

**ADDENDUM NUMBER TWO – JUNE 13, 2019  
SPARTANBURG SCHOOL DISTRICT #7  
FUTURE MCCRACKEN MIDDLE SCHOOL ASBESTOS ABATEMENT  
CRE PROJECT NUMBER: PD19-0670-17010**

**The following clarifications, amendments, additions, deletions, revisions, and/or modifications are hereby made a part of the Contract Documents, and change the original documents only in the manner and to the extent stated below:**

**Item No. 1:**

Questions asked by bidders and/or Building Owner's Representatives are answered below in red:

- 1) Looking back at the HVAC plans (M140), it appears that the large central duct in the penthouse will remain, can you confirm? I did not see anything on the demo drawing for penthouse.

The Penthouse Demolition Plan or Drawing (M140) indicates with a hatch pattern which portions of the existing duct will be demolished. Most of the large central duct remains in service, but a portion is to be demolished. Drawing M140 is included as an attachment.

- 2) The question was raised as to whether the Boiler Room is a complete gut, as they would prefer to wrap and cup the piping versus stripping the insulation. Looking at the plans (M102), it appears at least some of the existing piping will be reused.

The Boiler Room is a complete gut with regards to steam and condensate piping (refer to demolition plan, drawing M001). A very short run of hot water piping for the "D" wing will remain in service near the location of the existing "D" wing hot water pump, as indicated on drawing M102. Drawings M001 and M102 are included as attachments.

- 3) Will Contractor be responsible for moving D-Wing 2<sup>nd</sup> floor lockers away from the central section (they are held in place by metal floor brackets in non-ACM flooring)?

No. School district will disconnect and move.

- 4) Can the IT conduit in 304D.2 be moved during abatement, or will abatement have to stop at the IT shelving (and area protected) during abatement?

No. IT will not be moved. Stop at IT rack and protect rack during abatement.

- 5) Will all areas be TEM clearances / what would be the turnaround time?

TEM clearance will be required in all areas excluding the Faculty Lounge Equipment Room. Turn-around time will be eight (8) hours so we will get results late the following day. There will be no TEM analysis on weekends.

- 6) Can abatement contractor leave any materials that are to be demolished for access on site near each work area for demo contractor to dispose of (materials such as shelving, ceiling tiles and grid)?

Yes, contractor will not be responsible for disposal of lockers, shelving, ceiling tile, etc.

- 7) Will plaster ceilings with ACM texture be demolished or scraped?

Plaster ceiling is to remain so ACM texture needs to be scraped.

- 8) Will the abatement contractor be allowed to use elevators for loading out waste bags?

Yes, elevators will be available to contractors; however other trades will be on different floors of D-Wing so access may not be exclusive.

- 9) Can we remove one of the exterior panels of the boiler room for loading equipment in and out?

Yes, access panels can be removed; Contractor will be responsible for removal and replacement when done.

- 10) Can we glovebag 10' sections, cut and wrap all pipe TSI from the boiler room?

The Boiler Room is a complete gut with regards to steam and condensate piping (refer to demolition plan, drawing M001). A very short run of hot water piping for the "D" wing will remain in service near the location of the existing "D" wing hot water pump, as indicated on drawing M102. Drawings M001 and M102 are included as attachments.

11) Will we be allowed to cut and wrap fittings from the penthouse scope of work?

All ACM insulating materials in the penthouse need to be stripped; there is to be no cutting of piping.

12) Will the school supply an electrician to wire in a temp power box if needed?

Yes. The School District will supply an electrician if needed.

13) Will you be supplying marked updated scope /drawings showing where red duct sealant will be removed and confirm if we will be allowed to cut and demo those sections of ductwork?

Yes, HVAC ductwork demo drawings will be provided that show sections to be demolished; however not all of the ductwork to be demolished features ACM red duct sealant/union mastic. For bidding purposes, include 100 In. ft. of duct mastic, assumed that you can cut the ductwork out at the areas to be abated, and include a unit rate for additional.

14) In the areas on the 2<sup>nd</sup> and 3<sup>rd</sup> floors where the drywall is being removed, are we also removing the studs?

The studs are to be cleaned and left in place.

