

1600 HAMPTON ANNEX - DEFERRED MAINTENANCE

UNIVERSITY OF SOUTH CAROLINA
COLUMBIA, SOUTH CAROLINA

PROJECT NO: H27-6107
USC PROJECT NO: CP00394873



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South Carolina



1600 HAMPTON ANNEX - DEFERRED MAINTENANCE
UNIVERSITY OF SOUTH CAROLINA
COLUMBIA, SOUTH CAROLINA

REVISIONS:

DRAWN BY: DB

CHECKED BY: LL

COMM NO: 12113

DATE: 2/10/2014

SHEET TITLE:

TITLE
INDEX AND
ABBREVIATIONS

SHEET NO:

T101

ABBREVIATIONS

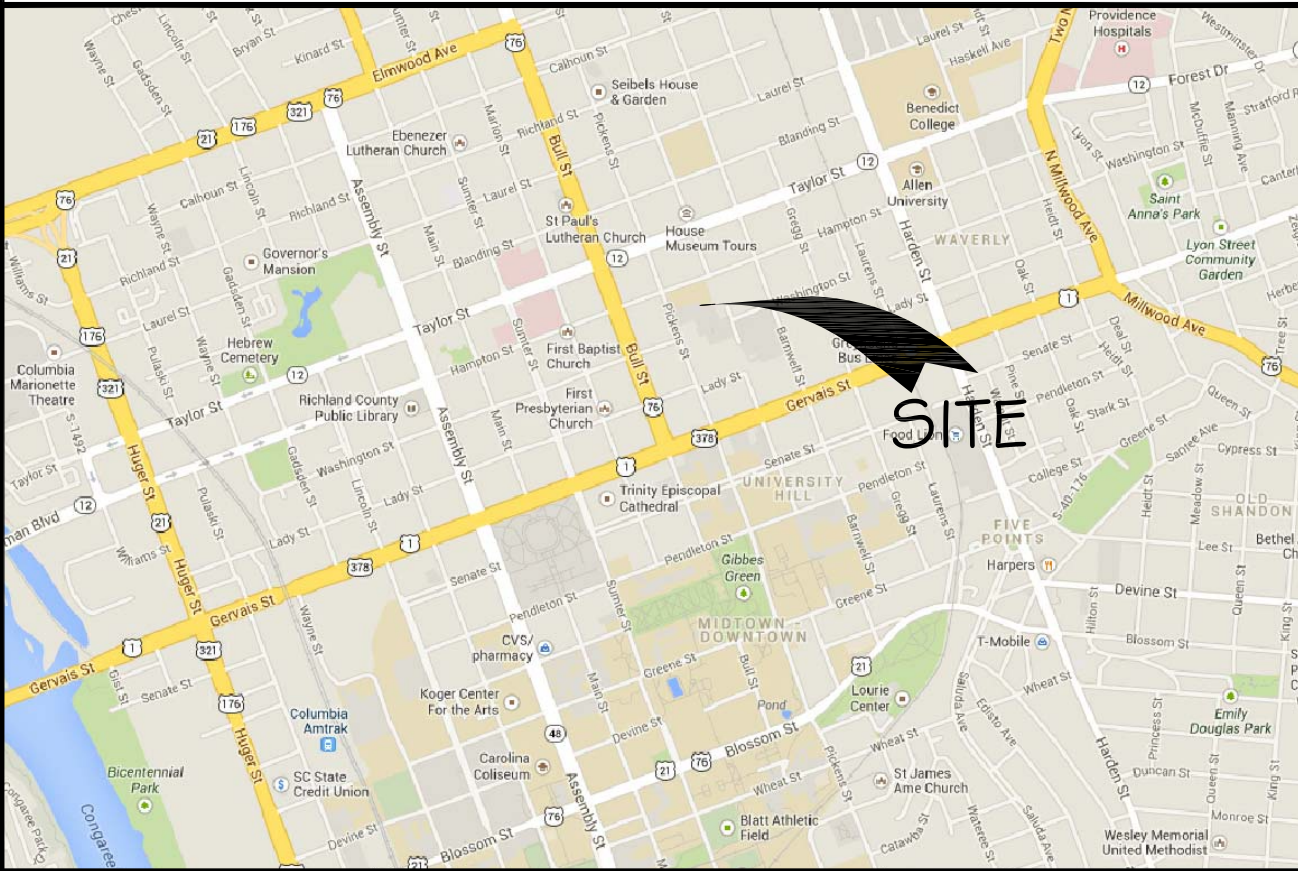
A.C.T.	ACOUSTICAL CEILING TILE	MECH	MECHANICAL
ALUM.	ALUMINUM	MFR	MANUFACTURER
BD	BOARD	MB	MARKER BOARD
BLKG	BLOCKING	M.O.	MASONRY OPENING
C.J.	CONTROL JOINT	N.I.C.	NOT IN CONTRACT
C.T.	CERAMIC TILE	O.C.	ON CENTER
CMU	CONCRETE MASONRY UNIT	O.D.	OUTSIDE DIAMETER
CONC.	CONCRETE	OPNG	OPENING
CONT	CONTINUOUS	PL	PLATE
CFT	CARPET	PLUMB	PLUMBING
CR	CLASSROOM	PR	PAIR
DTL.	DETAIL	PT	PRESSURE TREATED
E.J.	EXPANSION JOINT	REINF	REINFORCED
ELEC.	ELECTRICAL	REQ'D	REQUIRED
EQ	EQUAL	SCHED	SCHEDULE
EXIST.	EXISTING	SHT.	SHEET
EXP	EXPANSION	SIM.	SIMILAR
FE	FIRE EXTINGUISHER	SS	STAINLESS STEEL
FEC	FIRE EXTINGUISHER CABINET	STL.	STEEL
FF	FINISH FLOOR	SWC	SOLID WOOD CORE
FLR	FLOOR	TB	TACKBOARD
FTG	FOOTING	TEMP	TEMPERED
GALV	GALVANIZED	TOIL	TOILET
GC	GENERAL CONTRACTOR	TRT'D	TREATED
GWB	GYPSUM WALL BOARD	TYP.	TYPICAL
HM	HOLLOW METAL	VCT	VINYL COMPOSITION TILE
HORIZ	HORIZONTAL	VERT	VERTICAL
I.D.	INSIDE DIAMETER	WD	WOOD
INSUL	INSULATION		

NOTE: FOR ABBREVIATIONS NOT NOTED ABOVE CONTACT ARCHITECT.

PROJECT CONTACTS

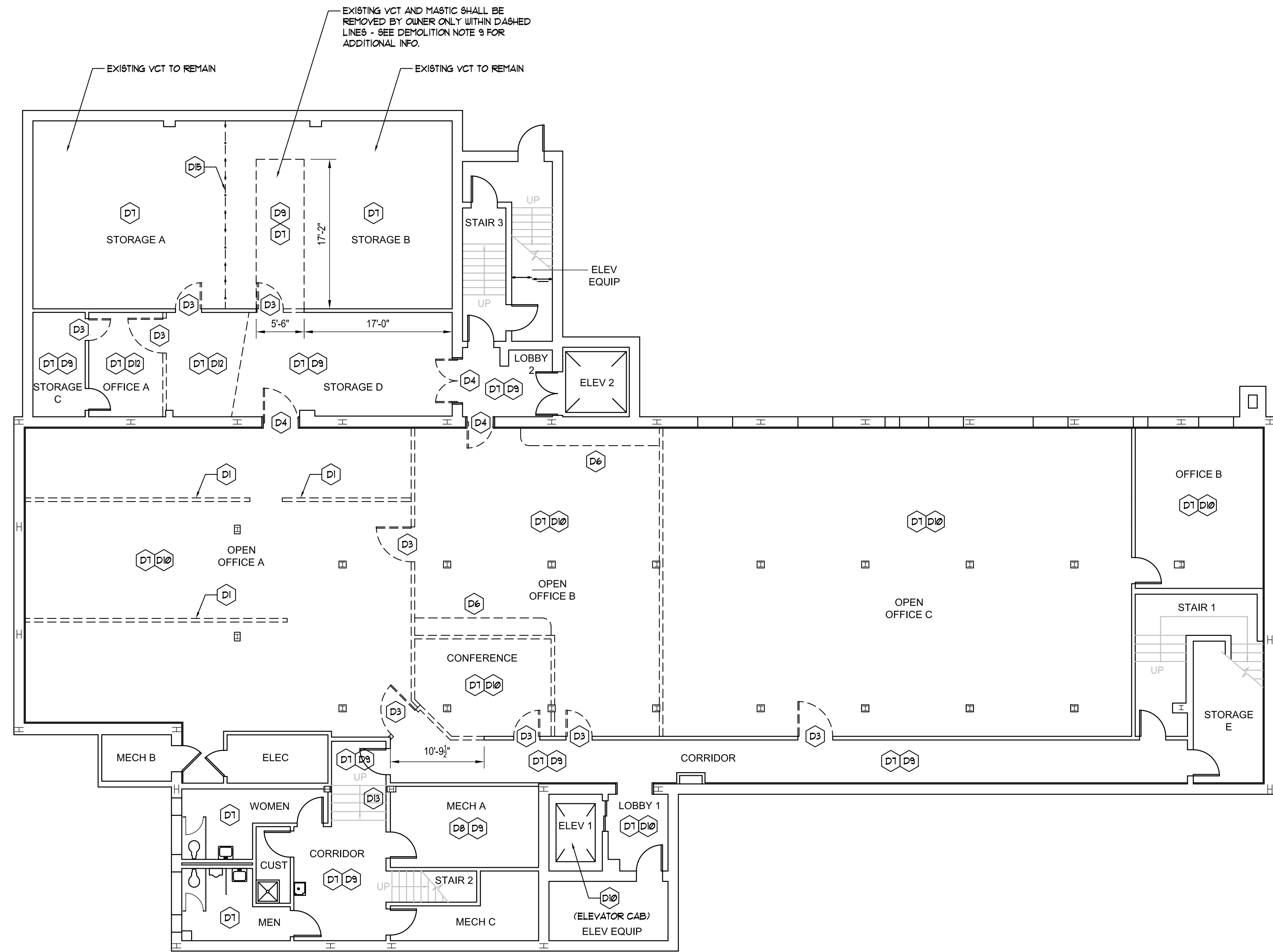
JOB SITE	
1600 Hampton Annex, Columbia SC 29208	
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OWNER	
University of South Carolina	
Chins Mergner, Project Manager	803-777-4569
ARCHITECT	
Jumper Carter Sease Architects, P.A.	803-791-1020
PLUMBING / MECHANICAL	
Mechanical Design, Inc.	803-731-9834
ELECTRICAL / FIRE ALARM	
Sims Group Engineers, Inc.	803-765-1007

VICINITY MAP

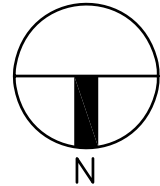


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DEMOLITION PLAN - BASEMENT
SCALE: 1/8" = 1'-0"



GENERAL NOTES

1. THE GENERAL CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIM/HERSELF WITH THE COMPLETE WORK SCOPE AND ALL RELATED CONDITIONS PRIOR TO BID. ANY QUESTIONS OR DISCREPANCIES WITH THE INFORMATION SHOWN HEREIN MUST BE DIRECTED TO THE ARCHITECT PRIOR TO BID.
2. ALL DIMENSIONS SHOWN ARE APPROXIMATE - G.C. TO FIELD VERIFY ALL DIMENSIONS PRIOR TO BID.
3. THE CONTRACTOR WILL HAVE ACCESS TO THE SPACE 1 DAY PER WEEK AND SHALL HAVE A SUPERINTENDENT PRESENT ON SITE AT ALL TIMES WORK IS TAKING PLACE. THE CONSTRUCTION TIME SHALL BE AS INDICATED IN THE PROJECT MANUAL. THE CONTRACTOR SHALL COORDINATE HIS/HER SCHEDULE BASED ON THE SCOPE OF WORK TO MEET THIS CONSTRUCTION TIME.
4. WORK IN THIS BID PACKAGE WILL PRECEDE AND/OR RUN CONCURRENTLY WITH WORK IN A SEPARATE TENANT UPRIT BID PACKAGE BY OTHERS. SOME OF THE WORK IN THIS BID PACKAGE WILL DEPEND ON NEW WALLS, CEILING, ETC. IN THE UPRIT PACKAGE BEING COMPLETE OR IN PROGRESS BEFORE WORK CAN BE COMPLETED IN THIS BID PACKAGE. CONTRACTOR OF THIS BID PACKAGE SHALL COORDINATE WITH TENANT UPRIT CONTRACTOR WHEN THAT WORK COMMENCES TO MINIMIZE SCHEDULING CONFLICTS. ANY CONFLICTS SHALL BE RESOLVED WITHOUT ADDITIONAL COST TO THE OWNER.
5. ALL TEMPORARY FACILITIES WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
6. THE CONTRACTOR IS REQUIRED TO MAINTAIN A CLEAN WORK SITE AT ALL TIMES. THE WORK AREA MUST BE CLEANED UP AT THE END OF EACH DAY MINIMUM.
7. ALL WORK SCOPE AREAS ARE TO BE CLEANED AND LEFT IN LIKE-NEW CONDITION.
8. THE CONTRACTOR IS TO AVOID DAMAGE TO ADJACENT WORK. ANY DAMAGE TO ADJACENT SURFACES MUST BE REPAIRED TO MATCH WITHOUT APPEARING TO BE A PATCH.
9. THE CONTRACTOR IS RESPONSIBLE FOR ALL LIFE SAFETY METHODS AND PRACTICES.
10. ALL WORK NOT SPECIFICALLY CALLED OUT AS AN ALTERNATE SHALL BE PART OF THE BASE BID. REFER TO PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ALTERNATES.
11. WORK FOR THE BUILDING ROOF REPLACEMENT WAS COMPLETED IN 2014 (DESIGN DRAWINGS BY FLOYD ABRAMS CO, 803-343-1212). ORIGINAL ROOF INSTALLER SHALL COMPLETE ALL WORK ASSOCIATED WITH FLASHING NEW AND EXISTING MECHANICAL ROOF CURBS, VENT PIPING, ETC. TO MAINTAIN EXISTING WARRANTY. SEE MECHANICAL AND PLUMBING DRAWINGS FOR LOCATIONS. GC SHALL CONTACT ORIGINAL ROOF INSTALLER AND COORDINATE WORK AND SCHEDULE (CONTACT USC PROJECT MANAGER FOR CONTACT INFORMATION).

DEMOLITION GENERAL NOTES

1. OWNER HAS THE RIGHTS TO ALL MATERIAL SCHEDULED TO BE REMOVED. IF OWNER REJECTS MATERIALS, CONTRACTOR SHALL DISPOSE OF IN A LEGAL MANNER.
2. ALL EXISTING CONSTRUCTION SHALL REMAIN UNLESS SPECIFICALLY NOTED TO BE REMOVED, EXCEPT AS FOLLOWS: ANY EXISTING CONSTRUCTION REQUIRED TO BE REMOVED TO ALLOW FOR NEW CONSTRUCTION AS SHOWN ON OTHER SHEETS WILL BE REMOVED AS NEEDED WHETHER SHOWN ON DEMOLITION PLANS OR NOT. THIS SHALL ALSO APPLY TO PLUMBING, MECHANICAL, AND ELECTRICAL. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS.
3. PRIOR TO THE REMOVAL OF ANY WALLS OR OTHER ITEMS SCHEDULED FOR DEMOLITION, VERIFY THAT IT IS NOT STRUCTURAL PRIOR TO REMOVAL. SHOULD IT BE DETERMINED THAT IT IS STRUCTURAL, NOTIFY THE ARCHITECT IMMEDIATELY.
4. ALL ITEMS / MATERIAL TO BE REUSED AND/OR RELOCATED SHALL BE STORED IN A SAFE AND DRY ENVIRONMENT UNTIL REINSTALLATION. CONTRACTOR SHALL THOROUGHLY CLEAN ITEMS / MATERIALS TO BE RELOCATED.
5. WORK IN THIS BID PACKAGE WILL INVOLVE ASBESTOS ABATEMENT BY OWNER PRIOR TO OR DURING CONSTRUCTION. A COPY OF THE LIMITED ASBESTOS CONTAINING MATERIALS INVESTIGATION REPORT, PREPARED BY F4ME CONSULTANTS, IS INCLUDED IN THE PROJECT MANUAL FOR REFERENCE. SHOULD THE CONTRACTOR DISCOVER SUSPECTED ASBESTOS CONTAINING MATERIALS IN THE COURSE OF DEMOLITION/CONSTRUCTION NOT ADDRESSED IN THE INVESTIGATION REPORT, NOTIFY THE OWNER IMMEDIATELY.
6. A COPY OF THE LIMITED LEAD-BASED PAINT INVESTIGATION REPORT, PREPARED BY F4ME CONSULTANTS, IS INCLUDED IN THE PROJECT MANUAL FOR REFERENCE.
7. SEE PLUMBING DRAWINGS FOR EXISTING PLUMBING EQUIPMENT, FIXTURES, ETC. TO BE REMOVED.
8. SEE MECHANICAL DRAWINGS FOR EXISTING HVAC EQUIPMENT, UNITS, DUCTWORK, ETC. TO BE REMOVED.
9. SEE ELECTRICAL DRAWINGS FOR EXISTING POWER AND LIGHTING FIXTURES, EQUIPMENT, DEVICES, ETC. TO BE REMOVED. FLUORESCENT LIGHTING SCHEDULED TO BE REMOVED SHALL BE RECYCLED OR DISPOSED OF IN A SUBTITLE D/MSW LANDFILL IN ACCORDANCE WITH THE SC POLLUTION CONTROL ACT AND FEDERAL REGULATIONS.
10. SEE ELECTRICAL DEMOLITION DRAWINGS FOR EXISTING FIRE ALARM EQUIPMENT/DEVICES TO BE REMOVED.

DEMOLITION KEY NOTES (SEE DEMOLITION LEGEND FOR GENERAL PARTITION REMOVAL)

- (D1) REMOVE EXISTING HALF-HEIGHT METAL STUD/GWB PARTITION COMPLETE, INCLUDING STUD FLOOR TRACK AND WOOD CAP. PATCH ADJOINING GWB SURFACES SMOOTH WITH ADDITIONAL GWB (TAPED, MUDDED, AND SANDED) AS REQUIRED.
- (D2) REMOVE PORTION OF EXISTING METAL STUD/GWB PARTITION AS REQUIRED TO ACCOMMODATE ROUGH OPENING FOR FUTURE 3'X1' DOOR IN HOLLOW METAL FRAME, TO ALLOW TEMPORARY ACCESS INTO MECHANICAL ROOM.
- (D3) REMOVE EXISTING DOOR, HM FRAME, AND HARDWARE. PATCH BACK ADJOINING SURFACES.
- (D4) REMOVE EXISTING DOOR AND HARDWARE. EXISTING HM FRAME TO REMAIN.
- (D5) REMOVE EXISTING HOLLOW METAL WINDOW FRAME AND GLAZING COMPLETE.
- (D6) REMOVE EXISTING WOOD COUNTERTOPS AND SUPPORTS COMPLETE. PATCH ADJOINING SURFACES SMOOTH.
- (D7) REMOVE EXISTING SUSPENDED ACOUSTICAL CEILING SYSTEM, INCLUDING ACOUSTICAL TILE AND GRID. SEE ELEC. AND MECH. DWGS. FOR LIGHTING AND MECHANICAL DEVICES TO BE REMOVED.
- (D8) REMOVE EXISTING SUSPENDED GWB CEILING SYSTEM, INCLUDING GWB PANELS AND SUPPORT FRAMING.
- (D9) EXISTING VCT, MASTIC, AND RUBBER BASE SHALL BE REMOVED BY OWNER, DUE TO THE PRESENCE OF ASBESTOS-CONTAINING MASTIC. SEE THE LIMITED ASBESTOS CONTAINING MATERIALS INVESTIGATION REPORT, PREPARED BY F4ME CONSULTANTS, INCLUDED IN THE PROJECT MANUAL FOR REFERENCE.
- (D10) EXISTING CARPET, MASTIC, AND RUBBER BASE SHALL BE REMOVED BY OWNER, DUE TO THE PRESENCE OF ASBESTOS-CONTAINING MASTIC. SEE THE LIMITED ASBESTOS CONTAINING MATERIALS INVESTIGATION REPORT, PREPARED BY F4ME CONSULTANTS, INCLUDED IN THE PROJECT MANUAL FOR REFERENCE.
- (D11) NOT USED
- (D12) EXISTING CARPET, VCT, MASTIC, AND RUBBER BASE SHALL BE REMOVED BY OWNER, DUE TO THE PRESENCE OF ASBESTOS-CONTAINING MASTIC (CARPET IS LAID OVER EXISTING VCT). SEE THE LIMITED ASBESTOS CONTAINING MATERIALS INVESTIGATION REPORT, PREPARED BY F4ME CONSULTANTS, INCLUDED IN THE PROJECT MANUAL FOR REFERENCE.
- (D13) EXISTING RUBBER STAIR TREADS AND RISERS AND MASTIC SHALL BE REMOVED BY OWNER, DUE TO THE PRESENCE OF ASBESTOS-CONTAINING MASTIC. SEE THE LIMITED ASBESTOS CONTAINING MATERIALS INVESTIGATION REPORT, PREPARED BY F4ME CONSULTANTS, INCLUDED IN THE PROJECT MANUAL FOR REFERENCE.
- (D14) REMOVE EXISTING VINYL WALLCOVERING AND RESIDUE. MUD AND SAND EXISTING GWB AS REQ. TO PREP WALLS FOR FUTURE PAINT.
- (D15) REMOVE EXISTING CHAIN LINK FENCING PARTITION AND SUPPORTS COMPLETE.
- (D16) REMOVE PORTION OF EXISTING ROOF/GWB CEILING ASSEMBLY AND 3RD-FLOOR FLOOR DECK BETWEEN EXISTING JOISTS AS REQUIRED TO ACCOMMODATE NEW MECHANICAL DUCTWORK - SEE MECHANICAL DWGS. FOR LOCATIONS AND SIZES. ADJUST DIMENSIONS AS REQ. TO COORDINATE WITH EXISTING JOISTS, WHICH REMAIN IN PLACE.

DEMOLITION LEGEND

- ===== INDICATES EXISTING WALL TO REMAIN (TYP.)
- ===== INDICATES EXISTING METAL STUD/GYPSUM WALL BOARD PARTITION TO BE REMOVED (TYP.). PATCH ADJOINING GWB SURFACES SMOOTH WITH ADDITIONAL GWB (TAPED, MUDDED, AND SANDED) AS REQUIRED. DO NOT DISTURB EXISTING FLOORING WITH ASBESTOS-CONTAINING MASTIC. LEAVE EXISTING STUD FLOOR TRACK IN THESE AREAS FOR REMOVAL BY OWNER (SEE THE LIMITED ASBESTOS CONTAINING MATERIALS INVESTIGATION REPORT, PREPARED BY F4ME CONSULTANTS, INCLUDED IN THE PROJECT MANUAL FOR REFERENCE.)

