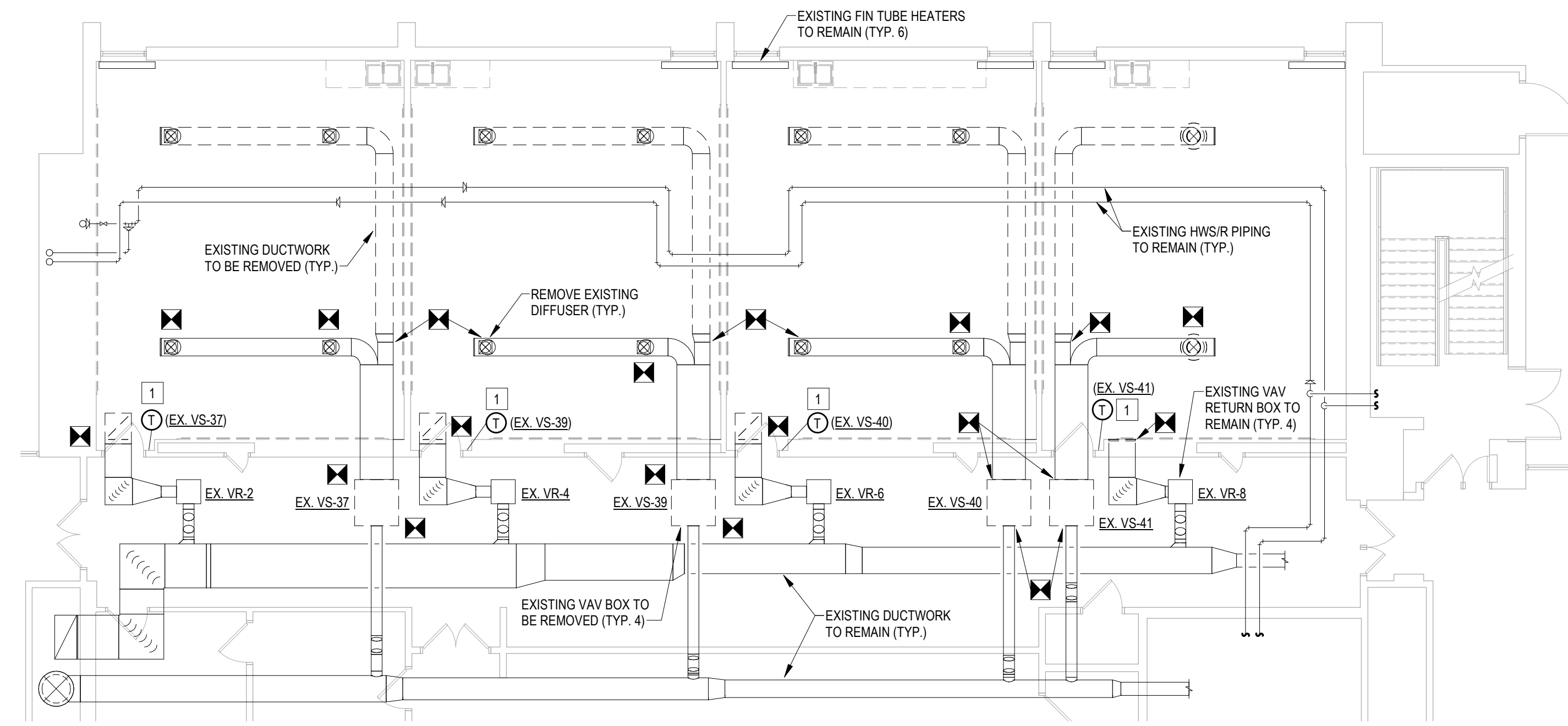


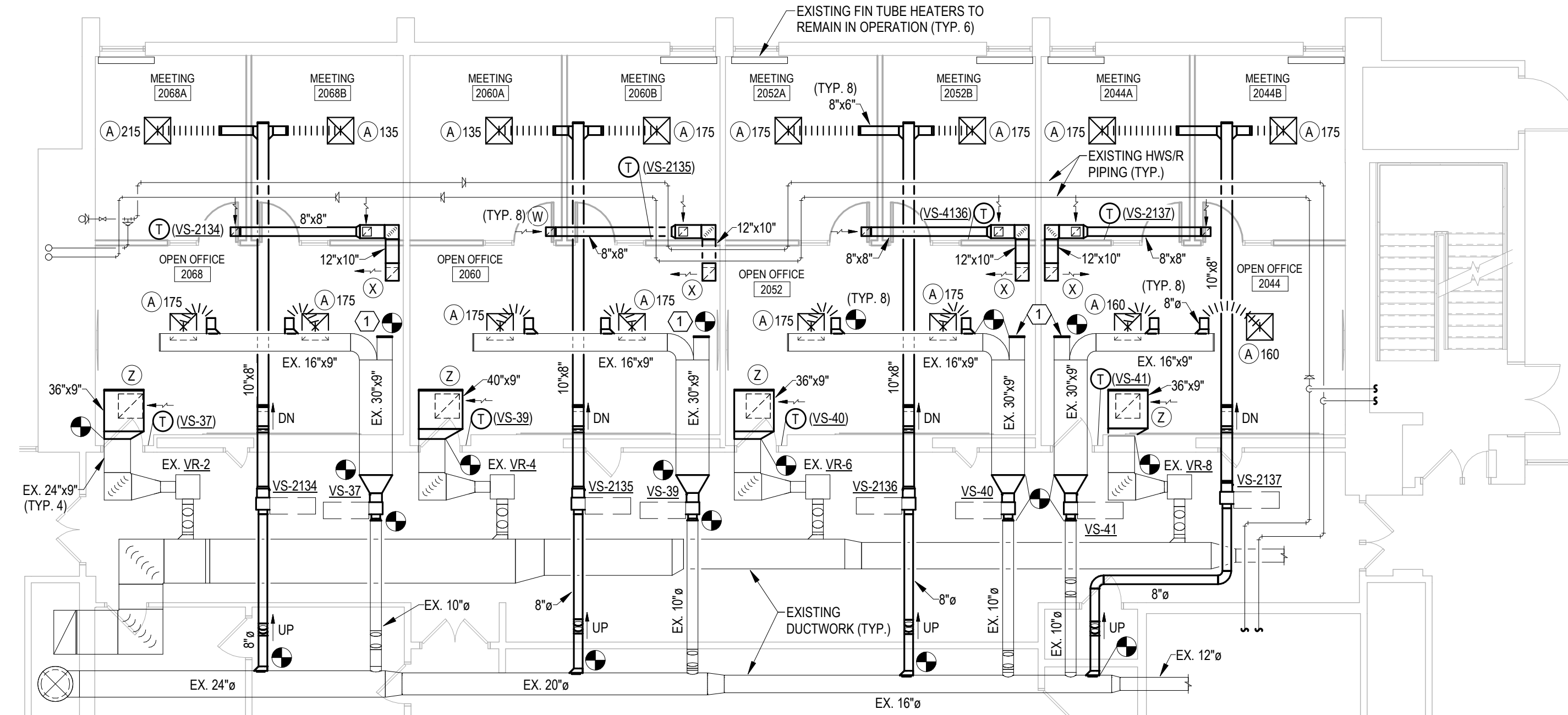
VIRGINIA TECH DERRING HALL
 GEOSCIENCES RENOVATION
 SECOND FLOOR DEMOLITION AND
 NEW WORK PLANS - HVAC



SECOND FLOOR DEMOLITION PLAN - HVAC
 SCALE: 1/8" = 1'-0"

DEMOLITION NOTES: □

- EXISTING VAV TERMINAL BOX THERMOSTAT TO BE REMOVED.



SECOND FLOOR NEW WORK PLAN - HVAC
 SCALE: 1/8" = 1'-0"

GENERAL NOTES:

- NEW CONNECTIONS TO EXISTING DUCTWORK SHALL BE FIELD VERIFIED.
- PIPING RUN-OUTS TO NEW VAV BOXES SHALL BE CONNECTED TO EXISTING HWS/R PIPING LOCATED IN CORRIDOR. INSTALL PIPING RUN-OUTS TO EQUIPMENT IN STRICT ACCORDANCE TO MANUFACTURER'S INSTRUCTIONS.

