

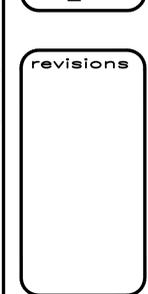
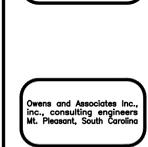
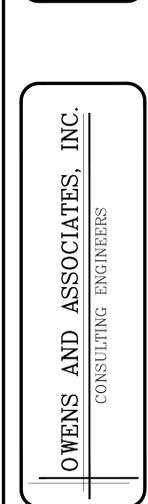
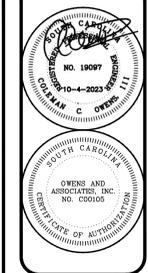
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# MYRTLE BEACH EARLY CHILDHOOD SCHOOL MECHANICAL RENOVATIONS-PHASE II

HORRY COUNTY SCHOOL DISTRICT  
Myrtle Beach, South Carolina

### SHEET INDEX:

- ME101 - OVERALL FLOOR PLAN
- ME102 - MECHANICAL AND ELECTRICAL FLOOR PLAN - SECTION A
- ME103 - MECHANICAL AND ELECTRICAL FLOOR PLAN - SECTION B
- ME104 - MECHANICAL AND ELECTRICAL FLOOR PLAN - 400 & 600 WINGS
- ME201 - MECHANICAL AND ELECTRICAL SCHEDULES AND DETAILS
- ME202 - MECHANICAL AND ELECTRICAL SCHEDULES AND DETAILS



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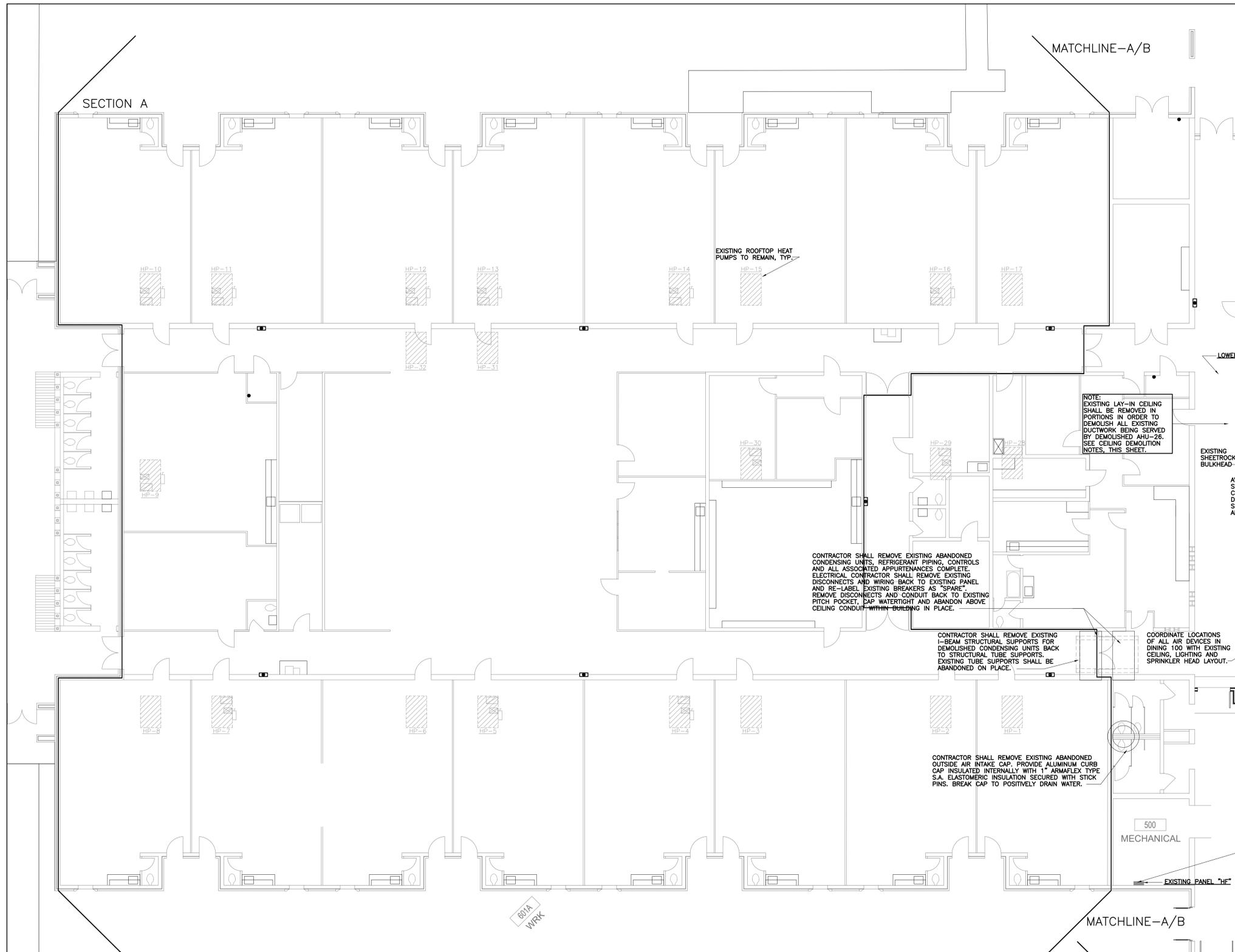


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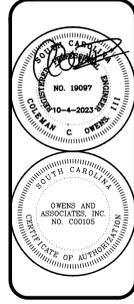
FIREWALL INDICATIONS	
	1 HOUR WALL
	2 HOUR WALL
	4 HOUR WALL
	SMOKE WALL



