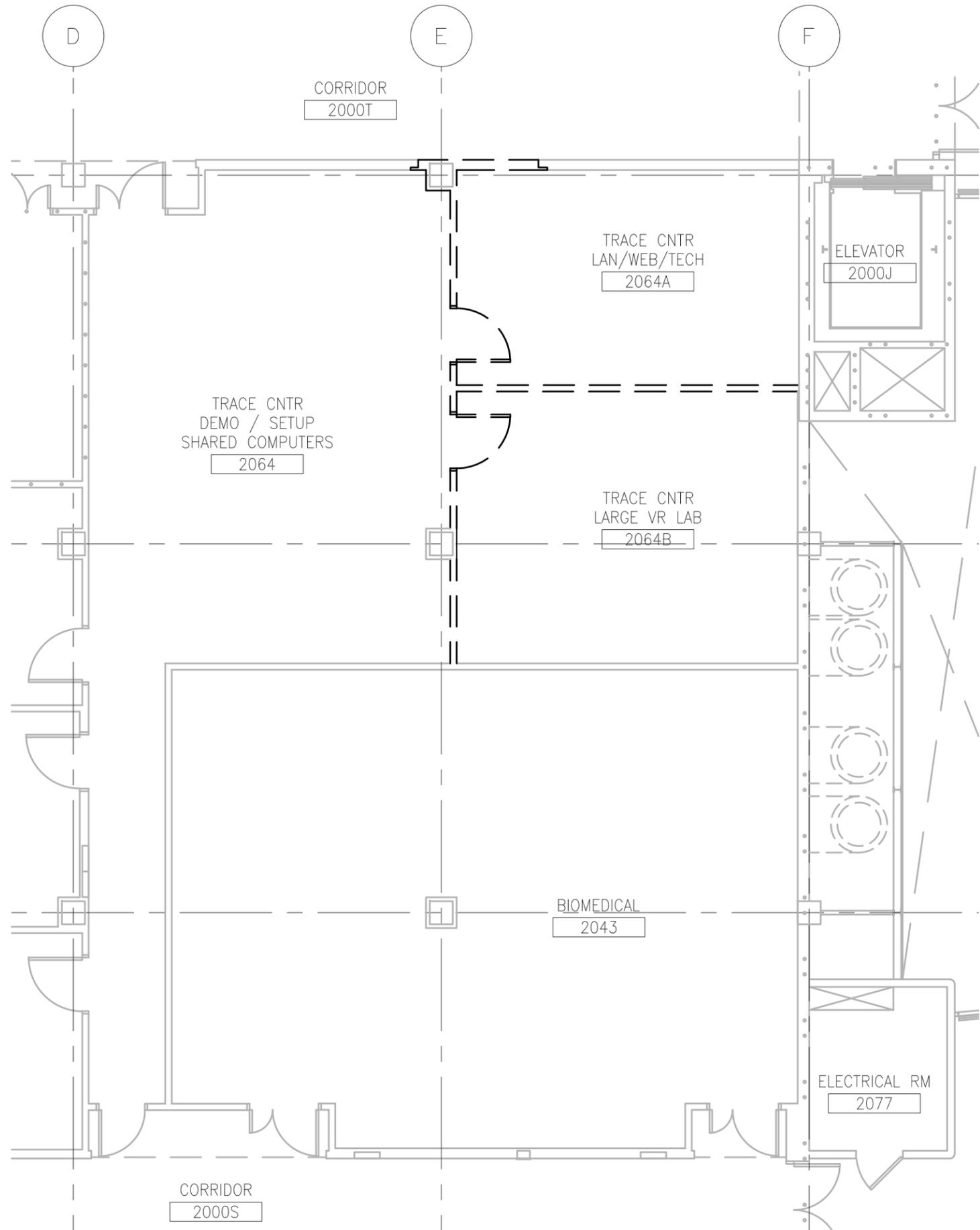


Appendix D – Existing and Proposed Drawings

- T101 Title Drawing
- A101 Key Plan
- A201 Second Floor Demolition Plan
- A202 Second Floor Proposed Plan
- F201 Second Floor Proposed Plan – Fire Protection
- P200 Mezzanine Proposed Plan – Plumbing
- P201 Second Floor Proposed Plan – Plumbing
- M101 Second Floor Demolition Plan – HVAC
- M201 Second Floor Proposed Plan – HVAC
- M202 Penthouse Proposed Plan – HVAC
- E201 Basement Overall Plan – Electrical
- E202 Second Floor Proposed Plan – Electrical
- E203 Penthouse Overall Plan – Electrical



