



**ADDENDUM No. 2**  
**Request for Competitive Sealed Proposals (CSP)**  
**19CSP104 Renovations at Dobie Middle School**

**February 18, 2019**

**Item 1: New and Revised Drawings and Pre-Proposal Sign-in Sheet**

**Item 1:**

The New and Revised Drawings and pre-Proposal Sign-in Sheet for 19CSP104 can be found at [Planroom Miller](#) under 19CSP104.

**Addendum No. 2**

**TO:** Prospective Bidders  
**FROM:** Haddon+Cowan Architects  
**SUBJECT:** AISD Dobie Middle School Renovations

**DATE:** February 15, 2019  
**HCA PROJ. NO:** 18-1032  
**AISD PROJ. NO:** 190035-DOBIE

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This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated January 03, 2019. Addendum Number 2 issued February 15, 2019 with amendments and additions noted below. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

**ADDENDUM SUMMARY:**

This Addendum consists of:

1. New and Revised 24 x 36 Drawings
2. Attached Pre-Proposal Sign-In Sheet Record

**SPECIAL INSTRUCTIONS:**

None at this time

**DRAWINGS:**

1. Sheet G0.01 – Revised and Reissued
  - a. Scope outline note 7 removed from sheet for clarity. Note 7 scope can be found on sheet G0.02.
  - b. Notes added for GC to provide a \$15,000 allowance and unit prices for deteriorated caulk and sealant replacement.
  - c. Reference to 3/A3.01 added for scope outline note 4.
2. Sheet G0.02 – Revised and Reissued
  - a. View titles and plan references 6/G0.02 and 7/G0.02 have been revised to 4/G0.02 and 5/G0.02.
  - b. Note for existing stone planter border to remain added.
  - c. Hatch patterns added to details 3/G0.02 and 5/G0.02 for clarity.
3. Sheet G0.03 – Revised and Reissued
  - a. Notes to provide new Keeguard roof edge protection system by Kee Safety.
  - b. Notes to the contractor to coordinate with the architect prior to making any new penetrations.
4. Sheet C2 – Revised and Reissued
  - a. Revised graphics for clarity identifying elevation.



5. Sheet C3 – Revised and Reissued
  - a. Legend updated for clarity
6. Sheet A2.01– Revised and Reissued
  - a. Detail 7/A2.01 renumbered as 5/A2.01.
  - b. 4/A2.01 and 5/A2.01 – Areaway drain added to plan and section.
  - c. 5/A2.01 – Concrete wall height reduced. Dimension strings updated for clarity.
7. Sheet A3.01 – Revised and Reissued
  - a. Detail 1/A3.01 Areaway Plan renumbered to 2/A3.01 for clarity.
  - b. 2/A3.01 – Dimension strings updated for clarity.
  - c. 2/A3.01 Areaway drain added to plan.
  - d. 2/A3.01 hatch patterns added to plan for clarity.
  - e. 1/A3.01 – Areaway drain added to section.
  - f. 1/A3.01 – Concrete wall height reduced.
  - g. Details 3/A3.01 & 4/A3.01 added for new concrete equipment pads.
8. Sheet MEP2.1 – Revised and Reissued
  - a. Legend has been updated.
  - b. Updated keyed notes 4 to reflect a single cooling tower with (2) cells.
9. Sheet MEP2.2 – Revised and Reissued
  - a. Legend has been updated.
  - b. Keyed note number 2 has been revised to mention re-using the existing curbs in place, and to provide curb adapters.
  - c. Updated keyed notes 4 & 5 to reflect a single cooling tower with (2) cells.
10. Sheet MEP2.3 – Revised and Reissued
  - a. Legend has been updated.
  - b. Reference to CT-2 has been removed. There is one tower, two cells. The notes have been revised for clarity.
  - c. Updated keyed notes 4 & 5 to reflect a single cooling tower with (2) cells.
11. Sheet M3.1 – Revised and Reissued
  - a. Keyed note referring to motorized isolation valves have been revised to show the correct keyed note number.
  - b. Keyed note 11 is correctly matching existing conditions for refrigerant monitoring system that was put in place. EF-1 has existing toggle switch that is inside for the normal exhaust fan, and there is another emergency toggle switch outside the door for the emergency purge fan, EF-2.
  - c. Keyed note 1 is now matching M6.1/5 for providing new concrete pads for new pumps.
  - d. HVAC legend has been updated to provide more clarity between existing and new equipment. Note that only the legend has been clouded to show the difference in hatching.
  - e. All existing equipment marks have been revised to clarify whether it is existing or new.
12. Sheet M3.2 – Revised and Reissued
  - a. Legend has been updated.



- b. New plan has been added to show existing AHU-4 location and noted to include replacement of VFD for unit utilizing VFD purchased during previous construction phase.
13. Sheet M5.1 – Revised and Reissued
- a. CHWP-1,2 have been revised to show lower HP rating.
14. Sheet E3.1 – Revised and Reissued
- a. Relocated CWP-1 & CHWP-2 to match mechanical plans.
  - b. Updated emolition keyed note 4.
  - c. Detail 2: Updated keyed notes 1 & 2 for use of new VFD, not existing.
  - d. Added Detail 3 and keyed notes for replacement of AHU-4 VFD.
15. Sheet E3.2 – Revised and Reissued
- a. Detail 1: Updated keyed note 1 from GWP-1 to GWH-1.
  - b. Detail 2: Added L1.2 annotation to match riser diagram.
  - c. Detail 2: Updated keyed note 1.
  - d. Detail 2: Updated EF-2DM to EF-12 to match mechanical plans.
  - e. Detail 4: Relocated receptacle from Admin 150F to Admin 150G.
  - f. Detail 1-4: Updated scale of each view from 1/16" to 1/4".
  - g. Detail 4: Added keyed note to replace flexible conduit with emt.
16. Sheet P1.2 – Revised and Reissued
- a. Added keyed note to remove grease waste back to main.
  - b. Added keyed note to demolish sanitary waste line back to main.
17. Sheep P2.2 – Revised and Reissued
- a. Added keyed notes.
  - b. Picked up additional hand sink.
  - c. Picked up additional floor sinks and floor drains.
18. Sheet P5.1 – Revised and Reissued
- a. Added fixtures to the plumbing fixture schedule as needed.
19. Sheet P6.1 – Revised and Reissued
- a. Added details for additional fixtures.

**END OF ADDENDUM NUMBER 2**



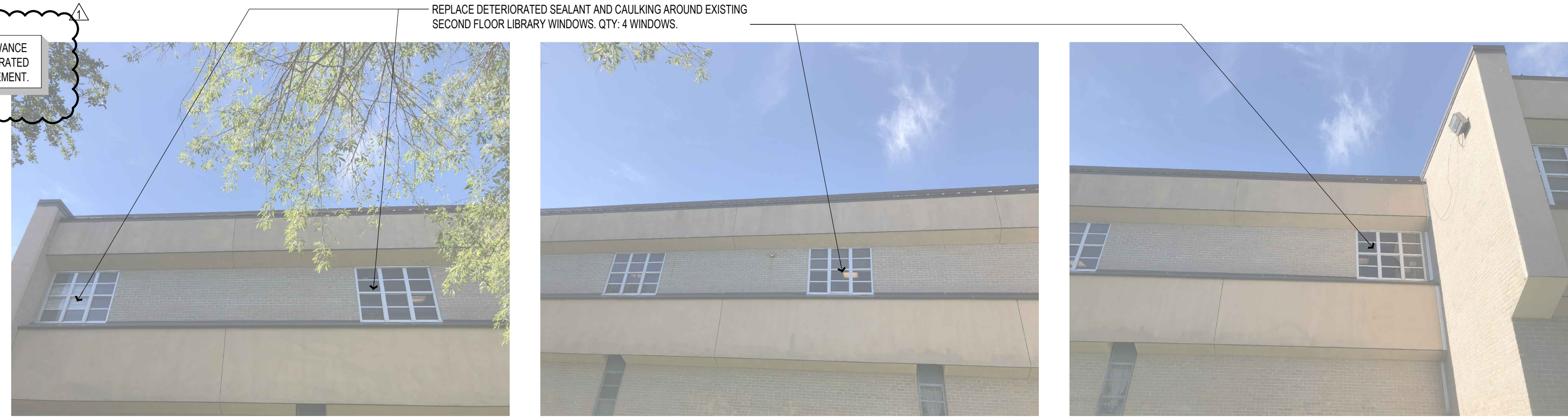


REPLACE DETERIORATED SEALANT AND CAULKING AT EXISTING WALL JOINTS

REPLACE DETERIORATED SEALANT AND CAULKING AT EXISTING WALL JOINTS

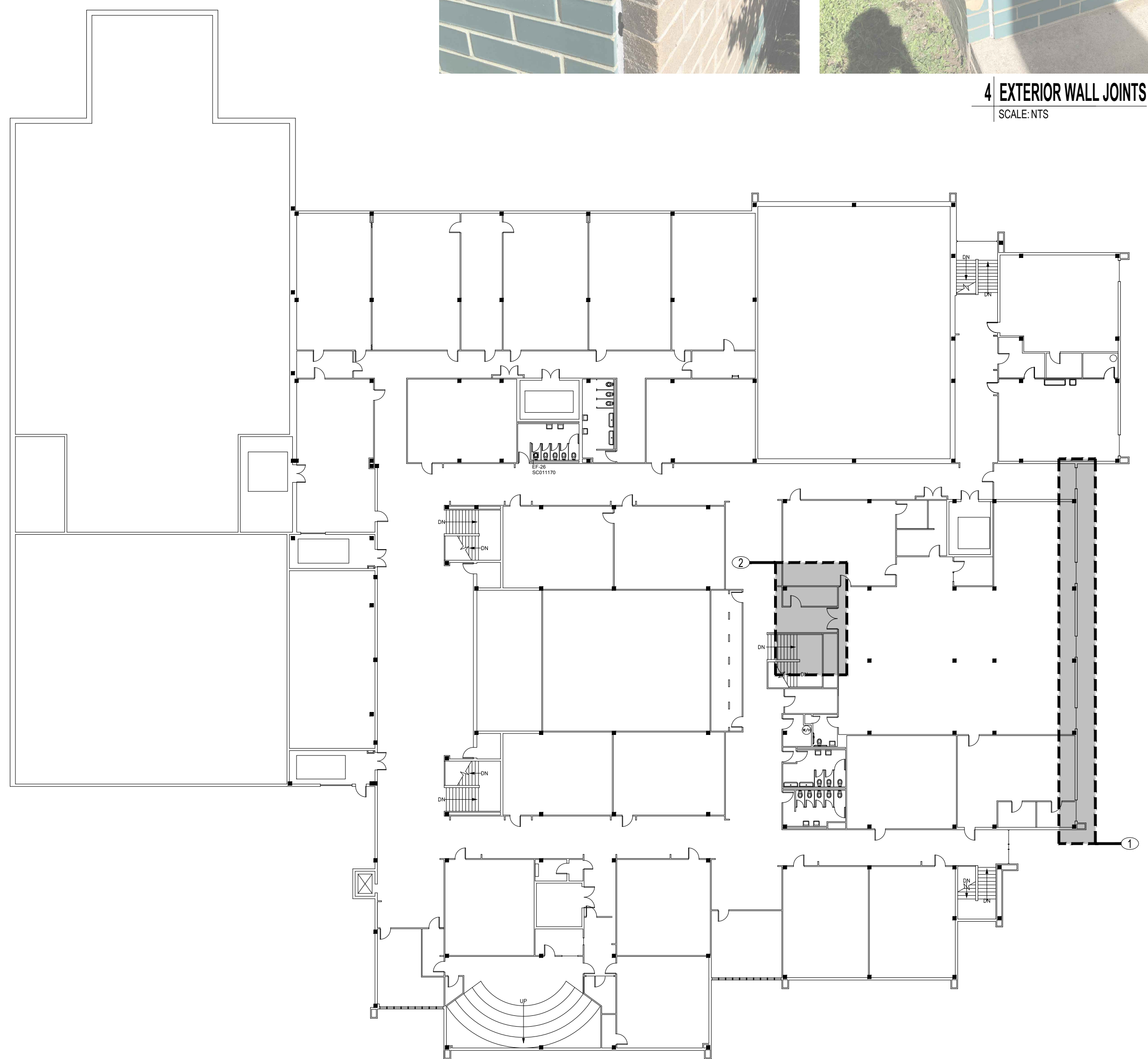
GC TO PROVIDE \$15,000 ALLOWANCE AND UNIT PRICE FOR DETERIORATED CAULK AND SEALANT REPLACEMENT.

**4 EXTERIOR WALL JOINTS**  
SCALE: NTS

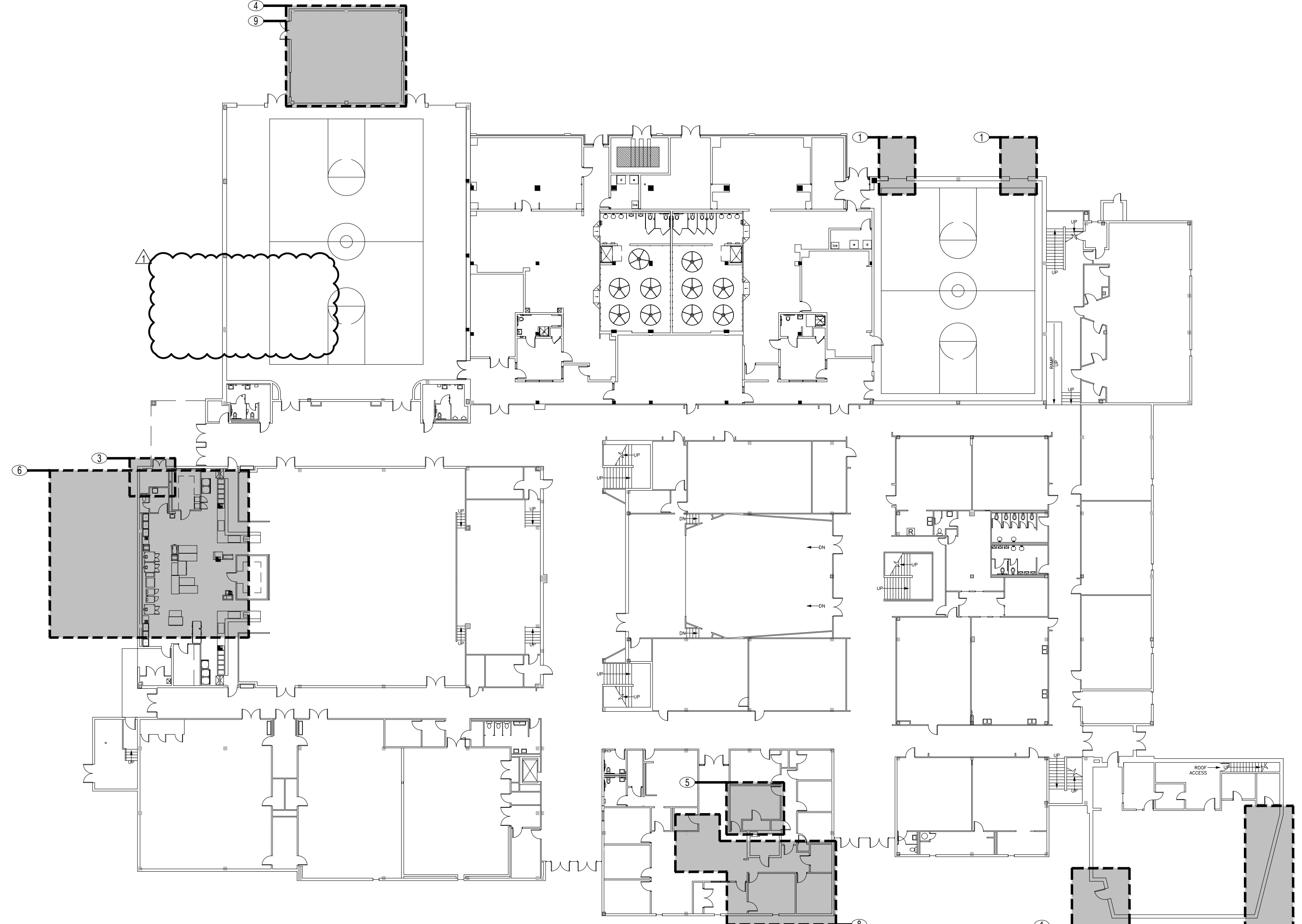


REPLACE DETERIORATED SEALANT AND CAULKING AROUND EXISTING SECOND FLOOR LIBRARY WINDOWS. QTY: 4 WINDOWS.

**3 EXTERIOR WINDOW SEALANT**  
SCALE: NTS



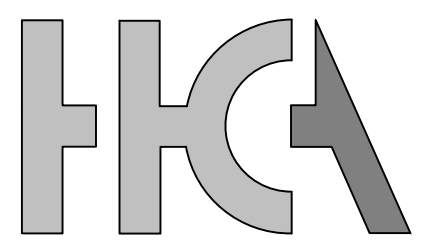
**2 SECOND FLOOR SCOPE**  
SCALE: NTS TRUE NORTH PLAN NORTH



**1 FIRST FLOOR SCOPE**  
SCALE: NTS TRUE NORTH PLAN NORTH

**SCOPE OUTLINE:**

- ① REPLACE DETERIORATED SEALANT AND CAULKING ON THE EXTERIOR WALLS, AROUND DOORS, AND AROUND WINDOWS - REF 3/6/01 & 4/6/01 FOR EXISTING CONDITIONS. (DEFICIENCY ID: DI-38870)
- ② INSTALL PREVIOUSLY PROVIDED VFD - REF MEP. (DEFICIENCY ID: DI-38871)
- ③ REPLACE GAS WATER HEATER - REF MEP. (DEFICIENCY ID: DI-38872)
- ④ REPLACE EXISTING LAMP IN ADMIN OFFICE 150R AND STORAGE ROOM 150S - REF 1/4/01 & 2/4/01.
- ⑤ REPLACE EXISTING GREASE TRAP AND ASSOCIATED PLUMBING - REF 1/4/01 MEP. (DEFICIENCY ID: DI-672)
- ⑥ NOT USED
- ⑦ REPLACE EXISTING ELECTRICAL PANEL AND PROVIDE ADDITIONAL POWER TO EXISTING OFFICES. REF ELECTRICAL
- ⑧ REMOVE ABANDONED WATER STORAGE TANK AND COMPRESSOR - REF MEP. (DEFICIENCY ID: DI-38887)



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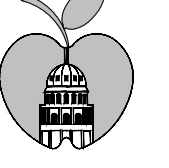
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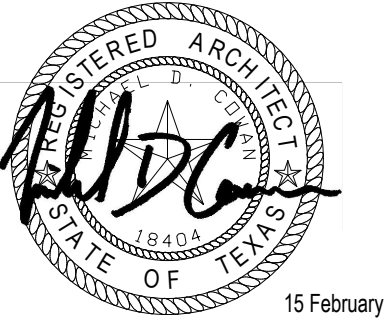


DEPARTMENT OF CONSTRUCTION MANAGEMENT

**DOBIE MIDDLE SCHOOL**

**RENOVATIONS**

1200 E Rundberg Ln, Austin, Texas  
AISD PROJECT No. 190035-DOBIE



15 February 2019

**REVISIONS**

No.	Issue	Date
△	ADDENDUM #2	02/15/2019

**SHEET INFORMATION**

Date	February 15, 2019
Job Number	18-1032
Scale	NOT TO SCALE
Drawn	SD
Checked	MC
Approved	MC

TITLE

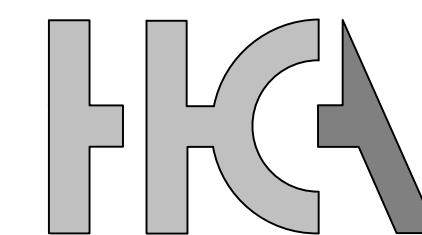
**Scope Outline - Interior**

SHEET

**G0.01**

**SCOPE OUTLINE:**

- ① NOT USED
- ② IMPROVE GRADING TOWARDS EXISTING DRAINAGE INLET - REF CIVIL (DEFICIENCY ID: DI-38904)
- ③ REPLACE EXISTING GREASE TRAP - REF 1/A0.01 & MEP (DEFICIENCY ID: DI-3877)
- ④ NEW AREAWAY AND EXHAUST FAN - REF 3/A2.01, 4/A2.01, AND MEP (DEFICIENCY ID: DI-38871)
- ⑤ MODIFY EXISTING PLANTERS TO ALLOW FOR WATER FLOW AWAY FROM BUILDING - REF 2/G0.02, 3/G0.02, 4/G0.02 AND 5/G0.02 (DEFICIENCY ID: DI-38868)
- ⑥ NEW CONCRETE TRICKLE CHANNEL - REF CIVIL (DEFICIENCY ID: DI-38904)
- ⑦ RELOCATE EXISTING SPLASH BLOCK AND ADD ADDITIONAL CONCRETE SPLASH BLOCK - REF CIVIL (DEFICIENCY ID: DI-38904)
- ⑧ NEW CONCRETE CURB - REF CIVIL (DEFICIENCY ID: DI-38904)



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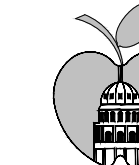
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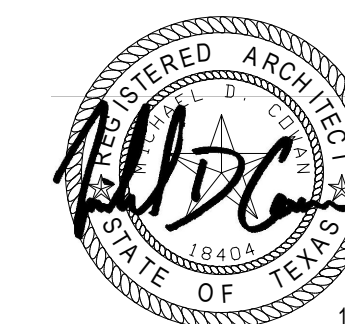


DEPARTMENT OF CONSTRUCTION MANAGEMENT

**DOBIE MIDDLE SCHOOL**

**RENOVATIONS**

1200 E Rundberg Ln, Austin, Texas  
AISD PROJECT No. 190035-DOBIE



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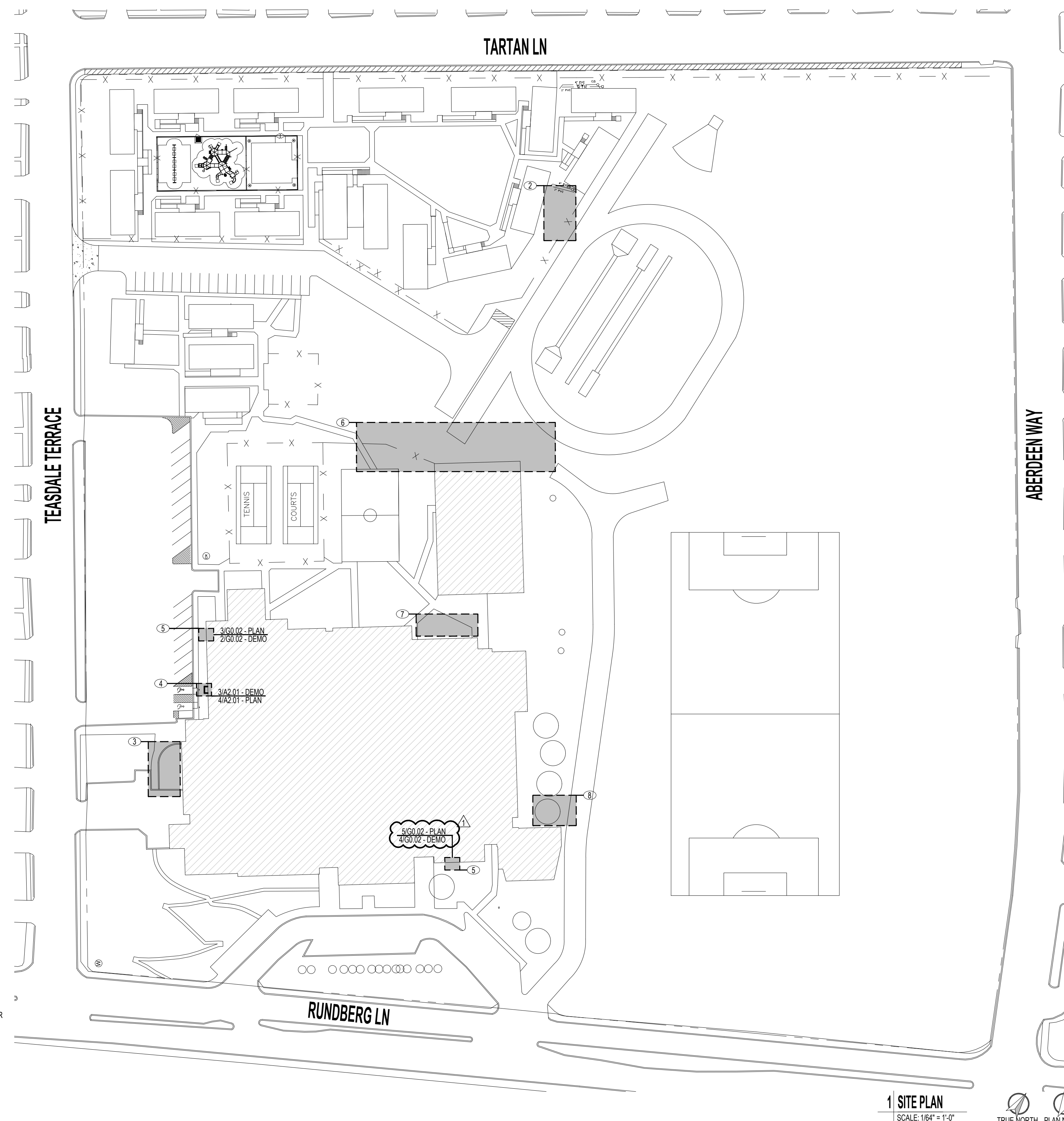
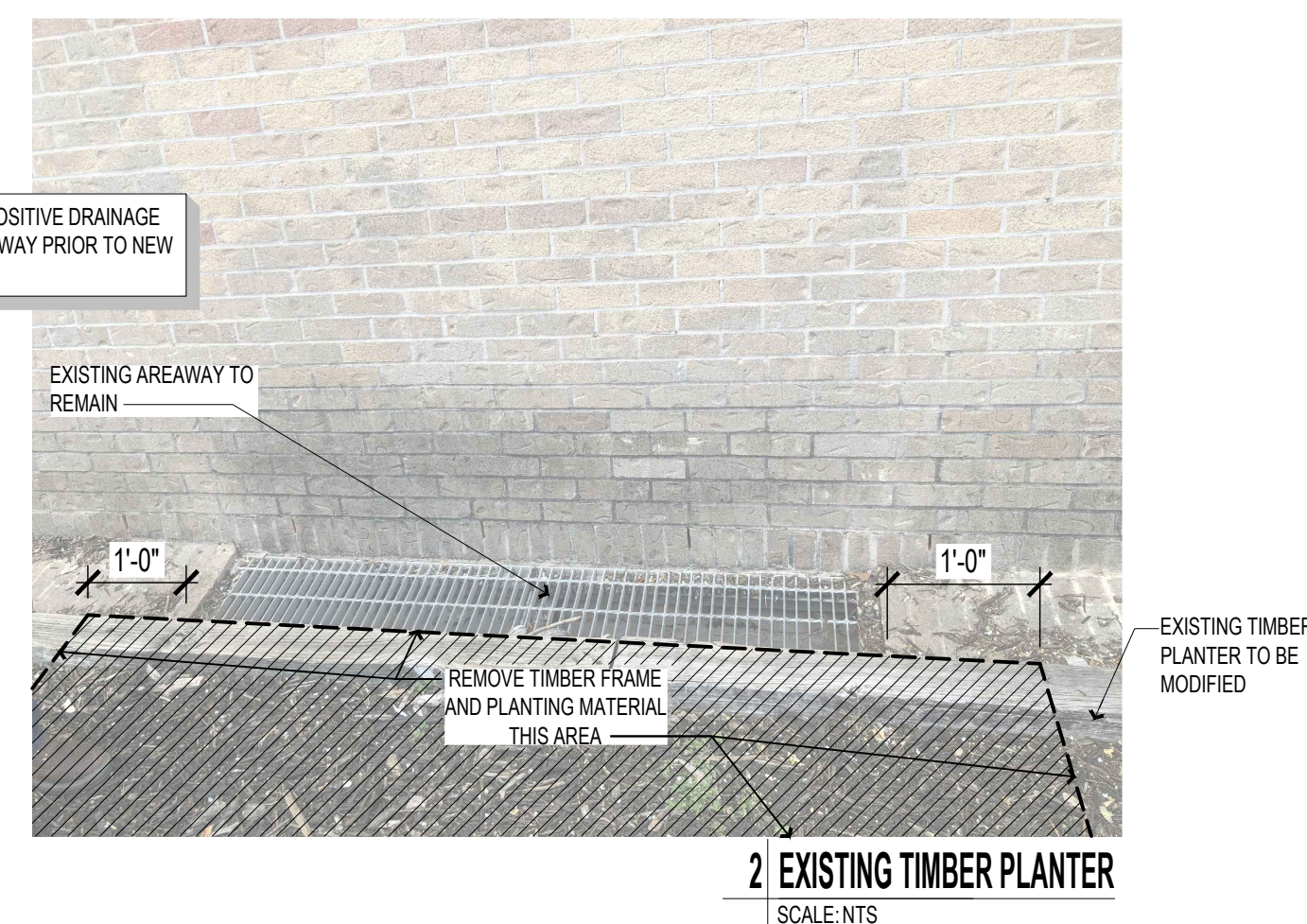
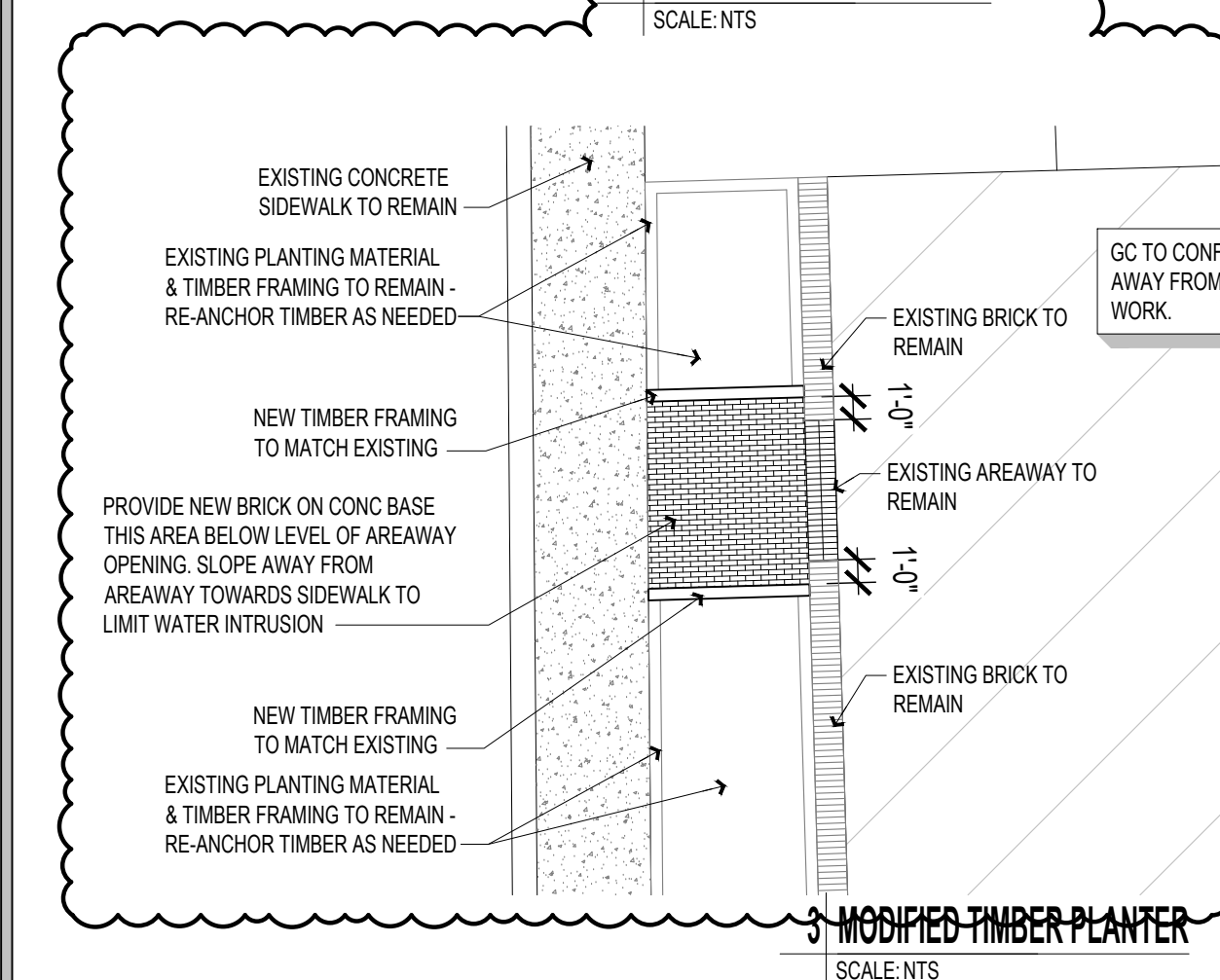
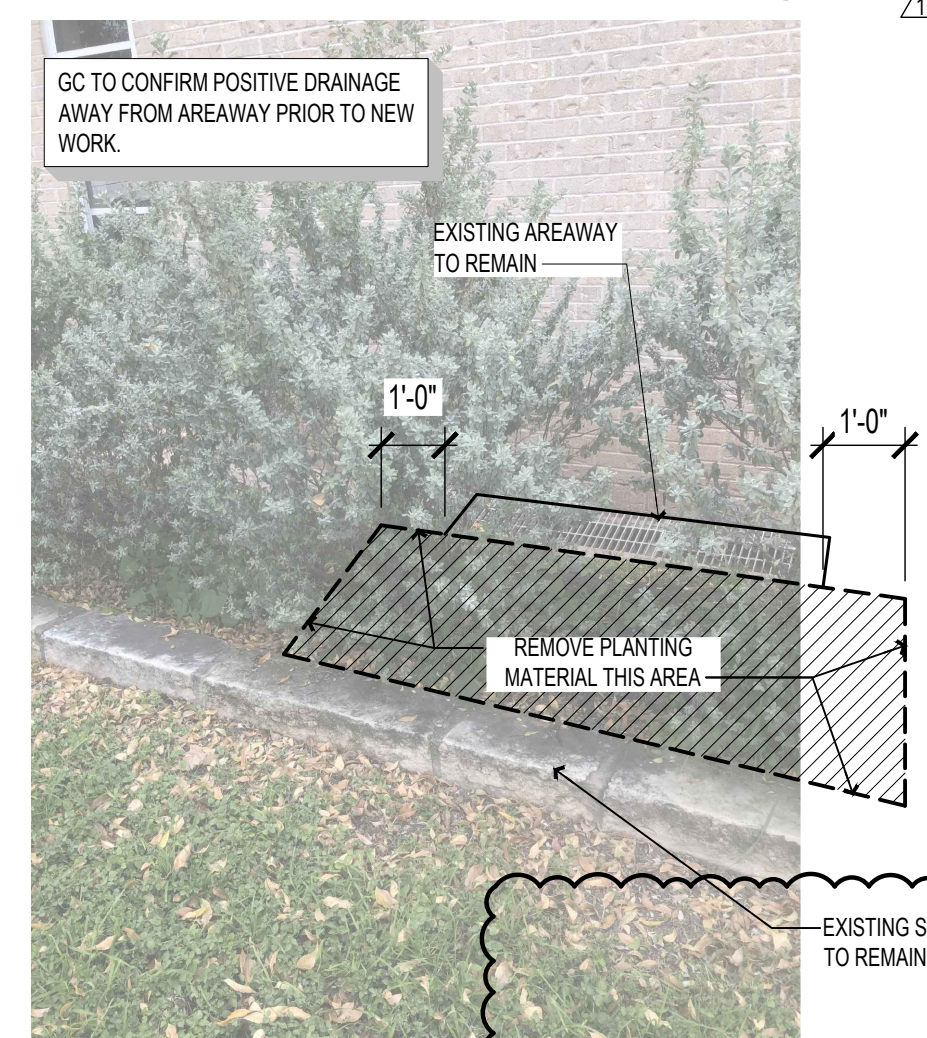
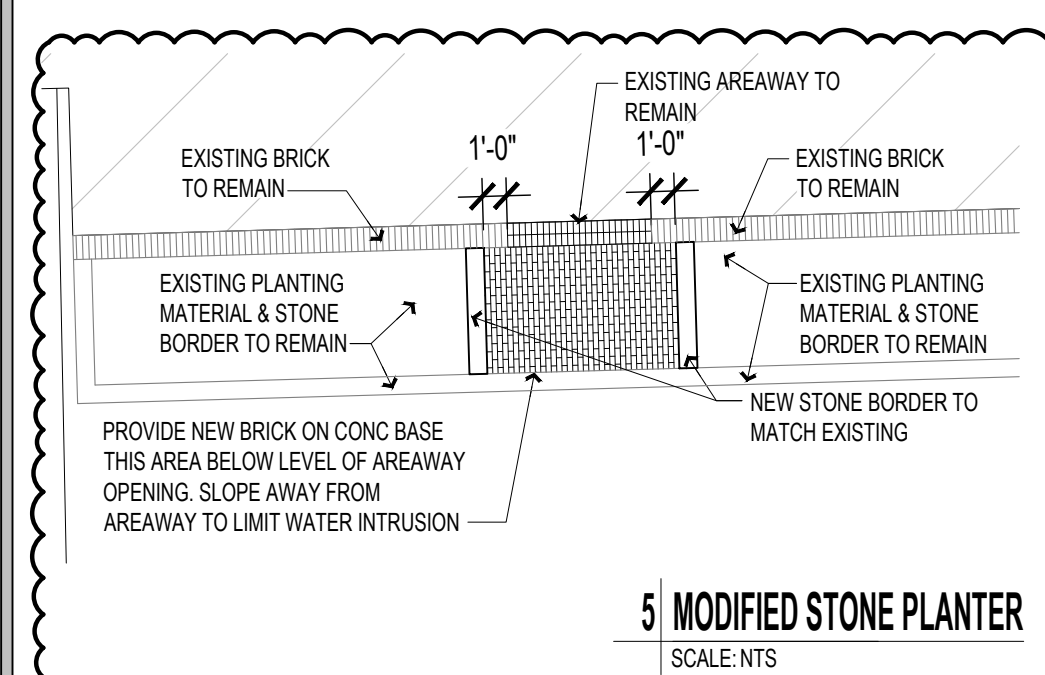
Date	February 15, 2019
Job Number	18-1032
Scale	VARIES
Drawn	SD
Checked	MC
Approved	MC

TITLE

**Scope Outline - Site**

SHEET

**G0.02**

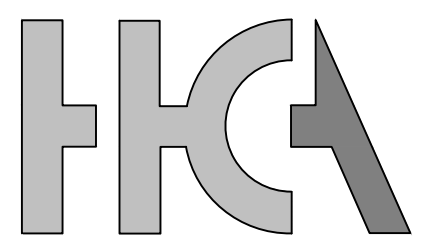


**1 SITE PLAN**  
SCALE: 1/8" = 1'-0"



**SCOPE OUTLINE:**

- ① REPLACE THREE EXHAUST FANS - REF MEP. (DEFICIENCY ID: DI-38871)
- ② REPLACE THREE OUTSIDE AIR MAKEUP UNITS - REF MEP. (DEFICIENCY ID: DI-38871)
- ③ REPLACE COOLING TOWER - REF MEP. (DEFICIENCY ID: DI-38871)



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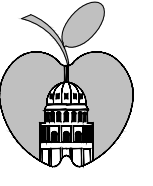
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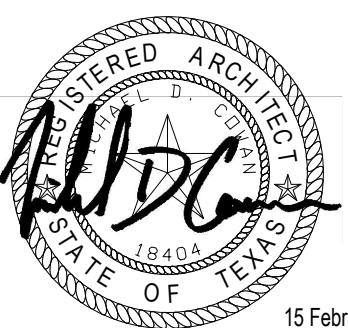


