MECHANICAL GENERAL NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A COMPLETE OPERATIONAL COOLING AND HEATING SYSTEM IN ACCORDANCE WITH THE DESIGN DRAWINGS.

2. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE INTERNATIONAL MECHANICAL CODE, NFPA REQUIREMENTS, AND ALL LOCAL CODES.

3. DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF SYSTEMS. DRAWINGS SHALL NOT BE SCALED.

4. CONTRACTOR SHALL FIELD VERIFY BY MEASUREMENT THE EXACT LOCATION OF EQUIPMENT, DUCTWORK, PIPING, STRUCTURE, AND OTHER CONDITIONS WHICH WILL AFFECT INSTALLATION. CONTRACTOR SHALL LOCATE EQUIPMENT AND ROUTE DUCTWORK AND PIPING TO AVOID CONFLICTS AND INTERFERENCES WITH EXISTING CONDITIONS.

5. COORDINATE DUCT, PIPING, AND EQUIPMENT LOCATIONS WITH ELECTRICAL ROOMS, ELEVATOR EQUIPMENT ROOMS, AND ALL ELECTRICAL PANEL LOCATIONS. DO NOT PASS ANY MECHANICAL OR PLUMBING PIPING OR CONDENSATE PRODUCING EQUIPMENT DIRECTLY OVER ELECTRICAL PANELS, ELECTRICAL EQUIPMENT, ELEVATOR EQUIPMENT, CONTROLS, OR TELECOMMUNICATIONS EQUIPMENT. SEE ELECTRICAL AND TELECOMMUNICATION DRAWINGS FOR EXACT EQUIPMENT LOCATIONS.

6. CEILING DIFFUSER AND REGISTER LOCATIONS ARE APPROXIMATE ONLY. SEE ARCHITECTURAL FOR EXACT LOCATIONS OF ALL AIR DISTRIBUTION DEVICES (WALL AND CEILING).

7. ALL CUTTING AND PATCHING SHALL BE COORDINATED. ALL PATCHING SHALL RESTORE EACH DAMAGED SURFACE TO ITS ORIGINAL FINISH.

8. ALL EXPOSED DUCTWORK, PIPING, AND EQUIPMENT IN FINISHED SPACES TO BE INSTALLED AS HIGH AS POSSIBLE ABOVE FINISHED FLOOR.

9. ALL AIR DISTRIBUTION SYSTEM(S) SHALL BE TESTED AND BALANCED IN ACCORDANCE WITH A.A.B.C. OR N.E.B.B. REQUIREMENTS. A CERTIFIED AIR BALANCE REPORT SHALL BE PREPARED PRIOR TO PROJECT CLOSEOUT.

10. ALL LOW PRESSURE DUCTWORK SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH THE LATEST SMACNA HVAC DUCT CONSTRUCTION MANUAL FOR 2" W.G. STATIC PRESSURE. DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED SHEET METAL. REFER TO SPECIALTY DUCT SCHEDULE FOR MATERIALS BY AREA.

11. ALL DUCT DIMENSIONS SHOWN ON DRAWINGS ARE INSIDE CLEAR. ALLOWANCE MUST BE MADE IN SHEET METAL SIZE WHERE DUCT LINER IS SPECIFIED.

12. ALL MEDIUM PRESSURE SUPPLY DUCTWORK SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH THE LATEST SMACNA HVAC DUCT CONSTRUCTION MANUAL FOR 6" W.G. STATIC PRESSURE. SEAL ALL TRANSVERSE JOINTS WITH DUCT SEALANT AS SPECIFIED.

14. NOT USED.

15. DUCT RUNOUTS TO REGISTERS TO BE AS SCHEDULED UNLESS OTHERWISE INDICATED ON PLANS. CONTRACTOR TO PROVIDE A TRANSITION AT NECK OF EACH AIR DISTRIBUTION DEVICE AS REQUIRED.

16. DUCT RUNOUT SIZES TO VAV TERMINAL BOXES TO BE AS SCHEDULED UNLESS NOTED OTHERWISE ON PLANS. CONTRACTOR TO PROVIDE A TRANSITION FROM PLAN INDICATED RUN-OUT SIZE. SEE DETAIL FOR BOX CONNECTION.

17. FIRE DAMPERS TO BE TYPE "B" OR "C" DYNAMIC UNLESS OTHERWISE NOTED. INSTALLATION OUT OF AIRSTREAM AND IN STRICT ACCORDANCE WITH MANUFACTURER'S U.L. LISTED INSTALLATION INSTRUCTIONS AND SMACNA FIRE DAMPER GUIDE.

18. PROVIDE 6" HIGH CONCRETE PAD FOR ALL FLOOR-MOUNTED EQUIPMENT EXCEPT WHERE NOTED ON DRAWINGS OR SCHEDULES.

19. WHERE BRANCH TAPS OCCUR, PROVIDE INDIVIDUAL SPIN-IN FITTINGS WITH MANUAL-VOLUME DAMPERS FOR BALANCING. DO NOT USE TYPE WITH AIR SCOOP/EXTRACTOR. ADDITIONALLY, PROVIDE OPPOSED-BLADE VOLUME DAMPERS AT EACH AIR DISTRIBUTION DEVICE.

20. COORDINATE LOCATION AND PROVIDE DUCT ACCESS DOORS FOR ACCESS TO ALL FIRE DAMPERS, VALVES AND OTHER ENCLOSED ITEMS. DUCT ACCESS DOORS MAY BE OMITTED WHERE TYPE "A" FIRE DAMPERS ARE ACCESSIBLE THROUGH SIDEWALL REGISTER FACE. INSURE DUCT ACCESS DOORS AND DAMPERS ARE ACCESSIBLE THROUGH CEILINGS AND WALLS. LOCATE DUCT ACCESS DOORS ABOVE SPACES WITH LAY-IN CEILINGS OR EXPOSED CEILINGS WHERE POSSIBLE. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR CEILING TYPES.

21. PROVIDE CANVAS, FLAME RETARDANT FLEXIBLE DUCT CONNECTORS AT ALL CONNECTIONS OF FANS TO DUCTWORK.

22. PROVIDE A MINIMUM 15'-0" SEPARATION BETWEEN ANY FRESH AIR INTAKE AND ANY MECHANICAL EXHAUST, PLUMBING VENT, OR OTHER VENT OUTLETS.

23. COORDINATE INSTALLATION OF DUCT-MOUNTED SMOKE DETECTORS WITH FIRE ALARM SYSTEM PROVIDER.

24. DUCT-MOUNTED SMOKE DETECTORS ARE PROVIDED BY DIV. 26, INSTALLED BY DIV. 23.

25. DUCTWORK AND PIPE UNDER ROOF DECK SHALL BE SUPPORTED FROM STEEL BEAMS OR FROM SUPPLEMENTARY FRAMING SUPPORTED BY STEEL BEAMS.

26. DUCTWORK CAN BE HUNG FROM FLOOR DECK WITH CONCRETE FILL. SUPPORT DUCTWORK FROM STEEL BEAMS WHERE PRACTICAL.

27. PIPE 4" AND SMALLER CAN BE HUNG FROM FLOOR DECK WITH CONCRETE FILL. SUPPORT PIPE FROM STEEL BEAMS WHERE PRACTICAL. PIPE LARGER THAN 4" SHALL BE SUPPORTED FROM STEEL BEAMS OR FROM SUPPLEMENTARY FRAMING SUPPORTED BY STEEL BEAMS.

28. REFER TO THE IBC AND NFPA FOR CAULKING REQUIREMENTS AROUND FIRE AND FIRE/SMOKE DAMPERS.

SUPPLY DIFFUSER SCHEDULE

SYMBOL	ADAPTOR/ NECK SIZE	FACE SIZE	MAX CFM	MAX TP	MAX NC	THROW	DUCT RUNOUT SIZE *
SA	6" Ø	24"x24"	100	0.022	20	4-WAY	8"x5"/6" Ø
SB	8" Ø	24"x24"	200	0.042	20	4-WAY	10"x7"/8" Ø
SC	10" Ø	24"x24"	350	0.088	20	4-WAY	12"x8"/10" Ø
SD	12" Ø	24"x24"	500	0.127	20	4-WAY	14"x9"/12" Ø
SE	14" Ø	24"x24"	700	0.173	23	4-WAY	16"x10"/14" Ø
SF	15" Ø	24"x24"	950	0.259	28	4-WAY	16"x12"/16" Ø
SWA	8"x8"	10"x10"	275	0.03	19	2-WAY	8"x8"
SWB	16"x60"	18"x62"	2700	0.016	20	2-WAY	16"x60"
SWC	36"x24"	38"x26"	2700	0.016	20	2-WAY	36"x24"
SWF	20"x16"	22"x18"	1040	0.016	20	2-WAY	20"x16"
SWG	18"x10"	20"x12"	850	0.04	27	2-WAY	18"x10"
SDA	8" Ø	18"Ø	280	0.109	28	360°	8" Ø
SDB	10" Ø	22-1/2"Ø	435	0.109	28	360°	10" Ø
SSA	10" Ø	60"x1"	350	0.109	28	SLOT	10" Ø

1. SA THRU SE ARE TITUS MODEL OMNI ALUMINUM DIFFUSERS.
2. SWA THRU SWG SHALL BE TITUS MODEL 1707 SIDE WALL DIFFUSERS.
3. SDA THRU SDB SHALL BE TITUS MODEL TMR DUCT MOUNTED DIFFUSERS.
4. SSA SHALL BE TITUS MODEL M-39 SLOT DIFFUSERS WITH FRAMED BORDERS.
5. IF FD IS SHOWN AS PART OF DIFFUSER TAG INCLUDE RADIATION DAMPER WITH DIFFUSER..

ALL SUPPLY DIFFUSERS SHALL BE PROVIDED W/2" INSULATION BLANKET ON BACK OF DIFFUSER.
ALL DIFFUSERS SHALL HAVE OPPOSED BLADE DAMPERS (OBD).
* RUNOUTS ARE DUCTS SERVING ONLY ONE SUPPLY DIFFUSER.

CEILING GRILLES & REGISTERS

SYMBOL	NECK	FACE	MAX CFM	MAX SP	MAX NC	DUCT RUNOUT SIZE *
RA/EA	6" SQ	24"x24"	100	.06	20	8"x5"/6" Ø
RB/EB	8" SQ	24"x24"	200	.06	20	10"x7"/8" Ø
RC/EC	10" SQ	24"x24"	350	.06	20	12"x8"/10" Ø
RD/ED	12" SQ	24"x24"	500	.06	20	14"x9"/12" Ø
RE/EE	14" SQ	24"x24"	700	.06	20	16"x10"/14" Ø
RF/EF	16" SQ	24"x24"	1000	.06	20	20"x10"/16" Ø
RG/EG	18" SQ	24"x24"	1250	.06	20	24"x10"/18" Ø
RH/EH	22" SQ	24"x24"	1750	.06	20	24"x12"/18" Ø
SRA/SEA	24"x16"	26"x18"	1230	.04	20	24"x16"
SRB/SEB	10"x10"	12"x12"	240	.06	25	10"x10"
SRC/SEC	16"x16"	18"x18"	320	.002	20	16"x16"

PERFORMANCE BASIS:

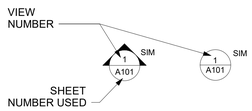
1. RA/EA THRU RH/EH SHALL BE TITUS MODEL 50F OR APPROVED EQUAL WITH 1/2"x1/2"x1/2" EGG-CRATE CORE.
2. SRA/SEA AND RK/EK SHALL BE FILTER RETURN TITUS MODEL 350RLF OR APPROVED EQUAL WITH 1/2" BLADE SPACING.
3. TRANSFER AIR GRILLE (TAG) SHALL BE TITUS 350RL OR APPROVED EQUAL FOR SIDEWALL OR TITUS 50F FOR CEILING APPLICATIONS. SIZE AS SHOWN ON PLANS.
4. IF FD IS SHOWN AS PART OF DIFFUSER TAG INCLUDE RADIATION DAMPER WITH GRILLE.

* RUNOUTS ARE DUCTS SERVING ONLY ONE GRILLE OR REGISTER.

LEGEND

- MEDIUM PRESSURE TEE
- RECTANGULAR DUCT TURNING DOWN
- ROUND DUCT TURNING DOWN
- DUCT TURNING DOWN TO SIDEWALL REGISTER
- DOUBLE LINE TO DUCTWORK
- DUCT LINER IN LOW PRESSURE DUCT OR DOUBLE WALL INSULATED MEDIUM PRESSURE DUCT
- BRANCH TAP OFF MAIN W/45º BOOT FITTING OR SPIN-IN FITTING W/DAMPER (LOW PRESSURE)
- TRANSITION IN DUCT (NOT DIRECTION OF AIRFLOW)
- REGISTER TAPPING INTO BOTTOM OF DUCT
- FD / FSD — FIRE DAMPER / FIRE/SMOKE DAMPER
- SD — SMOKE DETECTOR
- DSD — DUCT SMOKE DETECTOR
- AD — ACCESS DOOR
- AFF — ABOVE FINISHED FLOOR
- BFC — BELOW FINISHED FLOOR
- VFD — VARIABLE FREQUENCY DRIVE
- TAD — TRANSFER AIR DUCT
- TAO — TRANSFER AIR OPENING
- BAS — BUILDING AUTOMATION CONTROL SYSTEM
- P — PRESSURE SENSOR
- PC — PARTICLE COUNTER
- LH — ULTRA-LOW DEWPOINT SENSOR
- MOTORIZED DAMPER
- DUCT TERMINATION
- 45º FULL RADIUS TURN
- SQUARE ELBOW W/TURNING VANES
- FULL RADIUS TURN
- CO — CO2 SENSOR
- T — THERMOSTAT
- MVD — MANUAL VOLUME DAMPER
- VAV — VARIABLE VOLUME BOX
- EA 100 — INDICATES A SIZE "A" EXHAUST REGISTER SET FOR 100 CFM
- RB 200 — INDICATES A SIZE "B" RETURN REGISTER SET FOR 200 CFM
- SB 200 — INDICATES A SIZE "B" SUPPLY DIFFUSER SET FOR 200 CFM
- SUPPLY DIFFUSER (1-WAY)
- SUPPLY DIFFUSER (2-WAY)
- SUPPLY DIFFUSER (3-WAY)
- SUPPLY DIFFUSER (4-WAY)
- EXHAUST GRILLE
- RETURN GRILLE
- DG — DOOR GRILLE
- UNDERCUT DOOR 3/4" UNLESS OTHERWISE NOTED

VIEW NAME LEGEND



PIPING LEGEND

MCD	MOISTURE CONDENSATE DRAIN LINE		DIRECTION OF WATER FLOW
RRS	REFRIGERANT SUPPLY		TEE
CHWR	CHILLED WATER RETURN		PIPE TURNING DOWN
CHWS	CHILLED WATER SUPPLY		PIPE TURNING UP
HWR	HOT WATER RETURN		PIPE SHUT OFF VALVE
HWS	HOT WATER SUPPLY		
CWS	CONDENSER WATER SUPPLY	NMPCWS	NMP COOLING WATER SUPPLY
CWR	CONDENSER WATER RETURN	NMPCWR	NMP COOLING WATER RETURN
PCWS	PLANT COOLING WATER SUPPLY	CW	CITY WATER
PCWR	PLANT COOLING WATER RETURN		

IMPORTANT NOTE

THE FOLLOWING ITEMS ARE NOT SHOWN IN THE CURRENT REVISION BUT SHOULD BE INCLUDED IN THE FINAL DESIGN AND PRICING DOCUMENTS

1. DUCTWORK AND INTERCONNECTIONS BETWEEN THE COATER OVENS AND NMP RECOVERY EQUIPMENT (BOTH ANODE AND CATHODE SIDES).
2. CONNECTION TO RTO OUTSIDE THE BUILDING.
3. AIR CURTAINS IN LIEU OF OVERHEAD DOORS AT INBOUND AND OUTBOUND WAREHOUSE.
4. STEAM FLASH TANK ON LEVEL 1F AND ASSOCIATED PIPING FROM STEAM TRAPS AND PUMPED CONDENSATE TO STEAM CONDENSATE MAIN. REFER TO STEAM PFD ON SHEET 1.M5.145..
5. VACUUM OVEN FORMATION DUCT LAYOUT.
6. EXPANSION LOOPS ON PIPE BRIDGE

RFI 211 - Fabric Duct Clarifications - ICT RES..

FABRIC DUCT SCHEDULE

IDENTIFICATION	FABRIC DUCT - 1	FABRIC DUCT - 2	
MANUFACTURER	DUCTSOX (BASIS OF DESIGN)	DUCTSOX (BASIS OF DESIGN)	
MODEL NO.	OPTI-X	VERONA	
DIA. AT METAL DUCT CONN.	REFER TO PLANS	REFER TO PLANS	
SERVICE	CLEAN/DRY ROOMS	GENERAL PLANT (NON CLEAN/DRY)	
AIR FLOW RATE/ LINEAR FT	100 CFM	100 CFM	
PORUOUS RATE/NON-POROUS	POROSITY: 3 CFM/SF	POROSITY: 3 CFM/SF	
VENT TYP	LINEAR VENT	LINEAR VENT	
HANGER TYPE	3x1 TRACK	1 ROW TRACK WITH IHS	
SLOT ORIENTATION	SIZE 40 L-VENT AT 2 O'CLOCK AND 10 O'CLOCK	SIZE 30 L-VENT AT 3 O'CLOCK AND 9 O'CLOCK	
	SIZE 40 L-VENT AT 5 O'CLOCK AND 7 O'CLOCK	SIZE 30 L-VENT AT 5 O'CLOCK AND 7 O'CLOCK	
LENGTH OF DUCT PER SECTION	REFER TO PLANS	REFER TO PLANS	
REMARKS	1,2,3,4	1,2,3,4	

1. COLOR - WHITE
2. PROVIDE ADJUSTABLE FLOW DEVICES AT EACH BRANCH TAKE-OFF.
3. REFER TO PLAN DRAWINGS FOR DUCT CONFIGURATION AND TOTAL DUCT LENGTHS
4. REFER TO FABRIC DUCT SPECIFICATION SECTION 233716 FOR MORE INFORMATION.

HEPA FILTER HOUSINGS

Housing Model	Housing size	Filter Quantity
40H35W	98.88" high x 90.69" wide x 27.00" depth	12 (24X24) & 4 (24X12)
40H30W	98.88" high x 70.13" wide x 27.00" depth	12 (24X24)
40H30W	98.88" high x 70.13" wide x 27.00" depth	12 (24X24)
40H25W	98.88" high x 65.13" wide x 27.00" depth	8 (24X24) & 4 (24X12)
20H20W	51.00" high x 51.56" wide x 27.00" depth	4 (24X24)
10H15W	27.00" high x 39.56" wide x 27.00" depth	1 (24X24) & 1 (24X12)

Each full size HEPA can accommodate 2400 CFM @ 600 FPM and half size can accommodate 1125 CFM @ 600 FPM.

PROVIDE DIFFERENTIAL PRESSURE SENSORS ACROSS ALL HEPA FILTERS MONITORED BY THE BAS.

SPECIALTY DUCT SCHEDULE

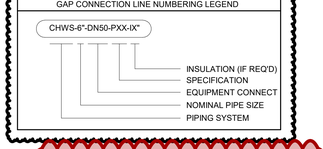
LOCATION	SERVICE	DUCT MATERIAL	WELDED?
CLEAN ROOMS	SUPPLY	STAINLESS STEEL	NO
CLEAN ROOMS	RETURN	STAINLESS STEEL	NO
CLEAN ROOMS	EXHAUST	STAINLESS STEEL	NO
COATING OVEN ROOMS	NMP/HR SUPPLY/RETURN	STAINLESS STEEL	YES
VARIOUS	RTO EXHAUST	STAINLESS STEEL	YES

NOTES:
1. GALVANIZED STEEL ON SUPPLY, RETURN, AND GENERAL EXHAUST OUTSIDE OF CLEAN ROOMS, UPSTREAM OF HEPA FILTERS, UNLESS NOTED ON THIS TABLE.
2. RTO EXHAUST TO USE EPR GASKETS, SOLVENT RESISTANT SEALANT, ECCENTRIC REDUCERS, SOLVENT RESISTANT FLEXIBLE DUCT.
3. COATING OVEN RETURN TO BE SLOPED 1/8" PER LF WITH DRAIN CONNECTION AT LOW POINT AND MEDIUM PRESSURE
4. NON-FERROUS MATERIALS INCLUDING ZINC, COPPER, TIN, IRON, AND BRASS ARE PROHIBITED WITHIN CLEAN ROOMS OR IN CONTACT WITH THE CLEAN AIRSTREAM. COATINGS, INSULATION, OR JACKETING MAY BE USED TO AVOID CONTAMINATION WITH OWNER APPROVAL.
5. SEE SPECIFICATIONS 233110 AND 233111 FOR MORE INFORMATION.

DUCT SYSTEM LEGEND

DUCT SYSTEM	ABBREVIATION
DRY SUPPLY AIR	DSA
SUPPLY AIR	SA
RETURN AIR	RA
VOC EXHAUST	VEX
GENERAL EXHAUST	GEX
OUTDOOR AIR	OA

GAP CONNECTION LINE NUMBERING LEGEND



RFI 275 - RTO Ductwork System Requirements - ICT REV..

