



# EDINBURG CISD

## PURCHASING DEPARTMENT

411 N. 8<sup>th</sup> Ave., Edinburg, TX 78541  
(956) 289-2311, (956) 383-7687

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CARMEN GONZÁLEZ, Vice President  
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LETICIA "LETTY" GARCIA, Member  
XAVIER SALINAS, Member

*Dr. Mario H. Salinas, Superintendent*

### ADDENDUM 1

CSP 22-91

## Austin Elementary School Heating & Air Condition (HVAC) Improvements Funded through the Elementary & Secondary Emergency Relief (ESSER) Funds May 31, 2022

### I. INSTRUCTIONS:

- A. The following changes, omissions or alterations to the specification and drawings shall be made insofar as the specifications and drawings are inconsistent with following, this addendum shall govern.
- B. Acknowledge receipt of this addendum by inserting its number and date of issue in the place provided for same in the proposal. This addendum forms a part of the Contract Documents.
- C. It is imperative that this addendum be inserted INTO set of specifications.

### II. SEE ADDENDUM BELOW:

#### Items No. 1 – 20

- A. See attached Report from DBR, Engineering.

#### Item No. 21 - Asbestos Report:

- A. PLM Summary Report – See attached.

Respectfully Submitted,

Amaro Tijerina  
Director of Purchasing

\_\_\_\_\_  
(Signature of authorized officer)                      Date

\_\_\_\_\_  
Company Name

#### Nondiscrimination Statement

It is the policy of Edinburg CISD not to discriminate on the basis of gender, age, handicap, religion, race, color, or national origin in its educational programs.  
Es poliza del Distrito Escolar de Edinburg el no discriminar por razones con base en genero, edad, religion, raza, color origen nacional, ni discapacidad dentro de sus programas educacionales.



SERVICE | QUALITY | INTEGRITY | SUSTAINABILITY

200 South 10th Street  
Suite 901  
McAllen, TX 78501  
v 956.683.1640

## Addendum

### DATE

May 26, 2022

### ADDENDUM NO.

1

**PROJECT** 218007.004 | Edinburg CISD - Stephen F. Austin ES - HVAC Improvements

The work described herein shall be added to the scope of work defined by the contract documents or it shall modify the scope of work defined by the contract documents as described. This work shall become a part of the contract documents by addendum.

### GENERAL

#### **Item 01 Questions:**

- A. Will there be an access door located on the FCU's platform or some type of regulator for the Return Air Volume Damper? Reason being is because the return plenum sealed will have to be broken to access the MVD after being sealed by the mechanical contractor.

1. Response: Refer to item 11 for revision of details indicating a remote damper operator.

### SPECIFICATIONS

#### **Item 02 Specification 26 03 13 Electrical Demolition for Remodeling**

- A. Added specification 26 03 13 Electrical Demolition for Remodeling in its entirety.

### DRAWINGS

#### **Item 03 Sheet MD2.13 – Level 1 Mechanical Plan – Cafeteria-Kitchen - Demolition**

- A. Revised keyed notes 2 and 3.

#### **Item 04 MD3.01 – Enlarged Mechanical Plans – Demolition**

- A. Revised keyed notes 1, 4, and 6.

#### **Item 05 MD3.02 – Enlarged Mechanical Plans – Demolition**

- A. Revised keyed notes 1, 4, 5, 6.  
B. Added keyed note 2 to RA Grille in 3/MD3.02.

#### **Item 06 M2.11 – Level 1 Mechanical Plan – Kinder Building**

- A. Revised keyed note 4 to 'Refer to 4/M3.01 for Enlarged A/C Closet Mechanical Plan for Resource Room.'

#### **Item 07 M2.12 – Level 1 Mechanical Plan – Main Building**

## Addendum No. 1

- A. 1/M2.12 drawing scale shall be 1/8' = 1'-0".

**Item 08 M2.13 – Level 1 Mechanical Plan - Cafeteria – Kitchen**

- A. Revised keyed notes 1 and 2.
- B. Indicate refrigerant piping on floor plan for CU-30,31.
- C. 1/M2.13 drawing scale shall be 1/8' = 1'-0".

**Item 09 M3.01 – Enlarged Mechanical Plan**

- A. Revised keyed note 7.
- B. Indicate volume dampers

**Item 10 M3.02 – Enlarged Mechanical Plan**

- A. Revised keyed notes 2, 7, 9, 11, 12.
- B. Revised Louver L-8 size.
- C. Indicate outside air routing to each fan coil unit in Mech. Rm in 3/M3.02.

**Item 11 M4.01 – Mechanical Details**

- A. Revised Details 1, 2, 3, 4.

**Item 12 M5.01 – Mechanical Schedules**

- A. Revised schedules for Louver.
- B. Revised FCU-24, FCU-30, FCU-31 notes.
- C. Revised DX Roof top unit schedule.

**Item 13 M6.01 – Mechanical Controls**

- A. Revised Mechanical Controls 1, 3, 4
- B. Note quantity of fans. Contractor shall field verify locations.

**Item 14 EPD2.11 – LEVEL 1 ELECTRICAL POWER PLAN – DEMOLITION**

- A. Revised keyed notes.
- B. Revised noted equipment.

**Item 15 EPD2.12 – LEVEL 1 ELECTRICAL POWER PLAN – MAIN BUILDING - DEMOLITION**

- A. Revised keyed notes.
- B. Revised noted equipment.

**Item 16 EPD2.21 – LEVEL 2 ELECTRICAL POWER PLAN – MAIN BUILDING - DEMOLITION**

- A. Revised keyed notes.
- B. Revised noted equipment.

**Item 17 EP2.11 – LEVEL 1 ELECTRICAL POWER PLAN**

- A. Revised keyed notes.

## Addendum No. 1

- B. Revised noted equipment.
- C. Added maintenance receptacles for equipment.
- D. Added existing panel locations

**Item 18 EP2.12 – LEVEL 1 ELECTRICAL POWER PLAN – MAIN BUILDING**

- A. Revised keyed notes.
- B. Revised noted equipment.
- C. Added maintenance receptacles for equipment.
- D. Added existing panel locations

**Item 19 EP2.21 – LEVEL 2 ELECTRICAL POWER PLAN – MAIN BUILDING**

- A. Revised keyed notes.
- B. Revised noted equipment.
- C. Added maintenance receptacles for equipment.
- D. Added existing panel locations.

**Item 20 E6.01 – ELECTRICAL DETAILS**

- A. Added electrical detail
- B. Revised feeder schedule

END OF ADDENDUM

## SECTION 26 03 13

### ELECTRICAL DEMOLITION FOR REMODELING

#### PART 1 - GENERAL

##### 1.1 SECTION INCLUDES

- A. Electrical demolition.
- B. The contractor shall be responsible for loss or damage to the existing facilities caused by him and his workmen, and shall be responsible for repairing such loss or damage. The contractor shall send proper notices, make necessary arrangements, and perform other services required for the care, protection and in-service maintenance of all electrical services for the new and existing facilities. The contractor shall erect temporary barricades, with necessary safety devices, as required to protect personnel from injury, removing all such temporary protection upon completion of the work.
- C. Outages of services as required by the new installation will be permitted but only at a time approved by the Owner. The contractor shall allow the Owner 2 weeks in order to schedule required outages. The time allowed for outages will not be during normal working hours unless otherwise approved by the Owner. All costs of outages, including overtime charges, shall be included in the contract amount.

#### PART 2 - PRODUCTS

##### 2.1 MATERIALS AND EQUIPMENT

- A. Materials and equipment for patching and extending work: As specified in individual Sections.
- B. Include in the contract price all rerouting of existing conduits, wiring, outlet boxes, fixtures, etc., and the reconnecting of existing fixtures as necessitated by field conditions to allow the installation of the new systems. Furnish all temporary conduit, wiring, boxes, etc., as required to maintain lighting and power service for the existing areas with a minimum of interruption. Remove wire and conduit back to nearest accessible active junction box and extend to existing homeruns as required.

#### PART 3 - EXECUTION

##### 3.1 EXAMINATION

- A. Verify field measurements and circuiting arrangements are as shown on Drawings.
- B. Verify that abandoned wiring and equipment serve only abandoned facilities.
- C. Demolition Drawings are based on casual field observation and existing record documents. Report discrepancies to Owner before disturbing existing installation.
- D. Beginning of demolition means installer accepts existing conditions.

##### 3.2 PREPARATION

- A. Provide temporary wiring and connections to maintain existing systems in service during construction. When work must be performed on energized equipment or circuits use personnel experienced in such operations.

##### 3.3 DEMOLITION AND EXTENSION OF EXISTING ELECTRICAL WORK

- A. Remove, relocate, and extend existing installations to accommodate new construction.

- B. Disconnect and remove electrical devices and equipment serving utilization equipment that has been removed.
- C. Repair adjacent construction and finishes damaged during demolition and extension work.
- D. Maintain access to existing electrical installations which remain active. Modify installation or provide access panel as appropriate.
- E. Extend existing installations using materials and methods compatible with existing electrical installations, or as specified.
- F. Where existing construction is removed to provide working and extension access to existing utilities, contractor shall remove doors, piping, conduit, outlet boxes, wiring, light fixtures, air conditioning ductwork and equipment, etc., to provide this access and shall reinstall same upon completion of work in the areas affected.
- G. During the construction and remodeling, portions of the project shall remain in service. Construction equipment, materials, tools, extension cords, etc., shall be arranged so as to present minimum hazard or interruption to the occupants of the building.
- H. All existing lighting fixtures, switches, outlets, speakers, materials, equipment and appurtenances not included in the remodel or alteration areas are to remain in place and shall remain in service.
- I. Electrical equipment, outlets, speakers, circuits to mechanical and building systems equipment, etc., which are to remain but which are served by conduit and/or circuiting that is disturbed by the remodeling work, shall be reconnected in such a manner as to leave it in proper operating condition.
- J. Existing branch circuit wiring which is to be removed, shall be pulled from the raceways and the empty conduit shall be removed to a point of permanent concealment.
- K. New circuiting indicated to be connected to existing panels shall be connected to "spares" and/or "released" breakers as applicable, or new breakers provided where space is available. Contractor shall verify the existing panel load and feeder capacity prior to adding any additional loads.

#### 3.4 CLEANING AND REPAIR

- A. Clean and repair existing materials and equipment which remain or are to be reused.
- B. Panelboards: Clean exposed surfaces and check tightness of electrical connections. Replace damaged circuit breakers and provide closure plates for vacant positions. Provide typed circuit directory showing revised circuiting arrangement.

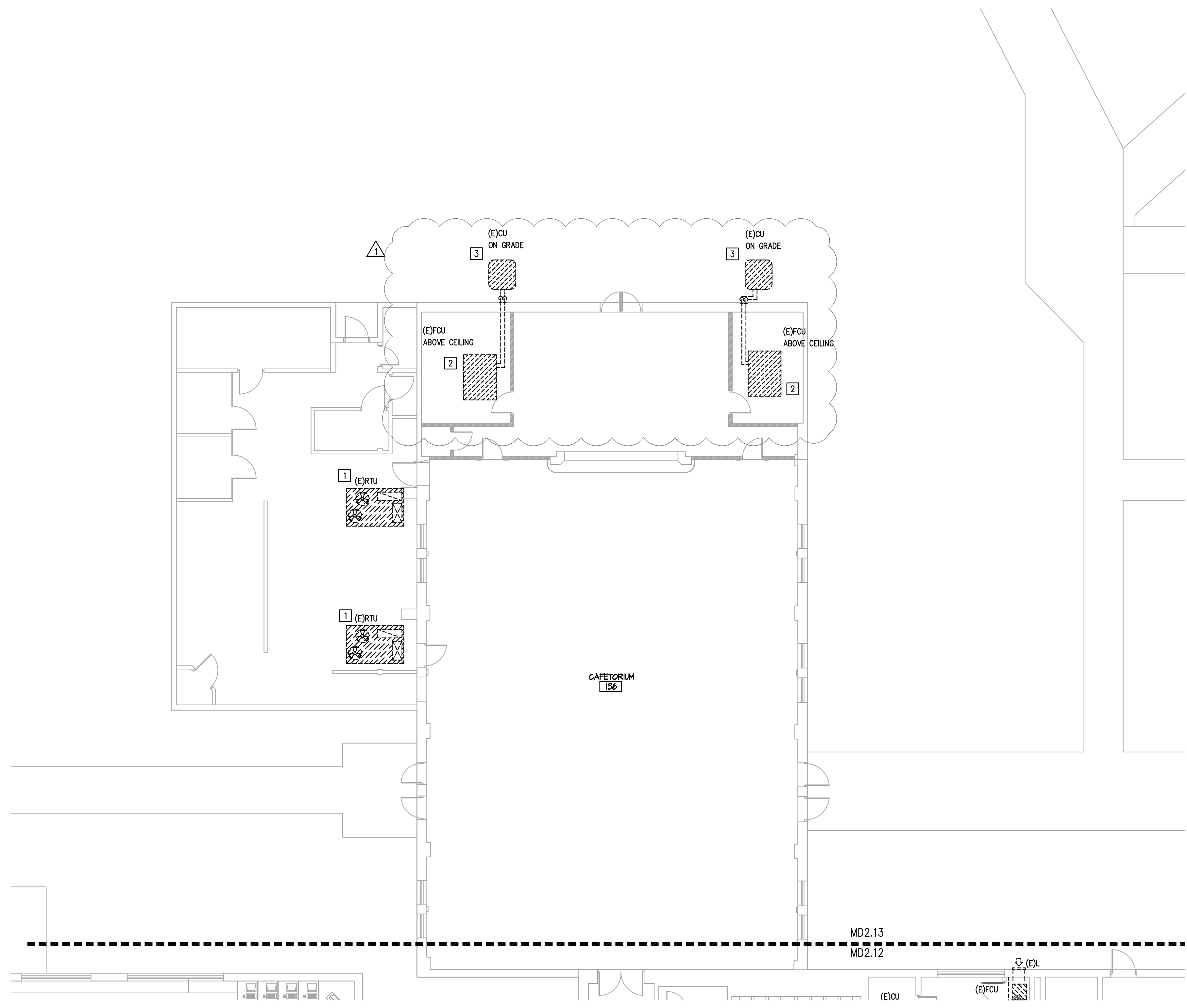
#### 3.5 REMOVAL OF MATERIALS

- A. The contractor shall modify, remove, and/or relocate all materials and items so indicated on the drawings or required by the installation of new facilities. All removals and/or dismantling shall be conducted in a manner as to produce maximum salvage. Salvage materials shall remain the property of the Owner, and shall be delivered to such destination as directed by the Owner. Materials and/or items scheduled for relocation and which are damaged during dismantling or reassembly operations shall be repaired and restored to good operative condition. The contractor may, at his discretion and upon the approval of the Owner, substitute new materials and/or items of like design and quality in lieu of materials and/or items to be relocated.
- B. All items which are to be relocated shall be carefully removed in reverse to original assembly or placement and protected until relocated. The contractor shall clean, repair, and provide all new materials, fittings, and appurtenances required to complete the relocations and to restore to good operative order. All relocations shall be performed by workmen skilled in the work and in accordance with standard practice of the trades involved.

- C. When items scheduled for relocation are found to be in damaged condition before work has been started on dismantling, the contractor shall call the attention of the Owner to such items and receive further instructions before removal. Items damaged in repositioning operations are the contractor's responsibility and shall be repaired or replaced by the contractor as approved by the Owner, at no additional cost to the Owner.
  
- D. Service lines and wiring to items to be removed, salvaged, or relocated shall be removed to points indicated on the drawings, specified, or acceptable to the Owner. Service lines and wiring not scheduled for reuse shall be removed to the points at which reuse is to be continued or service is to remain. Such services shall be sealed, capped, or otherwise tied-off or disconnected in a safe manner acceptable to the Owner. All disconnections or connections into the existing facilities shall be done in such a manner as to result in minimum interruption of services to adjacent occupied areas. Services to existing areas or facilities which must remain in operation during the construction period shall not be interrupted without prior specific approval of the Owner as hereinbefore specified.

**END OF SECTION 26 03 13**

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1
**LEVEL 1 MECHANICAL PLAN - CAFETERIA/KITCHEN - DEMOLITION**  
 1/8" = 1'-0"

**MECHANICAL DEMOLITION GENERAL NOTES:**

- A. IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE VERIFIED EXISTING JOBSITE CONDITIONS DURING THE BIDDING PERIOD SO THEY WILL HAVE DISCOVERED THE FULL SCOPE OF WORK INVOLVED WITH THE MODIFICATION OF THIS EXISTING SPACE. THE SCOPE OF THE WORK SHALL INCLUDE ALL MATERIALS FOR A COMPLETE INSTALLATION INCLUDING DEVICES, EQUIPMENT, OR APPARATUS WHICH MUST BE REMOVED, RELOCATED, OR REMOVED EITHER TEMPORARILY OR PERMANENTLY, OR WHICH MUST BE PROVIDED TO ACCOMMODATE THE INDICATED REMODELING. NOT ALL EXISTING CONDITIONS ARE NECESSARILY INDICATED ON THE DRAWINGS. ALL HVAC SHOWN ARE TAKEN FROM AS-BUILT HARD COPY AND MUST BE FIELD VERIFIED. CONTRACTOR SHALL ADJUST FINAL EQUIPMENT LOCATION PRIOR TO INSTALLATION TO ACCOMMODATE EXISTING ROOF-MOUNTED EQUIPMENT AND OTHER ROOF ACCESSORIES, AS A RESULT OF SUCH ADJUSTMENTS, THE CONTRACTOR SHALL INCLUDE IN BASE BID ADDITIONAL DUCTWORK/PIPING REQUIRED TO MAKE FINAL EQUIPMENT CONNECTIONS.
- B. WHEN AN EQUIPMENT IS IDENTIFIED TO BE REMOVED, THE OWNER HAS FIRST RIGHT OF REFUSAL BEFORE DISPOSING OF THAT EQUIPMENT. PROVIDE OWNER ONE WEEK NOTICE PRIOR TO DEMOLITION. EXISTING MECHANICAL EQUIPMENT, DUCTWORK, AND PIPING SHOWN ON PLANS HAVE BEEN OBTAINED FROM THE ORIGINAL CONSTRUCTION DRAWINGS AND ARE SCHEMATIC ONLY. FIELD VERIFY EXISTING SIZES AND LOCATIONS BEFORE DEMOLITION. CONTRACTOR SHALL NOTIFY ENGINEER OF ALL DISCREPANCIES BETWEEN EXISTING DUCTWORK AND DUCTWORK SHOWN ON DRAWINGS, WHICH MAY REQUIRE MODIFICATIONS (PRIOR TO FABRICATION OF ANY DUCTWORK).
- C. FIELD VERIFY ALL DUCTWORK AND AIR DEVICES OF EXISTING AIR HANDLING UNITS ALONG WITH RETURN, EXHAUST, AND MAKE-UP AIR DUCTWORK. EVERY EFFORT HAS BEEN MADE TO SHOW THE APPROXIMATE LOCATIONS AND CONNECTIONS TO THE EXISTING DUCT, AIR DEVICES, EQUIPMENT AND OTHER APPARATUS RELATED TO THIS PHASE OF WORK.
- D. PATCH ALL WALLS DISTURBED DUE TO THE DEMOLITION WORK THAT ARE TO REMAIN. FINISH ALL PATCH WORK TO MATCH ADJACENT AREA AND FIRE RATING.
- E. CONTRACTOR SHALL COVER AND PROTECT ALL EXISTING EQUIPMENT (COMPUTERS, PRINTERS, ETC.) PRESENT IN CLASSROOM OR OTHER AREAS PRIOR TO ANY DEMOLITION.

**MECHANICAL DEMOLITION KEYED NOTES:**

1. CONTRACTOR SHALL DEMOLISH ROOF TOP UNITS IN THEIR ENTIRETY. EXISTING ROOF CURB SHALL REMAIN. REMOVE CONDENSATE PIPING. CONTRACTOR SHALL TEMPORARILY CAP/SEAL EXISTING ASSOCIATED DUCTWORK SHALL REMAIN.
2. DEMOLISH EXISTING FAN COIL UNIT ABOVE CEILING. DEMOLISH EXISTING THERMOSTAT IN CLASSROOM. DEMOLISH CONDENSATE PIPING AND ALL REFRIGERANT PIPING TO ASSOCIATED CONDENSING UNIT. EXISTING SUPPLY AND RETURN DUCTWORK SHALL REMAIN. EXISTING BPI DEVICE SHALL BE TEMPORARILY REMOVED TO BE REINSTALLED. DEMOLISH EXISTING SUPPORT. ALL DOWNSTREAM SUPPLY DUCTWORK AND AIR DEVICES SHALL REMAIN. EXISTING OUTSIDE AIR INTAKE SHALL REMAIN. CONTRACTOR SHALL FIELD VERIFY CORRESPONDING INDOOR FAN COIL UNIT WITH OUTDOOR CONDENSING UNIT.
3. DEMOLISH EXISTING CONDENSING UNIT IN ITS ENTIRETY. REMOVE ALL REFRIGERANT PIPING TO EXISTING FAN COIL UNIT AND REMOVE ASSOCIATED DISCONNECT. TEMPORARILY SEAL REMAINING WALL PENETRATIONS TO BE REUSED. EXISTING HOUSEKEEPING PAD SHALL REMAIN. CONTRACTOR SHALL REFER TO MECHANICAL DEMOLITION FLOOR PLAN FOR LOCATION OF CORRESPONDING CONDENSING UNIT TO DETERMINE FULL EXTENT OF DEMOLITION FROM CONDENSING UNIT TO ASSOCIATED INDOOR FAN COIL UNIT.



REVISION No.	DATE	DESCRIPTION
1	05/26/2022	ADDENDUM 1

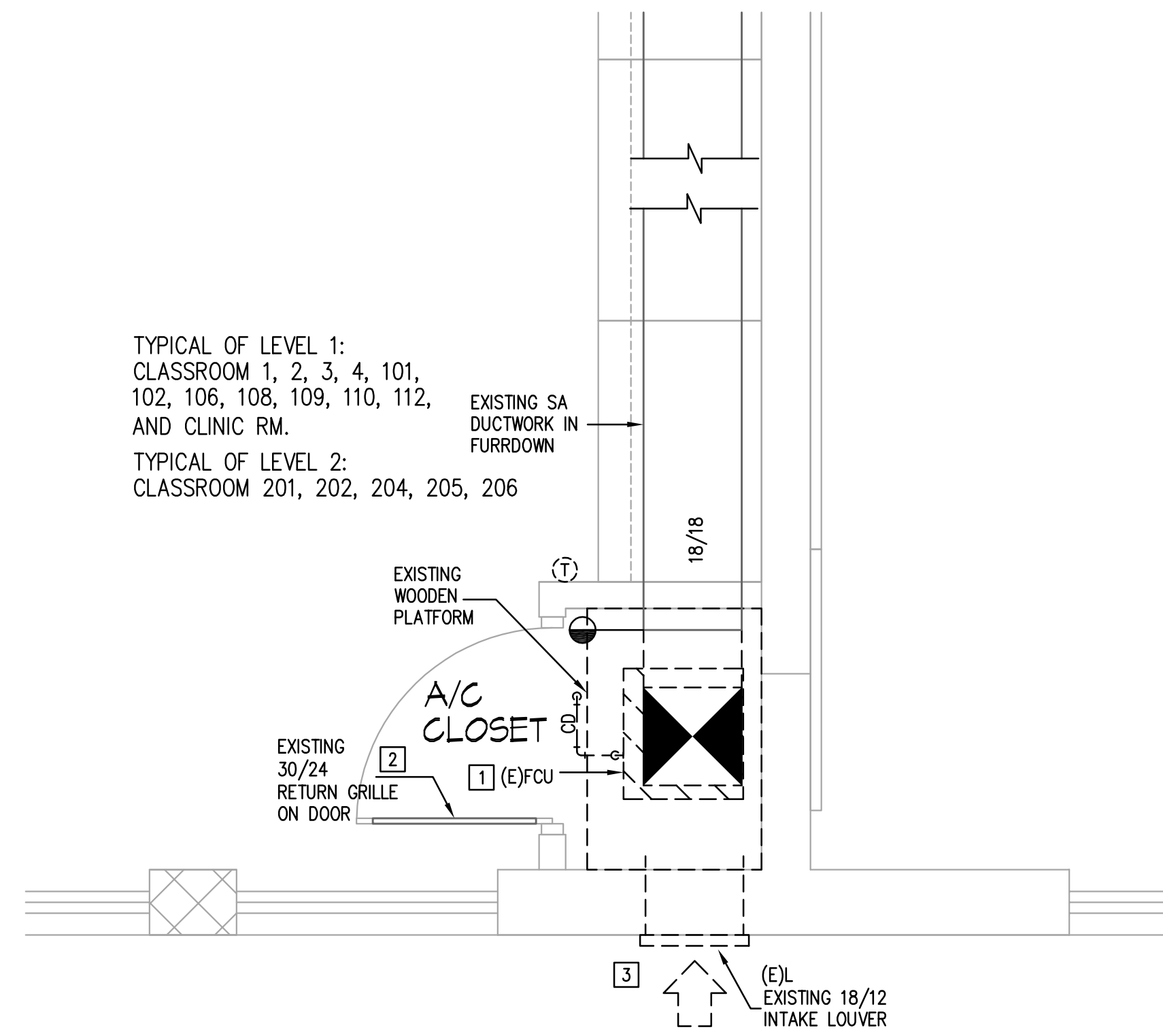


**EDINBURG CONSOLIDATED INDEPENDENT SCHOOL DISTRICT**  
**STEPHEN F. AUSTIN ES - HVAC IMPROVEMENTS**  
 1023 E KUHN ST, EDINBURG, TX 78541

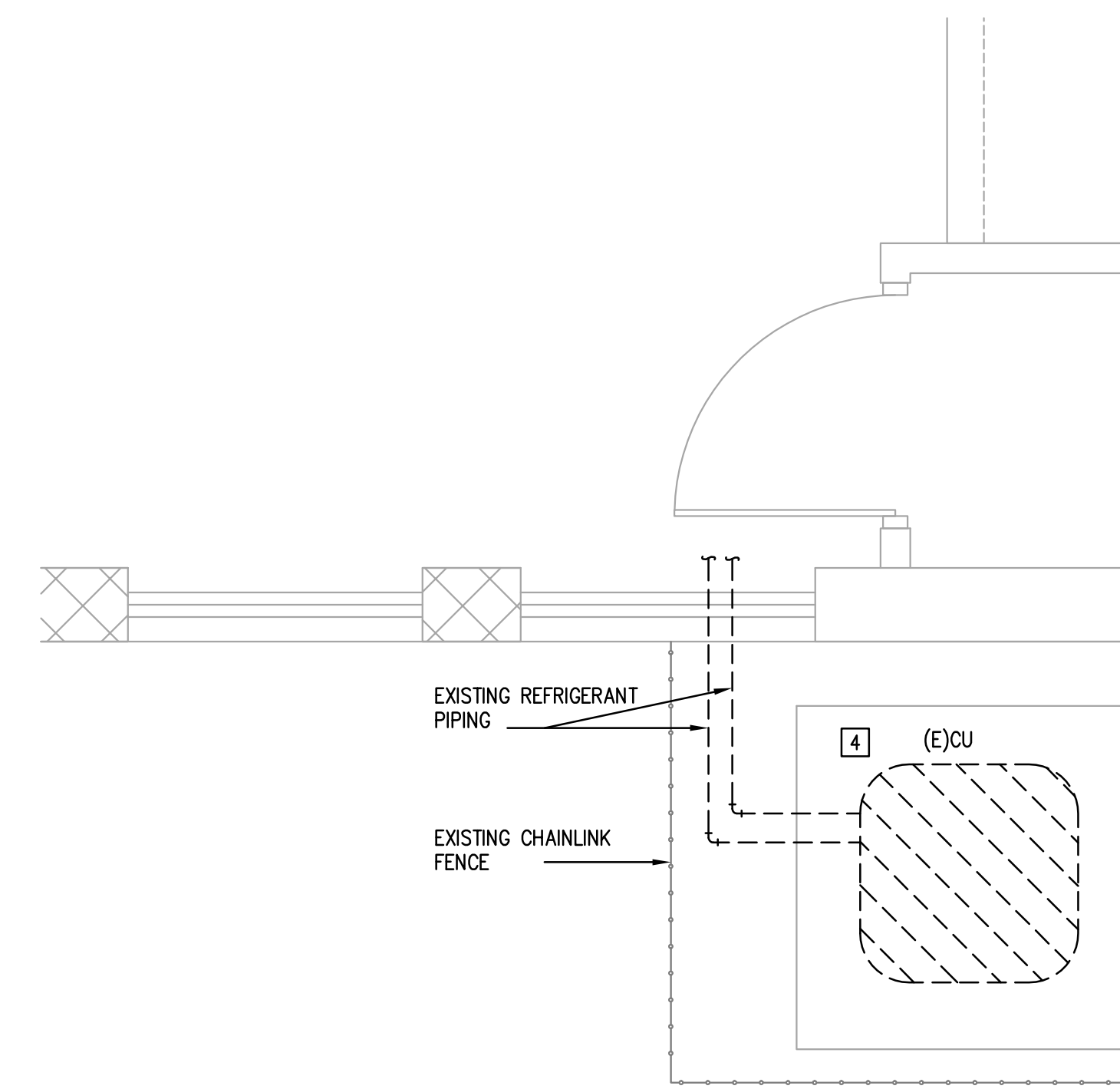
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CHECKED BY:	DBR
PROJECT NUMBER:	218007.004
SHEET TITLE:	LEVEL 1 MECHANICAL PLAN-CAFETERIA-KITCHEN - DEMOLITION
SHEET NUMBER:	MD2.13

DBR Project Number	218007.004			
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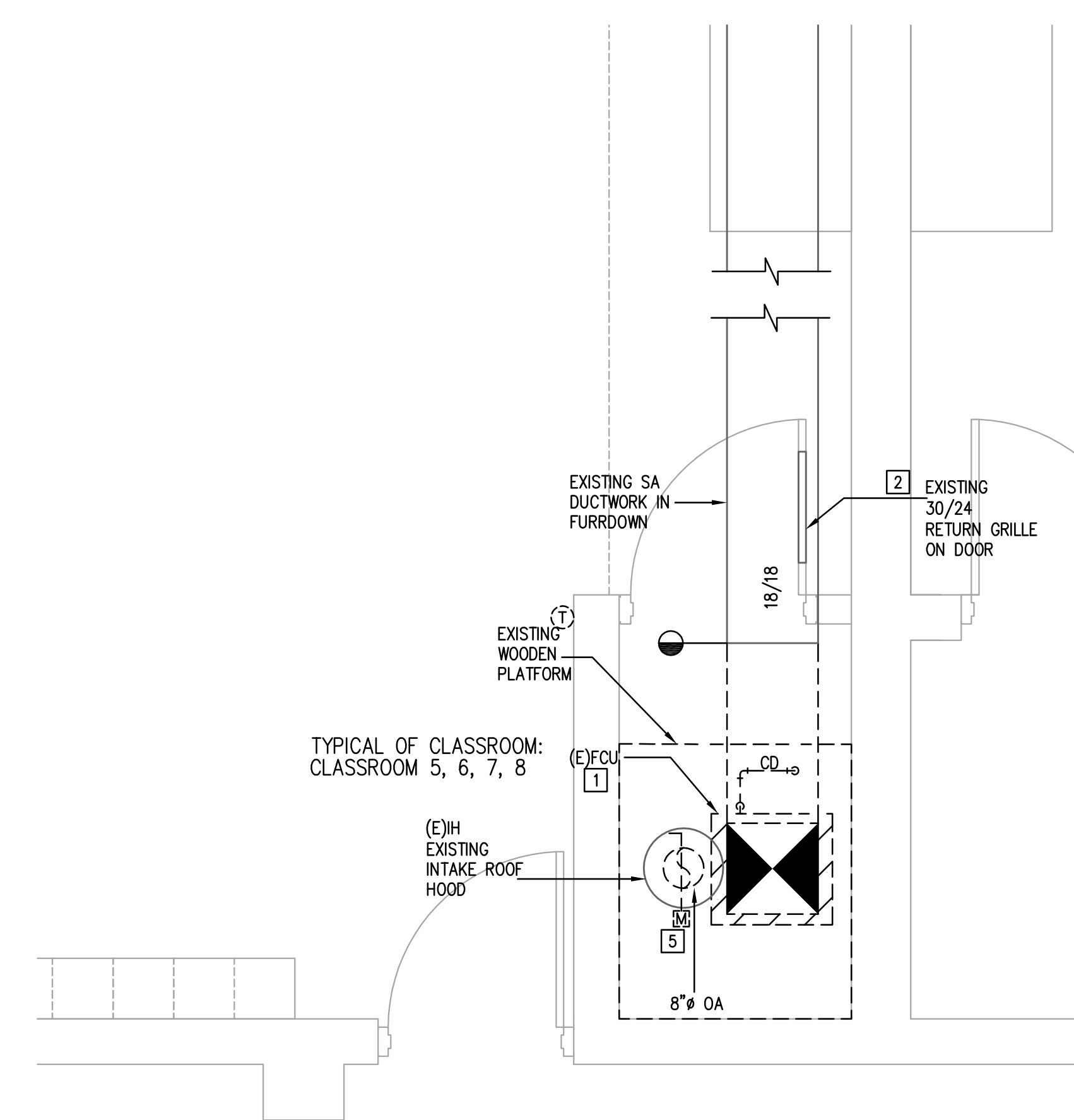




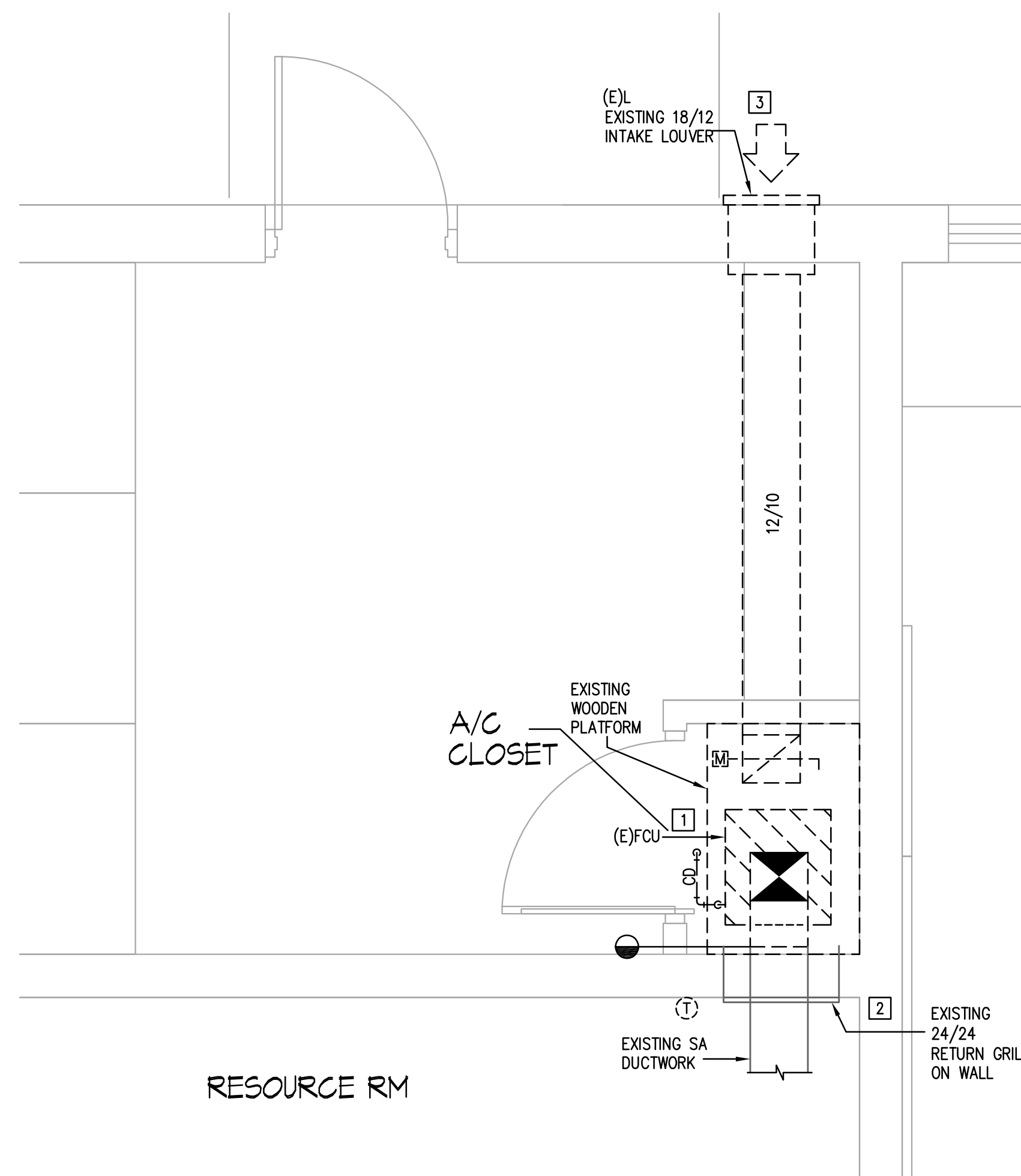
**1** TYPICAL EXISTING A/C CLOSET - LOUVER INTAKE - CLASSROOM 1, 2, 3, 4, 101, 102, 106, 108, 110, 112, 201, 202, 204, 205, 206, AND CLINIC RM. - DEMOLITION  
 MD3.01 1/2" = 1'-0"



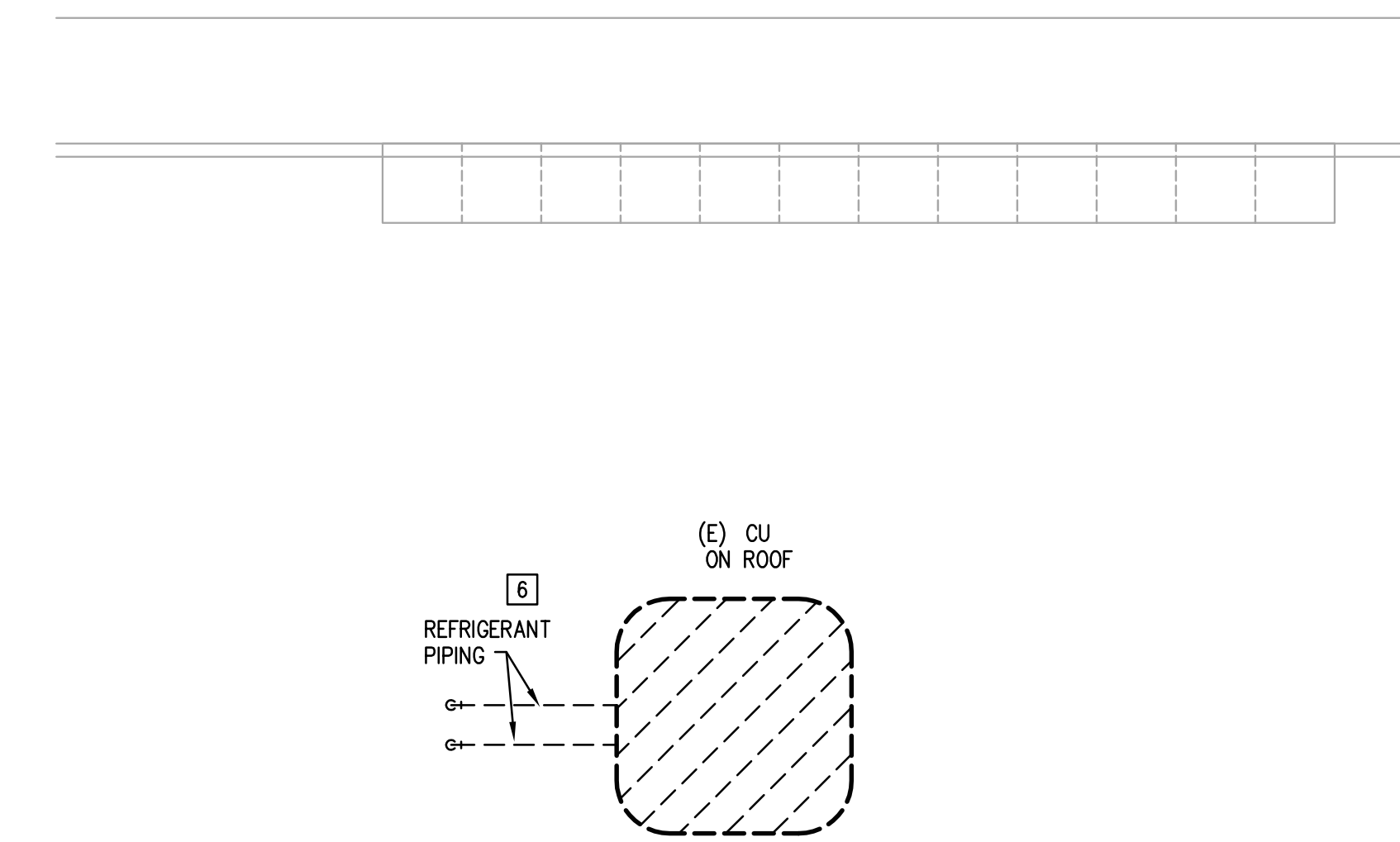
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 MD3.01 1/2" = 1'-0"



**3** TYPICAL EXISTING A/C CLOSET - ROOF INTAKE - CLASSROOM 5, 6, 7, 8 DEMOLITION  
 MD3.01 1/2" = 1'-0"



**4** EXISTING A/C CLOSET - RESOURCE ROOM - DEMOLITION  
 MD3.01 1/2" = 1'-0"



**5** TYPICAL EXISTING CONDENSING UNIT ON ROOF - DEMOLITION  
 MD3.01 1/2" = 1'-0"

**MECHANICAL DEMOLITION GENERAL NOTES:**

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE VERIFIED EXISTING JOBSITE CONDITIONS DURING THE BIDDING PERIOD SO THEY WILL HAVE DISCOVERED THE FULL SCOPE OF WORK INVOLVED WITH THE MODIFICATION OF THIS EXISTING SPACE. THE SCOPE OF THE WORK SHALL INCLUDE ALL MATERIALS FOR A COMPLETE INSTALLATION INCLUDING DEVICES, EQUIPMENT, OR APPARATUS WHICH MUST BE REROUTED, RELOCATED, OR REMOVED EITHER TEMPORARILY OR PERMANENTLY OR WHICH MUST BE PROVIDED TO ACCOMMODATE THE INDICATED REWORKING. NOT ALL EXISTING CONDITIONS ARE NECESSARILY INDICATED ON THE DRAWINGS. ALL HVAC SHOWN ARE TAKEN FROM AS-BUILT HARD COPY AND MUST BE FIELD VERIFIED. CONTRACTOR SHALL ADJUST FINAL EQUIPMENT LOCATION PRIOR TO INSTALLATION TO ACCOMMODATE EXISTING ROOF-MOUNTED EQUIPMENT AND OTHER ROOF ACCESSORIES. AS A RESULT OF SUCH ADJUSTMENTS, THE CONTRACTOR SHALL INCLUDE IN BASE BID ADDITIONAL DUCTWORK/PIPING REQUIRED TO MAKE FINAL EQUIPMENT CONNECTIONS.
- WHEN AN EQUIPMENT IS IDENTIFIED TO BE REMOVED, THE OWNER HAS FIRST RIGHT OF REFUSAL BEFORE DISPOSING OF THAT EQUIPMENT. PROVIDE OWNER ONE WEEK NOTICE PRIOR TO DEMOLITION. EXISTING MECHANICAL EQUIPMENT, DUCTWORK, AND PIPING SHOWN ON PLANS HAVE BEEN OBTAINED FROM THE ORIGINAL CONSTRUCTION DRAWINGS AND ARE SCHEMATIC ONLY. FIELD VERIFY EXISTING SIZES AND LOCATIONS BEFORE DEMOLITION. CONTRACTOR SHALL NOTIFY ENGINEER OF ALL DISCREPANCIES BETWEEN EXISTING DUCTWORK AND DUCTWORK SHOWN ON DRAWINGS, WHICH MAY REQUIRE MODIFICATIONS (PRIOR TO FABRICATION OF ANY DUCTWORK).
- FIELD VERIFY ALL DUCTWORK AND AIR DEVICES OF EXISTING AIR HANDLING UNITS ALONG WITH RETURN, EXHAUST, AND MAKE-UP AIR DUCTWORK. EVERY EFFORT HAS BEEN MADE TO SHOW THE APPROXIMATE LOCATIONS AND CONNECTIONS TO THE EXISTING DUCT, AIR DEVICES, EQUIPMENT AND OTHER APPARATUS RELATED TO THIS PHASE OF WORK.
- PATCH ALL WALLS DISTURBED DUE TO THE DEMOLITION WORK THAT ARE TO REMAIN. FINISH ALL PATCH WORK TO MATCH ADJACENT AREA AND FIRE RATING.
- CONTRACTOR SHALL COVER AND PROTECT ALL EXISTING EQUIPMENT (COMPUTERS, PRINTERS, ETC.) PRESENT IN CLASSROOM OR OTHER AREAS PRIOR TO ANY DEMOLITION.

