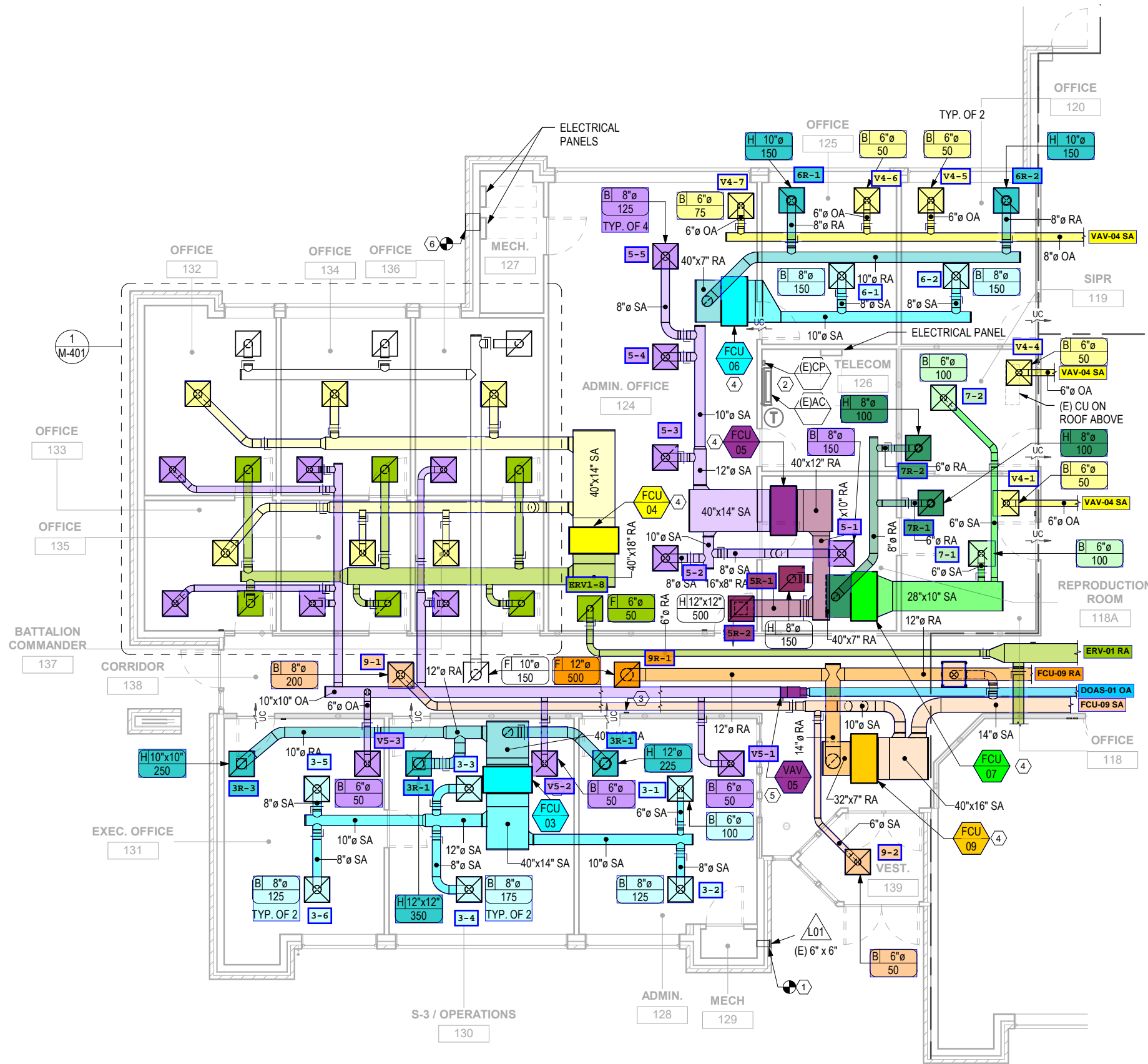
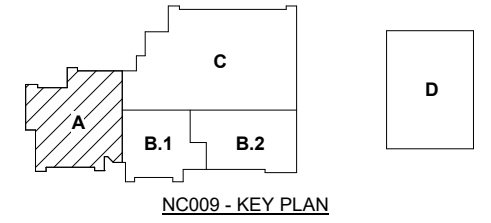


# SHEET KEY NOTES

- EXISTING EXTERIOR LOUVER TO REMAIN. OPENING SHALL BE SEALED FROM INTERIOR. ON INTERIOR PROVIDE HOT DIPPED GALVANIZED BLANK OFF PLATE AND SEAL WEATHER AND WATER TIGHT. PROVIDE AND SECURE INSULATION ON INTERIOR OF BLANK OFF PLATE.
- EXISTING DUCTLESS WALL MINI SPLIT AIR CONDITIONING UNIT WITH CONDENSATE PUMP.
- PROVIDE THREE HVAC EMERGENCY SHUT DOWN BUTTONS AS SHOWN ON PLANS. LOCATE ONE OF THE HVAC EMERGENCY SHUT DOWN BUTTONS NEAR THE FIRE ALARM LOCAL OPERATOR CONSOLE LOCATED IN ADMIN 128.
- PROVIDE HYDRONIC HEATING & COOLING FAN COIL UNIT. PROVIDE UNIT WITH DRAIN PAN AND CONDENSATE P-TRAP. REFER TO SCHEDULE ON M-601 AND DETAIL D4 / M-504 FOR ADDITIONAL INFORMATION. REFER TO DETAIL C8 / M-503 FOR ADDITIONAL P-TRAP INFORMATION.
- PROVIDE HYDRONIC HEATING VARIABLE VOLUME TERMINAL BOX. REFER TO DETAIL A4 / M-504 FOR EQUIPMENT DETAIL AND SCHEDULE ON M-602 FOR MORE INFORMATION.
- PREVIOUS LOUVER OPENING THROUGH EXTERIOR WALL. OPENING SHALL BE INFILLED, WALL CONSTRUCTION SHALL MATCH EXISTING WALL. MATCH EXTERIOR TO EXISTING. REFER TO DETAIL E6 / M-508 FOR MORE INFORMATION.

