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### LEGEND

SUPPLY		RETURN	
	DIFFUSER/GRILLE SYMBOL		GRILLE/LOUVER/DAMPER SYMBOL
	AIRFLOW CAPACITY (CFM)		SQUARE NECK SIZE (IN.)
	AIRFLOW CAPACITY (CFM)		ROUND NECK SIZE (IN.)

REFER TO GRILLE & DIFFUSER LEGEND FOR SCHEDULING DETAILS  
DIMENSIONS NOTED ON PLANS ARE IN INCHES UNLESS OTHERWISE NOTED.

### MECHANICAL SYMBOLS

	SUPPLY AIR DUCT SECTION		4-WAY CEILING DIFFUSER
	RETURN AIR DUCT SECTION		CEILING RETURN/EXHAUST GRILLE
	THERMOSTAT		SIDE WALL DIFFUSER
	NIGHT SETBACK THERMOSTAT		SIDE WALL RETURN
	SWITCH	AD	ACCESS DOOR
	UNDERCUT DOOR	FD	FIRE DAMPER
	HI/LO RETURN	RFD	ROUND FIRE DAMPER
	SPLITTER DAMPER	OFD	OVAL FIRE DAMPER
	TURNING VANES	FSD	FIRE SMOKE DAMPER
	MANUAL DAMPER	FC	FLEXIBLE CONNECTION
	MOTORIZED DAMPER	DAE	DUCT AIR EXTRACTOR
	CONNECT TO EXISTING	OA	OUTSIDE AIRFLOW
	TIMED OVERRIDE SWITCH	SD	SMOKE DAMPER
	SMOKE DETECTOR	AFF	ABOVE FINISHED FLOOR
	CARBON MONOXIDE DETECTOR	BFC	BELOW FINISHED CEILING
	CARBON DIOXIDE DETECTOR	CO	CASED OPENING
		-C-	CONDENSATE PIPING
		PCO	PIPE CLEAN-OUT