**MECHANICAL AND ELECTRICAL FLOOR PLAN-SECTION A**  
SCALE: 1/8"=1'-0"



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**OWENS AND ASSOCIATES, INC.**  
CONSULTING ENGINEERS

Owens and Associates Inc., consulting engineers  
Mt. Pleasant, South Carolina

**project:**  
**MYRTLE BEACH ECS**  
**MECHANICAL RENOVATIONS**  
**PHASE II**  
MYRTLE BEACH, SC

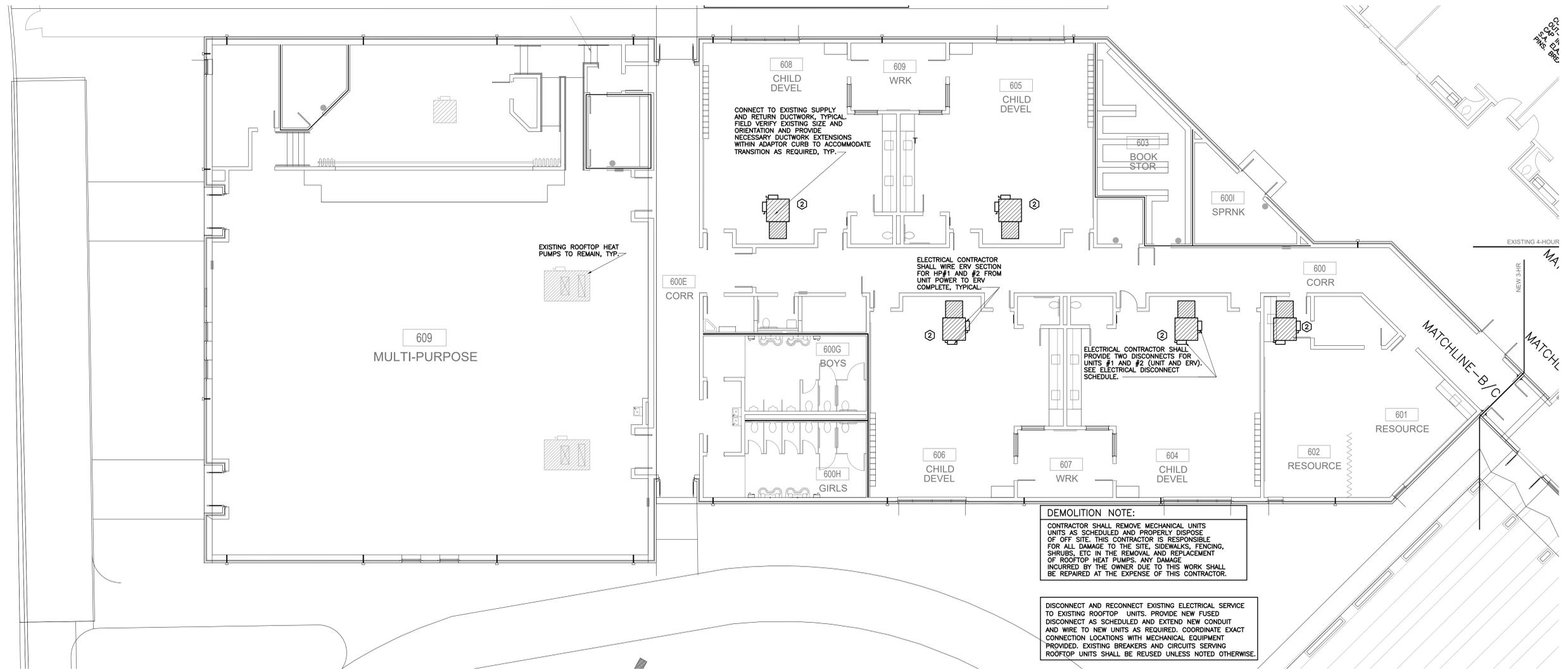
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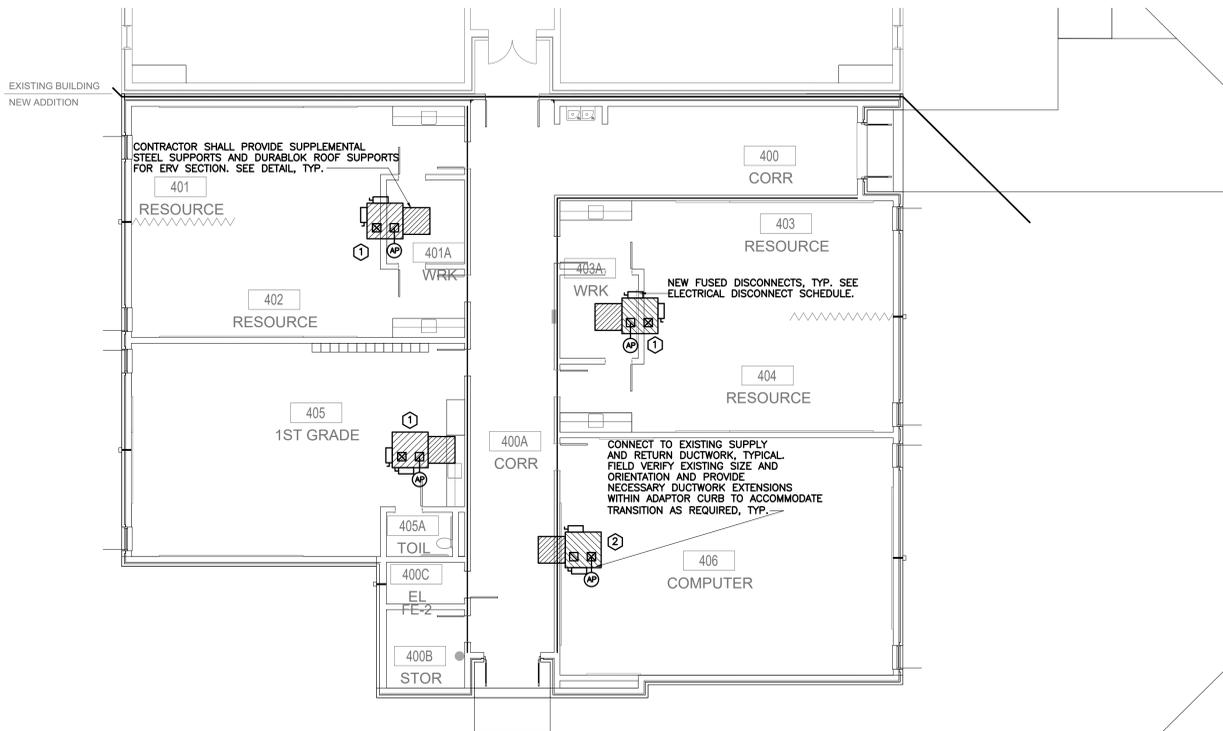