SOUTH CAROLINA PROFESSIONAL ENGINEER No. 38419 SCOTT WILLIAMS 03/28/25

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THE ART & SCIENCE OF BUILDING
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ICT project number: 23059

AESC

AESC BATTERY MANUFACTURING PLANT
1330 ESTATE ROAD, FLORENCE, SOUTH CAROLINA 29506

DRAWING ISSUE

DESCRIPTION	DATE
PROGRESS PRINT	04.21.2023
PRICING SET	06.15.2023
PRICING SET	09.01.2023
PROGRESS PRINT	10.30.2023
GMP	02.14.2024
PERMIT SET	04.15.2024
CONSTRUCTION SET	07.03.2024
ADMIN IFC	08.15.2024
ASI 04	09.13.2024
ASI 05	09.27.2024
ASI 17	03.28.2025

DRAWING TITLE
MECHANICAL - LEGENDS

DRAWING NO.
1.M0.001

PRO. # 007237

3/30/2025 10:32:36 PM

LINE 1
DHU-1
DHU-2
DHU-5
DHU-6
DHU-9
DHU-10
DHU-11
DHU-13
DHU-14
DHU-16
DHU-18
DHU-18
DHU-20
DHU-21
DHU-22
DHU-29
DHU-32
DHU-35
DHU-36

DUAL FAN AHU (SEE NEXT PAGE)

DEHUMIDIFIER UNIT SCHEDULE

SYSTEM															
MARK	DHU-01 THRU 04	DHU-05 THRU 08	DHU-09	DHU-10	DHU-11	DHU-12	DHU-13 THRU 15	DHU-16	DHU-17	DHU18 THRU 22	DHU-23 THRU 28	DHU-29	DHU-30,31	DHU-32 THRU 34	DHU-35 THRU 37
ROOM SERVED	CATHODE MIXING/FEED	CATHODE ENDS/CAL	CATHODE SLITTING	CATHODE SLITTING	CATHODE ROLL BAKE/STOR	CATHODE ROLL BAKE/STOR	ANODE ENDS/CAL/FEED	ANODE ROLL	ANODE ROLL	DISK/WINDING	DISK/WINDING	L.C.C. & 1ST INJ.	L.C.C. & 1ST INJ.	VOF/HTA	2ND INJ
LOCATION	MEZZANINE	MEZZANINE	MEZZANINE	MEZZANINE	MEZZANINE	MEZZANINE	MEZZANINE	MEZZANINE	MEZZANINE	MEZZANINE	MEZZANINE	MEZZANINE	MEZZANINE	MEZZANINE	MEZZANINE
MANUFACTURER (FOR BASIS OF DESIGN)	AIR20	AIR20	AIR20	AIR20	AIR20	AIR20	AIR20	AIR20	AIR20	AIR20	AIR20	AIR20	AIR20	AIR20	AIR20
TEMPERATURE CONTROL TYPE	ROOM MOUNTED	ROOM MOUNTED	ROOM MOUNTED	ROOM MOUNTED	ROOM MOUNTED	ROOM MOUNTED	ROOM MOUNTED	ROOM MOUNTED	ROOM MOUNTED	ROOM MOUNTED	ROOM MOUNTED	ROOM MOUNTED	ROOM MOUNTED	ROOM MOUNTED	ROOM MOUNTED
INTERLOCK	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SERVICE AREA CLIMATE REQUIREMENT	-40C	-40C	-40C	-40C	-40C	-40C	40% RH	40%RH/-40C	40%RH/-40C	-40C	-40C	-40C	-40C	-40C	-40C
ELECTRICAL															
VOLTAGE	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60
FLA	108	108	108	84	108	42	70	88	39	108	108	118	138	33	111
MCA	118	118	118	92	118	48	76	96	45	118	118	128	151	38	122
MOP	150	150	150	125	150	70	100	125	70	150	150	175	200	60	150
DISCONNECT	UNIT MOUNTED NON FUSED	UNIT MOUNTED NON FUSED	UNIT MOUNTED NON FUSED	UNIT MOUNTED NON FUSED	UNIT MOUNTED NON FUSED	UNIT MOUNTED NON FUSED	UNIT MOUNTED NON FUSED	UNIT MOUNTED NON FUSED	UNIT MOUNTED NON FUSED	UNIT MOUNTED NON FUSED	UNIT MOUNTED NON FUSED	UNIT MOUNTED NON FUSED	UNIT MOUNTED NON FUSED	UNIT MOUNTED NON FUSED	UNIT MOUNTED NON FUSED
EMERGENCY POWER (YES / NO)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
UNIT DIMENSIONS															
(LxWxH) (INCHES)	420"x138x147	420"x138x147	420"x138x147	420"x138x147	420"x138x147	420x98x107	370x136x146	420x138x147	420x98x107	420x142x150.5	420x142x150.5	420x150x158.5	420x150x158.5	420x98x107	420x142x150.5
BASE RAIL (INCHES)	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
OPERATING WEIGHT (LBS)	34,000	34,000	35,000	35,000	35,000	27,000	31,000	35,000	28,000	32,500	32,500	35,500	35,500	28,000	32,500
SUPPLY FAN AND MOTOR DATA															
AIRFLOW (CFM)	22,195	24,725	27,682	19,892	25,693	10,160	22,343	23,657	11,453	31,458	28,290	29,775	28,809	9,988	29,750
OUTSIDE AIR (CFM)	10,647	11,255	8,300	6,800	7,200	6,700	22,343	7,550	6,025	5,892	7,487	29,775	28,809	7,060	11,285
RETURN AIR (CFM)	11,548	13,470	19,382	13,092	18,493	3,460	0	16,107	5,428	25,566	20,803	0	0	2,928	18,465
FAN TYPE	BC DIRECT DRIVE	BC DIRECT DRIVE	BC DIRECT DRIVE	BC DIRECT DRIVE	BC DIRECT DRIVE	BC DIRECT DRIVE	BC DIRECT DRIVE	BC DIRECT DRIVE	BC DIRECT DRIVE	BC DIRECT DRIVE	BC DIRECT DRIVE	BC DIRECT DRIVE	BC DIRECT DRIVE	BC DIRECT DRIVE	BC DIRECT DRIVE
FAN QUANTITY	2	2	2	2	2	1	2	2	1	2	2	2	2	1	2
VFD QUANTITY	2	2	2	2	2	1 W/ BYPASS	2	2	1	2	2	2	2	1	2
INTERNAL SP (IN. WC)	5.85	5.75	5.65	4,95	5.95	5.3	3.9	5.5	5.7	6.9	5.8	4.9	4.8	5.0	5.8
EXTERNAL SP (IN. WC)	4.7	4.75	4.75	4,75	4.75	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	2.0	4.8
TOTAL SP (IN. WC)	10.6	10.5	10.4	9.7	10.7	10.0	8.6	10.2	10.4	11.7	10.5	9.7	9.6	7.5	10.6
ESTIMATED FAN BHP (EACH)	26	25.0	27.2	18.8	26.5	16.7	20.8	23.0	20.1	34.8	28.1	30.8	29.9	16.3	29.5
MOTOR HP (EACH)	40	40	40	30	40	25	25	30	25	40	40	40	50	20	40
FAN RPM / MAX FAN RPM	1,943 / 2,100	1,928 / 2,100	1,937 / 2,100	1,876 / 2,100	1,935 / 2,100	2,435 / 2,650	1,798 / 2,100	1,889 / 2,100	1,928 / 2,100	2,062 / 2,100	1,926 / 2,100	1,881 / 2,100	1,863 / 2,100	2,218 / 2,350	1,929 / 2,100
PRE FILTER															
TYPE/MERV	2" MERV 8	2" MERV 8	2" MERV 8	2" MERV 8	2" MERV 8	2" MERV 8	2" MERV 8	2" MERV 8	2" MERV 8	2" MERV 8	2" MERV 8	2" MERV 8	2" MERV 8	2" MERV 8	2" MERV 8
PD (IN. WC)	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
OA COOLING COIL SECTION (CHILLED WATER)															
AIRFLOW (CFM)	14,147	11,255	8,300	6,800	7,200	6,700	22,343	7,550	6,025	5,892	7,487	29,775	28,809	7,060	11,285
EAT (DB/ WB) °F	96/81	96/81	96/81	96/81	96/81	96/81	96/81	96 / 81	96/80.8	96/80.8	96 / 80.8	102 / 82.2	102 / 82.2	96 / 80.8	96 / 80.8
LAT (DB/ WB) °F	44/44	44/44	46/46	44/44	44/44	45/45	46/46	44 / 44	45.4/45.4	45.3/45.3	45.4 / 45.4	45.6 / 45.6	45.5 / 45.5	46.1 / 46.1	45.3 / 45.3
EWT / LWT °F	42/57	42/58	42/58	42/58	42/58	42/57	42/58	45 / 58	42/57.9	42/57.9	42 / 57.9	42 / 57.9	42 / 58.1	42 / 58	42 / 57.9
TOTAL COOLING CAPACITY (MBH)	1693	1345	963	816	862	783	2593	904	704	691	875	3669	3554	814	1321
GPM	225.0	168.0	122.0	102.0	108.0	104.0	334.0	117.0	88.0	86.3	109.7	460.0	440.0	101.5	165.3
NO. OF ROWS / FINS PER IN	10/13	10/12	8/12	10/12	10/12	10/12	10/12	10 / 12	10/12	8/12	8 / 12	10 / 12	10 / 12	10 / 12	8 / 12
MAX PRESSURE DROP- AIR SIDE (IN. WC)	0.67	0.48	0.40	0.42	0.46	0.80	0.93	0.50	0.66	0.33	0.33	0.95	0.89	0.87	0.36
MAX PRESSURE DROP- WATER SIDE (FT. WC)	13	12	13	12	13	13	15	15	9	13	12	22	20	12	15
MAXIMUM FACE VELOCITY (FPM)	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450
SECONDARY FILTER															
TYPE/MERV	4" MERV 14	4" MERV 14	4" MERV 14	4" MERV 14	4" MERV 14	4" MERV 14	4" MERV 14	4" MERV 14	4" MERV 14	4" MERV 14	4" MERV 14	4" MERV 14	4" MERV 14	4" MERV 14	4" MERV 14
PD (IN. WC)	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
BLEND COOLING COIL SECTION (CHILLED WATER)															
AIRFLOW (CFM)	22,195	21,725	24,198	17,892	22,693	7,660		20,657	8,953	27,958	24,790			7,488	25,750
EAT (DB/ WB) °F	63/48	66/48	72/49	70/48	72/48	61/48		70 / 49	64.9 / 48.2	74.6 / 48.3	72.4 / 48.3			60.2 / 48.7	69 / 48.2
LAT (DB/ WB) °F	48/40	48/39	48/36	48/37	49/36	49/42		48 / 37	48.1 / 40.1	48.7 / 35.1	48.4 / 36.2			49.4 / 43.6	48.7 / 38.1
EWT / LWT °F	42 / 57	42/58	42 / 58	42/58	42 / 58	42/58		42 / 58	42 / 58.3	42 / 57.6	42 / 57.7			42 / 58	42 / 57.5
TOTAL COOLING CAPACITY (MBH)	370	420	607	423	565.0	104		503	163.8	788.0	648.5			88.2	570.0
GPM	50.0	54	77.0	53	71.0	13		63	20.0	80.0	81.9			11.0	73.2
NO. OF ROWS / FINS PER IN	6/12	6/12	6/12	6/12	6/12	6/12		6 / 12	6 / 12	6 / 12	6 / 12			6 / 12	6 / 12
MAX PRESSURE DROP- AIR SIDE (IN. WC)	0.47	0.53	0.48	0.37	0.53	0.3		0.46	0.38	0.60	0.50			0.29	0.52
MAX PRESSURE DROP- WATER SIDE (FT. WC)	14	12	10	8	13	11		16	19.53	16.3	11.2			7.8	11.1
MAXIMUM FACE VELOCITY (FPM)	450	450	450	450	450	450		450	450	450	450			450	450
POST COOLING COIL SECTION (CHILLED WATER)															
AIRFLOW (CFM)	22,195	21,725	24,182	17,892	22,693	7,660	22,343	20,657	8,953	27,958	24,790	21,775	20,809		25,750
EAT (DB/ WB) °F	66/41	64/41	61/40	61/39	60/38	72/45	64/49	62 / 39	68.6 / 42.7	58 / 37.1	60.2 / 38.3	81.6 / 48.9	81.6 / 48.9		63.4 / 40
LAT (DB/ WB) °F	50/32.8	50/32	50/32	50/33	50/33	50/32	50/42	50 / 33	50.1 / 32.6	50 / 32.7	50.0 / 32.6	50.0 / 32.6	49.7 / 32.4		50 / 32.6
EWT / LWT °F	42 / 58	42 / 58	42/58	42 / 58	42/57	42 / 57	42/58	42/ 58	42 / 58	42 / 56	42 / 55.2	42 / 58	42 / 58		42 / 58.2
TOTAL COOLING CAPACITY (MBH)	392.0	334.0	399.0	205.0	253.0	185.0	339.0	265.0	180.5	243.7	275.9	750.2	723.1		377
GPM	48.0	41.0	51.0	26.0	34.0	25.0	42.0	35.0	22.5	34.6	41.5	93.5	90.0		46.3
NO. OF ROWS / FINS PER IN	6/10	6/11	6/9	6/11	6/12	6/10	6/11	6 / 10	6 / 10	6 / 12	4 / 12	6 / 10	10 / 12		6 / 11
MAX PRESSURE DROP- AIR SIDE (IN. WC)	0.41	0.49	0.37	0.34	0.53	0.41	0.51	0.38	0.36	0.59	0.33	0.41	0.39		0.48
MAX PRESSURE DROP- WATER SIDE (FT. WC)	10.0	7.2	11.0	9.0	7.0	7.0	9.0	8.0	6.1	7.2	14.6	11.0	10.2		9.2
MAXIMUM FACE VELOCITY (FPM)	450	450	450	450	450	450	450	450	450	450	450	450	450		450
OA HEATING COIL SECTION (HOT WATER)															
AIR FLOW (CFM)	14,147	11,255	8,300	6,800	7,200	6,700	22,343	7,550	6,025	5,892	7,487	29,775	28,809	7,060	11,285
EAT (DB) °F	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
LAT (DB) °F	44	46	42	49	50	43	49	48	41.8	45.3	43	45.4	45.9	40.3	47.2
EWT / LWT °F	140/101	140/98	140/104	140/100	140/104	140/100	140/100	140 / 100	140 / 100	140 / 101.6	140 / 103.1	140 / 100	140 / 100.1	140 / 100	140 / 98.8
TOTAL HEATING CAPACITY (MBH)	390	334	210	225	241	178	727	240	219.4	168.7	195	857.8	843.4	164.2	347
GPM	20	16	12	12	14	9	37	12	8	9	11	44	43	8	17
NO. OF ROWS / FINS PER IN	1/7	1/7	1/6	1/7	1/7	1/9	1/10	1 / 9	1 / 8	1 / 6	1 / 6	1 / 8	1 / 8	1 / 8	1 / 7
MAX PRESSURE DROP- AIR SIDE (IN. WC)	0.06	0.04	0.05	0.03	0.03	0.08	0.07	0.04	0.06	0.03	0.04	0.06	0.06	0.08	0.04
MAX PRESSURE DROP- WATER SIDE (FT. WC)	5	5	3	7	5	4	4	13	2	3	2	2	2	3	4
MAXIMUM FACE VELOCITY (FPM)	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450
POST HEATING COIL SECTION (HOT WATER)															
AIR FLOW (CFM)														7,488	
EAT (DB) °F														61.8	
LAT (DB) °F														131.9	
EWT / LWT °F														42 / 100	
TOTAL HEATING CAPACITY (MBH)														464.6	
GPM														23.6	
NO. OF ROWS / FINS PER IN														6 / 12	
MAX PRESSURE DROP- AIR SIDE (IN. WC)														0.71	
MAX PRESSURE DROP- WATER SIDE (FT. WC)														18.6	
MAX FACE VELOCITY (FPM)														450	
FINAL FILTER															
TYPE/MERV	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
PRESSURE DROP (IN. WC)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
ROTOR															
AIR FLOW (CFM)	22,195	21,725	24,182	17,892	22,693	7,660	22,343	20,657	8,953	27,958	24,790	21,775	20,809	7,488	25,750
SUPPLY EAT °F	48	48	48	48	49	49	52	48	48.1	48.7	48.4	45.6	45.5	49.4	48.7
SUPPLY LAT °F	66	64	61	61	60	72	64	62	68.6	57.9	60.2	81.6	81.6	74.1	63.4
REACTIVATION ENTERING AIR MOISTURE (GR/LB)	24	20	14	15	13	30	46	16	24.1	8.9	12.4	45.6	45.4	33	17.4
REACTIVATION LEAVING AIR MOISTURE (GR/LB)	0.08	0.07	0.07	0.07	0.09	0.07	28	0.07	0.07	0.08	0.07	0.08	0.09	0.09	0.07

COOLING TOWER SCHEDULE

LINE 1
CT-06A
CT-06B
CT-06C
CT-07A
CT-07B
CT-07C
CT-08A
CT-08B
CT-08C
CT-09A
CT-09B
CT-09C
CT-10A
CT-10B
CT-10C
CT-12A
CT-12B

MARK	CT-02 THRU 10	CT-12
SERVICE	CHILLERS	NMPCW/ AC/ DRYERS
LOCATION	MECHANICAL YARD	MECHANICAL YARD
TYPE	CROSSFLOW INDUCED DRAFT	CROSSFLOW INDUCED DRAFT
MANUFACTURER	BAC	BAC
MODEL	S3E	S3E
VOLTAGE	460 / 3 / 60	460 / 3 / 60
EMERGENCY POWER (YES / NO)	NO	NO
CELLS	3	4
CAPACITY PER CELL (TONS)	1,140	1,500
CELL SIZE (L [FT] x W [FT] x H [FT])	11'-10" x 21'-7" x 19'-2"	14'-0" x 24'-0" x 21'-2"
MAX OPERATING WEIGHT (LBS)	42,000	50,000
EWT (DEG F)	97	102
LWT (DEG F)	85	83
EAT WB / LAT WB (DEG F)	79.5/80.5	79.5/80.5
FLOW PER CELL (GPM)	2,187	1,865
MIN. FLOW PER CELL (GPM)	1,093	932
ASHRAE 90.1 PERFORMANCE (GPM/HP)	62	64
VFD (Y/N)	Y	Y
DESIGN PRESSURE DROP (FT)	18	20
FAN MOTOR PER CELL (HP)	50	60
BASIN HEAT PER CELL (KW)	2 @ 12	2 @ 14
ESTIMATED EVAPORATION (GPM)	132 PER CELL	115 PER CELL
TOTAL HEAT REJECTION (BTU/H)	41,000,000	72,000,000
REMARKS	1 THRU 19	1 THRU 20

1. PROVIDE SS301L STAINLESS STEEL HOT WATER BASINS
2. PROVIDE SS301L STAINLESS STEEL COLD WATER BASINS
3. PROVIDE INTERNAL HEATERS ON ALL FAN MOTORS TO PREVENT INTERNAL CONDENSATION
4. PROVIDE VFD DRIVE FOR ALL FAN MOTORS
5. PROVIDE MAKE-UP FLOAT VALVES
6. PROVIDE GEARBOX WITH 5 YEAR OIL CHANGE INTERVALS
7. PROVIDE NOZZLE CUPS ON ALL TOWERS TO ALLOW FOR EFFECTIVE TURNDOWN
8. PROVIDE SINGLE BOTTOM WATER INLET ON ALL TOWERS
9. PROVIDE EQUALIZING LINE CONNECTIONS BETWEEN CELLS
10. PROVIDE ELECTRONIC VIBRATION SWITCH ON ALL TOWERS
11. PROVIDE FACTORY INSTALLED SWEEPER PIPING
12. PROVIDE ELECTRIC BASIN HEATER PACKAGE
13. PROVIDE CHEMICAL WATER TREATMENT SYSTEM PER PRO MOSS DESIGN.
14. PROVIDE ELECTRIC HEAT TRACE CABLE FOR EQUALIZER PIPING, VENTS, AND DRAINS.
15. PROVIDE AUTOMATIC FLOW BALANCING VALVES AT TOWER INLETS AND OUTLETS.
16. PROVIDE SERVICE PLATFORM WITH LADDER, CAGE, AND HAND/KNEE/TOE RAILS TO FAN ACCESS
17. PROVIDE ELECTRIC WATER LEVEL CONTROLLER WITH PROBE ASSEMBLY AND SLOW CLOSE 115V SOLENOID VALVE
18. PROVIDE LADDER AND SAFETY CAGE FOR COOLING TOWERS. LADDER LENGTH SHALL BE FIELD VERIFIED FOR ACCESSIBILITY.
19. PROVIDE NEMA 3R CONTROL PANEL (FANS, PUMP, BASIN HEATER, LEVEL CONTROLS) PER CELL
20. FOURTH CELL TO OPERATE AS STANDBY CELL

WATER COOLED CHILLER SCHEDULE

LINE 1
CH-006
CH-007
CH-008
CH-009
CH-010

CHILLER DATA		
MARK	CH-02 THRU 05	CH-06 THRU 10
QUANTITY	4	5
MANUFACTURER	YORK	YORK
MODEL	YKV3W7K7-DJH	YKV3W7K7-DJH
DIMENSIONS (LxWxH) (INCHES)	269 1/16 x 142 7/8 x 149 9/16	269 1/16 x 142 7/8 x 149 9/16
MIN. TONS	395	395
TOTAL KW	1,497	1,546
MAX FULL LOAD (KW/TON)	0.5705	0.5889
MAX NPLV (KW/TON)	0.4628	0.3617
OPER. WEIGHT (LBS)	120,000	120,000
REFRIGERANT	R-134a	R-134a
REFR. CHARGE (LBS)	4,221	4,221
STARTER TYPE	SOLID STATE - MV UNIT MOUNTED	VSD - w/ FILTER
HEAT REJECTION CAPACITY (MMBTU/H)	31.5	31.5
EVAPORATOR		
FLUID	WATER	WATER
EWT (°F)	58	58
LWT (°F)	42	42
FLOW RATE (GPM)	3,925	3,925
PRESSURE DROP (FT OF WATER)	16.1	16.1
FOULING FACTOR	0.0001	0.0001
CONDENSER		
FLUID	WATER	WATER
EWT (°F)	85	85
LWT (°F)	97	97
FLOW RATE (GPM)	6,560	6,560
PRESSURE DROP (FT OF WATER)	16.5	16.5
FOULING FACTOR	0.00025	0.00025
ELECTRICAL		
VOLTS/PH/HZ	4,160/3/60	4,160/3/60
MCA	293	274
LRA	1,736	1,736
MOCP	500	450
STARTER TYPE	SOLID STATE - MV UNIT MOUNTED	VSD - w/ FILTER
EMERGENCY POWER (YES / NO)	NO	NO
REMARKS	1 THRU 6	1 THRU 5, AND 7

1. PROVIDE ONE SINGLE POINT POWER CONNECTION THAT FEEDS CHILLER, CONTROL TRANSFORMER AND EVAPORATOR HEATER
2. PROVIDE UNIT MOUNTED DISCONNECT SWITCH
3. PROVIDE NEOPRENE TYPE ISOLATION PADS
4. MACHINE TO BE CAPABLE OF STABLE OPERATION FROM 20%-100% AT 85 °F ENTERING CONDENSOR WATER TEMPERATURE.
5. PROVIDE BACNET OR LON CONTROLS GATEWAY TO INTERFACE WITH BUILDING EMS.
6. CH-02 THRU CH-05 TO BE PROVIDED WITH UNIT MOUNTED SOLID STATE STARTER BY CHILLER MANUFACTURER.
7. CH-06 THRU CH-10 TO BE PROVIDED WITH REMOTE 4,160V VFDS BY CHILLER MANUFACTURER.

