPLICATION.

DEDICATED OUTDOOR AIR UNIT SCHEDULE																												
DESIGN	SERVICE	SUPPLY FAN SECTION				COOLING SECTION (DX)				HEATING SECTION (HOT WATER)						ELECTRICAL				APPROX WEIGHT (LBS)	REMARKS							
		SUPPLY CFM	ESP INCH WC	MOTOR NO.	BHP	HP	RPM	DB	WB	DB	WB	TOTAL MBH	SENS MBH	EAT °F	LAT °F	EWT °F	LWT °F	CAPACITY (MBH)	APD (FT)			FPD (FT)	FLOW (GPM)	MAX VELOCITY (FPM)	V/Ø/Hz	MOCB	MCA	FLA
DOAU-1	MAIN BUILDING	805	1.00	1	0.15	1.3	1.423	85.0	71.0	51.3	51.3	49.9	29.8	0.0	70.0	200.0	160.0	80.9	0.11	0.40	3.0	275	208/3/60	18.5	25.0	14.0	1.225	SEE NOTES
DOAU-2	KENNELS	3,025	1.00	1	1.31	1.5	1.758	85.0	71.0	52.1	51.8	192.7	114.4	0.0	105.0	200.0	160.0	374.5	0.15	1.10	19.0	350	208/3/60	90.0	70.8	64.6	2.972	SEE NOTES

- NOTES:
1. PROVIDE FULLY INSULATED, FULLY WELDED WATERTIGHT SEAMS, 18 GA GALVANIZED 30" TALL HORIZONTAL CURB.
 2. PROVIDE UNIT MOUNTED DISCONNECT SWITCH, VFD ON SUPPLY FANS, BACNET COMMUNICATIONS INTERFACE, HUMIDITY SENSOR, CO2 SENSOR, MOTORIZED OUTSIDE AIR DAMPERS, STAINLESS STEEL DRAIN PAN, 2" MERV 8 PRE-FILTER, 2" MERV 13 FINAL-FILTER, SINGLE POINT POWER, HIGH STATIC CONDENSER FANS, AND HOT GAS REHEAT.
 3. BASIS OF DESIGN - IRANE
 4. DESIGN BASED ON 95°F AMBIENT TEMPERATURE.

EXHAUST FAN SCHEDULE											
DESIGN	SERVICE	CFM	SP INCH WC	APPROXIMATE RPM	BHP	MOTOR HP	SONES	ELECTRICAL V/Ø/Hz	APPROXIMATE WEIGHT LBS	BASIS OF DESIGN	REMARKS
EF-1	ADOPTION DOG KENNELS - 119	580	0.15	1,032	0.04	0.25	4.1	115/1/60	27	GREENHECK MODEL SE1-12-432-VG	1, 3
EF-2	ADOPTION DOG KENNELS - 121	580	0.15	1,032	0.04	0.25	4.1	115/1/60	27	GREENHECK MODEL SE1-12-432-VG	1, 3
EF-3	ADOPTION DOG KENNELS - 123	580	0.15	1,032	0.04	0.25	4.1	115/1/60	27	GREENHECK MODEL SE1-12-432-VG	1, 3
EF-4	SHORT TERM INTAKE HOLDING - 124	700	0.15	1,140	0.05	0.25	5.1	115/1/60	27	GREENHECK MODEL SE1-12-432-VG	1, 3
EF-5	MAIN BUILDING	300	0.35	1,129	0.08	0.08	1.4	115/1/60	24	GREENHECK MODEL CSP-A390-VG	2, 3

1. PROVIDE UNIT MOUNTED DISCONNECT SWITCH, MOTORIZED BACKDRAFT DAMPER, ECM MOTOR, AND WALL HOUSING WITH INLET AND OUTLET GUARDS.
2. PROVIDE UNIT MOUNTED DISCONNECT SWITCH, VIBRATION ISOLATORS, ECM MOTOR, MOTORIZED BACKDRAFT DAMPER, STEEL WHEEL AND MODEL GRIS - CURB CAP DISCHARGE.
3. SEE SPECIFICATION 23.34.2.3 FOR EQUIVALENT MANUFACTURERS.

HEAT PUMP SCHEDULE											
DESIGN	SERVICE	AMBIENT AIR TEMP °F DB/WB	CORRECTED COOLING CAPACITY MBH	CORRECTED HEATING CAPACITY MBH	IEER/EER	COP	ELECTRICAL		BASIS OF DESIGN	REMARKS	
							V/PH/Hz	MCA			
HP-1	FCU-1 THRU FCU-21	96.0/16.4	144.0	160.0	25.9/11.6	3.63	208/3/60	52	80	TURYPA1443AN40AN	1, 2, 3, 4, 5

1. R-410A REFRIGERANT. PROVIDE FACTORY REFRIGERANT PIPING.
2. BASIS OF DESIGN IS MITSUBISHI ELECTRIC.
3. PROVIDE FUSED DISCONNECT BY MECHANICAL CONTRACTOR.
4. PROVIDE NEMA-4R DISCONNECT.
5. PROVIDE CONCRETE PAD.