**Item No. 2:**

**Attachments:**

**Drawing M020 (D-Wing 2<sup>nd</sup> Floor HVAC Demo Plan)**

**Drawing M030 (D-Wing 3<sup>rd</sup> Floor HVAC Demo Plan)**

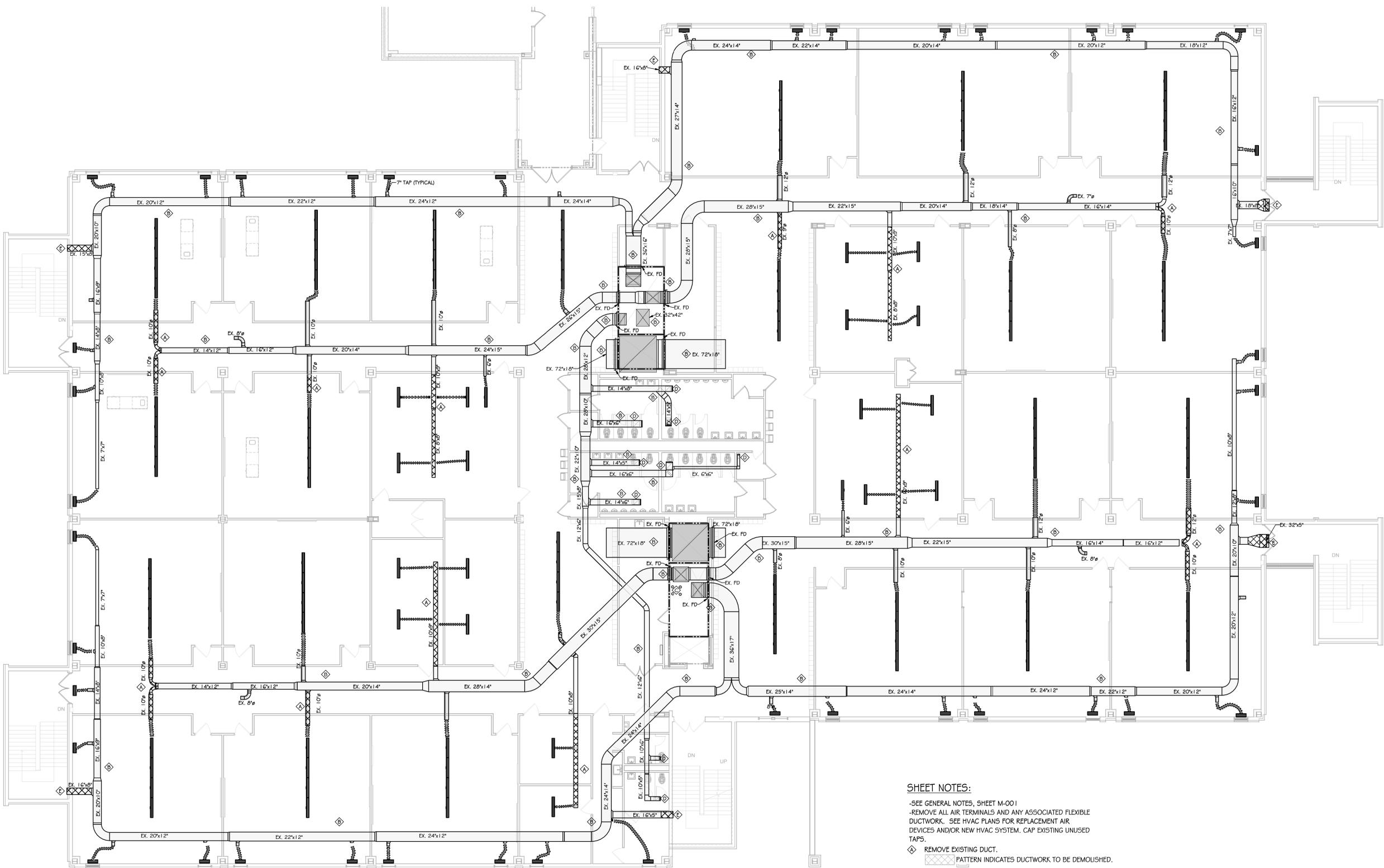
**Drawing M001 (Overall HVAC Demo Plan)**