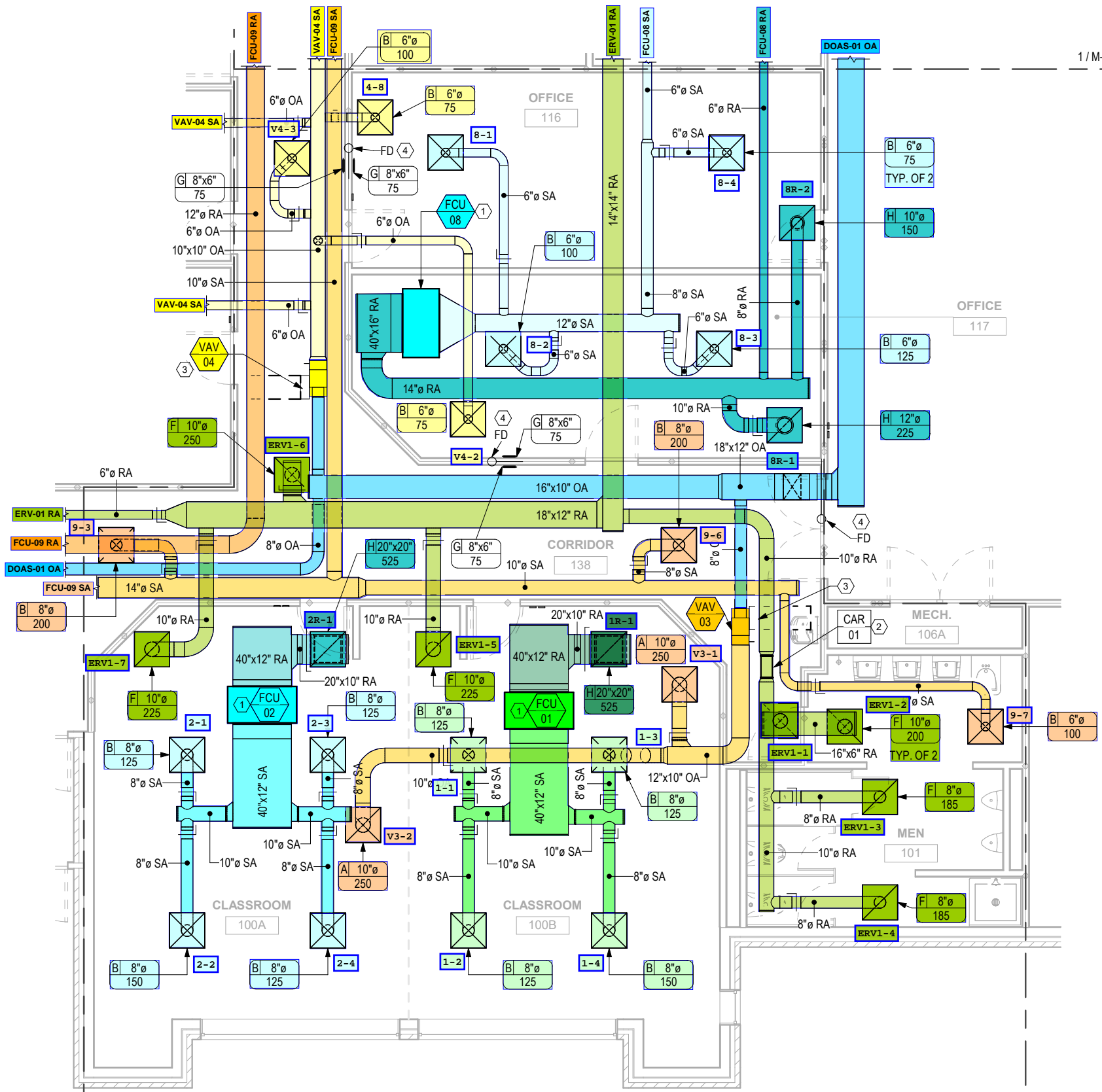


**1** MECHANICAL FIRST FLOOR DUCTWORK PLAN - AREA A  
 3/16" = 1'-0"

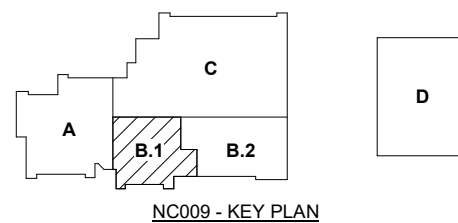


# SHEET KEY NOTES

1. PROVIDE HYDRONIC HEATING & COOLING FAN COIL UNIT. PROVIDE UNIT WITH DRAIN PAN AND CONDENSATE P-TRAP. REFER TO SCHEDULE ON M-601 AND DETAIL D4 / M-504 FOR ADDITIONAL INFORMATION. REFER TO DETAIL C8 / M-503 FOR ADDITIONAL P-TRAP INFORMATION.
2. PROVIDE PRESSURE INDEPENDENT CONSTANT AIRFLOW REGULATOR TO MAINTAIN FIXED EXHAUST AIRFLOW FOR BATHROOM. SEE CAR SCHEDULE ON M-604 FOR MORE INFORMATION.
3. PROVIDE HYDRONIC HEATING VARIABLE VOLUME TERMINAL BOX. REFER TO DETAIL A4 / M-504 FOR EQUIPMENT DETAIL AND SCHEDULE ON M-602 FOR MORE INFORMATION.
4. PROVIDE FIRE DAMPER IN FIRE RATED WALL. REFER TO DETAIL A5 / M-501 FOR MORE INFORMATION.

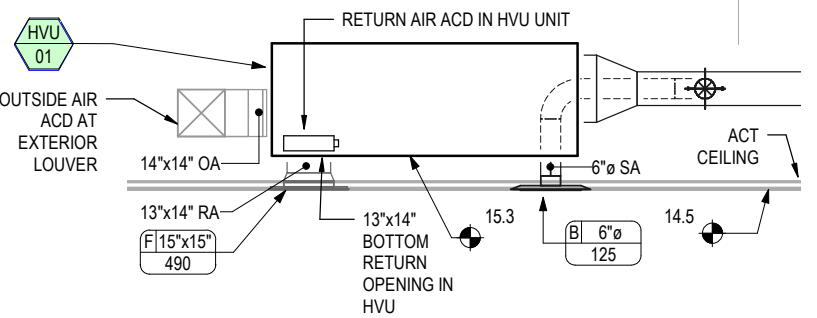


1 MECHANICAL FIRST FLOOR DUCTWORK PLAN - AREA B.1  
1/4" = 1'-0"



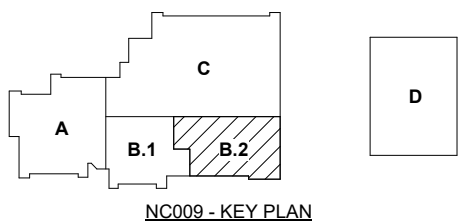
# SHEET KEY NOTES

1. PROVIDE TRANSFER GRILLE BELOW ASSEMBLY HALL 106 CEILING.
2. EXHAUST DUCT RISER TO PREVIOUS LOCATION OF ROOF MOUNTED EXHAUST FAN DUCT RISER. REUSE ROOF OPENING.
3. SUPPLY AND EXHAUST DUCT RISER TO PREVIOUS LOCATION OF (D)EF-8 AND (D) SF-1 FOR COMMERCIAL KITCHEN HOOD. PROVIDE NEW SUPPLY AND EXHAUST DUCTWORK ROUTED TO NEW UPBLAST EXHAUST FAN KEF-01 & SUPPLY FAN KSF-01 USING EXISTING ROOF OPENINGS. DUCTWORK SHALL BE STAINLESS STEEL GREASE EXHAUST DUCTWORK NOT LESS THAN 0.048" (NO. 18 GAGE) IN THICKNESS FOR TYPE I HOOD. EXHAUST DUCT TO BE AS SHORT/DIRECT AS POSSIBLE. DUCTWORK MUST HAVE CONTINUOUS LIQUID-TIGHT JOINTS. RECONNECT NEW DUCTWORK TO EXISTING HOOD DUCT CONNECTIONS.
4. PROVIDE EXTERIOR DOOR FLY FAN AIR CURTAIN FF-1. UNIT SHALL BE NON HEATING FOR A ESTIMATED 36" x 84" DOOR SIZE. REFER TO SCHEDULE ON M-603 AND DETAIL F4 / M-504 FOR MORE INFORMATION.
5. PROVIDE NEW EXHAUST DUCT CONNECTION TO EXISTING HOOD DUCT CONNECTION.
6. EXISTING HOOD SHALL BE FULLY CLEANED INCLUDING ALL INTERIOR AND EXTERIOR HOOD SURFACES, AND GREASE TRAP. HOOD FILTERS SHALL BE REPLACED WITH NEW.
7. PROVIDE THREE HVAC EMERGENCY SHUT DOWN BUTTONS AS SHOWN ON PLANS. LOCATE ONE OF THE HVAC EMERGENCY SHUT DOWN BUTTONS NEAR THE FIRE ALARM LOCAL OPERATOR CONSOLE LOCATED IN ADMIN 128.
8. PROVIDE HYDRONIC HEATING ONLY FAN COIL UNIT. REFER TO SCHEDULE ON M-601 AND DETAIL D4 / M-504 FOR ADDITIONAL INFORMATION.
9. PROVIDE HYDRONIC HEATING VENTILATING UNIT HVU-02 FOR ASSEMBLY HALL CONDITIONING. PROVIDE HANGER KIT AND SUSPEND FROM ROOM. REFER TO M-114 FOR OUTSIDE AIR DUCT ROUTING TO OUTSIDE AIR INTAKE LOUVER. PROVIDE UNIT WITH MIXING BOX WITH BACK OUTSIDE AIR INLET AND BOTTOM RETURN INLET. RETURN AIR INLET SHALL BE PROVIDED WITH INTEGRAL OPPOSED BLADE DAMPER. OUTSIDE AIR SHALL BE PROVIDED WITH OPPOSED BLADE DAMPER AT INTAKE LOUVER LOCATION. PROVIDE ACOUSTICAL SOLUTIONS 2" THICK AUDIOSEAL ABBC-13 OR APPROVED EQUAL SOUND BLANKET WRAP. REFER TO DETAIL D1 / M-506, SCHEDULE ON M-602 AND CONTROLS DIAGRAM ON M-711 FOR MORE INFORMATION. REFER TO A1 / M-802 FOR ISOMETRIC VIEW OF HVU. REFER TO SECTION VIEW ON 2 / M-113 FOR MORE INFORMATION.
10. EXISTING ANSUL FIRE SUPPRESSION SYSTEM PANEL WITH EXHAUST FAN ON / OFF SWITCH TO REMAIN. THE EXISTING KITCHEN HOOD FIRE SUPPRESSION SYSTEM SHALL REMAIN AND COMPONENTS BE UPDATED AS NECESSARY FOR A FULLY FUNCTIONAL SYSTEM INCLUDING A NFPA FIRE SUPPRESSION SYSTEM INSPECTION.
11. PROVIDE FIRE DAMPER IN FIRE RATED WALL. REFER TO DETAIL A5 / M-501 FOR MORE INFORMATION.