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A201

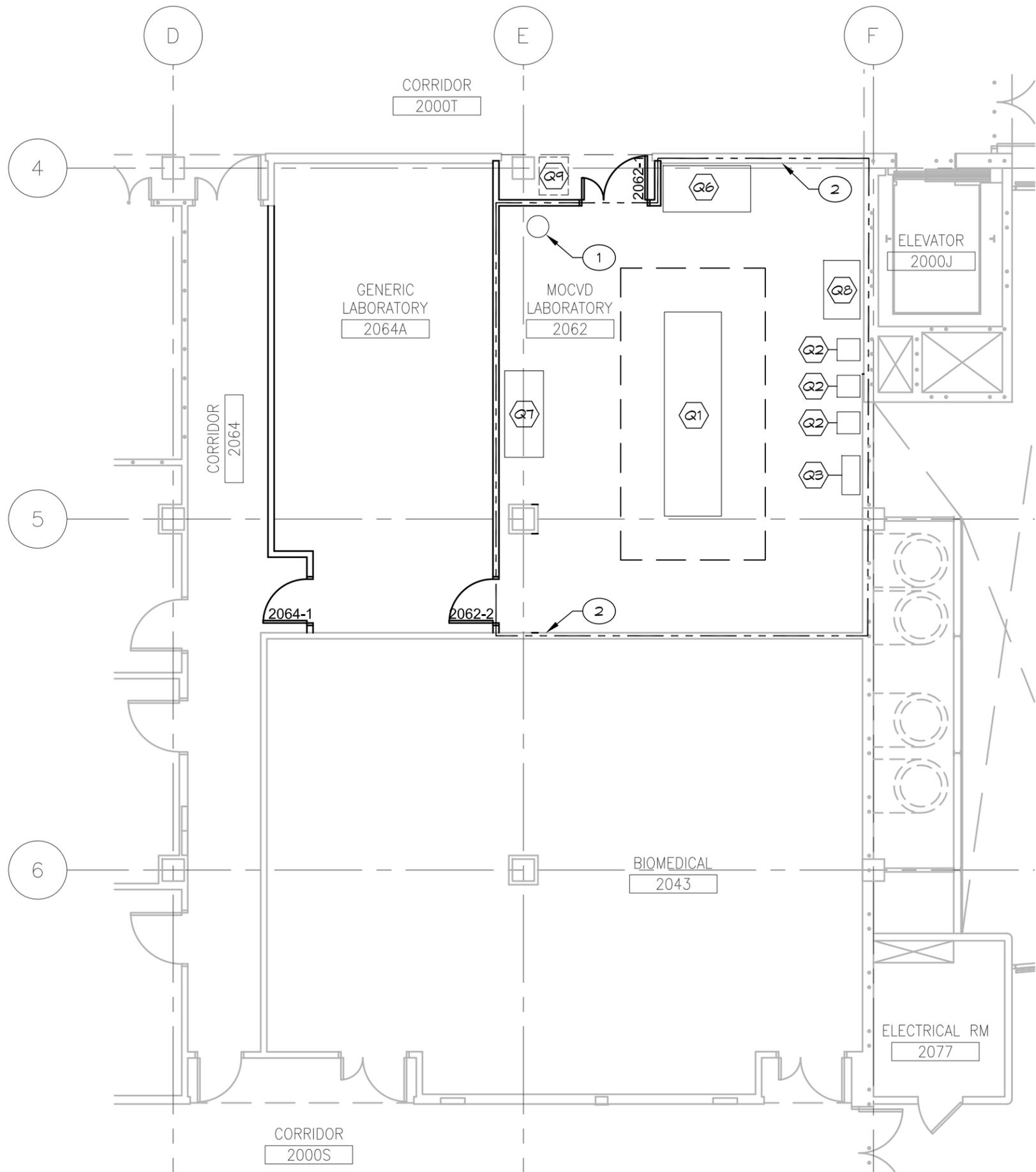
SECOND FLOOR DEMOLITION PLAN

1/8" = 1'-0"



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GENERAL NOTES

1. REFER TO APPENDIX B FOR DETAILED EQUIPMENT INFORMATION
2. REFER TO SHEET A101 FOR EXISTING FIRE BARRIERS

GRAPHIC KEY

-  EQUIPMENT TAG
-  KEYNOTE

FIRE SEPARATION RATING KEY

-  1-HOUR
-  2-HOUR

KEYNOTES

-  SAFETY SHOWER
-  MODIFY EXISTING WALL TO ACHIEVE REQUIRED FIRE RATING

EQUIPMENT SCHEDULE

-  MOCVD REACTOR
-  GAS CABINET
-  AMMONIA GAS PURIFIER
-  FUMEHOOD
-  HYDROGEN GENERATOR
-  SCRUBBER
-  MONITORING EQUIPMENT

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A202 SECOND FLOOR PROPOSED PLAN
1/8" = 1'-0"