**MECHANICAL DEMOLITION KEYED NOTES:**

- DEMOLISH EXISTING FAN COIL UNIT IN HVAC CLOSET. DEMOLISH EXISTING THERMOSTAT. EXISTING MAIN CONDENSATE DRAIN LINE SHALL REMAIN. CONDENSATE PIPING FROM FAN COIL UNIT TO THE MAIN CONDENSATE LINE SHALL BE REMOVED. DEMOLISH ALL REFRIGERANT PIPING TO ASSOCIATED CONDENSING UNIT. DEMOLISH FLEXIBLE CONNECTION AND DUCT AND SUPPLY DUCTWORK UP TO LOCATION INDICATED. EXISTING BPI DEVICE SHALL BE TEMPORARILY REMOVED TO BE REINSTALLED. DEMOLISH EXISTING WOOD PLATFORM. ALL DOWNSTREAM SUPPLY DUCTWORK AND AIR DEVICES SHALL REMAIN. CONTRACTOR SHALL FIELD VERIFY CORRESPONDING INDOOR FAN COIL UNIT WITH OUTDOOR CONDENSING UNIT.
- REMOVE EXISTING FILTER FROM EXISTING RETURN AIR GRILLE. EXISTING RETURN AIR GRILLE SHALL REMAIN.
- DEMOLISH EXISTING OUTSIDE AIR DUCT AND EXISTING INTAKE LOUVER AND EXISTING DAMPER.
- DEMOLISH EXISTING CONDENSING UNIT IN ITS ENTIRETY. REMOVE ALL REFRIGERANT PIPING TO EXISTING FAN COIL UNIT AND REMOVE ASSOCIATED DISCONNECT. TEMPORARILY SEAL REMAINING WALL PENETRATIONS TO BE REUSED. EXISTING HOUSEKEEPING PAD SHALL REMAIN. CONTRACTOR SHALL REFER TO MECHANICAL DEMOLITION FLOOR PLAN FOR LOCATION OF CORRESPONDING CONDENSING UNIT TO DETERMINE FULL EXTENT OF DEMOLITION FROM CONDENSING UNIT TO ASSOCIATED INDOOR FAN COIL UNIT.
- DEMOLISH EXISTING OUTSIDE AIR DUCT AND EXISTING DAMPER. ASSOCIATED INTAKE HOOD ON ROOF SHALL REMAIN. CONTRACTOR SHALL TEMPORARILY SEAL INTAKE HOOD OPENING.
- DEMOLISH EXISTING CONDENSING UNIT ON ROOF IN ITS ENTIRETY. REMOVE ALL REFRIGERANT PIPING TO EXISTING FAN COIL UNIT AND REMOVE ASSOCIATED DISCONNECT. TEMPORARILY SEAL ROOF PENETRATIONS TO BE REUSED. EXISTING UNIT SUPPORT SHALL BE REMOVED. CONTRACTOR SHALL REFER TO MECHANICAL DEMOLITION FLOOR PLAN FOR LOCATION OF CORRESPONDING CONDENSING UNIT TO DETERMINE FULL EXTENT OF DEMOLITION FROM CONDENSING UNIT TO ASSOCIATED INDOOR FAN COIL UNIT.



REVISION	No.	DATE	DESCRIPTION
	1	05/26/2022	ADDENDUM 1

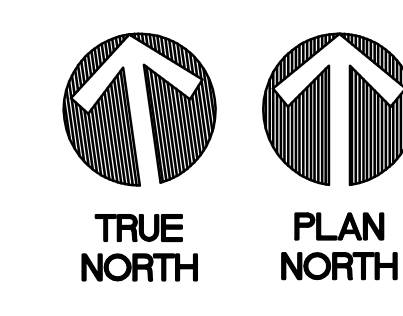


EDINBURG CONSOLIDATED INDEPENDENT SCHOOL DISTRICT  
 STEPHEN F. AUSTIN ES - HVAC IMPROVEMENTS  
 1023 E KUHN ST, EDINBURG, TX 78541

DATE: 05/05/2022  
 DRAWN BY: DBR  
 CHECKED BY: DBR  
 PROJECT NUMBER: 218007.004  
 SHEET TITLE:

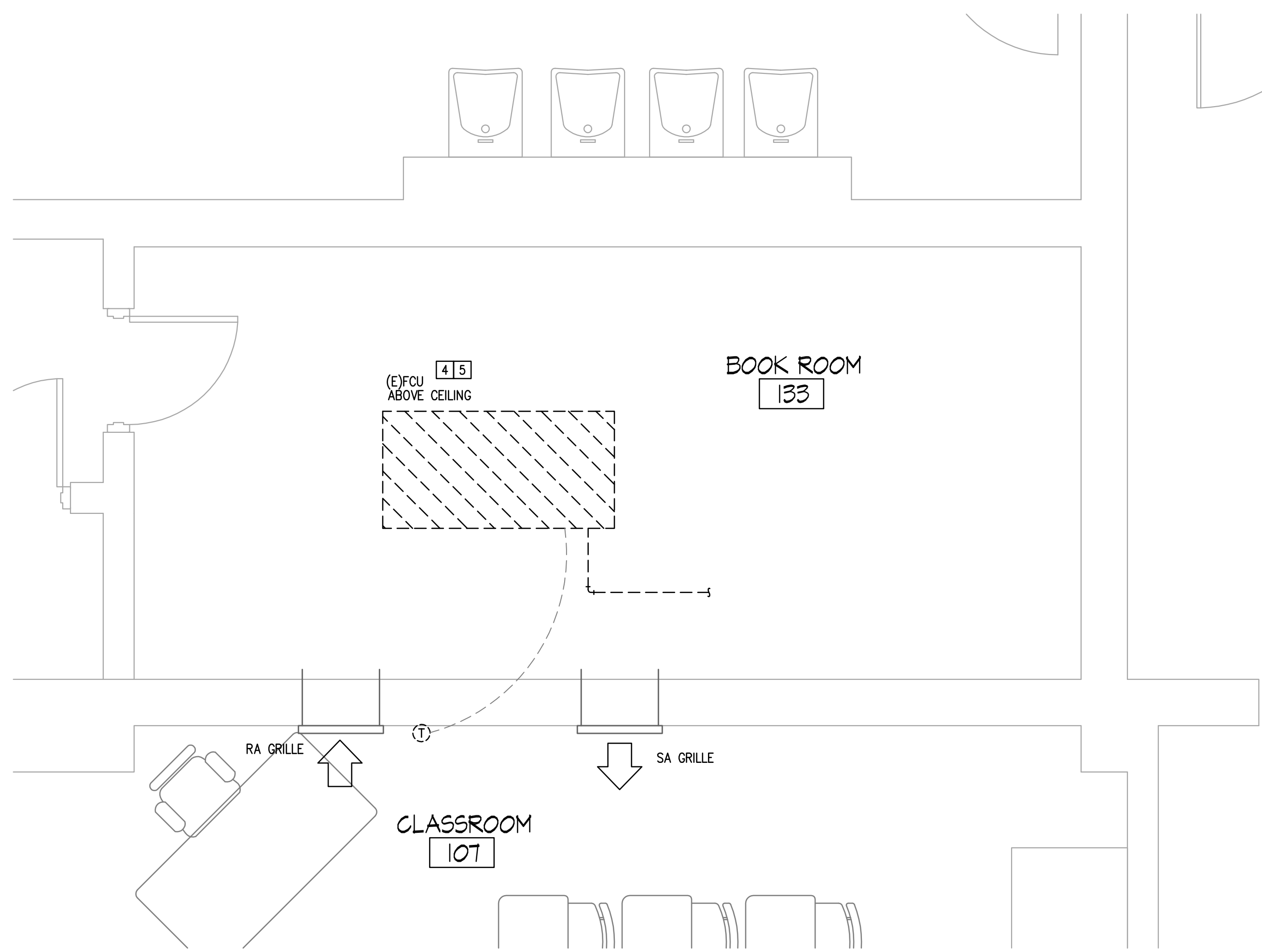
ENLARGED MECHANICAL PLANS - DEMOLITION

SHEET NUMBER:  
**MD3.01**

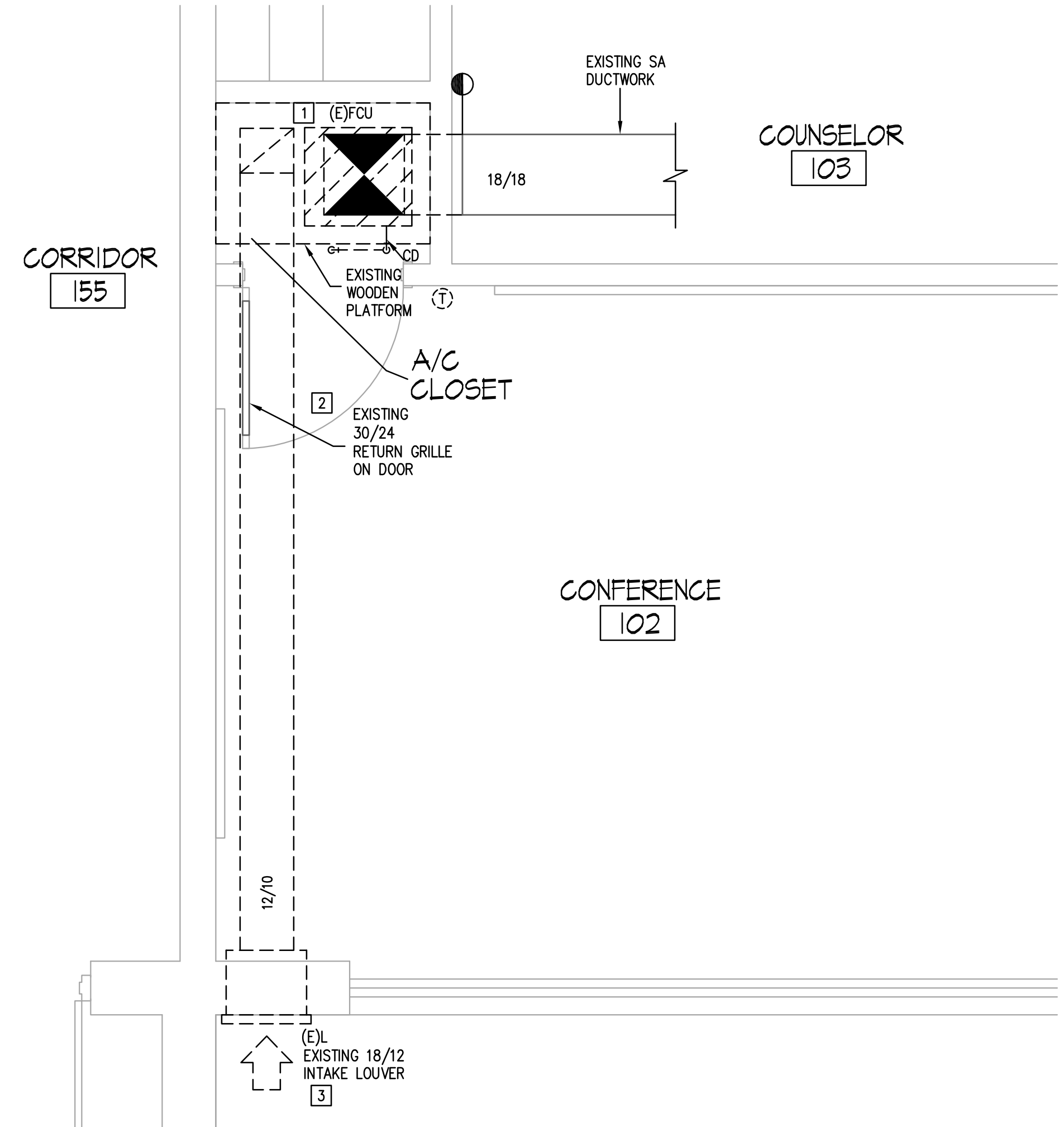


DBR Project Number	218007.004				
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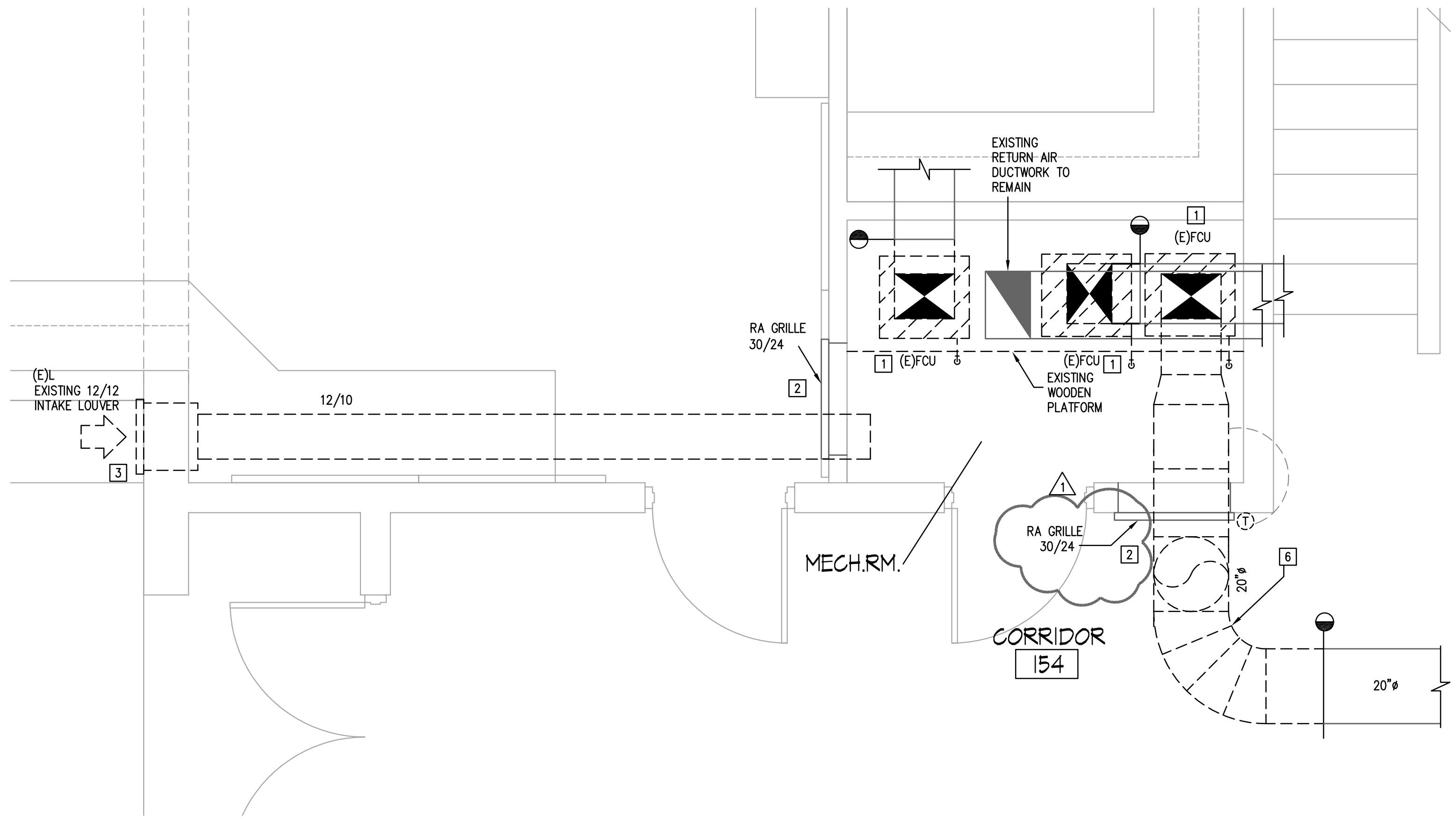
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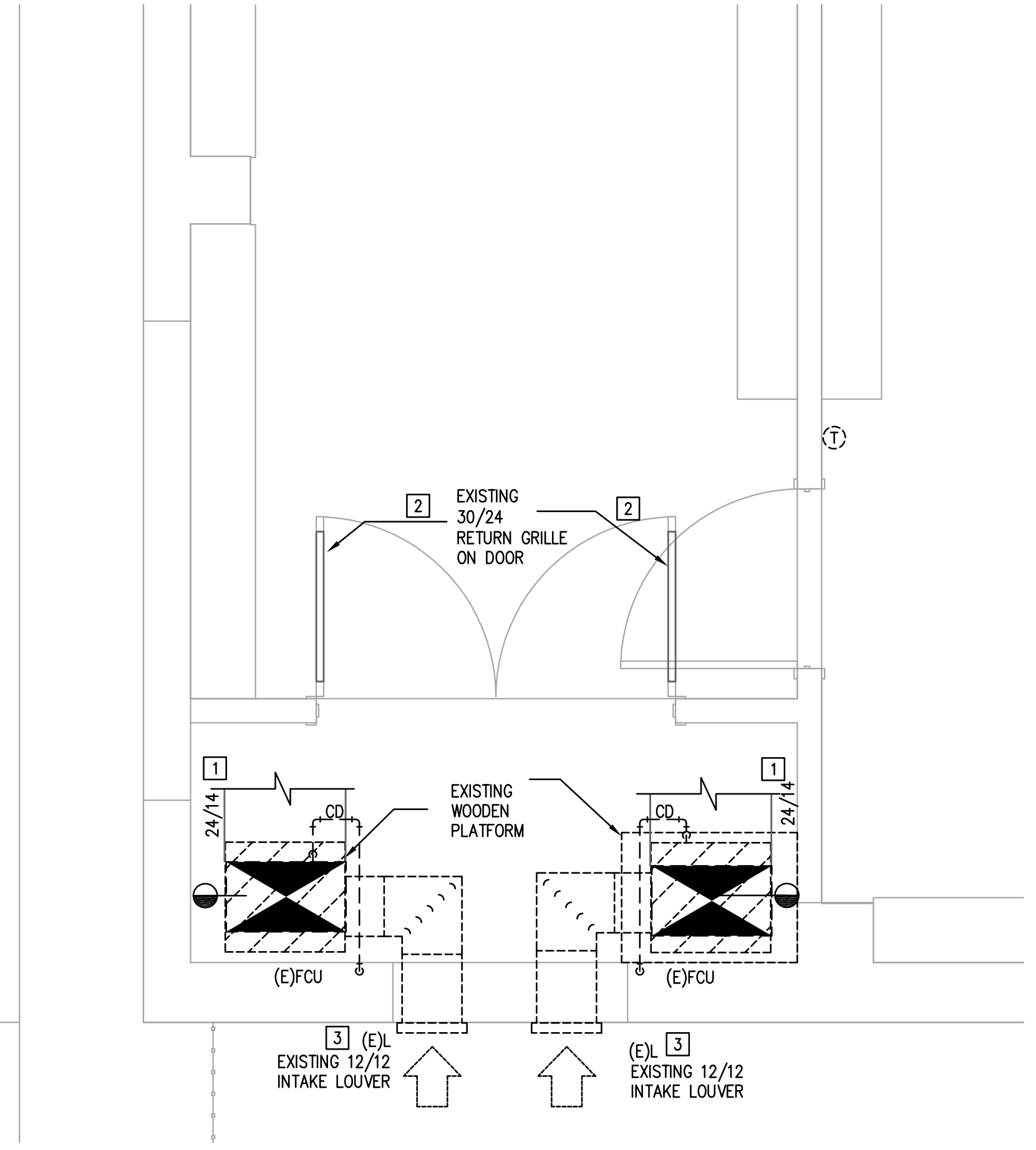
**1** EXISTING A/C CLOSET - CLASSROOM 107- DEMOLITION  
 MD3.02 1/2" = 1'-0"



**2** EXISTING A/C CLOSET - LOUVER INTAKE - CONFERENCE 102 - DEMOLITION  
 MD3.02 1/2" = 1'-0"



**3** EXISTING A/C CLOSET - LOUVER INTAKE - ADMIN UNITS- DEMOLITION  
 MD3.02 1/2" = 1'-0"



**4** EXISTING A/C - LIBRARY- DEMOLITION  
 MD3.02 1/2" = 1'-0"

**MECHANICAL DEMOLITION GENERAL NOTES:**

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE VERIFIED EXISTING JOBSITE CONDITIONS DURING THE BIDDING PERIOD SO THEY WILL HAVE DISCOVERED THE FULL SCOPE OF WORK INVOLVED WITH THE MODIFICATION OF THIS EXISTING SPACE. THE SCOPE OF THE WORK SHALL INCLUDE ALL MATERIALS FOR A COMPLETE INSTALLATION INCLUDING DEVICES, EQUIPMENT, OR APPARATUS WHICH MUST BE PERMITTED, RELOCATED, OR REMOVED EITHER TEMPORARILY OR PERMANENTLY, OR WHICH MUST BE PROVIDED TO ACCOMMODATE THE INDICATED REMODELING. NOT ALL EXISTING CONDITIONS ARE NECESSARILY INDICATED ON THE DRAWINGS. ALL HVAC SHOWS ARE TAKEN FROM AS-BUILT HARD COPY AND MUST BE FIELD VERIFIED. CONTRACTOR SHALL ADJUST FINAL EQUIPMENT LOCATION PRIOR TO INSTALLATION TO ACCOMMODATE EXISTING ROOF-MOUNTED EQUIPMENT AND OTHER ROOF ACCESSORIES. AS A RESULT OF SUCH ADJUSTMENTS, THE CONTRACTOR SHALL INCLUDE IN BASE BID ADDITIONAL DUCTWORK/PIPING REQUIRED TO MAKE FINAL EQUIPMENT CONNECTIONS.
- WHEN AN EQUIPMENT IS IDENTIFIED TO BE REMOVED, THE OWNER HAS FIRST RIGHT OF REFUSAL BEFORE DISPOSING OF THAT EQUIPMENT. PROVIDE OWNER ONE WEEK NOTICE PRIOR TO DEMOLITION. EXISTING MECHANICAL EQUIPMENT, DUCTWORK, AND PIPING SHOWN ON PLANS HAVE BEEN OBTAINED FROM THE ORIGINAL CONSTRUCTION DRAWINGS AND ARE SCHEMATIC ONLY. FIELD VERIFY EXISTING SIZES AND LOCATIONS BEFORE DEMOLITION. CONTRACTOR SHALL NOTIFY ENGINEER OF ALL DISCREPANCIES BETWEEN EXISTING DUCTWORK AND DUCTWORK SHOWN ON DRAWINGS, WHICH MAY REQUIRE MODIFICATIONS (PRIOR TO FABRICATION OF ANY DUCTWORK).
- FIELD VERIFY ALL DUCTWORK AND AIR DEVICES OF EXISTING AIR HANDLING UNITS ALONG WITH RETURN, EXHAUST, AND MAKE-UP AIR DUCTWORK. EVERY EFFORT HAS BEEN MADE TO SHOW THE APPROXIMATE LOCATIONS AND CONNECTIONS TO THE EXISTING DUCT, AIR DEVICES, EQUIPMENT AND OTHER APPARATUS RELATED TO THIS PHASE OF WORK.
- PATCH ALL WALLS DISTURBED DUE TO THE DEMOLITION WORK THAT ARE TO REMAIN. FINISH ALL PATCH WORK TO MATCH ADJACENT AREA AND FIRE RATING.
- CONTRACTOR SHALL COVER AND PROTECT ALL EXISTING EQUIPMENT (COMPUTERS, PRINTERS, ETC.) PRESENT IN CLASSROOM OR OTHER AREAS PRIOR TO ANY DEMOLITION.

**MECHANICAL DEMOLITION KEYED NOTES:**

- DEMOLISH EXISTING FAN COIL UNIT IN HVAC CLOSET. DEMOLISH EXISTING THERMOSTAT. EXISTING MAIN CONDENSATE DRAIN LINE SHALL REMAIN. CONDENSATE PIPING FROM FAN COIL UNIT TO THE MAIN CONDENSATE LINE SHALL BE REMOVED. DEMOLISH ALL REFRIGERANT PIPING TO ASSOCIATED CONDENSING UNIT. DEMOLISH FLEXIBLE CONNECTION AND DUCT AND SUPPLY DUCTWORK UP TO LOCATION INDICATED. EXISTING BPI DEVICE SHALL BE TEMPORARILY REMOVED TO BE REINSTALLED. DEMOLISH EXISTING WOOD PLATFORM. ALL DOWNSTREAM SUPPLY DUCTWORK AND AIR DEVICES SHALL REMAIN. CONTRACTOR SHALL FIELD VERIFY CORRESPONDING INDOOR FAN COIL UNIT WITH OUTDOOR CONDENSING UNIT.
- REMOVE EXISTING FILTER FROM EXISTING RETURN AIR GRILLE. EXISTING RETURN AIR UNLESS SHALL REMAIN.
- DEMOLISH EXISTING OUTSIDE AIR DUCT AND EXISTING INTAKE LOUVER AND EXISTING DAMPER. CONTRACTOR SHALL TEMPORARILY SEAL OPENING.
- DEMOLISH EXISTING HORIZONTAL FAN COIL UNIT ABOVE CEILING. DEMOLISH EXISTING THERMOSTAT IN CLASSROOM. DEMOLISH CONDENSATE PIPING AND ALL REFRIGERANT PIPING TO ASSOCIATED CONDENSING UNIT. EXISTING SUPPLY AND RETURN DUCTWORK SHALL REMAIN. EXISTING BPI DEVICE SHALL BE TEMPORARILY REMOVED TO BE REINSTALLED. DEMOLISH EXISTING SUPPORT. ALL DOWNSTREAM SUPPLY DUCTWORK AND AIR DEVICES SHALL REMAIN. EXISTING OUTSIDE AIR INTAKE SHALL REMAIN. CONTRACTOR SHALL FIELD VERIFY CORRESPONDING INDOOR FAN COIL UNIT WITH OUTDOOR CONDENSING UNIT.
- EXISTING ASSOCIATED OUTSIDE AIR INTAKE SHALL REMAIN.
- REMOVE EXISTING SUPPLY DUCTWORK UP TO FABRIC DUCT.



REVISION No.	DATE	DESCRIPTION
1	05/26/2022	ADDENDUM 1



EDINBURG CONSOLIDATED INDEPENDENT SCHOOL DISTRICT  
**STEPHEN F. AUSTIN ES - HVAC IMPROVEMENTS**  
 1023 E KUHN ST, EDINBURG, TX 78541

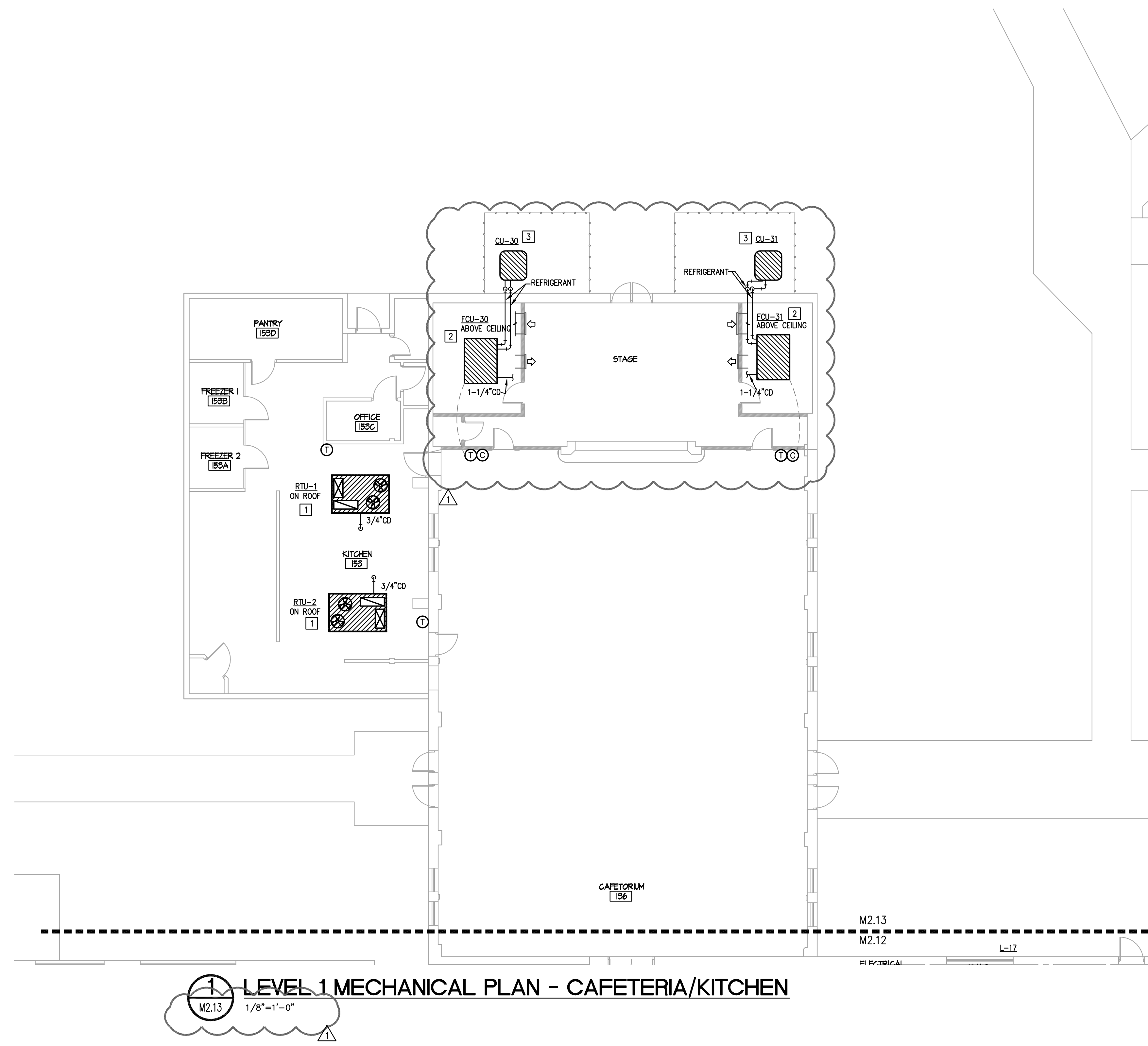
DATE: 05/05/2022  
 DRAWN BY: DBR  
 CHECKED BY: DBR  
 PROJECT NUMBER: 218007.004  
 SHEET TITLE:

ENLARGED MECHANICAL PLANS - DEMOLITION

SHEET NUMBER: MD3.02

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**1**  
 M2.13  
 1/8"=1'-0"

**MECHANICAL GENERAL NOTES:**

A. REFER TO M0.01 FOR MECHANICAL GENERAL NOTES.

**MECHANICAL KEYED NOTES:**

1. PROVIDE PACKAGED ROOF TOP UNIT AS SCHEDULED. CONTRACTOR SHALL PROVIDE ROOF CURB ADAPTOR. CONTRACTOR SHALL EXTEND WITH NEW DUCTWORK AND PROVIDE DUCT TRANSITIONS TO CONNECT NEW WITH EXISTING DUCTWORK. CONTRACTOR SHALL MATCH EXISTING DUCTWORK SIZE. ROUTE 3/4" CONDENSATE PIPING TO ROOF DRAIN. RE: DETAIL 3/M4.01.
2. PROVIDE HORIZONTAL FAN COIL UNIT ABOVE CEILING AS SCHEDULED. CONTRACTOR SHALL REROUTE NEW 1-1/4" CONDENSATE PIPING TO PREVIOUS LOCATION. CONTRACTOR SHALL EXTEND WITH NEW DUCTWORK AND PROVIDE DUCT TRANSITIONS TO CONNECT NEW TO EXISTING DUCTWORK. CONTRACTOR SHALL MATCH EXISTING DUCTWORK SIZE. RE: DETAIL 4/M4.01 AND 11/M4.01.
3. MOUNT CONDENSING UNIT ON EXISTING HOUSEKEEPING PAD. HOUSEKEEPING PAD SHALL BE EXTENDED TO BE 3' BEYOND FOOTPRINT OF CONDENSING UNIT. PROVIDE REFRIGERANT PIPING AND ROUTE TO ASSOCIATED FAN COIL UNIT. INSTALL AS PER MANUFACTURER RECOMMENDATIONS. CONTRACTOR SHALL REFER TO MECHANICAL FLOOR PLAN FOR LOCATION OF FAN COIL UNITS AND ITS CORRESPONDING CONDENSING UNIT TO DETERMINE FULL EXTENT OF REFRIGERANT PIPE ROUTING. CONTRACTOR SHALL TAKE SAME REFRIGERANT PIPING PATH AS PREVIOUS ROUTING. PIPE LENGTH SHALL NOT EXCEED LENGTH AS PER MANUFACTURER RECOMMENDATIONS. RE: DETAIL 5/M4.01 AND 16/M4.01.