DEPARTMENT OF CONSTRUCTION MANAGEMENT

**DOBIE MIDDLE SCHOOL**

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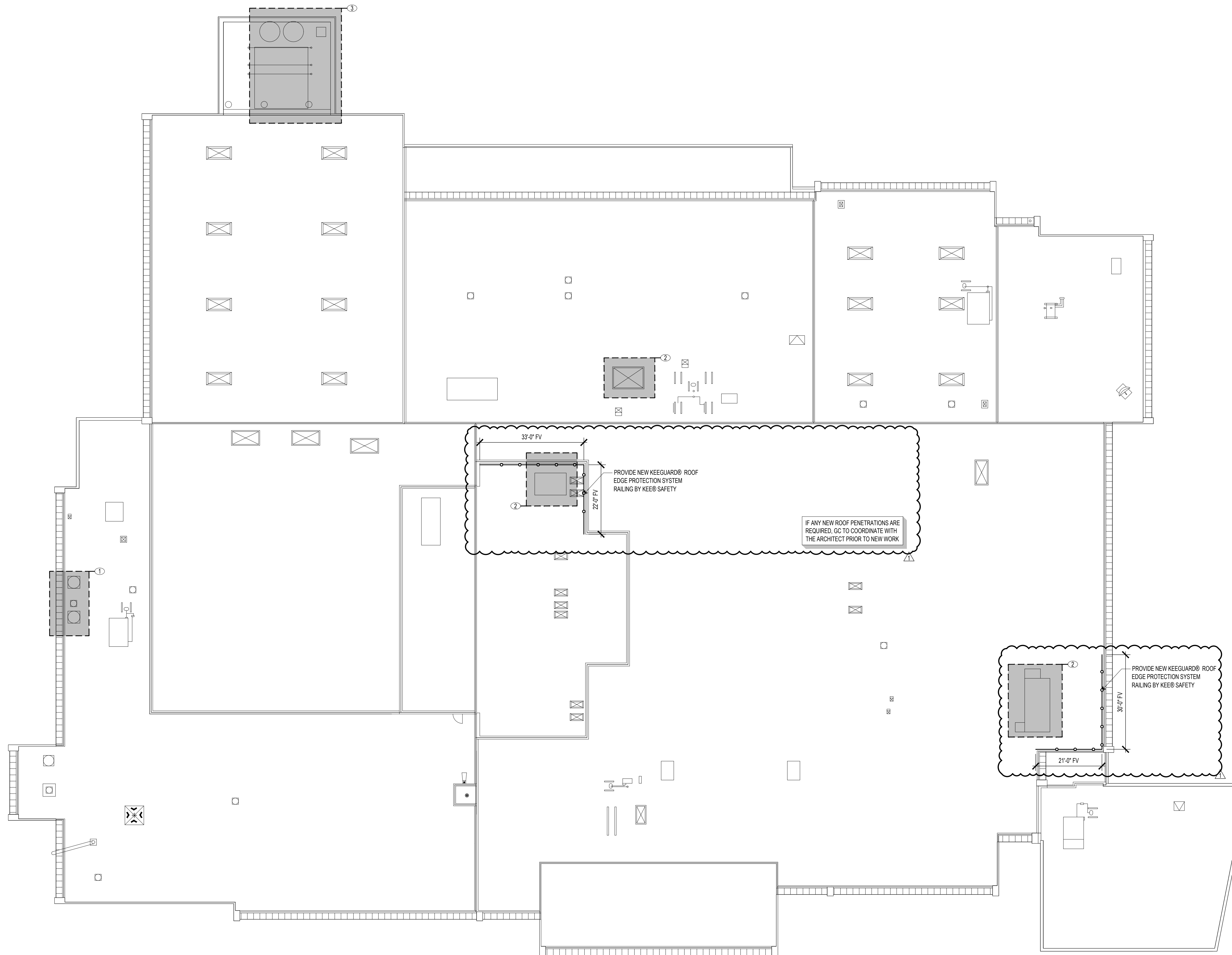
Date	February 15, 2019
Job Number	18-1032
Scale	VARIABLES
Drawn	SD
Checked	MC
Approved	MC

TITLE

**Scope Outline - Roof**

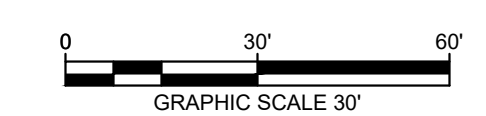
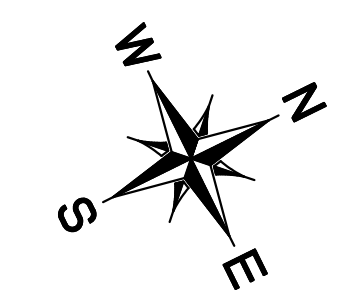
SHEET

**G0.03**



1 ROOF PLAN  
SCALE: 1/16" = 1'-0"

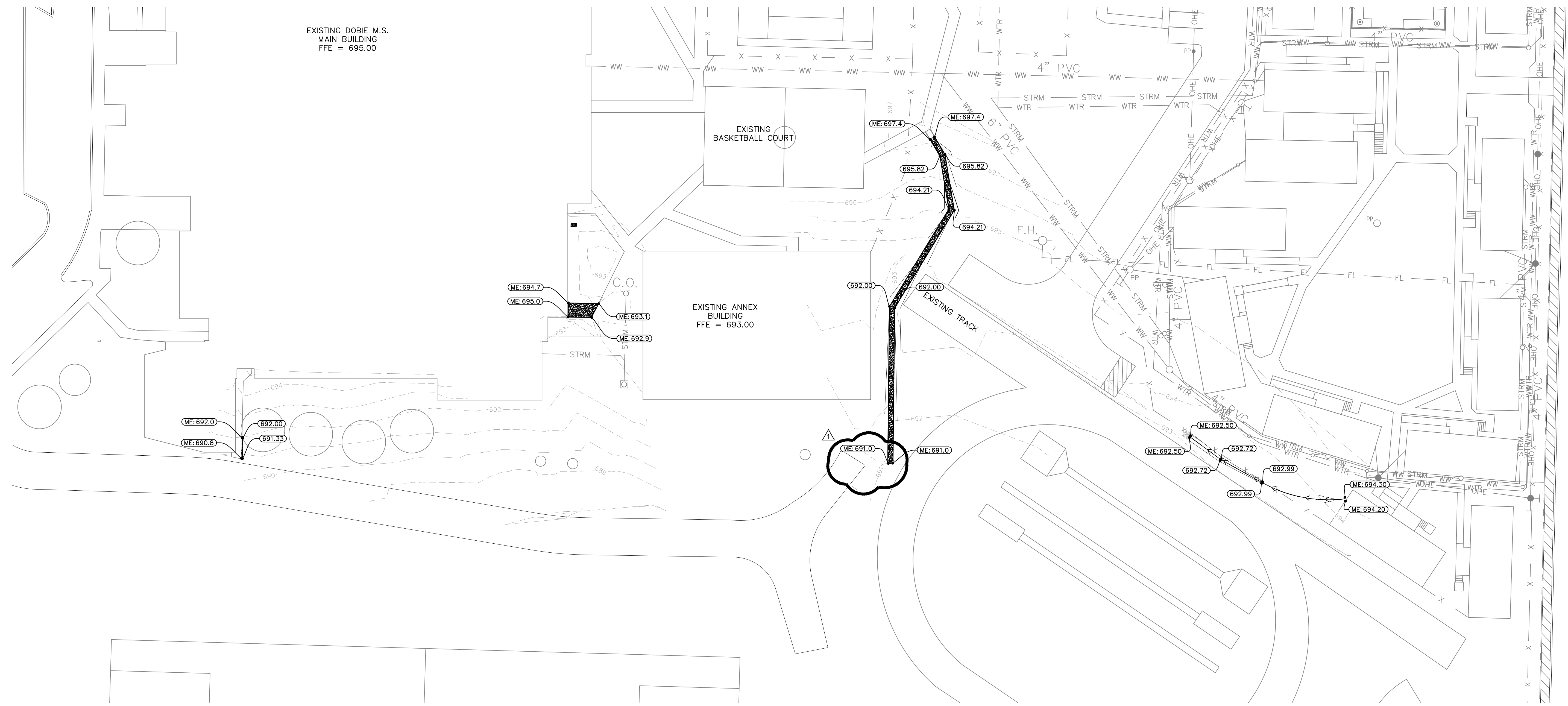




EXISTING DOBIE M.S.  
MAIN BUILDING  
FFE = 695.00

EXISTING ANNEX  
BUILDING  
FFE = 693.00

EXISTING BASKETBALL COURT



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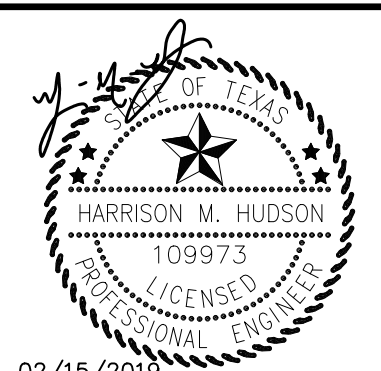


DEPARTMENT OF CONSTRUCTION  
MANAGEMENT

DOBIE MIDDLE SCHOOL

**RENOVATIONS**

1200 E Rundberg Ln, Austin, Texas  
AISD PROJECT No. 190035-DOBIE



02/15/2019

REVISIONS

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▲	ADDENDUM #2	02/15/2019

SHEET INFORMATION

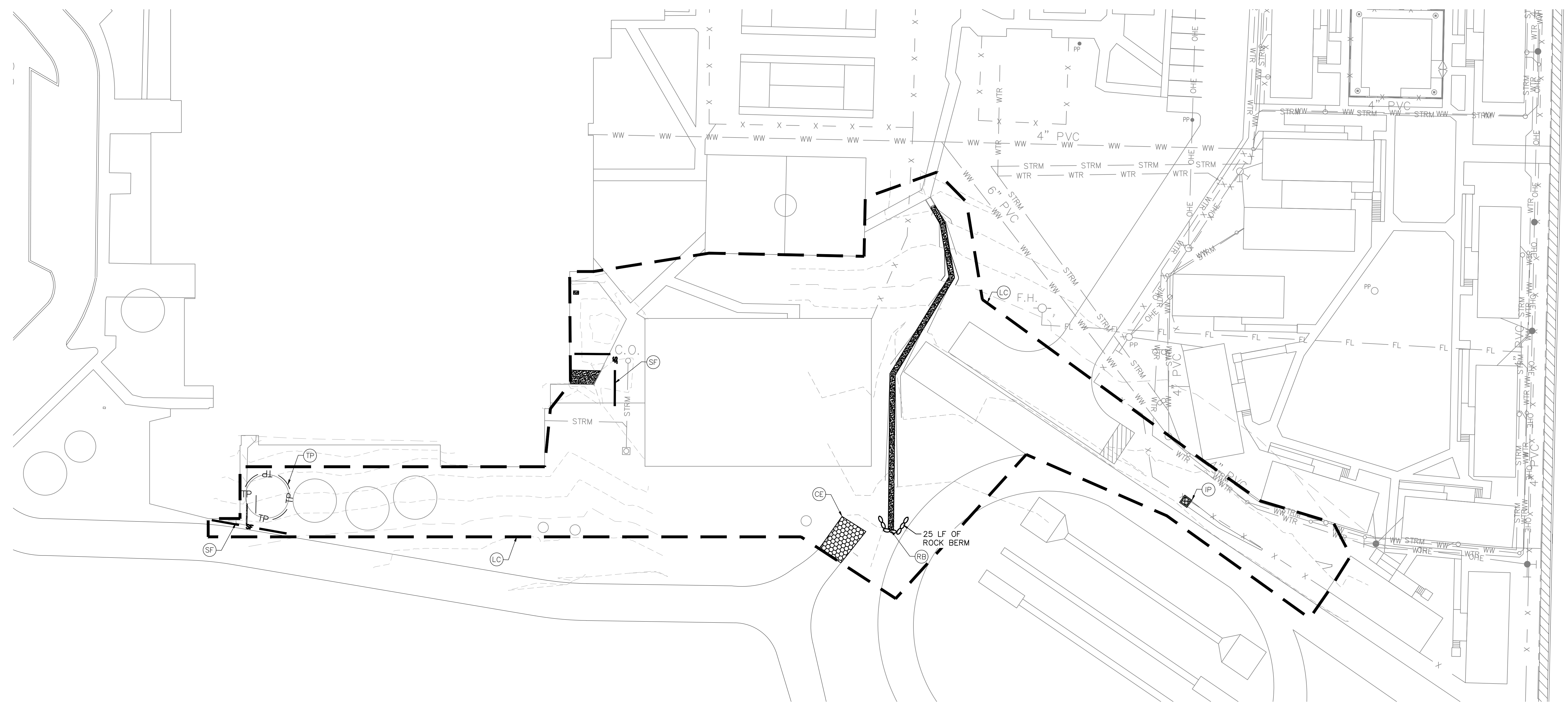
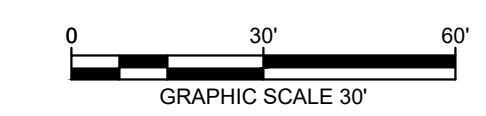
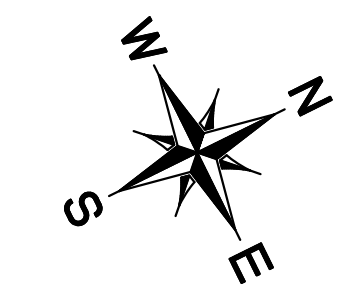
Date	January 3, 2019
Job Number	18-1032
Scale	
Drawn	SMH
Checked	HMH
Approved	HMH
TITLE	

GRADING PLAN

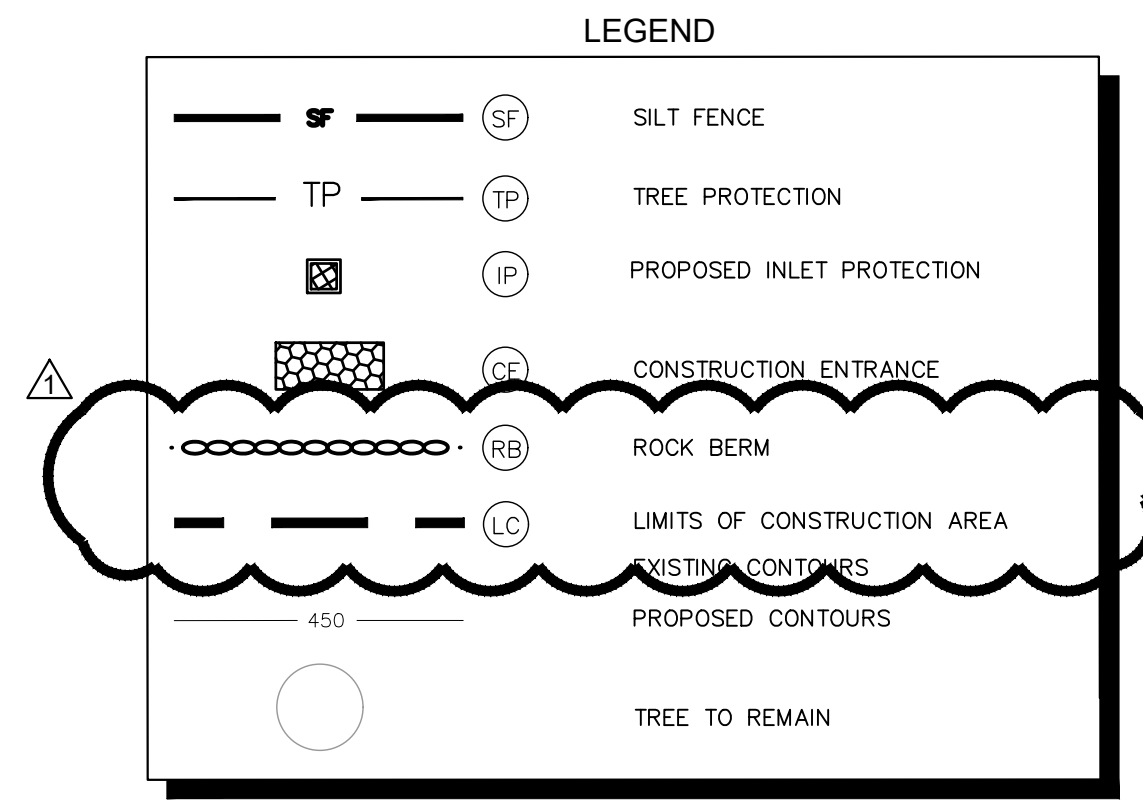
SHEET

C2





- NOTES:**
- CONTRACTOR IS SOLELY RESPONSIBLE FOR IMPLEMENTATION, MAINTENANCE, AND EFFECTIVENESS OF ALL SWPPP CONTROLS - CONTROLS SHOWN ON THIS SITE MAP ARE SUGGESTED CONTROLS ONLY. CONTRACTOR SHALL RECORD INSTALLATION, MAINTENANCE OR MODIFICATION, AND REMOVAL DATES FOR EACH BMP EMPLOYED (WHETHER CALLED OUT ON ORIGINAL SWPPP OR NOT) DIRECTLY ON THE SITE MAP.
  - THE ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD AND/OR MODIFY EROSION/SEDIMENTATION CONTROLS ON SITE TO KEEP PROJECT IN COMPLIANCE WITH THE CITY OF AUSTIN RULES AND REGULATIONS.
  - CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURE DURING SITE CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING AS PER ECM 1.4.5(d) OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
  - TEMPORARY AND PERMANENT STABILIZATION PRACTICES AND BMP'S SHALL BE INSTALLED AT THE EARLIEST POSSIBLE TIME DURING THE CONSTRUCTION SEQUENCE. AS AN EXAMPLE, PERIMETER SILT FENCE SHALL BE INSTALLED BEFORE COMMENCEMENT OF ANY GRADING ACTIVITIES. OTHER BMP'S SHALL BE INSTALLED AS SOON AS PRACTICABLE AND SHALL BE MAINTAINED UNTIL FINAL SITE STABILIZATION IS ATTAINED. CONTRACTOR SHALL ALSO REFERENCE CIVIL AND LANDSCAPE PLANS SINCE PERMANENT STABILIZATION IS PROVIDED BY LANDSCAPING, THE BUILDING(S), AND SITE PAVING. BMP'S HAVE BEEN LOCATED AS INDICATED ON THIS PLAN IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES IN ORDER TO MINIMIZE SEDIMENT TRANSFER. FOR EXAMPLE: SILT FENCES LOCATED AT TOE OF SLOPE AND INLET PROTECTION FOR INLETS RECEIVING SEDIMENT FROM SITE RUN-OFF.
  - ADDITIONAL EROSION AND SEDIMENTATION CONTROLS MAY BE REQUIRED BY THE CITY DURING CONSTRUCTION.
  - IF DISTURBED AREA IS NOT TO BE WORKED ON FOR MORE THAN 14 DAYS, DISTURBED AREA NEEDS TO BE STABILIZED BY REVEGETATION, MULCH, TARP OR REVEGETATION MATTING [ECM 1.4.4.B.3, SECTION 5.1]. THE CONTRACTOR WILL CLEAN UP SPOILS THAT MIGRATE ONTO THE ROADS A MINIMUM OF ONCE DAILY [ECM 1.4.4.D.4].
  - ALL DISTURBED AREAS TO BE RE-VEGETATED PER CITY OF AUSTIN STANDARDS.



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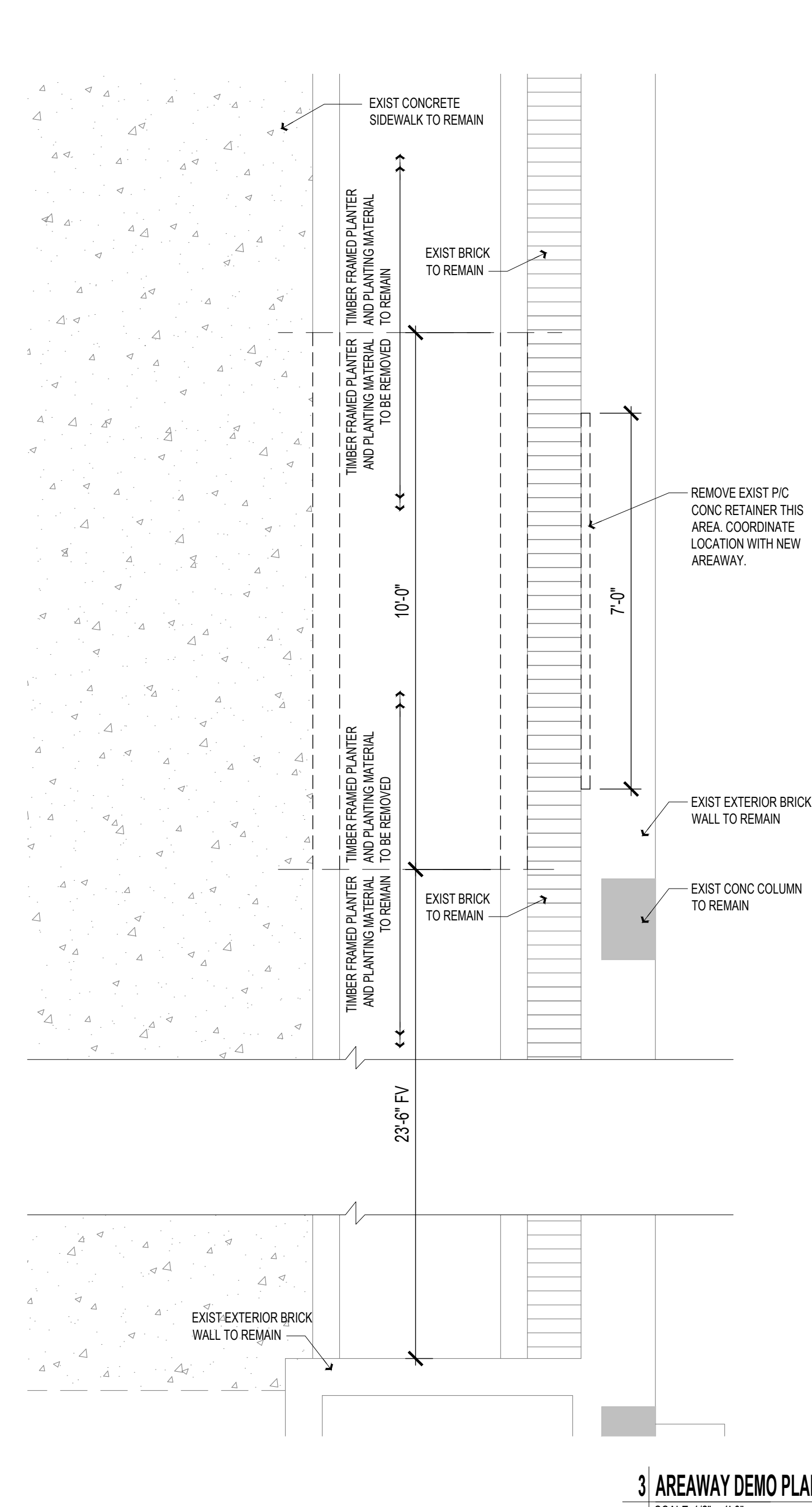
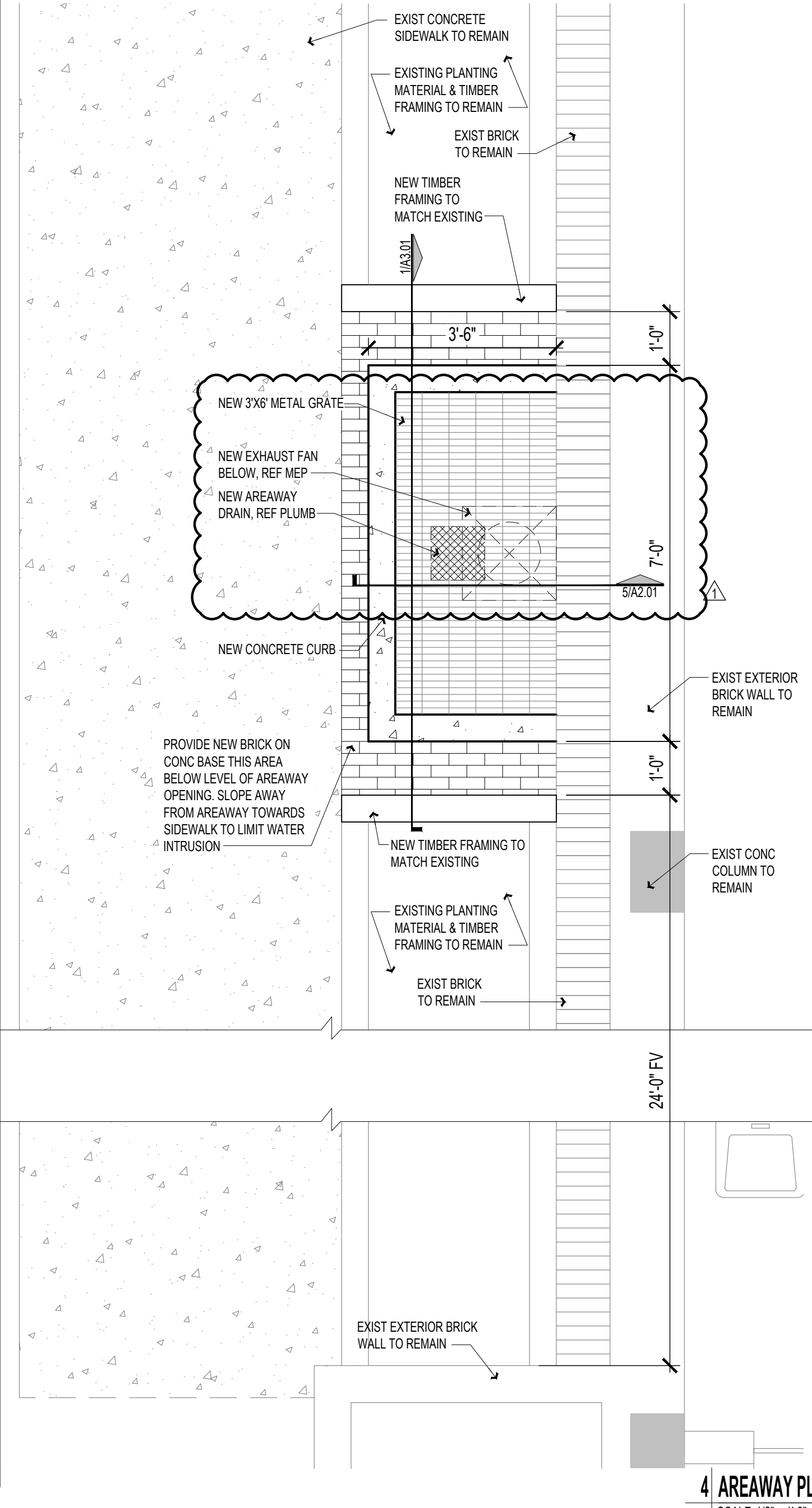
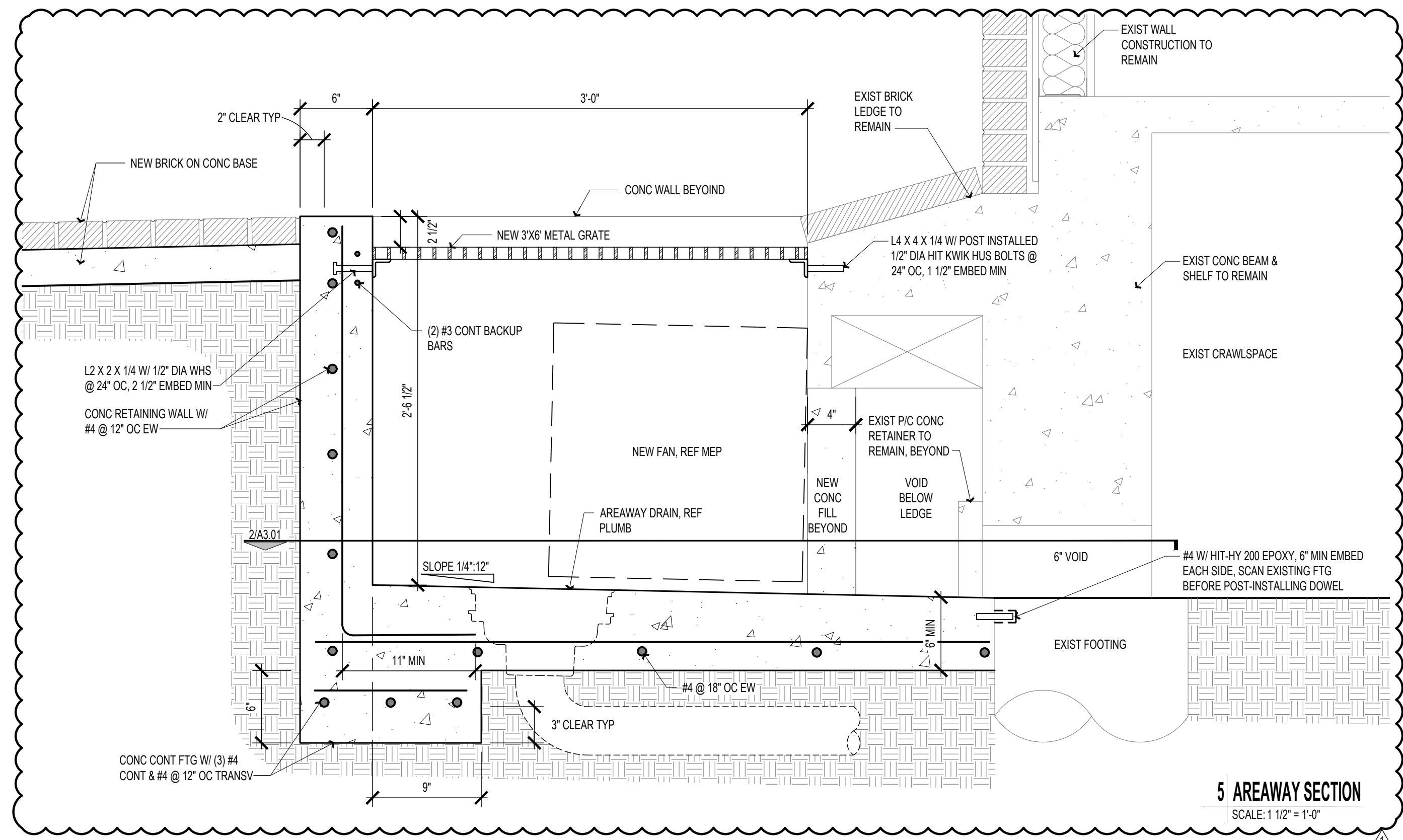
**REVISIONS**

No.	Issue	Date
1	ADDENDUM #2	02/15/2019

**SHEET INFORMATION**

Date	January 3, 2019
Job Number	18-1032
Scale	
Drawn	SMH
Checked	HMH
Approved	HMH

**EROSION CONTROL**  
**PLAN**  
 SHEET  
**C3**



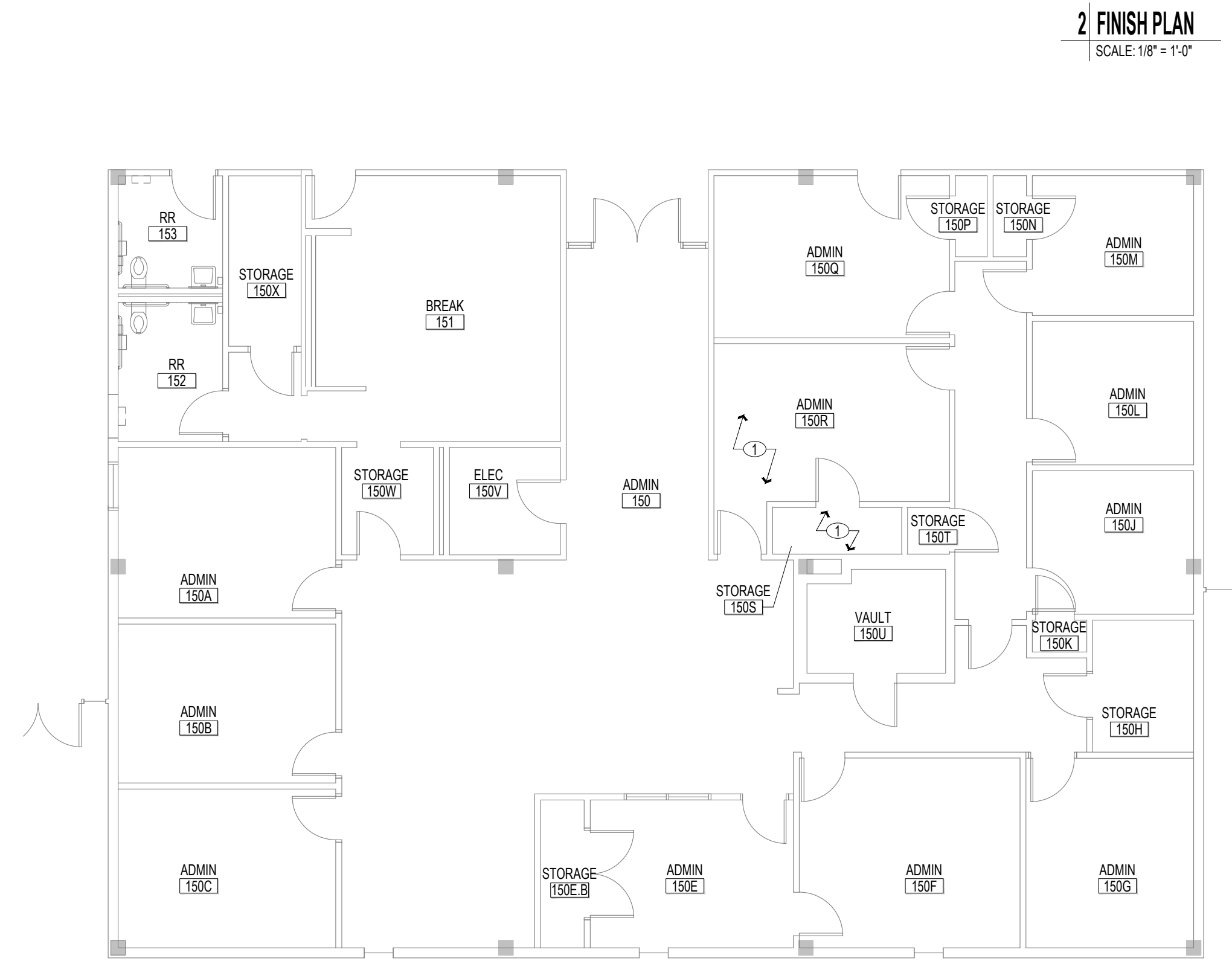
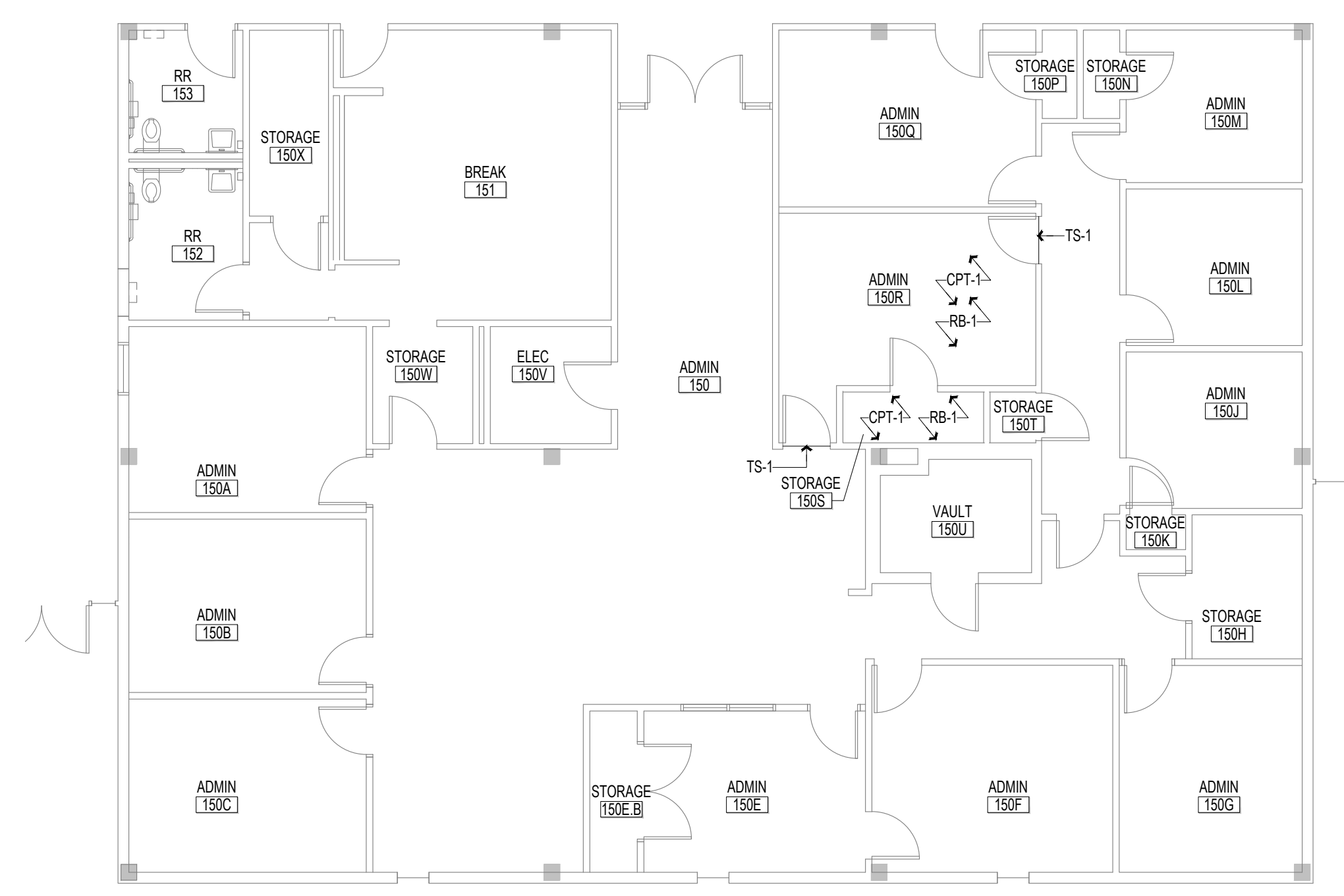
**ROOM FINISH SCHEDULE**

ROOM NUMBER	ROOM NAME	FLOORS	WALLS	CEILING		NOTES
				FINISH	HEIGHT REF RCP	
150R	ADMIN	CPT-1	RB-1	EXIST	EXIST	
150S	STORAGE	CPT-1	RB-1	EXIST	EXIST	

**ROOM FINISH LEGEND**

FLOORING	MATERIAL	CODE	MANUFACTURE/PATTERN	PRODUCT NO	COLOR	FINISH	DIMENSIONS	REMARKS
CARPET	CPT-1	INTERFACE / DETOURS	NA	104718 STEEL	NA		50CM X 50CM	
WALLS	WALL BASE	RB-1	JOHNSONITE / TRADITIONAL WALL BASE	DC-40-4	BLACK	NA	4" COVE BASE, COIL	RESILIENT WALL BASE
MISC	TRANSITION STRIP	TS-1	JOHNSONITE / RUBBER	SLT-40-A	BLACK	NA	5/8" WIDE	VCT TO CARPET TILE TRANSITION

**5 ROOM FINISH LEGEND**  
SCALE: NTS



**GENERAL NOTES:**

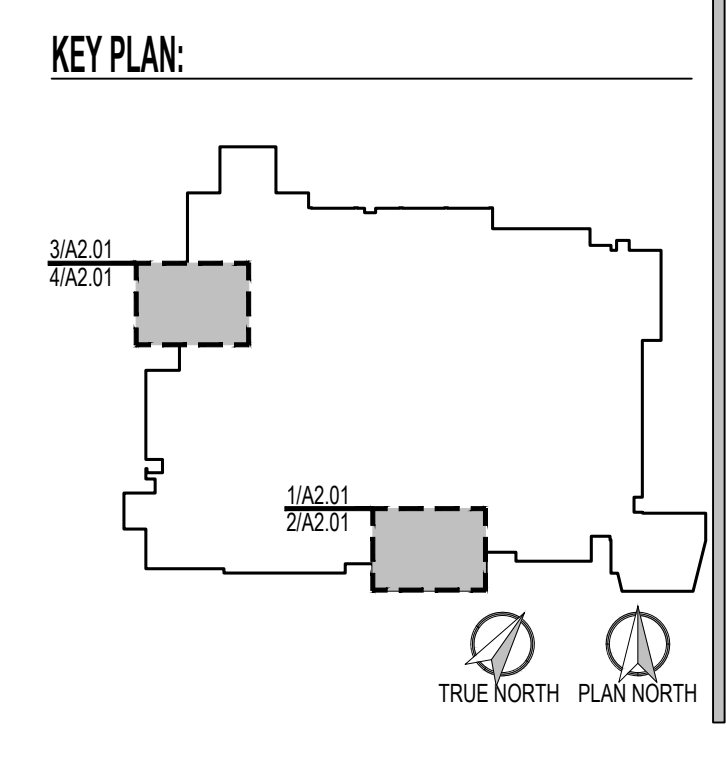
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF BOTH REMOVED MATERIAL AND ALL FINISHES ADJACENT TO WORK SCHEDULED FOR DEMOLITION. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING THE DAMAGE DONE BY ANY AND ALL OPERATIONS UNDER THIS CONTRACT.
- THE GENERAL CONTRACTOR SHALL MAINTAIN AND PROTECT EXISTING CORRIDOR FLOORING IN RENOVATED AREAS AND ROUTES FOR MATERIAL HANDLING. FLOORING SHALL BE CLEANED TO OWNER'S STANDARD MAINTENANCE PROCEDURES.
- THE GENERAL CONTRACTOR SHALL PREPARE SURFACES TO RECEIVE NEW FINISHES.

**LEGEND:**

- EXISTING PARTITION TO REMAIN
- EXISTING COLUMN TO REMAIN

**DEMOLITION KEY NOTES:**

- EXISTING CARPET AND BASE TO BE REMOVED.



