



# EDINBURG CISD

## PURCHASING DEPARTMENT

411 N. 8<sup>th</sup> Ave., Edinburg, TX 78541  
(956) 289-2311, (956) 38-7687

DOMINGA "MINGA" VELA, President  
CARMEN GONZÁLEZ, Vice President  
OSCAR SALINAS, Secretary  
LUIS ALAMIA, Member  
MIGUEL "MIKE" FARIAS, Member  
LETICIA "LETTY" GARCIA, Member  
XAVIER SALINAS, Member

*Dr. Mario H. Salinas, Superintendent*

## ADDENDUM 2

CSP 22-70

### Edinburg High School Heating & Air Condition (HVAC) Improvements Funded through the Elementary & Secondary Emergency Relief (ESSER) Funds April 6, 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:

#### SPECIFICATIONS

##### **Item No. 01 Specification 23 64 16 Centrifugal Water chillers:**

- A. Revised Section 2.3 compressor and Drive Section B: "B. Motor shall be hermetic, permanent magnet type directly coupled to the compressor of sufficient size to efficiently fulfill compressor horsepower requirements. It shall be liquid refrigerant cooled with internal thermal sensing devices in the stator windings. The motor shall be designed for variable frequency drive operation. "

#### DRAWINGS

##### **Item No. 02 Sheet G0.00 – COVER SHEET:**

- A. Added Structural Plan sheets as follows:
1. S1.0 – Structural General Notes
  2. SD1.0 – Structural Demolition Plan
  3. SD1.1 – Structural Demolition Plan - CT
  4. S2.0 – Structural Framing Plan
  5. S2.1 – Structural Foundation/Framing Plan – CT

##### **Item No. 03 Sheet M0.01 – MECHANICAL LEGEND:**

- A. Added general note 23. "Contractor shall utilize existing louver openings to remove and bring in mechanical equipment."

##### **Item No. 4 Sheets MD3.01, MD3.02 – ENLARGED MECHANICAL PLAN – DEMOLITION**

- A. Revise keyed note 5 to: "In the event the existing floor drain will be below new HVAC equipment, the existing condensate floor drain shall be plugged watertight below finished floor elevation. Floor shall be patched to match existing. Refer to enlarged mechanical plans for new floor drain and new location."

##### **Item 05 Sheet MD3.03 – ENLARGED MECHANICAL PLAN – DEMOLITON**

- A. Revise keyed note 7 to: "In the event the existing floor drain will be below new HVAC equipment, the existing condensate floor drain shall be plugged watertight below finished floor elevation. Floor shall be patched to match existing. Refer to enlarged mechanical plans for new floor drain and new location."
- B. At AHU-R1, contractor shall include the removal of return ductwork from unit up to wall penetration.
- C. Contractor shall refer to Structural Plans for demolition scope.

**Item 06 Sheet MD3.04 – ENLARGED MECHANICAL PLAN – DEMOLITION**

- A. Revise keyed note 6 to: “ In the event the existing floor drain will be below new HVAC equipment, the existing condensate floor drain shall be plugged watertight below finished floor elevation. Floor shall be patched to match existing. Refer to enlarged mechanical plans for new floor drain and new location.”
- B. Contractor shall refer to Structural Plans for demolition scope.

**Item 07 Sheet MD3.05 – ENLARGED MECHANICAL PLAN – DEMOLITION**

- A. Revise keyed note 4 to: “ In the event the existing floor drain will be below new HVAC equipment, the existing condensate floor drain shall be plugged watertight below finished floor elevation. Floor shall be patched to match existing. Refer to enlarged mechanical plans for new floor drain and new location.”

**Item 08 Sheet MD3.06 – ENLARGED MECHANICAL PLAN – DEMOLITION**

- A. Contractor shall refer to Structural Plans for demolition scope.

**Item 09 Sheets M2.11G, M2.11H, M2.11P, M2.11Q, M2.11R, M2.11S, M2.11T, M2.11U, M2.11V – MECHANICAL FLOOR PLANS**

- A. Keyed note 2 shall apply to all combination Temperature Sensor/CO2 Sensors as indicated on plans. Contractor shall locate at previous sensor locations. Contractor shall field verify existing sensor locations and make note of associated equipment.
- B. Keyed note 3 shall apply to all Temperature Sensors as indicated on plans. Contractor shall locate at previous sensor locations. Contractor shall field verify existing sensor locations and make note of associated equipment

**Item 10 Sheets M3.01, M3.02 – ENLARGED MECHANICAL PLANS**

- A. Revised keyed notes 3, 9, 10.

**Item 11 Sheet M3.03 – ENLARGED MECHANICAL PLAN**

- A. Indicate new relief fans.
- B. Revised keyed notes 3, 8, 9.

**Item 12 Sheet M3.04 – ENLARGED MECHANICAL PLAN**

- A. Indicate new relief fans. Refer to M5.02 for schedules.
- B. Revised keyed notes 3, 8, 9.
- C. Added keyed note 11.

**Item 13 Sheet M3.05 – ENLARGED MECHANICAL PLAN**

- A. Indicate new relief fans. Refer to M5.02 for schedules.
- B. Revised keyed notes 3, 8.
- C. Added keyed note 10.

**Item 14 Sheet M3.06 – ENLARGED MECHANICAL PLAN**

- A. Revised keyed note 2.
- B. Added keyed notes 5, 6.

**Item 15 Sheet M5.01 – MECHANICAL SCHEDULES**

- A. Revised Alternate No.2 note. All cooling towers and associated VFDs are Alternate No.2.
- B. Replace Energy Recovery Air Handling Unit schedule.
  - 1. Omit ‘All fan motors shall be 1800 RPM’ portion from note ‘3’.
  - 2. Revised Fan Motor Horsepower information.

**Item 16 Sheet M5.02– MECHANICAL SCHEDULES**

- A. Added Fan schedule for relief.
- B. Revise note ‘2’ on all Single Inlet VAV Box schedules. All single duct VAV boxes shall be 1” internally lined fiberglass free insulation as per specification.
- C. Revised Alternate No.2 note. All cooling towers and associated VFDs are Alternate No.2.
- D. Replace Air Handling Unit Schedule.
  - 1. Omit ‘All fan motors shall be 1800 RPM’ portion from note ‘3’.
  - 2. Add to note 4 “Provide AHU-G1 with 3-Way Valve.”

**Item 17 Sheet M5.03 – MECHANICAL SCHEDULES**

- A. Disregard Notes ‘13’ and ‘14’ on VFD schedule.
- B. Revised Alternate No.2 note. All cooling towers and associated VFDs are Alternate No.2.
- C. Revise note ‘2’ on all Single Inlet VAV Box schedules. All single duct VAV boxes shall be 1” internally lined fiberglass free insulation as per specification.

**Item 18 Sheet M6.02, M6.03, M6.04, M6.05 – MECHANICAL CONTROLS**

- A. Added controls diagram 4/M6.02 – Relief Fans – Building Pressure Control.
- B. Revised mechanical controls diagrams for M6.02, M6.03, M6.04, M6.05.

**Item 19 Sheet EP2.14 – Level 1 Electrical Power Plans - Mezzanines**

- 1. Add power for additional RF fans.
- 2. Add keyed note #7
- 3. Add circuit requirements for additional RF fans to Electrical Schedule.

**Item 20 ADDED STRUCTURAL SHEETS AS LISTED BELOW.**

- A. Added Structural Plan sheets as follows:
  - 1. S1.0 – Structural General Notes
  - 2. SD1.0 – Structural Demolition Plan
  - 3. SD1.1 – Structural Demolition Plan - CT
  - 4. S2.0 – Structural Framing Plan
  - 5. S2.1 – Structural Foundation/Framing Plan – CT

**REQUEST FOR INFORMATION**

**Item No. 21 - Project Schedule:**

- A. There is no pre-established project schedule or phasing plan for the project. The Contractor shall be responsible for submitting a phasing plan and project schedule prior to construction. Such plans are subject to review and approval by Owner.

**Item No. 22 - Project Completion:**

- A. The proposed project term is to be included in the bid form by the Contractor and subject to Owner evaluation.

**Item No. 23 - Roof Warranty:**

- A. Roof Warranty – See attached.

**Item No. 24 - Asbestos Report:**

- A. PLM Summary Report – See attached.

**Item No. 25 - Facility Occupation & Building Content Protection during Construction:**

- A. The campus may be occupied during construction and the number of students in the facility will be dependent upon time of year the construction occurs. With advanced notification and planning, students may be relocated out of the areas of construction.
- B. The Owner, with prior coordination with the Contractor, may move or relocate equipment in occupied rooms where construction is taking place. The Contractor is responsible for covering/protecting any furniture or equipment from activities that will create debris. The Contractor is responsible for use of proper fire blankets to prevent damage of existing furniture and prevent the spread of fire with all indoor welding activities.

**Item 26 System Integrations - Section 23 09 63 – 2 & 3**

- A. This section does not apply to this project and can be deleted.

**Item 27 Airflow Measuring Stations (AFMS) – Section 23 09 33-17**

- A. Alternate AFMS manufacture devices are acceptable contingent upon the use of the same technology meeting the specified performance.

**SUBMITTALS**

**Item 28 Submittals:**

- A. The District is requesting one (1) original, one (1) copy and one (1) digital copy on a USB drive.

Respectfully Submitted,



Amaro Tijerina  
Director of Purchasing

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

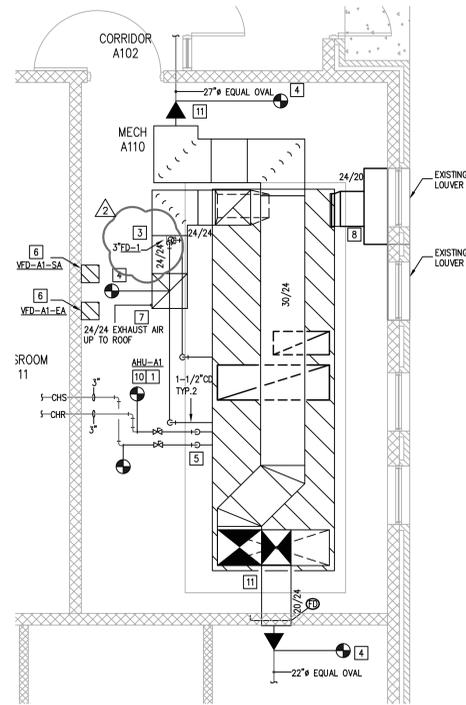
\_\_\_\_\_  
Date

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

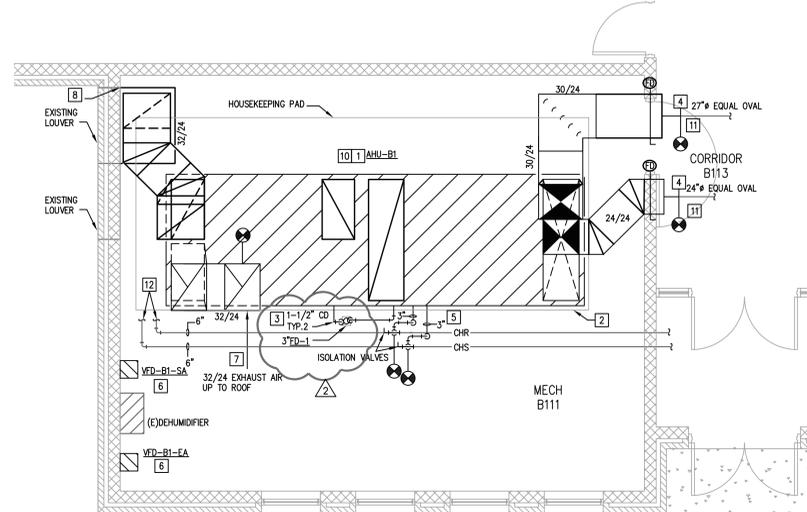
**Nondiscrimination Statement**

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.

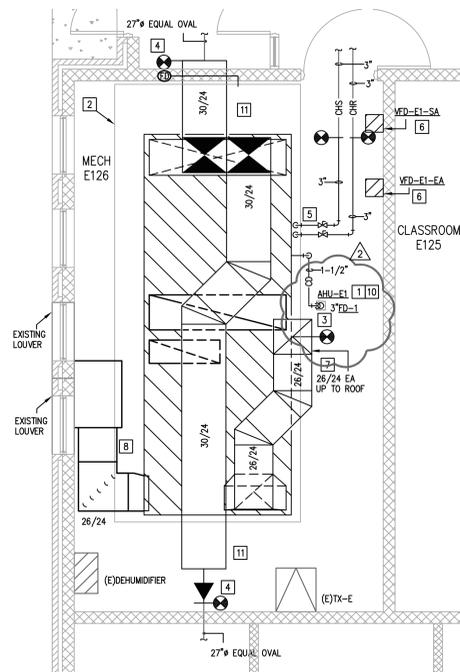
Es política del Distrito Escolar de Edinburg el no discriminar por razones con base en género, edad, religión, raza, color origen nacional, ni discapacidad dentro de sus programas educacionales.



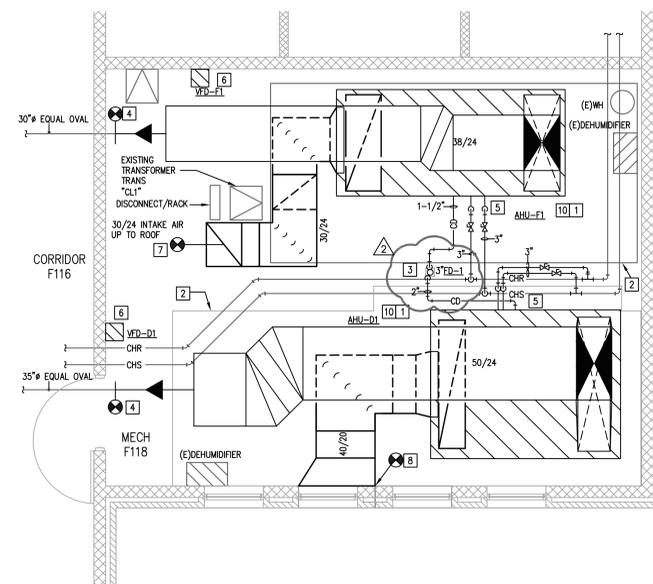
**1 ENLARGED MECHANICAL ROOM - A110**  
M3.01 1/4" = 1'-0"



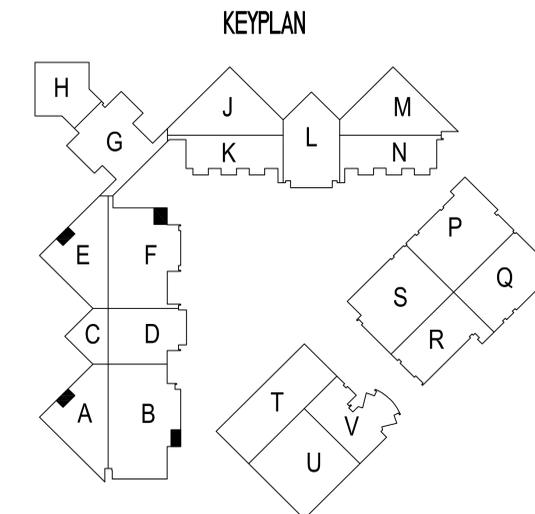
**2 ENLARGED MECHANICAL ROOM - B111**  
M3.01 1/4" = 1'-0"



**3 ENLARGED MECHANICAL ROOM - E126**  
M3.01 1/4" = 1'-0"



**4 ENLARGED MECHANICAL ROOM - F118**  
M3.01 1/4" = 1'-0"



**MECHANICAL GENERAL NOTES:**

A. REFER TO M3.01 FOR MECHANICAL GENERAL NOTES.

**MECHANICAL KEYED NOTES:**

- PROVIDE AIR HANDLING UNIT AS SCHEDULED. MOUNT ON EXISTING HOUSEKEEPING PAD.
- CONTRACTOR SHALL EXTEND WITH NEW HOUSEKEEPING PAD TO PROVIDE 3" BEYOND FOOTPRINT OF NEW AIR HANDLING UNIT. CONTRACTOR SHALL MATCH HOUSEKEEPING PAD HEIGHT TO EXISTING.
- CONTRACTOR SHALL PROVIDE NEW 3" ED-1 FOR HVAC CONDENSATE EQUAL TO ZURN Z415 TYPE 1. LOCATE ACCORDINGLY BEYOND THE LIMITS OF THE NEW/MODIFIED HOUSEKEEPING PAD. VERIFY EXACT LOCATION IN FIELD WITH NEW EQUIPMENT BEING PROVIDED. PROVIDE FLOOR DRAIN WITH TRAP GUARD. MODIFY AS REQUIRED AND CONNECT NEW WASTE PIPING BELOW SLAB TO EXISTING WASTE PIPING BELOW SLAB. PROVIDE NEW VENT IF AND AS REQUIRED BASED ON EXISTING VENT LOCATION SERVING EXISTING BRANCH LINE. PIPE MATERIALS AND SIZES TO MATCH EXISTING. FIELD VERIFY. RE: DETAIL 9/M4.01.
- CONNECT NEW DUCTWORK TO EXISTING. CONTRACTOR SHALL PROVIDE TRANSITIONS TO CONNECT NEW DUCTWORK TO EXISTING.
- ROUTE CHILLED WATER SUPPLY AND CHILLED WATER RETURN PIPING TO AIR HANDLING UNIT CONNECTIONS FROM EXISTING CHILLED WATER PIPING. PROVIDE ISOLATION VALVES. SIZE AS NOTED ON PLAN. CONTRACTOR SHALL VERIFY LOCATION OF CHILLED WATER SUPPLY AND CHILLED WATER RETURN COIL CONNECTIONS PRIOR TO INSTALLATION OF PIPING TO UNIT. RE: DETAIL 14/M4.01.
- PROVIDE VFD AS SCHEDULED. MOUNT ON PREVIOUS LOCATION. COORDINATE FINAL LOCATION WITH EXISTING SITE CONDITIONS.
- ROUTE DUCTWORK TO EXISTING GRAVITY HOOD. PROVIDE DUCTWORK TRANSITIONS TO GRAVITY HOOD OPENING.
- ROUTE OUTSIDE AIR DUCTWORK TO EXISTING LOUVER. TRANSITION DUCTWORK TO LOUVER OPENING.
- NOTE NOT USED.
- CONTRACTOR SHALL PROVIDE UPRIGHT FIRE SPRINKLER BELOW DUCTWORK WIDER THAN 4'-0". WHERE NEW SPRINKLER HEADS MUST BE ADDED UNDER FIXED OBSTRUCTIONS (DUCTWORK) OVER 4 FEET WIDE PER NFPA 13, 8.6.5.3.3. PROVIDE PIPING, FITTINGS, JOINING METHODS, AND SPRINKLER HEADS TO MATCH EXISTING TYPE. FIELD VERIFY.
- CONTRACTOR SHALL PROVIDE A STATIC PRESSURE TRANSMITTER 2/3 DOWN LONGEST RUN OF SUPPLY DUCTWORK.
- CONTRACTOR SHALL REROUTE EXISTING CHILLED WATER PIPING TO AVOID CONFLICT WITH NEW DUCTWORK. CONNECT TO EXISTING AND COORDINATE WITH EXISTING SITE CONDITIONS AND STRUCTURAL. PROVIDE PIPE SUPPORT.



REVISION No.	DATE	DESCRIPTION
1	03/23/2022	ADDENDUM No.1
2	04/04/2022	ADDENDUM No.2



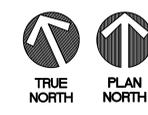
EDINBURG CONSOLIDATED INDEPENDENT SCHOOL DISTRICT  
**EDINBURG HS - HVAC IMPROVEMENTS**  
 2600 E WISCONSIN RD, EDINBURG, TX 78542

DATE:	03/09/2022
DRAWN BY:	DBR
CHECKED BY:	DBR
PROJECT NUMBER:	218007.001
SHEET TITLE:	

**ENLARGED MECHANICAL PLAN**

SHEET NUMBER:

**M3.01**



DBR Project Number	218007.001			
HA	MG	JB	TL	--

Plotted: Apr 4, 2022, 9:30 AM by user: m301 - Search: 4/4/2022 by user: m301  
 C:\Users\m301\Documents\Drawings\218007\01 - EGISD - District Wide HVAC Improvements - EHS\Project Files\Drawings\04-218007-012.dwg

## Addendum

**DATE**

04/04/2022

**ADDENDUM NO. 2**

**PROJECT** 218007.001 | Edinburg CISD - Edinburg HS - 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.

### SPECIFICATIONS

**Item 01 Specification 23 64 16 Centrifugal Water chillers**

- A. Revised Section 2.3 Compressor and Drive Section B to:  
“B. Motor shall be hermetic, permanent magnet type directly coupled to the compressor of sufficient size to efficiently fulfill compressor horsepower requirements. It shall be liquid refrigerant cooled with internal thermal sensing devices in the stator windings. The motor shall be designed for variable frequency drive operation.”

### DRAWINGS

**Item 02 Sheet G0.00 – COVER SHEET**

- A. Added Structural Plan sheets as follows:
1. S1.0 – Structural General Notes
  2. SD1.0 – Structural Demolition Plan
  3. SD1.1 – Structural Demolition Plan - CT
  4. S2.0 – Structural Framing Plan
  5. S2.1 – Structural Foundation/Framing Plan - CT

**Item 03 Sheet M0.01 – MECHANICAL LEGEND**

- A. Added general note 23. “Contractor shall utilize existing louver openings to remove and bring in mechanical equipment.”

**Item 04 Sheets MD3.01, MD3.02 – ENLARGED MECHANICAL PLAN – DEMOLITION**

- A. Revise keyed note 5 to : “ In the event the existing floor drain will be below new HVAC equipment, the existing condensate floor drain shall be plugged watertight below finished floor elevation. Floor shall be patched to match existing. Refer to enlarged mechanical plans for new floor drain and new location.”

**Item 05 Sheet MD3.03 – ENLARGED MECHANICAL PLAN – DEMOLITON**

- A. Revise keyed note 7 to : “ In the event the existing floor drain will be below new HVAC equipment, the existing condensate floor drain shall be plugged watertight below finished floor

## Addendum No. 2

elevation. Floor shall be patched to match existing. Refer to enlarged mechanical plans for new floor drain and new location.”

- B. At AHU-R1, contractor shall include the removal of return ductwork from unit up to wall penetration.
- C. Contractor shall refer to Structural Plans for demolition scope.

**Item 06 Sheet MD3.04 – ENLARGED MECHANICAL PLAN – DEMOLITION**

- A. Revise keyed note 6 to : “ In the event the existing floor drain will be below new HVAC equipment, the existing condensate floor drain shall be plugged watertight below finished floor elevation. Floor shall be patched to match existing. Refer to enlarged mechanical plans for new floor drain and new location.”
- B. Contractor shall refer to Structural Plans for demolition scope.

**Item 07 Sheet MD3.05 – ENLARGED MECHANICAL PLAN - DEMOLITION**

- A. Revise keyed note 4 to : “ In the event the existing floor drain will be below new HVAC equipment, the existing condensate floor drain shall be plugged watertight below finished floor elevation. Floor shall be patched to match existing. Refer to enlarged mechanical plans for new floor drain and new location.”

**Item 08 Sheet MD3.06 – ENLARGED MECHANICAL PLAN – DEMOLITION**

- A. Contractor shall refer to Structural Plans for demolition scope.

**Item 09 Sheets M2.11G, M2.11H, M2.11P, M2.11Q, M2.11R, M2.11S, M2.11T, M2.11U, M2.11V – MECHANICAL FLOOR PLANS**

- A. Keyed note 2 shall apply to all combination Temperature Sensor/CO2 Sensors as indicated on plans. Contractor shall locate at previous sensor locations. Contractor shall field verify existing sensor locations and make note of associated equipment.
- B. Keyed note 3 shall apply to all Temperature Sensors as indicated on plans. Contractor shall locate at previous sensor locations. Contractor shall field verify existing sensor locations and make note of associated equipment

**Item 10 Sheets M3.01, M3.02 – ENLARGED MECHANICAL PLANS**

- A. Revised keyed notes 3, 9, 10.

**Item 11 Sheet M3.03 – ENLARGED MECHANICAL PLAN**

- A. Indicate new relief fans.
- B. Revised keyed notes 3, 8, 9.

**Item 12 Sheet M3.04 – ENLARGED MECHANICAL PLAN**

- A. Indicate new relief fans. Refer to M5.02 for schedules.

## Addendum No. 2

- B. Revised keyed notes 3, 8, 9.
- C. Added keyed note 11.

**Item 13 Sheet M3.05 – ENLARGED MECHANICAL PLAN**

- A. Indicate new relief fans. Refer to M5.02 for schedules.
- B. Revised keyed notes 3, 8.
- C. Added keyed note 10.

**Item 14 Sheet M3.06 – ENLARGED MECHANICAL PLAN**

- A. Revised keyed note 2.
- B. Added keyed notes 5, 6.

**Item 15 Sheet M5.01 – MECHANICAL SCHEDULES**

- A. Revised Alternate No.2 note. All cooling towers and associated VFDs are Alternate No.2.
- B. Replace Energy Recovery Air handling Unit schedule.
  1. Omit 'All fan motors shall be 1800 RPM' portion from note '3'.
  2. Revised Fan Motor Horsepower information.

**Item 16 Sheet M5.02– MECHANICAL SCHEDULES**

- A. Added Fan schedule for relief.
- B. Revise note '2' on all Single Inlet VAV Box schedules. All single duct VAV boxes shall be 1" internally lined fiberglass free insulation as per specification.
- C. Revised Alternate No.2 note. All cooling towers and associated VFDs are Alternate No.2.
- D. Replace Air Handling Unit Schedule.
  1. Omit 'All fan motors shall be 1800 RPM' portion from note '3'.
  2. Add to note 4 "Provide AHU-G1 with 3-Way Valve."

**Item 17 Sheet M5.03 – MECHANICAL SCHEDULES**

- A. Disregard Notes '13' and '14' on VFD schedule.
- B. Revised Alternate No.2 note. All cooling towers and associated VFDs are Alternate No.2.
- C. Revise note '2' on all Single Inlet VAV Box schedules. All single duct VAV boxes shall be 1" internally lined fiberglass free insulation as per specification.

**Item 18 Sheet M6.02, M6.03, M6.04, M6.05 – MECHANICAL CONTROLS**

- A. Added controls diagram 4/M6.02 – Relief Fans – Building Pressure Control.
- B. Revised mechanical controls diagrams for M6.02, M6.03, M6.04, M6.05.

**Item 19 Sheet EP2.14 – Level 1 Electrical Power Plans - Mezzanines**

1. Add power for additional RF fans.
2. Add keyed note #7
3. Add circuit requirements for additional RF fans to Electrical Schedule.

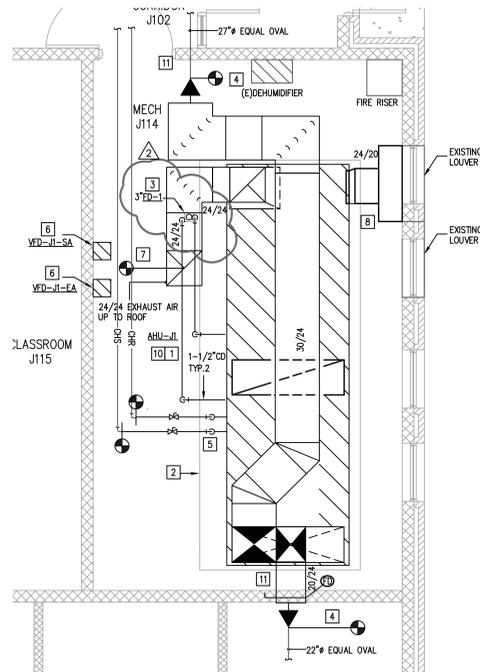
**Item 20 ADDED STRUCTURAL SHEETS AS LISTED BELOW.**

- A. Added Structural Plan sheets as follows:
  1. S1.0 – Structural General Notes
  2. SD1.0 – Structural Demolition Plan

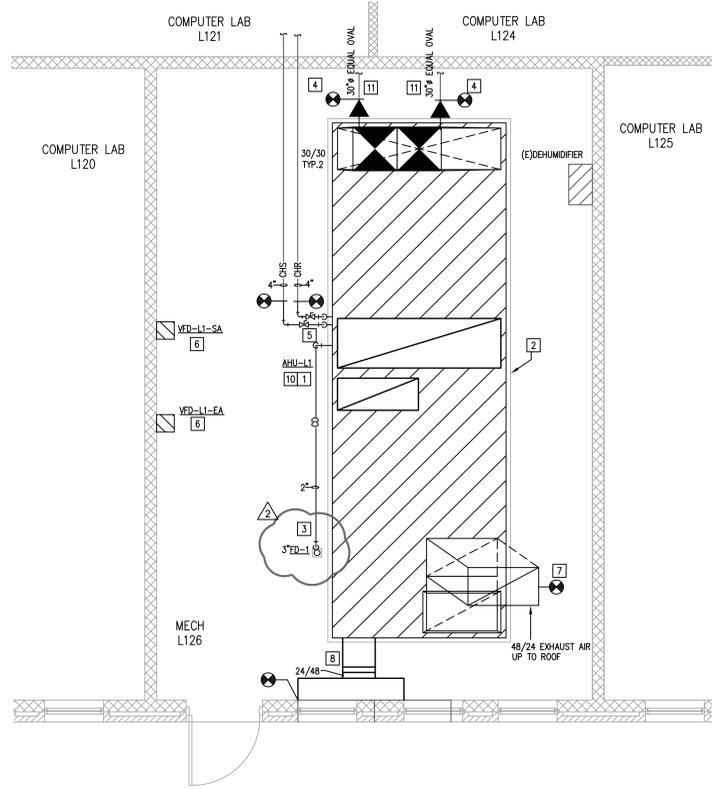
## Addendum No. 2

3. SD1.1 – Structural Demolition Plan - CT
4. S2.0 – Structural Framing Plan
5. S2.1 – Structural Foundation/Framing Plan – CT

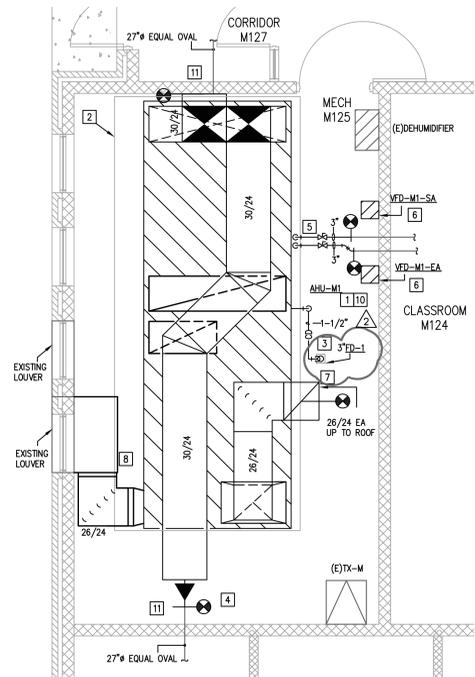
END OF ADDENDUM



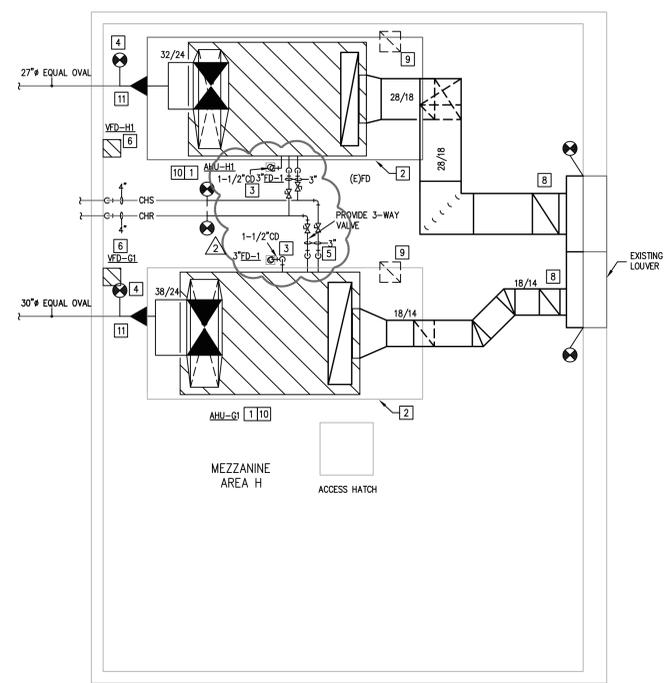
**1** ENLARGED MECHANICAL ROOM - J114  
 M3.02 1/4" = 1'-0"