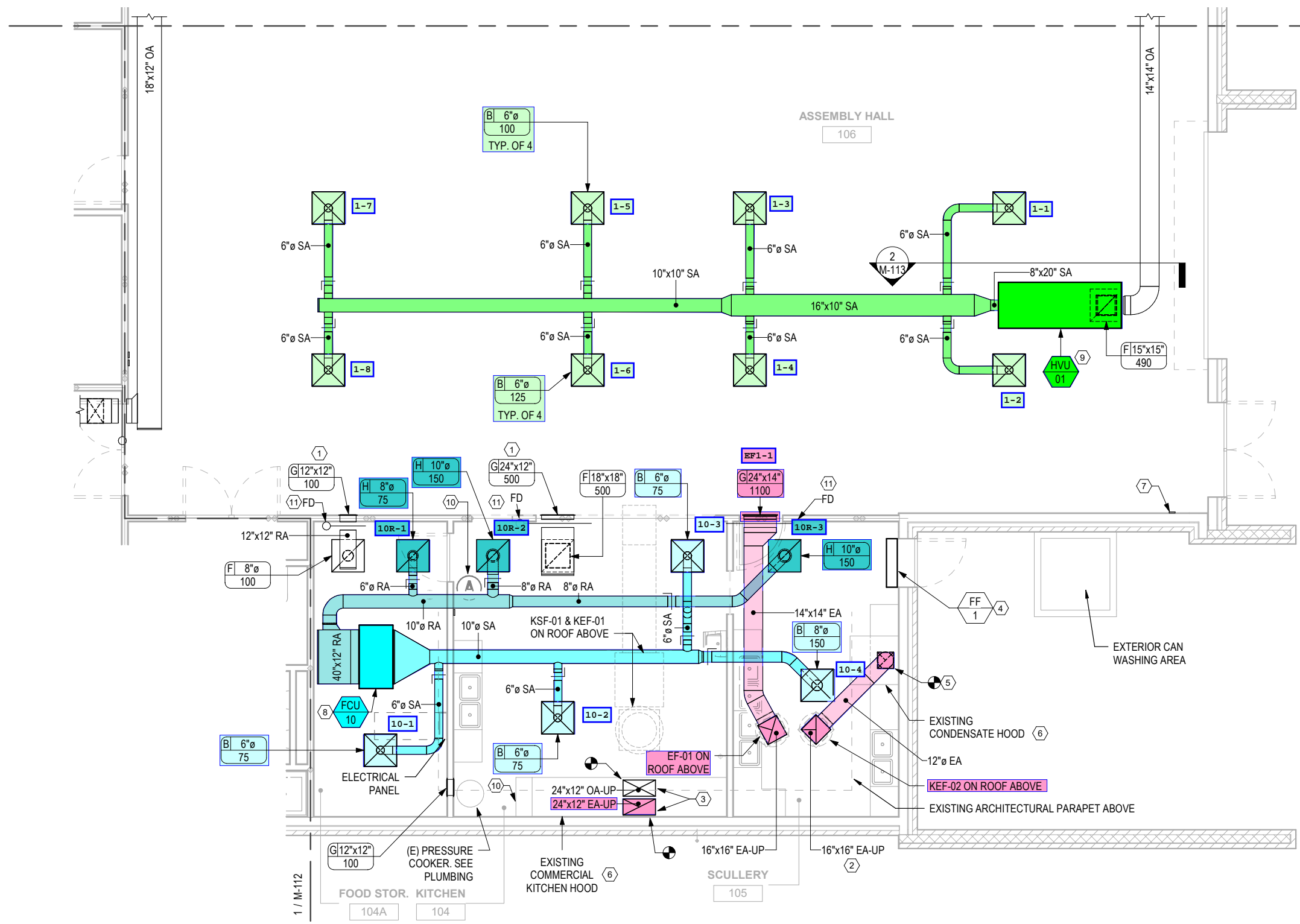
2 HVU-01 SECTION

3/8" = 1'-0"  
0 2' 4' 6'