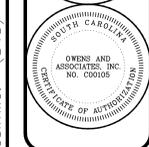
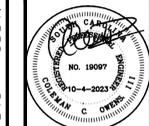
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**MECHANICAL AND ELECTRICAL FLOOR PLAN - 600 CLASSROOM WING**  
SCALE: 1/8"=1'-0"



**MECHANICAL AND ELECTRICAL FLOOR PLAN - 400 CLASSROOM WING**  
SCALE: 1/8"=1'-0"



**OWENS AND ASSOCIATES, INC.**  
CONSULTING ENGINEERS

Owens and Associates Inc.,  
Inc., Consulting Engineers  
Mt. Pleasant, South Carolina

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**MYRTLE BEACH ECS  
MECHANICAL RENOVATIONS  
PHASE II**  
MYRTLE BEACH, SC

revisions

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**ME104**

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**GENERAL MECHANICAL NOTES**

- CONTRACTOR SHALL FIELD VERIFY EXACT DIMENSIONS OF EXISTING ROOFTOP UNITS TO BE REPLACED. NEW CURB ADAPTORS SHALL BE SEISMICALLY RATED AND FIT EXISTING DUCT CONFIGURATIONS OF EXISTING DOWNFLOW ROOFTOP GAS PACKS/VAV RTUS. ADAPTORS SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION AND POSITIVELY SLOPED FOR DRAINAGE.
- REFER TO ROOF PLANS. COORDINATE EXACT LOCATIONS FOR ROOF-TOP EQUIPMENT WITH STRUCTURAL PLANS AND GENERAL CONTRACTOR. HEIGHT OF ALL MECHANICAL ROOF CURB ADAPTORS SHALL BE COORDINATED WITH THE MINIMUM HEIGHT REQUIREMENTS OF THE ROOFING BOND.
- CONTRACTOR SHALL FURNISH TO OWNER AT COMPLETION OF PROJECT, A COMPLETE SET OF WRITTEN OPERATING INSTRUCTIONS FOR ALL SYSTEMS.
- IN AREAS WHERE WORK IS TO OCCUR ABOVE EXISTING CEILING, CONTRACTOR SHALL REMOVE EXISTING CEILING, TILES AND LIGHT FIXTURES IN ORDER TO INSTALL NEW UNITS, PIPING, ETC. AT COMPLETION OF WORK, CONTRACTOR SHALL REINSTALL CEILING TRACK, TILES LIGHT FIXTURES AND ALL APPURTENANCES TO ORIGINAL CONDITION. ANY ITEMS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED NEW BY THIS CONTRACTOR.
- PROVIDE 2-1/2"x2-1/2"x1/4" GALVANIZED STEEL ANGLES, 3/8" THREADED HANGER ROD, AND OTHER SUPPLEMENTAL STEEL AS REQUIRED TO SUPPORT MECHANICAL EQUIPMENT FROM THE STRUCTURE, AHU'S, DUCTWORK, ETC.
- ALL RETURN DUCT CONNECTIONS TO AIR DEVICES SHALL BE RECTANGULAR UNLESS OTHERWISE INDICATED ON PLANS. USE OF FLEXIBLE DUCT FOR RETURN IS NOT PERMISSIBLE.
- REFER TO FLOOR PLANS FOR LOCATIONS OF FIRE-RATED ASSEMBLIES. CONTRACTOR SHALL COMPLETELY FILL AROUND ALL OPENINGS REQUIRED FOR HIS WORK IN ACCORDANCE WITH DETAILS WITH APPROVED FIRE-PROOF MATERIALS.
- CEILING AIR DEVICE INSTALLATIONS SHALL CONFORM TO THE APPROPRIATE UL ASSEMBLY NUMBER PER THE CODE ANALYSIS DATA FOR THIS PROJECT. CONTRACTOR SHALL SEAL ALL DUCTWORK WITH DUCT SEALANT PER SPECIFICATIONS. DUCT TAPE SHALL NOT BE USED TO SEAL DUCTWORK.
- THE CONTRACTOR IS INSTRUCTED TO VISIT THE SITE PRIOR TO SUBMITTING A BID TO FAMILIARIZE HIMSELF WITH ALL WORK TO BE ENCOUNTERED. NO EXTRA CHARGE WILL BE APPROVED AFTER START OF CONSTRUCTION FOR FAILURE TO FOLLOW THESE INSTRUCTIONS.
- CONTRACTOR SHALL PROVIDE THREADED RODS, 1/4", OR OTHER APPROVED MEANS TO LATERALLY SUPPORT ALL SUSPENDED MECHANICAL EQUIPMENT, DUCTS, ETC. IN ACCORDANCE WITH THE SEISMIC DESIGN REQUIREMENTS IN CHAPTER 16 OF THE INTERNATIONAL BUILDING CODE, LATEST EDITION.

DESIGN CONDITIONS		
	COOLING	HEATING
OUTSIDE	95F DB,80F WB	27F DB
INSIDE	78F DB,65F WB	72F DB

SYMBOL SCHEDULE	
SYMBOL	DESCRIPTION
Ⓣ	THERMOSTAT WITH LOCK COVER
Ⓜ	HUMIDISTAT WITH LOCK COVER
Ⓢ	CO2 SENSOR WITH LOCK COVER
Ⓢ	CARBON MONOXIDE SENSOR (FACTORY PROVIDED)
Ⓢ	AIR PURIFIER (GPS, WAVE-R, OR PRIOR EQUAL) BI-POLAR IONIZATION TYPE
Ⓢ	DUCT SMOKE DETECTOR BY FIRE ALARM CONTRACTOR. SEE ELECTRICAL NOTES.
Ⓢ	EXHAUST FAN
TR GR/EX GR	TRANSFER GRILLE / EXHAUST GRILLE
↺	AIR TURNING VANE
↺ S	SPLITTER DAMPER
FD/-	FIRE DAMPER / HOUR RATING
SD	SMOKE DAMPER
FSD	COMBINATION FIRE/SMOKE DAMPER
Ⓢ	INDICATION OF ROOF MOUNTED EQUIPMENT
Ⓢ	MANUAL DAMPER (O.B.M.D.)

