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# M1 $\frac{\text{HVAC MECHANICAL PLAN}}{\text{SCALE:} 1/8" = 1'-0"}$

#### HVAC SYSTEM MECHANICAL NOTES:

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE 6TH EDITION, 2017 FBC MECHANICAL CODE AS WELL

HVAC CONTRACTOR IS RESPONSIBLE FOR ALL INSPECTIONS RELATING TO THE HVAC MECHANICAL WORK. PROVIDE ALL NECESSARY PULL/JUNCTION BOXES, SUPPORTS, CONTROLS, ELECTRICAL AND MISC. ITEMS FOR A COMPLETE CONTROL SYSTEM AS SPECIFIED, INCLUDING CONTROL WIRING. SEAL WATER TIGHT ALL PENETRATIONS IN ROOF AND EXTERIOR WALLS AND SOFFITS AND PREVENT

OMISSIONS OF VERMIN AND INSECTS. INSTALL AND SUPPORT ALL DUCTWORK, GRILLES, DIFFUSERS, AND ANY OTHER SUSPENDED EQUIPMENT SECURELY TO STRUCTURE ABOVE.

HVAC WORK SHALL BE COORDINATED WITH ALL OTHER TRADES TO AVOID CONFLICTS AND SCHEDULE

CONTRACTOR TO VERIFY EQUIPMENT REQUIREMENTS AND COORDINATE WITH THE ELECTRICAL CONTRACTOR TO ENSURE THAT THE PROPER POWER IS AVAILABLE AND PROVIDED FOR ALL COMPONENTS RELATED TO THE PROPOSED HVAC SYSTEMS. MECHANICAL SUB CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, ACCESSORIES FOR A COMPLETE

9. THE DUCT DESIGN SHOWS THE INTENT OF THE SCOPE OF WORK REQUIRED AND DUE TO ANY UNKNOWN FIELD CONDITIONS, THE CONTRACTOR SHALL MAKE ALL THE NECESSARY ADJUSTMENTS TO THE DUCT DESIGN, LAYOUT, AND CONFIGURATIONS AS REQUIRED TO PROVIDE A COMPLETE, OPERATIONAL,

10. ALL DUCT DIMENSIONS ARE NET FREE AREA. MAKE ALLOWANCES FOR INSULATION AND SEAMS WHEN VERIFYING CLEARANCES. ALL DUCT WORK SHALL BE NEW. ROOF PENETRATIONS MUST BE COORDINATED WITH AND APPROVED BY THE GENERAL CONTRACTOR. HVAC SUB CONTRACTOR SHALL KEEP AN APPROVED COPY OF THE 2017 FLORIDA ENERGY CONSERVATION CODE CALCULATIONS AND HVAC HEAT LOAD CALCULATIONS ONSITE IN THE

CONSTRUCTION BOX FOR THE CITY OF PLANT CITY FIELD INSPECTORS USE DURING HVAC MECHANICAL 13. PROVIDE REDUCING FITTING AS REQUIRED ON SUPPLY AIR VENTS. INSULATE BACKS OF VENTS WITH A

14. PROVIDE 1" AIR FILTERS IN ALL RETURN AIR VENTS – REMOVE FILTERS AT UNIT.

GC SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF THE HVAC SYSTEM CONDENSATE DRAINS AND CONDENSATE DRAIN DRYWELL PITS SHOWN ON BOTH THE M1 PLAN SHEET & THE P1 PLAN SHEET WITH BOTH THE HVAC SYSTEM SUBCONTRACTOR AND THE PLUMBING SUBCONTRACTOR TO ENSURE THAT THE CONDENSATE DRAINS ARE PROPERLY INSTALLED IN ACCORDANCE WITH THE 6TH EDITION, 2017 FBC MECHANICAL CODE.

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16. THE GC AS WELL AS THE HVAC SUBCONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING HVAC MANUFACTURERS CONDENSATE DRAIN SIZES FOR EACH HVAC SYSTEM SPECIFIED AS WELL AS COORDINATE THE PROPER INSTALLATION OF THE HVAC SYSTEM CONDENSATE DRAINS FOR THIS

PROJECT.

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OUTSIDE FRESH AIR CALCULATIONS PER TABLE 403.3.1.1 OF THE 6TH EDITION, 2017 FBC, MECHANICAL CODE: CLASSROOM OCCUPANCY LOAD = ((760 SF/1,000 SF) X 20 PEOPLE) = 15.20 PEOPLE; USE 16 PEOPLE CLASSROOM PERSON OUTDOOR FRESH AIR RATE = (16 PEOPLE X 10 CFM/PERSON) = 160 CFM CLASSROOM AREA OUTDOOR FRESH AIR RATE = (760 SF X 0.18 CFM/SF) = 136.80 CFM MEETING ROOM OCCUPANCY LOAD = ((900 SF/1,000 SF) X 35 PEOPLE) = 31.50 PEOPLE; USE 32 PEOPLE MEETING ROOM PERSON OUTDOOR FRESH AIR RATE = (32 PEOPLE X 10 CFM/PERSON) = 320 CFM MEETING ROOM AREA OUTDOOR FRESH AIR RATE = (900 SF X 0.12 CFM/SF) = 108 CFM RECREATION AREA OCCUPANCY LOAD = ((3,000 SF/1,000 SF) X 35 PEOPLE) = 105 PEOPLE CLASSROOM PERSON OUTDOOR FRESH AIR RATE = (105 PEOPLE X 10 CFM/PERSON) = 1,050 CFM CLASSROOM AREA OUTDOOR FRESH AIR RATE = (3,000 SF X 0.06 CFM/SF) = 180 CFM TOTAL OUTDOOR FRESH AIR RATE REQUIRED = 160 CFM + 136.80 CFM + 320 CFM + 108 CFM + 1,050 CFM + 180 CFM = 1,954.80 CFM REQUIRED BATHROOM EXHAUST FAN RATE = 70 CFM/ TOILET X 6 TOILETS/URINAL = 420 CFM PROVIDED BATHROOM EXHAUST FAN RATE = (150 CFM/ TOILET X 4 TOILETS) + (80 CFM/ TOILET X 2 TOILETS) = 760 CFM

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WILLIAM H. ROBERNOSSCO J. MORENO-ORAMA P.E. #42712 ENGINEER OF RECORD

I HEREBY CERTIFY THAT THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH THE 6TH EDITION, 2017 FBC AND 2014 NEC.

PERMIT DRAWINGS FOR:

### PALMETTO UMC ANNEX BUILDING

#### 5601 16TH AVE EAST CHURCH PALMETTO, FL 34221

OWNER:	FAMILY OF GOD UNITED METHODIST	

ADDRESS: 5601 16TH AVE EAST PALMETTO, FL 34221

TELEPHONE: (352) 729-6055

EMAIL: PALMETTOUMC@HOTMAIL.COM

OWNER'S REPRESENTATIVE:

FRANK COSEGLIA, CHAIRMAN LEADERSHIP COUNCIL

REVISIONS		
NO	DATE	DESCRIPTION

PROJECT NO: Project Number

FILE:

DRAWN BY: Author CHK'D BY: Checker

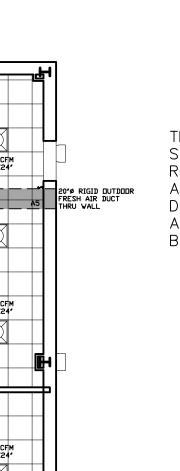
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SHEET TITLE:

## HVAC MECHANICAL PLAN

SHEET COUNT: OF SHEET IDENTIFICATION:

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No. 42712

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