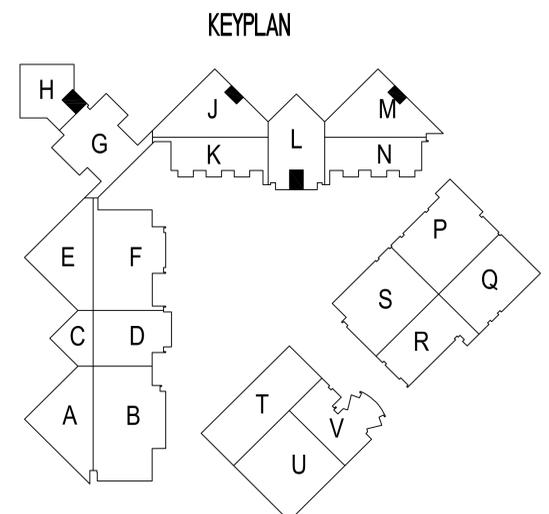
**2** ENLARGED MECHANICAL ROOM - L126  
 M3.02 1/4" = 1'-0"



**3** ENLARGED MECHANICAL ROOM - M125  
 M3.02 1/4" = 1'-0"



**4** ENLARGED MECHANICAL ROOM - MEZZANINE AREA H  
 M3.02 1/4" = 1'-0"



- MECHANICAL GENERAL NOTES:**  
 A. REFER TO M3.01 FOR MECHANICAL GENERAL NOTES.
- MECHANICAL KEYED NOTES:**
- PROVIDE AIR HANDLING UNIT AS SCHEDULED. MOUNT ON EXISTING HOUSEKEEPING PAD.
  - CONTRACTOR SHALL EXTEND WITH NEW HOUSEKEEPING PAD TO PROVIDE 3" BEYOND FOOTPRINT OF NEW AIR HANDLING UNIT. CONTRACTOR SHALL MATCH HOUSEKEEPING PAD HEIGHT TO EXISTING.
  - CONTRACTOR SHALL PROVIDE NEW 3" EFD FOR HVAC CONDENSATE EQUAL TO ZURN Z415 TYPE I. LOCATE ACCORDINGLY BEYOND THE LIMITS OF THE NEW/MODIFIED HOUSEKEEPING PAD. VERIFY EXACT LOCATION IN FIELD WITH NEW EQUIPMENT BEING PROVIDED. PROVIDE FLOOR DRAIN WITH TRAP GUARD. MODIFY AS REQUIRED AND CONNECT NEW WASTE PIPING BELOW SLAB TO EXISTING WASTE PIPING BELOW SLAB. PROVIDE NEW VENT # AND AS REQUIRED BASED ON EXISTING VENT LOCATION SERVING EXISTING BRANCH LINE. PIPE MATERIALS AND SIZES TO MATCH EXISTING. FIELD VERIFY. RE: DETAIL 9/M4.01.
  - CONNECT NEW DUCTWORK TO EXISTING. CONTRACTOR SHALL PROVIDE TRANSITIONS TO CONNECT NEW DUCTWORK TO EXISTING.
  - ROUTE CHILLED WATER SUPPLY AND CHILLED WATER RETURN PIPING TO AIR HANDLING UNIT CONNECTIONS FROM EXISTING CHILLED WATER PIPING. PROVIDE ISOLATION VALVES. SIZE AS NOTED ON PLAN. CONTRACTOR SHALL VERIFY LOCATION OF CHILLED WATER SUPPLY AND CHILLED WATER RETURN COIL CONNECTIONS PRIOR TO INSTALLATION OF PIPING TO UNIT. RE: DETAIL 14/M4.01.
  - PROVIDE VFD AS SCHEDULED. MOUNT ON PREVIOUS LOCATION. COORDINATE FINAL LOCATION WITH EXISTING SITE CONDITIONS.
  - ROUTE DUCTWORK TO EXISTING GRAVITY HOOD. PROVIDE DUCTWORK TRANSITIONS TO GRAVITY HOOD OPENING.
  - ROUTE OUTSIDE AIR DUCTWORK TO EXISTING LOUVER. TRANSITION DUCTWORK TO LOUVER OPENING.
  - CONTRACTOR SHALL SEAL/INSULATE/CAP GRAVITY HOOD OPENING.
  - CONTRACTOR SHALL PROVIDE UPRIGHT FIRE SPRINKLER BELOW DUCTWORK WIDER THAN 4'-0". WHERE NEW SPRINKLER HEADS MUST BE ADDED UNDER FIXED OBSTRUCTIONS (DUCTWORK) OVER 4 FEET WIDE PER NFPA 13, 8.6.5.3.3. PROVIDE PIPING, FITTINGS, JOINING METHODS, AND SPRINKLER LOCATION TO MATCH EXISTING TYPE. FIELD VERIFY.
  - CONTRACTOR SHALL PROVIDE A STATIC PRESSURE TRANSMITTER 2/3 DOWN LONGEST RUN OF SUPPLY DUCTWORK.



**REVISION:**

No.	DATE	DESCRIPTION
1	03/23/2022	ADDENDUM No.1
2	04/04/2022	ADDENDUM No.2



EDINBURG CONSOLIDATED INDEPENDENT SCHOOL DISTRICT  
**EDINBURG HS - HVAC IMPROVEMENTS**  
 2600 E WISCONSIN RD, EDINBURG, TX 78542

DATE:	03/09/2022
DRAWN BY:	DBR
CHECKED BY:	DBR
PROJECT NUMBER:	218007.001
SHEET TITLE:	

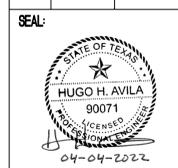
**ENLARGED MECHANICAL PLAN**

SHEET NUMBER:

**M3.02**

Plotted: Apr 4, 2022, 9:40 PM by: user: m3022 - Sheet: 44/0202 - C:\Users\ngaza\OneDrive\Documents\DBR\1801\18017001 - EGISD - District Wide HVAC Improvements - EHS\Project Files\Drawings\04-218007-012.dwg

REVISION	No.	DATE	DESCRIPTION
	1	03/23/2022	ADDENDUM No.1
	2	04/04/2022	ADDENDUM No.2



EDINBURG CONSOLIDATED INDEPENDENT SCHOOL DISTRICT  
**EDINBURG HS - HVAC IMPROVEMENTS**  
 2600 E WISCONSIN RD, EDINBURG, TX 78542

DATE:	03/09/2022
DRAWN BY:	DBR
CHECKED BY:	DBR
PROJECT NUMBER:	218007.001
SHEET TITLE:	

**ENLARGED MECHANICAL PLAN**

SHEET NUMBER:

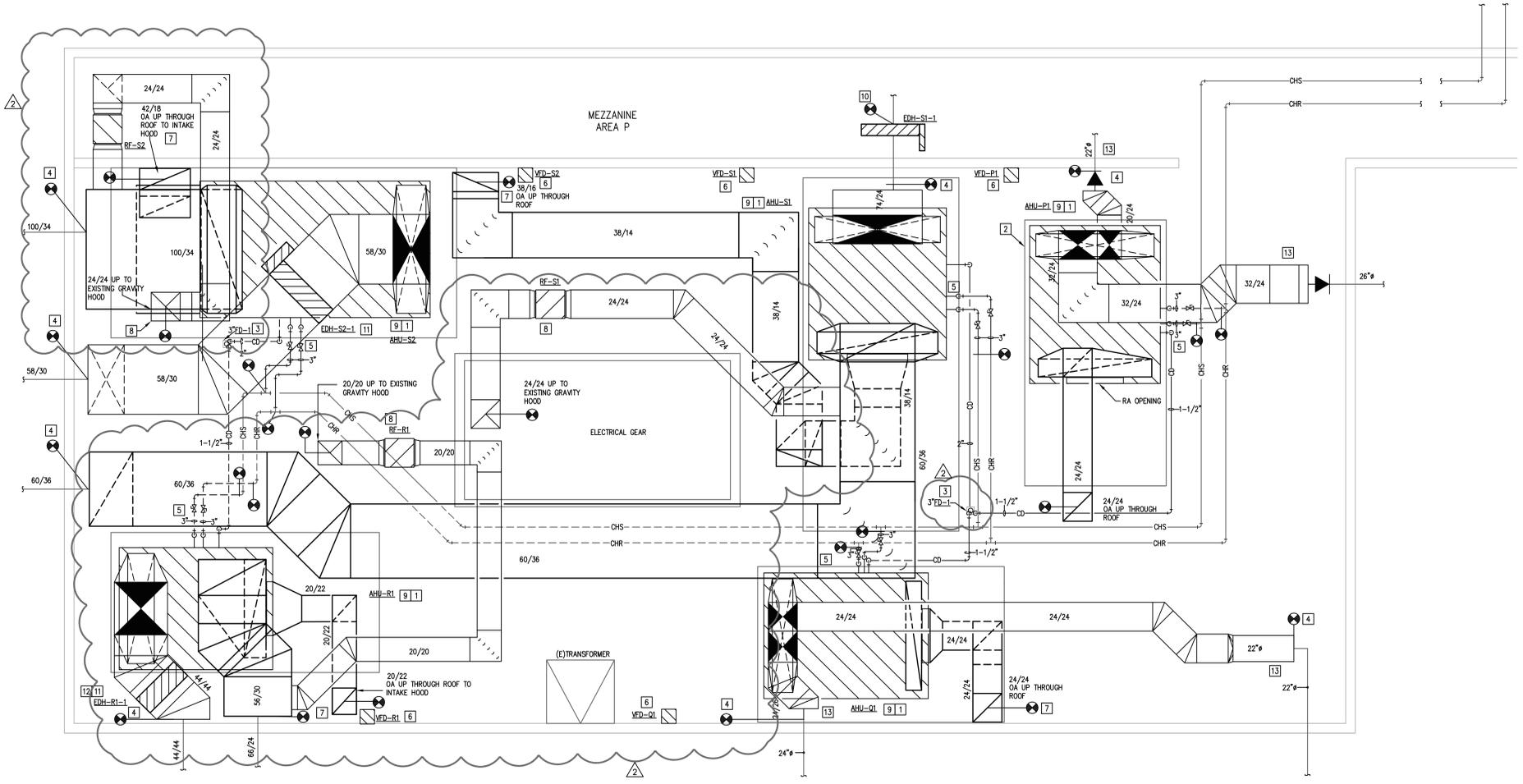
**M3.03**

**MECHANICAL GENERAL NOTES:**

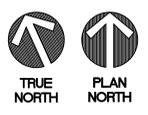
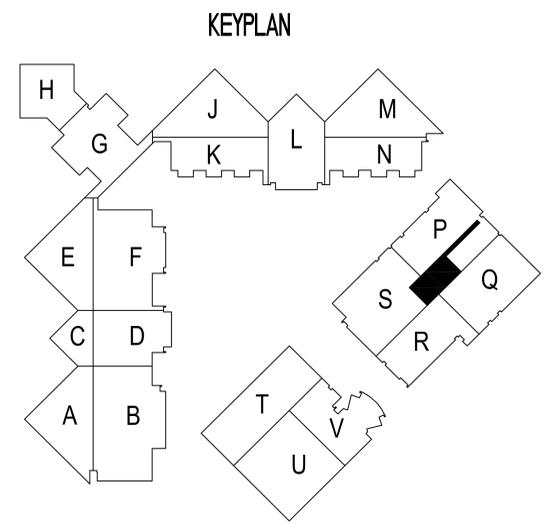
A. REFER TO M3.01 FOR MECHANICAL GENERAL NOTES.

**MECHANICAL KEYED NOTES:**

1. PROVIDE AIR HANDLING UNIT AS SCHEDULED. MOUNT ON EXISTING HOUSEKEEPING PAD.
2. CONTRACTOR SHALL EXTEND WITH NEW HOUSEKEEPING PAD TO PROVIDE 3" BEYOND FOOTPRINT OF NEW AIR HANDLING UNIT. CONTRACTOR SHALL MATCH HOUSEKEEPING PAD HEIGHT TO EXISTING.
3. CONTRACTOR SHALL PROVIDE NEW 3" ED-1 FOR HVAC CONDENSATE EQUAL TO ZURN Z415 TYPE I. LOCATE ACCORDINGLY BEYOND THE LIMITS OF THE NEW/MODIFIED HOUSEKEEPING PAD. VERIFY EXACT LOCATION IN FIELD WITH NEW EQUIPMENT BEING PROVIDED. PROVIDE FLOOR DRAIN WITH TRAP GUARD. MODIFY AS REQUIRED AND CONNECT NEW WASTE PIPING BELOW SLAB TO EXISTING WASTE PIPING BELOW SLAB. PROVIDE NEW VENT IF AND AS REQUIRED BASED ON EXISTING VENT LOCATION SERVING EXISTING BRANCH LINE. PIPE MATERIALS AND SIZES TO MATCH EXISTING. FIELD VERIFY. RE: DETAIL 9/44.01.
4. CONNECT NEW DUCTWORK TO EXISTING. CONTRACTOR SHALL PROVIDE TRANSITIONS TO CONNECT NEW DUCTWORK TO EXISTING.
5. ROUTE CHILLED WATER SUPPLY AND CHILLED WATER RETURN PIPING TO AIR HANDLING UNIT CONNECTIONS FROM EXISTING CHILLED WATER PIPING. PROVIDE ISOLATION VALVES. SIZE AS NOTED ON PLAN. CONTRACTOR SHALL VERIFY LOCATION OF CHILLED WATER SUPPLY AND CHILLED WATER RETURN COIL CONNECTIONS PRIOR TO INSTALLATION OF PIPING TO UNIT. RE: DETAIL 14/44.01.
6. PROVIDE VFD AS SCHEDULED. MOUNT ON PREVIOUS LOCATION. COORDINATE FINAL LOCATION WITH EXISTING SITE CONDITIONS.
7. ROUTE DUCTWORK TO EXISTING GRABEX HOOD. PROVIDE DUCTWORK TRANSITIONS TO GRABEX HOOD OPENING. SIZE DUCTWORK AS INDICATED ON PLANS.
8. PROVIDE EXHAUST FAN FOR BUILDING RELIEF AND ROUTE TO EXISTING GRAVITY HOOD.
9. CONTRACTOR SHALL PROVIDE UPRIGHT FIRE SPRINKLER BELOW DUCTWORK WIDER THAN 4'-0". CONTRACTOR SHALL PROVIDE UPRIGHT FIRE SPRINKLER BELOW DUCTWORK WIDER THAN 4'-0". WHERE NEW SPRINKLER HEADS MUST BE ADDED UNDER FIXED OBSTRUCTIONS (DUCTWORK) OVER 4 FEET WIDE PER NFPA 13, 8.6.5.3.3. PROVIDE PIPING, FITTINGS, JOINING METHODS, AND SPRINKLER HEADS TO MATCH EXISTING TYPE. FIELD VERIFY.
10. PROVIDE ELECTRIC DUCT HEATER AS SCHEDULED AND INDICATED ON PLAN. CONTRACTOR SHALL REMOVE/DISCONNECT PART OF EXISTING DUCTWORK TO ACCOMMODATE ELECTRIC DUCT HEATER. CONTRACTOR SHALL FIELD VERIFY SIZE OF EXISTING DUCTWORK PRIOR TO PURCHASING/INSTALLING ELECTRIC DUCT HEATER.
11. PROVIDE ELECTRIC DUCT HEATER AS SCHEDULED AND INDICATED ON PLAN. INSTALL AS PER MANUFACTURER RECOMMENDATIONS.
12. ELECTRIC DUCT HEATER SHALL BE INSTALLED WITH CONTROL PANEL BELOW TO MEET ACCESS AND CLEARANCE REQUIREMENTS.
13. CONTRACTOR SHALL PROVIDE A STATIC PRESSURE TRANSMITTER 2/3 DOWN LONGEST RUN OF SUPPLY DUCTWORK.



**1**  
 M3.03 **ENLARGED MECHANICAL ROOM - MEZZANINE AREA P**  
 1/4" = 1'-0"



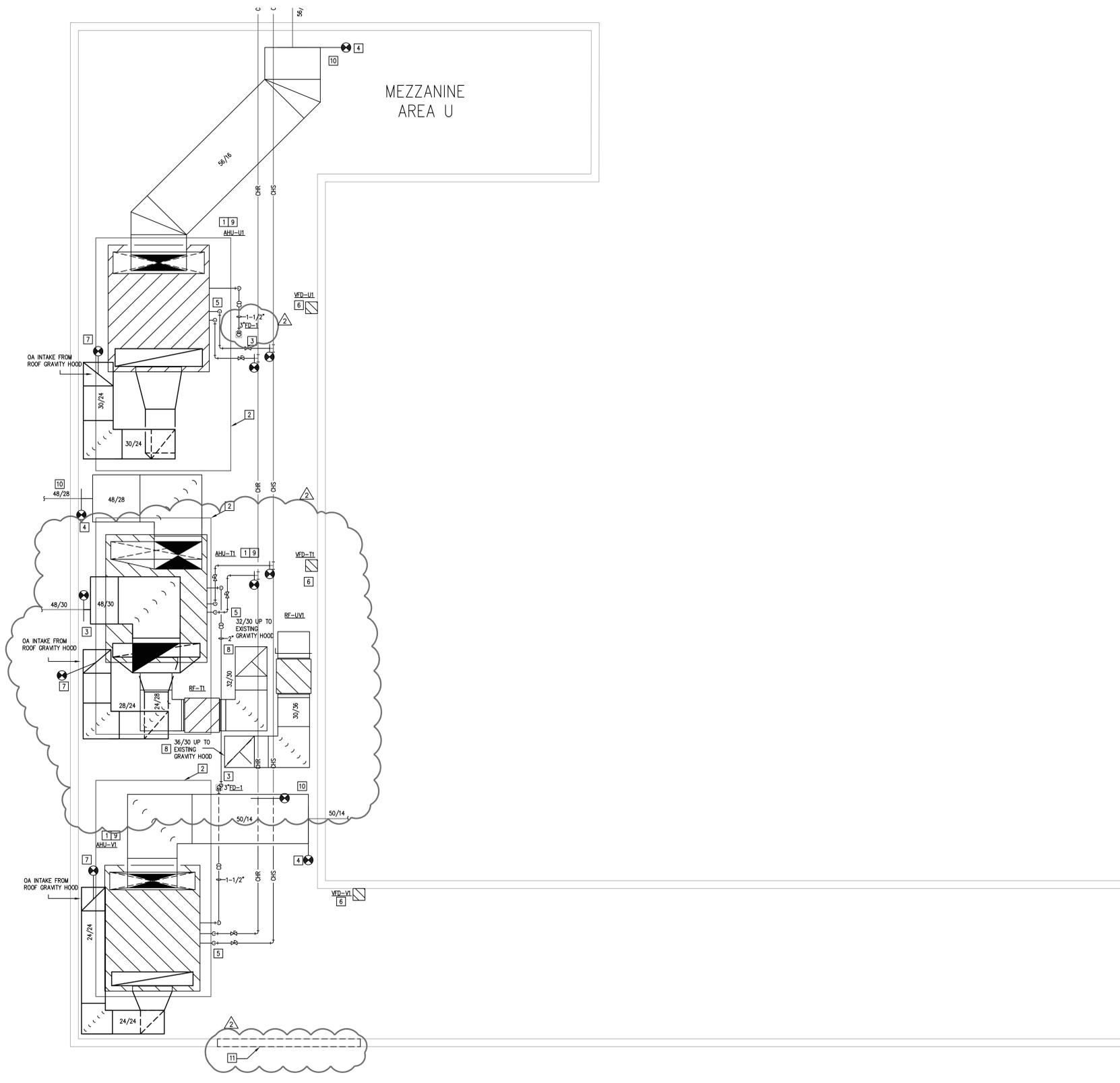
**DBR**  
 200 South 10th Street Suite 901  
 Mc Allen, Texas 78501  
 956.683.1640 p | 956.683.1903 f  
 TBPE Firm Registration No. 2234

DBR Project Number 218007.001

HA	MG	JB	TL	--
----	----	----	----	----

Plotted: Apr 4, 2022, 7:58 PM by user: m30303, Scale: 1/4"=1'-0", Plot Path: C:\Users\m30303\OneDrive\Documents\218007.001 - EGISD - District Wide HVAC Improvements - EHS\Project Files\Drawings\M3-218007-012.dwg

P:\Projects\2020 - 2023\1120\_Alt by user\m304 - School\1120\_001 - EGSD - District Wide HVAC Improvements - EHS\Project Files\Drawings\04-218007-012.dwg  
 C:\Users\ngaza\OneDrive\Documents\1120\_001 - EGSD - District Wide HVAC Improvements - EHS\Project Files\Drawings\04-218007-012.dwg



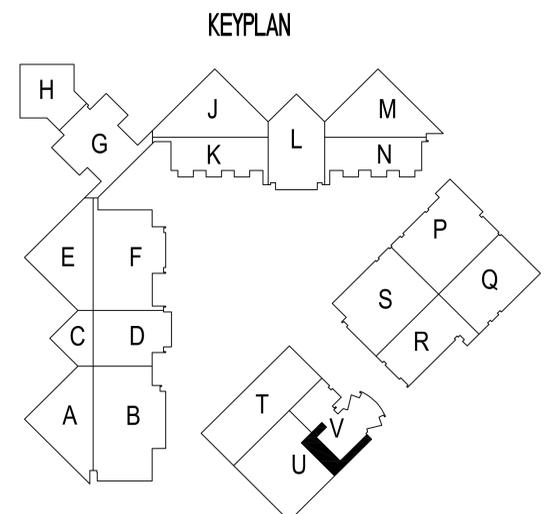
**1** ENLARGED MECHANICAL ROOM - MEZZANINE AREA U  
 M3.04 1/4" = 1'-0"

- MECHANICAL GENERAL NOTES:**  
 A. REFER TO M0.01 FOR MECHANICAL GENERAL NOTES.
- MECHANICAL KEYED NOTES:**
- PROVIDE AIR HANDLING UNIT AS SCHEDULED. MOUNT ON EXISTING HOUSEKEEPING PAD.
  - CONTRACTOR SHALL EXTEND WITH NEW HOUSEKEEPING PAD TO PROVIDE 3" BEYOND FOOTPRINT OF NEW AIR HANDLING UNIT. CONTRACTOR SHALL MATCH HOUSEKEEPING PAD HEIGHT TO EXISTING.
  - CONTRACTOR SHALL PROVIDE NEW 3" ED-1 FOR HVAC CONDENSATE EQUAL TO ZURN 2415 TYPE I. LOCATE ACCORDINGLY BEYOND THE LIMITS OF THE NEW/MODIFIED HOUSEKEEPING PAD. VERIFY EXACT LOCATION IN FIELD WITH NEW EQUIPMENT BEING PROVIDED. PROVIDE FLOOR DRAIN WITH TRAP GUARD. MODIFY AS REQUIRED AND CONNECT NEW WASTE PIPING BELOW SLAB TO EXISTING WASTE PIPING BELOW SLAB. PROVIDE NEW VENT IF AND AS REQUIRED BASED ON EXISTING VENT LOCATION SERVING EXISTING BRANCH LINE. PIPE MATERIALS AND SIZES TO MATCH EXISTING. FIELD VERIFY. RE: DETAIL 9/M4.01.
  - CONNECT NEW DUCTWORK TO EXISTING. CONTRACTOR SHALL PROVIDE TRANSITIONS TO CONNECT NEW DUCTWORK TO EXISTING.
  - ROUTE CHILLED WATER SUPPLY AND CHILLED WATER RETURN PIPING TO AIR HANDLING UNIT CONNECTIONS FROM EXISTING CHILLED WATER PIPING. PROVIDE ISOLATION VALVES. SIZE AS NOTED ON PLAN. CONTRACTOR SHALL VERIFY LOCATION OF CHILLED WATER SUPPLY AND CHILLED WATER RETURN COIL CONNECTIONS PRIOR TO INSTALLATION OF PIPING TO UNIT. RE: DETAIL 14/M4.01.
  - PROVIDE VFD AS SCHEDULED. MOUNT ON PREVIOUS LOCATION. COORDINATE FINAL LOCATION WITH EXISTING SITE CONDITIONS.
  - ROUTE DUCTWORK TO EXISTING GRAVITY HOOD. PROVIDE DUCTWORK TRANSITIONS TO GRAVITY HOOD OPENING.
  - PROVIDE EXHAUST FAN FOR BUILDING RELIEF AND ROUTE TO EXISTING GRAVITY HOOD.
  - CONTRACTOR SHALL PROVIDE UPRIGHT FIRE SPRINKLER BELOW DUCTWORK WIDER THAN 4'-0". CONTRACTOR SHALL PROVIDE UPRIGHT FIRE SPRINKLER BELOW DUCTWORK WIDER THAN 4'-0" WHERE NEW SPRINKLER HEADS MUST BE ADDED UNDER FIXED OBSTRUCTIONS (DUCTWORK) OVER 4 FEET WIDE PER NFPA 13, 8.6.5.3.3. PROVIDE PIPING, FITTINGS, JOINING METHODS, AND SPRINKLER HEADS TO MATCH EXISTING TYPE. FIELD VERIFY.
  - CONTRACTOR SHALL PROVIDE A STATIC PRESSURE TRANSMITTER 2/3 DOWN LENGTH OF MAIN SUPPLY DUCTWORK.
  - CONTRACTOR SHALL REMOVE PORTION OF WALL AT WINDOW(S) APPROXIMATELY 11" W x 6" H TO REMOVE AND BRING IN NEW HVAC EQUIPMENT. PROVIDE STATIONARY LOUVER EQUAL TO GREENHECK MODEL EDJ-401 SIZE 12" W x 6" H AFTER AIR HANDLING UNIT SECTIONS HAVE BEEN BROUGHT IN AND INSTALLED AS INDICATED ON PLAN. PROVIDE INSULATED BLANK-OFF BEHIND LOUVER AND SEAL. REFER TO STRUCTURAL PLANS.



**REVISION:**

No.	DATE	DESCRIPTION
1	03/23/2022	ADDENDUM No.1
2	04/04/2022	ADDENDUM No.2

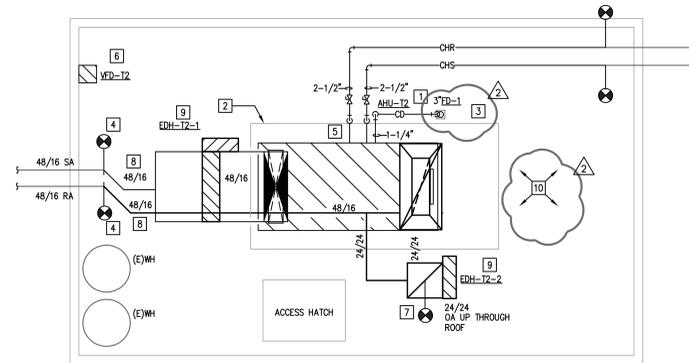


EDINBURG CONSOLIDATED INDEPENDENT SCHOOL DISTRICT  
**EDINBURG HS - HVAC IMPROVEMENTS**  
 2600 E WISCONSIN RD, EDINBURG, TX 78542

DATE: 03/09/2022  
 DRAWN BY: DBR  
 CHECKED BY: DBR  
 PROJECT NUMBER: 218007.001  
 SHEET TITLE: ENLARGED MECHANICAL PLAN  
 SHEET NUMBER: M3.04

DBR Project Number 218007.001  
 HA | MG | JB | TL | --

Plotted: Apr 4, 2022, 9:53 AM by user: m30527 - Search: 4/4/2022 by user: m30527  
 C:\Users\ngazaza\OneDrive\Documents\Drawings\04-218007-012.dwg



**1** ENLARGED MECHANICAL PLAN - MEZZANINE KITCHEN  
 M3.05 1/4" = 1'-0"

**MECHANICAL GENERAL NOTES:**

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

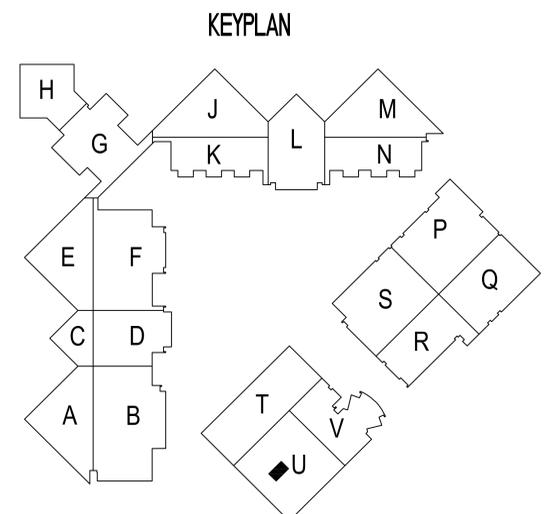
**MECHANICAL KEYED NOTES:**

1. PROVIDE AIR HANDLING UNIT AS SCHEDULED. MOUNT ON EXISTING HOUSEKEEPING PAD.
2. CONTRACTOR SHALL EXTEND WITH NEW HOUSEKEEPING PAD TO PROVIDE 3" BEYOND FOOTPRINT OF NEW AIR HANDLING UNIT. CONTRACTOR SHALL MATCH HOUSEKEEPING PAD HEIGHT TO EXISTING.
3. CONTRACTOR SHALL PROVIDE NEW 3" ED-1 FOR HVAC CONDENSATE EQUAL TO ZURN Z415 TYPE L LOCATE ACCORDINGLY BEYOND THE LIMITS OF THE NEW/MODIFIED HOUSEKEEPING PAD. VERIFY EXACT LOCATION IN FIELD WITH NEW EQUIPMENT BEING PROVIDED. PROVIDE FLOOR DRAIN WITH TRAP GUARD. MODIFY AS REQUIRED AND CONNECT NEW WASTE PIPING BELOW SLAB TO EXISTING WASTE PIPING BELOW SLAB. PROVIDE NEW VENT IF AND AS REQUIRED BASED ON EXISTING VENT LOCATION SERVING EXISTING BRANCH LINE. PIPE MATERIALS AND SIZES TO MATCH EXISTING. FIELD VERIFY. RE: DETAIL 9/M4.01.
4. CONNECT NEW DUCTWORK TO EXISTING. CONTRACTOR SHALL PROVIDE TRANSITIONS TO CONNECT NEW DUCTWORK TO EXISTING.
5. ROUTE CHILLED WATER SUPPLY AND CHILLED WATER RETURN PIPING TO AIR HANDLING UNIT CONNECTIONS FROM EXISTING CHILLED WATER PIPING. PROVIDE ISOLATION VALVES. SIZE AS NOTED ON PLAN. CONTRACTOR SHALL VERIFY LOCATION OF CHILLED WATER SUPPLY AND CHILLED WATER RETURN COIL CONNECTIONS PRIOR TO INSTALLATION OF PIPING TO UNIT. RE: DETAIL 14/M4.01.
6. PROVIDE VED AS SCHEDULED. MOUNT ON PREVIOUS LOCATION. COORDINATE FINAL LOCATION WITH EXISTING SITE CONDITIONS.
7. ROUTE DUCTWORK TO EXISTING GRANTY HOOD. PROVIDE DUCTWORK TRANSITIONS TO GRANTY HOOD OPENING.
8. CONTRACTOR SHALL PROVIDE UPRIGHT FIRE SPRINKLER BELOW DUCTWORK WIDER THAN 4'-0". CONTRACTOR SHALL PROVIDE UPRIGHT FIRE SPRINKLER BELOW DUCTWORK WIDER THAN 4'-0". WHERE NEW SPRINKLER HEADS MUST BE ADDED UNDER FIXED OBSTRUCTIONS (DUCTWORK) OVER 4 FEET WIDE PER NFPA 13, 8.6.5.3.3, PROVIDE PIPING, FITTINGS, JOINING METHODS, AND SPRINKLER HEADS TO MATCH EXISTING TYPE. FIELD VERIFY.
9. PROVIDE ELECTRIC DUCT HEATER AS SCHEDULED AND INDICATED ON PLAN. INSTALL AS PER MANUFACTURER RECOMMENDATIONS.
10. CONTRACTOR SHALL REMOVE PORTION(S) OF EXISTING WOODEN PLATFORM TO MOVE DEMOLISHED AND NEW EQUIPMENT IN AND OUT OF SPACE. CONTRACTOR SHALL REBUILD WOOD PLATFORM TO MATCH EXISTING.



