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August 16, 2020
 Cameron County
 2020 SECO LoanSTAR Program HVAC Upgrades #200802

ADDENDUM NO. 3

A. PURPOSE AND INTENT

This addendum is issued for the purpose of information for the project referenced above. All aspects of the specifications and drawings not covered herein shall remain the same. The General Conditions and the Special Conditions of the specifications shall govern all parts of the work and apply in full force to this addendum.

B. SCOPE

I. Specifications:

- 1) Section 077200 Roof Accessories:
 - a) Fabricate roof curbs to minimum height of 24" to avoid conflict with roof insulation.

II. Drawings:

- 1) Sheet: ME0.4
 - a) Add the following VFD schedule:

VFD SCHEDULE						
Project: Browne WIC Social Services						
MARK	EQUIPMENT SERVED	MOTOR HP	FL AMPS	ELECTRICAL V/P/Hz	MANUFACTURER & MODEL NUMBER	NOTES
VFD-1	AHU-3	3	9	208/3/60	DANFOSS VLT-HVAC	1-3
VFD-2	AHU-4	2	6.1	208/3/60	DANFOSS VLT-HVAC	1-3

- NOTES:
- 1. PROVIDE NEMA 1 ENCLOSURE FOR VFD LOCATED INDOORS.
 - 2. PROVIDE INTEGRAL DISCONNECT.
 - 3. PROVIDE BYPASS WITH VFDS.

- 2) Sheet ME0.5:
 - a) Add the following VFD Schedule:

VFD SCHEDULE						
Project: Cameron County San Benito Annex						
MARK	EQUIPMENT SERVED	MOTOR HP	FL AMPS	ELECTRICAL V/P/Hz	MANUFACTURER & MODEL NUMBER	NOTES
VFD-3	AHU-2	15	36.2	240/3/60	DANFOSS VLT-HVAC	1-3
VFD-4	AHU-5	7.5	19	240/3/60	DANFOSS VLT-HVAC	1-3
VFD-5	AHU-6	7.5	19	240/3/60	DANFOSS VLT-HVAC	1-3

NOTES:

1. PROVIDE NEMA 1 ENCLOSURE FOR VFD LOCATED INDOORS.
2. PROVIDE INTEGRAL DISCONNECT.
3. PROVIDE BYPASS WITH VFDs.

- b) AIR HANDLER UNIT SCHEDULE, revise Note #10 as follows: "PROVIDE DEDICATED ELECTRICAL POINT OF CONNECTION FOR SUPPLY FAN MOTORS (SEPARATE FROM HEATER). COORDINATE WITH ELECTRICAL CONTRACTOR."

3) Sheet ME0.6:

- a) Revise the following on the ELECTRICAL CONNECTION SCHEDULE:

- i) BROWNE RD SOCIAL / WIC

- (1) AHU-3, Motor Size = 3HP Motor, FLA = 9, MCA = 11. Connect Motor via VFD provided by Division 23. Use the VFD as the means of safety disconnect. Existing AHU heater connection to remain.
- (2) AHU-4 - Connect Motor via VFD provided by Division 23. Use the VFD as the means of safety disconnect. Existing AHU heater connection to remain.

- ii) SAN BENITO ANNEX

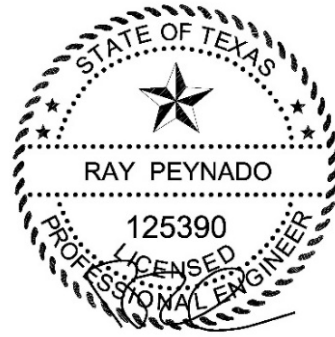
- (1) AHU-2, AHU-5 and AHU-6 - Connect Motors via VFDs provided by Division 23. Use the VFDs as the means of safety disconnect. Existing AHUs heaters connection to remain.