- ### MECHANICAL NOTES
- DO NOT SCALE DRAWING. ROUGH FROM EQUIPMENT MANUFACTURER AND ARCHITECTURAL DRAWINGS.
  - DIMENSIONS NOTED ON PLANS ARE IN INCHES UNLESS OTHERWISE NOTED.
  - DUCT SIZES NOTED ON PLANS ARE INTERIOR DIMENSIONS.
  - ROUTE CONDENSATE DRAIN LINES TO ROOF DRAINS, GUTTERS, FLOOR DRAINS, OR FRENCH DRAIN OR AS SHOWN ON DRAWINGS.
  - MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EQUIPMENT VOLTAGES, ELECTRICAL REQUIREMENTS AND DISCONNECTS WITH THE ELECTRICAL CONTRACTOR PRIOR TO RELEASING EQUIPMENT FROM MANUFACTURER.
  - SOME REFRIGERANT LINE LENGTHS AND/OR VERTICAL LIFTS MAY EXCEED MANUFACTURER'S RECOMMENDATIONS. MECHANICAL CONTRACTOR IS RESPONSIBLE FOR INSURING THE EQUIPMENT MANUFACTURER SIZES ALL REFRIGERANT LINES FOR THESE PIECES OF EQUIPMENT.
  - ALL DUCTWORK SHOWN ON DRAWINGS IS DIAGRAMMATIC. ACTUAL RUN SHALL BE SHORTEST POSSIBLE WITHOUT SHARP BENDS. ALL DUCTWORK SHALL BE GALVANIZED STEEL INSTALLED PER SMACNA INTERNATIONAL AND LOCAL CODES WITH 2-1/2" THICK FIBERGLASS DUCT WRAP INSULATION AND/OR AS OUTLINED IN SPECIFICATIONS.
  - ALL DUCTWORK SHALL BE SEALED AIRTIGHT WITH MASTIC ONLY. NO HEAT SENSITIVE, PRESSURE SENSITIVE OR DUCT TAPE ALLOWED ON PROJECT. DUCTWORK FROM AIR HANDLER TO VAV BOX IS TO BE PRESSURE TESTED PER SMACNA 4" MEDIUM PRESSURE CLASS.
  - ALL DUCTWRAP INSULATION SHALL BE SEALED PER MANUFACTURER'S RECOMMENDATIONS FOR GLASS FABRIC AND MASTIC INSTALLATIONS. NO PRESSURE SENSITIVE TAPE SHALL BE ALLOWED.
  - FLEXIBLE DUCTWORK WILL BE ALLOWED AT THE END OF GALVANIZED STEEL RUN OUTS. MAXIMUM LENGTH OF FLEXIBLE DUCT SHALL NOT EXCEED 8'-0" REFER TO TYPICAL RUN OUT DETAIL.
  - DUCT SMOKE DETECTORS FOR ALL RETURN AIR SYSTEMS 2000 CFM OR GREATER BY FIRE ALARM CONTRACTOR OR AUDIBLE/VISIBLE DETECTOR BY MECHANICAL CONTRACTOR WHEN NO FIRE ALARM SYSTEM AVAILABLE. DUCT SMOKE DETECTORS SHALL BE INSTALLED BY MECHANICAL CONTRACTOR PER CODE.
  - ENTIRE MECHANICAL SYSTEMS SHALL BE INSTALLED PER LATEST INTERNATIONAL CODES, LOCAL CODES, AND AUTHORITY HAVING JURISDICTION.
  - COORDINATION OF ALL MECHANICAL SYSTEMS WITH OTHER DISCIPLINES IS THE RESPONSIBILITY OF THE CONTRACTOR. NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO INSTALLING. CONTRACTOR SHALL NOT PROCEED WITH UNCERTAINTY.
  - PROVIDE PLASTIC NAMEPLATES FOR ALL EQUIPMENT SPECIFIED ON PROJECT. LABELING TAGS SHALL BE SAME AS EQUIPMENT NUMBER.
  - ALL PIPING SHALL BE MANUFACTURED IN THE UNITED STATES OF AMERICA UNLESS OTHERWISE SPECIFIED AND APPROVED BY ENGINEER.
  - ALL PIPING SUPPORT SPACING SHALL BE PER MSS-SP69 AND WITHIN 18" OF CURVE IN SUBJECTS.
  - ALL EQUIPMENT, PIPE AND DUCT SHALL BE SEISMICALLY RESTRAINED PER 2012 IBC SEISMIC RESTRAINT SYSTEMS AS MANUFACTURED BY MASON INDUSTRIES, AMBERLY, OH OR APPROVED EQUAL WHO MUST BE A MEMBER OF VISCOM. CONTRACTOR TO PROVIDE SEISMIC CALCULATIONS AND DRAWINGS CERTIFIED AND STAMPED BY AN ENGINEER EMPLOYED BY THE MANUFACTURER OR CALCULATIONS TO MEET ICC, IBC, NFPA, ASCE/SEI 7-10, SMACNA AND AUTHORITY HAVING JURISDICTION (AHJ).
  - PROVIDE TESTING AND BALANCING OF ALL SYSTEMS BY A T3B PAID PARTY. T3B CERTIFIED T&B CONTRACTOR. SUBMIT T&B FORMS PRIOR TO PERFORMING WORK FOR APPROVAL.
  - GENERAL AND MECHANICAL CONTRACTOR SHALL REVIEW AND APPROVE ALL SHOP DRAWINGS PRIOR TO SUBMITTING TO ENGINEER/ARCHITECT. PROVIDE GENERAL & MECHANICAL "APPROVED" OR "APPROVED AS NOTED" STAMPS ON SUBMITTAL PRIOR TO SUBMITTING FOR ENGINEER'S/ARCHITECT'S REVIEW.

### AIR DISTRIBUTION SCHEDULE

SYMBOL	TYPE	MANUFACTURER	MODEL NUMBER	FINISH	DAMPER	REMARKS
A	LAY-IN DIFFUSER	PRICE	ASPD-31	OFF-WHITE	W/OBD	
B	LAY-IN RETURN	PRICE	APDDR-3	OFF-WHITE		FLAT BLACK PLENUM
C	SURF. MTD. DIFFUSER	PRICE	ASPD-31	OFF-WHITE	W/OBD	12"x12" PANEL FOR 6" & 8" W/ PLASTER FRAME
D	SURF. MTD. RETURN	PRICE	APDDR-1	OFF-WHITE		12"x12" PANEL FOR 6" & 8" W/ PLASTER FRAME
DAE	DUCT AIR EXTRACTOR	PRICE	AE-1S			BLADES PARALLEL TO SHORT DIM.
M	MANUAL DAMPER	RUSKIN	MD-35/MDRS-25	MILL		
M	MOTORIZED DAMPER	RUSKIN	CD-60/CDRS-25	MILL		