HEAT PUMP SCHEDULE		
SYMBOL	①	②
COOLING CAP.(ARI)	36000	48000
HEATING CAP.(17F)	19300	24900
SUP. HTR.(KW)	12	17
CFM	1200	1600
EXT. SP. IN. H2O	0.7	0.8
FAN HP	1/2	3/4
VOLTS	480	
PHASE	3	
HERTZ	60	
MOC(AMPS)	45	50
REMARKS	SEE SPECS	
MANUFACTURER	TRANE/SEMCO	
MODEL	RTHP W/ HGR AND ERV	
VENT. AIR (CFM)	450	450

# UNITS 1 AND 2 SHALL BE PROVIDED WITH ENERGY RECOVERY VENTILATION SECTION AND HOT GAS REHEAT HUMIDITY CONTROL PER SPECIFICATIONS.  
 + BASIS OF EQUIPMENT DESIGN IS TRANE OR PRIOR APPROVED EQUAL. ANY ADDITIONAL REQUIREMENTS ELECTRICAL OR OTHERWISE TO USE OTHER APPROVED EQUIPMENT ARE THE RESPONSIBILITY OF THIS CONTRACTOR.  
 ++ ELECTRICAL CONTRACTOR SHALL CONNECT POWER SUPPLY FROM UNIT DISCONNECT TO ENERGY RECOVERY SECTION. REFER TO MANUFACTURER'S LITERATURE. ERV'S SHALL BE 480V, 3Φ.  
 +++ EXISTING UNITS ARE EQUIPPED WITH EXISTING BI-POLAR IONIZATION DEVICES TO REMAIN. DISCONNECT AND RECONNECT AP DEVICES TO NEW UNITS.

ELECTRIC DUCT HEATER SCHEDULE						
SYMBOL	LOCATION	TYPE	CAPACITY,BTUH	KW OR INPUT	VOLTS PH	REMARKS
EDH-1	AS SHOWN	DUCT MOUNTED	272800	80.0 KW	480 3	WARREN-CBK W/ SCR CONTROL

\*DUCT MOUNTED ELECTRIC HEATER SHALL BE AS MANUFACTURED BY WARREN. HEATER SHALL BE PROVIDED WITH SINGLE POINT POWER DISCONNECT AND SCR CONTROL. BUILDING AUTOMATION SYSTEM SHALL STAGE HEATER AS REQUIRED. HEATER SHALL BE INTERLOCKED WITH UNIT VFD CONTROL TO ENSURE REQUIRED AIRFLOW DURING HEATING.

DX-AHU SCHEDULE		
SYMBOL	AHU-26*	
CFM	SUPPLY AIR	10000
	OUTSIDE AIR	2000
	CAPACITY, MBTUH	494
	SENSIBLE CAP. MBTUH	311
	T, EDB	79.6
	T, EW	66.8
	T, LDB	51.1
	T, LWB	50.1
	EER	11.7
	HOT GAS REHEAT CAPACITY (MBH)	216
	EXT. SP. IN.	1.9
	FAN MTR HP	15
	VOLTS	480
	PHASE	3
	M.C.A. (AMPS)	28.3
	M.O.C.P. (AMPS)	45
REMARKS	HORIZONTAL VAV WITH VFD FAN MOTOR, SEE SPECIFICATIONS.	

- TRANE MODEL CSA021 VAV UNIT WITH VFD AND LOW AMBIENT CONTROLS. SEE SPECIFICATIONS.
- BASIS OF EQUIPMENT DESIGN IS TRANE. ANY ADDITIONAL REQUIREMENTS ELECTRICAL OR OTHERWISE TO USE OTHER APPROVED EQUIPMENT IS THE RESPONSIBILITY OF THIS CONTRACTOR.
- UNITS SHALL BE PROVIDED CONTINUOUS STRUCTURAL BASE RAIL TO ACCEPT EXTERNAL SEISMIC/VIBRATION SPRINGS AND CONTINUOUS SUPPORT VAV UNIT. SEE VAV AIR HANDLING UNIT DETAIL.
- UNIT SHALL BE PROVIDED WITH THE FOLLOWING FEATURES: STAINLESS STEEL IAQ SLOPED DRAIN PAN, 6000 HOUR SALT SPRAY CORROSION COATING FOR CONDENSER COILS, UNIT MOUNTED DISCONNECT, SOLID DOUBLE WALL CONSTRUCTION AND STRUCTURAL BASE RAIL. SEE NOTE 3 ABOVE.
- \*UNITS SO DESIGNATED SHALL BE PROVIDED WITH DUCT MOUNTED RETURN AIR SMOKE DETECTORS TO COMPLY WITH THE IMC. ADDRESSABLE MODULES TO INTERFACE WITH FIRE ALARM SHALL BE BY ELECTRICAL CONTRACTOR.

VAV CONDENSING UNIT SCHEDULE									
SYMBOL	CAPACITY MBH	VOLTS	PHASE	HZ.	COMP. (QUAN.)	EER	M.C.A. AMPS	M.O.C.P. AMPS	REMARKS
CU-26	494	480	3	60	4	11.7	87.0	100	TRANE RAU CONDENSING UNIT. REFRIGERANT COIL PIPING/CIRCUITRY SHALL BE INTERWIND WITH 4 COMPRESSOR MINIMUM STAGING CAPACITY.

NOTE: CONDENSING UNITS SHALL BE PROVIDED WITH SEACOAST COIL COATINGS FACTORY FURNISHED HOT GAS BYPASS KIT (TO BE INSTALLED BY M.C.). HEAD PRESSURE CONDENSER FAN CONTROL WITH LOW AMBIENT DOWN TO 0° F. SINGLE POWER BLOCK, PHASE/BROWNOUT PROTECTION AND HOT GAS REHEAT. SEE AHU SCHEDULE FOR MINIMUM EFFICIENCIES. SPLIT SYSTEM VAV UNITS REQUIRE A REFRIGERANT PIPING AND SPECIALTIES INSTALLATION INSPECTION AND STARTUP BY FACTORY TRAINED PERSONNEL. SEE SPECIFICATIONS.