1 MECHANICAL FIRST FLOOR DUCTWORK PLAN - AREA B.2

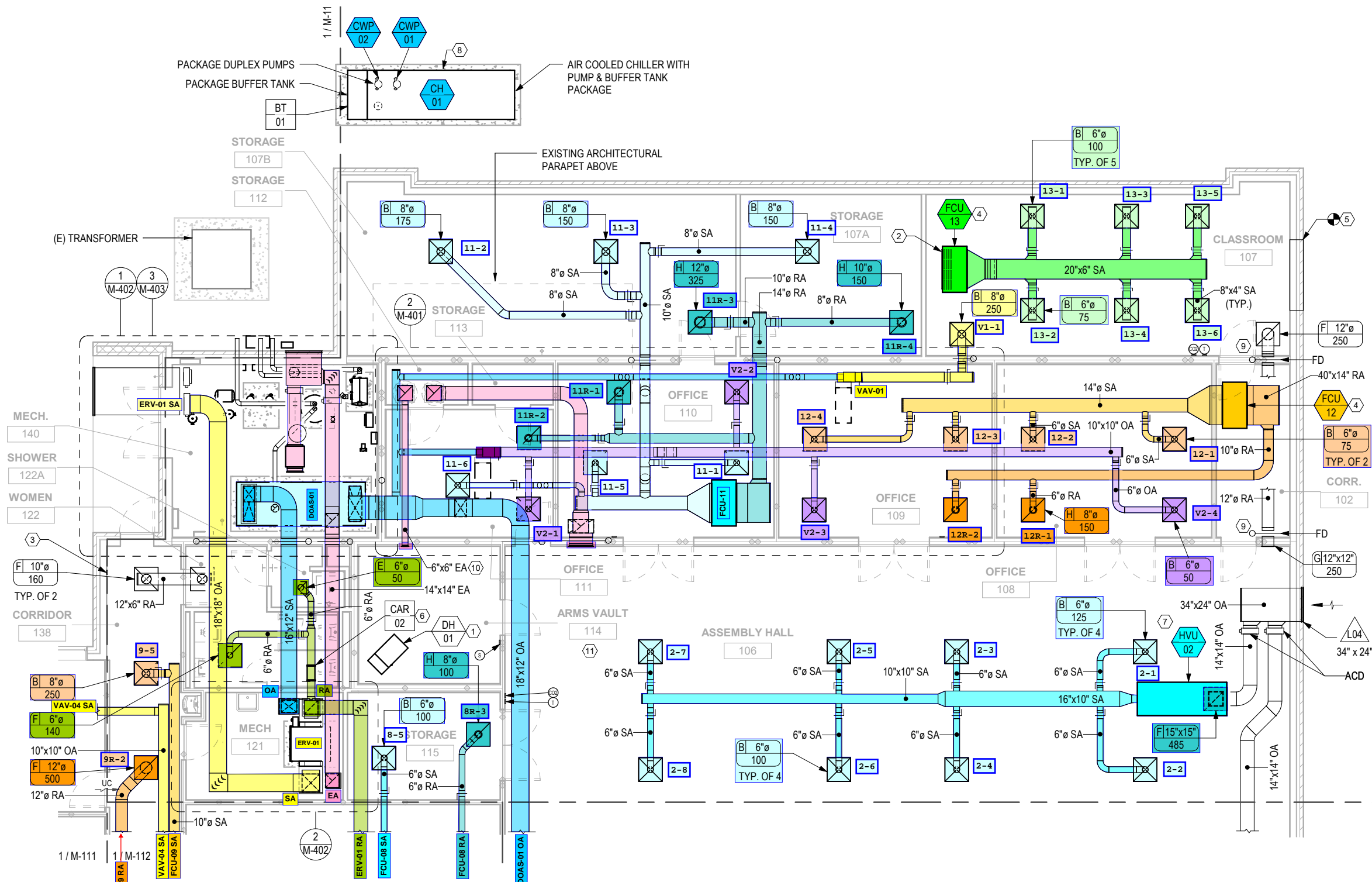
1/4" = 1'-0"



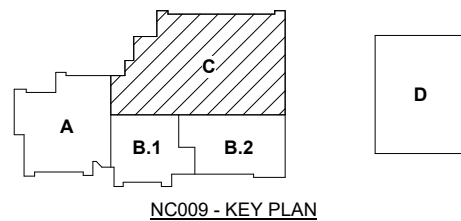
1 / M-112

# SHEET KEY NOTES

1. PROVIDE COMMERCIAL TYPE DEHUMIDIFIER. UNIT SHALL BE SUSPENDED FROM CEILING AND POWER SHALL BE HARD WIRED. PROVIDE SUPPORT BRACKET, INTEGRAL DEHUMIDISTAT, AND CONDENSATE PUMP KIT. ROUTE PUMPED CONDENSATE TO MOP SINK IN ROOM MECH 121.
2. CEILING RECESSED FAN COIL UNIT WITH HINGED COVER. PROVIDE BOTTOM STAMPED LOUVER RETURN FOR FAN COIL. COORDINATE WITH CONTRACTING OFFICER REPRESENTATIVE (COR) FOR UNIT COLOR FINISH.
3. PROVIDE THREE HVAC EMERGENCY SHUT DOWN BUTTONS AS SHOWN ON PLANS. LOCATE ONE OF THE HVAC EMERGENCY SHUT DOWN BUTTONS NEAR THE FIRE ALARM LOCAL OPERATOR CONSOLE LOCATED IN ADMIN 128.
4. PROVIDE HYDRONIC HEATING & COOLING FAN COIL UNIT. PROVIDE UNIT WITH DRAIN PAN AND CONDENSATE P-TRAP. REFER TO SCHEDULE ON M-601 AND DETAIL D4 / M-504 FOR ADDITIONAL INFORMATION. REFER TO DETAIL C8 / M-503 FOR ADDITIONAL P-TRAP INFORMATION.
5. PREVIOUS LOUVER OPENING THROUGH EXTERIOR WALL. OPENING SHALL BE INFILLED, WALL CONSTRUCTION SHALL MATCH EXISTING WALL. MATCH EXTERIOR TO EXISTING. REFER TO DETAIL E6 / M-508 FOR MORE INFORMATION.
6. PROVIDE PRESSURE INDEPENDENT CONSTANT AIRFLOW REGULATOR TO MAINTAIN FIXED EXHAUST AIRFLOW FOR BATHROOM. SEE CAR SCHEDULE ON M-604 FOR MORE INFORMATION.
7. PROVIDE HYDRONIC HEATING VENTILATING UNIT HVU-01 FOR ASSEMBLY HALL CONDITIONING. PROVIDE HANGER KIT AND SUSPEND FROM ROOM. PROVIDE UNIT WITH MIXING BOX WITH BACK OUTSIDE AIR INLET AND BOTTOM RETURN INLET. RETURN AIR INLET SHALL BE PROVIDED WITH INTEGRAL OPPOSED BLADE DAMPER. OUTSIDE AIR SHALL BE PROVIDED WITH OPPOSED BLADE DAMPER AT INTAKE LOUVER LOCATION. PROVIDE ACOUSTICAL SOLUTIONS 2" THICK AUDIOSEAL ABBG-13 OR APPROVED EQUAL SOUND BLANKET WRAP. REFER TO DETAIL D1 / M-506, SCHEDULE ON M-602 AND CONTROLS DIAGRAM ON M-711 FOR MORE INFORMATION. REFER TO A1 / M-802 FOR ISOMETRIC VIEW OF HVU. REFER TO SECTION VIEW ON 2 / M-113 FOR MORE INFORMATION.
8. PROVIDE NEW AIR COOLED CHILLER WITH PUMP PACKAGE INCLUDING DUAL PUMPS, BUFFER TANK, AND EXPANSION TANK. REFER TO DETAIL A1 / M-505 AND E1 / M-803 FOR MORE CHILLER DETAIL AND HYDRONIC ACCESSORIES INFORMATION. REFER TO M-600 FOR MORE SCHEDULE INFORMATION.
9. PROVIDE FIRE DAMPER IN FIRE RATED WALL. REFER TO DETAIL A5 / M-501 FOR MORE INFORMATION.
10. PROVIDE 150 CFM OF EXHAUST FOR ARMS VAULT. REFER TO DETAIL E1/M-505 FOR VAULT PENETRATION.
11. PROVIDE ARMS VAULT WITH VENTILATION / EXHAUST SYSTEM USING EF-02 ON ROOF. REFER TO ARMS VAULT CONTROL DIAGRAM A1 / M-713. ARMS VAULT MAKE UP AIR SHALL BE PROVIDED BY OPEN VAULT DOOR DURING TIME OF USE.