REMARKS:  
- ALTERNATE AIR DISTRIBUTION SUPPLIERS SHALL INSURE THAT "NC" AND PERFORMANCE DATA MATCHES SPECIFIED DEVICES.  
- COORDINATE ALL AIR DISTRIBUTION STYLES AND LOCATIONS WITH ARCHITECTURAL CEILING GRID AND ELECTRICAL LIGHT LAYOUT PRIOR TO SUBMITTING SHOP DRAWINGS OR ORDERING.

### SPLIT SYSTEM HEAT PUMP SCHEDULE

MANUFACTURER	TRANE							
	HP-1	HP-2,3,4,5	HP-6	HP-7	HP-8	HP-9	HP-10,11	
INDOOR UNIT	TAM7A0A24	TAM7A0A24	TAM7A0C36	TAM7A0C36	TAM7A0C48	TAM7A0C48	TAM7B0C60	
MODEL NUMBER	TAM7A0A24	TAM7A0A24	TAM7A0C36	TAM7A0C36	TAM7A0C48	TAM7A0C48	TAM7B0C60	
SUPPLY AIRFLOW	750	900	1100	1300	1450	1450	1750	
EXTERNAL S.P. (IN)	.7	.7	.7	.7	.7	.7	.7	
FAN MOTOR HP	.5	.5	.5	.5	.75	.75	1	
EAT (DB/WB) (°F)	75/63	75/63	75/63	75/63	75/63	75/63	75/63	
UNIT LAT (DB/WB/DP) (°F)	53.9/52.1/50.7	54.9/52.9/51.5	54.5/52.7/51.4	54.1/52.3/50.9	53.8/52.1/50.8	53.2/51.8/50.9	53.6/52.2/51.0	
OUTSIDE AIR (CFM)	80	100	110	130	145	145	175	
AUX. HTR K.W.	7.68	7.68	9.6	9.6	9.6	9.6	14.48	
M.C.A.	44.0	44.0	54.0	54.0	54.0	54.0	70.2/25	
M.O.P.	45.0	45.0	60.0	60.0	60.0	60.0	70.2/25	
UNIT VOLTAGE	230/1/60	230/1/60	230/1/60	230/1/60	230/1/60	230/1/60	230/1/60	
WEIGHT (LBS.)	130	130	160	160	175	175	245	
OUTDOOR UNIT	HP-1A	HP-2A,3A,4A,5A	HP-6A	HP-7A	HP-8A	HP-9A	HP-10,11A	
MODEL NUMBER	4TWR4024	4TWR4030	4TWR4036	4TWR4042	4TWR7048	4TWR4048	4TWR4060	
FAN QUANTITY/HP	1 @ 0.125	1 @ 0.20	1 @ 0.20	1 @ 0.20	1 @ 0.25	1 @ 0.25	1 @ 0.20	
COMP. QUANTITY	1	1	1	1	1	1	1	
M.C.A.	12.0	15.0	22.0	26.0	28.0	25.0	32.0	
M.F.S.	20.0	25.0	35.0	45.0	48.0	45.0	50.0	
UNIT VOLTAGE	230/1/60	230/1/60	230/1/60	230/1/60	230/1/60	230/1/60	230/1/60	
WEIGHT (LBS.)	260	275	230	260	290	280	245	
AMBIENT (°F)	95	95	95	95	95	95	95	
TOTAL (NET BTUH)	21,927	26,063	31,944	37,116	44,325	45,258	54,693	
SENS. (NET BTUH)	16,224	19,797	14,370	29,398	32,973	34,253	41,034	
INTEGRATED HTG. CAP. @ 17°F	14,100	17,300	22,200	31,000	28,800	28,800	37,200	
SEER/EER RATING @ ARI	14.50/12.0	14.50/12.0	14.50/12.0	17.50/13.0	15.0/12.5	15.0/12.5	13.25/11.0	
HSPF/COP RATING @ 47°F	8.50/3.70	8.50/3.60	8.50/3.70	8.5/3.80	8.50/3.90	8.50/3.90	8.50/3.62	