PLAN NOTES: ○

- CAP EXISTING 14"x9" SUPPLY DUCT.

No.	Date	Purpose of Document Issue

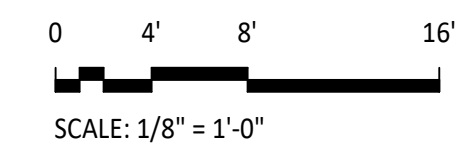
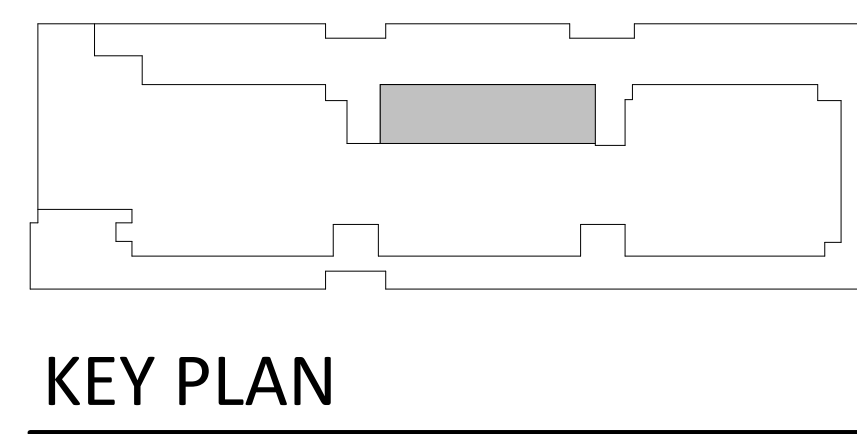
Designed	FLM / BCR
Drawn	BCR
Checked	RDF
Date	09.19.2024

Project No.	17533
-------------	-------



THOMPSON & LITTON

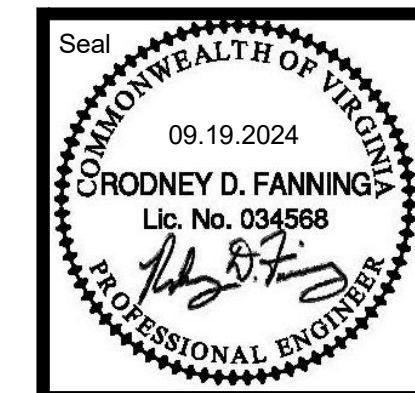
Sheet No.	M101
-----------	------



LPA
 LAWRENCE PERRY & ASSOCIATES
 Consulting Engineers

15 E Salem Avenue SE, Suite 101
 Roanoke, Virginia 24011
 Ph: (540) 342-1816
 Fax: (540) 344-3410
 Comm. No.: 2310140
 © Lawrence Perry and Associates, Inc.