REVISION No.	DATE	DESCRIPTION
1	05/26/2022	ADDENDUM 1



**EDINBURG CONSOLIDATED INDEPENDENT SCHOOL DISTRICT**  
**STEPHEN F. AUSTIN ES - HVAC IMPROVEMENTS**  
 1023 E KUHN ST, EDINBURG, TX 78541

<b>DATE:</b>	05/05/2022
<b>DRAWN BY:</b>	DBR
<b>CHECKED BY:</b>	DBR
<b>PROJECT NUMBER:</b>	218007.004
<b>SHEET TITLE:</b>	LEVEL 1 MECHANICAL PLAN-CAFETERIA-KITCHEN
<b>SHEET NUMBER:</b>	M2.13

DBR Project Number 218007.004  
 HA | MG | JB/JR | -- | --

REVISION	No.	DATE	DESCRIPTION
	1	05/26/2022	ADDENDUM 1



EDINBURG CONSOLIDATED INDEPENDENT SCHOOL DISTRICT  
 STEPHEN F. AUSTIN ES - HVAC IMPROVEMENTS  
 1023 E KUHN ST, EDINBURG, TX 78541

DATE: 05/05/2022  
 DRAWN BY: DBR  
 CHECKED BY: DBR  
 PROJECT NUMBER: 218007.004  
 SHEET TITLE:

ENLARGED MECHANICAL PLANS

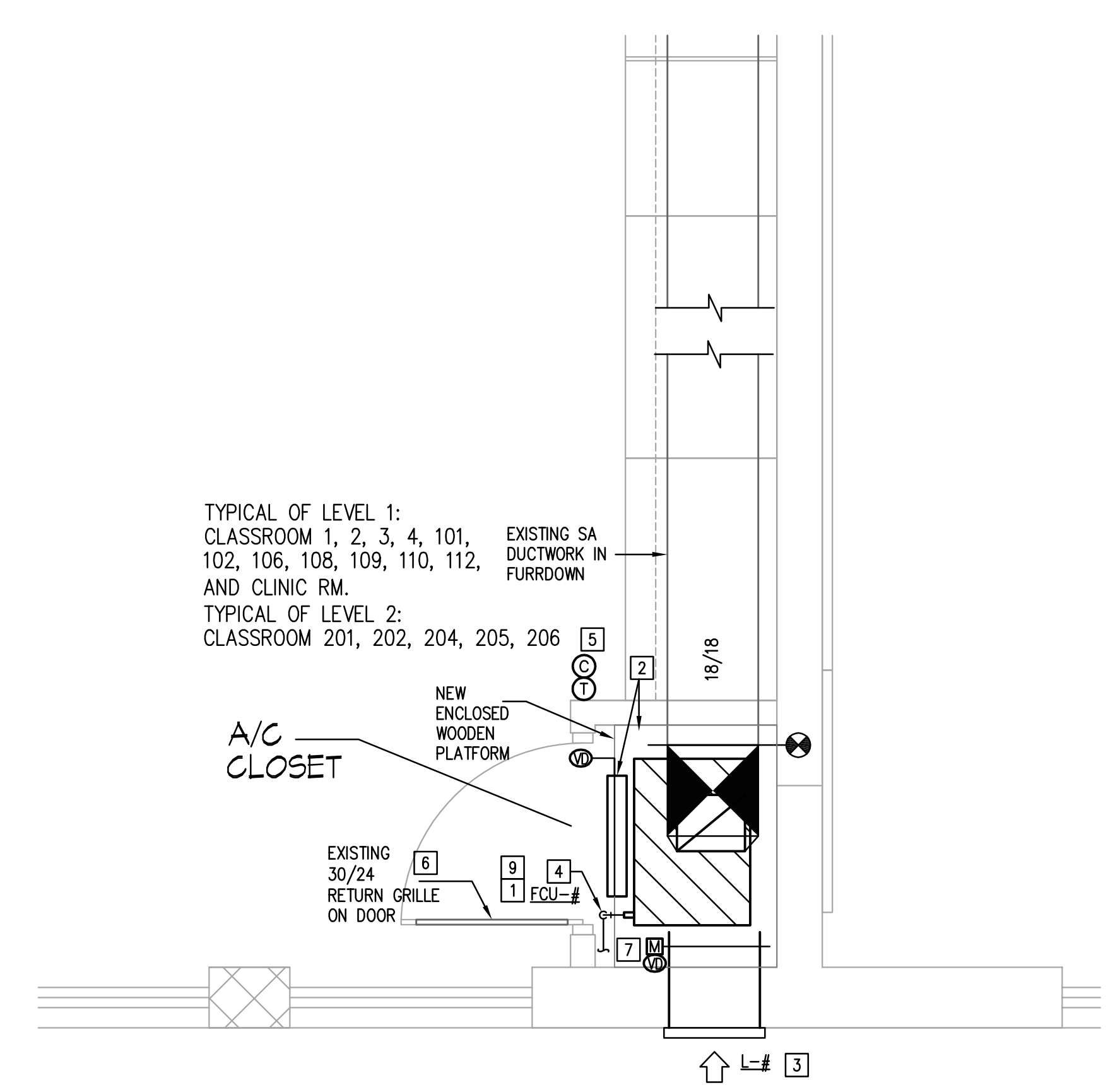
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M3.01

**MECHANICAL GENERAL NOTES:**

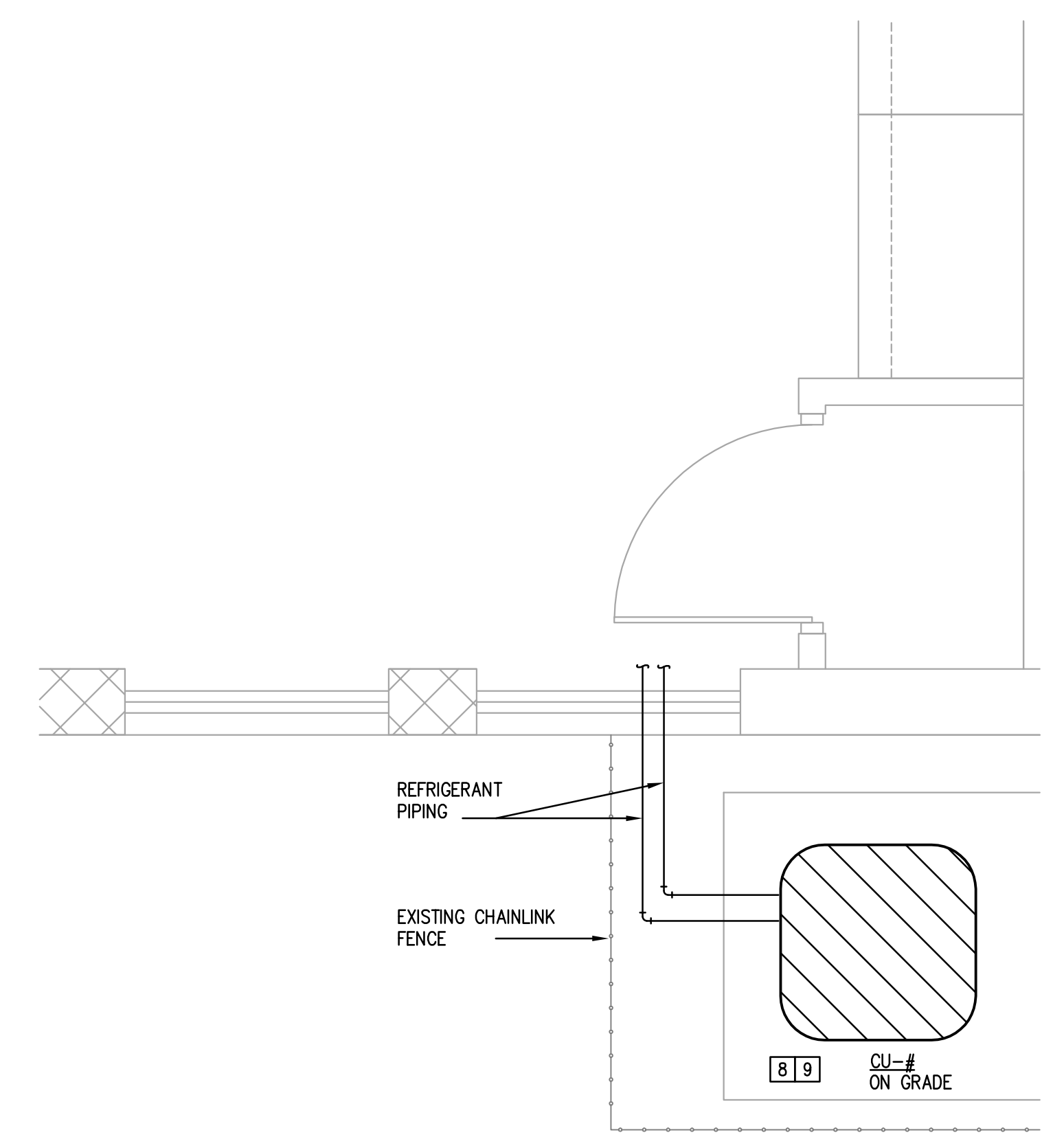
A. REFER TO M0.01 FOR MECHANICAL GENERAL NOTES.

**MECHANICAL KEYED NOTES: [7]**

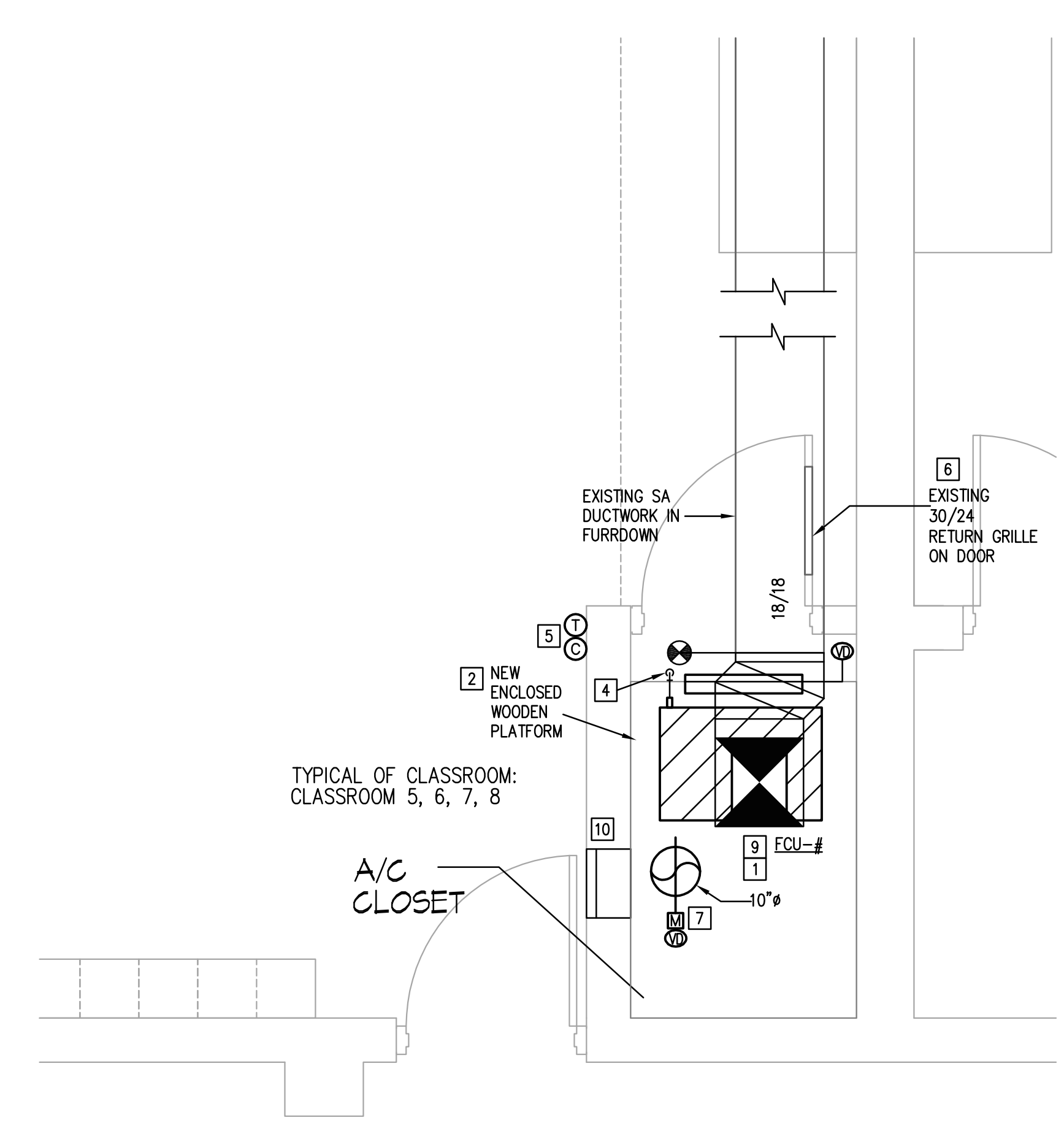
1. PROVIDE VERTICAL FAN COIL UNIT AS SCHEDULED IN A/C CLOSET. PROVIDE FILTER BANK AT BOTTOM OF UNIT FOR 2" PLEATED MERV 13 FILTER. EXTEND WITH NEW SUPPLY DUCT AND CONNECT TO EXISTING SUPPLY DUCTWORK. CONTRACTOR SHALL REINSTALL SPR DEVICE AND PROVIDE POWER. CONTRACTOR SHALL PROVIDE DUCTWORK TO MATCH EXISTING SIZE. RE: DETAIL 1/M4.01, 2/M4.01.
2. PROVIDE SEALED AND ENCLOSED WOODEN PLATFORM. PROVIDE 24" X 24" MANUAL OPPOSED BLADE VOLUME DAMPER THROUGH PLATFORM FOR RETURN AIR BALANCING. CONTRACTOR SHALL FIELD ADJUST THE PLATFORM HEIGHT TO ALLOW FAN COIL TO FIT IN THE AVAILABLE HEIGHT SPACE.
3. PROVIDE LOUVER AS SCHEDULED. LOUVER SHALL BE LOCATED BELOW WOODEN PLATFORM. ROUTE OUTSIDE AIR DUCT FROM LOUVER THROUGH WOODEN PLATFORM BELOW. PROVIDE MOTORIZED DAMPER. RE: DETAIL 1/M4.01 AND 15/M4.01.
4. PROVIDE 1" TYPE L COPPER CONDENSATE PIPING WITH 1" INSULATION FROM UNIT. CONDENSATE PIPING SHALL DROP THROUGH EXISTING PVC PIPE. CONTRACTOR SHALL PROVIDE MODIFICATIONS AND ADD PVC PIPING TO ALLOW CLEARANCE NEEDED FOR VOLUME AND MOTORIZED DAMPER (IF APPLICABLE) BELOW WOODEN PLATFORM. CONTRACTOR SHALL FIREWRAP EXISTING PVC PIPING. RE: DETAIL 11/M4.01
5. PROVIDE WALL-MOUNTED COMBINATION THERMOSTAT AND CARBON DIOXIDE SENSOR FOR ASSOCIATED MECHANICAL EQUIPMENT. LOCATE AND MOUNT AT PREVIOUS WALL LOCATION. CONNECT THERMOSTAT AND CARBON DIOXIDE SENSOR TO BAS.
6. REMOVE AIR GRILLE ON DOOR/WALL SHALL REMAIN. FILTER SHALL BE REMOVED.
7. PROVIDE MOTORIZED DAMPER AND MANUAL OPPOSED BLADE VOLUME DAMPER WITH REMOTE DAMPER OPERATOR ON RETURN AIR SIDE OF PLATFORM FOR RETURN AIR BALANCING.
8. MOUNT CONDENSING UNIT ON EXISTING HOUSEKEEPING PAD. HOUSEKEEPING PAD SHALL BE EXTENDED TO BE 3" BEYOND FOOTPRINT OF CONDENSING UNIT. PROVIDE REFRIGERANT PIPING AND ROUTE TO ASSOCIATED FAN COIL UNIT. INSTALL AS PER MANUFACTURER RECOMMENDATIONS. CONTRACTOR SHALL REFER TO MECHANICAL FLOOR PLAN FOR LOCATION OF FAN COIL UNITS AND ITS CORRESPONDING CONDENSING UNIT TO DETERMINE FULL EXTENT OF REFRIGERANT PIPE ROUTING. CONTRACTOR SHALL TAKE SAME REFRIGERANT PIPING PATH AS PREVIOUS ROUTING. PIPE LENGTH SHALL NOT EXCEED LENGTH AS PER MANUFACTURER RECOMMENDATIONS. RE: DETAIL 5/M4.01 AND 16/M4.01.
9. CONTRACTOR SHALL REFER TO MECHANICAL FLOOR PLANS FOR EQUIPMENT NAME TAGS AND LOCATION OF CORRESPONDING CLASSROOM FAN COIL UNIT, CONDENSING UNIT, AND ASSOCIATED LOUVER.
10. CONTRACTOR SHALL PROVIDE 12" X 12" WALL ACCESS PANEL. CONTRACTOR SHALL LOCATE AT WALL TO ACCESS MOTORIZED DAMPER. COORDINATE FINAL LOCATION WITH MOTORIZED DAMPER. PAINT ACCESS PANEL TO MATCH EXISTING WALL.
11. PROVIDE LOUVER AS SCHEDULED. ROUTE OUTSIDE AIR DUCT FROM LOUVER DOWN THROUGH WOODEN PLATFORM. PROVIDE MOTORIZED DAMPER. RE: DETAIL 2/M4.01 AND 15/M4.01.
12. MOUNT CONDENSING UNIT ON ROOF AT PREVIOUS LOCATION. PROVIDE REFRIGERANT PIPING AND ROUTE TO ASSOCIATED FAN COIL UNIT. CONTRACTOR SHALL REFER TO MECHANICAL FLOOR PLAN FOR LOCATION OF FAN COIL UNITS AND ITS CORRESPONDING CONDENSING UNIT TO DETERMINE FULL EXTENT OF REFRIGERANT PIPE ROUTING. CONTRACTOR SHALL TAKE SAME REFRIGERANT PIPING PATH AS PREVIOUS ROUTING. PIPE LENGTH SHALL NOT EXCEED LENGTH AS PER MANUFACTURER RECOMMENDATIONS. PENETRATE ROOF THROUGH PREVIOUS LOCATION. RE: DETAIL 6/M4.01 AND 14/M4.01.



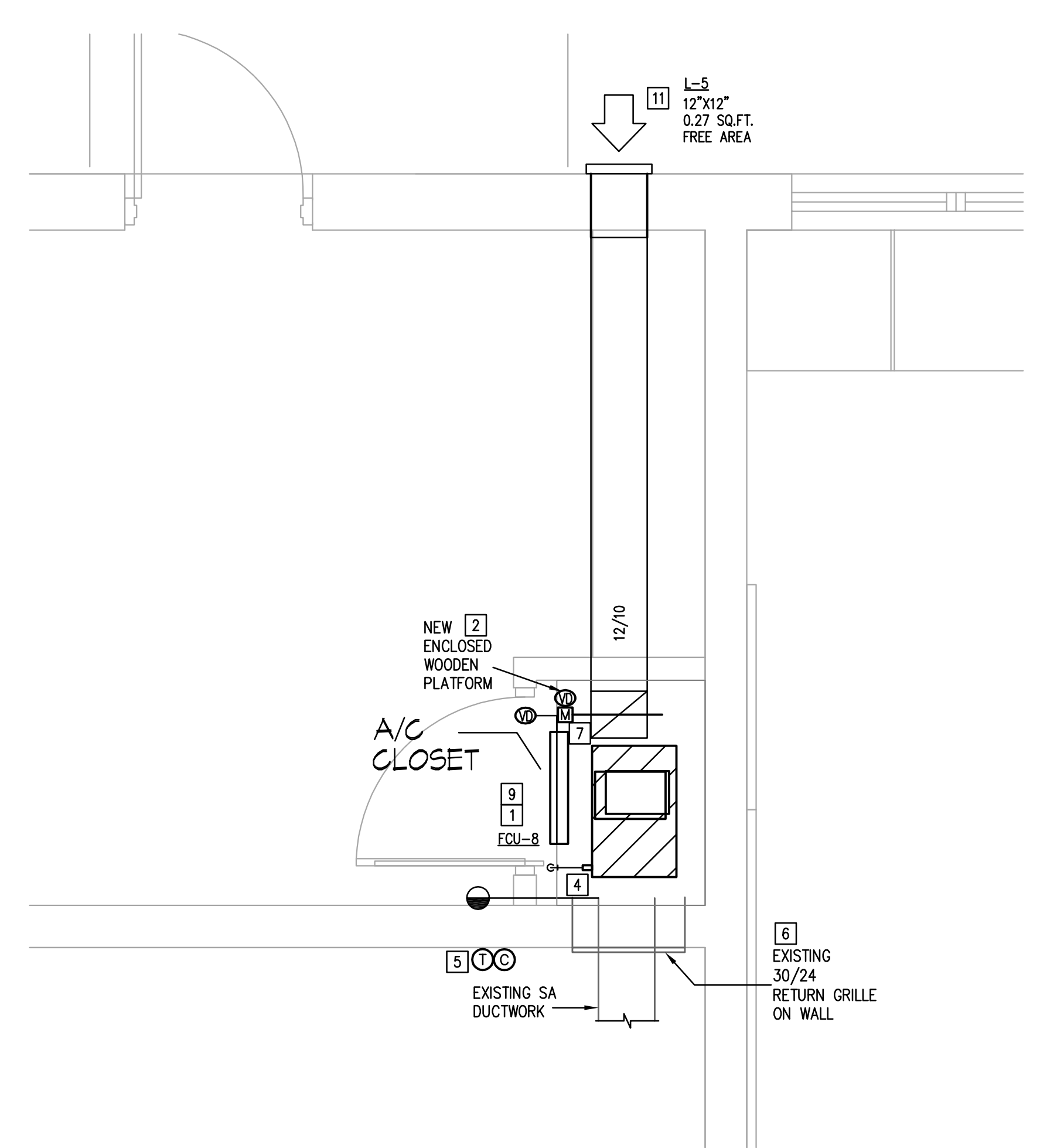
**1** TYPICAL A/C CLOSET - LOUVER INTAKE - CLASSROOM 1, 2, 3, 4, 101, 102, 106, 108, 109, 110, 112, 201, 202, 204, 205, 206, AND CLINIC RM.  
 M3.01 1/2" = 1'-0"



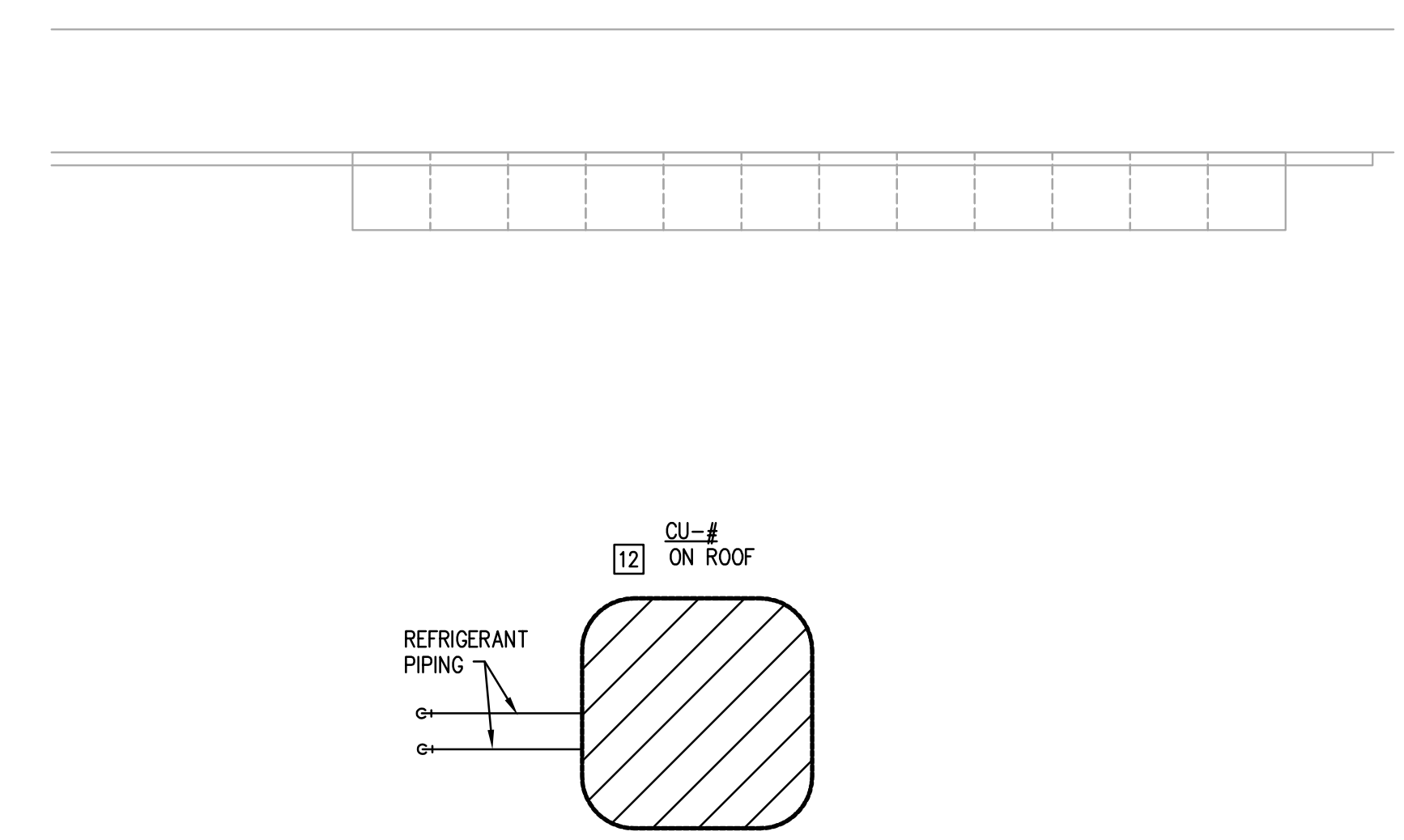
**2** TYPICAL CONDENSING UNIT MOUNTED ON GRADE  
 M3.01 1/2" = 1'-0"



**3** TYPICAL A/C CLOSET - ROOF INTAKE - CLASSROOM 5, 6, 7, 8  
 M3.01 1/2" = 1'-0"

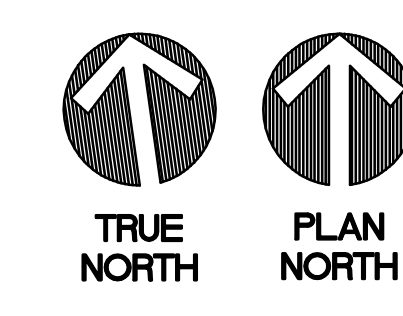
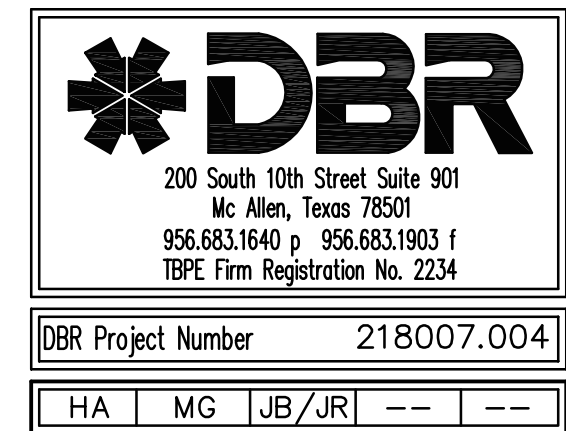


**4** A/C CLOSET - RESOURCE ROOM  
 M3.01 1/2" = 1'-0"



**5** TYPICAL CONDENSING UNIT ON ROOF  
 M3.01 1/2" = 1'-0"

Plotted: May 26, 2022 8:59 AM by user: m3001 - Saved: 6/20/2022 by user: m3001  
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200 South 10th Street Suite 901  
 Mc Allen, Texas 78501  
 956.683.1640 p 956.683.1903 f  
 TBE Firm Registration No. 2234

DBR Project Number 218007.004  
 HA MG JB/JR

REVISION	No.	DATE	DESCRIPTION
	1	05/26/2022	ADDENDUM 1



EDINBURG CONSOLIDATED INDEPENDENT SCHOOL DISTRICT  
**STEPHEN F. AUSTIN ES - HVAC IMPROVEMENTS**  
 1023 E KUHN ST, EDINBURG, TX 78541

DATE: 05/05/2022  
 DRAWN BY: DBR  
 CHECKED BY: DBR  
 PROJECT NUMBER: 218007.004  
 SHEET TITLE:

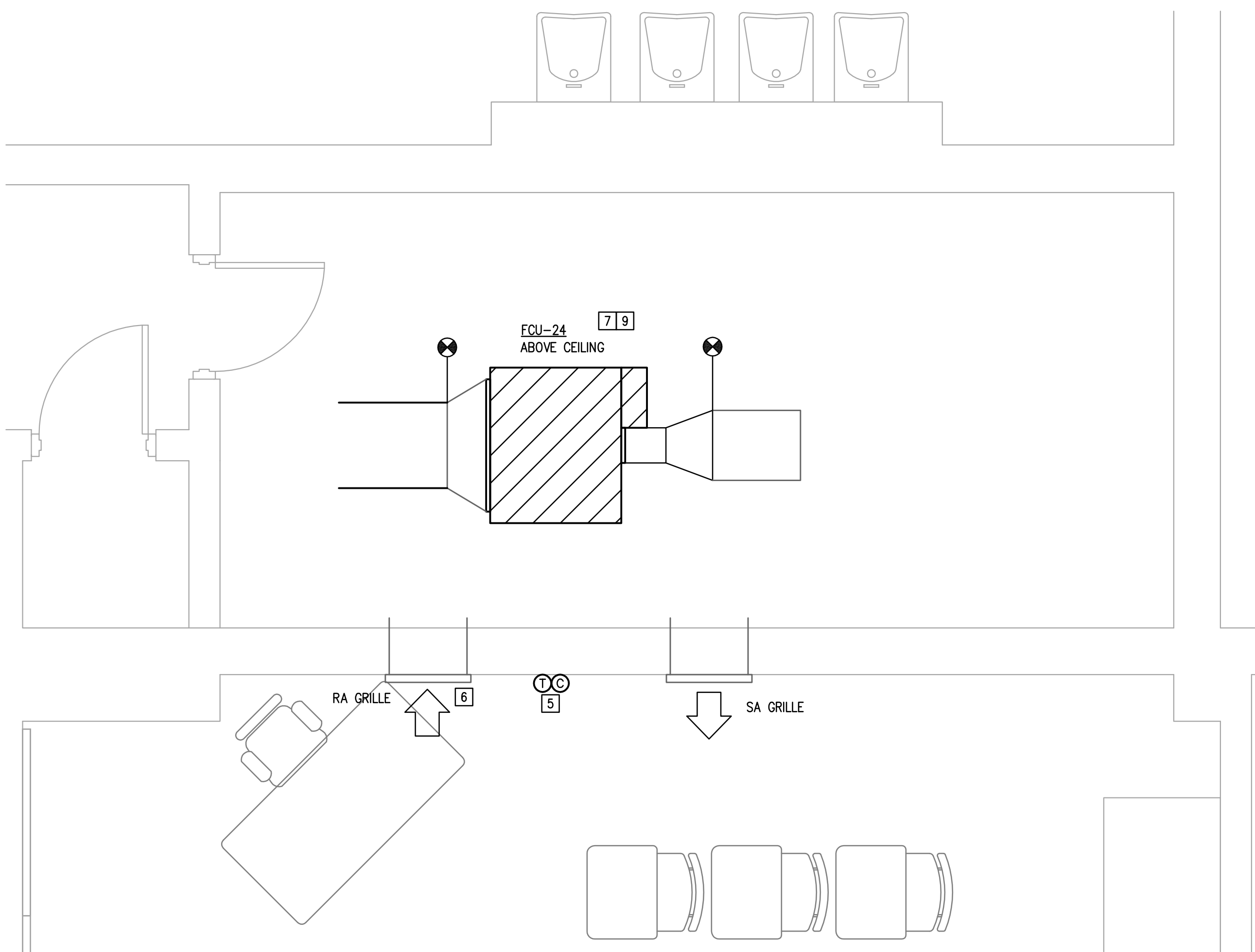
ENLARGED MECHANICAL PLANS

SHEET NUMBER:  
**M3.02**

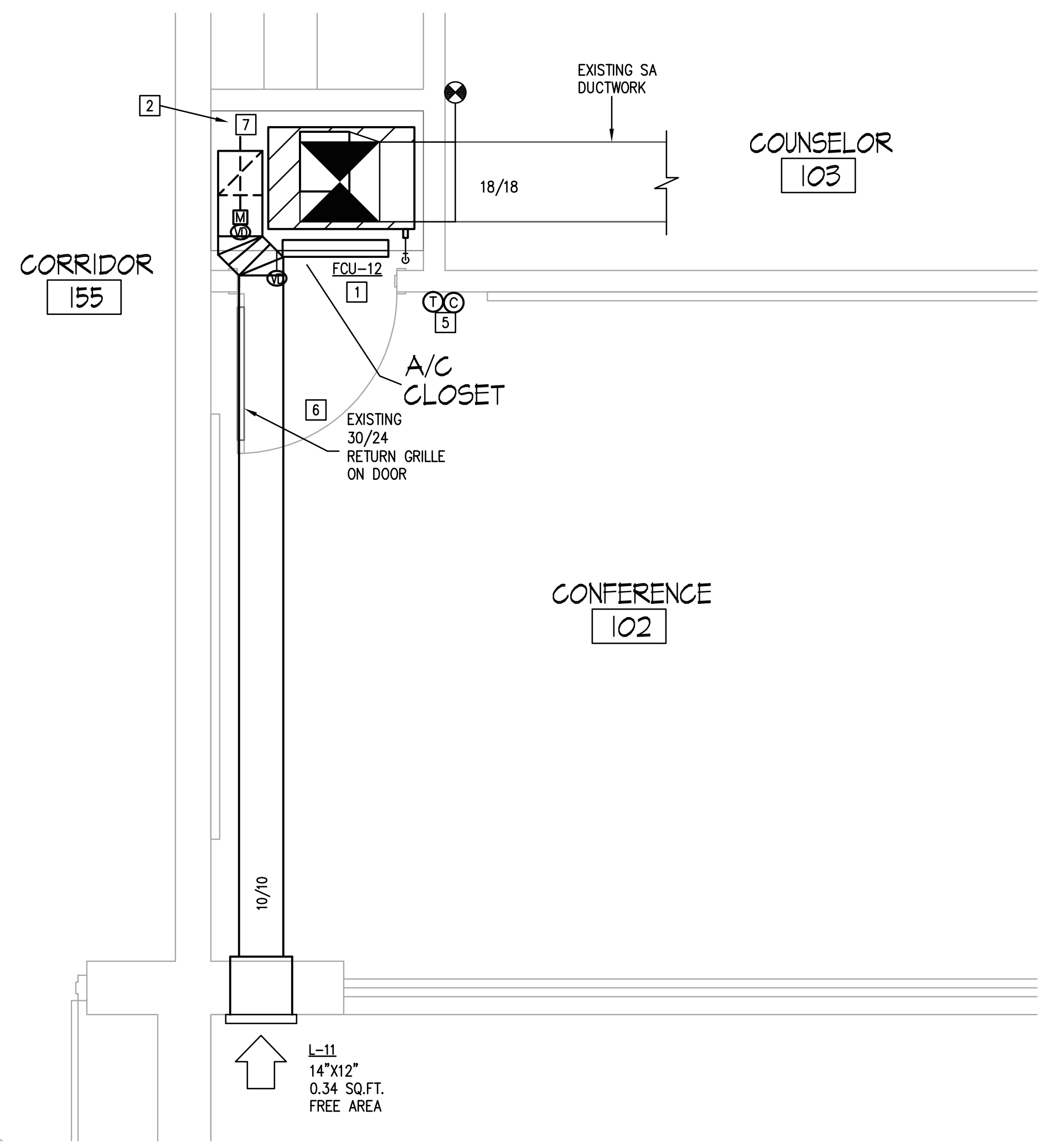
**MECHANICAL GENERAL NOTES:**  
 A. REFER TO M.O.I FOR MECHANICAL GENERAL NOTES.

**MECHANICAL KEYED NOTES: [F]**

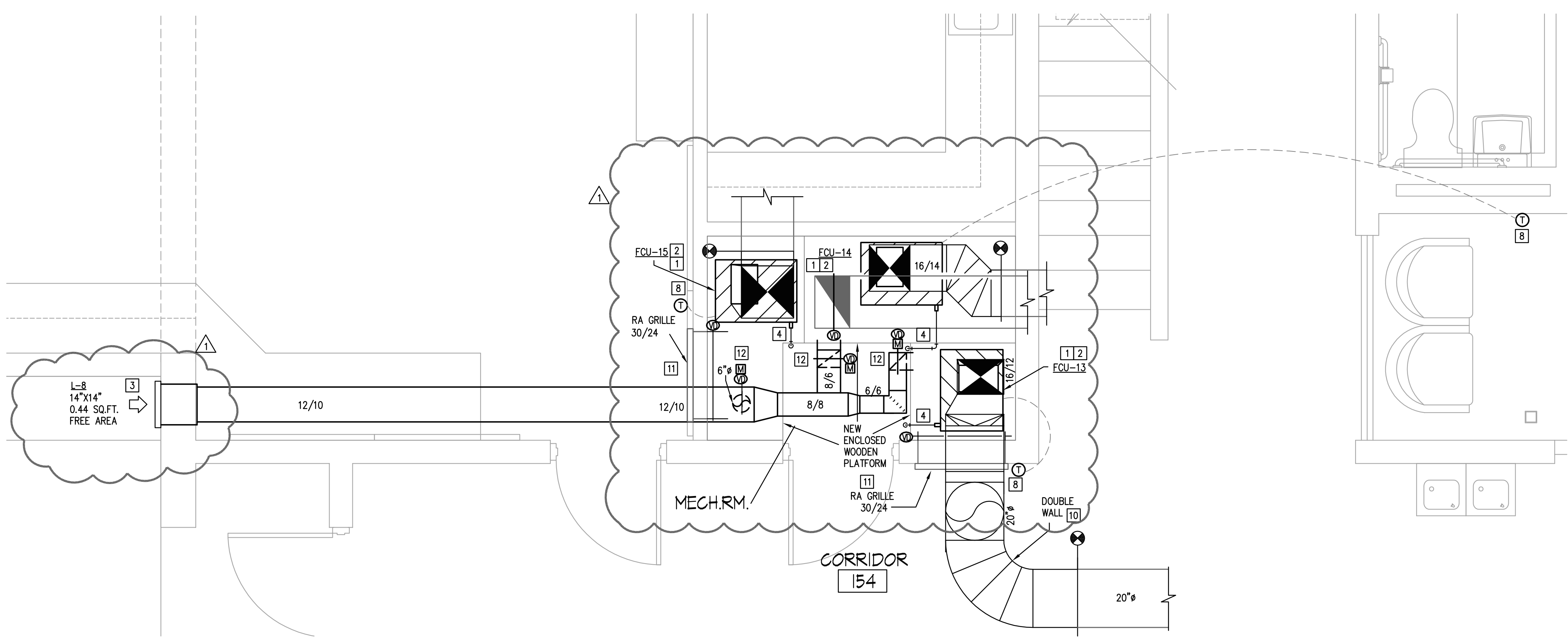
- PROVIDE VERTICAL FAN COIL UNIT AS SCHEDULED IN A/C CLOSET. PROVIDE FILTER BANK AT BOTTOM OF UNIT FOR 2" PLEATED MERV 13 FILTER. EXTEND WITH NEW SUPPLY DUCT AND CONNECT TO EXISTING SUPPLY DUCTWORK. CONTRACTOR SHALL REINSTALL BPI DEVICE AND PROVIDE POWER. CONTRACTOR SHALL PROVIDE DUCTWORK TO MATCH EXISTING SIZE. RE-DETAIL 1/M4.01, 2/M4.01.
- PROVIDE SEALED AND ENCLOSED WOODEN PLATFORM. PROVIDE 24"X24" MANUAL OPPOSED BLADE VOLUME DAMPER THROUGH PLATFORM FOR RETURN AIR BALANCING AND REMOTE DAMPER OPERATOR. CONTRACTOR SHALL FIELD ADJUST THE PLATFORM HEIGHT TO ALLOW FAN COIL TO FIT IN THE AVAILABLE HEIGHT SPACE.
- PROVIDE LOUVER AS SCHEDULED. ROUTE OUTSIDE AIR DUCT FROM LOUVER DOWN THROUGH WOODEN PLATFORM. PROVIDE VOLUME DAMPER AND MOTORIZED DAMPER. PROVIDE REMOTE DAMPER OPERATOR. RE-DETAIL 2/M4.01 AND 15/M4.01.
- PROVIDE 1" TYPE L COPPER CONDENSATE PIPING WITH 1" INSULATION FROM UNIT. CONDENSATE PIPING SHALL DROP THROUGH EXISTING PVC PIPE. CONTRACTOR SHALL PROVIDE MODIFICATIONS AND ADD PVC PIPING TO ALLOW CLEARANCE NEEDED FOR VOLUME AND MOTORIZED DAMPER (IF APPLICABLE) BELOW WOODEN PLATFORM. CONTRACTOR SHALL FIREWRAP EXISTING PVC PIPING. RE-DETAIL 11/M4.01.
- PROVIDE WALL-MOUNTED COMBINATION THERMOSTAT AND CARBON DIOXIDE SENSOR FOR ASSOCIATED MECHANICAL EQUIPMENT. LOCATE AND MOUNT AT PREVIOUS WALL LOCATION. CONNECT THERMOSTAT AND CARBON DIOXIDE SENSOR TO BAS.
- RETURN AIR GRILLE ON DOOR/WALL SHALL REMAIN. FILTER SHALL BE REMOVED.
- PROVIDE MOTORIZED DAMPER AND MANUAL OPPOSED BLADE VOLUME DAMPER WITH REMOTE DAMPER OPERATOR ON RETURN AIR SIDE OF PLATFORM FOR RETURN AIR BALANCING.
- PROVIDE WALL-MOUNTED THERMOSTAT FOR ASSOCIATED MECHANICAL EQUIPMENT. LOCATE AND MOUNT AT PREVIOUS WALL LOCATION. CONNECT THERMOSTAT TO BAS.
- PROVIDE HORIZONTAL FAN COIL UNIT ABOVE CEILING AS SCHEDULED. CONTRACTOR SHALL REROUTE 3/4" CONDENSATE PIPING TO PREVIOUS LOCATION. CONTRACTOR SHALL EXTEND WITH NEW DUCTWORK AND PROVIDE DUCT TRANSITIONS TO CONNECT NEW TO EXISTING DUCTWORK. EXISTING OUTSIDE AIR INTAKE HOOD SHALL REMAIN. CONTRACTOR SHALL MATCH EXISTING DUCTWORK SIZE. PROVIDE AUXILIARY DRAIN PAN BENEATH SUSPENDED FAN COIL UNIT. RE-DETAIL 4/M4.01.
- TRANSITION FROM RECTANGULAR SUPPLY DUCTWORK TO DOUBLE WALL ROUND DUCTWORK AND CONNECT TO EXISTING FABRIC DUCT. PROVIDE REQUIRED TRANSITIONS.
- RETURN AIR GRILLE ON DOOR/WALL SHALL REMAIN. FILTER SHALL BE REMOVED. CONTRACTOR SHALL PROVIDE DUCTWORK WITH VOLUME DAMPER AND REMOTE DAMPER OPERATOR. THE SIZE OF THE GRILLE TO EXTEND THROUGH FULLY ENCLOSED WOODEN PLATFORM.
- PROVIDE SEALED AND ENCLOSED WOODEN PLATFORM. TAP WITH NEW OUTSIDE AIR DUCT FROM EXISTING OUTSIDE AIR DUCT AND ROUTE TO EACH WOODEN PLATFORM. SIZE DUCTWORK AS INDICATED ON PLAN. PROVIDE MOTORIZED DAMPER AND MANUAL OPPOSED BLADE VOLUME DAMPER THROUGH PLATFORM FOR RETURN AIR BALANCING. CONTRACTOR SHALL FIELD ADJUST THE PLATFORM HEIGHT TO ALLOW FAN COIL TO FIT IN THE AVAILABLE HEIGHT SPACE.