**REVISIONS**

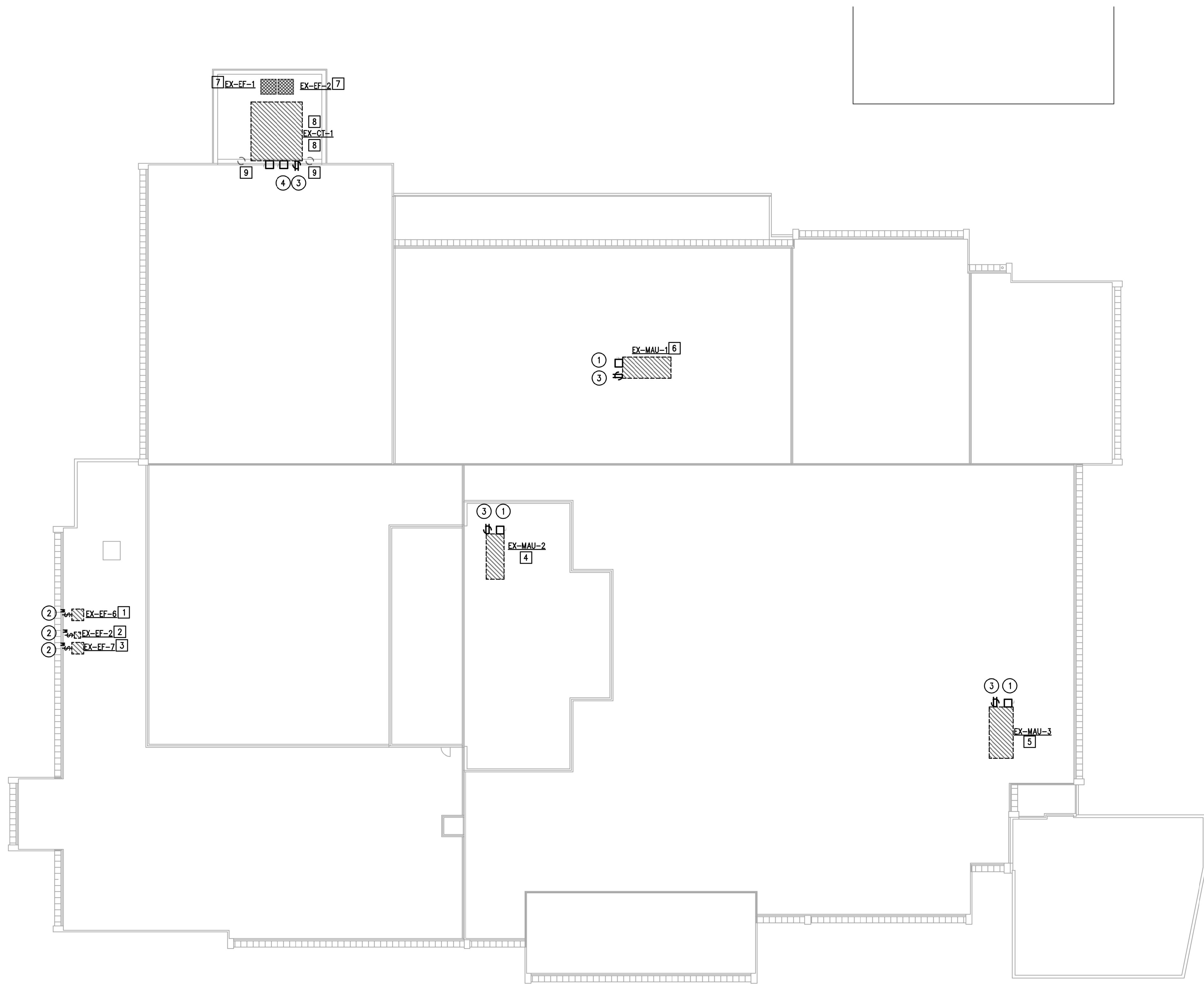
No.	Issue	Date
1	ADDENDUM #2	02/15/2019

**SHEET INFORMATION**

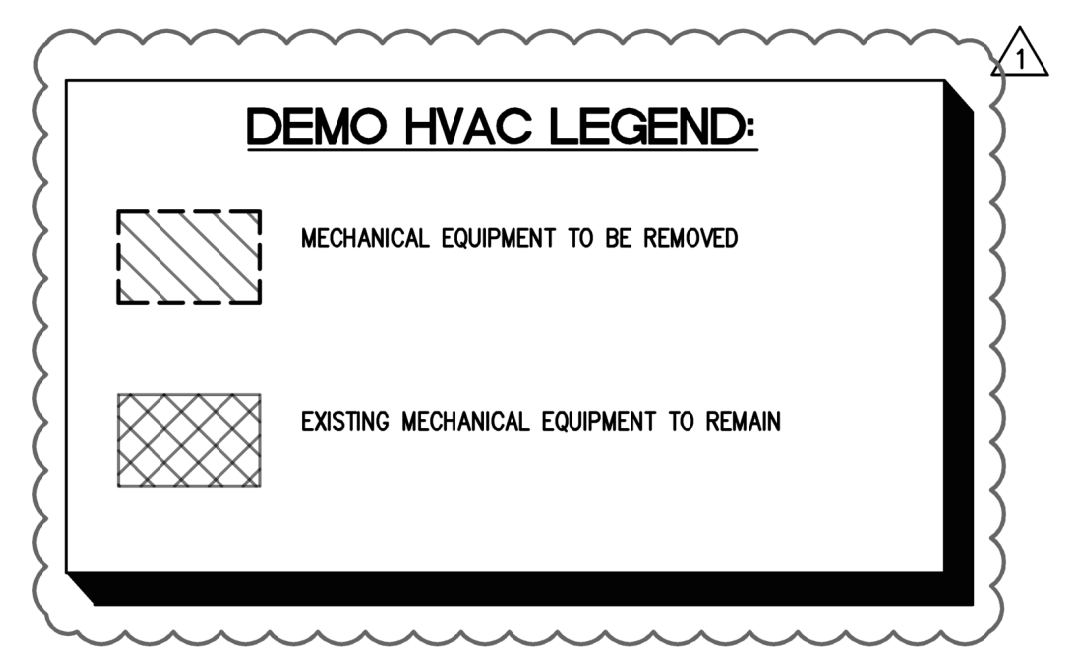
Date	February 15, 2019
Job Number	18-1032
Scale	VARIES
Drawn	SD
Checked	MC
Approved	MC

TITLE





**1** MEP DEMO ROOF PLAN  
MEP2.1  
1"=20'-0"



**MECHANICAL GENERAL NOTES:**

- A. THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL LOCATION OF EXISTING EQUIPMENT, DUCTS, AND GRILLES, ETC. IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS THAT UPON PROJECT COMPLETION, THE EXISTING MECHANICAL SYSTEMS, CONDUIT, DUCTWORK, ETC... BE READY FOR OPERATION WHETHER OR NOT EVERY ITEM OF EQUIPMENT, ACCESSORY, DEVICE, ETC. IS SHOWN. REFERENCE SHALL BE MADE TO THE FULL DRAWING PACKAGE INCLUDING ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR COORDINATION AND POTENTIAL CONFLICTS. THE MECHANICAL SUBCONTRACTOR SHALL, WITHOUT EXTRA CHARGE, MAKE REASONABLE MODIFICATIONS IN THE LAYOUT AS NEEDED TO PREVENT CONFLICTS WITH OTHER TRADES, OR FOR PROPER EXECUTION OF THE WORK. FIELD VERIFY ALL DIMENSIONS BEFORE FABRICATING DUCTWORK.
- B. CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS BEFORE ANY DEMOLITION WORK BEGINS.
- C. WORK SHALL BE DONE SO AS TO MINIMIZE DISRUPTION TO BUILDING ACTIVITIES. KEEP BUILDING SERVICES IN FULL OPERATION DURING NORMAL BUSINESS HOURS.
- D. SCHEDULING SHALL BE CLOSELY COORDINATED WITH THE OWNER AND NO WORK SHALL PROCEED WITHOUT AN OWNER-APPROVED SCHEDULE. SCHEDULE ALL SHUTDOWNS AT LEAST 48 HOURS IN ADVANCE WITH OWNER IN WRITING. REFER TO SPECIFICATIONS FOR AREAS REQUIRING SPECIAL ACCESS, SCHEDULING, AND/OR SECURITY.
- E. PROTECTION OF BUILDING PERSONNEL, FURNISHINGS AND SYSTEMS FROM HAZARD AND/OR CONTAMINATION ASSOCIATED WITH DEMOLITION AND CONSTRUCTION SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH THE SPECIFICATIONS.
- F. CONTRACTOR SHALL COORDINATE REMOVAL AND OFF-SITE DISPOSAL OF EXISTING MATERIALS AND ROUTING OF ANY NEW PIPING, CONDUIT, DUCTWORK AT THE JOB SITE TO AVOID DAMAGE OR CONFLICT WITH EXISTING SYSTEMS AND STRUCTURE. OBTAIN APPROVAL OF OWNER'S REPRESENTATIVE BEFORE DISPOSING OF ITEMS. ITEMS TO KEEP SHALL BE DELIVERED TO THE OWNER.
- G. OWNER (AISD) REQUIRES THAT R22 REFRIGERANT FROM EXISTING AIR UNITS BEING DEMOLISHED AND/OR REPLACED BE RECAPTURED BY THE CONTRACTOR. AISD AC TECH WILL TEST THE REFRIGERANT OF EACH UNIT BEING REPLACED OR DEMOLISHED AND TAG THEM WITH EITHER "GOOD" OR "BAD" LABEL. THE AISD AC TECH WILL HAVE TO COMMUNICATE WITH THE CONTRACTOR HOW THE UNITS ARE LABELED. CONTRACTOR WILL THEN RECLAIM ALL THE REFRIGERANT FROM THE UNITS THAT HAVE BEEN LABELED "GOOD" AND DISPOSE OF THE ONES LABELED "BAD". AISD WILL PROVIDE THE CONTRACTOR WITH THE CANSISTERS NEEDED FOR RECOVERING THE REFRIGERANT. WHEN CAPTURE IS COMPLETE, CONTRACTOR SHALL NOTIFY THE AISD PROJECT MANAGER FOR THIS PROJECT, WHO WILL CONTACT THE AISD SERVICE CENTER FOR PICKUP. RECAPTURE APPLIES TO ANY QUANTITY OF R22 REFRIGERANT.
- H. CONTRACTOR SHALL COORDINATE WITH OTHER TRADES. CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE GENERAL CONTRACTOR AND, AS NECESSARY, THE OWNER.
- I. CONTRACTOR SHALL COORDINATE ROUTING OF ANY NEW PIPING OR DUCTWORK AT THE JOB SITE TO AVOID CONFLICT WITH EXISTING SYSTEMS, STRUCTURE, LIGHT FIXTURES AND PLUMBING LINES.
- J. COMPLETION: UPON COMPLETION OF THE WORK, AND PRIOR TO ACCEPTANCE, THE CONTRACTOR SHALL FURNISH TO THE OWNER IN THE FORM AND QUANTITIES REQUIRED BY THE SPECIFICATIONS: OWNER'S MANUAL AND PROJECT RECORD DRAWINGS.
- K. NEW HVAC DUCTWORK, UNLESS NOTED OTHERWISE, TO BE GALVANIZED SHEET METAL SIZED, CONSTRUCTED, AND INSTALLED IN ACCORDANCE WITH THE SMACNA RECOMMENDATIONS AND IN ACCORDANCE WITH THE SPECIFICATIONS. SIZES SHOWN ON PLANS ARE IN METAL DIMENSIONS. ROUTE DUCTWORK SO AS TO MINIMIZE OFFSETS. FIELD VERIFY ROUTING ABOVE EXISTING CEILING. SEAL ALL DUCT SEAMS AIR TIGHT: MAXIMUM AIR LEAKAGE RATE = 5%.
- L. CONTRACTOR SHALL PROTECT EXISTING SECURITY CAMERAS DURING CONSTRUCTION AND SHALL CONFIRM CAMERAS ARE OPERATIONAL UPON CONSTRUCTION COMPLETION.
- M. SMOKE DETECTORS SHALL REMAIN OPERATIONAL DURING CONSTRUCTION. COVER ALL SMOKE DETECTORS FOR PROTECTION.
- N. ANY EXISTING CLOCKS IN HALLWAYS SUSPENDED FROM CEILING, TO BE CAREFULLY DISCONNECTED AND STORED DURING CONSTRUCTION. CLOCKS SHALL BE RE-INSTALLED IN PREVIOUS LOCATION WHEN CONSTRUCTION IS COMPLETE. CONTRACTOR SHALL VERIFY THAT CLOCK SYSTEM IS WORKING PROPERLY WHEN INSTALLATION IS COMPLETE.
- O. ANY EXISTING EXITS SIGNS IN HALLWAYS WITH CEILINGS SCHEDULED FOR DEMOLITION AND SUSPENDED FROM CEILING TO BE CAREFULLY DISCONNECTED AND STORED DURING CONSTRUCTION. EXIT SIGNS SHALL BE RE-INSTALLED IN PREVIOUS LOCATION WHEN CONSTRUCTION IS COMPLETE. CONTRACTOR SHALL VERIFY THAT POWER HAS BEEN RESTORED AND SIGNS ARE WORKING PROPERLY WHEN INSTALLATION IS COMPLETE.

**MECHANICAL KEYED NOTES:**

- 1 EXISTING HOOD EXHAUST FAN TO BE REPLACED. PROVIDE CURB ADAPTER AS REQUIRED. CONTRACTOR SHALL DISCONNECT EXISTING DUCTWORK CONNECTION TO FAN BELOW CEILING ONLY AND RECONNECT ONCE NEW FAN IS INSTALLED. PROVIDE DUCT TRANSITION TO NEW FAN AS REQUIRED. ALL ELECTRICAL WIRING AND DISCONNECTS SHALL BE DISCONNECTED. CONTRACTOR SHALL ENGAGE THE TAB CONTRACTOR EARLY TO PRE-AUDIT THE UNIT PRIOR TO REMOVAL.
- 2 EXISTING EXHAUST FAN TO BE REPLACED. PROVIDE CURB ADAPTER AS REQUIRED. CONTRACTOR SHALL DISCONNECT EXISTING DUCTWORK CONNECTION TO FAN BELOW CEILING ONLY AND RECONNECT ONCE NEW FAN IS INSTALLED. PROVIDE DUCT TRANSITION TO NEW FAN AS REQUIRED. ALL ELECTRICAL WIRING AND DISCONNECTS SHALL BE DISCONNECTED. CONTRACTOR SHALL ENGAGE THE TAB CONTRACTOR EARLY TO PRE-AUDIT THE UNIT PRIOR TO REMOVAL.
- 3 EXISTING HOOD EXHAUST FAN TO BE REPLACED. PROVIDE CURB ADAPTER AS REQUIRED. CONTRACTOR SHALL DISCONNECT EXISTING DUCTWORK CONNECTION TO FAN BELOW CEILING ONLY AND RECONNECT ONCE NEW FAN IS INSTALLED. PROVIDE DUCT TRANSITION TO NEW FAN AS REQUIRED. ALL ELECTRICAL WIRING AND DISCONNECTS SHALL BE DISCONNECTED. CONTRACTOR SHALL ENGAGE THE TAB CONTRACTOR EARLY TO PRE-AUDIT THE UNIT PRIOR TO REMOVAL.
- 4 EXISTING MAKE UP AIR UNIT ON THE HIGH ROOF TO BE REPLACED. PROVIDE CURB ADAPTER AS REQUIRED. CONTRACTOR SHALL DISCONNECT EXISTING DUCTWORK TO UNIT BELOW CEILING ONLY AND RECONNECT ONCE NEW UNIT IS INSTALLED. PROVIDE DUCT TRANSITION TO NEW UNIT AS REQUIRED. ALL ELECTRICAL SHALL BE DISCONNECTED. CONTRACTOR SHALL ENGAGE THE TAB CONTRACTOR EARLY TO PRE-AUDIT THE UNIT PRIOR TO REMOVAL.
- 5 EXISTING MAKE UP AIR UNIT ON ROOF TO BE REPLACED. PROVIDE CURB ADAPTER AS REQUIRED. CONTRACTOR SHALL DISCONNECT EXISTING DUCTWORK TO UNIT BELOW CEILING ONLY AND RECONNECT ONCE NEW UNIT IS INSTALLED. PROVIDE DUCT TRANSITION TO NEW UNIT AS REQUIRED. ALL ELECTRICAL SHALL BE DISCONNECTED. CONTRACTOR SHALL ENGAGE THE TAB CONTRACTOR EARLY TO PRE-AUDIT THE UNIT PRIOR TO REMOVAL.
- 6 EXISTING MAKE UP AIR UNIT ON ROOF TO BE REPLACED. PROVIDE CURB ADAPTER AS REQUIRED. CONTRACTOR SHALL DISCONNECT EXISTING DUCTWORK TO UNIT BELOW CEILING ONLY AND RECONNECT ONCE NEW UNIT IS INSTALLED. PROVIDE DUCT TRANSITION TO NEW UNIT AS REQUIRED. ALL ELECTRICAL SHALL BE DISCONNECTED. CONTRACTOR SHALL ENGAGE THE TAB CONTRACTOR EARLY TO PRE-AUDIT THE UNIT PRIOR TO REMOVAL.
- 7 EXISTING FAN TO REMAIN IN SERVICE.
- 8 EXISTING COOLING TOWER TO BE REPLACED. ASSOCIATED PIPING DOWN TO MECHANICAL ROOM BELOW SHALL BE REMOVED. ALL ELECTRICAL SHALL BE DISCONNECTED.
- 9 EXISTING GAS BOILER FLUE STACK TO REMAIN. CONTRACTOR TO COORDINATE EXACT LOCATION WHEN INSTALLING NEW COOLING TOWER.

**ELECTRICAL KEYED NOTES:**

- 1 EXISTING MAKE-UP AIR UNIT TO BE REPLACED. MAKE-UP AIR UNIT "MAU-1, MAU-2 & MAU-3" DISCONNECT, WIRE AND CONDUIT TO BE REMOVED BACK TO SOURCE PANEL.
- 2 EXISTING EXHAUST FAN TO BE REPLACED. EXHAUST FAN "EF-1" POWER CONNECTION TO REMAIN FOR FUTURE EXHAUST FAN.
- 3 EXISTING RECEPTACLE TO BE REPLACED. CIRCUIT TO EXISTING ROOF RECEPTACLE IS TO REMAIN FOR FUTURE USE.
- 4 EXISTING COOLING TOWER TO BE REPLACED. COOLING TOWER DISCONNECT, WIRE AND CONDUIT TO BE REMOVED BACK TO SOURCE PANEL.



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DBR Project Number 1816.000  
SB | AW | HH | JL | --



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AUSTIN I.S.D.

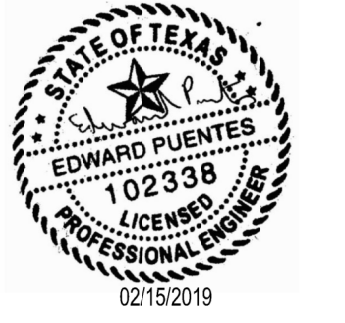


DEPARTMENT OF CONSTRUCTION MANAGEMENT

DOBIE MIDDLE SCHOOL

RENOVATIONS

1200 E Rundberg Ln, Austin, Texas  
AISD PROJECT No. 190035-DOBIE



REVISIONS

No.	Issue	Date
1	ADDENDUM 2	02/15/2019

SHEET INFORMATION

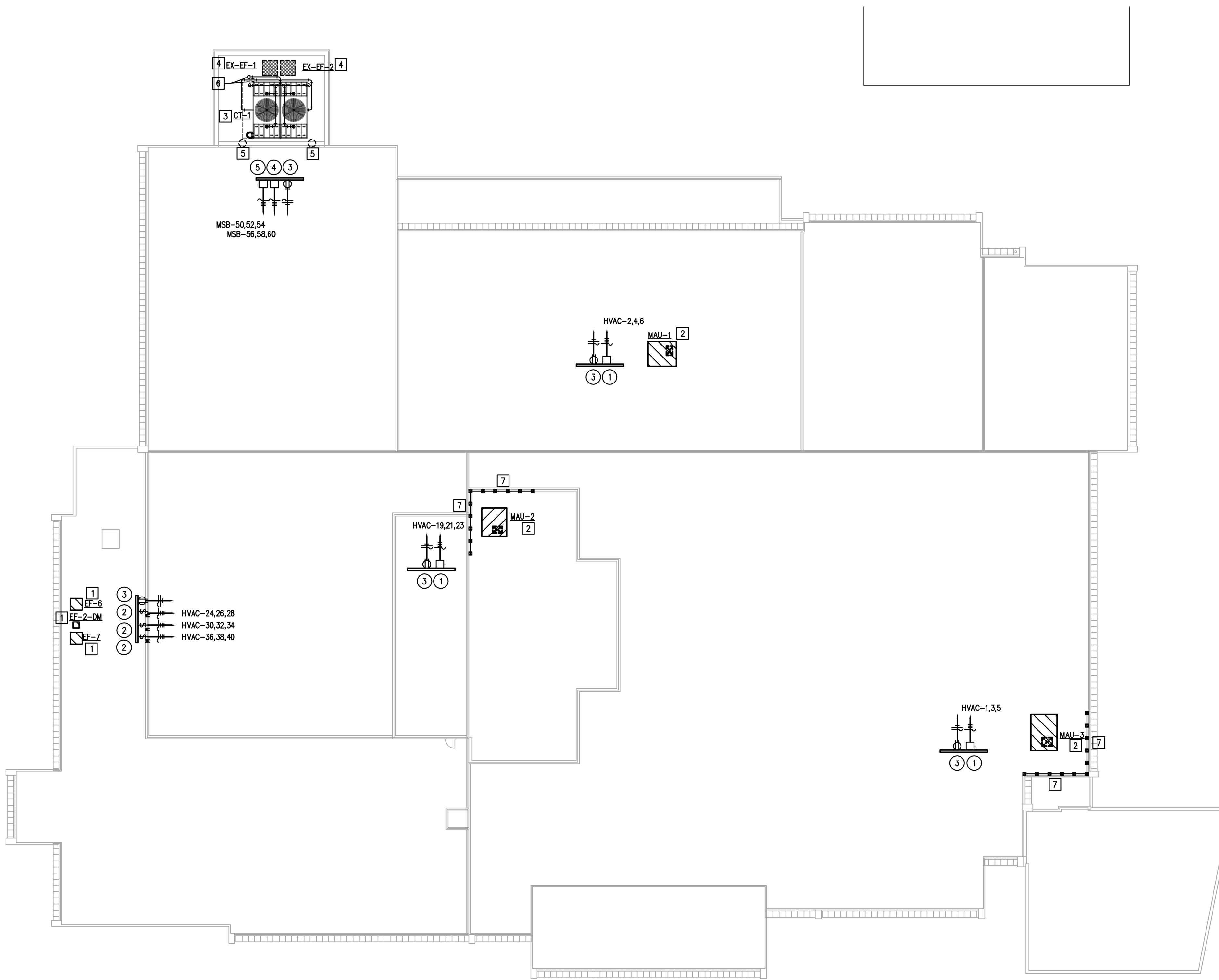
Date	January 3, 2019
Job Number	19-1032
Scale	
Drawn	DBR
Checked	SB
Approved	MC

TITLE

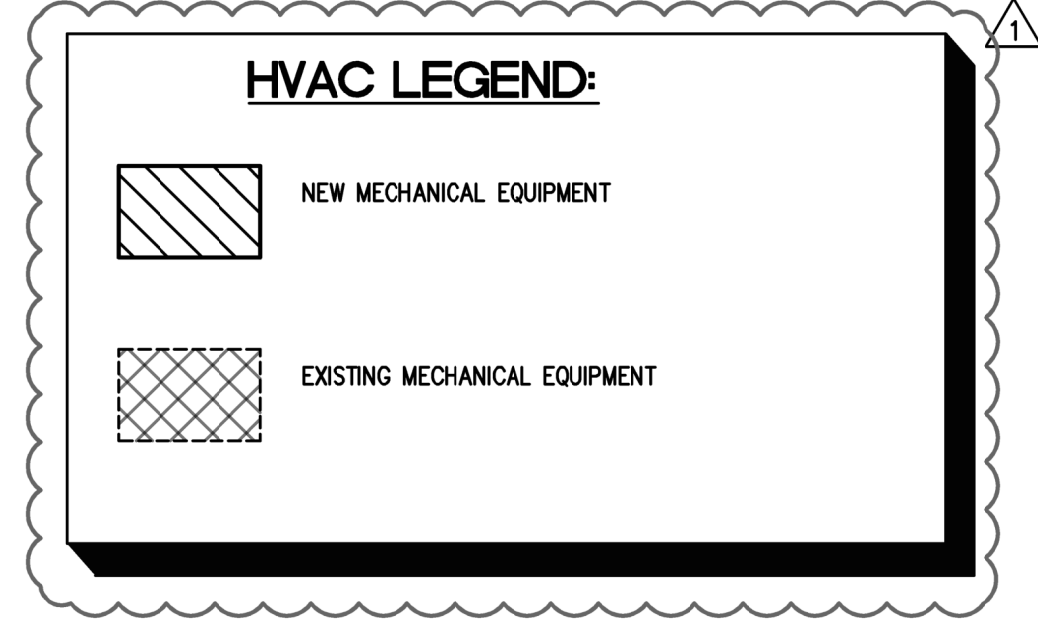
MEP DEMO ROOF PLAN

SHEET

MEP2.1



**1** MEP NEW ROOF PLAN  
 MEP2.2  
 1"=20'-0"



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- M. SMOKE DETECTORS SHALL REMAIN OPERATIONAL DURING CONSTRUCTION. COVER ALL SMOKE DETECTORS FOR PROTECTION.
- N. ANY EXISTING CLOCKS IN HALLWAYS SUSPENDED FROM CEILING, TO BE CAREFULLY DISCONNECTED AND STORED DURING CONSTRUCTION. CLOCKS SHALL BE RE-INSTALLED IN PREVIOUS LOCATION WHEN CONSTRUCTION IS COMPLETE. CONTRACTOR SHALL VERIFY THAT CLOCK SYSTEM IS WORKING PROPERLY WHEN INSTALLATION IS COMPLETE.
- O. ANY EXISTING EXITS SIGNS IN HALLWAYS WITH CEILINGS SCHEDULED FOR DEMOLITION AND SUSPENDED FROM CEILING TO BE CAREFULLY DISCONNECTED AND STORED DURING CONSTRUCTION. EXIT SIGNS SHALL BE RE-INSTALLED IN PREVIOUS LOCATION WHEN CONSTRUCTION IS COMPLETE. CONTRACTOR SHALL VERIFY THAT POWER HAS BEEN RESTORED AND SIGNS ARE WORKING PROPERLY WHEN INSTALLATION IS COMPLETE.

**MECHANICAL KEYED NOTES:**

- 1 PROVIDE NEW EXHAUST FAN TO SERVE KITCHEN HOOD AT APPROXIMATE LOCATION SHOWN. PROVIDE CURB ADAPTER AS REQUIRED TO ACCOMMODATE NEW FAN. PROVIDE NEW ROOF FLASHINGS. PROVIDE NEW DUCTWORK CONNECTIONS EQUAL TO EXISTING SIZE TO CONNECT TO EXISTING SUPPLY BELOW CEILING. INSTALL UNIT PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND PROVIDE ALL REQUIRED CLEARANCES.
- 2 PROVIDE REPLACEMENT MAKE UP OUTSIDE AIR UNIT. UNIT SHALL BE INSTALLED IN SAME LOCATION AS PREVIOUSLY REMOVED UNIT PROVIDING NEW CURB ADAPTER AS NEEDED TO MEET 18" MINIMUM HEIGHT REQUIREMENT WHILE REUSING EXISTING CURB. PROVIDE FITTINGS AS REQUIRED TO CONNECT TO EXISTING DUCTWORK. INSTALL UNIT PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND PROVIDE ALL REQUIRED CLEARANCES. PROVIDE NEW CONDENSATE LINE TO MATCH PREVIOUSLY REMOVED PIPING. CONDENSATE PIPING SHALL BE ROUTED AND SIZED TO MATCH PREVIOUSLY REMOVED LINE SERVING UNIT.
- 3 PROVIDE REPLACEMENT COOLING TOWER WITH APPROXIMATE DIMENSIONS EQUAL TO EXISTING UNIT. TOWER SHALL BE INSTALLED IN SAME LOCATION AS PREVIOUSLY REMOVED TOWER PROVIDING NEW ROOF FLASHINGS AND STRUCTURAL SUPPORT AS NEEDED TO ACCOMMODATE NEW TOWER REQUIREMENT. INSTALL UNIT PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND PROVIDE ALL REQUIRED CLEARANCES. PROVIDE NEW CONDENSATE AND MAKE UP LINE TO MATCH PREVIOUSLY REMOVED PIPING. COORDINATE WITH PLUMBING FOR MAKE PIPE CONNECTIONS.
- 4 EXISTING EXHAUST FANS TO REMAIN.
- 5 EXISTING GAS BOILER FLUE STACKS.
- 6 8"Ø SUPPLY AND RETURN CONDENSING WATER PIPING UP FROM MECHANICAL ROOM. REFER TO SHEET M3.1 FOR PIPE CONTINUATION. REFER TO SHEET MEP2.3 FOR ENLARGED PLANS.
- 7 FALL PROTECTION RAILING. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION. CONTRACTOR SHALL PROVIDE AS REQUIRED BY CODE.

**ELECTRICAL KEYED NOTES:**

- 1 PROVIDE NEW MAKE-UP AIR UNIT "MAU-1, MAU-2 & MAU-3" DISCONNECT, WIRE AND CONDUIT. 100A/480Y277V/3P/NEMA 3R/NF. MOUNT DISCONNECT ON KINDORF STRUT.
- 2 PROVIDE NEW EXHAUST FAN "EF-2, EF-6 & EF-7" MOTOR RATE SWITCH. REUSE EXISTING WIRE AND CONDUIT. MOUNT DISCONNECT ON KINDORF STRUT. CONTRACTOR TO ENSURE EXISTING CIRCUIT SIZE HAS CAPACITY FOR NEW EXHAUST FAN MCA & MOCP PRIOR TO INSTALLATION.
- 3 PROVIDE NEW WEATHER PROOF RECEPTACLE. CIRCUIT TO EXISTING ROOF RECEPTACLE CIRCUIT. MOUNT DISCONNECT ON KINDORF STRUT.
- 4 PROVIDE NEW COOLING TOWER FAN "CT-1 (CELL 1)" & "CT-1 (CELL 2)" DISCONNECT, WIRE AND CONDUIT. 30A/480Y277V/3P/NEMA 3R/NF. MOUNT DISCONNECT ON KINDORF STRUT.
- 5 PROVIDE NEW COOLING TOWER BASIN HEATER "CT-1 (CELL 1)" & "CT-1 (CELL 2)" DISCONNECT, WIRE AND CONDUIT. 30A/480Y277V/3P/NEMA 3R/NF. MOUNT DISCONNECT ON KINDORF STRUT.



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DBR Project Number 1816.000  
 SB AW HH JL --

**Kimley»Horn**

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 TBPE Firm No. 928

AUSTIN I.S.D.



DEPARTMENT OF CONSTRUCTION MANAGEMENT

**DOBIE MIDDLE SCHOOL**

**RENOVATIONS**

1200 E Rundberg Ln, Austin, Texas  
 AISD PROJECT No. 190035-DOBIE



REVISIONS

No.	Issue	Date
1	ADDENDUM 2	02/15/2019

SHEET INFORMATION

Date	January 3, 2019
Job Number	19-1032
Scale	
Drawn	DBR
Checked	SB
Approved	MC

TITLE

MEP NEW ROOF PLAN

SHEET

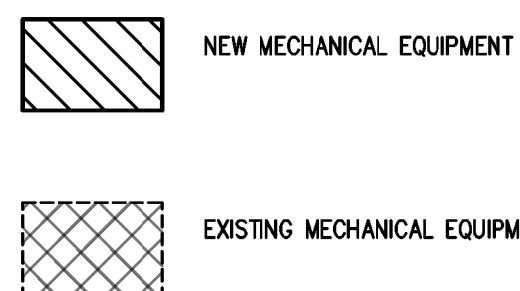
MEP2.2



No.	Issue	Date
1	ADDENDUM 2	02/15/2019

Date	January 3, 2019
Job Number	19-1032
Scale	1/4"=1'-0"
Drawn	DBR
Checked	SB
Approved	MC

HVAC LEGEND:



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- WORK SHALL BE DONE SO AS TO MINIMIZE DISRUPTION TO BUILDING ACTIVITIES. KEEP BUILDING SERVICES IN FULL OPERATION DURING NORMAL BUSINESS HOURS.
- SCHEDULING SHALL BE CLOSELY COORDINATED WITH THE OWNER AND NO WORK SHALL PROCEED WITHOUT AN OWNER-APPROVED SCHEDULE. SCHEDULE ALL SHUTDOWNS AT LEAST 48 HOURS IN ADVANCE WITH OWNER IN WRITING. REFER TO SPECIFICATIONS FOR AREAS REQUIRING SPECIAL ACCESS, SCHEDULING, AND/OR SECURITY.
- PROTECTION OF BUILDING PERSONNEL, FURNISHINGS AND SYSTEMS FROM HAZARD AND/OR CONTAMINATION ASSOCIATED WITH DEMOLITION AND CONSTRUCTION SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH THE SPECIFICATIONS.
- CONTRACTOR SHALL COORDINATE REMOVAL AND OFF-SITE DISPOSAL OF EXISTING MATERIALS AND ROUTING OF ANY NEW PIPING, CONDUIT, DUCTWORK AT THE JOB SITE TO AVOID DAMAGE OR CONFLICT WITH EXISTING SYSTEMS AND STRUCTURE. OBTAIN APPROVAL OF OWNER'S REPRESENTATIVE BEFORE DISPOSING OF ITEMS. ITEMS TO KEEP SHALL BE DELIVERED TO THE OWNER.
- OWNER (AISD) REQUIRES THAT R22 REFRIGERANT FROM EXISTING AIR UNITS BEING DEMOLISHED AND/OR REPLACED BE RECAPTURED BY THE CONTRACTOR. AISD AC TECH WILL TEST THE REFRIGERANT OF EACH UNIT BEING REPLACED OR DEMOLISHED AND TAG THEM WITH EITHER "GOOD" OR "BAD" LABEL. THE AISD AC TECH WILL HAVE TO COMMUNICATE WITH THE CONTRACTOR HOW THE UNITS ARE LABELED. CONTRACTOR WILL THEN RECLAIM ALL THE REFRIGERANT FROM THE UNITS THAT HAVE BEEN LABELED "GOOD" AND DISPOSE OF THE ONES LABELED "BAD". AISD WILL PROVIDE THE CONTRACTOR WITH THE CONTAINERS NEEDED FOR RECOVERING THE REFRIGERANT. WHEN CAPTURE IS COMPLETE, CONTRACTOR SHALL NOTIFY THE AISD PROJECT MANAGER FOR THIS PROJECT, WHO WILL CONTACT THE AISD SERVICE CENTER FOR PICKUP. RECAPTURE APPLIES TO ANY QUANTITY OF R22 REFRIGERANT.
- CONTRACTOR SHALL COORDINATE WITH OTHER TRADES. CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE GENERAL CONTRACTOR AND, AS NECESSARY, THE OWNER.
- CONTRACTOR SHALL COORDINATE ROUTING OF ANY NEW PIPING OR DUCTWORK AT THE JOB SITE TO AVOID CONFLICT WITH EXISTING SYSTEMS, STRUCTURE, LIGHT FIXTURES AND PLUMBING LINES.
- COMPLETION: UPON COMPLETION OF THE WORK, AND PRIOR TO ACCEPTANCE, THE CONTRACTOR SHALL FURNISH TO THE OWNER IN THE FORM AND QUANTITIES REQUIRED BY THE SPECIFICATIONS: OWNER'S MANUAL AND PROJECT RECORD DRAWINGS.
- NEW HVAC DUCTWORK, UNLESS NOTED OTHERWISE, TO BE GALVANIZED SHEET METAL SIZED, CONSTRUCTED, AND INSTALLED IN ACCORDANCE WITH THE SMACNA RECOMMENDATIONS AND IN ACCORDANCE WITH THE SPECIFICATIONS. SIZES SHOWN ON PLANS ARE IN METAL DIMENSIONS. ROUTE DUCTWORK SO AS TO MINIMIZE OFFSETS. FIELD VERIFY ROUTING ABOVE EXISTING CEILING. SEAL ALL DUCT SEAMS AIR TIGHT: MAXIMUM AIR LEAKAGE RATE = 5%.
- CONTRACTOR SHALL PROTECT EXISTING SECURITY CAMERAS DURING CONSTRUCTION AND SHALL CONFIRM CAMERAS ARE OPERATIONAL UPON CONSTRUCTION COMPLETION.
- SMOKE DETECTORS SHALL REMAIN OPERATIONAL DURING CONSTRUCTION. COVER ALL SMOKE DETECTORS FOR PROTECTION.
- ANY EXISTING CLOCKS IN HALLWAYS SUSPENDED FROM CEILING, TO BE CAREFULLY DISCONNECTED AND STORED DURING CONSTRUCTION. CLOCKS SHALL BE RE-INSTALLED IN PREVIOUS LOCATION WHEN CONSTRUCTION IS COMPLETE. CONTRACTOR SHALL VERIFY THAT CLOCK SYSTEM IS WORKING PROPERLY WHEN INSTALLATION IS COMPLETE.
- ANY EXISTING EXITS SIGNS IN HALLWAYS WITH CEILINGS SCHEDULED FOR DEMOLITION AND SUSPENDED FROM CEILING TO BE CAREFULLY DISCONNECTED AND STORED DURING CONSTRUCTION. EXIT SIGNS SHALL BE RE-INSTALLED IN PREVIOUS LOCATION WHEN CONSTRUCTION IS COMPLETE. CONTRACTOR SHALL VERIFY THAT POWER HAS BEEN RESTORED AND SIGNS ARE WORKING PROPERLY WHEN INSTALLATION IS COMPLETE.

MECHANICAL KEYED NOTES:

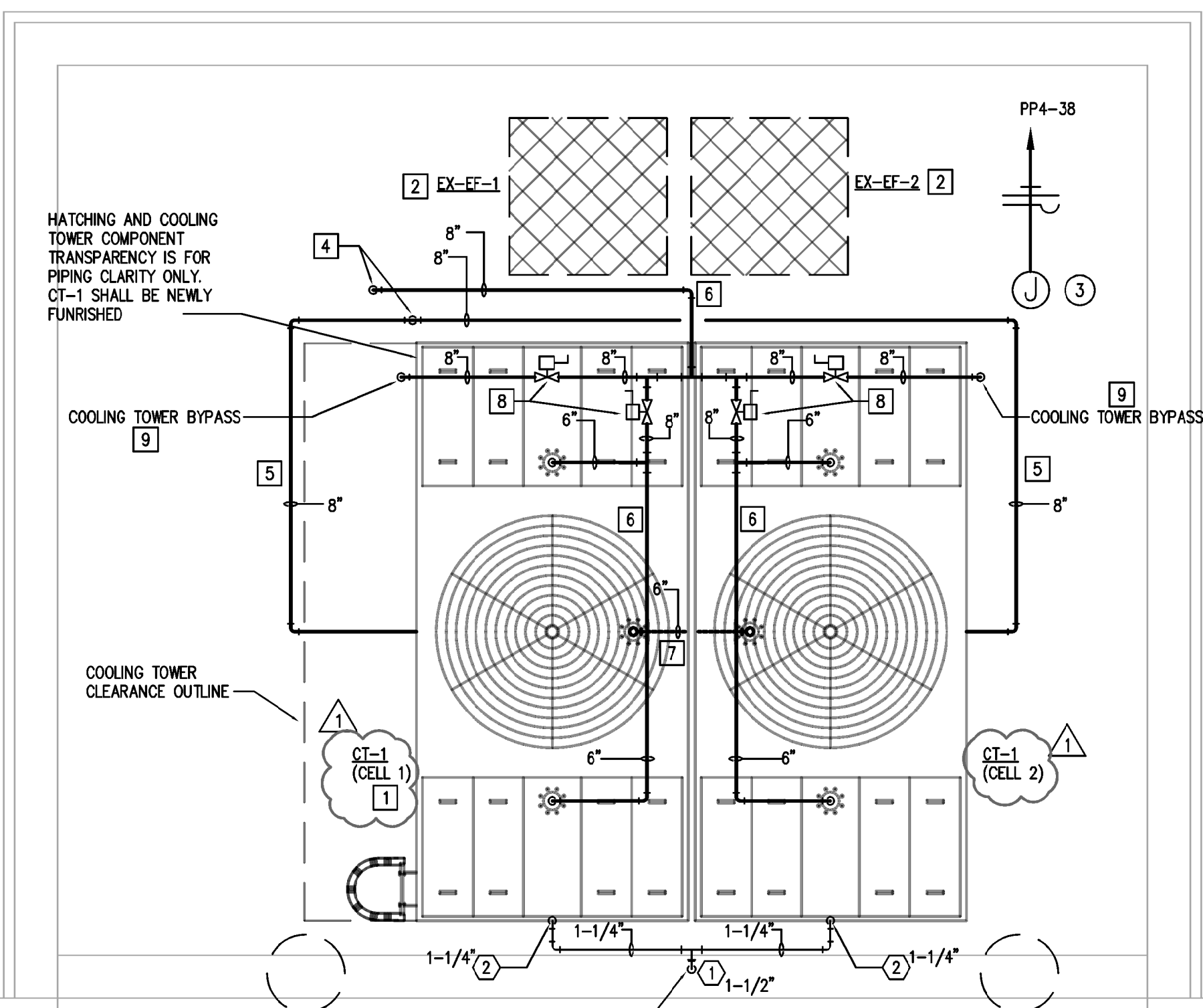
- PROVIDE REPLACEMENT COOLING TOWER WITH APPROXIMATE DIMENSIONS EQUAL TO EXISTING UNIT. TOWER SHALL BE INSTALLED IN SAME LOCATION AS PREVIOUSLY REMOVED TOWER PROVIDING NEW ROOF FLASHINGS AND STRUCTURAL SUPPORT AS NEEDED TO ACCOMMODATE NEW TOWER REQUIREMENT. INSTALL UNIT PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND PROVIDE ALL REQUIRED CLEARANCES. COORDINATE WITH PLUMBING FOR REQUIRED DRAIN AND MAKE-UP WATER CONNECTIONS.
- EXISTING EXHAUST FANS TO REMAIN FUNCTIONAL AND IN SERVICE.
- EXISTING GAS BOILER FLUE STACKS.
- 8"Ø SUPPLY AND RETURN CONDENSING WATER PIPING UP FROM MECHANICAL ROOM. REFER TO SHEET M3.1 FOR PIPE CONTINUATION. CONTRACTOR SHALL COORDINATE.
- 8"Ø SUPPLY CONDENSING WATER PIPE TO COOLING TOWER OUTLET. PIPE ROUTING SHALL BE ROOF LEVEL PROVIDED WITH ROOF MOUNTED PIPE SUPPORTS AS REQUIRED PER PIPE SECTION. COORDINATE ACTUAL ROUTING LEVEL WITH 8"Ø COOLING TOWER OUTLET PROVIDING FITTINGS AS REQUIRED TO MAKE COMPLETE CONNECTION TO UNIT. ENSURE ADDITIONAL SPACE HAS BEEN ADDED TO ACCOUNT FOR FITTINGS NEEDED TO MAKE COMPLETE CONNECTION TO UNIT'S OUTLETS.
- 8"Ø RETURN CONDENSING WATER PIPE TO COOLING TOWER INLETS. PIPE SHALL BE ROUTED FROM ROOF PENETRATION UP HIGH TO TOP OF TOWER AS INDICATED ON PLANS. COORDINATE ACTUAL PIPE ROUTING HEIGHT WITH COOLING TOWER INLETS. ENSURE ADDITIONAL HEIGHT HAS BEEN ADDED TO ACCOUNT FOR FITTINGS NEEDED TO MAKE COMPLETE CONNECTION TO UNIT'S INLETS.
- PROVIDE 6"Ø EQUALIZER BETWEEN COOLING TOWERS. PIPE SHALL BE CONNECTED FROM BOTTOM OF BOTH UNITS PROVIDED WITH ALL FITTINGS AS NEEDED FOR COMPLETE CONNECTION. ALL PIPE SHALL BE ABOVE ROOF LEVEL DIRECTLY UNDER TOWER. COORDINATE WITH MANUFACTURER FOR ROUTING PIPING.
- PROVIDE MOTORIZED ISOLATION VALVES AS SHOWN ON DRAWINGS. REFER TO SHEET M4.1 FOR CONTROLS DIAGRAM. COORDINATE WITH ELECTRICAL FOR POWER REQUIREMENTS.
- ROUTE 8"Ø BYPASS DOWN TO COOLING TOWER BASIN LEVEL. ROUTING SHALL ALLOW FOR FITTINGS AS REQUIRED TO CONNECT DIRECTLY INTO BASIN FOR DISCHARGE. REFER TO SHEET M6.2 FOR CONDENSER WATER FLOW DIAGRAM.