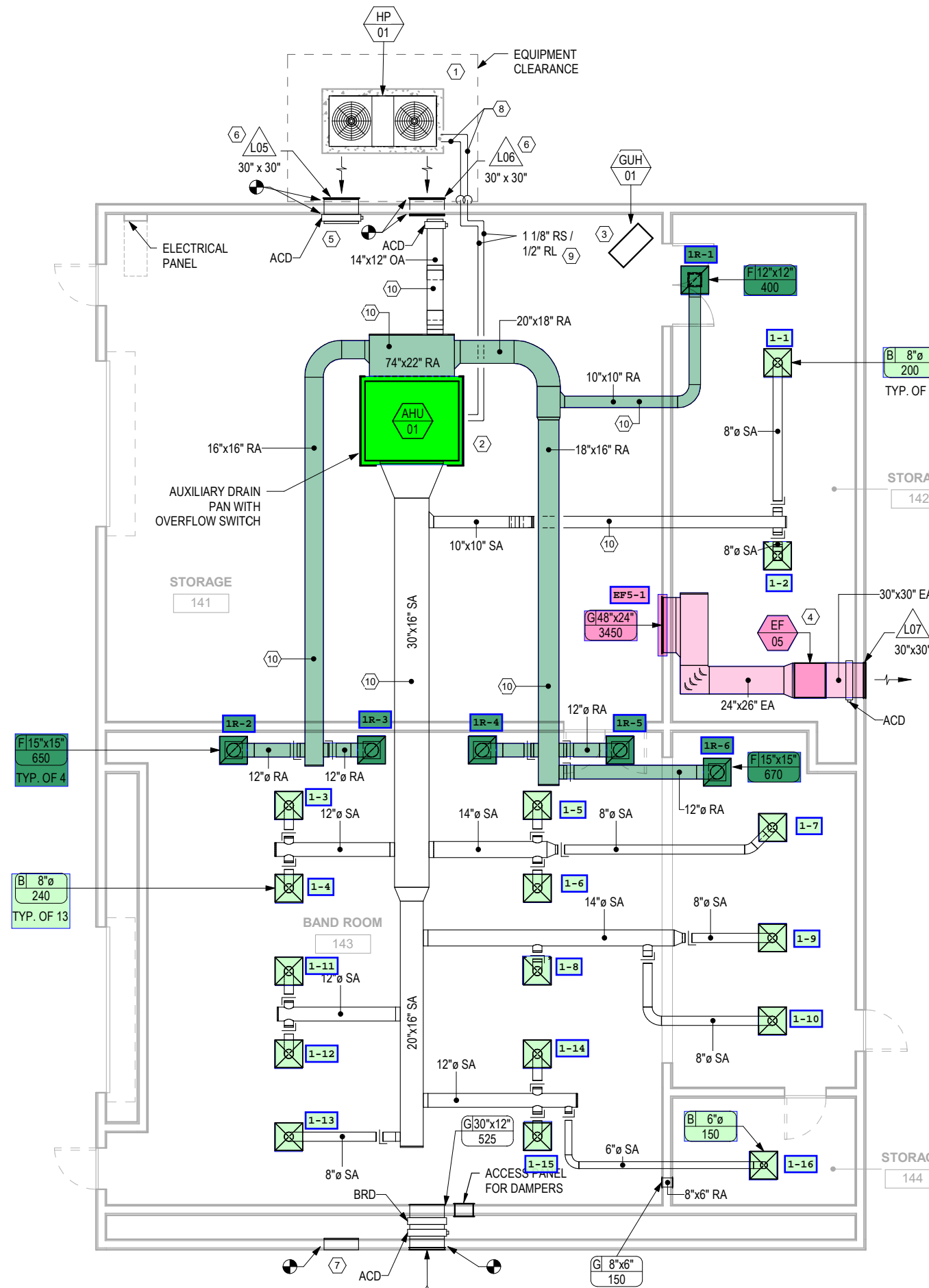
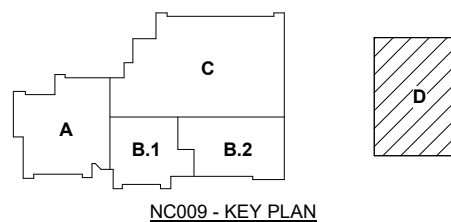