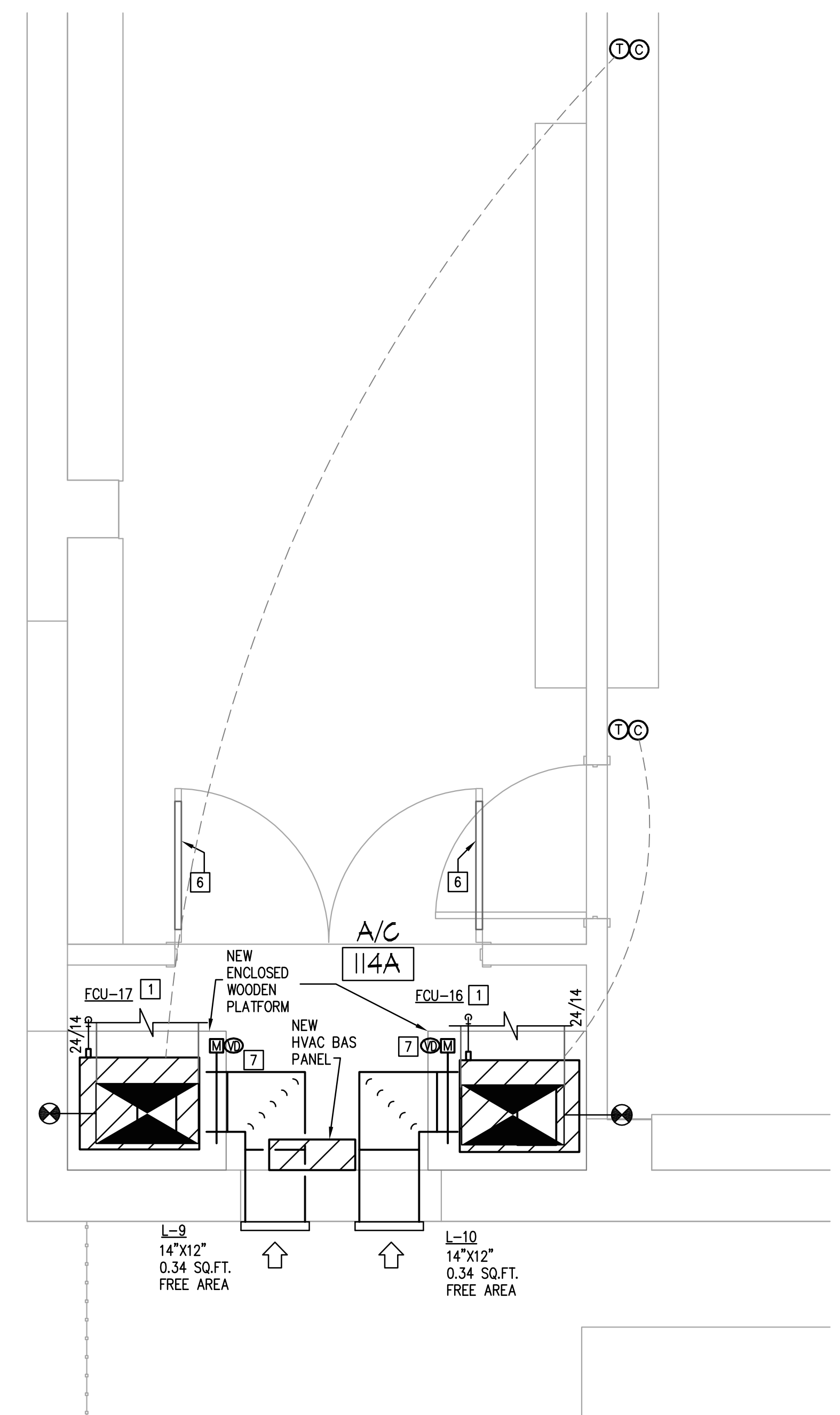
**1 A/C ABOVE CEILING - CLASSROOM 107**  
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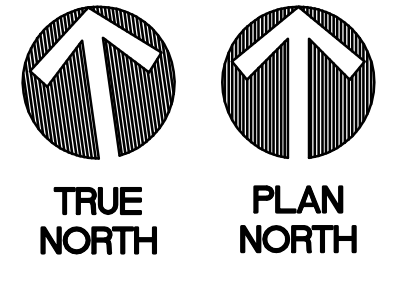
**2 A/C CLOSET - LOUVER INTAKE - CONFERENCE 102**  
 M3.02 1/2" = 1'-0"



**3 A/C CLOSET - LOUVER INTAKE - ADMINISTRATION UNITS**  
 M3.02 1/2" = 1'-0"



**4 A/C CLOSET - LIBRARY**  
 M3.02 1/2" = 1'-0"



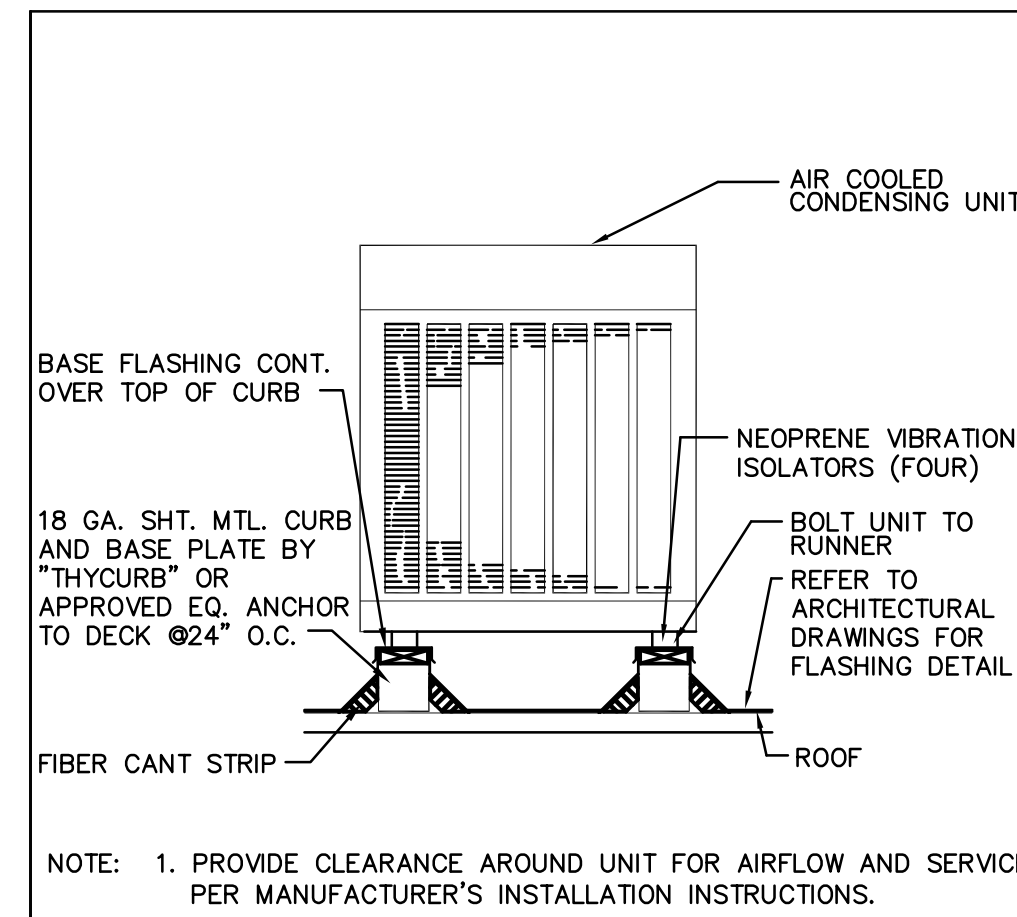
**DBR**  
 200 South 10th Street Suite 901  
 Mc Allen, Texas 78501  
 956.683.1640 p 956.683.1903 f  
 TBE Firm Registration No. 2234

DBR Project Number 218007.004

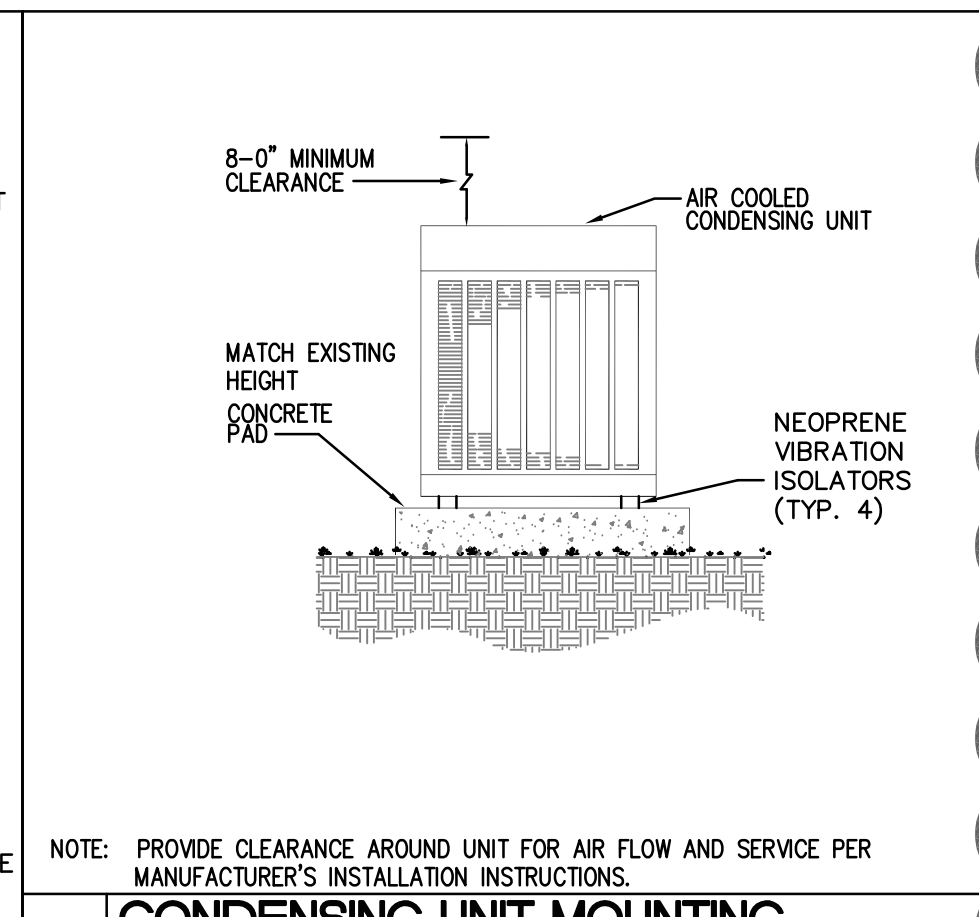
HA | MG | JB/JR | -- | --

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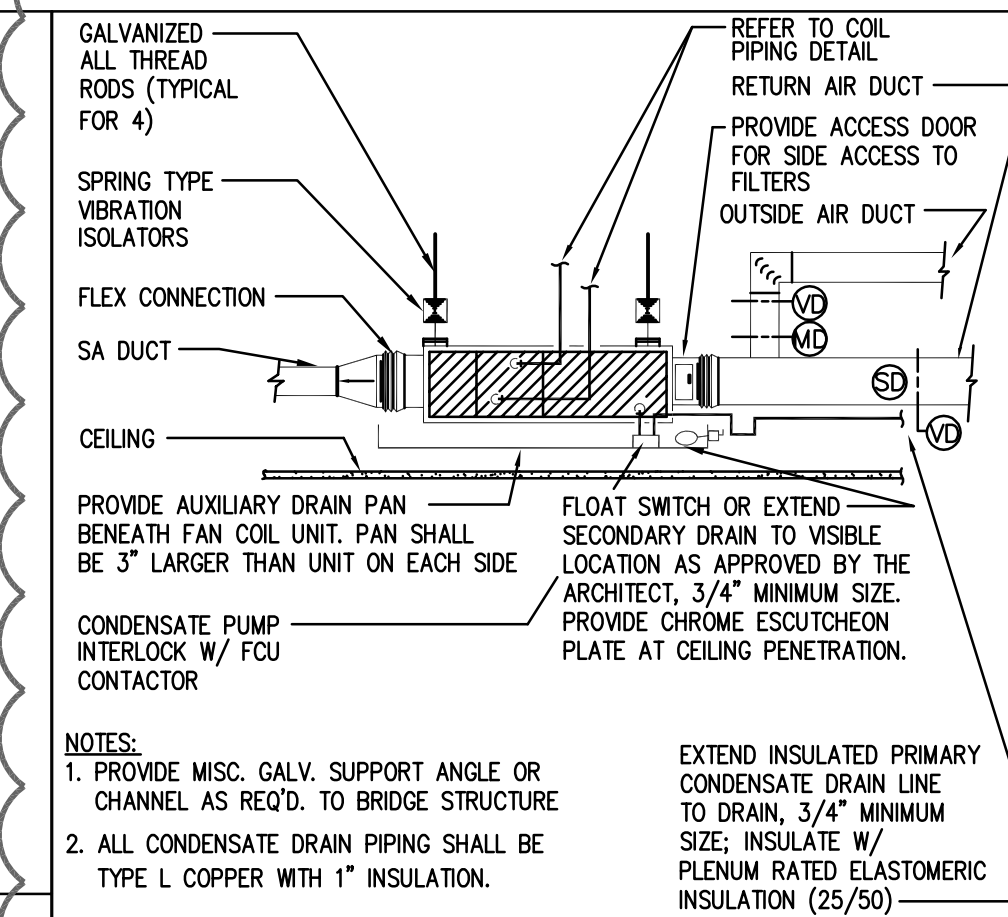
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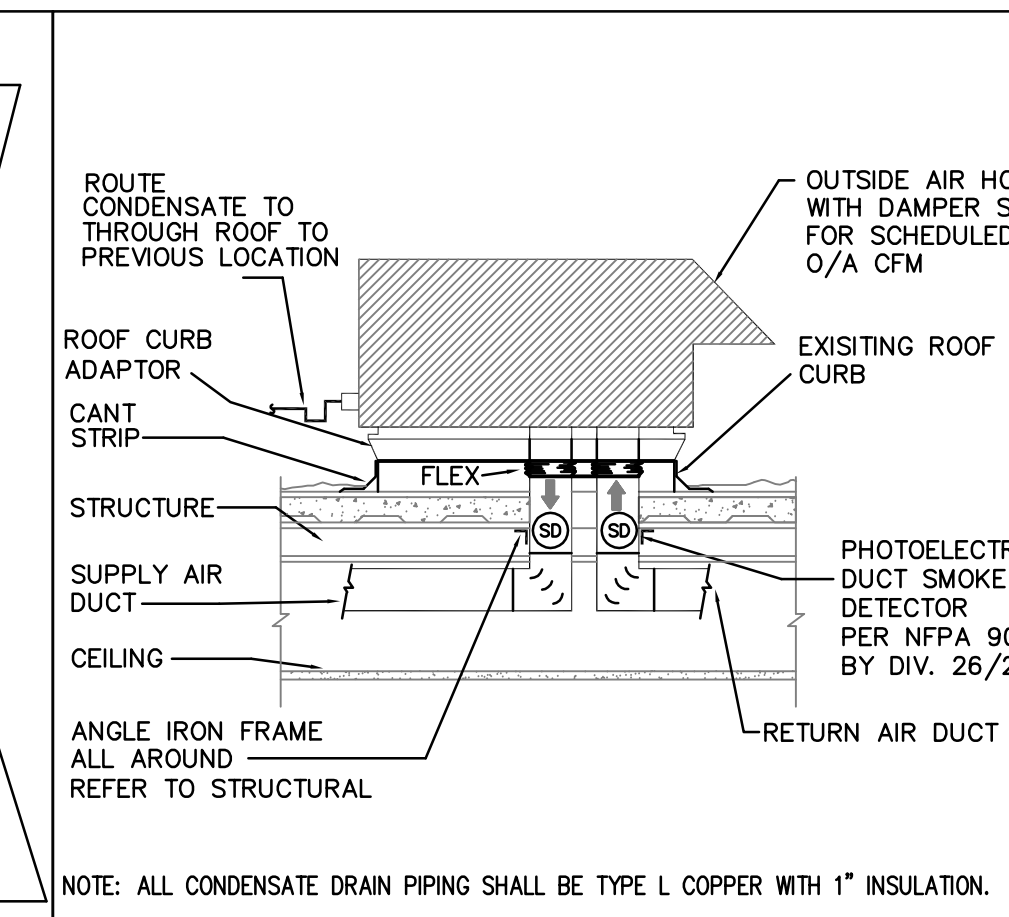
6 CONDENSING UNIT ROOF MOUNTING  
NOT TO SCALE



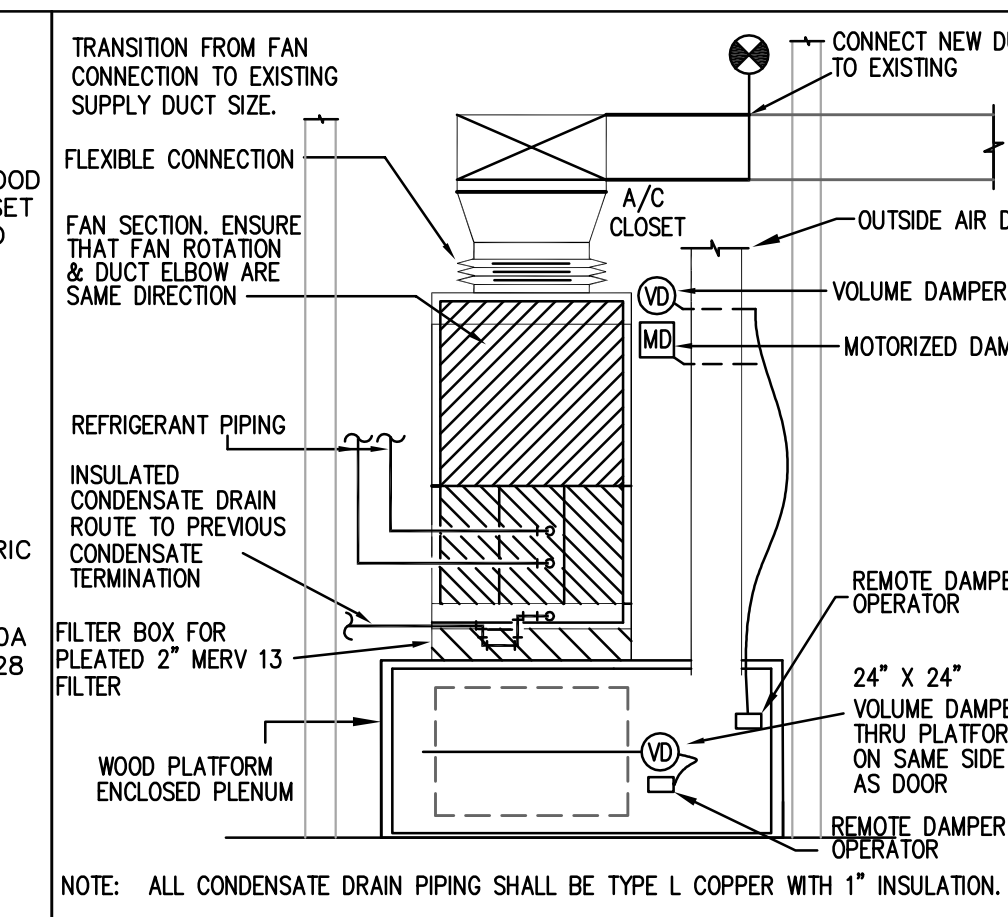
5 CONDENSING UNIT MOUNTING ON GRADE  
NOT TO SCALE



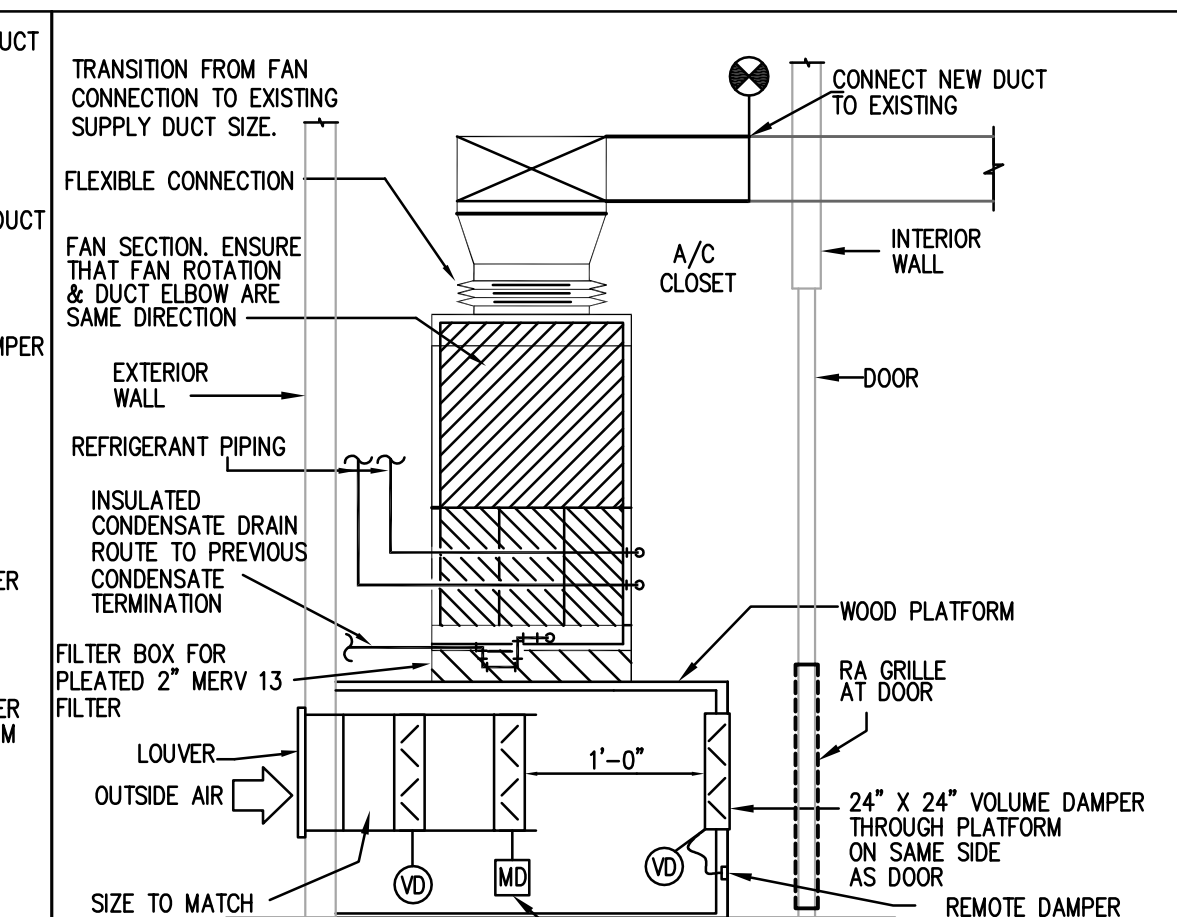
4 FAN COIL UNIT MOUNTING (2 PIPE)  
NOT TO SCALE



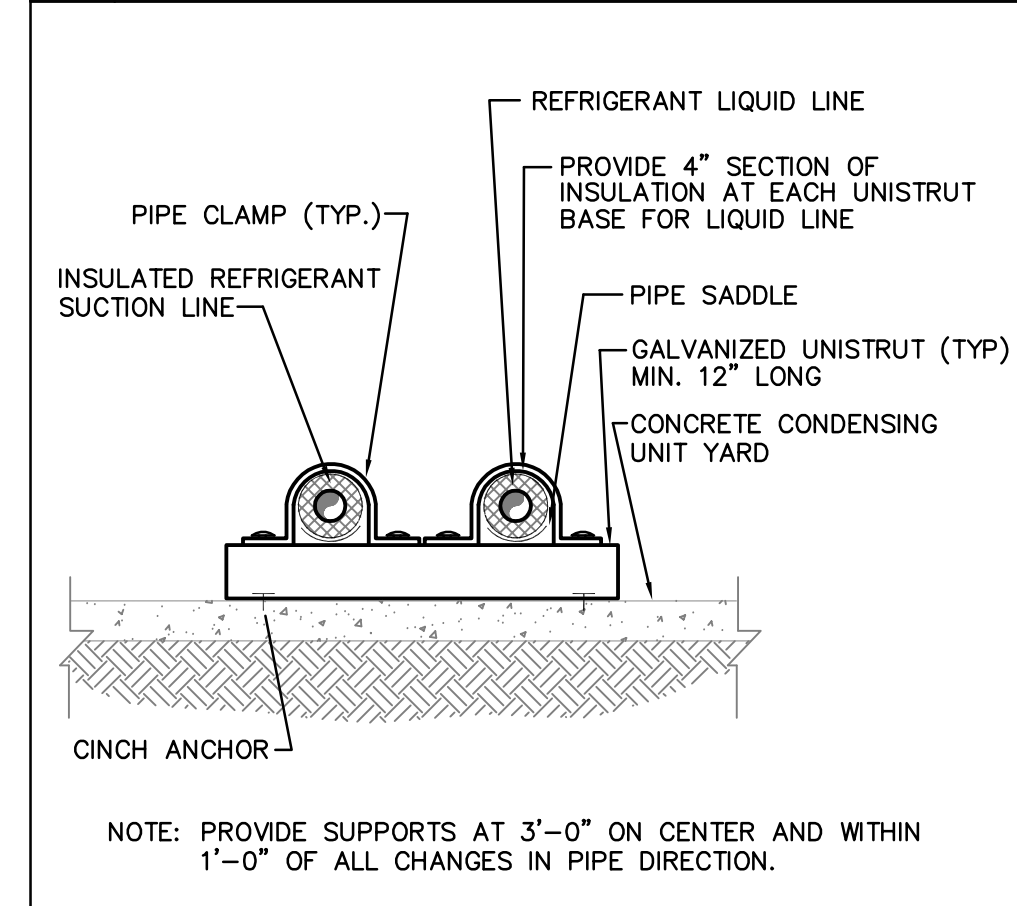
3 ROOF TOP UNIT MOUNTING DETAIL  
NOT TO SCALE



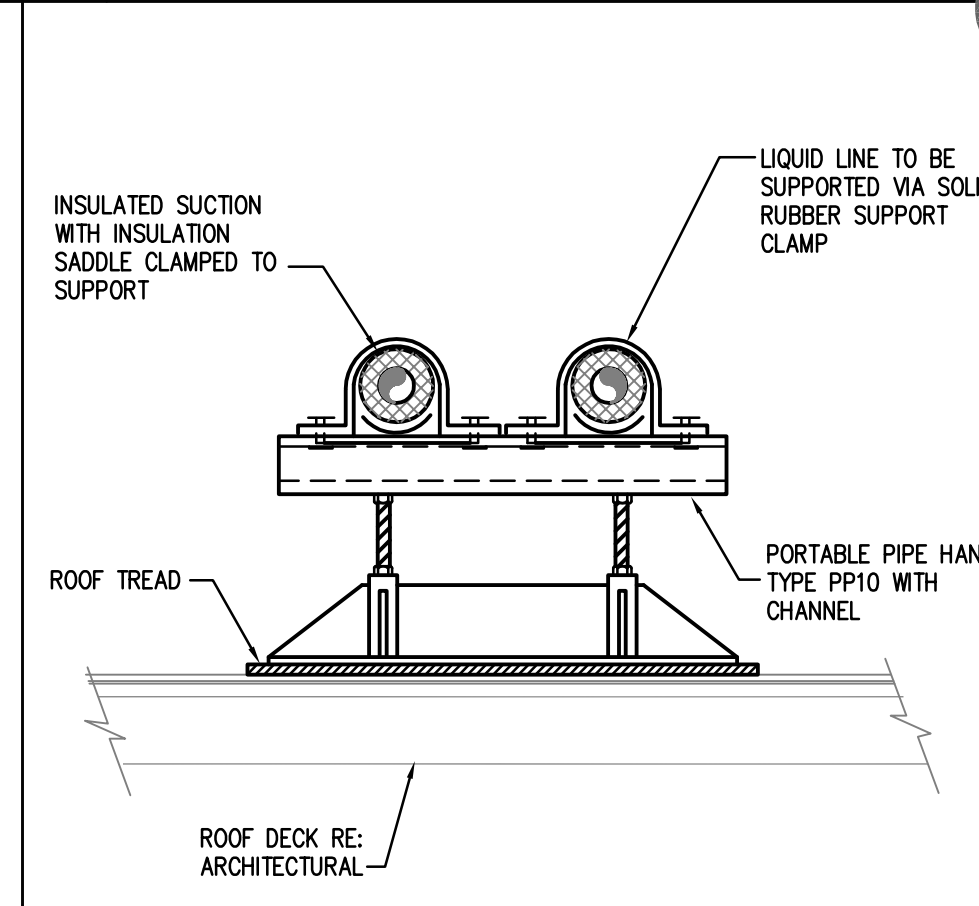
2 VERTICAL DX FAN COIL UNIT  
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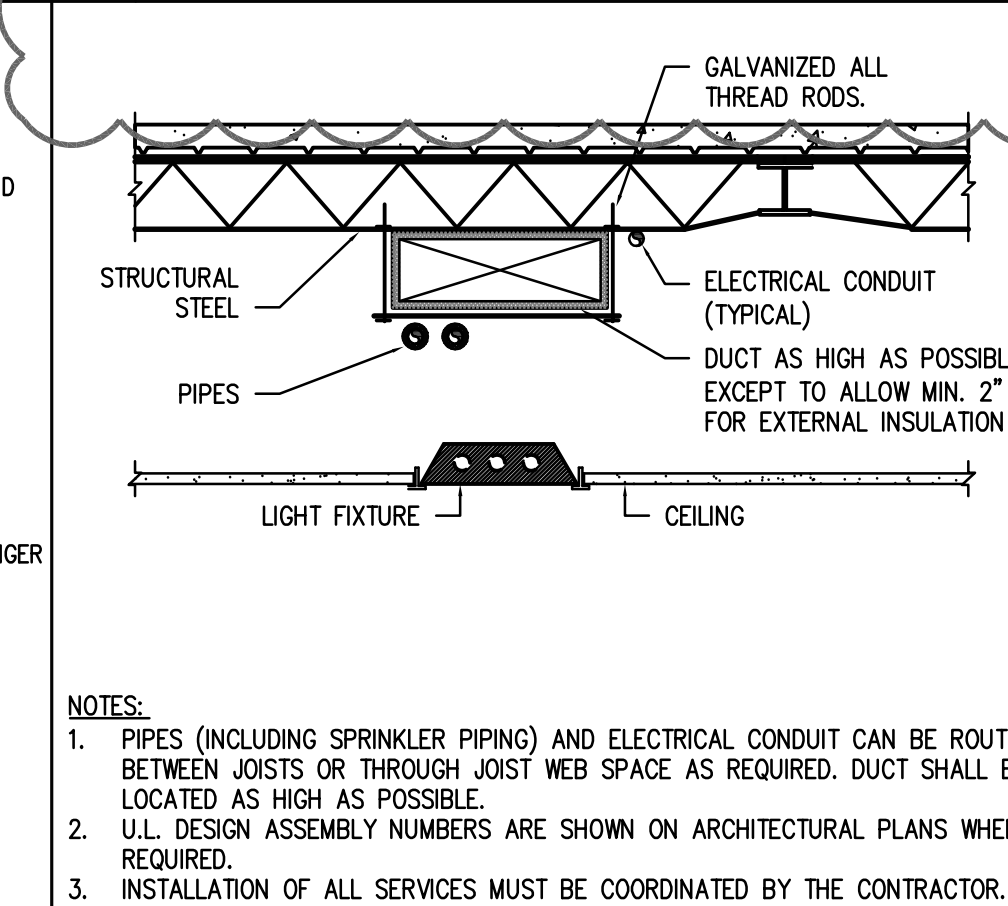
1 VERTICAL DX FAN COIL UNIT-LOUVER BELOW  
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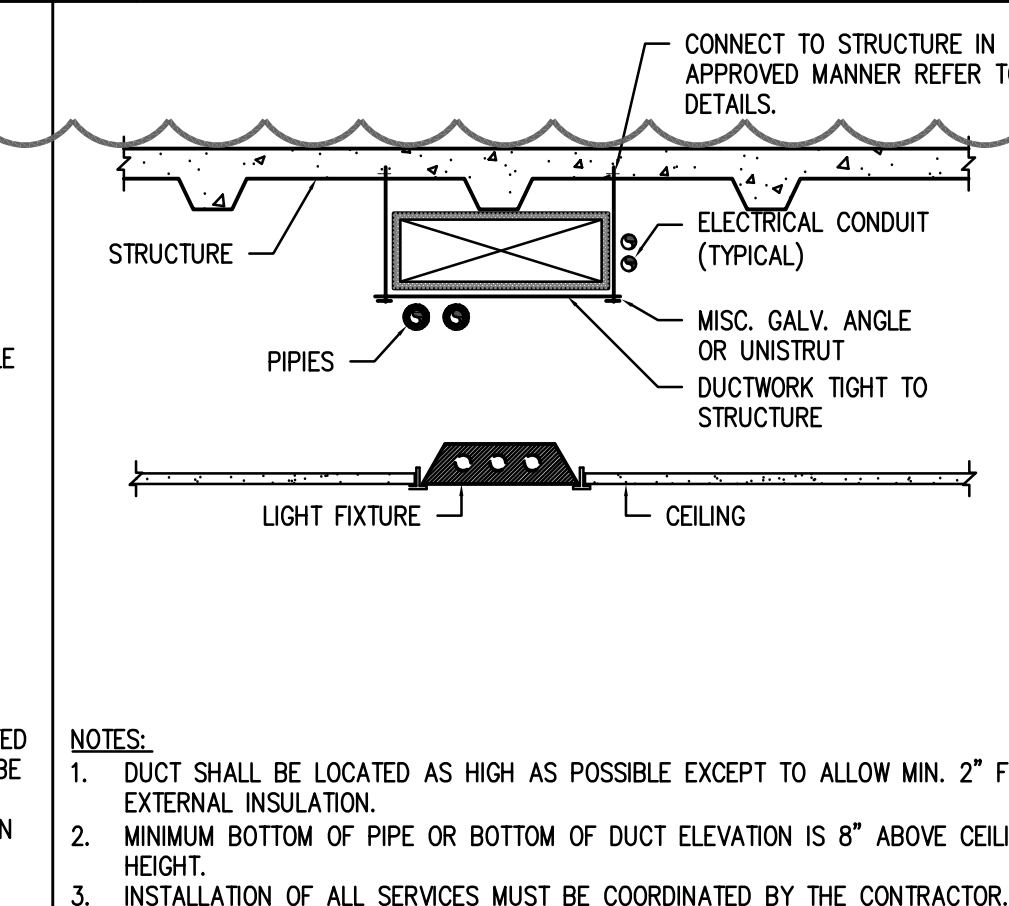
10 FLOOR MOUNTED REFR. PIPE  
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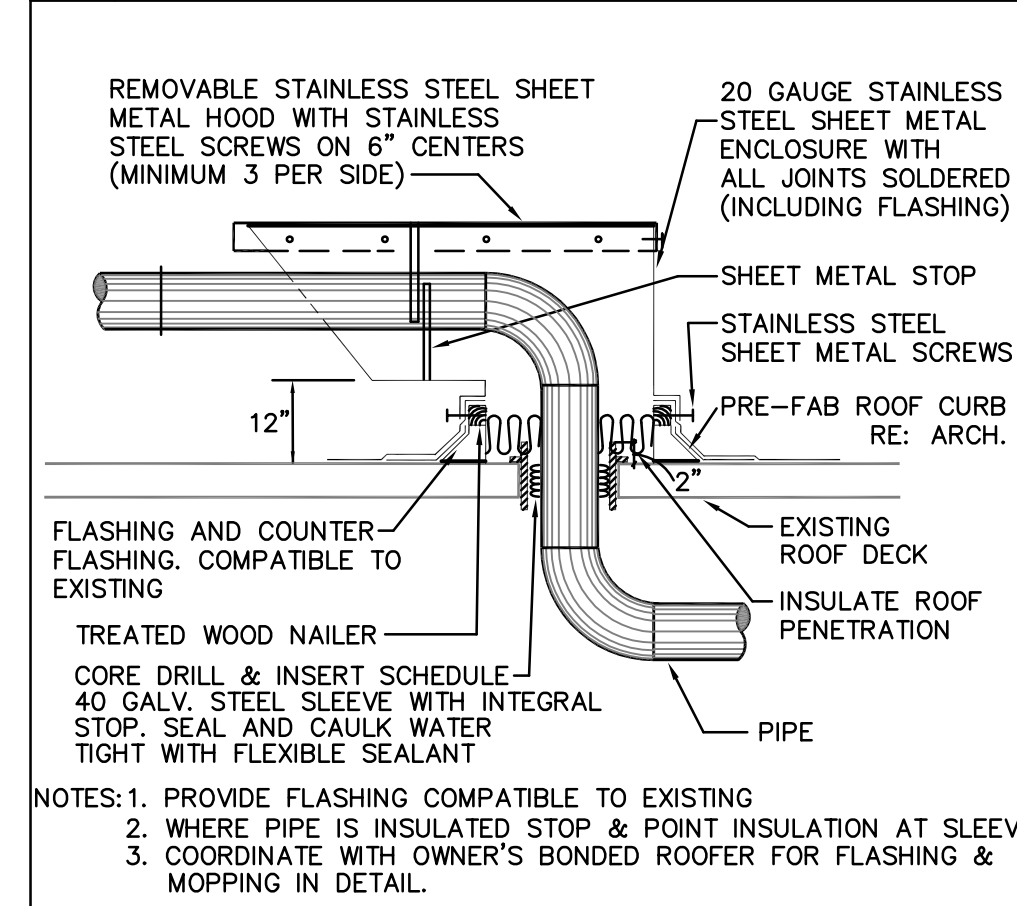
9 ROOF MTD. REFR. PIPE SUPPORT  
NOT TO SCALE



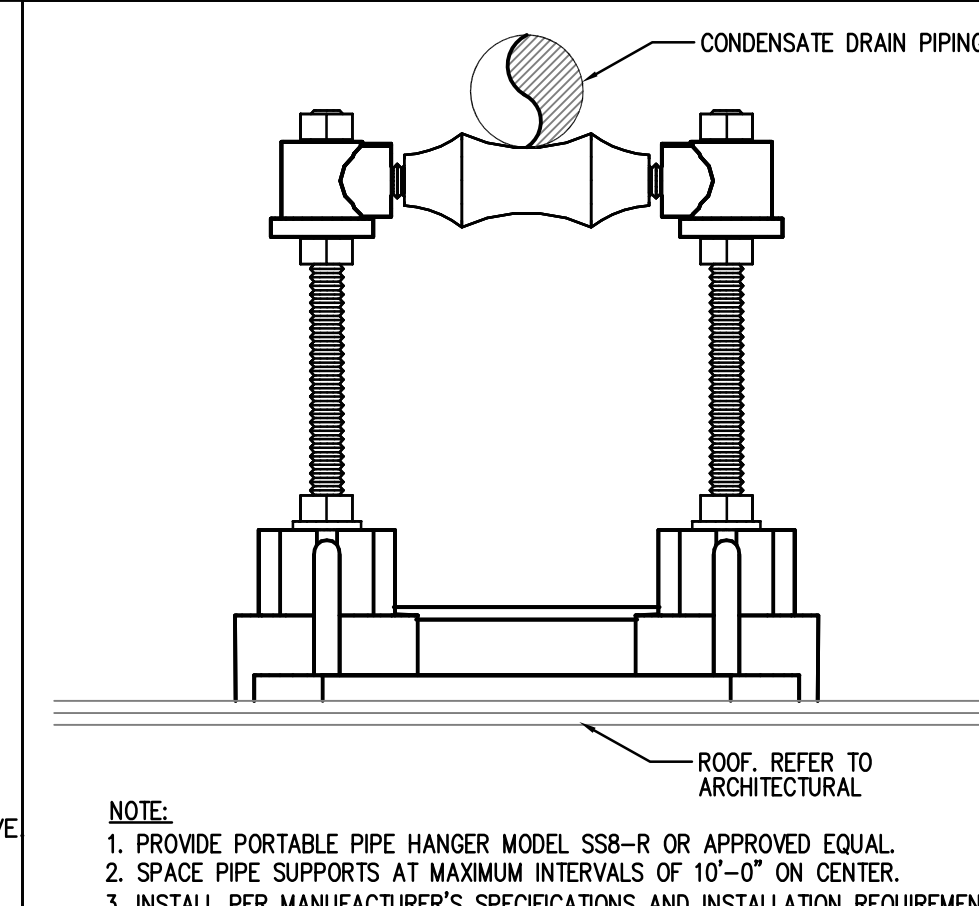
8 TYP. MEP INSTALLATION DETAIL  
NOT TO SCALE