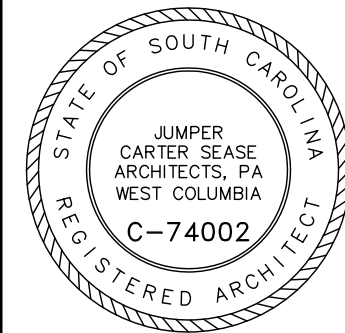
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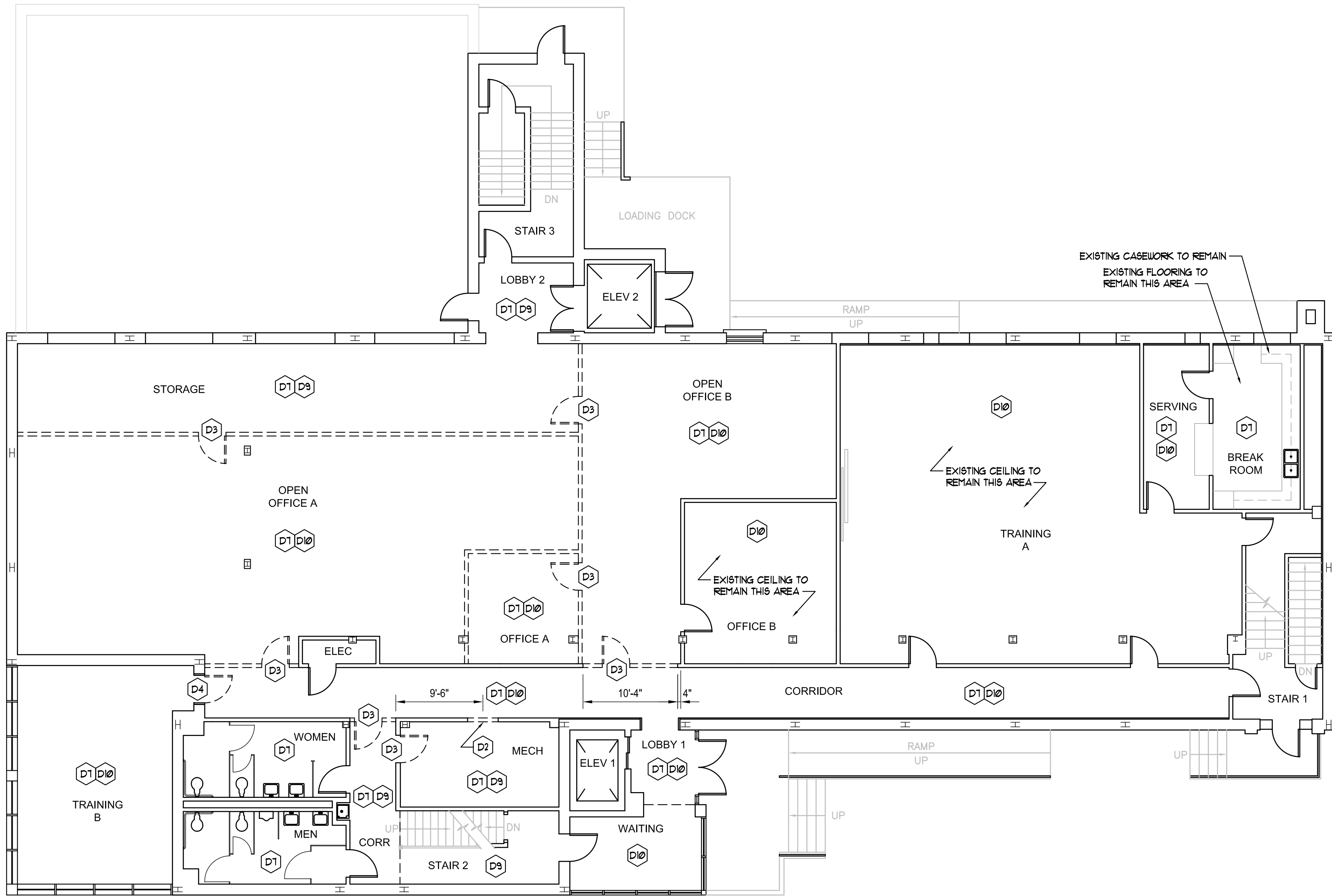
2/10/2014

SHEET TITLE:

DEMOLITION PLAN
BASEMENT

SHEET NO:

D100



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

DEMOLITION KEY NOTES (SEE DEMOLITION LEGEND FOR GENERAL PARTITION REMOVAL.)

D1

REMOVE EXISTING HALF-HEIGHT METAL STUD/GWB PARTITION COMPLETE, INCLUDING STUD FLOOR TRACK AND WOOD CAP. PATCH ADJOINING GWB SURFACES SMOOTH WITH ADDITIONAL GWB (TAPED, MUDDIED, AND SANDED) AS REQUIRED.

D2

REMOVE PORTION OF EXISTING METAL STUD/GWB PARTITION AS REQUIRED TO ACCOMMODATE ROUGH OPENING FOR FUTURE 3'X1' DOOR IN HOLLOW METAL FRAME, TO ALLOW TEMPORARY ACCESS INTO MECHANICAL ROOM.

D3

REMOVE EXISTING DOOR, HM FRAME, AND HARDWARE. PATCH BACK ADJOINING SURFACES.

D4

REMOVE EXISTING DOOR AND HARDWARE. EXISTING HM FRAME TO REMAIN.

D5

REMOVE EXISTING HOLLOW METAL WINDOW FRAME AND GLAZING COMPLETE.

D6

REMOVE EXISTING WOOD COUNTERTOPS AND SUPPORTS COMPLETE. PATCH ADJOINING SURFACES SMOOTH.

D7

REMOVE EXISTING SUSPENDED ACOUSTICAL CEILING SYSTEM, INCLUDING ACOUSTICAL TILE AND GRID. SEE ELEC. AND MECH. DUGS. FOR LIGHTING AND MECHANICAL DEVICES TO BE REMOVED.

D8

REMOVE EXISTING SUSPENDED GWB CEILING SYSTEM, INCLUDING GWB PANELS AND SUPPORT FRAMING.

D9

EXISTING VCT, MASTIC, AND RUBBER BASE SHALL BE REMOVED BY OWNER, DUE TO THE PRESENCE OF ASBESTOS-CONTAINING MASTIC. SEE THE LIMITED ASBESTOS CONTAINING MATERIALS INVESTIGATION REPORT, PREPARED BY F&M CONSULTANTS, INCLUDED IN THE PROJECT MANUAL FOR REFERENCE.

D10

EXISTING CARPET, MASTIC, AND RUBBER BASE SHALL BE REMOVED BY OWNER, DUE TO THE PRESENCE OF ASBESTOS-CONTAINING MASTIC. SEE THE LIMITED ASBESTOS CONTAINING MATERIALS INVESTIGATION REPORT, PREPARED BY F&M CONSULTANTS, INCLUDED IN THE PROJECT MANUAL FOR REFERENCE.

D11

NOT USED

D12

EXISTING CARPET, VCT, MASTIC, AND RUBBER BASE SHALL BE REMOVED BY OWNER, DUE TO THE PRESENCE OF ASBESTOS-CONTAINING MASTIC (CARPET IS LAID OVER EXISTING VCT). SEE THE LIMITED ASBESTOS CONTAINING MATERIALS INVESTIGATION REPORT, PREPARED BY F&M CONSULTANTS, INCLUDED IN THE PROJECT MANUAL FOR REFERENCE.

D13

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D14

REMOVE EXISTING VINYL WALLCOVERING AND RESIDUE, MUD AND SAND EXISTING GWB AS REQ. TO PREP WALLS FOR FUTURE PAINT.

D15

REMOVE EXISTING CHAIN LINK FENCING PARTITION AND SUPPORTS COMPLETE.

D16

REMOVE PORTION OF EXISTING ROOF/GWB CEILING ASSEMBLY, AND 3RD-FLOOR FLOOR DECK BETWEEN EXISTING JOISTS AS REQUIRED TO ACCOMMODATE NEW MECHANICAL DUCTWORK - SEE MECHANICAL DUGS. FOR LOCATIONS AND SIZES. ADJUST DIMENSIONS AS REQ. TO COORDINATE WITH EXISTING JOISTS, WHICH REMAIN IN PLACE.

DEMOLITION LEGEND

=====

INDICATES EXISTING WALL TO REMAIN (TYP.)

INDICATES EXISTING METAL STUD/GYPSUM WALL BOARD PARTITION TO BE REMOVED (TYP.). PATCH ADJOINING GWB SURFACES SMOOTH WITH ADDITIONAL GWB (TAPED, MUDDIED, AND SANDED) AS REQUIRED. DO NOT DISTURB EXISTING FLOORING WITH ASBESTOS-CONTAINING MASTIC. LEAVE EXISTING STUD FLOOR TRACK IN THESE AREAS FOR REMOVAL BY OWNER. (SEE THE LIMITED ASBESTOS CONTAINING MATERIALS INVESTIGATION REPORT, PREPARED BY F&M CONSULTANTS, INCLUDED IN THE PROJECT MANUAL FOR REFERENCE.)

NOTE: SEE GENERAL NOTES AND GENERAL DEMOLITION NOTES, SHEET D100, WHICH ARE APPLICABLE TO ALL SHEETS.

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1600 HAMPTON ANNEX - DEFERRED MAINTENANCE
UNIVERSITY OF SOUTH CAROLINA
COLUMBIA, SOUTH CAROLINA

REVISIONS:

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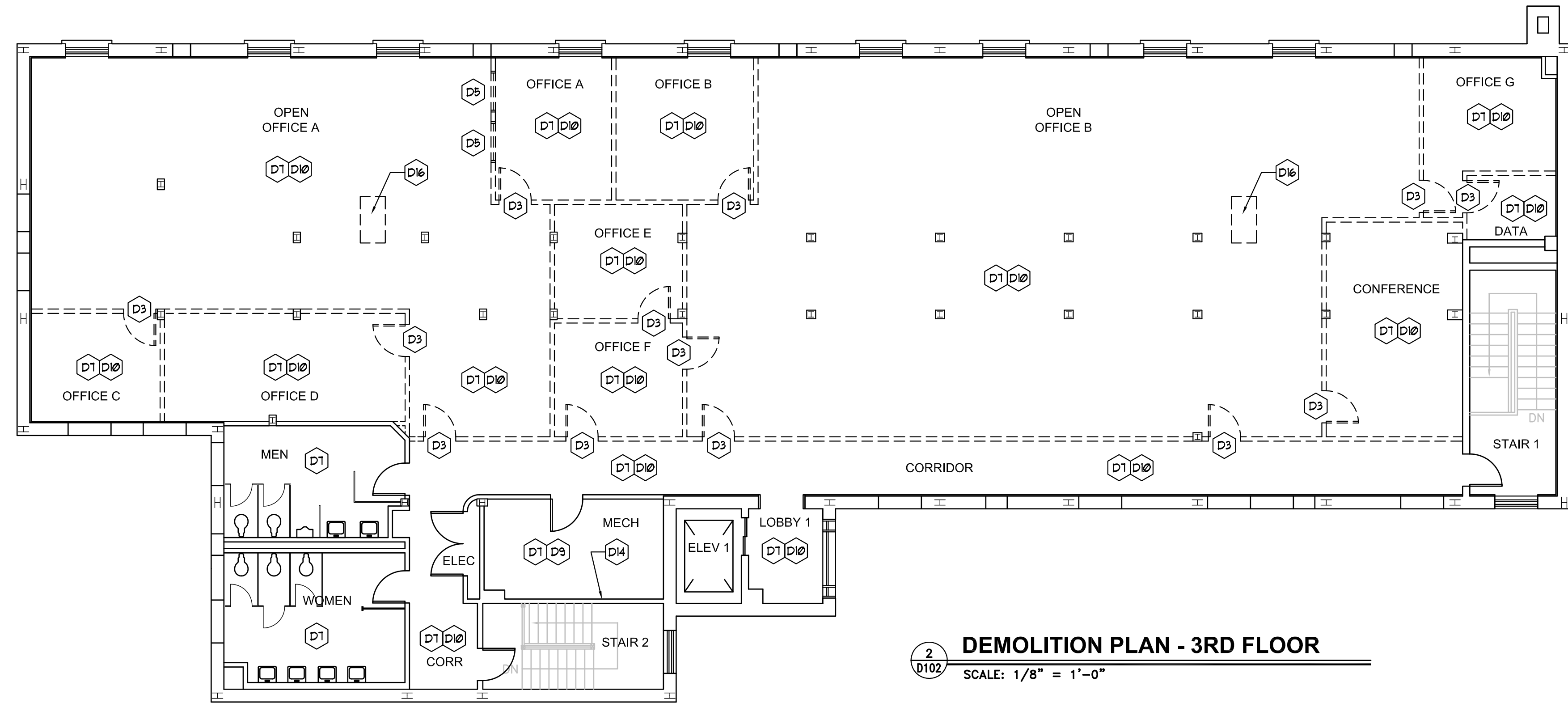
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SHEET TITLE:

DEMOLITION PLAN
1ST FLOOR

SHEET NO:

D101

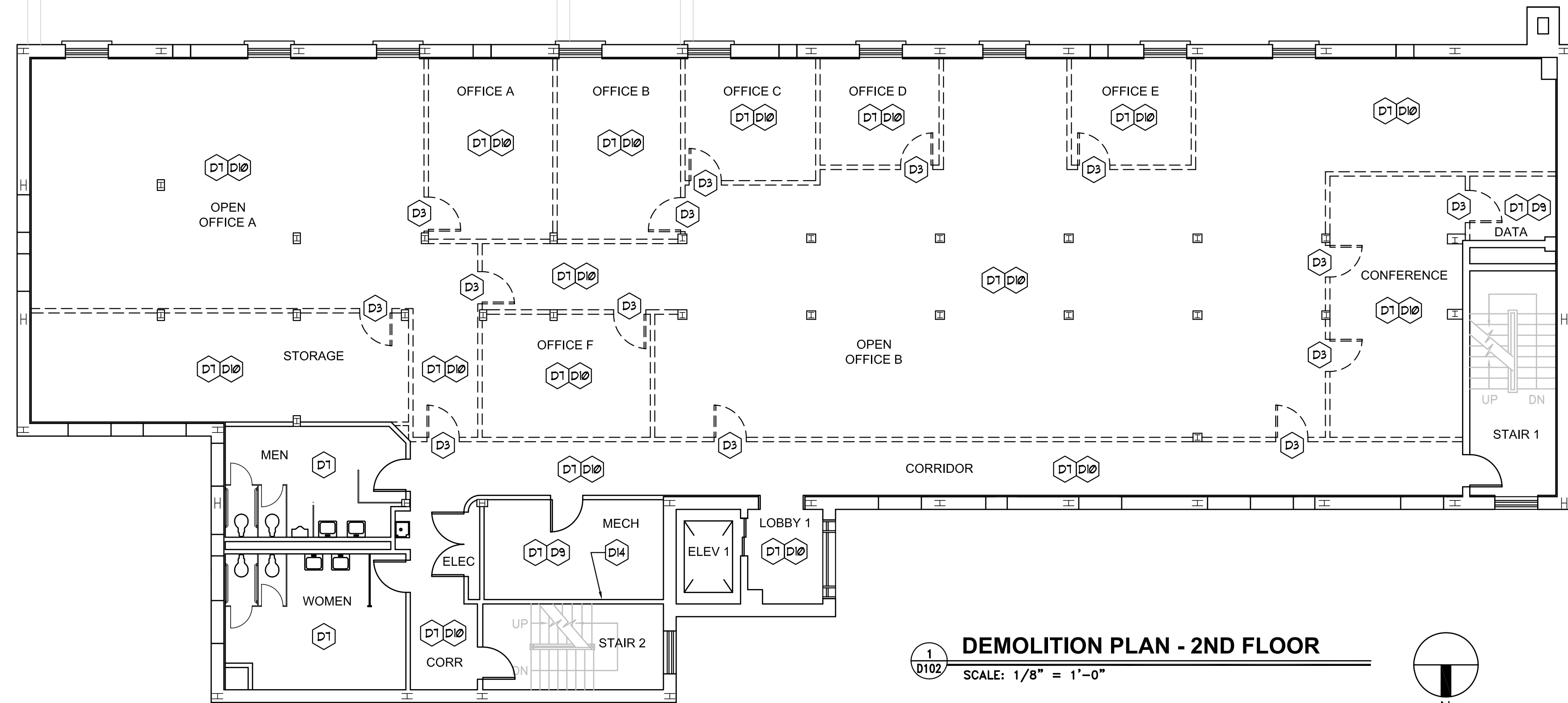


2
D102
DEMOLITION PLAN - 3RD FLOOR
SCALE: 1/8" = 1'-0"

- DEMOLITION KEY NOTES (SEE DEMOLITION LEGEND FOR GENERAL PARTITION REMOVAL)
- D1 REMOVE EXISTING HALF-HEIGHT METAL STUD/GWB PARTITION COMPLETE, INCLUDING STUD FLOOR TRACK AND WOOD CAP. PATCH ADJOINING GWB SURFACES SMOOTH WITH ADDITIONAL GWB (TAPED, MUDDED, AND SANDED) AS REQUIRED.
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 - D3 REMOVE EXISTING DOOR, HM FRAME, AND HARDWARE. PATCH BACK ADJOINING SURFACES.
 - D4 REMOVE EXISTING DOOR AND HARDWARE. EXISTING HM FRAME TO REMAIN.
 - D5 REMOVE EXISTING HOLLOW METAL WINDOW FRAME AND GLAZING COMPLETE.
 - D6 REMOVE EXISTING WOOD COUNTERTOPS AND SUPPORTS COMPLETE. PATCH ADJOINING SURFACES SMOOTH.
 - D7 REMOVE EXISTING SUSPENDED ACOUSTICAL CEILING SYSTEM, INCLUDING ACOUSTICAL TILE AND GRID. SEE ELEC. AND MECH. DUGS. FOR LIGHTING AND MECHANICAL DEVICES TO BE REMOVED.
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 - D10 EXISTING CARPET, MASTIC, AND RUBBER BASE SHALL BE REMOVED BY OWNER, DUE TO THE PRESENCE OF ASBESTOS-CONTAINING MASTIC. SEE THE LIMITED ASBESTOS CONTAINING MATERIALS INVESTIGATION REPORT, PREPARED BY F&M CONSULTANTS, INCLUDED IN THE PROJECT MANUAL FOR REFERENCE.
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DEMOLITION LEGEND	
	INDICATES EXISTING WALL TO REMAIN (TYP.)
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NOTE: SEE GENERAL NOTES AND GENERAL DEMOLITION NOTES, SHEET D100, WHICH ARE APPLICABLE TO ALL SHEETS.



1
D102
DEMOLITION PLAN - 2ND FLOOR
SCALE: 1/8" = 1'-0"

Jumper

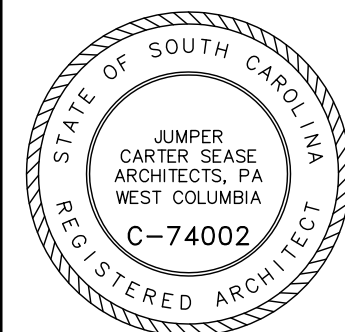
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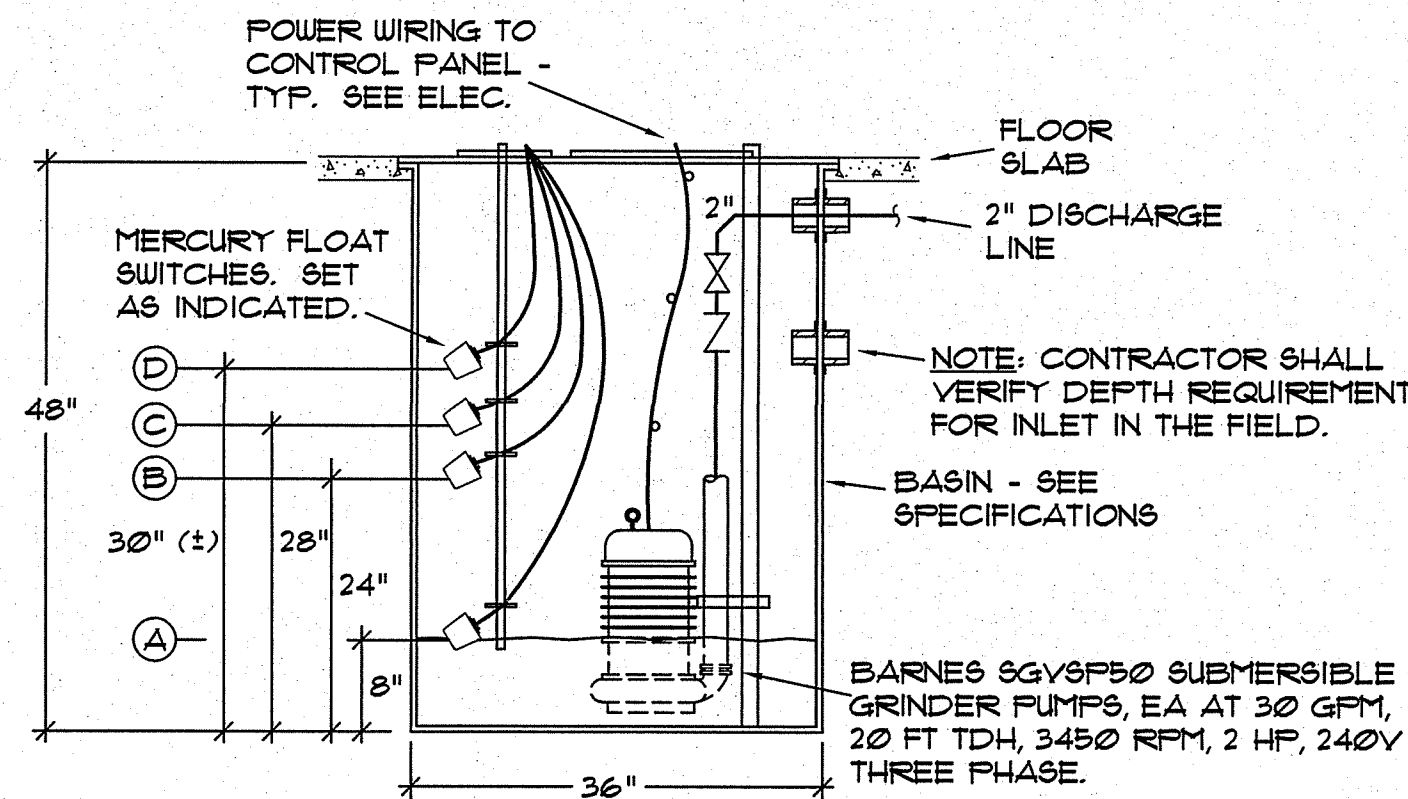
DATE: 2/10/2014

SHEET TITLE:

DEMOLITION PLAN
2ND & 3RD FLOOR

SHEET NO:

D102



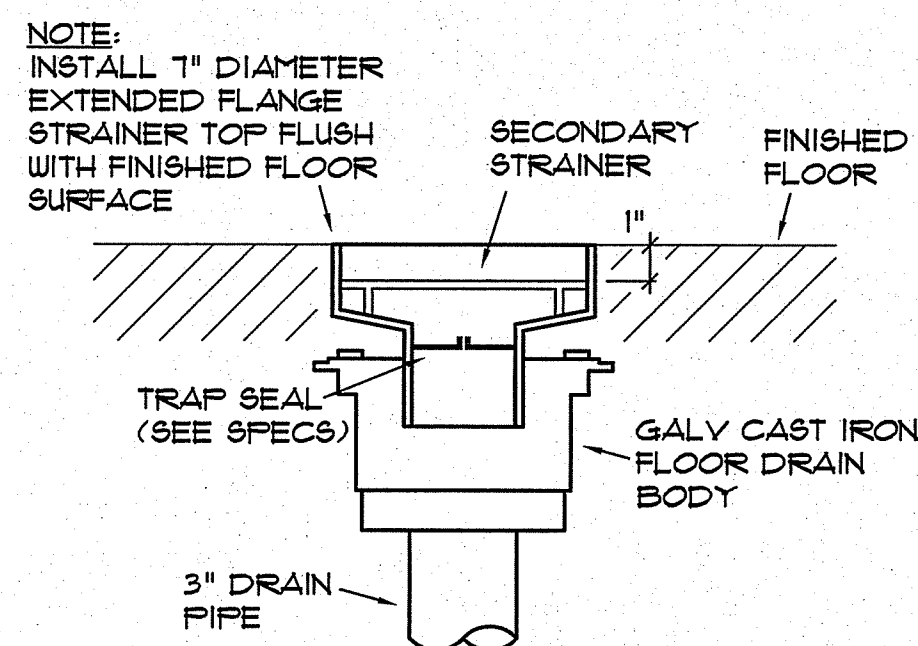
ELEVATION

LS DUPLEX PUMP LIFT STATION
NOT TO SCALE

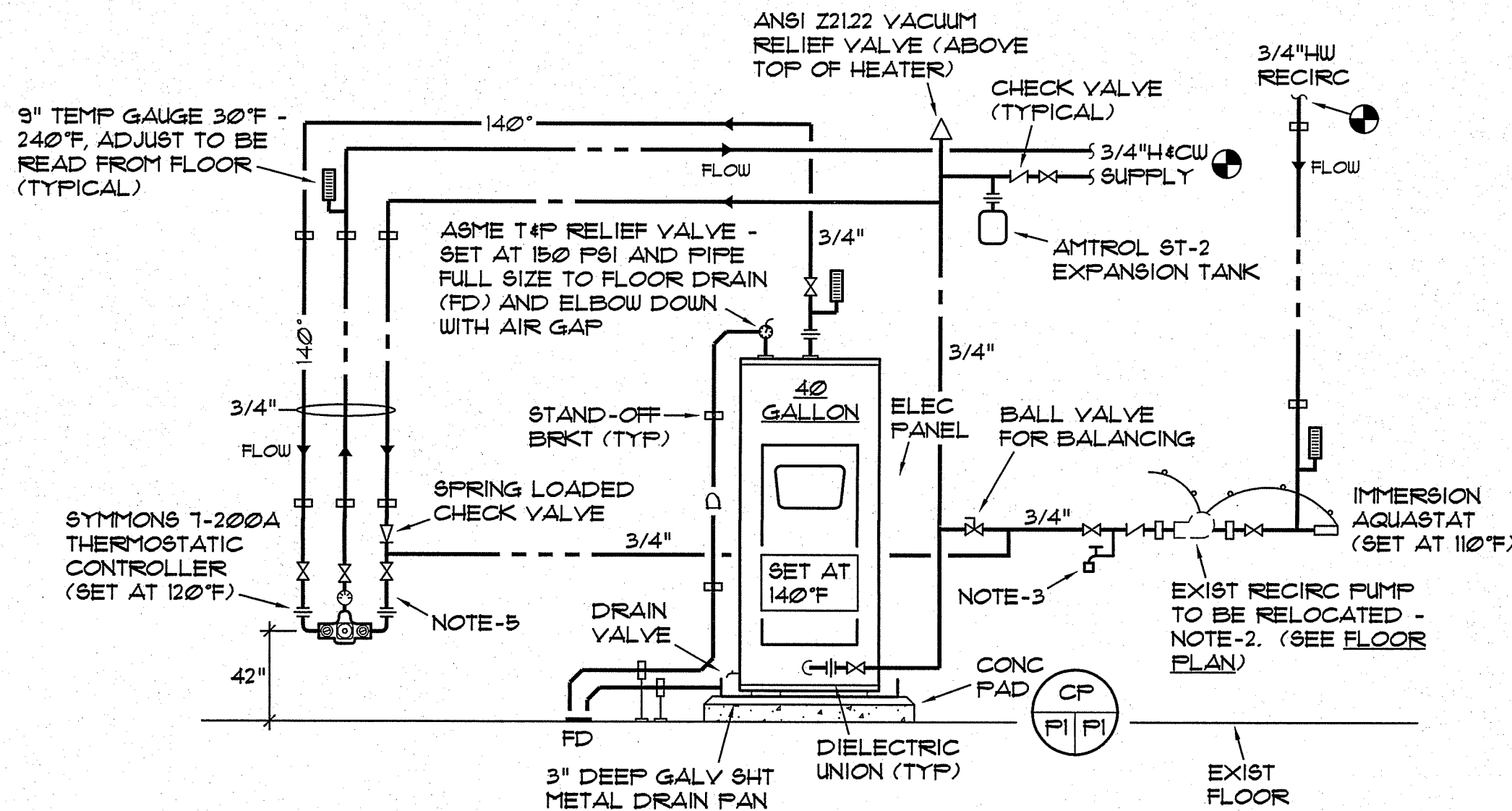
ALTERNATE NO. 1

KEY

- (D) HI WATER ALARM (1" BELOW WASTE INLET)
- (C) LAG PUMP ON
- (B) LEAD PUMP ON
- (A) PUMP OFF (LIQUID LEVEL)



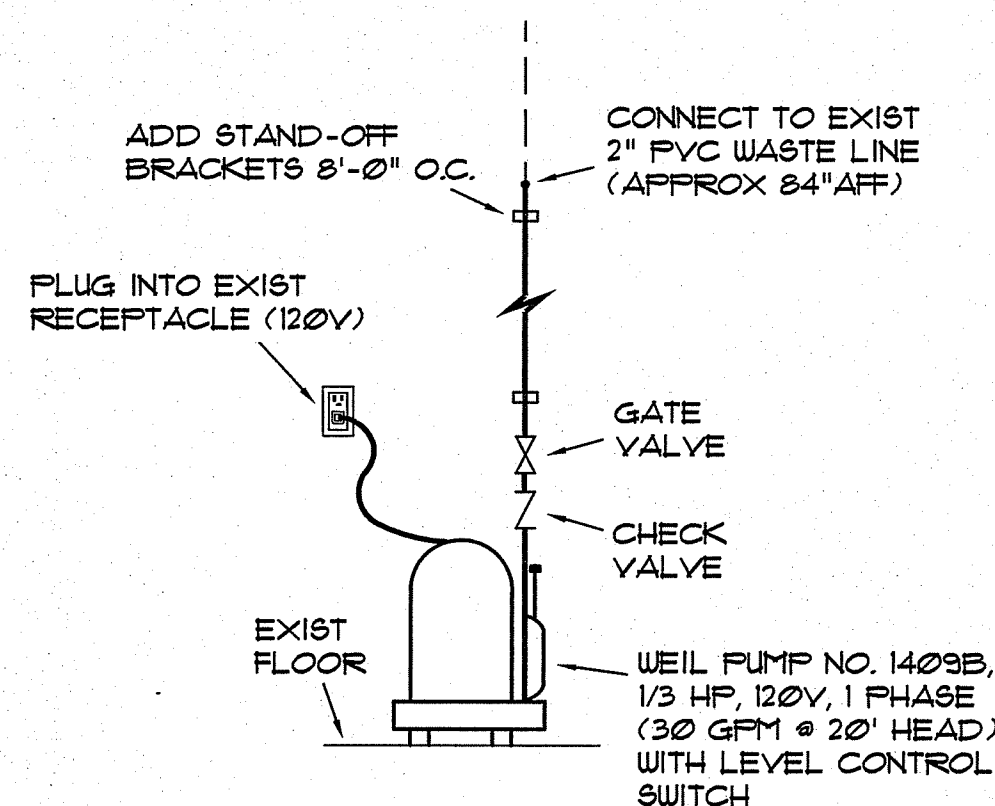
FD RECESSED FLOOR DRAIN DETAIL
NO SCALE



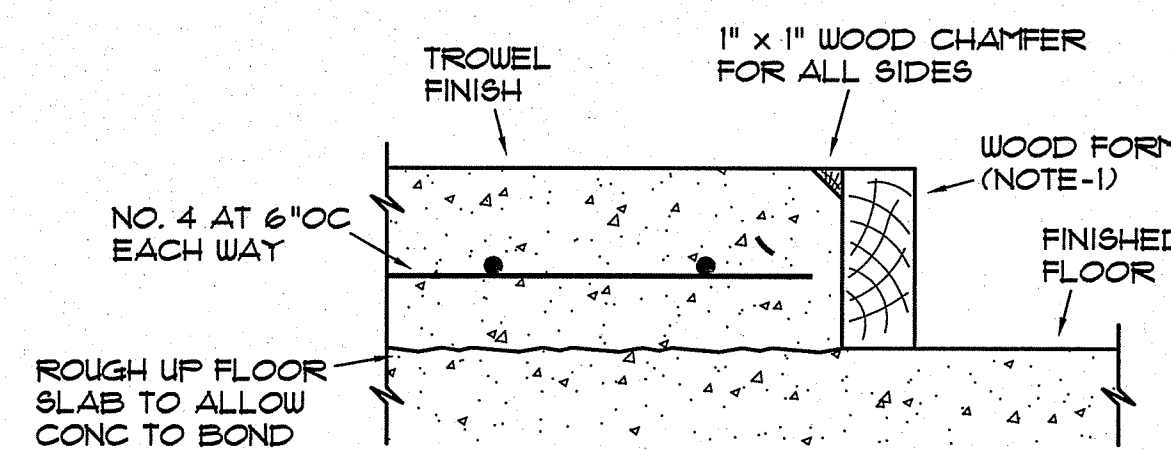
WH ELECTRIC WATER HEATER DETAIL
NO SCALE

NOTES:

1. AO SMITH DSE-40-6-ASME, 40 GALLON STOR, 6 KW INPUT, ASME CONSTRUCTION. CONTRACTOR SHALL VERIFY EXIST VOLTAGE REQUIREMENTS WITH ELECTRICAL PRIOR TO ORDERING HEATER TO PREVENT CONFLICTS.
2. PROVIDE STAND-OFF BRACKETS AT FLANGES OF RECIRC PUMP AS DIRECTED. LOCATE PUMP TO PERMIT OIL/SERVICE FROM TOP COUPLING. SEE ELECTRICAL DRGS FOR RECONNECTION OF WIRING (DIVISION 26).
3. PROVIDE HAMMOND 2002 3/4" HOSE/BIBB WITH WATTS 8A VACUUM BREAKER FOR SYSTEM DRAIN AND TEST.
4. PIPE DRAIN PAN AND T4F WASTE LINES SEPARATELY IN ACCORDANCE WITH IPC SECTION 504.
5. LOCATE MIXING VALVE 42" AFF AS INDICATED.
6. PROVIDE SEISMIC BRACING FOR ELECTRIC WATER HEATER AS DIRECTED BY SEISMIC SUPPLIER.
7. PROVIDE HEAT TRAP NIPPLES AT HOT AND COLD WATER INLETS TO HEATER PER IECC SECTION 504.4.



SP SUMP PUMP DETAIL
NOT TO SCALE



CP CONCRETE PAD DETAIL
NO SCALE

NOTES:

1. WOOD FORM SHALL BE MINIMUM 2"x8" STUD - CUT TO MAINTAIN FULL 6" PAD THICKNESS/DEPTH.
2. REMOVE WOOD FORM AND CHAMFER FRAMING BEFORE PROJECT COMPLETION.

PLUMBING NOTES

1. DO NOT SCALE DRAWINGS. ROUGH FROM EXISTING CONDITIONS AND EQUIPMENT MANUFACTURER'S DRAWINGS.
2. COORD PLUMBING WITH ALL TRADES TO AVOID INTERFERENCE AND CONFLICTS PRIOR TO INSTALLATION OF PIPING AND EQUIPMENT.
3. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE (IBC) BUILDING AND (IPC) PLUMBING CODES, 2012 EDITIONS OF THE (ICC) INTERNATIONAL CODE COUNCIL AND ALL LOCAL CODES AND ORDINANCES.
4. WHENEVER THE WORD "PROVIDE" IS USED, IT SHALL MEAN FURNISH AND INSTALL COMPLETE AND READY FOR USE.
5. PROVIDE DEEP SEAL P-TRAP FOR FLOOR DRAIN TO PREVENT LOSS OF TRAP SEAL IN ACCORDANCE WITH 2012 (IPC) PLUMBING CODE 1002.4. PROVIDE PROSET TRAP GUARD TRAP FRIMER ALTERNATIVE AND INSTALL BELOW STRAINER AT FLOOR DRAIN.
6. INSTALLATION OF EQUIPMENT AND PIPING SHALL COMPLY WITH THE (IBC) BUILDING CODE 2012 EDITION FOR SEISMIC PROTECTION.

PLUMBING SYMBOLS

SYMBOL	DESCRIPTION
---	SANITARY WASTE PIPING
----	SANITARY VENT PIPING
----	COLD WATER PIPING
----	HOT WATER PIPING (120°F)
----	HOT WATER RECIRC PIPING (110°F)
----	HOT WATER PIPING (140°F)
----	DRAIN PIPING
X	GATE VALVE
	UNION
CO	CLEANOUT
FD	RECESSED FLOOR DRAIN
EW	ELECTRIC WATER HEATER
AF	ABOVE FINISHED FLOOR
CW, HW, HWR	COLD WATER, HOT WATER, HOT WATER RECIRC
SP	SUMP PUMP
LS	LIFT STATION
G.C.	GENERAL CONTRACTOR

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REVISIONS:

DRAWN BY: DLF

CHECKED BY: MCH

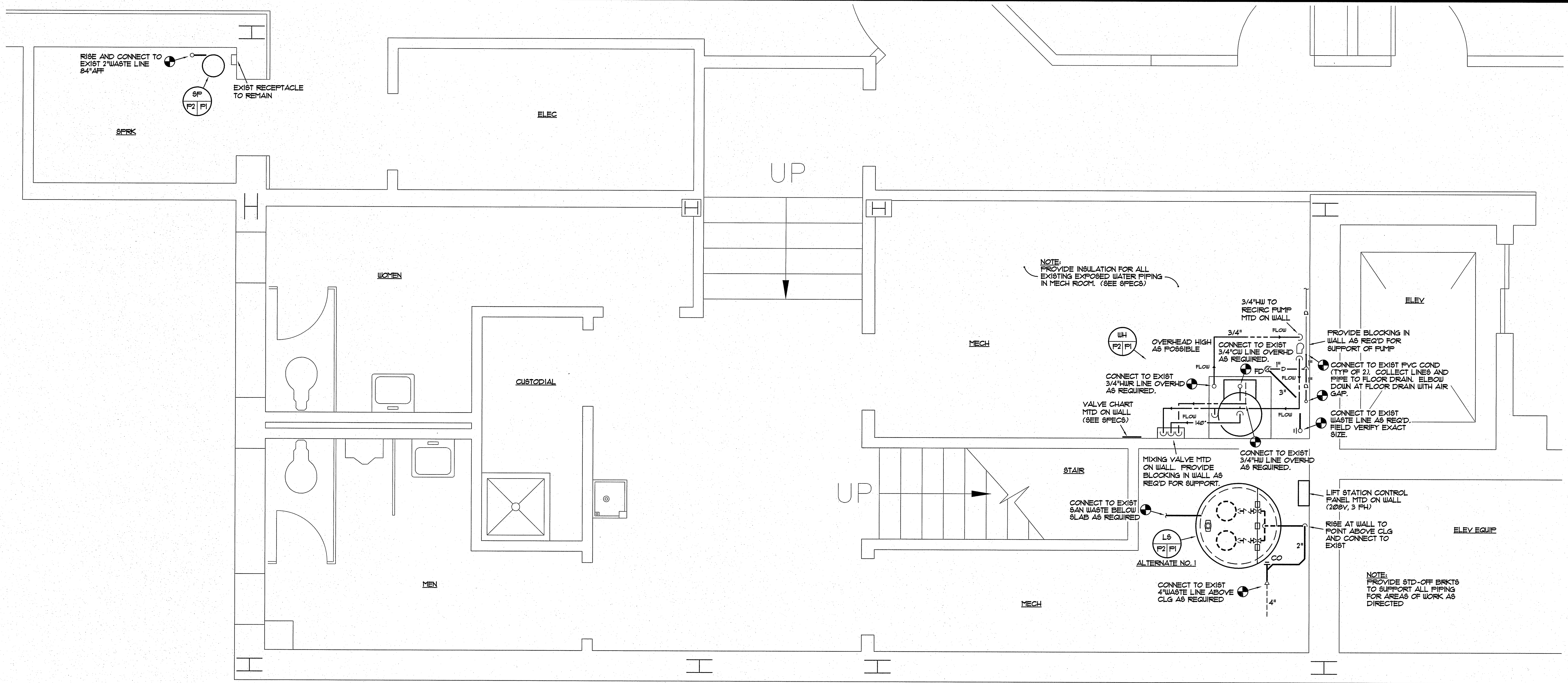
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DATE: 2/10/2014

SHEET TITLE:

PLUMBING DETAILS AND SCHEDULES

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P001

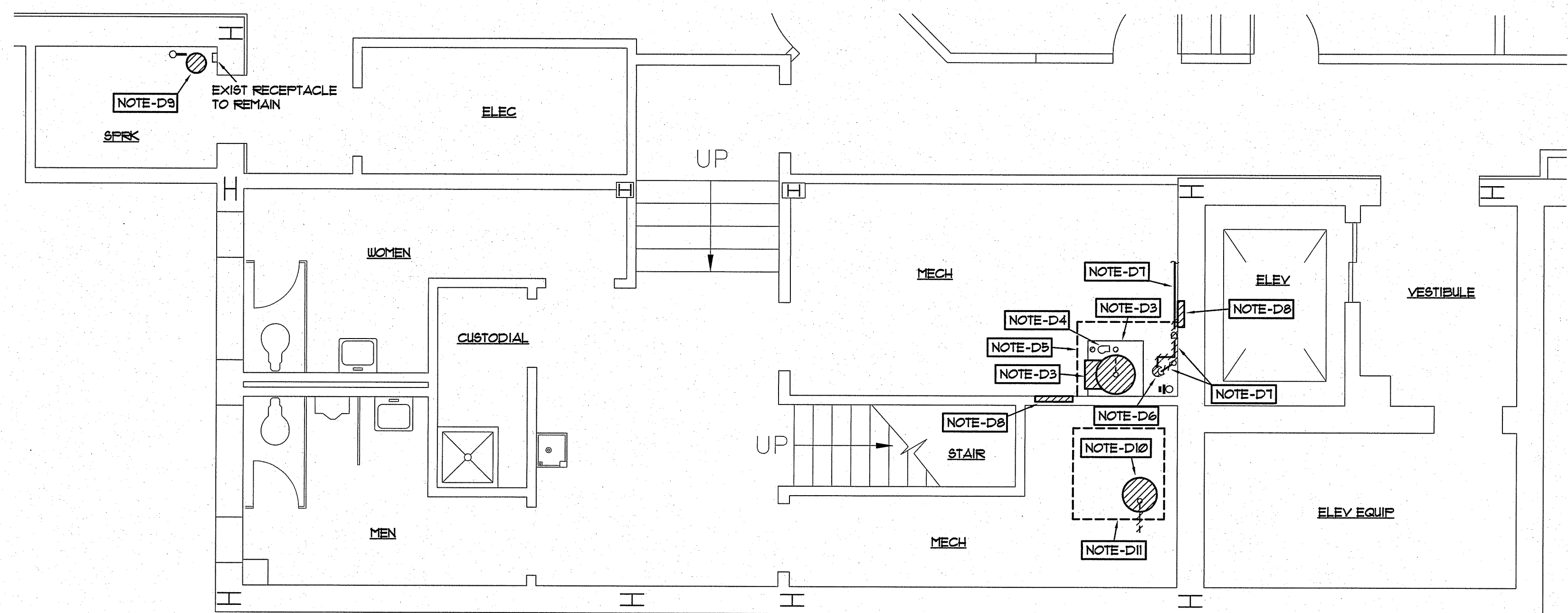


PLUMBING DEMOLITION NOTES

- D1. CONTRACTOR SHALL FIELD COORDINATE AND VERIFY EXIST CONDITIONS PRIOR TO START OF DEMOLITION WORK. NOTIFY ENGINEER OR ARCH IMMEDIATELY IF QUESTIONS OR CONFLICTS ARE DISCOVERED AT START OF PROJECT.
- D2. PROVIDE SAWCUTTING, CUTTING, CORE DRILLING AND REMOVAL OF EXIST FLOOR SLABS AND/OR EXIST WALL FINISH AS REQ'D FOR THE INSTALLATION OF PLUMBING SYSTEMS. CONTRACTOR SHALL COORDINATE ALL DEMOLITION OF EXIST SURFACES WITH THE GENERAL CONTRACTOR TO MAINTAIN MINIMAL AMOUNT OF CUTTING AS REQUIRED. PATCHING OF EXIST FINISHED SURFACES SHALL BE BY THE GENERAL CONTRACTOR.
- D3. REMOVE EXISTING WATER HEATER AND CONCRETE PAD COMPLETE. REMOVE EXISTING PIPING TO POINT OVERHEAD HIGH AS POSSIBLE.
- D4. EXISTING RECIRC PUMP TO BE RELOCATED. SEE PLUMBING FLOOR PLAN THIS SHT FOR LOCATION.
- D5. PROVIDE SAWCUT AND REMOVAL OF EXISTING FLOOR SLAB THIS APPROXIMATE LOCATION FOR THE REMOVAL AND REPLACEMENT OF FLOOR DRAIN AND ASSOCIATED WASTE PIPING. SEE FLEG FLOOR PLAN.
- D6. REMOVE EXIST FLOOR DRAIN AND P-TRAP COMPLETE.
- D7. PROVIDE DEMOLITION AND REMOVAL OF EXISTING WASTE AND DRAIN PIPING AS DIRECTED. SEE PLUMBING FLOOR PLAN, THIS SHT FOR LOCATION OF FLOOR DRAIN AND PIPING.
- D8. PROVIDE CUTTING AND REMOVAL OF EXISTING WALLS AS REQUIRED FOR THE INSTALLATION OF BLOCKING FOR MOUNTING OF RECIRC PUMP AND MIXING VALVE. COORDINATE WITH G.C.
- D9. REMOVE EXISTING SUMP PUMP COMPLETE. REMOVE DISCHARGE PIPING TO APPROX 84" AFF.
- D10. REMOVE EXISTING PACKAGED LIFT STATION COMPLETE. REMOVE DISCHARGE PIPING TO POINT ABOVE EXISTING CEILING.
- D11. PROVIDE SAWCUT AND REMOVAL OF EXISTING FLOOR SLAB THIS APPROXIMATE LOCATION FOR THE REMOVAL AND REPLACEMENT OF SEWER LIFT STATION. SEE FLEG FLOOR PLAN, THIS SHT FOR LOCATION OF LIFT STATION SPECIFIED.

PLUMBING FLOOR PLAN - BASEMENT

SCALE: 1/2" = 1'-0"



PLUMBING DEMOLITION PLAN - BASEMENT

SCALE: 1/4" = 1'-0"

REVISIONS:

DRAWN BY: DLF

CHECKED BY: MCH

COMM NO: 122998

DATE: 2/10/2014

SHEET TITLE:

PLBG BASEMENT
AND FLOOR PLANS

SHEET NO:

P002

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SPLIT SYSTEM HEAT PUMP SCHEDULE ①													
AIR HANDLING UNIT						HEAT PUMP							
MARK	TRANE ② MODEL	CFM	O.A. CFM	FAN E.S.P.	H.P.	AUX. HEAT KW (NET)	MARK	TRANE ② MODEL	COOLING ③				HEATING • 11°F ④
									TOTAL	SENS.	ENT. AIR	SEER	CAPACITY
AH-1	4TEC3F60	2,000	450	0.45"	1.0	11.53	HP-1	4TUA3060	56.6	40.1	80/67	13.0	34.4
AH-2	4TEC3F60	2,000	435	0.45"	1.0	11.53	HP-2	4TUA3060	56.6	40.1	80/67	13.0	34.4
AH-3	4TEC3F48	1,600	205	0.45"	1/2	11.53	HP-3	4TUA3048	46.0	33.1	80/67	13.0	24.8
AH-4	4TEC3F60	2,000	445	0.45"	1.0	11.53	HP-4	4TUA3060	56.6	40.1	80/67	13.0	34.4
AH-5	4TEC3F48	1,600	250	0.45"	1/2	11.53	HP-5	4TUA3048	46.0	33.1	80/67	13.0	24.8
AH-6	4TEC3F36	1,200	150	0.45"	1/3	7.2	HP-6	4TUA3036	34.0	24.8	80/67	13.25	17.6
AH-7	4TEC3F30	1,000	120	0.45"	1/3	5.76	HP-7	4TUA3030	28.2	20.5	80/67	13.25	15.5

- ① AIR HANDLING UNIT AND HEAT PUMP TO MATCH AVAILABLE ELECTRICAL SERVICE, SEE ELECTRICAL. AIR HANDLING UNIT SHALL HAVE ONE POINT OF POWER CONNECTION.
- ② OR EQUAL BY CARRIER, JCI, OR APPROVED EQUAL.
- ③ BASED ON 95°F CONDENSER AIR TEMPERATURE.
- ④ BASED ON 70°F ENTERING AIR TEMPERATURE.
- ⑤ PROVIDE UNIT WITH LOW AMBIENT KIT.