REMARKS:  
- CONTRACTOR SHALL VERIFY VOLTAGE, ALL ELECTRICAL REQUIREMENTS AND CONFIRM DISCONNECTS ARE PROVIDED BY ELECTRICAL CONTRACTOR PRIOR TO ORDERING EQUIPMENT.  
- ALL CAPACITIES ARE NET TO INCLUDE INDOOR FAN HEAT.  
- UNIT LEAVING AIR CONDITION INCLUDES INDOOR FAN HEAT AND AS THE TEMPERATURE (DB/WB/DP) AT UNIT DISCHARGE.  
- PROVIDE WITH ECM INDOOR FAN MOTOR WITH COMFORT R MODE. SET AIRFLOW CONTROL DIP SWITCHES FOR CONSTANT CFM PER SCHEDULE AND ENHANCED MODE FOR DEHUMIDIFICATION.  
- EXTERNAL S.P. IS EXTERIOR TO UNIT. WATER CABINET.  
- PROVIDE HEAD PRESSURE CONTROL FOR COOLING OPERATION DOWN TO 0°F, SINGLE ENTRY POWER, COIL GUARD, COMPRESSOR SUMP HEATERS, FILTER RACK W/MERV 8 PLEATE FILTERS AND 3 YR. COMPRESSOR WARRANTY.  
- PROVIDE DIGITAL THERMOSTAT WITH MANUAL/AUTO/7 DAY PROGRAMMABLE SELECTABLE OPTIONS AND DEHUMIDIFICATION FEATURE. SET FOR 7 DAY PROGRAMMABLE MODE AND 60% RH.  
- REFRIGERANT LINES FOR SYSTEM TO BE SIZED BY EQUIPMENT MANUFACTURER TO MINIMIZE CAPACITY AND EFFICIENCY LOSSES AND OBTAIN MAXIMUM SYSTEM RELIABILITY. LINE SIZES FOR SYSTEM TO BE INCLUDED IN EQUIPMENT SUBMITTAL.  
- HP-10 TO BE TACHED HEAT PUMP

### ELECTRIC UNIT ATTIC HEATER SCHEDULE

SYMBOL	CH-1,2
MANUFACTURER	MARKEL
MODEL NUMBER	2F2F5105N
K.W. TOTAL	5.0
AMPS	24.1
B.T.U.H.	17,000
AIR RISE (°F)	40
VOLTAGE	230/1/60
THROW (FT)	8-12'

REMARKS:  
\* PRIOR TO ORDERING, CONTRACTOR SHALL VERIFY VOLTAGE AND ALL ELECTRICAL REQUIREMENTS.  
PROVIDE WITH DISCONNECT SWITCH, WALL MTD THERMOSTAT, SUMMER FAN SWITCH, HANGING BRACKET. VERIFY BRACKET WITH GC/MC PRIOR TO ORDERING. FAN GUARD (OFG) AND

### FAN SCHEDULE

SYMBOL	EF-1 THRU 9	EF-10,11,12	EF-13,14
	GREENHECK		
MANUFACTURER	GREENHECK		
MODEL NUMBER	SP-B110	SP-A200	SP-A390
AIRFLOW (C.F.M.)	75	150	250
STATIC PRESSURE (IN.)	0.625	0.375	0.375
SONES (MAX.)	2.5	3.0	5.0
MOTOR HORSEPOWER	FRACT.	FRACT.	FRACT.
FAN R.P.M.	950	900	1350
VOLTAGE	115/1/60	115/1/60	115/1/60
DRIVE TYPE	DIRECT	DIRECT	DIRECT
OPERATION	EXH.	EXH.	EXH.
DAMPER SIZE (IN)	6"x8"	8"x8"	8"x8"
WEIGHT (EXCLUDING CURB) (LBS.)	1	24	24