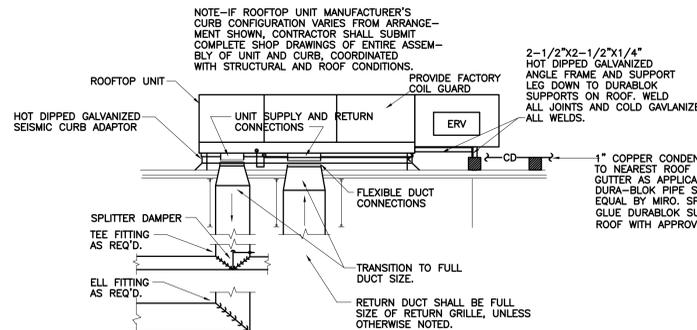
**VAV CONTROL NOTE:**  
 PROVIDE ADJUSTABLE SUPPLY AIR TEMPERATURE RESET PER THE FOLLOWING SCHEDULE (INITIAL SETTING):

OUTSIDE AIR	SUPPLY AIR
45° AND HIGHER	51°
44°	53°
42°	55°
40°	57°
38°	58°
36°	60°
34°	62°
32° AND BELOW	62°

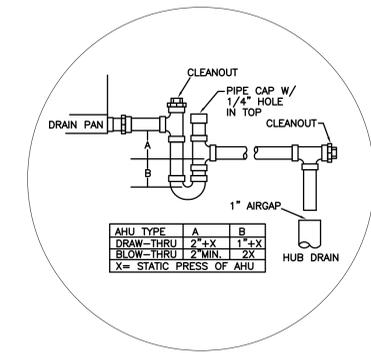
**CONTROL NOTE:**  
 AHU-26 SHALL BE CONTROLLED AS A SINGLE ZONE VAV SYSTEM. DURING THE COOLING SEASON, SUPPLY AIR COIL DISCHARGE AIR TEMPERATURE SHALL BE SET AT 51° AND THE SPACE COOLING DEMAND SHALL BE ACHIEVED BY STAGING COMPRESSORS AND VARYING AIRFLOW VIA THE SUPPLY FAN VFD. DURING UNOCCUPIED HOURS AND WHEN SPACE CARBON DIOXIDE LEVELS ARE BELOW 1000 PPM, THE OUTSIDE AIR DAMPER SHALL REMAIN CLOSED. UPON REACHING 1000 PPM, THE OUTSIDE AIR DAMPER SHALL MODULATE OPEN TO INTRODUCE OUTSIDE AIR INTO THE BUILDING. SPACE RH MAX SHALL BE SET AT 65%(ADJ). ONCE SPACE RH EXCEEDS THE ADJUSTABLE SETPOINT, THE BAS SHALL ENABLE HOT GAS REHEAT IN AHU-26 TO CONTROL THE RELATIVE HUMIDITY. SUPPLY AIR TEMPERATURE RESET SHALL BE BASED INITIALLY ON THE ABOVE RESET SCHEDULE AND SHALL BE BASED ON MAINTAINING BOTH INDOOR SPACE TEMPERATURE AND HUMIDITY SETPOINTS.

ROOFTOP UNIT ELECTRICAL DISCONNECT SCHEDULE						
SYM.	DISCONNECT (AMPS)	M.O.C.P. (AMPS)	VOLTAGE	PHASE	REQUIREMENTS	
①	60	45	480	3	1" C.-3#6 AND 1#10 GROUND (CONNECT ERV COMPLETE*)	
②	60	50			1" C.-3#6 AND 1#10 GROUND (CONNECT ERV COMPLETE*)	
AHU-26	60	45			1" C.-3#6 AND 1#10 GROUND (REPLACE BREAKER-SEE NOTES)	
CU-26	100	100			2" C.-3#2 AND 1#6 GROUND (REPLACE BREAKER-SEE NOTES)	
EDH-1	200	125			2" C.-3#1 AND 1#6 GROUND (REPLACE BREAKER-SEE NOTES)	

NOTES: FUSE NEW DISCONNECTS TO THE M.O.C.P. OF EQUIPMENT PROVIDED. DISCONNECTS SHALL BE NEMA 3R BY SQUARE-D OR APPROVED EQUAL.  
 \*ROOFTOP UNITS #1 AND #2 ARE EQUIPPED WITH ENERGY RECOVERY VENTILATORS. CONTRACTOR SHALL PROVIDE POWER WIRING AS REQUIRED FROM UNIT DISCONNECT TO UNIT ERV @ 3-#12&GND, 480V/3Φ TO SEPARATE 30A FUSED DISCONNECT. FUSE ERV TO 15 AMPS OR AS RECOMMENDED BY UNIT MANUFACTURER.  
 \*\*COORDINATE ALL FUSE SIZES WITH MANUFACTURERS RATED MOC REQUIREMENTS.  
 \*\*\*SEE EXISTING AND REVISED PANEL SCHEDULES FOR NEW CIRCUIT BREAKER AND WIRING TO EXISTING PANELS "HD" AND "HF".



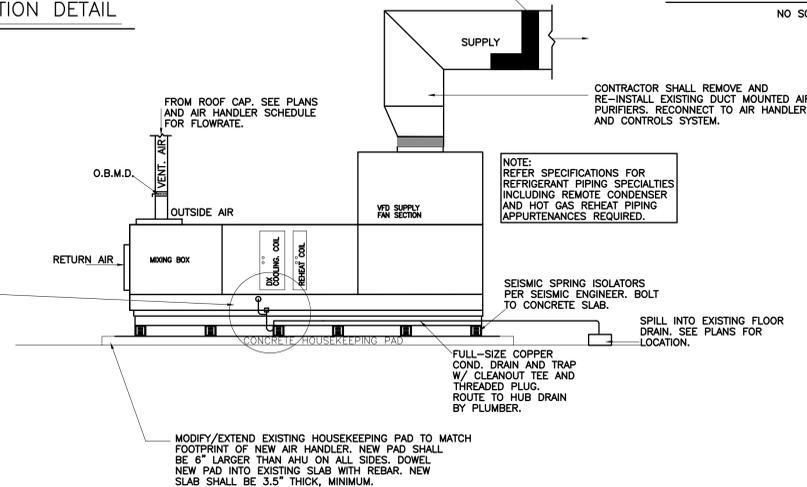
**ROOFTOP UNIT WITH ERV INSTALLATION DETAIL**  
 NO SCALE



AHU TYPE	A	B
DRAW-THRU	2' X 2'	2' X 2'
BLOW-THRU	2' MIN.	2'
X=	STATIC PRESS OF AHU	



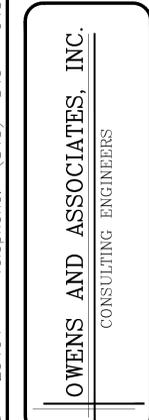
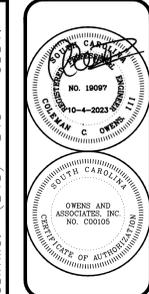
**DUCT BRANCH FITTING DETAIL**  
 NO SCALE