**REVISION:**

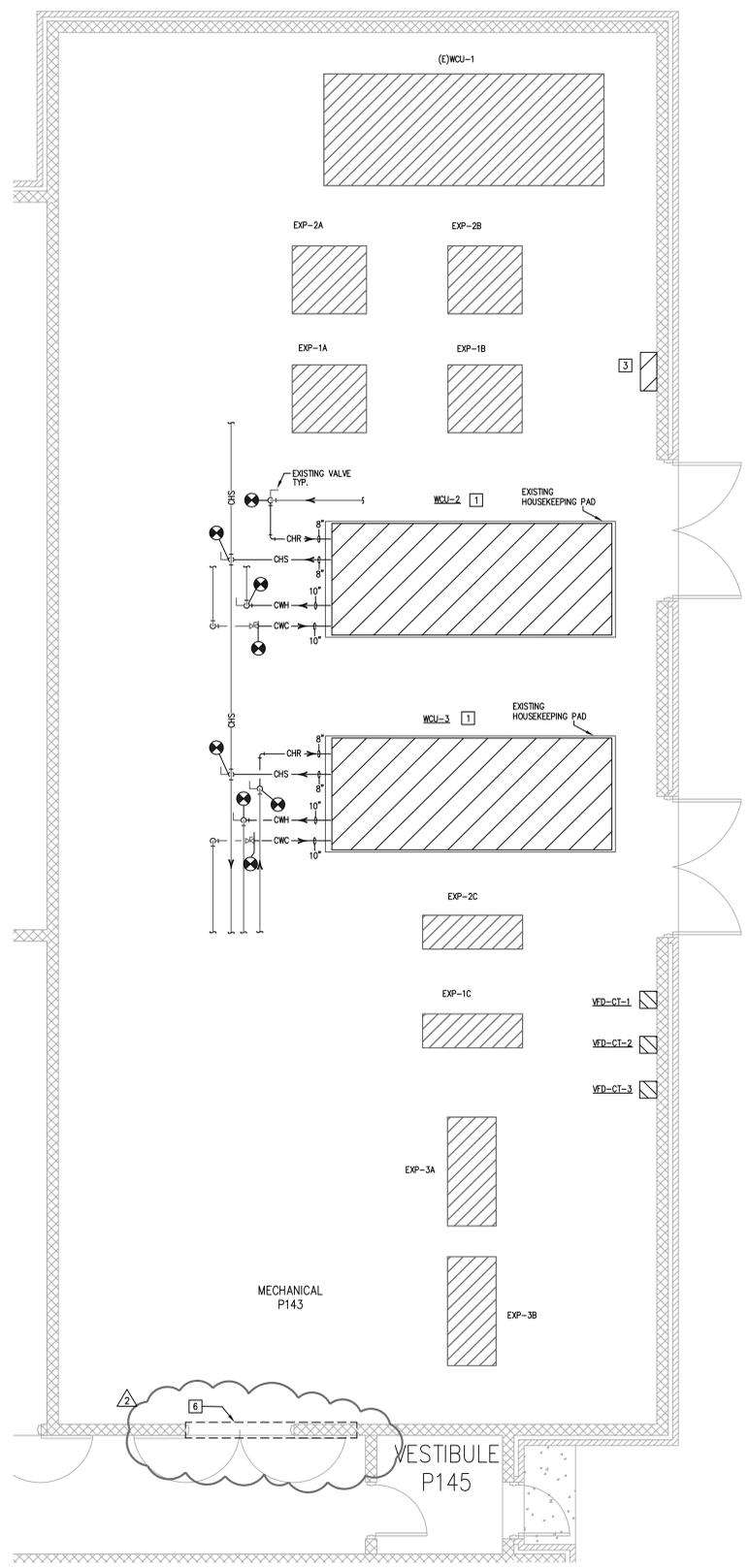
No.	DATE	DESCRIPTION
1	03/23/2022	ADDENDUM No.1
2	04/04/2022	ADDENDUM No.2



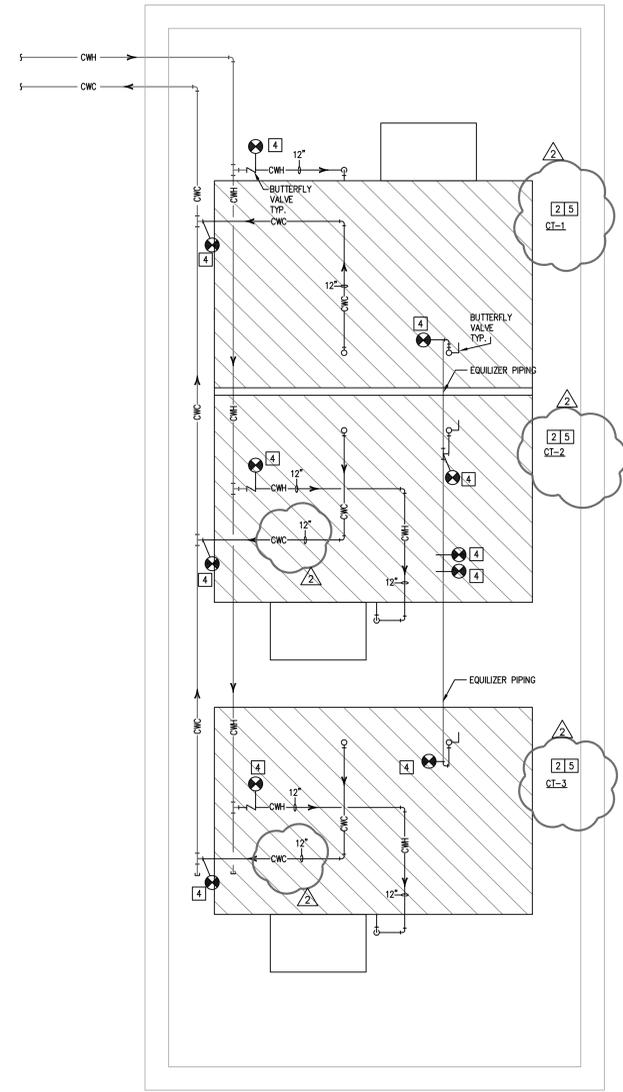
DBR Project Number 218007.001  
 HA | MG | JB | TL | --

EDINBURG CONSOLIDATED INDEPENDENT SCHOOL DISTRICT  
**EDINBURG HS - HVAC IMPROVEMENTS**  
 2600 E WISCONSIN RD, EDINBURG, TX 78542

DATE:	03/09/2022
DRAWN BY:	DBR
CHECKED BY:	DBR
PROJECT NUMBER:	218007.001
SHEET TITLE:	ENLARGED MECHANICAL PLAN
SHEET NUMBER:	M3.05



**1** ENLARGED MECHANICAL PLAN - MECHANICAL P143  
 M3.06 1/4" = 1'-0"



**1** ENLARGED MECHANICAL PLAN - COOLING TOWERS  
 M3.06 1/4" = 1'-0"

**MECHANICAL GENERAL NOTES:**

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

**MECHANICAL KEYED NOTES:**

1. PROVIDE WATER COOLED CHILLER AS SCHEDULED. MOUNT ON EXISTING CONCRETE PAD. EXTEND CONCRETE PAD TO ACCOMMODATE NEW CHILLER. CONNECT NEW CHILLED WATER AND CONDENSER WATER LINE CONNECTIONS FROM CLOSEST SHUT OFF VALVE TO NEW CHILLER CONNECTIONS. PROVIDE HYDRONIC ACCESSORIES AS NOTED ON DETAILS. CONNECT POWER TO NEW UNIT FROM EXISTING POWER LOCATION IN MECHANICAL ROOM. INSTALL NEW COPPER PURGE PIPING AND ROUTE TO EXTERIOR OF BUILDING AS INDICATED ON PLAN.
2. PROVIDE COOLING TOWER AS SCHEDULED AND MOUNT ON NEW COLUMN STRUCTURE. CONNECT CONDENSER WATER SUPPLY AND RETURN LINES FROM CLOSEST VALVE OR FITTING AS INDICATED ON PLAN TO NEW COOLING TOWER INLET AND OUTLET CONNECTIONS. INSTALL NEW BASIN EQUALIZER LINE BETWEEN ALL TOWERS AND CONNECT TO EXISTING EQUALIZER LINE. INSTALL POWER CONNECTION FROM EXISTING DISCONNECT TO NEW COOLING TOWER. CONNECT EXISTING MAKEUP WATER PIPING TO COOLING TOWER. CONTRACTOR SHALL PROVIDE ADDITIONAL PIPE SUPPORT. REFER TO STRUCTURAL PLANS.
3. INSTALL NEW REFRIGERANT LEAK DETECTION SYSTEM.
4. CONNECT TO EXISTING. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION OF CONDENSER WATER SUPPLY/RETURN AND EQUALIZER PIPING.
5. DISCONNECT, MODIFY/EXTEND AS NECESSARY, AND RECONNECT MAKEUP WATER TO ACCOMMODATE COOLING TOWER WORK. FIELD VERIFY EXTENT OF WORK WITH ANY NEW EQUIPMENT BEING PROVIDED. PIPE SIZE AND MATERIAL SHALL MATCH EXISTING.
6. CONTRACTOR SHALL PROVIDE 10' WIDE X 6' HIGH WALL OPENING AT MEZZANINE HEIGHT TO BRING IN SECTIONS OF AIR HANDLING UNITS. CONTRACTOR SHALL SEAL/INSULATE/PATCH WALL TO MATCH EXISTING. REFER TO STRUCTURAL PLANS.

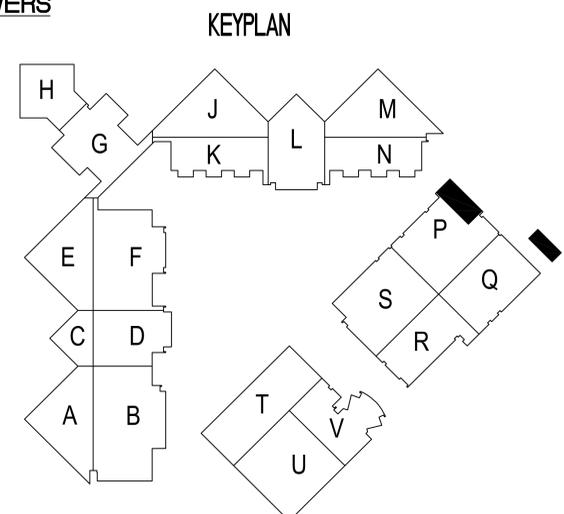


**REVISION:**

No.	DATE	DESCRIPTION
1	03/23/2022	ADDENDUM No.1
2	04/04/2022	ADDENDUM No.2



EDINBURG CONSOLIDATED INDEPENDENT SCHOOL DISTRICT  
**EDINBURG HS - HVAC IMPROVEMENTS**  
 2600 E WISCONSIN RD, EDINBURG, TX 78542



**DATE:** 03/09/2022  
**DRAWN BY:** DBR  
**CHECKED BY:** DBR  
**PROJECT NUMBER:** 218007.001  
**SHEET TITLE:**

**ENLARGED MECHANICAL PLAN**

**SHEET NUMBER:**

**M3.06**

DBR Project Number 218007.001

HA	MG	JB	TL	--
----	----	----	----	----

Plotted: Apr 5, 2022 1:20:44 AM by user: mpepeta - Saved: 4/5/2022 by user: mpepeta  
 C:\Users\mgazala\OneDrive\Documents\Drawings\218007\001 - EGISD - District WBS HVAC Improvements - EHS\Project Files\Drawings\04-218007-012.dwg

AIR HANDLING UNIT SCHEDULE													
MARK	AHU-D1	AHU-F1	AHU-G1	AHU-H1	AHU-P1	AHU-Q1	AHU-R1	AHU-S1	AHU-S2	AHU-T1	AHU-T2	AHU-U1	AHU-V1
SERVES	WING D	WING F	WING G	WING H	GYM LOCKERS AND WEIGHT ROOM	GYM LOCKERS AND SHOP	GYM 2	GYM 1	GYM 1	CAFETERIA	KITCHEN	ORCHESTRA AND BAND HALL	PERFORMANCE HALL
TYPE	MULTIZONE	MULTIZONE	MULTIZONE	MULTIZONE	MULTIZONE	MULTIZONE	SINGLE ZONE	SINGLE ZONE	SINGLE ZONE	MULTIZONE	SINGLE ZONE	MULTIZONE	MULTIZONE
UNIT CONFIGURATION	HORIZONTAL	HORIZONTAL	HORIZONTAL	HORIZONTAL	HORIZONTAL	HORIZONTAL	HORIZONTAL	HORIZONTAL	HORIZONTAL	HORIZONTAL	HORIZONTAL	HORIZONTAL	HORIZONTAL
DISCHARGE	VERTICAL	VERTICAL	VERTICAL	VERTICAL	VERTICAL	VERTICAL	VERTICAL	VERTICAL	VERTICAL	VERTICAL	VERTICAL	VERTICAL	VERTICAL
DESIGN SUPPLY AIR (CFM)	19,560	13,325	13,380	9,470	16,795	14,510	18,200	21,170	22,810	15,000	4,890	19,280	14,115
MINIMUM SUPPLY AIR (CFM)	7,825	6,050	5,355	3,790	6,720	5,805	7,280	8,470	9,125	9,105	4,890	7,715	5,650
DESIGN OUTDOOR AIR (CFM)	7,125	6,050	1,635	3,775	4,890	4,380	3,440	4,660	4,660	9,105	4,890	6,015	4,910
MINIMUM OUTSIDE AIR (CFM)	3,565	3,025	820	1,890	2,440	2,190	1,720	2,330	2,330	4,555	2,445	3,010	2,455
EXT. S.P. (IN. W.G.)	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
FAN MOTOR HORSEPOWER (HP EA/ # OF FANS)	15/ 2	10/ 2	10/ 2	10/ 1	10/ 2	10/ 2	15/ 2	15/ 2	15/ 2	10/ 2	7.5/ 1	15/ 2	10/ 2
VOLTS/PHASE/HERTZ	480/3/60	480/3/60	480/3/60	480/3/60	480/3/60	480/3/60	480/3/60	480/3/60	480/3/60	480/3/60	480/3/60	480/3/60	480/3/60
MAX FAN RPM	2,174	2,452	2,639	1,899	1,988	2,335	2,133	2,131	1,830	2,259	3,131	2,133	2,334
FULL LOAD AMPS (FLA) (EACH FAN/TOTAL)	18/ 36	12.5/ 25	12.5/ 25	14.3/ 14.3	12.5/ 25	12.5/ 25	18/ 36	18/ 36	18/ 36	12.5/ 25	8.7/ 8.7	18/ 36	12.5/ 25
MAX COIL FACE VELOCITY (FPM)	476	447	449	434	443	441	443	454	437	445	449	446	450
MINIMUM COIL ROWS	5	4	4	5	5	5	4	4	4	6	8	5	4
MAX FINS PER INCH	10	13	11	11	11	10	10	10	11	10	10	11	11
COIL CFM	19560	13325	13380	9470	16795	14510	18200	21170	22810	15000	4890	19280	14115
EAT DB/WB (°F)	84.1/67.9	86.4/69.1	78.1/64.4	85/68.4	82.3/66.8	85.5/67	79.7/65.4	80.5/65.8	80.1/65.6	90.2/71.2	100/76	82.8/67.1	83.7/67.7
LAT DB/WB (°F)	54.9/53.6	54.3/52.94	54.8/53.29	54.33/53.1	54.81/53.49	54.84/53.52	54.93/53.49	54.77/53.3	54.46/53.22	54.91/54.12	51.56/51.03	54.67/53.46	54.52/53.26
TOTAL COOLING CAPACITY (MBH)	808.1	624.2	433.6	624.2	433.6	554.1	618.8	790.5	790.5	626.7	361.9	787.6	606.7
SENSIBLE COOLING CAPACITY (MBH)	592.6	440.7	337	310.7	481.2	455.4	467.0	563.5	629.7	561.7	235.6	583.5	441.0
EWTLWT (°F)	42/55.98	42/56.04	42/55.95	42/55.96	42/55.94	42/55.94	42/55.94	42/56	42/56.91	42/56.07	42/55.99	42/56.02	42/56.04
COIL WATER FLOW (GPM)	118.9	91.7	61.6	61.8	93.7	82.3	90.9	110.4	113.3	111.9	51.7	111.7	86.0
MAX WATER P.D. (FT. HD.)	7.8	14	9.8	14.8	8.9	4.1	6.8	10.8	5.2	6.4	11.0	8.1	10.1
MANUFACTURER	YORK	YORK	YORK	YORK	YORK	YORK	YORK	YORK	YORK	YORK	YORK	YORK	YORK
MODEL NUMBER	Solution-XTI-78x102	Solution-XTI-57x102	Solution-XTI-72x84	Solution-XTI-57x78	Solution-XTI-69x108	Solution-XTI-63x105	Solution-XTI-78x102	Solution-XTI-78x114	Solution-XTI-78x126	Solution-XTI-66x102	Solution-XTI-42x60	Solution-XTI-78x102	Solution-XTI-66x96
UNIT DIMENSIONS (WxLxH)(IN)	111x132x84	102x128x63	84x122x80	78x121x63	108x132x75	105x136x69	102x127x84	114x127x34	126x130x84	102x130x72	60x122x48	102x129x84	96x128x72
OPERATING WEIGHT (KBS.)	4734	3615	3476	3097	4480	4335	4718	4989	5412	4319	2294	4734	4024
NOTES	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL

- NOTES:
1. PROVIDE UNIT WITH MIXING BOX WITH OA AND RA DAMPERS, 2" MERV 8 AND 4" MERV 13 FILTER SECTION, CHILLED WATER COOLING COIL SECTION, ACCESS DOOR, DIRECT DRIVE FAN SECTION WITH ACCESS AND TOP DISCHARGE.
  2. EXTERNAL STATIC PRESSURE DOES NOT INCLUDE LOSSES DUE TO COILS, FILTERS, AND CASING.
  3. PROVIDE SINGLE POWER CONNECTION FOR SUPPLY FAN MOTOR SECTION.
  4. PROVIDE CHILLED WATER COIL WITH 2-WAY AUTOMATIC CONTROL VALVE. PROVIDE AHU-H1 WITH 3-WAY VALVE.
  5. FREQUENCY DRIVE. REFER TO VFD SCHEDULE.
  6. UNITS SHALL STRICTLY ADHERE TO SCHEDULED DIMENSIONS. PROVIDE UNIT CONSTRUCTED WITH 2 OR MORE SHIPPING SPLITS.
  7. PROVIDE UNIT WITH 2" R-13 DOWEL WALL FOAM CONSTRUCTION WITH THERMAL BREAK.
  8. PROVIDE WITH THERMAL DISPERSION AFMS.

AHU-C1 SINGLE INLET VAV BOX WITH REHEAT SCHEDULE									
MARK	COOLING CFM		HEATING CFM		REHEAT	INLET SIZE	VOLTS/PHASE/HZ	MANUFACTURER	MODEL
	MAX	MIN	MAX	MIN	KW				
VAV-C01	1,190	360	595	360	7	12"Ø	480/3/60	TITUS	DESV
VAV-C02	1,270	385	635	385	8	12"Ø	480/3/60	TITUS	DESV
VAV-C03	660	200	330	200	4	8"Ø	480/3/60	TITUS	DESV
VAV-C04	1,000	300	500	300	6	10"Ø	480/3/60	TITUS	DESV

- NOTES:
1. PROVIDE AEROCROSS MULTI-POINT CENTER AVERAGING VELOCITY SENSOR IN AIR INLET.
  2. PROVIDE TERMINAL UNIT CASING WITH 1/2" INTERNALLY LINED FIBERGLASS FREE INSULATION.
  3. PROVIDE TERMINAL UNIT WITH INTEGRAL DISCONNECT SWITCH.
  4. PROVIDE ELECTRIC REHEAT COIL WITH 0-10V SCR MODULATING CAPACITY CONTROL.

AHU-B1 SINGLE INLET VAV BOX WITH REHEAT SCHEDULE									
MARK	COOLING CFM		HEATING CFM		REHEAT	INLET SIZE	VOLTS/PHASE/HZ	MANUFACTURER	MODEL
	MAX	MIN	MAX	MIN	KW				
VAV-B01	1,475	445	740	445	9	12"Ø	480/3/60	TITUS	DESV
VAV-B02	1,300	390	650	390	8	12"Ø	480/3/60	TITUS	DESV
VAV-B03	375	115	190	115	3	6"Ø	480/3/60	TITUS	DESV
VAV-B04	1,775	535	890	535	10	14"Ø	480/3/60	TITUS	DESV
VAV-B05	880	265	440	265	5	10"Ø	480/3/60	TITUS	DESV
VAV-B06	800	240	400	240	5	10"Ø	480/3/60	TITUS	DESV
VAV-B07	800	240	400	240	5	10"Ø	480/3/60	TITUS	DESV
VAV-B08	800	240	400	240	5	10"Ø	480/3/60	TITUS	DESV
VAV-B09	1,945	585	975	585	11	14"Ø	480/3/60	TITUS	DESV
VAV-B10	1,240	375	620	375	7	12"Ø	480/3/60	TITUS	DESV
VAV-B11	800	240	400	240	5	10"Ø	480/3/60	TITUS	DESV
VAV-B12	800	240	400	240	5	10"Ø	480/3/60	TITUS	DESV
VAV-B13	800	240	400	240	5	10"Ø	480/3/60	TITUS	DESV
VAV-B14	800	240	400	240	5	10"Ø	480/3/60	TITUS	DESV
VAV-B15	800	240	400	240	5	10"Ø	480/3/60	TITUS	DESV
VAV-B16	500	150	250	150	3	8"Ø	480/3/60	TITUS	DESV
VAV-B17	500	150	250	150	3	8"Ø	480/3/60	TITUS	DESV
VAV-B18	880	265	440	265	5	10"Ø	480/3/60	TITUS	DESV

- NOTES:
1. PROVIDE AEROCROSS MULTI-POINT CENTER AVERAGING VELOCITY SENSOR IN AIR INLET.
  2. PROVIDE TERMINAL UNIT CASING WITH 1/2" INTERNALLY LINED FIBERGLASS FREE INSULATION.
  3. PROVIDE TERMINAL UNIT WITH INTEGRAL DISCONNECT SWITCH.
  4. PROVIDE ELECTRIC REHEAT COIL WITH 0-10V SCR MODULATING CAPACITY CONTROL.

AHU-A1 SINGLE INLET VAV BOX WITH REHEAT SCHEDULE									
MARK	COOLING CFM		HEATING CFM		REHEAT	INLET SIZE	VOLTS/PHASE/HZ	MANUFACTURER	MODEL
	MAX	MIN	MAX	MIN	KW				
VAV-A01	800	240	400	240	5	10"Ø	480/3/60	TITUS	DESV
VAV-A02	800	240	400	240	5	10"Ø	480/3/60	TITUS	DESV
VAV-A03	800	240	400	240	5	10"Ø	480/3/60	TITUS	DESV
VAV-A04	800	240	400	240	5	10"Ø	480/3/60	TITUS	DESV
VAV-A05	800	240	400	240	5	10"Ø	480/3/60	TITUS	DESV
VAV-A06	800	240	400	240	5	10"Ø	480/3/60	TITUS	DESV
VAV-A07	1,235	375	620	375	7	12"Ø	480/3/60	TITUS	DESV
VAV-A08	1,125	340	565	340	7	12"Ø	480/3/60	TITUS	DESV
VAV-A09	1,200	360	600	360	7	12"Ø	480/3/60	TITUS	DESV
VAV-A10	800	240	400	240	5	10"Ø	480/3/60	TITUS	DESV
VAV-A11	800	240	400	240	5	10"Ø	480/3/60	TITUS	DESV
VAV-A12	940	285	470	285	6	10"Ø	480/3/60	TITUS	DESV
VAV-A13	1,790	540	895	540	10	14"Ø	480/3/60	TITUS	DESV
VAV-A14	725	220	365	220	5	10"Ø	480/3/60	TITUS	DESV
VAV-A15	1,090	330	545	330	7	10"Ø	480/3/60	TITUS	DESV
VAV-A16	1,190	360	595	360	7	12"Ø	480/3/60	TITUS	DESV

- NOTES:
1. PROVIDE AEROCROSS MULTI-POINT CENTER AVERAGING VELOCITY SENSOR IN AIR INLET.
  2. PROVIDE TERMINAL UNIT CASING WITH 1/2" INTERNALLY LINED FIBERGLASS FREE INSULATION.
  3. PROVIDE TERMINAL UNIT WITH INTEGRAL DISCONNECT SWITCH.
  4. PROVIDE ELECTRIC REHEAT COIL WITH 0-10V SCR MODULATING CAPACITY CONTROL.

AHU-D1 SINGLE INLET VAV BOX WITH REHEAT SCHEDULE									
MARK	COOLING CFM		HEATING CFM		REHEAT	INLET SIZE	VOLTS/PHASE/HZ	MANUFACTURER	MODEL
	MAX	MIN	MAX	MIN	KW				
VAV-D01	800	240	400	240	5	10"Ø	480/3/60	TITUS	DESV
VAV-D02	800	240	400	240	5	10"Ø	480/3/60	TITUS	DESV
VAV-D03	1,005	305	505	305	6	10"Ø	480/3/60	TITUS	DESV
VAV-D04	955	290	480	290	6	10"Ø	480/3/60	TITUS	DESV
VAV-D05	800	240	400	240	5	10"Ø	480/3/60	TITUS	DESV
VAV-D06	800	240	400	240	5	10"Ø	480/3/60	TITUS	DESV
VAV-D07	800	240	400	240	5	10"Ø	480/3/60	TITUS	DESV
VAV-D08	1,100	330	550	330	7	12"Ø	480/3/60	TITUS	DESV
VAV-D09	1,100	330	550	330	7	12"Ø	480/3/60	TITUS	DESV
VAV-D10	800	240	400	240	5	10"Ø	480/3/60	TITUS	DESV
VAV-D11	800	240	400	240	5	10"Ø	480/3/60	TITUS	DESV
VAV-D12	800	240	400	240	5	10"Ø	480/3/60	TITUS	DESV
VAV-D13	1,100	330	550	330	7	12"Ø	480/3/60	TITUS	DESV
VAV-D14	1,100	330	550	330	7	12"Ø	480/3/60	TITUS	DESV
VAV-D15	1,000	300	500	300	6	10"Ø	480/3/60	TITUS	DESV
VAV-D16	1,000	300	500	300	6	10"Ø	480/3/60	TITUS	DESV
VAV-D17	800	240	400	240	5	10"Ø	480/3/60	TITUS	DESV
VAV-D18	800	240	400	240	5	10"Ø	480/3/60	TITUS	DESV</







REVISED	DATE	DESCRIPTION
1	03/23/2022	ADDENDUM No.1
2	04/04/2022	ADDENDUM No.2

SEAL:

EDINBURG CONSOLIDATED INDEPENDENT SCHOOL DISTRICT  
EDINBURG HS - HVAC IMPROVEMENTS  
2600 E WISCONSIN RD, EDINBURG, TX 78542

DATE:	03/09/2022
DRAWN BY:	DBR
CHECKED BY:	DBR
PROJECT NUMBER:	218007.001
SHEET TITLE:	

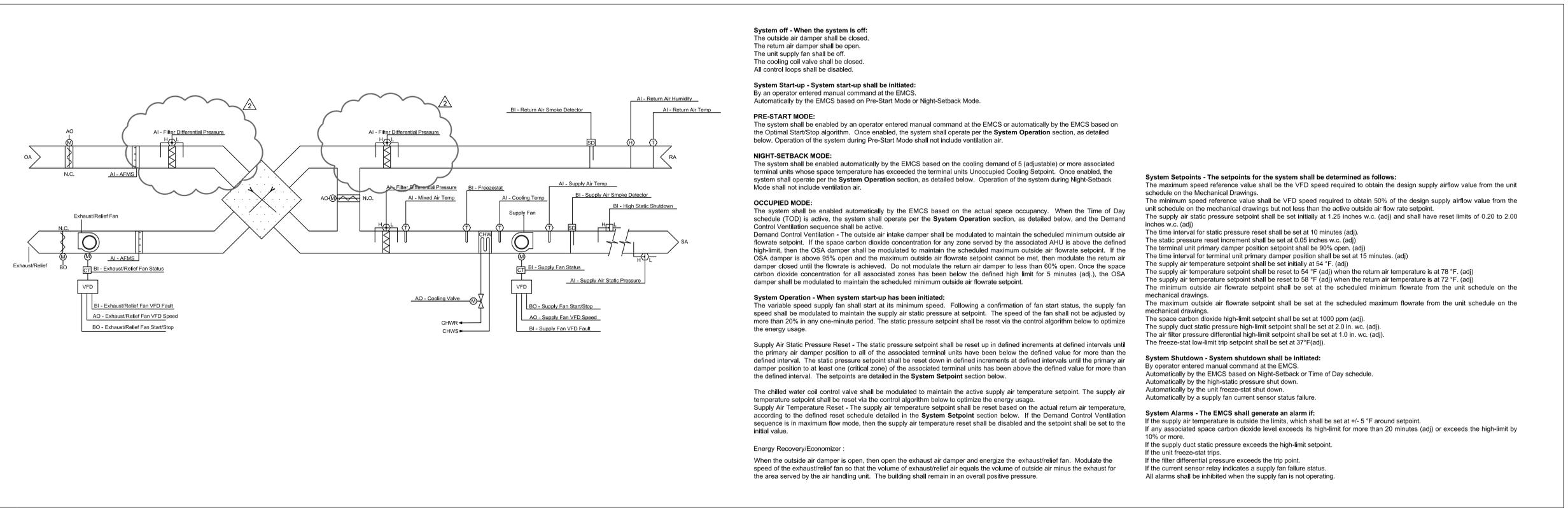
MECHANICAL  
CONTROLS

SHEET NUMBER:

M6.05



DBR Project Number	218007.001			
HA	MG	JB	TL	--



**System off - When the system is off:**  
The outside air damper shall be closed.  
The return air damper shall be open.  
The unit supply fan shall be off.  
The cooling coil valve shall be closed.  
All control loops shall be disabled.

**System Start-up - 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 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. Operation of the system during Pre-Start Mode shall not include ventilation air.

**NIGHT-SETBACK MODE:**  
The system shall be enabled automatically by the EMCS based on the cooling demand of 5 (adjustable) or more associated terminal units whose space temperature has exceeded the terminal units Unoccupied Cooling 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.

**OCCUPIED MODE:**  
The system shall be enabled automatically by the EMCS based on the actual space occupancy. When the Time of Day schedule (TOD) is active, the system shall operate per the **System Operation** section, as detailed below, and the Demand Control Ventilation sequence shall be active.  
**Demand Control Ventilation** - The outside air intake damper shall be modulated to maintain the scheduled minimum outside air flowrate setpoint. If the space carbon dioxide concentration for any zone served by the associated AHU is above the defined high-limit, then the OSA damper shall be modulated to maintain the scheduled maximum outside air flowrate setpoint. If the OSA damper is above 95% open and the maximum outside air flowrate setpoint cannot be met, then modulate the return air damper closed until the flowrate is achieved. Do not modulate the return air damper to less than 60% open. Once the space carbon dioxide concentration for all associated zones has been below the defined high limit for 5 minutes (adj.), the OSA damper shall be modulated to maintain the scheduled minimum outside air flowrate setpoint.

**System Operation - When system start-up has been initiated:**  
The variable speed supply fan shall start at its minimum speed. Following a confirmation of fan start status, the supply fan speed shall be modulated to maintain the supply air static pressure at setpoint. The speed of the fan shall not be adjusted by more than 20% in any one-minute period. The static pressure setpoint shall be reset via the control algorithm below to optimize the energy usage.

**Supply Air Static Pressure Reset** - The static pressure setpoint shall be reset up in defined increments at defined intervals until the primary air damper position to all of the associated terminal units have been below the defined value for more than the defined interval. The static pressure setpoint shall be reset down in defined increments at defined intervals until the primary air damper position to at least one (critical zone) of the associated terminal units has been above the defined value for more than the defined interval. The setpoints are detailed in the **System Setpoint** section below.