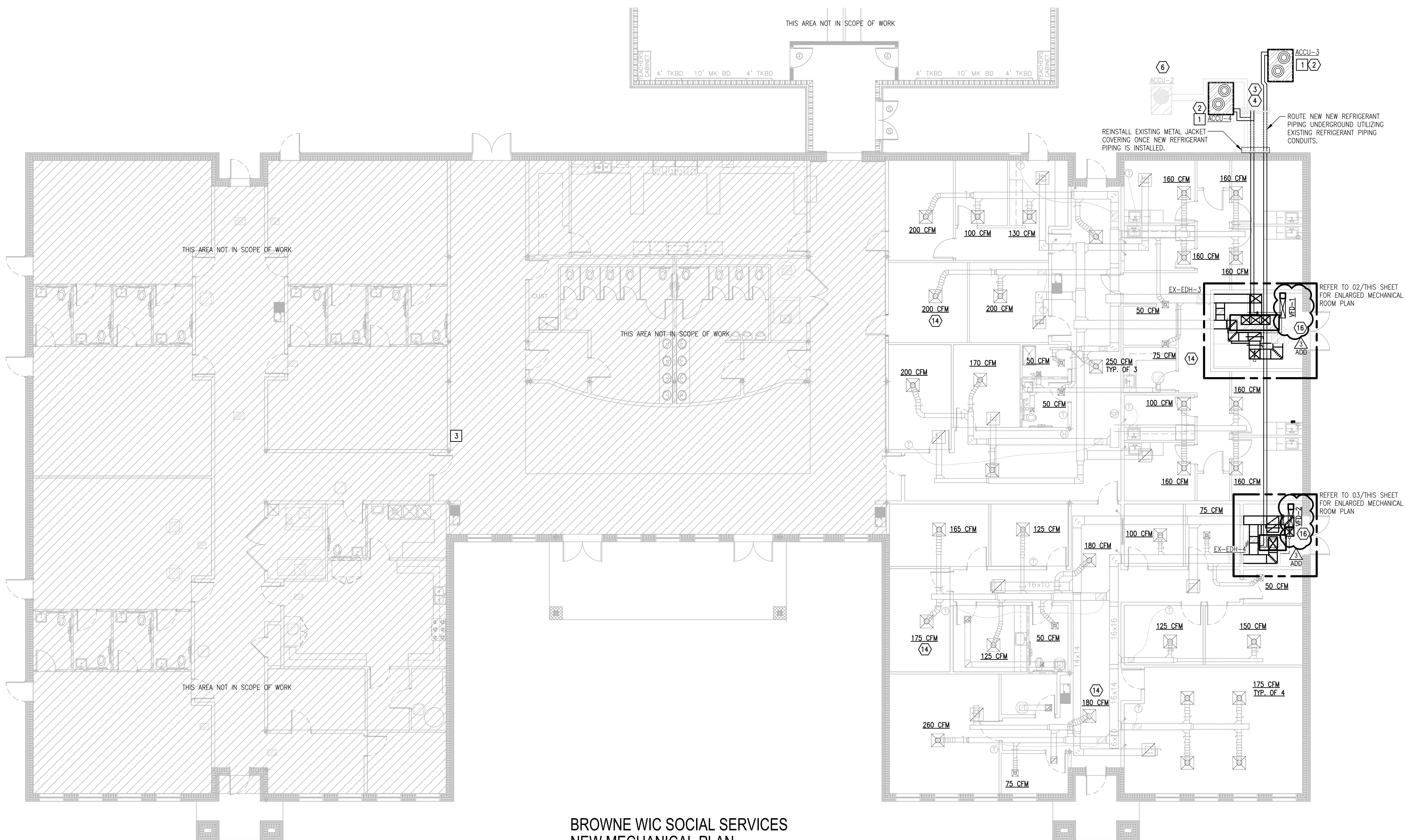
1. Sheet ME2.1:

- i) Revised mechanical plan to accommodate VFDs for Browne Social Clinic. See attached sheet.

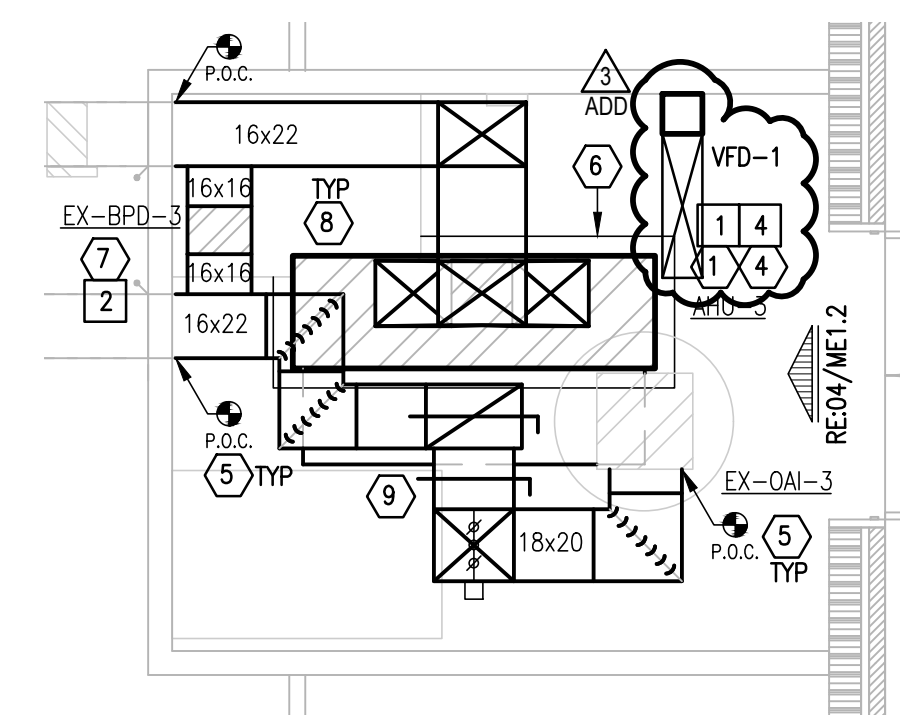
2. Sheet ME3.1:

- i) Revised mechanical plan to accommodate VFDs for San Benito Annex. See attached sheet.

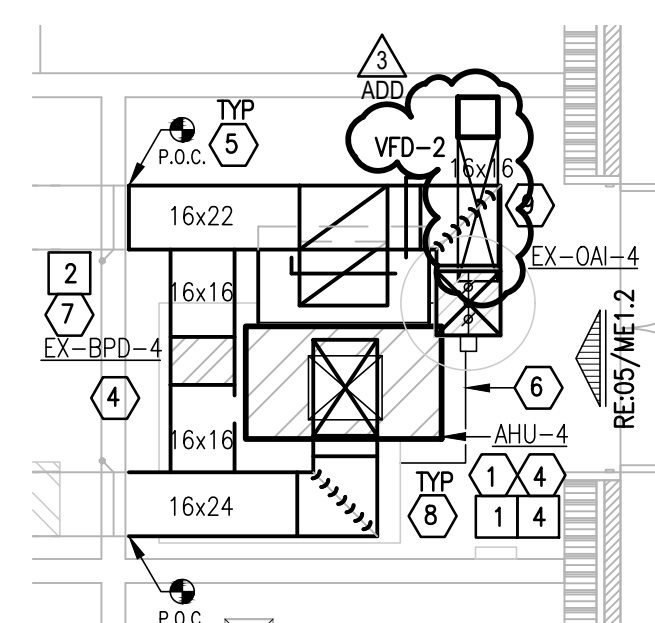




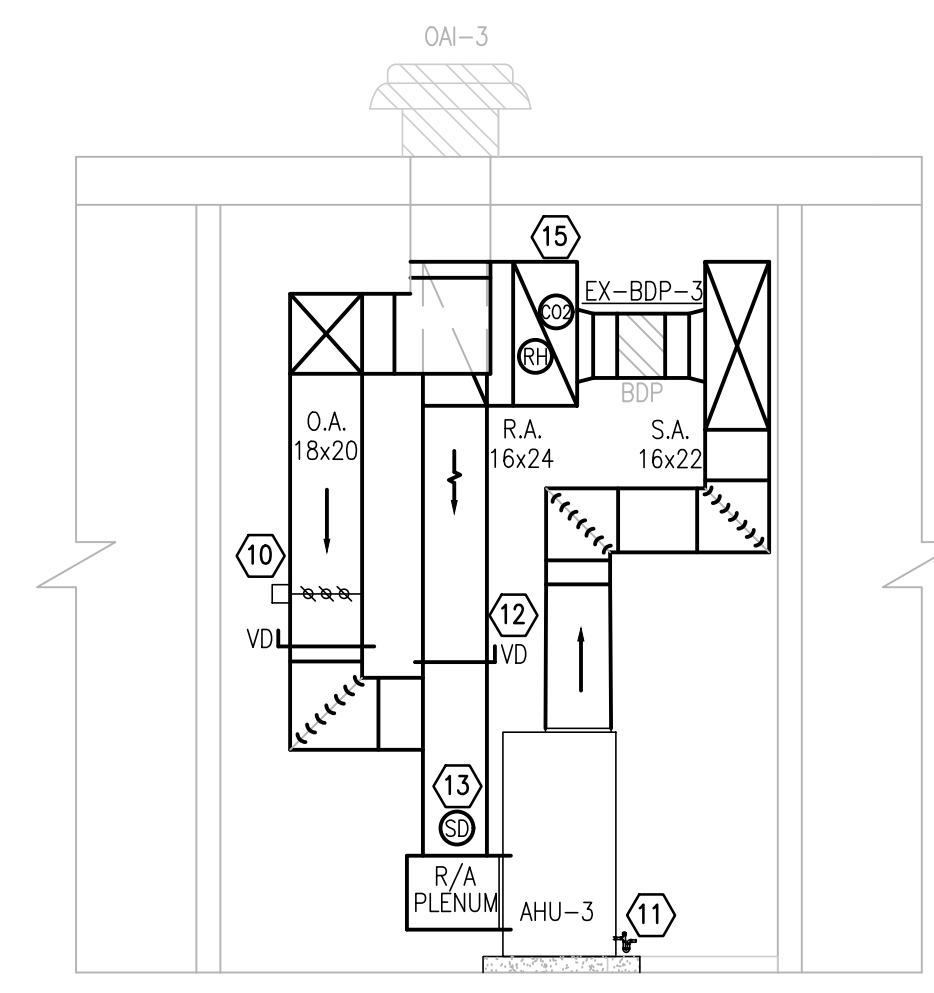
**01 BROWNE WIC SOCIAL SERVICES
NEW MECHANICAL PLAN**
SCALE: 1/8" = 1'-0"