VIRGINIA TECH UBO APPROVAL



VIRGINIA TECH DERRING HALL
 GEOSCIENCES RENOVATION
 THIRD FLOOR DEMOLITION AND NEW
 WORK PLANS - HVAC

No.	Date	Purpose of Document Issue

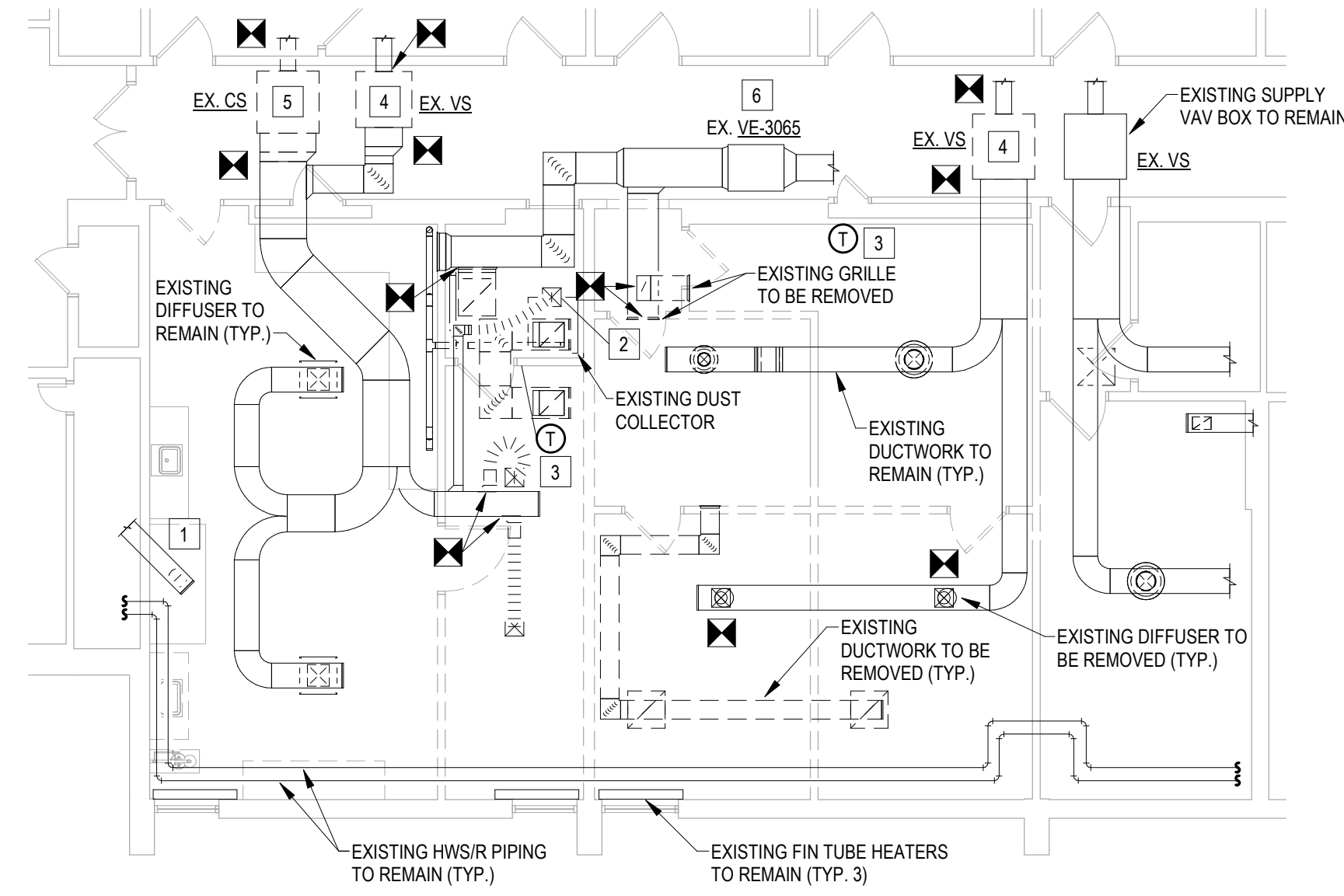
Designed	FLM / BCR
Drawn	BCR
Checked	RDF
Date	09.19.2024