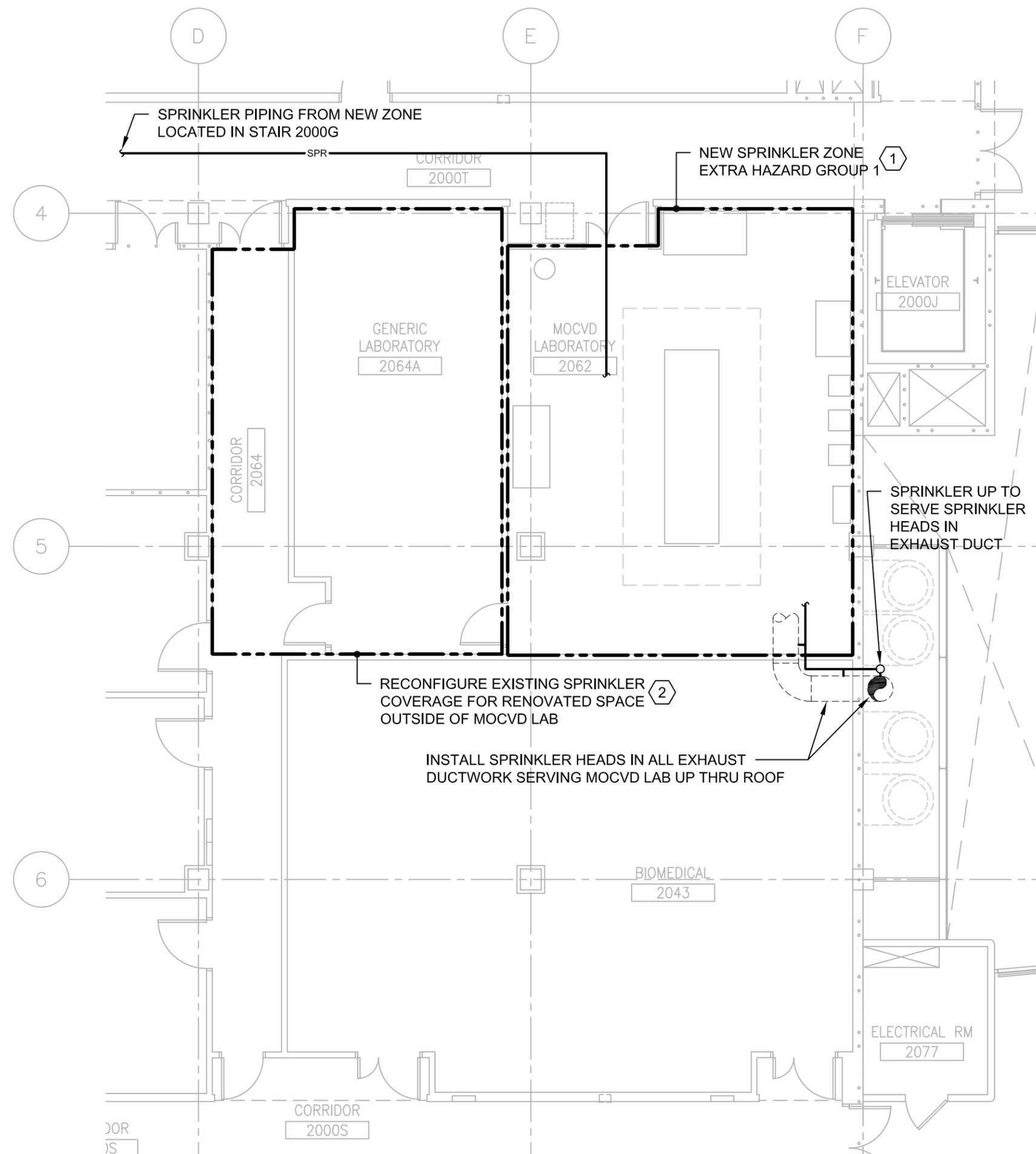


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GENERAL NOTES:

1. ALL PENETRATIONS INTO ROOM 2062 WILL BE SEALED AND REPAIRED TO MAINTAIN A 2 HOUR RATING OF ROOM WALLS.
2. WHEN PENETRATING EXISTING FLOORS FOR THE PURPOSE OF NEW SCOPE OF WORK, THE EXISTING FLOOR MUST BE CHECKED FOR POST-TENSIONED BEAM LOCATIONS IN THE AREA OF WORK. THE EXISTING FLOOR MUST BE X-RAYED AS REQUIRED TO DETERMINE THE LOCATION OF ANY POST-TENSIONED BEAMS. ANY DRILLING, OR HOLE CUTTING IN EXISTING FLOORS MUST AVOID ANY POST-TENSIONED BEAMS.

KEYED NOTES:

- 1 SPRINKLER COVERAGE FED FROM NEW SPRINKLER ZONE AS REQUIRED FOR NEW LAB. SPRINKLER HEADS WILL BE INSTALLED IN EXHAUST DUCTWORK UP THROUGH ROOF. INCLUDE DRY SPRINKLER HEADS IN DUCTWORK SUBJECT TO FREEZING TEMPERATURES. ALL NEW SPRINKLER PIPING FOR LAB AND EXHAUST DUCTWORK WILL BE FED FROM NEW SPRINKLER ZONE.
- 2 EXISTING SPRINKLER COVERAGE IN THIS AREA WILL BE RECONFIGURED FOR NEW SPACE LAYOUT. THIS AREA IS FED FROM EXISTING SPRINKLER ZONE.