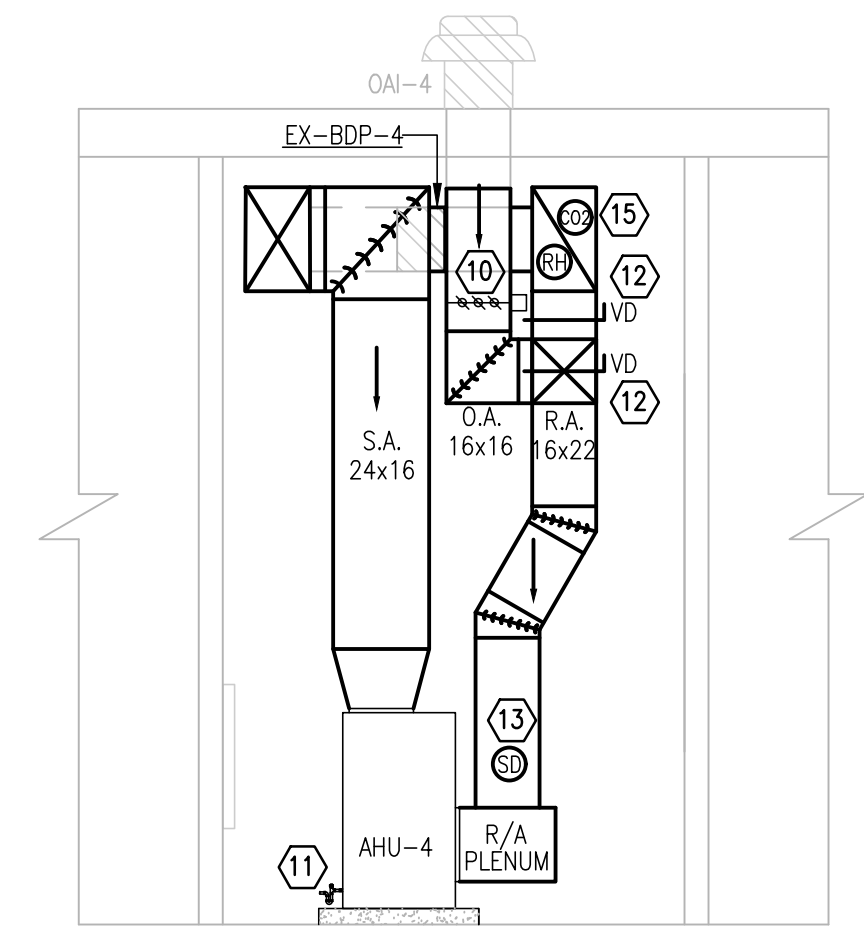
**02 BROWNE WIC SOCIAL SERVICES
ENLARGED PLAN**
SCALE: 1/4" = 1'-0"



**03 BROWNE WIC SOCIAL SERVICES
ENLARGED PLAN**
SCALE: 1/4" = 1'-0"



**04 BROWNE WIC SOCIAL SERVICES
AHU-3 ELEVATION DETAIL**
SCALE: 1/4" = 1'-0"



**05 BROWNE WIC SOCIAL SERVICES
AHU-4 ELEVATION DETAIL**
SCALE: 1/4" = 1'-0"

GENERAL NOTES:

- PERFORM DUCTWORK TIE-IN FROM NEW UNITS VIA TRANSITION DUCTWORK. FIELD-VERIFY EXISTING SPACE AVAILABILITY PRIOR TO BIDDING AND PRIOR TO SUBMITTING DUCTWORK SHOP DRAWINGS.
- UNLESS OTHERWISE NOTED PROVIDE CONDENSATE DRAIN LINES WITH P-TRAPS, AND EXTEND TO NEAREST CONDENSATE DRAIN RECEPTOR. DRAIN LINES SHALL BE COPPER TUBING; SUPPORT PIPING ON PIPING SUPPORTS BY MIRO INDUSTRIES, MODEL 1.5, OR EQUAL.
- PROVIDE ALUMINUM JACKETING WITH APPROPRIATE IDENTIFICATION FOR EXTERIOR PIPING. SEE SPECIFICATIONS.

MECHANICAL KEYED NOTES:

- PROVIDE NEW AIR HANDLER UNIT AS SCHEDULED. MOUNT UNIT ON EXISTING CONCRETE PAD. POSITION UNIT TO ALLOW REQUIRED CLEARANCES, AND ALIGN TO MINIMIZE DUCTWORK TRANSITIONS BETWEEN UNIT OPENINGS AND TRUNK DUCTS. COORDINATE UNIT DIMENSIONS, ORIENTATION, CONFIGURATION, AND CONNECTION LOCATIONS PRIOR TO ORDERING.
- PROVIDE NEW AIR COOLED CONDENSING UNIT AND INSULATED REFRIGERANT PIPING PER SPECIFICATIONS. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES, AND MOUNT ON EXISTING CONCRETE PAD. EXTEND EXTERIOR HOUSEKEEPING PAD AS NEEDED TO ACCOMMODATE NEW UNIT.
- PROVIDE 1" INSULATION & ALUMINUM JACKETING ON EXPOSED REFRIGERANT LINES. SEE SPECIFICATIONS.
- ROUTE REFRIGERANT PIPING TO AHU. COORDINATE ROUTING WITH OTHER TRADES PRIOR TO INSTALLATION. SLEEVE WALL PENETRATION. SEAL AIRTIGHT AROUND PIPE PENETRATION. PROVIDE REFRIGERANT LINE SUPPORTS. SEE ASSOCIATED DETAIL. (TYPICAL)
- PROVIDE NEW SUPPLY/RETURN/OUTSIDE AIR DUCTWORK AND CONNECT TO EXISTING DUCTWORK AT THIS APPROXIMATE LOCATION. (TYPICAL)
- EXTEND INTERIOR HOUSEKEEPING PAD AS NEEDED TO ACCOMMODATE NEW UNIT. REFER TO DETAIL SHEET FOR MORE INFORMATION.
- RELOCATE EXISTING BYPASS DAMPER TO THIS APPROXIMATE LOCATION. INSTALL AND CONNECT TO NEW DUCTWORK AS SHOWN
- DUCTWORK ROUTING SHOWN IS DIAGRAMMATIC IN NATURE. FIELD-VERIFY STRUCTURE AND SPACE AVAILABILITY PRIOR TO SUBMITTING SHOP DRAWINGS. COORDINATE WITH ENGINEER IN CASE OF CONFLICTS. (TYPICAL)
- ROUTE OUTSIDE AIR DUCT TO RETURN AIR DUCT. ROUTE DUCT AS HIGH AS POSSIBLE. INSULATE WITH 2" DUCT WRAP. PROVIDE MANUAL VOLUME DAMPER ON OUTSIDE AIR DUCT.
- PROVIDE SPRING-LOADED ELECTRICAL POWERED OUTSIDE AIR DAMPER WITH STEP DOWN TRANSFORMER. INTERLOCK OUTSIDE AIR DAMPER OPERATION WITH COMPRESSOR. WHEN COMPRESSOR IS ON, DAMPER SHALL OPEN AND WHEN COMPRESSOR IS OFF, DAMPER SHALL CLOSE. COORDINATE WITH DDC SEQUENCE OF OPERATION.
- SYMBOL IS DIAGRAMMATIC. COORDINATE CONDENSATE TRAP SIZE AND DEPTH WITH AHU SUPPLIER. PROVIDE INSULATED COPPER CONDENSATE DRAIN LINE ON UNI-TRUT SLEEPERS, AND ROUTE LINE TO EXISTING DRAIN RECEPTOR. PROVIDE INSULATION. PROVIDE COPPER TUBING FROM AIR VENT DISCHARGE TO DRAIN.
- MANUAL VOLUME DAMPER MOUNTED IN RETURN AIR AND OUTSIDE AIR DUCTS.
- SMOKE DETECTOR TO BE INSTALLED AT RETURN AIR DUCT OF AIR HANDLING UNIT. RE: ELECTRICAL.
- RE-BALANCE EXISTING AIR DEVICES TO CFM SHOWN. (TYPICAL)
- PROVIDE DUCT MOUNTED RH & CO2 SENSOR. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
- PROVIDE VFD PER SCHEDULE FOR MOUNTING INDOORS. MAINTAIN MINIMUM 3'-0" CLEARANCE IN FRONT OF VFD. (TYPICAL).