Project No. 17533



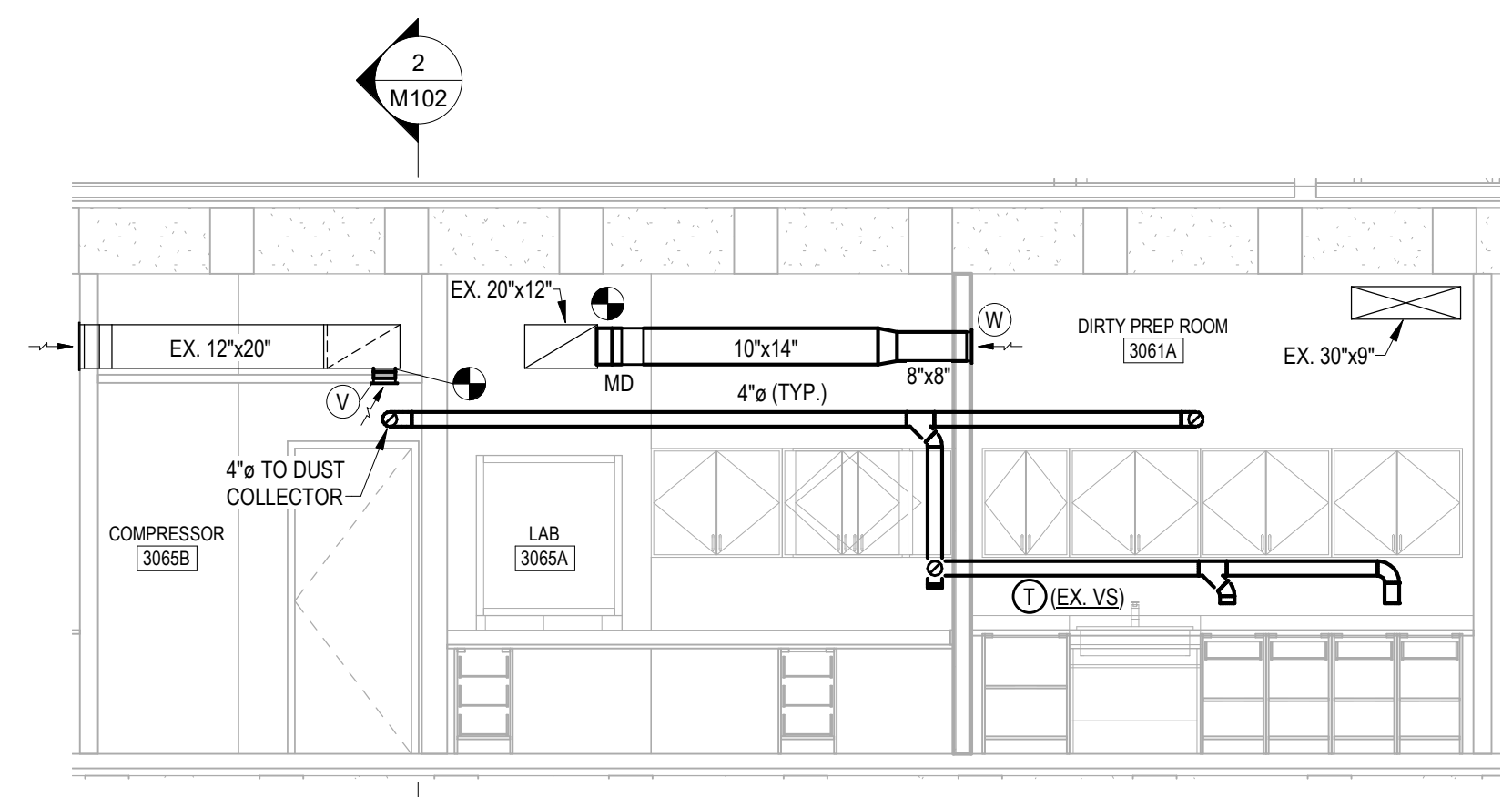
THOMPSON & LITTON

Sheet No. M102

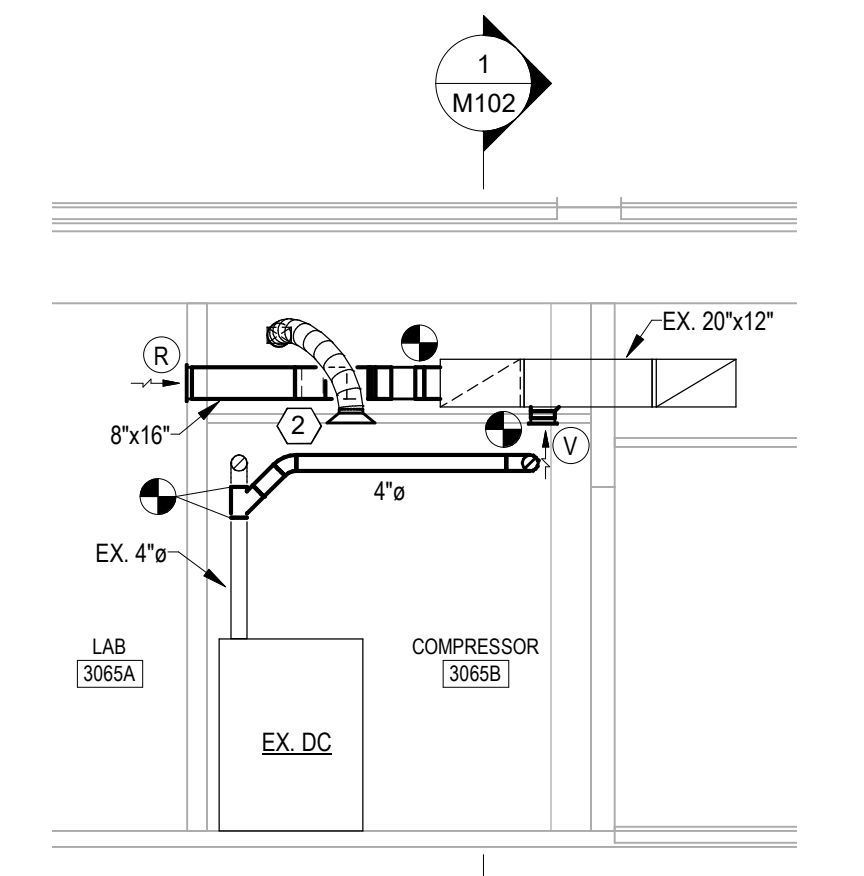


THIRD FLOOR DEMOLITION PLAN - HVAC
SCALE: 1/8" = 1'-0"