**1 MECHANICAL FIRST FLOOR DUCTWORK PLAN - AREA C**  
 3/16" = 1'-0"

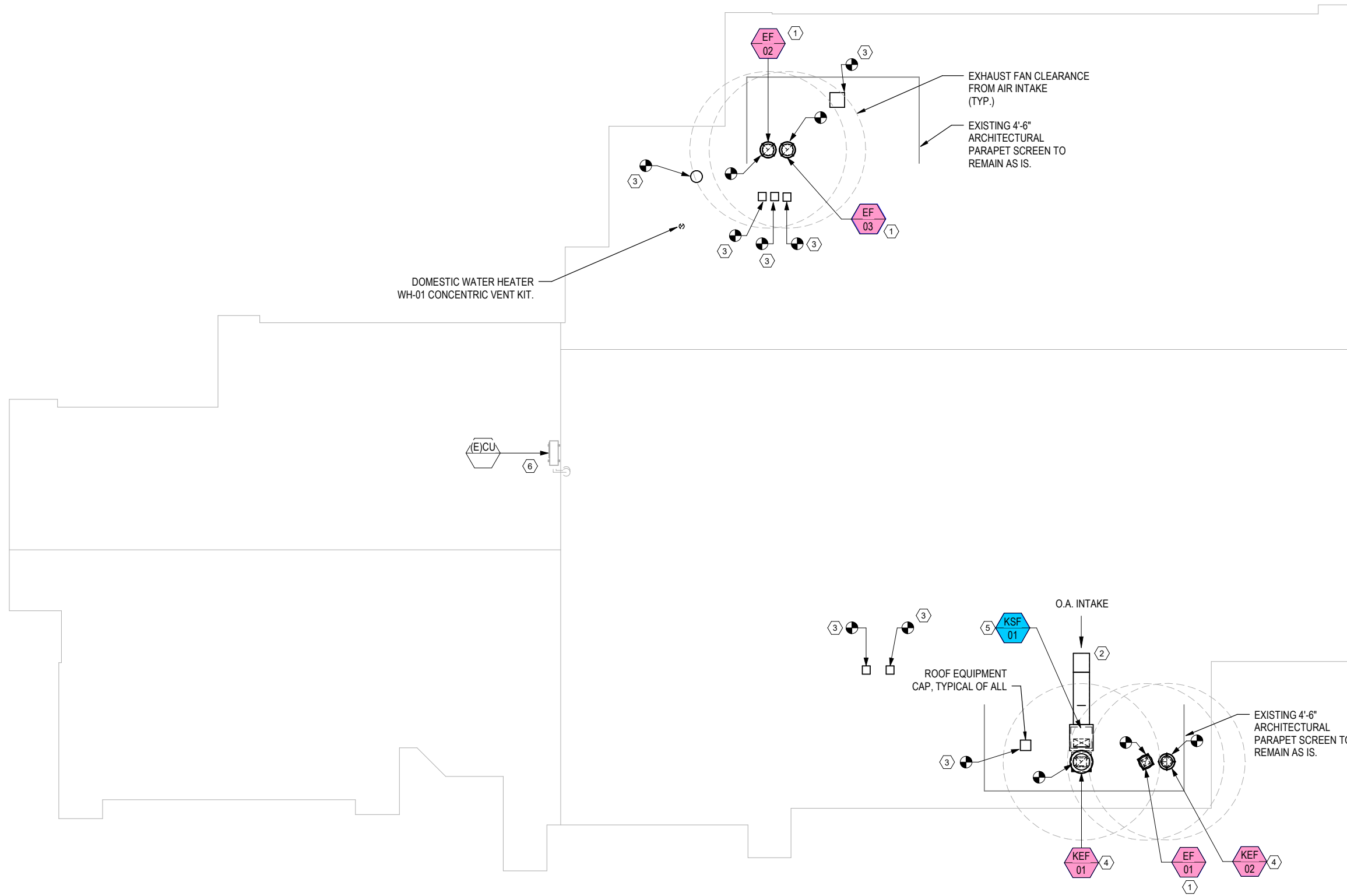


# SHEET KEY NOTES

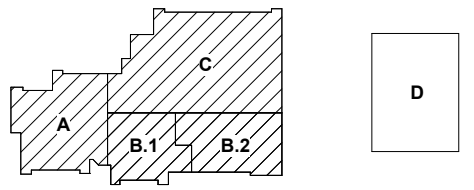
1. PROVIDE ON GRADE HEAT PUMP CONDENSING UNIT ON NEW CONCRETE EQUIPMENT PAD. ROUTE REFRIGERANT PIPING UTILIZING EXISTING PIPE PENETRATIONS TO INDOOR AIR HANDLER AHU-01. REFER TO MECHANICAL SCHEDULE ON M-603 FOR MORE INFORMATION.
2. PROVIDE SUSPENDED INDOOR AIR HANDLER WITH VIBRATION ISOLATION HANGAR KIT. PROVIDE UNIT WITH DRAIN PAN WITH CONDENSATE ROUTED THROUGH EXTERIOR WALL TO DISCHARGE ON GRADE VIA SPLASH BLOCK. PROVIDE AUXILIARY DRAIN PAN UNDER UNIT WITH OVER FLOW DETECTION / SHUT OFF SWITCH. REFER TO P-111 FOR NEW CONDENSATE PIPE ROUTING. REFER TO MECHANICAL SCHEDULE ON M-603 FOR MORE INFORMATION.
3. PROVIDE GAS-FIRED UNIT HEATER WITH HANGER KIT AND CONCENTRIC VENT / FLUE KIT. REFER TO MECHANICAL SCHEDULE ON M-601 FOR MORE INFORMATION. REFER TO P-111 FOR RECONNECTION TO NATURAL GAS PIPING.
4. PROVIDE INLINE CABINET EXHAUST FAN FOR STORAGE 141 SUMMER VENTILATION PURPOSES. FAN SHALL BE INTERLOCKED WITH OPERATION OF LOUVER L-07. REFER TO MECHANICAL SCHEDULES FOR MORE INFORMATION.
5. EXISTING 36"x36" LOUVER TO BE REUTILIZED FROM EF-08 INTAKE AIR. PROVIDE NEW DUCTWORK WITH AUTOMATIC AIR DAMPER AND OPEN ENDED DUCT TERMINATED WITH SAFETY SCREEN.
6. PROVIDE INTAKE LOUVER RECONNECTED TO DUCT SLEEVE THROUGH EXTERIOR WALL FROM PREVIOUS EXHAUST LOUVER & BACK DRAFT DAMPER. SEAL WEATHER TIGHT. CONFIRM SIZE IN FIELD PRIOR TO PURCHASING. REFER TO DETAIL E8 / M-503 FOR MORE INFORMATION.
7. PATCH OPENING FROM PREVIOUS LOUVER. SEAL WEATHER TIGHT AND MATCH TO EXISTING CONDITIONS OF EXTERIOR WALL. REFER TO M-508 FOR PATCHING DETAILS.
8. EXTERIOR PIPE INSULATION SHALL HAVE JACKETING THAT IS HIGH UV, IMPACT, AND TEAR RESISTANT. JACKET APPLICATION SHALL BE SEALED WEATHER TIGHT. PIPE ENCLOSURE SHALL BE SEALED TO BE RODENT RESISTANT. REFER TO PIPE INSULATION SCHEDULE ON M-002 FOR MORE INFORMATION. REFER TO DETAIL E3, C6, C8 ON SHEET M-502 FOR ADDITIONAL DETAIL FOR EXTERIOR ROUTED REFRIGERANT PIPING.
9. ROUTE REFRIGERANT SUCTION AND REFRIGERANT LIQUID LINES PER MANUFACTURER REQUIREMENTS. PIPE SIZES ARE FOR REFERENCE ONLY FROM BASIS OF DESIGN EQUIPMENT.
10. DUCTWORK IN 141 SHALL BE RIGIDLY INSULATED AND PAINTED TO MATCH EXISTING CONDITIONS. REFER TO GENERAL NOTE 15 ON M-001 & DUCT INSULATION SCHEDULE ON M-002 FOR MORE INFORMATION.
11. PROVIDE NEW LOUVER IN EXISTING 30" x 30" OPENING. CONFIRM SIZE IN FIELD PRIOR TO PURCHASING. PROVIDE AUTOMATED CONTROL DAMPER AND BAROMETRIC RELIEF DAMPER FOR OUTSIDE AIR RELIEF TO AHU-01 BY SIDE WALL GRILLE BELOW CEILING. PROVIDE 18" x 18" ACCESS PANEL ON SIDE WHERE DAMPER COMPONENTS THAT NEED ACCESS ARE LOCATED. ROOM PRESSURIZATION SHALL BE SET TO 0.1" W.C. AND SET DURING TAB TO MAINTAIN BAND ROOM POSITIVELY PRESSURIZED.



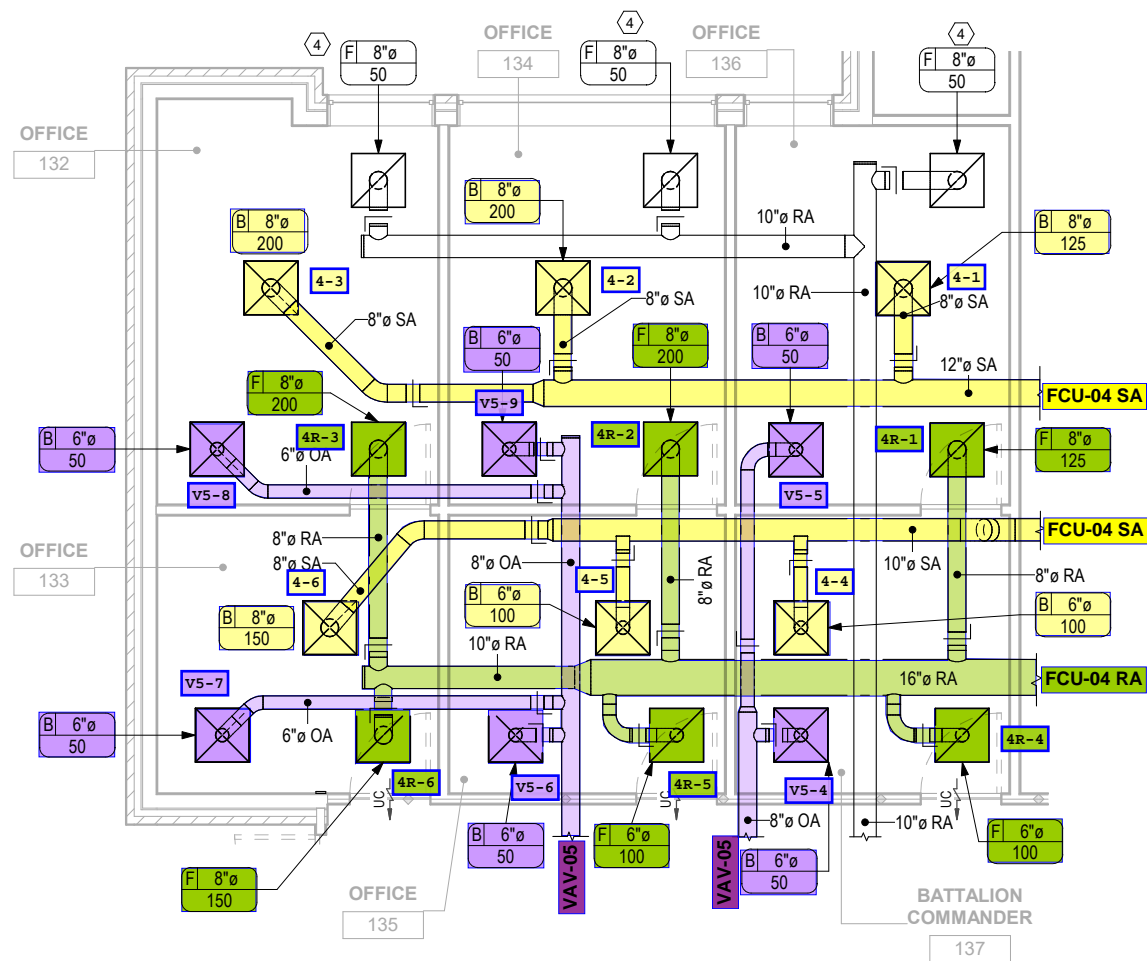
**1** MECHANICAL FIRST FLOOR DUCTWORK & PIPING PLAN - AREA D  
3/16" = 1'-0"