ELECTRICAL KEYED NOTES:

- CONNECT HVAC EQUIPMENT; REFER TO EQUIPMENT CONNECTION SCHEDULE.
- CONNECT OUTSIDE AIR DAMPER TRANSFORMER; BRANCH CIRCUIT: 1/2" - 2#12 & #12G. CONNECT TO NEAREST NON-GFCI, NON-OVERLOADED 120V CIRCUIT.
- APPROXIMATE LOCATION OF EXISTING FIRE ALARM PANEL.
- PROVIDE DUCT SMOKE DETECTOR AND REMOTE TEST SWITCH.

LEGEND:

	NEW MECHANICAL EQUIPMENT
	EXISTING DUCTWORK
	NEW DUCT
	EXISTING T-STAT TO BE RETAINED

NO. REVISION: BY:
 ADD 8/14/2020 ETHOS

COPY NO.:

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 125390
 07.24.2020

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 108611
 07.24.2020

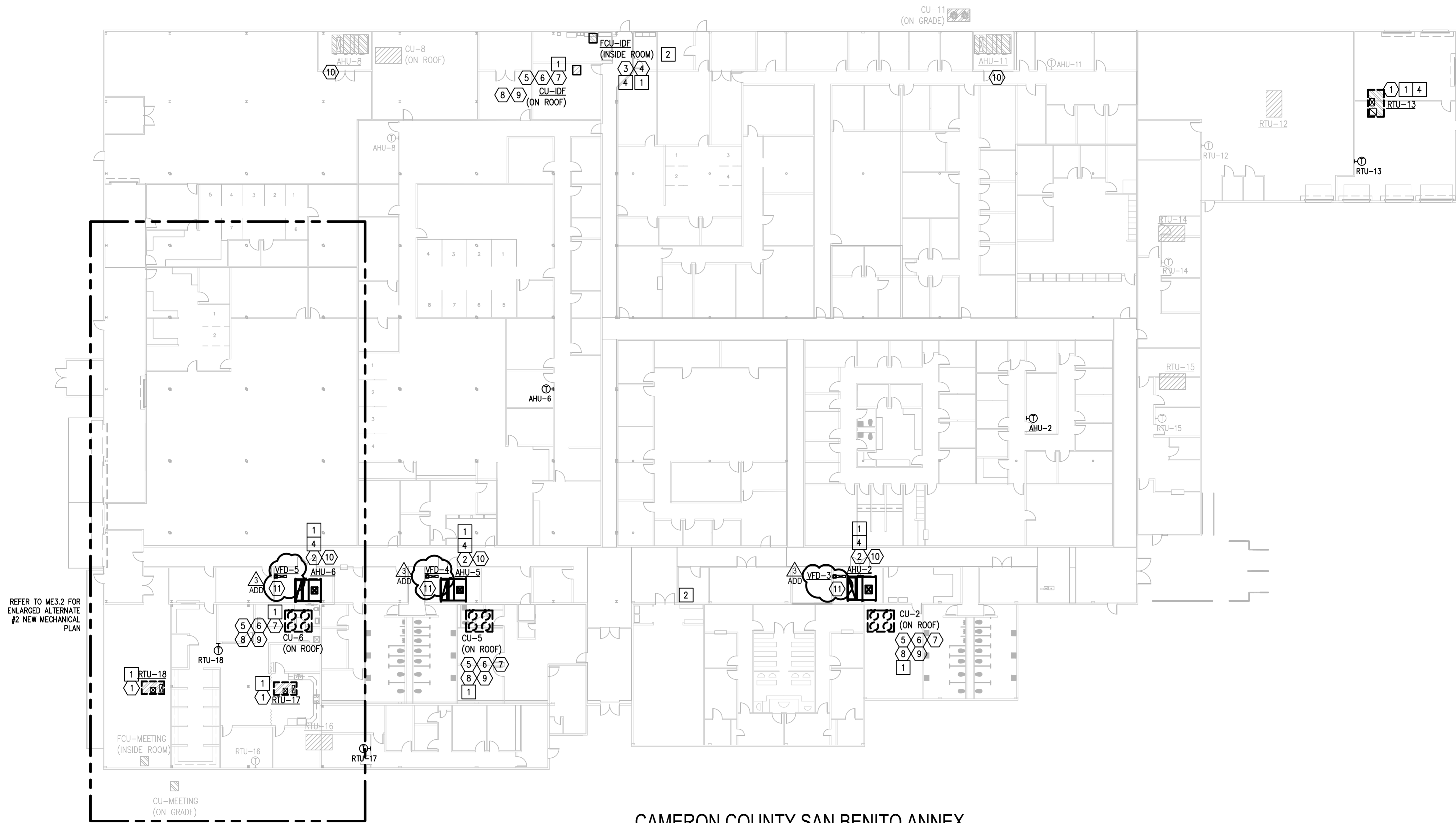
TEXAS

**CAMERON COUNTY
 2020 SECO LOANSTAR PROGRAM
 HVAC UPGRADES**

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DATE: FEBRUARY 24, 2020.
 CHECKED BY: R.K./C.A.G.
 DRAWN BY: ETHOS
 PROJECT NO.: 18V20
 CAD FILE:
 SHEET:
ME2.1



REFER TO ME3.2 FOR ENLARGED ALTERNATE #2 NEW MECHANICAL PLAN