PLATE AND FRAME HEAT EXCHANGER SCHEDULE (N+1)

MARK		HX-1&2	HX-3&4
SERVICE		NMP COOLING WATER	PLANT COOLING WATER
LOCATION		CENTRAL UTILITY PLANT	CENTRAL UTILITY PLANT
MFG/MODEL		GRUNDFOS / GA188	GRUNDFOS / GA81
COLD FLUID		DESIGN / OPERATION	DESIGN / OPERATION
WATER FLOW RATE	GPM	5,600 / 4,425	4,900 / 4,475
WATER PRESS. DROP	FT HD	23	24
ENT. WATER TEMP.	F	83	42
LVG. WATER TEMP.	F	102	58
HOT FLUID			
WATER FLOW RATE	GPM	5,600 / 4,425	8,700 / 7,950
WATER PRESS. DROP	FT HD	23	24
ENT. WATER TEMP.	F	104	73
LVG. WATER TEMP.	F	85	64
HEAT TRANSFER RATE	MBH	53,200	69,640
COIL CONN. SIZES	IN.	12	16
DIMENSIONS	(LxWxH)	197"x40"x123"	79"x53"x95"
WEIGHT	LBS	35,120	18,730

Remarks
1. MIN. EXTENSION CAPACITY 10%
2. 304 STAINLESS STEEL PLATES
3. FIELD INSULATED WITH 1" THICK PTFE TEFLON CLOTH WRAPPED FIBERGLASS BATT. (R-3.85 MIN.)
4. 0.4mm MINIMUM PLATE THICKNESS
5. P&T PORTS ON ALL PIPING CONNECTIONS

CLAYCO
THE ART & SCIENCE OF BUILDING
2199 INNERBELT BUSINESS CENTER DRIVE
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ICT project number: 230010

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 38419 S. CURT WILLIAMS 09/27/24

AESC

AESC BATTERY MANUFACTURING PLANT
1330 ESTATE ROAD, FLORENCE, SOUTH CAROLINA 29506

DRAWING ISSUE

DESCRIPTION	DATE
PROGRESS PRINT	04.21.2023
MEP-ERP	05.10.2023
MEP-ERP ADD 1	05.24.2023
PRICING SET	06.15.2023
PRICING SET	09.01.2023
PROGRESS PRINT	10.30.2023
GMP	02.14.2024
PROGRESS PRINT	03.25.2024
PERMIT SET	04.15.2024
CONSTRUCTION SET	07.03.2024
ASI 05	09.27.2024

SOUTH CAROLINA I.C. THOMASSON ASSOCIATES, INC. No. 675 CERTIFICATE OF AUTHORIZATION

DRAWING TITLE
MECHANICAL - SCHEDULES

DRAWING NO.
1.M0.002

PRO. # 007237

DUAL FAN AHU (SEE PREV PAGE)

DEHUMIDIFIER UNIT SCHEDULE

SYSTEM	DHU-01 DHU-02 DHU-03 DHU-04	DHU-05 DHU-06 DHU-07 DHU-08					DHU-13 DHU-14 DHU-15
MARK	DHU-01 THRU 04	DHU-05 THRU 08	DHU-09	DHU-10	DHU-11	DHU-12	DHU-13 THRU 15
ROOM SERVED	CATHODE MIXING/FEED	CATHODE ENDS/CAL	CATHODE SLITTING	CATHODE SLITTING	CATHODE ROLL BAKE/STOR	CATHODE ROLL BAKE/STOR	ANODE ENDS/CAL/FEED
LOCATION	MEZZANINE	MEZZANINE	MEZZANINE	MEZZANINE	MEZZANINE	MEZZANINE	MEZZANINE
MANUFACTURER (FOR BASIS OF DESIGN)	AIR20	AIR20	AIR20	AIR20	AIR20	AIR20	AIR20
TEMPERATURE CONTROL TYPE	ROOM MOUNTED	ROOM MOUNTED	ROOM MOUNTED	ROOM MOUNTED	ROOM MOUNTED	ROOM MOUNTED	ROOM MOUNTED
INTERLOCK	---	---	---	---	---	---	---
SERVICE AREA CLIMATE REQUIREMENT	-40C	-40C	-40C	-40C	-40C	-40C	40% RH
	DHU-01,02,03,04	DHU-05 THRU 08	DHU-09	DHU-10	DHU-11	DHU-12	DHU-13 THRU 15
REACTIVATION FILTER							
TYPE/MERV	2" MERV 8	2" MERV 8	2" MERV 8	2" MERV 8	2" MERV 8	2" MERV 8	2" MERV 8
PRESSURE DROP (IN. WC)	0.5	0.5	0.5	0.5	0.5	0.5	0.5
REACTIVATION FAN AND MOTOR DATA							
AIRFLOW (CFM)	3500	3,000	3,500	2,000	3,000	2,500	3,000
FAN TYPE	BC DIRECT DRIVE	BC DIRECT DRIVE	BC DIRECT DRIVE	BC DIRECT DRIVE	BC DIRECT DRIVE	BC DIRECT DRIVE	BC DIRECT DRIVE
EXTERNAL SP (IN. WC)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
TOTAL SP (IN. WC)	6.8	6.3	6.3	5.9	6.2	7.5	4.1
MOTOR HP	7.5	7.5	7.5	3	7.5	7.5	5.0
HEATING SECTION GAS							
EAT °F	164	165.4	147.2	162.8	148.5	120.8	96
LAT °F	330	320	280	300	280	270	190
TEMPERATURE RISE °F	166	154.6	132.8	137.2	131.5	149.2	94
MAX INPUT (MBH)	630	500.9	502.2	296.2	425.9	402.6	304.5
NOMINAL OUTPUT (MBH) (ASSUMING 80%)	504	400.72	401.76	236.96	340.72	322.08	243.6
TURNDOWN	23	26	23	26	26	26	26
GAS SUPPLY PRESSURE	2 PSI	2 PSI	2 PSI	2 PSI	2 PSI	2 PSI	2 PSI

SYSTEM			DHU-18 DHU-19 DHU-20 DHU-21 DHU-22	DHU-23 DHU-24 DHU-25 DHU-26 DHU-27 DHU-28		DHU-30 DHU-31	DHU-32 DHU-33 DHU-34	DHU-35 DHU-36 DHU-37
MARK	DHU-16	DHU-17	DHU18 THRU 22	DHU-23 THRU 28	DHU-29	DHU-30,31	DHU-32 THRU 34	DHU-35 THRU 37
ROOM SERVED	ANODE ROLL	ANODE ROLL	DISK/WINDING	DISK/WINDING	L.C.C. & 1ST INJ.	L.C.C. & 1ST INJ.	VOF/HTA	2ND INJ
LOCATION	MEZZANINE	MEZZANINE	MEZZANINE	MEZZANINE	MEZZANINE	MEZZANINE	MEZZANINE	MEZZANINE
MANUFACTURER (FOR BASIS OF DESIGN)	AIR20	AIR20	AIR20	AIR20	AIR20	AIR20	AIR20	AIR20
TEMPERATURE CONTROL TYPE	ROOM MOUNTED	ROOM MOUNTED	ROOM MOUNTED	ROOM MOUNTED	ROOM MOUNTED	ROOM MOUNTED	ROOM MOUNTED	ROOM MOUNTED
INTERLOCK	---	---	---	---	---	---	---	---
SERVICE AREA CLIMATE REQUIREMENT	40%RH/-40C	40%RH/-40C	-40C	-40C	-40C	-40C	-40C	-40C
	DHU-16	DHU-17	DHU18 THRU 22	DHU-23 THRU 28	DHU-29	DHU-30,31	DHU-32 THRU 34	DHU-35 THRU 37
REACTIVATION FILTER								
TYPE/MERV	2" MERV 8	2" MERV 8	2" MERV 8	2" MERV 8	2" MERV 8	2" MERV 8	2" MERV 8	2" MERV 8
PRESSURE DROP (IN. WC)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
REACTIVATION FAN AND MOTOR DATA								
AIRFLOW (CFM)	3,000	2,500	3,500	3,500	8,000	8,000	2,500	4,000
FAN TYPE	BC DIRECT DRIVE	BC DIRECT DRIVE	BC DIRECT DRIVE	BC DIRECT DRIVE	BC DIRECT DRIVE	BC DIRECT DRIVE	BC DIRECT DRIVE	BC DIRECT DRIVE
EXTERNAL SP (IN. WC)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
TOTAL SP (IN. WC)	6.3	7.4	6.6	6.2	6.6	6.9	7.5	6.5
MOTOR HP	7.5	5.0	7.5	7.5	15.0	15.0	5.0	10.0
HEATING SECTION GAS								
EAT °F	147.5	125.5	145.8	144.9	143.9	134.2	121.1	153.5
LAT °F	280	265	280	275	340	320	275	300
TEMPERATURE RISE °F	132.5	139.5	134.2	130.1	196.1	185.8	153.9	146.5
MAX INPUT (MBH)	429.1	376.7	507.2	491.8	1693.9	1604.4	415.5	632.6
NOMINAL OUTPUT (MBH) (ASSUMING 80%)	343.28	301.36	405.76	393.44	1355.12	1283.52	332.4	506.08
TURNDOWN	23	23	23	23	26	26	23	24
GAS SUPPLY PRESSURE	2 PSI	2 PSI	2 PSI	2 PSI	2 PSI	2 PSI	2 PSI	2 PSI

DEAERATOR SCHEDULE

TAG	DA-01
TYPE	DUO-TANK
MANUFACTURER	CLEAVERBROOKS
MODEL	SM-200-4500
TANK DIMENSIONS (LxWxH) [IN]	394 x 110 x118
WEIGHT (EMPTY/FLOODED) (LBS)	14,600 / 105,000
ELECTRICAL	
VOLTAGE	460 / 3 / 60
INLET CAPACTY (GPM)	300
FEEDWATER CAPACITY (GAL)	4500
SURGE STORAGE CAPACITY (GAL)	4000
DESIGN PRESSURE (PSIG)	50
SURGE DESIGN PRESSURE (PSIG)	0
PRIMARY MAKE-UP WATER SOURCE	CONDENSATE
PRIMARY MAKE-UP PRESSURE (PSI)	35
SECONDARY WATER SOURCE	MAKE-UP
SECONDARY MAKE-UP WATER PRESSURE (PSI)	50
LOW CONDENSATE RETURN FLOW (GPM)	365
HIGH CONDENSATE RETURN FLOW (GPM)	455
TOTAL MAKE-UP WATER FLOW (GPM)	455
FEEDWATER PUMP	
TYPE	CONTINUOUS
QUANTITY	4
FLOW RATE / MINIMUM FLOW (GPM)	183 / 40
DESIGN HEAD (FT)	560
NPSH (FT)	7
MOTOR HP	50
ELECTRICAL (V/P/HZ)	460/3/60
TRANSFER PUMP	
TYPE	CONTINUOUS
QUANTITY	3
FLOW RATE / MINIMUM FLOW (GPM)	277 / 70
DESIGN HEAD (FT)	181
NPSH (FT)	8
MOTOR HP	20
ELECTRICAL (V/P/HZ)	460/3/60
EMERGENCY POWER (YES / NO)	NO
REMARKS	

1. DEAERATOR TANKS ARE SOLVENT CLEANED, PRIME COATED, AND HARD ENAMEL FINISHED.
2. UNIT MOUNTED DISCONNECT. DISCONNECT SHOULD BE UPSTREAM OF THE VFD AND HAVE AN SCCR OF 65K AIC.
3. EMERGENCY BYPASS PIPING FOR SURGE SECTION TO BE USED AS A FEEDTANK WHEN THE DEAERATOR SECTION IS OFFLINE FOR INSPECTION.
4. ONE FEEDWATER PUMP AND ONE TRANSFER PUMP STANDBY.
5. DEAERATOR TANK AND SURGE TANK SEPARATE.

BOILER SCHEDULE (N+1)

TAG	SB-1 THRU 03	
TYPE	STEAM	
MANUFACTURER	CLEAVER BROOKS	
QUANTITY	3	
MODEL	CBEX 2W 700-1300-250ST	
HORSEPOWER	1,300	
FUEL	NAT. GAS	
GAS INPUT (MBH)	55,000	
HEAT OUTPUT (MBH)	45,000	
STEAM OUTPUT (LBS/HR)	44,850	
WORKING PRESSURE (PSI)	150	
DESIGN PRESSURE (PSI)	250	
EFFICIENCY	82%	
FEEDWATER TEMP (F)	227	
ELECTRICAL	460/3/60	
FLA	127	
BLOWER MOTOR (HP)	100	
EMERGENCY POWER	NO	
STEAM OUTLET SIZE (IN)	10	
GAS CONN SIZE (IN)	4	
FEEDWATER CONN SIZE (IN)	3	
STACK DIA. (IN)	36	
ECONOMIZER		
MODEL	CRE-66	
DIMENSIONS	90 x 106 x 111	
EWT (F)	227	
LWT (F)	267	
WATER FLOW (GPM)	93	
DESIGN/TEST PRESS (PSI)	400/600	
DESIGN/MAX TEMP (F)	600/750	
GAS PRESS DROP (in. WG)	0.28	
WATER PRESS DROP (PSI)	<1	
REMARKS	1 THRU 12	

1. PROVIDE SINGLE POINT CONNECTION
2. PROVIDE LOW WATER CUTOFF, HIGH AND LOW GAS PRESSURE SWITCH, AND UL LISTING
3. PROVIDE ASME CODE SAFETY RELIEF VALVE
4. ALARM CONTACT
5. PROVIDE FACTORY FURNISHED NON RETURN AND STEAM STOP VALVE, 300 PSI RATED
6. BACNET BMS CONTROL INTERFACE
7. TOUCHSCREEN CONTROL PANEL
8. MANUFACTURER TO PROVIDE RELIEF VALVE
9. MANUFACTURER TO PROVIDE PRE-WIRED ELECTRICAL SYSTEM COMPLETE WITH GFI SERVICE OUTLET AND POWER DISCONNECT SWITCH
10. LOW NOX 9 PPM BOILERS
11. MEETS NFPA-85 AND FM INSURANCE REQUIREMENTS
12. PROVIDE FACTORYGAS TRAIN SIZED FOR 6 PSI INLET PRESSURE

AIR-SEPARATOR SCHEDULE

MARK	AS-01	AS-03/04	AS-03/04	AS-05/16
SYSTEM	PCW	NMP	HHW	CHW
MANUFACTURER	SPIROTHERM	SPIROTHERM	SPIROTHERM	SPIROTHERM
MODEL	VDN2400FA	VDN2400FA	VDN1600FA	VDN1800FA
FLUID	WATER	WATER	WATER	WATER
FLOW [GPM]	8700	7500	8700	4000
DIAMETER	48"	48"	32"	36"
HEIGHT	158"	158"	110"	122"
FLANGE TO FLANGE	72"	72"	50"	56"
CLEARANCE TO FLOOR	102"	102"	59"	81"
INLET/OUTLET	24"	24"	16"	18
REMARKS				

EXPANSION TANK SCHEDULE

MARK	ET-01	ET-02	ET-03	ET-04
TYPE	CHILLED WATER	HOT WATER	NMP WATER	PLANT WATER
MANUFACTURER	BELL & GOSSETT	BELL & GOSSETT	BELL & GOSSETT	BELL & GOSSETT
MODEL	B7500	B5000	B2000	B1000
DIMENSIONS (LxWxH) [IN]	72x72x131	60x60x128	48x48x86	36x36x76
VOLUME (GAL)	1,586	1,320	478	260
DRY WEIGHT (LBS)	3,768	2,617	1,150	552
FLOODED WEIGHT (LBS)	20,261	13,621	5,548	2,751
INITIAL / MAX TEMP (°F)	40 / 90	40 / 140	40 / 105	40 / 90
MAX WORKING PRESSURE (PSI)	125	125	125	125
REMARKS	BLADDER TYPE	BLADDER TYPE	BLADDER TYPE	BLADDER TYPE

PUMP SCHEDULE

Chilled Pumps — LINE 1: CHWP-05, CHWP-06, CHWP-07, CHWP-08, CHWP-09, CHWP-10
Process Cooling Water — LINE 1: PCWP-1, PCWP-2
Feeds Owner Equipment
LINE 1: CWP-05, CWP-06, CWP-07, CWP-08, CWP-09, CWP-10
Cooling Towers 12A-12D — LINE 1: CWP-12, CWP-13
LINE 1: PHWP-01, PHWP-02, PHWP-03, PHWP-04, PHWP-05, PHWP-06, PHWP-07, PHWP-08
LINE 1: HHWP-01, HHWP-02, HHWP-03, HHWP-04

DESIGNATION	CHWP-1 THRU 10	PCWP-1,2	NMPCWP-1,2	CWP-2 THRU 10	CWP-12,13	PHWP-1 THRU 8	HHWP-1 THRU 4	CHW-BP-01
MANUFACTURER	BELL & GOSSETT	BELL & GOSSETT	BELL & GOSSETT	BELL & GOSSETT	BELL & GOSSETT	BELL & GOSSETT	BELL & GOSSETT	BELL & GOSSETT
MODEL	VSX-VSC	VSX-VSC	VSX-VSC	VSX-VSC	VSX-VSC	E-80	E-1510	E-80SC
TYPE	DOUBLE SUCTION	DOUBLE SUCTION	DOUBLE SUCTION	DOUBLE SUCTION	DOUBLE SUCTION	INLINE	END SUCTION	INLINE VERTICAL
SERVICE	CHILLED WATER	COOLING WATER	COOLING WATER	CONDENSER WATER	NMP COOL WATER	PRIM HOT WATER	SEC HOT WATER	CHILLED WATER
LOCATION	CUP	CUP	CUP	CUP	CUP	CUP	CUP	SHT 1.M3.203
FOOTPRINT SIZE (L"xW"xH")	96" x 41" x 50"	108" x 41" x 60"	96" x 41" x 57"	96" x 41" x 63"	96" x 41" x 63"	21" x 12" x 28"	56" x 24" x 25"	50" x 27" x 54"
	HX 3 & 4	HX 3 & 4	HX 1 & 2	Cooling Towers	HX 1 & 2	Boiler Pumps	Plant HW	
FLOW RATE (GPM)	3,950	7,950	4,420	6,575	7,475	300	800	1600
TOTAL HEAD (FT.)	225	200	200	75	75	30	200	20
NPSHr (FT.)	N/A	N/A	N/A	12.2	13.1	N/A	N/A	7.29
TEMPERATURE (°F)	58	64	85	85	85	100	100	45
CASING WORKING PRESS (PSI)	175	See drawing 1.M5.126 & 146	175	175	175	175	175	175
	See drawing 1.M5.126		See drawing 1.M5.130	See drawing 1.M5.128	See drawing 1.M5.130	See drawing 1.M5.129	See drawing 1.M5.129	
MOTOR POWER (HP)	300	500	300	200	200	5	75	15
RPM AT DESIGN CONDITIONS	1,746	1,765	1,734	1,099	1,131	1,566	3,297	1,048
SYNCHRONOUS MOTOR RPM	1,800	1,800	1,800	1,200	1,200	1,800	3,600	1,200
MOTOR VOLTAGE	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3
EMERGENCY POWER	NO	NO	NO	NO	NO	NO	NO	NO
VFD	YES	YES	YES	YES	YES	YES	YES	YES
OTHER	---	N+1	N+1	---	N+1	N+1	N+1	---

REMARKS:

1. PROVIDE ALL PUMPS WITH PREMIUM EFFIENCY MOTOR.
2. ALL PUMPS WITH VARIABLE SPEED CONTROL TO BE PROVIDED WITH MAXIMUM IMPELLER SIZE FOR CASING.

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BOILER SCHEDULE (N+1)

TAG	HHWB-01 THRU 08	LINE 1 HHWB-01 HHWB-02 HHWB-03 HHWB-04 HHWB-05 HHWB-06 HHWB-07 HHWB-08
TYPE	GAS-FIRED CONDENSING	
MANUFACTURER	CLEAER BROOKS	
QUANTITY	8	
MODEL	CFC	
INPUT (MBH)	6000	
MAX OUTPUT (MBH)	5220 - 5760	
MINIMUM GAS PRESSURE	56"	
MAXIMUM GAS PRESSURE	196"	
BURNER TURNDOWN	8:1	
FUEL	NATURAL GAS	
DIMENSIONS (IN)	59 x 81 x 94	
WEIGHT (LBS)	6,000	
EXHAUST AIR SIZE	14"	
INTAKE AIR SIZE	14"	
ELECTRICAL	460/3/60	
FLA	20	
EMERGENCY POWER (Y/N)	NO	
EWT/LWT (F)	100 / 140	
GPM	300	
WATER PRESSURE DROP	4 PSIG @ 500 GPM	
WATER CONNECTION SIZE	6"	
GAS CONNECTION SIZE	2"	
REMARKS	1 THRU 13	

1. PROVIDE SINGLE POINT CONNECTION
2. PROVIDE LOW WATER CUTOFF, HIGH AND LOW GAS PRESSURE SWITCH, AND UL LISTING
3. FLOW SWITCH
4. ALARM CONTACT
5. MANUFACTURER TO PROVIDE COMBUSTION AIR AND VENT PIPING KITS.
6. CONDENSING TYPE BOILER CAPABLE OF 50 DEGREE EWT
7. BACNET BMS CONTROL INTERFACE
8. TOUCHSCREEN CONTROL PANEL
9. MANUFACTURER TO PROVIDE RELIEF VALVE
10. MANUFACTURER TO PROVIDE PRE-WIRED ELECTRICAL SYSTEM COMPLETE WITH GFI SERVICE OUTLET AND POWER DISCONNECT SWITCH.
11. CONDENSATE NEUTRALIZATION KIT
12. LOW NOX 9 PPM BOILERS
13. PROVIDE FACTORY GAS TRAIN SIZED FOR 6 PSI INLET PRESSURE.

CLAYCO
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AESC

AESC BATTERY MANUFACTURING PLANT
1330 ESTATE ROAD, FLORENCE, SOUTH CAROLINA 29506

DRAWING ISSUE

DESCRIPTION	DATE
MEP-ERP	05.10.2023
MEP-ERP ADD 1	05.24.2023
PRICING SET	06.15.2023
PRICING SET	09.01.2023
PROGRESS PRINT	10.30.2023
GMP	02.14.2024
PROGRESS PRINT	03.25.2024
PERMIT SET	04.15.2024
CONSTRUCTION SET	07.03.2024
ASI 03	08.30.2024
ASI 15	02.28.2025

DRAWING TITLE
MECHANICAL - SCHEDULES

DRAWING NO.
1.M0.003

PRO. # 007237

LINE 1
AHU-SPINE-01
AHU-SPINE-03
AHU-SPINE-04
AHU-SPINE-05
AHU-SPINE-06
AHU-SPINE-08

LINE 1
AHU-GEN-04
AHU-GEN-05
AHU-GEN-06
AHU-GEN-08

LINE 1
AHU-01
AHU-02
AHU-03
AHU-05
AHU-07
AHU-09
AHU-10
AHU-11
AHU-12
AHU-13
AHU-14

LINE 1
HTA-01

LINE 1
CG-01
CG-02

LINE 1
FAHU-01

LINE 1
RTS-01
RTS-02

LINE 1
VOF-01
VOF-02

AIR HANDLING UNIT SCHEDULE

SPINE-04 SPINE-05 SPINE-06 SPINE-01 SPINE-03 SPINE-08
GEN-04 GEN-05 GEN-06 GEN-08
AHU-05 AHU-06 AHU-07 AHU-08
HTA-01 HTA-02 HTA-03
CG-01 CG-02 CG-03 CG-04 CG-05 CG-06
FAHU-01 FAHU-02 FAHU-03
RTS-01 RTS-02 RTS-03 RTS-04 RTS-05 RTS-06
VOF-01 VOF-02 VOF-03 VOF-04 VOF-05 VOF-06
AHU-15 AHU-16 AHU-17