REMARKS:  
- PRIOR TO ORDERING, CONTRACTOR SHALL VERIFY VOLTAGE AND ALL ELECTRICAL REQUIREMENTS.  
- PROVIDE SOLID STATE SPEED CONTROLLER MOUNT TO CABINET  
- UNLESS NOTED, WIRE ALL FANS THRU LIGHT SWITCH  
- EF-13,14 INTERLOCK FAN WITH OUTSIDE "ISOLATION LIGHT"  
- EF-2 OMITTED FROM SCHEDULE AND NO LONGER USED  
- PROVIDE (1) COMMON REFRIGERANT SOFFIT GRILLE (MODEL #EL-10x3) FOR EF-8,9,10,11,16,17

### ELECTRIC WALL HEATER SCHEDULE

SYMBOL	WH-1
MANUFACTURER	MARKEL
MODEL NUMBER	H3455T
TOTAL K.W.	5.0
B.T.U.	17,060
AIR RISE (°F)	64.2
VOLTAGE	230/1/60
MOUNTING TYPE	SEMI RECESSED

REMARKS:  
- PRIOR TO ORDERING, CONTRACTOR SHALL VERIFY VOLTAGE AND ALL ELECTRICAL REQUIREMENTS.  
- PROVIDE FORCED AIR HEATER WITH TOTALLY ENCLOSED, PERMANENTLY LUBRICATED MOTOR, MANUAL RESET THERMAL OVERLOAD, INTEGRALLY MOUNTED THERMOSTAT, INTEGRAL CIRCUIT BREAKER, HORIZONTAL STEEL LOUVERS WITH ANODIZED ALUMINUM FRAME MOUNTED IN 16ga STEEL ZINC COATED ENCLOSURE WITH TAMPER-RESISTANT SCREWS.  
- PROVIDE WITH FACTORY MOUNTED EMS INTERFACE RELAY.  
(SEMI-RECESSED AND SURFACE MOUNTED ONLY)-PROVIDE FULL SURFACE MOUNTING EXTENSION FRAME.

### EXHAUST HOOD SCHEDULE

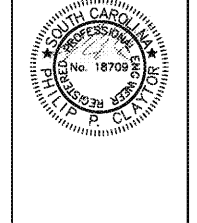
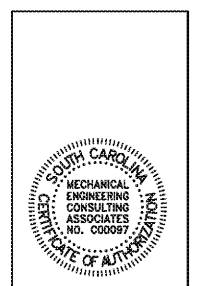
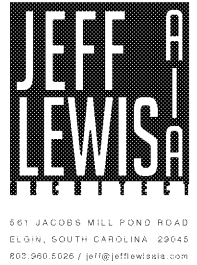
SYMBOL	KEH-1,2
MANUFACTURER	GREENHECK
MODEL NUMBER	GRRS-36-T-E
AIRFLOW (C.F.M.)	510
VOLTAGE	VERIFY

REMARKS:  
- PRIOR TO ORDERING, CONTRACTOR SHALL VERIFY VOLTAGE AND ALL ELECTRICAL REQUIREMENTS.  
- PROVIDE WITH CENTRIFUGAL IN-LINE EXHAUST FAN AND FACTORY WALL CAP. (KEH-1&2) TO BE FED FROM KEH-1& KEH-2. FACTORY SUPPLIED 25' PLENUM RATED- PLUG AND PLAY CONNECTION  
- PROVIDE WITH PRE-INSTALLED FIRE SUPPRESSION SYSTEM, APPLIANCE DISCONNECT, FUSIBLE LINK AND AUDIBLE ALARM.  
- PROVIDE WITH MANUAL PULL STATION (LOCATION PER AHJ).  
- HOOD TO BE NFPA 101 CODE COMPLIANT AND UL300A APPROVED.  
- PROVIDE STAINLESS STEEL ENCLOSURE AS SHOWN ON SHEET M201. VERIFY EXACT SIZE IN FIELD PRIOR TO FABRICATION.

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Designed: JAS  
Approved: PPC  
Job No: 116241L  
Plot Date: 08/21/2019



LUGOFF FACILITY EXPANSION  
SANDHILLS MEDICAL FOUNDATION

28 BALDWIN AVENUE  
LUGOFF, SOUTH CAROLINA 29078

REV.	DATE	DESCRIPTION

JOB #: 16-009-1 07.15.2019

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