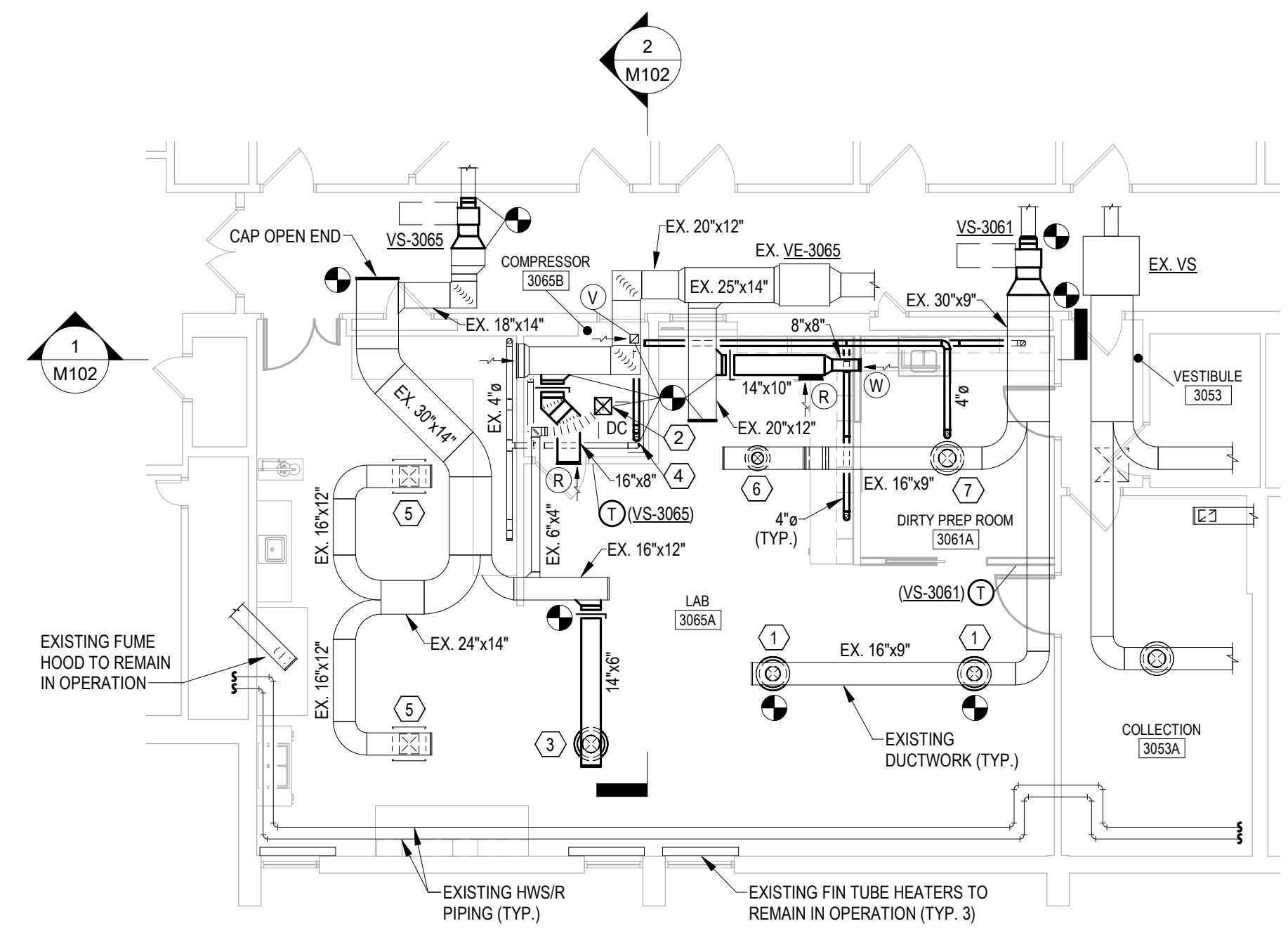
- DEMOLITION NOTES:**
- EXISTING 12" FUME HOOD DUCT TO REMAIN.
 - EXISTING 12"x12" CEILING DIFFUSER TO BE REINSTALLED IN NEW CEILING. SEE THIRD FLOOR NEW WORK PLAN FOR UPDATED LOCATION.
 - EXISTING VAV TERMINAL BOX THERMOSTAT TO BE REMOVED.
 - EXISTING VAV SUPPLY BOX TO BE REMOVED.
 - EXISTING CONSTANT SUPPLY BOX TO BE REMOVED.
 - EXISTING VARIABLE EXHAUST BOX TO REMAIN.