TAG	AHU-SPINE-04,05,06	AHU-SPINE-01, 03, 08	AHU-GEN-04,05,06,08	AHU-01	AHU-02	AHU-03	AHU-04	AHU-05,06,07,08	HTA-01 THRU 03	CG-01 THRU 06	FAHU-01 THRU 03	RTS-01 THRU 06	VOF-01 THRU 06	AHU-15,16,17
SERVICE	1ST FLOOR SPINE	1ST FLOOR SPINE	GENERAL PLANT	ANODE MIXING	ANODE MIXING	ANODE COATER HEAD	ANODE COATER END	CATHODE/ANODE OVENS	HTA TUNNELS	CAPACITY GRADING	FORMATION	RT STANDING	VOF POWER SUPPLY	INSPECTION
MANUFACTURER	YORK	YORK	YORK	YORK	YORK	YORK	YORK	YORK	YORK	YORK	YORK	YORK	YORK	YORK
MODEL #	XTI-108x108	XTI-108x108	XTI-132x138	XTI-63x93	XTI-114x126	XTI-126x126	XTI-126x126	XTI-132x132	XTO-132x120	XTO-132x120	XTO-132x120	XTO-132x138	XTI-51x66	XTI-78x132
	DUAL FAN													
SUPPLY FAN / RETURN FAN														
SUPPLY CFM / RETURN CFM	30,000 / 30,000	30,000	50,000	13,500	35,000	40,000	40,000	45,000	38,500	42,000	40,500	50,000	7,000	26,000
O.A. CFM (MAX.)	30,000	30,000	50,000	13,500	0	0	0	45,000	0	0	0	0	7,000	26,000
O.A. CFM (MIN.)	6,000	6,000	0	13,500	0	0	0	0	0	0	0	0	0	3,900
DRIVE TYPE	DIRECT / DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
DESIGN FAN SPEED (RPM)	2,115 / 2,017	2,115	1,798	2,458	2,160	2,079	2,079	1,757	2,436	1,790	1,777	1,971	1,390	1,373
MAX FAN SPEED (RPM)	2,269 / 2,269	2,269	2,269	2,771	2,269	2,269	2,269	2,269	2,675	2,269	2,269	2,269	2,269	1,851
SUPPLY ESP (IN W.C.)	3.00 / 1.50	3.00	1.00	4.00	3.00	3.00	3.00	1.5	2.0	1.5	1.5	1.5	1.00	1.50
SUPPLY TOTAL SP (IN W.C.)	5.33 / 2.64	5.33	3.16	7.15	7.68	6.69	6.69	3.79	4.61	4.42	4.57	4.63	2.98	4.34
MIN. MOTOR HORSEPOWER	2 @ 20 EACH / 2 @15 EACH	2 @ 20 EACH	4 @ 15 EACH	2 @ 15 EACH	4 @ 20 EACH	4 @ 20 EACH	4 @ 20 EACH	4 @ 15 EACH	4 @ 15 EACH	4 @ 15 EACH	4 @ 15 EACH	4 @ 20 EACH	1 @ 7.5 EACH	2 @ 15 EACH
VFD	2 / 2	2	2	2	2	2	2	2	2	2	2	2	1	2
PREHEAT COIL														
TOTAL CAPACITY (MBH)		371		531										
SENSIBLE CAPACITY (MBH)		371		531										
WATER FLOW RATE (GPM)		18.5		27.0										
WATER PRESSURE DROP (FT)		15		8.5										
AIR PRESSURE DROP		0.5		.07										
EWT (°F) / LWT (°F)		140/100		140/100										
EAT (DB) (°F)		36		15										
LAT (DB) (°F)		55		50.0										
FINS/INCH		10		12										
MIN. # OF ROWS		2		1										
MAX FACE VELOCITY (FPM)		450		457										
FLUID VELOCITY (FPS)		4.5		4.7										
HEATING COIL														
TOTAL CAPACITY (MBH)			2169	517	1,319				640	1,917	1,864	2,290		
SENSIBLE CAPACITY (MBH)			2169	517	1,319				640	1,917	1,864	2,290		
WATER FLOW RATE (GPM)			110.6	35.1	89.3				38.3	97.5	94.9	116.7		
WATER PRESSURE DROP (FT)			8.6	6.1	1.3				3.4	6.0	5.7	9.5		
AIR PRESSURE DROP			0.13	0.10	0.09				0.39	0.14	0.13	0.14		
EWT (°F) / LWT (°F)			140/100	140/110	140/109.9				140/106	140/100	140/100	140/100		
EAT (DB/WB) (°F)			50	50	50				105	50	50	50		
LAT (DB/WB) (°F)			90	84.8	84.3				120.1	91.9	92.5	92.3		
FINS/INCH			11	8	8				12	12	12	12		
MIN. # OF ROWS			2	2	2				6	2	2	2		
MAX FACE VELOCITY (FPM)			476	457	431				428	469	450	476		
FLUID VELOCITY (FPS)			4	2.9	1.9				1.4	3.5	3.4	4.2		
COOLING COIL														
TOTAL CAPACITY (MBH)	1,223	1,223	1,385	1,416	1,750	1,068	1,068	1,994		1,857	1,893	2,183	194	839
SENSIBLE CAPACITY (MBH)	860	860	1,385	675	1,115	897	897	1,586		1,237	1,244	1,463	194	667
WATER FLOW RATE (GPM)	153.1	153.1	172.4	176.8	217.5	133.4	133.4	247.3		229.9	236.9	271.7	24.1	103.9
WATER PRESSURE DROP (FT)	19.3	19.3	3.3	21.8	10.5	8.4	8.4	17.2		13.8	14.6	7.9	6.3	10.5
AIR PRESSURE DROP	0.64	0.64	0.31	1.01	0.79	0.39	0.39	0.5		0.62	0.68	0.72	0.25	0.57
EWT (°F) / LWT (°F)	42/58	42/58	42/58	42/58	42/58	42/58	42/58	42/58		42/58	42/58	42/58	42/58	42/58
EAT (DB/WB) (°F)	79/65.2	79/65.2	80/55	97/81	80/67	75/62	75/62	86/67		80/67	80/67	80/67	80/55	75/62
LAT (DB/WB) (°F)	51.9/50.8	51.9/50.8	54.5/43.6	49.0/48.8	49.9/49.5	54.7/52.7	54.7/52.7	54.1/52.4		53.6/52.5	52.4/51.5	53.7/52.7	53.4/43.2	51.8/50.5
FINS/INCH	11	11	8	12	11	10	10	10		10	11	11	10	11
MIN. # OF ROWS	6	6	6	8	8	5	5	6		6	6	6	5	6
MAX FACE VELOCITY (FPM)	474	474	474	457	431	449	449	450		469	450	476	439	462
FLUID VELOCITY (FPS)	4.6	4.6	2.1	2.9	3.4	3.1	3.1	4.4		4.1	4.2	3.3	2.4	3.3
FILTER														
TYPE	2" MERV 08	2" MERV 08	2" MERV 08	2" MERV 08	2" MERV 08	2" MERV 08	2" MERV 08	2" MERV 08	2" MERV 08	2" MERV 08	2" MERV 08	2" MERV 08	2" MERV 08	12" MERV 11
FILTER SIZES	24x24	24x24	24x20	24x20	24x20	24x24	24x20	24x24	24x24	24x24	24x24	24x24	24x24	24x24
UNIT DIMENSIONS (LxWxH) (IN)	228x120x114	228x120x114	280x150x138	222x126x84	226x138x120	237x142x134	237x142x134	272x144x138	242x156x141	310x156x141	287x156x141	311x174x142	145x80x57	221x144x84
UNIT WEIGHT (lbs)	10,000	10,000	18,700	10,000	14,000	15,400	15,400	18,150	15,750	18,600	18,150	20,000	3,575	10,700
REMARKS	1 THRU 5	1 THRU 5	1 THRU 5	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 5	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 5	1 THRU 5

1. PROVIDE MODULATING CHILLED CONTROL VALVES, STRAINER, UNIONS, AND SHUT OFF BALL VALVES
2. PROVIDE 120/1 20A CIRCUIT FOR LIGHTS AND CONTROLS.
3. FACTORY PROVIDED CONDENSATE OVERFLOW SWITCH.
4. UNIT MOUNTED DISCONNECT.
5. AIR-SIDE ECONOMIZER

RFI 214 - AHU-SPINE and AHU-GEN Clarifications - IC.

THIS CHANGE IS A PART OF OCR 16.1. PENDING OWNER APPROVAL FOR CONSTRUCTION.

LOUVER SCHEDULE

SERVICE	CUP
NOMINAL SIZE	8'-6" x 8'-6"
FREE AREA (SQ. FT.)	14'-6"
MAX PRESSURE DROP (IN. W.C.)	0.10
AIRFLOW (CFM)	8,125
FREE AREA FACE VELOCITY (FT./MIN.)	166
REMARKS:	

BYPASS COOLING UNIT SCHEDULE

TAG	BCU-1 THRU BCU-60 & BCU-62	BCU-63 THRU BCU-81
SERVICE		
MANUFACTURER (BOD)*	YORK SOLUTION	YORK SOLUTION
MODEL #	XTI-72x126	XTI-72x126
UNIT DIMENSIONS (LxWxH) INCHES	149 x 126 x 72	149 x 126 x 72
UNIT WEIGHT (lbs)	5559	5559
FAN		
SUPPLY CFM	22,500	22,500
DRIVE TYPE	DIRECT	DIRECT
VARIABLE FREQUENCY DRIVE	YES	YES
SUPPLY ESP (IN W.C.)	1	1
SUPPLY TOTAL SP (IN W.C.)	3.93	3.93
FAN QUANTITY	2	2
HP/FAN	15	15
BHP/FAN	10.34	10.34
ELECTRICAL	460/3/60	460/3/60
FLA	36.2	36.2
MCA	40.7	40.7
MOCP	50	50
EMERGENCY POWER (YES / NO)	NO	NO
HIGH EFFICIENCY FILTER		
TYPE	PRIMARY FILTER	PRIMARY FILTER
DEPTH (IN) TYPE	4" MINI-PLEAT	4" MINI-PLEAT
MEDIA / MERV	60-65% / MERV 11	60-65% / MERV 11
# OF SPARES	1	1
HEPA FILTER		
TYPE	PRIMARY FILTER	PRIMARY FILTER
DEPTH (IN) TYPE	11.5" HEPA	11.5" HEPA
MEDIA / MERV	99.97% EFF / MERV 17	99.97% EFF / MERV 17
# OF SPARES	1	1
COOLING CAPACITY (PER COIL)		
NUMBER OF COOLING COILS PER UNIT	1	0
TOTAL CAPACITY (MBH)	603	
SENSIBLE CAPACITY (MBH)	603	
CFM THRU COIL	22,500	
WATER FLOW RATE (GPM)	100.2	
MAX WATER PRESSURE DROP (FT/W.C.)	7.1	
MAX AIR PRESSURE DROP (IN W.G.)	0.36	
EWT (°F)	42	
LWT (°F)	54	
EAT (DB °F)	75	
LAT (DB °F)	49.5	
MIN. # OF ROWS	6	
MAX. FACE VELOCITY (FT/MIN)	474	

REMARKS
1. PROVIDE PRESSURE INDEPENDENT MODULATING CHILLED WATER CONTROL VALVES, STRAINER, UNIONS, AND SHUT OFF BALL VALVES
2. MOTOR WITH VFD
3. FLOAT SWITCH PROVIDED IN PRIMARY DRAIN PAN IN COMPLIANCE WITH 2018 INTERNATIONAL MECHANICAL CODE 307.2.3.1
4. UNIT MOUNTED DISCONNECT
5. ALL UNITS TO BE STAINLESS STEEL ON INSIDE WITH STAINLESS STEEL COILS, AND PAINTED EXTERIOR CASING.
6. PROVIDE CONDENSATE PUMP WITH MINIMUM 25 FT LIFT.
7. T'STAT TO BE MOUNTED TO UNIT.
8. BCU-32 AND BCU-61 REMOVED.
9. CONTRACTOR TO PROVIDE A SHEET METAL SHROUD AROUND THE TOP OF THE BCU TO SEAL OFF THE HORIZONTAL SURFACE OF THE BCU. PROVIDE ANGLED SHROUD ON ANY HORIZONTAL SURFACES CREATED BY EQUIPMENT MOUNTED TO BCU. FIELD COORDINATE METHODS AND SIZING.

LINE 1
BCU-3
BCU-4
BCU-6
BCU-7
BCU-8
BCU-12
BCU-13
BCU-14
BCU-19
BCU-20
BCU-21
BCU-22
BCU-25
BCU-26
BCU-27
BCU-28
BCU-33
BCU-34
BCU-35
BCU-42
BCU-45
BCU-48
BCU-51
BCU-56
BCU-57
BCU-60
BCU-62
BCU-63
BCU-70
BCU-71

LINE 1
ARU-01
ARU-02
ARU-03
ARU-04
ARU-05
ARU-06
ARU-07
ARU-08
ARU-09
ARU-10
ARU-11
ARU-12

DUAL FAN

AIR ROTATION UNIT SCHEDULE

TAG	ARU-01,03,04,05,06,07	ARU-02,09,10	ARU-08,11	ARU-12
LOCATION	OUTDOOR	INDOOR	INDOOR	OUTDOOR
TYPE	E	E	E	E
MANUFACTURER	MJC	MJC	MJC	MJC
SUPPLY FAN				
SUPPLY CFM *	104,000	104,000	40,000	40,000
O.A. CFM (MIN.)	11,000	11,000	0	0
SUPPLY ESP (IN W.C.)	2.00	2.00	2.00	2.00
SUPPLY TOTAL SP (IN W.C.)	2.65	2.65	2.39	2.39
HP TOTAL/# OF FANS	40/2	40/2	30/1	30/1
ELECTRICAL				
FLA				
SUPPLY FAN HP	40*	40*	30*	30*
EMERGENCY POWER (YES/NO)	NO	NO	NO	NO
FILTER				
TYPE	MERV 8	MERV 8	MERV 8	MERV 8
COOLING CAPACITY				
TOTAL CAPACITY (MBH)	4682.57	4682.57	1786.29	1786.29
SENSIBLE CAPACITY (MBH)	3166.74	3166.74	1211.68	1211.68
WATER FLOW RATE (GPM)	582.9	582.9	222.4	222.4
WATER PRESSURE DROP (FT)	17.18	17.18	14.59	14.59
AIR PRESSURE DROP	0.94	0.94	.93	.93
EWT (°F)	42	42	42	42
LWT (°F)	58	58	58	58
EAT (DB/WB °F)	80/67	80/67	80/67	80/67
LAT (DB/WB °F)	51.67/51.64	51.67/51.64	51.81/51.79	51.81/51.79
# OF COILS	2	2	2	2
FINS/FT	156	156	156	156
MIN. # OF ROWS	8	8	8	8
MAX. FACE VELOCITY (FPS)	498	498	494	494
RUNOUT SIZE (IN.)	3	3	2	2
HEATING CAPACITY				
TYPE	HOT WATER COIL	HOT WATER COIL	HOT WATER COIL	
TOTAL CAPACITY (MBH)	1,692	1,692	651	
WATER FLOW RATE (GPM)	85	85	33	
WATER PRESSURE DROP (FT)	15	15	15	
AIR PRESSURE DROP	0.57	0.57	.08	
EWT (°F)	140	140	140	
LWT (°F)	100	100	100	
EAT (DB °F)	65	65	65	
LAT (DB °F)	80	80	80	
FINS/FT	72	72	84	
MIN. # OF ROWS	5	5	3	
MAX. FACE VELOCITY (FPM)	996	996	409	
RUNOUT SIZE (IN.)	3	3	2	
UNIT DIMENSIONS (LxWxH) INCHES	109x218x366	109x218x366	105x93x246	105x93x246
UNIT WEIGHT (lbs)				
REMARKS	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4

* INDICATES PREMIUM EFFICIENCY MOTORS WITH VFD

TYPE:

A. MODULAR CHILLED WATER AIR HANDLING UNIT - SECTIONS IN DIRECTION OF AIRFLOW: TOP RETURN PLENUM; RETURN FAN; RELIEF SECTION TOP DISCHARGE; OUTSIDE AIR SECTION TOP INTAKE; FILTER SECTION; PRE-HEAT STEAM COIL; COOLING COIL; SUPPLY FAN; SUPPLY PLENUM TOP AND BOTTOM DISCHARGE

B. MODULAR CHILLED WATER AIR HANDLING UNIT - SECTIONS IN DIRECTION OF AIRFLOW: REAR RETURN PLENUM; RETURN FAN; RELIEF SECTION TOP DISCHARGE; OUTSIDE AIR SECTION TOP INTAKE; FILTER SECTION; PRE-HEAT STEAM COIL; COOLING COIL; SUPPLY FAN; SUPPLY PLENUM TOP AND BOTTOM DISCHARGE

C. MODULAR CHILLED WATER AIR HANDLING UNIT - SECTIONS IN DIRECTION OF AIRFLOW: TOP RETURN PLENUM; RETURN FAN; RELIEF SECTION TOP DISCHARGE; OUTSIDE AIR SECTION TOP INTAKE; FILTER SECTION; COOLING COIL; SUPPLY FAN; SUPPLY PLENUM TOP AND BOTTOM DISCHARGE

D. MODULAR CHILLED WATER AIR HANDLING UNIT - SECTIONS IN DIRECTION OF AIRFLOW: TOP RETURN PLENUM; RETURN FAN; RELIEF SECTION TOP DISCHARGE; OUTSIDE AIR SECTION TOP INTAKE; FILTER SECTION; PRE-HEAT STEAM COIL; COOLING COIL; REHEAT COIL; STACK SUPPLY FAN TOP DISCHARGE

E. MODULAR CHILLED WATER AIR HANDLING UNIT - SECTIONS IN DIRECTION OF AIRFLOW: BOTTOM RETURN PLENUM; OUTSIDE AIR SECTION BOTTOM INTAKE; FILTER SECTION; PRE-HEAT HOT WATER COIL; COOLING COIL; SUPPLY FAN; SUPPLY PLENUM TOP DISCHARGE

REMARKS:
1. PROVIDE PRESSURE INDEPENDENT MODULATING CHILLED CONTROL VALVES, STRAINER, UNIONS, AND SHUT OFF BALL VALVES
2. ARUs IN OUTBOUND WAREHOUSE TO DISCHARGE SUPPLY AIR MINIMUM 50 FT A.F.F.
3. FACTORY PROVIDED CONDENSATE OVERFLOW SWITCH
4. UNIT MOUNTED DISCONNECT.

AIR HANDLING UNIT SCHEDULE

TAG	AHU-09	AHU-10	AHU-11	AHU-12	AHU-13	AHU-14
SERVICE	LEAK TESTING	OUTBOUND WAREHOUSE	OUTBOUND WAREHOUSE	OUTBOUND WAREHOUSE	INBOUND WAREHOUSE	CATHODE EXT. UNPACKING
MANUFACTURER	YORK	YORK	YORK	YORK	YORK	YORK
MODEL #	XTI-39x69	XTI-96x126	XTI-108x126	XTI-114x138	XTI-75x99	XTI-54x87
SUPPLY FAN						
SUPPLY CFM	5,250	30,000	35,000	40,000	17,250	10,500
O.A. CFM (MIN.)	5,250	4,500	5,250	6,000	17,250	10,500
DRIVE TYPE	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
DESIGN FAN SPEED (RPM)	2,180	1,546	1,570	1,664	2,540	1,487
MAX FAN SPEED (RPM)	2,979	2,269	2,269	2,269	2,771	2,035
SUPPLY ESP (IN W.C.)	1.50	1.50	1.50	1.50	2.00	1.50
SUPPLY TOTAL SP (IN W.C.)	4.13	3.55	3.67	3.69	4.32	4.00
MIN. MOTOR HORSEPOWER	5	4 @ 10 EACH	4 @ 10 EACH	4 @ 15 EACH	2 @ 10 EACH	1 @ 15
VFD	1	2	2	2	2	1
PREHEAT COIL						
TOTAL CAPACITY (MBH)	349				877	706
SENSIBLE CAPACITY (MBH)	349				877	706
WATER FLOW RATE (GPM)	17.7				44.6	35.9
WATER PRESSURE DROP (FT)	13.6				4.6	15.7
AIR PRESSURE DROP	0.11				.09	.13
EWT (°F) / LWT (°F)	140/100				140/100	140/100
EAT (DB/WB) (°F)	10				20	20
LAT (DB/WB) (°F)	71.4				67.1	82.1
FINS/INCH	10				8	12
MIN. # OF ROWS	2				2	2
MAX FACE VELOCITY (FPM)	442				439	448
FLUID VELOCITY (FPS)	5.1				3.0	5.2
HEATING COIL						
TOTAL CAPACITY (MBH)	110	1,319	1,516	1,771	411	256
SENSIBLE CAPACITY (MBH)	110	1,319	1,516	1,771	411	256
WATER FLOW RATE (GPM)	5.6	67.2	77.2	90.0	20.9	13.1
WATER PRESSURE DROP (FT)	0.9	6.5	6.4	7.7	3.3	2.6
AIR PRESSURE DROP	0.05	0.12	0.12	0.12	0.05	0.05
EWT (°F) / LWT (°F)	140/100	140/100	140/100	140/100	140/100	140/100
EAT (DB/WB) (°F)	54	50	50	50	55	52
LAT (DB/WB) (°F)	73.3	90.6	90.0	90.9	77	74.5
FINS/INCH	11	11	11	11	12	12
MIN. # OF ROWS	1	2	2	2	1	1
MAX FACE VELOCITY (FPM)	442	446	465	446	439	448
FLUID VELOCITY (FPS)	1.6	3.4	3.5	3.8	2.8	2.5
COOLING COIL						
TOTAL CAPACITY (MBH)	461	1,291	1,485	1,703	1,461	904
SENSIBLE CAPACITY (MBH)	246	864	997	1,150	778	481
WATER FLOW RATE (GPM)	57.5	160.4	184.8	212.0	181.1	112.3
WATER PRESSURE DROP (FT)	10.1	14.2	14.5	6.5	22.4	19.5
AIR PRESSURE DROP	0.89	0.50	0.54	0.57	0.62	0.74
EWT (°F) / LWT (°F)	42/58	42/58	42/58	42/58	42/58	42/58
EAT (DB/WB) (°F)	95/78	80/67	80/67	80/67	95/78	95/78
LAT (DB/WB) (°F)	53.5/52.8	54.1/52.9	54.3/53.1	54.1/53.1	54.9/53.9	54.3/53.4
FINS/INCH	12	9	9	10	10	11
MIN. # OF ROWS	6	6	6	6	6	6
MAX FACE VELOCITY (FPM)	442	446	465	446	439	448
FLUID VELOCITY (FPS)	4.1	4.1	4.2	3.0	6.0	5.4
FILTER						
TYPE	2" MERV 08	2" MERV 08	2" MERV 08	2" MERV 08	2" MERV 08	2" MERV 08
FILTER SIZES	24x24	24x24	24x24	24x24	24x24	24x24
UNIT DIMENSIONS (LxWxH) (IN)	165x81x45	183x138x102	186x138x114	194x150x120	203x99x81	177x99x60
UNIT WEIGHT (lbs)	3,550	11,375	12,250	14,000	7,750	5,500
REMARKS	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4

1. PROVIDE MODULATING CHILLED CONTROL VALVES, STRAINER, UNIONS, AND SHUT OFF BALL VALVES
2. PROVIDE 120/1 20A CIRCUIT FOR LIGHTS AND CONTROLS.
3. FACTORY PROVIDED CONDENSATE OVERFLOW SWITCH.
4. UNIT MOUNTED DISCONNECT.