**SINGLE ZONE SPLIT SYSTEM VAV AIR HANDLING UNIT (AHU-26)**  
 NO SCALE

**GENERAL ELECTRICAL NOTES:**

- DUE TO THE NATURE OF WORK COVERED UNDER THESE PLANS AND SPECIFICATIONS, ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING VISITED THE SITE TO FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS PRIOR TO SUBMITTING HIS BID.
- ALL CONDUIT PENETRATIONS OF FIRE RATED WALLS AND/OR CEILINGS SHALL BE FIRESTOPPED AS PER UL STANDARDS.
- ALL CONDUIT PENETRATIONS OF EXTERIOR WALLS SHALL BE SEALED AND MADE WEATHERPROOF.
- CONTRACTOR SHALL REMOVE AND REINSTALL EXISTING CEILING TILES AS NECESSARY FOR THE INSTALLATION OF NEW CONDUITS AND DEVICES. CONTRACTOR SHALL REPLACE ANY TILE DAMAGED BY THIS WORK. NEW CEILING TILES TO MATCH EXISTING.
- ALL CONDUIT RUNS SHOWN ON THESE DRAWINGS ARE APPROXIMATE. ELECTRICAL CONTRACTOR SHALL FIELD VERIFY LENGTH AND LOCATION.
- ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS AND THE SPECIFICATIONS, FOR ALL BID ALTERNATES AND ALL PHASING INFORMATION, PRIOR TO SUBMITTING HIS BID.
- ALL BREAKERS FEEDING MECHANICAL EQUIPMENT SHALL BE HACR TYPE.
- THE MECHANICAL EQUIPMENT BASIS OF DESIGN IS AS INDICATED ON THE MECHANICAL DRAWINGS. THE ELECTRICAL CONTRACTOR SHALL VERIFY THE ELECTRICAL REQUIREMENTS OF THE MECHANICAL EQUIPMENT WITH THE MECHANICAL CONTRACTOR PRIOR TO ORDERING MATERIALS. MODIFICATIONS TO ANY ELECTRICAL SYSTEM REQUIRED FOR MECHANICAL EQUIPMENT WHICH DIFFERS FROM THE MECHANICAL BASIS OF DESIGN SHALL BE THE RESPONSIBILITY OF THE MECHANICAL AND ELECTRICAL CONTRACTORS. IN NO CASE SHALL SUBSTITUTION OF MECHANICAL EQUIPMENT RESULT IN ADDITIONAL COSTS TO THE OWNER.
- ELECTRICAL CONTRACTOR SHALL USE LOCATOR SERVICE TO IDENTIFY ALL UNDERGROUND UTILITIES. DAMAGE TO ANY EXISTING UTILITIES RESULTING FROM INSTALLATION OF NEW ELECTRICAL EQUIPMENT SHALL BE REPAIRED BY THE ELECTRICAL CONTRACTOR.
- ALL FEEDERS SHALL BE ROUTED CONCEALED. ELECTRICAL CONTRACTOR SHALL SAW CUT AND PATCH EXISTING CONCRETE AS NECESSARY TO ROUTE UNDERGROUND CONDUITS. ABOVE CEILING CONDUITS SHALL BE ROUTED CONCEALED.
- ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR BRINGING THE SITE BACK TO ORIGINAL CONDITIONS AFTER THE COMPLETION OF UNDERGROUND ELECTRICAL WORK. THIS IS INCLUSIVE OF SAW CUT ASPHALT AND CONCRETE SURFACES, EXISTING VEGETATION, GRASS, SITE GRADING ETC. THIS CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO THE SITE/FACILITY CAUSED BY ELECTRICAL CONSTRUCTION.
- ANY EXISTING ELECTRICAL EQUIPMENT NOT BEING REMOVED OR RELOCATED BUT ON THE SAME CIRCUIT AS ANY ELECTRICAL EQUIPMENT BEING REMOVED OR RELOCATED SHALL BE RECONNECTED TO ALLOW FOR NORMAL OPERATION UNLESS SHOWN OTHERWISE ON THE NEW WORK DRAWINGS. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY MATERIALS AND LABOR FOR THE RECONNECTION OF SAID DEVICES.
- ELECTRICAL CONTRACTOR SHALL RELOCATE ANY EXISTING ELECTRICAL EQUIPMENT, CIRCUITRY, OR CONDUIT THAT INTERFERES WITH DEMOLITION OR INSTALLATION WORK AND PROVIDE ALL NECESSARY MATERIALS AND LABOR NEEDED TO RETURN THE RELOCATED EQUIPMENT TO A SAFE AND OPERATING CONDITION THAT CONFORMS TO THE CURRENT EDITION OF THE N.E.C. AND ALL LOCAL REGULATIONS. COORDINATE ALL WORK WITH THE OWNER'S REPRESENTATIVE AND ALL OTHER TRADES.
- ANY DEVICE INTERFERING WITH DEMOLITION OR INSTALLATION, NOT BEING REMOVED OR RELOCATED, SHALL NOT BE MOVED WITHOUT WRITTEN CONSENT FROM THE OWNER'S REPRESENTATIVE.
- ALL WORK SHALL BE IN COMPLIANCE WITH THE CODES AND STANDARDS LISTED IN THE ARCHITECTURAL CODE ANALYSIS FOUND ELSEWHERE IN THESE CONTRACT DOCUMENTS.
- BUILDING FIRE ALARM CONTRACTOR SHALL PROVIDE NEW DUCT SMOKE DETECTOR MOUNTED IN THE RETURN OF NEW AHU-26. DUCT DETECTOR SHALL BE CONNECTED TO THE EXISTING BUILDING FIRE ALARM SYSTEM. UPON ACTIVATION, THE DUCT SMOKE DETECTOR SHALL SHUT DOWN THE ASSOCIATED AIR HANDLING UNIT AND ASSOCIATED CONDENSING UNIT AND SEND A "TROUBLE" SIGNAL TO THE BUILDING FIRE ALARM CONTROL PANEL. DUCT DETECTOR SHALL NOT SOUND THE FIRE ALARM SYSTEM AS A GLOBAL ALARM. COORDINATE INTERFACE OF DUCT DETECTOR SHUTDOWN WITH CMI. ALL WIRING AND CONDUIT ASSOCIATED WITH DUCT DETECTORS, OR ANY OTHER FIRE ALARM DEVICE AS SHOWN ON THESE PLANS IS THE RESPONSIBILITY OF THE FIRE ALARM CONTRACTOR AND SHALL BE INCLUDED IN THE BID.