1 - THIRD FLOOR DUST COLLECTOR NEW PVC DUCTWORK
SCALE: 1/4" = 1'-0"



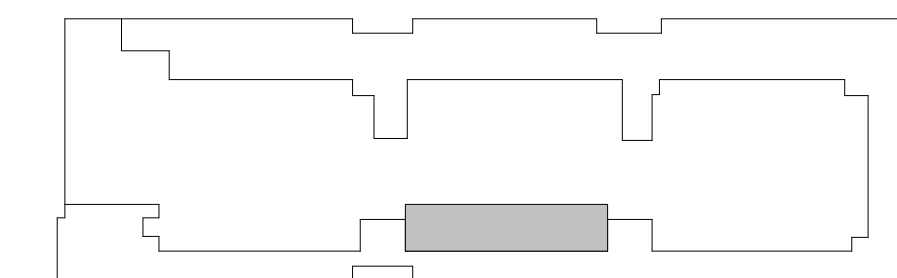
2 - EXISTING DUST COLLECTOR PVC DUCT CONNECTIONS
SCALE: 1/4" = 1'-0"



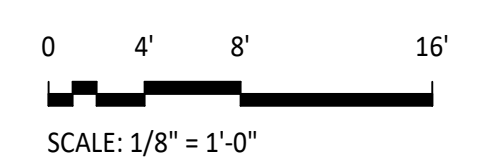
THIRD FLOOR NEW WORK PLAN - HVAC
SCALE: 1/8" = 1'-0"

- GENERAL PLAN NOTES:**
- ALL EXISTING GRILLES AND DIFFUSERS TO REMAIN SHALL BE CLEANED AND PAINTED TO MATCH ADJACENT SURFACE. IF CONDITION OF EXISTING GRILLE OR DIFFUSER IS DEEMED POOR THEN PROVIDE DIRECT REPLACEMENT AFTER VERIFYING SIZE.
 - NEW CONNECTIONS TO EXISTING DUCTWORK SHALL BE FIELD VERIFIED.
 - PIPING RUN-OUTS TO NEW VAV BOXES SHALL BE CONNECTED TO EXISTING HWS/R PIPING LOCATED IN CORRIDOR. INSTALL PIPING RUN-OUTS TO EQUIPMENT IN STRICT ACCORDANCE TO MANUFACTURER'S INSTRUCTIONS.

- PLAN NOTES:**
- RELOCATED EXISTING 10" DIFFUSER. REBALANCE DIFFUSER TO 350 CFM.
 - RELOCATED EXISTING 12"x12" DIFFUSER. REBALANCE DIFFUSER TO 65 CFM.
 - RELOCATED EXISTING 12" DIFFUSER. REBALANCE DIFFUSER TO 300 CFM.
 - EXISTING DUST COLLECTOR TO REMAIN IN OPERATION. ROUTE NEW 4" SCHEDULE 40 PVC PIPING WITH 4" BLAST GATE TO EACH WORK STATION AS SHOWN. COORDINATE EXACT ROUTING AND ARRANGEMENT WITH END USER.
 - EXISTING DIFFUSER TO BE REBALANCED TO 300 CFM.
 - EXISTING DIFFUSER TO BE REBALANCED TO 200 CFM.
 - EXISTING DIFFUSER TO BE REBALANCED TO 125 CFM.



KEY PLAN



SCALE: 1/8" = 1'-0"

LPA
LAWRENCE PERRY & ASSOCIATES
 Consulting Engineers
 15 E Salem Avenue SE, Suite 101
 Roanoke, Virginia 24011
 Ph: (540) 342-1816
 Fax: (540) 344-3410
 Comm. No.: 2310140
 © Lawrence Perry and Associates, Inc.

VIRGINIA TECH UBO APPROVAL



**VIRGINIA TECH DERRING HALL
GEOSCIENCES RENOVATION
FOURTH FLOOR DEMOLITION AND
NEW WORK PLANS - HVAC**

No.	Date	Purpose of Document Issue

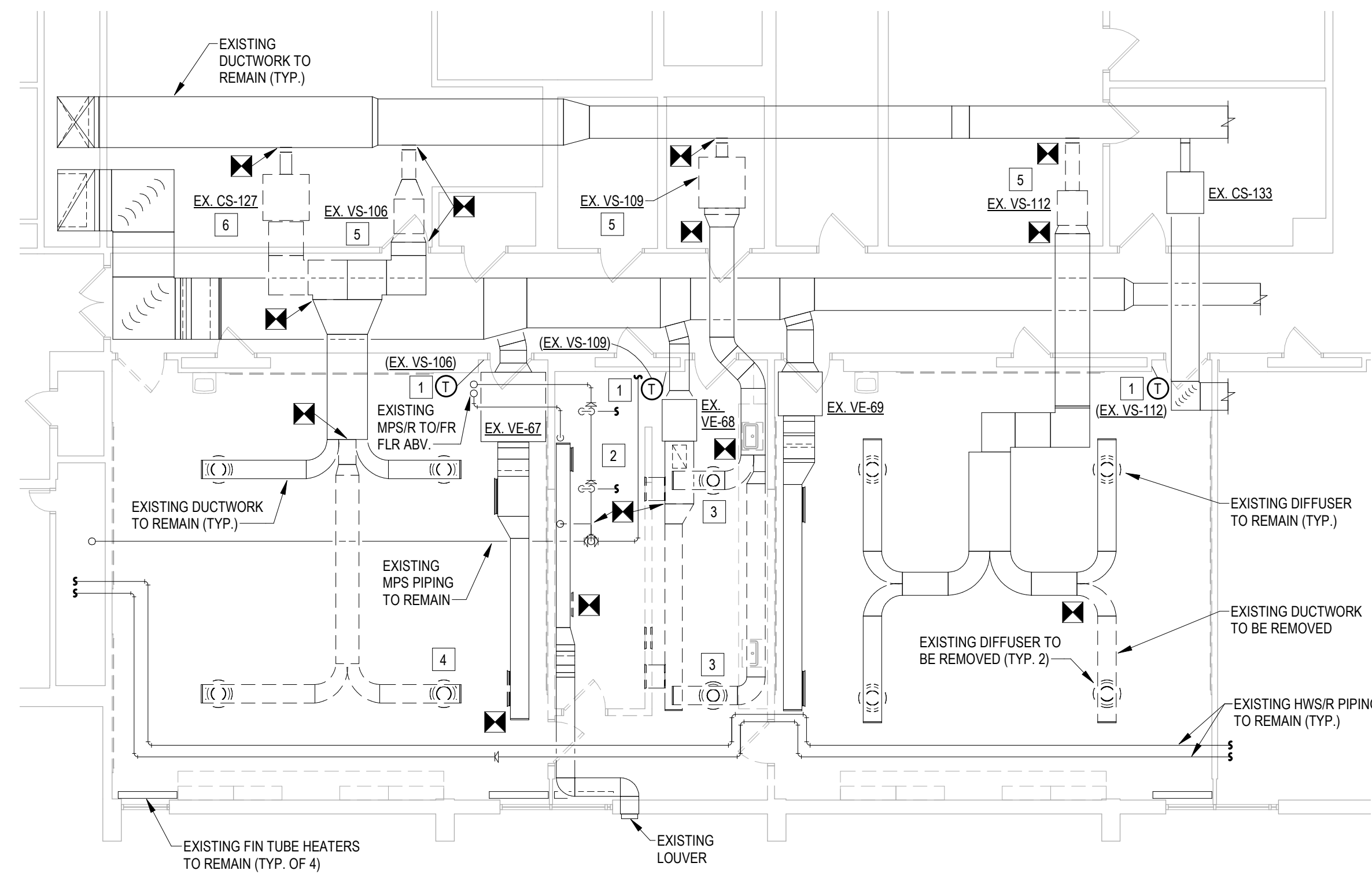
Designed	FLM / BCR
Drawn	BCR
Checked	RDF
Date	09.19.2024