**Drawing M102 (Boiler Room Enlarged Plan)**

**Drawing M140 (D-Wing Penthouse Plans, Sections, and Details)**

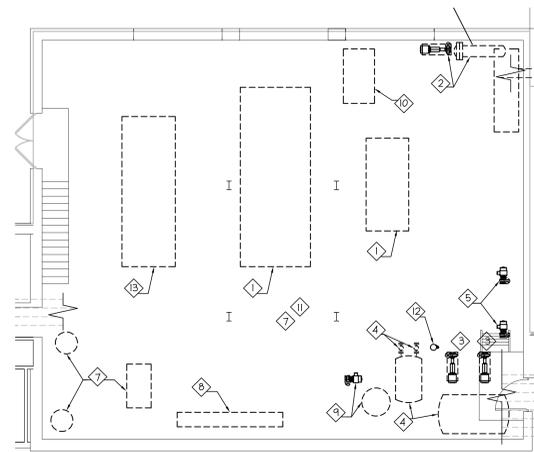


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**BOILER ROOM DEMOLITION NOTES**

- 1 REMOVE EXISTING BOILER, FLUES, AND ALL STEAM/CONDENSATE PIPING IN THE BOILER ROOM. REMOVE STEAM SAFETY VENT PIPING AND BLOWDOWN VENT PIPING. CAP AND SEAL VENTS WATERTIGHT AT ROOF. SEE HVAC PLAN FOR NEW BOILER & HOT WATER PIPING LAYOUT.
- 2 REMOVE EXISTING 'D' WING HOT WATER PUMP, STEAM/WATER CONVERTER, AIR SEPARATOR AND EXPANSION TANK. SEE HVAC PLAN FOR NEW PUMP.
- 3 REMOVE EXISTING BOILER FEED PUMP AND ASSOCIATED PIPING.
- 4 REMOVE EXISTING CONDENSATE RECIEVER AND ASSOCIATED PUMPS & PIPING.
- 5 REMOVE EXISTING HOT WATER PUMP, ASSOCIATED STEAM/WATER CONVERTER, AND ASSOCIATED PIPING AND ACCESSORIES.
- 6 NOT USED.
- 7 PROTECT EXSTING MAKEUP WATER SYSTEM, DOMESTIC COLD WATER SYSTEM, AND DOMESTIC HOT WATER SYSTEM DURING CONSTRUCTION. MODIFY MAKEUP WATER SYSTEM AS INDICATED ON THE HVAC PLAN.
- 8 REMOVE EXISTING STEAM HEADER AND ALL ASSOCIATED PIPING
- 9 TURN OVER EXISTING CHEMICAL TREATMENT PUMPS, TANKS, AND OTHER EQUIPMENT TO CHEMICAL TREATMENT SERVICE COMPANY.
- 10 REMOVE EXISTING FUEL OIL HEATER AND ALL FUEL OIL PIPING INSIDE BOILER ROOM. CAP PIPING AT WALL.
- 11 RECOVER PNEUMATIC ACTUATORS FROM EXISTING 3-WAY VALVES AND TURN OVER TO OWNER.
- 12 REMOVE EXISTING SUMP PUMP.
- 13 EXISTING BOILER SHALL REMAIN IN SERVICE. CONVERT BOILER FROM STEAM TO HOT WATER. PROTECT BOILER DURING CONSTRUCTION. REMOVE ASSOCIATED STEAM PIPING. SEE NEW BOILER ROOM PLAN.