**01 CAMERON COUNTY SAN BENITO ANNEX
NEW MECHANICAL PLAN**
SCALE: 1" = 20'-0"

GENERAL NOTES:

- DUCTWORK IS TO BE RETAINED. ORIENT RTUS TO MINIMIZE DUCTWORK MODIFICATIONS. SEAL ALL OPENINGS AND ENSURE THAT INSTALLATION IS WEATHER-TIGHT. PROVIDE REQUIRED MODIFICATIONS FOR A COMPLETE AND SEAMLESS INSTALLATION.
- PERFORM DUCTWORK TIE-IN FROM NEW UNITS TO EXISTING DUCTS VIA FLEX CONNECTORS AND TRANSITION DUCTWORK. FIELD-VERIFY EXISTING SPACE AVAILABILITY PRIOR TO BIDDING AND PRIOR TO SUBMITTING DUCTWORK SHOP DRAWINGS. COORDINATE NEW ROUTING WITH EXISTING STRUCTURE.
- UNLESS OTHERWISE NOTED PROVIDE CONDENSATE DRAIN LINE WITH P-TRAPS. SUPPORT PIPING ON PIPING SUPPORTS REFER TO DETAIL SHEET.
- MECHANICAL CONTRACTOR IS RESPONSIBLE FOR ALL ROOFING WORK AND SHALL BE PROVIDED BY A ROOFING CONTRACTOR APPROVED BY TREMCO ROOFING. CONTRACT TREMCO ROOFING MANUFACTURER AT (361)765-4371 TO OBTAIN A LIST OF APPROVED ROOFING CONTRACTORS THAT CAN MAINTAIN THE WARRANTY ON THE EXISTING ROOF.

MECHANICAL KEYED NOTES:

- PROVIDE RTU ON ROOF CURB ADAPTER AS SCHEDULED. SEAL ALL OPENINGS AND ENSURE THAT INSTALLATION IS WEATHER-TIGHT. PROVIDE COPPER CONDENSATE DRAIN LINES WITH P-TRAPS, AND EXTEND TO NEAREST CONDENSATE DRAIN RECEPTOR. SUPPORT PIPING IN PIPING SUPPORTS AS DETAILED. PROVIDE ROOF CURB ADAPTER TO INSTALL EQUIPMENT ON ROOF. SECURE EQUIPMENT TO ROOF CURB AND ROOF CURB TO ROOF STRUCTURE AS PER DIV. 7 SPECIFICATIONS. ATTACHMENTS SHALL BE CAPABLE OF WITHSTANDING THE LOCAL WIND PRESSURES.
- PROVIDE CENTRAL STATION AIR HANDLING UNIT AS SCHEDULED. MOUNT ON EXISTING HOUSEKEEPING PAD. ROUTE COPPER CONDENSATE LINE TO PLUMBING RECEPTACLE AND INSULATE PER SPECIFICATIONS. DROP REFRIGERANT LINES NEXT TO UNIT TO AVOID INTERFERENCE WITH MAINTENANCE ACCESS. POSITION UNIT TO ALLOW REQUIRED CLEARANCES, AND ALIGN TO MINIMIZE DUCTWORK TRANSITIONS BETWEEN UNIT OPENINGS AND TRUNK DUCTS. COORDINATE UNIT DIMENSIONS, ORIENTATION, CONFIGURATION, AND CONNECTION LOCATIONS PRIOR TO ORDERING.
- PROVIDE FAN COIL UNIT AS SCHEDULED. PROVIDE WATER LEVEL DETECTION DEVICE THAT WILL SHUT-OFF THE FCU PRIOR TO OVERFLOW. AUXILIARY DRAIN SYSTEM SHALL BE AS PER IMC-2015 SECTION 307.2.3. SEE DETAIL SHEET. ROUTE COPPER CONDENSATE LINE TO EXISTING FLOOR DRAIN AND INSULATE PER SPECIFICATIONS. DROP REFRIGERANT LINES NEXT TO UNIT TO AVOID INTERFERENCE WITH MAINTENANCE ACCESS. POSITION UNIT TO ALLOW REQUIRED CLEARANCES.
- PROVIDE FCU PLATFORM USING 3" X 3" X 1/4" GALVANIZED STEEL ANGLE IRON WITH WELDED JOINTS. ENCLOSE PLATFORM USING 1" THICK MOISTURE RESISTANT PLYWOOD AND BOLT TO BRACKET WITH 1/4" GALVANIZED BOLTS. COORDINATE PLATFORM SIZE ON SITE. SET UNIT ON 1/2" NEOPRENE PAD ON PLATFORM. PLATFORM TO BE USED AS A RETURN AIR PLENUM AND BE SEALED AIRTIGHT.
- PROVIDE AIR COOLED CONDENSING UNIT AS PER SCHEDULE. REFER TO MECHANICAL DETAIL SHEET FOR PIPING ROOF SUPPORT DETAIL.
- PROVIDE 1" INSULATION & ALUMINUM METAL JACKET ON EXPOSED REFRIGERANT LINES. SEE SPECIFICATIONS. PROVIDE REFRIGERANT LINE SUPPORTS SUITABLE FOR ROOF APPLICATION.
- PROVIDE ROOF PENETRATION SYSTEM FOR REFRIGERANT PIPING, HVAC CONTROL WIRING AND ELECTRICAL POWER CONDUITS. SEE ASSOCIATED DETAIL ON DETAIL SHEET. COORDINATE INSTALLATION WITH ELECTRICAL AND PLUMBING CONTRACTORS.
- SECURE CONDENSING UNIT TO ROOF SUPPORT. ATTACHMENTS SHALL BE CAPABLE OF WITHSTANDING THE LOCAL WIND PRESSURES. REFER TO DIV. 7 FOR MORE INFORMATION.
- SLEEVE ALL PENETRATIONS PER SPECIFICATIONS. SEAL AROUND PIPING WITH FIRE PROOF CAULKING. PROVIDE ESCUTCHEON PLATES AND FLASHING AROUND PENETRATION BOTH INSIDE AND OUTSIDE TO PROVIDE FINISHED LOOK.
- ALTERNATE #2: RETAIN AND REUSE EXISTING ELECTRICAL DUCT HEATERS. CONTROLS CONTRACTOR TO PROVIDE CONTROLS THROUGH DDC PANEL. REFER TO SHEET ME3.2 FOR MORE INFORMATION.
- PROVIDE VFD PER SCHEDULE FOR MOUNTING INDOORS. MAINTAIN MINIMUM 3'-0" CLEARANCE IN FRONT OF VFD. (TYPICAL).

ELECTRICAL KEYED NOTES:

- CONNECT MECHANICAL EQUIPMENT; REFER TO EQUIPMENT CONNECTION SCHEDULE.
- APPROXIMATE LOCATION OF EXISTING ELECTRICAL PANEL SERVING MECHANICAL EQUIPMENT.
- APPROXIMATE LOCATION OF EXISTING FIRE ALARM PANEL.
- PROVIDE DUCT SMOKE DETECTOR AND REMOTE TEST SWITCH.

LEGEND	
	EXISTING UNIT TO BE DEMOLISHED
	EXISTING UNIT TO REMAIN
	NEW UNIT
	EXISTING DUCTWORK TO REMAIN
	EXISTING DUCTWORK TO BE DEMOLISHED
	NEW DUCTWORK
	T-STAT TO REMAIN
	T-STAT TO BE DEMOLISHED
	NEW T-STAT

NO: REVISION: BY:
 ADD 8/14/2020 ETHOS

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TEXAS

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