DUCTLESS SPLIT SYSTEM HEAT PUMP SCHEDULE ①													
AIR HANDLING UNIT						HEAT PUMP							
MARK	DAIKIN ② MODEL	CFM	H.P.	O.A. CFM	E.S.P.	MARK	DAIKIN ② MODEL	COOLING ③				HEATING • 41°F ④	
								TOTAL	SENS.	ENT. AIR	SEER	CAPACITY	HSPF
AH-8 ⑤	FCQ24	780	1/6	30	N/A	HP-8	RZQ24	24.0	18.9	80/67	16.8	27.0	9.7
AH-9 ⑤	FCQ24	780	1/6	30	N/A	HP-9	RZQ24	24.0	18.9	80/67	16.8	27.0	9.7
AH-10 ⑤	FCQ24	780	1/6	30	N/A	HP-10	RZQ24	24.0	18.9	80/67	16.8	27.0	9.7
AH-11 ⑤	FBQ36	1,130	1/3	N/A	0.45"	HP-11	RZQ36	36.0	27.2	80/67	17.5	40.0	9.1
AH-12 ⑤ ⑥	FCQ30	830	1/6	165	N/A	HP-12	RZQ30	30.0	22.4	80/67	15.8	34.0	9.7

- ① AIR HANDLING UNIT AND CONDENSING UNIT TO MATCH AVAILABLE ELECTRICAL SERVICE, SEE ELECTRICAL. AIR HANDLING UNIT SHALL HAVE ONE POINT OF POWER CONNECTION.
- ② OR EQUAL BY CARRIER, MITSUBISHI, LG, OR APPROVED EQUAL, SEE SPECIFICATIONS.
- ③ BASED ON 95°F CONDENSER AIR TEMPERATURE.
- ④ BASED ON 70°F ENTERING AIR TEMPERATURE.
- ⑤ PROVIDE WITH WIRED WALL THERMOSTAT (NO REMOTE CONTROL), LOW AMBIENT CONTROL, HARD START KIT, ANTI-SHORT CYCLING PROTECTION, AND FACTORY INSTALLED HIGH CAPACITY CONDENSATE PUMP.
- ⑥ PROVIDE FRESH AIR KIT

PACKAGED HEAT PUMP SCHEDULE ① ⑥												
MARK	TRANE ② MODEL	O.A. CFM	AUX. HEAT KW (NET)	INDOOR FAN			COOLING ③				HEATING • 11°F ④	
				CFM	E.S.P.	H.P.	TOTAL	SENS.	ENT. AIR	SEER	TOTAL	COP
RTU-1 ⑤	W8C060	500	13.1	2,000	0.45"	1.0	63.4	47.2	80/67	13.0	34.4	2.3
RTU-2	W8C036	160	9.0	1,200	0.45"	1.0	38.0	27.3	80/67	13.0	20.6	2.1
RTU-3	W8C036	100	9.0	1,200	0.45"	1.0	38.0	27.3	80/67	13.0	20.6	2.1
RTU-4	4WCC3042	125	9.0	1,400	0.45"	1/2	40.5	29.1	80/67	13.0	24.9	2.3
RTU-5	W8C036	120	9.0	1,200	0.45"	1.0	38.0	27.3	80/67	13.0	20.6	2.1
RTU-6	W8C036	125	9.0	1,200	0.45"	1.0	38.0	27.3	80/67	13.0	20.6	2.1
RTU-7	W8C048	190	9.0	1,600	0.45"	1.0	50.1	37.6	80/67	13.0	24.8	2.1




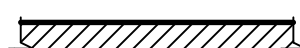


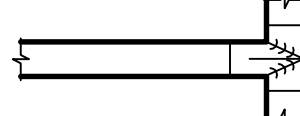

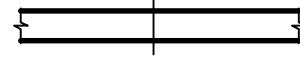


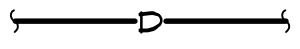



- ① ROOF TOP UNIT TO MATCH AVAILABLE ELECTRICAL SERVICE, SEE ELECTRICAL. UNIT SHALL BE SINGLE POINT POWER CONNECTION.
- ② OR EQUAL BY CARRIER, DAIKIN, JCI, OR APPROVED EQUAL.
- ③ BASED ON 95°F CONDENSER AIR TEMPERATURE.
- ④ BASED ON 70°F ENTERING AIR TEMPERATURE.
- ⑤ PROVIDE DYNAMIC AIR CLEANER AIR FILTER WITH CARBON MESH SCREEN, ELECTROSTATIC FILTER PAD TO REMOVE PARTICULATES, GASES, AND ODORS. MERV 13 MINIMUM.
- ⑥ PROVIDE 12" HIGH SEISMIC CURB, SEISMICALLY ANCHORED TO CONCRETE DECK ON ROOF.

VENTILATING FAN SCHEDULE ①							
MARK	GREENHECK ② MODEL	CFM	FAN S.P.	FAN H.P. OR WATTS	SONES	DRIVE	CONTROLLED BY
REF-1 ⑤	G-0710-D	190	1/4"	1/30 HP	3.0	DIRECT	SEE ELECTRICAL
CEF-2 ③	9F-A110	75	1/4"	74 W.	0.8	DIRECT	SEE ELECTRICAL
CEF-3 ③	9F-A200	150	1/4"	48 W.	1.4	DIRECT	SEE ELECTRICAL
CEF-4 ③	9F-A110	75	1/4"	74 W.	0.8	DIRECT	SEE ELECTRICAL
ILF-5 ④	C8P-A510	450	1/4"	240 W.	1.8	DIRECT	SEE ELECTRICAL
ILF-6 ④	C8P-A510	450	1/4"	240 W.	1.8	DIRECT	SEE ELECTRICAL
ILF-7 ④	C8P-A700	525	1/4"	350 W.	0.3	DIRECT	SEE ELECTRICAL

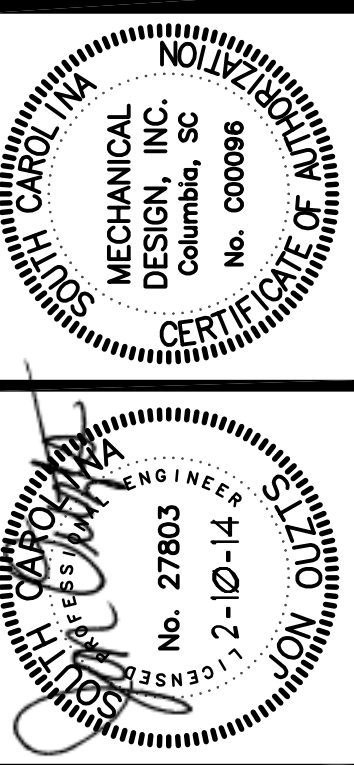
- ① FANS TO MATCH AVAILABLE ELECTRICAL SERVICE, SEE ELECTRICAL.
- ② OR EQUAL BY COOK, BREIDERT, CARNES, TWIN CITY, OR APPROVED EQUAL.
- ③ PROVIDE WITH ALUMINUM EGG CRATE GRILLE, WALL LOUVER DISCHARGE, DISCONNECT, BACKDRAFT DAMPER, INSECT SCREEN, AND VARIABLE SPEED CONTROLLER LOCATED ABOVE THE CEILING FOR AIR BALANCING.
- ④ PROVIDE WITH DISCONNECT, BACKDRAFT DAMPER, INSECT SCREEN AND VARIABLE SPEED CONTROLLER LOCATED ABOVE THE CEILING FOR AIR BALANCING.
- ⑤ PROVIDE WITH DISCONNECT, BACKDRAFT DAMPER, INSECT SCREEN, GALVANIZED ROOF CURB, AND VARIABLE SPEED CONTROLLER FACTORY MOUNTED FOR AIR BALANCING.

GRILLE AND DIFFUSER SCHEDULE					
MARK	SERVICE	NECK SIZE	MAX CFM	RUNOUT SIZE	REMARKS
①	SUPPLY	6"φ	110	6"φ	W/ BUTTERFLY DPR
②	SUPPLY	8"φ	230	8"φ	W/ BUTTERFLY DPR
③	SUPPLY	10"φ	375	10"φ	W/ BUTTERFLY DPR
④	SUPPLY	12"φ	600	12"φ	W/ BUTTERFLY DPR
⑬ ***	SUPPLY	10"φ	375	10"φ	W/ BUTTERFLY DPR
⑧	RETURN	8"x8"	250	8"x8"	W/ OFF. BL. DPR**
⑩	RETURN	10"x10"	340	10"x8"	W/ OFF. BL. DPR**
⑫	RETURN	12"x12"	580	12"x10"	W/ OFF. BL. DPR**
⑬	RETURN	16"x16"	860	16"x10"	W/ OFF. BL. DPR**
⑭	RETURN	18"x18"	1,250	18"x12"	W/ OFF. BL. DPR**
⑳	RETURN	22"x22"	1,800	22"x14"	W/ OFF. BL. DPR**
GRILLE/ DIFFUSER		CEILING TYPE		PRICE * MODEL NO.	MATERIAL
SQUARE SUPPLY		LAY-IN		SPD-31	STEEL
SQUARE SUPPLY		GYP. BD.		SPD-31	STEEL
SQUARE RETURN		LAY-IN		81-TB	ALUMINUM
SQUARE RETURN		GYP. BD.		81-F-A	ALUMINUM
HSD		GYP. BD.		RCG W/ OBD	ALUMINUM
RAG		GYP. BD.		RCG	ALUMINUM
* OR EQUAL BY CARNES, METALAIRE, NAILOR, KREUGER, TITUS OR APPROVED EQUAL.					
** CONTRACTOR MAY OMIT DAMPER IN RETURN GRILLES.					
*** PRICE PRODIGY PPD2 SELF-MODULATING PLAQUE DIFFUSER.					
NOTES: 1. GRILLE AND DIFFUSER LOCATIONS SHOWN ON FLOOR PLANS ARE APPROXIMATE, SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION.					
2. GRILLES AND DIFFUSERS SHALL MATCH CEILING TYPE, SEE ARCHITECTURAL DRAWINGS FOR CEILING TYPE.					
3. GRILLE AND DIFFUSER COLORS SHALL BE SELECTED BY ARCHITECT, SUBMIT COLOR SAMPLES TO ARCHITECT.					
4. LAY-IN EGGCRATE SHALL HAVE FULL FACE (24x24) AND FULL SIZE STEEL BACK PLATE WITH DUCT CONNECTOR COLLAR. INTERIOR OF GRILLE SHALL BE FLAT BLACK.					

NOTES	
1.	DO NOT SCALE DRAWINGS, ROUGH FROM ARCHITECTURAL, EXISTING CONDITIONS, AND EQUIPMENT MANUFACTURER'S DRAWINGS.
2.	DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED. DUCT SIZES SHOWN ON DRAWINGS ARE INTERIOR DIMENSIONS.
3.	WHENEVER THE WORD "PROVIDE" IS USED IT SHALL MEAN FURNISH AND INSTALL COMPLETE AND READY FOR USE.
4.	PROVIDE GLASSFAB AND MASTIC ON ALL DUCT INSULATION, SEE SPECIFICATIONS. DUCT TAPE WILL NOT BE ACCEPTED.
5.	PROVIDE "P" TRAP FOR ALL CONDENSATE DRAINS. PROVIDE INSULATED DRAIN LINES FROM ALL DRAIN CONNECTIONS.
6.	CONSTRUCT DUCTWORK AS JOB PROGRESSES AND AFTER COORDINATING WITH ALL CONCERNED TRADES AND EXISTING CONDITIONS.
7.	BOLT UNIT TO EXISTING ROOF CURB PER THE SEISMIC REQUIREMENTS OF THE 2012 INTERNATIONAL BUILDING CODE. ROUTE REFRIGERANT LINES TO PIPE PENTHOUSE AS INDICATED AND CONNECT TO ASSOCIATED AIR HANDLING UNIT.
8.	BOLT UNIT TO EQUIPMENT RAILS PER THE SEISMIC REQUIREMENTS OF THE 2012 INTERNATIONAL BUILDING CODE. ROUTE REFRIGERANT LINES TO PIPE PENTHOUSE AS INDICATED AND CONNECT TO ASSOCIATED AIR HANDLING UNIT.
9.	PROVIDE FULL SIZE CONDENSATE DRAIN LINE. ROUTE TO NEAREST ROOF DRAIN. ELBOW DOWN AT DRAIN.
10.	PROVIDE FULL SIZE INSULATED CONDENSATE DRAIN LINE. ROUTE AS INDICATED ON PLANS.
11.	PROVIDE FULL SIZE INSULATED CONDENSATE DRAIN LINE. ROUTE TO NEAREST FLOOR DRAIN. ELBOW DOWN AT DRAIN.
12.	PROVIDE FULL SIZE INSULATED CONDENSATE DRAIN LINE. ROUTE TO CONDENSATE DRAIN RISER AS SHOWN ON PLANS.
13.	SEE SPECIFICATIONS FOR FLEXIBLE DUCT REQUIREMENTS.
14.	WHERE DUCTS PASS OVER RECESSED LIGHTING FIXTURES, MAINTAIN 1" CLEARANCE FROM TOP OF FIXTURE TO BOTTOM OF DUCT.
15.	INSTALLATION OF EQUIPMENT, DUCTWORK, AND PIPING, INCLUDING VIBRATION ISOLATION SHALL COMPLY WITH 2012 INTERNATIONAL BUILDING CODE FOR SEISMIC PROTECTION. SEE SPECIFICATIONS.
16.	WHERE SPIN-IN TAKEOFFS ARE LOCATED ABOVE INACCESSIBLE CEILINGS, OMIT DAMPER.
17.	THE MINIMUM DISTANCE BETWEEN TAKEOFFS ON THE SAME SIDE OF THE DUCTS SHALL BE FOUR (4) TIMES THE DIAMETER OF THE FIRST TAKEOFF.

SYMBOLS	
	FLEXIBLE DUCT (6 FT. MAX. LENGTH)
	RIGID ROUND RUNOUT DUCT
	NEW MATERIAL
	MATERIAL TO BE REMOVED
	ACOUSTICALLY LINED DUCT
CFM	AIR FLOWRATE, CUBIC FEET PER MINUTE
① 100	GRILLE OR DIFFUSER MARK, BALANCING CFM
	TURNING VANE
	SPLIT DUCT WITH SPLITTER DAMPER
	SPIN-IN TAKEOFF WITH SCOOP AND DAMPER
	MANUAL DAMPER WITH LOCKING QUADRANT
	FLEXIBLE CONNECTION
	MOTOR OPERATED DAMPER, SEE SPECS.
Ⓙ	THERMOSTAT
ⓈⒹ	SMOKE DETECTOR
FD	FIRE DAMPER
F&D	FIRE SMOKE DAMPER
	CONDENSATE DRAIN LINE (INSULATED)
	PIPE TURNING DOWN
	PIPE TURNING UP
	CONNECT NEW TO EXISTING
▲	UNDERCUT DOOR 3/4"

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DATE: 2/10/2014

SHEET TITLE:

HVAC NOTES,
SYMBOLS, AND
SCHEDULES

SHEET NO:

M001

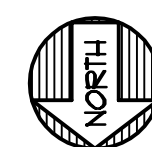
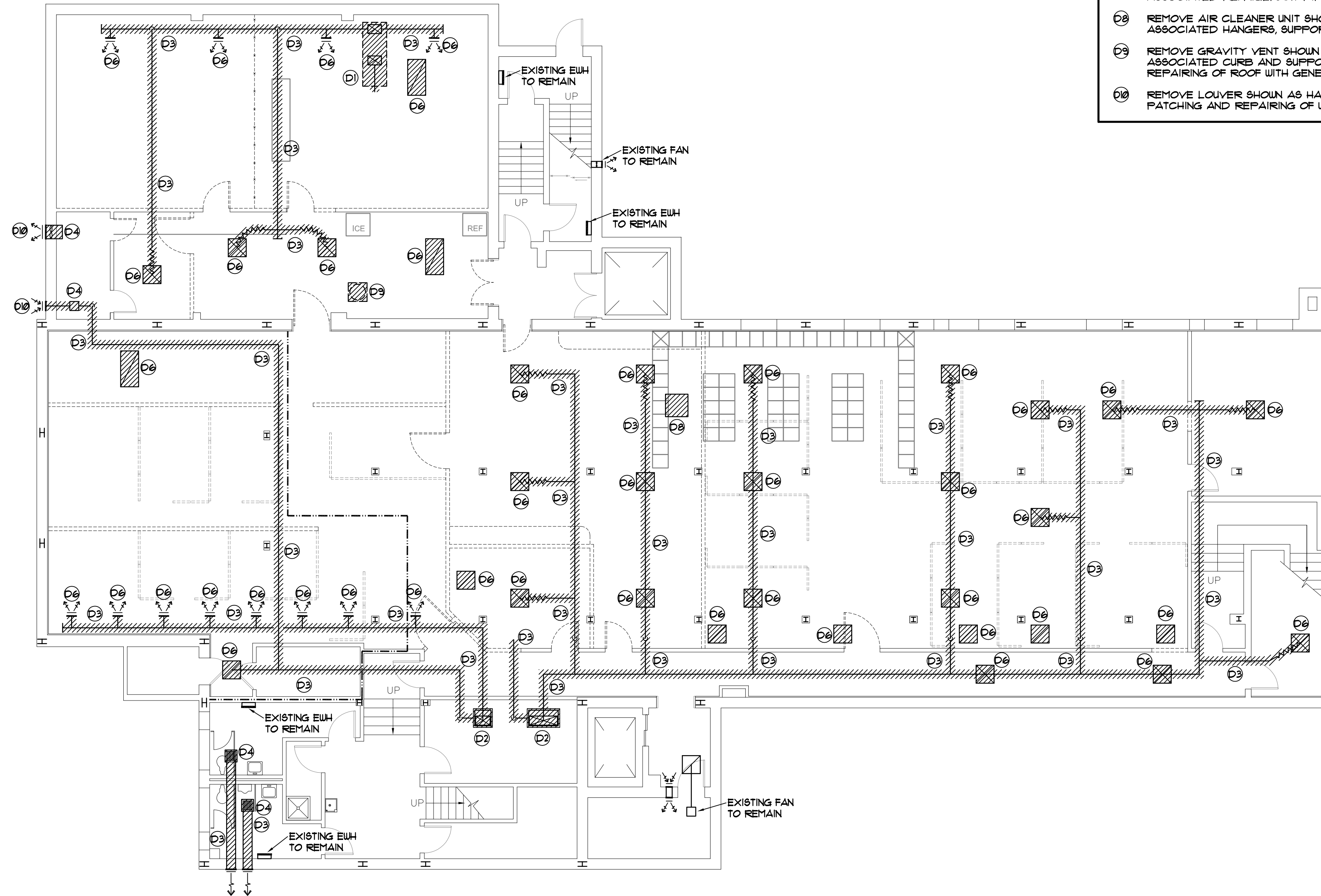
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COMM. NO. 122998



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

DEMOLITION NOTES

- D1 REMOVE ROOF TOP UNIT SHOWN AS HATCHED COMPLETE, INCLUDING ASSOCIATED CURB, SUPPORTS, AND CONTROLS. COORDINATE PATCHING AND REPAIRING OF ROOF WITH GENERAL CONTRACTOR.
- D2 REMOVE AIR HANDLING UNIT SHOWN AS HATCHED COMPLETE, INCLUDING ASSOCIATED HANGERS, SUPPORTS AND CONTROLS.
- D3 REMOVE DUCTWORK SHOWN AS HATCHED COMPLETE, INCLUDING ASSOCIATED HANGERS AND SUPPORTS.
- D4 REMOVE EXHAUST FAN SHOWN AS HATCHED COMPLETE, INCLUDING ASSOCIATED HANGERS, SUPPORTS, AND CONTROLS.
- D5 REMOVE GRILLE/DIFFUSER SHOWN AS HATCHED COMPLETE, INCLUDING ASSOCIATED HANGERS AND SUPPORTS.
- D7 REMOVE HEAT PUMP UNIT SHOWN AS HATCHED COMPLETE, INCLUDING ASSOCIATED REFRIGERANT PIPING AND CONTROLS.
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- D10 REMOVE LOUVER SHOWN AS HATCHED COMPLETE. COORDINATE PATCHING AND REPAIRING OF WALL WITH GENERAL CONTRACTOR.

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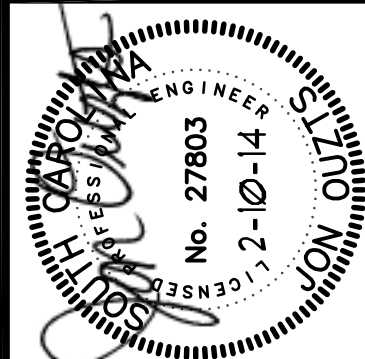
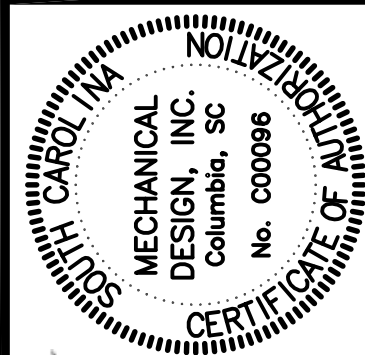
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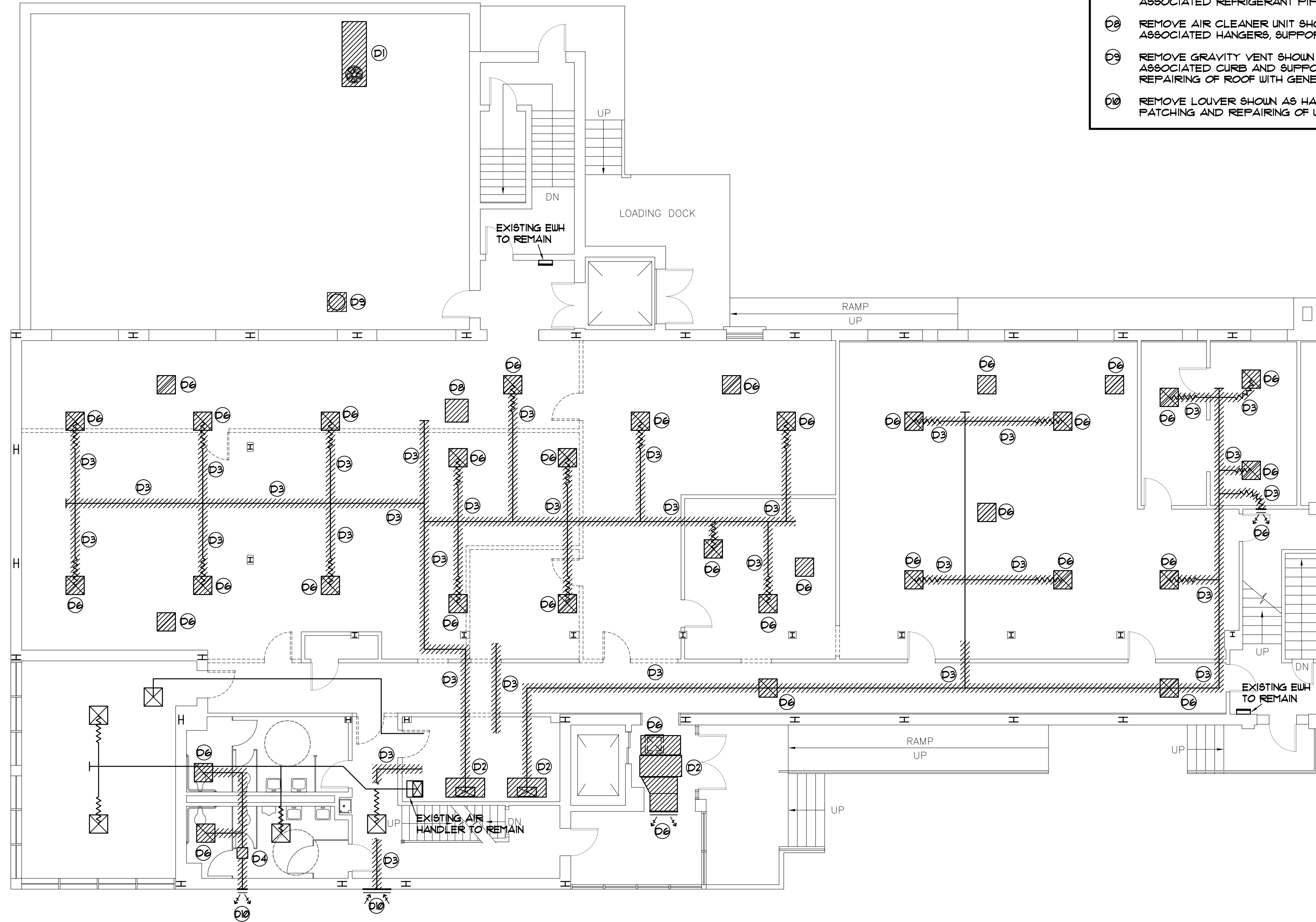
BASEMENT
HVAC DEMOLITION
FLOOR PLAN

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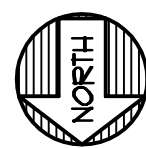
M101