**BOILER ROOM ENLARGED DEMOLITION PLAN**  
SCALE: 1/8" = 1'-0"

**SHEET TITLES**

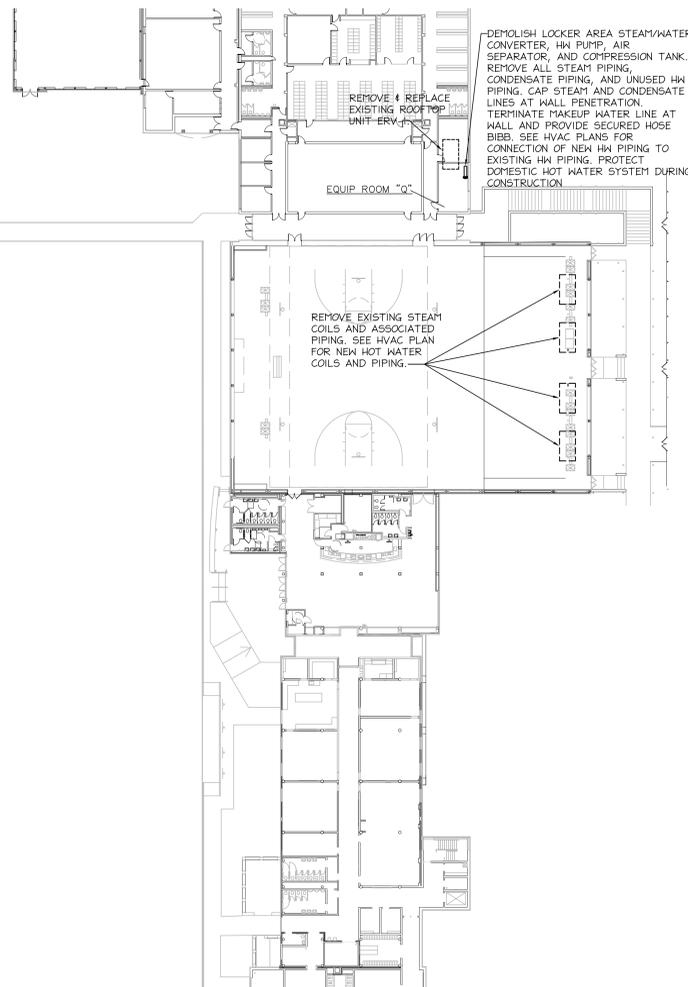
- M001 - OVERALL HVAC DEMO PLAN
- M101 - 'D' WING FIRST FLOOR HVAC DEMO PLAN
- M201 - 'D' WING SECOND FLOOR HVAC DEMO PLAN
- M301 - 'D' WING THIRD FLOOR HVAC DEMO PLAN
- M101 - OVERALL HVAC NEW PLAN
- M102 - ENLARGED MECH. ROOM PLANS, SECTIONS, AND DE
- M103 - KITCHEN, LOCKER & COURTYARD HVAC PLAN
- M110 - 'D' WING FIRST FLOOR HVAC PLAN
- M120 - 'D' WING SECOND FLOOR HVAC PLAN
- M130 - 'D' WING THIRD FLOOR HVAC PLAN
- M140 - 'D' WING PENTHOUSE PLANS, SECTIONS, AND DET
- M210 - 'D' WING FIRST FLOOR HVAC PIPING
- M220 - 'D' WING SECOND FLOOR HVAC PIPING PLAN
- M230 - 'D' WING THIRD FLOOR HVAC PIPING PLAN
- M300 - HVAC SCHEDULES
- M301 - HVAC SCHEDULES
- M302 - HVAC SCHEDULES
- M400 - HVAC DETAILS
- M401 - HVAC DETAILS