The chilled water coil control valve shall be modulated to maintain the active supply air temperature setpoint. The supply air temperature setpoint shall be reset via the control algorithm below to optimize the energy usage.  
**Supply Air Temperature Reset** - The supply air temperature setpoint shall be reset based on the actual return air temperature, according to the defined reset schedule detailed in the **System Setpoint** section below. If the Demand Control Ventilation sequence is in maximum flow mode, then the supply air temperature reset shall be disabled and the setpoint shall be set to the initial value.

**Energy Recovery/Economizer:**  
When the outside air damper is open, then open the exhaust air damper and energize the exhaust/relief fan. Modulate the speed of the exhaust/relief fan so that the volume of exhaust/relief air equals the volume of outside air minus the exhaust for the area served by the air handling unit. The building shall remain in an overall positive pressure.

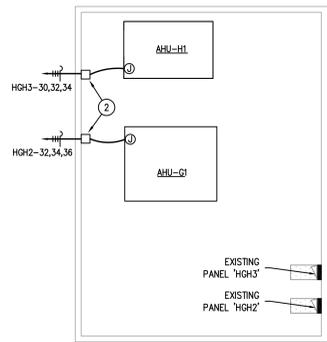
**System Setpoints - The setpoints for the system shall be determined as follows:**  
The maximum speed reference value shall be the VFD speed required to obtain the design supply airflow value from the unit schedule on the Mechanical Drawings.  
The minimum speed reference value shall be VFD speed required to obtain 50% of the design supply airflow value from the unit schedule on the mechanical drawings but not less than the active outside air flow rate setpoint.  
The supply air static pressure setpoint shall be set initially at 1.25 inches w.c. (adj) and shall have reset limits of 0.20 to 2.00 inches w.c. (adj).  
The time interval for static pressure reset shall be set at 10 minutes (adj).  
The static pressure reset increment shall be set at 0.05 inches w.c. (adj).  
The terminal unit primary damper position setpoint shall be 90% open. (adj)  
The time interval for terminal unit primary damper position shall be set at 15 minutes. (adj)  
The supply air temperature setpoint shall be set initially at 54 °F. (adj)  
The supply air temperature setpoint shall be reset to 54 °F (adj) when the return air temperature is at 78 °F. (adj)  
The supply air temperature setpoint shall be reset to 58 °F (adj) when the return air temperature is at 72 °F. (adj)  
The minimum outside air flowrate setpoint shall be set at the scheduled minimum flowrate from the unit schedule 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 shall be set at 1000 ppm (adj).  
The supply duct static pressure high-limit setpoint shall be set at 2.0 in. wc. (adj).  
The air filter pressure differential high-limit setpoint shall be set at 1.0 in. wc. (adj).  
The freeze-stat low-limit trip setpoint shall be set at 37°F(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 the high-static pressure shut down.  
Automatically by the unit freeze-stat shut down.  
Automatically by a supply fan current sensor status failure.

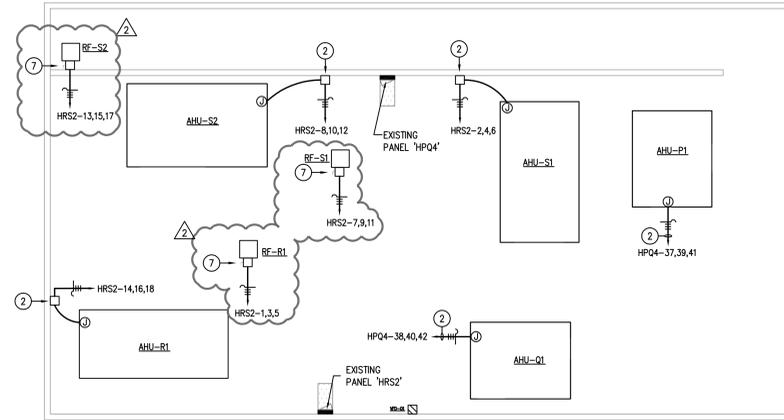
**System Alarms - The EMCS shall generate an alarm if:**  
If the supply air temperature is outside the limits, which shall be set at +/- 5 °F around setpoint.  
If any associated space carbon dioxide level exceeds its high-limit for more than 20 minutes (adj) or exceeds the high-limit by 10% or more.  
If the supply duct static pressure exceeds the high-limit setpoint.  
If the unit freeze-slat trips.  
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.

1 VAV Air Handling Unit w/ Enthalpy Core - Control Schematic and Sequence of Operations  
NOT TO SCALE

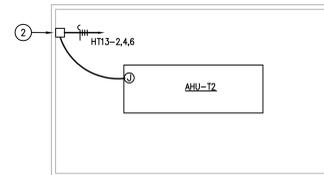
Plotted: Apr 4, 2022, 5:05 PM by: user: m60275 - Sheet: 44/0202, by: user: m60275  
C:\Users\ngaza\OneDrive\Documents\DBR\160218007\001 - EGISD - District Wide HVAC Improvements - EHS\Project Files\Drawings\04-218007-DETAILS AND SCHEDULES-3.dwg



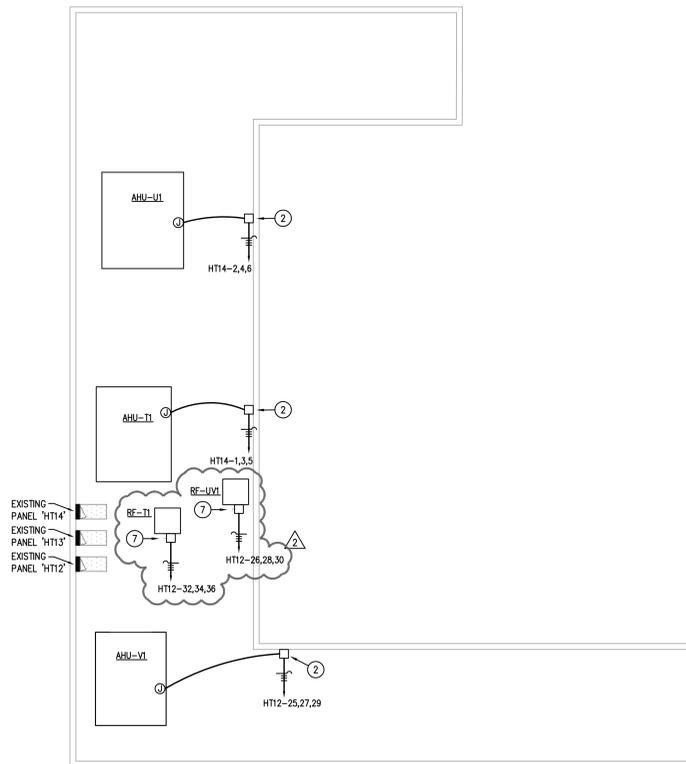
**1 ELECTRICAL POWER PLAN - AREA H MEZZANINE**  
EP2.14 1/8" = 1'-0"



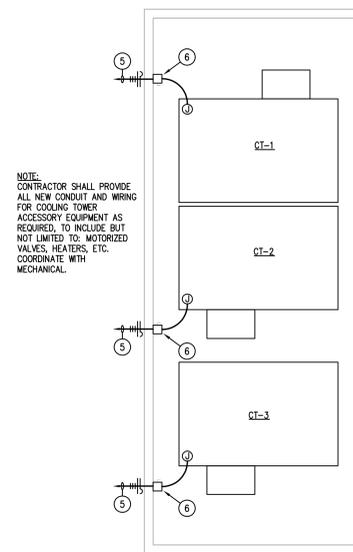
**2 ELECTRICAL POWER PLAN - GYM MEZZANINE**  
EP2.14 1/8" = 1'-0"



**4 ELECTRICAL POWER PLAN - KITCHEN MEZZANINE**  
EP2.14 1/8" = 1'-0"



**3 ELECTRICAL POWER PLAN - FINE ARTS MEZZANINE**  
EP2.14 1/8" = 1'-0"



**5 ELECTRICAL POWER PLAN - COOLING TOWERS**  
EP2.14 1/8" = 1'-0"

**GENERAL ELECTRICAL NOTES:**

- A. CONTRACTOR SHALL VERIFY EQUIPMENT LOCATIONS WITH MECHANICAL PRIOR TO ROUGH-IN. REFER TO M-SERIES SHEETS FOR ADDITIONAL INFORMATION.
- B. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH MECHANICAL CONTRACTOR FOR ALL EXHAUST FAN CONTROLS. PROVIDE A FAN SWITCH IF INDICATED BY MECHANICAL. ALL EXHAUST FANS SHALL BE PROVIDED WITH BUILT-IN DISCONNECT SWITCH.

**ELECTRICAL KEYED NOTES:**

- 1 CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIAL AS REQUIRED TO DISCONNECT EXISTING CIRCUIT FROM VAN UNIT TO BE REMOVED AND RECONNECT TO NEW UNIT. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL CONTRACTOR.
- 2 VFD, COORDINATE EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL. VFD SHALL BE PROVIDED AND INSTALLED BY MECHANICAL. WIRED BY ELECTRICAL. VFD SHALL SERVE AS DISCONNECTING MEANS.
- 3 CONTRACTOR SHALL DISCONNECT EXISTING CIRCUIT FROM EXISTING CHILLER TO BE REMOVED AND RECONNECT TO NEW CHILLER. COORDINATE EXACT REQUIREMENTS WITH MECHANICAL AND INSTALLED EQUIPMENT.
- 4 PROVIDE 20A/1P CIRCUIT TO NEAREST 120V PANEL. PROVIDE NEW 20A/1P BREAKER. FIELD COORDINATE.
- 5 #4, #6GND, 1 1/4" CONDUIT TO MCC. REUSED EXISTING 80A/3P BREAKER. ROUTE CIRCUIT THROUGH VFD PROVIDED BY MECHANICAL. SEE DETAIL 3/EP2.13 FOR VFD LOCATION. VFD SHALL BE PROVIDED AND INSTALLED BY MECHANICAL. WIRED BY ELECTRICAL. COORDINATE EXACT REQUIREMENTS WITH MECHANICAL AND INSTALLED EQUIPMENT.
- 6 100A/3P/N/F ANX DISCONNECT SWITCH. PROVIDE WITH AUXILIARY CONTACTS FOR EARLY BREAK. COORDINATE EXACT LOCATION IN FIELD. PROVIDE CODE REQUIRED MOUNTING AND CLEARANCE.
- 7 30A/3P/N/F ANX DISCONNECT SWITCH. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL.

**AHU ELECTRICAL SCHEDULE**

UNIT MARK	BREAKER SIZE	CIRCUIT SIZE
AHU-A1 (SUPPLY)	25A/3P	3#10, #10GND, 3/4" CONDUIT
AHU-A1 (EXHAUST)	15A/3P	3#12, #12GND, 3/4" CONDUIT
AHU-B1 (SUPPLY)	40A/3P	3#8, #10GND, 1" CONDUIT
AHU-B1 (EXHAUST)	15A/3P	3#12, #12GND, 3/4" CONDUIT
AHU-D1	40A/3P	3#8, #10GND, 1" CONDUIT
AHU-E1 (SUPPLY)	40A/3P	3#8, #10GND, 1" CONDUIT
AHU-E1 (EXHAUST)	15A/3P	3#12, #12GND, 3/4" CONDUIT
AHU-F1	30A/3P	3#10, #10GND, 3/4" CONDUIT
AHU-G1	30A/3P	3#10, #10GND, 3/4" CONDUIT
AHU-H1	20A/3P	3#12, #12GND, 3/4" CONDUIT
AHU-J1 (SUPPLY)	25A/3P	3#10, #10GND, 3/4" CONDUIT
AHU-J1 (EXHAUST)	15A/3P	3#12, #12GND, 3/4" CONDUIT
AHU-L1 (SUPPLY)	50A/3P	3#8, #10GND, 1" CONDUIT
AHU-L1 (EXHAUST)	15A/3P	3#12, #12GND, 3/4" CONDUIT
AHU-M1 (SUPPLY)	40A/3P	3#8, #10GND, 1" CONDUIT
AHU-M1 (EXHAUST)	15A/3P	3#12, #12GND, 3/4" CONDUIT
AHU-P1	30A/3P	3#10, #10GND, 3/4" CONDUIT
AHU-Q1	30A/3P	3#10, #10GND, 3/4" CONDUIT
AHU-R1	40A/3P	3#8, #10GND, 1" CONDUIT
AHU-S1	40A/3P	3#8, #10GND, 1" CONDUIT
AHU-S2	40A/3P	3#8, #10GND, 1" CONDUIT
AHU-T1	30A/3P	3#10, #10GND, 3/4" CONDUIT
AHU-T2	20A/3P	3#12, #12GND, 3/4" CONDUIT
AHU-U1	40A/3P	3#8, #10GND, 1" CONDUIT
AHU-V1	30A/3P	3#10, #10GND, 3/4" CONDUIT
RF-R1	15A/3P	3#12, #12GND, 3/4" CONDUIT
RF-S1	15A/3P	3#12, #12GND, 3/4" CONDUIT
RF-S2	15A/3P	3#12, #12GND, 3/4" CONDUIT
RF-T1	15A/3P	3#12, #12GND, 3/4" CONDUIT
RF-U1	15A/3P	3#12, #12GND, 3/4" CONDUIT

NOTE:  
CONTRACTOR SHALL PROVIDE ALL NEW CONDUIT AND WIRING FOR COOLING TOWER ACCESSORY EQUIPMENT AS REQUIRED. TO INCLUDE BUT NOT LIMITED TO: MOTORIZED VALVES, HEATERS, ETC. COORDINATE WITH MECHANICAL.



**REVISION:**

No.	DATE	DESCRIPTION
1	03/23/2022	ADDENDUM No.1
2	04/04/2022	ADDENDUM No.2



EDINBURG CONSOLIDATED INDEPENDENT SCHOOL DISTRICT  
**EDINBURG HS - HVAC IMPROVEMENTS**  
2600 E WISCONSIN RD, EDINBURG, TX 78542

DATE: 03/09/2022  
DRAWN BY: DBR  
CHECKED BY: DBR  
PROJECT NUMBER: 218007.001  
SHEET TITLE:

LEVEL 1  
**ELECTRICAL POWER PLAN**

SHEET NUMBER:

EP2.14

TRUE NORTH PLAN NORTH

DBR Project Number 218007.001

HA | MG | JB | TL | --

Plotted: Apr 4, 2022 10:58 PM by user: hughes, Source: H:\2022\Drawings\2022\EP2.14\Drawings\EP2.14.dwg  
 C:\Users\hughes\OneDrive\Documents\2022\Drawings\2022\EP2.14\Drawings\EP2.14.dwg

# GENERAL NOTES

## DESIGN CRITERIA

- FRAMING DESIGN & FOUNDATION IS IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE 2018

## WELDING

- REFERENCES:  
AWS D1.1-86 – "STRUCTURAL WELDING CODE – STEEL"  
AWS D1.3-81 – "STRUCTURAL WELDING CODE – SHEET STEEL"
- ALL WELDING BY AWS QUALIFIED OPERATORS.

## GENERAL

- THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS FULLY COMPLETED. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE AND TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENT PARTS DURING ERECTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIE DOWNS WHICH MIGHT BE NECESSARY. SUCH MATERIAL SHALL REMAIN THE CONTRACTOR'S PROPERTY AFTER THE COMPLETION OF THE PROJECT.
- IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.
- EQUIPMENT FRAMING LOADS, OPENINGS AND STRUCTURE IN ANY WAY RELATED TO HVAC, PLUMBING, OR ELECTRICAL REQUIREMENTS ARE SHOWN FOR BIDDING PURPOSES ONLY. CONTRACTOR SHALL OBTAIN APPROVAL OF THE INVOLVED TRADES BEFORE PROCEEDING WITH SUCH PORTION OF THE WORK. EXCESS COST RELATED TO VARIATION IN THESE REQUIREMENTS TO BE BORNE BY THE APPROPRIATE CONTRACTOR.
- SHOULD ANY OF THE DETAILED INSTRUCTIONS SHOWN ON THE PLANS CONFLICT WITH THESE STRUCTURAL NOTES, THE SPECIFICATIONS, OR WITH EACH OTHER, THE STRICTEST PROVISION SHALL GOVERN.
- REFER TO THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING FOR SLEEVES, CURBS, INSERTS, ETC. NOT SHOWN ON STRUCTURAL DRAWINGS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES AND SHALL CHECK ALL DIMENSIONS. ANY DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE ARCHITECT AND BE RESOLVED BEFORE PROCEEDING WITH ANY WORK.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL EXCAVATION PROCEDURES INCLUDING LAGGING, SHORING AND PROTECTION OF ADJACENT PROPERTY, STRUCTURES, STREETS AND UTILITIES IN ACCORDANCE WITH ALL NATIONAL, STATE, AND LOCAL SAFETY ORDINANCES.
- THE STRUCTURAL INTEGRITY OF ANY BUILDING RELIES ON THE FULL INTERACTION OF ALL ITS COMPONENT PARTS, WITH NO PROVISIONS MADE FOR CONDITIONS AND/OR SEQUENCES OF CONSTRUCTION AND THE STRUCTURAL DESIGN IS BASED ON THIS PREMISE. THEREFORE THE CONTRACTOR SHALL PROVIDE ADEQUATE BRACING OF SUPERSTRUCTURE DURING CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR RIGID BRACING OF ALL WALLS, FORMWORK, SHORING AND FALSE WORK DURING CONSTRUCTION.
- CONTRACTOR SHALL VERIFY ALL DROP, OFFSETS, BLOCKOUTS, FINISHES, AND DIMENSIONS, WITH ARCHITECTURAL PLANS PRIOR TO PROJECT LAYOUT.
- THE USE OF REPRODUCTION OF THESE CONTRACT DRAWINGS BY ANY CONTRACTOR, ERECTOR, FABRICATOR OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS SIGNIFIES HIS ACCEPTANCE OF ALL INFORMATION SHOWN HEREON AS CORRECT, AND OBLIGATES HIMSELF TO ANY JOB EXPENSE, REAL OR IMPLIED, DUE TO ANY ERRORS THAT MAY OCCUR.
- CONTRACTOR IS RESPONSIBLE FOR ALL METHODS AND PROCEDURES DURING CONSTRUCTION. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN INTEGRITY OF STRUCTURE DURING CONSTRUCTION.
- ALL MATERIAL AND WORKMANSHIP SHALL COMPLY WITH THE DRAWINGS, SPECIFICATIONS AND REFERENCE CODE.
- STRUCTURAL MEMBERS HAVE BEEN LOCATED AND DESIGNED TO ACCOMMODATE THE MECHANICAL EQUIPMENT AND OPENINGS SPECIFIED BY THE MECHANICAL CONSULTANT. ANY SUBSTITUTIONS RESULTING IN REVISIONS TO THE STRUCTURE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE STRUCTURAL ENGINEER.
- THE GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL DETERMINE THE SCOPE OF THE STRUCTURAL WORK FROM THE CONTRACT DOCUMENTS TAKEN AS A WHOLE INCLUDING ARCHITECTURAL AND MECHANICAL DRAWINGS. THE STRUCTURAL SHALL NOT BE CONSIDERED SEPARATELY FOR THE PURPOSES OF BIDDING THE STRUCTURAL WORK. CONTRACTOR SHALL REVIEW THE ENTIRE DRAWING PACKAGE IN ORDER TO DETERMINE THE SCOPE OF STRUCTURAL WORK INCLUDING NECESSARY COORDINATION SHOWN IN OTHER CONSULTANT DRAWINGS.
- NOTED SCALES ARE FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR SHALL NOT SCALE THE DRAWINGS FOR THE PURPOSE OF DETERMINING DIMENSIONAL INFORMATION.
- ANY ALTERNATES ACCEPTED BY THE OWNER, GENERAL CONTRACTOR OF SUBCONTRACTOR SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO COORDINATE.
- PRINCIPAL OPENINGS ARE INDICATED ON THE STRUCTURAL DRAWINGS. OTHER OPENINGS (SLEEVES, BLOCKOUTS, ETC.) ARE SHOWN IN THE ARCHITECTURAL AND MECHANICAL DRAWINGS. CONTRACTOR SHALL SUBMIT TO ARCHITECT AND ENGINEER A PLAN WITH ALL PROPOSED OPENINGS COORDINATED WITH ALL THE TRADES. ADDITIONAL REINFORCEMENT AND/OR STRUCTURAL MEMBERS MAY BE REQUIRED UPON REVIEW.

## COORDINATION

- ONLY LARGER SLEEVE OPENINGS AND FRAMED OPENINGS IN STRUCTURAL FRAMING COMPONENT MEMBERS ARE INDICATED ON THE STRUCTURAL DRAWINGS. HOWEVER, ALL SLEEVES, INSERTS AND OPENINGS, INCLUDING FRAMES AND/OR SLEEVES SHALL BE PROVIDED FOR PASSAGE, PROVISION AND/OR INCORPORATION OF THE WORK OF THE CONTRACT, INCLUDING BUT NOT LIMITED TO ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING WORK. THIS WORK SHALL INCLUDE THE COORDINATION OF SIZES, ALIGNMENT, DIMENSIONS, POSITION, LOCATIONS, ELEVATIONS AND GRADES AS REQUIRED TO SERVE THE INTENDED PURPOSE. OPENINGS NOT INDICATED ON THE STRUCTURAL DRAWINGS, BUT REQUIRED AS NOTED ABOVE, SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.
- REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR FLOOR ELEVATIONS, SLOPES, DRAINS AND LOCATION OF DEPRESSED AND ELEVATED FLOOR AREAS.
- COMPATIBILITY OF THE STRUCTURE AND PROVISIONS FOR BUILDING EQUIPMENT SUPPORTED ON OR FROM STRUCTURAL COMPONENTS SHALL BE VERIFIED AS TO SIZE, DIMENSIONS, CLEARANCES, ACCESSIBILITY, WEIGHTS AND REACTION WITH THE EQUIPMENT FOR WHICH THE STRUCTURE HAS BEEN DESIGNED PRIOR TO SUBMISSION OF SHOP DRAWINGS AND DATA FOR EACH PIECE OF EQUIPMENT AND FOR STRUCTURAL COMPONENTS. DIFFERENCES SHALL BE NOTED ON THE SUBMITTALS.
- SHOP DRAWINGS SHALL BE PREPARED FOR ALL STRUCTURAL ITEMS AND SUBMITTED FOR REVIEW BY THE ENGINEER. CONTRACT DRAWINGS SHALL NOT BE REPRODUCED AND USED AS SHOP DRAWINGS. ALL ITEMS DEVIATING FROM THE CONTRACT DRAWINGS OR FROM PREVIOUSLY SUBMITTED SHOP DRAWINGS SHALL BE CLOUDED.
- THE DETAILS DESIGNATED AS "TYPICAL DETAILS" APPLY GENERALLY TO THE DRAWINGS IN ALL AREAS WHERE CONDITIONS ARE SIMILAR TO THOSE DESCRIBED IN THE DETAILS.
- THE DESIGN AND PROVISION OF ALL TEMPORARY SUPPORTS SUCH AS GUYS, BRACES, FALSEWORK, SUPPORTS AND ANCHORS FOR SAFETY LINES, CRIBBING, OR ANY OTHER TEMPORARY ELEMENTS REQUIRED FOR THE EXECUTION OF THE CONTRACT ARE NOT INCLUDED IN THESE DRAWINGS AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. TEMPORARY SUPPORTS SHALL NOT RESULT IN THE OVERSTRESS OR DAMAGE OF THE ELEMENTS TO BE BRACED NOR ANY ELEMENTS USED AS BRACE SUPPORTS.

## CODES

- BUILDING CODE: 2018 INTERNATIONAL BUILDING CODE WITH CITY OF EDINBURG, TEXAS AMENDMENTS.
- STRUCTURAL CONCRETE: BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, AMERICAN CONCRETE INSTITUTE, ACI 318.
- STRUCTURAL STEEL: MANUAL OF STEEL CONSTRUCTION, ALLOWABLE STRESS DESIGN, AMERICAN INSTITUTE OF STEEL CONSTRUCTION, NINTH EDITION.
- ASCE 7-05

## STRUCTURAL STEEL

- MATERIALS:  
A. STRUCTURAL STEEL: W SECTIONS ASTM- A572 FY= 50 KSI  
HSS SECTIONS - ASTM- A500 GRADE B  
ALL OTHER SECTIONS - ASTM- A36  
HIGH STRENGTH BOLTS: ASTM A325 OR A490  
ANCHOR BOLTS: ASTM A307 OR A36  
ELECTRODES: SERIES E70  
STRUCTURAL PIPES: ASTM A53 OR A501; FY = 35 KSI  
EXPANSION BOLTS: "HULT" "NOK" BOLTS" OR APPROVED EQUAL.
- SPECIFICATIONS: WELDING PERSONNEL AND PROCEDURES ARE TO BE QUALIFIED PER AWS D1.1. UNLESS SPECIFICALLY SHOWN OTHERWISE, DESIGN, FABRICATION AND ERECTION TO BE GOVERNED BY:  
A. AISC SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS (JUNE 1, 1989).  
B. AISC CODE OF STANDARD PRACTICE (SEPTEMBER 1, 1986).  
C. STRUCTURAL WELDING CODE, AWS D1.1-88 OF THE AMERICAN WELDING SOCIETY.  
D. SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS (NOVEMBER 13, 1985).
- CONNECTIONS:  
A. CONNECTIONS TO BE DESIGNED BY THE FABRICATOR TO DEVELOP FULL STRENGTH OF MEMBER.  
B. FOLLOW INSTRUCTIONS ON DRAWINGS FOR GENERAL ARRANGEMENT OR PARTICULAR DETAILS. FIELD CONNECTIONS TO BE BOLTED. SHOP CONNECTIONS TO BE WELDED OR BOLTED.  
C. FULL PENETRATION AND PARTIAL PENETRATION FIELD WELDS IN MATERIAL OVER 5/16 INCH THICK SHALL BE SUBJECT TO NON-DESTRUCTIVE TESTING (OTHER THAN VISUAL INSPECTION) BY AN INDEPENDENT LABORATORY.  
D. ALL BOLTS IN BRACED FRAMES AND BOLTS IN SHEAR CONNECTIONS USED IN CONJUNCTION WITH FULL PENETRATION FLANGE WELDS SHALL BE SLIP CRITICAL (FRICTION) TYPE.
- PAINT:  
A. DO NOT PAINT ANY STEEL WHICH WILL BE CONCEALED FROM VIEW. PAINT ALL VISIBLE STEEL GREY.
- GALVANIZING: ALL SHELF ANGLES, LINTELS IN EXTERIOR WALLS, AND ALL EXTERIOR STEEL EXPOSED TO THE ELEMENTS SHALL BE GALVANIZED.
- MISCELLANEOUS:  
A. PROVIDE HOLES FOR OTHERS. IF OPENING IS NOT SHOWN ON THE STRUCTURAL DRAWINGS, OBTAIN PRIOR APPROVAL.  
B. STEEL SUPPORTING OR CONNECTED TO HVAC AND OTHER EQUIPMENT AND ROOF OPENINGS AS SHOWN ON THE DRAWINGS IS SHOWN FOR BIDDING PURPOSES ONLY. CONTRACTOR SHALL RECONCILE EXACT SIZE AND LOCATION BEFORE PROCEEDING WITH HIS WORK.  
C. GROUT UNDER BEARING PLATES, BASE PLATES, AND SETTING PLATES TO BE NON-SHRINKING TYPE.  
D. STEEL BELOW GRADE TO BE PROTECTED BY A MINIMUM OF 3 INCHES OF CONCRETE.  
E. PROVIDE 1/4 INCH THICK SETTING PLATES FOR ALL BEAMS BEARING ON MASONRY WHICH DO NOT REQUIRE A BEARING PLATE.  
F. PROVIDE SHOP WELDED ANCHORS FOR ATTACHMENTS OF MASONRY. SPACING TO BE 16 INCHES ON COLUMNS AND BEAMS.  
G. PROVIDE HEAVY WASHER AT ALL ANCHOR BOLTS.  
H. FINISH ENDS OF ALL COLUMNS, STIFFENERS AND ALL OTHER MEMBERS IN DIRECT BEARING.  
I. PROVIDE BOLT HOLES FOR JOISTS BOLTED TO BEAMS AND ATTACHMENT FOR JOINING EXTENDED JOIST BOTTOM CHORDS.  
J. MINIMUM BEAM BEARING ON MASONRY = 8 INCHES UNLESS NOTED OTHERWISE.  
L. EMBEDMENT LENGTH OF EXPANSION BOLTS INTO SOILD MASONRY OR CONCRETE SHALL BE AS FOLLOWS:  
1/2 INCH DIAMETER BOLTS ---- 3 1/2 INCHES EMBEDMENT  
3/4 INCH DIAMETER BOLTS ---- 5 INCHES EMBEDMENT  
M. PROVIDE 8000 LBS. OF RED IRON ALLOWANCE. ALLOWANCE SHALL INCLUDE THE COST OF LABOR.  
N. PROVIDE ADEQUATE AND APPROPRIATE STRUCTURAL STEEL FRAMING APPROVED BY THE ENGINEER, FOR THE SUPPORT AND MOUNTING OF MECHANICAL EQUIPMENT EXISTING ON, OR SUSPENDED FROM, STEEL JOISTS. MAXIMUM WEIGHT TO BE HUNG OFF JOISTS BETWEEN "PANEL POINTS" (THE JUNCTURES OF CHORDS AND DIAGONAL WEB MEMBERS) IS 150 LBS. LOADS IN EXCESS OF 50 LBS. REQUIRED JOISTS TO BE MODIFIED OR STRENGTHENED TO CARRY SUCH LOADS.  
O. STEEL STAIRS TO BE DESIGNED AND DETAILED FOR LL=100 PSF BY STEEL FABRICATOR UNDER DIRECT SUPERVISION OF A REGISTERED PROFESSIONAL ENGINEER. SHOP DRAWINGS TO BE SIGNED AND SEALED BY THE SPECIALTY ENGINEER.
- QUALITY ASSURANCE:  
A) INSTALLER QUALIFICATIONS: A QUALIFIED INSTALLER SPECIALIZING IN PERFORMING THE WORK OF THIS SECTION WITH A MINIMUM 5 YEARS DOCUMENTED EXPERIENCE.  
B) FABRICATOR QUALIFICATIONS: A QUALIFIED FABRICATOR, SPECIALIZING IN PERFORMING THE WORK OF THIS SECTION WITH A MINIMUM OF 10 YEARS DOCUMENTED EXPERIENCE, THAT PARTICIPATES IN THE AISC QUALITY CERTIFICATION PROGRAM AND IS DESIGNATED AN AISC-CERTIFIED PLANT, CATEGORY STD.  
C) WELDING QUALITY PROCEDURES AND PERSONNEL ACCORDING TO AWS D1.1, "STRUCTURAL WELDING CODE-STEEL."
- STRUCTURAL FRAMING CONNECTIONS SHALL BE SEATED COLUMN CAPS, CLIP ANGLES WEB PLATES AS SHOWN ON DETAILS. USE A325 HIGH STRENGTH BOLTS OR WELDS SUFFICIENT TO DEVELOP REACTION CAPACITY SHOWN IN AISC MANUAL (9TH EDITION) AS THE ALLOWABLE UNIFORM LOAD/SPAN DIVIDED BY TWO AS SHOWN IN THE (9TH EDITION) OR THE MAXIMUM TOTAL UNIFORM LOAD/SPAN DIVIDED BY TWO AS SHOWN IN TABLES 3-6 THROUGH 3-9 OF THE 13TH EDITION (ASD).