I.C. THOMASSON ASSOCIATES, INC.
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No. 38419
S. CURT WILLIAMS
11/08/24

ΛESC

AESC BATTERY MANUFACTURING PLANT

1330 ESTATE ROAD, FLORENCE, SOUTH CAROLINA 29506

DRAWING ISSUE

DESCRIPTION	DATE
PRICING SET	09.01.2023
PROGRESS PRINT	10.30.2023
GMP	02.14.2024
PERMIT SET	04.15.2024
CONSTRUCTION SET	07.03.2024
ASI 03	08.30.2024
ASI 08	11.08.2024

DRAWING TITLE
MECHANICAL - SCHEDULES

DRAWING NO.
1.M0.004

PRO. # 007237

11/11/2024 11:16:48 AM

F E D C B A

ROOF HOOD - NO ASSETS TO BUILD — GRAVITY VENTILATOR SCHEDULE

TAG	EX-DHU-01,02,03,04	EX-DHU-05,06,07,08	EX-DHU-09	EX-DHU-10	EX-DHU-11	EX-DHU-12	EX-DHU-13,14,15
SERVICE	CATHODE MIXING	CATHODE ENDS/ CALENDARING	CATHODE SLITTING	CATHODE SLITTING	CATHODE SLITTING	ANODE ROLL	ANODE ENDS/ CALENDARING/ POWDER FEED
TYPE	EXHAUST	EXHAUST	EXHAUST	EXHAUST	EXHAUST	EXHAUST	EXHAUST
MANUFACTURER	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK
MODEL	FGR-26x26	FGR-26x26	FGR-26x26	FGR-26x26	FGR-26x26	FGR-26x26	FGR-26x26
CFM	3,500	3,500	3,500	2,000	3,000	2,500	3,000
MAX PRESSURE DROP [IN. WG]	0.094	0.094	0.094	0.094	0.094	0.094	0.094
MAX THROAT VELOCITY (FT/MIN)	746	746	746	746	746	746	746
THROAT SIZE (LxW) [IN]	26 x 26	26 x 26	26 x 26	26 x 26	26 x 26	26 x 26	26 x 26
HOOD TYPE	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD
SIZE (LxWxH) [IN.]	36 x 38 x 19	36 x 38 x 19	36 x 38 x 19	36 x 38 x 19	36 x 38 x 19	36 x 38 x 19	36 x 38 x 19
WEIGHT [LBS]	100	100	100	100	100	100	100
CURB CAP WIDTH [IN.]	32	32	32	32	32	32	32
CURB CAP LENGTH [IN.]	32	32	32	32	32	32	32
ROOF OPENING (LxW) [IN.]	28.5 x 28.5	28.5 x 28.5	28.5 x 28.5	28.5 x 28.5	28.5 x 28.5	28.5 x 28.5	28.5 x 28.5
EMERGENCY POWER (Y/N)	NO	NO	NO	NO	NO	NO	NO
REMARKS	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4

TAG	EX-DHU-16	EX-DHU-17	EX-DHU-18,19,20,21,22	EX-DHU-23,24,25,26,27,28	EX-DHU-29	EX-DHU-30,31	EX-DHU-32,33,34	EX-DHU-35,36,37
SERVICE	ANODE ROLL	ANODE ROLL	LASER DISK/ WINDING	LASER DISK/ WINDING	1ST INJ. / L.C.C.	1ST INJ. / L.C.C.	V.O.F. / H.T.A.	2ND INJ.
TYPE	EXHAUST	EXHAUST	EXHAUST	EXHAUST	EXHAUST	EXHAUST	EXHAUST	EXHAUST
MANUFACTURER	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK
MODEL	FGR-26x26	FGR-26x26	FGR-26x26	FGR-26x26	FGR-40x40	FGR-40x40	FGR-26x26	FGR-32X32
CFM	3,000	2,500	3,500	3,500	8,000	8,000	2,500	4,000
MAX PRESSURE DROP [IN. WG]	0.094	0.094	0.094	0.094	0.088	0.088	0.094	0.084
MAX THROAT VELOCITY (FT/MIN)	746	746	746	746	720	720	746	703
THROAT SIZE (LxW) [IN]	26 x 26	26 x 26	26 x 26	26 x 26	40 x 40	40 x 40	26 x 26	32 x 32
HOOD TYPE	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD
SIZE (LxWxH) [IN.]	36 x 38 x 19	36 x 38 x 19	36 x 38 x 19	36 x 38 x 19	60 x 53 x 23	60 x 53 x 23	36 x 38 x 19	48 x 43 x 19
WEIGHT [LBS]	100	100	100	100	175	175	100	125
CURB CAP WIDTH [IN.]	32	32	32	32	46	46	32	38
CURB CAP LENGTH [IN.]	32	32	32	32	46	46	32	38
ROOF OPENING (LxW) [IN.]	28.5 x 28.5	28.5 x 28.5	28.5 x 28.5	28.5 x 28.5	42.5 x 42.5	42.5 x 42.5	28.5 x 28.5	34.5 x 34.5
EMERGENCY POWER (Y/N)	NO	NO	NO	NO	NO	NO	NO	NO
REMARKS	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4

1. GALVANIZED STEEL HOUSING
2. NON DUCTED INSTALLATION TYPE
3. PROVIDE BIRD/INSECT SCREEN
4. PROVIDE BACKDRAFT DAMPER AT ROOF PENETRATION

ROOF HOOD - NO ASSETS TO BUILD — GRAVITY VENTILATOR SCHEDULE

TAG	IH-DHU-01,02,03,04	IH-DHU-05,06,07,08	IH-DHU-09	IH-DHU-10	IH-DHU-11	IH-DHU-12	IH-DHU-13,14,15
SERVICE	CATHODE MIXING	CATHODE ENDS/ CALENDARING	CATHODE SLITTING	CATHODE SLITTING	CATHODE SLITTING	ANODE ROLL	ANODE ENDS/ CALENDARING/ POWDER FEED
TYPE	INTAKE	INTAKE	INTAKE	INTAKE	INTAKE	INTAKE	INTAKE
MANUFACTURER	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK
MODEL	FGI-54x54	FGI-50x50	FGI-44x44	FGI-44x44	FGI-44x44	FGI-44x44	FGI-68x68
CFM	14,147	11,255	8,300	6,800	7,200	6,700	22,343
MAX PRESSURE DROP [IN. WG]	0.093	0.088	0.094	0.094	0.094	0.094	0.103
MAX THROAT VELOCITY (FT/MIN)	741	720	744	744	744	744	779
THROAT SIZE (LxW) [IN]	54 x 54	50 x 50	44 x 44	44 x 44	44 x 44	44 x 44	68 x 68
HOOD TYPE	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD
SIZE (LxWxH) [IN.]	96 x 91 x 26	84x89x26	72 x 81 x 25	72 x 81 x 25	72 x 81 x 25	72 x 81 x 25	120 x 116 x 29.5
WEIGHT [LBS]	350	330	275	275	275	275	650
CURB CAP WIDTH [IN.]	60	56	50	50	50	50	74
CURB CAP LENGTH [IN.]	60	56	50	50	50	50	74
ROOF OPENING (LxW) [IN.]	56.5 x 56.5	52.5 x 52.5	46.5 x 46.5	46.5 x 46.5	46.5 x 46.5	46.5 x 46.5	70.5 x 70.5
EMERGENCY POWER (Y/N)	NO	NO	NO	NO	NO	NO	NO
REMARKS	1 THRU 4	2 THRU 4	2 THRU 4	2 THRU 4	2 THRU 4	2 THRU 4	2 THRU 4

TAG	IH-DHU-16	IH-DHU-17	IH-DHU-18,19,20,21,22	IH-DHU-23,24,25,26,27,28	IH-DHU-29	IH-DHU-30,31	IH-DHU-32,33,34	IH-DHU-35,36,37
SERVICE	ANODE ROLL	ANODE ROLL	LASER DISK/ WINDING	LASER DISK/ WINDING	1ST INJ. / L.C.C.	1ST INJ. / L.C.C.	V.O.F. / H.T.A.	2ND INJ.
TYPE	INTAKE	INTAKE	INTAKE	INTAKE	INTAKE	INTAKE	INTAKE	INTAKE
MANUFACTURER	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK
MODEL	FGI-44x44	FGI-44x44	FGI-44x44	FGI-44x44	FGI-72x78	FGI-72x78	FGI-44x44	FGI-50x50
CFM	7,550	6,025	5,892	7,487	29,774	28,809	7,060	11,285
MAX PRESSURE DROP [IN. WG]	0.094	0.094	0.094	0.094	0.101	0.101	0.094	0.088
MAX THROAT VELOCITY (FT/MIN)	744	744	744	744	769	769	744	720
THROAT SIZE (LxW) [IN]	44 x 44	44 x 44	44 x 44	44 x 44	78 x 72	78 x 72	44 x 44	50 x 50
HOOD TYPE	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD
SIZE (LxWxH) [IN.]	72 x 81 x 25	72 x 81 x 25	72 x 81 x 25	72 x 81 x 25	132 x 45 x 29.5	132 x 45 x 29.5	72 x 81 x 25	84x89x26
WEIGHT [LBS]	275	275	275	275	750	750	275	330
CURB CAP WIDTH [IN.]	50	50	50	50	78	78	50	56
CURB CAP LENGTH [IN.]	50	50	50	50	84	84	50	56
ROOF OPENING (LxW) [IN.]	46.5 x 46.5	46.5 x 46.5	46.5 x 46.5	46.5 x 46.5	80.5 x 74.5	80.5 x 74.5	46.5 x 46.5	52.5 x 52.5
EMERGENCY POWER (Y/N)	NO	NO	NO	NO	NO	NO	NO	NO
REMARKS	2 THRU 4	2 THRU 4	2 THRU 4	2 THRU 4	2 THRU 4	2 THRU 4	2 THRU 4	2 THRU 4

1. GALVANIZED STEEL HOUSING
2. NON DUCTED INSTALLATION TYPE
3. PROVIDE BIRD/INSECT SCREEN
4. PROVIDE BACKDRAFT DAMPER AT ROOF PENETRATION

GRAVITY VENTILATOR SCHEDULE — ROOF HOOD - NO ASSETS TO BUILD

TAG	EX-AHU-05,06,07,08	EX-AHU-GEN-04,05,06,08	EX-AHU-SPINE-01 THRU 08	EX-VOF-01 THRU 06	EX-BR	EX-AHU-10	EX-AHU-11	EX-AHU-12	EX-AHU-15,16,17
SERVICE	COATING OVENS	GENERAL PLANT	AUX. ROOMS	V.O.F. POWER SUPPLY	BUILDING RELIEF	OUTBOUND WAREHOUSE	OUTBOUND WAREHOUSE	OUTBOUND WAREHOUSE	INSPECTION
TYPE	EXHAUST	EXHAUST	EXHAUST	EXHAUST	EXHAUST	EXHAUST	EXHAUST	EXHAUST	EXHAUST
MANUFACTURER	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK
MODEL	FGR-66x142	FGR-66x142	FGR-62x92	FGR-40x40	FGR-62x92	FGR-62x92	FGR-66x142	FGR-66x142	FGR-70x70
CFM	45,000	50,000	30,000	7,000	30,000	30,000	35,000	40,000	26,000
MAX PRESSURE DROP [IN. WG]	0.100	0.100	0.097	0.088	0.097	0.097	0.100	0.100	0.099
MAX THROAT VELOCITY (FT/MIN)	768	768	757	720	757	757	768	768	764
THROAT SIZE (LxW) [IN]	142 X 66	142 X 66	92 x 62	40 x 40	92 x 62	92 x 62	142 X 66	142 X 66	70 x 70
HOOD TYPE	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD
SIZE (LxWxH) [IN.]	180 x 104 x 36.5	180 x 104 x 36.5	120 x 95 x 29.5	60 x 53 x 23	120 x 95 x 29.5	120 x 95 x 29.5	180 x 104 x 36.5	180 x 104 x 36.5	102 x 96 x 29.5
WEIGHT [LBS]	750	750	500	175	500	500	750	750	500
CURB CAP WIDTH [IN.]	72	72	68	46	68	68	72	72	76
CURB CAP LENGTH [IN.]	148	148	98	46	98	98	148	148	76
ROOF OPENING (LxW) [IN.]	144.5 x 68.5	144.5 x 68.5	94.5 x 64.5	42.5 x 42.5	94.5 x 64.5	94.5 x 64.5	144.5 x 68.5	144.5 x 68.5	72.5 x 72.5
EMERGENCY POWER (Y/N)	NO	NO	NO	NO	NO	NO	NO	NO	NO
REMARKS	1 THRU 4	1 THRU 4	2 THRU 4	2 THRU 4	2 THRU 5	2 THRU 5	1 THRU 4	1 THRU 4	2 THRU 5

1. GALVANIZED STEEL HOUSING
2. NON DUCTED INSTALLATION TYPE
3. PROVIDE BIRD/INSECT SCREEN
4. PROVIDE BACKDRAFT DAMPER AT ROOF PENETRATION
5. PROVIDE EX-BR WITH A BAROMETRIC RELIEF DAMPER SET. SET DAMPER TO FOR BUILDING PRESSURE OF 0.01" W.G.

THIS CHANGE IS A PART OF OCR 16.1. PENDING OWNER APPROVAL FOR CONSTRUCTION.

GRAVITY VENTILATOR SCHEDULE — ROOF HOOD - NO ASSETS TO BUILD

TAG	IH-AHU-01	IH-AHU-05,06,07,08	IH-AHU-GEN-04,05,06,08	IH-AHU-13	IH-AHU-14	IH-AHU-SPINE-01 THRU 08
SERVICE	ANODE MIXING	COATING OVENS	GENERAL PLANT	INBOUND WAREHOUSE	CATHODE UNPACKING	AUX. ROOMS
TYPE	INTAKE	INTAKE	INTAKE	INTAKE	INTAKE	INTAKE
MANUFACTURER	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK
MODEL	FGI-54x54	FGI-70x142	FGI-70x142	FGI-68x68	FGI-50x50	FGI-72x78
CFM	13,500	45,000	50,000	17,250	10,500	30,000
MAX PRESSURE DROP [IN. WG]	0.093	0.089	0.089	0.103	0.088	0.101
MAX THROAT VELOCITY (FT/MIN)	741	724	724	779	720	769
THROAT SIZE (LxW) [IN]	54 x 54	142 x 70	142 x 70	68 x 68	50 x 50	78 x 72
HOOD TYPE	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD
SIZE (LxWxH) [IN.]	96 x 91 x 26	216 x 132 x 36.5	216 x 132 x 36.5	120 x 116 x 29.5	84 x 89 x 26	132 x 45 x 29.5
WEIGHT [LBS]	350	1,175	1,175	650	330	750
CURB CAP WIDTH [IN.]	60	76	76	74	56	78
CURB CAP LENGTH [IN.]	60	148	148	74	56	84
ROOF OPENING (LxW) [IN.]	56.5 x 56.5	144.5 x 72.5	144.5 x 72.5	70.5 x 70.5	52.5 x 52.5	80.5 x 74.5
EMERGENCY POWER (Y/N)	NO	NO	NO	NO	NO	NO
REMARKS	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	2 THRU 4

TAG	IH-VOF-01 THRU 06	IH-AHU-10	IH-AHU-11	IH-AHU-12	IH-AHU-15,16,17
SERVICE	V.O.F. POWER SUPPLY	OUTBOUND WAREHOUSE	OUTBOUND WAREHOUSE	OUTBOUND WAREHOUSE	INSPECTION
TYPE	INTAKE	INTAKE	INTAKE	INTAKE	INTAKE
MANUFACTURER	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK
MODEL	FGI-44x44	FGI-72x78	FGI-72x92	FGI-70x142	FGI-68x72
CFM	7,000	30,000	35,000	40,000	26,000
MAX PRESSURE DROP [IN. WG]	0.094	0.101	0.098	0.089	0.099
MAX THROAT VELOCITY (FT/MIN)	744	769	761	724	765
THROAT SIZE (LxW) [IN]	44 x 44	78 x 72	92 x 72	142 x 70	72 x 68
HOOD TYPE	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD	FABRA (STANDING SEAM) GALVANIZED HOOD
SIZE (LxWxH) [IN.]	72 x 81 x 25	132 x 45 x 29.5	156 x 127 x 29.5	216 x 132 x 36.5	122 x 120 x 29.5
WEIGHT [LBS]	275	750	900	1,175	650
CURB CAP WIDTH [IN.]	50	78	78	76	74
CURB CAP LENGTH [IN.]	50	84	98	148	78
ROOF OPENING (LxW) [IN.]	46.5 x 46.5	80.5 x 74.5	94.5 x 74.5	144.5 x 72.5	74.5 x 70.5
EMERGENCY POWER (Y/N)	NO	NO	NO	NO	NO
REMARKS	2 THRU 4	2 THRU 4	2 THRU 4	2 THRU 4	2 THRU 4

1. GALVANIZED STEEL HOUSING
2. NON DUCTED INSTALLATION TYPE
3. PROVIDE BIRD/INSECT SCREEN
4. PROVIDE BACKDRAFT DAMPER AT ROOF PENETRATION

THIS CHANGE IS A PART OF OCR 16.1. PENDING OWNER APPROVAL FOR CONSTRUCTION.

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ICT project number: 230019

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 38419 S. CURT WILLIAMS 11/08/24

AESC

AESC BATTERY MANUFACTURING PLANT

1330 ESTATE ROAD, FLORENCE, SOUTH CAROLINA 29506

DRAWING ISSUE

DESCRIPTION	DATE
PRICING SET	09.01.2023
PROGRESS PRINT	10.30.2023
GMP	02.14.2024
PERMIT SET	04.15.2024
CONSTRUCTION SET	07.03.2024
ASI 08	11.08.2024

SOUTH CAROLINA I.C. THOMASSON ASSOCIATES, INC. No. 675 CERTIFICATE OF AUTHORIZATION

DRAWING TITLE
MECHANICAL - SCHEDULES

DRAWING NO.
1.M0.005

PRO. # 007237

11/11/2024 11:16:51 AM

SMOKE EXHAUST FAN SCHEDULE

LINE 1
SEF-1 THRU SEF-54
(ALL)

TAG	SEF-1	SEF-2	SEF-3,4	SEF-5,6,7,8,9,10,11	SEF-12,13,14	SEF-15,16,17	SEF-18,19,20	SEF-21,22,23,24,25,26,27,28,29	SEF-30,31,32,33,34,35,36,37	SEF-38,39,40	SEF-41,42,43	SEF-44,45,46,47,48	SEF-49,50,51	SEF-52,53,54
SERVICE	FOIL	NCM	FOIL & CMC	INBOUND WAREHOUSE	HT AGING	RT STANDING AREA	OUTBOUND WARE HOUSE	STORAGE & ASRS	COATING ENDS, CALENDARING, SLITTING	CAPACITY GRADING	FORMATION	INSPECTION	VACCUM OVEN FORMATION	HIGH TEMP STANDING AREA
MANUFACTURER	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK
TYPE	TUBE AXIAL UP-BLAST	TUBE AXIAL UP-BLAST	TUBE AXIAL UP-BLAST	TUBE AXIAL UP-BLAST	TUBE AXIAL UP-BLAST	TUBE AXIAL UP-BLAST	TUBE AXIAL UP-BLAST	TUBE AXIAL UP-BLAST	TUBE AXIAL UP-BLAST	TUBE AXIAL UP-BLAST	CENTRIFUGAL UP-BLAST	TUBE AXIAL UP-BLAST	CENTRIFUGAL UP-BLAST	CENTRIFUGAL UP-BLAST
SIZE/MODEL	TAUB-42L	TAUB-42L	TAUB-42L	TAUB-48H	TAUB-30L	TAUB-48H	TAUB-42L	TAUB-48L	TAUB-48L	TAUB-42L	CUBE-420	TAUB-48L	CUBE-220	CUBE-300
CFM	17,500	17,500	20,000	27,500	10,500	27,500	21,000	30,000	25,000	21,000	12,000	25,000	4,000	6,000
SP (IN W.C.)	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
FAN RPM	597	597	650	705	978	705	672	600	529	672	331	529	590	440
MAX. FAN RPM	736	736	736	906	1,091	906	736	646	646	736	---	646	---	---
MOTOR RPM	1,725	1,725	1,725	1,725	1,725	1,725	1,725	1,725	1,725	1,725	1,725	1,725	1,725	1,725
DRIVE TYPE	BELT	BELT	BELT	BELT	BELT	BELT	BELT	BELT	BELT	BELT	BELT	BELT	BELT	BELT
APPROX. SIZE (WxLxH)	52"x52"x82"	52"x52"x82"	52"x52"x82"	58"x58"x90"	40"x40"x67"	58"x58"x90"	52"x52"x82"	58"x58"x90"	58"x58"x90"	52"x52"x82"	65"x65"x57"	58"x58"x90"	43"x43"x46"	50"x50"x48"
MIN. MOTOR HP	3	3	5	5	3	5	5	7 1/2	5	5	1-1/2	5	3/4	3/4
ELECTRICAL														
VOLTAGE/PHASE	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3
POWER TYPE	EMERGENCY	EMERGENCY	EMERGENCY	EMERGENCY	EMERGENCY	EMERGENCY	EMERGENCY	EMERGENCY	EMERGENCY	EMERGENCY	EMERGENCY	EMERGENCY	EMERGENCY	EMERGENCY
INLET SCREEN	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
OUTLET SCREEN	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
INLET DAMPER	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT
OUTLET DAMPER	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
DISCONNECT/STARTER	STARTER	STARTER	STARTER	STARTER	STARTER	STARTER	STARTER	STARTER	STARTER	STARTER	STARTER	STARTER	STARTER	STARTER
MAX. SONES	22	22	25	43	29	43	26	31	26	26	9.3	26	9.8	8.3
UNIT WEIGHT (lbs)	875	875	875	1,025	500	1,025	875	1,150	1,150	875	350	1,150	200	200
REMARKS	1 THRU 6	1 THRU 6	1 THRU 6	1 THRU 6	1 THRU 6	1 THRU 6	1 THRU 6	1 THRU 6	1 THRU 7	1 THRU 6	1 THRU 6	1 THRU 6	1 THRU 7	1 THRU 7

REMARKS:
1. ROOF CURB
2. VIBRATION ISOLATORS
3. SUPPORT CURB RAILS
4. SPARK PROOF
5. ALL FANS TO BE RATED FOR 221 °F
6. ALL FANS TO BE ACTIVATED BY MANUAL CONTROL. MANUAL CONTROL TO BE LOCATED IN FIRE COMMAND CENTER IN CUP BUILDING IN COMPLIANCE WITH IBC 910.4.5.
7. PROVIDE LOW LEAKAGE CONTROL DAMPER. DAMPER TO OPEN UPON FAN BEING ENERGIZED.