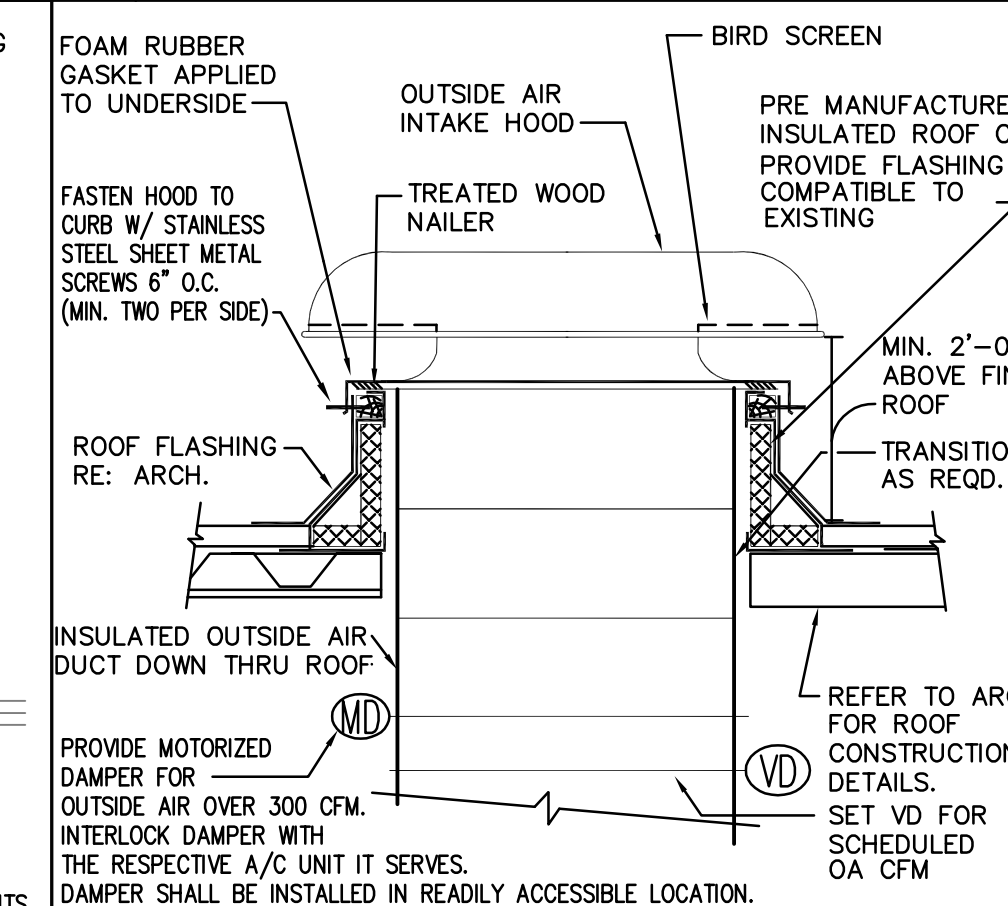
7 TYP. MEP INSTALLATION DETAIL  
NOT TO SCALE



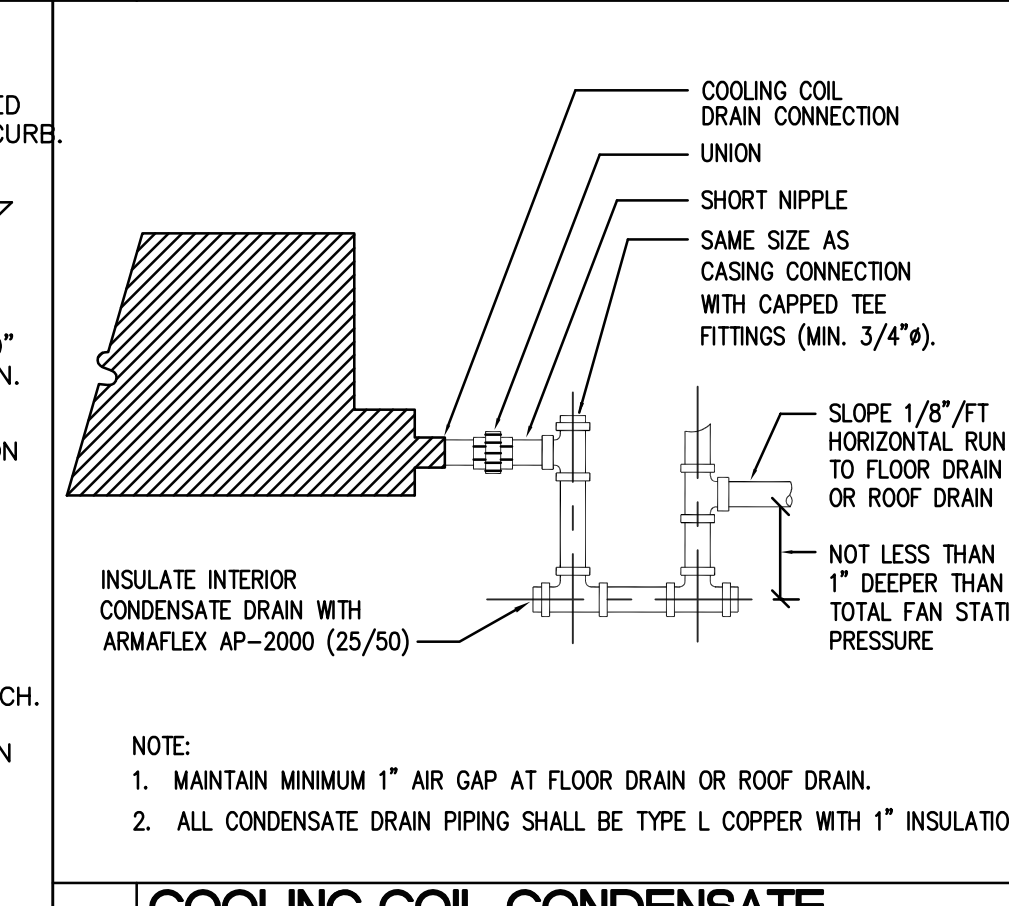
14 EXISTING ROOF PIPE PENETRATION  
NOT TO SCALE



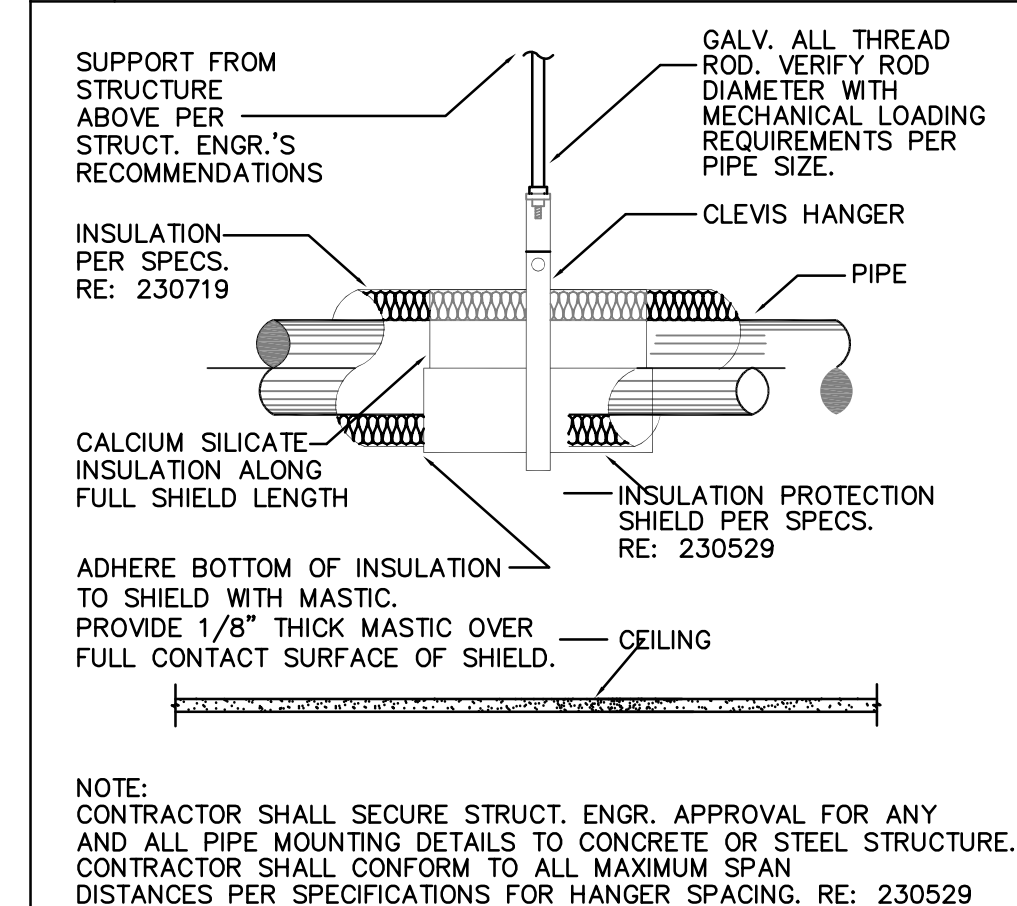
13 DRAIN LINE SUPPORT ON ROOF  
NOT TO SCALE



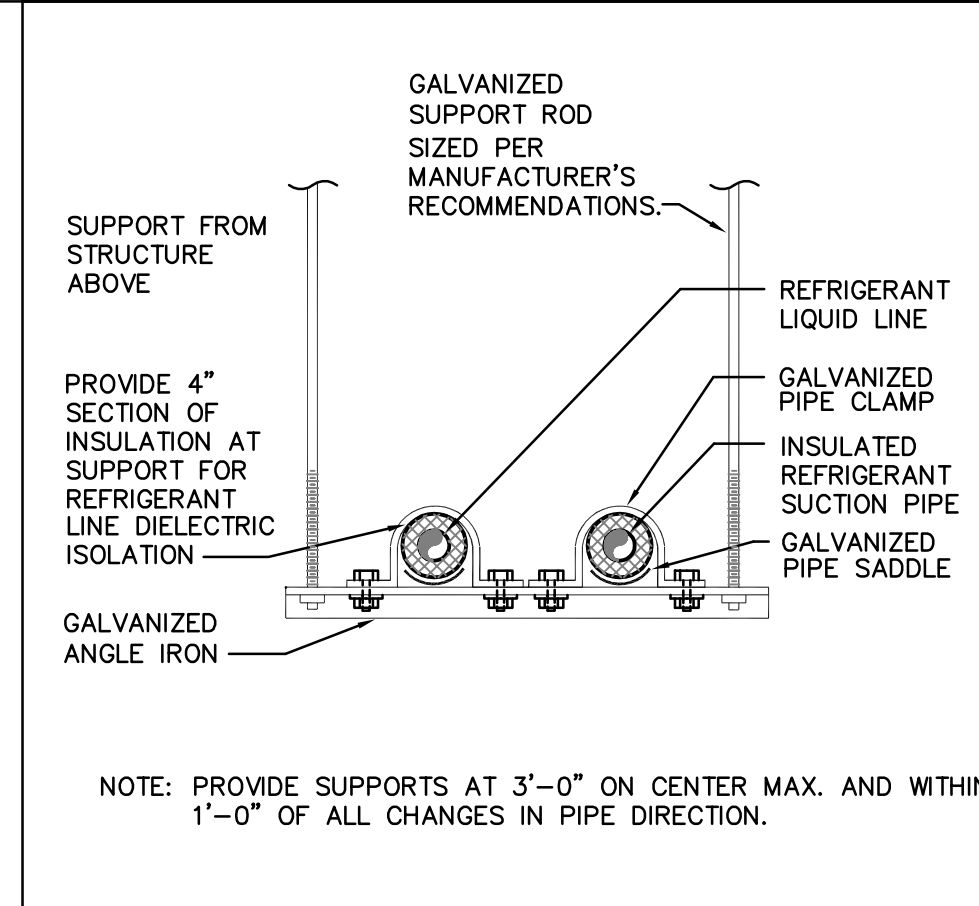
12 OUTSIDE AIR INTAKE HOOD  
NOT TO SCALE



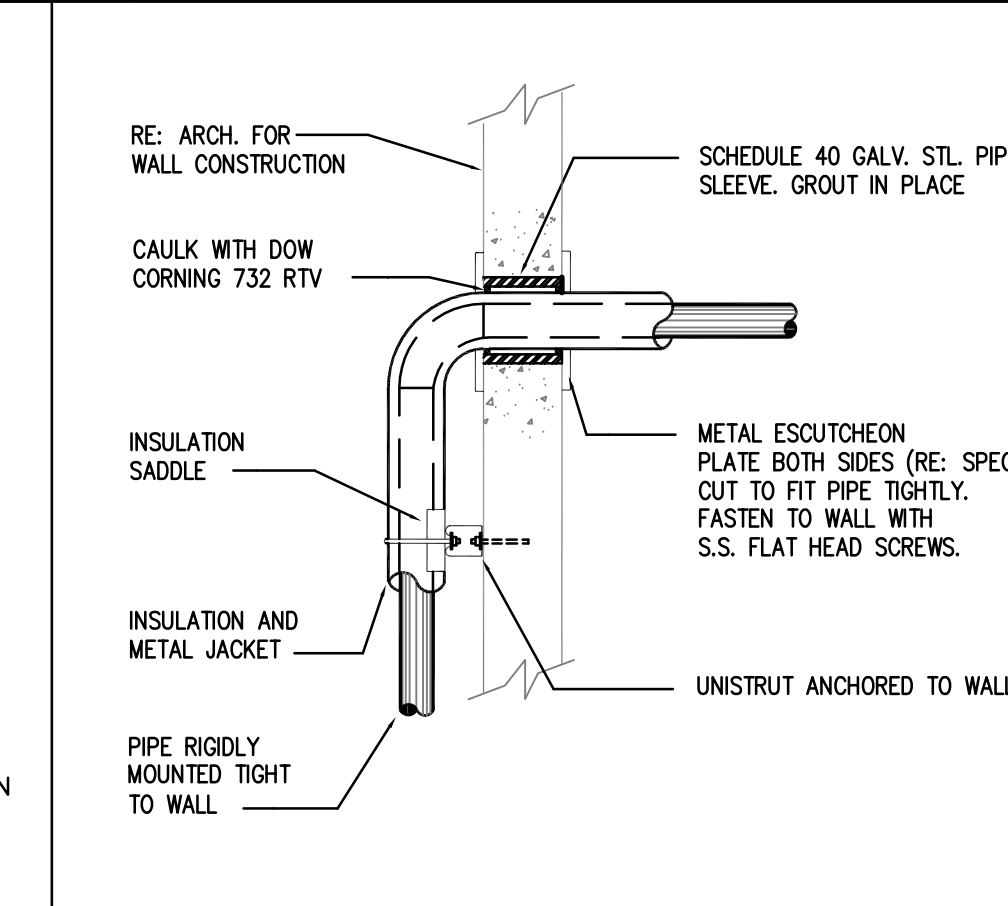
11 COOLING COIL CONDENSATE DRAIN  
NOT TO SCALE



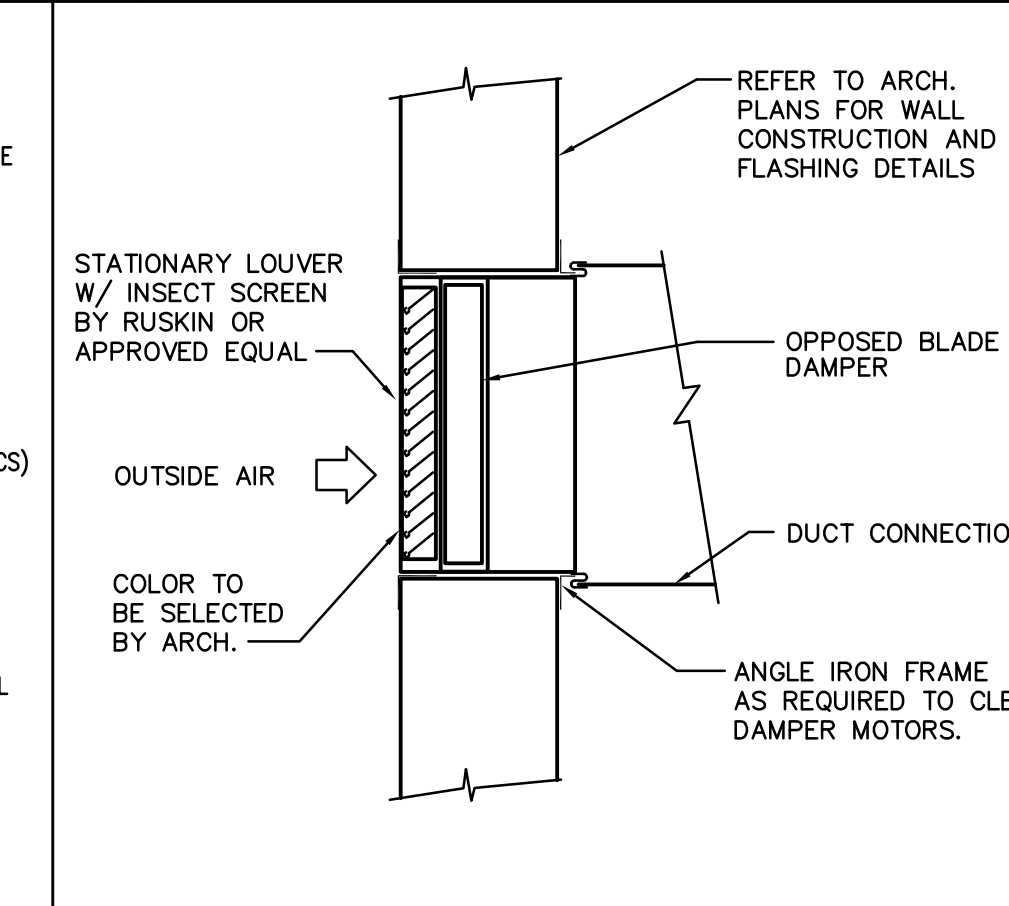
18 PIPE HANGER DETAIL (1-PIPE)  
NOT TO SCALE



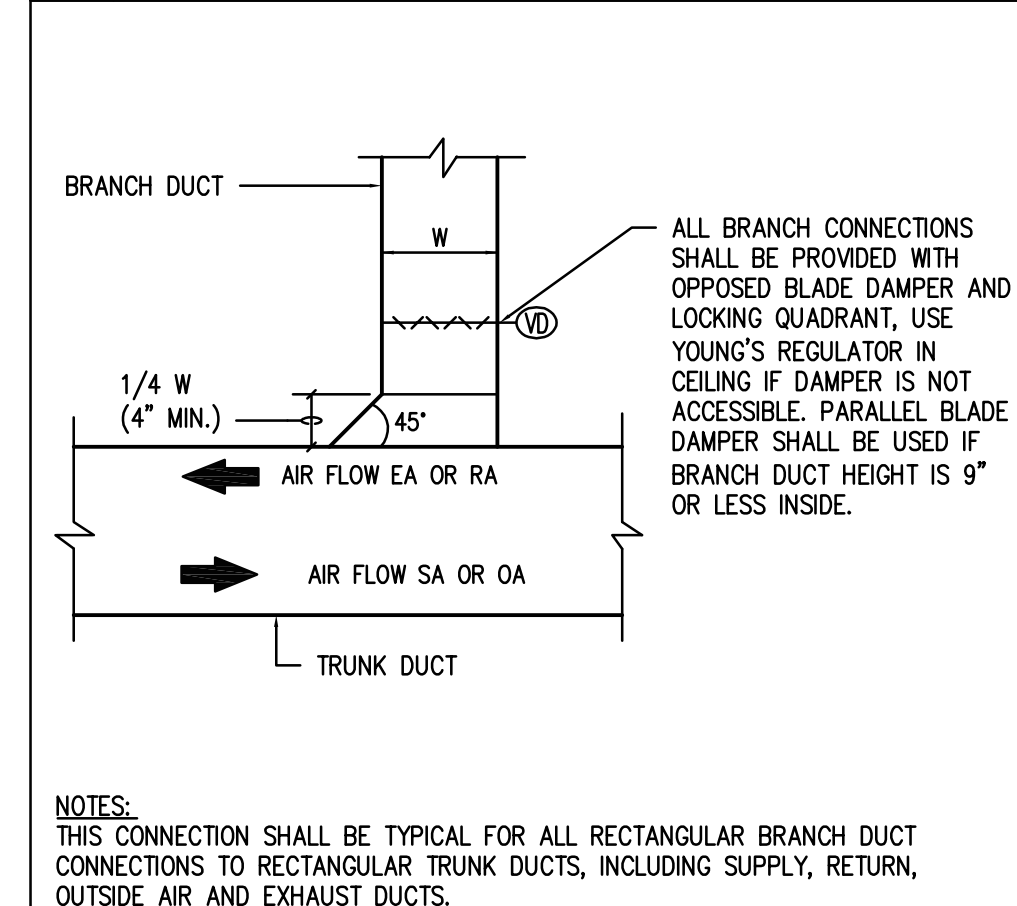
17 REFRIGERANT PIPE HANGER  
NOT TO SCALE



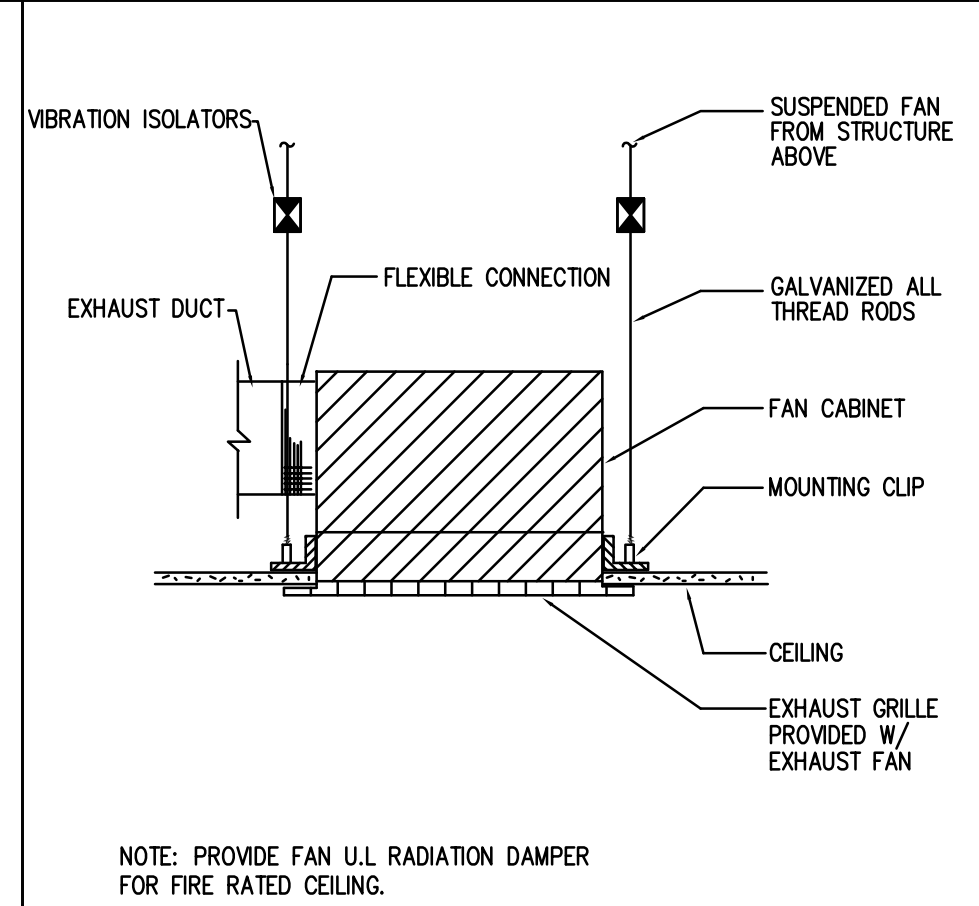
16 PIPE ENTRY THRU EXTERIOR WALL  
NOT TO SCALE



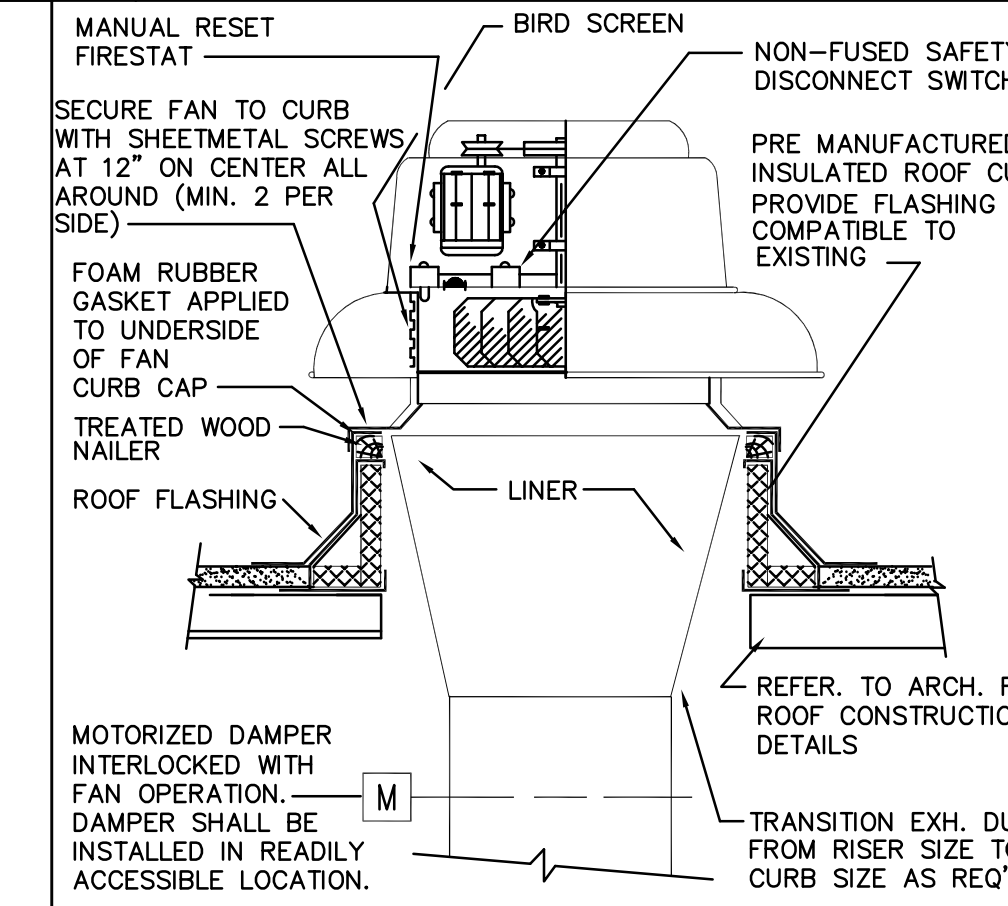
15 INTAKE LOUVER MOUNTING  
NOT TO SCALE



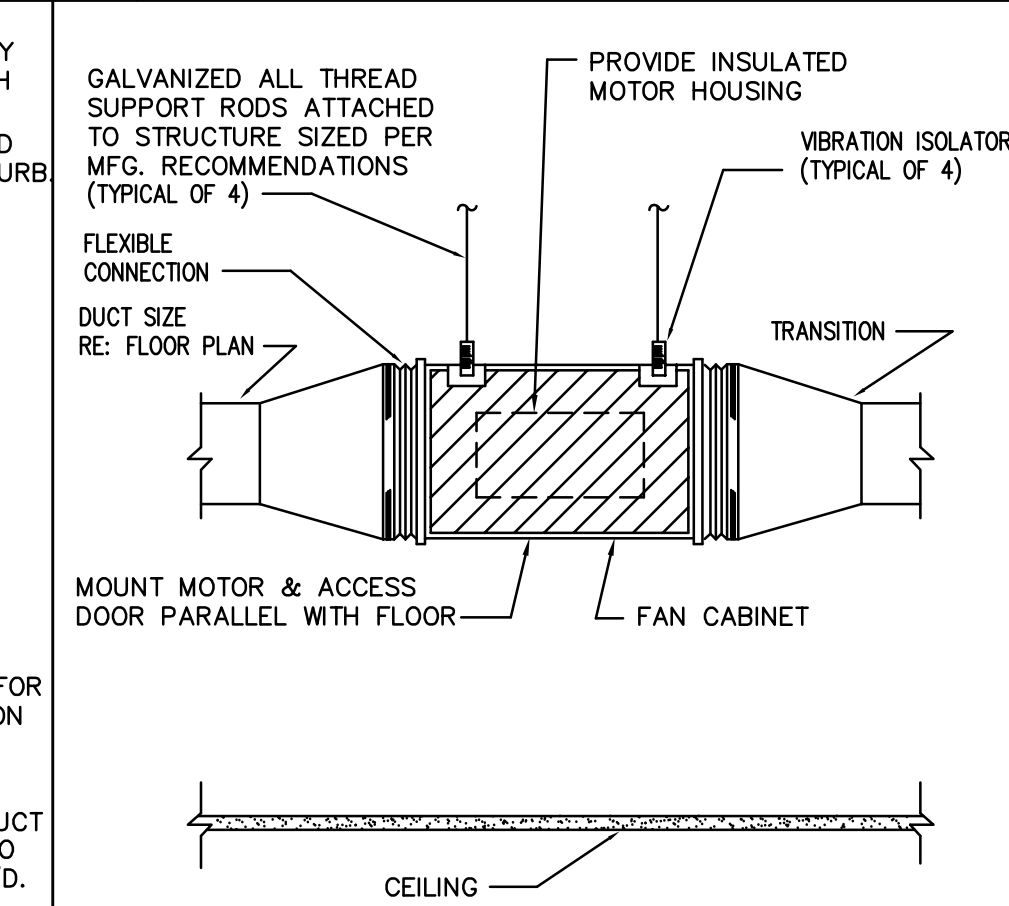
22 RECTANGULAR BRANCH DUCT TAP  
NOT TO SCALE



21 CEILING MOUNTED EXHAUST FAN  
NOT TO SCALE



20 CENTRIFUGAL ROOF EXHAUST FAN  
NOT TO SCALE



19 IN-LINE EXHAUST FAN DETAIL  
NOT TO SCALE



210.546.0200 v. 210.546.0201 f. 9601 McAllister Freeway, Suite 410 San Antonio, Texas 78216 TBP Firm Registration No. 2234

REVISION No.	DATE	DESCRIPTION
1	05/26/2022	ADDENDUM 1



EDINBURG CONSOLIDATED INDEPENDENT SCHOOL DISTRICT  
STEPHEN F. AUSTIN ES - HVAC IMPROVEMENTS  
1023 E KUHN ST, EDINBURG, TX 78541

DATE: 05/05/2022  
DRAWN BY: DBR  
CHECKED BY: DBR  
PROJECT NUMBER: 218007.004  
SHEET TITLE:

MECHANICAL DETAILS

SHEET NUMBER:

M4.01

**DBR**  
200 South 10th Street Suite 901  
Mc Allen, Texas 78501  
956.683.1640 p. 956.683.1903 f.  
TBP Firm Registration No. 2234

DBR Project Number 218007.004

HA | MG | JB/JR | -- | --

**DX SPLIT SYSTEM SCHEDULE (ELECTRIC HEAT)**

MARK		FCU-1 THROUGH FCU-7	FCU-8	FCU-9	FCU-10	FCU-11	FCU-12	FCU-13	FCU-14	FCU-15	FCU-16	FCU-17	FCU-18 THROUGH FCU-22	FCU-23	FCU-24	FCU-25	FCU-26	FCU-27	FCU-28 AND FCU-29	FCU-30	FCU-31	
GENERAL	SERVES	CLASSROOM 1, 2, 3, 5, 6, 7, 8	RESOURCE ROOM	COMPUTER LAB CLASSROOM 4	COMPUTER LAB 102	CLASSROOM 101	COUNSELOR CONFERENCE	MAIN CORRIDOR	ADMIN. OFFICE	WORKROOM	LIBRARY	LIBRARY	CLASSROOM 106, 108, 109, 110, 112	CLINIC RM	CLASSROOM 107	CLASSROOM 201	CLASSROOM 204	CLASSROOM 206	CLASSROOM 201, 205	CAFETERIA	CAFETERIA	
INDOOR UNIT	SUPPLY AIR (CFM)	1,200	550	1,400	1,300	1,400	1,850	1,100	1,200	1,100	1,850	1,400	1,000	1,200	1,400	1,400	1,500	1,200	1,200	4,000	4,000	
	OUTSIDE AIR (CFM)	365	75	365	365	365	180	150	105	70	180	180	365	100	365	365	225	365	365	1,250	1,250	
INDOOR UNIT	EXT. S.P. (IN W.G.)	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.91	0.91
	FAN MOTOR HORSEPOWER	1/2	1/2	1	1	1	1	1	1	1	1	1	1/2	1/2	1	1	1	1	1/2	3	3	
INDOOR UNIT	BELTDIRECT DRIVE	DIRECTECM	DIRECTECM	DIRECTECM	DIRECTECM	DIRECTECM	DIRECTECM	DIRECTECM	DIRECTECM	DIRECTECM	DIRECTECM	DIRECTECM	DIRECTECM	DIRECTECM	DIRECTECM	DIRECTECM	DIRECTECM	DIRECTECM	DIRECTECM	DIRECTECM	DIRECTECM	
	TOTAL COOLING (MBH)	44.8	19.5	55.1	53.3	55.1	53.1	33.5	36.0	28.2	53.4	41.9	55.1	31.1	44.7	55.1	51.5	55.1	44.8	149.0	149.0	
INDOOR UNIT	SENSIBLE COOLING (MBH)	34.4	13.7	41.0	39.7	41.0	43.5	27.8	28.6	25.4	43.9	33.8	41.0	24.6	34.6	41.0	38.9	41.0	34.4	116.0	116.0	
	ENTERING AIR TEMP. DB/WB (F)	81.7/67.2	78.0/64.6	80.7/66.5	81.2/68.8	80.7/66.5	77.1/63.9	78.0/64.6	76.9/63.8	76.4/63.5	77.1/63.9	77.8/64.5	80.7/66.5	77.2/64.0	81.7/67.2	80.7/66.5	78.3/64.8	80.7/66.5	81.7/67.2	81.9/67.2	81.9/67.2	
INDOOR UNIT	LEAVING AIR TEMP. DB/WB (F)	55.5/55.22	53.61/52.59	54/53.58	53.98/53.33	54/53.58	55.65/54.23	54.84/54.46	55.14/53.65	55.36/54.88	55.8/54.36	55.82/54.53	54.74/53.44	55.42/55.23	54/53.58	54/53.58	54.63/53.27	54/53.58	55.58/55.22	55.5/55.25	55.5/55.25	
	TOTAL HEATING (KW) / STAGES	11/2	5/2	12/2	12/2	12/2	14/2	8/2	8/2	8/2	14/2	11/2	12/2	8/2	11/2	12/2	11/2	12/2	11/2	38/2	38/2	
INDOOR UNIT	ENTERING AIR TEMP. DB (F)	60	65	60	60	60	65	65	65	65	65	65	60	65	60	60	65	60	60	60	60	
	LEAVING AIR TEMP. DB (F)	88.96	91.61	87	89.18	87	89.78	87.99	86.08	89.36	87.99	89.36	87	90.29	88.96	87	85	87	88.96	90	90	
INDOOR UNIT	VOLTS/PHASE/HERTZ	240/1/60	240/1/60	240/1/60	240/1/60	240/1/60	240/1/60	240/1/60	240/1/60	240/1/60	240/1/60	240/1/60	240/1/60	240/1/60	240/1/60	240/1/60	240/1/60	240/1/60	240/1/60	240/3/60	240/3/60	
	MCA	57.6	33.97	72	72	78.34	51.33	72	78.34	51.33	72	78.34	48.99	61.6	72	72	72	72	57.6	128	128	
INDOOR UNIT	MOCP	60	35	80	80	80	80	60	60	60	80	70	80	50	70	80	70	80	60	150	150	
	MANUFACTURER	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	
INDOOR UNIT	MODEL	BCCDD048	BCCDD024	BCCDD048	BCCDD036	BCCDD048	BCCDD060	BCCDD036	BCCDD036	BCCDD036	BCCDD060	BCCDD048	BCCDD048	BCCDD036	BCHDD036	BCCDD048	BCCDD048	BCCDD048	BCHC120	BCHC120		
	WEIGHT (LBS)	246	251	200	190	251	198	190	180	257	190	180	239	185	246	251	246	251	246	390	390	
INDOOR UNIT	NOTES	4.5,7,8,9	4.5,7,8,9	4.5,7,8,9	4.5,7,8,9	4.5,7,8,9	4.5,7,8,9	4.5,7,8,9	4.5,7,8,9	4.5,7,8,9	4.5,7,8,9	4.5,7,8,9	4.5,7,8,9	4.5,7,8,9	4.5,7,8,10	4.5,7,8,9	4.5,7,8,9	4.5,7,8,9	4.5,7,8,10	4.5,7,8,10		
	MARK	CU-1 THROUGH CU-7	CU-8	CU-9	CU-10	CU-11	CU-12	CU-13	CU-14	CU-15	CU-16	CU-17	CU-18 THROUGH CU-22	CU-23	CU-24	CU-25	CU-26	CU-27	CU-28 AND CU-29	CU-30	CU-31	
CONDENSING UNIT	STEPS OF CAPACITY	INF	1	INF	INF	INF	1	1	1	1	1	INF	1	INF	1	INF	1	INF	INF	INF		
	EER/IEER (ARI)	13/15	13/15	12.5/15	12.5/15	12.5/15	12.5/15	13.5/16	13/15.75	12.5/15	12.5/15	13/15	12.5/15	13.5/16	13/15	12.5/15	12.5/15	13/15	13/15	11/12.4	11/12.4	
CONDENSING UNIT	AMBIENT AIR	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105		
	VOLTS/PHASE/HERTZ	240/1/60	240/1/60	240/1/60	240/1/60	240/1/60	240/1/60	240/1/60	240/1/60	240/1/60	240/1/60	240/1/60	240/1/60	240/1/60	240/1/60	240/1/60	240/1/60	240/1/60	240/1/60	240/3/60	240/3/60	
CONDENSING UNIT	MCA	24	13	27	27	27	27	18	21	17	27	24	27	18	34	27	27	27	24	64	64	
	MOCP	40	25	45	45	45	30	45	35	40	45	40	45	30	40	45	45	45	40	90	90	
CONDENSING UNIT	MANUFACTURER	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	
	MODEL	4TRR6048	4TRR6024	4TRR6060	4TRR6080	4TRR6080	4TRR6080	4TRR6030	4TRR6042	4TRR6030	4TRR6080	4TRR6048	4TRR6080	4TRR6036	4TRR6048	4TRR6060	4TRR6060	4TRR6048	4TRR6048	TTA150	TTA150	
CONDENSING UNIT	NOMINAL TONS	4	2	5	5	5	3.5	5	3.5	5	5	4	5	5	5	5	5	4	12.5	12.5		
	WEIGHT (LBS)	306	190	327	327	327	246	302	302	230	327	306	327	246	306	327	327	327	306	447	447	
CONDENSING UNIT	NOTES	1,2,3,4,6,7	1,2,3,4,7	1,2,3,4,6,7	1,2,3,4,6,7	1,2,3,4,6,7	1,2,3,4,7	1,2,3,4,6,7	1,2,3,4,7	1,2,3,4,7	1,2,3,4,7	1,2,3,4,7	1,2,3,4,6,7	1,2,3,4,7	1,2,3,4,6,7	1,2,3,4,6,7	1,2,3,4,7	1,2,3,4,6,7	1,2,3,4,6,7	1,2,3,4,6,7		

- NOTES:
1. PROVIDE CONDENSER COIL HAIL GUARDS. PROVIDE E-COATING ON CONDENSER COIL.
  2. PROVIDE LOW AMBIENT CONTROL DOWN TO 55 DEGREE AMBIENT.
  3. PROVIDE REFRIGERANT PIPING IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
  4. PROVIDE SINGLE POINT ELECTRICAL CONNECTION WITH NON-FUSED DISCONNECT.
  5. PROVIDE WITH UNIT CONTROLLER WITH BACNET INTERFACE.
  6. PROVIDE WITH WITH FACTORY MOUNTED AND TESTED APR VALVE FOR CAPACITY CONTROL.
  7. PROVIDE 5 YEARS PARTS AND LABOR WARRANTY.
  8. PROVIDE WITH FULLY VARIABLE SPEED DIRECT DRIVE ECM SUPPLY FAN MOTOR.
  9. PROVIDE WITH MERV-13 FILTER. PROVIDE WITH FILTER BANK UNDERNEATH UNIT. UNIT EXTERNAL STATIC DOES NOT INCLUDE FILTER LOSSES.
  10. PROVIDE WITH 2" MERV 13 FILTER. EXTERNAL STATIC DOES NOT INCLUDE FILTER LOSSES.

**LOUVER SCHEDULE**

MARK	L-1, L-2, L-3, L-4, L-6, L-7, L-12, L-13, L-14, L-15, L-16, L-18, L-20, L-21, L-22	L-5	L-8	L-9, L-10, L-11	L-17	L-19
SERVICE	OUTSIDE AIR	OUTSIDE AIR	OUTSIDE AIR	OUTSIDE AIR	OUTSIDE AIR	OUTSIDE AIR
SIZE (WIDTH X HEIGHT)	18" X 14"	12" X 12"	14" X 14"	14" X 12"	12" X 12"	14" X 12"
CFM	365	75	325	180	100	225
MAX. FREE AREA VELOCITY (FPM)	606	280	730	526	560	657
MIN. FREE AREA (S.F.)	0.54	0.27	0.44	0.34	0.27	0.34
MAX. P.D. (IN. W.G.)	0.1	0.1	0.1	0.1	0.1	0.1
MANUFACTURER	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK
MODEL NO.	EVH-501D	EVH-501D	EVH-501D	EVH-501D	EVH-501D	EVH-501D
NOTES	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4

- NOTES:
1. PROVIDE WITH INSECT/BIRD SCREEN.
  2. PERFORMANCE OF LOUVER SHALL BE VERIFIED BY AMCA PUBLICATION 550 AND 540.
  3. PAINT COLOR BY OWNER.
  4. PROVIDE FLASHING COMPATIBLE WITH EXISTING FLASHING.