## STRUCTURAL STEEL CONNECTIONS

- WELDING SHALL CONFORM TO ANSI/AWS D11, LATEST EDITION.
- BOLTS SHALL CONFORM TO ASTM A325. BOLTS SHALL BE DESIGNED USING VALUES FOR BEARING TYPE BOLTS WITH THREAD ALLOWED IN THE SHEAR PLANE.
- ANCHOR BOLTS SHALL BE: ASTM F1554 GR. 36
- STRUCTURAL STEEL CONNECTION NOT SPECIFICALLY DETAILED ON THE DRAWINGS SHALL BE DESIGNED AND DETAILED BY THE CONTRACTOR UNDER THE DIRECT SUPERVISION OF A REGISTERED ENGINEER LICENSED IN THE STATE OF TEXAS. SEALED CALCULATIONS FOR ALL CONNECTIONS DESIGNED BY THE CONTRACTOR SHALL BE SUBMITTED FOR THE ARCHITECT'S FILES.
- BEAM CONNECTIONS SHALL BE DESIGNED AND DETAILED AS FOLLOWS, UNLESS NOTED OTHERWISE ON THE DRAWINGS:  
A. CONNECTION SHALL BE AISC TYPE 2 SIMPLE FRAMING CONNECTIONS. SHEAR TAB CONNECTIONS SHALL NOT BE USED.  
B. IN GENERAL, SHOP CONNECTIONS SHALL BE BOLTED OR WELDED AND FIELD CONNECTIONS SHALL BE BOLTED.  
C. WHERE INDICATED, CONNECTIONS SHALL BE DESIGNED FOR THE SCHEDULED SHEAR FORCE. THE SHEAR FORCE INDICATED ON THE DRAWINGS AS "V<sub>s</sub>", AND THE HORIZONTAL FORCE INDICATED AS "H<sub>s</sub>".  
D. IF NOT INDICATED ON THE DRAWINGS, CONNECTIONS SHALL BE DESIGNED FOR 55 PERCENT OF THE TOTAL LOAD CAPACITY FOR THE BEAM SPAN SHOWN IN THE BEAM TABLES IN SECTION 2 OF THE AISC MANUAL, NINTH EDITION.  
E. THE MINIMUM NUMBER OF ROWS OF BOLTS SHALL BE 1/6 OF THE BEAM DEPTH WITH ANY FRACTION BE ROUDED TO THE NEXT HIGHER NUMBER.  
F. BOLTS SHALL BE "SNUG TIGHT", U.N.O.
- SHORT SLOTTED HOLES SHALL BE PERMITTED PROVIDED WASHERS ARE INSTALLED IN ACCORDANCE WITH AISC REQUIREMENTS. WASHERS SHALL BE HARDENED WHERE A325 BOLTS ARE UTILIZED.
- WIND BRACE CONNECTION SHALL BE DESIGNED AND DETAILED AS FOLLOWS, UNLESS NOTED OTHERWISE ON THE DRAWINGS:  
A. CONNECTIONS SHALL BE WELDED.  
B. CONNECTIONS SHALL BE DESIGNED AND DETAILED FOR THE FORCES SHOWN ON THE DRAWINGS.  
C. IF FORCES ARE NOT INDICATED ON THE DRAWINGS, CONNECTIONS SHALL BE DESIGNED TO DEVELOP THE FULL TENSILE CAPACITY OF THE MEMBERS.
- FOR CONNECTIONS NOT SPECIFICALLY ADDRESSED BY THESE NOTES OR THE DRAWINGS, PROVIDE FILLET WELDS AT ALL CONTACT SURFACES SUFFICIENT TO DEVELOP THE TENSILE STRENGTH OF THE SMALLER MEMBER AT THE JOINT.
- MOMENT CONNECTIONS INDICATED ON DRAWINGS SHALL BE WELDED TO DEVELOP THE FULL CAPACITY OF THE MEMBER.
- ROOF EDGE ANGLES SHALL BE CONTINUOUS AND SHALL BE SPLICED ONLY AT SUPPORTS. SPLICES SHALL BE BUTT WELDED TO DEVELOP FULL CAPACITY OF THE MEMBER.
- FILLET WELDS WITH NO SIZE SPECIFIED SHALL BE 3/16" OR MINIMUM SIZE REQUIRED BY AISC, WHICHEVER IS LARGER.

## CONCRETE

- ALL CONCRETE WORK SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE SPECIFICATION, A.C.I. #301 AND BUILDING CODE REQUIREMENTS, A.C.I. #318, LATEST EDITION.
- ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING BARS, UNLESS OTHERWISE NOTED, MUST FOLLOW THE A.C.I. "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE", A.C.I. #315, LATEST EDITION.  
CONCRETE SHALL HAVE A MINIMUM COMPRESSION STRENGTH AT 28 DAYS AS FOLLOWS:  
3000 PSI FOR ALL CONCRETE FOUNDATION COMPONENTS  
A MAXIMUM OF 20% FLYASH MAY BE USED IN CONCRETE MIX DESIGN AND SHALL CONFORM TO ASTM C618. THE WATER/CEMENT RATIO SHALL NOT EXCEED 0.58 AND SLABS SHALL BE BETWEEN 4 AND 5 INCHES. COORDINATE WITH OWNERS TESTING LABORATORY (IF ONE IS SELECTED) TO PROVIDE TESTING AS PER A.C.I.  
4. REINFORCING BARS SHALL BE MIN BILLET STEEL CONFORMING TO ASTM #4-#65, GRADE 60.  
5. STANDARD PROTECTIVE COVER OF REINFORCING BARS UNLESS OTHERWISE NOTED SHALL BE:  
WHERE CAST AGAINST DIRT OR FILL ..... 3 IN.  
EXPOSED TO EARTH OF WEATHER ..... 2 IN.  
COLUMNS ..... 1 1/2 IN.  
SLABS AND WALLS ..... 1 IN.  
OTHER ..... 1 1/2 IN.  
6. ALL ACCESSORIES SHALL BE IN ACCORDANCE WITH THE A.C.I. "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE", A.C.I. #315 LATEST EDITION. ACCESSORIES FOR EXPOSED CONCRETE SOFFITS SHALL HAVE PLASTIC COATED FIBER.  
7. VERTICAL CONSTRUCTION JOINTS IN FLOOR OR ROOF SLABS ARE TO BE AS SHOWN ON PLANS. NO HORIZONTAL JOINTS WILL BE PERMITTED IN SLABS OR BEAMS UNLESS OTHERWISE NOTED.  
8. MAINTAIN A MINIMUM OF ONE BAR DIAMETER (BUT NOT LESS THAN 1") BETWEEN ALL REINFORCING BARS (INCLUDING LAPS) ON ALL SLABS. MAINTAIN A MINIMUM OF 1-1/2" BETWEEN BARS IN COLUMNS, AND A MINIMUM OF 1-1/2" TIMES THE MAXIMUM COARSE AGGREGATE SIZE IN ALL CASES.  
9. BARS SCHEDULED OR DETAILED "CONT." SHALL BE LAPPED 40 BAR DIAMETERS UNLESS OTHERWISE NOTED.  
10. ALLOW FOR THE EQUIVALENT OF 5% OF REINFORCING FOR #4 BARS TO BE USED AS REQUIRED IN THE FIELD FOR SPECIAL CONDITIONS (LABOR FOR PLACING SAME TO BE INCLUDED).  
11. AT CORNERS AND "T" INTERSECTIONS OF ALL FOUNDATION BEAMS, EXTEND 4 CORNER BARS EQUAL TO THE DETAILED STEEL IN THE ADJACENT BEAMS 2'-0" EACH WAY, 2 BARS TOP AND 2 BARS BOTTOM.  
12. CONCRETE PLACED BY PUMPING SHALL MEET THE FOLLOWING REQUIREMENTS:  
a) COARSE AGGREGATE SHALL BE GRADED FROM A MAXIMUM OF 1" DOWN.  
b) MAXIMUM ALLOWABLE INCREASE IN CEMENT FACTOR SHALL BE 1/2 SACK PER CUBIC YARD OVER NORMAL MIX DESIGN.  
c) MAXIMUM WATER CEMENT RATIO SHALL BE 7-1/2 GALLONS PER SACK OF CEMENT. IF MORE WORKABILITY IS REQUIRED, AN ADMIXTURE MAY BE USED.  
d) MAXIMUM WEIGHT RATIO OF FINE AGGREGATES TO COARSE AGGREGATES SHALL NOT EXCEED 2/3.  
e) REFER TO A.C.I. #301, LATEST EDITION, SECTION 800, FOR OTHER PUMPING REQUIREMENTS.  
f) IN NO CASE SHALL CONCRETE BE PUMPED THROUGH AN ALUMINUM TUBE.

## MATERIALS

- SPECIFICATIONS: IN GENERAL, COMPLY WITH ACI 301-89 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS."
- STRUCTURAL CONCRETE

CLASS	LOCATION	FC
I.	FOOTINGS	3000 PSI
II.	INTERIOR SLABS ON GRADE, AND ALL INTERIOR CONCRETE NOT OTHERWISE IDENTIFIED	4000 PSI
III.	PERS PLACED INTEGRALLY WITH WALLS, EXTERIOR SLABS ON GRADE, AND ALL EXTERIOR CONCRETE (WITH AIR) NOT OTHERWISE IDENTIFIED	4000 PSI

- ALL DEFORMED REINFORCING BARS (ASTM A 615) FY = 60,000.
- WELDED WIRE FABRIC SHALL CONFORM TO ASTM A165-85. (SHEET FORM, NOT ROLLED)

- FIELD MANUAL: PROVIDE AT LEAST ONE COPY OF THE ACO FIELD REFERENCE MANUAL, SP-15, IN THE FIELD OFFICE AT ALL TIMES.

- CONTINGENCES:  
A. PROVIDE SUPPORTS AS REQUIRED TO MAINTAIN ALIGNMENT OF SCHEDULED REINFORCING. SUCH SUPPORTS ARE TO BE REFLECTED IN THE BID.

- FOOTINGS:  
A. DOWELS IN FOOTINGS TO MATCH VERTICAL WALL REINFORCING.  
B. PROVIDE LEAN CONCRETE (CLASS IV) UNDER FOUNDATIONS FOR ACCIDENTAL OVER-EXCAVATION, SOFT SPOTS AND TRENCHES.

- SPLICES: UNLESS NOTED OTHERWISE, MINIMUM LAP SPLICE LENGTHS TO BE AS FOLLOWS:  
A. VERTICAL BARS IN WALLS, PIERS, OR COLUMNS (INCLUDING DOWELS)  
B. HORIZONTAL BARS IN SLABS & FOOTING  
C. HORIZONTAL BARS IN WALL  
48 DIAMETER

- CONSTRUCTION JOINTS:  
A. CONSTRUCTION JOINTS PERMITTED ONLY WHERE SHOWN OR AS APPROVED BY THE STRUCTURAL ENGINEER. ALL CONSTRUCTION JOINTS ARE TO BE KEPT. KEYWAYS SHALL BE 1-1/2 INCHES DEEP X 1/3 MEMBER THICKNESS.

- CONCRETE COVER: UNLESS NOTED OTHERWISE, DETAIL REINFORCING TO PROVIDE CONCRETE COVER AS FOLLOWS:  
A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3 IN.  
B. CONCRETE EXPOSED TO EARTH OR WEATHER: #5 BARS AND SMALLER 1 1/2 IN. OTHERS 2 IN.  
C. CONCRETE NOT EXPOSED TO EARTH OR WEATHER: SLABS, WALLS, AND #1 BARS & SMALLER 1 IN. OTHERS 1 1/2 IN.

## SHOP DRAWINGS & SUBMITALS

- SHOP DRAWINGS SHALL BE PREPARED AND SUBMITTED FOR REVIEW TO THE STRUCTURAL ENGINEER FOR EACH STRUCTURAL BUILDING MATERIAL, AS INDICATED IN THE STRUCTURAL GENERAL NOTES AND THE CONTRACT SPECIFICATIONS. SEE THE CONTRACT SPECIFICATIONS FOR SUBMITTAL PROCEDURES AND ADDITIONAL INFORMATION.
- SHOP DRAWINGS SHALL USE DRAFTING LINE WORK AND LETTERING THAT IS CLEARLY LEGIBLE. SHOP DRAWINGS SHALL NOT CONTAIN REPRODUCTIONS OF THE CONTRACT DRAWING PLANS OR DETAILS.
- SHOP DRAWINGS SHALL NOT SHOW MATERIALS FOR MORE THAN ONE LEVEL OF THE SAME PLAN.
- SHOP DRAWINGS SHALL SHOW CLEAR AND COMPLETE INFORMATION FOR THE FABRICATION (DETAIL SHEETS AND/OR MATERIAL LISTS) AND INSTALLATION.
- ALLOW A MINIMUM OF (2) WEEKS FOR REVIEW OF EACH SET OF SHOP DRAWINGS.
- CONTRACTOR SHALL REVIEW THE SHOP DRAWINGS SUBMITTED BY THE SUBCONTRACTOR AND COORDINATE SHOP DRAWINGS WITH ALL OTHER TRADING.
- CONTRACTOR SHALL ANSWER ALL QUESTIONS OR CLARIFICATIONS BY THE SUBCONTRACTOR BEFORE SUBMITTING TO ENGINEER FOR REVIEW. ANY QUESTIONS THAT THE CONTRACTOR CANNOT ANSWER WITH THE INFORMATION ON THE DRAWINGS SHALL CLEARLY BE MARKED FOR THE ENGINEER FOR REVIEW.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS. SEE NOTE NUMBER 3 UNDER GENERAL NOTES.
- REVIEW OF SHOP DRAWINGS BY THE ENGINEER IS FOR GENERAL CONFORMANCE TO THE STRUCTURAL DRAWINGS. APPROVAL OF THE SHOP DRAWINGS BY THE ENGINEER DOES NOT RELIEF THE CONTRACTOR FOR ANY ERRORS IN DIMENSIONS OR MATERIALS INDICATED ON THE SHOP DRAWINGS.
- IF THERE IS ANY DISCREPANCY BETWEEN THE STRUCTURAL DRAWINGS AND SHOP DRAWINGS, THE INFORMATION SHOWN ON THE STRUCTURAL DRAWINGS GOVERN. INFORMATION THAT IS NOT INDICATED ON THE SHOP DRAWINGS SHALL BE OBTAINED FROM THE STRUCTURAL DRAWINGS. PROVIDE SUBMITTALS FOR THE FOLLOWING ITEMS:  
A. CONCRETE MIX DESIGN  
B. CURING COMPOUND FOR CONCRETE  
C. REINFORCING STEEL  
D. STRUCTURAL STEEL

Project Name and Address

Edinburg High School  
2006 E Wisconsin Rd  
Edinburg, Texas 78542

No. Revision/Issue Date



C. Hinojosa, Jr.

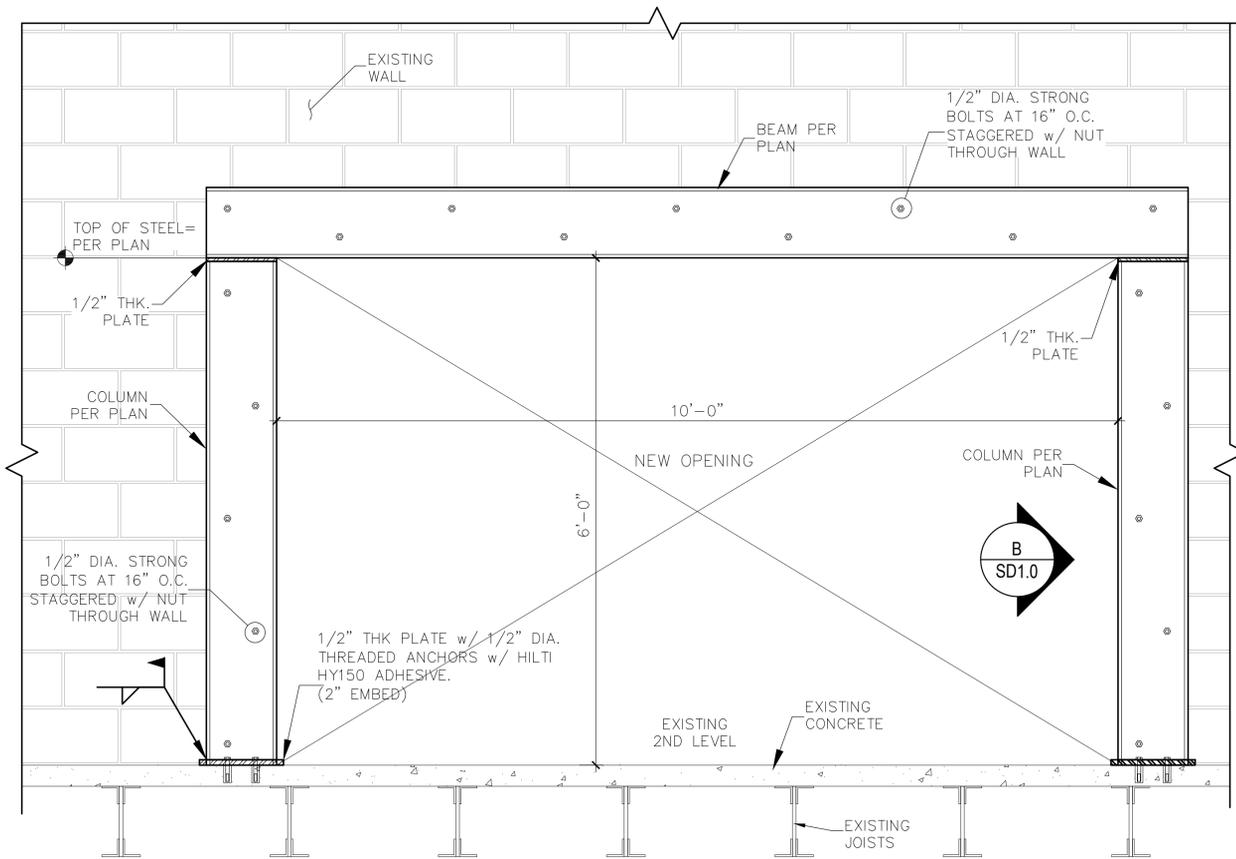
**CLH**

ENGINEERING, INC.  
T&PE FIRM No. F-8719  
701 S. 15th STREET McALLEN, TX. 78501  
(956) 687-5360 (956) 687-5361 FAX

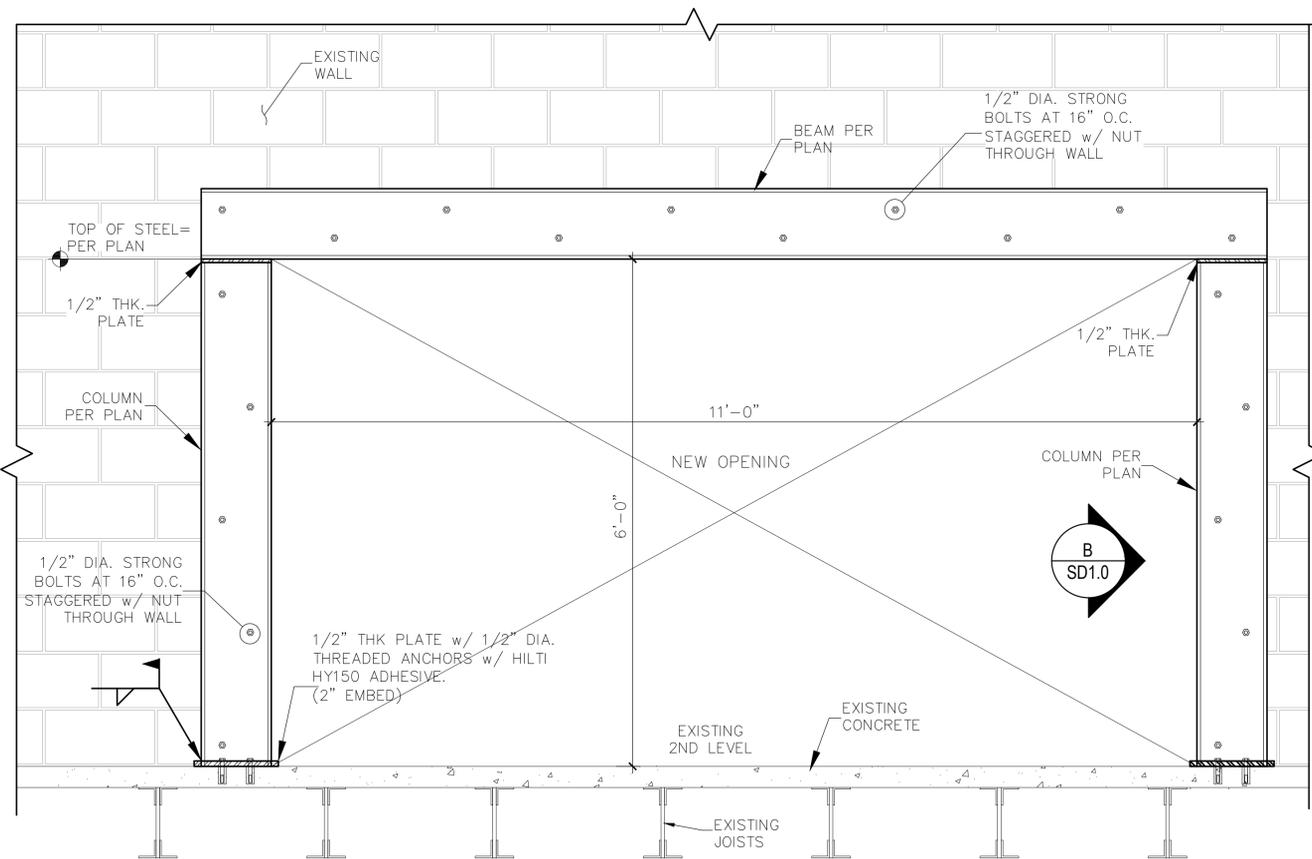
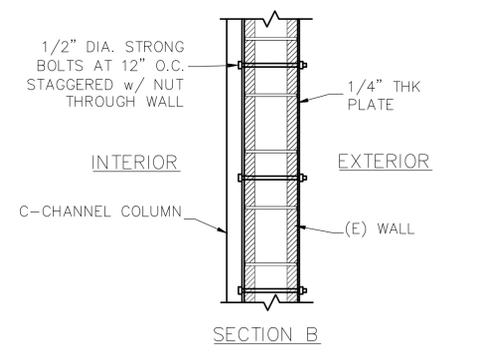
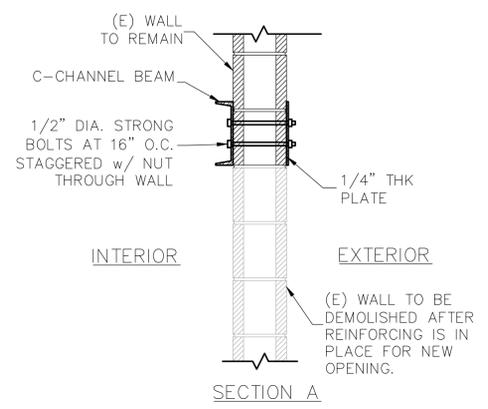
Sheet Title Sheet

Date **S1.0**

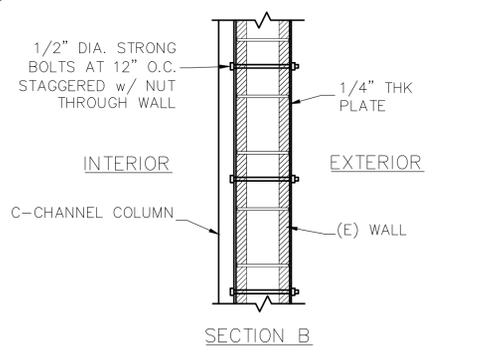
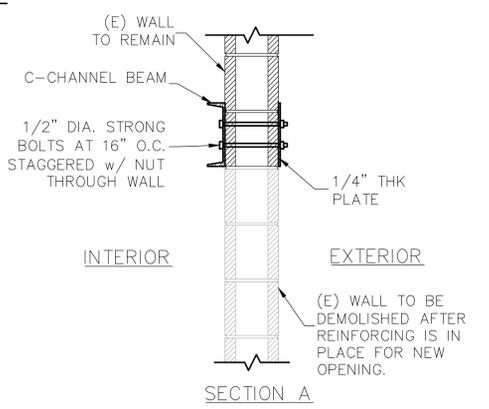
Scale As Noted



1. NEW OPENING FRAMING SECTION - MEZZANINE AT GYM  
NOT TO SCALE



2. NEW OPENING FRAMING SECTION - MEZZANINE AT FINEARTS & CAFETORIUM  
NOT TO SCALE



Project Name and Address

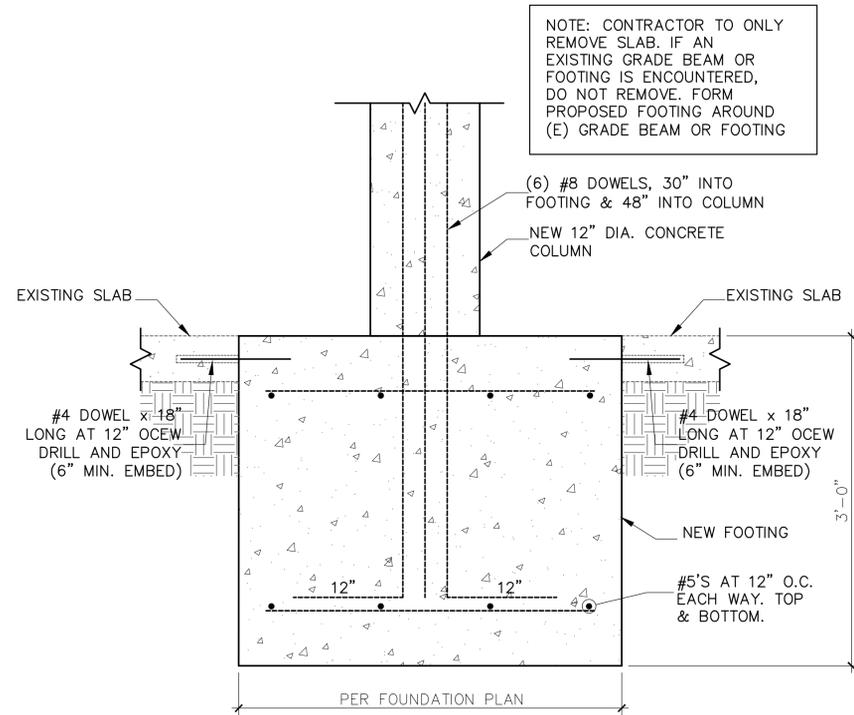
Edinburg High School  
2006 E Wisconsin Rd  
Edinburg, Texas 78542

No.	Revision/Issue	Date

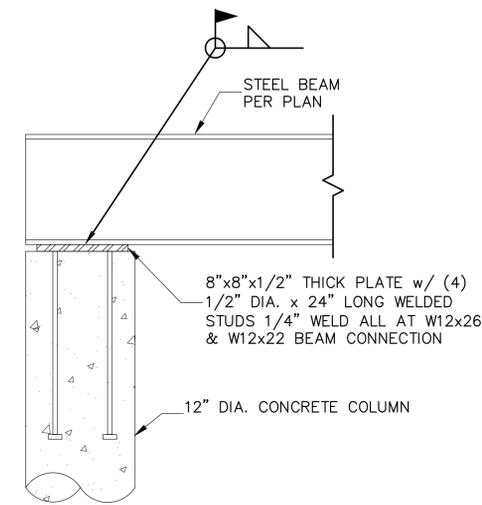


*C. Hinojosa, Jr.*  
**CLH**  
ENGINEERING, INC.  
TBP# FIRM No. F-8719  
701 S. 15th STREET McALLEN, TX. 78501  
(956) 687-5560 (956) 687-5561 FAX

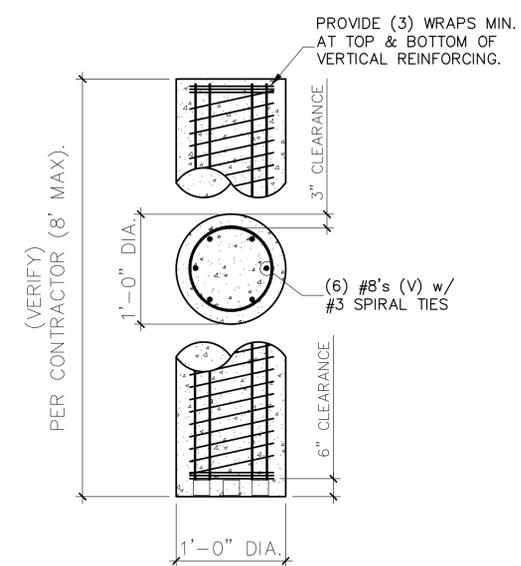
Sheet Title	Sheet
Date	SD1.0
Scale	As Noted



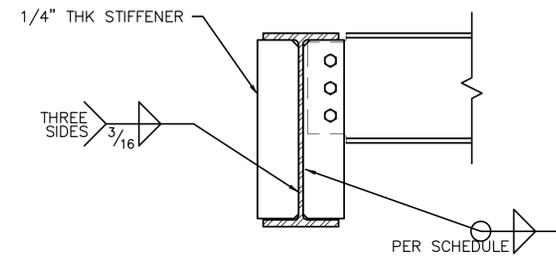
**1. CONCRETE COLUMN TO FOOTING**  
NOT TO SCALE



**3. STEEL BEAM TO CONCRETE COLUMN**  
NOT TO SCALE

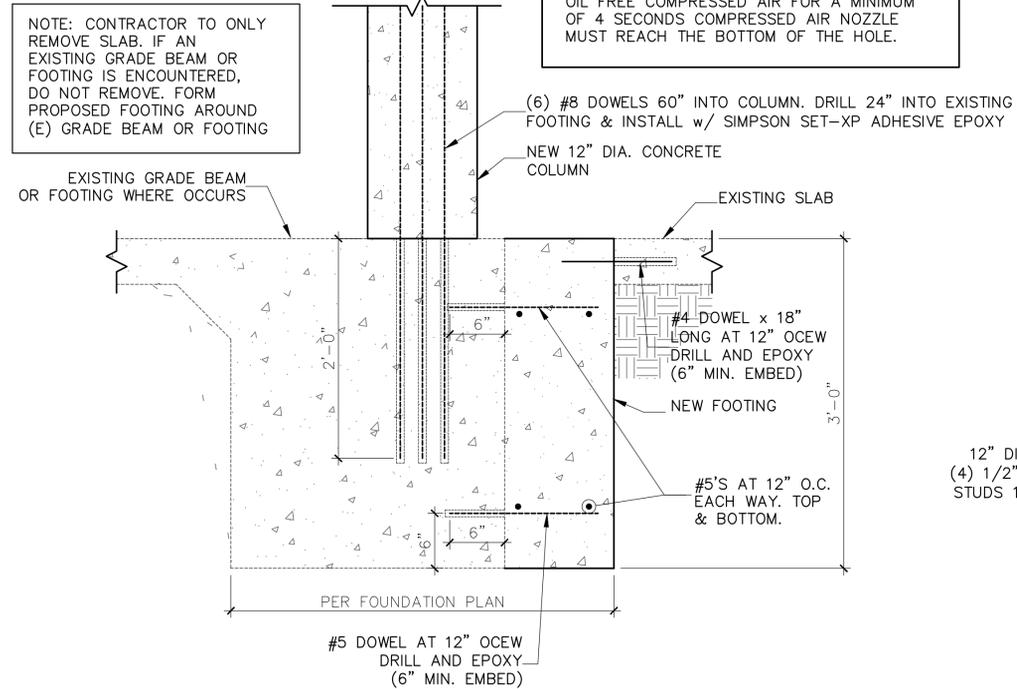


**6. CONCRETE COLUMN DETAIL**  
NOT TO SCALE

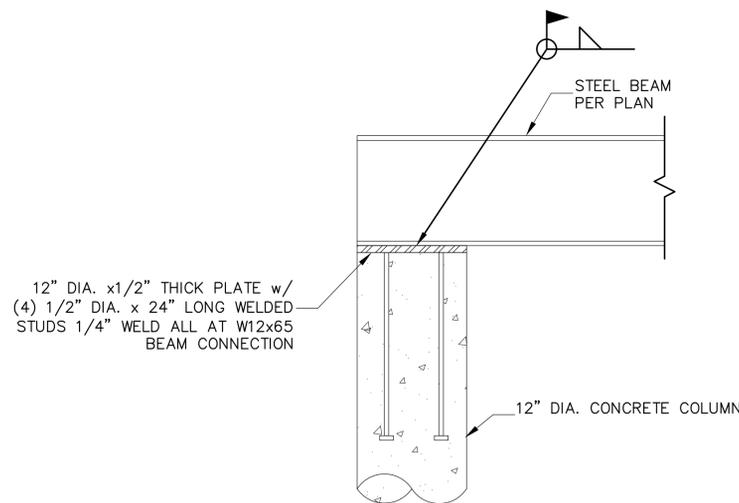


SIMPLE BEAM CONNECTION SCHEDULE				
BEAM DEPTH "D"	SHEAR/STIFF PLATE	NO. & SIZE OF A325 BOLTS	WELD SIZE	REMARKS
8, 10	1/4	(2) 3/4" DIA.	3/16"	
12, 14	3/8	(3) 3/4" DIA.	1/4"	
16	3/8	(4) 3/4" DIA.	1/4"	
18	1/2	(5) 3/4" DIA.	3/8"	
21	1/2	(6) 3/4" DIA.	3/8"	
24	1/2	(7) 3/4" DIA.	3/8"	