LINE 1
CRAC-1
CRAC-2
CRAC-3
CRAC-4

CHILLED WATER COMPUTER ROOM A.C. UNIT SCHEDULE

DESIGNATION	CRAC-1	CRAC-3
SERVICE	DATA CENTER	D. CENTER BACKUP
MANUFACTURER	STULZ	STULZ
MODEL	CFU-150-C1R	CFU-150-C1R
COOLING		
TOTAL CAPACITY (BTU/HR)	359,177	359,177
E.A.T. DB (°F) / E.A.T. WB (°F)	76/63	76/63
FLOW RATE (GPM)	47.2	47.2
E.W.T. / L.W.T. (°F)	42/58	42/58
WATER PRESSURE DROP (FT. W.G.)	15.4	15.4
HUMIDIFIER		
TYPE	INFRARED	INFRARED
CAPACITY (LB/HR)	20	20
FAN	3 FANS	3 FANS
AIRFLOW (CFM)	15,500	15,500
E.S.P. (IN. W.G.)	0.2	0.2
ELECTRICAL	460/3	460/3
POWER (KW)	6	6
POWER TYPE	EMERGENCY	EMERGENCY

REMARKS:

1. 1" THROWAWAY FILTERS (MERV-8).
2. PROVIDE DUCT SMOKE DETECTOR ON SUPPLY AND RETURN OF ALL UNITS.
3. UNIT TO BE PROVIDED WITH PLENUM HOUSING WITH MOTORIZED CONTROL DAMPER, 24v MOTOR AND END SWITCH FOR FAN DELAY, WITH DAMPER MOTOR CONTROLS.
4. DUCT FROM UNIT TO EQUIPMENT ROOM AS SHOWN ON PLANS
5. PROVIDE THE FOLLOWING ACCESSORIES:
   A. BACnet CONTROL INTERFACE TO BUILDING AUTOMATION SYSTEM; (BAS)
   B. AUXILLARY DRAIN WATER SENSOR WITH AUTOMATIC SHUTOFF
   C. NON-LOCKING TYPE INTEGRAL DISCONNECT
   D. MOISTURE CONDENSATE PUMP

SPLIT DX COMPUTER ROOM A.C. UNIT SCHEDULE

DESIGNATION	CRAC-2	CRAC-4
SERVICE	DATA CENTER	D. CENTER BACKUP
MANUFACTURER	LIEBERT	LIEBERT
MODEL	CFU-105-D2A	CFU-105-D2A
AMBIENT CONDITIONS (°F)	105	105
COOLING		
TOTAL CAPACITY (BTU/HR)	334,017	334,017
SENSIBLE CAPACITY (BTU/HR)	334,017	334,017
E.A.T. DB (°F) / E.A.T. WB (°F)	80/63	80/63
REFRIGERANT TYPE	R410A	R410A
HUMIDIFIER		
TYPE	INFRARED	INFRARED
CAPACITY (#/HR)	25	25
FAN		
AIRFLOW (cfm)	15,750	15,750
E.S.P. (in. w.g.)	0.2	0.2
ELECTRICAL	460/3	460/3
FLA (A)	4.7	4.7
MCA (A)	88.2	88.2
MOCP (A)	110	110
POWER TYPE	EMERGENCY	EMERGENCY
CONDENSER	---	---
VOLTAGE	---	---
FLA (A)	---	---
MCA (A)	---	---
MOCP (A)	---	---
POWER TYPE	---	---

REMARKS:

1. PROVIDE 1" THROWAWAY FILTERS (MERV-8).
2. PROVIDE DUCT SMOKE DETECTOR ON SUPPLY AND RETURN OF ALL UNITS.
3. UNIT TO BE PROVIDED WITH PLENUM HOUSING WITH MOTORIZED CONTROL DAMPER, 24v MOTOR AND END SWITCH FOR FAN DELAY, WITH DAMPER MOTOR CONTROLS.
4. DUCT FROM UNIT TO EQUIPMENT ROOM AS SHOWN ON PLANS
5. PROVIDE THE FOLLOWING ACCESSORIES:
   A. BACnet CONTROL INTERFACE TO BUILDING AUTOMATION SYSTEM; (BAS)
   B. AUXILLARY DRAIN WATER SENSOR WITH AUTOMATIC SHUTOFF
   C. NON-LOCKING TYPE INTEGRAL DISCONNECT
   D. MOISTURE CONDENSATE PUMP

FAN/BLOWER COIL SCHEDULE

BELT — LINE 1 FCU-1 FCU-2 | BELT — LINE 1 BCU-2-1 THRU BCU-2-28 | BELT — LINE 1 BCU-3-1 THRU BCU-3-3

DESIGNATION	FCU-1	FCU-2	BCU-2-1 THRU 28	LINE 1 FCU-2-1 THRU FCU-2-4 DELETED	BCU-3-1 THRU 3
QTY	1	1	27		3
MANUFACTURER	JCI	JCI	JCI		JCI
MODEL NO.	AMI-H10	AMI-H10	AMI-H-17		AMI-H-17
TYPE	---	---			
UNIT DIMENSIONS (L"xW"xH")	100"x58"x34"	100"x58"x34"	88"x82"x44"		88"x82"x44"
UNIT WEIGHT (LBS.)	1,200	1,200	1,775		1,775
TOTAL AIRFLOW (CFM)	4,500	4,500	8,000		8,000
O.A. AIRFLOW (CFM)	900	900	1,200		2,350
FAN					
OPERATING AIRFLOW (CFM)	4,500	4,500	8,000		8,000
T.S.P. (IN. W.G.)	1.86	1.86	2.52		2.52
E.S.P. (IN. W.G.)	0.75	0.75	1.5		1.5
DESIGN FAN RPM	1,062	1,062	933		933
MOTOR POWER (HP)	5	5	7.5		7.5
MOTOR VOLTAGE	460/3	460/3	460/3		460/3
SYNCHRONOUS MOTOR RPM	---	---	---		---
POWER TYPE	---	---	---		---
ELECTRICAL					
ELECTRICAL PHASE (Φ)	3	3	3		3
FLA (A)	8.8	8.8	11.9		11.9
MCA (A)	11.00	11.00	14.88		14.88
MOCP (A)	15.00	15.00	25.00		25.00
STARTER TYPE	---	---	---		---
COOLING COIL					
E.A.T. DB/WB (°F)	80/67	80/67	80.0/67.0		80.0/67.0
TOTAL CAPACITY (BTU/HR)	172,500	172,500	335,900		335,900
SENSIBLE CAPACITY (BTU/HR)	122,000	122,000	229,800		229,800
FLOW RATE (GPM)	21.5	21.5	41.80		41.80
E.W.T./L.W.T.(°F)	58/42	58/42	42/58		42/58
ROWS/FPI	6/12	6/12	6/12		6/12
MAX. WATER P.D. (FT.)	3.49	3.49	6.61		6.61
MAX. AIR P.D. (IN. W.C.)	---	---	0.56		0.56
RUNOUT PIPING SIZE (NPS)	---	---	---		---
HEATING COIL					
E.A.T./L.A.T. DB (°F)	65/92.4	65/92.4	50/96.6		50/96.6
SENSIBLE CAPACITY (BTU/HR)	133.9	133.9	404,100		404,100
FLOW RATE (GPM)	6.8	6.8	20.60		20.60
E.W.T./L.W.T. (°F)	140/100	140/100	140/100		140/100
ROWS/FPI	3/10	3/10	3/12		3/12
MAX. WATER. P.D. (FT.)	0.3	0.3	0.82		0.82
RUNOUT PIPE SIZE	---	---	---		
HEATING (kW)/VOLTS (V)/AMPS (A)	---	---	---		
FILTER	---	---	---		

REMARKS:

1. PROVIDE 2-WAY MODULATING CHILLED WATER CONTROL VALVE AND SEPARATE 2-WAY MODULATING HEATING CONTROL VALVE FOR UNITS WITH HEATING CONTROL.
2. PROVIDE WALL MOUNTED DDC THERMOSTAT, UNIT CONTROLS TO HAVE BACnet INTERFACE WITH THE BAS.
3. PROVIDE DRAIN PAN WITH WATER SENSOR MOUNTED UNDER EACH UNIT, WATER SENSOR SHALL HALT EQUIPMENT OPERATION AND SIGNAL ALARM TO BAS.
4. MOTOR TO BE DIRECT-DRIVE ECM TYPE.
5. SMOKE DETECTORS ON SUPPLY AND RETURN BY DIVISION 28.
6. PROVIDE CONDENSATE PUMP AT UNIT VOLTAGE WITH MINIMUM 36" LIFT.

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I.C. Thomasson Associates, Inc.
ICT
CONSULTING ENGINEERS
2950 KRAFT DRIVE
NASHVILLE, TENNESSEE 37204
PHONE (615) 346-3400
www.icthomasson.com
ICT project number: 230019

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 38419 S. CURT WILLIAMS 01/31/25

AESC

AESC BATTERY MANUFACTURING PLANT
1330 ESTATE ROAD, FLORENCE, SOUTH CAROLINA 29506

DRAWING ISSUE

DESCRIPTION	DATE
PRICING SET	09.01.2023
PROGRESS PRINT	10.30.2023
GMP	02.14.2024
PERMIT SET	04.15.2024
CONSTRUCTION SET	07.03.2024
ASI 13	01.31.2025

DRAWING TITLE
MECHANICAL - SCHEDULES

SOUTH CAROLINA I.C. THOMASSON ASSOCIATES, INC. No. 675 CERTIFICATE OF AUTHORIZATION

DRAWING NO.
1.M0.006

PRO. # 007237

1/31/2025 2:58:07 PM

100% O.A. DX ROOFTOP UNIT

DOAS

DESIGNATION	OAU-1	OAU-2	LINE 1 OAU-1 OAU-2
SERVICE	LOGISTICS	ELECTROLYTE	---
MANUFACTURER	AAON	AAON	---
APPR. UNIT SIZE (L" x W" x H")	138"x101"x60"	161"x100"x102"	---
APPR. UNIT WEIGHT (LBS)	3,500	8,250	---
TOTAL SUPPLY AIRFLOW (CFM)	4,350	8,425	---

FAN			
SIZE	270D60	300	---
MOTOR RPM	1,170	1,170	---
INTERNAL S.P. (IN H2O)	0.98	0.58	---
EXTERNAL S.P. (IN H2O)	1.5	1.5	---
TOTAL S.P. (IN H2O)	2.48	2.08	---
MIN. MOTOR HORSEPOWER	3	5	---
VFD	---	---	---
PRIMARY COIL			
COOLING PERFORMANCE			
TOTAL NET CAPACITY (MBH)	332.9	808.1	---
SENSIBLE NET CAPACITY (MBH)	177.4	401.2	---
E.A.T. DB/WB (ºF)	95/78	95/78	---
COIL L.A.T. DB/WB (ºF)	54.3/54.3	50.9/50.9	---
REFRIGERANT TYPE	R-454B	R-410A	---
REFRIGERANT CHARGE (LBS)	50.6	---	---
HEATING PERFORMANCE			
TOTAL NET CAPACITY (MBH)	189.7	---	---
E.A.T. DB (ºF)	15	15	---
COIL L.A.T. DB (ºF)	51.2	---	---
REHEAT COIL CAPACITY (MBH)	79.6	147.5	---
AUX HEAT COIL			
TOTAL CAPACITY (BTUH)	341.2	682.4	---
UNIT L.A.T. DB (ºF)	87.5	89.7	---
MODE	ELECTRIC	ELECTRIC	---
AMBIENT TEMP. DB (ºF)	95	95	---
ELECTRICAL			
EMERGENCY POWER	---	---	---
VOLTAGE	460/3	460/3	---
FLA	125	200	---
MCA	126	202	---
MOCP	150	225	---
FILTERS	---	---	---

REMARKS:

1. PROVIDE STAINLESS STEEL DRAIN PAN.
2. PROVIDE WITH FULLY MODULATING COMPRESSOR(S).
3. PROVIDE FAN CYCLING HEAD PRESSURE CONTROL AND 20 SECOND TIME DELAY RELAYS.
4. PROVIDE 115 VOLT CONVENIENCE OUTLET WIRED OFF OF MAIN POWER TRANSFORMER.
5. CONTROL SHALL BE PROVIDED VIA FULLY DDC MICROPROCESSOR CONTROLLER WITH OUTSIDE AIR SENSOR, DISCHARGE TEMPERATURE SENSOR, DISCHARGE HUMIDITY SENSOR. THE CONTROLLER SHALL MODULATE COMPRESSOR OPERATION FOR COOLING, HEATING, AND HOT GAS REHEAT FOR DISCHARGE AIR DEWPOINT CONTROL.
6. PROVIDE CUSTOMER HAND HELD DISPLAY KEYPAD DIAGNOSTIC CONTROLLER TO BE UTILIZED FOR CUSTOMER INTERFACE.
7. FACTORY STARTUP SUPERVISION SHALL BE INCLUDED.
8. 5 YEAR COMPRESSOR PARTS WARRANTY.
9. PROVIDE PREMIUM EFFICIENCY MOTOR(S)ZA.
10. UNIT SHALL BE SINGLE POINT CONNECTION AND PROVIDED WITH DISCONNECT BY MANUFACTURER

PACKAGE UNIT SCHEDULE

LINE 1
RTU-1 THRU RTU-6

UNIT NO.	RTU-1	RTU-2	RTU-3	RTU-4	
MANUFACTURER	TRANE	TRANE	TRANE	TRANE	
MODEL NUMBER	WSC092H4RKB	WSJ150A4S0N	WSC048H4REA	WHC074H4RGA	
APPROX. UNIT SIZE (L"xW"xH")	80"x54"x47"	123"x87"x59"	70"x45"x41"	89"x54"x47"	
APPROX. UNIT WEIGHT (LBS.) (UNIT ONLY)	1,375	2,300	950	1,400	
SERVICE			UNPACKING RECYCLE AREA	CUP	
UNIT LOCATION	OUTSIDE	OUTSIDE	OUTSIDE	OUTSIDE	
TOTAL AIRFLOW (CFM)	2,500	4,000	1,600	2,125	
OUTSIDE MAXIMUM AIRFLOW (CFM)	2,500	4,000	1,600	2,125	
OUTSIDE MINIMUM AIRFLOW (CFM)	250	400	200	300	
SUPPLY AIR FAN (QUANTITY)	1	1	1	1	
TYPE	BELT	BELT	DIRECT	DIRECT	
FAN MAX RPM	794	949	949	900	
EXTERNAL S.P.	0.5"	0.75"	0.50"	0.50"	
TOTAL S.P.	0.65"	0.875"	0.680"	0.590"	
MIN. MOTOR HORSEPOWER	1.25*	2.9*	1.0*	2.75*	
VFD	YES	YES	YES	YES	
COOLING COIL					
AIRFLOW (CFM)	2,500	4,000	1,600	2,125	
MAX FACE VELOCITY (FPM)	450	450	450	450	
E.A.T. DB/WB (°F)	80/67	80/67	80/67	80/67	
COIL L.A.T. DB/WB (°F)	56.6/56.5	55.5/54.67	56.39/56.30	55.73/55.64	
TOTAL CAPACITY (MBH)	91.60	144.47	48.53	75.59	
SENSIBLE CAPACITY (MBH)	70.89	101.72	37.03	55.70	
EFFICINCEY (EER)	11.0	10.60	12.30	12.10	
HEAT PUMP HEATING COIL					
CAPACITY (MBH)	85.28	136.01	47.07	73.65	
TEMP RISE (°F)	26.32	36.62	27.24	28.41	
CAPACITY CONTROL					
ELECTRIC HEATER					
KW	27	36	12	18	
STAGES	2	2	2	2	
TEMP RISE (°F)	28.30	27.89	23.59	23.59	
HEAT OUTPUT (MBH)	92.21	122.94	40.98	61.47	
NATURAL GAS HEATER					
HEAT INPUT (MBH)					
STAGES					
TEMP RISE (°F)					
HEAT OUTPUT (MBH)					
ELECTRICAL					
VOLTAGE/PHASE	460/3	460/3	460/3	460/3	
UNIT TOTAL MCA/MOC	59/60	91/100	30/30	47/50	

REMARKS:
1. * INDICATES PREMIUM EFFICIENCY MOTOR
2. VFD FOR SUPPLY AND RETURN FANS
3. UNIT WEIGHT DOES NOT INCLUDE CURB
4. PROVIDE MINIMUM 2 REFRIGERANT CIRCUITS FOR ALL UNITS.
5. DISCONNECTS PROVIDED BY DIV.26
6. DUCT SMOKE DETECTORS TO BE INSTALLED ON SUPPLY AND RETURN DUCTS.

UNIT HEATER SCHEDULE

TAG:	UH-01 THRU UH-08		
MANUFACTURER	MODINE		
MODEL	PDP-400		
TYPE	NAT. GAS		
SERVICE	CUP BOILER ROOM		
SUPPLY CFM	5,440		
OUTLET VELOCITY (FPM)	1,016		
MOTOR HP	3/4		
MOTOR RPM	1,125		
HEAT CAPACITY	332,000		
TYPE OF HEAT	NAT. GAS		
GAS INPUT (MBH)	400		
HEAT OUTPUT (MBH)	332		
AIR TEMP RISE (F)	54		
CONTROL			
ELECTRICAL			
VOLTAGE/PHASE			
DISCONNECT/STARTER			
EMERGENCY POWER (Y/N)			
UNIT DIMENSIONS (LxWxH)	44"x40"x40"		
MAX MOUNTING HEIGHT (FT)	29		
HEAT THROW (FT)	69		
REMARKS			

1. INTEGRAL THERMOSTAT
2. MOUNTING FRAME/BRACKET

CONDENSATE RETURN UNIT SCHEDULE

TAG	CRU-1 THRU 12	CRU-13 THRU 14
SERVICE	PROCESS STEAM	STEAM TRAP
CAPACITY - EDR	60,000	30,000
FLOW RATE (GPM)	60	30
DISCHARGE PRESSURE (PSI)	75	40
TEMPERATURE (F)	210	210
PUMP RPM	3500	3500
PUMP MOTOR (HP)	2 @ 5	2 @ 1-1/2
VOLTAGE / PHASE	460/3	460/3
RECEIVER SIZE (GALLONS)	52	36
RECEIVER TYPE	CAST IRON	CAST IRON
PUMP SET	DUPLEX	DUPLEX
MANUFACTURER	DOMESTIC PUMP	DOMESTIC PUMP

REMARKS

1. CRU SHALL BE DUPLEX TYPE WITH FACTORY MOUNTED CONTROL PANEL INCLUDING STARTERS AND DISCONNECTS
2. CRU-1 THRU 12 INLET CONNECTION 3" / DISCHARGE CONNECTION 2"
3. CRU-13 & 14 INLET CONNECTION 3" / DISCHARGE CONNECTION 1-1/2"
4. PROVIDE WATER LEVEL GAUGE, HIGH LEVEL ALARM, INLET BASKET STRAINERS, DISCHARGE PRESSURE GAUGE

HOT WATER UNIT HEATER SCHEDULE

TAG:	UH-BAT		
MANUFACTURER	MODINE		
MODEL	HSB-63S		
TYPE	HOT WATER		
SERVICE	CUP BATTERY ROOM		
SUPPLY CFM	1,120		
OUTLET VELOCITY (FPM)	680		
MOTOR HP	1/12		
MOTOR RPM	1,550		
HEAT CAPACITY	45,600		
TYPE OF HEAT	HOT WATER		
GPM	4.7		
WPD (FT)	0.6		
AIR TEMP RISE (F)	37		
CONTROL	2-WAY VALVE		
ELECTRICAL			
VOLTAGE/PHASE	115/1		
DISCONNECT/STARTER			
EMERGENCY POWER (Y/N)	YES		
UNIT DIMENSIONS (LxWxH)	21.5"x20.4"x7.5"		
MAX MOUNTING HEIGHT (FT)	15		
HEAT THROW (FT)	31		
REMARKS			

1. PROVIDE WALL MOUNTED THERMOSTAT
2. PROVIDE NO DEFLECTION, EXPLOSION PROOF MODEL

DUCTLESS SPLIT SYSTEM

	MANUFACTURER	MITSUBISHI	MITSUBISHI	MITSUBISHI
INDOOR UNIT	IDENTIFICATION	AC-1-1/CU-1-1	AC-E-1/CU-E-1	AC-E-2/CU-E-2
	MODEL NUMBER	TPKA0A012LA10A	TPKA0A024	TPKA0A024
	COOLING E.A.T. DB/WB (°F)	75/64	75/64	75/64
	AIRFLOW (CFM)	325	700	700
	RATED CAPACITY (MBH)	12	24	24
	MCA	1	1	1
	DIMENSIONS (L"xW"xH")	10"x36"x12"	12"x46"x15"	12"x46"x15"
	WEIGHT (LBS)	50	50	50
OUTDOOR UNIT	IDENTIFICATION	CU-1-1	CU-E-1	CU-E-1
	MODEL NUMBER	TRUZA012AKA70NA	TRUYA024	TRUYA024
	AMBIENT	102	102	102
	VOLTAGE / PHASE	208/1	208/1	208/1
	MCA / MOCP	11 / 28	19 / 26	19 / 26
	DIMENSIONS (L"xW"xH")	32"x12"x25"	38"x13"x38"	38"x13"x38"
	WEIGHT (LBS)	115	175	175
ACCESSORIES REQUIRED		A,B,C,D,E,F,G,H	A,B,C,D,E,F,G	A,B,C,D,E,F,G

ACCESSORIES:
A. LOW AMBIENT OPERATION
B. INTERGRAL CONDENSATE PUMP
C. WIRED CONTROLER
D. AUTO RESTART AFTER POWER OUTAGE
E. WIND BAFFLE
F. DRAIN PAN LEVEL SENSOR KIT
G. WIND ANCHORING
H. QUANTITY OF 2 INDOOR UNITS

REMARKS:
INDOOR UNIT SETPOINTS TO BE 74°F (ADJ.)

CLAYCO
THE ART & SCIENCE OF BUILDING
2199 INNERBELT BUSINESS CENTER DRIVE
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ICT project number: 230019

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 38419 S. CURT WILLIAMS 01/17/25

AESC

AESC BATTERY MANUFACTURING PLANT
1330 ESTATE ROAD, FLORENCE, SOUTH CAROLINA 29506

DRAWING ISSUE

DESCRIPTION	DATE
PRICING SET	09.01.2023
PROGRESS PRINT	10.30.2023
GMP	02.14.2024
PERMIT SET	04.15.2024
CONSTRUCTION SET	07.03.2024
ASI 01	08.02.2024
ASI 04	09.13.2024
ASI 05	09.27.2024
ASI 06	10.11.2024
ASI 12	01.17.2025

DRAWING TITLE
MECHANICAL - SCHEDULES

SOUTH CAROLINA I.C. THOMASSON ASSOCIATES, INC. No. 675 CERTIFICATE OF AUTHORIZATION

DRAWING NO.
1.M0.007

PRO. # 007237

1/17/2025 7:59:02 AM

LINE 1
VAV 1-1 THRU 1-26

VARIABLE/CONSTANT VOLUME TERMINAL BOX SCHEDULE

SPINE-01

RFI 284 - VAVs Coil Pipe Clarification - ICT RESPONSE

DESIGNATION	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17
CFM	1,675	1,650	3,000	500	1,800	550	550	850	1,800	350	1,350	400	800	800	500	925	300
HEATING CFM	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MIN CFM	1,025	1,000	1,800	300	1,100	350	350	525	1,100	225	825	250	500	500	300	575	200
MAX SP H2O	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"
SOUND POWER LEVEL (NC)	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
DUCT RUN-OUT	18x12	18x12	36x16	10	18x12	10	10	12	18x12	8	15x12	8	12	12	10	12	8
BTU HR	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
ENT WTR TEMP (F)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
GPM	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
ROWS	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
WTR PD FT	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
EAT DB	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52
LAT DB	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
PIPING RUN-OUT SIZE	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

NOTES
1. ALL BOXES TO BE PRESSURE INDEPENDENT
2. DUCT RUN OUT SIZE DOES NOT MEAN INLET BOX SIZE. A TRANSITION MAY BE REQUIRED.
3. REHEAT COILS BASED ON 40 °F TEMPERATURE DROP.
4. ALL BOXES TO BE RATED AT 1.5" INLET STATIC PRESSURE AND 120/1/60
5. NC SCHEDULED IS RAW POWER SOUND LEVEL WITHOUT THE AID OF DUCTWORK FOR ATTENUATION.

VARIABLE/CONSTANT VOLUME TERMINAL BOX SCHEDULE

SPINE-01 — VAV1-26 SEE NEXT PAGE — SPINE-03

DESIGNATION	1-18	1-19	1-20	1-21	1-22	1-23	1-24	1-25	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9
CFM	150	150	500	1,050	1,050	1,300	350	250	300	800	900	300	925	1,000	425	625	725
HEATING CFM	---	---	---	---	---	---	225	---	---	---	---	---	---	---	---	---	---
MIN CFM	100	100	300	650	650	800	225	150	200	500	550	200	575	600	275	375	450
MAX SP H2O	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"
SOUND POWER LEVEL (NC)	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
DUCT RUN-OUT	6	6	10	12	12	15x12	8	8	8	12	12	8	12	12	10	10	10
BTU HR	---	---	---	---	---	---	5,000	---	---	---	---	---	---	---	---	---	---
ENT WTR TEMP (F)	---	---	---	---	---	---	140	---	---	---	---	---	---	---	---	---	---
GPM	---	---	---	---	---	---	0.3	---	---	---	---	---	---	---	---	---	---
ROWS	---	---	---	---	---	---	AS REQ'D	---	---	---	---	---	---	---	---	---	---
WTR PD FT	---	---	---	---	---	---	2	---	---	---	---	---	---	---	---	---	---
EAT DB	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52
LAT DB	---	---	---	---	---	---	72	---	---	---	---	---	---	---	---	---	---
PIPING RUN-OUT SIZE	---	---	---	---	---	---	7/8	---	---	---	---	---	---	---	---	---	---

NOTES
1. ALL BOXES TO BE PRESSURE INDEPENDENT
2. DUCT RUN OUT SIZE DOES NOT MEAN INLET BOX SIZE. A TRANSITION MAY BE REQUIRED.
3. REHEAT COILS BASED ON 40 °F TEMPERATURE DROP.
4. ALL BOXES TO BE RATED AT 1.5" INLET STATIC PRESSURE AND 120/1/60
5. NC SCHEDULED IS RAW POWER SOUND LEVEL WITHOUT THE AID OF DUCTWORK FOR ATTENUATION.