**GENERAL NOTES:**

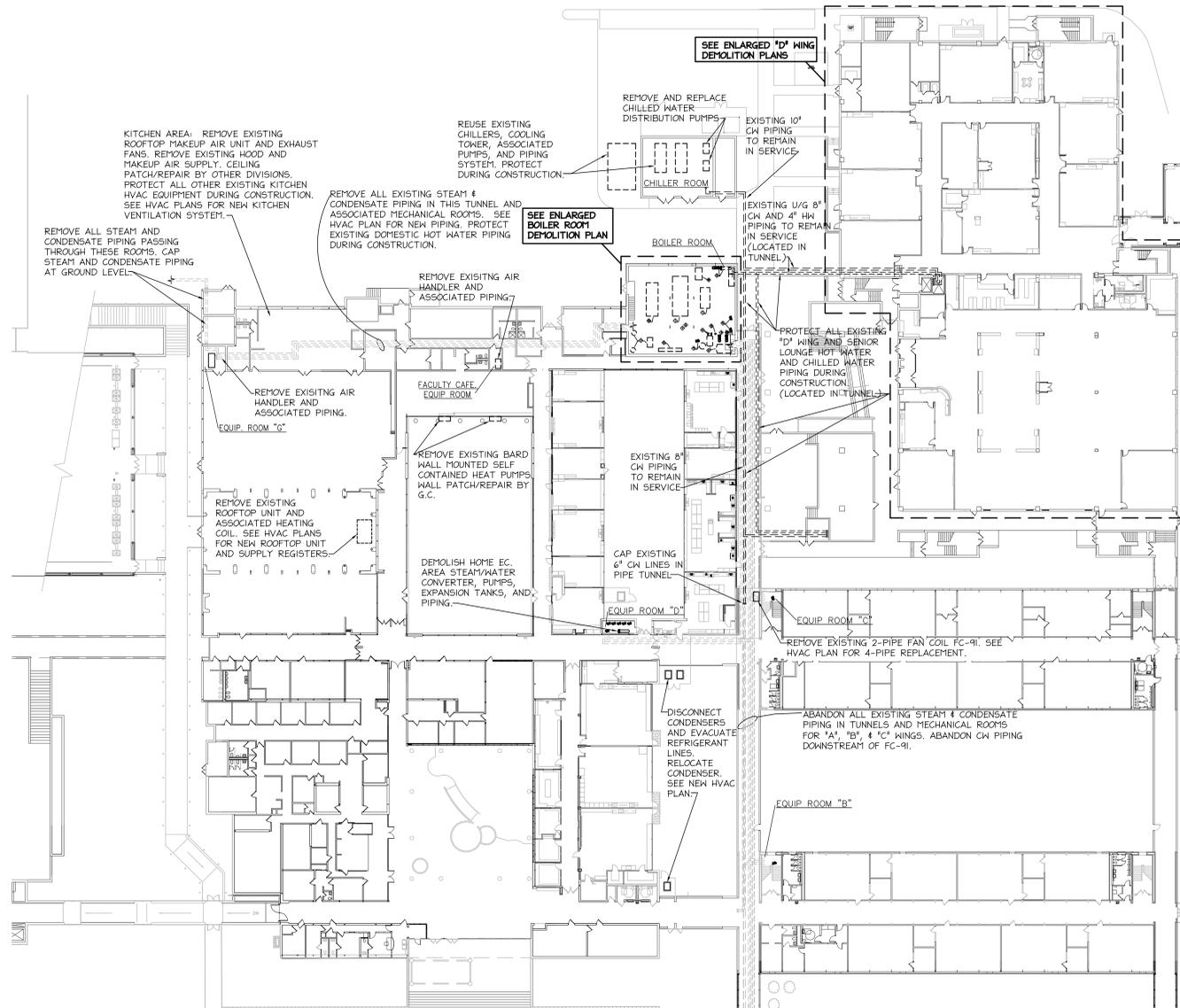
- 1) PROVIDE ACCESS DOORS AT EACH MOTORIZED DAMPER AND EACH FIRE DAMPER (EXISTING AND NEW) IF NOT ALREADY ACCESSIBLE FROM A GRILLE; SEE SPECS FOR SIZE.
- 2) PROVIDE 27" MIN CLEARANCE AT FILTER HOUSINGS FOR FILTER REMOVAL
- 3) SEE ARCH. DWGS FOR EXACT LOUVER AND BRICK VENT LOCATIONS.
- 4) RUN HOT WATER AND CHILLED WATER PIPING MINIMUM 6'-8" ABOVE MECH. ROOM FLOOR. COORDINATE WITH ENGINEER WHERE NOT POSSIBLE.
- 5) PIPE ALL CONDENSATE LINES TO NEAREST FLOOR DRAIN.
- 6) SLOPE ALL CONDENSATE LINES MIN. 1/8" PER FOOT
- 7) MINIMUM BRANCH CONDENSATE LINE SIZE SHALL BE 1" UNLESS NOTED OTHERWISE ON PLANS.
- 8) BLANK OFF UNUSED LOUVER WITH SHEET METAL AND 1" THICK, 6 PCF FOIL-FACED DUCT BOARD.
- 9) MAXIMUM LENGTH OF FLEXIBLE DUCTWORK AT END OF BRANCH DUCTWORK SHALL BE 6'-0"
- 10) CONCRETE HOUSEKEEPING PADS SHALL BE BY OTHER DIVISIONS, SEE "A" DWGS.
- 11) FIELD COORDINATE ROUTING OF DUCTWORK PRIOR TO DUCTWORK FABRICATION.
- 12) HVAC CONTRACTOR TO COORDINATE EXACT LOCATION OF DUCT WORK WITH GENERAL CONTRACTOR (PRIOR TO FABRICATION) TO AVOID POTENTIAL CONFLICT WITH SOUND WALLS EXTENDED TO THE DECK, ETC.
- 13) ROOF CURBS / CURB ADAPTERS FOR ALL ROOF EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR. ROOFER TO FLASH AND SEAL ROOFING TO CURB. PROVIDE CURB INSIDE AND OUTSIDE DIMENSIONS TO ROOF MFR.
- 14) SEAL PENETRATIONS OF NON-FIRE RESISTANCE RATED ASSEMBLIES WITH AN APPROVED NON-COMBUSTIBLE MATERIAL.
- 15) PIPE RELIEF VENTS TO OUTSIDE:  
BOILERS & WATER HEATERS: (FOR EACH UNIT.)  
RELIEF VALVES FULL SIZE (EA.); PRV VENT FULL SIZE (EA.); GAS TRAIN VENT SHALL BE SIZED AS FOLLOWS:  
FUEL LINE DIA. UP TO 1-1/2" 2" 2-1/2" 3" 4" 5" 6" 8"  
VENT LINE DIA. 3/4" 1" 1-1/4" 1-1/4" 2" 2" 2-1/2" 3-1/2"

