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Mechanical Plans

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**MECHANICAL PLAN**  
 SCALE: 1/8"=1'-0"

MECHANICAL LEGEND	
RETURN GRILLE	CONDENSATE PIPING (COND) 5-5
RIGID DUCT	CLEANOUT (CO) 5-11 CO
SMOKE DETECTOR	

**NOTE:**  
 ALL ROOFTOP UNITS SHALL HAVE FLOAT SWITCH INSTALLED INSIDE THE PRIMARY DRAIN PAN SECTION. SWITCH SHALL SHUT DOWN RTU IN THE EVENT THE PRIMARY DRAIN BECOME RESTRICTED.

**MECHANICAL KEYED NOTES:**

- PROVIDE AND INSTALL NEW PACKAGED ROOFTOP UNIT. COORDINATE LOCATION OF UNIT WITH STRUCTURAL DRAWINGS.
- EXTEND SUPPLY AND RETURN DUCTWORK, FULL SIZE OF OPENINGS, DOWN TO 2" BELOW DECK FOR FUTURE TENANT BUILDOUT.
- PROVIDE THERMOSTAT AND 50' OF CONTROL WIRING. ATTACH TO RETURN AIR DUCT FOR FUTURE TENANT BUILDOUT.
- RTU CONDENSATE TO BE PIPED TO SCUPPERS. PROVIDE PIPE SUPPORT ON PROTECTION PADS ADHERED TO ROOF MEMBRANE (TYP.). FINAL TERMINATION SHALL BE SITE STORM SEWER SYSTEM.
- PROVIDE AND INSTALL FILTER RETURN GRILLE WITH FILTER AND PLENUM BOX AT THE END OF RETURN DUCTWORK. TEMPORARY SUPPORT GRILLE AND PLENUM BOX FROM ROOF STRUCTURE. PROVIDE AND INSTALL VOLUME DAMPER IN RETURN DUCTWORK. PROVIDE NEW FILTER JUST PRIOR TO TEST AND BALANCE.

- MECHANICAL GENERAL NOTES**
- ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE 2014 FLORIDA BUILDING CODE, NATIONAL ELECTRIC CODE, FLORIDA ENERGY CODE, ALL NFPA REQUIREMENTS AND ALL LOCAL CODES.
  - ALL WORK SHALL BE COORDINATED WITH ARCHITECTURAL, CIVIL, STRUCTURAL, FIRE PROTECTION, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS. CONTRACTOR SHALL BE REQUIRED TO FURNISH, INSTALL AND CONNECT WITH APPROPRIATE SERVICES ALL ITEMS SHOWN ON THE DRAWING AT NO ADDITIONAL COST TO THE OWNER.
  - FURNISH SIX (6) COPIES OF SHOP DRAWINGS OF EQUIPMENT OR FIXTURES FOR APPROVAL PRIOR TO INSTALLING.
  - PRIOR TO SUBMITTING A BID, THE CONTRACTOR SHALL HAVE STUDIED AND COMPLETED THE CONTRACT DOCUMENTS WITH EXISTING/PROPOSED CONDITIONS AND NOT LESS THAN TEN (10) DAYS PRIOR TO THE BID OPENING. REPORT TO THE ENGINEER ANY ERROR, INCONSISTENCIES OR OMISSIONS IN THE CONTRACT DOCUMENTS.
  - COPIES OF THE MECHANICAL SUBCONTRACTOR'S FIRST YEAR GUARANTEE FOR THE INSTALLATION SHALL BE PROVIDED TO THE OWNER. NOTATION SHALL BE INCLUDED TO SHOW THE EXPIRATION OF THE FIRST YEAR PARTS AND LABOR GUARANTEE AND OF THE EXTENDED FOUR (4) YEAR COMPRESSOR WARRANTY.
  - DEVIATION FROM MATERIALS, METHODS OR PROCEDURES SET FORTH HEREIN MUST BE APPROVED BY THE ENGINEER, IN WRITING, PRIOR TO BID OR COMMENCEMENT OF WORK.

- THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR ALL COST INCURRED BY ANY TRADE DUE TO THE SUBSTITUTION OF MECHANICAL EQUIPMENT. ANY CHANGES SHALL BE COORDINATED WITH THE TRADES INVOLVED.
- MECHANICAL EQUIPMENT**
- AIR CONDITIONING EQUIPMENT SHALL BE FACTORY PACKAGED STRAIGHT COOL WITH ELECTRIC HEAT.
  - ALL AIR CONDITIONING UNITS SHALL INCLUDE A ONE (1) YEAR WARRANTY AND AN EXTENDED FOUR (4) YEAR COMPRESSOR WARRANTY.
  - FILTERS SHALL BE PROVIDED IN THE UNITS. THE FACTORY FILTER SHALL BE USED DURING CONSTRUCTION AND A NEW SET OF REPLACEABLE MEDIA, IN METAL FILTER FRAMES, SHALL BE PROVIDED JUST PRIOR TO TEST AND BALANCE.
  - ALL UNITS SHALL BE PROVIDED WITH A FACTORY CURB. CURBS SHALL BE SET LEVEL ON TOP WITH LEVEL STRUCTURAL STEEL SUPPORT FRAMES PROVIDED BY THE STRUCTURAL STEEL SUBCONTRACTOR.
  - ELECTRICAL POWER AND CONTROL CONDUITS SHALL RISE UP INSIDE THE CURB OF THE ROOF TOP UNIT.
  - ROUTE CONDENSATE PIPING AS SHOWN ON PLANS.
- CONDENSATE PIPING**
- EXTERIOR CONDENSATE PIPING SHALL BE SCHEDULE 40 PVC WITH UV INHIBITOR RATED FOR EXTERIOR USE.

- DUCTWORK**
- SUPPLY AND RETURN DUCTWORK SHALL BE TYPE 800 FIBERGLASS EQUAL TO JOINS-MANVILLE "MICRO-AIRE". DUCT SHALL BE 1-1/2" THICK WITH AN INSULATION VALUE EQUAL TO R-6. SEAL ALL JOINTS WITH MASTIC.
- CONTROLS**
- THERMOSTATS SHALL BE BY UNIT MANUFACTURER. ALL THERMOSTATS SHALL HAVE STAGES OF COOLING AND HEATING TO MATCH SPECIFIED UNIT AND SHALL BE 7-DAY PROGRAMMABLE.
  - WHERE WALLS ARE IN PLACE LOCATE ALL THERMOSTATS 4'-0" A.F.F. UNLESS OTHERWISE NOTED. EXACT LOCATION OF ALL THERMOSTATS SHALL BE APPROVED BY THE OWNER.
  - 24 VOLT DUCT SMOKE DETECTORS SHALL BE SUPPLIED BY THE ELECTRICAL CONTRACTOR AND INSTALLED BY THE MECHANICAL CONTRACTOR IN THE SUPPLY AIR DUCT (NFPA 72, 17.7.5.3.1) AND RETURN AIR DUCT (FLORIDA BUILDING CODE, 5TH EDITION, 606.2.1) OF ALL UNITS WITH A DESIGN CAPACITY GREATER THAN 2000 CFM. ELECTRICAL CONTRACTOR SHALL POWER SMOKE DETECTOR VIA LOW VOLTAGE CONTROL TRANSFORMER IN UNIT. ALL SHUT DOWN CONTROL WIRING SHALL BE BY THE ELECTRICAL CONTRACTOR.