ELECTRICAL KEYED NOTES:

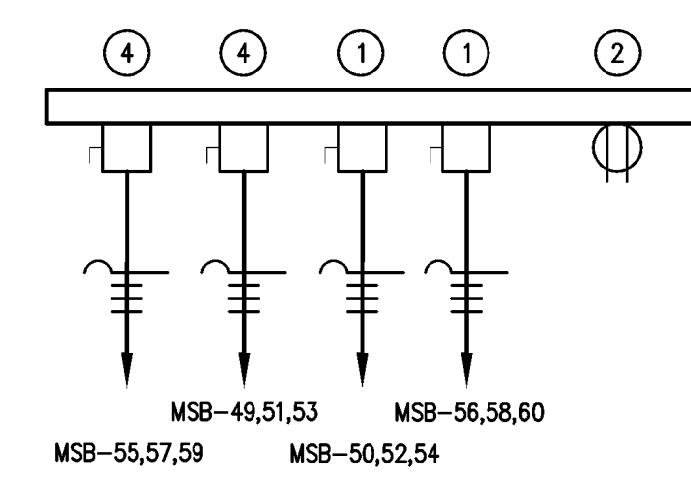
- PROVIDE NEW COOLING TOWER FAN "CT-1 (CELL 1)" & "CT-1 (CELL 2)" DISCONNECT, WIRE AND CONDUIT. 30A/480Y277V/3P/NEMA 3R/NF. MOUNT DISCONNECT ON KINDORF STRUT.
- PROVIDE NEW WEATHER PROOF RECEPTACLE CIRCUIT TO EXISTING ROOF RECEPTACLE CIRCUIT. MOUNT DISCONNECT ON KINDORF STRUT.
- PROVIDE 120V POWER CONNECTION FOR MOTORIZED ISOLATION VALVES.
- PROVIDE NEW COOLING TOWER BASIN HEATER "CT-1 (CELL 1)" & "CT-1 (CELL 2)" DISCONNECT, WIRE AND CONDUIT. 30A/480Y277V/3P/NEMA 3R/NF. MOUNT DISCONNECT ON KINDORF STRUT.
- PROVIDE 277V POWER CONNECTION TO SERVE HEAT TRACE ON COOLING TOWER MAKEUP WATER LINE.

PLUMBING KEYED NOTES:

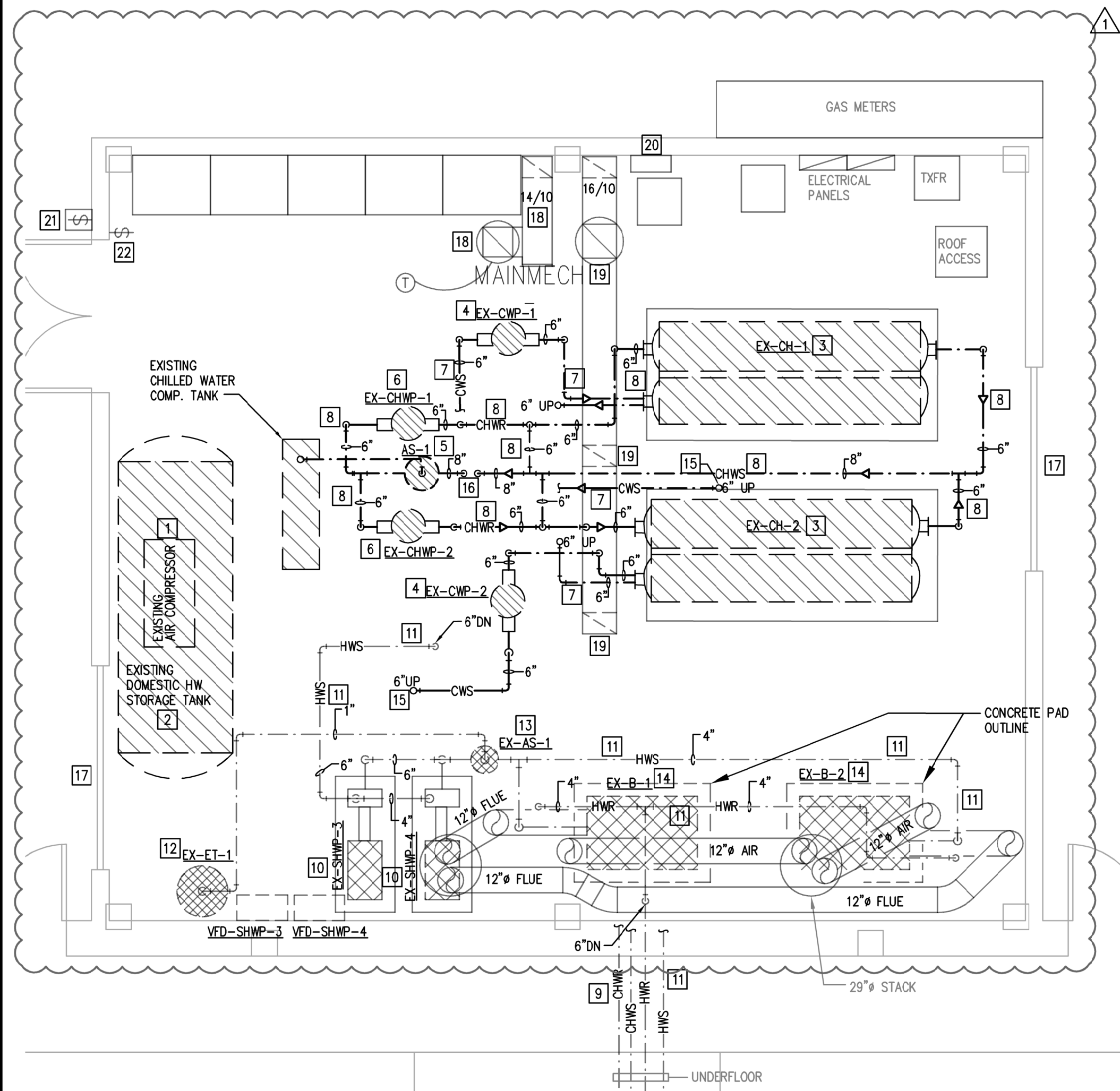
- NEW DOMESTIC COLD WATER LINE UP FROM MECH. ROOM. SIZE AS NOTED ON THE PLAN.
- NEW DOMESTIC COLD WATER LINE TO TIE-IN TO CELL FOR MAKEUP WATER. SIZE AS NOTED ON THE PLAN.



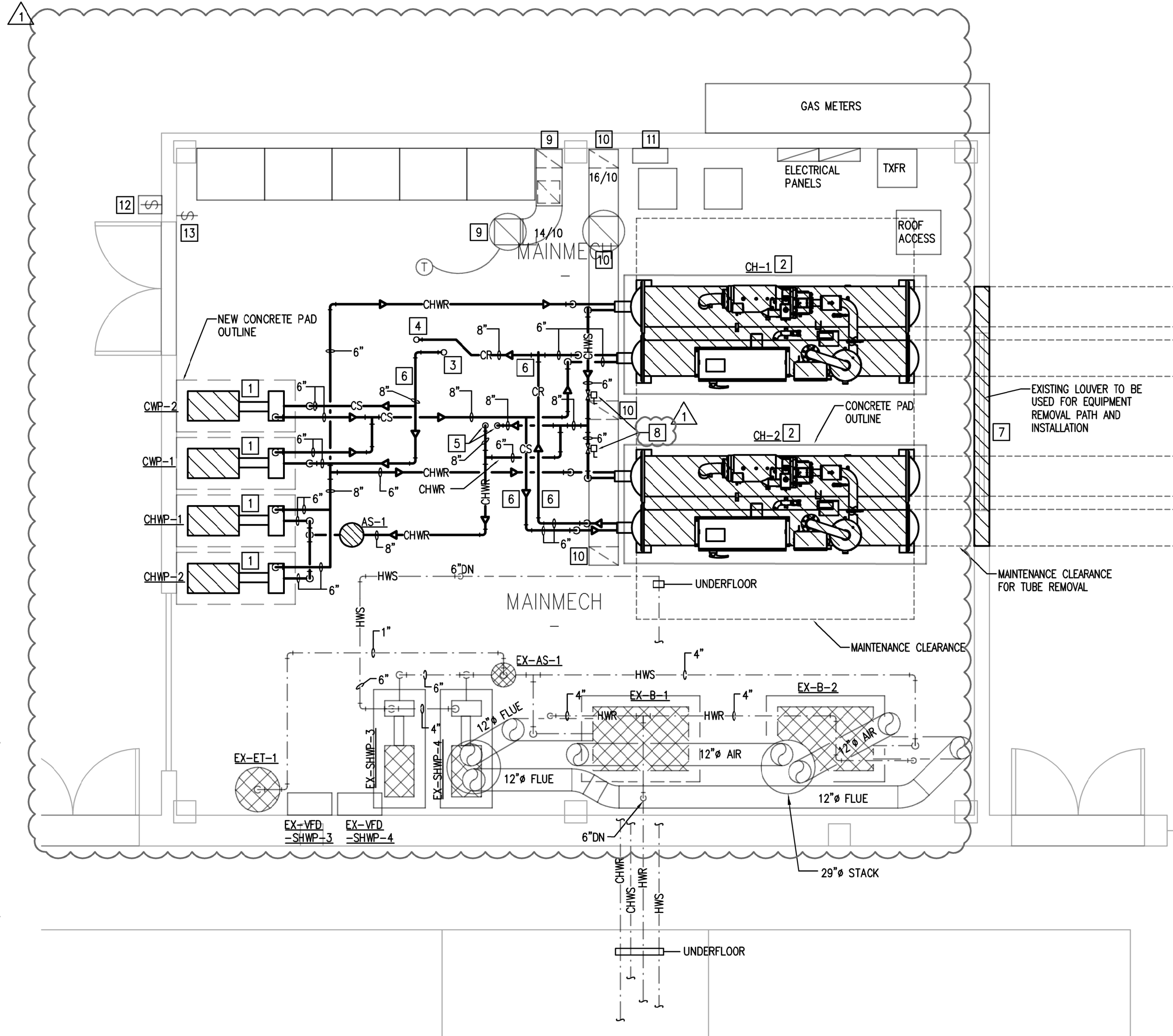
ALL EXPOSED DOMESTIC COLD WATER PIPING, VALVES, AND FITTINGS SHALL BE HEAT TRACED, INSULATED, AND ALUMINUM JACKETED. SYSTEM SHALL PROVIDE FREEZE PROTECTION AND MAINTAIN A TEMPERATURE OF 40 DEGREES F. PROVIDE RAYCHEM XL-TRACE SELF REGULATING HEATING CABLE SYSTEM (POLYOLEFIN JACKETED) AT 277V, CAPABLE OF A POWER OUTPUT OF 5 WATTS PER FOOT (SERIES 5XL-2-CR). PROVIDE A SYSTEM OF REQUIRED TOTAL LENGTH AND IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, COMPLETE WITH ALL REQUIRED APPURTENANCES, INCLUDING, BUT NOT NECESSARILY LIMITED TO, THE FOLLOWING: MANUFACTURER'S CONNECTION KITS AND ACCESSORIES, NEMA-4X ELECTRONIC CONTROLLER(S), ELECTRICAL CIRCUIT(S), AND GROUND FAULT PROTECTION. SYSTEM SHALL BE PROVIDED COMPLETE AND FULLY FUNCTIONING. COORDINATE IN FIELD ALL INSTALLATION AND FINAL POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR. CONFIRM FINAL CONTROLLER LOCATIONS IN ADVANCE WITH OWNER.



1 ENLARGED COOLING TOWER MEP ROOF PLAN  
MEP2.3 1/4"=1'-0"



**1 MAIN MECHANICAL ROOM DEMO PLAN**  
 M3.1 1/4"=1'-0"



**2 MAIN MECHANICAL ROOM NEW PLAN**  
 M3.1 1/4"=1'-0"

**DEMO HVAC LEGEND:**

- DUCTWORK, DIFFUSER, AND DAMPER TO BE REMOVED OR RELOCATED
- EXISTING DUCTWORK, DIFFUSER, AND DAMPER TO REMAIN
- MECHANICAL EQUIPMENT TO BE REMOVED
- EXISTING MECHANICAL EQUIPMENT TO REMAIN
- EXISTING MECHANICAL PIPING TO REMAIN
- EXISTING MECHANICAL PIPING TO BE REMOVED

**HVAC LEGEND:**

- NEW DUCTWORK, DIFFUSER, AND DAMPER
- EXISTING DUCTWORK, DIFFUSER, AND DAMPER
- NEW MECHANICAL EQUIPMENT
- EXISTING MECHANICAL EQUIPMENT
- EXISTING MECHANICAL PIPING
- NEW MECHANICAL PIPING

**MECHANICAL GENERAL NOTES:**

- A. THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL LOCATION OF EXISTING CONDUIT, LIGHTS, FIRE SPRINKLER PIPING, CONDENSATE PIPING, EQUIPMENT, DUCTS, AND GRILLES, ETC. IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS THAT UPON PROJECT COMPLETION, THE EXISTING MECHANICAL SYSTEMS, FIRE SPRINKLER PIPING, CONDUIT, DUCTWORK, ETC., BE READY FOR OPERATION WHETHER OR NOT EVERY ITEM OF EQUIPMENT, ACCESSORY, DEVICE, ETC. IS SHOWN. REFERENCE SHALL BE MADE TO THE FULL DRAWING PACKAGE INCLUDING ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR COORDINATION AND POTENTIAL CONFLICTS. THE MECHANICAL SUBCONTRACTOR SHALL, WITHOUT EXTRA CHARGE, MAKE REASONABLE MODIFICATIONS IN THE LAYOUT AS NEEDED TO PREVENT CONFLICTS WITH OTHER TRADES, OR FOR PROPER EXECUTION OF THE WORK. FIELD VERIFY ALL DIMENSIONS BEFORE FABRICATING DUCTWORK.
- B. CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS BEFORE ANY DEMOLITION WORK BEGINS.
- C. WORK SHALL BE DONE SO AS TO MINIMIZE DISRUPTION TO BUILDING ACTIVITIES. KEEP BUILDING SERVICES IN FULL OPERATION DURING NORMAL BUSINESS HOURS.
- D. SCHEDULING SHALL BE CLOSELY COORDINATED WITH THE OWNER AND NO WORK SHALL PROCEED WITHOUT AN OWNER-APPROVED SCHEDULE. SCHEDULE ALL SHUTDOWNS AT LEAST 48 HOURS IN ADVANCE WITH OWNER IN WRITING. REFER TO SPECIFICATIONS FOR AREAS REQUIRING SPECIAL ACCESS, SCHEDULING, AND/OR SECURITY.
- E. PROTECTION OF BUILDING PERSONNEL, FURNISHINGS AND SYSTEMS FROM HAZARD AND/OR CONTAMINATION ASSOCIATED WITH DEMOLITION AND CONSTRUCTION SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH THE SPECIFICATIONS.
- F. CONTRACTOR SHALL COORDINATE REMOVAL AND OFF-SITE DISPOSAL OF EXISTING MATERIALS PER CONSTRUCTION WASTE MANAGEMENT SPECIFICATION SECTION 017419. OBTAIN APPROVAL OF OWNER'S REPRESENTATIVE BEFORE DISPOSING OF ITEMS. ITEMS TO KEEP SHALL BE DELIVERED TO THE OWNER.
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- H. CONTRACTOR SHALL COORDINATE ROUTING OF ANY NEW PIPING OR DUCTWORK AT THE JOB SITE TO AVOID CONFLICT WITH EXISTING SYSTEMS, STRUCTURE, LIGHT FIXTURES AND PLUMBING LINES.
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- J. CONTRACTOR SHALL PROTECT EXISTING SECURITY CAMERAS DURING CONSTRUCTION AND SHALL CONFIRM CAMERAS ARE OPERATIONAL UPON CONSTRUCTION COMPLETION.
- L. SMOKE DETECTORS SHALL REMAIN OPERATIONAL DURING CONSTRUCTION.
- M. ALL NEW PIPING WITHIN MECHANICAL ROOM SHALL BE MOUNTED AS HIGH AS POSSIBLE.
- N. NOT ALL SENSORS, VALVES AND PIPE ACCESSORIES ARE SHOWN IN FLOOR PLAN FOR CLARITY. REFER TO SHEET M4.1 FOR CONTROLS DIAGRAMS AND SHEETS M6.2 & M6.3 FOR MECHANICAL FLOW DIAGRAMS.

**1/3.1 - MECHANICAL KEYED NOTES - DEMO WORK:**

- 11 EXISTING ABANDONED AIR COMPRESSOR SHALL BE REMOVED. COMPRESSED AIR PIPING SHALL BE CAPPED AT WALL OR CEILING. ELECTRICAL CONNECTIONS SHALL BE DISCONNECTED AND WIRES PULLED ALL THE WAY BACK TO THE BREAKER. HAND OVER COMPRESSOR TO SCHOOL DISTRICT SERVICE DEPARTMENT.
- 2 EXISTING STORAGE TANK SHALL BE REMOVED. ALL SUPPORTING STAND AND MATERIALS SHALL BE REMOVED. ANY CONNECTION TO THE TANK SHALL BE DISCONNECTED AT CEILING OR FLOOR LEVEL AND CAPPED.
- 3 EXISTING CHILLED WATER CHILLER SHALL BE REMOVED. ALL POWER CONNECTIONS SHALL BE DISCONNECTED.
- 4 CONDENSER WATER PUMP SHALL BE REPLACED. PRIOR TO REPLACEMENT, EXISTING PUMP SHALL BE UTILIZED FOR FLUSHING ENTIRE SYSTEM. ASSOCIATED COOLING TOWER SHALL BE ISOLATED FOR COMPLETE BYPASS BEFORE PERFORMING FLUSHING. AFTER SYSTEM FLUSH AND TREATMENT, ALL ELECTRICAL CONNECTIONS SHALL BE DISCONNECTED FROM PUMPS. ALL CONDENSING WATER PIPING SHALL BE REMOVED ALL THE WAY UP TO THE COOLING TOWER ON THE ROOF OF THE MECHANICAL ROOM.
- 5 CHILLED WATER AIR SEPARATOR SHALL BE REPLACED. ALL PIPING CONNECTIONS SHALL BE REMOVED.
- 6 CHILLED WATER PUMPS SHALL BE REMOVED. PRIOR TO REPLACEMENT, EXISTING PUMP SHALL BE UTILIZED FOR FLUSHING ENTIRE SYSTEM. ASSOCIATED COOLING TOWER SHALL BE ISOLATED FOR COMPLETE BYPASS BEFORE PERFORMING FLUSHING. ALL ELECTRICAL AND PIPING CONNECTIONS SHALL BE DISCONNECTED PRIOR TO REMOVAL OF PUMP.
- 7 ALL CONDENSER WATER PIPING WITHIN THE MECHANICAL ROOM AND UP TO COOLING TOWER ON ROOF SHALL BE REMOVED.
- 8 ALL CHILLED WATER PIPING WITHIN THE MECHANICAL ROOM SHALL BE REMOVED.
- 9 UNDERGROUND CHILLED WATER PIPING TO REMAIN.
- 10 EXISTING HOT WATER PUMPS TO REMAIN.
- 11 EXISTING HOT WATER PIPING TO REMAIN.
- 12 EXISTING HOT WATER EXPANSION TANK TO REMAIN.
- 13 EXISTING HOT WATER AIR SEPARATOR TO REMAIN.
- 14 EXISTING GAS BOILERS AND ALL ASSOCIATED FLUE DUCTS TO REMAIN.
- 15 6" CONDENSER WATER PIPE UP TO COOLING TOWER ON THE ROOF SHALL BE REMOVED. CONTRACTOR SHALL UTILIZE THE EXISTING OPENING FOR NEW PIPING IF APPLICABLE WHEN NEW COOLING TOWER IS INSTALLED.
- 16 CHWS AND CHWR PIPING DOWN THROUGH THE FLOOR. CONTRACTOR TO CAP EXISTING PIPING AT FLOOR LEVEL. CAPPED LINES SHALL BE RECONNECTED UPON NEW PIPING INSTALLATION IN MECHANICAL ROOM.
- 17 EXISTING LOUVER CAN BE REMOVED AND REINSTALLED IF NECESSARY FOR EQUIPMENT REMOVAL.
- 18 EXISTING EF-1 ON ROOF AND ASSOCIATED MECHANICAL ROOM VENTILATION SYSTEM TO REMAIN. EF-1 = 1,500 CFM, 12/12 EXHAUST REGISTERS AT 750 CFM EACH LOCATED AT 24" A.F.F. AND 24" BELOW ROOF STRUCTURE.
- 19 EXISTING EF-2 ON ROOF AND ASSOCIATED MECHANICAL ROOM VENTILATION SYSTEM TO REMAIN. EF-2 = 2,000 CFM, 12/12 EXHAUST REGISTERS AT 1,000 CFM EACH LOCATED AT 24" A.F.F.
- 20 EXISTING SENTECH REFRIGERANT MONITORING SYSTEM TO REMAIN. SEE NEW WORK FOR NEW SCOPE.
- 21 WEATHERPROOF EXISTING EMERGENCY TOGGLE SWITCH FOR EF-2 TO REMAIN.
- 22 EXISTING TOGGLE SWITCH FOR EF-1 TO REMAIN.

**2/M3.1 - MECHANICAL KEYED NOTES - NEW WORK:**

- 1 PROVIDE NEW 4" THICK CONCRETE PAD FOR NEW CHILLED WATER AND CONDENSER WATER PUMPS. PAD SHALL EXTEND 6" BEYOND FOOTPRINT OF PUMP FRAME. RE: DETAIL 5/M6.1.
- 2 PROVIDE NEW CHILLERS AS SCHEDULED. PROVIDE NEW 4" THICK CONCRETE PAD FOR NEW EQUIPMENT. PAD SHALL EXTEND 6" BEYOND FOOTPRINT OF EQUIPMENT. RE: DETAIL 3/M6.1. CHILLERS SHALL BE INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND IN SAME LOCATION AS PREVIOUSLY REMOVED UNITS. PROVIDE ALL RECOMMENDED CLEARANCES ON SIDES OF UNIT WHILE MAXIMIZING TUBE REMOVAL ABILITY WITH EXISTING LOUVERS IN PLACE.
- 3 CONDENSER WATER SUPPLY DOWN FROM COOLING TOWER ON ROOF ABOVE. SIZE AS SHOWN ON PLANS. COORDINATE WITH COOLING TOWER PLACEMENT ON ROOF TO ENSURE PIPE PENETRATION IS NOT UNDER TOWER.
- 4 CONDENSER WATER RETURN UP TO COOLING TOWER ON ROOF ABOVE. SIZE AS SHOWN ON PLANS. COORDINATE WITH COOLING TOWER PLACEMENT ON ROOF TO ENSURE PIPE PENETRATION IS NOT UNDER TOWER.
- 5 RECONNECT NEW CHILLED WATER SUPPLY AND RETURN PIPING TO EXISTING PIPE BEFORE EXISTING PIPING GOES BELOW SLAB. PROVIDE ALL FITTINGS AS REQUIRED TO TRANSITION AND MAKE COMPLETE CONNECTIONS.
- 6 RUN PIPING AS HIGH AND CLOSE TO STRUCTURE AS POSSIBLE. SUPPORT PIPING FROM STRUCTURE. CONDENSER WATER LINES SHALL BE ROUTED ABOVE CHILLED WATER SUPPLY AND RETURN IF POSSIBLE. COORDINATE PIPE CROSSINGS AS SHOWN ON DRAWINGS BEFORE MOUNTING ANY PIPE IN MECHANICAL ROOM.
- 7 UPON NEW CHILLER REPLACEMENT, CONTRACTOR SHALL VERIFY IF EXISTING LOUVERS HAVE ADEQUATE LENGTH FOR ENSURING ALL CHILLERS ARE PROVIDED WITH REQUIRED CLEARANCES FOR TUBE REMOVAL. PROVIDE OPENING ENLARGEMENTS AND NEW LOUVER AS REQUIRED. LOUVER SHALL BE IDENTICAL TO REMOVED UNIT.
- 8 PROVIDE MOTORIZED ISOLATION VALVES AS SHOWN ON DRAWINGS. REFER TO SHEET M4.1 FOR CONTROLS DIAGRAM. COORDINATE WITH ELECTRICAL FOR POWER REQUIREMENTS.
- 9 EXISTING EF-1 ON ROOF AND ASSOCIATED MECHANICAL ROOM VENTILATION SYSTEM TO REMAIN. EF-1 = 1,500 CFM, 12/12 EXHAUST REGISTERS AT 750 CFM EACH (QUANTITY 2) LOCATED AT 24" A.F.F. AND 24" BELOW ROOF STRUCTURE. MECHANICAL CONTRACTOR SHALL ENSURE FAN IS IN GOOD OPERATING CONDITION. 120/1/60, 1/2 HP, 0.25" S.P.
- 10 EXISTING EF-2 ON ROOF AND ASSOCIATED MECHANICAL ROOM VENTILATION SYSTEM TO REMAIN. EF-2 = 3,000 CFM, 12/12 EXHAUST REGISTERS AT 1,000 CFM EACH (QUANTITY 3) LOCATED AT 24" A.F.F. CONTRACTOR SHALL ENSURE FAN IS IN GOOD OPERATING CONDITION. 120/1/60, 1/2 HP, 0.5 S.P.
- 11 EXISTING SENTECH REFRIGERANT MONITORING SYSTEM. MECHANICAL CONTRACTOR SHALL VERIFY THAT EXISTING EF-1 IS POWERED SO THAT IT CAN BE CONTROLLED BY EITHER THE EXISTING EMERGENCY TOGGLE SWITCH (OUTSIDE NEXT TO THE ENTRANCE DOOR) OR AUTOMATICALLY BY THE EXISTING LINE VOLTAGE THERMOSTAT MOUNTED ON STRUCTURAL BEAM ABOVE. MECHANICAL CONTRACTOR SHALL VERIFY THAT EXISTING EF-2 IS POWERED SO THAT IT CAN BE TURNED ON BY EITHER THE EMERGENCY TOGGLE SWITCH (OUTSIDE NEXT TO THE ENTRANCE DOOR) OR AUTOMATICALLY BY THE REFRIGERANT MONITOR ALARM.
- 12 WEATHERPROOF EXISTING EMERGENCY TOGGLE SWITCH FOR EF-2 TO REMAIN.
- 13 EXISTING TOGGLE SWITCH FOR EF-1 TO REMAIN.

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 DEPARTMENT OF CONSTRUCTION  
 MANAGEMENT

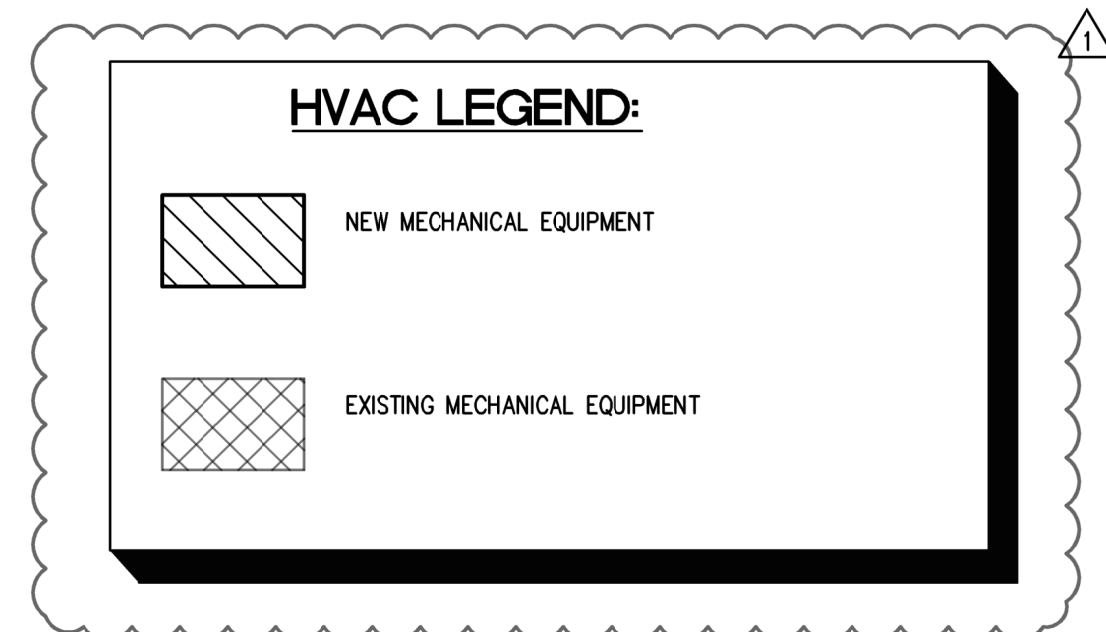
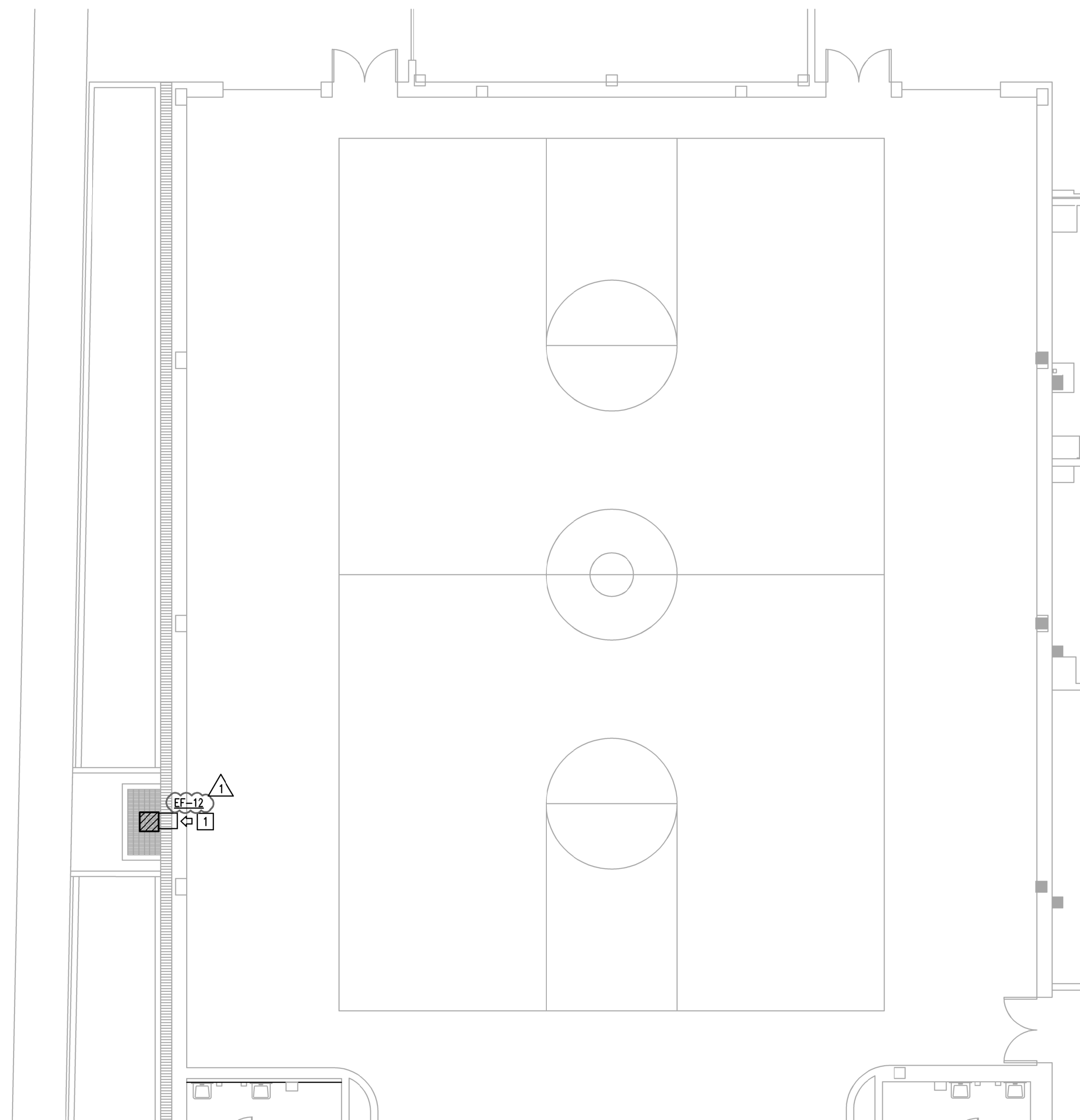
**DOBIE MIDDLE SCHOOL  
 RENOVATIONS**  
 1200 E Rundberg Ln, Austin, Texas  
 AISD PROJECT No. 190035-DOBIE



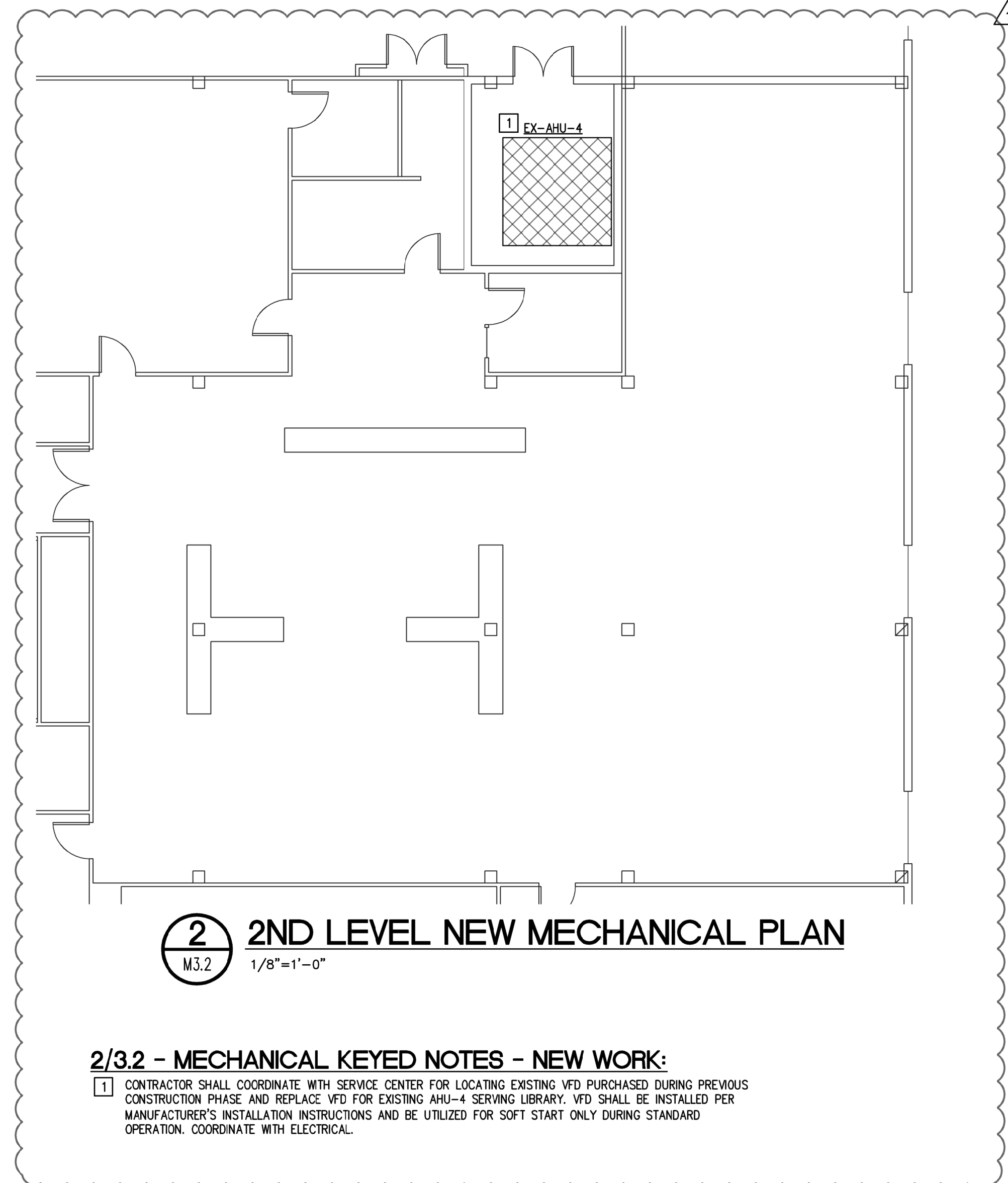
REVISIONS		
No.	Issue	Date
1	ADDENDUM 2	02/15/2019

SHEET INFORMATION	
Date	January 3, 2019
Job Number	19-1032
Scale	
Drawn	DBR
Checked	SB
Approved	MC
TITLE	

**DEMO & NEW MECHANICAL PLANS**



**1** GYM CRAWL SPACE NEW PLAN  
M3.2 1/8"=1'-0"



**2** 2ND LEVEL NEW MECHANICAL PLAN  
M3.2 1/8"=1'-0"

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- A. THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL LOCATION OF EXISTING CONDUIT, LIGHTS, FIRE SPRINKLER PIPING, CONDENSATE PIPING, EQUIPMENT, DUCTS, AND GRILLES, ETC. IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS THAT UPON PROJECT COMPLETION, THE EXISTING MECHANICAL SYSTEMS, FIRE SPRINKLER PIPING, CONDUIT, DUCTWORK, ETC., BE READY FOR OPERATION WHETHER OR NOT EVERY ITEM OF EQUIPMENT, ACCESSORY, DEVICE, ETC. IS SHOWN. REFERENCE SHALL BE MADE TO THE FULL DRAWING PACKAGE INCLUDING ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR COORDINATION AND POTENTIAL CONFLICTS. THE MECHANICAL SUBCONTRACTOR SHALL, WITHOUT EXTRA CHARGE, MAKE REASONABLE MODIFICATIONS IN THE LAYOUT AS NEEDED TO PREVENT CONFLICTS WITH OTHER TRADES, OR FOR PROPER EXECUTION OF THE WORK. FIELD VERIFY ALL DIMENSIONS BEFORE FABRICATING DUCTWORK.
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- C. WORK SHALL BE DONE SO AS TO MINIMIZE DISRUPTION TO BUILDING ACTIVITIES. KEEP BUILDING SERVICES IN FULL OPERATION DURING NORMAL BUSINESS HOURS.
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- E. PROTECTION OF BUILDING PERSONNEL, FURNISHINGS AND SYSTEMS FROM HAZARD AND/OR CONTAMINATION ASSOCIATED WITH DEMOLITION AND CONSTRUCTION SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH THE SPECIFICATIONS.
- F. CONTRACTOR SHALL COORDINATE REMOVAL AND OFF-SITE DISPOSAL OF EXISTING MATERIALS PER CONSTRUCTION WASTE MANAGEMENT SPECIFICATION SECTION 017419. OBTAIN APPROVAL OF OWNER'S REPRESENTATIVE BEFORE DISPOSING OF ITEMS. ITEMS TO KEEP SHALL BE DELIVERED TO THE OWNER.
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- J. NEW HVAC DUCTWORK, UNLESS NOTED OTHERWISE, TO BE GALVANIZED SHEET METAL SIZED, CONSTRUCTED, AND INSTALLED IN ACCORDANCE WITH THE SMACNA RECOMMENDATIONS AND IN ACCORDANCE WITH THE SPECIFICATIONS. SIZES SHOWN ON PLANS ARE INSIDE CLEAR DIMENSIONS. ROUTE DUCTWORK SO AS TO MINIMIZE OFFSETS. FIELD VERIFY ROUTING ABOVE EXISTING CEILING. SEAL ALL DUCT SEAMS AIR TIGHT; MAXIMUM AIR LEAKAGE RATE = 5%.
- K. CONTRACTOR SHALL PROTECT EXISTING SECURITY CAMERAS DURING CONSTRUCTION AND SHALL CONFIRM CAMERAS ARE OPERATIONAL UPON CONSTRUCTION COMPLETION.
- L. SMOKE DETECTORS SHALL REMAIN OPERATIONAL DURING CONSTRUCTION.