**SYMBOLS**

- NEW DUCT OR PIPE
- - - EXISTING DUCT OR PIPE
- HWS- HOT WATER SUPPLY
- HWR- HOT WATER RETURN
- CWS- CHILLED WATER SUPPLY
- CWR- CHILLED WATER RETURN
- D- DRAIN
- G- GAS
- V- GATE VALVE
- C- CHECK VALVE
- G- GLOBE VALVE
- B- BALL VALVE (2" AND SMALLER)
- F- BUTTERFLY VALVE (2-1/2" AND LARGER)
- C- CONTROL VALVE
- R- REDUCER
- U- UNION
- P- PRESSURE GAUGE
- T- THERMOMETER WITH WELL
- H- HUMIDISTAT
- S- CO<sub>2</sub> SENSOR
- S.A.- SUPPLY AIR (S.A.)
- R.A.- RETURN AIR (R.A.)
- E- EXHAUST AIR
- R- RELIEF AIR
- AD- ACCESS DOOR
- FD- FIRE DAMPER
- S- STRAINER
- CS- CIRCUIT SETTER
- TP- TEMP/PRESS SENSING PORT
- R- REFRIGERANT LINES
- M- MOTORIZED DAMPER
- T- TRIPLE DUTY VALVE
- PR- PRESSURE REDUCING VALVE
- FC- FLEXIBLE COUPLING
- M- MANUAL AIR VENT
- A- AUTOMATIC AIR VENT
- AF- AUTO FLOW VALVE
- P.I.C.- P.I.C. VALVE
- SD- SMOKE DETECTOR
- DP- DIFFERENTIAL PRESS. SENSOR
- SP- STATIC PRESSURE SENSOR
- O/H- OVERHEAD
- U/G- UNDERGROUND
- VD- VOLUME DAMPER
- CO- CLEAN OUT
- DW- DUAL WALL SPIRAL DUCTWORK
- X- DUCT TO BE DEMOLISHED