HOT WATER BOILER SCHEDULE																	
DESIGN	SERVICE	RATINGS			WATER TEMPERATURES		FUEL CONSUMPTION			VENT STAC DIA. (IN)	ELECTRICAL	OPERATING WEIGHT (LBS)	BASIS OF DESIGN	REMARKS			
		INPUT MBH	OUTPUT MBH	OPERATING PRESSURE (PSIG)	BOILER HP	INLET °F	OUTLET °F	NG/LFG	NG CFH						LFG CFH	GAS PRESS. (IN. W.C.) MAX INLET	MIN INLET
B-1	DOMESTIC HW / RADIANT FLOOR HEATING	1,680	1,378	160	40	160.0	200.0	NG/LFG	1,680	2,470	14.0	8	10"	208/3/60	4,559	COLUMBIA MPH-40	SEE NOTES

1. PROVIDE DUAL FUEL (NATURAL GAS/METHANE GAS) BURNER, ALARM BELL AND CONDENSATE NEUTRALIZATION KIT.

PUMP SCHEDULE												
DESIGN	SERVICE	GPM	HEAD FEET	SUCTION DISCHARGE	MOTOR			EFFICIENCY %	ELECTRICAL V/PH/Hz	BASIS OF DESIGN	PUMP TYPE	REMARKS
					BHP	HP	RPM					
P-1	BOILER	15	12	1-1/4"x1-1/4"	0.08	0.25	1524	57	208/1/60	BELL & GOSSETT	INLINE	--
P-2A/2B	HEATING HOT WATER	74	31	2"x2"	0.81	1.00	1723	71	208/1/60	BELL & GOSSETT	INLINE	--
P-3	DOAU-1 RECIRC	3	23	1-1/4"	0.33	0.50	1725	34.2	208/1/60	BELL & GOSSETT	INLINE	--
P-4	DOAU-2 RECIRC	19	23	1-1/4"x1-1/4"	0.33	0.50	1631	64.7	208/1/60	BELL & GOSSETT	INLINE	--

DUCTLESS SPLIT SYSTEM																
DESIGN	SERVICE	INDOOR UNIT				OUTDOOR CONDENSING UNIT				ELECTRICAL	BASIS OF DESIGN	REMARKS				
		NOMINAL CFM	ESP INCH WC	EAT °F	COOLING CAPACITY (TOTAL MBH)	DESIGN AMBIENT AIR TEMP °F	NOMINAL CAPACITY TONS	V/PH/Hz	MCA				MOCB			
DSS-1	ELECTRICAL 108	320-425	12.24	12.24	18.0	12.24	18.0	HIGH WALL	CU-1	95	2.0	208/1/60	14	15	PKA-A18KA7/PUY-A18NH7	1, 2, 3, 4, 5, 6, 7, 8, 9
DSS-2	IT 132	320-425	12.24	12.24	18.0	12.24	18.0	HIGH WALL	CU-2	95	2.0	208/1/60	14	15	PKA-A18KA7/PUY-A18NH7	1, 2, 3, 4, 5, 6, 7, 8, 9

1. R410A REFRIGERANT. PROVIDE FACTORY REFRIGERANT PIPING.
2. BASIS OF DESIGN IS MITSUBISHI ELECTRIC.
3. PROVIDE FUSED DISCONNECT BY MECHANICAL CONTRACTOR.
4. INDOOR UNIT RECEIVES POWER FROM OUTDOOR UNIT.
5. PROVIDE WALL, T-STAY, CONDENSATE PAN, AND ELECTRICAL KIT.
6. PROVIDE LOW AMBIENT KIT.
7. PROVIDE NEMA-3R DISCONNECT.
8. PROVIDE LINEAR SUPPORT RAILS.
9. GAS PIPE SIZE SHALL BE 1/2". LIQUID PIPE SIZE SHALL BE 1/4".

HEAT TRACE SCHEDULE										
DESIGNATION	SERVICE	CABLE OUTPUT (W/FT)	STARTUP TEMP (°F)	APPROX CABLE LENGTH (FT)	PIPE SIZE (IN)	THERMOSTAT TYPE	CONTROLLER ENCLOSURE TYPE	ELECTRICAL		REMARKS
								V/PH/Hz	KW	
HT-1	HEATING HOT WATER	8	40	30	1	LINE SENSING	NEMA3R	120/1/60	0.36	1, 2, 3, 4
HT-2	HEATING HOT WATER	8	40	30	2	LINE SENSING	NEMA3R	120/1/60	0.36	1, 2, 3, 4

1. GFE PROTECTION PROVIDED BY ELECTRICAL.
2. PROVIDE END KIT, SPLICE KIT, FIXING TAPE, ETC AS REQUIRED FOR A COMPLETE INSTALLATION.
3. COORDINATE EXACT LOCATION OF POWER J-BOX WITH ELECTRICAL CONTRACTOR.
4. PROVIDE ELECTRONIC CONTROLLER THAT CONTROLS AND MONITORS HEAT TRACE CIRCUITS FOR BOTH FREEZE PROTECTION AND TEMPERATURE MAINTENANCE.



09/02/2020

JACKSON COUNTY
ANIMAL RESCUE CENTER AND GREEN ENERGY PARK
DILLSBORO, NORTH CAROLINA

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