LINE 1
VAV 3-1 THRU 3-28

VARIABLE/CONSTANT VOLUME TERMINAL BOX SCHEDULE

SPINE-03 — VAV 3-27, 3-28 ON NEXT PAGE

DESIGNATION	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24	3-25	3-26
CFM	625	900	1,300	1,650	1,375	1,175	750	1,175	1,250	725	825	950	850	875	725	1,400	725
HEATING CFM	375	---	800	---	---	725	---	725	750	---	---	---	---	---	---	---	---
MIN CFM	375	550	800	1,000	825	725	450	725	750	450	500	575	525	525	450	850	450
MAX SP H2O	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"
SOUND POWER LEVEL (NC)	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
DUCT RUN-OUT	10	12	15x12	18x12	15x12	12	10	12	15x12	10	12	12	12	12	10	15x12	10
BTU HR	8,250	---	17,500	---	---	15,750	---	15,750	16,500	---	---	---	---	---	---	---	---
ENT WTR TEMP (F)	140	---	140	---	---	140	---	140	140	---	---	---	---	---	---	---	---
GPM	0.4	---	0.9	---	---	0.8	---	0.8	0.8	---	---	---	---	---	---	---	---
ROWS	AS REQ'D	---	AS REQ'D	---	---	AS REQ'D	---	AS REQ'D	AS REQ'D	---	---	---	---	---	---	---	---
WTR PD FT	2	---	2	---	---	2	---	2	2	---	---	---	---	---	---	---	---
EAT DB	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52
LAT DB	72	---	72	---	---	72	---	72	72	---	---	---	---	---	---	---	---
PIPING RUN-OUT SIZE	7/8	---	7/8	---	---	7/8	---	7/8	7/8	---	---	---	---	---	---	---	---

NOTES
1. ALL BOXES TO BE PRESSURE INDEPENDENT
2. DUCT RUN OUT SIZE DOES NOT MEAN INLET BOX SIZE. A TRANSITION MAY BE REQUIRED.
3. REHEAT COILS BASED ON 40 °F TEMPERATURE DROP.
4. ALL BOXES TO BE RATED AT 1.5" INLET STATIC PRESSURE AND 120/1/60
5. NC SCHEDULED IS RAW POWER SOUND LEVEL WITHOUT THE AID OF DUCTWORK FOR ATTENUATION.

LINE 1
VAV 4-1 THRU 4-15
VAV 5-1 THRU 5-9

VARIABLE/CONSTANT VOLUME TERMINAL BOX SCHEDULE

SPINE-04 — SPINE-05

DESIGNATION	4-1	4-2	4-3	4-4	4-5	4-6	4-7	4-8	4-9	4-10	4-11	4-12	4-13	4-14	4-15	5-1	5-2
CFM	2,500	2,500	2,500	2,500	2,250	2,500	2,500	525	200	1,225	2,450	2,450	350	400	1,000	3,675	3,675
HEATING CFM	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MIN CFM	1,500	1,500	1,500	1,500	1,350	1,500	1,500	325	125	750	1,475	1,475	225	250	600	2,225	2,225
MAX SP H2O	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"
SOUND POWER LEVEL (NC)	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
DUCT RUN-OUT	21x12	21x12	21x12	21x12	18x12	21x12	21x12	10	6	15x12	21x12	21x12	8	8	12	36x16	36x16
BTU HR	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
ENT WTR TEMP (F)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
GPM	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
ROWS	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
WTR PD FT	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
EAT DB	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52
LAT DB	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
PIPING RUN-OUT SIZE	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

NOTES
1. ALL BOXES TO BE PRESSURE INDEPENDENT
2. DUCT RUN OUT SIZE DOES NOT MEAN INLET BOX SIZE. A TRANSITION MAY BE REQUIRED.
3. REHEAT COILS BASED ON 40 °F TEMPERATURE DROP.
4. ALL BOXES TO BE RATED AT 1.5" INLET STATIC PRESSURE AND 120/1/60
5. NC SCHEDULED IS RAW POWER SOUND LEVEL WITHOUT THE AID OF DUCTWORK FOR ATTENUATION.

REHEAT COIL SCHEDULE

DESIGNATION	RH-1	RH-2	RH-3	RH-4	RH-5	RH-6	RH-7	RH-8	RH-9	RH-10	RH-11
CFM	725	575	1,125	3,900	3,075	2,800	400	5,900	7,000	500	2,000
DUCT RUN-OUT	12"x12"	12"x12"	16"x14"	34"x16"	28"x16"	26"x16"	10"x10"	32"x22"	36"x22"	12"x12"	20"x16"
PIPING RUN-OUT SIZE	5/8"	5/8"	7/8"	1 1/8"	7/8"	7/8"	5/8"	1-1/8"	1-1/8"	5/8"	7/8"
BTU HR	15,000	11,200	24,200	84,800	64,900	69,240	9,300	113,500	134,900	12,800	38,600
E.W.T. (F) / L.W.T. (F)	140/100	140/100	140/100	140/100	140/100	140/100	140/100	140/100	140/100	140/100	140/100
WATER FLOW (GPM)	0.8	0.7	1.2	4.3	3.3	3.0	0.5	5.8	6.9	0.7	2.0
E.A.T. (F) / L.A.T. (F)	50/68	50/68	50/68	50/68	50/68	50/68	50/68	50/68	50/68	50/68	50/68
FINS/INCH	14	8	8	8	8	8	8	8	8	8	9
MIN. # OF ROWS	2	3	2	2	2	2	3	2	2	3	2

NOTES
1. ALL REHEAT COILS AND HOUSINGS TO BE MADE OF NON-FERROUS MATERIALS.
2. DUCT RUN OUT SIZE DOES NOT MEAN COIL SIZE. A TRANSITION MAY BE REQUIRED.

CLAYCO
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I.C. Thomasson Associates, Inc.

AESC

AESC BATTERY MANUFACTURING PLANT

1330 ESTATE ROAD, FLORENCE, SOUTH CAROLINA 29506

DRAWING ISSUE

DESCRIPTION	DATE
PERMIT SET	04.15.2024
CONSTRUCTION SET	07.03.2024

DRAWING TITLE
MECHANICAL - SCHEDULES

DRAWING NO.
1.M0.008

PRO. # 007237

LINE 1
VAV 6-1 THRU 6-39

VARIABLE/CONSTANT VOLUME TERMINAL BOX SCHEDULE

SPINE-05 | VAV 5-9 END OF PAGE | SPINE-06

DESIGNATION	5-3	5-4	5-5	5-6	5-7	6-1	6-2	6-3	6-4	6-5	6-6	6-7	6-8	6-9	6-10	6-11	6-12
CFM	3,675	3,675	3,675	3,675	3,675	1,050	725	400	600	450	600	600	500	925	1,400	1,100	1,100
HEATING CFM	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MIN CFM	2,225	2,225	2,225	2,225	2,225	650	450	250	375	275	375	375	300	575	850	675	675
MAX SP H2O	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"
SOUND POWER LEVEL (NC)	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
DUCT RUN-OUT	36x16	36x16	36x16	36x16	36x16	12	10	8	10	10	10	10	10	12	15x12	12	12
BTU HR	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
ENT WTR TEMP (F)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
GPM	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
ROWS	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
WTR PD FT	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
EAT DB	52	52	52	52	52	48	48	48	48	48	48	48	48	48	48	48	48
LAT DB	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
PIPING RUN-OUT SIZE	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

NOTES
1. ALL BOXES TO BE PRESSURE INDEPENDENT
2. DUCT RUN OUT SIZE DOES NOT MEAN INLET BOX SIZE. A TRANSITION MAY BE REQUIRED.
3. REHEAT COILS BASED ON 40 °F TEMPERATURE DROP.
4. ALL BOXES TO BE RATED AT 1.5" INLET STATIC PRESSURE AND 120/1/60
5. NC SCHEDULED IS RAW POWER SOUND LEVEL WITHOUT THE AID OF DUCTWORK FOR ATTENUATION.

VARIABLE/CONSTANT VOLUME TERMINAL BOX SCHEDULE

SPINE-06

DESIGNATION	6-13	6-14	6-15	6-16	6-17	6-18	6-19	6-20	6-21	6-22	6-23	6-24	6-25	6-26	6-27	6-28	6-29
CFM	1,100	550	1,300	400	700	1,550	250	550	400	400	150	775	650	1,500	675	700	550
HEATING CFM	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MIN CFM	675	350	800	250	425	950	150	350	250	250	100	475	400	900	425	425	350
MAX SP H2O	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"
SOUND POWER LEVEL (NC)	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
DUCT RUN-OUT	12	10	15x12	8	10	15x12	8	10	8	8	6	12	10	15x12	10	10	10
BTU HR	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
ENT WTR TEMP (F)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
GPM	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
ROWS	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
WTR PD FT	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
EAT DB	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
LAT DB	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
PIPING RUN-OUT SIZE	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

NOTES
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2. DUCT RUN OUT SIZE DOES NOT MEAN INLET BOX SIZE. A TRANSITION MAY BE REQUIRED.
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5. NC SCHEDULED IS RAW POWER SOUND LEVEL WITHOUT THE AID OF DUCTWORK FOR ATTENUATION.

LINE 1
VAV 8-1 THRU 8-18

VARIABLE/CONSTANT VOLUME TERMINAL BOX SCHEDULE

SPINE-06 | VAV 6-39 END OF PAGE | SPINE-08

DESIGNATION	6-30	6-31	6-32	6-33	6-34	6-35	6-36	6-37	6-38	8-1	8-2	8-3	8-4	8-5	8-6	8-7	8-8
CFM	925	200	800	1,000	675	1,375	550	1,150	825	1,200	1,550	700	500	1,150	3,550	3,550	675
HEATING CFM	575	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MIN CFM	575	125	500	600	425	825	350	700	500	725	950	425	300	700	2,150	2,150	425
MAX SP H2O	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"
SOUND POWER LEVEL (NC)	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
DUCT RUN-OUT	12	6	12	12	10	15x12	10	12	12	12	15x12	10	10	12	36x16	36x16	10
BTU HR	15,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
ENT WTR TEMP (F)	140	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
GPM	0.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
ROWS	AS REQ'D	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
WTR PD FT	2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
EAT DB	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
LAT DB	72	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
PIPING RUN-OUT SIZE	7/8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

NOTES
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3. REHEAT COILS BASED ON 40 °F TEMPERATURE DROP.
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5. NC SCHEDULED IS RAW POWER SOUND LEVEL WITHOUT THE AID OF DUCTWORK FOR ATTENUATION.

VARIABLE/CONSTANT VOLUME TERMINAL BOX SCHEDULE

SPINE-08 | SPINE-01 | SPINE-03 | SPINE-03 | SPINE-05 | SPINE-06

DESIGNATION	8-9	8-10	8-11	8-12	8-13	8-14	8-15	8-16	8-17	8-18	1-26	3-27	3-28	5-8	6-39
CFM	1,150	500	775	475	750	275	850	775	500	1,375	700	800	350	1,400	400
HEATING CFM	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MIN CFM	700	300	475	300	450	175	525	475	300	825	425	500	225	825	250
MAX SP H2O	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"
SOUND POWER LEVEL (NC)	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
DUCT RUN-OUT	12	10	12	10	10	8	12	12	10	15x12	10	12	8	15x12	8
BTU HR	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
ENT WTR TEMP (F)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
GPM	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
ROWS	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
WTR PD FT	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
EAT DB	52	52	52	52	52	52	52	52	52	52	52	52	52	52	48
LAT DB	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
PIPING RUN-OUT SIZE	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

NOTES
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I.C. Thomasson Associates, Inc.
CONSULTING ENGINEERS
2900 KRAFT DRIVE
NASHVILLE, TENNESSEE 37204
PHONE (615) 244-3400
www.icthomasson.com
ICT project number: 23059

SOUTH CAROLINA PROFESSIONAL ENGINEER
No. 38419
7/3/24
SCOTT WILLIAMS

AESC

AESC BATTERY MANUFACTURING PLANT

1330 ESTATE ROAD, FLORENCE, SOUTH CAROLINA 29506

DRAWING ISSUE

DESCRIPTION	DATE
PERMIT SET	04.15.2024
CONSTRUCTION SET	07.03.2024

DRAWING TITLE
MECHANICAL - SCHEDULES

DRAWING NO.
1.M0.009

PRO. # 007237

SOUTH CAROLINA
I.C. THOMASSON ASSOCIATES, INC.
No. 675
CERTIFICATE OF AUTHORIZATION

7/3/2024 9:03:04 AM

EXHAUST FAN SCHEDULE

	LINE 1 EF-CPF-01 EF-CPF-02 EF-CPF-03	LINE 1 EF-LG-01	LINE 1 EF-EL-01	LINE 1 EF-IW-01	LINE 1 EF-CUP-01	LINE 1 EF-SPINE-02 EF-SPINE-04 EF-SPINE-05 EF-SPINE-09 EF-SPINE-12	LINE 1 EF-LT-01 EF-LT-02	LINE 1 EF-REF	LINE 1 EF-WASH-01 EF-WASH-02 EF-WASH-03 EF-WASH-04 EF-WASH-05		LINE 1 EF-1INJ-01	LINE 1 EF-2INJ-01			
TAG	EF-CPF-01 THRU 03	EF-LG-01	EF-EL-01	EF-IW-01	EF-CUP-01	EF-SPINE-02,04,05,09,12	EF-LT-01,02	EF-REF	EF-WASH-01,02	EF-WASH-03,04,05	EF-1INJ-01,02,03	EF-2INJ-01,02,03	EF-INSP-01,02,03		
SERVICE	CATHODE POWDER FEED	LOGISTICS	ELECTROLYTE	INBOUND WAREHOUSE	CUP	SPINE RESTROOMS	LEAN-TO BUILDINGS	CUP	ANODE/CATH. WASHING	2ND INJ. WASHING	1ST INJ.	2ND INJ.	INSPECTION		
MANUFACTURER	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK		
TYPE	BELTED VENTSET	BELTED VENTSET	BELTED VENTSET	BELTED VENTSET	INLINE	CENTRIFUGAL DOWNBLAST	CENTRIFUGAL DOWNBLAST	CENTRIFUGAL UP-BLAST	CENTRIFUGAL DOWNBLAST	CENTRIFUGAL UP-BLAST	CENTRIFUGAL UP-BLAST	CENTRIFUGAL UP-BLAST	CENTRIFUGAL DOWNBLAST		
SIZE/MODEL	USF-15	USF-18	USF-24	USF-36	SQ-70	G-120-VG	G-120-VG	CUE-480	G-100-VG	CUE-140	CUE-300	CUE-240	G-180		
CFM	2,500	4,350	7,600	17,250	225	1,150	1,125	22,000	900	2,350	12,875	5,325	3,900		
SP (IN W.C.)	1.75	1.75	1.75	1.75	0.50	0.75	0.75	0.50	0.75	0.75	0.75	0.75	0.50		
FAN RPM	1,766	1,556	1,037	748	1,618	1,362	1,349	415	1,545	1,725	860	860	1,140		
MAX. FAN RPM	2,555	2,074	1,526	1,051	2,487	1,725	1,725	490	1,725	1,725	860	860	1,140		
MOTOR RPM	1,725	1,725	1,725	1,725	1,725	1,725	1,725	1,725	1,725	1,725	860	860	1,140		
DRIVE TYPE	BELT	BELT	BELT	BELT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT		
APPROX. SIZE (WxLxH)	37"x37"x33"	40"x40"x40"	45"x45"x53"	67"x69"x72"	21"x17"x31"	25"x25"x24"	25"x25"x24"	75"x75"x48"	25"x25"x24"	29"x29"x30"	50"x50"x36"	43"x43"x34"	36"x36"x30"		
MIN. MOTOR HP	1 1/2	3	5	10	1/4	1/2	1/2	7 1/2	1/4	1 1/2	5	2	1 1/2		
ELECTRICAL															
VOLTAGE/PHASE	460/3	460/3	460/3	460/3	120/1	120/1	120/1	460/3	120/1	460/3	460/3	460/3	460/3		
POWER TYPE	EMERGENCY	EMERGENCY	EMERGENCY	EMERGENCY	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	EMERGENCY	EMERGENCY	NORMAL		
INLET SCREEN	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
OUTLET SCREEN	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES		
INLET DAMPER	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT		
OUTLET DAMPER	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
DISCONNECT/STARTER	DISCONNECT	DISCONNECT	DISCONNECT	DISCONNECT	DISCONNECT	DISCONNECT	DISCONNECT	DISCONNECT	DISCONNECT	DISCONNECT	DISCONNECT	DISCONNECT	DISCONNECT		
VFD / ECM CONTROLLER	VFD	VFD	VFD	VFD	ECM	ECM	ECM	VFD	ECM	VFD	VFD	VFD	VFD		
UNIT WEIGHT (lbs)	300	500	650	1,500	175	75	75	550	75	100	450	250	175		
INTERLOCK	---	---	---	---	RTU-4	SEE BELOW	SEE BELOW	---	SEE BELOW	SEE BELOW	---	---	SEE BELOW		
REMARKS	2,3,5,6	2,3,5,6	2,3,5,6	2,3,5,6	---	1,6	1,6	1,6	1,6	1,6	1,6	1,6	1,3		

REMARKS:
1. ROOF CURB
2. VIBRATION ISOLATORS
3. SUPPORT CURB RAILS
4. SPARK PROOF
5. PROVIDE A 10'-0" EXHAUST STACK FOR ALL BELTED VENT EXHAUST FANS

EF-SPINE-02 -> AHU-SPINE-01
EF-SPINE-04 -> AHU-SPINE-01
EF-SPINE-05 -> AHU-SPINE-03
EF-SPINE-09 -> AHU-SPINE-06
EF-SPINE-12 -> AHU-SPINE-08

EF-LT-01 -> RTU-1
EF-LT-02 -> RTU-2

EF-WASH-01 -> FCU-1
EF-WASH-02 -> FCU-2

EF-WASH-03 -> BCU-3-1
EF-WASH-04 -> BCU-3-2
EF-WASH-05 -> BCU-3-3

EF-INSP-01 -> AHU-15
EF-INSP-02 -> AHU-16
EF-INSP-03 -> AHU-17

	LINE 1 EF-P1 EF-P2 EF-P3	LINE 1 EF-SPINE-01	LINE 1 EF-SPINE-03	LINE 1 EF-SPINE-06	LINE 1 EF-SPINE-07 EF-SPINE-08 EF-SPINE-10		LINE 1 EF-SPINE-11 EF-SPINE-13 EF-SPINE-14				LINE 1 EF-2F-01	LINE 1 EF-2F-04	LINE 1 EF-L-1 EF-L-2		
TAG	EF-P1,P2,P3	EF-SPINE-01	EF-SPINE-03	EF-SPINE-06	EF-SPINE-07	EF-SPINE-08	EF-SPINE-10	EF-SPINE-11	EF-SPINE-13	EF-SPINE-14	EF-2F-01	EF-CPF-04	EF-L-1&2	EF-BAT	VOC-EF-RTO-4&5
SERVICE	PASSAGEWAYS	MATERIALS TESTING	MAINTENANCE WORKSHOP	HELIUM STORAGE	TVC TESTING	SORTING ROOM	ME PROCESSING	OPME OPERATION IMPROV.	FORMATION WASHING	JANITORIAL STORAGE	2F RESTROOMS	2F CATHODE UNPACK	LAUNDRY	CUP BATTERY ROOM	RTO EXHAUST
MANUFACTURER	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	LFSYSTEMS	GREENHECK	GREENHECK
TYPE	CENTRIFUGAL DOWNBLAST	CENTRIFUGAL UP-BLAST	CENTRIFUGAL UP-BLAST	CENTRIFUGAL UP-BLAST	CENTRIFUGAL UP-BLAST	CENTRIFUGAL UP-BLAST	CENTRIFUGAL UP-BLAST	CENTRIFUGAL UP-BLAST	CENTRIFUGAL UP-BLAST	CENTRIFUGAL DOWNBLAST	CENTRIFUGAL DOWNBLAST	BELTED VENTSET	BLOWER	CENTRIFUGAL DOWNBLAST	BLOWER
SIZE/MODEL	G-099	CUE-099	CUE-200HP	CUE-095	CUE-160	CUE-160	CUE-160	CUE-140	CUE-140	G-098	G-080-VG	USF-24	DEF	G-090-VG	USF-36
CFM	600	425	3,625	400	2,600	2,575	2,500	1,300	2,800	575	300	10,500	3,200	350	30,000
SP (IN W.C.)	0.75	0.50	0.75	0.50	0.75	0.75	0.75	0.75	0.75	0.75	0.50	1.75	1.50	0.3	5
FAN RPM	1,725	1,140	1,140	1,550	1,140	1,140	1,140	1,140	1,725	1,725	1,666	1,361	1,140	1,181	1,386
MAX. FAN RPM	1,725	1,140	1,140	1,550	1,140	1,140	1,140	1,140	1,725	1,725	1,725	1,989	1,140	1,181	1,459
MOTOR RPM	1,725	1,140	1,140	1,550	1,140	1,140	1,140	1,140	1,725	1,725	1,725	1,770	1,140	1,181	1,170
DRIVE TYPE	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	BELT	DIRECT	DIRECT	DIRECT
APPROX. SIZE (WxLxH)	19"x19"x36"	25"x25"x29"	37"x37"x29"	22"x22"x16"	29"x29"x30"	29"x29"x30"	29"x29"x30"	29"x29"x30"	29"x29"x30"	25"x25"x24"	22"x22"x15"	45"x45"x53"	36"x36"x28"	22"x22"x27"	104"x85"x65"
MIN. MOTOR HP	1/4	1/6	1 1/2	1/8	3/4	3/4	3/4	1/3	1 1/2	1/4	1/10	10	3	1/10	40
ELECTRICAL															
VOLTAGE/PHASE	120/1	120/1	460/3	120/1	120/1	120/1	120/1	120/1	460/3	120/1	120/1	460/3	460/3	115/1	460/3
POWER TYPE	NORMAL	NORMAL	NORMAL	EMERGENCY	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	EMERGENCY	EMERGENCY	EMERGENCY	EMERGENCY
INLET SCREEN	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	NO	NO
OUTLET SCREEN	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES	YES	YES
INLET DAMPER	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	NONE	NONE	BACKDRAFT
OUTLET DAMPER	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	BACKDRAFT	BACKDRAFT	NO
DISCONNECT/STARTER	DISCONNECT	DISCONNECT	DISCONNECT	DISCONNECT	DISCONNECT	DISCONNECT	DISCONNECT	DISCONNECT	DISCONNECT	DISCONNECT	DISCONNECT	DISCONNECT	DISCONNECT	DISCONNECT	DISCONNECT
VFD / ECM CONTROLLER	ECM	ECM	VFD	ECM	ECM	ECM	ECM	ECM	VFD	ECM	ECM	VFD	VFD	ECM	VFD
UNIT WEIGHT (lbs)	100	75	215	50	175	175	175	175	175	75	50	950	300	300	2,000
INTERLOCK	SEE BELOW	AHU-SPINE-01	AHU-SPINE-01	AHU-SPINE-04	AHU-SPINE-04	AHU-SPINE-05	AHU-SPINE-06	AHU-SPINE-06	AHU-SPINE-08	AHU-SPINE-08	BCU-2-27	---			
REMARKS	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	2,3,5,6	2,3,4,6	2,3,4,6	2,3,5

REMARKS:
1. ROOF CURB
2. VIBRATION ISOLATORS
3. SUPPORT CURB RAILS
4. SPARK PROOF
5. PROVIDE A 10'-0" EXHAUST STACK FOR ALL BELTED VENT EXHAUST FANS
6. DRYER EXHAUST FAN TO BE RATED FOR 300F CONTINUOUS USE

EF-P1 -> BCU-2-25
EF-P2 -> BCU-2-24
EF-P3 -> BCU-2-18

VAHU-01 VAHU-02 VAHU-03
VAHU-04 VAHU-05 VAHU-06
VAHU-07 VAHU-08 VAHU-09

EXHAUST FAN SCHEDULE

	EF-VOC-1A&B	EF-VOC-2A&B	EF-VOC-3A&B	EF-LCC-1,2,3	CF-HTA-1 THRU 8	CF-VOF-1 THRU 03	CF-RTS-1 THRU 10
TAG	EF-VOC-1A&B	EF-VOC-2A&B	EF-VOC-3A&B	EF-LCC-1,2,3	CF-HTA-1 THRU 8	CF-VOF-1 THRU 03	CF-RTS-1 THRU 10
SERVICE	VOC EXHAUST	VOC EXHAUST	VOC EXHAUST	LCC GENERAL EXHAUST	HTA CIRCULATION	VOF CIRCULATION	RTS CIRCULATION
MANUFACTURER	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK
TYPE	BELTED VENTSET	BELTED VENTSET	BELTED VENTSET	CENTRIFUGAL DOWNBLAST	INLINE	INLINE	INLINE
SIZE/MODEL	USF-20	USF-30	USF-30	G-300-VG	SQ-22-M2-VG	SQ-22-M2-VG	TBI-FS-4L36
	NUMEROUS DUCTS WITH SIZES, BUT NO CFM'S						
CFM	4,530	22,065	18,150	6,100	10,000	10,000	25,000
SP (IN W.C.)	4.75	5.75	5.75	1.00	1.50	1.50	1.50
FAN RPM	1,812	1,714	1,645	642	1,390	1,390	1,533
MAX. FAN RPM	1,960	2,102	2,182	840	1,650	1,650	1,750
MOTOR RPM	1,770	1,770	1,770	1,770	1,770	1,770	1,770
DRIVE TYPE	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
APPROX. SIZE (WxLxH)	36"x33"x43"	55"x57"x60"	55"x55"x60"	40"x40"x48"	35"x35"x32"	35"x35"x32"	50"x50"x47"
MIN. MOTOR HP	7 1/2	50	30	5	7-1/2	7-1/2	10
ELECTRICAL							
VOLTAGE/PHASE	460/3	460/3	460/3	460/3	460/3	460/3	460/3
POWER TYPE	EMERGENCY	EMERGENCY	EMERGENCY	NORMAL	NORMAL	NORMAL	NORMAL
INLET SCREEN	NO	NO	NO	YES	YES	YES	YES
OUTLET SCREEN	YES	YES	YES	NO	NO	NO	NO
INLET DAMPER	BACKDRAFT	BACKDRAFT	BACKDRAFT	NONE	NONE	NONE	NONE
OUTLET DAMPER	NO	NO	NO	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT
DISCONNECT/STARTER	DISCONNECT	DISCONNECT	DISCONNECT	DISCONNECT	DISCONNECT	DISCONNECT	DISCONNECT
VFD / ECM CONTROLLER	VFD	VFD	VFD	ECM	ECM	ECM	VFD
UNIT WEIGHT (lbs)	650	1,500	1,400	350	350	350	650
INTERLOCK	---	---	---	DHU-29,30,31	---	---	---
REMARKS	2,3,4,5	2,3,4,5	2,3,4,5	1	2	2,6	2

REMARKS:
1. ROOF CURB
2. VIBRATION ISOLATORS
3. SUPPORT CURB RAILS
4. PROVIDE A 10'-0" EXHAUST STACK FOR ALL BELTED VENT EXHAUST FANS
5. FAN TO BE RATED FOR 300F CONTINUOUS USE
6. FAN TO HAVE ENAMEL COATING WITH NO EXPOSED GALVANIZED STEEL.