Owens and Associates Inc., Inc., consulting engineers Mt. Pleasant, South Carolina

project:  
**MYRTLE BEACH ECS MECHANICAL RENOVATIONS PHASE II**  
 MYRTLE BEACH, SC

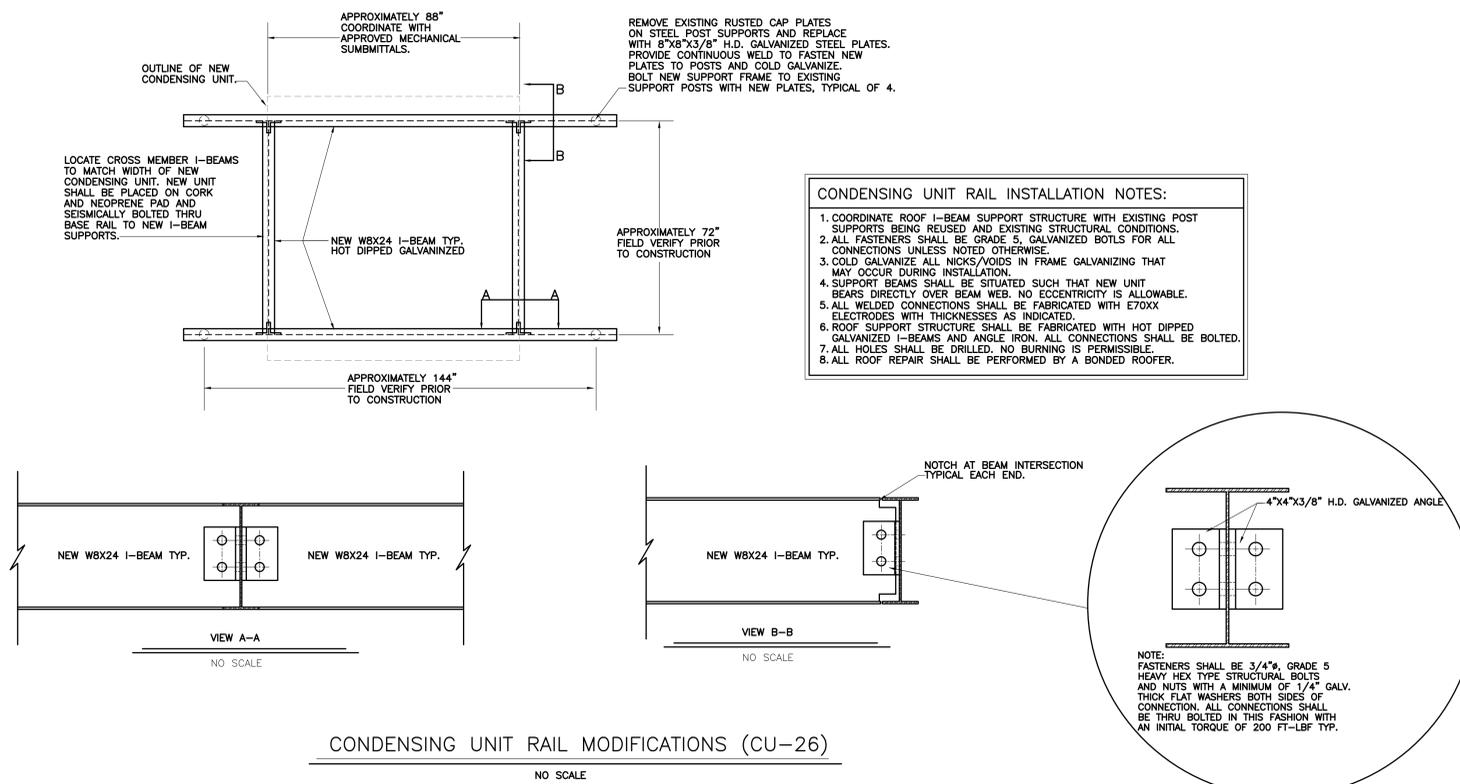
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CONDENSING UNIT RAIL MODIFICATIONS (CU-26)

NO SCALE

EXISTING PANEL SCHEDULE "HD"					
PANEL	"HD"	SURF	MOUNTED	TYPE	S.O.D. EXIST. 400 AMP
277/480 VOLTS 3 PHASE, 4 WIRE S.N. W/ MAIN LUGS ONLY					
EXISTING	1	30	30	2 EXISTING	
EXISTING	3	30	30	4 EXISTING	
EXISTING	5	30	30	6 EXISTING	
HP-25	7	30	30	8 HP-19	
HP-24	9	30	30	10 HP-20	
HP-24	11	30	30	12 HP-21	
HP-24	13	30	30	14 SPARE	
AHU-26	15	30	30	16 SPARE	
CONDENSING UNIT 26	17	30	30	18 AHU-26 DUCT HEATER	

NEW PANEL SCHEDULE "HD"					
PANEL	"HD"	SURF	MOUNTED	TYPE	S.O.D. EXIST. 400 AMP
277/480 VOLTS 3 PHASE, 4 WIRE S.N. W/ MAIN LUGS ONLY					
EXISTING	1	30	30	2 EXISTING	
EXISTING	3	30	30	4 EXISTING	
EXISTING	5	30	30	6 EXISTING	
HP-25	7	30	30	8 HP-19	
HP-24	9	30	30	10 HP-20	
HP-24	11	30	30	12 HP-21	
HP-24	13	30	30	14 SPARE	
HP-24	15	30	30	16 SPARE	
NEW AHU-26	17	30	30	18 NEW CU-26	
1" C-3#6 & #10 GND				2" C-3-#2 AND #6 GND.	
CONNECT TO AHU VIA VFD					
SPARE					

NOTE: PROVIDE NEW TYPE HACR BREAKERS FOR NEW AHU/CU-26. DEMOLISH EXISTING CIRCUIT #17 BACK TO PANEL. EXISTING 90A BREAKER SHALL REMAIN AS SPARE. MATCH PANEL CHARACTERISTICS.