**GROUND FLOOR DEMOLITION PLAN**  
SCALE: 1/32" = 1'-0"



**FIRST FLOOR DEMOLITION PLAN**  
SCALE: 1/32" = 1'-0"

SPARTANBURG SCHOOL DISTRICT SEVEN

**SPARTANBURG HIGH SCHOOL CONVERSION  
TO McCRACKEN MIDDLE SCHOOL**

500 DUPRE DRIVE  
Spartanburg, South Carolina

SHEET ISSUE:  
NO. DATE DESCRIPTION BY

CONSTRUCTION DOCUMENTS 4-30-2019

PRINCIPAL IN CHARGE: WJC  
PROJECT ENGINEER: WJC  
DRAWN BY: WJC

SHEET TITLE:  
**OVERALL HVAC  
DEMOLITION PLAN**

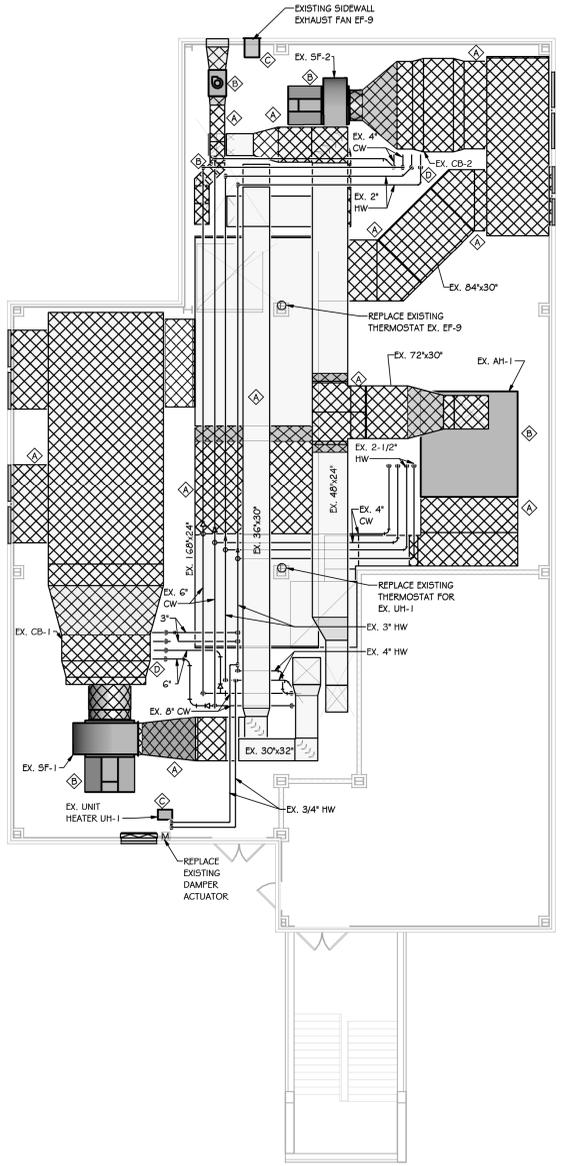
SHEET NO. CBE PROJ. NO. 1819

**M001**

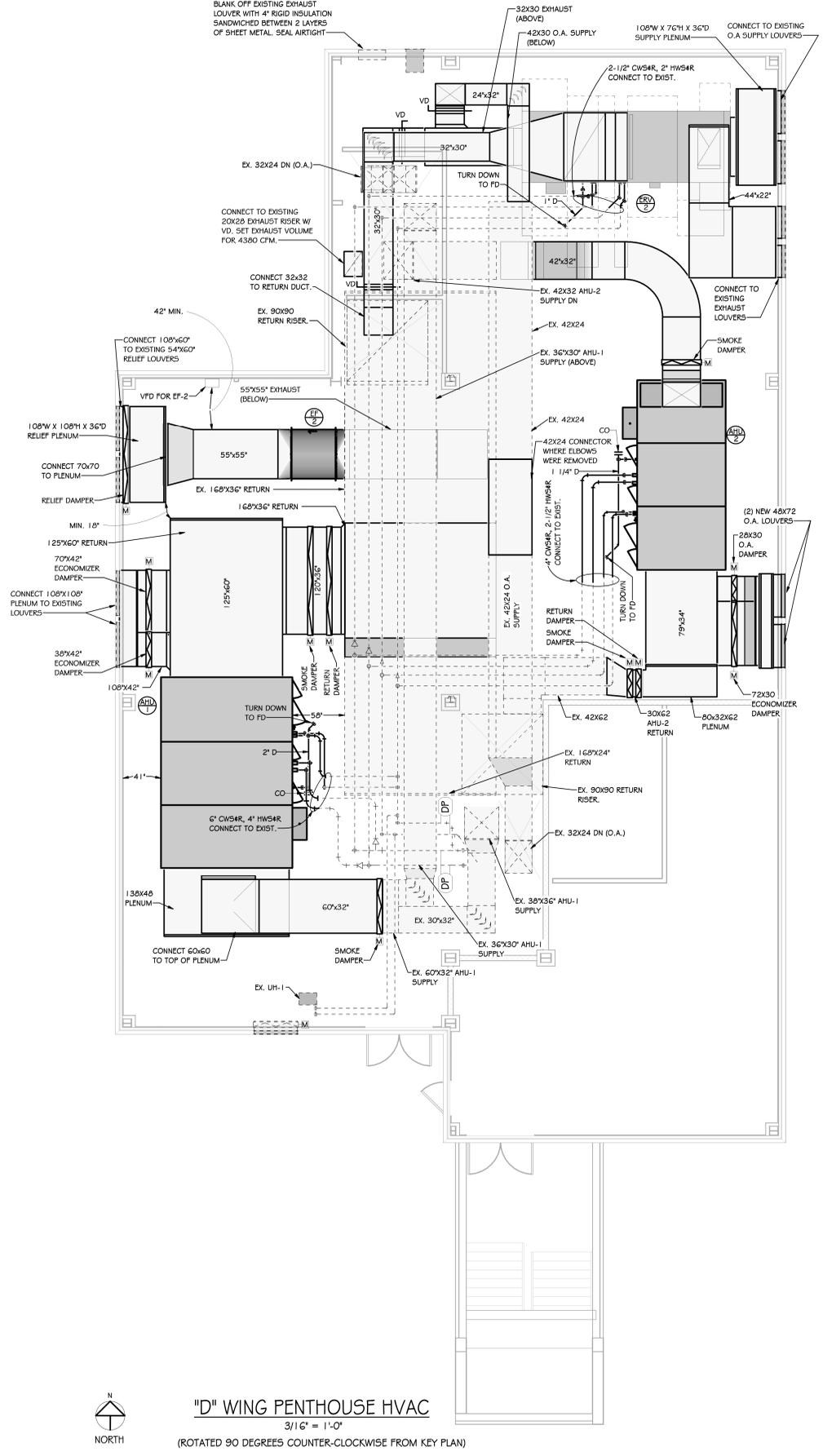




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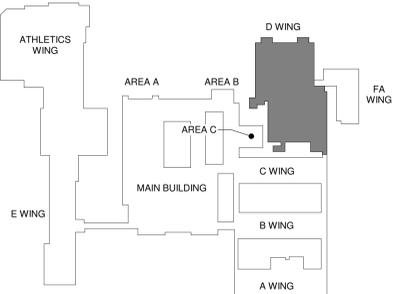
**"D" WING PENTHOUSE HVAC DEMO PLAN**  
 1/8" = 1'-0"  
 (ROTATED 90 DEGREES COUNTER-CLOCKWISE FROM KEY PLAN)



**"D" WING PENTHOUSE HVAC**  
 3/16" = 1'-0"  
 (ROTATED 90 DEGREES COUNTER-CLOCKWISE FROM KEY PLAN)

- PENTHOUSE NOTES:**
- SEE GENERAL NOTES SHEET M-001
  - CONCRETE HOUSEKEEPING PADS SHALL BE BY OTHER DIVISIONS. SEE 'A' DRAWINGS.
  - ROUTE CONDENSATE TO NEAREST FLOOR DRAIN.
  - REMOVE ALL PIPE INSULATION ON EXISTING PIPING IN PENTHOUSE. REINSULATE ALL PIPING PER SPECIFICATIONS.