**DX ROOF TOP UNIT SCHEDULE - ELECTRIC HEAT**

MARK	RTU-1	RTU-2
SERVES	KITCHEN	KITCHEN
UNIT TYPE	CONSTANT VOLUME	CONSTANT VOLUME
NOMINAL TONS	3	3
DESIGN SUPPLY AIR (CFM)	1,000	1,000
DESIGN OUTDOOR AIR (CFM)	150	150
EER (AT AHRI CONDITIONS)	13	13
SEER (AT AHRI CONDITIONS)	17.5	17.5
EXT. S.P. (IN. W.G.)	1.00	1.00
FAN MOTOR HORSEPOWER	1/2	1/2
FAN DRIVE	DIRECT	DIRECT
<b>COOLING DATA</b>		
AMBIENT AIR (°F)	105	105
TOTAL COOLING CAPACITY (MBH)	31.2	31.2
TOTAL SENSIBLE CAPACITY (MBH)	23.7	23.7
EAT DB (°F)	78.3	78.3
EAT WB (°F)	64.8	64.8
LAT DB (°F)	56.3	56.3
LAT WB (°F)	54.2	54.2
<b>HEATING DATA</b>		
HEATING TYPE	ELECTRIC	ELECTRIC
HEATING CFM	1,000	1,000
HEATING CAPACITY (KW)	6	6
EAT DB (°F)	65.0	65.0
LAT DB (°F)	83.87	83.87
<b>ELECTRICAL DATA</b>		
VOLTS/PHASE/HERTZ	240/3/60	240/3/60
MCA	26	26
MOCP	30	30
MANUFACTURER	TRANE	TRANE
MODEL NO.	THC037	THC037
OPERATING WEIGHT (LBS)	701	701
NOTES	ALL	ALL

- NOTES:
1. EXTERNAL STATIC PRESSURE DOES NOT ACCOUNT FOR LOSSES DUE TO COIL(S), FILTERS, HOUSING, NOR ACCESSORIES.
  2. PROVIDE UNIT WITH OUTDOOR AIR INTAKE HOOD WITH MOTORIZED DAMPER.
  3. PROVIDE UNIT WITH SINGLE POINT ELECTRICAL CONNECTION.
  4. PROVIDE UNIT WITH MINIMUM MERV 13 FILTERS.
  5. PROVIDE UNIT CONTROLLER BY MANUFACTURER. PROVIDE CONTROLLER WITH BACNET INTERFACE CARD.
  6. PROVIDE UNIT WITH HOT GAS REHEAT.
  7. PROVIDE UNIT WITH ROOF CURB ADAPTOR.
  8. PROVIDE UNIT WITH INTEGRAL DISCONNECT SWITCH AND POWERED CONVENIENCE OUTLET.



REVISION

No.	DATE	DESCRIPTION
1	05/26/2022	ADDENDUM 1



**EDINBURG CONSOLIDATED INDEPENDENT SCHOOL DISTRICT**  
**STEPHEN F. AUSTIN ES - HVAC IMPROVEMENTS**  
 1023 E KUHN ST, EDINBURG, TX 78541

DATE:	05/05/2022
DRAWN BY:	DBR
CHECKED BY:	DBR
PROJECT NUMBER:	218007.004
SHEET TITLE:	

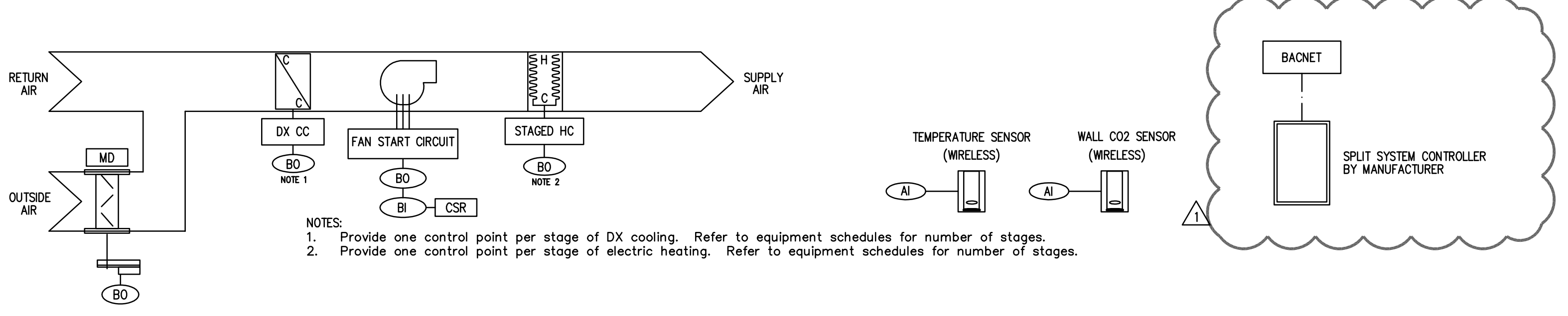
**MECHANICAL SCHEDULES**

SHEET NUMBER:	M5.01
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Plotted: May 26, 2022 8:36 AM by user: mcafee - Sheet: E:\052022 - Schedules - Details - HVAC Improvements - SF AES\Project Files\Drawings\052022\18007-DETAILS AND SCHEDULES.rvt  
 C:\Users\mgaza\Documents\DWG\DWG218007.dwg - E:\052022 - District Wide HVAC Improvements - SF AES\Project Files\Drawings\052022\18007-DETAILS AND SCHEDULES.rvt

AI	ANALOG INPUT	CS	WALL SENSOR/THERMOSTAT
AO	ANALOG OUT PUT	CS2	CARBON DIOXIDE SENSOR
DI	DIGITAL/BINARY INPUT	SP	SET POINT
DO	DIGITAL/BINARY OUTPUT	SA	SUPPLY AIR
MD	ON-OFF MOTORIZED DAMPER	RA	RETURN AIR
MDM	MODULATING TYPE MOTORIZED DAMPER	OA	OUTSIDE AIR
AFMS	AIR FLOW MEASURING STATION	HC	HEATING COIL
MCV	CONTROL VALVE MODULATING TYPE	CC	COOLING COIL
VF	VARIABLE FREQUENCY DRIVE	DX	DIRECT EXPANSION COOLING COIL
CR	CURRENT SENSING RELAY	PCV	PRESSURE INDEPENDENT CHARACTERIZED CONTROL VALVE
FRZ	FREEZESTAT	AC	AIRFLOW CROSS
HSL	HIGH STATIC LIMIT	DP	DIFFERENTIAL PRESSURE SWITCH
SPT	STATIC PRESSURE TRANSMITTER		
DPT	DIFFERENTIAL PRESSURE TRANSDUCER		
FM	FLOW METER		
FS	FLOW SWITCH		
DAT	DISCHARGE AIR TEMPERATURE SENSOR		

**2 CONTROL SCHEMATIC LEGEND**  
NOT TO SCALE



**System Off - When the system is off:**  
The outside air damper shall be closed.  
The supply air fan shall be off.  
The DX cooling coil shall be disabled.  
The electric heating coil shall be disabled.  
The control loops shall be disabled.

**PRE-START MODE:**  
The system shall be enabled by an operator entered manual command at the EMCS or automatically by the EMCS based on the Optimal Start/Stop algorithm. Once enabled, the system shall operate per the **System Operation** section, as detailed below.

**NIGHT-SETBACK MODE:**  
The system shall be enabled automatically by the EMCS when space temperature has exceeded Unoccupied Cooling or Heating Setpoint. Once enabled, the system shall operate per the **System Operation** section, as detailed below.

**System Operation - When system start-up has been initiated:**  
The outside air damper shall open and the supply air fan shall start. Following a confirmation of fan start status, the unit shall be controlled by one of the following four modes:

**COOLING MODE:** When the space temperature is above the Cooling Setpoint, the supply fan shall be energized and the DX cooling coil shall be staged to maintain the space temperature within +/- 0.5 °F of the Cooling Setpoint.

**HEATING MODE:** When the space temperature is below the Heating Setpoint, the supply fan shall be energized and the electric heating coil shall be staged to maintain the space temperature within +/- 0.5 °F of the Heating Setpoint.

**DEMAND CONTROL VENTILATION -** During occupied hours, the outside air flow rate shall open to its scheduled maximum flow. If the space CO2 level is at least 100 ppm (adj) less than its active high limit setpoint for a time period of 10 minutes (adj), the outside air damper shall close. If the space CO2 level rises to within 50 ppm (adj) of its active high limit, the outside air damper shall be open to maintain the scheduled maximum outside air flow rate.

**System Setpoints - The setpoints for the system shall be determined as follows:**  
The Occupied Heating Setpoint shall be set initially at 70 °F (adjustable).  
The Occupied Cooling Setpoint shall be set initially at 74 °F (adjustable).  
The Unoccupied Heating Setpoint shall be set initially at 55 °F (adjustable).  
The Unoccupied Cooling Setpoint shall be set initially at 85 °F (adjustable).  
The outside air flowrate setpoint shall be set at the scheduled flowrate.  
The minimum outside air flowrate setpoint shall be set at the scheduled minimum flowrate from the unit schedules on the mechanical drawings.  
The maximum outside air flowrate setpoint shall be set at the scheduled maximum flowrate from the unit schedule on the mechanical drawings.  
The space carbon dioxide high-limit setpoint be set to 1000 ppm (adj).

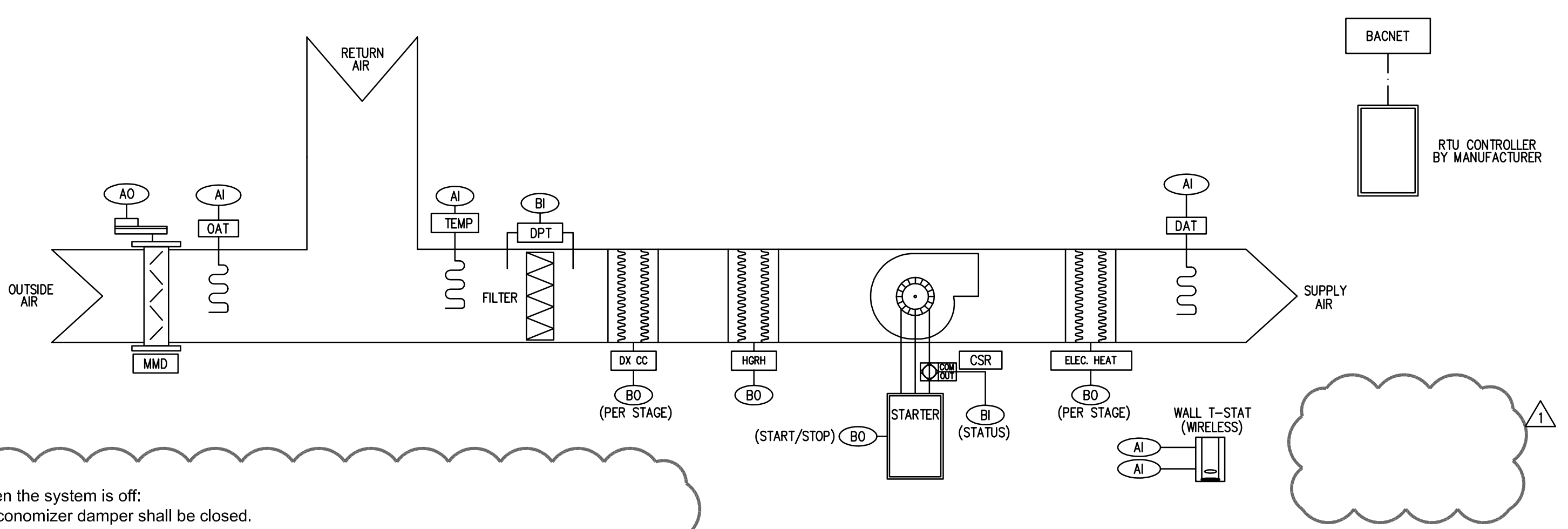
**System Shutdown - System shutdown shall be initiated:**  
By operator entered manual command at the EMCS.  
Automatically by the EMCS based on Night-Setback or Time of Day schedule.

**System Alarms - The EMCS shall generate an alarm if:**  
If the space air temperature is outside the established low and high limits, which shall be set at +/- 5 °F around the current setpoint.  
All alarms shall be inhibited when the supply fan is not operating except the space temperature alarms. The alarms, except the fan failure and the space temperature alarms, shall remain inhibited following startup of the unit for 2 minutes.  
Alarm for exceeding high limit on CO2 setpoint.

Notes:  
The equipment manufacturer's unit controller shall include controls to perform all equipment functions. The EMCS Contractor shall integrate with the unit controller via BACnet for detailed setpoint adjustments, unit monitoring, alarm inputs, and equipment scheduling.

PROVIDE START/STOP STATUS FOR EXISTING HORIZONTAL UNITS AT GYMNASIUM, TYPICAL OF 4.

**1 Fan Coil Unit - Control Diagram and Sequence**  
NOT TO SCALE



**System Off - When the system is off:**  
The outside air/economizer damper shall be closed.  
The return air damper shall be open.  
The supply air fan shall be off.  
The compressors shall be disabled.  
The hot gas reheat valve shall be closed.  
The electric heater shall be disabled.  
The control loops shall be disabled.

**System Startup - System start-up shall be initiated:**  
By an operator entered manual command at the EMCS.  
Automatically by the EMCS based on Pre-Start Mode or Night-Setback Mode.

**Pre-Start Mode:**  
The system shall be enabled automatically by the EMCS based on the Optimal Start/Stop algorithm. Once enabled, the system shall operate per the system Operation section, as detailed below. Operation of the system during Pre-Start Mode shall not include ventilation air. Economizer mode shall be permitted to operate per the System Operation section as detailed below.

**Night Setback Mode:**  
The system shall be enabled automatically by the EMCS when the space temperature drifts outside the active Unoccupied Cooling or Heating Setpoint. Once enabled, the system shall operate per the System Operation section as detailed below. Operation of the system during Night-Setback Mode shall not include ventilation air. Economizer mode shall be permitted to operate per the System Operation section as detailed below.

**System Operation - When system start-up has been initiated:**  
The supply air fan shall start and the unit shall be controlled by one of the following modes:  
**COOLING MODE:** When the space temperature is above the Cooling Setpoint, the supply fan shall operate at the scheduled airflow value and the refrigerant compression shall be staged to maintain the space temperature within +/- 0.5 °F of the Cooling Setpoint.  
**HEATING MODE:** When the space temperature is below the Heating Setpoint, the supply fan shall operate at the scheduled airflow value and the electric heater shall be staged to maintain the space temperature within +/- 0.5 °F of the Heating Setpoint.  
**DE-HUMIDIFICATION MODE:** When the space humidity is above the space humidity high-limit setpoint, the refrigerant compression shall be staged to 100% and the refrigerant hot gas reheat valve shall be staged to maintain the discharge air temperature within +/- 0.5 °F of the reheat setpoint.

Damper positions required to achieve the scheduled outside air flow rates shall be determined by the TAB Contractor during Testing, Adjusting, and Balancing and coordinated with the Mechanical Contractor.

**System Setpoints - The setpoints for the system shall be determined as follows:**  
The Occupied Heating Setpoint shall be set initially at 72 °F (adjustable).  
The Occupied Cooling Setpoint shall be set initially at 74 °F (adjustable).  
The Unoccupied Heating Setpoint shall be set initially at 55 °F (adjustable).

The Unoccupied Cooling Setpoint shall be set initially at 85 °F (adjustable).  
The space humidity high-limit setpoint shall be set initially at 60% RH (adjustable).  
The reheat setpoint shall be set initially at 75 °F (adjustable).  
The outside air flow rate setpoint shall be set at the scheduled maximum flow rate from the unit schedule on the mechanical drawings.

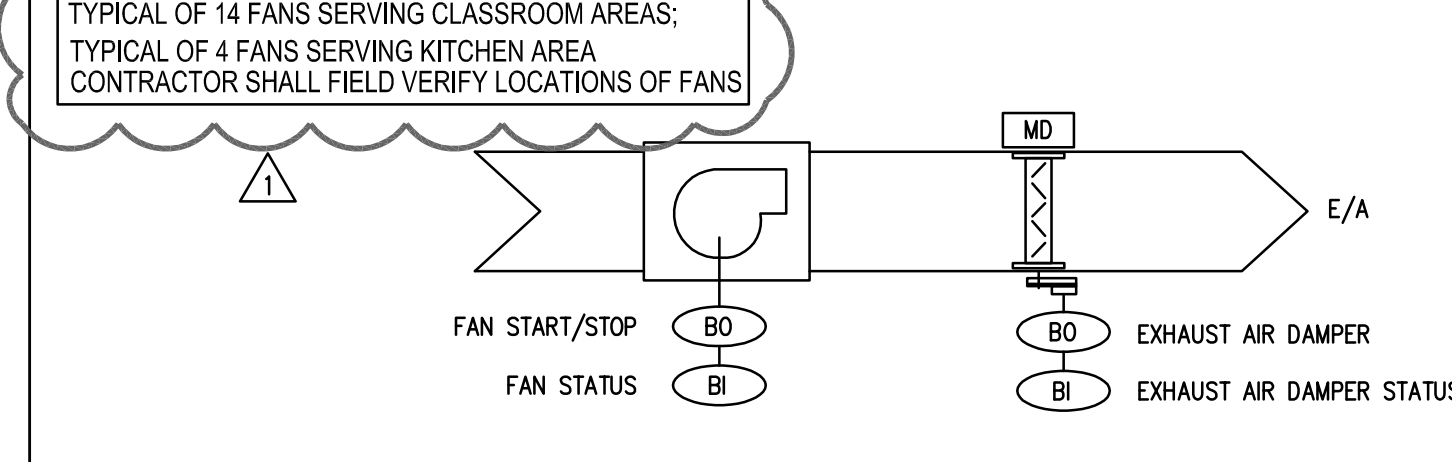
The air filter pressure differential high-limit shall be set at 1.0 in.wc. (adj).

**System Shutdown - System shutdown shall be initiated:**  
By operator entered manual command at the EMCS.  
Automatically by the EMCS based on Night-Setback or Time of Day schedule.  
Automatically by supply fan current sensor status failure.

**System Alarms - The EMCS shall generate an alarm if:**  
If the space temperature is outside the active low or high limits by more than 2°F for 5 minutes (adj).  
If the space humidity level exceeds its high-limit for more than 20 minutes (adj).  
If the filter differential pressure exceeds the trip point.  
If the current sensor relay indicates a supply fan failure status.  
All alarms shall be inhibited when the supply fan is not operating except the space temperature alarms. The alarms, except the fan failure and the space temperature alarms, shall remain inhibited following startup of the unit for 2 minutes.

Notes:  
The equipment manufacturer's unit controller shall include controls to perform all equipment functions. The EMCS Contractor shall integrate with the unit controller via BACnet for detailed setpoint adjustments, unit monitoring, alarm inputs, and equipment scheduling.

**4 Direct Expansion Constant Volume Rooftop Unit w/ Elec. Heat, De-humidification, DCV - Control Schematic and Sequence of Operations**  
NOT TO SCALE



**System Operation - When system start-up has been initiated, the following sequences shall be implemented:**  
The ventilation exhaust fan shall be integrated with the EMCS to monitor fan status and to schedule run times. The exhaust air damper shall open anytime the unit runs and shall close anytime the unit stops. The exhaust fan shall start only after the damper status has proven the damper is open. The exhaust air damper shall close 30 sec (adj.) after the fan stops.

**System Setpoints - The setpoints for the system shall be set as follows:**  
The design airflow rates shall be set at the values given in the Mechanical Drawings.

**Fan Status**  
The controller shall monitor the fan status.  
Alarms shall be provided as follows:  
• Fan Failure: Commanded on, but the status is off.  
• Fan in Hand: Commanded off, but the status is on.  
• Fan Runtime Exceeded: Fan status runtime exceeds a user definable limit (adj.).

**3 Ventilation Exhaust Fan - Control Schematic and Sequence of Operations**  
NOT TO SCALE



REVISION	No.	DATE	DESCRIPTION
	1	05/26/2022	ADDENDUM 1



EDINBURG CONSOLIDATED INDEPENDENT SCHOOL DISTRICT  
 STEPHEN F. AUSTIN ES - HVAC IMPROVEMENTS  
 1023 E KUHN ST, EDINBURG, TX 78541

DATE:	05/05/2022
DRAWN BY:	DBR
CHECKED BY:	DBR
PROJECT NUMBER:	218007.004
SHEET TITLE:	

**MECHANICAL CONTROLS**

SHEET NUMBER:

**M6.01**

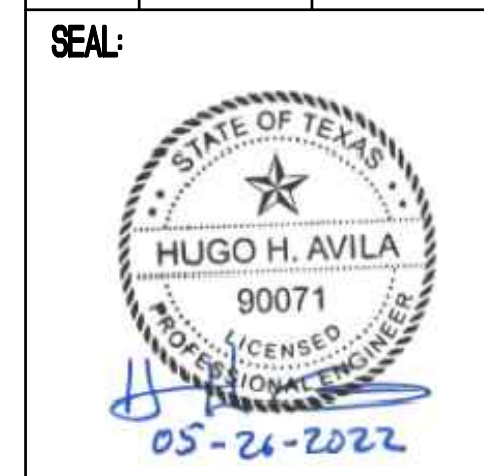


DBR Project Number	218007.004			
HA	MG	JB/JR	--	--

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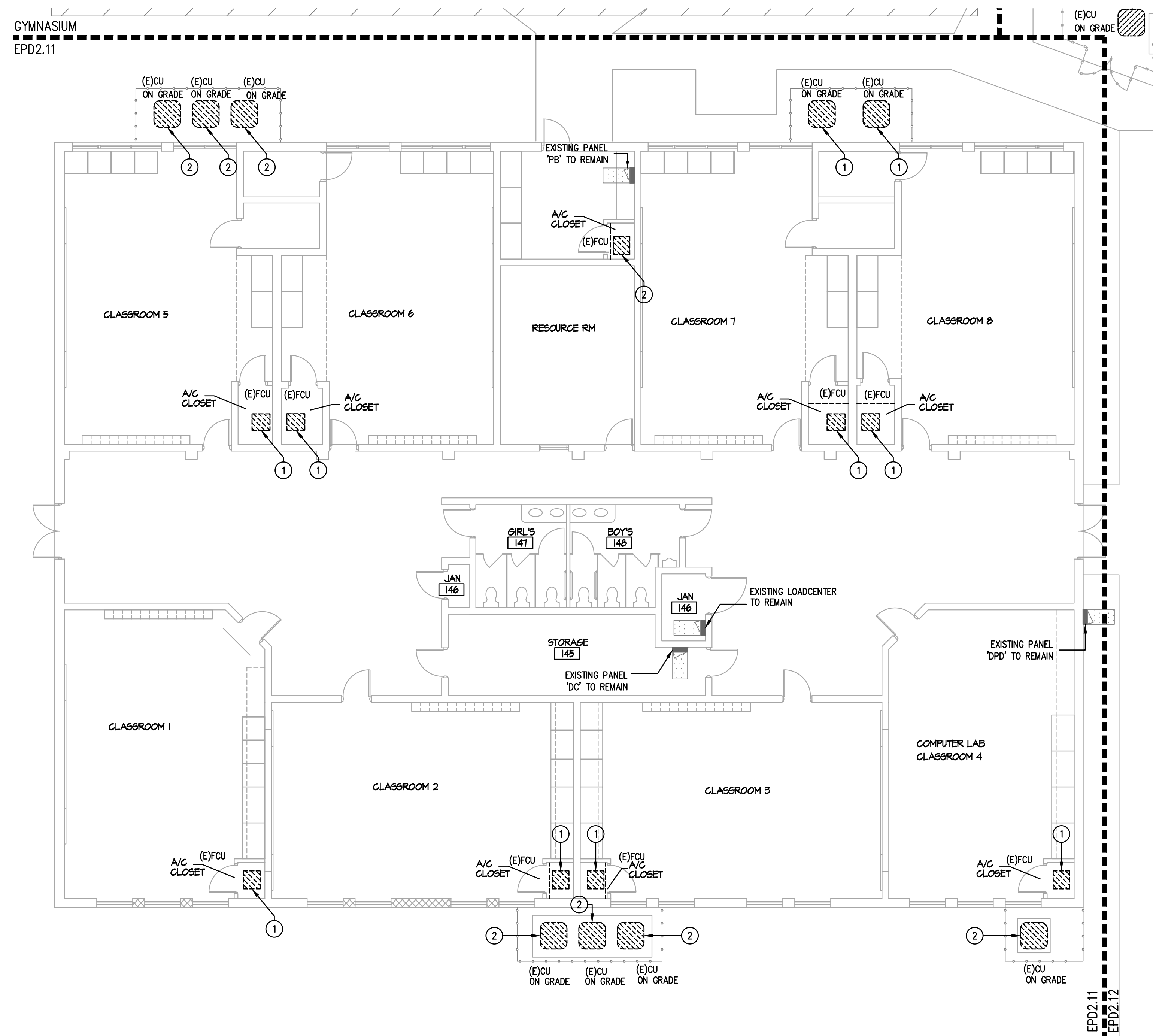


REVISION	No.	DATE	DESCRIPTION
	1	05/26/2022	ADDENDUM 1

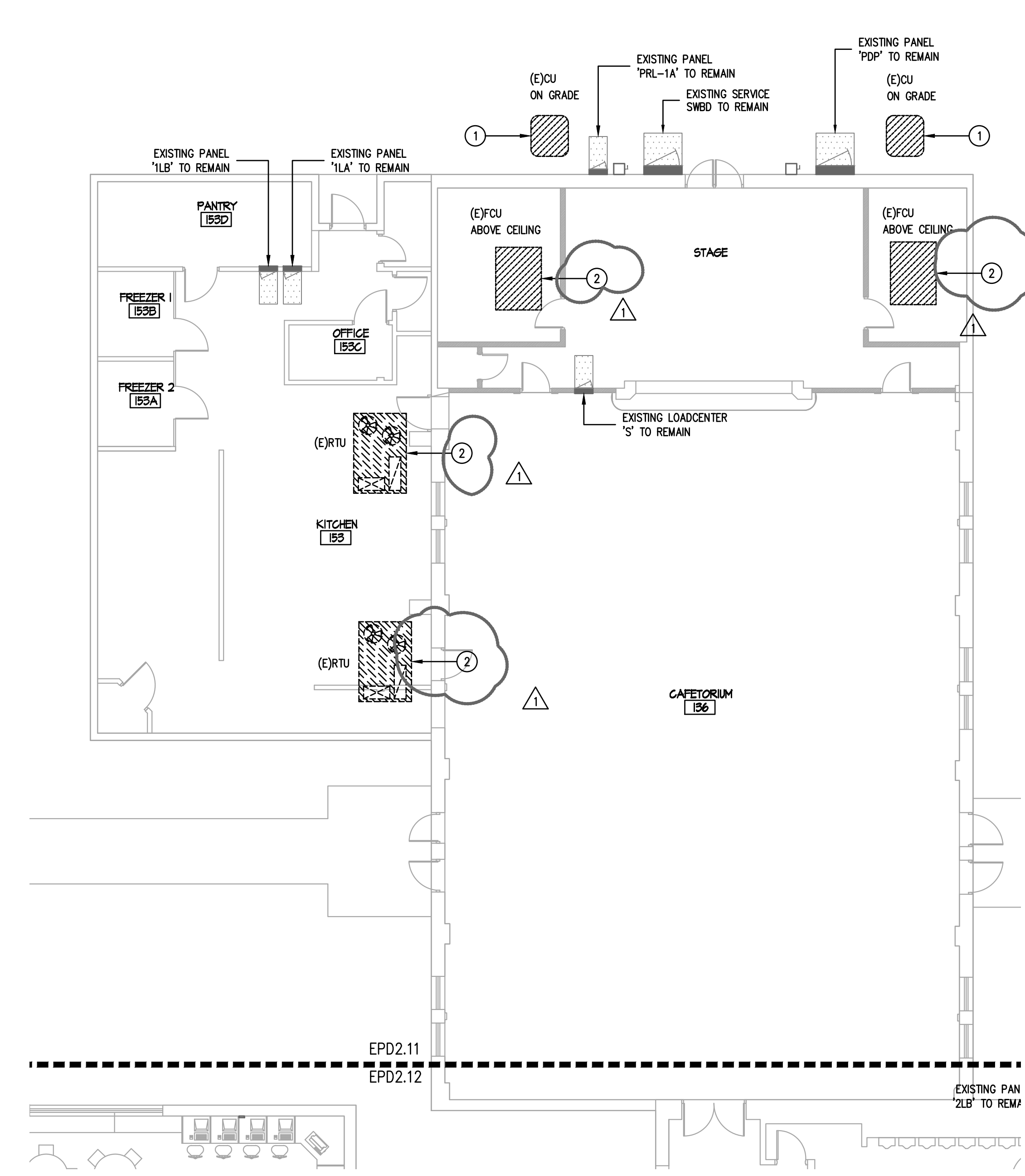


EDINBURG CONSOLIDATED INDEPENDENT SCHOOL DISTRICT  
STEPHEN F. AUSTIN ES - HVAC IMPROVEMENTS  
1023 E KUHN ST, EDINBURG, TX 78541

DATE:	05/05/2022
DRAWN BY:	DBR
CHECKED BY:	DBR
PROJECT NUMBER:	218007.004
SHEET TITLE:	LEVEL 1 ELECTRICAL POWER PLAN - DEMOLITION
SHEET NUMBER:	EPD2.11



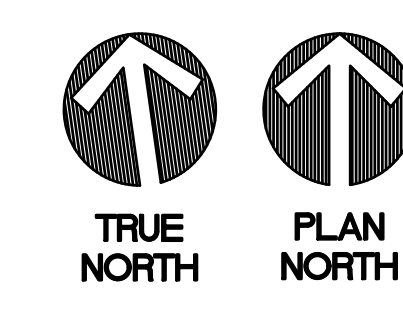
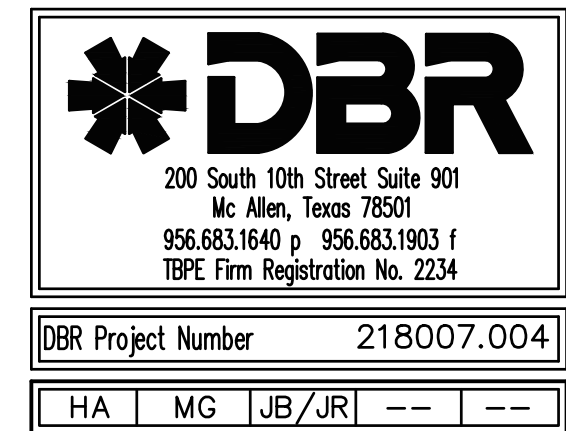
**1** LEVEL 1 ELECTRICAL POWER PLAN - KINDER BUILDING - DEMOLITION  
1/8" = 1'-0"



**2** LEVEL 1 ELECTRICAL POWER PLAN - CAFETERIA/KITCHEN - DEMOLITION  
1/8" = 1'-0"

- ELECTRICAL DEMO GENERAL NOTES:**
- CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK. FIELD VERIFY PANELS AND CIRCUIT NUMBERS FOR ALL EXISTING ELECTRICAL TO BE REMOVED.
- ELECTRICAL DEMO KEYED NOTES:**
- CONTRACTOR SHALL DISCONNECT EXISTING CIRCUIT FROM EXISTING EQUIPMENT TO BE REMOVED. EXISTING DISCONNECT TO BE REMOVED. EXISTING CIRCUIT TO REMAIN FOR NEW EQUIPMENT.
  - DISCONNECT AND DEMOLISH EXISTING DISCONNECT SWITCH AND HOME-RUN CONDUCTORS BACK TO PANEL. EXISTING CONDUIT PATHWAY MAY REMAIN FOR REUSE WHERE FEASIBLE.

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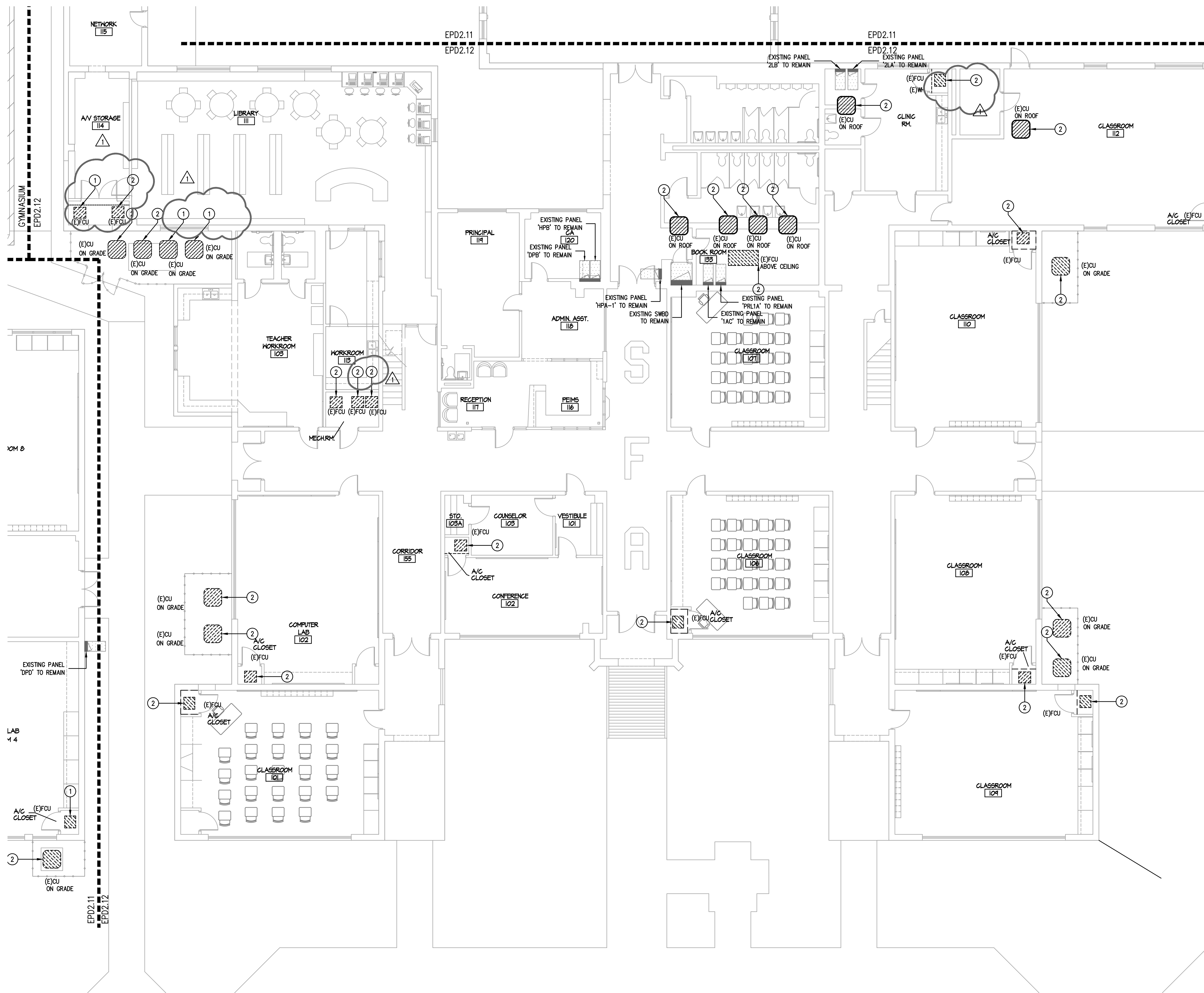



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TBPE Firm Registration No. 2234

DBR Project Number 218007.004

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- ELECTRICAL DEMO GENERAL NOTES:**
- CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK. FIELD VERIFY PANELS AND CIRCUIT NUMBERS FOR ALL EXISTING ELECTRICAL TO BE REMOVED.
- ELECTRICAL DEMO KEYED NOTES:**
- CONTRACTOR SHALL DISCONNECT EXISTING CIRCUIT FROM EXISTING EQUIPMENT TO BE REMOVED. EXISTING DISCONNECT TO BE REMOVED. EXISTING CIRCUIT TO REMAIN FOR NEW EQUIPMENT.
  - DISCONNECT AND DEMOLISH EXISTING DISCONNECT SWITCH AND HOME-RUN CONDUCTORS BACK TO PANEL. EXISTING CONDUIT PATHWAY MAY REMAIN FOR REUSE WHERE FEASIBLE.



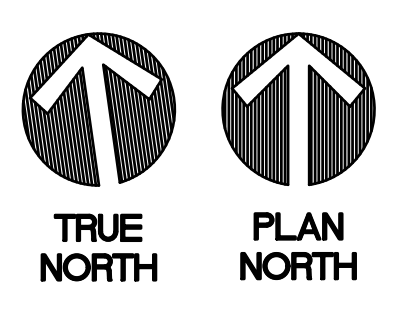
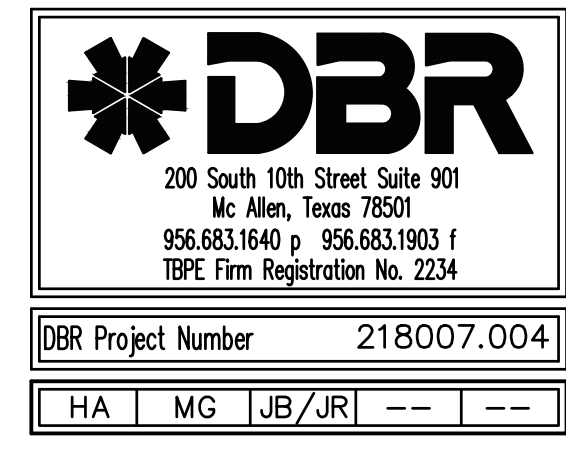
REVISION No.	DATE	DESCRIPTION
1	05/26/2022	ADDENDUM 1



**EDINBURG CONSOLIDATED INDEPENDENT SCHOOL DISTRICT**  
**STEPHEN F. AUSTIN ES - HVAC IMPROVEMENTS**  
 1023 E KUHN ST, EDINBURG, TX 78541

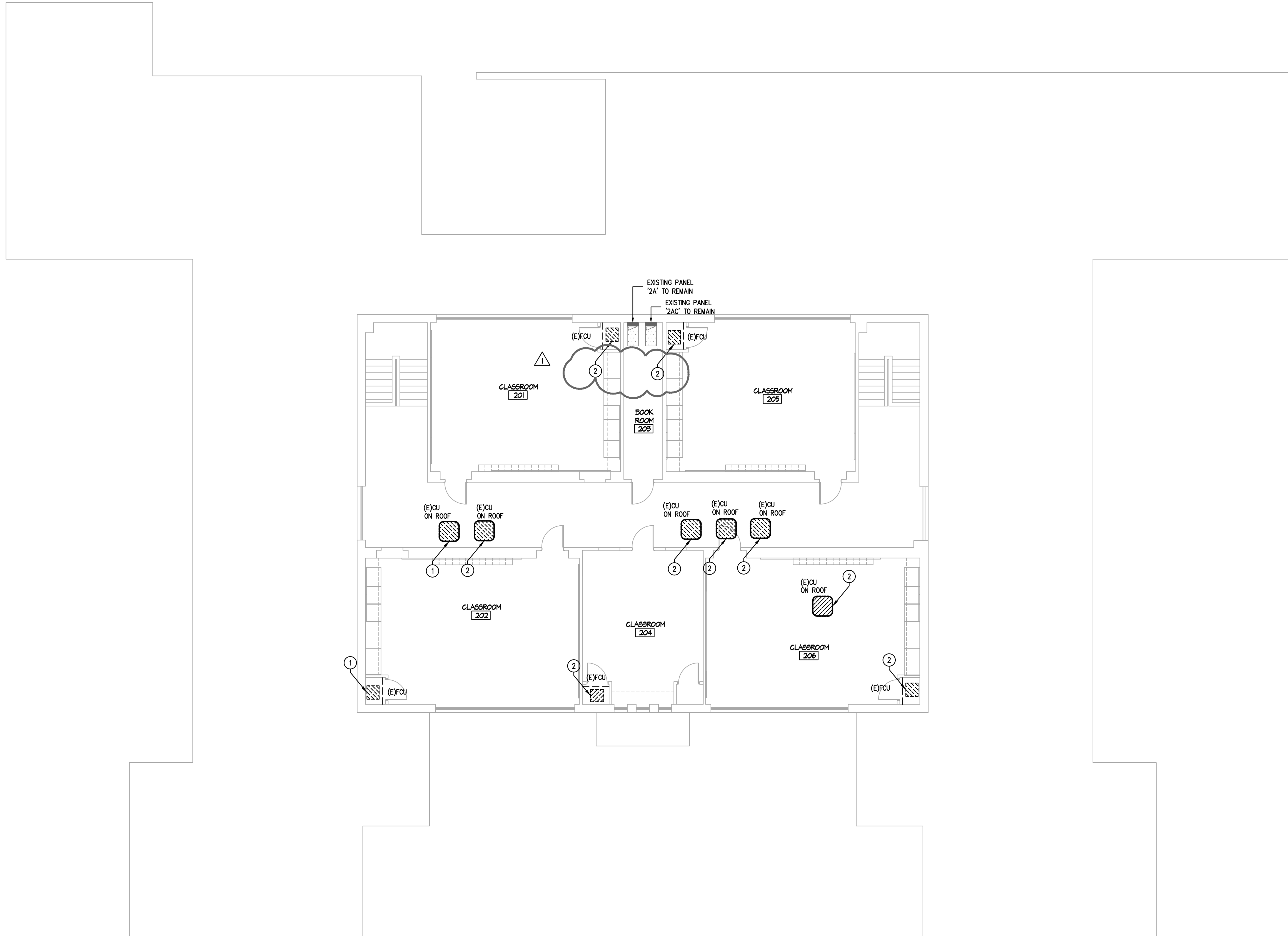
**1** LEVEL 1 ELECTRICAL POWER PLAN - MAIN BUILDING - DEMOLITION  
 1/8" = 1'-0"

DATE:	05/05/2022
DRAWN BY:	DBR
CHECKED BY:	DBR
PROJECT NUMBER:	218007.004
SHEET TITLE:	LEVEL 1 ELECTRICAL POWER PLAN - MAIN BUILDING - DEMOLITION
SHEET NUMBER:	EPD2.12



DBR Project Number	218007.004				
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**ELECTRICAL DEMO GENERAL NOTES:**

- CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK. FIELD VERIFY PANELS AND CIRCUIT NUMBERS FOR ALL EXISTING ELECTRICAL TO BE REMOVED.