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- DEMOLITION NOTES**
- D1 REMOVE ROOF TOP UNIT SHOWN AS HATCHED COMPLETE, INCLUDING ASSOCIATED CURB, SUPPORTS, AND CONTROLS. COORDINATE PATCHING AND REPAIRING OF ROOF WITH GENERAL CONTRACTOR.
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FIRST FLOOR HVAC DEMOLITION FLOOR PLAN
SCALE: 1/8" = 1'-0"

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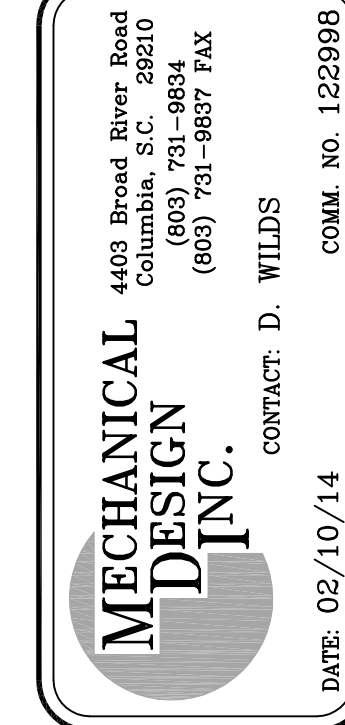
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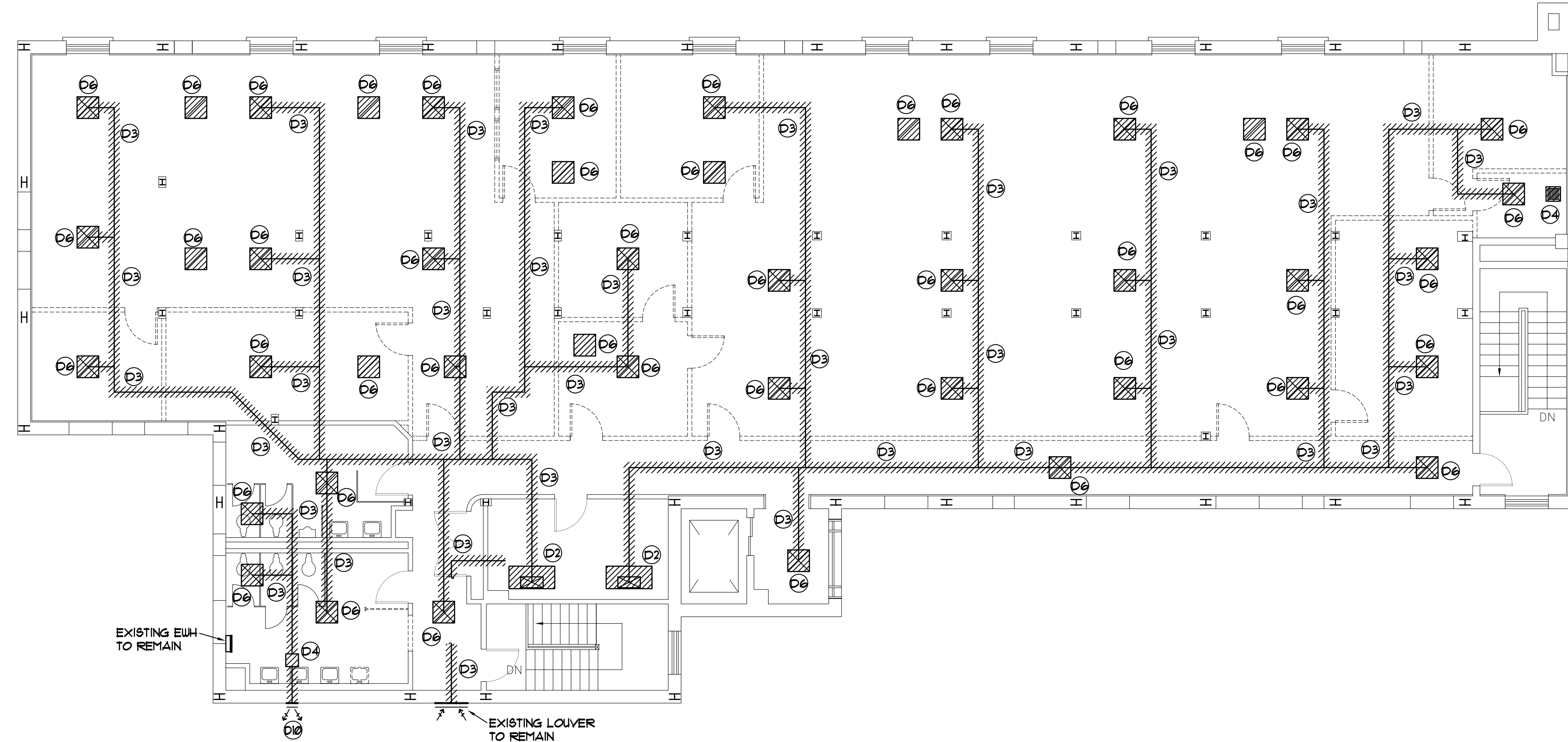
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1ST FLOOR
HVAC DEMOLITION
FLOOR PLAN

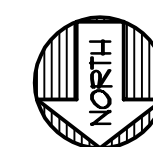
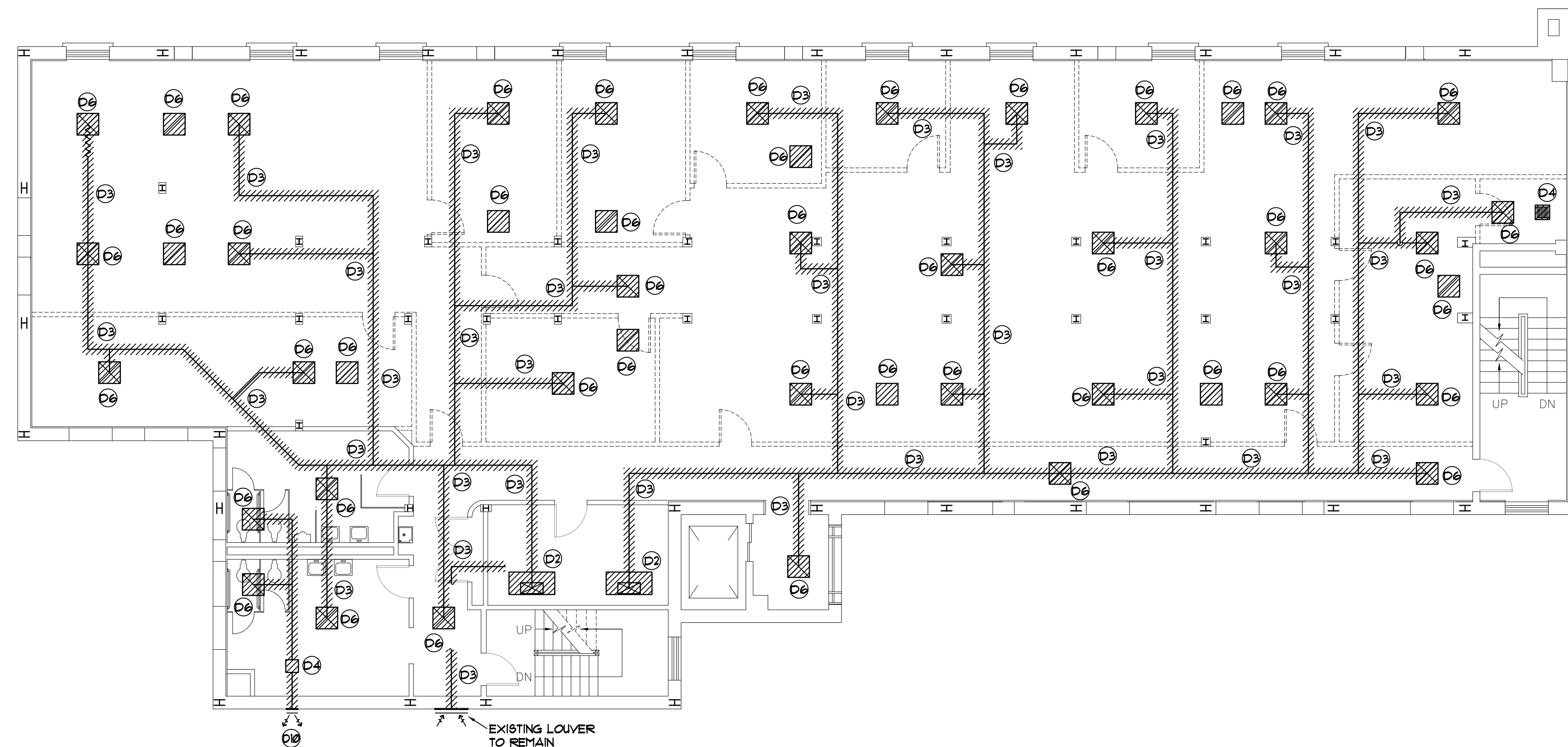
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M102





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



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

DEMOLITION NOTES

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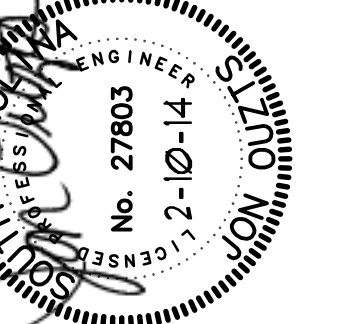
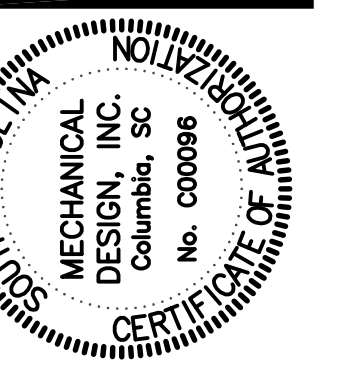
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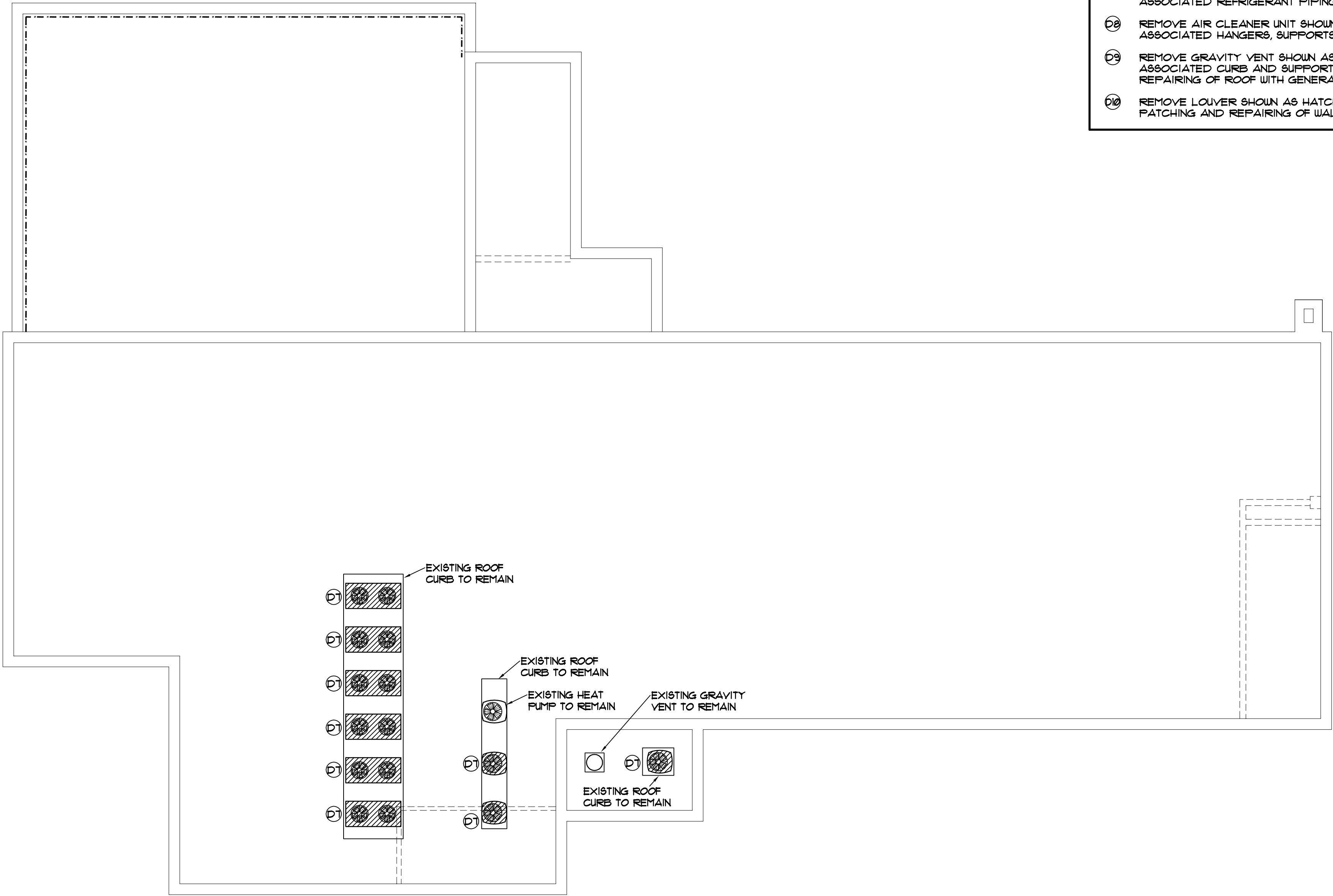
2ND & 3RD FLOOR
HVAC DEMOLITION
FLOOR PLANS

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

- DEMOLITION NOTES
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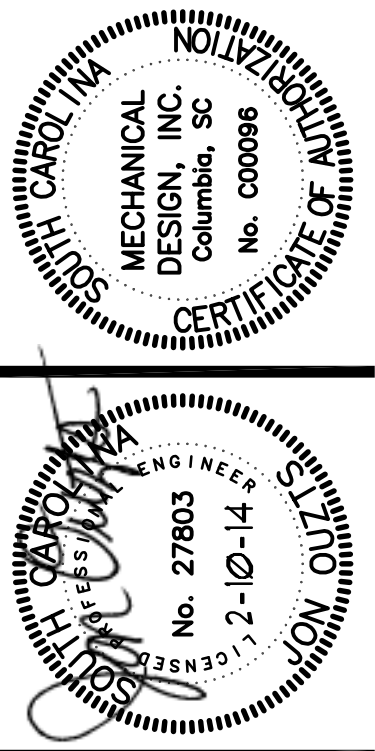
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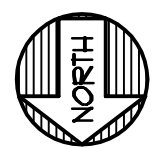
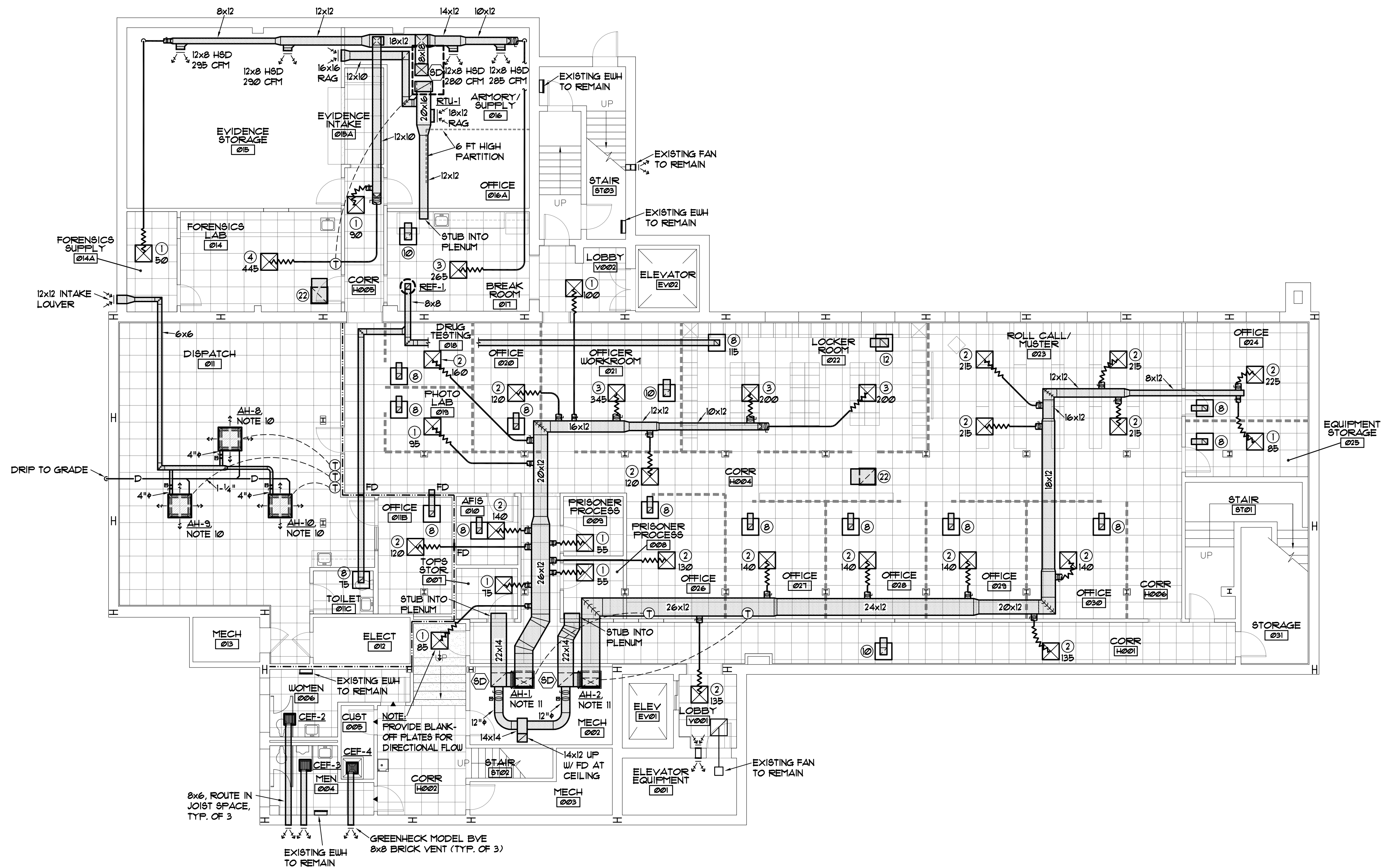
ROOF
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FLOOR PLAN

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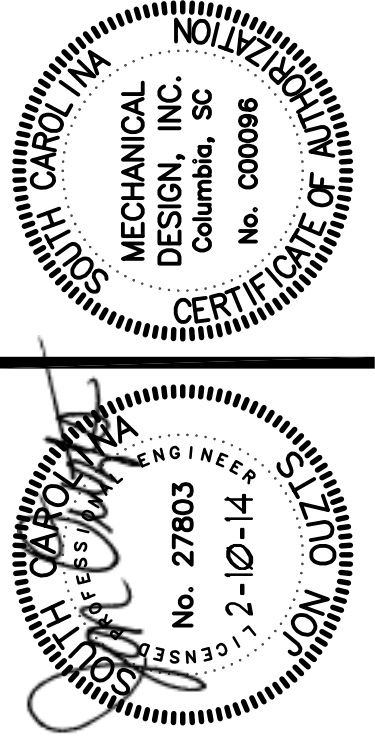
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BASEMENT HVAC RENOVATION FLOOR PLAN
SCALE: 1/8" = 1'-0"



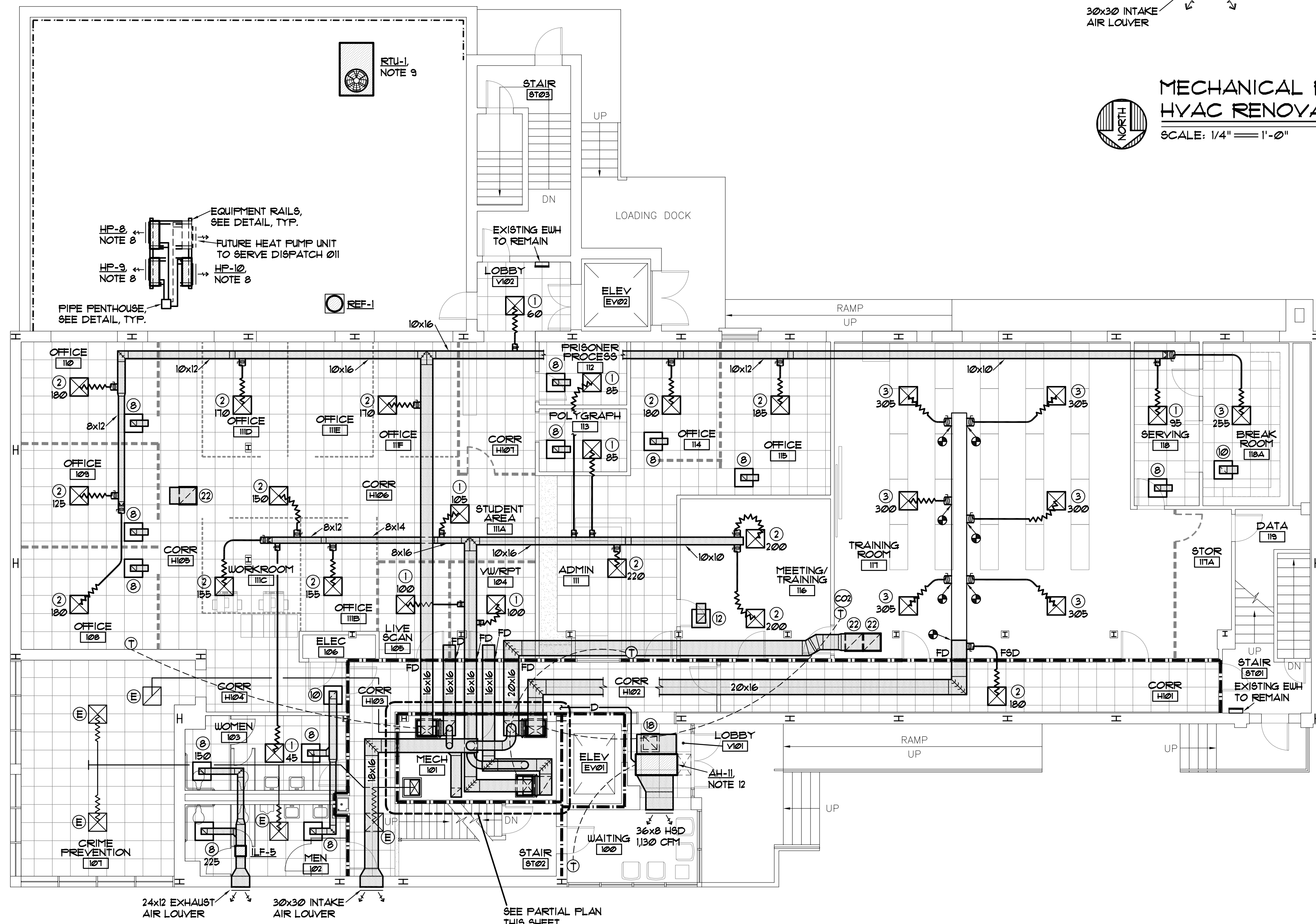
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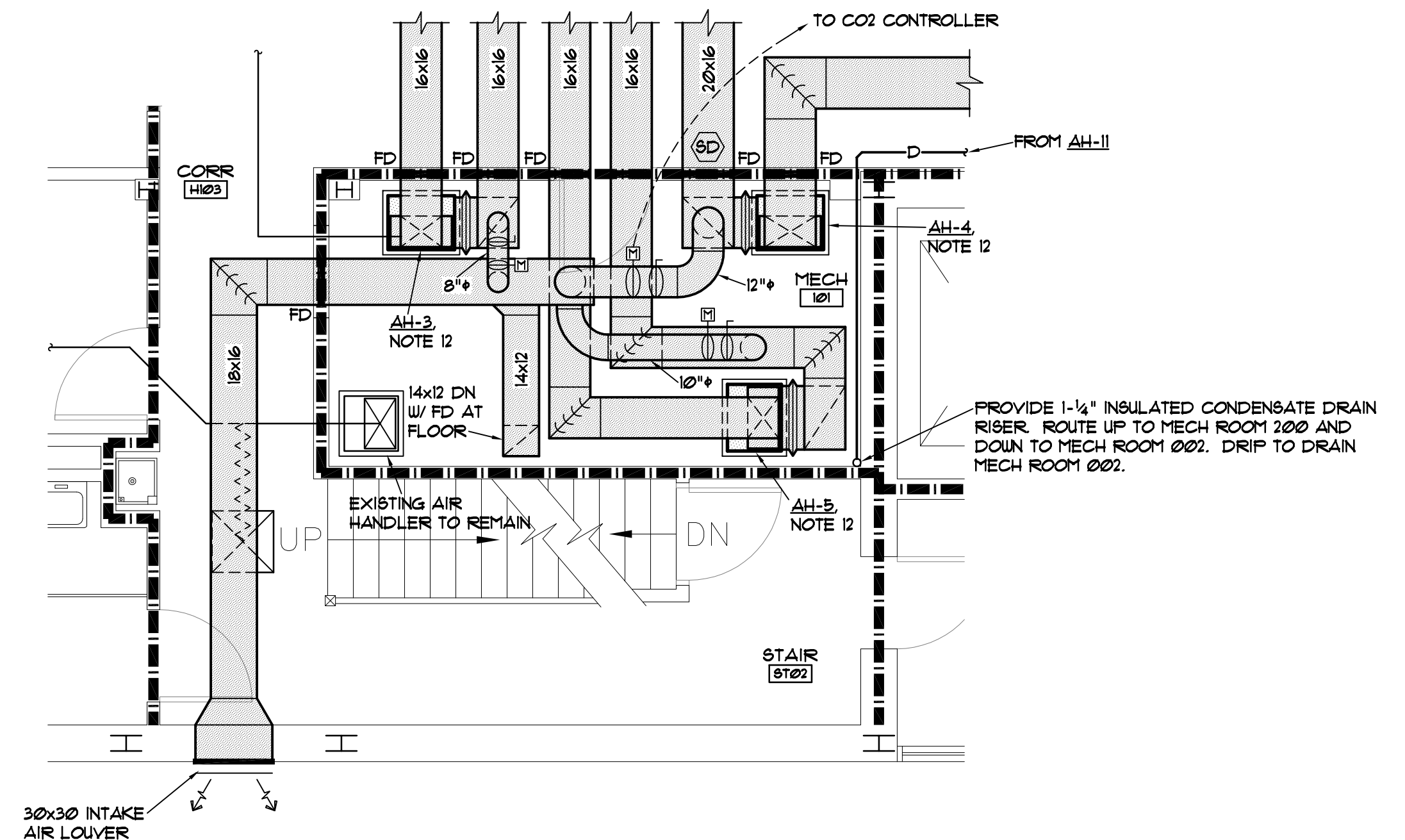
BASEMENT
HVAC RENOVATION
FLOOR PLAN