**4. BEAM TO BEAM CONNECTION**  
NOT TO SCALE



**2. CONCRETE COLUMN TO EXISTING FOOTING**  
NOT TO SCALE



**5. STEEL BEAM TO CONCRETE COLUMN**  
NOT TO SCALE

Project Name and Address

Edinburg High School  
2006 E Wisconsin Rd  
Edinburg, Texas 78542

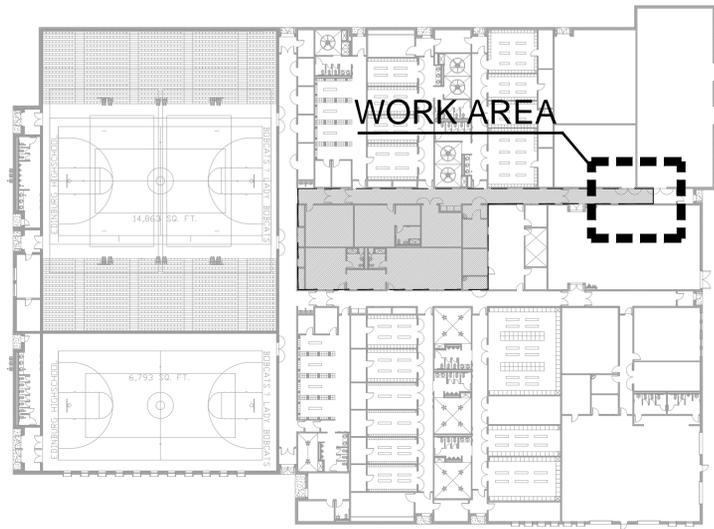
No. Revision/Issue Date



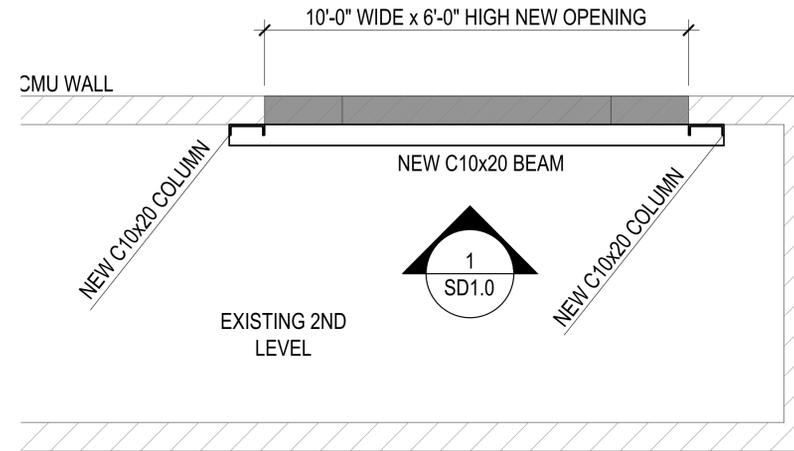
Sheet Title Sheet

Date SD1.1

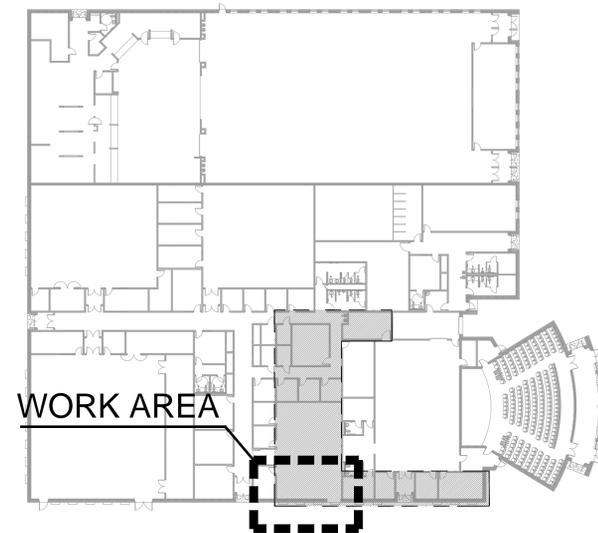
Scale As Noted



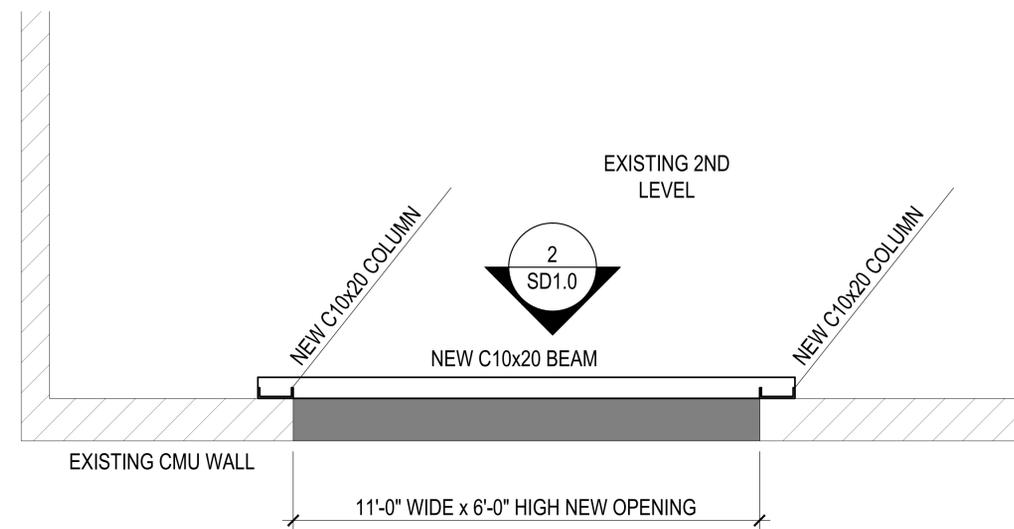
○ KEY PLAN - MEZZANINE AT GYM



① MEZZANINE AT GYM - NEW OPENING FRAMING PLAN  
SCALE: 1/2" = 1'-0"



○ KEY PLAN - MEZZANINE AT FINEARTS & CAFETORIUM



② MEZZANINE AT FINEARTS & CAFETORIUM - NEW OPENING FRAMING PLAN  
SCALE: 1/2" = 1'-0"

Project Name and Address

Edinburg High School  
2006 E Wisconsin Rd  
Edinburg, Texas 78542

No.	Revision/Issue	Date

1-1-22

C. Hinojosa, Jr.  
**CLH**  
ENGINEERING, INC.  
TBP# FIRM No. F-8719  
701 S. 15th STREET McALLEN, TX. 78501  
(956) 687-5560 (956) 687-5561 FAX

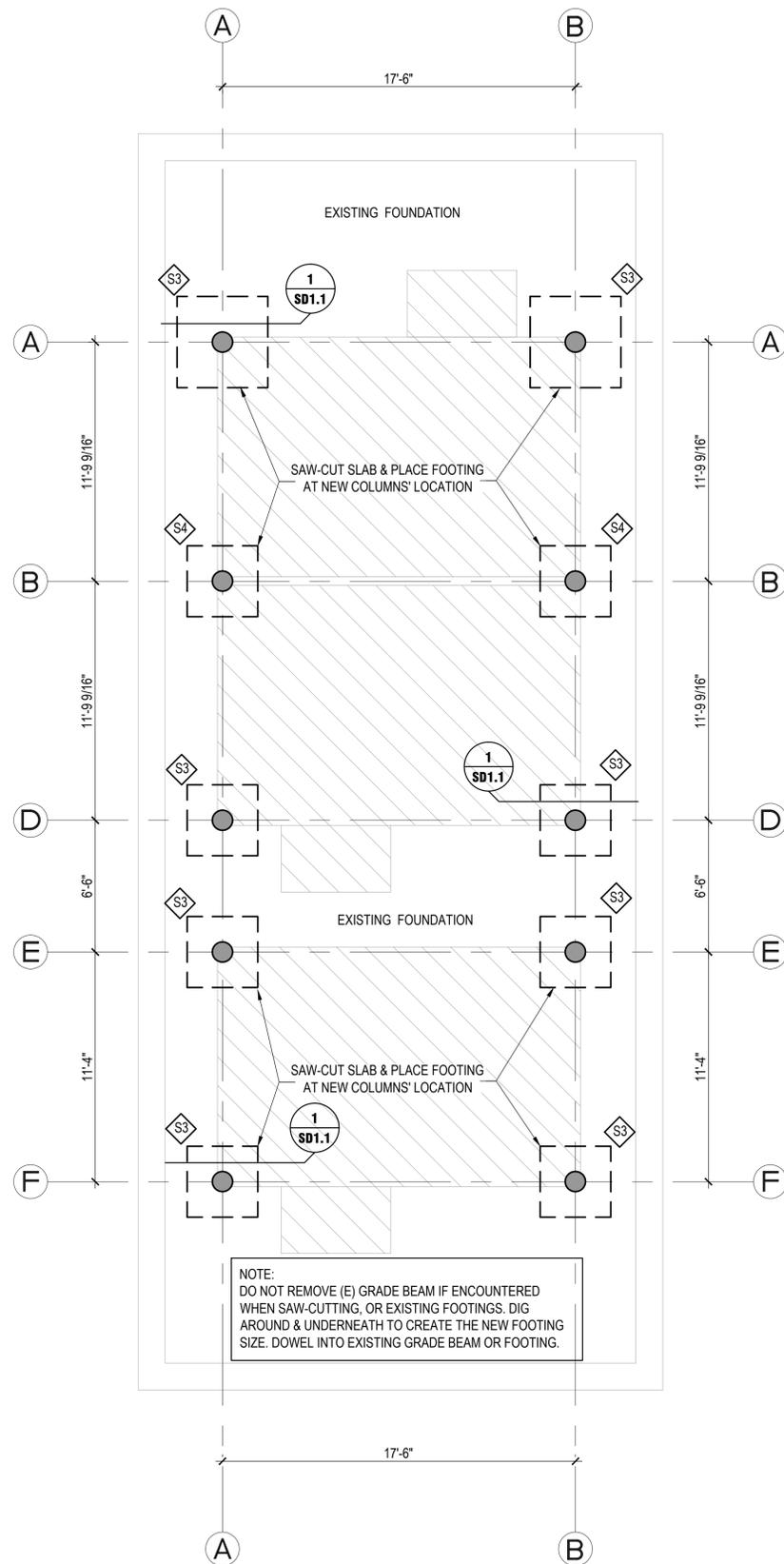
Sheet Title	Sheet
Date	S2.0
Scale As Noted	

**FRAMING NOTES:**

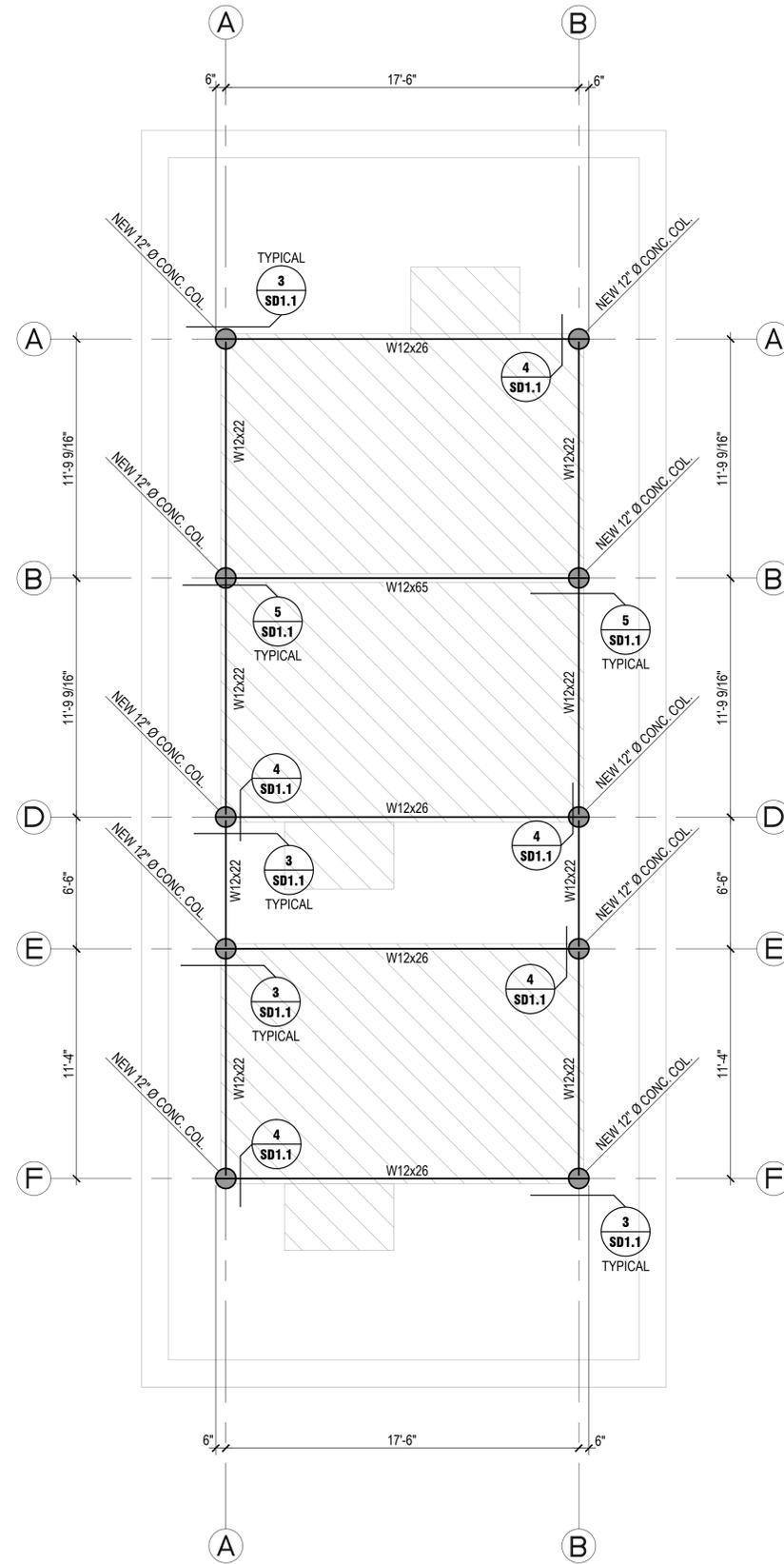
1. SEE SHEET S1.0 FOR FRAMING GENERAL NOTES.
2. SEE SHEET SD1.0 FOR FRAMING DETAILS & TYPICAL DETAILS.

**FOUNDATION NOTES:**

1. SEE SHEET S1.0 FOR GENERAL NOTES.
2. CONTRACTOR / SUBCONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS. BEFORE COMMENCING ANY WORK, THE CONTRACTOR / SUBCONTRACTOR SHALL CLEARLY REPORT ANY DISCREPANCIES BEFORE THE WORK COMMENCES.
3. REFER TO GENERAL NOTES ON SHEET S1.0 FOR CONCRETE & STEEL REINFORCING SPECIFICATION.
4. ALL FOOTINGS TO HAVE #5s AT 12" O.C. EACH WAY TOP AND BOTTOM REINFORCING.
5. FOLLOWING ARE THE SIZES OF THE REQUIRED FOOTINGS:  
 S3 - INDICATES A 3'-6" x 3'-6" x 3'-0" DEEP SQUARE FOOTING  
 S4 - INDICATES A 4'-6" x 4'-6" x 3'-0" DEEP SQUARE FOOTING



① COOLING TOWER - FOUNDATION PLAN  
1/4" = 1'-0"



② COOLING TOWER - FRAMING PLAN  
1/4" = 1'-0"

Project Name and Address

Edinburg High School  
2006 E Wisconsin Rd  
Edinburg, Texas 78542

No.	Revision/Issue	Date



**CLH**  
ENGINEERING, INC.  
TBPE FIRM No. F-8719  
701 S. 15th STREET McALLEN, TX. 78501  
(956) 687-5560 (956) 687-5561 FAX

Sheet Title FOUNDATION & FRAMING PLAN	Sheet
Date	<b>S2.1</b>
Scale As Noted	



## PLM Summary Report

NVLAP Lab Code 102056-0  
TDSHS License No. 30-0084

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

Client : Terracon - Pharr	Lab Job No. : 22B-02867
Project : ECISD, Edinburg High School	Report Date : 03/17/2022
Project # : 88227060	Sample Date : 03/12/2022
Identification : Asbestos, Bulk Sample Analysis	
Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS) EPA Method 600 / R-93 / 116	

On 3/15/2022, sixty eight (68) bulk material samples were submitted by a representative 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	CMU Texture (Medium, White), West Corner of Mech Room 118, Main Building	None Detected - Paint/Texture
2	CMU Texture (Medium, White), SWC of Hallway 110-117, Main Building	None Detected - Paint/Texture
3	CMU Texture (Medium, White), NWC of Hallway 110-117, Main Building	None Detected - Paint/Texture
4	CMU Texture (Medium, White), SEC of Room 117, Main Building	None Detected - Paint/Texture
5	CMU Texture (Medium, White), Mech Room 118, NEC, Main Building	None Detected - Paint/Texture
6	CMU Texture (Medium, White), Mech Room 118, SEC, Main Building	None Detected - Paint/Texture
7	CMU Texture (Medium, White), Room 217, SWC, Main Building	None Detected - Paint/Texture
8	2' x 2' Suspended Acoustic Ceiling Tile (White with Pinholes), Room 217, SWC, Main Building	None Detected - Acoustic Tile
9	2' x 2' Suspended Acoustic Ceiling Tile (White with Pinholes), SWC of Hallway 110-117, Main Building	None Detected - Acoustic Tile
10	2' x 2' Suspended Acoustic Ceiling Tile (White with Pinholes), SEC of Room 117, Main Building	None Detected - Acoustic Tile
11	HVAC Duct Mastic (White), Mech Room 218, HVAC Duct, Main Building	None Detected - Insulation None Detected - Paper / Foil Wrap None Detected - White Mastic
12	HVAC Duct Mastic (White), Mech Room 218, HVAC Duct, Main Building	None Detected - Insulation None Detected - Paper / Foil Wrap None Detected - White Mastic
13	HVAC Duct Mastic (White), NWC, Mech Room 118, Main Building	None Detected - Insulation None Detected - Paper / Foil Wrap None Detected - White Mastic



# PLM Summary Report

NVLAP Lab Code 102056-0  
TDSHS License No. 30-0084

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

Client :	Terracon - Pharr	Lab Job No. :	22B-02867
Project :	ECISD, Edinburg High School	Report Date :	03/17/2022
Project # :	88227060	Sample Date :	03/12/2022
Identification :	Asbestos, Bulk Sample Analysis		
Test Method :	Polarized Light Microscopy / Dispersion Staining (PLM/DS) EPA Method 600 / R-93 / 116		

On 3/15/2022, sixty eight (68) bulk material samples were submitted by a representative 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
14	HVAC Duct Mastic (Gray), SWC of Mech Room 118, Main Building	None Detected - Insulation None Detected - Paper / Foil Wrap None Detected - Gray Mastic
15	HVAC Duct Mastic (Gray), SEC of Mech Room 118, Main Building	None Detected - Insulation None Detected - Paper / Foil Wrap None Detected - Gray Mastic
16	HVAC Duct Mastic (Gray), SWC of Mech Room 118, Main Building	None Detected - Insulation None Detected - Paper / Foil Wrap None Detected - Gray Mastic
17	TSI Mastic (White), Chill Water Line, Mech 218, Main Building	None Detected - Foam Insulation None Detected - Vinyl Wrap None Detected - White Mastic
18	TSI Mastic (White), NWC of Mech Room, Main Building	None Detected - Foam Insulation None Detected - Fiberglass Insulation None Detected - Glass Fiber Mesh None Detected - White Mastic
19	TSI Mastic (White), Chill Water Line, Mech 218, Main Building	None Detected - Foam Insulation None Detected - Vinyl Wrap None Detected - White Mastic
20	Moisture Barrier Mastic, SWC of Mech Room 118, Main Building	None Detected - Tar None Detected - Concrete
21	Moisture Barrier Mastic, SWC of Mech Room 118, Main Building	None Detected - Tar None Detected - Concrete
22	Moisture Barrier Mastic, SWC of Mech Room 118, Main Building	None Detected - Tar None Detected - Concrete
23	TSI Mastic (White), Mech Room 218, Dehumidifier Pipe	None Detected - Insulation None Detected - Paper / Foil Wrap None Detected - White Mastic
24	TSI Mastic (White), Mech Room 218, Dehumidifier Pipe	None Detected - Insulation None Detected - Paper / Foil Wrap None Detected - White Mastic



# PLM Summary Report

NVLAP Lab Code 102056-0  
TDSHS License No. 30-0084

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

Client :	Terracon - Pharr	Lab Job No. :	22B-02867
Project :	ECISD, Edinburg High School	Report Date :	03/17/2022
Project # :	88227060	Sample Date :	03/12/2022
Identification :	Asbestos, Bulk Sample Analysis		
Test Method :	Polarized Light Microscopy / Dispersion Staining (PLM/DS) EPA Method 600 / R-93 / 116		

On 3/15/2022, sixty eight (68) bulk material samples were submitted by a representative 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	TSI Mastic (White), Mech Room 218, Dehumidifier Pipe	None Detected - Insulation None Detected - Paper / Foil Wrap None Detected - White Mastic
26	CMU Texture (White), Mech Room, Building 2, SWC	None Detected - Paint / Texture
27	CMU Texture (White), Mech Room, Building 2, SEC	None Detected - Paint / Texture
28	CMU Texture (White), Mech Room, Building 2, NWC	None Detected - Paint / Texture
29	CMU Texture (White), Room 579, NWC	None Detected - Paint / Texture
30	CMU Texture (White), Ag Shop, NEC	None Detected - Paint / Texture
31	2' x 2' Suspended Acoustic Ceiling Tile (White with Pinholes), Hallway to AG Shop, NEC	None Detected - Acoustic Tile
32	2' x 2' Suspended Acoustic Ceiling Tile (White with Pinholes), Hallway to AG Shop, NEC	None Detected - Acoustic Tile
33	2' x 2' Suspended Acoustic Ceiling Tile (White with Pinholes), Ag Shop Classroom, SWC	None Detected - Acoustic Tile
34	HVAC Duct Mastic (White), Mech Room Mezzanine, HVAC Ductwork	None Detected - White Mastic
35	HVAC Duct Mastic (White), Mech Room Mezzanine, HVAC Ductwork	None Detected - Insulation None Detected - Paper / Foil Wrap None Detected - White Mastic
36	HVAC Duct Mastic (White), Mech Room Mezzanine, HVAC Ductwork	None Detected - Insulation None Detected - Paper / Foil Wrap None Detected - White Mastic
37	HVAC Duct Mastic (Gray), Mech Room Mezzanine, HVAC Ductwork	None Detected - Gray Mastic
38	HVAC Duct Mastic (Gray), Mech Room Mezzanine, HVAC Ductwork	None Detected - Gray Mastic
39	HVAC Duct Mastic (Gray), Mech Room Mezzanine, HVAC Ductwork	None Detected - Gray Mastic



## PLM Summary Report

NVLAP Lab Code 102056-0  
TDSHS License No. 30-0084

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

Client : Terracon - Pharr	Lab Job No. : 22B-02867
Project : ECISD, Edinburg High School	Report Date : 03/17/2022
Project # : 88227060	Sample Date : 03/12/2022
Identification : Asbestos, Bulk Sample Analysis	
Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS) EPA Method 600 / R-93 / 116	

Page 4 of 6

On 3/15/2022, sixty eight (68) bulk material samples were submitted by a representative 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
40	Moisture Barrier Mastic, NEC of Mech Room, Building 2	None Detected - Tar None Detected - Concrete
41	Moisture Barrier Mastic, NEC of Mech Room, Building 2	None Detected - Tar None Detected - Concrete
42	Moisture Barrier Mastic, NEC of Mech Room, Building 2	None Detected - Tar None Detected - Concrete
43	TSI Mastic (White), Mech Room Mezzanine, Chill Water Supply, Building 2	None Detected - Foam Insulation None Detected - Vinyl Wrap No TSI Mastic
44	TSI Mastic (White), Mech Room Mezzanine, Chill Water Supply, Building 2	None Detected - Foam Insulation None Detected - Vinyl Wrap No TSI Mastic
45	TSI Mastic (White), Mech Room Mezzanine, Chill Water Supply, Building 2	None Detected - Foam Insulation None Detected - Vinyl Wrap No TSI Mastic
46	Drywall Construction (White with Smooth Texture), Room 579, NWC, Building 2	None Detected - Joint Compound None Detected - Texture
47	Drywall Construction (White with Smooth Texture), Girls Restroom, SWC, Building 2	None Detected - Drywall Material None Detected - Joint Compound None Detected - Texture
48	Drywall Construction (White with Smooth Texture), Boy's Restroom, SWC, Building 2	None Detected - Texture / Joint Cmpd
49	CMU Texture (Med, White), NEC of Room 658, Building 3	None Detected - Mortar None Detected - Paint/Texture
50	CMU Texture (Med, White), SEC of Mech Room, Above JROTC Storage, Only Building 3	None Detected - Mortar None Detected - Paint/Texture
51	CMU Texture (Med, White), SEC of Mech Room, Above JROTC Storage, Only Building 3	None Detected - Mortar None Detected - Paint/Texture



# PLM Summary Report

NVLAP Lab Code 102056-0  
TDSHS License No. 30-0084

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

Client :	Terracon - Pharr	Lab Job No. :	22B-02867
Project :	ECISD, Edinburg High School	Report Date :	03/17/2022
Project # :	88227060	Sample Date :	03/12/2022
Identification :	Asbestos, Bulk Sample Analysis		
Test Method :	Polarized Light Microscopy / Dispersion Staining (PLM/DS) EPA Method 600 / R-93 / 116		

On 3/15/2022, sixty eight (68) bulk material samples were submitted by a representative 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
52	CMU Texture (Med, White), SEC of Hallway to JROTC, Building 3	None Detected - Mortar None Detected - Paint/Texture
53	CMU Texture (Med, White), SWC of Room 658, Main Building	None Detected - Mortar None Detected - Paint/Texture
54	2 x 2 Suspended Acoustic Ceiling Tile (White with Pinholes), NEC of Hallway to JROTC, Main Building	None Detected - Drywall Material None Detected - Joint Compound None Detected - Texture
55	2 x 2 Suspended Acoustic Ceiling Tile (White with Pinholes), SWC of Room 658, Main Building	None Detected - Drywall Material None Detected - Joint Compound None Detected - Texture
56	2 x 2 Suspended Acoustic Ceiling Tile (White with Pinholes), NWC of JROTC Office, Main Building	None Detected - Drywall Material None Detected - Joint Compound None Detected - Texture
57	HVAC Duct Mastic (White), SWC of Mech Room above JROTC Storage	None Detected - Insulation None Detected - Paper / Foil Wrap None Detected - White Mastic
58	HVAC Duct Mastic (White), SWC of Mech Room above JROTC Storage	None Detected - Insulation None Detected - Paper / Foil Wrap None Detected - White Mastic
59	HVAC Duct Mastic (White), SWC of Mech Room above JROTC Storage	None Detected - Insulation None Detected - Paper / Foil Wrap None Detected - White Mastic
60	HVAC Duct Mastic (Gray), SEC of Mech Room above JROTC Storage Building 3	None Detected - Foil Wrap None Detected - Gray Mastic
61	HVAC Duct Mastic (Gray), SEC of Mech Room above JROTC Storage Building 3	None Detected - Foil Wrap None Detected - Gray Mastic
62	HVAC Duct Mastic (Gray), SEC of Mech Room above JROTC Storage Building 3	None Detected - Foil Wrap None Detected - Gray Mastic



# PLM Summary Report

NVLAP Lab Code 102056-0  
TDSHS License No. 30-0084

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

Client :	Terracon - Pharr	Lab Job No. :	22B-02867
Project :	ECISD, Edinburg High School	Report Date :	03/17/2022
Project # :	88227060	Sample Date :	03/12/2022
Identification :	Asbestos, Bulk Sample Analysis		
Test Method :	Polarized Light Microscopy / Dispersion Staining (PLM/DS) EPA Method 600 / R-93 / 116		

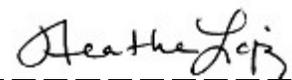
On 3/15/2022, sixty eight (68) bulk material samples were submitted by a representative of Terracon - Pharr for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

Sample Number	Client Sample Description / Location	Asbestos Content
63	TSI Mastic (White), NEC of Mech Room above JROTC Storage, Building 3	None Detected - Foam Insulation None Detected - Vinyl Wrap None Detected - White Mastic
64	TSI Mastic (White), NEC of Mech Room above JROTC Storage, Building 3	None Detected - Foam Insulation None Detected - Vinyl Wrap None Detected - White Mastic
65	TSI Mastic (White), NEC of Mech Room above JROTC Storage, Building 3	None Detected - Foam Insulation None Detected - Vinyl Wrap None Detected - White Mastic
66	Moisture Barrier Mastic, SEC of Mech Room above JROTC Storage, Building 3	None Detected - Drywall Material None Detected - Joint Compound None Detected - Texture
67	Moisture Barrier Mastic, NEC of Mech Room above JROTC Storage, Building 3	None Detected - Drywall Material None Detected - Joint Compound None Detected - Texture
68	Moisture Barrier Mastic, NEC of Mech Room above JROTC Storage, Building 3	None Detected - Drywall Material None Detected - Joint Compound None Detected - Texture

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): Bruce Crabb  
Lab Manager : Heather Lopez  
Lab Director : Bruce Crabb

Approved Signatory : 

Approved Signatory : 

Thank you for choosing Moody Labs

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. 30-0084

Client : Terracon - Pharr  
 Project : ECISD, Edinburg High School  
 Project # : 88227060

Lab Job No. : 22B-02867  
 Report Date : 03/17/2022

Sample Number	Layer	% Of Sample	Components	% of Layer	Analysis Date	Analyst
1	Mortar (Grey)	35%	Aggregate	65%	03/16	BC
			Cement Binders	35%		
1	Paint/Texture (Grey/White)	65%	Calcite	25%		
			Pigment / Binders	75%		
2	Mortar (Grey)	35%	Aggregate	65%	03/16	BC
			Cement Binders	35%		
2	Paint/Texture (White)	65%	Calcite	25%		
			Pigment / Binders	75%		
3	Mortar (Grey)	35%	Aggregate	65%	03/16	BC
			Cement Binders	35%		
3	Paint/Texture (White)	65%	Calcite	25%		
			Pigment / Binders	75%		
4	Mortar (Grey)	35%	Aggregate	65%	03/16	BC
			Cement Binders	35%		
4	Paint/Texture (Grey/White)	65%	Calcite	25%		
			Pigment / Binders	75%		
5	Mortar (Grey)	35%	Aggregate	65%	03/16	BC
			Cement Binders	35%		
5	Paint/Texture (White)	65%	Calcite	25%		
			Pigment / Binders	75%		
6	Mortar (Grey)	35%	Aggregate	65%	03/16	BC
			Cement Binders	35%		
6	Paint/Texture (Grey/White)	65%	Calcite / Talc / Binders	100%		
7	Mortar (Grey)	20%	Aggregate	65%	03/16	BC
			Cement Binders	35%		
7	Paint/Texture (White)	80%	Calcite	25%		
			Pigment / 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. 30-0084

Client : Terracon - Pharr  
 Project : ECISD, Edinburg High School  
 Project # : 88227060