**1/3.2 - MECHANICAL KEYED NOTES - NEW WORK:**

- 1** PROVIDE EXHAUST FAN EE-12 FOR GYM CRAWL SPACE AS SHOWN ON PLANS. FAN SHALL BE INSTALLED IN AREAWAY. FAN TO BE SUPPORTED FROM GROUND VIA STANDING SPRING ISOLATORS. CONNECT AND TRANSITION 17"x17" EXHAUST DUCT FROM FAN THRU EXTERIOR WALL PERIMETER BEAM TO DRAW AIR FROM THE CRAWL SPACE OUT THROUGH THE NEW AREAWAY. FAN SHALL BE SIZED AS SCHEDULED ON SHEET M5.1. DISCONNECT SHALL BE INSTALLED IN AN ACCESSIBLE SPACE IN THE AREA WAY. PROVIDE EXTERIOR RATED ENCLOSURE.

**2/3.2 - MECHANICAL KEYED NOTES - NEW WORK:**

- 1** CONTRACTOR SHALL COORDINATE WITH SERVICE CENTER FOR LOCATING EXISTING VFD PURCHASED DURING PREVIOUS CONSTRUCTION PHASE AND REPLACE VFD FOR EXISTING AHU-4 SERVING LIBRARY. VFD SHALL BE INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND BE UTILIZED FOR SOFT START ONLY DURING STANDARD OPERATION. COORDINATE WITH ELECTRICAL.



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DEPARTMENT OF CONSTRUCTION MANAGEMENT

**DOBIE MIDDLE SCHOOL**

**RENOVATIONS**

1200 E Rundberg Ln, Austin, Texas  
AISD PROJECT No. 190035-DOBIE



**REVISIONS**

No.	Issue	Date
1	ADDENDUM 2	02/15/2019

**SHEET INFORMATION**

Date	January 3, 2019
Job Number	19-1032
Scale	
Drawn	DBR
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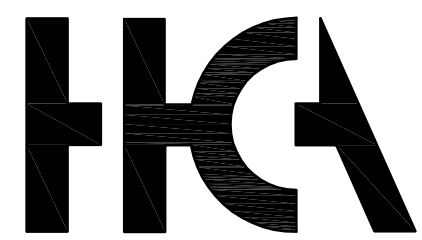
**TITLE**

**DEMO & NEW MECHANICAL PLANS**

**SHEET**

**M3.2**





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REVISIONS

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TITLE

MECHANICAL SCHEDULES

SHEET

M5.1

MAKE UP AIR UNIT SCHEDULE

Table with columns: MARK, MODEL, CONFIGURATION, FAN, COOLING COIL (DX), MODULATING CONDENSER REHEAT COIL, HEATING COIL (ELECTRIC), ELECTRICAL, PHYSICAL DATA, NOTES

NOTES:

- 1. FURNISH UNIT WITH DRAIN PAN OVERFLOW SWITCH. 2. FURNISH UNIT WITH ONE INVERTER SCROLL COMPRESSOR. 3. FURNISH W/ VFD AS SPECIFIED. 4. FURNISH UNIT WITH 2" MERV 13 FILTERS. 5. FURNISH UNIT WITH CURB ADAPTER. 6. FURNISH W/ 24V MOTORIZED PARALLEL BLADE DAMPER ON INTAKE OF THE UNIT. 7. FURNISH UNIT WITH BACNET MSTP. 8. FURNISH SINGLE POINT CONNECTION WITH UNIT MOUNTED DISCONNECT SWITCH. 9. CONDENSER AMBIENT TEMPERATURE TO BE 105 F. 10. FURNISH UNIT WITH GFCI RECEPTICAL 120V POWER BY UNIT. 11. FURNISH UNIT WITH AIRFLOW MONITORING STATION INLET DAMPER. 12. FURNISH UNIT WITH DRAIN PAN OVERFLOW SWITCH.

WATER COOLED CHILLER SCHEDULE

Table with columns: MARK, UNIT LENGTH (IN.), UNIT WIDTH (IN.), UNIT HEIGHT (IN.), COMPRESSOR TYPE, COOLING CAPACITY (TONS), NUMBER OF COMPRESSORS, NUMBER OF STAGES, FL (KW/TON), IPLV (KW/TON), EVAPORATOR DATA, CONDENSER DATA, ELECTRICAL DATA, NOTES

NOTES:

- 1. PROVIDE WITH INTEGRAL DISCONNECT SWITCH. 2. PROVIDE WITH SINGLE POINT ELECTRICAL CONNECTION AND CONTROL POWER TRANSFORMER. 3. PROVIDE FACTORY INSTALLED RUPTURE DISK PER ASHRAE 15. 4. PROVIDE WITH PREMIUM EFFICIENCY COMPRESSOR MOTOR. 5. PROVIDE WITH SINGLE STAGE FLASH ECONOMIZER. 6. PROVIDE WITH INTEGRAL VFD. 7. PROVIDE WITH CONTROLLER BY MANUFACTURER. CONTROLLER SHALL BE CAPABLE OF BACNET COMMUNICATION FOR INTEGRATION WITH EMCS.

COOLING TOWER SCHEDULE

Table with columns: MARK, GPM PER CELL, EWT (°F), LWT (°F), AMBIENT AIR WB (°F), NUMBER OF CELLS, TONS/CELL, MOTOR HORSEPOWER/CELL, BASIN HEATER POWER (KW) / PER CELL, VOLTS/PHASE/HERTZ, MANUFACTURER, MODEL NO., NOTES

NOTES:

- 1. PROVIDE VARIABLE FREQUENCY DRIVES FOR FAN MOTORS. CONTROLLER SHALL BE BACNET CAPABLE FOR INTEGRATION WITH EMCS. 2. PROVIDE EACH CELL WITH STAINLESS STEEL BASIN & BASIN HEATER. 3. PROVIDE COOLING TOWER WITH BLOW DOWN METER. 4. PROVIDE 12" DIA. EQUALIZATION PIPE CONNECTION BETWEEN CELLS WITH BUTTERFLY TYPE ISOLATION VALVE. 5. PROVIDE TOWER WITH OPTIONAL CONDENSER WATER BY-PASS CONNECTIONS TO SUMP. ONE CONNECTION PER TOWER CELL.

PUMP SCHEDULE

Table with columns: MARK, TYPE, FLOW GPM, HEAD (FT. H2O), APPROX. PUMP EFF. (%), APPROX. IMPELLER DIA. (INCHES), MOTOR HORSEPOWER, MOTOR RPM, MOTOR CONTROL (VFD, STARTER, OR MCC), VOLTS/PHASE/HERTZ, MANUFACTURER, PUMP SERIES, PUMP SIZE, NOTES

NOTES:

- 1. PROVIDE OSHA APPROVED COUPLING GUARD. 2. PROVIDE PUMP WITH STAINLESS STEEL SHAFT AND SLEEVE. 3. PROVIDE GALVANIZED BASE AND DRAIN PAN WITH THREADED OPENING. 4. PROVIDE STRUCTURAL STEEL BASE WITH OPENINGS FOR FIELD GROUTING. 5. PROVIDE BALDOR SUPER E OR EQUIVALENT TYPE ODP MOTOR. 6. PROVIDE CONTROLLER WITH CAPABLE OF BACNET COMMUNICATION FOR INTEGRATION WITH EMCS.

FAN SCHEDULE

Table with columns: MARK, SERVES, TYPE/DRIVE, CFM, EXT. S.P. (IN. W.G.), HORSEPOWER, RPM (MAX), SONES (MAX), VOLTS/PHASE/HERTZ, MANUFACTURER, MODEL NUMBER, NOTES

NOTES:

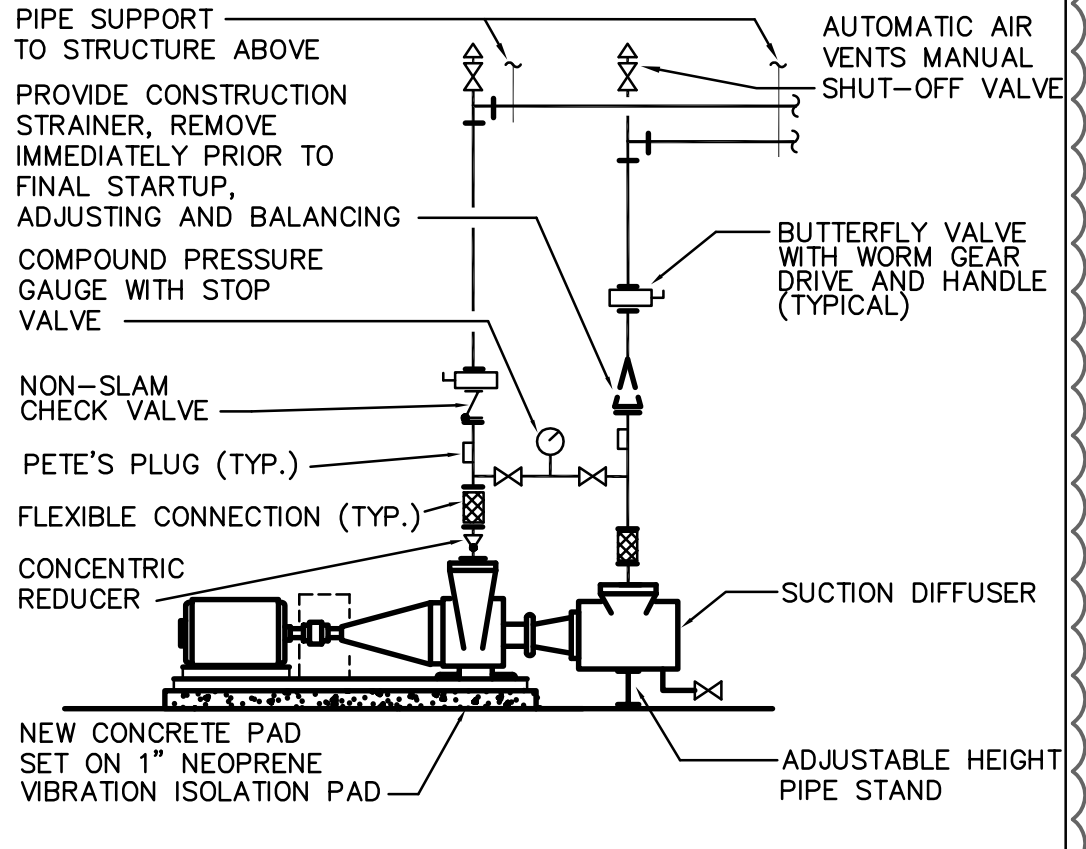
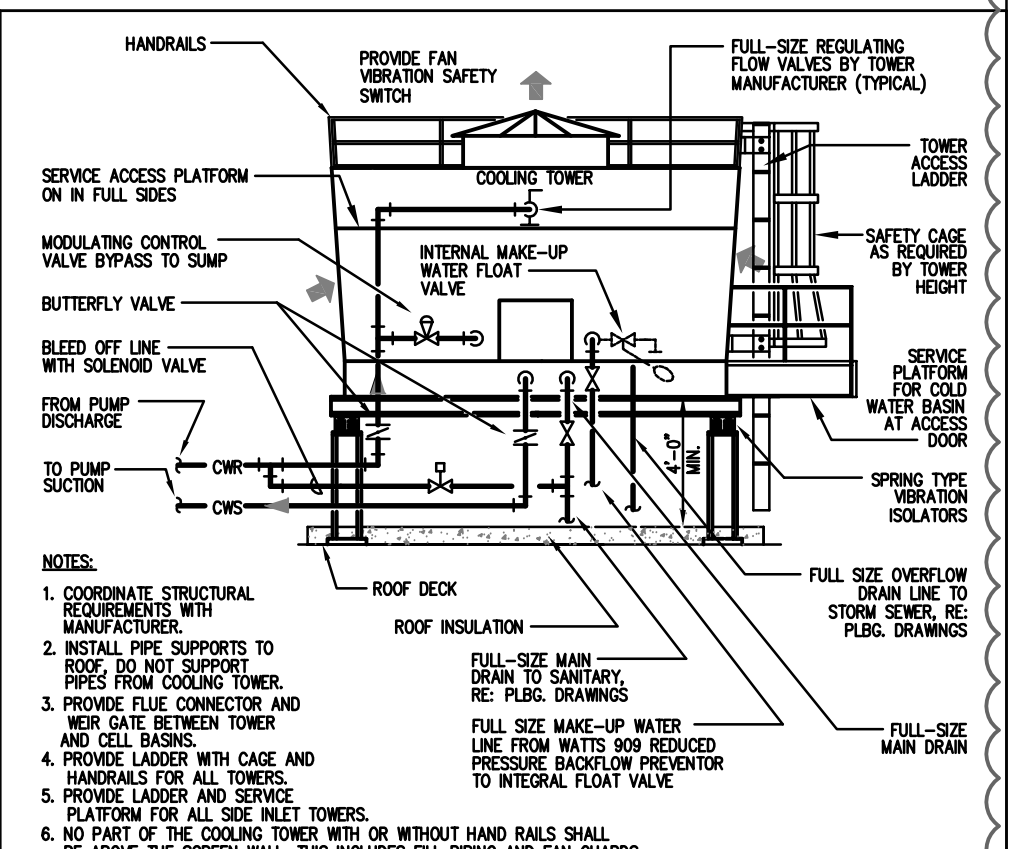
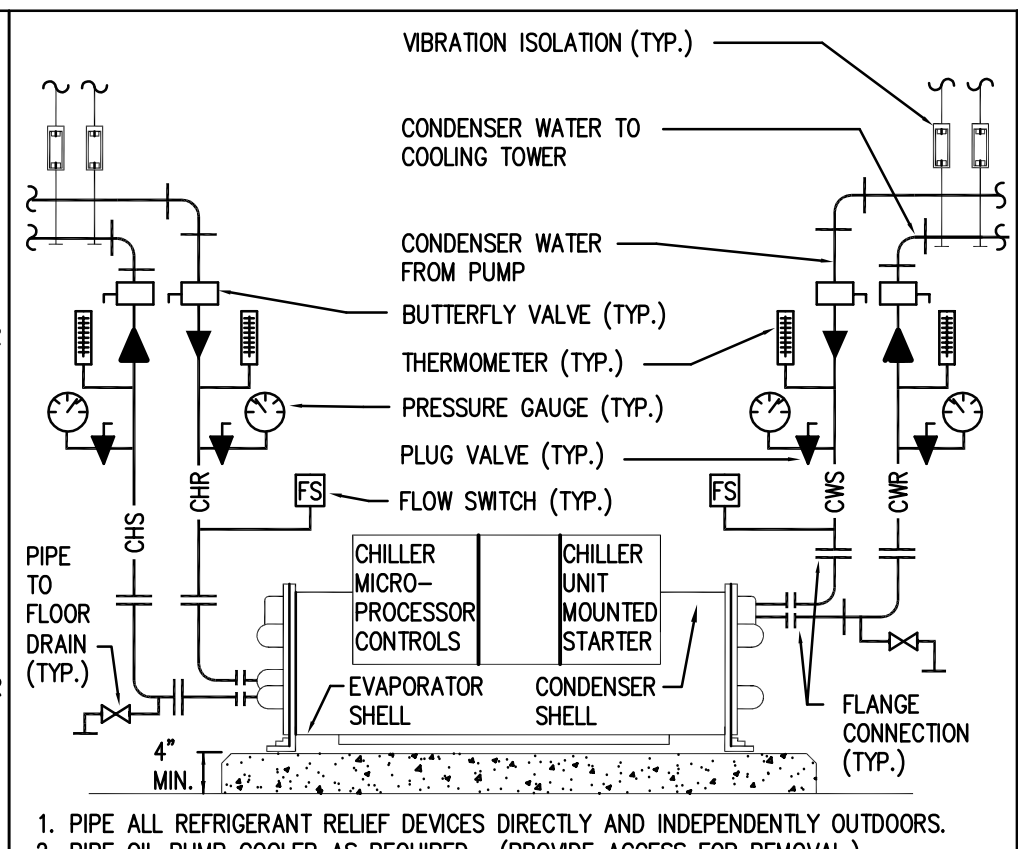
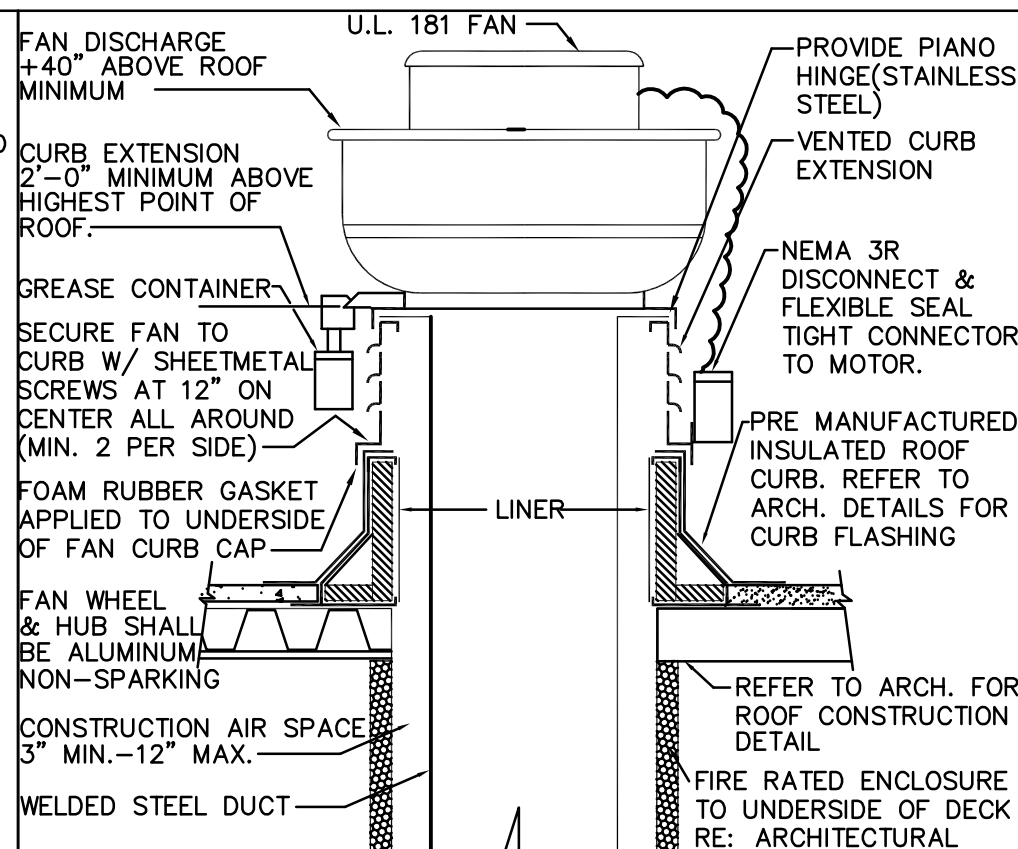
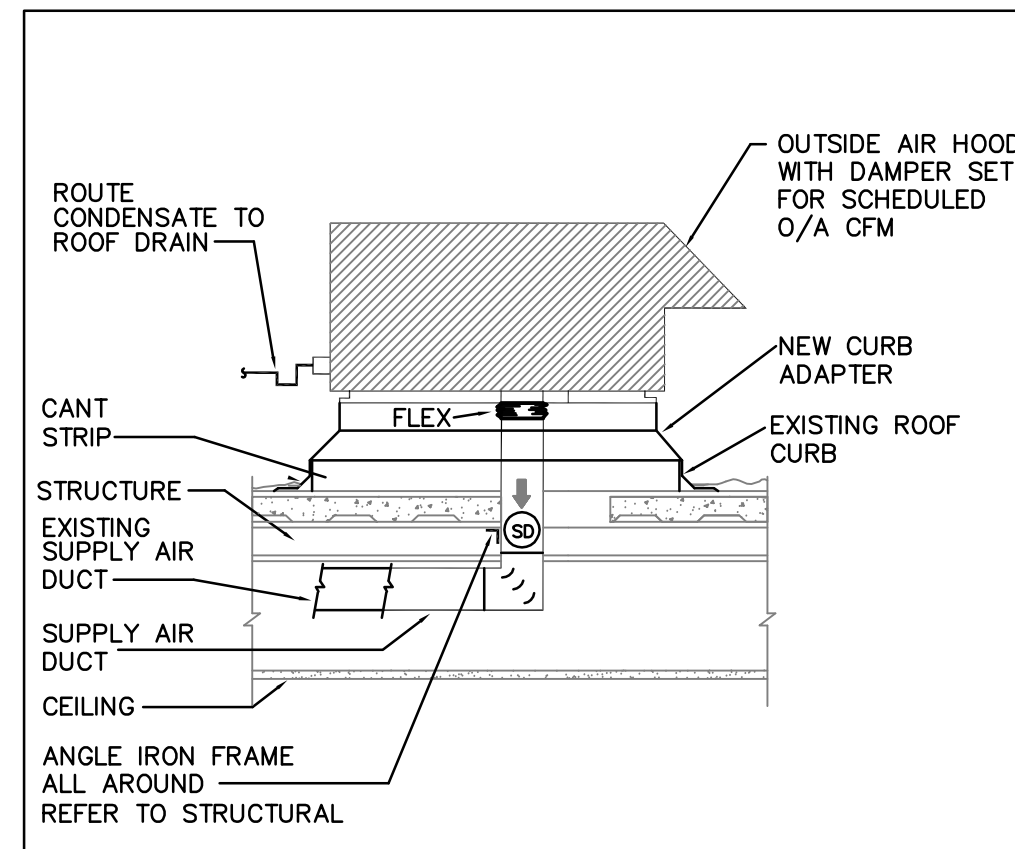
- 1. PROVIDE FAN WITH ROOF CURB OR CURB ADAPTER AND CURB EXTENSION AS NEEDED. 2. PROVIDE FAN WITH GREASE TRAP, HEAT BAFFLE, HINGED BASE. 3. PROVIDE UNIT WITH NEMA 3R TOGGLE SWITCH. 4. PROVIDE FAN WITH HIGH TEMP CURB SEAL, BEARINGS WITH GREASE FITTINGS. 5. PROVIDE WITH STANDING SPRING ISOLATORS, DISCONNECT, INLET DUCT COLLAR.

AIR SEPARATOR SCHEDULE

Table with columns: MARK, SYSTEM, MAX FLOW (GPM), INLET/OUTLET SIZE (IN.), MAX. PRESSURE DROP (FT WG.), MANUFACTURER, MODEL NO., OPERATIONAL WEIGHT (LBS), NOTES

NOTES:

- 1. PROVIDE WITH 1" BALL VALVE AND BLOWDOWN PIPING TO NEAREST DRAIN. 2. PROVIDE WITH HIGH CAPACITY 107-A AIR VENT. 3. PROVIDE SEDIMENT SEPARATION DOWN TO 40 MICRONS.



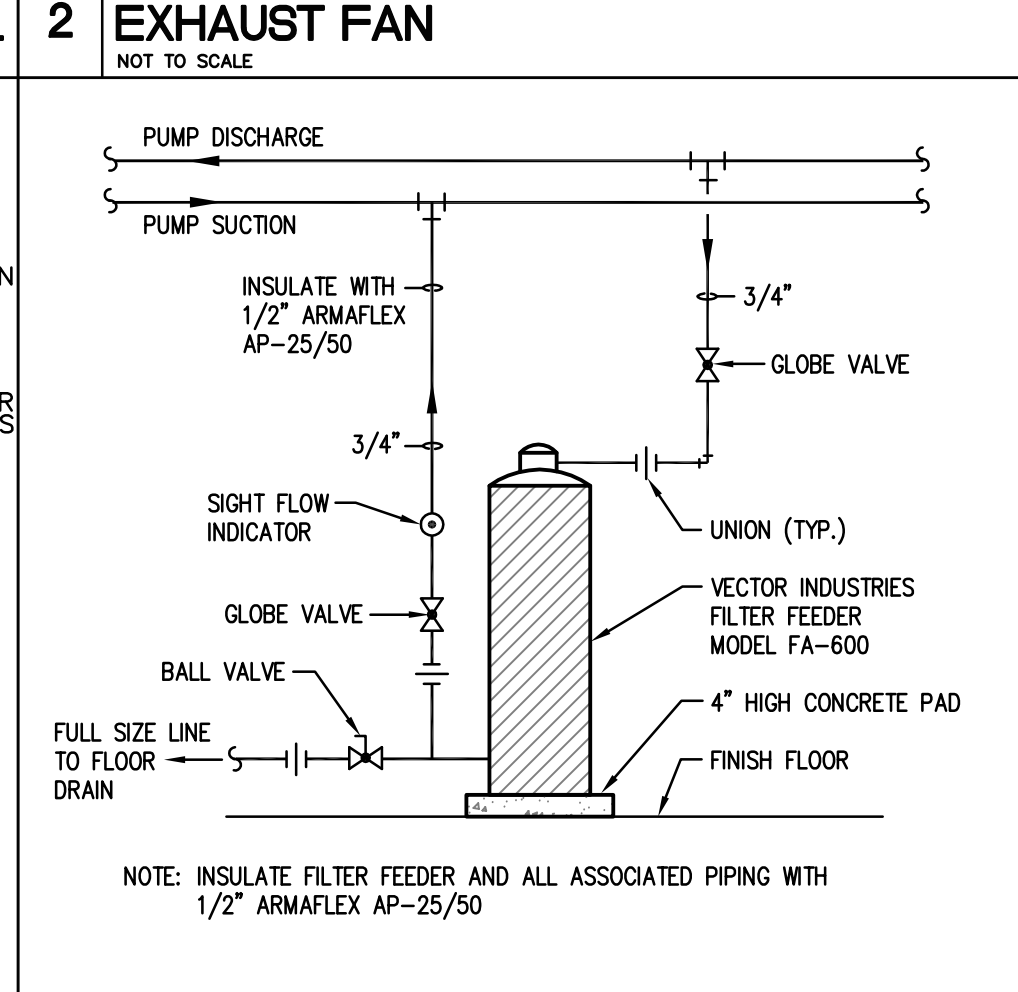
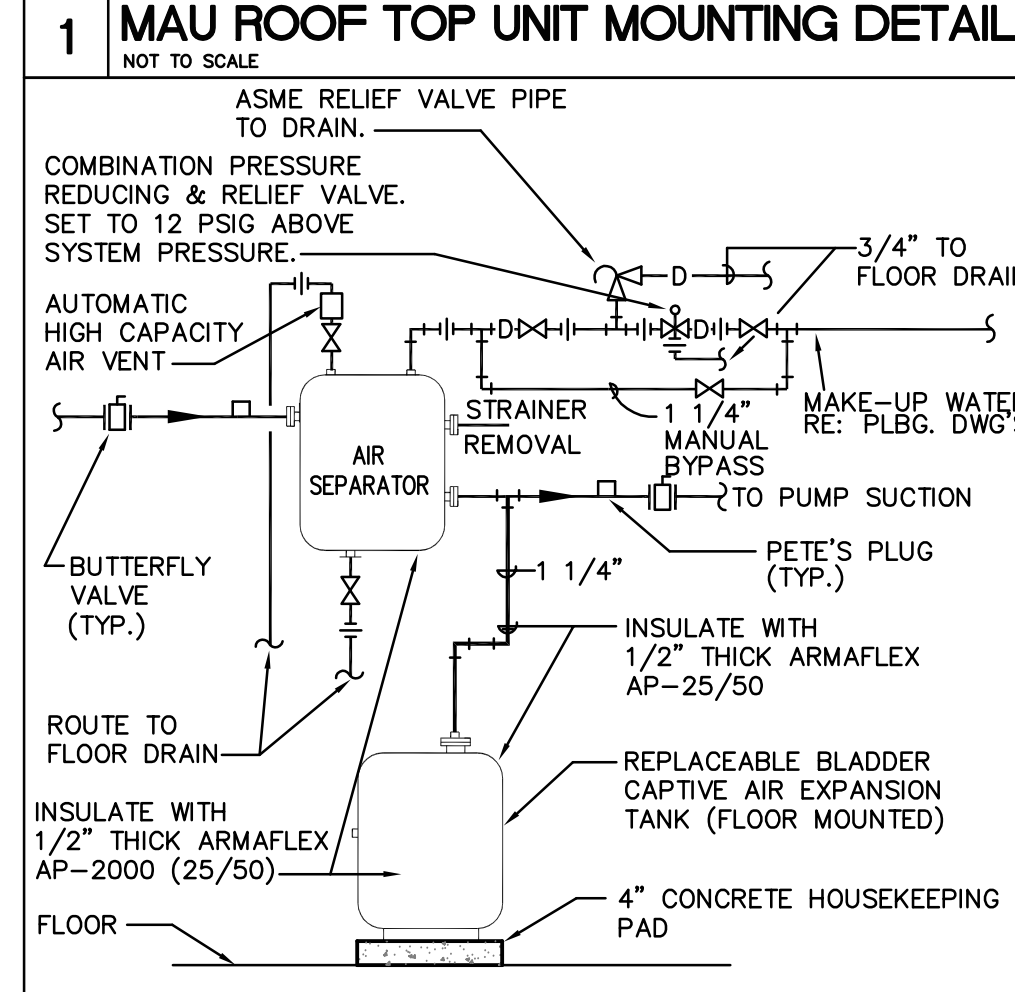
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2 HOOD CENTRIFUGAL UPBLAST EXHAUST FAN NOT TO SCALE

3 WATER COOLED CHILLER NOT TO SCALE

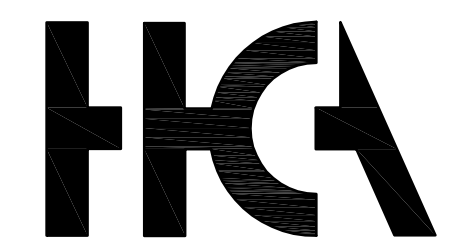
4 COOLING TOWER PIPING-PER CELL NOT TO SCALE

5 END SUCTION PUMP PIPING NOT TO SCALE



6 EXPANSION TANK DETAIL NOT TO SCALE

7 CHEMICAL FILTER FEEDER DETAIL NOT TO SCALE



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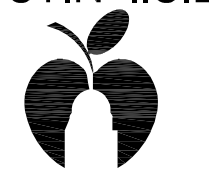
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DEPARTMENT OF CONSTRUCTION MANAGEMENT

DOBIE MIDDLE SCHOOL

RENOVATIONS

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AISD PROJECT No. 190035-DOBIE



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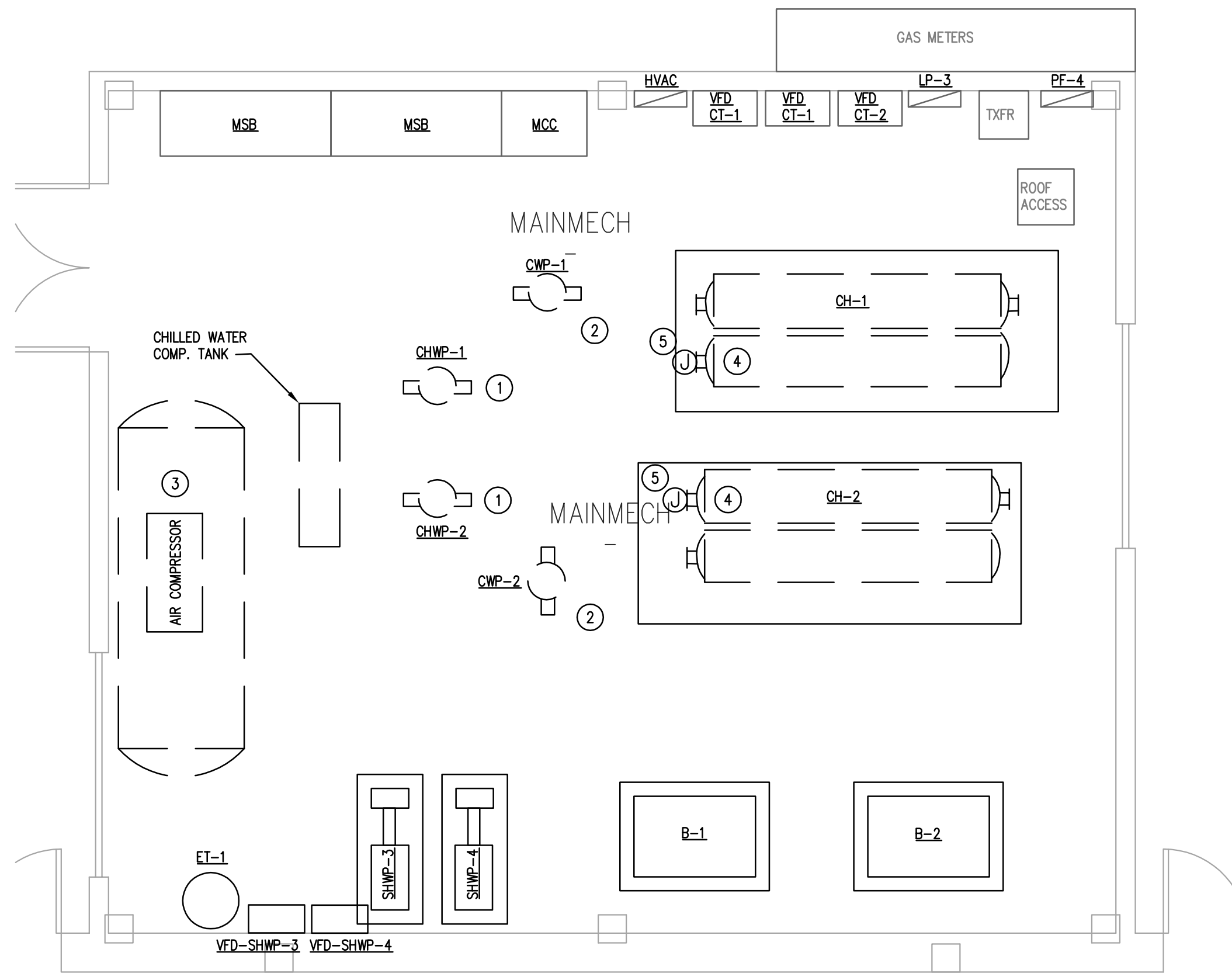
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TITLE

MECHANICAL DETAILS

SHEET

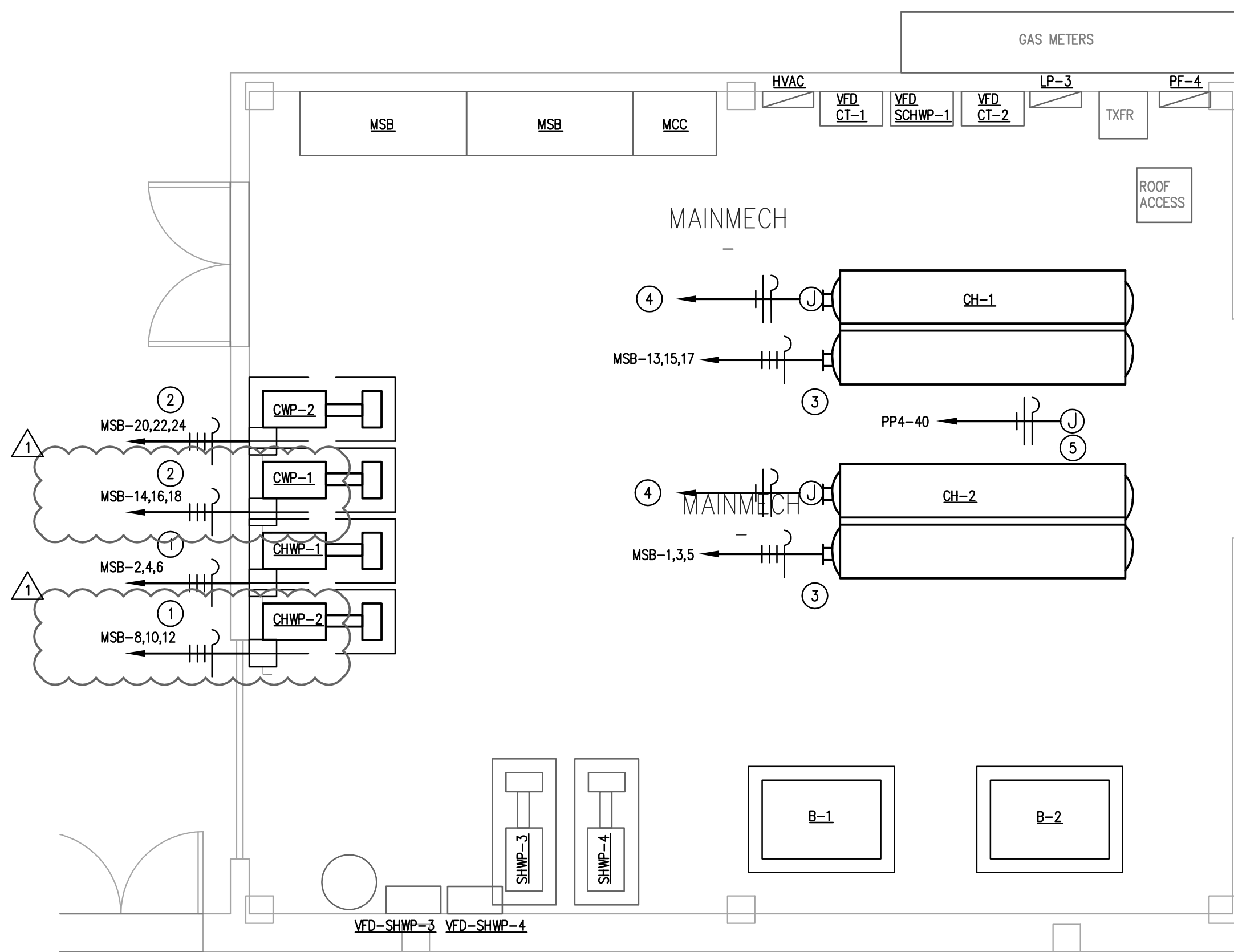
M6.1



**1 MAIN MECHANICAL ROOM DEMO PLAN**  
E3.1 1/4"=1'-0"

**1 - ELECTRICAL KEYED NOTES - DEMO WORK:**

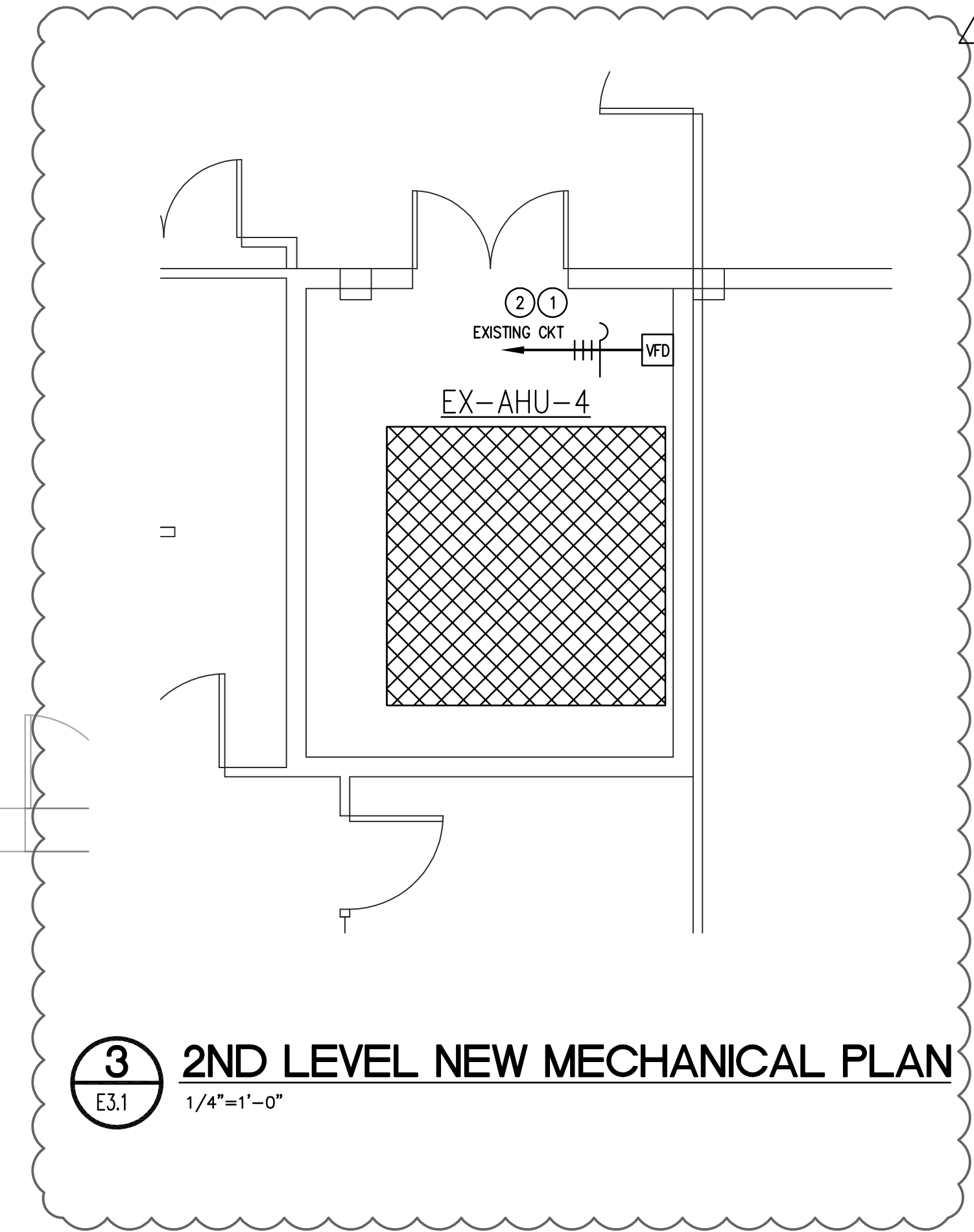
- ① EXISTING CHILLER TO BE REPLACED. CHILLED WATER PUMP "CHWP-1 & CHWP-2" DISCONNECT, WIRE AND CONDUIT TO BE REMOVED BACK TO SOURCE PANEL.
- ② EXISTING CONDENSER WATER PUMP TO BE REPLACED. CONDENSER WATER PUMP "CWP-1 & CWP-2" DISCONNECT, WIRE AND CONDUIT TO BE REMOVED BACK TO SOURCE PANEL.
- ③ EXISTING AIR COMPRESSOR CIRCUIT TO BE REMOVED. AIR COMPRESSOR DISCONNECT, WIRE AND CONDUIT TO BE REMOVED BACK TO SOURCE PANEL.
- ④ EXISTING CHILLER "CH-1 & CH-2" DISCONNECT, WIRE AND CONDUIT TO BE REMOVED. 400A/480Y277V/3P/NEMA 3R/NF.
- ⑤ EXISTING 120V CONTROL CIRCUIT TO REMAIN.