EXISTING PANEL SCHEDULE "HF"					
PANEL	"HF"	SURF	MOUNTED	TYPE	S.O.D. EXIST. 400 AMP
277/480 VOLTS 3 PHASE, 4 WIRE S.N. W/ MAIN LUGS ONLY					
HP-01	1	30	30	2 WALL HEATER	
	3	30	30	4 SPARE	
	5	30	30	6 SPARE	
HP-02	7	30	30	8 P25 LIGHTS	
	9	30	30	10 SPARE	
	11	30	30	12 SPARE	
HP-03	13	30	30	14 HP-08	
HP-04	15	30	30	16 CONDENSING UNIT #2	
HP-05	17	30	30	18 WIRE GUTTER #2	
HP-06	19	30	30	20 SPACE	
HP-07	21	30	30	22 SPACE	

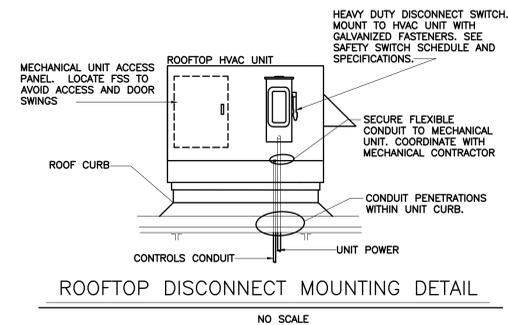
NEW PANEL SCHEDULE "HF"					
PANEL	"HF"	SURF	MOUNTED	TYPE	S.O.D. EXIST. 400 AMP
277/480 VOLTS 3 PHASE, 4 WIRE S.N. W/ MAIN LUGS ONLY					
HP-01	1	30	30	2 WALL HEATER	
	3	30	30	4 SPARE	
	5	30	30	6 SPARE	
HP-02	7	30	30	8 P25 LIGHTS	
	9	30	30	10 SPARE	
	11	30	30	12 SPARE	
HP-03	13	30	30	14 HP-08	
HP-04	15	30	30	16 SPARE	
HP-05	17	30	30	18 EDH-1 (SERVING AHU-26)	
	19	30	30	2" C-3-#1 AND #6 GND.	
HP-06	21	30	30	20 SPARE	
HP-07	23	30	30	22 SPARE	

NOTE: REPLACE 100 AMP BREAKER SERVING EXISTING ABANDONED WIRE GUTTER WITH NEW 125A, 3 POLE HACR BREAKER SERVING NEW EDH FOR NEW AHU-26. REMOVE EXISTING CIRCUIT SERVING DEMOLISHED CONDENSING UNITS. SEE PLANS. MATCH EXISTING PANEL CHARACTERISTICS.

**MECHANICAL AND ELECTRICAL SCHEDULES AND DETAILS**

NO SCALE

ELECTRICAL SYMBOL SCHEDULE	
	BRANCH CIRCUIT CONDUIT, CONCEALED IN WALLS AND CEILINGS. TWO WIRES AND GROUND WIRE UNLESS OTHERWISE INDICATED.
	BRANCH CIRCUIT CONDUIT, EXPOSED. TWO WIRES AND GROUND WIRE UNLESS OTHERWISE INDICATED.
	BRANCH CIRCUIT HOMERUN. NUMBER OF ARROWS INDICATE NUMBER OF CIRCUITS. NUMBER OF CROSSECHANGES INDICATE NUMBER OF WIRES WHEN GREATER THAN TWO. GROUND WIRE IS NOT INDICATED. CONTRACTOR SHALL INSTALL HOMERUN CIRCUITS AS INDICATED ON DRAWINGS. CONTRACTOR SHALL NOT COMBINE HOMERUN CIRCUITS UNLESS INDICATED ON DRAWINGS.
	DENOTES THERMOSTAT OUTLET LOCATION. PROVIDE BOX AND 3/4" CONDUIT WITH PULLWIRE TO CORRESPONDING MECHANICAL UNIT. MOUNT BOX 54" AFF TO TOP OF BOX. REFER TO MECHANICAL DRAWINGS FOR EXACT NUMBER AND LOCATIONS. ON SPLIT SYSTEM UNITS, PROVIDE A 3/4" E.C. FROM THE HEAT PUMP TO THE AHU, IN ADDITION TO THE THERMOSTAT CONDUIT..
	DENOTES "MOTOR OUTLET LOCATION".
	DENOTES "JUNCTION BOX".
	DISCONNECT SWITCH (FUZZY SAFETY SWITCH), BY THIS CONTRACTOR. SEE "FUZZY SAFETY SWITCH SCHEDULE".
	ELECTRICAL PANELBOARD. SEE "ELECTRICAL RISER DIAGRAM".
	MAIN DISTRIBUTION PANELBOARD OR SWITCHBOARD. SEE "ELECTRICAL RISER DIAGRAM".
	TELEPHONE SERVICE
	RTU TELEPHONE OUTLET BOX WITH PLATE AND 1" E.C. TO BACKBOARD.
	DENOTES "ROOFTOP UNIT", BY OTHERS. CONNECT ELECTRICALLY COMPLETE.
	DENOTES "EMPTY CONDUIT". PROVIDE 16 GAUGE STEEL OR NYLON PULLWIRE.
	DENOTES "GROUND FAULT INTERRUPTER".
	DENOTES "MOUNT OVER COUNTER".
	DENOTES "WEATHER PROOF".
	DUCT SMOKE DETECTOR BY FIRE ALARM CONTRACTOR



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OWENS AND ASSOCIATES, INC.  
CONSULTING ENGINEERS

project:  
**MYRTLE BEACH ECS  
MECHANICAL RENOVATIONS  
PHASE II  
MYRTLE BEACH, SC**

revisions

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