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M201

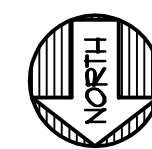
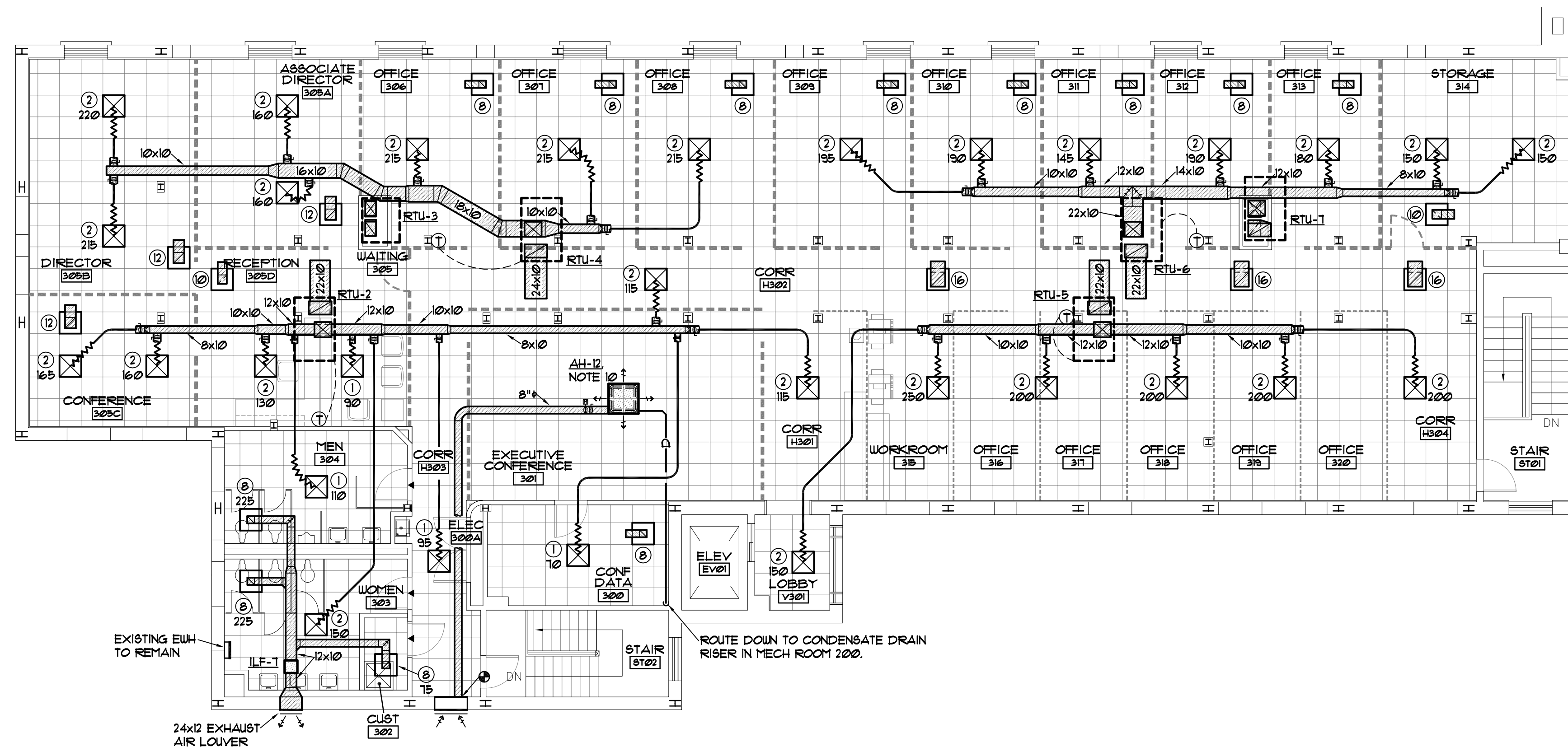
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FIRST FLOOR HVAC RENOVATION FLOOR PLAN
SCALE: 1/8" = 1'-0"

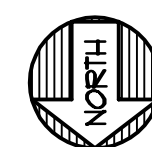
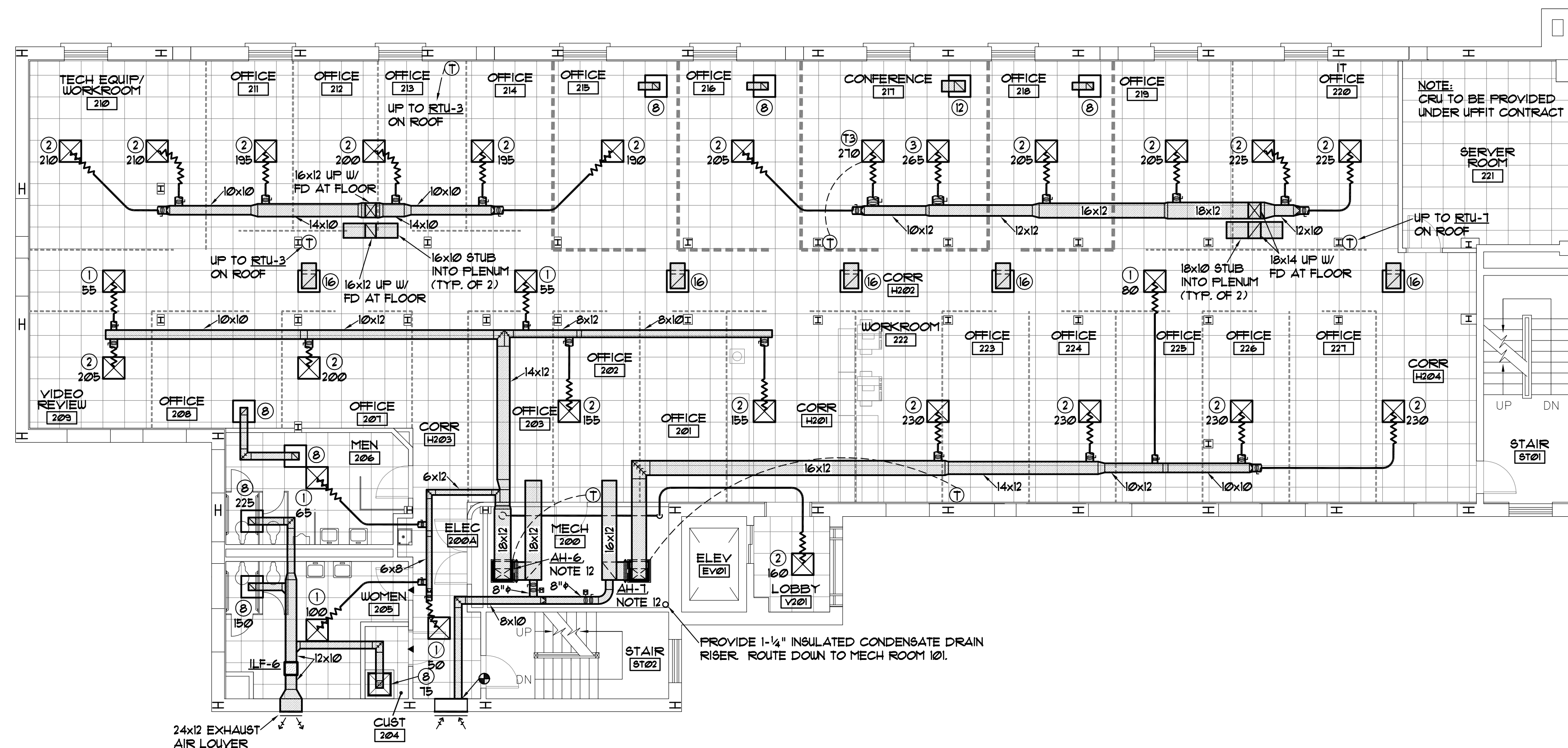


**MECHANICAL ROOM 101
HVAC RENOVATION PARTIAL FLOOR PLAN**
SCALE: 1/4" = 1'-0"



THIRD FLOOR HVAC RENOVATION FLOOR PLAN

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



SECOND FLOOR HVAC RENOVATION FLOOR PLAN

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

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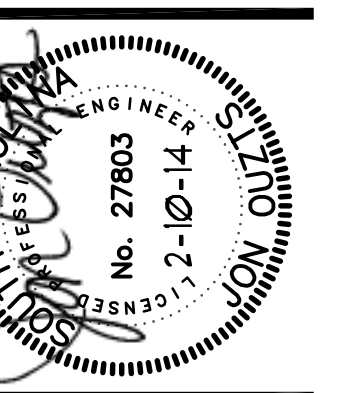
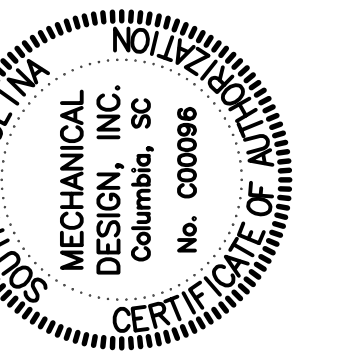
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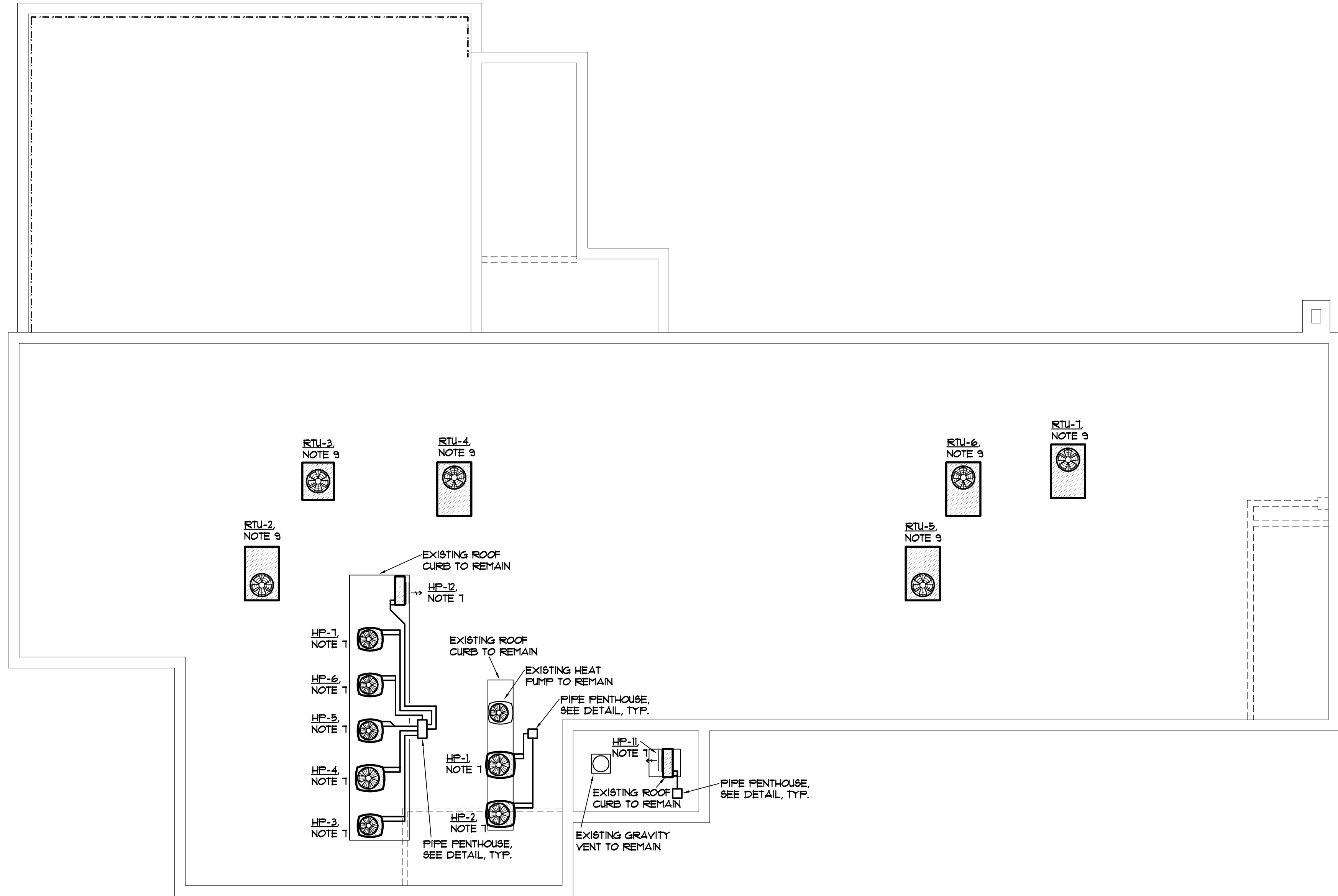
2ND & 3RD FLOOR
HVAC RENOVATION
FLOOR PLANS

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ROOF HVAC RENOVATION FLOOR PLAN
SCALE: 1/8" = 1'-0"

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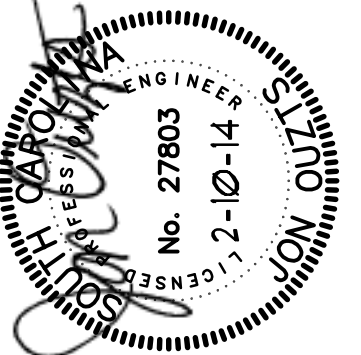
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ROOF
HVAC RENOVATION
FLOOR PLAN

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SCOPE OF WORK

THE WORK OF THIS SECTION SHALL PROVIDE COMPLETE ELECTRICAL SYSTEMS WHICH SHALL INCLUDE THE PROVIDING OF ALL CONDUCTORS, RACEWAYS, FITTINGS, CIRCUIT PROTECTIVE DEVICES, LIGHT FIXTURES, BOXES, SUPPORTS, AND ALL ASSOCIATED APPURTENANCES AND MISCELLANEOUS EQUIPMENT NECESSARY, ALL OF WHICH SHALL BE COMPLETELY CONNECTED, TESTED, ADJUSTED AND LEFT IN PROPER OPERATING CONDITION. THE ELECTRICAL SYSTEM TO BE PROVIDED SHALL INCLUDE SERVICE AND DISTRIBUTION FACILITIES POWER FOR MOTOR OPERATED EQUIPMENT, LIGHTING SYSTEMS, AND ALL OUTLETS AS COVERED HEREINAFTER.

GENERAL NOTES:

1.

ALL ELECTRICAL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE 2011 NATIONAL ELECTRICAL CODE (NEC), THE 2012 INTERNATIONAL BUILDING CODE (IBC), AND ANY LOCAL CODES, LAWS AND ORDINANCES WHICH MAY APPLY. WHERE DIFFERENCES EXIST BETWEEN THE CODES, THE STRICTER CODE SHALL APPLY.

2.

ALL CONDUITS SHALL CONTAIN A GROUNDING CONDUCTOR REGARDLESS OF USE.

3.

THE CONTRACTOR FOR THE WORK UNDER THIS SECTION SHALL PROCURE AND PAY FOR ALL PERMITS, FEES, AND LICENSES REQUIRED FOR THE EXECUTION OF THIS WORK. SATISFACTORY EVIDENCE OF COMPLIANCE WITH THE REQUIREMENT AND ALL CERTIFICATES OF INSPECTION SHALL BE DELIVERED TO THE OWNER PROMPTLY UPON REQUEST.

4.

TYPE MC CABLE MAY NOT BE USED ON THIS PROJECT, EXCEPT THAT METAL CLAD CABLE SHALL BE PERMITTED FOR LIGHT FIXTURE WHIPS PROVIDED THEY DO NOT EXCEED 6--FEET IN LENGTH AND ARE PROVIDED BY THE LIGHT FIXTURE MANUFACTURER.

5.

UNLESS OTHERWISE NOTED FOR 120--VOLT, 20--AMP CKTS:
#10 AWG SHALL BE USED FOR HOMERUNS LONGER THAN 75 FEET
#12 AWG SHALL BE USED FOR HOMERUNS 75 FEET OR SHORTER

6.

MULTIWIRE BRANCH CIRCUITS USING A SHARED OR COMMON NEUTRAL ARE NOT PERMITTED ON THIS PROJECT. THE CONTRACTOR SHALL PULL A SEPARATE NEUTRAL FOR ALL 120V AND 277V CIRCUITS.

7.

MOUNT RECEPTACLES 16" AFF UNLESS OTHERWISE NOTED.

8.

ALL LIGHT SWITCHES AND RECEPTACLES SHALL BE BY THE SAME MANUFACTURER. COVER PLATES SHALL BE JUMBO STAINLESS STEEL. DEVICE COLOR TO BE SELECTED BY THE ARCHITECT UNLESS STATED WITH THE DEVICE SYMBOL.

9.

ELECTRICAL METALLIC TUBING AND RIGID GALVANIZED STEEL CONDUIT SHALL BE THE ONLY TYPES OF CONDUIT INSTALLED WITHIN THE BUILDING. PVC IS PERMITTED UNDERGROUND.

10.

BRANCH CIRCUITS SHALL BE RUN CONCEALED WHERE PRACTICAL. BRANCH CIRCUITS RUN EXPOSED TO WEATHER ON EXTERIOR WALLS OR ON ROOFS SHALL BE RUN IN GRC OR IMC WITH SCREWED FITTINGS. BRANCH CIRCUITS RUN CONCEALED IN WALLS OR CEILINGS SHALL BE RUN IN EMT, GRC, OR IMC. BRANCH CIRCUITS RUN EXPOSED IN DRY, FINISHED SPACES SHALL BE RUN IN WIREMOLD SURFACE METAL RACEWAY. BRANCH CIRCUITS RUN EXPOSED IN DAMP LOCATIONS, UNFINISHED SPACES (ATTICS), AND UNOCCUPIED SPACES (STORAGE ROOM, EQUIPMENT ROOMS, JANITOR'S CLOSET, ETC.) MAY BE RUN IN EMT IN LIEU OF WIREMOLD.

11.

CONDUIT HOMERUNS TO PANELBOARDS AND CONDUITS SHOWN WITH MULTIPLE CIRCUITS SHALL BE 3/4" MINIMUM, OTHERWISE RACEWAYS SHALL BE 1/2" MINIMUM, EXCEPT THAT FLEXIBLE CONDUIT SHALL BE 3/8" MINIMUM.

12.

INTERIOR CONDUIT HOMERUNS TO PANELBOARDS SHALL BE RUN OVERHEAD IN EMT, GRC, OR IMC UNLESS NOTED OTHERWISE ON THE DRAWINGS.

13.

ALL FIRE RATED WALLS, FLOORS, ETC WHICH HAVE A CONDUIT OR OTHER ELECTRICAL PENETRATION SHALL BE SEALED TO EQUAL THE RATING OF THE WALL, FLOOR, ETC. THAT IS PENETRATED. CONTRACTOR SHALL USE A U.L. RATED AND LISTED ASSEMBLY FOR THE SEALING MATERIAL AND METHOD. COORDINATE MANUFACTURER WITH THE GENERAL CONTRACTOR SO THAT ALL TRADES ON THE PROJECT USE THE SAME MANUFACTURER. THROUGH PENETRATIONS OF CONDUITS AND CABLES OF FIRE RESISTANCE RATED WALLS MUST COMPLY WITH SECTION 714.3.1 OF THE IBC. THROUGH PENETRATIONS OF FIRE RESISTANCE CEILING ASSEMBLIES MUST COMPLY WITH SECTION 714.4.1.1 OF THE IBC.

14.

ALL OUTLET BOXES 4"x4" OR SMALLER LOCATED ON OPPOSITE SIDES OF A RATED WALL SHALL HAVE A MINIMUM OF 24" HORIZONTAL SPACING OR SHALL BE PROTECTED WITH LISTED PUTTY PADS. ALL OUTLET BOXES LARGER THAN 4"x4" (COMMUNICATIONS OUTLETS, ETC.) LOCATED IN RATED WALLS SHALL BE PROTECTED WITH LISTED PUTTY PADS.

15.

REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS, LOCATIONS, CABINETS, ETC.

16.

CONCEAL ALL CONDUIT AND FITTINGS EXCEPT WHERE THE ARCHITECT GRANTS SPECIFIC PERMISSION.

17.

ALL WORK AND MATERIALS SHALL BE GUARANTEED FOR ONE YEAR FROM DATE OF ACCEPTANCE.

18.

PROVIDE ONE COMPLETE SET OF ELECTRICAL DRAWINGS MARKED UP FOR RECORD DRAWINGS. SHOW ALL LOCATIONS OF EQUIPMENT AND MATERIALS.

19.

INSTALL ALL MATERIALS PER MANUFACTURER'S INSTRUCTIONS.

20.

IDENTIFY MAJOR EQUIPMENT INSTALLED WITH LAMICOR LABELS.

21.

VISIT SITE TO DETERMINE EXISTING CONDITIONS PRIOR TO SUBMITTING BID.

22.

ALL RACEWAYS, FIXTURES, WIRING, DEVICES, AND EQUIPMENT RENDERED USELESS BY THIS WORK SHALL BE REMOVED AND DELIVERED TO THE OWNER'S STORAGE FACILITY AS DIRECTED. ANY MATERIAL NOT WANTED BY THE OWNER SHALL BE DISPOSED OF BY THE CONTRACTOR.

23.

ELECTRICAL CONTRACTOR SHALL DO ALL CUTTING AND PATCHING AS REQUIRED TO INSTALL HIS WORK. FINISH PATCHING AND PAINTING WILL BE DONE BY THE GENERAL CONTRACTOR.

24.

PRIOR TO DIGGING ANY TRENCHES, NOTIFY ALL UTILITIES AND OBTAIN LOCATIONS OF UNDERGROUND UTILITIES. ANY DAMAGES DONE TO UNDERGROUND UTILITIES OR PIPING BY THIS CONTRACTOR WILL BE REPAIRED BY THE OWNER OF THE LINE IN A SATISFACTORY MANNER. THIS CONTRACTOR WILL BEAR ALL COSTS FOR REPAIRS.