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F201
SECOND FLOOR PROPOSED PLAN - FIRE PROTECTION

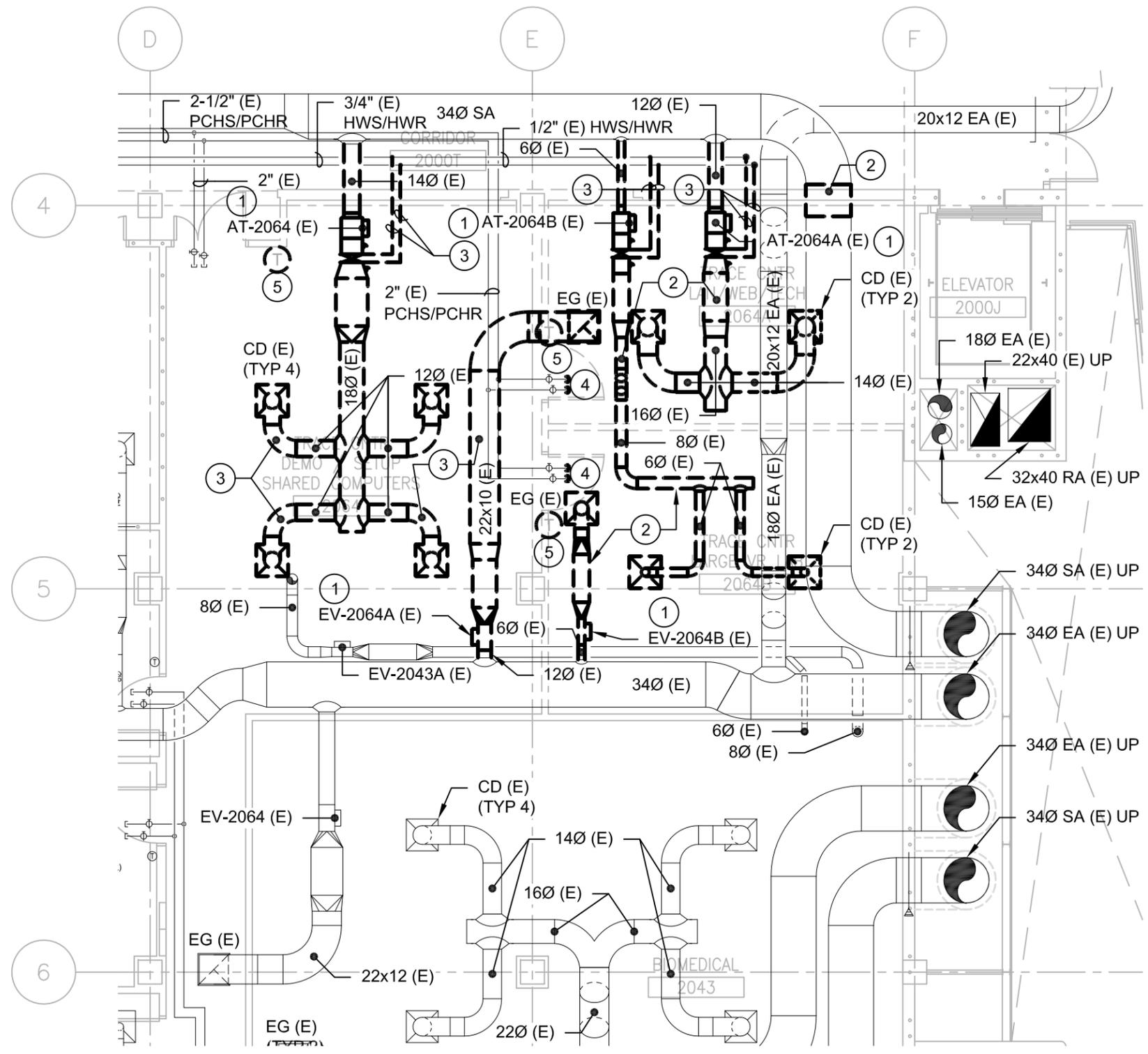
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KEYED DEMOLITION NOTES:

- ① EXISTING SUPPLY AIR OR EXHAUST AIR TERMINAL WILL BE REMOVED
- ② EXISTING AIR DUCT WILL BE REMOVED
- ③ EXISTING HOT WATER PIPE WILL BE REMOVED.
- ④ EXISTING PIPE CAPS FOR PCHS/PCHR WILL BE REMOVED
- ⑤ EXISTING THERMOSTAT WILL BE REMOVED.
- ⑥ EXISTING SUPPLY DUCT INSULATION WILL BE REMOVED, AND THE EXISTING DUCT WILL BE SAVED.