Lab Job No. : 22B-02867  
 Report Date : 03/17/2022

Sample Number	Layer	% Of Sample	Components	% of Layer	Analysis Date	Analyst
8	Acoustic Tile (Light Grey)	100%	Cellulose Fibers	50%	03/16	BC
			Mineral Wool Fibers	30%		
			Perlite	20%		
9	Acoustic Tile (Light Grey)	100%	Cellulose Fibers	50%	03/16	BC
			Mineral Wool Fibers	30%		
			Perlite	20%		
10	Acoustic Tile (Light Grey)	100%	Cellulose Fibers	50%	03/16	BC
			Mineral Wool Fibers	30%		
			Perlite	20%		
11	Insulation (Pink)	5%	Mineral Wool Fibers	95%	03/16	BC
			Resin Binders	5%		
	Paper / Foil Wrap (Tan / Silver)	10%	Cellulose Fibers	60%		
			Glass Wool Fibers	20%		
			Metal Foil	20%		
	White Mastic (Off White)	85%	Calcite	60%		
Glue Binders			40%			
12	Insulation (Pink)	5%	Mineral Wool Fibers	95%	03/16	BC
			Resin Binders	5%		
	Paper / Foil Wrap (Tan / Silver)	10%	Cellulose Fibers	60%		
			Glass Wool Fibers	20%		
			Metal Foil	20%		
	White Mastic (Off White)	85%	Calcite	60%		
Glue Binders			40%			
13	Insulation (Pink)	5%	Mineral Wool Fibers	95%	03/16	BC
			Resin Binders	5%		
	Paper / Foil Wrap (Tan / Silver)	10%	Cellulose Fibers	60%		
			Glass Wool Fibers	20%		
			Metal Foil	20%		
	White Mastic (Off White)	85%	Calcite	60%		
Glue Binders			40%			

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. 30-0084

Client : Terracon - Pharr  
 Project : ECISD, Edinburg High School  
 Project # : 88227060

Lab Job No. : 22B-02867  
 Report Date : 03/17/2022

Sample Number	Layer	% Of Sample	Components	% of Layer	Analysis Date	Analyst
14	Insulation (Yellow)	5%	Mineral Wool Fibers	95%	03/16	BC
			Resin Binders	5%		
	Paper / Foil Wrap (Tan / Silver)	10%	Cellulose Fibers	60%		
			Glass Wool Fibers	20%		
			Metal Foil	20%		
	Gray Mastic (Gray)	85%	Calcite	60%		
			Glue Binders	40%		
15	Insulation (Yellow)	5%	Mineral Wool Fibers	95%	03/16	BC
			Resin Binders	5%		
	Paper / Foil Wrap (Tan / Silver)	10%	Cellulose Fibers	60%		
			Glass Wool Fibers	20%		
			Metal Foil	20%		
	Gray Mastic (Gray)	85%	Calcite	60%		
			Glue Binders	40%		
16	Insulation (Yellow)	1%	Mineral Wool Fibers	95%	03/16	BC
			Resin Binders	5%		
	Paper / Foil Wrap (Tan / Silver)	2%	Cellulose Fibers	60%		
			Glass Wool Fibers	20%		
			Metal Foil	20%		
	Gray Mastic (Gray)	97%	Calcite	60%		
			Glue Binders	40%		
17	Foam Insulation (Blue)	80%	Synthetic Foam	100%	03/16	BC
	Vinyl Wrap (White)	15%	Vinyl Binders	100%		
	White Mastic (White)	5%	Quartz Grains	2%		
			Binders / Fillers	98%		

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. 30-0084

Client : Terracon - Pharr  
 Project : ECISD, Edinburg High School  
 Project # : 88227060

Lab Job No. : 22B-02867  
 Report Date : 03/17/2022

Sample Number	Layer	% Of Sample	Components	% of Layer	Analysis Date	Analyst			
18	Foam Insulation (Yellow)	5%	Synthetic Foam	100%	03/16	BC			
	Fiberglass Insulation (Pink)	5%	Mineral Wool Fibers	95%					
			Resin Binders	5%					
	Glass Fiber Mesh (White)	5%	Glass Wool Fibers	100%					
	White Mastic (White)	85%	Quartz Grains	2%					
			Binders / Fillers	98%					
	19	Foam Insulation (Blue)	85%	Synthetic Foam			100%	03/16	BC
		Vinyl Wrap (White)	14%	Vinyl Binders			100%		
White Mastic (White)		1%	Quartz Grains	2%					
			Binders / Fillers	98%					
20	Tar (Black)	5%	Cellulose Fibers	5%	03/16	BC			
			Tar Binders	95%					
	Concrete (Grey)	95%	Aggregate	65%					
			Cement Binders	35%					
21	Tar (Black)	5%	Cellulose Fibers	5%	03/16	BC			
			Tar Binders	95%					
	Concrete (Grey)	95%	Aggregate	65%					
			Cement Binders	35%					
22	Tar (Black)	5%	Cellulose Fibers	5%	03/16	BC			
			Tar Binders	95%					
	Concrete (Grey)	95%	Aggregate	65%					
			Cement Binders	35%					
23	Insulation (Yellow)	2%	Mineral Wool Fibers	95%	03/16	BC			
			Resin Binders	5%					
	Paper / Foil Wrap (Tan / Silver)	10%	Cellulose Fibers	60%					
			Glass Wool Fibers	20%					
			Metal Foil	20%					
	White Mastic (Off White)	88%	Synthetic Fibers	1%					
		Calcite	49%						
		Binders / Fillers	50%						

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. 30-0084

Client : Terracon - Pharr  
 Project : ECISD, Edinburg High School  
 Project # : 88227060

Lab Job No. : 22B-02867  
 Report Date : 03/17/2022

Sample Number	Layer	% Of Sample	Components	% of Layer	Analysis Date	Analyst
24	Insulation (Yellow)	2%	Mineral Wool Fibers	95%	03/16	BC
			Resin Binders	5%		
	Paper / Foil Wrap (Tan / Silver)	10%	Cellulose Fibers	60%		
			Glass Wool Fibers	20%		
			Metal Foil	20%		
	White Mastic (Off White)	88%	Synthetic Fibers	1%		
Calcite			49%			
Binders / Fillers			50%			
25	Insulation (Yellow)	2%	Mineral Wool Fibers	95%	03/16	BC
			Resin Binders	5%		
	Paper / Foil Wrap (Tan / Silver)	10%	Cellulose Fibers	60%		
			Glass Wool Fibers	20%		
			Metal Foil	20%		
	White Mastic (Off White)	88%	Synthetic Fibers	1%		
Calcite			49%			
Binders / Fillers			50%			
26	Mortar (Grey)	20%	Aggregate	65%	03/16	BC
			Cement Binders	35%		
	Paint / Texture (Grey/White)	80%	Calcite	25%		
			Pigment / Binders	75%		
27	Mortar (Grey)	20%	Aggregate	65%	03/16	BC
			Cement Binders	35%		
	Paint / Texture (Grey/White)	80%	Calcite	25%		
			Pigment / Binders	75%		
28	Mortar (Grey)	20%	Aggregate	65%	03/16	BC
			Cement Binders	35%		
	Paint / Texture (Grey/White)	80%	Calcite	25%		
			Pigment / 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. 30-0084

Client : Terracon - Pharr  
 Project : ECISD, Edinburg High School  
 Project # : 88227060

Lab Job No. : 22B-02867  
 Report Date : 03/17/2022

Sample Number	Layer	% Of Sample	Components	% of Layer	Analysis Date	Analyst
29	Mortar (Grey)	20%	Aggregate	65%	03/16	BC
			Cement Binders	35%		
	Paint / Texture (Grey/White)	80%	Calcite	25%		
			Pigment / Binders	75%		
30	Mortar (Grey)	20%	Aggregate	65%	03/16	BC
			Cement Binders	35%		
	Paint / Texture (Grey/White)	80%	Calcite	25%		
			Pigment / Binders	75%		
31	Acoustic Tile (Light Grey)	100%	Cellulose Fibers	50%	03/16	BC
			Mineral Wool Fibers	30%		
			Perlite	20%		
32	Acoustic Tile (Light Grey)	100%	Cellulose Fibers	50%	03/16	BC
			Mineral Wool Fibers	30%		
			Perlite	20%		
33	Acoustic Tile (Light Grey)	100%	Cellulose Fibers	50%	03/16	BC
			Mineral Wool Fibers	30%		
			Perlite	20%		
34	White Mastic (Off White)	100%	Synthetic Fibers	1%	03/16	BC
			Calcite	49%		
			Binders / Fillers	50%		
35	Insulation (Yellow)	2%	Mineral Wool Fibers	95%	03/16	BC
			Resin Binders	5%		
	Paper / Foil Wrap (Tan / Silver)	10%	Cellulose Fibers	60%		
			Glass Wool Fibers	20%		
			Metal Foil	20%		
	White Mastic (Off White)	88%	Synthetic Fibers	1%		
Calcite			49%			
Binders / Fillers			50%			

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. 30-0084

Client : Terracon - Pharr  
 Project : ECISD, Edinburg High School  
 Project # : 88227060

Lab Job No. : 22B-02867  
 Report Date : 03/17/2022

Sample Number	Layer	% Of Sample	Components	% of Layer	Analysis Date	Analyst
36	Insulation (Yellow)	2%	Mineral Wool Fibers	95%	03/16	BC
			Resin Binders	5%		
	Paper / Foil Wrap (Tan / Silver)	10%	Cellulose Fibers	60%		
			Glass Wool Fibers	20%		
			Metal Foil	20%		
	White Mastic (Off White)	88%	Synthetic Fibers	1%		
Calcite			49%			
Binders / Fillers			50%			
37	Gray Mastic (Gray)	100%	Calcite	50%	03/16	BC
			Binders / Fillers	50%		
38	Gray Mastic (Gray)	100%	Calcite	50%	03/16	BC
			Binders / Fillers	50%		
39	Gray Mastic (Gray)	100%	Calcite	50%	03/16	BC
			Binders / Fillers	50%		
40	Tar (Black)	3%	Cellulose Fibers	5%	03/16	BC
			Tar Binders	95%		
	Concrete (Grey)	97%	Aggregate	65%		
			Cement Binders	35%		
41	Tar (Black)	3%	Cellulose Fibers	5%	03/16	BC
			Tar Binders	95%		
	Concrete (Grey)	97%	Aggregate	65%		
			Cement Binders	35%		
42	Tar (Black)	3%	Cellulose Fibers	5%	03/16	BC
			Tar Binders	95%		
	Concrete (Grey)	97%	Aggregate	65%		
			Cement Binders	35%		
43	Foam Insulation (Blue)	90%	Synthetic Foam	100%	03/16	BC
	Vinyl Wrap (White)	10%	Vinyl Binders	100%		
	No TSI Mastic					

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. 30-0084

Client : Terracon - Pharr  
 Project : ECISD, Edinburg High School  
 Project # : 88227060

Lab Job No. : 22B-02867  
 Report Date : 03/17/2022

Sample Number	Layer	% Of Sample	Components	% of Layer	Analysis Date	Analyst	
44	Foam Insulation (Blue)	90%	Synthetic Foam	100%	03/16	BC	
	Vinyl Wrap (White)	10%	Vinyl Binders	100%			
	No TSI Mastic						
45	Foam Insulation (Blue)	90%	Synthetic Foam	100%	03/16	BC	
	Vinyl Wrap (White)	10%	Vinyl Binders	100%			
	No TSI Mastic						
46	Joint Compound (White)	25%	Calcite / Talc / Binders	100%	03/16	BC	
	DW Tape (White)	5%	Cellulose Fibers	100%			
	Texture (White)	70%	Calcite / Talc / Binders	100%			
47	Drywall Material (White)	45%	Glass Wool Fibers	2%	03/16	BC	
			Gypsum / Binders	98%			
	DW Paper / Tape (Tan / White)	15%	Cellulose Fibers	100%			
	Joint Compound (White)	20%	Calcite / Talc / Binders	100%			
	Texture (White)	20%	Calcite / Talc / Binders	100%			
48	Texture / Joint Cmpd (White)	100%	Calcite / Talc / Binders	100%	03/16	BC	
49	Mortar (Grey)	90%	Aggregate	65%	03/16	BC	
			Cement Binders	35%			
	Paint/Texture (White)	10%	Calcite	25%			
			Pigment / Binders	75%			
	50	Mortar (Grey)	90%	Aggregate	65%	03/16	BC
				Cement Binders	35%		
			10%	Calcite	25%		
			Pigment / Binders	75%			
51	Mortar (Grey)	90%	Aggregate	65%	03/16	BC	
			Cement Binders	35%			
		10%	Calcite	25%			
			Pigment / 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. 30-0084

Client : Terracon - Pharr  
 Project : ECISD, Edinburg High School  
 Project # : 88227060

Lab Job No. : 22B-02867  
 Report Date : 03/17/2022

Sample Number	Layer	% Of Sample	Components	% of Layer	Analysis Date	Analyst
52	Mortar (Grey)	90%	Aggregate	65%	03/16	BC
			Cement Binders	35%		
	Paint/Texture (White)	10%	Calcite	25%		
			Pigment / Binders	75%		
53	Mortar (Grey)	90%	Aggregate	65%	03/16	BC
			Cement Binders	35%		
	Paint/Texture (Blue/White)	10%	Calcite	25%		
			Pigment / Binders	75%		
54	Drywall Material (White)	55%	Glass Wool Fibers	2%	03/16	BC
				Gypsum / Binders		
	DW Paper / Tape (Tan / White)	15%	Cellulose Fibers	100%		
	Joint Compound (White)	15%	Calcite / Talc / Binders	100%		
	Texture (White)	15%	Calcite / Talc / Binders	100%		
55	Drywall Material (White)	55%	Glass Wool Fibers	2%	03/16	BC
				Gypsum / Binders		
	DW Paper / Tape (Tan / White)	15%	Cellulose Fibers	100%		
	Joint Compound (White)	15%	Calcite / Talc / Binders	100%		
	Texture (White)	15%	Calcite / Talc / Binders	100%		
56	Drywall Material (White)	55%	Glass Wool Fibers	2%	03/16	BC
				Gypsum / Binders		
	DW Paper / Tape (Tan / White)	15%	Cellulose Fibers	100%		
	Joint Compound (White)	15%	Calcite / Talc / Binders	100%		
	Texture (White)	15%	Calcite / Talc / Binders	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. 30-0084

Client : Terracon - Pharr  
 Project : ECISD, Edinburg High School  
 Project # : 88227060

Lab Job No. : 22B-02867  
 Report Date : 03/17/2022

Sample Number	Layer	% Of Sample	Components	% of Layer	Analysis Date	Analyst
57	Insulation (Yellow)	2%	Mineral Wool Fibers	95%	03/16	BC
			Resin Binders	5%		
	Paper / Foil Wrap (Tan / Silver)	10%	Cellulose Fibers	60%		
			Glass Wool Fibers	20%		
			Metal Foil	20%		
	White Mastic (Off White)	88%	Synthetic Fibers	1%		
Calcite			49%			
Binders / Fillers			50%			
58	Insulation (Yellow)	2%	Mineral Wool Fibers	95%	03/16	BC
			Resin Binders	5%		
	Paper / Foil Wrap (Tan / Silver)	10%	Cellulose Fibers	60%		
			Glass Wool Fibers	20%		
			Metal Foil	20%		
	White Mastic (Off White)	88%	Synthetic Fibers	1%		
Calcite			49%			
Binders / Fillers			50%			
59	Insulation (Yellow)	2%	Mineral Wool Fibers	95%	03/16	BC
			Resin Binders	5%		
	Paper / Foil Wrap (Tan / Silver)	10%	Cellulose Fibers	60%		
			Glass Wool Fibers	20%		
			Metal Foil	20%		
	White Mastic (Off White)	88%	Synthetic Fibers	1%		
Calcite			49%			
Binders / Fillers			50%			
60	Foil Wrap (Silver)	55%	Metal Foil	100%	03/16	BC
	Gray Mastic (Gray)	45%	Synthetic Fibers	2%		
			Calcite	48%		
			Binders / Fillers	50%		

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. 30-0084

Client : Terracon - Pharr  
 Project : ECISD, Edinburg High School  
 Project # : 88227060

Lab Job No. : 22B-02867  
 Report Date : 03/17/2022

Sample Number	Layer	% Of Sample	Components	% of Layer	Analysis Date	Analyst
61	Foil Wrap (Silver)	55%	Metal Foil	100%	03/16	BC
	Gray Mastic (Gray)	45%	Synthetic Fibers	2%		
			Calcite	48%		
			Binders / Fillers	50%		
62	Foil Wrap (Silver)	55%	Metal Foil	100%	03/16	BC
	Gray Mastic (Gray)	45%	Synthetic Fibers	2%		
			Calcite	48%		
			Binders / Fillers	50%		
63	Foam Insulation (Blue)	50%	Synthetic Foam	100%	03/16	BC
	Vinyl Wrap (White)	45%	Vinyl Binders	100%		
	White Mastic (White)	5%	Quartz Grains	3%		
			Binders / Fillers	97%		
64	Foam Insulation (Blue)	50%	Synthetic Foam	100%	03/16	BC
	Vinyl Wrap (White)	45%	Vinyl Binders	100%		
	White Mastic (White)	5%	Quartz Grains	3%		
			Binders / Fillers	97%		
65	Foam Insulation (Blue)	50%	Synthetic Foam	100%	03/16	BC
	Vinyl Wrap (White)	45%	Vinyl Binders	100%		
	White Mastic (White)	5%	Quartz Grains	3%		
			Binders / Fillers	97%		
66	Drywall Material (White)	85%	Glass Wool Fibers	2%	03/16	BC
			Gypsum / Binders	98%		
	DW Paper / Tape (Tan / White)	5%	Cellulose Fibers	100%		
	Joint Compound (White)	5%	Calcite / Talc / Binders	100%		
	Texture (White)	5%	Calcite / Talc / Binders	100%		
67	Drywall Material (White)	85%	Glass Wool Fibers	2%	03/16	BC
			Gypsum / Binders	98%		
	DW Paper / Tape (Tan / White)	5%	Cellulose Fibers	100%		
	Joint Compound (White)	5%	Calcite / Talc / Binders	100%		
	Texture (White)	5%	Calcite / Talc / Binders	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. 30-0084

Client : Terracon - Pharr  
 Project : ECISD, Edinburg High School  
 Project # : 88227060

Lab Job No. : 22B-02867  
 Report Date : 03/17/2022

Sample Number	Layer	% Of Sample	Components	% of Layer	Analysis Date	Analyst
68	Drywall Material (White)	85%	Glass Wool Fibers	2%	03/16	BC
			Gypsum / Binders	98%		
	DW Paper / Tape (Tan / White)	5%	Cellulose Fibers	100%		
	Joint Compound (White)	5%	Calcite / Talc / Binders	100%		
	Texture (White)	5%	Calcite / Talc / Binders	100%		

WARRANTY NUMBER: 101709  
OWNER: Edinburg Consolidated I S D  
ADDRESS: 1305 E. Schunior, Edinburg, TX 78539  
BUILDING DESCRIPTION: New High School  
ADDRESS: 2600 E. Wisconsin, Edinburg, TX 78540  
ROOF AREA: 303,800 sq. ft  
DATE OF JOB COMPLETION: August 20, 2004  
INSTALLATION PRICE: \$1,300,000.00  
ROOFING SYSTEM: NEW CONSTRUCTION: POWERply Standard  
INSTALLATION CONTRACTOR: Rain King Inc.  
ADDRESS: P.O. Box 192, Victoria, TX 77902

Tremco Incorporated (hereinafter "Tremco") hereby warrants to the above-named Owner that, subject to the terms, conditions, and limitations stated herein, it will repair leaks and provide the following services to the Owner on the roofing system on the building (hereinafter "TRS") for a period of twenty (20) years from the date of job completion. TRS shall be defined as the weatherproofing assembly and its components, which includes the following: membrane, insulation, flashings, all sheet metal-related details, and termination details as specified by Tremco. The services being offered by Tremco include the following:

#### **A. INSPECTIONS, HOUSEKEEPING AND PREVENTIVE MAINTENANCE**

In year two (2), year five (5), year ten (10), and year fifteen (15) of this warranty, Tremco shall provide roof inspections, preventive maintenance, and limited housekeeping services, except as excluded in Section C and Section D, on the TRS. (If a TremCare Service Agreement has been purchased for the TRS in addition to this warranty, these inspections and the related reporting will be carried out as part of the TremCare Service Agreement. The warranty and the TremCare Service Agreement will remain in effect for the warranty period simultaneously.)

Roof inspection services shall include the following:

1. Visual inspection of the roof membrane and roof surface conditions.
2. Inspection of the flashing systems including, but not limited to, the metal edge system, base flashings on equipment and adjoining walls, counterflashings and termination details, soil stacks and vents, and inspection of rooftop projections, and equipment including, but not limited to, pitch pans, HVAC equipment, sky lights, and access hatches.

Roof inspection services do not include:

1. Inspection for water damage or mold growth.
2. Detection or identification of mold.

Preventive maintenance services shall include the following:

1. Metal edge flashing components - tears, splits, and breaks in the membrane flashings will be repaired with appropriate repair mastics and membranes.
2. Tears and splits in the flashing membrane will be repaired with appropriate repair mastics and membranes. Open split flashing strip-ins will be repaired with appropriate repair mastics and membranes. Exposed fasteners will be sealed. Termination bar and counterflashings will be sealed.
3. Roof membrane maintenance repairs - tears, breaks, and splits in the roof membrane will be repaired with appropriate repair mastics and membranes. Splits and blisters which threaten the roof integrity will be cleaned, primed, and repaired with appropriate repair mastics and membranes. Metal projections (hoods and clamps) will be sealed. This warranty does not include recoating of roof membranes.



Preventive maintenance services do not include:

1. Repairs or maintenance of any building component other than the TRS.
2. Remediation or abatement of mold.

General rooftop housekeeping services shall include the following: Removal of incidental debris. All debris will be disposed of at the Owner's approved on-site location.

## **B. ROOF INSPECTION REPORTS**

Tremco will provide roof inspection reports to the Owner based upon the inspections as defined in paragraph A. The reports shall become part of the roof database maintained on the Tremco TRS. Tremco will be excused from performing under this warranty if prevented or delayed by events not within its control, including events such as floods, fires, accidents, riots, explosions, governmental order, acts or omissions of contractors or other third parties, inability to access the TRS, etc. Roof inspection reports will not address the presence of water damage to any building components other than the TRS or the presence of mold.

## **C. OWNER'S RESPONSIBILITIES**

It is agreed by the parties that Tremco, by this warranty, does not assume possession or control of any part of the TRS. Control and ownership of the TRS and all parts of the building remains solely with the Owner. The Owner is solely responsible for all requirements imposed by any federal, state or local law, ordinance or regulation, and all repair, maintenance, and other work with respect to the TRS and the building, except as expressly stated by this warranty.

Housekeeping and general roof top preventive maintenance does not eliminate or replace the building Owner's responsibility for keeping effluent and debris from the roof surface. Customer production-related materials are excluded as part of the housekeeping services. If scheduled cleaning is insufficient to maintain the roof integrity, Owner must pay for additional cleaning/inspections or assume responsibility for such cleanings. Owner agrees that all debris on or removed from the roof is the sole property of Owner, and it is the sole responsibility of Owner to properly dispose of said debris.

The Owner shall, at all times, exercise reasonable care in the use and maintenance of the TRS.

In order to protect the investment this TRS represents, the building Owner must fulfill his responsibilities as outlined in the attached Owner's Manual. Lack of care and maintenance can have significantly damaging effects on the system's overall performance and is cause for cancellation of this warranty.

Care and maintenance guidelines include, but are not limited to:

- ◆ Regular ongoing inspection by the Owner - This will allow for implementation of good housekeeping practices and early detection of problems such as any physical damage.
- ◆ Verification that no alterations or unauthorized repairs have been made to the roofing system.

If alterations are being considered, the Owner must notify Tremco in order for the proper authorized follow-up to be completed.

The Owner shall report all leaks which occur in the TRS within the warranty period by contacting Tremco at 1-800-422-1195 and in writing to Tremco Incorporated at 3735 Green Road, Beachwood, Ohio 44122, as soon as possible (however, in no event more than thirty (30) days) after leakage is or should have been discovered. Immediate repair of leaks is critical to prevent water damage and mold growth. In no event is Tremco responsible for any repairs to any part of the building other than the TRS. The liability or expense for such repair is to be assumed and paid by the Owner. If the leak is not within the coverage of this warranty, Tremco shall advise the Owner, and the Owner shall have repairs performed within thirty (30) days according to Tremco specifications by a Tremco certified or approved applicator. The Owner agrees to provide Tremco with unrestricted ready access to the TRS and all areas of the building on which the TRS is located.

## **D. WARRANTY EXCLUSIONS**

This warranty does not cover any leaks or damage or failure of the TRS or any part thereof as a result of:

1. Natural or accidental disasters including, but not limited to, damage caused by lightning, hailstorms, floods, hurricane force winds (74 mph or greater), tornadoes, earthquakes, fire, vandalism, animals, penetration of the membrane, or chemical attack by outside agents.

2. Use of materials not specified by Tremco, or unauthorized repairs to the TRS.
3. Any intentional or negligent act on the part of the Owner or any third party including, but not limited to, misuse, traffic, storage of or discharge of materials or effluent on the roof. Any repair of these items will be at Owner's expense.
4. Distortion, expansion or contraction of the TRS caused by faulty original construction or design of building components including parapet walls, copings, chimneys, skylights, vents or roof deck, or lack of positive, proper, or adequate drainage resulting in ponding water on the roof.

#### E. WARRANTY LIMITATIONS

Tremco shall have no responsibility and or liability under this warranty until all bills for installation, supplies, and services sold in connection with the TRS have been paid in full.

The Owner's rights under this warranty are specific to the Owner and are not transferrable.

Tremco's obligations under this warranty may be voided by Tremco based on any of the events described in Section D, change in usage of the building without the prior written approval of Tremco, repairs, alterations, penetrations of or attachments to the TRS without the prior written approval of Tremco, building settlement, deterioration, cracking or failure of the roof deck, coping and parapet walls, infiltration or condensation of moisture in, through or around walls, copings, underlying structure, hardware or equipment, or failure of the Owner to comply with its obligations described in this warranty.

#### F. OTHER TERMS

THIS WARRANTY IS IN LIEU OF ANY AND ALL OTHER WARRANTIES, OBLIGATIONS OR AGREEMENTS, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, AND ANY RIGHTS OR REMEDIES AGAINST ANY PERSON OR ENTITY UNDER THE UNIFORM COMMERCIAL CODE OR OTHERWISE WITH RESPECT TO THE SALE OF GOODS AND/OR SERVICES. THE REMEDIES AND OBLIGATIONS STATED IN THIS WARRANTY ARE THE SOLE AND EXCLUSIVE REMEDIES OF AND OBLIGATIONS TO THE OWNER FOR ANY AND ALL MATTERS ARISING WITH RESPECT TO OR IN ANY WAY CONNECTED WITH THE TRS, OR ITS COMPONENT PRODUCTS, OR ANY GOODS OR SERVICES RELATED THERETO, REGARDLESS OF THE SOURCE OR PROVIDER OF SUCH GOODS OR SERVICES. THE OWNER SHALL PROVIDE WAIVERS OF SUBROGATION UPON REQUEST. NO REPRESENTATIVE OF TREMCO INCORPORATED, OR ANY EMPLOYEE, AGENT OR AFFILIATED COMPANY ("AFFILIATE") HAS AUTHORITY TO VARY OR ALTER THESE TERMS. IN NO EVENT SHALL TREMCO INCORPORATED OR ANY AFFILIATE BE LIABLE FOR ANY DAMAGE TO THE BUILDING ITSELF (OTHER THAN THE TRS), THE CONTENTS OF THE BUILDING, OR ANY OTHER SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. THE TOTAL LIABILITY OF TREMCO INCORPORATED, AND ANY AFFILIATE OVER THE LIFE OF THE WARRANTY, SHALL NOT IN ANY EVENT EXCEED IN DOLLAR VALUE THE INSTALLED CONTRACT PRICE OF THE TRS AS IT APPEARS ABOVE, AND THIS TOTAL LIABILITY SHALL BE PRO-RATED ON A STRAIGHT LINE BASIS OVER THE LIFE OF THE WARRANTY, AND TREMCO'S LIABILITY SHALL NOT EXCEED SUCH PRO-RATED AMOUNT. NEITHER TREMCO INCORPORATED OR ANY AFFILIATE SHALL BE LIABLE FOR ANY DAMAGES WHICH ARE BASED UPON NEGLIGENCE, BREACH OF WARRANTY, STRICT LIABILITY OR ANY OTHER THEORY OF LIABILITY OTHER THAN THE EXCLUSIVE LIABILITY SET FORTH IN THIS WARRANTY.

The Owner agrees that this warranty, and the services and remedies set forth herein, are exclusive, and there are no other warranties between the Owner and Tremco or any affiliate. Any unresolved issues under this warranty shall be submitted to the exclusive jurisdiction of the courts of Cuyahoga County, Ohio, and governed by Ohio law.

TREMCO INCORPORATED  
ROOFING & BUILDING MAINTENANCE DIVISION

By: John Grabowski

Title: Warranty Administrator

Date: September 24, 2004



## Kynar 500® or Hylar 5000™ Limited Warranty

**MATERIAL DESCRIPTION:** Satin Finish Galvalume, Parchment Flat,  
Coil, S-Deck, Curved S-Deck

**JOB NAME:** Edinburg High School  
2600 East Wisconsin  
Edinburg, TX 78540

**SOLD TO:** Rain King, Inc  
2006 Delmar  
Victoria, TX 77901

**INVOICE NUMBER(S):**  
SA13267,14083,14835,14950,15113,15852  
SA15854,17028,17203,17582,17111

**OWNER:** Edinburg Consolidated I.S.D.  
101 North 8th Avenue  
Edinburg, TX 78539

**EFFECTIVE DATE:** November 7, 2003

**DATE OF ISSUE:** July 30, 2004

Berridge Manufacturing Company warrants that Kynar 500® or Hylar 5000™ 70% full-strength Fluoropolymer finish will perform for Twenty (20) years from date of installation as an effective surfacing material within the scope of the conditions and limitations defined in this warranty document:

**3. CUSTOMER MUST NOTIFY BERRIDGE MANUFACTURING COMPANY IN WRITING WITHIN THIRTY (30) DAYS FROM DISCOVERY OF THE CONDITION WHICH IS THE BASIS OF ANY CLAIM AND ALLOW AN INSPECTION OF THE MATERIALS DURING NORMAL BUSINESS HOURS.**

**EFFECTIVE SURFACING MATERIAL IS DEFINED TO MEAN:**

1. Freedom from cracking, chipping or peeling due to the deterioration of the finish for a period of twenty (20) years from date of purchase, exclusive of mechanical damage or other abnormal contingencies. (See Para 2).
2. Freedom from any color changes in excess of 5 NBS Units (Using the NBS unit of color notation as measured on the MEECO Colormaster: ASTM-D-2244) for a period of twenty (20) years from date of purchase.
3. Freedom from chalking in excess of Number 8 Rating (ASTM-D-659-80) for a period of twenty (20) years from date of installation.

**4. BERRIDGE MANUFACTURING COMPANY'S OBLIGATION WITH RESPECT TO THIS WARRANTY IS LIMITED AS FOLLOWS:**

- A. In the event of a valid claim, Berridge Manufacturing Company shall, at its option: a.) assume the reasonable costs to restore the finish on the materials; b.) furnish replacement materials; or c.) refund the original purchase price paid to Berridge for the materials less five per cent (5%) for each year which has lapsed since the date of purchase of the materials.
- B. Berridge Manufacturing Company's maximum liability for any claim under this Limited Warranty will be the lesser of the three amounts calculated pursuant to a, b, or c of paragraph 4A above.
- C. It will be at the sole discretion of Berridge Manufacturing Company to determine which action will be taken with respect to any claim under this Limited Warranty.
- D. In no event shall Berridge Manufacturing Company's liability exceed the lesser of the cost of replacing or restoring the defective panels.
- E. The warranty on any repaired or replaced product shall be for the remainder of the warranty period applicable to the original purchase.
- F. EXCEPT AS SET FORTH HEREIN, BERRIDGE MANUFACTURING COMPANY MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND HEREBY EXPRESSLY DENIES THE SAME.