25.

CONDUITS TO BE RUN UNDER WALKWAYS AND PAVINGS SHALL BE INSTALLED BY JACKING OR BORING, UNLESS NOTED. DO NOT CUT WALKWAYS OR PAVEMENTS, UNLESS ACCEPTABLE TO THE ENGINEER. ALLOWED CUTS IN PAVEMENT OR CONCRETE SHALL BE MADE USING A PAVEMENT SAW, AND SHALL BE PATCHED TO MATCH THE EXISTING SURFACE.

26.

WHERE DISAGREEMENTS EXISTS ON THE DESIGN DOCUMENTS, THE ITEM OR ARRANGEMENTS OF BETTER QUALITY, GREATER QUANTITY, OR HIGHER COST SHALL BE INCLUDED IN THE BASE BID. ANY DISCREPANCIES BETWEEN THE DRAWINGS, SPECIFICATIONS, AND FIELD CONDITIONS SHALL BE RESOLVED WITH THE ENGINEER PRIOR TO COMMENCING WORK. ALL AGREEMENTS SHALL BE VERIFIED IN WRITING.

27.

ALL WORK UNDER THIS SECTION SHALL BE COORDINATED WITH OTHER TRADES TO INSURE PROPER LOCATION OF OUTLETS AND EQUIPMENT CONNECTIONS, AND TO MINIMIZE CONFLICTS WITH STRUCTURAL MEMBERS, DUCT WORK, PIPING, ETC. CONFLICTS BETWEEN EQUIPMENT AND/OR MATERIAL LOCATIONS SHALL BE CORRECTED AS DIRECTED BY THE ARCHITECT--ENGINEER AT NO ADDITIONAL COST TO THE OWNER.

ELECTRICAL DEMOLITION NOTES

A.

IT IS THE GENERAL INTENTION OF THESE DRAWINGS TO COVER ALL SITUATIONS WHERE AN ITEM IS TO BE REMOVED, WHETHER IT HAPPENS TO BE A LIGHT FIXTURE, DUPLEX RECEPTACLE, LIGHT SWITCH, FIRE ALARM DEVICE, OR OTHER ELECTRICAL ITEM. THE ELECTRICAL CONTRACTOR SHALL ASSIST THE MECHANICAL AND GENERAL CONTRACTORS IN REMOVAL OF EQUIPMENT WITH ELECTRICAL CONNECTIONS BEING REMOVED BY THESE CONTRACTORS.

B.

PRIOR TO SUBMITTING BID, THE CONTRACTOR SHALL SURVEY THE EXISTING BUILDING AND MAKE NOTE OF ANY ADDITIONAL DEMOLITION AND/OR ANY ADDITIONAL REMOVAL AND RELOCATION WHICH MAY BE REQ'D IN ORDER TO ACCOMPLISH RENOVATIONS INDICATED IN CONTRACT DOCUMENTS. NO CHANGE ORDER WILL BE ISSUED FOR ADDITIONAL WORK REQUIRED FOR DEMOLITION, REMOVAL, OR RELOCATION WORK NOT INDICATED ON THESE DRAWINGS BUT NECESSARY TO COMPLETE WORK.

C.

IN ALL AREAS WHERE EXISTING WALLS ARE BEING REMOVED, NEW WALLS ARE BEING ADDED, AND WHERE OTHER DEMOLITION WORK IS OCCURRING, REMOVE ALL EXISTING RECEPTACLES, LIGHTS, AND OTHER ELECTRICAL DEVICES, AND ALL WIRING AND CONDUIT NOT BEING REUSED. EXISTING CONDUIT RUN CONCEALED IN EXISTING WALLS NOT BEING REMOVED AND/OR REPLACED MAY BE ABANDONED. ALL DEMOLITION MUST BE COORDINATED WITH THE ARCHITECT AND WITH ALL OTHER TRADES TO AVOID CONFLICTS. REFER TO THE ARCHITECTURAL DEMOLITION PLAN.

D.

NO EXISTING ELECTRICAL MATERIALS, EQUIPMENT, WIRING, OR CONDUIT BEING REMOVED MAY BE REUSED ON THIS PROJECT UNLESS SPECIFICALLY NOTED OTHERWISE ON THESE DRAWINGS. ALL EXISTING ELECTRICAL MATERIALS AND EQUIPMENT NOT BEING REUSED SHALL BE DISPOSED OF AS INDICATED IN GENERAL NOTES.

ELECTRICAL SUBMITTALS

ELECTRICAL SHOP DRAWINGS SHALL BE SUBMITTED IN ONE COMPLETE PACKAGE CONTAINING ALL ITEMS REQUIRED BY THE ELECTRICAL DRAWINGS AND THE DIVISION 26--28 SPECIFICATIONS. PARTIAL SHOP DRAWING SUBMITTALS MAY BE REJECTED BY THE ARCHITECT--ENGINEER. REFER TO SECTION 260500 OF THE ELECTRICAL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

ABBREVIATIONS			
A	AMPERES	LTC	LIGHTING
AFF	ABOVE FINISHED FLOOR	MLO	MAIN LUGS ONLY
AFG	ABOVE FINISHED GRADE	NEC	NATIONAL ELECTRICAL CODE
AWG	AMERICAN WIRE GAUGE	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
CKT	CIRCUIT	NIC	NOT IN CONTRACT
CU	COPPER	PH, ϕ	PHASE
EC	EMPTY CONDUIT	RCPT	RECEPTACLE
EQPT	EQUIPMENT	RE:	REFER TO
EXST	EXISTING	TYP	TYPICAL
FWE	FURNISHED WITH EQUIPMENT	UNO	UNLESS NOTED OTHERWISE
GFI	GROUND FAULT INTERRUPTER	V	VOLTS
IAW	IN ACCORDANCE WITH	W	WIRE OR WATTS
KVA	KILOVOLTAMPERES	WP	WEATHERPROOF
KW	KILOWATTS		

- ELECTRICAL SHEET LIST
- E001

— ELECTRICAL SYMBOLS & NOTES
- E002

— ELECTRICAL DEMOLITION PLANS
- E301

— HVAC POWER PLAN — BASEMENT
- E302

— HVAC POWER PLAN — FIRST FLOOR
- E303

— HVAC POWER PLAN — SECOND & THIRD FLOORS
- E304

— HVAC POWER PLAN — ROOF
- E501

— FIRE ALARM PLAN — BASEMENT
- E502

— FIRE ALARM PLAN — FIRST FLOOR
- E503

— FIRE ALARM PLAN — SECOND & THIRD FLOORS
- E601

— EXISTING POWER RISER DIAGRAM
- E602

— FIRE ALARM DETAILS

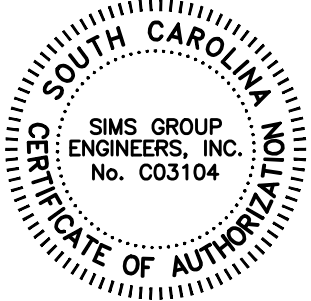
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ELECTRICAL
SYMBOLS &
NOTES

SHEET NO:

E001

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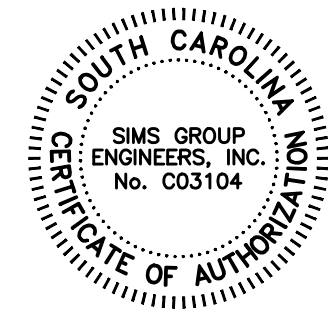
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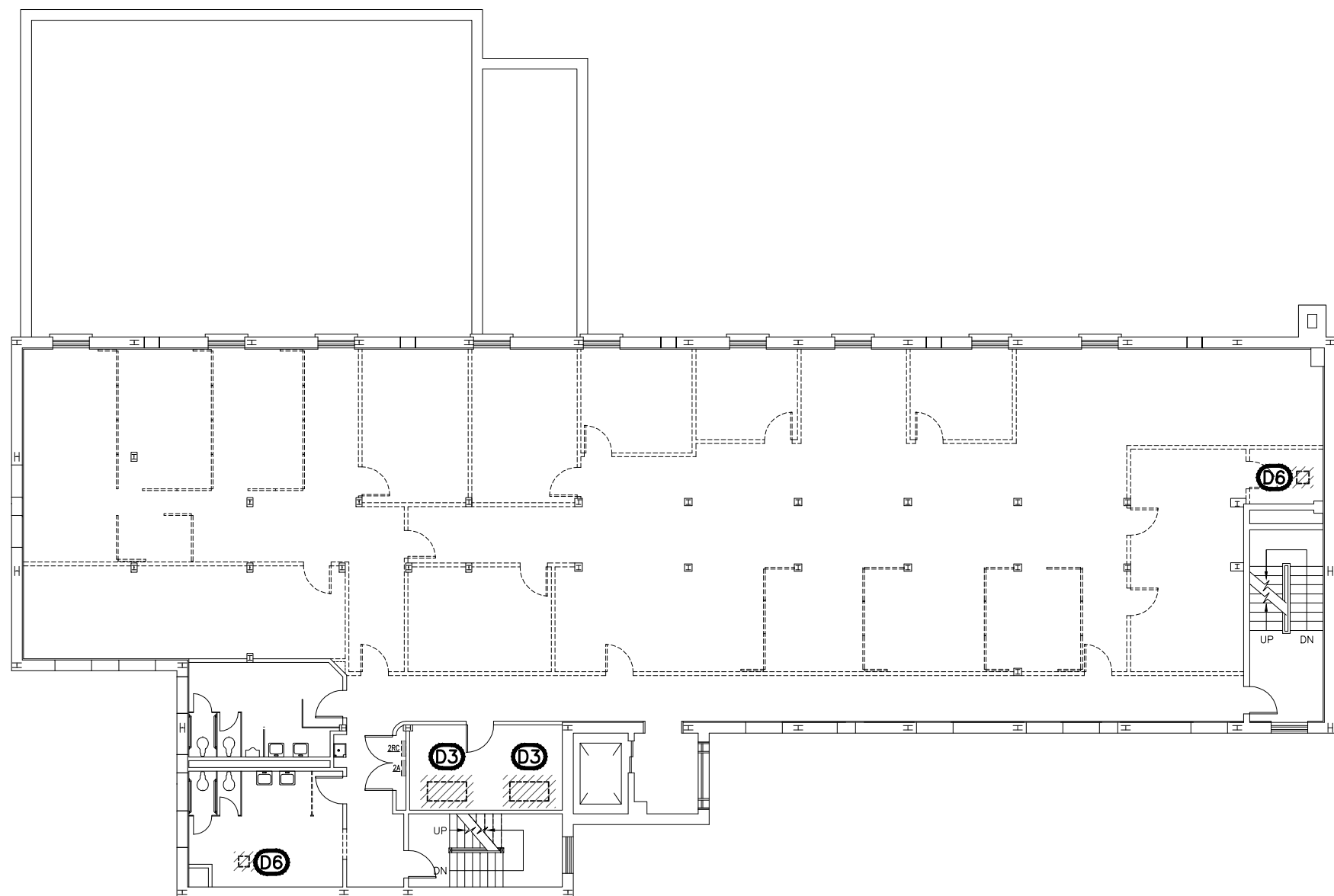
ELECTRICAL
DEMOLITION PLANS

SHEET NO:
E002

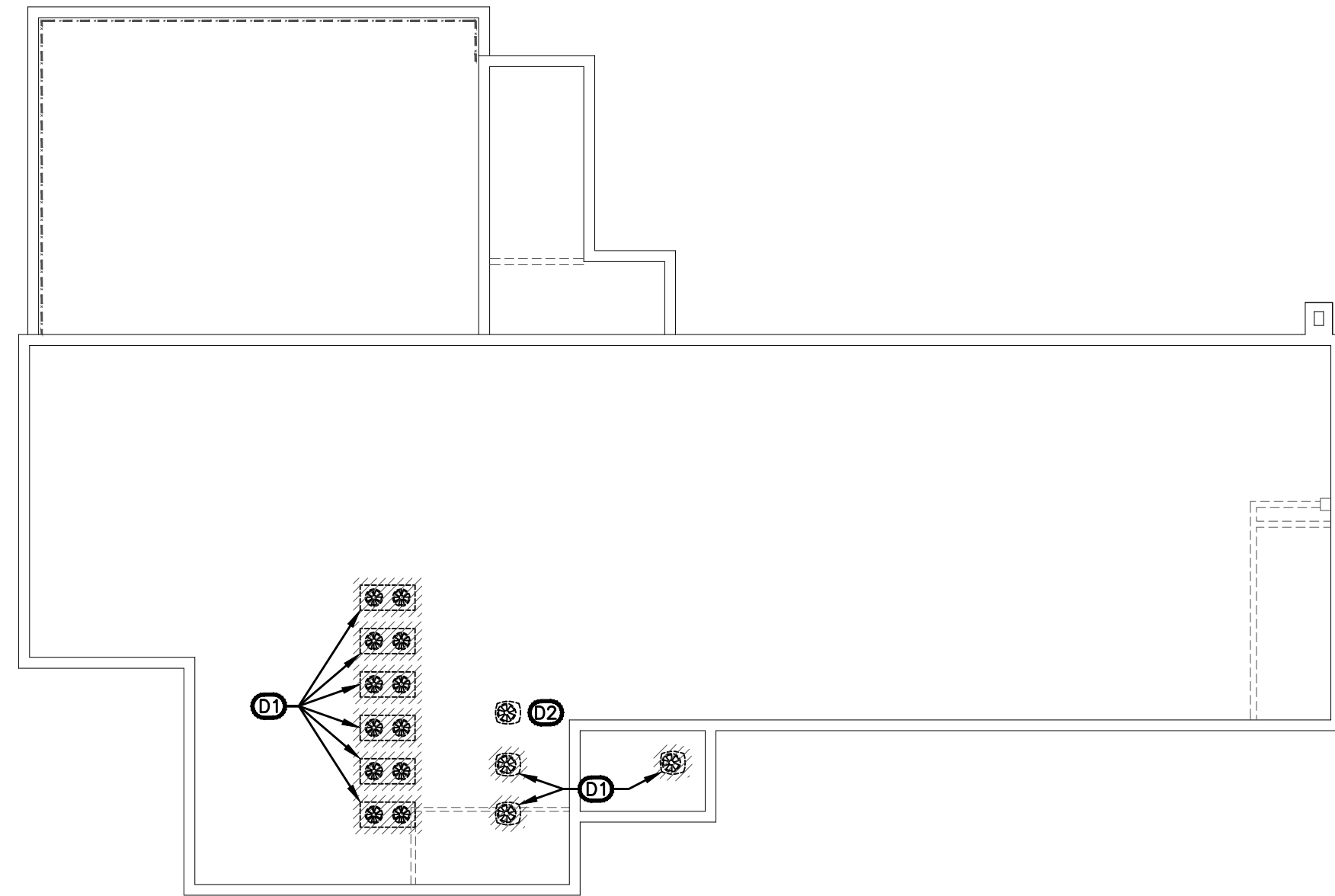
ELECTRICAL DEMOLITION PLAN KEYNOTES

REFER TO ELECTRICAL DEMOLITION NOTES ON E001 FOR ADDITIONAL ELECTRICAL DEMOLITION INFORMATION. REFER TO DEMOLITION NOTES ON M101, M102, M103, & M104 FOR ADDITIONAL MECHANICAL DEMOLITION INFORMATION. REFER TO DEMOLITION NOTES ON ARCHITECTURAL DRAWINGS FOR GENERAL BUILDING DEMOLITION INFORMATION.

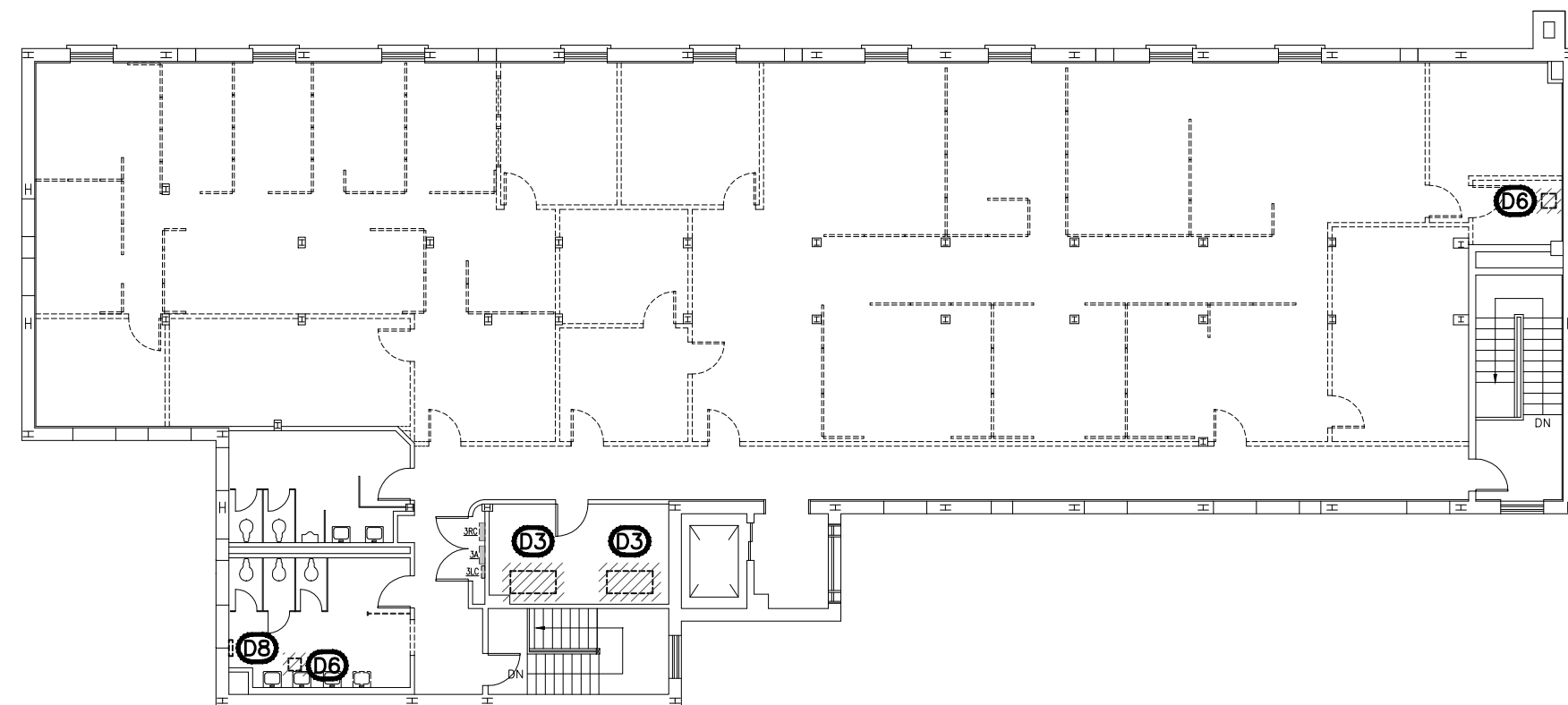
- 01 EXISTING ROOFTOP RTU OR HEAT PUMP BEING REMOVED. DISCONNECT ELECTRICAL FROM UNIT AND REMOVE EXISTING DISCONNECT, WIRING, AND ANY CONDUIT NOT BEING REUSED.
- 02 EXISTING ROOFTOP HEAT PUMP TO REMAIN, MAINTAIN EXISTING ELECTRICAL.
- 03 EXISTING AIR HANDLING UNIT BEING REMOVED. DISCONNECT ELECTRICAL FROM UNIT AND REMOVE EXISTING DISCONNECT, WIRING, AND ANY CONDUIT NOT BEING REUSED.
- 04 EXISTING AIR HANDLING UNIT TO REMAIN, MAINTAIN EXISTING ELECTRICAL.
- 05 EXISTING AIR CLEANER UNIT BEING REMOVED. DISCONNECT ELECTRICAL FROM UNIT AND REMOVE EXISTING DISCONNECT, WIRING, AND ANY CONDUIT NOT BEING REUSED.
- 06 EXISTING EXHAUST FAN BEING REMOVED. DISCONNECT ELECTRICAL FROM UNIT AND REMOVE EXISTING DISCONNECT, WIRING, AND ANY CONDUIT NOT BEING REUSED.
- 07 EXISTING EXHAUST FAN TO REMAIN, MAINTAIN EXISTING ELECTRICAL.
- 08 EXISTING ELECTRIC WALL HEATER TO REMAIN, MAINTAIN EXISTING ELECTRICAL.



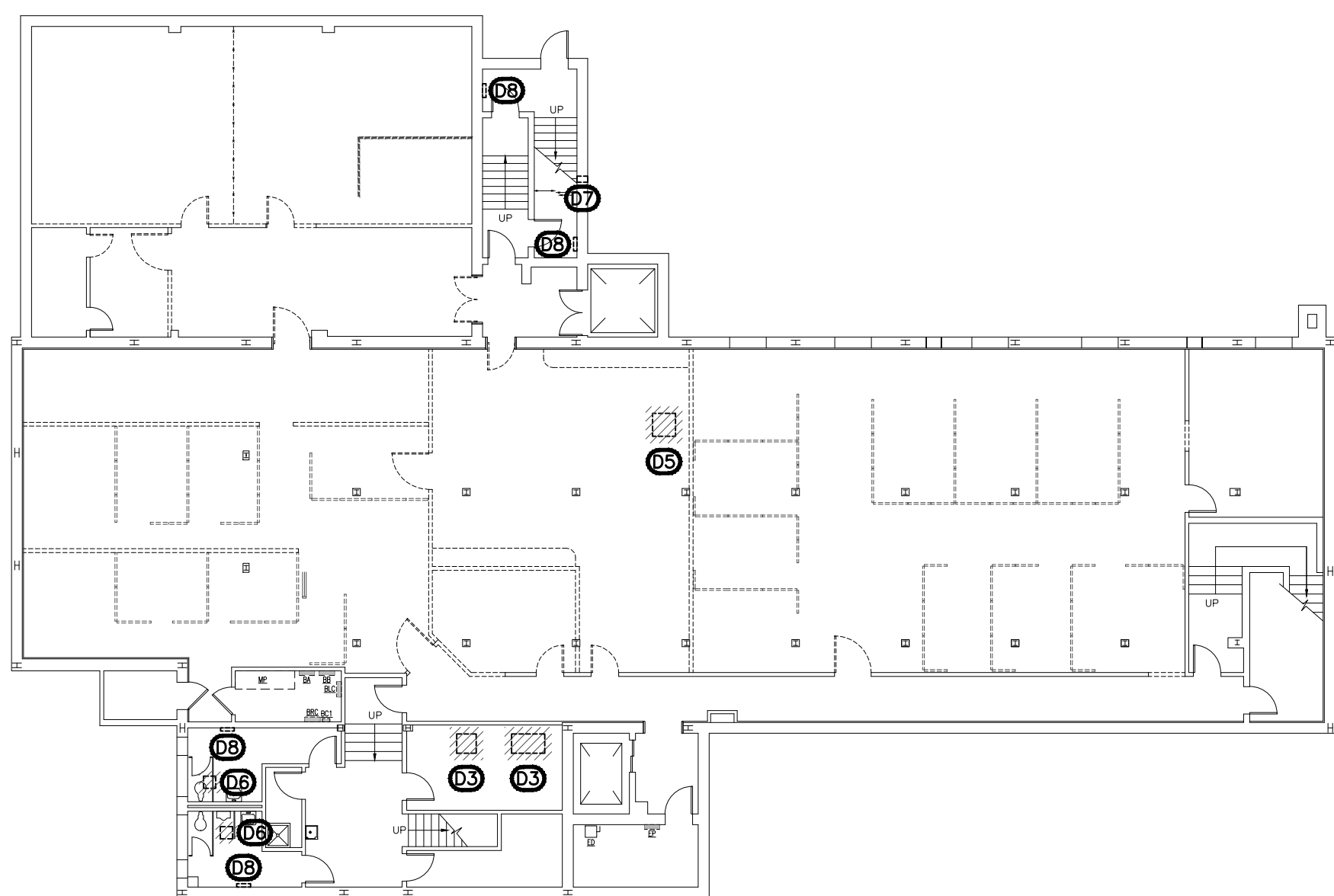
3 ELECTRICAL DEMOLITION PLAN - SECOND FLOOR
SCALE: 1/16"=1'-0"