1 SECOND FLOOR DEMOLITION PLAN - HVAC
 M101



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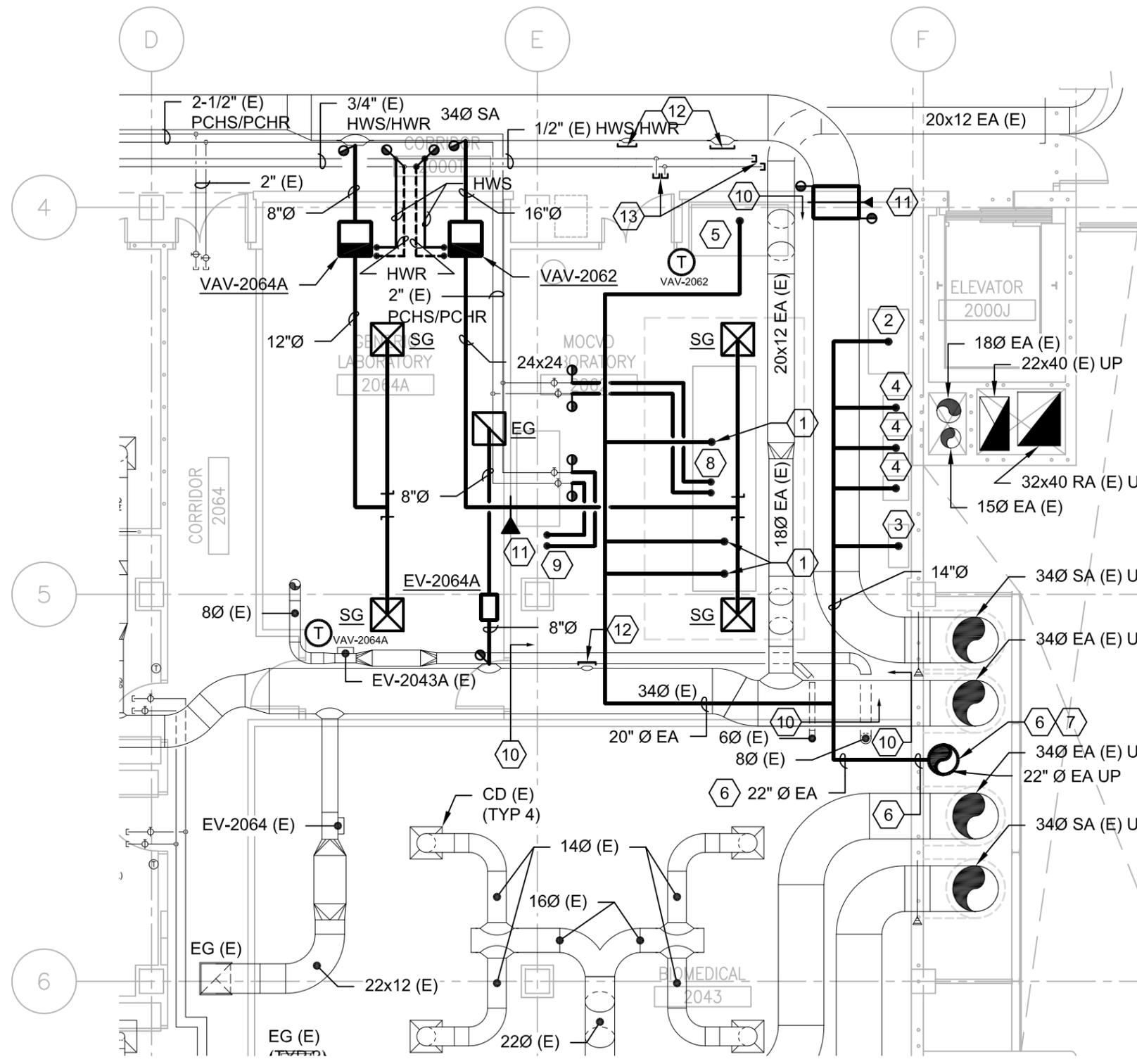
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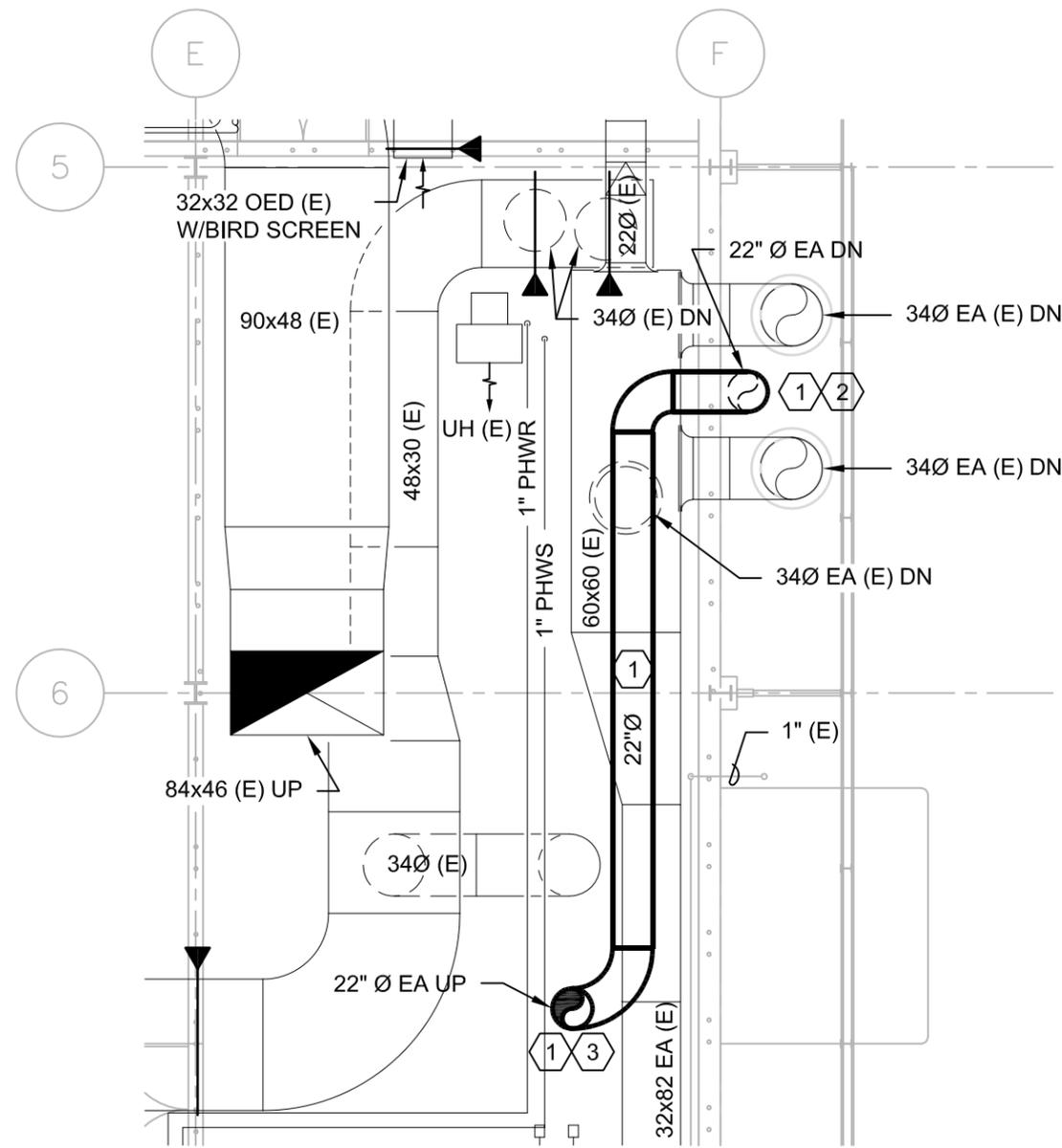
GENERAL NOTES:

1. ALL HVAC PENETRATIONS INTO ROOM 2062 WILL BE SEALED AND REPAIRED TO MANTAIN A 2 HOUR RATING OF ROOM WALLS.
2. WHEN PENETRATING EXISTING FLOORS FOR THE PURPOSE OF NEW SCOPE OF WORK, THE EXISTING FLOOR MUST BE CHECKED FOR POST-TENSIONED BEAM LOCATIONS IN THE AREA OF WORK. THE EXISTING FLOOR MUST BE X-RAYED AS REQUIRED TO DETERMINE THE LOCATION OF ANY POST-TENSIONED BEAMS. ANY DRILLING, OR HOLE CUTTING IN EXISTING FLOORS MUST AVOID ANY POST-TENSIONED BEAMS.

KEYED NOTES:

- 1 NEW EXHAUST CONNECTION TO MOCVD UNIT. (EQUIPMENT Q1)
- 2 NEW EXHAUST CONNECTION TO GAS SCRUBBER UNIT. (EQUIPMENT Q8)
- 3 NEW EXHAUST CONNECTION TO AMMONIA PURIFIER. (EQUIPMENT Q3)
- 4 NEW EXHAUST CONNECTION TO GAS CABINET. (EQUIPMENT Q2)
- 5 NEW EXHAUST CONNECTION TO NEW FUME HOOD. (EQUIPMENT Q6)
- 6 NEW EXHAUST DUCT WILL BE WRAPPED WITH NEW 2 HOUR FIRE RESISTANT RATED INSULATION BLANKET TO PROVIDE REQUIRED FIRE RESISTANCE RATING.
- 7 NEW EXHAUST MAIN WILL EXTEND TO FOURTH FLOOR PENTHOUSE LEVEL. SEE SHEET M202.
- 8 NEW PROCESS CHILLED WATER CONNECTIONS TO MOCVD UNIT. (EQUIPMENT Q1)
- 9 NEW PROCESS CHILLED WATER CONNECTION TO HYDROGEN GENERATOR. (EQUIPMENT Q7)
- 10 EXISTING EXHAUST DUCT WILL BE WRAPPED WITH NEW 2 HOUR RATED FIRE RESISTANT RATED INSULATION BLANKET. DUCT WILL BE WRAPPED IN ROOM 2062 AND FIRE STOPPING WILL BE INSTALLED AT ROOM WALLS.
- 11 NEW FIRE DAMPER WILL BE INSTALLED.
- 12 EXISTING DUCT WILL BE CAPPED AND SEALED AIR TIGHT.
- 13 EXISTING PIPE WILL BE CAPPED AND SEALED WATER TIGHT.

1 SECOND FLOOR PROPOSED PLAN - HVAC
M201



1 PENTHOUSE PROPOSED PLAN - HVAC
M202

GENERAL NOTES:

- WHEN PENETRATING EXISTING FLOORS FOR THE PURPOSE OF NEW SCOPE OF WORK, THE EXISTING FLOOR MUST BE CHECKED FOR POST-TENSIONED BEAM LOCATIONS IN THE AREA OF WORK. THE EXISTING FLOOR MUST BE X-RAYED AS REQUIRED TO DETERMINE THE LOCATION OF ANY POST-TENSIONED BEAMS. ANY DRILLING, OR HOLE CUTTING IN EXISTING FLOORS MUST AVOID ANY POST-TENSIONED BEAMS.