Project No. **17533**



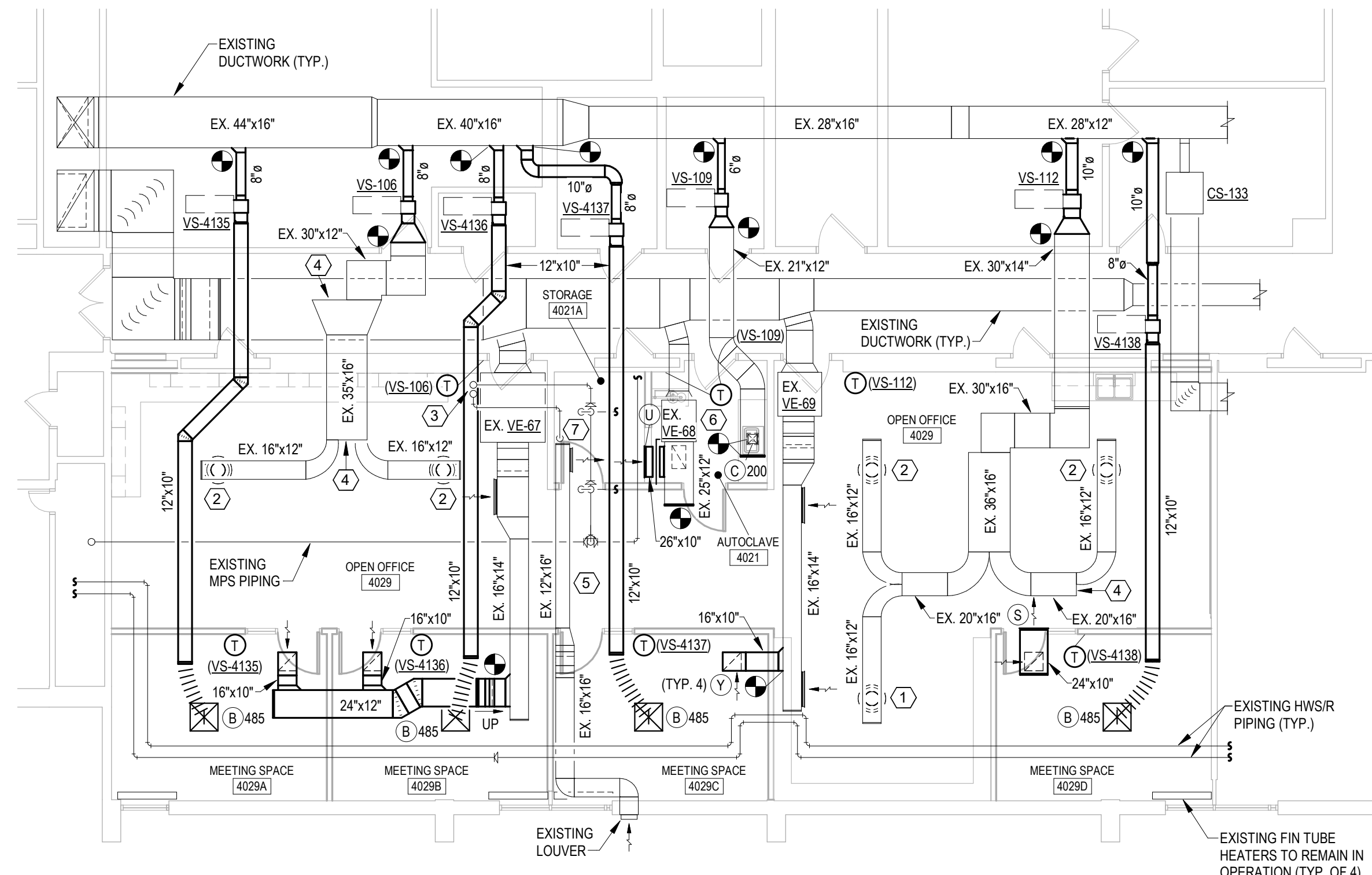
THOMPSON & LITTON

Sheet No. **M103**



FOURTH FLOOR DEMOLITION PLAN - HVAC
SCALE: 1/8" = 1'-0"