**2 MAIN MECHANICAL ROOM NEW PLAN**  
E3.1 1/4"=1'-0"

**2 - ELECTRICAL KEYED NOTES - NEW WORK:**

- ① PROVIDE NEW CHILLED WATER PUMP "CHWP-1 & CHWP-2" DISCONNECT, WIRE AND CONDUIT. 60A/480Y277V/3P/NEMA 3R/NF. REFER TO MECHANICAL PLANS FOR VFD'S SERVING CHWP.
- ② PROVIDE NEW CONDENSER WATER PUMP "CWP-1 & CWP-2" DISCONNECT, WIRE AND CONDUIT. 60A/480Y277V/3P/NEMA 3R/NF. REFER TO MECHANICAL PLANS FOR VFD'S SERVING CHWP.
- ③ PROVIDE NEW CHILLER "CH-1 & CH-2" DISCONNECT, WIRE AND CONDUIT. 400A/480Y277V/3P/NEMA 3R/NF. VERIFY SIZE WITH FINAL MECHANICAL SUBMITTAL SPECIFICATION.
- ④ EXISTING 120V CONTROL CIRCUIT TO REMAIN.
- ⑤ PROVIDE 120V POWER CONNECTIONS TO SERVE MOTORIZED ISOLATION VALVE.



**3 2ND LEVEL NEW MECHANICAL PLAN**  
E3.1 1/4"=1'-0"

**3 - ELECTRICAL KEYED NOTES - NEW WORK:**

- ① CONTRACTOR SHALL COORDINATE WITH SERVICE CENTER FOR LOCATING EXISTING VFD PURCHASED DURING PREVIOUS CONSTRUCTION PHASE AND REPLACE VFD FOR EXISTING AHU-4 SERVING LIBRARY. VFD SHALL BE INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND BE UTILIZED FOR SOFT START ONLY DURING STANDARD OPERATION.
- ② ELECTRICAL CONTRACTOR TO REUSE EXISTING WIRE, CONDUIT & CIRCUIT BREAKER SERVING EXISTING AHU-4. VFD SPECIFICATIONS SHALL HAVE THE CAPACITY TO SERVE AHU-4. COORDINATE WITH SERVICE CENTER, AHU MANUFACTURER, VFD MANUFACTURER & ENGINEER OF RECORD PRIOR TO INSTALLATION UPON VFD & CIRCUIT CAPACITY NOT MEETING AHU REQUIREMENTS, AISD IS PAY FOR MEP DESIGN AND CONTRACTOR INSTALLATION OF SERVICE CENTER VFD.



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DOBIE MIDDLE SCHOOL

**RENOVATIONS**

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**REVISIONS**

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1	ADDENDUM 2	02/15/2019

**SHEET INFORMATION**

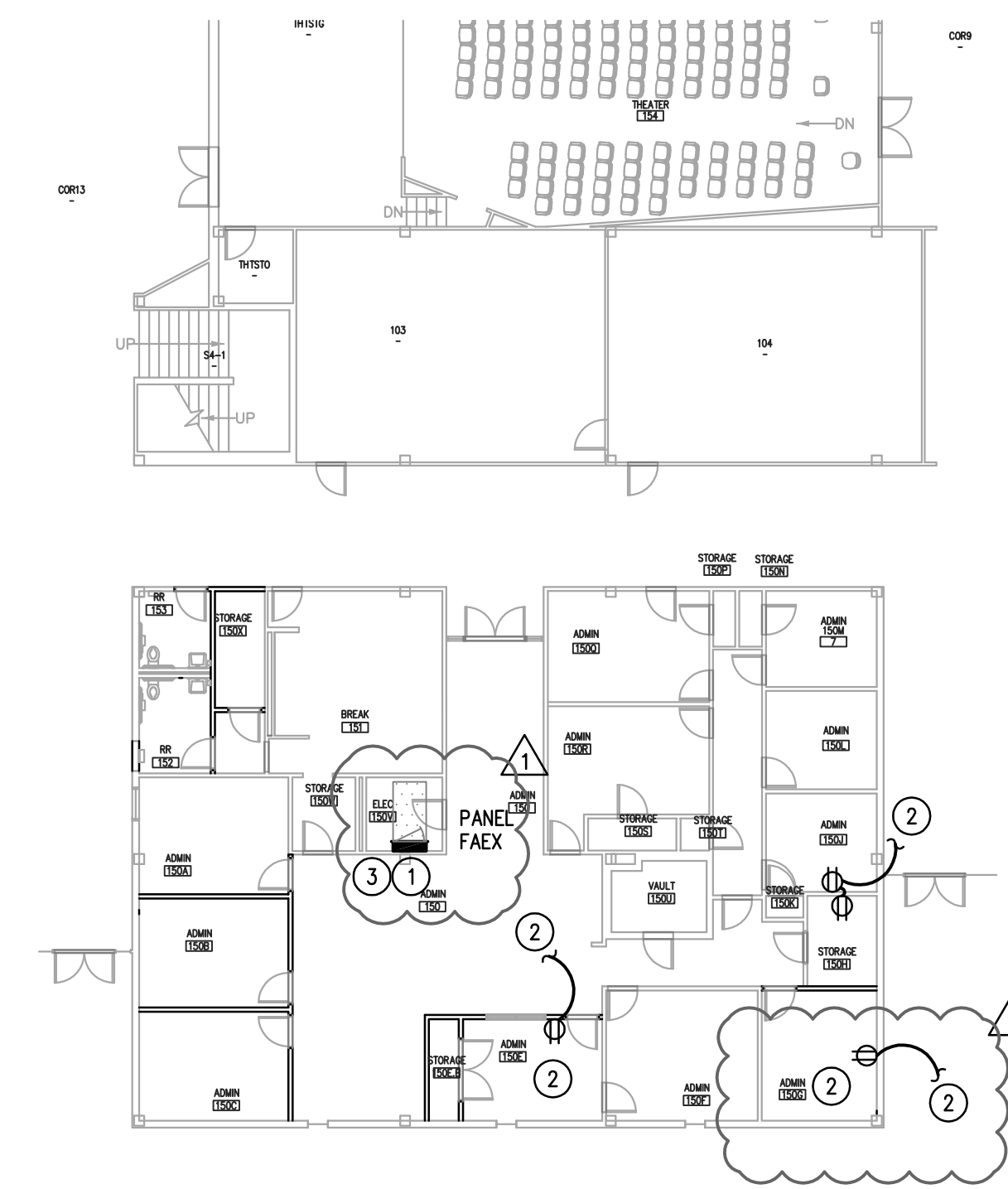
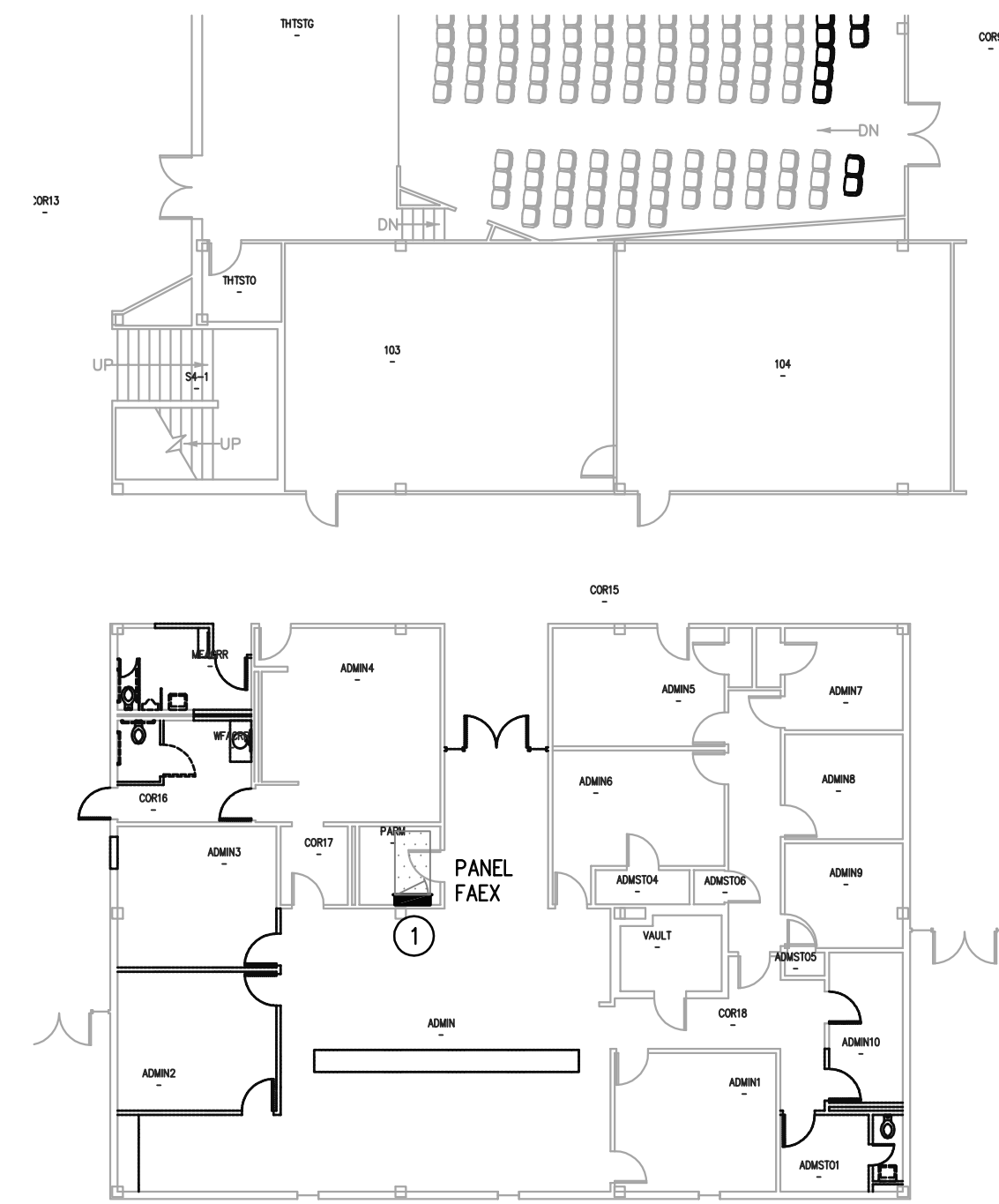
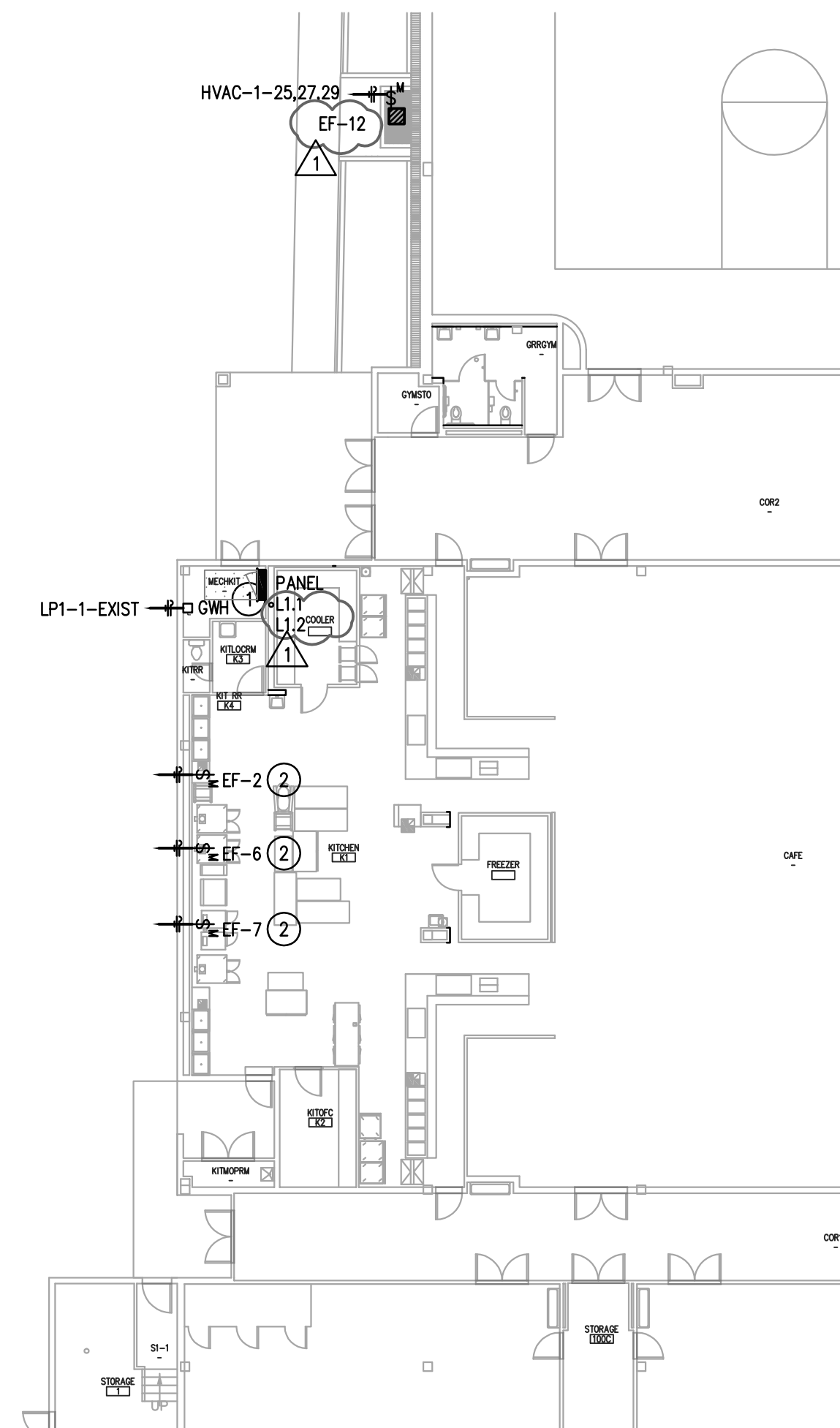
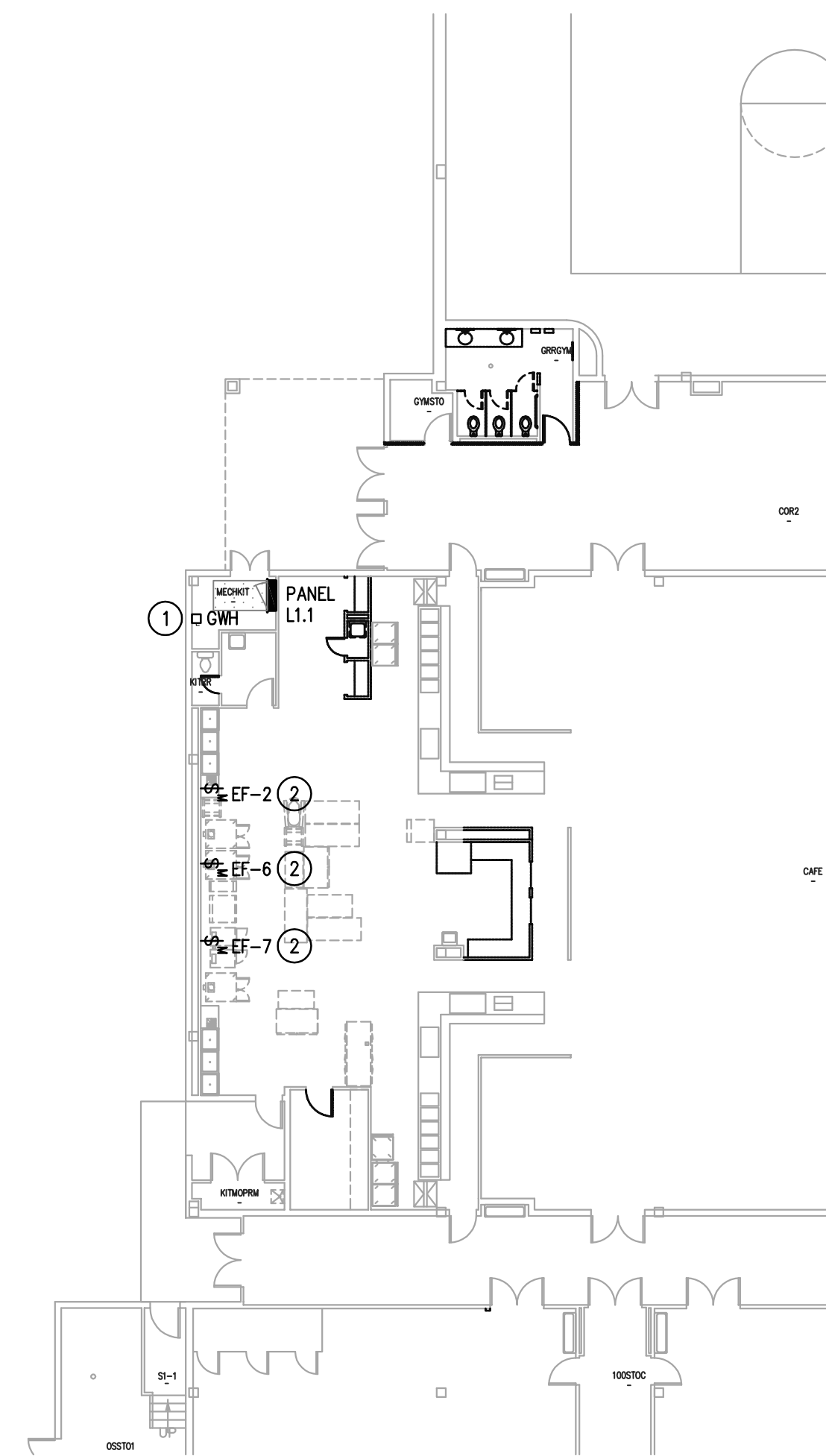
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TITLE

ENLARGED - ELECTRICAL  
PLANS

SHEET

E3.1



**1 KITCHEN DEMO PLAN**  
E3.2 1/16"=1'-0"

**2 KITCHEN NEW PLAN**  
E3.2 1/16"=1'-0"

**3 ADMINISTRATION DEMO PLAN**  
E3.2 1/16"=1'-0"

**4 ADMINISTRATION NEW PLAN**  
E3.2 1/16"=1'-0"

**1 - ELECTRICAL KEYED NOTES - DEMO WORK:**

- 1 EXISTING GAS WATER HEATER TO BE REPLACED. GAS WATER HEATER "GWH-1" POWER CONNECTION TO REMAIN FOR FUTURE USE.
- 2 EXISTING EXHAUST FAN TO BE REPLACED. EXHAUST FAN "EF-2, EF-6, EF-7" POWER CONNECTION TO REMAIN FOR FUTURE USE. VERIFY BREAKER AND WIRE SIZE.

**2 - ELECTRICAL KEYED NOTES - NEW WORK:**

- 1 NEW GAS WATER HEATER. RECONNECT GAS WATER HEATER "GWH-1" TO EXISTING CIRCUIT PREVIOUSLY SERVING THE EXISTING GAS WATER HEATER.
- 2 EXISTING EXHAUST FAN TO BE REPLACED. EXHAUST FAN "EF-2, EF-6, EF-7" POWER CONNECTION TO REMAIN FOR FUTURE USE. VERIFY BREAKER AND WIRE SIZE. REFER TO MEP ROOF PLAN FOR "PANEL-CIRCUIT."

**3 - ELECTRICAL KEYED NOTES - DEMO WORK:**

- 1 EXISTING PANEL FAEX TO BE REPLACED. REMOVE EXISTING PANEL, FEEDER & CONDUIT TO REMAIN FOR RECONNECTION TO NEW PANEL FAEX.

**4- ELECTRICAL KEYED NOTES - NEW WORK:**

- 1 EXISTING PANEL FAEX "PP9" (42 POLES) TO BE REPLACED. PROVIDE NEW PANEL FAEX "PP9" (60 POLES). VERIFY WIRE & CONDUIT SIZE PRIOR TO RECONNECTION.
- 2 CONNECT TO NEAREST AREA EXISTING RECEPTACLE CIRCUIT. PROVIDE ADDITIONAL RECEPTACLE CIRCUITS IN ADMIN AREA AS NECESSARY.
- 3 PANEL FAEX CIRCUITS: REPLACE ALL 3/4" FLEXIBLE METAL CONDUIT WITH 3/4" EMT CONDUIT.



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ENLARGED - ELECTRICAL PLANS

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E3.2



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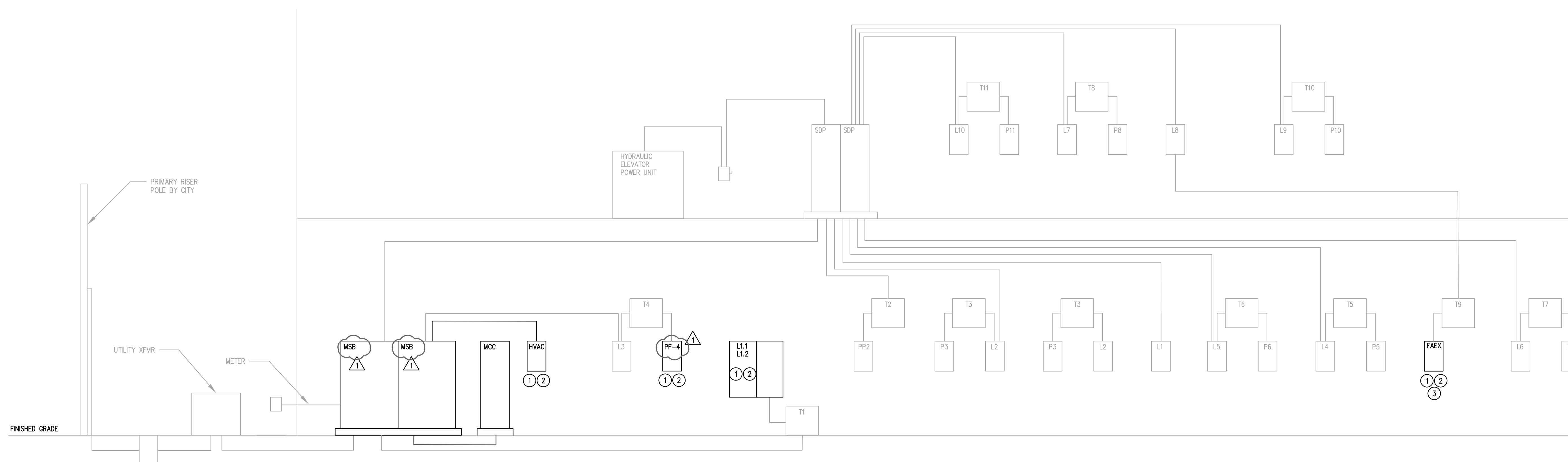
ELECTRICAL ONE-LINE DIAGRAM

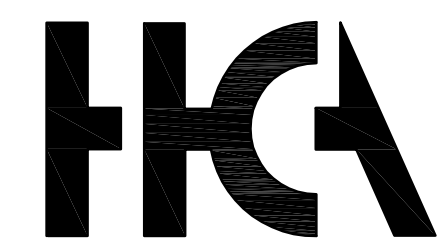
SHEET

E4.1

ELECTRICAL RISER DIAGRAM KEYED NOTES

- EXISTING PANEL CIRCUITS TO BE EFFECTED BY RENOVATION. REFER TO PANEL BOARD SCHEDULES.
- AISD TO MONITOR ALL PANELS ASSOCIATED WITH PROJECT FOR 30 DAYS PRIOR TO RENOVATION. PANEL SHALL NOT EXCEED 80% CAPACITY. CONTACT ENGINEER OF RECORD UPON ANY DISCREPANCIES.
- PANEL BOARD TO BE REPLACED. REFER TO PANEL BOARD SCHEDULE 'FAEX'.





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Table with 2 columns: Date, Job Number. Row 1: January 3, 2019, 18-1032

TITLE

ELECTRICAL SCHEDULES

SHEET

E5.1

MOTOR CONTROL CENTER MCC table with columns for Notes, Load (VA), Description, Type, Wire, CB, CKT #, PH, CKT #, CB, Wire, Type, Description, Load (VA), Notes. Includes subtotals and load calculations.

Panelboard L1.1 and L1.2 tables with columns for Notes, Load (VA), Description, Type, Wire, CB, CKT #, PH, CKT #, CB, Wire, Type, Description, Load (VA), Notes. Includes subtotals and load calculations.

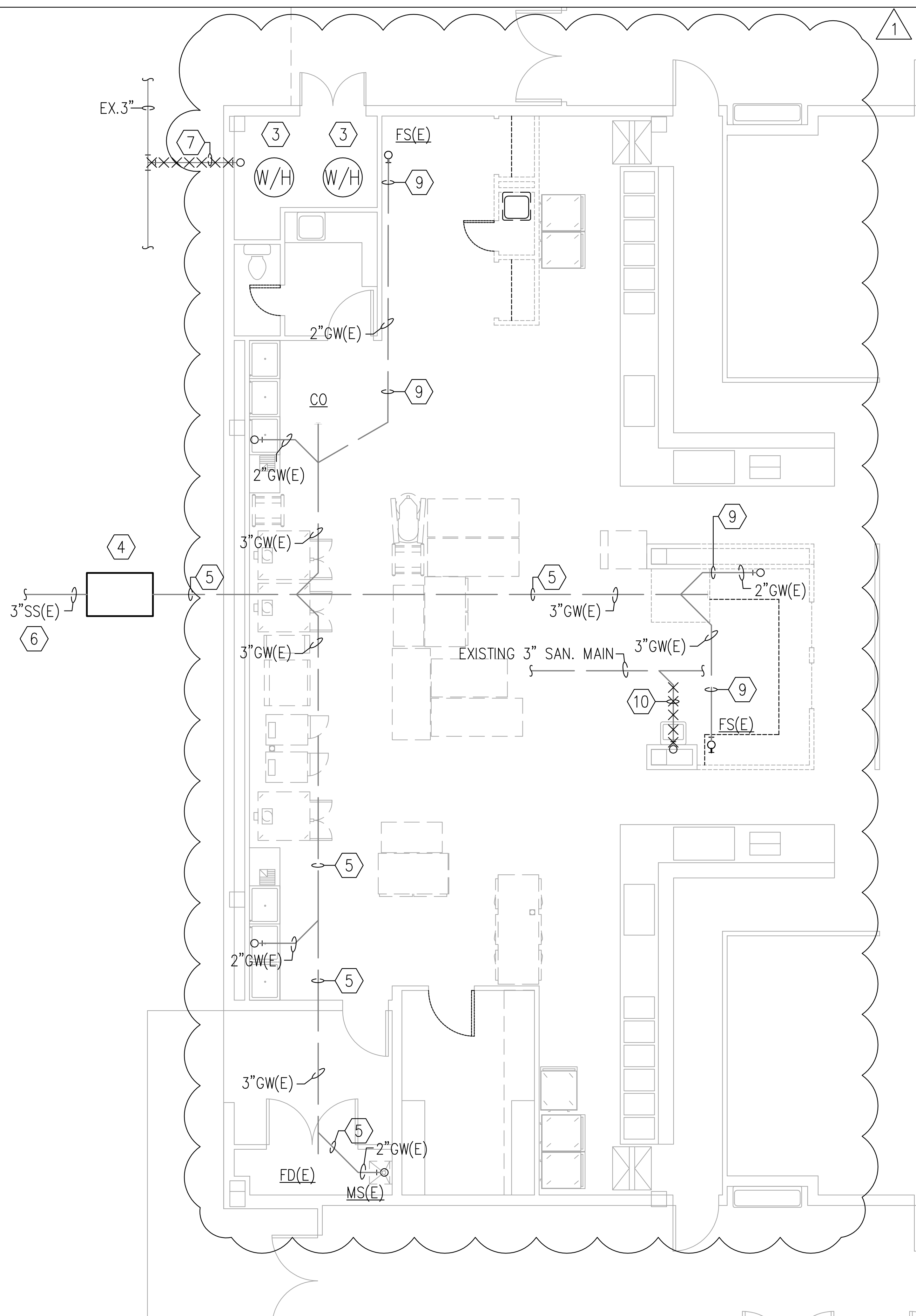
Panelboard L1.2 table with columns for Notes, Load (VA), Description, Type, Wire, CB, CKT #, PH, CKT #, CB, Wire, Type, Description, Load (VA), Notes. Includes subtotals and load calculations.

Panelboard FAEX table with columns for Notes, Load (VA), Description, Type, Wire, CB, CKT #, PH, CKT #, CB, Wire, Type, Description, Load (VA), Notes. Includes subtotals and load calculations.

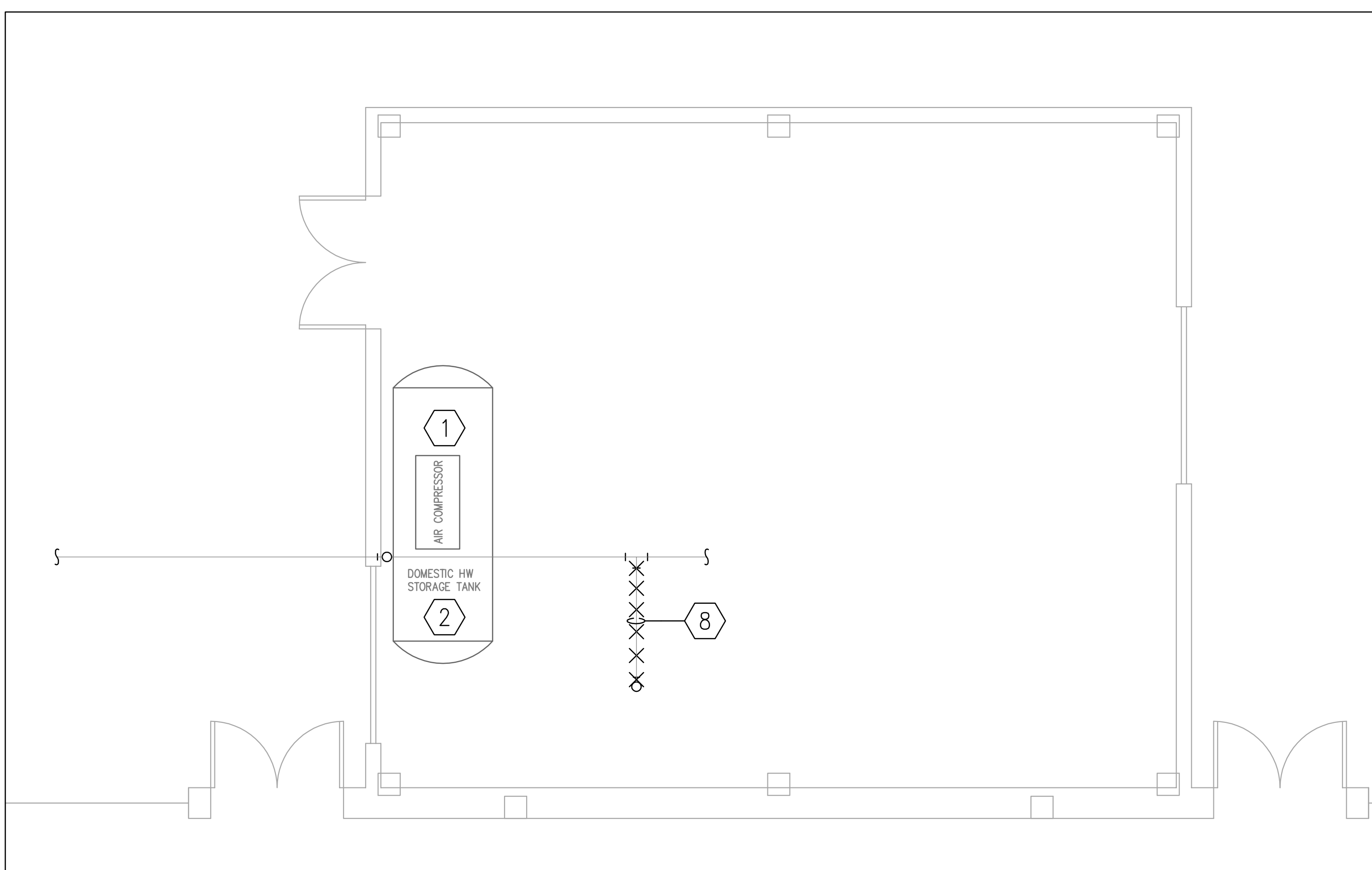
Panelboard PP4 table with columns for Notes, Load (VA), Description, Type, Wire, CB, CKT #, PH, CKT #, CB, Wire, Type, Description, Load (VA), Notes. Includes subtotals and load calculations.

Switchboard MSB table with columns for Notes, Load (VA), Description, Type, Wire, CB, CKT #, PH, CKT #, CB, Wire, Type, Description, Load (VA), Notes. Includes subtotals and load calculations.

Panelboard HVAC table with columns for Notes, Load (VA), Description, Type, Wire, CB, CKT #, PH, CKT #, CB, Wire, Type, Description, Load (VA), Notes. Includes subtotals and load calculations.



**1 ENLARGED KITCHEN - PLUMBING DEMOLITION PLAN**  
 P1.2 1/4"=1'-0"



**2 ENLARGED MAIN MECH. ROOM - PLUMBING DEMOLITION PLAN**  
 P1.2 1/4"=1'-0"

**PLUMBING DEMOLITION KEYED NOTES:**

- 1 EXISTING ABANDONED AIR COMPRESSOR SHALL BE REMOVED. COMPRESSED AIR PIPING SHALL BE CAPPED AT WALL OR CEILING. ELECTRICAL CONNECTIONS SHALL BE DISCONNECTED AND WIRES PULLED ALL THE WAY BACK TO THE BREAKER. HAND OVER COMPRESSOR TO SCHOOL DISTRICT SERVICE DEPARTMENT.
- 2 EXISTING STORAGE TANK SHALL BE REMOVED. ALL SUPPORTING STAND AND MATERIALS SHALL BE REMOVED. ANY CONNECTION TO THE TANK SHALL BE DISCONNECTED AT CEILING OR FLOOR LEVEL AND CAPPED.
- 3 EXISTING WATER HEATER INCLUDING ALL ASSOCIATED PIPING AND APPURTENANCES TO BE REMOVED. NEW WATER HEATER(S) TO BE INSTALLED WITH ALL NEW PLUMBING LINES AND ACCESSORIES.
- 4 EXISTING GREASE WASTE INTERCEPTOR TO BE REMOVED/REPLACED. PREPARE SPACE FOR REPLACEMENT GREASE INTERCEPTOR.
- 5 EXISTING GREASE WASTE PIPING TO BE REMOVED/REPLACED WITH NEW GREASE WASTE PIPING IN EXACT LOCATION. PREPARE SPACE FOR REPLACEMENT PIPING.
- 6 EXISTING SANITARY WASTE TO REMAIN.
- 7 EXISTING 4 OUNCE GAS LINE TO BE REMOVED BACK TO MAIN LINE.
- 8 EXISTING 1-1/2" DOMESTIC COLD WATER PIPING TO BE REMOVED BACK TO MAIN LINE.
- 9 EXISTING GREASE WASTE PIPING TO BE REMOVED IN ITS ENTIRETY BACK TO MAIN LINE.
- 10 DEMOLISH SANITARY WASTE AND ALL ASSOCIATED PIPING AND CAP AT SANITARY WASTE MAIN LINE AS SHOWN ON THE PLAN. CORE DRILL FLOOR AND PATCH TO MATCH AS NECESSARY. CONTRACTOR TO FIELD VERIFY EXISTING UTILITIES LOCATION PRIOR TO ANY WORK.

**PLUMBING DEMOLITION GENERAL NOTES:**

1. FIELD VERIFY AS NECESSARY THE EXACT LOCATIONS/ROUTING/SIZES OF PLUMBING FIXTURES, PIPING, AND EQUIPMENT TO BE REMOVED OR RE-USED. REFER TO ARCHITECTURAL DRAWINGS FOR CLARIFICATION AS REQUIRED.
2. ALL PLUMBING FIXTURES/EQUIPMENT NOT SPECIFICALLY IDENTIFIED FOR REMOVAL SHALL REMAIN. NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES/CONFLICTS FOUND IN THE FIELD.
3. UNLESS NOTED OTHERWISE, WHERE FIXTURES ARE TO BE REMOVED: REMOVE FIXTURE, CARRIER, FAUCET/FLUSH VALVE, SUPPLIES/STOPS, TUBULAR BRASS, AND ASSOCIATED PIPING AS DESCRIBED.
4. ALL PLUMBING FIXTURES AND/OR EQUIPMENT REMOVED SHALL BE SUBMITTED TO THE OWNER WITH THE OPTION TO BE RE-USED, WHICH SHALL BE SOLELY AT THE DISCRETION OF THE OWNER. ITEMS THE OWNER DOES NOT WISH TO RE-USE BUT WISHES TO RETAIN SHALL BE DELIVERED TO STORAGE AS DIRECTED. ITEMS THE OWNER DOES NOT WISH TO RE-USE OR RETAIN SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF LEGALLY.
5. REMOVE ALL PIPING FROM ABOVE FLOOR TO BELOW ROOF/FLOOR ABOVE WHICH WAS PREVIOUSLY ABANDONED OR WHICH SERVES PLUMBING FIXTURES DESIGNATED FOR REMOVAL, UNLESS NEW FIXTURES ARE TO BE INSTALLED IN THOSE LOCATIONS - REFER TO PLUMBING FLOOR PLANS. PRIOR TO ANY REMOVAL, FIELD VERIFY THAT LINES TO BE REMOVED DO NOT SERVE ANY FIXTURES TO REMAIN. CAP REMOVED BRANCH LINES AS CLOSE AS POSSIBLE TO EXISTING MAINS TO REMAIN.
6. WHERE SLAB ON GRADE FLOOR DRAINS OR SIMILAR INSTALLATIONS ARE TO BE REMOVED, THE STRAINER AND DRAIN BODY SHALL BE REMOVED. PLUG THE WASTE PIPE WATERTIGHT BELOW FINISHED FLOOR. PATCH AND REFINISH THE FLOOR TO MATCH EXISTING.
7. AT PLUMBING WASTE/VENT PIPE PENETRATIONS THROUGH SLAB ON GRADE NO LONGER REQUIRED, PLUG THE PIPES WATERTIGHT BELOW FINISHED FLOOR. PATCH AND REFINISH THE FLOOR TO MATCH EXISTING.
8. WHERE WASTE/VENT BRANCH LINES BELOW SLAB ON GRADE ARE PLUGGED AND ABANDONED IN PLACE, THE ABANDONED LINES SHALL REMAIN OTHERWISE SERVICEABLE AND THE REMAINING PIPING SYSTEM SHALL REMAIN INTACT AND FUNCTIONAL.
9. WHERE FIXTURES ARE REMOVED, NO NEW FIXTURES ARE TO BE INSTALLED, AND EXISTING VENTS THROUGH ROOF ARE NO LONGER REQUIRED. VENT TERMINALS ARE TO BE COMPLETELY REMOVED UNLESS NOTED OTHERWISE. THE ROOF SHALL BE REPAIRED AND SEALED WATERTIGHT TO MATCH THE EXISTING ROOF SYSTEM.
10. IN THE COURSE OF DEMOLITION, ANY PIPING TO REMAIN THAT IS EXPOSED AND FOUND TO BE UNLABELED SHALL BE IDENTIFIED AND LABELED ACCORDINGLY. PROVIDE PIPE MARKERS TO INDICATE TYPE OF SERVICE AND DIRECTION OF FLOW.
11. IN THE COURSE OF DEMOLITION, THE CONTRACTOR SHALL ASSIST THE OWNER BY BRINGING TO THE DESIGN TEAM'S ATTENTION ANY EXISTING PLUMBING RELATED ITEMS INTENDED TO REMAIN BUT WHICH ARE FOUND TO BE UNFIT FOR SERVICE OR IN NEED OF REPAIR. THIS SHALL INCLUDE, BUT NOT NECESSARILY BE LIMITED TO, THE FOLLOWING: LEAKING OR DETERIORATED PIPING AND VALVES; IMPROPERLY SLOPED/SUPPORTED OR SAGGING PIPE; MISSING, DAMAGED, OR DETERIORATED INSULATION; CODE REQUIRED BUT MISSING BACKFLOW PREVENTION MEASURES; FIXTURES, FLUSH VALVES, FAUCETS, EQUIPMENT, AND APPURTENANCES NOT FUNCTIONING AS INTENDED.
12. IN THE COURSE OF DEMOLITION, THE CONTRACTOR SHALL ASSIST THE OWNER BY BRINGING TO THE DESIGN TEAM'S ATTENTION ANY EXISTING NON-PLENUM RATED PIPING (PVC, ETC.) INTENDED TO REMAIN WHICH IS FOUND IN A RETURN AIR PLENUM SPACE, UNLESS DEEMED UNACCEPTABLE BY THE LOCAL AUTHORITY HAVING JURISDICTION (AAH) OR OWNER. ALL SUCH PIPING SHALL BE WRAPPED WITH FIRE RESISTANT INSULATION, 3M FIRE BARRIER PLENUM WRAP SA OR PRE-APPROVED EQUAL THAT HAS BEEN TESTING IN ACCORDANCE WITH ASTM E84 AND UL 910. INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDED METHODS.