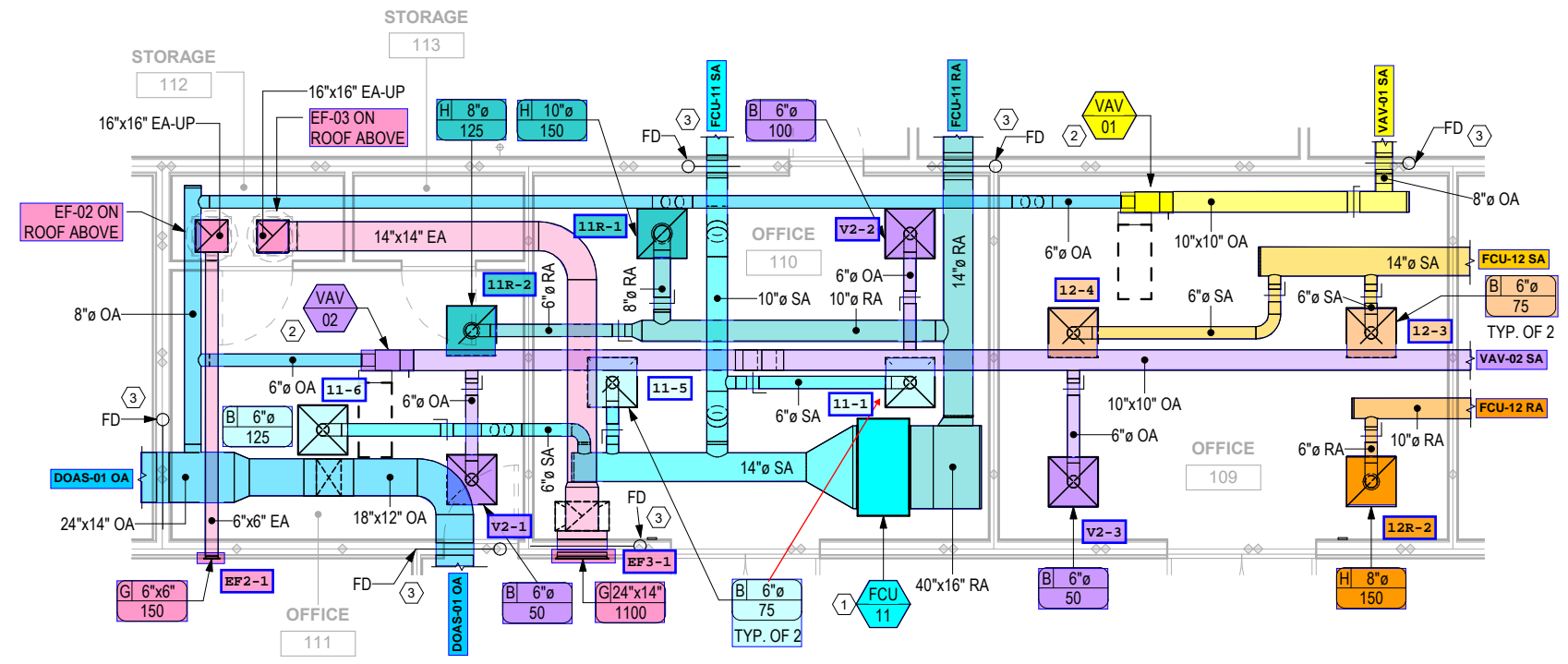
1 MECHANICAL ROOF PLAN - AREA A THRU C  
 1/8" = 1'-0"