EXHAUST FAN SCHEDULE

	EF-1INJ-04 THUR 06	EF-2INJ-04 THUR 06	SEF-2INJ-01	SEF-LCC-01 THRU 03	SEF-VOF-01 THRU 03	SEF-CG-01 THRU 03	SEF-FORM-01 THRU 03
TAG	EF-1INJ-04 THUR 06	EF-2INJ-04 THUR 06	SEF-2INJ-01	SEF-LCC-01 THRU 03	SEF-VOF-01 THRU 03	SEF-CG-01 THRU 03	SEF-FORM-01 THRU 03
SERVICE	EMERGENCY EXHAUST	EMERGENCY EXHAUST	SMOKE VENT. EXHAUST	SMOKE VENT. EXHAUST	SMOKE VENT. EXHAUST	SMOKE VENT. EXHAUST	SMOKE VENT. EXHAUST
MANUFACTURER	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK
TYPE	CENTRIFUGAL UPBLAST	CENTRIFUGAL UPBLAST	CENTRIFUGAL UPBLAST	CENTRIFUGAL UPBLAST	CENTRIFUGAL UPBLAST	CENTRIFUGAL UPBLAST	CENTRIFUGAL UPBLAST
SIZE/MODEL	CUE-300HP	CUE-120	CUBE-140HP	CUBE-100	CUBE-200	CUBE-420	CUBE-300
CFM	11,800	1,500	825	800	5,350	17,250	8,025
SP (IN W.C.)	0.75	0.75	1.00	0.75	0.75	1.00	1.00
FAN RPM	1,140	1,725	1,487	1,472	1,151	533	906
MAX. FAN RPM	1,140	1,725	2,111	1,821	1,211	601	860
MOTOR RPM	1,140	1,725	1,725	1,725	1,725	1,725	1,725
DRIVE TYPE	DIRECT	DIRECT	BELT	BELT	BELT	BELT	BELT
APPROX. SIZE (WxLxH)	40"x40"x36"	19"x19"x28"	29"x29"x40"	25"x25"x28"	37"x37"x29"	65"x65"x45"	36"x36"x50"
MIN. MOTOR HP	7 1/2	3/4	1/2	1/4	3	7 1/2	5
ELECTRICAL							
VOLTAGE/PHASE	460/3	120/1	120/1	120/1	460/3	460/3	460/3
POWER TYPE	EMERGENCY	EMERGENCY	EMERGENCY	EMERGENCY	EMERGENCY	EMERGENCY	EMERGENCY
INLET SCREEN	YES	YES	YES	YES	YES	YES	YES
OUTLET SCREEN	NO	NO	NO	NO	NO	NO	NO
INLET DAMPER	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT	BACKDRAFT
OUTLET DAMPER	NO	NO	NO	NO	NO	NO	NO
DISCONNECT/STARTER	DISCONNECT	DISCONNECT	DISCONNECT	DISCONNECT	DISCONNECT	DISCONNECT	DISCONNECT
VFD / ECM CONTROLLER	VFD	VFD	VFD	VFD	VFD	VFD	VFD
UNIT WEIGHT (lbs)	500	100	100	100	200	500	300
INTERLOCK	---	---	---	---	---	---	---
REMARKS	1,2	1,2	1,2,6	1,2,6	1,2,6	1,2,6	1,2,6

REMARKS:
1. ROOF CURB
2. VIBRATION ISOLATORS
3. SUPPORT CURB RAILS
4. PROVIDE A 10'-0" EXHAUST STACK FOR ALL BELTED VENT EXHAUST FANS
5. FAN TO BE RATED FOR 300F CONTINUOUS USE
6. FAN TO BE U.L. LISTED FOR SMOKE CONTROL

AIR CURTAIN SCHEDULE

	AC-1 THRU 9	AC-10 THRU 24	AC-25 THRU 28
TAG	AC-1 THRU 9	AC-10 THRU 24	AC-25 THRU 28
SERVICE	ENTRY VESTIBULES	OUT WAREHOUSE	IN WAREHOUSE
MANUFACTURER	MARS	MARS	MARS
TYPE	AIR CURTAIN	AIR CURTAIN	AIR CURTAIN
SIZE/MODEL	LPV242-1EBD	STD284-2U*-OB	STD284-2U*-OB
CFM	1,050	2840	2840
MOTOR RPM	1,725	1,725	1,725
DRIVE TYPE	DIRECT	DIRECT	DIRECT
APPROX. SIZE (WxLxH)	42"x12"x8"	84"x10.6"x12.8"	84"x10.6"x12.8"
MIN. MOTOR HP	1/6	1/2	1/2
HEAT TYPE	ELECTRIC	UNHEATED	UNHEATED
HEAT KW	8	N/A	N/A
ELECTRICAL			
VOLTAGE/PHASE	208/1	460/3	460/3
INLET SCREEN	YES	YES	YES
OUTLET SCREEN	GRILLE	GRILLE	GRILLE
INLET DAMPER	NO	NO	NO
OUTLET DAMPER	NO	NO	NO
DISCONNECT/STARTER	PROVIDED BY ELEC.	PROVIDED BY ELEC.	PROVIDED BY ELEC.
MAX. SONES	50 dBA	68 dBA	68 dBA
UNIT WEIGHT (lbs)	50	125	125
REMARKS			

1. SEE SPECIFICATIONS FOR ADDITIONAL ACCESSORIES
2. UNIT WEIGHT IS OF FAN ONLY
3. CONCEALED AIR CURTAIN TYPE
4. DOOR SWITCH, UNIT TO RUN WHILE DOOR IS OPEN
5. PROVIDE REPLACEMENT WASHABLE FILTER
6. PROVIDE THERMOSTAT AT DOOR

BYPASS HEATING UNIT SCHEDULE

LINE 1 VAHU-01 VAHU-02 VAHU-03

	VAHU-01 THRU 09
TAG	VAHU-01 THRU 09
SERVICE	HTS/VF
MANUFACTURER (BOD)*	YORK SOLUTION
MODEL #	XTI-72x126
UNIT DIMENSIONS (LxWxH) INCHES	149 x 126 x 72
UNIT WEIGHT (lbs)	5559
FAN	
SUPPLY CFM	22,500
DRIVE TYPE	DIRECT
VARIABLE FREQUENCY DRIVE	YES
SUPPLY ESP (IN W.C.)	1
SUPPLY TOTAL SP (IN W.C.)	3.93
FAN QUANTITY	2
HP/FAN	15
BHP/FAN	10.34
ELECTRICAL	460/3/60
FLA	36.2
MCA	40.7
MOCP	50
EMERGENCY POWER (YES / NO)	NO
HIGH EFFICIENCY FILTER	
TYPE	PRIMARY FILTER
DEPTH (IN) TYPE	4" MINI-PLEAT
MEDIA / MERV	60-65% / MERV 11
# OF SPARES	1
HEPA FILTER	
TYPE	PRIMARY FILTER
DEPTH (IN) TYPE	11.5" HEPA
MEDIA / MERV	99.97% EFF / MERV 17
# OF SPARES	1
HEATING CAPACITY (PER COIL)	
NUMBER OF COOLING COILS PER UNIT	1
TOTAL CAPACITY (MBH)	371
SENSIBLE CAPACITY (MBH)	371
CFM THRU COIL	22,500
WATER FLOW RATE (GPM)	30
MAX WATER PRESSURE DROP (FT/W.C.)	4.1
MAX AIR PRESSURE DROP (IN W.G.)	0.22
EWT (°F)	140
LWT (°F)	114.9
EAT (DB °F)	105
LAT (DB °F)	120
MIN. # OF ROWS	3
MAX. FACE VELOCITY (FT/MIN)	474
REMARKS	

1. PROVIDE PRESSURE INDEPENDENT MODULATING CHILLED WATER CONTROL VALVES, STRAINER, UNIONS, AND SHUT OFF BALL VALVES
2. MOTOR WITH VFD
3. FACTORY PROVIDED CONDENSATE OVERFLOW SWITCH AND SECONDARY DRAIN PAN
4. UNIT MOUNTED DISCONNECT
5. ALL UNITS TO BE STAINLESS STEEL ON INSIDE WITH STAINLESS STEEL COILS, AND PAINTED EXTERIOR CASING.
6. PROVIDE CONDENSATE PUMP WITH MINIMUM 25 FT LIFT.
7. T'STAT TO BE MOUNTED TO UNIT.

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AESC

SOUTH CAROLINA PROFESSIONAL ENGINEER No. 38419 CURT WILLIAMS 03/28/25

AESC BATTERY MANUFACTURING PLANT

1330 ESTATE ROAD, FLORENCE, SOUTH CAROLINA 29506

DRAWING ISSUE

DESCRIPTION	DATE
PERMIT SET	04.15.2024
CONSTRUCTION SET	07.03.2024
ASI 01	08.02.2024
ASI 06	10.11.2024
ASI 08	11.08.2024
ASI 12	01.17.2025
ASI 13	01.31.2025
ASI 15	02.28.2025
ASI 16	03.14.2025
ASI 17	03.28.2025

DRAWING TITLE
MECHANICAL - SCHEDULES

DRAWING NO.
1.M0.010

PRO. # 007237

3/30/2025 10:32:39 PM

ADMIN BUILDING

PACKAGE UNIT SCHEDULE

UNIT NO.	RTU-A1/A2
MANUFACTURER	AAON
MODEL NUMBER	RNA050DA3
APPROX. UNIT SIZE (L"xW"xH")	210"x101"x102"
APPROX. UNIT WEIGHT (LBS.) (UNIT ONLY)	8,237
SERVICE	ADMIN
UNIT LOCATION	OUTSIDE
TOTAL AIRFLOW (CFM)	18,000
OUTSIDE MAXIMUM AIRFLOW (CFM)	18,000
OUTSIDE MINIMUM AIRFLOW (CFM)	-
SUPPLY AIR FAN (QUANTITY)	1
TYPE	BELT
FAN MAX RPM	1009
EXTERNAL S.P.	1.50"
TOTAL S.P.	1.75"
MIN. MOTOR HORSEPOWER	20
VFD	YES
COOLING COIL	
AIRFLOW (CFM)	18,000
MAX FACE VELOCITY (FPM)	-
E.A.T. DB/WB (°F)	80/67
COIL L.A.T. DB/WB (°F)	62.8/58.1
TOTAL CAPACITY (MBH)	570.1
SENSIBLE CAPACITY (MBH)	409.9
EFFICINCEY (EER)	10.40
HEATING COIL (HEAT PUMP)	
HEAT INPUT (kW)	160
TEMP RISE (°F)	15.5
TOTAL CAPACITY (MBH)	308.4
AUXILIARY ELECTRIC HEATER	
HEAT INPUT (kW)	160
TEMP RISE (°F)	27.7
TOTAL CAPACITY (MBH)	545.9
ELECTRICAL	
VOLTAGE/PHASE	460/3
UNIT TOTAL MCA/MOC	237/250

REMARKS:
1. * INDICATES PREMIUM EFFICIENCY MOTOR
2. VFD FOR SUPPLY FAN
3. UNIT WEIGHT DOES NOT INCLUDE CURB
4. DISCONNECTS PROVIDED BY DIV.26
5. DUCT SMOKE DETECTORS TO BE INSTALLED ON SUPPLY AND RETURN DUCTS.
6. ECONOMIZER
7. POWERED EXHAUSTER

EXHAUST FAN SCHEDULE

TAG	EF-A1
SERVICE	GENERAL EXHAUST
MANUFACTURER	GREENHECK
TYPE	CENTRIFUGAL DN-BLAST
SIZE/MODEL	GB-140HP
CFM	815
SP (IN W.C.)	1.5
FAN RPM	589
MAX. FAN RPM	1,100
MOTOR RPM	589
DRIVE TYPE	DIRECT
APPROX. SIZE (WxLxH)	22"x22"x36"
MIN. MOTOR HP	1/2
ELECTRICAL	
VOLTAGE/PHASE	208/1
MCA/MOCP	6.8/15
INLET DAMPER	BACKDRAFT
DISCONNECT/STARTER	DISCONNECT
MAX. SONES	14.6
UNIT WEIGHT (lbs)	69
REMARKS	1,2,3,4

REMARKS:
1. ROOF CURB
2. VIBRATION ISOLATORS
3. SUPPORT CURB RAILS
4. ALL FANS TO BE NOA RATED WITH LABEL ON UNIT

VARIABLE VOLUME TERMINAL BOX SCHEUDLE RTU-A1

DESIGNATION	A1-1	A1-2	A1-3	A1-4	A1-5	A1-6	A1-7	A1-8	A1-9	A1-10	A1-11	A1-12	A1-13	A1-14	A1-15	A1-16
CFM	1000	3500	600	350	800	600	350	2800	600	2100	2350	1100	550	800	600	600
HEATING CFM	900	1700	600	600	900	600	600	1700	600	1600	1600	600	900	1600	600	900
MIN CFM	900	1700	600	600	900	600	600	1700	600	1600	1600	600	900	1600	600	900
MAX SP H2O	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"
SOUND POWER LEVEL (NC)	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
DUCT RUN-OUT	10	19	8	6	8	8	6	14	8	14	14	10	8	8	8	8
kW	3	6	-	-	-	-	-	6	-	6	6	-	3	6	-	3
DISCHARGE TEMP (°F)	95	95	-	-	-	-	-	95	-	95	95	-	95	95	-	95

NOTES
1. ALL UNITS TO BE PRESSURE INDEPENDENT.
2. DUCT RUN OUT SIZE DOES NOT MEAN INLET BOX SIZE. A TRANSISTION MAY BE RQUIRED.
3.ALL UNIST TO BE RATED AT 1.5" INLET STATIC PRESSURE AND 120/1/60.
4. NC SCHEDULED IS RAW POER SOUND LEVEL WITHOUT THE AID OF DUCTOWRK FOR ATTENUATION.

VARIABLE VOLUME TERMINAL BOX SCHEUDLE RTU-A2

DESIGNATION	A2-1	A2-2	A2-3	A2-4	A2-5	A2-6	A2-7	A2-8	A2-9	A2-10	A2-11	A2-12	A2-13	A2-14	A2-15	A2-16	A2-17	A2-18
CFM	3000	3080	840	300	200	600	320	320	600	2400	600	1000	720	450	600	340	280	380
HEATING CFM	1700	1700	900	250	250	600	600	600	600	900	900	900	900	900	900	900	250	250
MIN CFM	1700	1700	900	250	250	600	600	600	600	900	900	900	900	900	900	900	250	250
MAX SP H2O	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"	0.5"
SOUND POWER LEVEL (NC)	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
DUCT RUN-OUT	16	16	10	6	6	8	6	6	8	16	8	10	8	8	8	6	6	6
kW	6	6	3	3		-	-	-	-	-	-	-	-	6	6	-	3	3
DISCHARGE TEMP (°F)	95	95	95	95	95	-	-	-	-	-	-	-	-	95	95	-	95	95

NOTES
1. ALL UNITS TO BE PRESSURE INDEPENDENT.
2. DUCT RUN OUT SIZE DOES NOT MEAN INLET BOX SIZE. A TRANSISTION MAY BE RQUIRED.
3.ALL UNIST TO BE RATED AT 1.5" INLET STATIC PRESSURE AND 120/1/60.
4. NC SCHEDULED IS RAW POER SOUND LEVEL WITHOUT THE AID OF DUCTOWRK FOR ATTENUATION.

UNIT HEATER SCHEDULE

TAG	MANUFACRURER	MODEL	AIR DELIVERY	SINGLE STAGE KW	BTU/HR	AIR FLOW (CFM)	TEMP RISE(F)	HEAT THROW (FT)	MAXIMUM HEIGHT FOR THROW (FT)	VOLTAGE /PHASE	MOTOR(HP)	WEIGHT (LBS)	BASIS OF DESIGN
WWTP-EUH-P-1	MODINE	HEX5_60-35.0	HORIZONTAL	35	119450	3950	28	70	20	480V-3	1/2	212	MODINE-EXPLOSION PROOF
WWTP-EUH-P-2	MODINE	HEX5_60-35.0	HORIZONTAL	35	119450	3950	28	70	20	480V-3	1/2	212	MODINE-EXPLOSION PROOF
WWTP-EUH-P-3	MODINE	HEX5_60-35.0	HORIZONTAL	35	119450	3950	28	70	20	480V-3	1/2	212	MODINE-EXPLOSION PROOF
FP-EUH-1	MODINE	HER50C1201	HORIZONTAL	5	17060	400	40	20	10	240V-1	0.025	34	TOTALLY INCLOSED - SHADED POLE

EXHAUST FAN SCHEDULE

TAG	MANUFACTURER	MODEL	CFM	ESP(in wc)	Motor-HP	Volt-Phase	RPM	SCCR	NOTES:
~~WWTP-EF-1 - PROCESS~~	~~GREENHECK~~	~~CUBE-300HP~~	~~8,500~~	~~0.5~~	~~5 HP~~	~~460V-3 Phase~~	~~1000~~	~~5~~	~~1,2,3,5,6,7~~
FP-EF-1 FIRE PUMP ROOM	GREENHECK	CUBE-160	2,000	0.5	3/4 HP	120V-1Phase	1725	5	1,2,3

NOTES:
1. PROVIDE WITH UNIT MOUNTED ELECTRICAL DISCONNECT (STARTER FOR PF-EF-1
2. PROVIDE BACKDRAFT DAMPER
3. PROVIDE WITH 18" TALL SLOPED ROOF CURB
4. UNIT TO RUN CONTINUOUSLY
5. UNIT TO BE INTERLOCKED WITH THERMOSTAT IN SPACE AND VFD CONTROLLED FOR VENTILATION.
6. UNIT TO BE INTERLOCKED WITH EMERGENCY POWER.
7. PROVIDE VFD FOR INTERLOCK TO CONTROLS. UNIT TO RUN 100% ON VFD WHEN FIRE ALARM SYSTEM ENGAGES.

SPLIT SYSTEM CONDENSING UNIT SCHEDULE

TAG	MODEL	MANUFACTURER		ELECTRICAL			DIMENSIONS	WEIGHT
			MAX REFRIG LINESET LENGTH	VOLTAGE/PHASE	MCA	MOCP	SIZE (LXWXH)	
			FT	V/PH	A	A	INCHES	LBS
WWTP-ODU	RX18AXVJU	DAIKIN	98.4	208-230V/1PH	16.4	20	13-13/16x36-5/8x27-13/32	101

EVAPORATOR SCHEDULE

TAG	CONFIGURATION	MANUFACTURER	LOCATION	MANUFACTURER	MODEL	FAN				COOLING			HEATING	ELECTRICAL			DIMENSIONS	WEIGHT
						SUPPLY CFM	OA CFM	ESP	NOM CAPACITY	TOTAL CAPACITY	SENSIBLE CAPACITY	SEER	TOTAL CAPACITY	VOLTAGE/ PHASE	MCA	MOCP	SIZE (LXWXH)	
						(CFM)	(CFM)	(IN WG)	TONS	MBH	MBH		MBH	V/PH	A	A	INCHES	LBS
WWTP-IDU-1	WALL MOUNT	DAIKIN	IT ROOM	DAIKIN	FTX18AXVJU	716	-	N/A	1.5	18,000	14,480	18.5	21,600	120/1	N/A	15	11-1/3x39-1/2x11-11/16	31

CLAYCO
THE ART & SCIENCE OF BUILDING
2199 INNERBELT BUSINESS CENTER DRIVE
ST. LOUIS, MISSOURI 63114
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I.C. Thomasson Associates, Inc.
CONSULTING ENGINEERS
2950 KRAFT DRIVE
NASHVILLE, TENNESSEE 37204
PHONE (615) 346-3400
www.icthomasson.com
ICT project number: 230019

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 38419 S. CURT WILLIAMS 7/3/24

AESC

AESC BATTERY MANUFACTURING PLANT

1330 ESTATE ROAD, FLORENCE, SOUTH CAROLINA 29506

DRAWING ISSUE

DESCRIPTION	DATE
PERMIT SET	04.15.2024
CONSTRUCTION SET	07.03.2024

SOUTH CAROLINA I.C. THOMASSON ASSOCIATES, INC. No. 675 CERTIFICATE OF AUTHORIZATION

DRAWING TITLE
MECHANICAL - SCHEDULES

DRAWING NO.
1.M0.011

PRO. # 007237