KEYED NOTES:

- NEW EXHAUST WILL BE WRAPPED NEW 2 HOUR FIRE RESISTANT RATED INSULATION BLANKET TO PROVIDE REQUIRED FIRE RESISTANCE RATING.
- NEW EXHAUST MAIN WILL EXTEND FROM SECOND FLOOR LEVEL. SEE SHEET M201.
- NEW EXHAUST DUCT WILL EXTEND TO NEW SERIES OF FANS LOCATED IN EXISTING ROOF FAN PIT. NEW FAN WILL BE SPARK PROOF, FULLY REDUNDANT, 460V/3PH, 3225 CFM.



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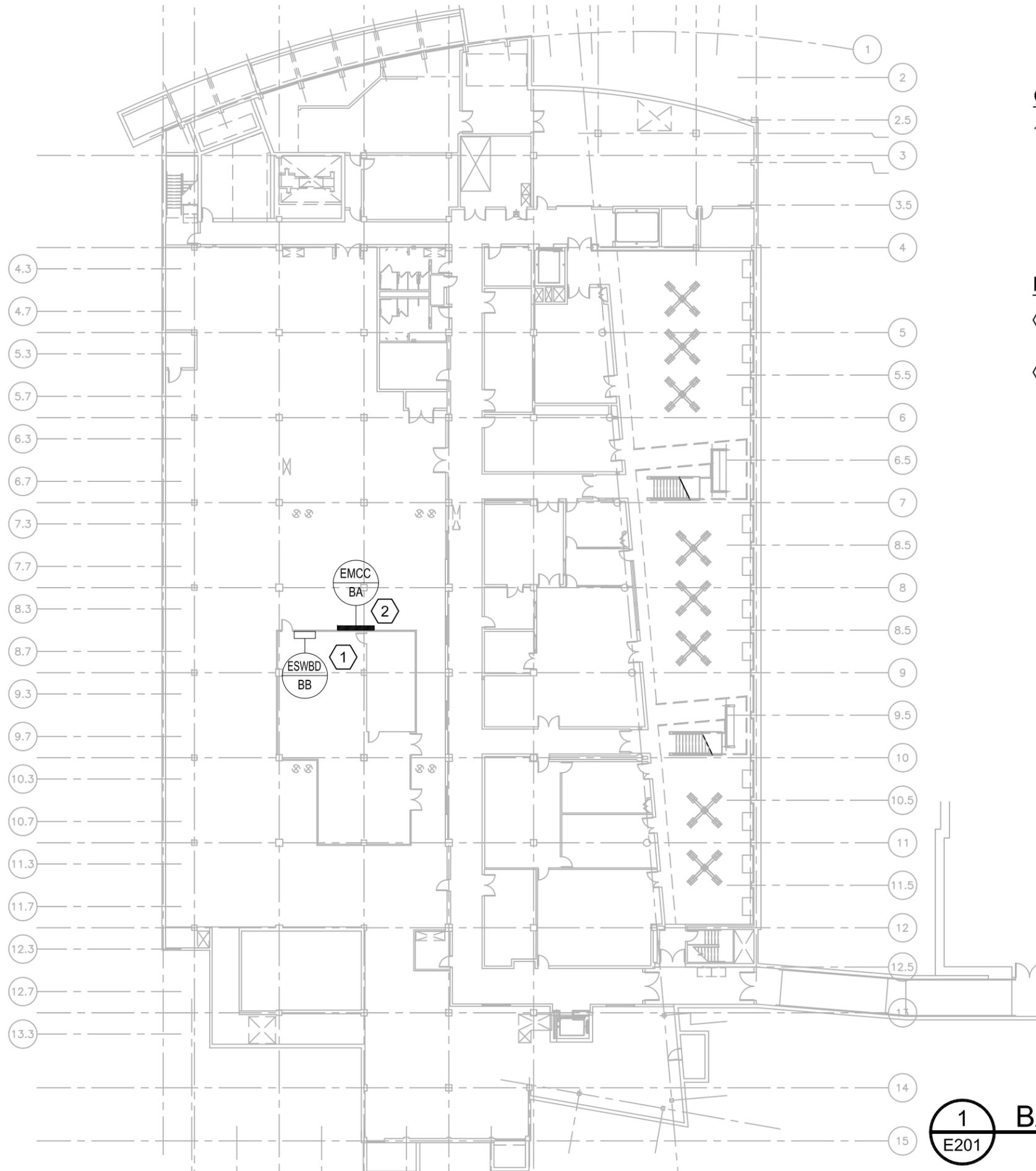
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Sheet Number: **M202**



GENERAL NOTES:

1. WHEN PENETRATING EXISTING FLOORS FOR THE PURPOSE OF NEW SCOPE OF WORK, THE EXISTING FLOOR MUST BE CHECKED FOR POST-TENSIONED BEAM LOCATIONS IN THE AREA OF WORK. THE EXISTING FLOOR MUST BE X-RAYED AS REQUIRED TO DETERMINE THE LOCATION OF ANY POST-TENSIONED BEAMS. ANY DRILLING OR HOLE CUTTING IN EXISTING FLOORS MUST AVOID ANY POST-TENSIONED BEAMS.