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AUSTIN I.S.D.



DEPARTMENT OF CONSTRUCTION MANAGEMENT

DOBIE MIDDLE SCHOOL

**RENOVATIONS**

1200 E Rundberg Ln, Austin, Texas  
 AISD PROJECT No. 190035-DOBIE



**REVISIONS**

No.	Issue	Date
1	ADDENDUM 2	02/15/2019

**SHEET INFORMATION**

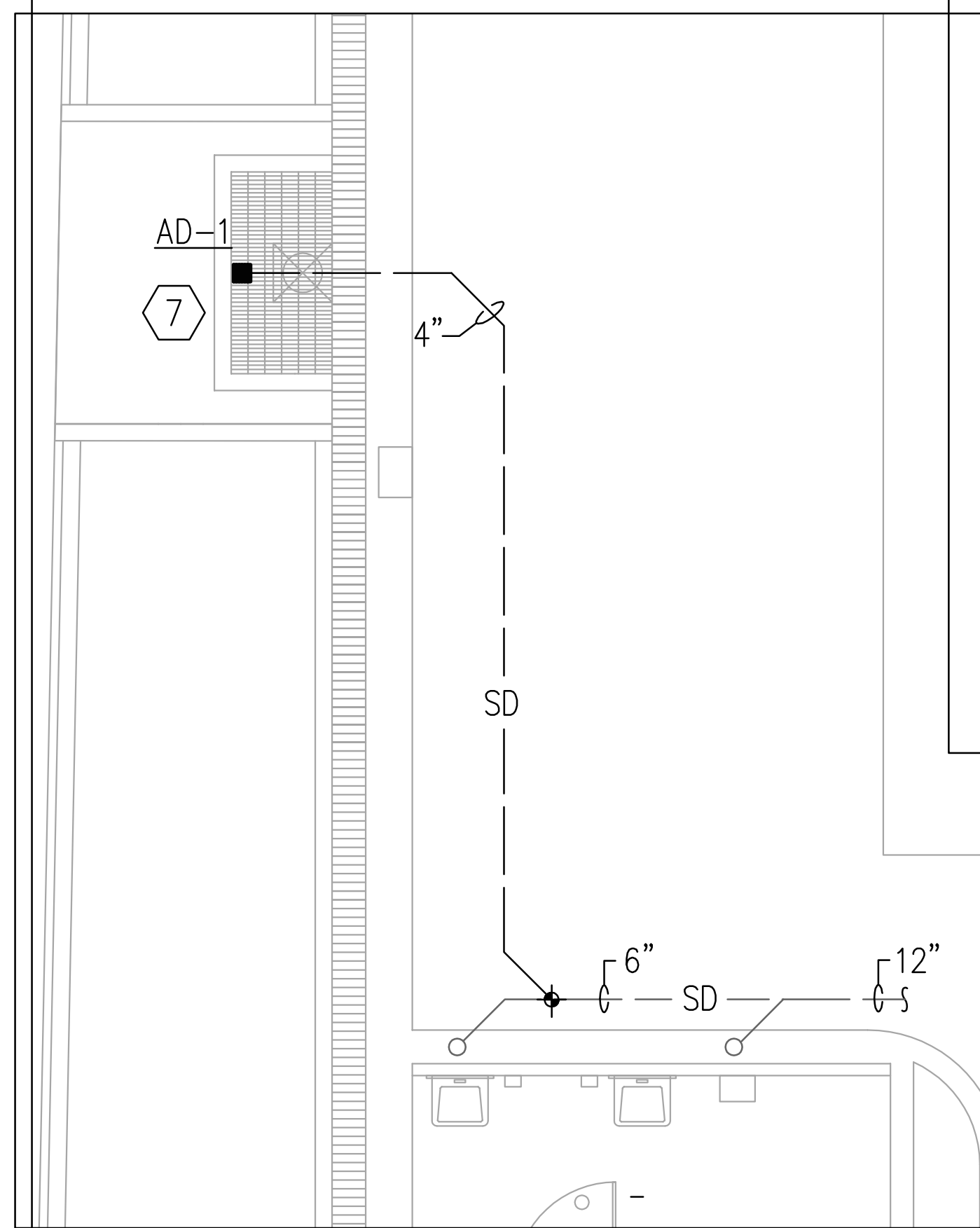
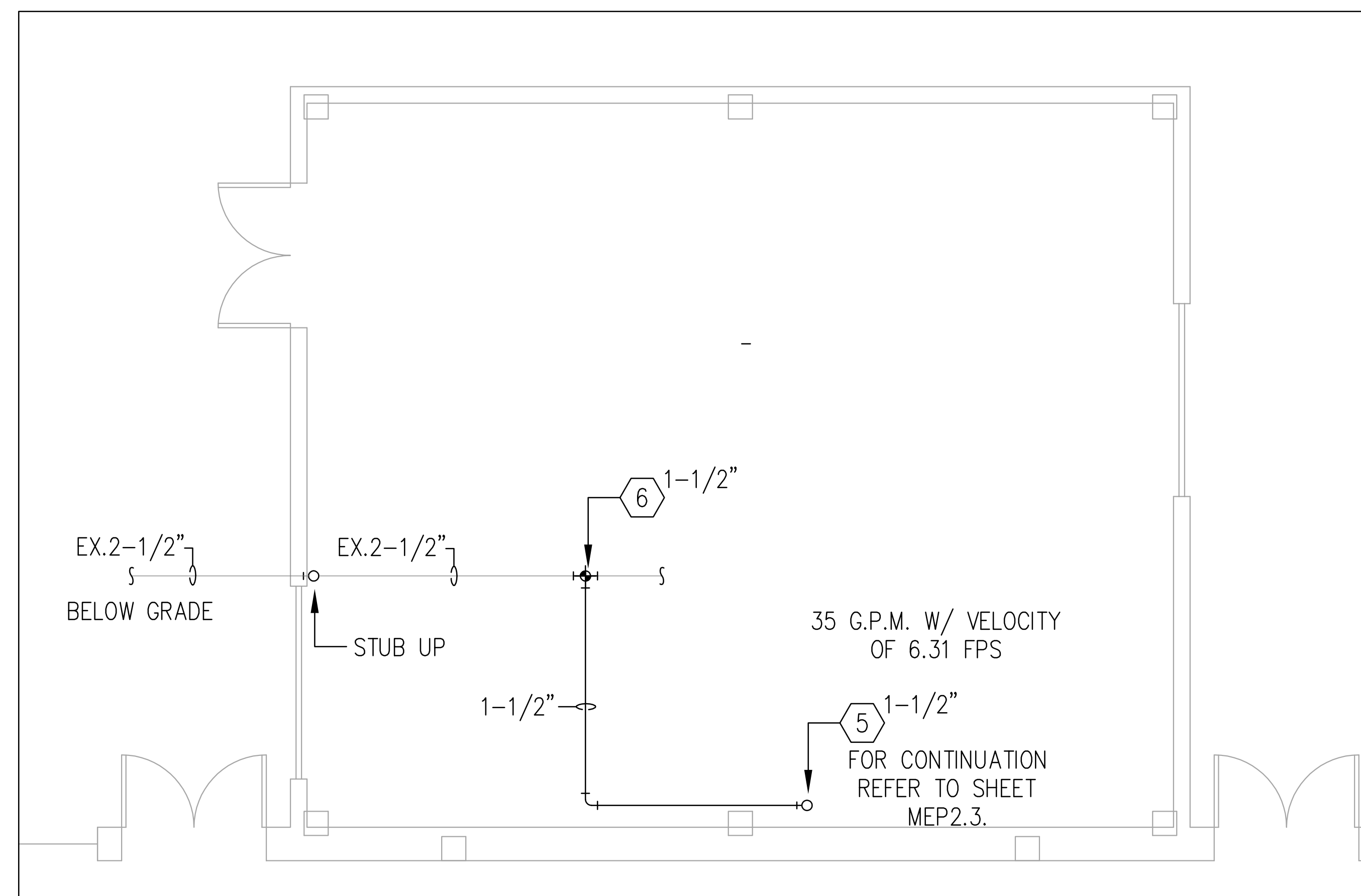
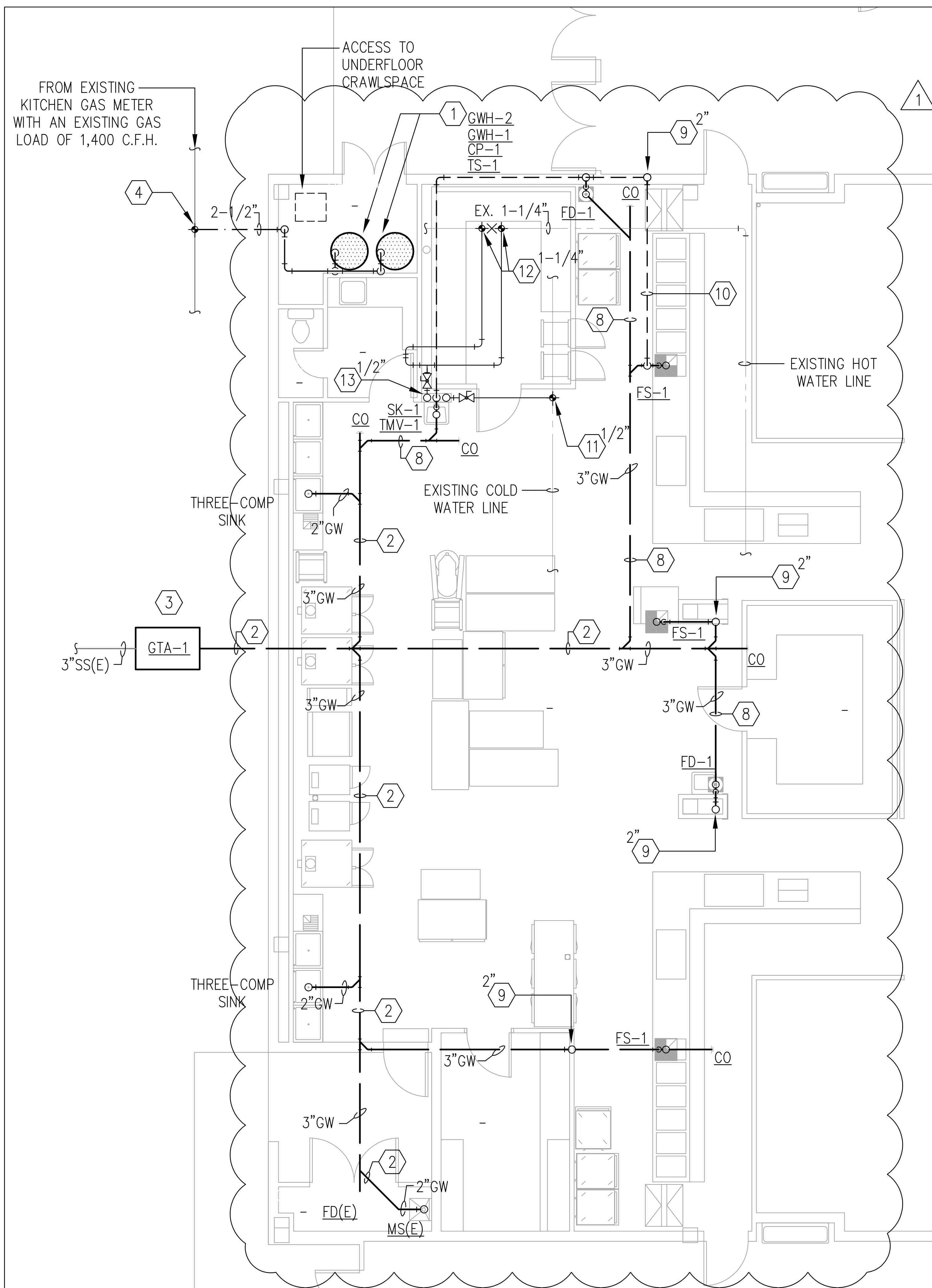
Date	January 3, 2019
Job Number	18-1032
Scale	
Drawn	DBR
Checked	SB
Approved	MC

TITLE

**ENLARGED - PLUMBING DEMO PLANS**

SHEET

**P1.2**



- PLUMBING KEYED NOTES:**
- 1 INSTALL NEW WATER HEATER(S) AS SCHEDULED, PROVIDE ALL NEW PLUMBING LINES AND CONNECT TO EXISTING DOMESTIC WATER SYSTEM.
  - 2 NEW GREASE WASTE PIPING TO BE ROUTED IN SAME EXACT LOCATION AS EXISTING GREASE WASTE PIPING SUSPENDED IN CRAWL SPACE. SIZE AS NOTED ON PLAN. CONTRACTOR TO FIELD VERIFY EXACT LOCATION OF GREASE WASTE PIPING. ACCESS TO GREASE WASTE PIPING IN CRAWL SPACE IS NOTED ON THE PLAN.
  - 3 NEW GREASE WASTE INTERCEPTOR. REFER TO DETAIL-3/6.1.
  - 4 NEW 4 OUNCE GAS LINE TO TIE-IN TO EXISTING GAS LINE MAIN. SIZE AS NOTED ON THE PLAN. 398 C.F.H. ADDED TO EXISTING TOTAL GAS LOAD. CONTRACTOR TO FIELD VERIFY EXISTING GAS LOAD AND COORDINATE WITH LOCAL GAS COMPANY PRIOR TO ANY WORK.
  - 5 NEW DOMESTIC COLD WATER LINE UP TO COOLING TOWER(S) ON ROOF. SIZE AS NOTED ON THE PLAN. PROVIDE A WATTS LF009-QT-S RPZ ON VERTICAL PRIOR TO ROOF PENETRATION.
  - 6 NEW DOMESTIC COLD WATER LINE TO TIE-IN TO EXISTING 2-1/2" DOMESTIC COLD WATER LINE. SIZE AS NOTED ON THE PLAN.
  - 7 PROVIDE AREAWAY DRAIN IN NEW AREAWAY. ROUTE 4" UNDERGROUND STORM DRAIN LINE TO EXISTING STORM DRAIN LINE IN CRAWL SPACE NEAR GIRL'S RESTROOM.
  - 8 NEW GREASE WASTE PIPING SUSPENDED IN CRAWL SPACE. SIZE AS NOTED.
  - 9 NEW 2" VENT TO ROOF AS SHOWN ON THE PLAN.
  - 10 NEW 2" VENT PIPING SUSPENDED IN CRAWL SPACE TO STUB UP IN WALL/CHASE AS SHOWN ON THE PLAN.
  - 11 NEW DOMESTIC COLD WATER LINE TO TIE-IN TO EXISTING DOMESTIC COLD WATER LINE. SIZE AS NOTED.
  - 12 RE-ROUTE EXISTING HOT WATER AS SHOWN ON THE PLAN. KEEP RE-CIRCULATING LINE WITHIN 2 FEET OF HOT WATER ROUGH-IN FOR 2015 IECC COMPLIANCE; SIZE AS NOTED.
  - 13 NEW COLD/HOT WATER SUSPENDED IN CRAWL SPACE UP IN WALL/CHASE TO FIXTURE. SIZE AS NOTED.

- PLUMBING GENERAL NOTES:**
1. FIELD VERIFY AS NECESSARY THE EXACT LOCATION, SIZE, DEPTH BELOW FLOOR/HEIGHT ABOVE CEILING, ROUTING, DIRECTION OF FLOW, CAPACITY, PIPE MATERIAL, AND CONDITION OF EXISTING PIPING. MAKE ADJUSTMENTS AS REQUIRED.
  2. COORDINATE ALL WORK WITH THE WORK OF OTHER TRADES TO AVOID CONFLICTS AND TO MINIMIZE INTERRUPTION OF SERVICES.
  3. THE PROPER INSTALLATION OF NEW FIXTURES AND THE PROPER CONTINUED OPERATION OF EXISTING BUILDING FIXTURES TO REMAIN SHALL GOVERN THE EXTENT AND NATURE OF WORK.
  4. THE CONTRACTOR SHALL MAKE ARRANGEMENTS IN ADVANCE WITH THE OWNER PRIOR TO ANY NECESSARY SHUT DOWN OF THE DOMESTIC WATER OR ANY OTHER SERVICE. ANY SUCH SHUT DOWN SHALL BE AT A TIME AND FOR A DURATION SATISFACTORY TO THE OWNER, WHO SHALL MAKE THE FINAL DETERMINATION AS TO ITS ACCEPTABILITY.
  5. SITE INSPECTION: CONTRACTOR SHALL VISIT THE SITE OF WORK PRIOR TO SUBMITTING A BID AND THOROUGHLY FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS AND EXACT NATURE OF WORK. SUBMISSION OF A BID ACKNOWLEDGES FULL RESPONSIBILITY FOR FURNISHING A COMPLETE AND FUNCTIONAL SYSTEM. NO CHANGES IN THE CONTRACT WILL BE MADE TO ACCOMMODATE OR ALLOW EXTRA FUNDS FOR ANY OMISSION WHICH RESULTS FROM FAILURE TO MAKE SUCH A THOROUGH EXAMINATION. NOTE THAT FOR GRAPHICAL CLARITY, ALL EXISTING PIPING TO REMAIN OR BE ABANDONED IN PLACE MAY NOT BE SHOWN ON THE FLOOR PLANS.

SIZES AND LOCATION OF EXISTING PIPING(S) SHOWN WERE TAKEN FROM ENGINEERING PLANS FROM WHICH EXISTING SYSTEMS WERE INSTALLED. CONTRACTOR TO FIELD VERIFY EXACT SIZES, ROUTING AND LOCATIONS OF INDICATED EXISTING GREASE WASTE PIPING.

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1	ADDENDUM 2	02/15/2019

**SHEET INFORMATION**

Date	January 3, 2019
Job Number	18-1032
Scale	
Drawn	DBR
Checked	SB
Approved	MC

ENLARGED -  
PLUMBING PLANS

TITLE

P2.2

SHEET



### PLUMBING FIXTURE SCHEDULE

PLAN MARK	MINIMUM ROUGH-IN SIZES				DESCRIPTION
	WST & VENT	DRAIN	CW	HW	
GAS WATER HEATER GWH-1 GWH-2	----	----	----	1-1/2" 1-1/2"	A.O. SMITH "CYCLONE" No. BTH-199, 100 GALLON STORAGE ASME TANK, 199,000 BTUH INPUT, 294 GPM RECOVERY @ 80° TEMP. RISE, 97% EFF. PROVIDE DUAL THERMOSTAT CONTROL, ASME TEMPERATURE/PRESSURE RELIEF VALVE AND FULLY AUTOMATIC CONTROLS, SPARK IGNITION, FLAME SAFEGUARD, REGULATORS AND SAFETY SHUT OFF. ENTIRE ASSEMBLY TO BE UL LISTED. PROVIDE WITH VENT KIT MODEL 9003910105, DUAL 4" CPVC INTAKE AND EXHAUST FOR EACH AND MANUFACTURE GAS PRESSURE REGULATOR. CONTRACTOR TO PROVIDE AMTROL No. ST-5-C EXPANSION TANK.
CIRCULATING PUMP CP-1	----	----	----	3/4"	GRUNDFOS MODEL UP15-4285, ALL BRONZE FLANGED PUMP, 1/25 HP W/RED FOR POWER AS SCHEDULED ON ELECTRICAL DRAWINGS AND FITTED WITH REMOTE HEAT SENSING AQUASTAT CONTROLLER, CONTROLLED BY ELECTRICAL CONTRACTOR. RE: ELECTRICAL PLANS.
TIME SWITCH TS-1	----	----	----	----	TORK ELECTROMECHANICAL 24 HOUR TIME SWITCH POWERED BY A SELF STARTING SYNCHRONOUS MOTOR. INSTALL ON WALL ADJACENT TO/FOR CIRCULATING PUMP. COORDINATE WITH ELECTRICAL AND PROVIDE FOR POWER AS SCHEDULED ON ELECTRICAL DRAWINGS.
AREA WAY DRAIN AD-1	SEE PLAN	----	----	----	ZURN NO.2154 CAST IRON PROM-DECK DRAIN, 12" SQUARE PROMENADE DECK DRAIN, BOTTOM OUTLET, CAST IRON BODY, WITH ANCHOR FLANGE, WITH HEEL PROOF GRATE AND ROTATABLE FRAME, WITH SEEPAGE OPENING, FRAME CLAMPS.
FLOOR SINK FS-1	3"	2"	----	----	ZURN No.2N-1902-2-25-K, 12" SQUARE, 10" DEEP CAST IRON DRAIN WITH ENAMELED INTERIOR, SEDIMENT BUCKET STRAINER AND SECURED HALF NICKEL BRONZE GRATE.
FLOOR DRAIN FD-1	3"	2"	----	----	ZURN No.2N-415 CAST IRON DRAIN WITH 6" DIAMETER TYPE "B" STRAINER AND 1/2" IPS TRAP PRIMER CONNECTION. (PLUGGED WHERE NOT REQUIRED)
HAND SINK SK-1	2"	1-1/2"	1-1/4"	1/2" 1/2"	AMERICAN STANDARD No. 0355.012 WHITE V.C. LAVATORY WITH FRONT OVERFLOW AND FAUCET HOLES DRILLED ON 4" CENTERS FOR CHICAGO No. 116.124.AB.1 SENSOR FAUCET (0.5 GPM). PROVIDE FIXED GRID DRAIN STRAINER, TAILPIECE, CAST BRASS P-TRAP WITH CO. STOPS, SUPPLIES. PROVIDE ZURN OR EQUAL FLOOR MOUNTED CONCEALED ARM CARRIER. PROVIDE TMV-1. PROVIDE TRIM AS REQUIRED FOR ADA USE. REFER TO ARCHITECTS PLANS FOR MOUNTING HEIGHT.
THERMOSTATIC MIXING VALVE TMV-1	----	----	1/2"	1/2"	PROVIDE POWERS No. Lf6480 POINT-OF-USE MIXING VALVE WITH INLET CHECKS INSTALLED IN CONCEALED AREA BELOW FIXTURE TO LIMIT HOT WATER TO MAXIMUM 105° F. AT FAUCET OUTLET. SUPPLY CW TO MIXING VALVE FROM CW RISER TO FAUCET. INSTALL ALL AS HIGH AS POSSIBLE TO PROVIDE NEAT AND CLEAN APPEARANCE.

△

### FIRE PROTECTION GENERAL NOTES:

- THE SCOPE OF THE WORK INCLUDES THE INSTALLATION OF SPRINKLER HEADS INCLUDING PIPE, FITTINGS, HANGERS AND ACCESSORIES. THIS BUILDING IS TO BE FULLY SPRINKLED. THE EXISTING FIRE SPRINKLER MAIN BRANCHES SHALL BE MODIFIED AS REQUIRED TO PROVIDE COMPLETE COVERAGE FOR ALL AREAS WITHIN THE SCOPE OF THIS WORK AND SHALL BE MODIFIED AS NECESSARY TO ACCOMMODATE REQUIREMENTS OF THE NEW PARTITION, NEW LIGHT FIXTURES, SOFFITS, FURR DOWNS, CEILING LAYOUT, ETC.
- FIRE SPRINKLER SYSTEM SHALL PROVIDE COMPLETE AUTOMATIC PROTECTION AND COVERAGE REQUIRED BY THE LOCAL, STATE, JURISDICTIONAL GOVERNMENTAL AGENCIES AND NFPA 13 (LATEST ADDITION). THE WORK SHALL INCLUDE BUT NOT BE LIMITED TO VALVE SUPERVISORY SWITCHES, FLOW SWITCHES AND COORDINATION WITH THE LANDLORD'S FIRE ALARM SYSTEM.
- FIRE SPRINKLER SYSTEM SHALL PROVIDE COMPLETE AUTOMATIC PROTECTION AND COVERAGE IMMEDIATELY OUTSIDE THE NEW AREA REQUIRED BY THE LOCAL, STATE, JURISDICTIONAL AND GOVERNMENTAL AGENCIES.
- SPRINKLER SYSTEM SHALL BE DESIGNED AND INSTALLED BY A STATE LICENSED FIRE PROTECTION CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE, JURISDICTIONAL, GOVERNMENTAL AGENCIES AND NFPA 13 (LATEST ADDITION). SPRINKLER SYSTEM MUST ALSO BE APPROVED BY LANDLORD AND LANDLORD'S FIRE INSURANCE UNDERWRITER.
- COMPLETE SHOP DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED BY THE CONTRACTOR TO OWNER/ARCHITECT, LANDLORD, LANDLORD'S FIRE INSURANCE UNDERWRITER AND FIRE MARSHALL'S APPROVAL.
- PRIOR TO SHUT DOWN OF ANY EXISTING FIRE PROTECTION SYSTEM, CONTRACTOR SHALL NOTIFY LANDLORD'S OR OWNER'S APPOINTED REPRESENTATIVE 24 HOURS PRIOR TO SERVICE INTERRUPTION AND ADVISE OF DURATION FOR THE SPRINKLER SYSTEM TO BE TEMPORARILY OUT OF SERVICE IN ACCORDANCE WITH LOCAL CODES AND JURISDICTIONS.
- FIRE PROTECTION CONTRACTOR SHALL COORDINATE WITH LANDLORD BEFORE INTERRUPTING THE EXISTING SYSTEM. THE CONTRACTOR SHALL PERFORM HIS WORK IN A WORKMANLIKE MANNER. UPON COMPLETION OF WORK THE CONTRACTOR SHALL TEST, THEN CONNECT TO MAIN SYSTEM. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING SYSTEM TO FULL OPERATION.
- ALL MODIFIED SPRINKLER HEADS SHALL BE NEW, RELIABLE OR APPROVED EQUAL, OF TYPES TO MATCH EXISTING. ALL NEW PIPE AND FITTINGS SHALL BE OF DOMESTIC MANUFACTURE AND SHALL BE THE SAME OR EQUAL MATERIALS OF EXISTING SYSTEM.
- ALL SPRINKLER HEADS SHALL BE INSTALLED IN CENTER OF CEILING TILES REGARDLESS OF ANY NECESSITY TO INSTALL ADDITIONAL HEADS TO ACCOMPLISH UNIFORM APPEARANCES OF THE COMPLETED INSTALLATION BY THIS REQUIREMENT.
- SPRINKLER SYSTEM SHALL CONTAIN NO VALVES DOWNSTREAM OF CONTROL STATION.
- UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL MAKE AND PAY FOR ALL TESTS AS MAY BE REQUIRED BY THE AUTHORITIES HAVING JURISDICTION AND SHALL CORRECT ANY DEFECTS INDICATED BY TESTS TO THE SATISFACTION OF THE AUTHORITIES.
- THE SPRINKLER SYSTEM SHALL BE FULLY CHARGED AND OPERATIONAL WHEN THE CONTRACTOR IS OFF THE SITE.
- SPRINKLER CONTRACTOR SHALL REFER TO ARCHITECTURAL CODE SHEET FOR SPECIAL REQUIREMENTS.

### PLUMBING GENERAL NOTES:

- CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE AND FEDERAL CODES AND AUTHORITIES HAVING JURISDICTION.
- CONTRACTOR SHALL PROVIDE LABOR AND MATERIALS AS REQUIRED TO MAKE FINAL CONNECTIONS FOR ALL PLUMBING FIXTURES, EQUIPMENT AND RELATED ITEMS PROVIDED UNDER SEPARATE DIVISIONS.
- CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS AND ELEVATIONS OF PROPOSED POINTS OF CONNECTION WITH EXISTING BUILDING PLUMBING UTILITY LINES AND SITE CIVIL LINES PRIOR TO INSTALLATION OF ANY NEW WORK.
- CONTRACTOR SHALL BE RESPONSIBLE TO ALERT ARCHITECT AND ENGINEER OF GRADING CONFLICTS PRIOR TO COMMENCING INSTALLATION OF ANY WORK.
- CONTRACTOR SHALL COORDINATE WITH STRUCTURAL CONDITIONS AS EXISTING AND PROVIDE PROPER PIPING INSTALLATIONS AS REQUIRED WITHOUT DAMAGE TO STRUCTURE. WHERE STRUCTURAL MODIFICATIONS ARE TO BE REQUIRED, CONTRACTOR SHALL FIRST RECEIVE WRITTEN APPROVAL OF THE ARCHITECT AND STRUCTURAL ENGINEER.
- CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD COORDINATING LOCATIONS AND ELEVATIONS OF ALL PLUMBING PIPING WITH OTHER TRADES PRIOR TO INSTALLATION. WHERE RELOCATIONS OF NEW WORK ARE REQUIRED TO CORRECT CONFLICTS WITH OTHER TRADES IT SHALL BE DONE AT NO ADDITIONAL COST TO OWNER.
- ALL PIPE PASSING THROUGH FIRE RATED WALLS OR FLOOR SLAB SHALL BE SUPPORTED AT THE PENETRATION AND SHALL BE SEALED WITH APPROVED FIRE STOP MATERIALS AS SPECIFIED AND REQUIRED BY CODE AUTHORITIES HAVING JURISDICTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD COORDINATING ALL PLUMBING PIPING SLEEVE LOCATIONS WITH ALL OTHER TRADES PRIOR TO INSTALLATION OF ANY PIPING OR SUPPORTS.
- DO NOT SCALE PLUMBING DRAWINGS FOR FIELD ROUGH-IN WORK. CONTRACTOR SHALL REFER TO THE DIMENSIONED ARCHITECTURAL AND STRUCTURAL DRAWINGS TO FIELD DETERMINE EXACT LOCATIONS OF ROUGH-IN WORK.
- SANITARY DRAINAGE PIPE 3" AND SMALLER SHALL HAVE A UNIFORM MINIMUM CONTINUOUS SLOPE OF 1/4 INCH PER FOOT OF RUN. DRAINAGE PIPE 4" AND LARGER SHALL HAVE A SLOPE AT MINIMUM 1/8 INCH PER FOOT OF RUN. SLOPE ALL VENT PIPE MINIMUM 6" PER 100 FEET OF RUN.
- STORM DRAINAGE PIPE SHALL HAVE A UNIFORM MINIMUM CONTINUOUS SLOPE OF 1/8 INCH PER FOOT OF RUN. SLOPES OF 1/4 INCH PER FOOT ARE PERMITTED WHERE NOTED ON PLAN OR AS REQUIRED.
- PROVIDE FITTINGS FOR SANITARY DRAIN, WASTE AND WASTE PIPING SYSTEMS OF APPROVED DRAINAGE PATTERN AND LONG OR SHORT RADIUS TYPES AS REQUIRED AND APPROVED FOR USE IN COMPLIANCE WITH PLUMBING CODE REQUIREMENTS.
- PROVIDE CLEANOUTS AT EACH CHANGE OF DRAIN LINE DIRECTION GREATER THAN 45° AND IN COMPLIANCE WITH PLUMBING CODE REQUIREMENTS.
- PROVIDE BRACING TO PREVENT AXIAL MOVEMENT FOR ALL DRAINAGE PIPING. PROVIDE RESTRAINTS AT ALL CHANGES IN DIRECTION AND AT ALL DIAMETER CHANGES GREATER THAN TWO PIPE SIZES. BRACES, BLOCKS, RODDING AND OTHER METHODS AS PRESCRIBED BY THE PIPE AND COUPLING MANUFACTURER SHALL BE ACCEPTABLE.
- PROVIDE ISOLATING BALL VALVES FOR ALL BRANCHES OFF DOMESTIC WATER MAINS. ALL PLUMBING SYSTEM VALVES SHALL BE INSTALLED IN ACCESSIBLE CEILING SPACES. WHERE CEILING IS NOT ACCESSIBLE, OR SPACE IS CONFLICTING, VALVES SHALL BE INSTALLED IN PARTITIONS OR PIPE CHASES. PROVIDE MILCOR STYLE "K" PAINTED STEEL HINGED ACCESS PANELS IN LOCATIONS PRE-APPROVED BY THE ARCHITECT.
- ALL HOT WATER AND HOT WATER CIRCULATING PIPING SHALL HAVE 1" THICK FIBERGLASS INSULATION WITH ALL SERVICE JACKET AND SELF SEALING LAP JOINT.
- INSTALL EACH WATER HEATER AND ALL OTHER PLUMBING EQUIPMENT WITH ADEQUATE CLEARANCES FOR ACCESS BY SERVICE PERSONNEL AND WITH PROPER ORIENTATION FOR ELEMENT REMOVALS/REPLACEMENTS.
- THIS CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD COORDINATING LOCATIONS OF ALL SANITARY VENTS UP THROUGH ROOF TO MAINTAIN MINIMUM 25' CLEARANCE TO ANY BUILDING OUTDOOR AIR INLET.
- CONTRACTOR SHALL STERILIZE ALL DOMESTIC WATER PIPING ACCORDING TO AMERICAN WATER WORKS ASSOCIATION (AWWA) SPECIFICATIONS.
- PROVIDE BENTONITE WATERPROOFING BARRIER IN ALL PLUMBING UTILITY TRENCHES BELOW GROUND AT THE POINT OF BUILDING EXIT. BARRIER SHALL BE VOLCLAY GPG 30, OR EQUAL AND SHALL BE MINIMUM 24" THICK ACROSS ENTIRE TRENCH WIDTH, FROM BOTTOM OF TRENCH TO 12" ABOVE BOTTOM OF GRADE BEAMS.
- SHOCK ARRESTORS SHALL CONFORM WITH THE REQUIREMENTS OF ASSE 1010 AND SHALL BE SIZED AND LOCATED PER PLUMBING AND DRAINAGE INSTITUTE STANDARD WH-201. ACCESS PANELS REQUIRED FOR FIXTURE GROUPS SHALL BE SIZED TO ALLOW SERVICE TO SHOCK ARRESTORS WHERE POSSIBLE. LOCATIONS AND SIZES OF REQUIRED ACCESS PANELS SHALL BE REVIEWED FOR APPROVAL BY THE ARCHITECT PRIOR TO INSTALLATION.
- ALL CAST IRON FITTINGS AND INSTALLATION SHALL COMPLY WITH THE CAST IRON SOIL PIPE INSTITUTE (CISPI) STANDARDS.
- FLASH FLOOR DRAINS IN FLOORS WITH TIPPING OVER FINISHED AREAS WITH LEAD, 10 INCHES CLEAR ON SIDES WITH MINIMUM 35 X 36 INCH SHEET SIZE. FASTEN WATERPROOFING MEMBRANE FLASHING TO DRAIN CLAMP DEVICE.
- PROVIDE INDIVIDUAL SHUT-OFF VALVES OF EACH INDIVIDUAL PIECE OF EQUIPMENT.
- ALL SANITARY LINES 3" AND LARGER SHALL BE CAMERA INSPECTED.
- PROVIDE WALL CLEANOUTS ON ALL MOP SINKS, URINALS LAVATORIES AND TOILETS ABOVE FLOOD RIM OF FIXTURES.

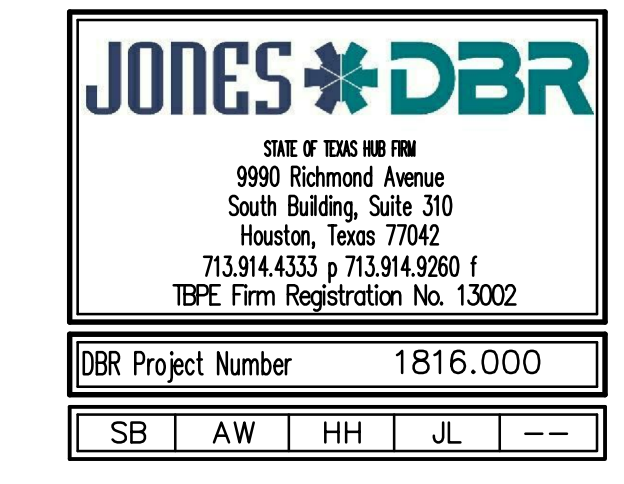
### PLUMBING PIPE MATERIALS SCHEDULE

PIPING SYSTEM	PIPING MATERIAL
GREASE WASTE INSIDE BUILDING AND BELOW GRADE	CAST IRON (SERVICE WEIGHT), BELL & SPIGOT
SANITARY DRAINS AND VENTS INSIDE BUILDING AND BELOW GROUND	SCHEDULE 40 PVC PIPE
SANITARY DRAINS AND VENTS INSIDE BUILDING AND ABOVE GROUND	CAST IRON (SERVICE WEIGHT), NO-HUB DWV
SANITARY DRAINS AND VENTS INSIDE BUILDING AT PLENUM CEILING	CAST IRON (SERVICE WEIGHT), NO-HUB DWV
NATURAL GAS	BLACK STEEL SCHEDULE 40
DOMESTIC HOT & COLD WATER INSIDE BUILDING AND ABOVE GROUND	COPPER, TYPE "L" HARD DRAWN
DOMESTIC HOT & COLD WATER INSIDE BUILDING AND BELOW GROUND	COPPER, TYPE "K" SOFT ANNEALED
DOMESTIC WATER AT ENTRY	COPPER, TYPE "K" HARD DRAWN
FIRE SPRINKLER BELOW GROUND	DUCTILE IRON
FIRE SPRINKLER ABOVE GROUND - 2" AND SMALLER	BLACK STEEL SCHEDULE 40
FIRE SPRINKLER ABOVE GROUND - 2-1/2" AND LARGER	BLACK STEEL SCHEDULE 10

NOTE: REFER TO SPECIFICATIONS FOR COMPLETE PIPING MATERIAL REQUIREMENTS FOR ASSOCIATED PIPING SYSTEMS.