**ELECTRICAL DEMO KEYED NOTES:**

- CONTRACTOR SHALL DISCONNECT EXISTING CIRCUIT FROM EXISTING EQUIPMENT TO BE REMOVED. EXISTING DISCONNECT TO BE REMOVED EXISTING CIRCUIT TO REMAIN FOR NEW EQUIPMENT.
- DISCONNECT AND DEMOLISH EXISTING DISCONNECT SWITCH AND HOME-RUN CONDUCTORS BACK TO PANEL. EXISTING CONDUIT PATHWAY MAY REMAIN FOR REUSE WHERE FEASIBLE.

REVISION No.	DATE	DESCRIPTION
1	05/26/2022	ADDENDUM 1



**1** LEVEL 2 ELECTRICAL POWER PLAN - MAIN BUILDING - DEMOLITION  
 EPD2.21 1/8" = 1'-0"

**EDINBURG CONSOLIDATED INDEPENDENT SCHOOL DISTRICT**  
**STEPHEN F. AUSTIN ES - HVAC IMPROVEMENTS**  
 1023 E KUHN ST, EDINBURG, TX 78541

DATE:	05/05/2022
DRAWN BY:	DBR
CHECKED BY:	DBR
PROJECT NUMBER:	218007.004
SHEET TITLE:	LEVEL 2 ELECTRICAL POWER PLAN - MAIN BUILDING - DEMOLITION
SHEET NUMBER:	

**TRUE NORTH**   **PLAN NORTH**

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DBR Project Number 218007.004

HA | MG | JB / JR | -- | --

**EPD2.21**

REVISION	No.	DATE	DESCRIPTION
	1	05/26/2022	ADDENDUM 1




EDINBURG CONSOLIDATED INDEPENDENT SCHOOL DISTRICT  
 STEPHEN F. AUSTIN ES - HVAC IMPROVEMENTS  
 1023 E KUHN ST, EDINBURG, TX 78541

DATE:	05/05/2022
DRAWN BY:	DBR
CHECKED BY:	DBR
PROJECT NUMBER:	218007.004
SHEET TITLE:	

LEVEL 1  
ELECTRICAL  
POWER PLAN

SHEET NUMBER:

EP2.11



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956.683.1640 p 956.683.1903 f  
TBPE Firm Registration No. 2234

DBR Project Number 218007.004

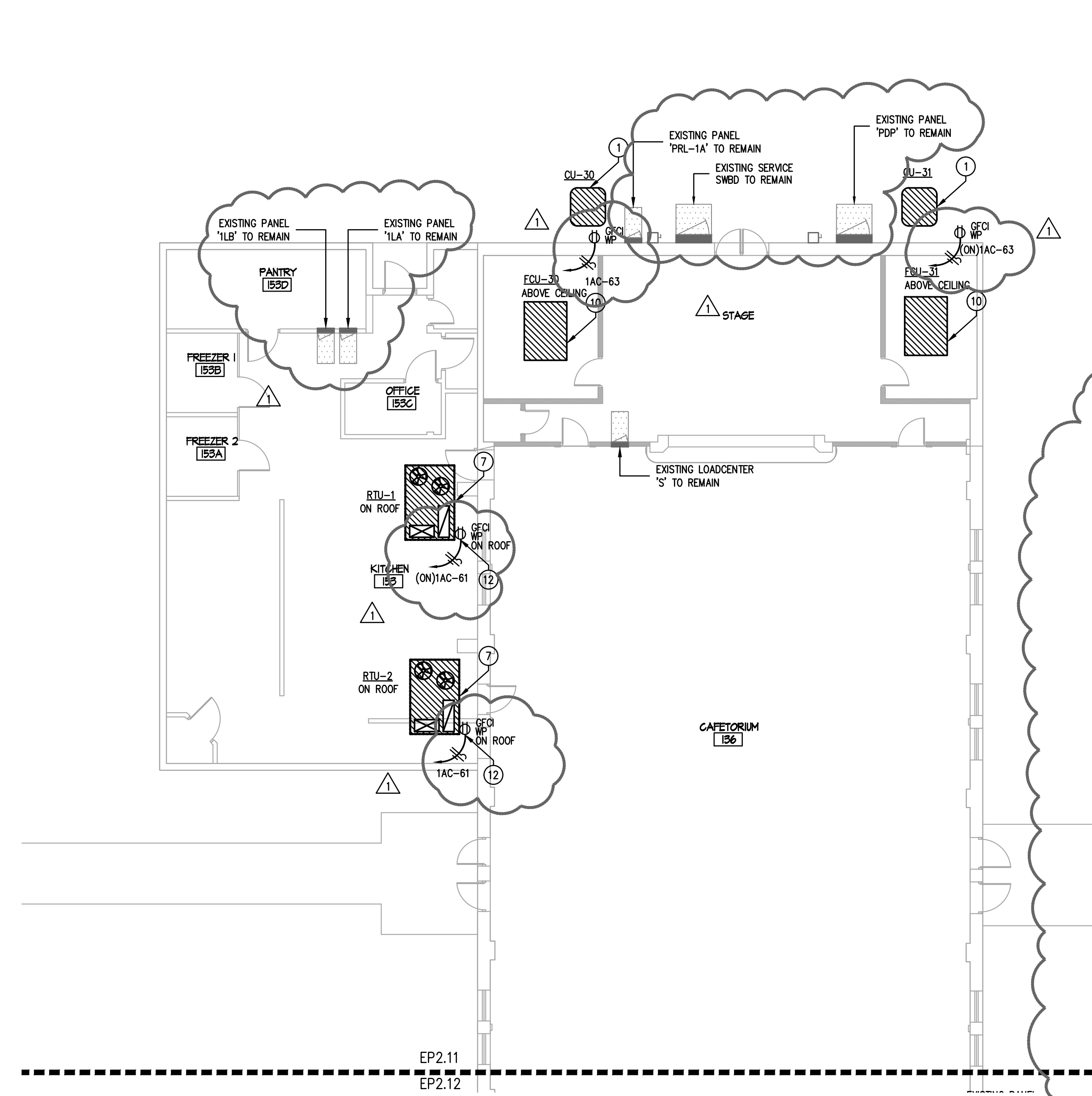
HA MG JB/JR

**ELECTRICAL DEMO GENERAL NOTES:**

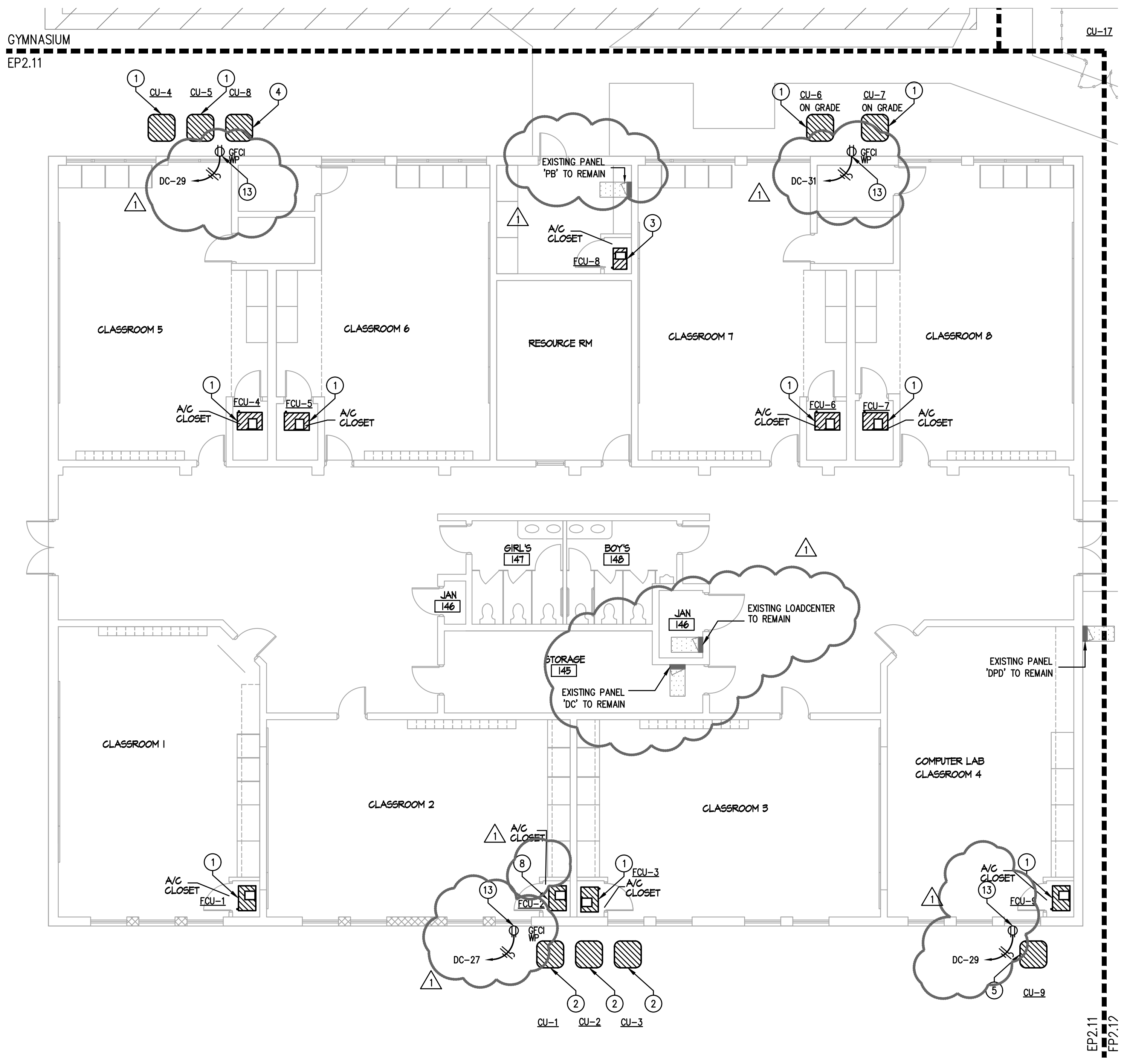
- CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK. FIELD VERIFY PANELS AND CIRCUIT NUMBERS FOR ALL EXISTING ELECTRICAL TO BE REMOVED.
- CONTRACTOR SHALL UPDATE PANEL DIRECTORY WITH CIRCUIT NUMBERS FOR ALL NEW EQUIPMENT.
- REFER TO ELECTRICAL SCHEDULES SHEET FOR FEEDER SCHEDULE FOR ADDITIONAL INFORMATION.

**ELECTRICAL KEYED NOTES:**

- CONTRACTOR SHALL CONNECT NEW EQUIPMENT TO EXISTING CIRCUIT. PROVIDE NEW FLEX CONDUIT WITH WIRE FROM NEW DISCONNECT SWITCH TO NEW EQUIPMENT.
- INSTALL NEW DISCONNECT SWITCH PROVIDED BY MECHANICAL CONTRACTOR. PROVIDE NEW FLEX CONDUIT AND WIRE FROM DISCONNECT SWITCH TO UNIT. PROVIDE NEW HOMERUN CIRCUIT WITH 2#8, 1#0G, IN 1" TO EXISTING PANEL. CONDUIT MAY BE REUSED WHERE SIZED CORRECTLY PER NEC REQUIREMENT. PROVIDE NEW 40A/2P BREAKER IN EXISTING PANEL BOARD FOR CONNECTION OF MECHANICAL EQUIPMENT.
- INSTALL NEW DISCONNECT SWITCH PROVIDED BY MECHANICAL CONTRACTOR. PROVIDE NEW FLEX CONDUIT AND WIRE FROM DISCONNECT SWITCH TO UNIT. PROVIDE NEW HOMERUN CIRCUIT WITH 2#10, 1#0G, IN 1" TO EXISTING PANEL. CONDUIT MAY BE REUSED WHERE SIZED CORRECTLY PER NEC REQUIREMENT. PROVIDE NEW 50A/2P BREAKER IN EXISTING PANEL BOARD FOR CONNECTION OF MECHANICAL EQUIPMENT.
- INSTALL NEW DISCONNECT SWITCH PROVIDED BY MECHANICAL CONTRACTOR. PROVIDE NEW FLEX CONDUIT AND WIRE FROM DISCONNECT SWITCH TO UNIT. PROVIDE NEW HOMERUN CIRCUIT WITH 2#10, 1#0G, IN 1" TO EXISTING PANEL. CONDUIT MAY BE REUSED WHERE SIZED CORRECTLY PER NEC REQUIREMENT. PROVIDE NEW 50A/2P BREAKER IN EXISTING PANEL BOARD FOR CONNECTION OF MECHANICAL EQUIPMENT.
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- INSTALL NEW DISCONNECT SWITCH PROVIDED BY MECHANICAL CONTRACTOR. PROVIDE NEW FLEX CONDUIT AND WIRE FROM DISCONNECT SWITCH TO UNIT. PROVIDE NEW HOMERUN CIRCUIT WITH 2#8, 1#0G, IN 1" TO EXISTING PANEL. CONDUIT MAY BE REUSED WHERE SIZED CORRECTLY PER NEC REQUIREMENT. PROVIDE NEW 60A/2P BREAKER IN EXISTING PANEL BOARD FOR CONNECTION OF MECHANICAL EQUIPMENT.
- INSTALL NEW DISCONNECT SWITCH PROVIDED BY MECHANICAL CONTRACTOR. PROVIDE NEW FLEX CONDUIT AND WIRE FROM DISCONNECT SWITCH TO UNIT. PROVIDE NEW HOMERUN CIRCUIT WITH 2#10, 1#0G, IN 1" TO EXISTING PANEL. CONDUIT MAY BE REUSED WHERE SIZED CORRECTLY PER NEC REQUIREMENT. PROVIDE NEW 70A/2P BREAKER IN EXISTING PANEL BOARD FOR CONNECTION OF MECHANICAL EQUIPMENT.
- INSTALL NEW DISCONNECT SWITCH PROVIDED BY MECHANICAL CONTRACTOR. PROVIDE NEW FLEX CONDUIT AND WIRE FROM DISCONNECT SWITCH TO UNIT. PROVIDE NEW HOMERUN CIRCUIT WITH 2#4, 1#8G, IN 1-1/4" TO EXISTING PANEL. CONDUIT MAY BE REUSED WHERE SIZED CORRECTLY PER NEC REQUIREMENT. PROVIDE NEW 20A/2P BREAKER IN EXISTING PANEL BOARD FOR CONNECTION OF MECHANICAL EQUIPMENT.
- INSTALL NEW DISCONNECT SWITCH PROVIDED BY MECHANICAL CONTRACTOR. PROVIDE NEW FLEX CONDUIT AND WIRE FROM DISCONNECT SWITCH TO UNIT. PROVIDE NEW HOMERUN CIRCUIT WITH 2#4, 1#8G, IN 1-1/4" TO EXISTING PANEL. CONDUIT MAY BE REUSED WHERE SIZED CORRECTLY PER NEC REQUIREMENT. PROVIDE NEW 20A/2P BREAKER IN EXISTING PANEL BOARD FOR CONNECTION OF MECHANICAL EQUIPMENT.
- INSTALL NEW DISCONNECT SWITCH PROVIDED BY MECHANICAL CONTRACTOR. PROVIDE NEW FLEX CONDUIT AND WIRE FROM DISCONNECT SWITCH TO UNIT. PROVIDE NEW HOMERUN CIRCUIT WITH 2#10, 1#0G, IN 1" TO EXISTING PANEL. CONDUIT MAY BE REUSED WHERE SIZED CORRECTLY PER NEC REQUIREMENT. PROVIDE NEW 150A/3P BREAKER IN EXISTING PANEL BOARD FOR CONNECTION OF MECHANICAL EQUIPMENT.
- NEW BAS PANEL LOCATION: CONTRACTOR SHALL PROVIDE POWER WITH (2)#12, (1)#10G, IN A 3/4" TO EXISTING PANEL 140 LOCATED IN 133 ROOM ROOM SPACE. INSTALL NEW 200A/1P BREAKER IN SPACE 69 OF PANEL. CONTRACTOR SHALL INSTALL BACKBOX AND PATHWAY FOR DATA CABLING. COORDINATE ONSITE PRIOR TO ROUGH IN.
- PROVIDE ROOF MOUNTED WP/GFCI RECEPTACLE, REFER TO DETAIL SHEET FOR ADDITIONAL INFORMATION. POWER WITH (2)#12, (1)#10G, IN A 3/4". PROVIDE POWER FROM EXISTING PANEL LABELED ON HOME-RUN. INSTALL NEW 20A/1P BREAKER IN PANEL SPACE LABELED. PANEL LOCATED IN BOOKROOM 133 SPACE.
- PROVIDE WALL MOUNTED WP/GFCI RECEPTACLE, POWER WITH (2)#12, (1)#10G, IN A 3/4". PROVIDE POWER FROM EXISTING PANEL LABELED ON HOME-RUN. INSTALL NEW 20A/1P BREAKER IN PANEL SPACE LABELED. PANEL LOCATED IN STORAGE 145 SPACE.
- INSTALL NEW DISCONNECT SWITCH PROVIDED BY MECHANICAL CONTRACTOR. PROVIDE NEW FLEX CONDUIT AND WIRE FROM DISCONNECT SWITCH TO UNIT. PROVIDE NEW HOMERUN CIRCUIT WITH 2#8, 1#0G, IN 1" TO EXISTING PANEL. CONDUIT MAY BE REUSED WHERE SIZED CORRECTLY PER NEC REQUIREMENT. PROVIDE NEW 50A/2P BREAKER IN EXISTING PANEL BOARD FOR CONNECTION OF MECHANICAL EQUIPMENT.

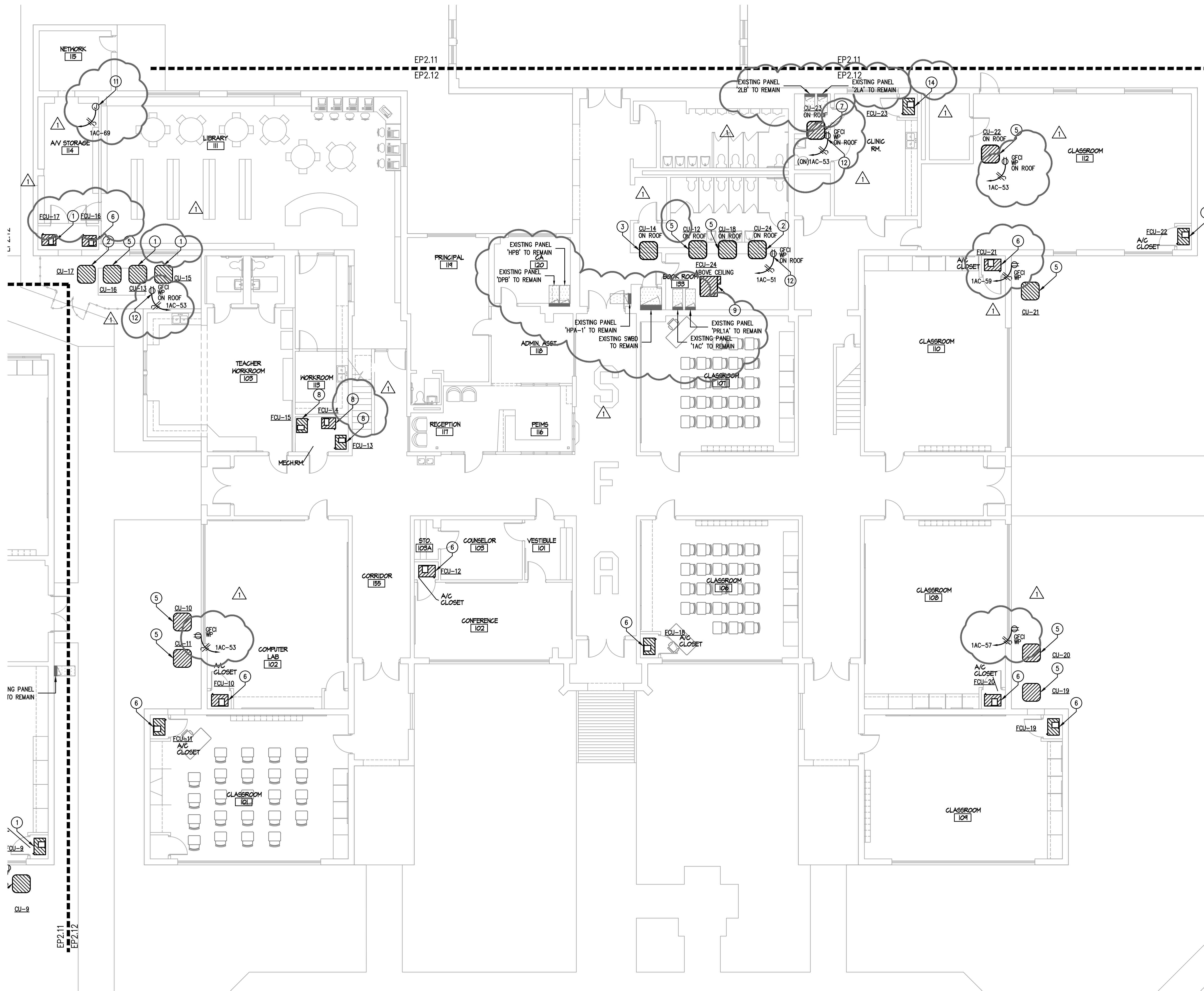


**2 LEVEL 1 ELECTRICAL POWER PLAN - CAFETERIA/KITCHEN**  
EP2.11 1/8" = 1'-0"



**1 LEVEL 1 ELECTRICAL POWER PLAN - KINDER BUILDING**  
EP2.11 1/8" = 1'-0"

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 C:\Users\jcd@dbar.com\Documents\218007.004 - EP2.11 - DBR - District Wide HVAC Improvements - STAES\Project Files\Drawings\EP-218007-01.dwg



**1** LEVEL 1 ELECTRICAL POWER PLAN - MAIN BUILDING  
 1/8" = 1'-0"

**ELECTRICAL DEMO GENERAL NOTES:**

- CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK. FIELD VERIFY PANELS AND CIRCUIT NUMBERS FOR ALL EXISTING ELECTRICAL TO BE REMOVED.
- CONTRACTOR SHALL UPDATE PANEL DIRECTORY WITH CIRCUIT NUMBERS FOR ALL NEW EQUIPMENT.
- REFER TO ELECTRICAL SCHEDULES SHEET FOR FEEDER SCHEDULES FOR ADDITIONAL INFORMATION.

**ELECTRICAL KEYED NOTES:**

- CONTRACTOR SHALL CONNECT NEW EQUIPMENT TO EXISTING CIRCUIT. PROVIDE NEW FLEX CONDUIT WITH WIRE FROM NEW DISCONNECT SWITCH TO NEW EQUIPMENT.
- INSTALL NEW DISCONNECT SWITCH PROVIDED BY MECHANICAL CONTRACTOR. PROVIDE NEW FLEX CONDUIT AND WIRE FROM DISCONNECT SWITCH TO UNIT. PROVIDE NEW HOMERUN CIRCUIT WITH 2#8, 1#0G, IN 1" TO EXISTING PANEL. CONDUIT MAY BE REUSED WHERE SIZED CORRECTLY PER NEC REQUIREMENT. PROVIDE NEW 40A/2P BREAKER IN EXISTING PANEL BOARD FOR CONNECTION OF MECHANICAL EQUIPMENT.
- INSTALL NEW DISCONNECT SWITCH PROVIDED BY MECHANICAL CONTRACTOR. PROVIDE NEW FLEX CONDUIT AND WIRE FROM DISCONNECT SWITCH TO UNIT. PROVIDE NEW HOMERUN CIRCUIT WITH 2#10, 1#0G, IN 1" TO EXISTING PANEL. CONDUIT MAY BE REUSED WHERE SIZED CORRECTLY PER NEC REQUIREMENT. PROVIDE NEW 50A/2P BREAKER IN EXISTING PANEL BOARD FOR CONNECTION OF MECHANICAL EQUIPMENT.
- INSTALL NEW DISCONNECT SWITCH PROVIDED BY MECHANICAL CONTRACTOR. PROVIDE NEW FLEX CONDUIT AND WIRE FROM DISCONNECT SWITCH TO UNIT. PROVIDE NEW HOMERUN CIRCUIT WITH 2#8, 1#0G, IN 1" TO EXISTING PANEL. CONDUIT MAY BE REUSED WHERE SIZED CORRECTLY PER NEC REQUIREMENT. PROVIDE NEW 25A/2P BREAKER IN EXISTING PANEL BOARD FOR CONNECTION OF MECHANICAL EQUIPMENT.
- INSTALL NEW DISCONNECT SWITCH PROVIDED BY MECHANICAL CONTRACTOR. PROVIDE NEW FLEX CONDUIT AND WIRE FROM DISCONNECT SWITCH TO UNIT. PROVIDE NEW HOMERUN CIRCUIT WITH 2#8, 1#0G, IN 1" TO EXISTING PANEL. CONDUIT MAY BE REUSED WHERE SIZED CORRECTLY PER NEC REQUIREMENT. PROVIDE NEW 60A/2P BREAKER IN EXISTING PANEL BOARD FOR CONNECTION OF MECHANICAL EQUIPMENT.
- INSTALL NEW DISCONNECT SWITCH PROVIDED BY MECHANICAL CONTRACTOR. PROVIDE NEW FLEX CONDUIT AND WIRE FROM DISCONNECT SWITCH TO UNIT. PROVIDE NEW HOMERUN CIRCUIT WITH 2#8, 1#0G, IN 1" TO EXISTING PANEL. CONDUIT MAY BE REUSED WHERE SIZED CORRECTLY PER NEC REQUIREMENT. PROVIDE NEW 30A/2P BREAKER IN EXISTING PANEL BOARD FOR CONNECTION OF MECHANICAL EQUIPMENT.
- INSTALL NEW DISCONNECT SWITCH PROVIDED BY MECHANICAL CONTRACTOR. PROVIDE NEW FLEX CONDUIT AND WIRE FROM DISCONNECT SWITCH TO UNIT. PROVIDE NEW HOMERUN CIRCUIT WITH 2#8, 1#0G, IN 1" TO EXISTING PANEL. CONDUIT MAY BE REUSED WHERE SIZED CORRECTLY PER NEC REQUIREMENT. PROVIDE NEW 60A/2P BREAKER IN EXISTING PANEL BOARD FOR CONNECTION OF MECHANICAL EQUIPMENT.
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- NEW BAS PANEL LOCATION: CONTRACTOR SHALL PROVIDE POWER WITH (2)#12, (1)#10G, IN A 3/4" TO EXISTING PANEL 14C LOCATED IN 133 ROOM ROOM SPACE. INSTALL NEW 200A/1P BREAKER IN SPACE 69 OF PANEL. CONTRACTOR SHALL INSTALL BACKBOX AND PATHWAY FOR DATA CABLING. COORDINATE ONSITE PRIOR TO ROUGH IN.
- PROVIDE ROOF MOUNTED WP/GFCI RECEPTACLE, REFER TO DETAIL SHEET FOR ADDITIONAL INFORMATION. POWER WITH (2)#12, (1)#10G, IN A 3/4". PROVIDE POWER FROM EXISTING PANEL LABELLED ON HOME-RUN. INSTALL NEW 20A/1P BREAKER IN PANEL SPACE LABELLED. PANEL LOCATED IN BOOKROOM 133 SPACE.
- PROVIDE WALL MOUNTED WP/GFCI RECEPTACLE, POWER WITH (2)#12, (1)#10G, IN A 3/4". PROVIDE POWER FROM EXISTING PANEL LABELLED ON HOME-RUN. INSTALL NEW 20A/1P BREAKER IN PANEL SPACE LABELLED. PANEL LOCATED IN STORAGE 145 SPACE.
- INSTALL NEW DISCONNECT SWITCH PROVIDED BY MECHANICAL CONTRACTOR. PROVIDE NEW FLEX CONDUIT AND WIRE FROM DISCONNECT SWITCH TO UNIT. PROVIDE NEW HOMERUN CIRCUIT WITH 2#8, 1#0G, IN 1" TO EXISTING PANEL. CONDUIT MAY BE REUSED WHERE SIZED CORRECTLY PER NEC REQUIREMENT. PROVIDE NEW 50A/2P BREAKER IN EXISTING PANEL BOARD FOR CONNECTION OF MECHANICAL EQUIPMENT.



REVISION No.	DATE	DESCRIPTION
1	05/26/2022	ADDENDUM 1



**EDINBURG CONSOLIDATED INDEPENDENT SCHOOL DISTRICT**  
**STEPHEN F. AUSTIN ES - HVAC IMPROVEMENTS**  
 1023 E KUHN ST, EDINBURG, TX 78541

DATE:	05/05/2022
DRAWN BY:	DBR
CHECKED BY:	DBR
PROJECT NUMBER:	218007.004
SHEET TITLE:	LEVEL 1 ELECTRICAL POWER PLAN - MAIN BUILDING
SHEET NUMBER:	EP2.12

**DBR**  
 200 South 10th Street Suite 901  
 Mc Allen, Texas 78501  
 956.683.1640 p. 956.683.1903 f.  
 TBP Firm Registration No. 2234

DBR Project Number 218007.004  
 HA MG JB/JR

Plotted: May 26, 2022 10:40 AM by user: hcd@dbar.com. Sheet: 6/26/2022 by user: hcd@dbar.com. C:\Users\hcd@dbar.com\Documents\218007.004 - EP2.12 - DBR - District Wide HVAC Improvements - SFAESP\Project\Files\Drawings\EP-218007-01.dwg



210.546.0200 v. 210.546.0201 f  
9601 McAllister Freeway, Suite 410  
San Antonio, Texas 78216  
TBE Firm Registration No. 2234

REVISION No.	DATE	DESCRIPTION
1	05/26/2022	ADDENDUM 1

SEAL:

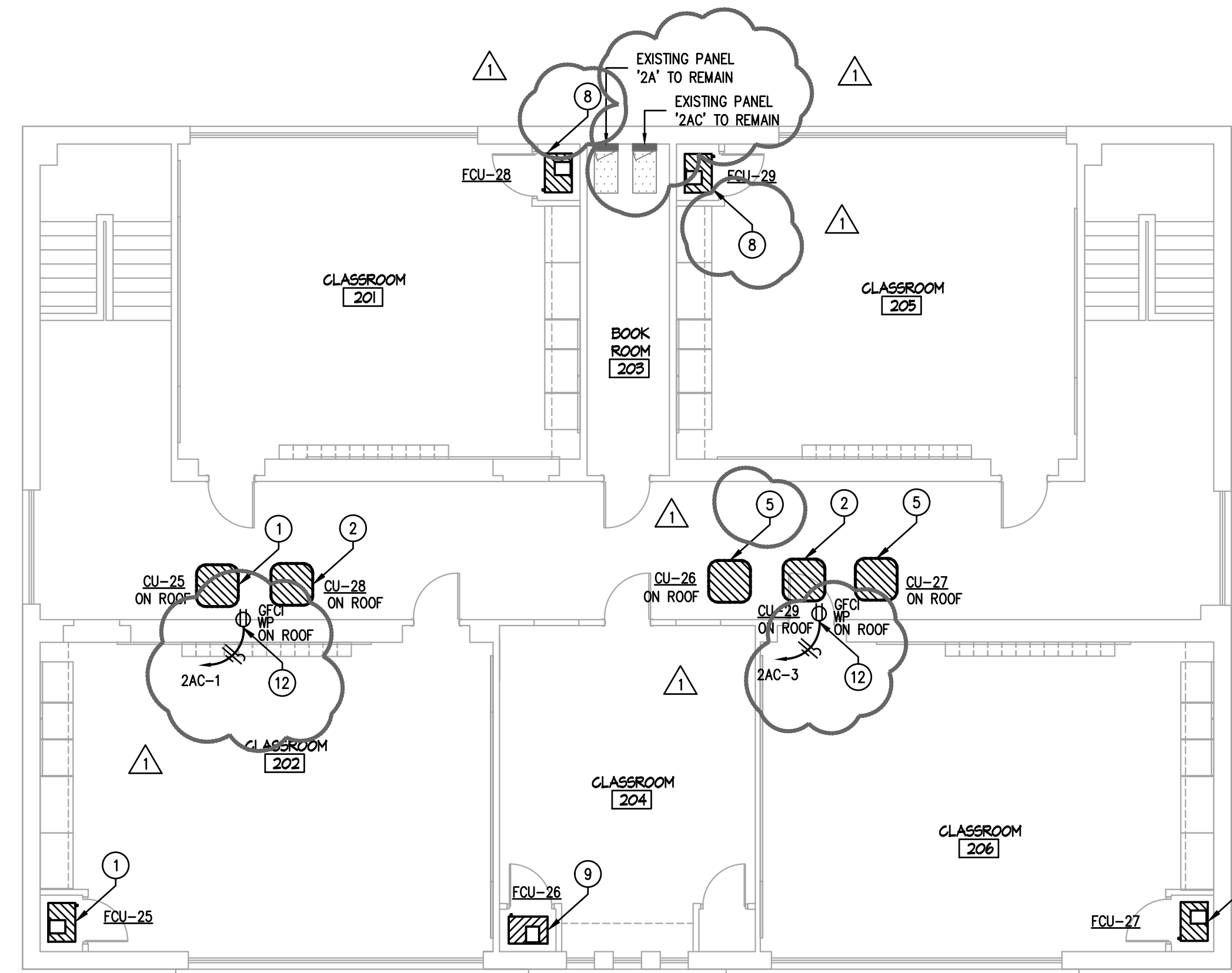


**ELECTRICAL DEMO GENERAL NOTES:**

- A. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK. FIELD VERIFY PANELS AND CIRCUIT NUMBERS FOR ALL EXISTING ELECTRICAL TO BE REMOVED.
- B. CONTRACTOR SHALL UPDATE PANEL DIRECTORY WITH CIRCUIT NUMBERS FOR ALL NEW EQUIPMENT.
- C. REFER TO ELECTRICAL SCHEDULES SHEET FOR FEEDER SCHEDULE FOR ADDITIONAL INFORMATION.

**ELECTRICAL KEYED NOTES:**

1. CONTRACTOR SHALL CONNECT NEW EQUIPMENT TO EXISTING CIRCUIT. PROVIDE NEW FLEX CONDUIT WITH WIRE FROM NEW DISCONNECT SWITCH TO NEW EQUIPMENT.
2. INSTALL NEW DISCONNECT SWITCH PROVIDED BY MECHANICAL CONTRACTOR. PROVIDE NEW FLEX CONDUIT AND WIRE FROM DISCONNECT SWITCH TO UNIT. PROVIDE NEW HOMERUN CIRCUIT WITH 2#8, 1#10G, IN 1" TO EXISTING PANEL. CONDUIT MAY BE REUSED WHERE SIZED CORRECTLY PER NEC REQUIREMENT. PROVIDE NEW 40A/2P BREAKER IN EXISTING PANEL BOARD FOR CONNECTION OF MECHANICAL EQUIPMENT.
3. INSTALL NEW DISCONNECT SWITCH PROVIDED BY MECHANICAL CONTRACTOR. PROVIDE NEW FLEX CONDUIT AND WIRE FROM DISCONNECT SWITCH TO UNIT. PROVIDE NEW HOMERUN CIRCUIT WITH 2#10, 1#10G, IN 1" TO EXISTING PANEL. CONDUIT MAY BE REUSED WHERE SIZED CORRECTLY PER NEC REQUIREMENT. PROVIDE NEW 25A/2P BREAKER IN EXISTING PANEL BOARD FOR CONNECTION OF MECHANICAL EQUIPMENT.
4. INSTALL NEW DISCONNECT SWITCH PROVIDED BY MECHANICAL CONTRACTOR. PROVIDE NEW FLEX CONDUIT AND WIRE FROM DISCONNECT SWITCH TO UNIT. PROVIDE NEW HOMERUN CIRCUIT WITH 2#10, 1#10G, IN 1" TO EXISTING PANEL. CONDUIT MAY BE REUSED WHERE SIZED CORRECTLY PER NEC REQUIREMENT. PROVIDE NEW 25A/2P BREAKER IN EXISTING PANEL BOARD FOR CONNECTION OF MECHANICAL EQUIPMENT.
5. INSTALL NEW DISCONNECT SWITCH PROVIDED BY MECHANICAL CONTRACTOR. PROVIDE NEW FLEX CONDUIT AND WIRE FROM DISCONNECT SWITCH TO UNIT. PROVIDE NEW HOMERUN CIRCUIT WITH 2#8, 1#10G, IN 1" TO EXISTING PANEL. CONDUIT MAY BE REUSED WHERE SIZED CORRECTLY PER NEC REQUIREMENT. PROVIDE NEW 45A/2P BREAKER IN EXISTING PANEL BOARD FOR CONNECTION OF MECHANICAL EQUIPMENT.
6. INSTALL NEW DISCONNECT SWITCH PROVIDED BY MECHANICAL CONTRACTOR. PROVIDE NEW FLEX CONDUIT AND WIRE FROM DISCONNECT SWITCH TO UNIT. PROVIDE NEW HOMERUN CIRCUIT WITH 2#4, 1#8G, IN 1-1/4" TO EXISTING PANEL. CONDUIT MAY BE REUSED WHERE SIZED CORRECTLY PER NEC REQUIREMENT. PROVIDE NEW 80A/2P BREAKER IN EXISTING PANEL BOARD FOR CONNECTION OF MECHANICAL EQUIPMENT.
7. INSTALL NEW DISCONNECT SWITCH PROVIDED BY MECHANICAL CONTRACTOR. PROVIDE NEW FLEX CONDUIT AND WIRE FROM DISCONNECT SWITCH TO UNIT. PROVIDE NEW HOMERUN CIRCUIT WITH 2#10, 1#10G, IN 1" TO EXISTING PANEL. CONDUIT MAY BE REUSED WHERE SIZED CORRECTLY PER NEC REQUIREMENT. PROVIDE NEW 30A/3P BREAKER IN EXISTING PANEL BOARD FOR CONNECTION OF MECHANICAL EQUIPMENT.
8. INSTALL NEW DISCONNECT SWITCH PROVIDED BY MECHANICAL CONTRACTOR. PROVIDE NEW FLEX CONDUIT AND WIRE FROM DISCONNECT SWITCH TO UNIT. PROVIDE NEW HOMERUN CIRCUIT WITH 2#8, 1#10G, IN 1-1/4" TO EXISTING PANEL. CONDUIT MAY BE REUSED WHERE SIZED CORRECTLY PER NEC REQUIREMENT. PROVIDE NEW 60A/2P BREAKER IN EXISTING PANEL BOARD FOR CONNECTION OF MECHANICAL EQUIPMENT.
9. INSTALL NEW DISCONNECT SWITCH PROVIDED BY MECHANICAL CONTRACTOR. PROVIDE NEW FLEX CONDUIT AND WIRE FROM DISCONNECT SWITCH TO UNIT. PROVIDE NEW HOMERUN CIRCUIT WITH 2#4, 1#8G, IN 1-1/4" TO EXISTING PANEL. CONDUIT MAY BE REUSED WHERE SIZED CORRECTLY PER NEC REQUIREMENT. PROVIDE NEW 70A/2P BREAKER IN EXISTING PANEL BOARD FOR CONNECTION OF MECHANICAL EQUIPMENT.
10. INSTALL NEW DISCONNECT SWITCH PROVIDED BY MECHANICAL CONTRACTOR. PROVIDE NEW FLEX CONDUIT AND WIRE FROM DISCONNECT SWITCH TO UNIT. PROVIDE NEW HOMERUN CIRCUIT WITH 2#10, 1#10G, IN 1-1/2" TO EXISTING PANEL. CONDUIT MAY BE REUSED WHERE SIZED CORRECTLY PER NEC REQUIREMENT. PROVIDE NEW 150A/3P BREAKER IN EXISTING PANEL BOARD FOR CONNECTION OF MECHANICAL EQUIPMENT.
11. NEW BAS PANEL LOCATION: CONTRACTOR SHALL PROVIDE POWER WITH (2)#12, 1#12G, IN A 3/4" TO EXISTING PANEL 14G LOCATED IN 133 BOOK ROOM SPACE. INSTALL NEW 20A/1P BREAKER IN SPACE 69 OF PANEL. CONTRACTOR SHALL INSTALL BACKBOX AND PATHWAY FOR DATA CABLING. COORDINATE ONSITE PRIOR TO ROUGH IN.
12. PROVIDE ROOF MOUNTED WP/GFCI RECEPTACLE, REFER TO DETAIL SHEET FOR ADDITIONAL INFORMATION. POWER WITH (2)#12, (1)#12G, IN A 3/4" TO EXISTING PANEL. PROVIDE POWER FROM EXISTING PANEL LABELED ON HOME-RUN. INSTALL NEW 20A/1P BREAKER IN PANEL SPACE LABELED. PANEL LABELED IN BOOKROOM 133 SPACE.
13. PROVIDE WALL MOUNTED WP/GFCI RECEPTACLE, POWER WITH (2)#12, (1)#12G, IN A 3/4" TO EXISTING PANEL LABELED ON HOME-RUN. INSTALL NEW 20A/1P BREAKER IN PANEL SPACE LABELED. PANEL LABELED IN STORAGE 145 SPACE.
14. INSTALL NEW DISCONNECT SWITCH PROVIDED BY MECHANICAL CONTRACTOR. PROVIDE NEW FLEX CONDUIT AND WIRE FROM DISCONNECT SWITCH TO UNIT. PROVIDE NEW HOMERUN CIRCUIT WITH 2#8, 1#10G, IN 1" TO EXISTING PANEL. CONDUIT MAY BE REUSED WHERE SIZED CORRECTLY PER NEC REQUIREMENT. PROVIDE NEW 50A/2P BREAKER IN EXISTING PANEL BOARD FOR CONNECTION OF MECHANICAL EQUIPMENT.