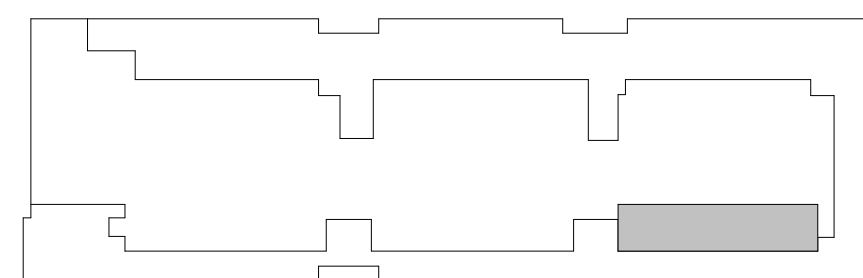
- DEMOLITION NOTES:**
- EXISTING VAV TERMINAL BOX THERMOSTAT TO BE REMOVED
 - FIELD VERIFY EXISTING STEAM/CONDENSATE PIPING BEFORE MODIFYING OR REMOVING ANY EXISTING PIPING REQUIRED TO ACCOMMODATE NEW LOCATION OF EXISTING AUTOCLAVE. ENSURE ALL ACTIVE EXISTING PIPING REMAINS IN PLACE OR IS RELOCATED TO CONTINUE SERVICE.
 - EXISTING 10" DIFFUSER TO BE RELOCATED. SEE SHEET M102 FOR NEW LOCATION.
 - EXISTING 12" DIFFUSER TO BE RELOCATED. SEE SHEET M102 FOR NEW LOCATION.
 - EXISTING VAV SUPPLY BOX TO BE REMOVED.
 - EXISTING CONSTANT SUPPLY BOX TO BE REMOVED.



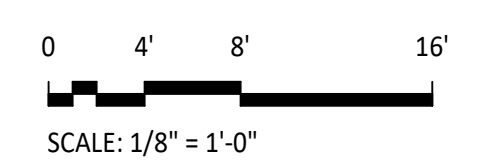
FOURTH FLOOR NEW WORK PLAN - HVAC
SCALE: 1/8" = 1'-0"

- GENERAL PLAN NOTES:**
- ALL EXISTING GRILLES AND DIFFUSERS TO REMAIN SHALL BE CLEANED AND PAINTED TO MATCH ADJACENT SURFACE. IF CONDITION OF EXISTING GRILLE OR DIFFUSER IS DEEMED POOR THEN PROVIDE DIRECT REPLACEMENT AFTER VERIFYING SIZE.
 - NEW CONNECTIONS TO EXISTING DUCTWORK SHALL BE FIELD VERIFIED.
 - PIPING RUN-OUTS TO NEW VAV BOXES SHALL BE CONNECTED TO EXISTING HWS/R PIPING LOCATED IN CORRIDOR. INSTALL PIPING RUN-OUTS TO EQUIPMENT IN STRICT ACCORDANCE TO MANUFACTURER'S INSTRUCTIONS.

- PLAN NOTES:**
- REBALANCE EXISTING 12" DIFFUSER TO 350 CFM.
 - REBALANCE EXISTING 12" DIFFUSER TO 275 CFM.
 - EXISTING MPS/R TO/FROM FLOOR ABOVE.
 - CAP OPEN PORTION OF EXISTING DUCTWORK.
 - PAINT DUCTWORK TO MATCH EXISTING EXPOSED DUCTWORK.
 - ADJUST RETURN AIRFLOW FOR EX. VE-68 TO BE 825 CFM. ADJUST MANUAL DAMPER IN NEW 28"x10" DUCTWORK TO 625 CFM.
 - CONNECT/MODIFY EXISTING STEAM/CONDENSATE PIPING IN 4021A STORAGE TO ACCOMMODATE RELOCATED AUTOCLAVE IN ADJACENT ROOM 4021. CAP/REMOVE ANY EXISTING PIPING NOT REQUIRED TO REMAIN FOR RELOCATED AUTOCLAVE. FIELD VERIFY EXISTING STEAM/CONDENSATE PIPING BEFORE MODIFYING OR REMOVING ANY EXISTING PIPING TO ENSURE ALL ACTIVE PIPING REMAINS IN PLACE OR IS RELOCATED TO CONTINUE SERVICE.



KEY PLAN



LPA
LAWRENCE PERRY & ASSOCIATES
 Consulting Engineers
 15 E Salem Avenue SE, Suite 101
 Roanoke, Virginia 24011
 Ph: (540) 342-1816
 Fax: (540) 344-3410
 Comm. No.: 2310140
 © Lawrence Perry and Associates, Inc.

VIRGINIA TECH UBO APPROVAL

PROJECT CODE: 23-607949