**TERMS AND CONDITIONS OF WARRANTY:**

1. Berridge shall not have any obligation under this Warranty until all invoices for installation, supplies and services have been paid in full to Berridge and to the Roofer.
2. **BERRIDGE HAS NO OBLIGATION NOR RESPONSIBILITY FOR DAMAGE TO FINISH OR MATERIALS CAUSED BY THE FOLLOWING CONDITIONS:**
  - A. Materials installed in corrosive or aggressive environments including, but not limited to, areas subject to marine conditions, salt water, salt water spray, chemicals, or harmful gases with the exception of normal air pollution.
  - B. Acts of God, falling objects, fire or external forces.
  - C. Abnormal or harmful gases, fumes or chemicals other than general air pollution.
  - D. Physical damage, intentional or unintentional, whether caused by abuse, misuse, negligence, vandalism, or excessive foot traffic on roof area.
  - E. Any act or acts which damages finish after installation of materials on project.
  - F. Slopes of the roof or sections with a pitch of less than one in twenty-four or otherwise as to allow puddling or staining.
  - G. Deterioration of finish or materials due to improper storage prior to or during installation process.
  - H. Discoloration or damage to panel finish caused by failure to remove factory-applied protective strippable plastic film.
5. This warranty is tendered for the sole benefit of the original owner of the project named herein and is not transferable or assignable.
6. Berridge's only liability and responsibility is to the terms and conditions of this Warranty. This Warranty supersedes and is in lieu of any and all other warranties (whether express or implied) that are either in addition to or in conflict with the term(s) and condition(s) stated herein.
7. In the event a court of competent jurisdiction rules that any portion of this Limited Warranty is unenforceable, the remainder of this Limited Warranty shall be construed and enforced as if the stricken portion was not a part hereof originally.

**BERRIDGE MANUFACTURING COMPANY**  
1720 Maury Street, Houston, Texas 77026 • 713-223-4971

rev. 09 Jul 03 - Kynar-Hylar Warranty.pmd

DESCRIPTION:  
Satin Finish Galvalume Flat, Coil, S-Deck,  
Curved S-Deck

JOB NAME:  
Edinburg High School  
2600 East Wisconsin  
Edinburg, TX 78540

SELL TO:  
Rain King, Inc  
2006 Delmar  
Victoria, TX 77901

INVOICE:  
SA13267,14083,14835,14950,15113,15852,15854  
SA17028,17208,17588,17711  
EFF. DATE: 11/7/2003  
ISSUE DATE: 7/30/2004

**GALVALUME™ SHEET LIMITED WARRANTY**

Galvalume™ is a registered trademark of BIEC International, Inc.



NSC757 150 P

National Steel Corporation ("NSC") warrants to Berridge Manufacturing Company ("Buyer") that NSC's hot dipped aluminum-zinc alloy coated Galvalume sheet steel sold for use as steel building roofing and siding panels, if erected within the United States, WILL NOT as a result of corrosion, rupture, fall structurally, or perforate within a period of 20 years and 6 months after shipment from NSC's mill when exposed to normal atmospheric conditions, subject to the following provisions:

**1 Limitations on Warranty with Respect to Location and Weather and Atmospheric Conditions**

This warranty DOES NOT APPLY to panels exposed at any time to corrosive, aggressive, harmful or other abnormal atmospheric conditions, including but not limited to the conditions present in the following areas or circumstances:

- A. Areas subject to salt water marine atmospheres or to repeated spraying of either salt or fresh water;
- B. Areas subject to fallout of, or exposure to, corrosive chemicals, ash, fumes, cement dust, or animal waste;
- C. Areas subject to water run-off from lead or copper flashings or to areas in metallic contact with lead or copper;
- D. Circumstances where corrosive fumes or condensates are generated or released inside the building.

**2 Exclusion of Warranty. This warranty DOES NOT APPLY in the event of:**

- A. Mechanical, chemical or other damage sustained during shipment, storage, forming, fabrication, or during or after erection;
- B. Failure to drain water, including internal condensation, from overlaps and all other surfaces of the panels;
- C. Failure to remove debris from overlaps and all other surfaces of the panels;
- D. Damage caused to the metallic coating by improper roll forming, scouring or cleaning procedures;
- E. Deterioration of the panels caused by contact with green or wet lumber or wet storage stain caused by water damage or condensation;

The presence of damp insulation or other corrosive material in contact with or close proximity to the panel;

G. Deterioration to the panels caused directly or indirectly by panel contact with fasteners. Selection of suitable long-lasting fasteners to be used with Galvalume roofing and siding panels rests solely with the Buyer;

H. Bends less than 2T for sheet thickness .030" and thinner and less than 4T for sheet thickness .031" and thicker;

I. Slopes of roof or sections of the roof flatter than 14:12;

J. Forming which incorporates severe reverse bending or which subjects coating to alternate compression and tension;

EXCEPT AS STATED HEREIN, NSC MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, AND SHALL HAVE NO OTHER LIABILITY. THERE IS NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THIS WARRANTY IS ALSO SUBJECT TO THE FOLLOWING LIMITATIONS AND CONDITIONS:

**3. In the event of breach of this warranty, NSC shall have the option of either:**

- A. Furnishing to Buyer, FOB Buyer's plant, sufficient sheet metal to enable Buyer to fabricate replacement panels for the defective panels, or
- B. Reimbursing Buyer for the cost of the defective panels.

**4 Exclusion of Warranties and Limitation of Liability**

- 1. THE FOREGOING REMEDY SHALL BE NSC'S SOLE LIABILITY AND SHALL BE THE EXCLUSIVE REMEDY AVAILABLE TO THE BUYER.
- 2. NSC SHALL NOT IN ANY EVENT BE LIABLE FOR THE COST OF LABOR EXPENDED BY OTHERS ON ANY DEFECTIVE PANEL OR FOR ANY SPECIAL INDIRECT OR CONSEQUENTIAL DAMAGES WHATSOEVER, WHETHER ARISING FROM BREACH OF CONTRACT, BREACH OF WARRANTY, TORT, INCLUDING NEGLIGENCE, STRICT

LIABILITY OR OTHERWISE, TO ANYONE BY REASON OF THE FACT THAT SUCH PANELS SHALL HAVE BEEN DEFECTIVE.

3. Claims must be promptly reported in writing to NSC and NSC shall be given a reasonable opportunity to inspect the panels claimed to be defective. Buyer must prove that the defective materials were sold by NSC by means of proper identification of the material involved in the claim, including date of installation, NSC order number, coil number, invoice number, and date of shipment.

4. This warranty applies only to the hot dipped aluminum-zinc alloy coating and not to any paint coating or other finish that may be applied to the panels.

5. Buyer shall exercise diligence in inspection of panels as received from NSC so as to mitigate repair or replacement. No warranty shall apply to panels which are used and contain coating defects discernable by reasonable inspection.

6. This warranty only applies when specifically requested by Buyer in writing. It shall not apply to Galvalume used for purposes other than building roofing and siding or to orders not designated in writing by Buyer as warranty orders.

7. NSC extends this warranty solely to the Buyer. This warranty is non-transferable and non-assignable.

8. NSC reserves the right to terminate this warranty at any time (except as to orders already accepted) upon the giving of written notice thereof.

NATIONAL STEEL CORPORATION  
By: William E. Goebel  
His: General Manager - Sales

Date: July 16, 1990



**ROOF WARRANTY INFORMATION  
EDINBURG CONSOLIDATED INDEPENDENT SCHOOL DISTRICT**

August 20, 2007

Tremco Warranty Number	Project Name	Contractor	Warranty Length (Years)	Warranty Effective Date	Project Size (S. F.)
101709	New High School 2600 E. Wisconsin Edinburg, TX	Rain King, Inc.	20	08/20/2004	303,800
89539	South Middle School 601 W. Freddy Gonzalez Edinburg, TX	American Contracting U. S. A., Inc.	15	04/12/2002	172,700
82741	Lyndon B. Johnson Elem. School 1801 E Sprague Edinburg, TX	American Contracting U. S. A., Inc.	15	10/11/2000	42,500
76447	Villarreal Elementary School 2-1/2 Mi. E. 281 on Monte Cristo Rd. Edinburg, TX	Rio Roofing , Inc.	15	12/15/1999	8,800
78097	Freddy Gonzalez Elementary School 2401 Sugar Road Edinburg, TX	American Contracting U. S. A., Inc.	15	09/03/1999	44,600
27080	Harwell Middle School 1100 E. Ebony Lane Edinburg, TX	American Contracting U. S. A., Inc.	15	08/28/1997	164,000
25514	Edinburg High School 801 E. Canton Rd. Edinburg, TX	American Contracting U. S. A., Inc.	15	12/19/1996	210,000
25509	Lincoln Elementary School 1319 E. Lovett St. Edinburg, TX	American Contracting U. S. A., Inc.	15	12/19/1996	55,000
25513	Travis Elementary School 1200 South 21 <sup>st</sup> Street Edinburg, TX	American Contracting U. S. A., Inc.	15	12/19/1996	60,000
24739	Kennedy Elementary School Raul Longoria Rd. San Carlos, TX	Rio Roofing , Inc.	10	11/05/1996 Expired	9,400

<b>Tremco Warranty Number</b>	<b>Project Name</b>	<b>Contractor</b>	<b>Warranty Length (Years)</b>	<b>Warranty Effective Date</b>	<b>Project Size (S. F.)</b>
24740	Cano-Gonzalez Elementary School Raul Longoria Rd. Edinburg, TX	Rio Roofing , Inc.	10	11/05/1996 Expired	9,400
24740	Lamar Elementary School Freddy Gonzalez Rd. Edinburg, TX	Rio Roofing , Inc.	10	11/05/1996 Expired	9,400
24657	Eisenhower Elementary School 2901 Russell Rd. Edinburg, TX	Halco Roofing of Texas, Inc.	10	01/13/1996 Expired	10,100
	Edinburg Memorial Junior High Edinburg, TX		10	08/08/1995 Expired	84,000
	Rogers Road Elementary School Edinburg, TX		10	07/27/1994 Expired	7,200
	Canterberry Elementary School Phase 2 Edinburg, TX		10	06/19/1994 Expired	2,100
	Canterberry Elementary School Edinburg, TX		10	02/16/1993 Expired	11,700

**Field Report**

Edinburg CISD – High School Repairs

**Report Date:** Feb 26, 2008

**Job Name:** EDINBURG CISD – EDINBURG HIGH SCHOOL REPAIRS

**Location:** 2600 Wisconsin  
Edinburg, TX 78539

**Inspector:** Richard L. Garcia

**Phone:** 877-210-9819

**Contractor:**

**Job Notes:**

**Feb 26, 2008:**

1. The following repairs were made at the Edinburg High School (see photos). All repairs were done with a 3-course waterproofing of Tremco POLYroof Rubberized Mastic and Tremco BURmesh.
2. Roofing materials, applications and workmanship to date are good and in accordance with the NRCA specifications and/or Tremco warranty requirements.

*Richard L. Garcia*

By: \_\_\_\_\_

Richard L. Garcia  
Roofing Advisor

cc: Mr. Lalo Perez; Edinburg CISD  
Mr. Steven W. Linsteadt; Tremco Incorporated

February 26, 2008  
EDINBURG HIGH SCHOOL REPAIRS FEB 2008



Needed repair. 1



Needed repair. 1



Repairs in progress. 1



Needed repair. 2



Repair in progress 2



Needed repair 3

February 26, 2008  
EDINBURG HIGH SCHOOL REPAIRS FEB 2008



Completed repair. 3



Completed repair. 4



Needed repair. 5



Completed repair. 5



Completed repair 6



Completed repair 7

**February 26, 2008  
EDINBURG HIGH SCHOOL REPAIRS FEB 2008**



Completed repair. 8



Completed repair. 9



Completed repair 10



Completed repair. 11



Completed repair 12

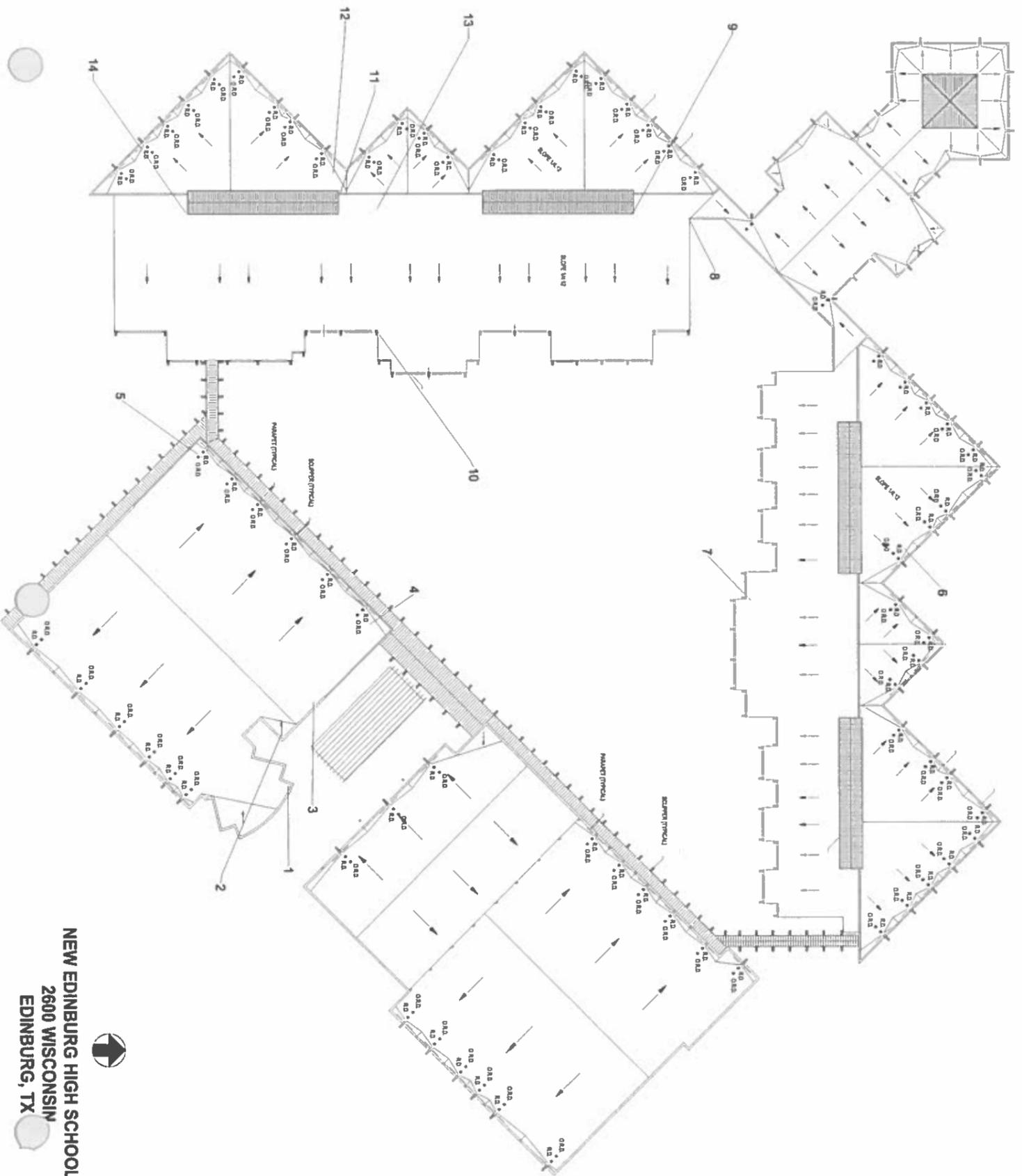


Completed repair 13

February 26, 2008  
EDINBURG HIGH SCHOOL REPAIRS FEB 2008



Completed repair. 8

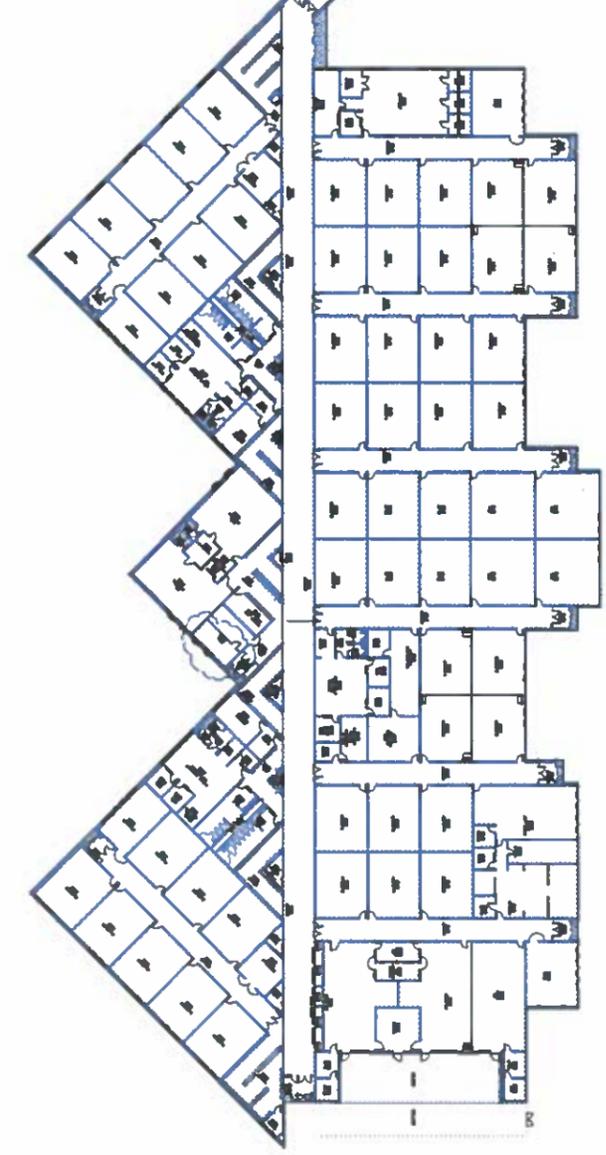


NEW EDINBURG HIGH SCHOOL  
 2600 WISCONSIN  
 EDINBURG, TX

EDINBURG HIGH SCHOOL  
ADMINISTRATION AREA



EDINBURG HIGH SCHOOL  
ACADEMIC WING - NORTH



EDINBURG HIGH SCHOOL  
ACADEMIC WING - WEST

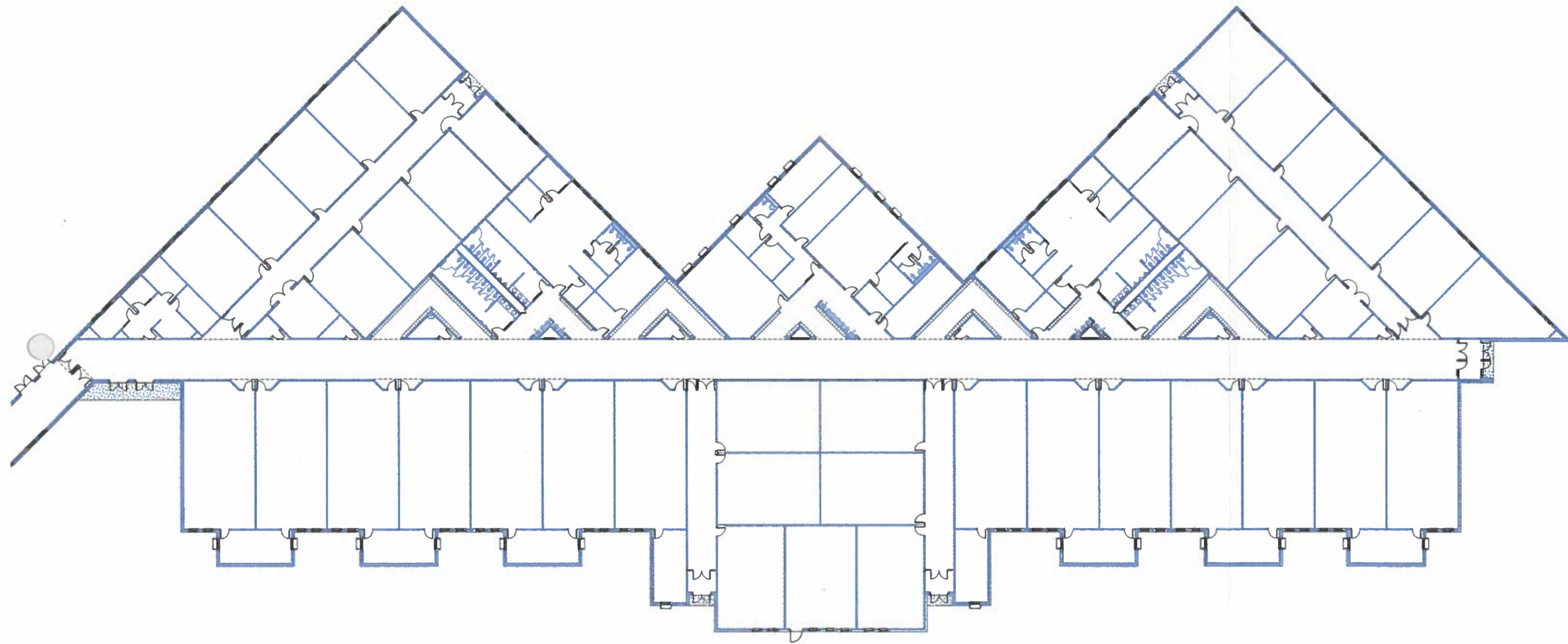


EDINBURG HIGH SCHOOL  
FINE ARTS BUILDING

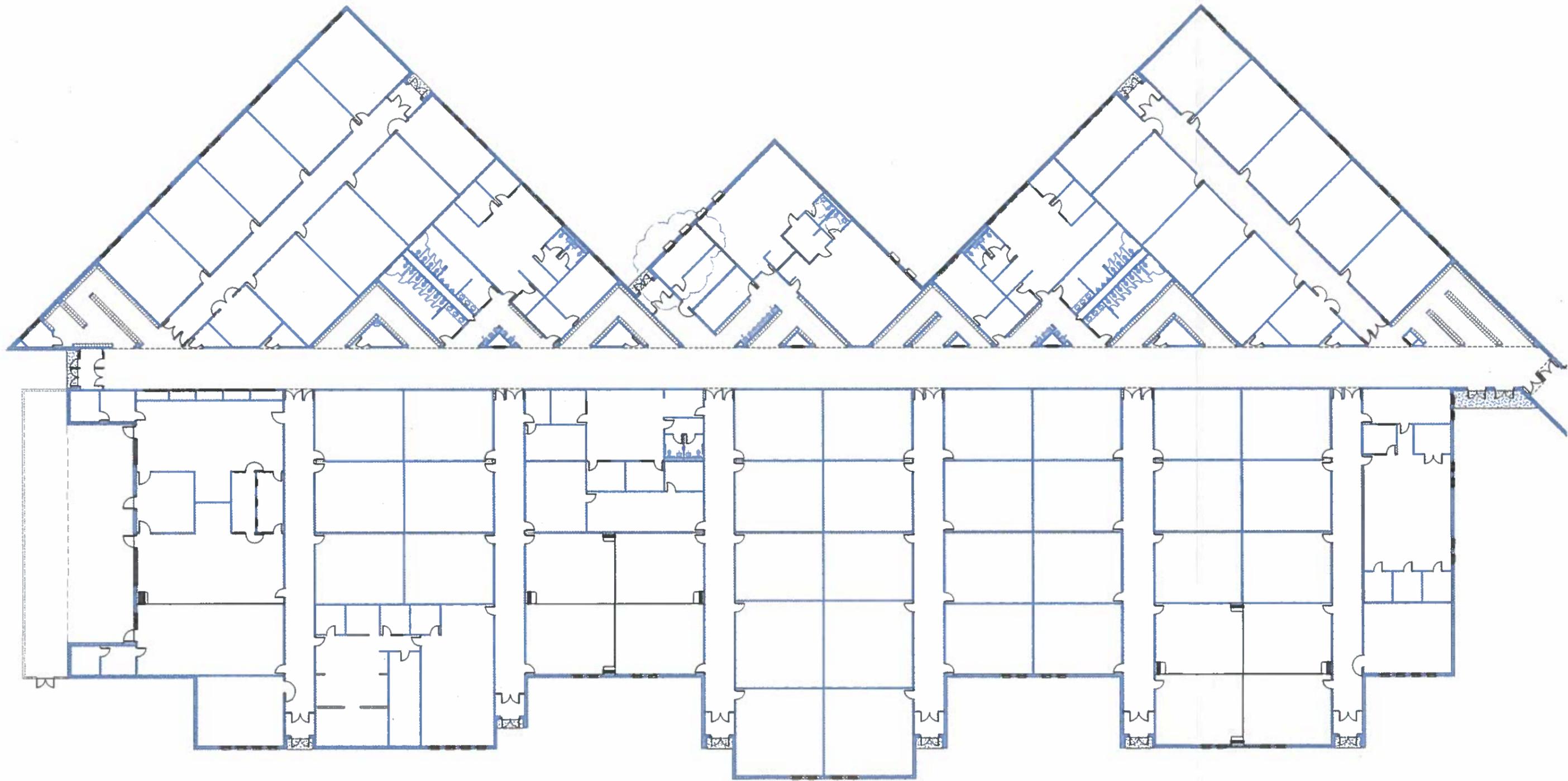




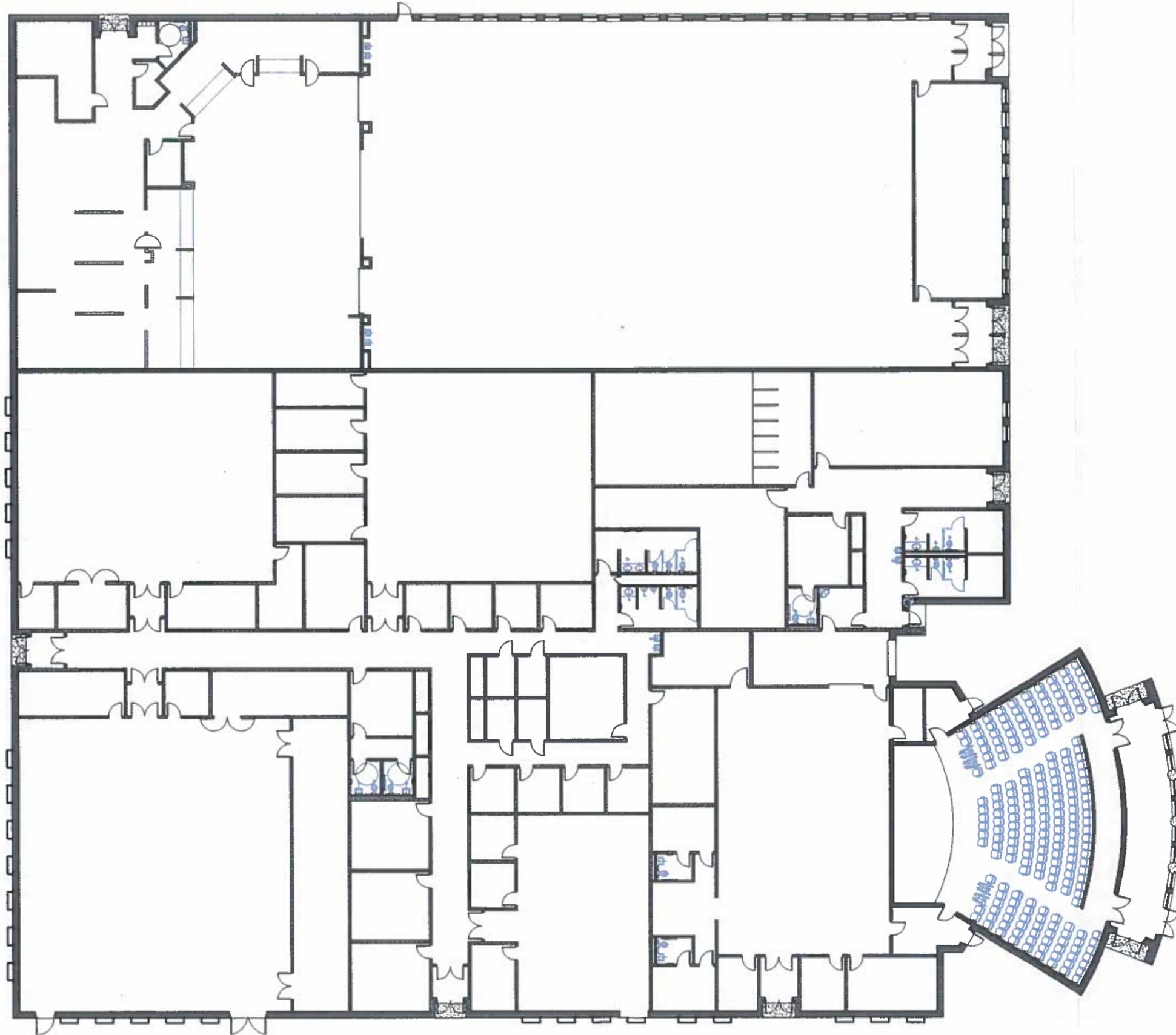
EDINBURG HIGH SCHOOL  
ADMINISTRATION AREA



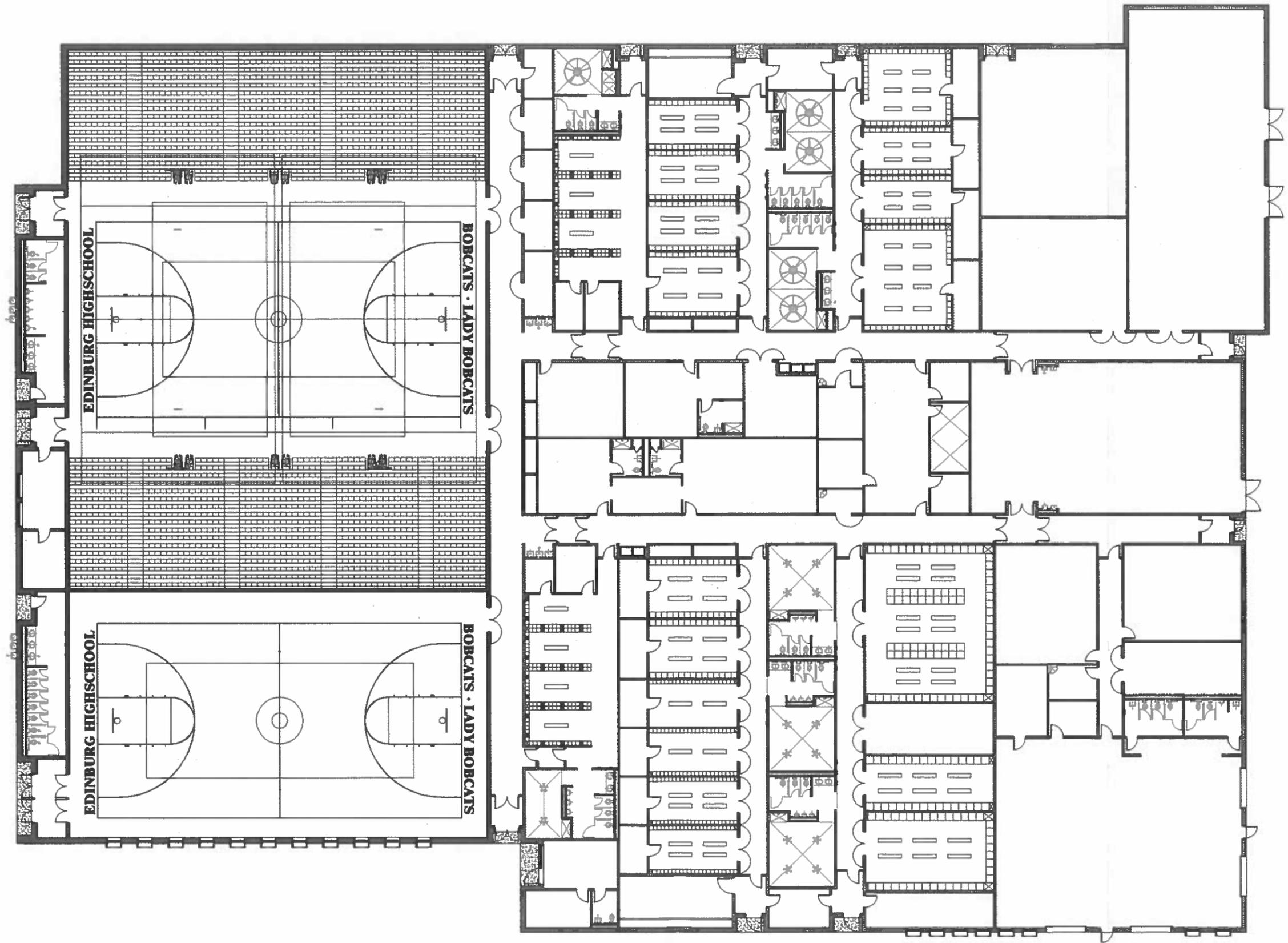
EDINBURG HIGH SCHOOL  
ACADEMIC WING - NORTH



EDINBURG HIGH SCHOOL  
ACADEMIC WING - WEST



EDINBURG HIGH SCHOOL  
FINE ARTS BUILDING



EDINBURG HIGH SCHOOL  
GYM BUILDING