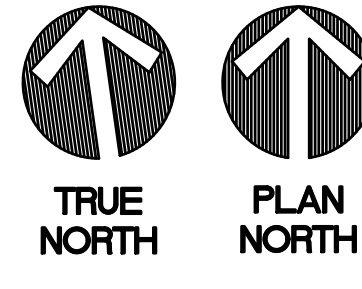
**1** LEVEL 2 ELECTRICAL POWER PLAN - MAIN BUILDING  
EP2.21  
1/8" = 1'-0"

EDINBURG CONSOLIDATED INDEPENDENT SCHOOL DISTRICT  
STEPHEN F. AUSTIN ES - HVAC IMPROVEMENTS  
1023 E KUHN ST, EDINBURG, TX 78541

DATE:	05/05/2022
DRAWN BY:	DBR
CHECKED BY:	DBR
PROJECT NUMBER:	218007.004
SHEET TITLE:	

LEVEL 2  
ELECTRICAL  
POWER PLAN - MAIN  
BUILDING

SHEET NUMBER:	EP2.21
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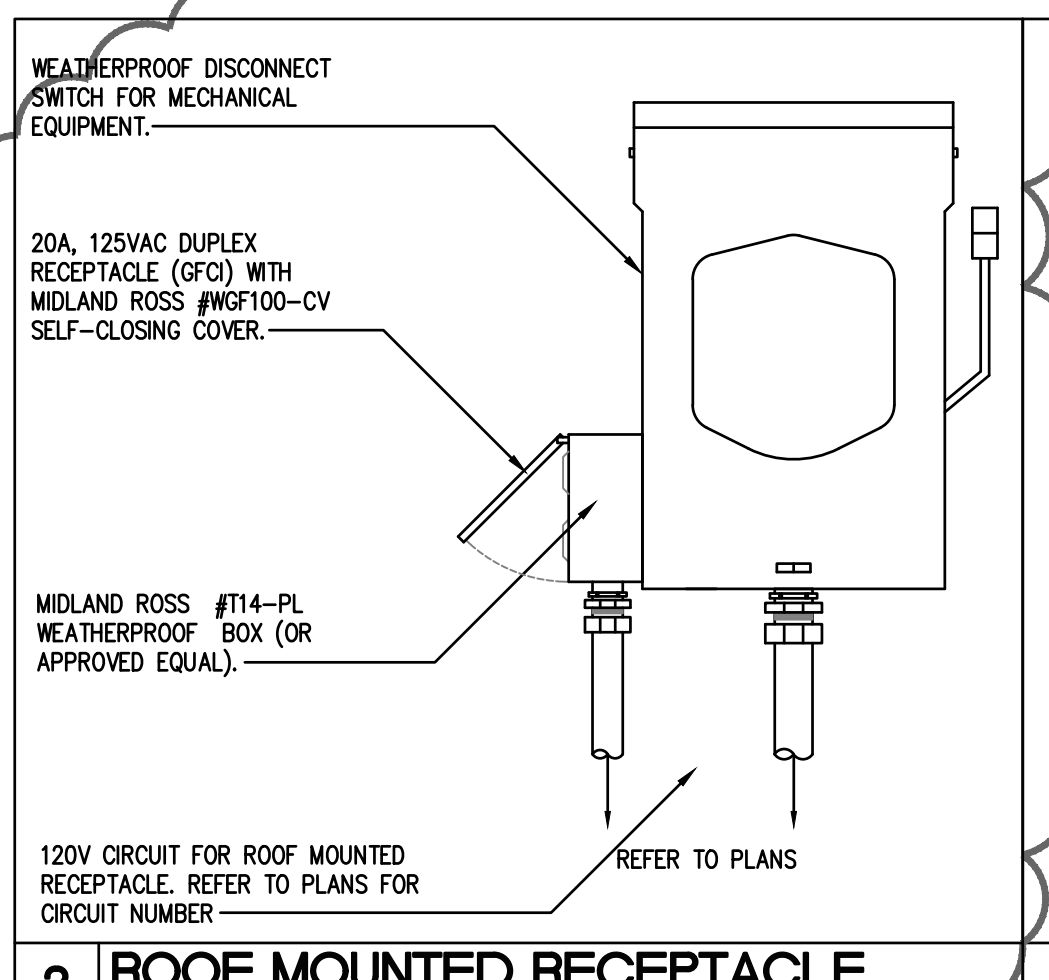


DBR Project Number	218007.004			
HA	MG	JB/JR	--	--

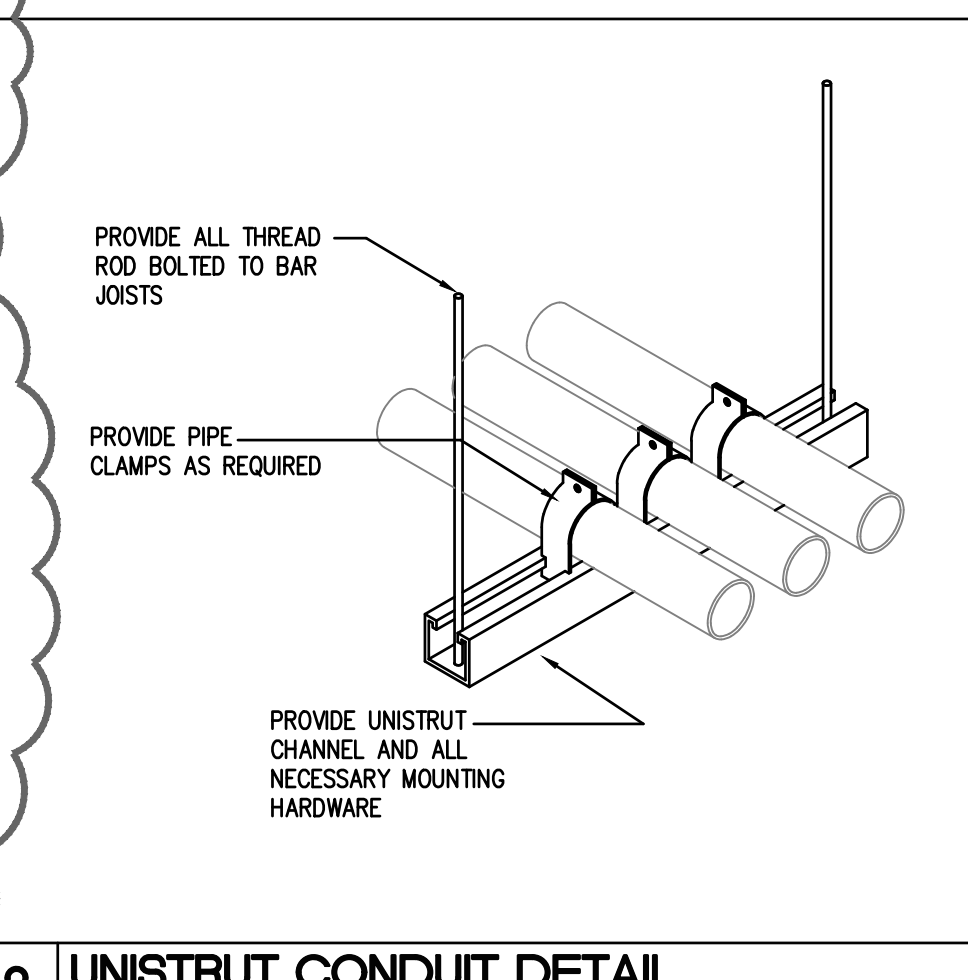
Plotted: May 26, 2022, 10:40 AM by user: jcd@dbar - Sheet: 6/29/2022 by user: jcd@dbar  
C:\Users\jcd@dbar\Documents\218007.004 - EDCSD - District Wide HVAC Improvements - SFAESP\Project Files\Drawings\05EP-218007-01.dwg

AMPERAGE	SETS	CONDUCTOR SIZE	CONDUIT (INCHES)
30A	1	4#10, 1#10 G.	3/4"
40A	1	4#8, 1#10 G.	1"
50A	1	4#8, 1#10 G.	1"
60A	1	4#8, 1#10 G.	1"
70A	1	4#4, 1#8 G.	1 1/4"
80A	1	4#4, 1#8 G.	1 1/4"
90A	1	4#3, 1#8 G.	1 1/4"
100A	1	4#3, 1#8 G.	1 1/4"
125A	1	4#1, 1#8 G.	1 1/2"
150A	1	4#1/0, 1#8 G.	1 1/2"
175A	1	4#2/0, 1#8 G.	2"
200A	1	4#3/0, 1#8 G.	2"

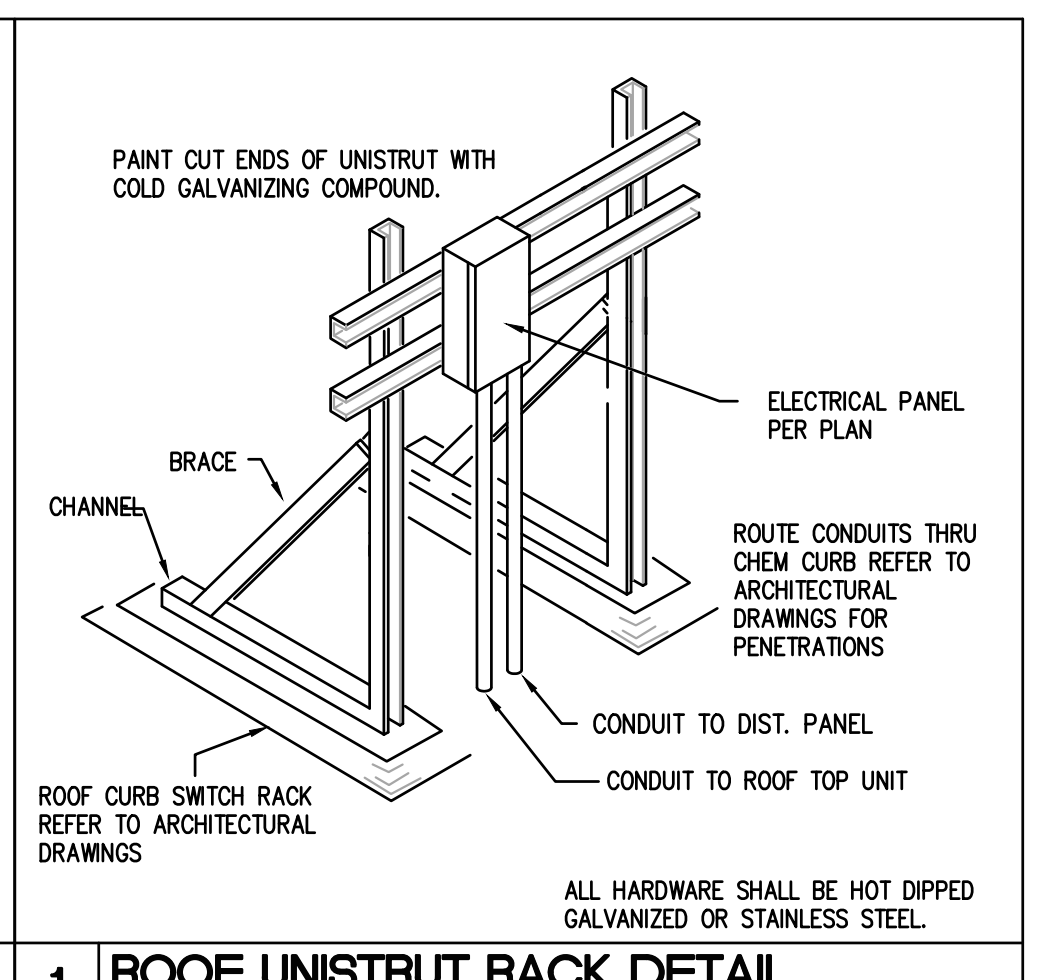
- ELECTRICAL CONTRACTOR SHALL PROVIDE THE NUMBER OF LUGS AND PROPER LUG SIZES TO ACCEPT CONDUCTOR SIZES SHOWN.
- DO NOT GROUND CONDUCTOR IN SERVICE LATERAL FROM POWER COMPANY TRANSFORMER.
- CONTRACTOR SHALL INCREASE FEEDERS IN SIZE TO COMPENSATE FOR VOLTAGE DROP. FEEDERS SHALL BE SIZED TO MAINTAIN A 2% OR LESS VOLTAGE DROP ON FEEDERS AND A 3% OR LESS VOLTAGE DROP ON BRANCH CIRCUITS.



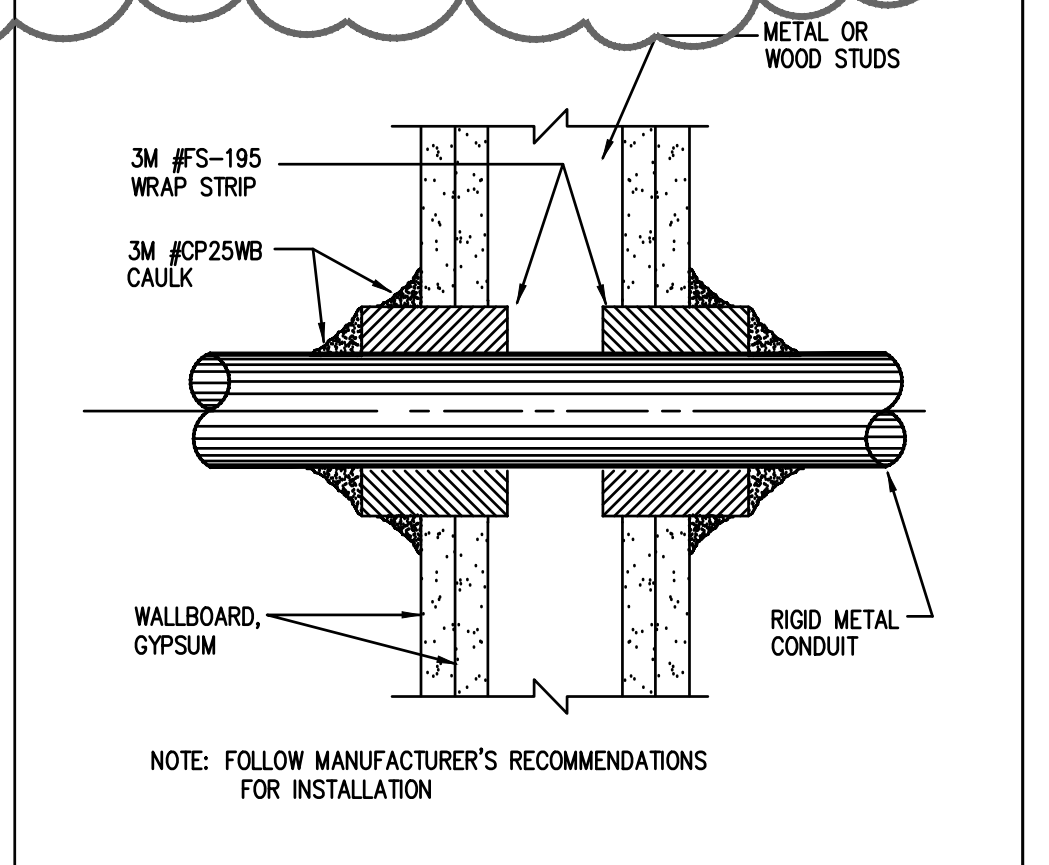
**3 ROOF MOUNTED RECEPTACLE**  
NOT TO SCALE E10023



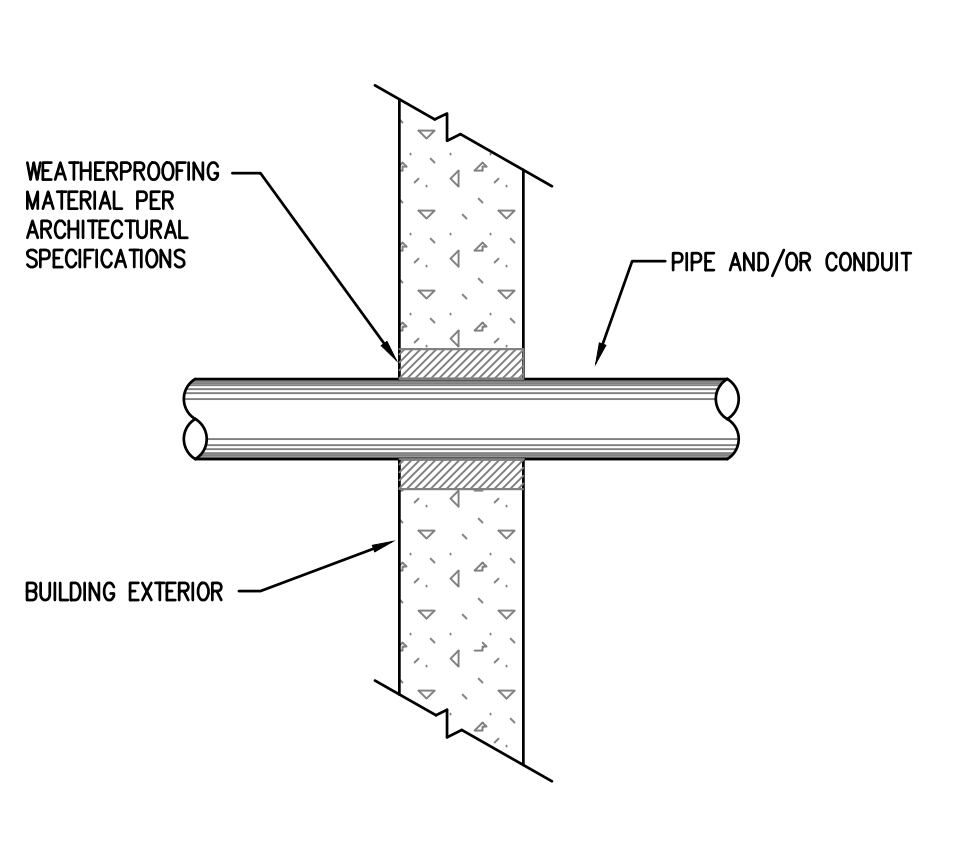
**2 UNISTRUT CONDUIT DETAIL**  
NOT TO SCALE E10003



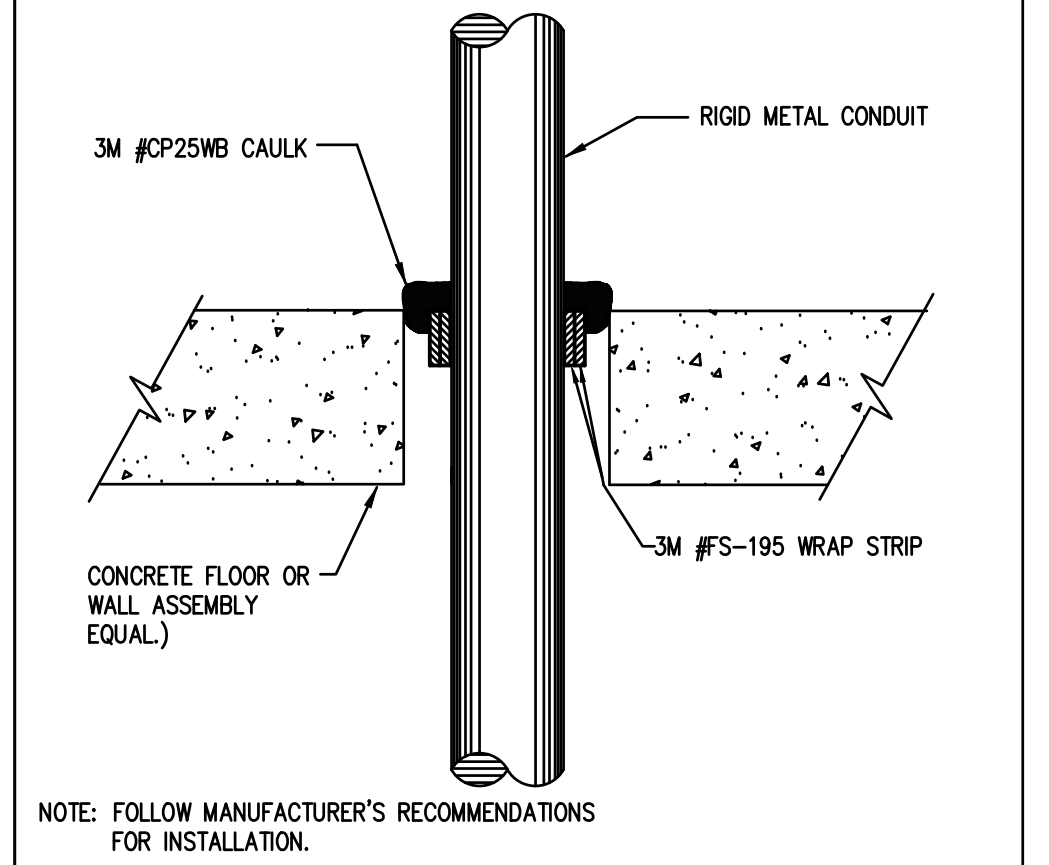
**1 ROOF UNISTRUT RACK DETAIL**  
NOT TO SCALE E10015



**6 2 HR. GYPSUM/WALLBOARD PIPE PENETRATION**  
NOT TO SCALE E10017



**5 PIPE AND/OR CONDUIT PENETRATION**  
NOT TO SCALE E10018



**4 2, 3 AND 4 HR. PENETRATIONS FOR CONCRETE**  
NOT TO SCALE E10019

**REVISION**

No.	DATE	DESCRIPTION
1	05/26/2022	ADDENDUM 1



EDINBURG CONSOLIDATED INDEPENDENT SCHOOL DISTRICT  
STEPHEN F. AUSTIN ES - HVAC IMPROVEMENTS  
1023 E KUHN ST, EDINBURG, TX 78541

DATE:  
05/05/2022  
DRAWN BY:  
DBR  
CHECKED BY:  
DBR  
PROJECT NUMBER:  
218007.004  
SHEET TITLE:

ELECTRICAL  
DETAILS

SHEET NUMBER:

E6.01

200 South 10th Street Suite 901  
Mc Allen, Texas 78501  
956.683.1640 p. 956.683.1903 f  
TBPE Firm Registration No. 2234

DBR Project Number 218007.004  
HA | MG | JB / JR | -- | --

Plotted: May 26, 2022 10:40 AM by user: jacob@db.com - Sheet: E6.01 (05/26/2022) by user: jacob@db.com  
C:\Users\jacob@db.com\Documents\218007\_004 - E6.01 - District Wide HVAC Improvements - SFAES\Project Files\Drawings\05-218007-DETAILS AND SCHEDULES.dwg



# PLM Summary Report

NVLAP Lab Code 102056-0

2051 Valley View Lane  
Farmers Branch, TX 75234 Phone: (972) 241-8460

TDSHS License No. 300084

Client :	Terracon - Pharr	Lab Job No. :	22B-05872
Project :	ECISD Austin Elementary, HVAC Upgrades	Report Date :	05/27/2022
Project # :	88227130	Sample Date :	05/19/2022
Identification :	Asbestos, Bulk Sample Analysis		
Test Method :	Polarized Light Microscopy / Dispersion Staining (PLM/DS) EPA Method 600 / R-93 / 116		

Page 1 of 3

On 5/25/2022, twenty eight (28) bulk material samples were submitted by Tomas Cruz of Terracon - Pharr for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

Sample Number	Client Sample Description / Location	Asbestos Content
1	Flashing Sheet (Silver), East Side of Main Building Roof	None Detected - Shingle None Detected - Foil
2	Flashing Sheet (Silver), North Side of Main Building Roof	None Detected - Shingle None Detected - Foil
3	Flashing Sheet (Silver), Upper Roof of Main Building, Central Area	None Detected - Shingle None Detected - Foil
4	Granulated Paper (Gray) with Insulation (Brown) and Foam (Yellow), East Side of Main Building Roof	None Detected - Roof Membrane None Detected - Roofing Felts None Detected - Roofing Tar None Detected - Underlayment None Detected - Foam Insulation
5	Granulated Paper (Gray) with Insulation (Brown) and Foam (Yellow), North Side of Main Building Roof	None Detected - Roof Membrane None Detected - Roofing Felts None Detected - Roofing Tar None Detected - Underlayment None Detected - Foam Insulation
6	Granulated Paper (Gray) with Insulation (Brown) and Foam (Yellow), Upper Roof of Main Building, Central Area	None Detected - Roof Membrane None Detected - Roofing Felts None Detected - Roofing Tar None Detected - Underlayment None Detected - Foam Insulation
7	Flashing (Silver), East Side of Main Building Roof	None Detected - Flashing Tar
8	Flashing (Silver), North Side of Main Building Roof	None Detected - Silver Paint None Detected - Shingle
9	Flashing (Silver), Upper Roof of Main Building, Central Area	None Detected - Silver Paint None Detected - Shingle
10	HVAC Mastic (White), Room 104 A/C Closet	None Detected - White Mastic
11	HVAC Mastic (White), Classroom 150 A/C Closet	None Detected - White Mastic





# PLM Summary Report

NVLAP Lab Code 102056-0

2051 Valley View Lane  
Farmers Branch, TX 75234 Phone: (972) 241-8460

TDSHS License No. 300084

Client :	Terracon - Pharr	Lab Job No. :	22B-05872
Project :	ECISD Austin Elementary, HVAC Upgrades	Report Date :	05/27/2022
Project # :	88227130	Sample Date :	05/19/2022
Identification :	Asbestos, Bulk Sample Analysis		
Test Method :	Polarized Light Microscopy / Dispersion Staining (PLM/DS) EPA Method 600 / R-93 / 116		

Page 2 of 3

On 5/25/2022, twenty eight (28) bulk material samples were submitted by Tomas Cruz of Terracon - Pharr for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

Sample Number	Client Sample Description / Location	Asbestos Content
12	HVAC Mastic (White), Room 112 A/C Closet	None Detected - Thermal Insulation None Detected - Paper / Foil Wrap None Detected - Paint
13	HVAC Mastic (Gray), Storage Patio Closet	None Detected - Gray Mastic
14	HVAC Mastic (Gray), Room 7 Kinder Wing	None Detected - Gray Mastic
15	HVAC Mastic (Gray), Storage Kinder Wing	None Detected - Gray Mastic
16	Drywall Construction Material (Yellow / White), Mechanical Room, Main Building	None Detected - Drywall Material None Detected - Texture / Joint Cmpd
17	Drywall Construction Material (Yellow / White), Mechanical Room, Main Building	None Detected - Drywall Material None Detected - Texture / Joint Cmpd
18	Drywall Construction Material (Yellow / White), Mechanical Room, Main Building	None Detected - Drywall Material None Detected - Texture / Joint Cmpd
19	Stucco Material (Yellow), East Side of Main Building	None Detected - Tan Stucco None Detected - Grey Stucco None Detected - Texture
20	Stucco Material (Yellow), NEC of Main Building	None Detected - Tan Stucco None Detected - Grey Stucco None Detected - Texture
21	Stucco Material (Yellow), North Side of Main Building	None Detected - Tan Stucco None Detected - Grey Stucco None Detected - Texture
22	Stucco Material (Yellow), North Side of Gym	None Detected - Stucco None Detected - Texture
23	Stucco Material (Yellow), West Side of Kinder Wing	None Detected - Stucco None Detected - Texture
24	Stucco Material (Yellow), SEC of Kinder Wing	None Detected - Stucco None Detected - Texture



# PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 300084

2051 Valley View Lane  
Farmers Branch, TX 75234 Phone: (972) 241-8460

Client :	Terracon - Pharr	Lab Job No. :	22B-05872
Project :	ECISD Austin Elementary, HVAC Upgrades	Report Date :	05/27/2022
Project # :	88227130	Sample Date :	05/19/2022
Identification :	Asbestos, Bulk Sample Analysis		
Test Method :	Polarized Light Microscopy / Dispersion Staining (PLM/DS) EPA Method 600 / R-93 / 116		

Page 3 of 3

On 5/25/2022, twenty eight (28) bulk material samples were submitted by Tomas Cruz of Terracon - Pharr for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

Sample Number	Client Sample Description / Location	Asbestos Content
25	Stucco Material (Yellow), South Side of Main Building	None Detected - Stucco None Detected - Texture
26	Moisture Barrier Mastic (Black), Main Building, East Wall	None Detected - CMU None Detected - Black Mastic None Detected - Foam Insulation
27	Moisture Barrier Mastic (Black), Main Building, East Wall	None Detected - CMU None Detected - Black Mastic None Detected - Foam Insulation
28	Moisture Barrier Mastic (Black), Main Building, East Wall	None Detected - CMU None Detected - Black Mastic None Detected - Foam Insulation

These samples were analyzed by layers. Quantification, unless otherwise noted, is performed by calibrated visual estimate. The test report shall not be reproduced except in full without written approval of the laboratory. The results relate only to the items tested. These test results do not imply endorsement by NVLAP or any agency of the U.S. Government. Accredited by the National Voluntary Laboratory Accreditation Program for Bulk Asbestos Fiber Analysis under Lab Code 102056-0.



Analyst(s): Clayton Koop, Jessica Scott

Lab Manager : Heather Lopez

Approved Signatory :

Lab Director : Bruce Crabb

Approved Signatory :

Thank you for choosing Moody Labs

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Moody Labs  
 2051 Valley View Lane  
 Farmers Branch, TX 75234 Phone: (972) 241-8460

**PLM Detail Report**  
**Supplement to PLM Summary Report**

NVLAP Lab Code 102056-0  
 TDSHS License No. 300084

Client : Terracon - Pharr  
 Project : ECISD Austin Elementary, HVAC Upgrades  
 Project # : 88227130

Lab Job No. : 22B-05872  
 Report Date : 05/27/2022

Sample Number	Layer	% Of Sample	Components	% of Layer	Analysis Date	Analyst
1	Aggregate (Light Gray)	20%	Aggregate	100%	05/27	JS
	Shingle (Black)	70%	Glass Wool Fibers	25%		
			Calcite / Tar Binders	75%		
	Foil (Silver)	10%	Metal Foil	100%		
2	Aggregate (Light Gray)	20%	Aggregate	100%	05/27	JS
	Shingle (Black)	70%	Glass Wool Fibers	25%		
			Calcite / Tar Binders	75%		
	Foil (Silver)	10%	Metal Foil	100%		
3	Aggregate (Light Gray)	20%	Aggregate	100%	05/27	JS
	Shingle (Black)	70%	Glass Wool Fibers	25%		
			Calcite / Tar Binders	75%		
	Foil (Silver)	10%	Metal Foil	100%		
4	Sand Layer (Light Gray)	5%	Aggregate	100%	05/27	JS
	Roof Membrane (Black)	20%	Synthetic Fibers	10%		
			Calcite	30%		
			Tar Binders	60%		
	Roofing Felts (Black)	5%	Glass Wool Fibers	45%		
			Tar Binders	55%		
	Roofing Tar (Black)	10%	Tar Binders	100%		
Underlayment (Tan)	25%	Cellulose Fibers	80%			
		Perlite	20%			
	Foam Insulation (Light Yellow)	35%	Synthetic Foam	100%		

Moody Labs  
 2051 Valley View Lane  
 Farmers Branch, TX 75234 Phone: (972) 241-8460

**PLM Detail Report**  
 Supplement to PLM Summary Report

NVLAP Lab Code 102056-0  
 TDSHS License No. 300084

Client : Terracon - Pharr  
 Project : ECISD Austin Elementary, HVAC Upgrades  
 Project # : 88227130

Lab Job No. : 22B-05872  
 Report Date : 05/27/2022

Sample Number	Layer	% Of Sample	Components	% of Layer	Analysis Date	Analyst
5	Sand Layer (Light Gray)	5%	Aggregate	100%	05/27	JS
	Roof Membrane (Black)	20%	Synthetic Fibers	10%		
			Calcite	30%		
			Tar Binders	60%		
	Roofing Felts (Black)	5%	Glass Wool Fibers	45%		
			Tar Binders	55%		
	Roofing Tar (Black)	10%	Tar Binders	100%		
	Underlayment (Tan)	25%	Cellulose Fibers	80%		
		Perlite	20%			
	Foam Insulation (Light Yellow)	35%	Synthetic Foam	100%		
6	Sand Layer (Light Gray)	5%	Aggregate	100%	05/27	JS
	Roof Membrane (Black)	20%	Synthetic Fibers	10%		
			Calcite	30%		
			Tar Binders	60%		
	Roofing Felts (Black)	5%	Glass Wool Fibers	45%		
			Tar Binders	55%		
	Roofing Tar (Black)	10%	Tar Binders	100%		
	Underlayment (Tan)	25%	Cellulose Fibers	80%		
		Perlite	20%			
	Foam Insulation (Light Yellow)	35%	Synthetic Foam	100%		
7	Flashing Tar (Black)	60%	Cellulose Fibers	5%	05/27	JS
			Calcite	30%		
			Tar Binders	65%		
	Aggregate (Light Gray)	40%	Aggregate	100%		
8	Silver Paint (Silver)	5%	Pigment / Binders	100%	05/27	JS
	Aggregate (Light Gray)	30%	Aggregate	100%		
	Shingle (Black)	65%	Cellulose Fibers	25%		
			Calcite / Tar Binders	75%		

Moody Labs  
 2051 Valley View Lane  
 Farmers Branch, TX 75234 Phone: (972) 241-8460

**PLM Detail Report**  
 Supplement to PLM Summary Report

NVLAP Lab Code 102056-0  
 TDSHS License No. 300084

Client : Terracon - Pharr  
 Project : ECISD Austin Elementary, HVAC Upgrades  
 Project # : 88227130

Lab Job No. : 22B-05872  
 Report Date : 05/27/2022

Sample Number	Layer	% Of Sample	Components	% of Layer	Analysis Date	Analyst
9	Silver Paint (Silver)	5%	Pigment / Binders	100%	05/27	JS
	Aggregate (Light Gray)	30%	Aggregate	100%		
	Shingle (Black)	65%	Cellulose Fibers Calcite / Tar Binders	25% 75%		
10	White Mastic (White)	100%	Cellulose Fibers	3%	05/27	JS
			Calcite	50%		
			Binders / Fillers	47%		
11	White Mastic (White)	100%	Cellulose Fibers	3%	05/27	JS
			Calcite	50%		
			Binders / Fillers	47%		
12	Thermal Insulation (Yellow)	30%	Mineral Wool Fibers	95%	05/27	JS
	Paper / Foil Wrap (Tan / Silver)	55%	Resin Binders	5%		
			Cellulose Fibers	60%		
			Glass Wool Fibers	20%		
Paint (White)	15%	Metal Foil Pigment / Binders	20% 100%			
13	Gray Mastic (Gray)	100%	Calcite	60%	05/27	JS
			Glue Binders	40%		
14	Gray Mastic (Gray)	100%	Binders / Fillers	100%	05/27	JS
15	Gray Mastic (Gray)	100%	Binders / Fillers	100%	05/27	JS
16	Drywall Material (White)	85%	Glass Wool Fibers	2%	05/27	CK
			Cellulose Fibers	1%		
			Gypsum / Binders	97%		
	DW Paper Facing (Tan)	5%	Cellulose Fibers	100%		
	Glass DW Tape (White)	5%	Glass Wool Fibers	100%		
	Texture / Joint Cmpd (White)	5%	Calcite / Talc / Binders	100%		

Moody Labs  
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 Farmers Branch, TX 75234 Phone: (972) 241-8460

**PLM Detail Report**  
**Supplement to PLM Summary Report**

NVLAP Lab Code 102056-0  
 TDSHS License No. 300084

Client : Terracon - Pharr  
 Project : ECISD Austin Elementary, HVAC Upgrades  
 Project # : 88227130

Lab Job No. : 22B-05872  
 Report Date : 05/27/2022

Sample Number	Layer	% Of Sample	Components	% of Layer	Analysis Date	Analyst
17	Drywall Material (White)	85%	Glass Wool Fibers	2%	05/27	CK
			Cellulose Fibers	1%		
			Gypsum / Binders	97%		
	DW Paper Facing (Tan)	5%	Cellulose Fibers	100%		
	Glass DW Tape (White)	5%	Glass Wool Fibers	100%		
Texture / Joint Cmpd (White)	5%	Calcite / Talc / Binders	100%			
18	Drywall Material (White)	80%	Glass Wool Fibers	2%	05/27	CK
			Cellulose Fibers	1%		
			Gypsum / Binders	97%		
	DW Paper Facing (Tan)	5%	Cellulose Fibers	100%		
	Glass DW Tape (White)	5%	Glass Wool Fibers	100%		
Texture / Joint Cmpd (White)	10%	Calcite / Talc / Binders	100%			
19	Tan Stucco (Tan)	30%	Aggregate	65%	05/27	CK
			Cement Binders	35%		
	Grey Stucco (Grey)	35%	Aggregate	65%		
			Cement Binders	35%		
	Texture (White)	35%	Calcite / Binders	100%		
20	Tan Stucco (Tan)	50%	Aggregate	65%	05/27	CK
			Cement Binders	35%		
	Grey Stucco (Grey)	5%	Aggregate	65%		
			Cement Binders	35%		
	Texture (White)	45%	Calcite / Binders	100%		
21	Tan Stucco (Tan)	35%	Aggregate	65%	05/27	CK
			Cement Binders	35%		
	Grey Stucco (Grey)	35%	Aggregate	65%		
			Cement Binders	35%		
	Texture (White)	30%	Calcite / Binders	100%		
22	Stucco (Grey)	90%	Aggregate	65%	05/27	CK
			Cement Binders	35%		
	Texture (White)	10%	Calcite / Binders	100%		

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Sample Number	Layer	% Of Sample	Components	% of Layer	Analysis Date	Analyst
23	Stucco (Grey)	40%	Aggregate	65%	05/27	CK
			Cement Binders	35%		
	Texture (White / Tan)	60%	Calcite / Binders	100%		
24	Stucco (Grey)	90%	Aggregate	65%	05/27	CK
			Cement Binders	35%		
	Texture (Tan)	10%	Calcite / Binders	100%		
25	Stucco (Grey)	90%	Aggregate	65%	05/27	CK
			Cement Binders	35%		
	Texture (Tan)	10%	Calcite / Binders	100%		
26	CMU (Grey)	80%	Aggregate	65%	05/27	CK
			Cement Binders	35%		
	Black Mastic (Black)	5%	Tar Binders	100%		
	Foam Insulation (Light Yellow)	15%	Synthetic Foam	100%		
27	CMU (Grey)	70%	Aggregate	65%	05/27	CK
			Cement Binders	35%		
	Black Mastic (Black)	5%	Tar Binders	100%		
	Foam Insulation (Light Yellow)	25%	Synthetic Foam	100%		
28	CMU (Grey)	50%	Aggregate	65%	05/27	CK
			Cement Binders	35%		
	Black Mastic (Black)	5%	Tar Binders	100%		
	Foam Insulation (Light Yellow)	45%	Synthetic Foam	100%		