NC009 - KEY PLAN



**1** ENLARGED MECHANICAL DUCTWORK PLAN - AREA A  
 1/4" = 1'-0"  
**1 / M-401**

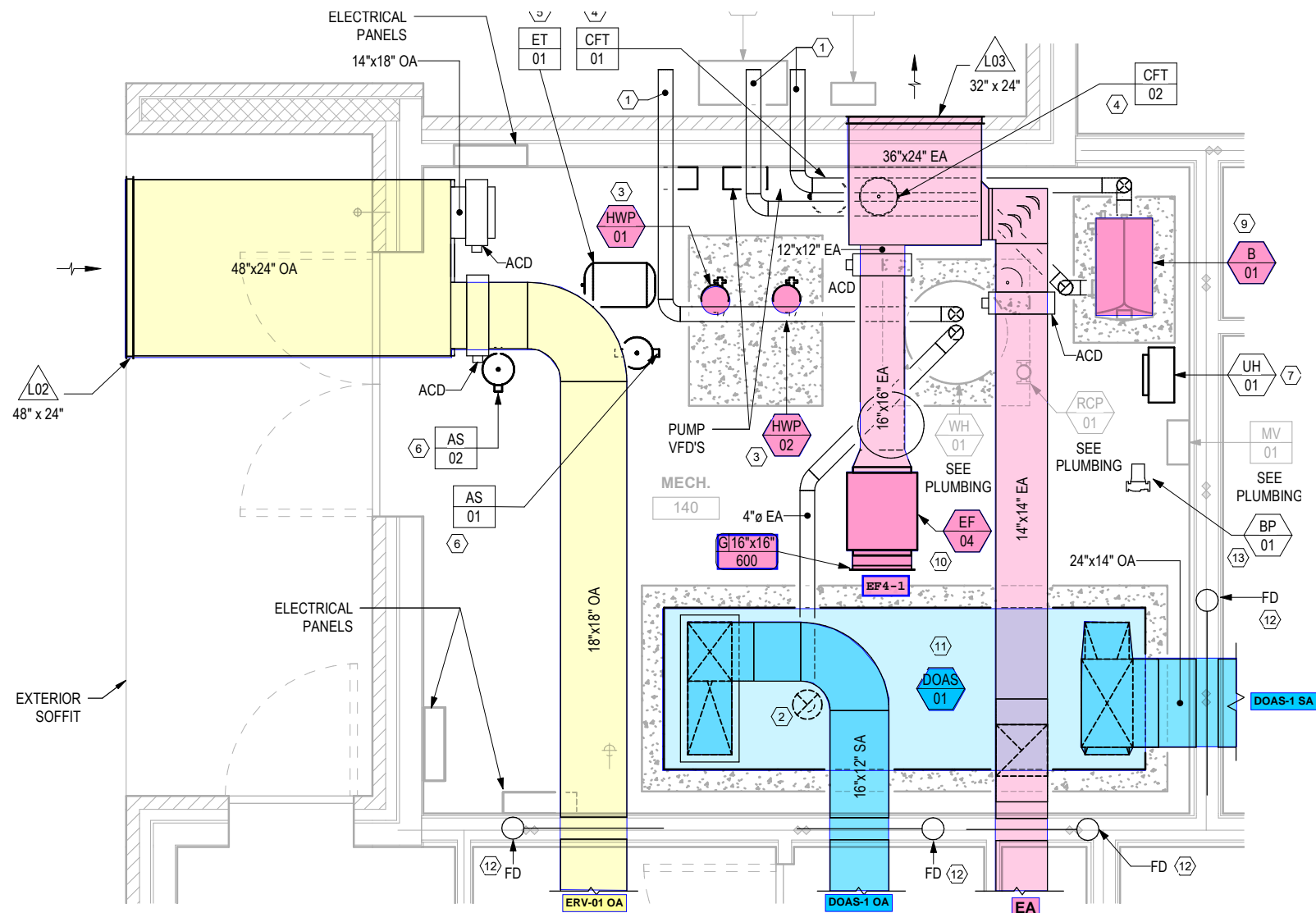


**2** ENLARGED MECHANICAL DUCTWORK PLAN - AREA C  
 1/4" = 1'-0"

**2 / M-401**

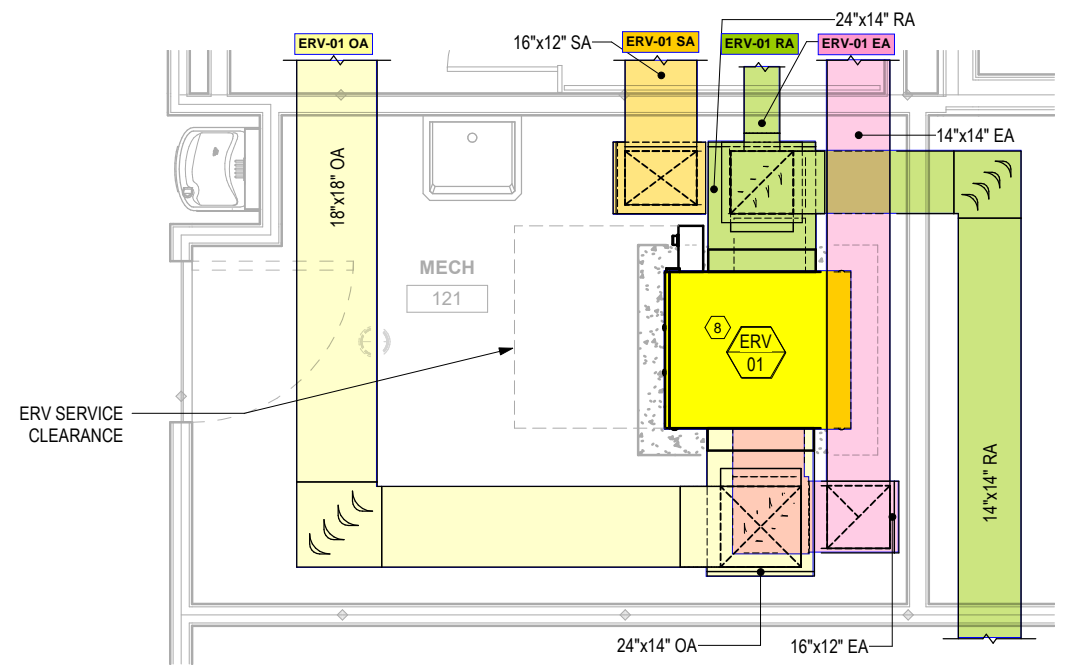
**SHEET KEY NOTES**

1. PROVIDE HYDRONIC HEATING & COOLING FAN COIL UNIT. PROVIDE UNIT WITH DRAIN PAN AND CONDENSATE P-TRAP. REFER TO SCHEDULE ON M-601 AND DETAIL D4 / M-504 FOR ADDITIONAL INFORMATION. REFER TO DETAIL C8 / M-503 FOR ADDITIONAL P-TRAP INFORMATION.
2. PROVIDE HYDRONIC HEATING VARIABLE VOLUME TERMINAL BOX VAV-01. REFER TO DETAIL A4 / M-504 FOR EQUIPMENT DETAIL AND SCHEDULE ON M-602 FOR MORE INFORMATION.
3. PROVIDE FIRE DAMPER IN FIRE RATED WALL. REFER TO DETAIL A5 / M-501 FOR MORE INFORMATION.
4. TRANSFER RETURN GRILLE FOR TRANSFER AIR INTO CORRIDOR 138.



**1** ENLARGED MECHANICAL DUCTWORK PLAN - MECHANICAL ROOM 140  
1/2" = 1'-0"

**1 / M-402**



**2** ENLARGED MECHANICAL DUCTWORK PLAN - MECHANICAL ROOM 121  
1/2" = 1'-0"

**2 / M-402**

**SHEET KEY NOTES**

1. PROVIDE NATURAL GAS FIRED EQUIPMENT DIRECT VENT DUCTING. PROVIDE 4" INTAKE AND EXHAUST DIRECT DUCT CONNECTION PER MANUFACTURER'S REQUIREMENTS.
2. PROVIDE DIRECT VENT FLUE UP AND CONNECT TO EXISTING FLUE THROUGH ROOF. PROVIDE TRANSITION AS REQUIRED TO CONNECT TO EXISTING FLUE DIAMETER AND REUSE EXISTING FLUE TERMINATION AT THE ROOF.
3. PROVIDE INLINE PUMP ON CONCRETE EQUIPMENT PAD. REFER TO PUMP DETAIL C1 / M-502, HYDRONIC DIAGRAM ON M-803, AND M-600 FOR MORE SCHEDULE INFORMATION.
4. PROVIDE CHEMICAL FEED TANK FOR HYDRONIC SYSTEMS ON CONCRETE EQUIPMENT PAD. REFER TO DETAIL F8 / M-505, M-803, AND M-604 FOR MORE INFORMATION. PROVIDE TANK STRAP MOUNTING BRACKET TO ATTACH TANK TO WALL.
5. PROVIDE SUSPENDED EXPANSION TANK FOR HYDRONIC SYSTEMS. REFER TO DETAIL E4 / M-503, M-803, AND M-600 FOR MORE INFORMATION.
6. PROVIDE AIR SEPARATOR FOR HYDRONIC SYSTEMS. REFER TO DETAIL E4 / M-503, M-803, AND M-604 FOR MORE INFORMATION.
7. PROVIDE HYDRONIC HEATING UNIT HEATER UH-01. REFER TO DETAIL A1 / M-503 FOR COIL PIPING COMPONENTS AND ACCESSORIES. REFER TO SCHEDULE ON M-601 FOR MORE INFORMATION.
8. PROVIDE PASSIVE TWO - FAN ENERGY RECOVERY VENTILATOR ERV-01 AS PART OF ENERGY RECOVERY SYSTEM FOR DEDICATED OUTSIDE AIR UNIT DOAS-01. MOUNT UNIT ON CONCRETE EQUIPMENT PAD. REFER TO M-602 FOR MORE SCHEDULED INFORMATION. REFER TO A7 / M-802 FOR ISOMETRIC VIEW OF ERV-01.
9. PROVIDE HEATING HOT WATER CONDENSING BOILER B-01. PROVIDE WITH DIRECT VENT KIT AND CONDENSATE NEUTRALIZATION KIT. ROUTE CONDENSATE TO NEAREST FLOOR DRAIN, REFER TO PLUMBING FOR CONDENSATE ROUTING. REFER TO DETAIL A6 / M-506, M-803 AND M-600 FOR MORE EQUIPMENT INFORMATION.
10. PROVIDE INLINE EXHAUST FAN EF-04. PROVIDE WITH DUCTWORK ACCESSORIES AND HANGER KIT. REFER TO DETAIL C8 / M-505, AND SCHEDULED INFORMATION ON M-601.
11. PROVIDE DEDICATED OUTSIDE AIR UNIT DOAS-01. MOUNT UNIT ON CONCRETE EQUIPMENT PAD PER DETAIL D1 / M-504. PROVIDE CONDENSATE P-TRAP FOR COOLING COIL DRAIN PAN, REFER TO DETAIL C8 / M-503 FOR ADDITIONAL P-TRAP INFORMATION. REFER TO DETAIL A6 / M-506 FOR ADDITIONAL EQUIPMENT INFORMATION AS WELL AS CONTROLS INFORMATION ON DRAWING M-705 & M-706. REFER TO M-602 EQUIPMENT SCHEDULE.
12. PROVIDE FIRE DAMPER IN FIRE RATED WALL. REFER TO DETAIL A5 / M-501 FOR MORE INFORMATION.
13. PROVIDE INLINE BOILER PUMP BP-01 FOR CONSTANT FLOW PUMPING INTO SECONDARY LOOP. REFER TO DETAIL A1 / M-506, M-803 AND M-600 FOR MORE EQUIPMENT INFORMATION.