  - FIELD VERIFY EXISTING PIPE SERVICE (HW/CW; SUPPLY/RETURN) AND FLOW DIRECTION.
  - PROTECT EXISTING LOUVERS DURING CONSTRUCTION
  - ◆ REMOVE EXISTING DUCT AS NECESSARY TO ACCOMMODATE REVISED DUCT LAYOUT. ANY SUPPLY, RETURN, OR OUTSIDE AIR DUCTWORK THAT REMAINS IN SERVICE TO BE CLEANED, AND ENCAPSULATED (IF LINED). COORDINATE WITH DUCT CLEANING AGENCY.
  - ◆ REMOVE EXISTING AIR HANDLER OR FAN (AND ASSOCIATED COIL OR FILTER BANK, IF APPLICABLE).
  - ◆ PROTECT EXISTING EQUIPMENT DURING CONSTRUCTION. REPLACE EXISTING THERMOSTAT.
  - ◆ REMOVE EXISTING VALVES / PIPE TRIM AT AIR HANDLING EQUIPMENT. REMOVE EXISTING PIPING AND REINSTALL AS REQUIRED TO RECONNECT TO NEW AIR HANDLING EQUIPMENT.

**KEY PLAN**



SPARTANBURG SCHOOL DISTRICT SEVEN

SPARTANBURG HIGH SCHOOL CONVERSION TO MCCRACKEN MIDDLE SCHOOL

SPARTANBURG, SOUTH CAROLINA

CROW & BULMAN ENGINEERING, INC.

800 EAST MAIN STREET, SPARTANBURG, SC 29302

PHONE: 864-585-5903, WWW.CRENGR.COM

SHEET ISSUE:			
NO.	DATE	DESCRIPTION	BY

CONSTRUCTION DOCUMENTS 04-30-19

PRINCIPAL IN CHARGE: WHC

PROJECT ENGINEER: WHC

DRAWN BY: HFC

SHEET TITLE: "D" WING PENTHOUSE PLANS, SECTIONS, AND DETAILS

CBE PROJ. NO. 1819

M140