### PLUMBING LEGEND

DISREGARD LEGEND ITEMS NOT INDICATED ON DRAWINGS		
SYMBOL	DESCRIPTION	ABBR.
----	SOIL OR WASTE PIPING B.G.	WST
----	SOIL OR WASTE PIPING A.G.	WST
---AW---	ACID WASTE PIPING B.G.	AW
---AW---	ACID WASTE PIPING A.G.	AW
-----	EXISTING SOIL OR WASTE PIPING B.G.	WST
-----	EXISTING SOIL OR WASTE PIPING A.G.	WST
---AW---	EXISTING ACID WASTE PIPING B.G.	AW
---AW---	EXISTING ACID WASTE PIPING A.G.	AW
----GW----	GREASE WASTE PIPING	GW
-----	VENT PIPING	V
-----	EXISTING VENT PIPING	V
---AV---	ACID VENT PIPING	AV
---AV---	EXISTING ACID VENT PIPING	AV
---SD---	STORM DRAIN PIPING	SD
---OD---	OVER FLOOR DRAIN	OD
---G---	GAS LINE	G
---F---	FIRE OR SPRINKLER LINE	F
-----	DOMESTIC COLD WATER	CW
-----	EXISTING DOMESTIC COLD WATER	CW
-----	DOMESTIC HOT WATER	HW
-----	EXISTING DOMESTIC HOT WATER	HW
-----	DOMESTIC HOT WATER RETURN	HWR
-----	EXISTING DOMESTIC HOT WATER RETURN	HWR
---TW---	TEMPERED DOMESTIC HOT WATER	TW
---DI---	DEIONIZED WATER	DI
---O---	OXYGEN	O
---V---	VACUUM	V
---A---	AIR	A
---N <sub>2</sub> O---	NITROUS OXIDE	N <sub>2</sub> O
---CO <sub>2</sub> ---	CARBON DIOXIDE	CO <sub>2</sub>
---N---	NITROGEN	N
---GV---	GATE VALVE	GV
---GLV---	GLOBE VALVE	GLV
---BV---	BALL VALVE	BV
---CKV---	CHECK VALVE	CKV
---BAV---	BALANCING VALVE	BAV
---BTV---	BUTTERFLY VALVE	BTV
---PLV---	PLUG VALVE	PLV
---PRV---	PRESSURE REDUCING VALVE	PRV
---T&P---	PRESSURE RELIEF VALVE	T&P
---STR---	STRAINER	STR
---UN---	UNION	UN
---TW---	THERMOMETER WELL	TW
---PG---	PRESSURE GAUGE	PG
---THRM---	THERMOMETER	THRM
---D---	CONDENSATE OR INDIRECT DRAIN	D
---	BRANCH CONNECTION, TOP	--
---	BRANCH CONNECTION, BOTTOM	--
---	ELBOW UP	--
---	ELBOW DOWN	--
---	FLOOR CLEANOUT (INTERIOR)	FCO
---	CLEANOUT AT GRADE (EXTERIOR)	COG
---	WALL CLEANOUT	WCO
---	FLOOR DRAIN	FD
---	FLOOR SINK	FS
---	HOSE BIBB	HB
---	WALL HYDRANT	WH
(P/X)	PLUMBING RISER IDENTIFICATION	P/X
(SD/X)	DOWNSPOUT RISER IDENTIFICATION	DS/X
(F/X)	FIRE RISER IDENTIFICATION	F/X
ABBREVIATIONS		ABBR.
--	ABOVE FINISHED FLOOR	AFF
--	ACCESS PANEL	AP
--	BELOW FINISHED FLOOR	BFF
--	BOTTOM OF PIPE	BOP
--	INDIRECT DRAIN	D
--	FINISHED	FIN
--	FLOOR	FLR
--	INVERT ELEVATION	INV. EL.
--	NORMALLY CLOSED	NC
--	SOFT WATER	SW
--	TRAP PRIMER	TP
--	TYPICAL	TYP
--	VENT THRU ROOF	VTR



**DOBIE MIDDLE SCHOOL RENOVATIONS**  
1200 E Rundberg Ln, Austin, Texas  
AISD PROJECT No. 190035-DOBIE

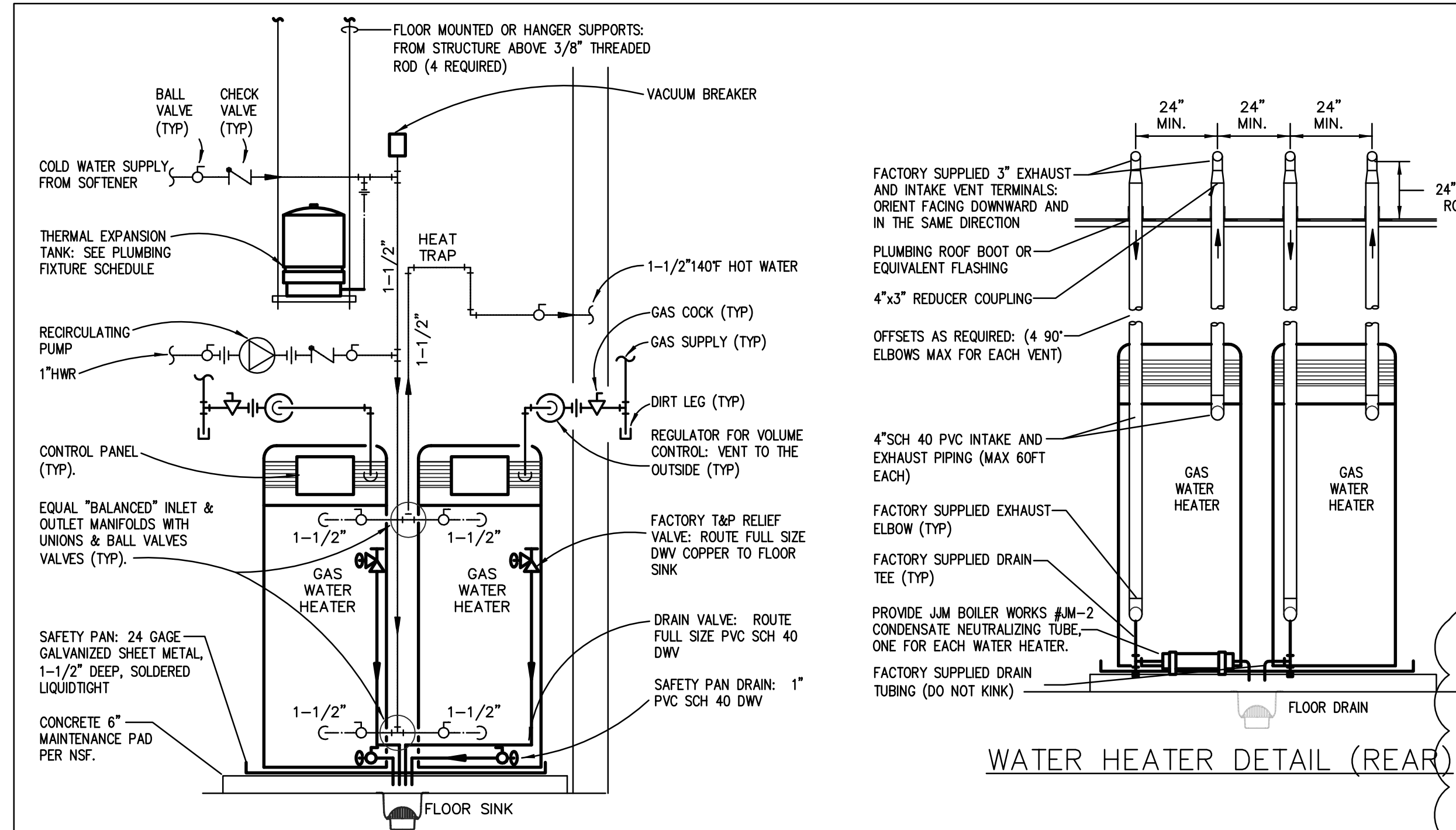


REVISIONS		
No.	Issue	Date
1	ADDENDUM 2	02/15/2019

SHEET INFORMATION	
Date	January 3, 2019
Job Number	18-1032
Scale	
Drawn	DBR
Checked	SB
Approved	MC

### PLUMBING SCHEDULES

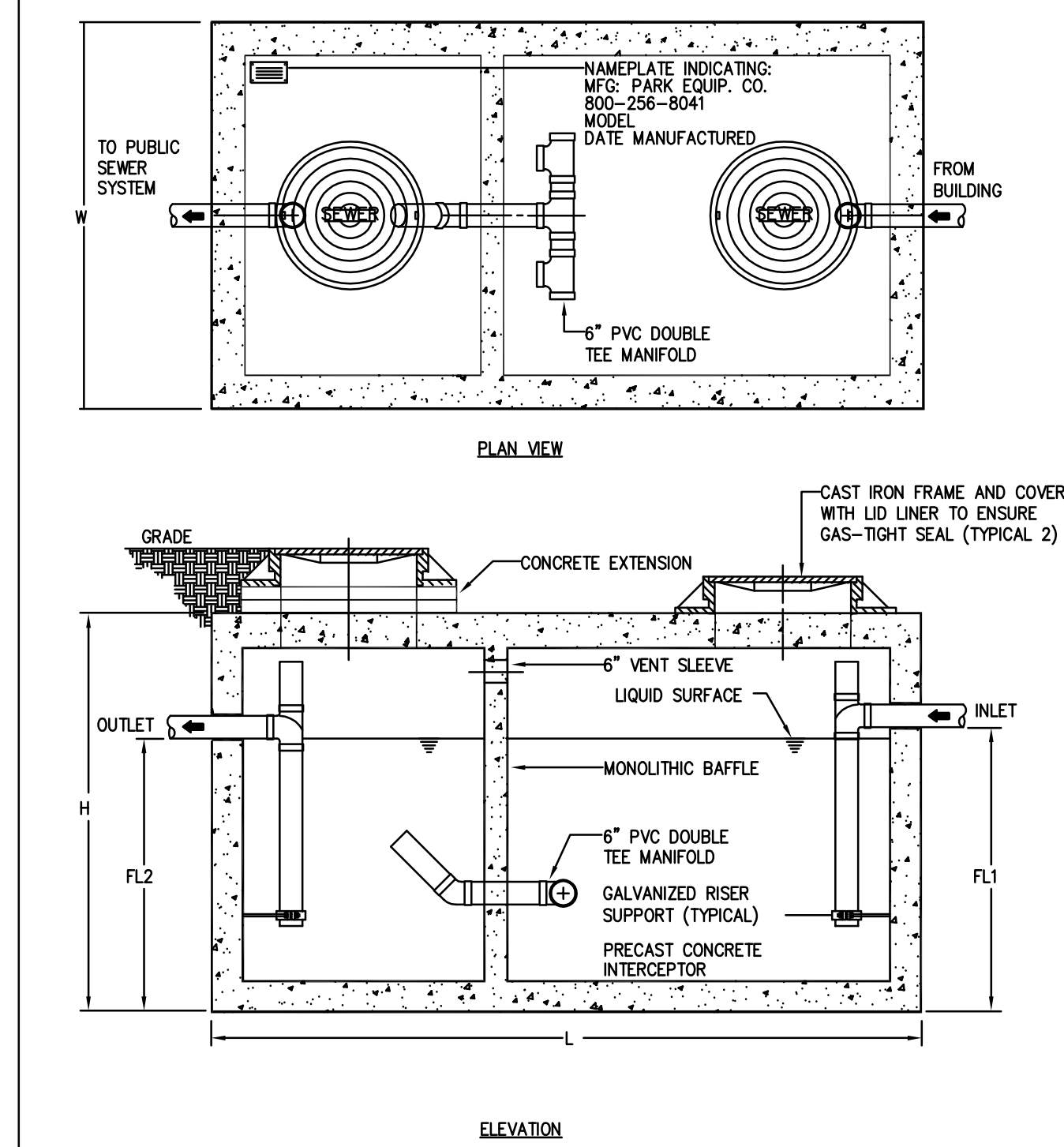
SHEET



WHEN THE INSTALLATION IS SUBSTANTIALLY COMPLETE, THE CONTRACTOR SHALL PROVIDE A "FACTORY CHECKOUT" FROM THE MANUFACTURER. THE PURPOSE OF THIS CHECKOUT IS TO VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDED INSTALLATION INSTRUCTIONS. ANY REQUIRED CHANGES SHALL BE MADE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

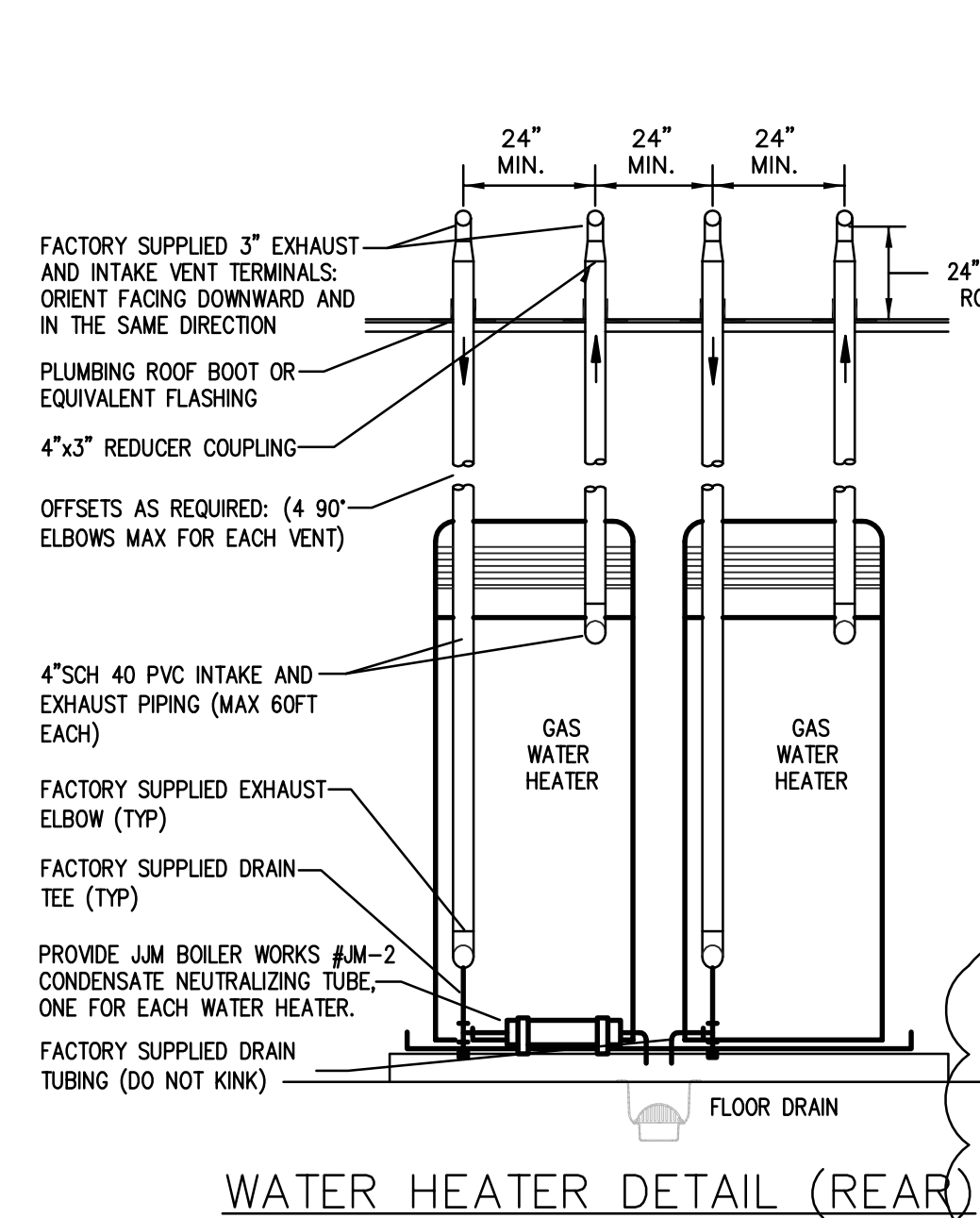
**SPECIFICATIONS:**  
**CONCRETE**  
 CLASS 1 CONCRETE WITH DESIGN STRENGTH OF 4500 PSI AT 28 DAYS. UNIT IS OF MONOLITHIC CONSTRUCTION AT FLOOR, FIRST STAGE OF WALL AND BAFFLE WITH SECTIONAL RISE TO REQUIRED DEPTH. MONOLITHIC BAFFLE REQUIRED, SLIDE-IN TYPE IS NOT ACCEPTABLE.  
**REINFORCEMENT**  
 GRADE 60 REINFORCED WITH STEEL REBAR CONFORMING TO ASTM A615 ON REQUIRED CENTERS OR EQUAL.  
**CAST IRON CASTINGS**  
 MANHOLE FRAMES AND COVERS MANUFACTURED OF GREY CAST IRON CONFORMING TO ASTM A48-76 CLASS 30. MANHOLE SHALL BE NOMINAL 24 INCH DIAMETER AND BE TRAFFIC DUTY.

**1 DUAL GAS WATER HEATER DETAIL**  
NOT TO SCALE

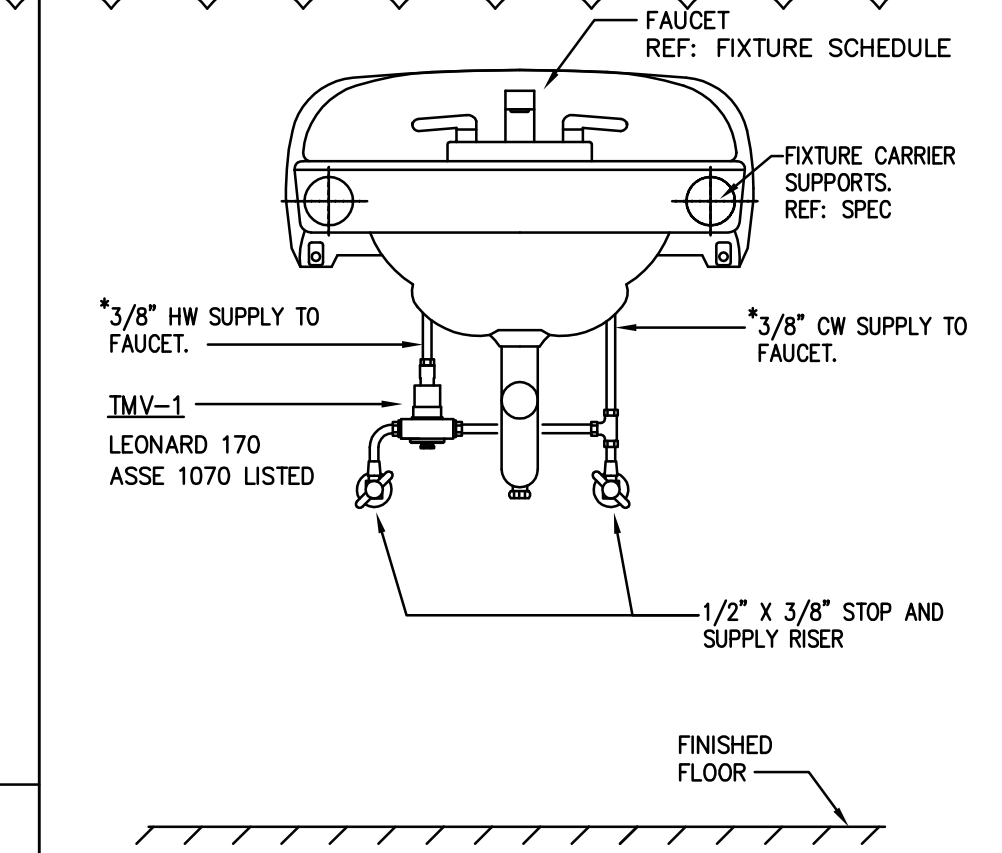


GREASE INTERCEPTOR SCHEDULE									
MARK	MODEL NO.	CAPACITY USGal	GREASE CAP. (LBS)	EMPTY WT (LBS)	LENGTH L	WIDTH W	HEIGHT H	INLET FL1	OUTLET FL2
GTA-1	GTA-1000	1,000	2,300	13,200	8'-8"	5'-0"	6'-0"	4'-9"	4'-6"

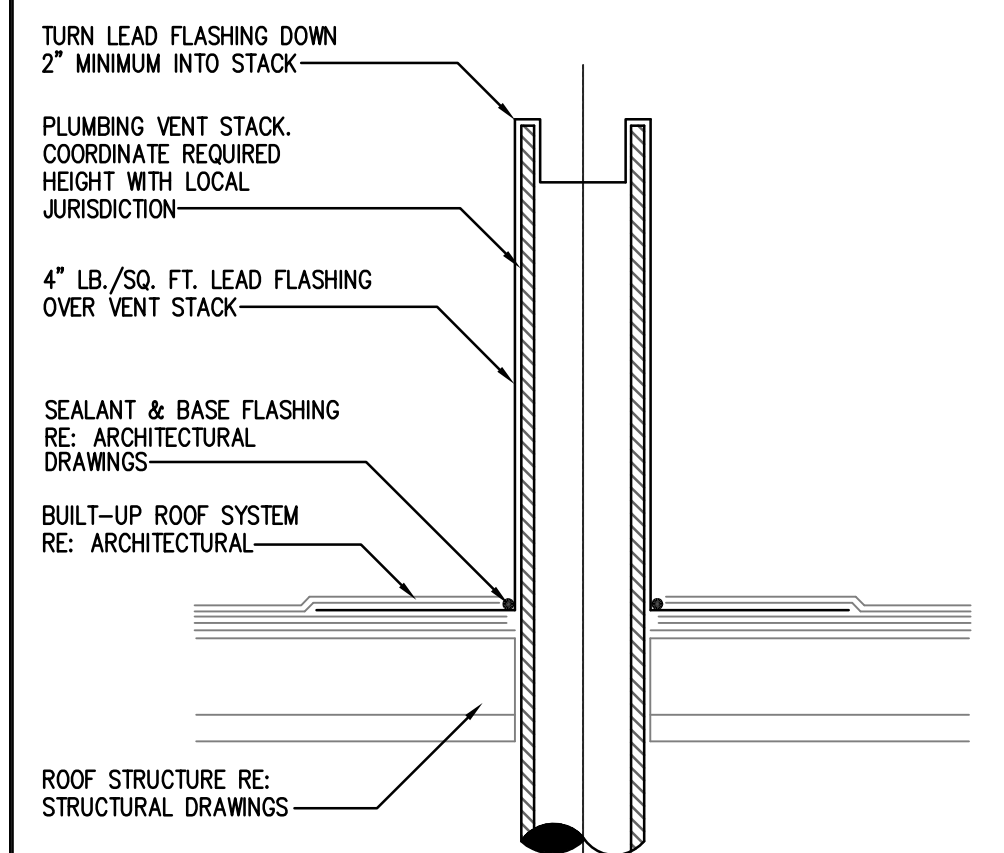
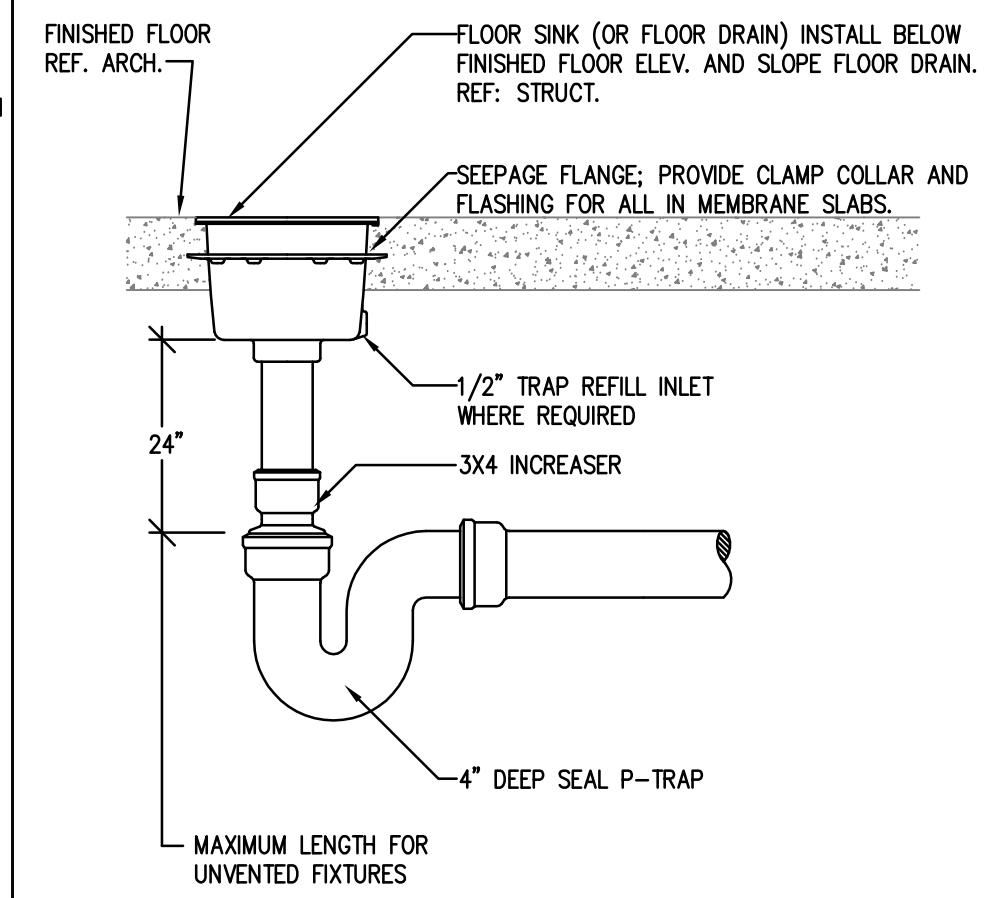
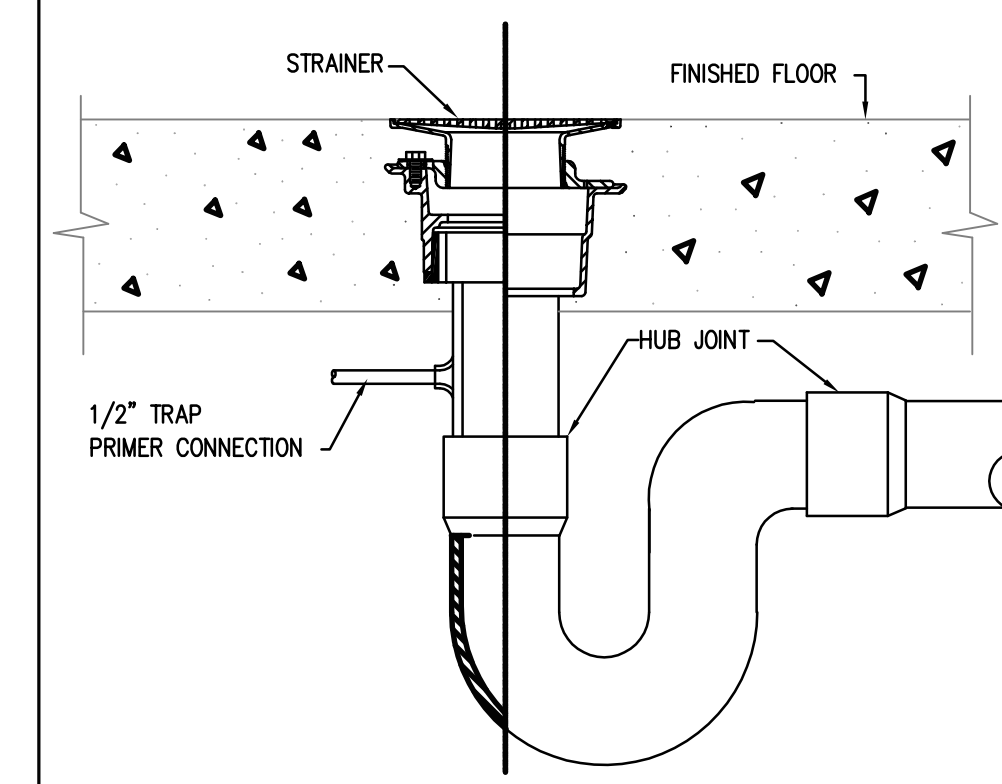
**3 GREASE TRAP**  
NOT TO SCALE



**2 CLEANOUT DETAIL (FCO)**  
NOT TO SCALE



**5 FLOOR DRAIN DETAIL (FD-1)**  
NOT TO SCALE



**7 VENT THRU ROOF**  
NOT TO SCALE

**JONES DBR**  
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 9990 Richmond Avenue  
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 TEPF Firm Registration No. 13002  
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 TEPF Firm No. 925

**AUSTIN I.S.D.**  
 DEPARTMENT OF CONSTRUCTION  
 MANAGEMENT  
**DOBIE MIDDLE SCHOOL**  
**RENOVATIONS**  
 1200 E Rundberg Ln, Austin, Texas  
 AISD PROJECT No. 190035-DOBIE

STATE OF TEXAS  
 EDUARDO PUENTES  
 102338  
 LICENSED PROFESSIONAL ENGINEER  
 02/15/2019

**REVISIONS**

No.	Issue	Date
1	ADDENDUM 2	02/15/2019

**SHEET INFORMATION**

Date	January 3, 2019
Job Number	18-1032
Scale	
Drawn	DBR
Checked	SB
Approved	MC

**PLUMBING**  
**DETAILS**

**SHEET**

**P6.1**



## SIGN-IN SHEET

PRE-BID/PROPOSAL MEETING FOR PROJECT NO.: 19CSP104 Date: Friday, January 25, 2019  
 Project Name: 19-0035-DOBIE Dobie Middle School Renovations

Name (Print) <i>Sierra Holloway</i>	Phone: <i>(737) 202-3203</i>	Fax: —
Company Name: <i>Kimley-Horn - Engineer</i>	Email Address: <i>Sierraholloway@kimley-horn.com</i>	Proposing as: <input type="checkbox"/> Prime Contractor <input type="checkbox"/> Subcontractor <i>NOT</i>
Mailing Address: <i>2600 Via Fortuna</i>	City, State, Zip: <i>Austin, TX 78746</i>	<input type="checkbox"/> HUB <input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> Non-Minority Firm

Name (Print) <i>Sara H Gaspar</i>	Phone:	Fax:
Company Name: <i>AISD</i>	Email Address:	Proposing as: <input type="checkbox"/> Prime Contractor <input type="checkbox"/> Subcontractor
Mailing Address:	City, State, Zip:	<input type="checkbox"/> HUB <input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> Non-Minority Firm

Name (Print)	Phone:	Fax:
Company Name:	Email Address:	Proposing as: <input type="checkbox"/> Prime Contractor <input type="checkbox"/> Subcontractor
Mailing Address:	City, State, Zip:	<input type="checkbox"/> HUB <input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> Non-Minority Firm

Name (Print)	Phone:	Fax:
Company Name:	Email Address:	Proposing as: <input type="checkbox"/> Prime Contractor <input type="checkbox"/> Subcontractor
Mailing Address:	City, State, Zip:	<input type="checkbox"/> HUB <input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> Non-Minority Firm

Name (Print)	Phone:	Fax:
Company Name:	Email Address:	Proposing as: <input type="checkbox"/> Prime Contractor <input type="checkbox"/> Subcontractor
Mailing Address:	City, State, Zip:	<input type="checkbox"/> HUB <input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> Non-Minority Firm



## SIGN-IN SHEET

PRE-BID/PROPOSAL MEETING FOR PROJECT NO.: 19CSP104 Date: Friday, January 25, 2019  
 Project Name: 19-0035-DOBIE Dobie Middle School Renovations

Name (Print) <i>CHRIS REAVES</i>	Phone: <i>512 968-4644</i>	Fax:
Company Name: <i>DKC CONSTRUCTION GROUP</i>	Email Address: <i>CREAVES@DKCLGROUP.COM</i>	Proposing as: <input checked="" type="checkbox"/> Prime Contractor <input type="checkbox"/> Subcontractor
Mailing Address: <i>205 SHELDON CV, STR 1F</i>	City, State, Zip: <i>AUSTIN, TX 78753</i>	<input type="checkbox"/> HUB <input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> Non-Minority Firm

Name (Print)	Phone:	Fax:
Company Name:	Email Address:	Proposing as: <input type="checkbox"/> Prime Contractor <input type="checkbox"/> Subcontractor
Mailing Address:	City, State, Zip:	<input type="checkbox"/> HUB <input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> Non-Minority Firm

Name (Print)	Phone:	Fax:
Company Name:	Email Address:	Proposing as: <input type="checkbox"/> Prime Contractor <input type="checkbox"/> Subcontractor
Mailing Address:	City, State, Zip:	<input type="checkbox"/> HUB <input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> Non-Minority Firm

Name (Print)	Phone:	Fax:
Company Name:	Email Address:	Proposing as: <input type="checkbox"/> Prime Contractor <input type="checkbox"/> Subcontractor
Mailing Address:	City, State, Zip:	<input type="checkbox"/> HUB <input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> Non-Minority Firm

Name (Print)	Phone:	Fax:
Company Name:	Email Address:	Proposing as: <input type="checkbox"/> Prime Contractor <input type="checkbox"/> Subcontractor
Mailing Address:	City, State, Zip:	<input type="checkbox"/> HUB <input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> Non-Minority Firm



# SIGN-IN SHEET

PRE-BID/PROPOSAL MEETING FOR PROJECT NO.: 19CSP104 Date: Friday, January 25, 2019

Project Name: 19-0035-DOBIE Dobie Middle School Renovations

Name (Print) <u>Shavon Cashion</u>	Phone: <u>512 531 2800</u>	Fax: —
Company Name: <u>NAVCON GROUP</u>	Email Address: <u>mike@navcongroup.com</u>	Proposing as: <input checked="" type="checkbox"/> Prime Contractor <input type="checkbox"/> Subcontractor
Mailing Address: <u>4801 University Blvd, Ste 300</u>	City, State, Zip: <u>Round Rock, TX 78665</u>	<input type="checkbox"/> HUB <input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> Non-Minority Firm

Name (Print) <u>Simon Lucas</u>	Phone: <u>254-829-3200</u>	Fax: <u>254-829-3201</u>
Company Name: <u>HCS Inc</u>	Email Address: <u>bids@hcs-gc.com</u>	Proposing as: <input checked="" type="checkbox"/> Prime Contractor <input type="checkbox"/> Subcontractor
Mailing Address: <u>365 Wayside Dr.</u>	City, State, Zip: <u>Waco, TX 76705</u>	<input type="checkbox"/> HUB <input type="checkbox"/> MBE <input type="checkbox"/> WBE <input checked="" type="checkbox"/> Non-Minority Firm

Name (Print) <u>Bob Deases</u>	Phone: <u>512-791-7662</u>	Fax:
Company Name: <u>Alsd - Board Safety</u>	Email Address: <u>safety.dept.2013@gmail.com</u>	Proposing as: <input type="checkbox"/> Prime Contractor <input type="checkbox"/> Subcontractor
Mailing Address:	City, State, Zip:	<input type="checkbox"/> HUB <input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> Non-Minority Firm

Name (Print) <u>Gerald Green</u>	Phone: <u>512.414.3632</u>	Fax:
Company Name: <u>ALSD HUB</u>	Email Address: <u>geraldgreene@austinsd.org</u>	Proposing as: <input type="checkbox"/> Prime Contractor <input type="checkbox"/> Subcontractor
Mailing Address: <u>1111 W 6th Street</u>	City, State, Zip: <u>Austin, TX</u>	<input type="checkbox"/> HUB <input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> Non-Minority Firm

Name (Print) <u>John Klebr</u>	Phone: <u>512-645-8877</u>	Fax:
Company Name: <u>Novium Group</u>	Email Address: <u>Estimating@noviumgroup.net</u>	Proposing as: <input checked="" type="checkbox"/> Prime Contractor <input type="checkbox"/> Subcontractor
Mailing Address: <u>101 Meridith Drive</u>	City, State, Zip: <u>Austin TX 78739</u>	<input checked="" type="checkbox"/> HUB <input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> Non-Minority Firm



# SIGN-IN SHEET

PRE-BID/PROPOSAL MEETING FOR PROJECT NO.: 19CSP104 Date: Friday, January 25, 2019  
 Project Name: 19-0035-DOBIE Dobie Middle School Renovations

Name (Print) <b>STEVE JONES</b>	Phone: <b>512-389-0063</b>	Fax:
Company Name: <b>TECTA AMERICA (ROOFING)</b>	Email Address: <b>StJones@tectamerica.com</b>	Proposing as: <input type="checkbox"/> Prime Contractor <input checked="" type="checkbox"/> Subcontractor
Mailing Address: <b>2314 PATTERSON IND DRIVE</b>	City, State, Zip: <b>PLUGGRUINE, TX, 78660</b>	<input type="checkbox"/> HUB <input type="checkbox"/> MBE <input type="checkbox"/> WBE <input checked="" type="checkbox"/> Non-Minority Firm

Name (Print) <b>Bryan Surgi</b>	Phone: <b>504-270-6995</b>	Fax:
Company Name: <b>DBR Eng</b>	Email Address: <b>bsurgi@dbrine.com</b>	Proposing as: <input type="checkbox"/> Prime Contractor <input type="checkbox"/> Subcontractor
Mailing Address:	City, State, Zip:	<input type="checkbox"/> HUB <input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> Non-Minority Firm

Name (Print) <b>SCOTT THOMPSON</b>	Phone: <b>512-214-7755</b>	Fax:
Company Name: <b>ENDUR CONTRACTORS</b>	Email Address: <b>STHOMPSON@ENDURCOMPANIES.COM</b>	Proposing as: <input type="checkbox"/> Prime Contractor <input checked="" type="checkbox"/> Subcontractor
Mailing Address: <b>1750 KENNEDALE NEW HOPE RD.</b>	City, State, Zip: <b>FORT WORTH, TX.</b>	<input checked="" type="checkbox"/> HUB <input checked="" type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> Non-Minority Firm

Name (Print)	Phone:	Fax:
Company Name:	Email Address:	Proposing as: <input type="checkbox"/> Prime Contractor <input type="checkbox"/> Subcontractor
Mailing Address:	City, State, Zip:	<input type="checkbox"/> HUB <input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> Non-Minority Firm

Name (Print)	Phone:	Fax:
Company Name:	Email Address:	Proposing as: <input type="checkbox"/> Prime Contractor <input type="checkbox"/> Subcontractor
Mailing Address:	City, State, Zip:	<input type="checkbox"/> HUB <input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> Non-Minority Firm



# SIGN-IN SHEET

PRE-BID/PROPOSAL MEETING FOR PROJECT NO.: 19CSP104 Date: Friday, January 25, 2019

Project Name: 19-0035-DOBIE Dobie Middle School Renovations

Name (Print) <i>Jeremy Aslley</i>	Phone: <i>512 459 9494</i>	Fax:
Company Name: <i>Texas Solar Power Company</i>	Email Address: <i>Jeremy@TSPCL.com</i>	Proposing as: <input type="checkbox"/> Prime Contractor <input checked="" type="checkbox"/> Subcontractor
Mailing Address: <i>6448 Hwy 290 East Suite C112</i>	City, State, Zip: <i>Austin Texas 78723</i>	<input checked="" type="checkbox"/> HUB <input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> Non-Minority Firm

Name (Print) <i>MICHAEL COWAN</i>	Phone: <i>972.374.9120</i>	Fax:
Company Name: <i>HADDON + COWAN ARCHITECTS</i>	Email Address: <i>MCOWAN@HADDONCOWAN.COM</i>	Proposing as: <input type="checkbox"/> Prime Contractor <input type="checkbox"/> Subcontractor
Mailing Address: <i>2301 E RIVERSIDE DRIVE</i>	City, State, Zip: <i>AVSTN, TX 78741</i>	<input type="checkbox"/> HUB <input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> Non-Minority Firm

Name (Print) <i>Zachary Moore</i>	Phone: <i>512 745 6754</i>	Fax:
Company Name: <i>Texas Roofing Co.</i>	Email Address: <i>Zach M @ Texas Roofing .COM</i>	Proposing as: <input type="checkbox"/> Prime Contractor <input checked="" type="checkbox"/> Subcontractor
Mailing Address: <i>16809 Radholme Ct</i>	City, State, Zip: <i>Round Rock TX 78664</i>	<input type="checkbox"/> HUB <input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> Non-Minority Firm

Name (Print) <del>XXXXXXXXXX</del>	Phone:	Fax:
Company Name:	Email Address:	Proposing as: <input type="checkbox"/> Prime Contractor <input type="checkbox"/> Subcontractor
Mailing Address:	City, State, Zip:	<input type="checkbox"/> HUB <input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> Non-Minority Firm

Name (Print) <i>Shay Trawick</i>	Phone: <i>512-468-9227</i>	Fax:
Company Name: <i>QA Construction Services, Inc.</i>	Email Address: <i>shay@qacsi.com</i>	Proposing as: <input checked="" type="checkbox"/> Prime Contractor <input type="checkbox"/> Subcontractor
Mailing Address: <i>5811 Blue Bluff Rd</i>	City, State, Zip: <i>Austin 78724</i>	<input type="checkbox"/> HUB <input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> Non-Minority Firm



## SIGN-IN SHEET

PRE-BID/PROPOSAL MEETING FOR PROJECT NO.: 19CSP104 Date: Friday, January 25, 2019

Project Name: 19-0035-DOBIE Dobie Middle School Renovations

Name (Print) <i>DAN STUMP</i>	Phone: <i>512 647 8476</i>	Fax:
Company Name: <i>T D INDUSTRIES</i>	Email Address: <i>DANIEL-STUMP@TDINDUSTRIES.COM</i>	Proposing as: <input checked="" type="checkbox"/> Prime Contractor <input checked="" type="checkbox"/> Subcontractor
Mailing Address: <i>2701 GATTIS SCHOOL</i>	City, State, Zip: <i>ROUND ROCK, TX 78664</i>	<input type="checkbox"/> HUB <input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> Non-Minority Firm

Name (Print) <i>JOSH CROW</i>	Phone: <i>254-495-0318</i>	Fax:
Company Name: <i>DSE MECHANICAL</i>	Email Address: <i>JOSH@PANDEMMECHANICAL.COM</i>	Proposing as: <input type="checkbox"/> Prime Contractor <input checked="" type="checkbox"/> Subcontractor
Mailing Address: <i>5279 N. HWY 6</i>	City, State, Zip: <i>WACO TX 76712</i>	<input type="checkbox"/> HUB <input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> Non-Minority Firm

Name (Print)	Phone:	Fax:
Company Name:	Email Address:	Proposing as: <input type="checkbox"/> Prime Contractor <input type="checkbox"/> Subcontractor
Mailing Address:	City, State, Zip:	<input type="checkbox"/> HUB <input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> Non-Minority Firm

Name (Print)	Phone:	Fax:
Company Name:	Email Address:	Proposing as: <input type="checkbox"/> Prime Contractor <input type="checkbox"/> Subcontractor
Mailing Address:	City, State, Zip:	<input type="checkbox"/> HUB <input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> Non-Minority Firm

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