KEYED NOTES:

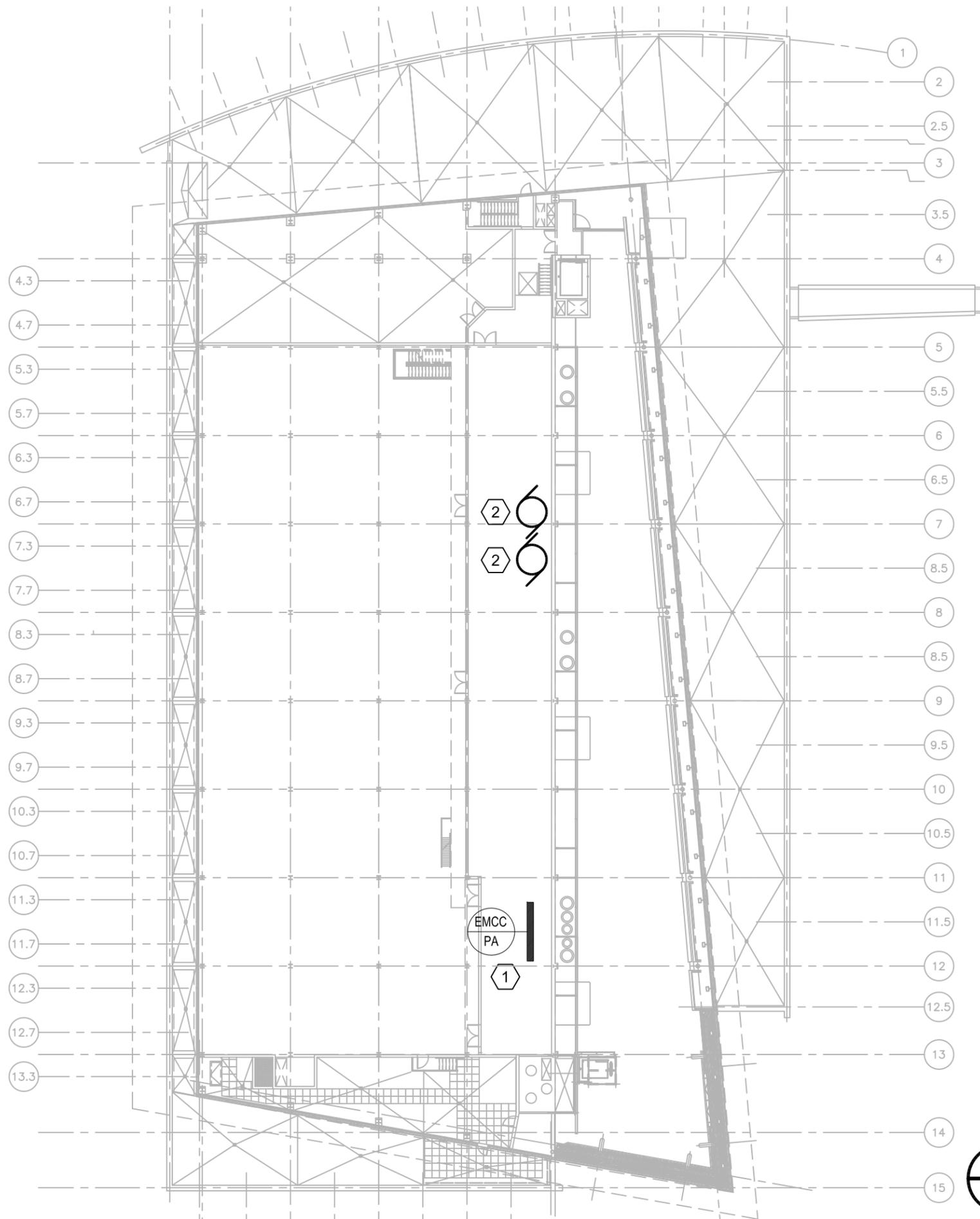
- 1 EXISTING 480V, 3-PHASE, 3-WIRE, 2000-AMP SWITCHBOARD ESWBD-BB TO REMAIN.
- 2 EXISTING 480V, 3-PHASE, 3-WIRE, 600-AMP MOTOR CONTROL CENTER EMCC-BA TO REMAIN.

1 BASEMENT OVERALL PLAN - ELECTRICAL
E201



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GENERAL NOTES:

1. WHEN PENETRATING EXISTING FLOORS FOR THE PURPOSE OF NEW SCOPE OF WORK, THE EXISTING FLOOR MUST BE CHECKED FOR POST-TENSIONED BEAM LOCATIONS IN THE AREA OF WORK. THE EXISTING FLOOR MUST BE X-RAYED AS REQUIRED TO DETERMINE THE LOCATION OF ANY POST-TENSIONED BEAMS. ANY DRILLING OR HOLE CUTTING IN EXISTING FLOORS MUST AVOID ANY POST-TENSIONED BEAMS.

KEYED NOTES:

1. EXISTING 480V, 3-PHASE, 3-WIRE, 1600-AMP MOTOR CONTROL CENTER EMCC-PA TO REMAIN.
2. PROVIDE A 480V, 15A/3P CONNECTION TO 3HP EXHAUST FAN MOUNTED ON ROOF ABOVE. FEED FROM EXISTING MOTOR CONTROL CENTER EMCC-PA IN PENTHOUSE.

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E203

PENTHOUSE OVERALL PLAN - ELECTRICAL



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DFD Number: 14J3G.3

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Sheet Number: **E203**