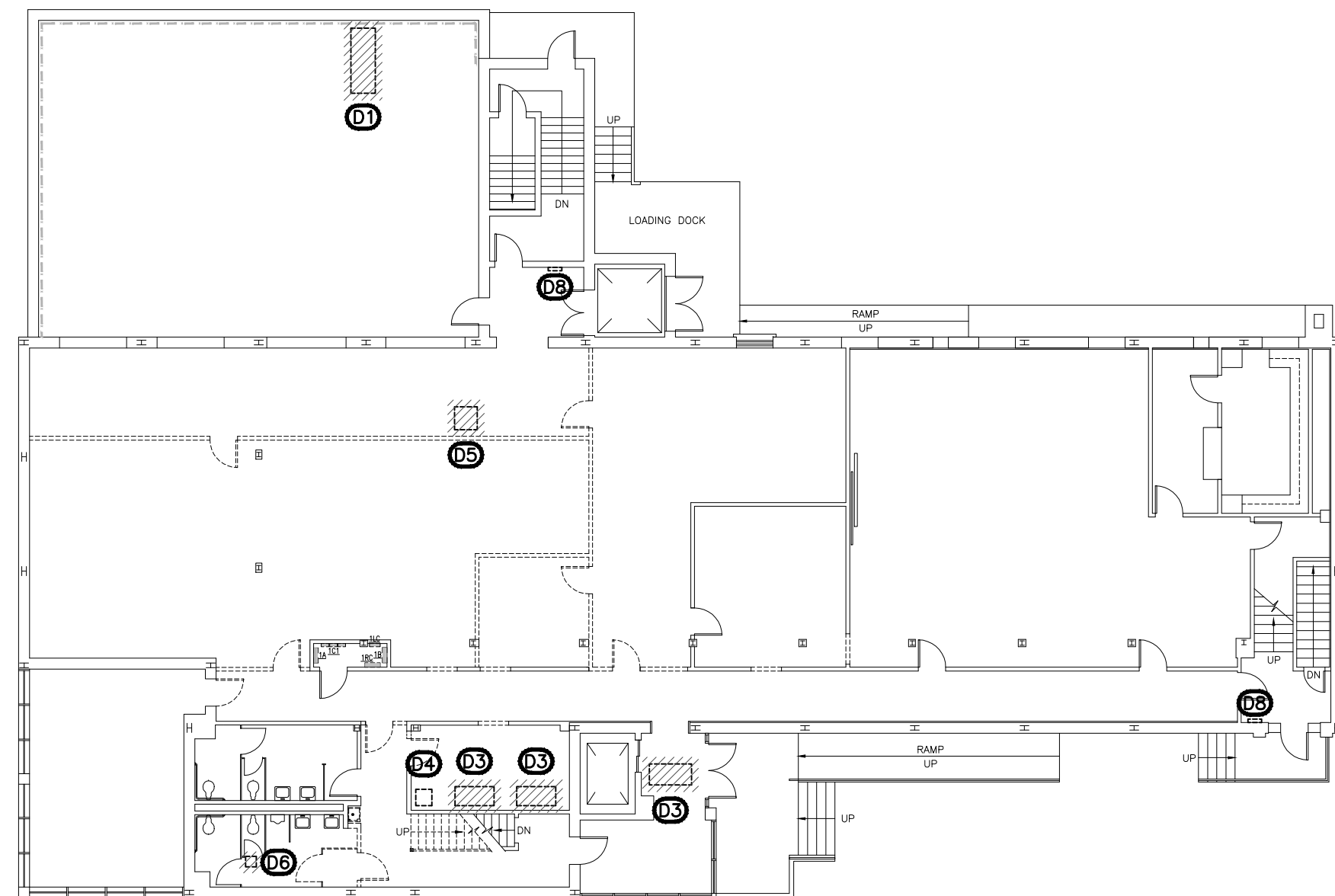
5 ELECTRICAL DEMOLITION PLAN - ROOF LEVEL
SCALE: 1/16"=1'-0"



4 ELECTRICAL DEMOLITION PLAN - THIRD FLOOR
SCALE: 1/16"=1'-0"



1 ELECTRICAL DEMOLITION PLAN - BASEMENT
SCALE: 1/16"=1'-0"



2 ELECTRICAL DEMOLITION PLAN - FIRST FLOOR
SCALE: 1/16"=1'-0"

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6. SEE POWER RISER DIAGRAM ON E601 FOR HOMERUN WIRE SIZE (200A). PROVIDE DOUBLE LUGS ON LINE SIDE OF RTU DISCONNECTS WHERE REQUIRED TO FEED OTHER RTUS.

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1 HVAC POWER PLAN - BASEMENT

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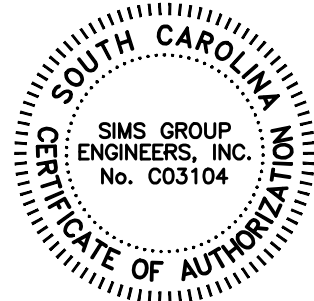
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HVAC POWER PLAN-
1st FLOOR

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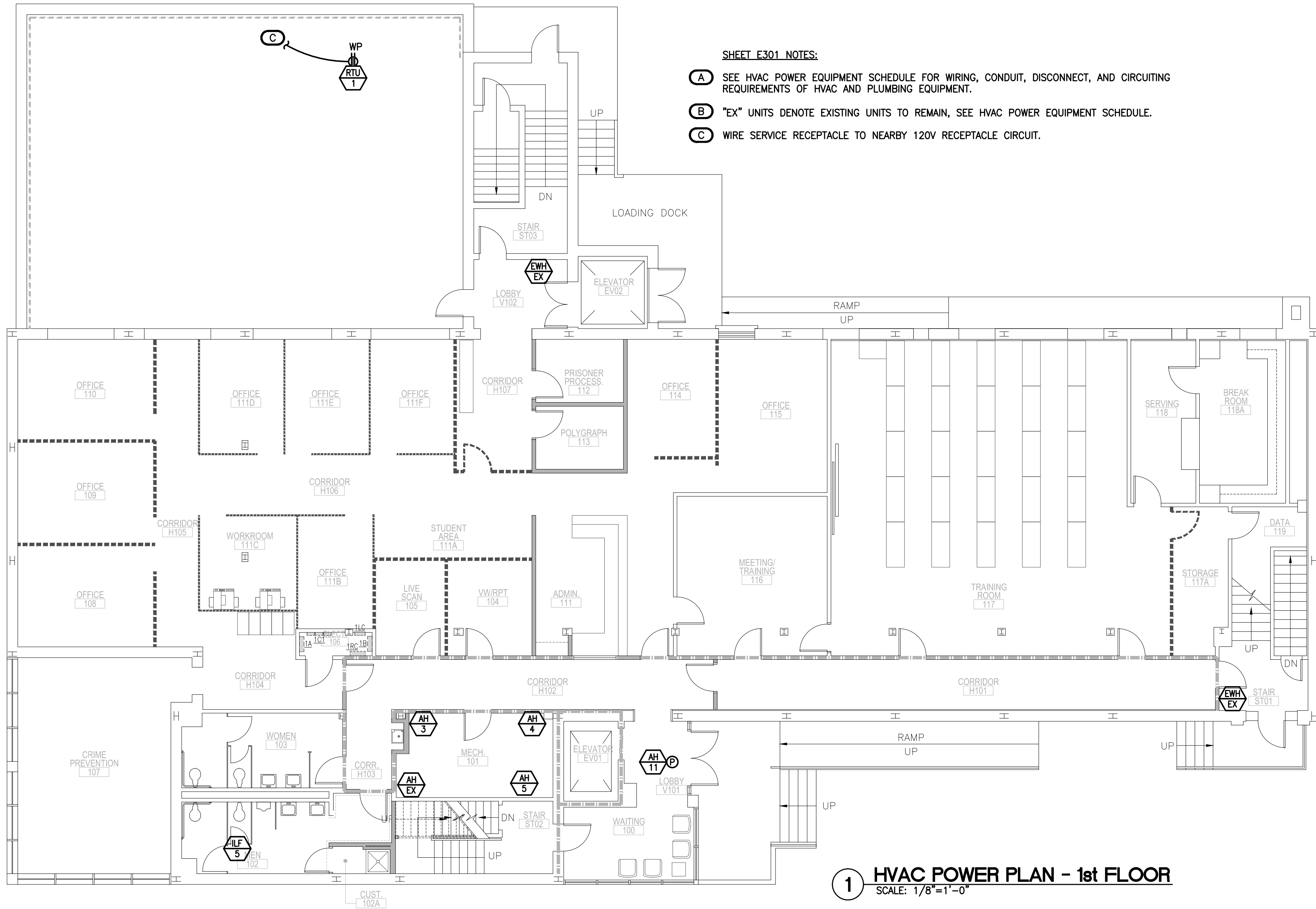
E302

HVAC POWER SYMBOLS AND NOTES

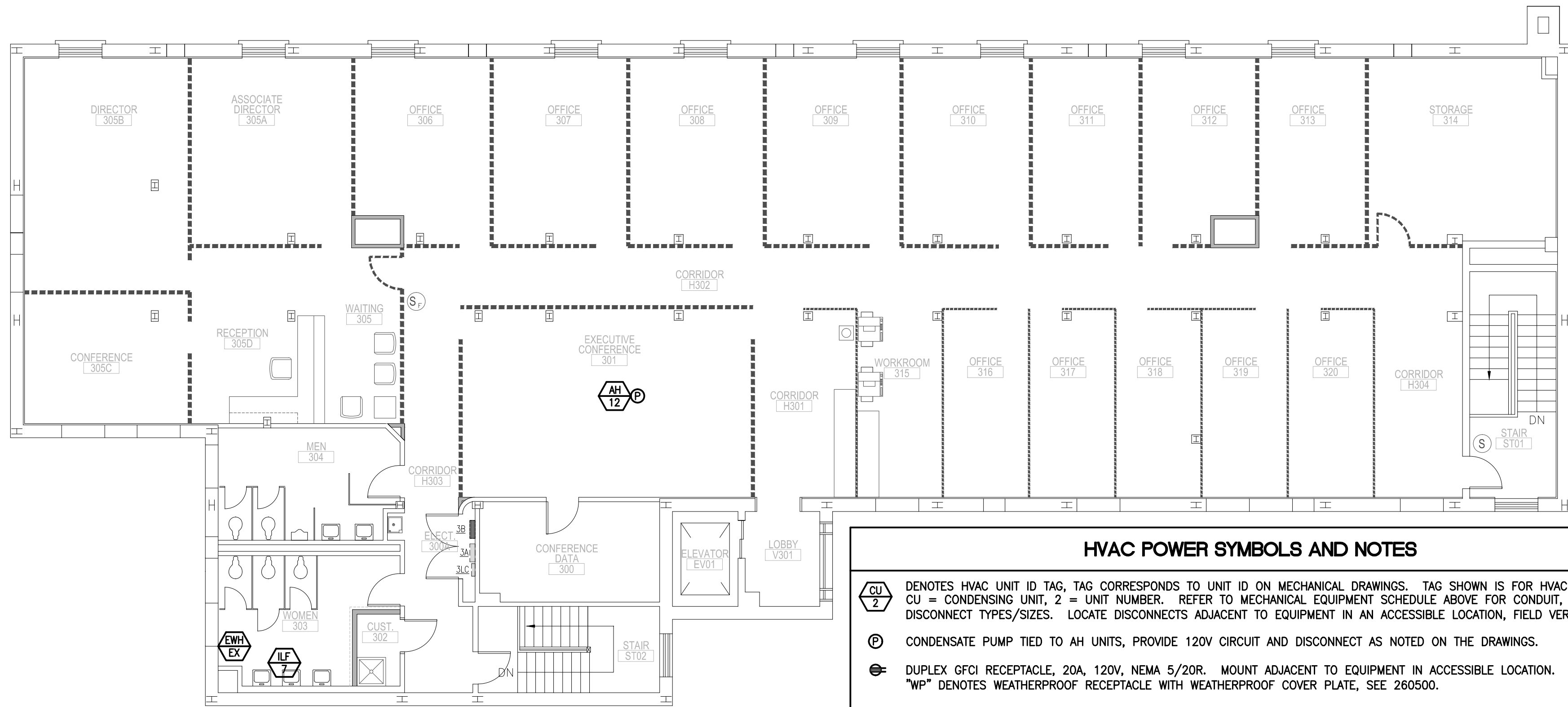
- CU-2** DENOTES HVAC UNIT ID TAG, TAG CORRESPONDS TO UNIT ID ON MECHANICAL DRAWINGS. TAG SHOWN IS FOR HVAC UNIT CU-2. CU = CONDENSING UNIT, 2 = UNIT NUMBER. REFER TO MECHANICAL EQUIPMENT SCHEDULE ABOVE FOR CONDUIT, WIRING, & DISCONNECT TYPES/SIZES. LOCATE DISCONNECTS ADJACENT TO EQUIPMENT IN AN ACCESSIBLE LOCATION, FIELD VERIFY.
- Ⓢ** CONDENSATE PUMP TIED TO AH UNITS, PROVIDE 120V CIRCUIT AND DISCONNECT AS NOTED ON THE DRAWINGS.
- Ⓢ** DUPLEX GFCI RECEPTACLE, 20A, 120V, NEMA 5/20R. MOUNT ADJACENT TO EQUIPMENT IN ACCESSIBLE LOCATION. "WP" DENOTES WEATHERPROOF RECEPTACLE WITH WEATHERPROOF COVER PLATE, SEE 260500.
- COORDINATE VOLTAGES WITH MECHANICAL CONTRACTOR PRIOR TO START OF WORK. IF EQUIPMENT IS SUPPLIED AT A VOLTAGE OTHER THAN THAT PROVIDED, THE GENERAL CONTRACTOR AND SUBCONTRACTORS WILL BE HELD RESPONSIBLE FOR MAKING ANY NECESSARY ADJUSTMENTS TO CORRECT THE CONFLICT, AT NO COST TO THE OWNER, TO THE SATISFACTION OF THE ELECTRICAL ENGINEER. REFER TO MECHANICAL DRAWINGS FOR EQUIPMENT LOCATIONS, SUBJECT TO FIELD VERIFICATION.
- INFORMATION SHOWN IN SCHEDULE WAS TAKEN FROM DRAWINGS FURNISHED BY THE MECHANICAL ENGINEER. PRIOR TO STARTING WORK AND BEFORE ORDERING ANY EQUIPMENT, THE ELECTRICAL CONTRACTOR SHALL REVIEW THE HVAC SHOP DRAWINGS AND SHALL VERIFY ALL EQUIPMENT FOR CONFORMANCE WITH THE INFORMATION SHOWN IN THE SCHEDULE (VOLTAGE, MCA, MOCP), AND SHALL NOTIFY THE ENGINEER AND THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES BETWEEN THE MECHANICAL SHOP DRAWINGS AND THIS SCHEDULE.
- ALL MOTOR STARTERS AND VARIABLE FREQUENCY DRIVES (VFDs) FOR HVAC-RELATED EQUIPMENT THAT ARE NOT FACTORY-MOUNTED AND PREWIRED SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR, INSTALLED AND POWER WIRED BY THE ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE ON THE DESIGN DOCUMENTS. REFER TO MECHANICAL DRAWINGS FOR LOCATIONS AND QUANTITIES OF MOTOR STARTERS AND VFDs.
- USE HACR TYPE CIRCUIT BREAKERS FOR ALL HVAC UNITS.
1. WIRE EXHAUST FAN VIA BUILDING MANAGEMENT SYSTEM (BMS) RELAY FURNISHED BY HVAC CONTROLS CONTRACTOR, COORDINATE IN FIELD WITH MECHANICAL CONTRACTOR.
 2. IF UNIT SUPPLIED WITH CORD & PLUG, PROVIDE RECEPTACLE TO MATCH PLUG IN LIEU OF DISCONNECT. ELIMINATE DISCONNECT IF UNIT SUPPLIED WITH BUILT-IN DISCONNECT, VERIFY VOLTAGE.
 3. PROVIDE SEPARATE 120V CIRCUIT FOR CONDENSATE PUMP.
 4. EXISTING CONDUIT MAY BE REUSED IN LIEU OF NEW CONDUIT IF SIZE OF CONDUIT IS EQUAL TO OR EXCEEDS THAT SPECIFIED.
 5. DENOTES EXISTING EXHAUST FAN (EF-EX) OR EXISTING ELECTRIC WALL HEATER (EWH-EX) TO REMAIN. MAINTAIN CIRCUITING THROUGHOUT DEMOLITION AND CONSTRUCTION.
 6. SEE POWER RISER DIAGRAM ON E601 FOR HOMERUN WIRE SIZE (200A). PROVIDE DOUBLE LUGS ON LINE SIDE OF RTU DISCONNECTS WHERE REQUIRED TO FEED OTHER RTUs.

SHEET E301 NOTES:

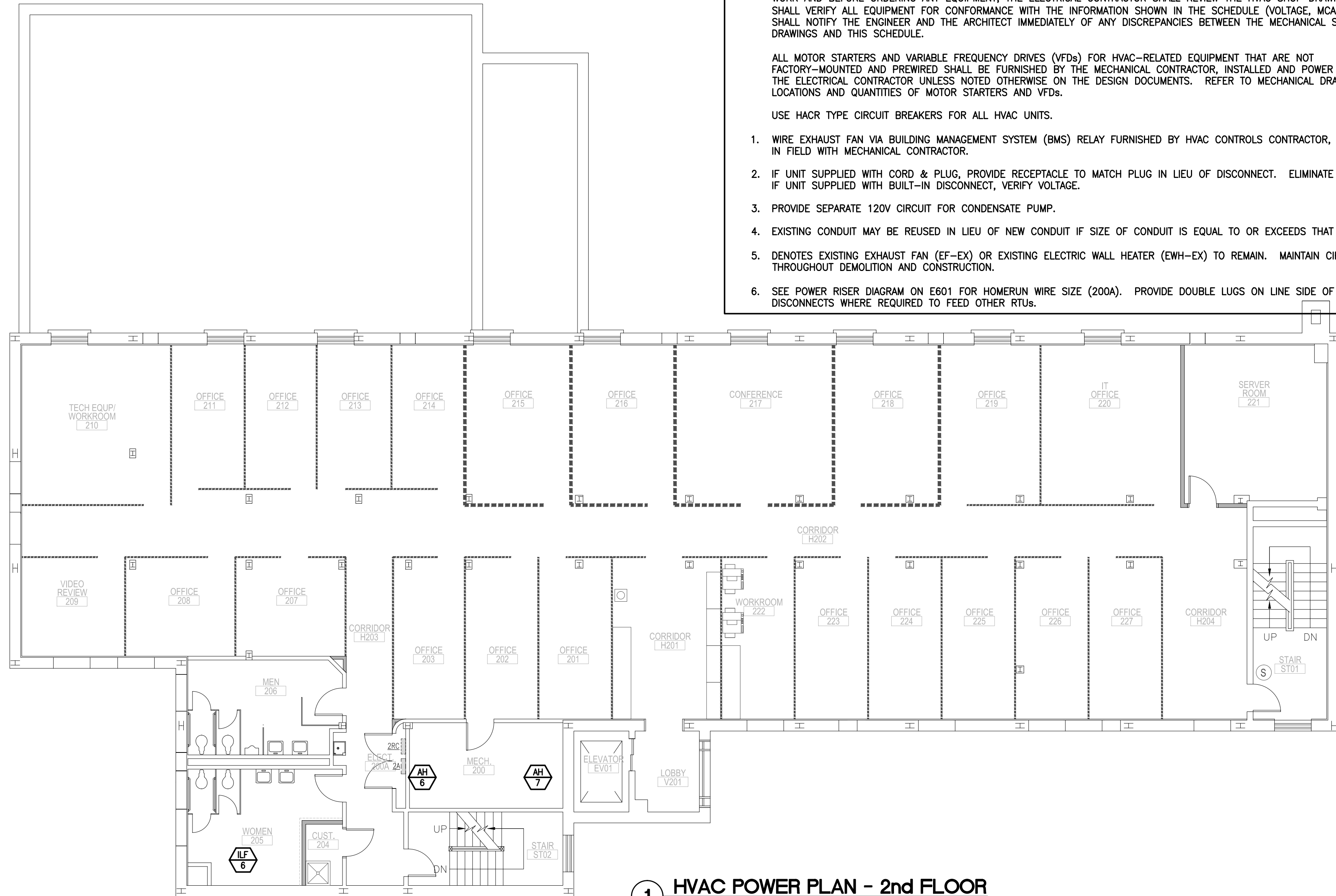
- (A)** SEE HVAC POWER EQUIPMENT SCHEDULE FOR WIRING, CONDUIT, DISCONNECT, AND CIRCUITING REQUIREMENTS OF HVAC AND PLUMBING EQUIPMENT.
- (B)** "EX" UNITS DENOTE EXISTING UNITS TO REMAIN, SEE HVAC POWER EQUIPMENT SCHEDULE.
- (C)** WIRE SERVICE RECEPTACLE TO NEARBY 120V RECEPTACLE CIRCUIT.



1 HVAC POWER PLAN - 1st FLOOR
SCALE: 1/8"=1'-0"



2 HVAC POWER PLAN - 3rd FLOOR
SCALE: 1/8"=1'-0"



1 HVAC POWER PLAN - 2nd FLOOR
SCALE: 1/8"=1'-0"

HVAC POWER SYMBOLS AND NOTES

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P CONDENSATE PUMP TIED TO AH UNITS, PROVIDE 120V CIRCUIT AND DISCONNECT AS NOTED ON THE DRAWINGS.

EWX DUPLEX GFCI RECEPTACLE, 20A, 120V, NEMA 5/20R. MOUNT ADJACENT TO EQUIPMENT IN ACCESSIBLE LOCATION. "WP" DENOTES WEATHERPROOF RECEPTACLE WITH WEATHERPROOF COVER PLATE, SEE 260500.

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INFORMATION SHOWN IN SCHEDULE WAS TAKEN FROM DRAWINGS FURNISHED BY THE MECHANICAL ENGINEER. PRIOR TO STARTING WORK AND BEFORE ORDERING ANY EQUIPMENT, THE ELECTRICAL CONTRACTOR SHALL REVIEW THE HVAC SHOP DRAWINGS AND SHALL VERIFY ALL EQUIPMENT FOR CONFORMANCE WITH THE INFORMATION SHOWN IN THE SCHEDULE (VOLTAGE, MCA, MOCP), AND SHALL NOTIFY THE ENGINEER AND THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES BETWEEN THE MECHANICAL SHOP DRAWINGS AND THIS SCHEDULE.

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- DENOTES EXISTING EXHAUST FAN (EF-EX) OR EXISTING ELECTRIC WALL HEATER (EWH-EX) TO REMAIN. MAINTAIN CIRCUITING THROUGHOUT DEMOLITION AND CONSTRUCTION.
- SEE POWER RISER DIAGRAM ON E601 FOR HOMERUN WIRE SIZE (200A). PROVIDE DOUBLE LUGS ON LINE SIDE OF RTU DISCONNECTS WHERE REQUIRED TO FEED OTHER RTUs.

HVAC POWER EQUIPMENT SCHEDULE								
ITEM	CIRCUIT	VOLTAGE	MCA	MOCP	CONDUIT	WIRING	DISCONNECT A/V/FUSE/ENCLOSURE	NOTES
RTU-1	MP-13	208-3-60	75.6	80	1 1/4"	1#8 G, 3#3	100A/240V/80A/NEMA 3R	4
RTU-2	MP-5	208-3-60	55.2	60	1"	1#8 G, 3#6	60A/240V/60A/NEMA 3R	6
RTU-3	MP-5	208-3-60	55.2	60	1"	1#8 G, 3#6	60A/240V/60A/NEMA 3R	6
RTU-4	MP-12	208-1-60	84.0	90	1 1/4"	1#8 G, 2#3	100A/240V/90A/NEMA 3R	
RTU-5	MP-6	208-3-60	55.2	60	1"	1#8 G, 3#6	60A/240V/60A/NEMA 3R	6
RTU-6	MP-6	208-3-60	55.2	60	1"	1#8 G, 3#6	60A/240V/60A/NEMA 3R	6
RTU-7	MP-6	208-3-60	56.9	60	1"	1#8 G, 3#6	60A/240V/60A/NEMA 3R	6
AH-1	BB-7/9/11	208-3-60	45.0	45	1"	1#10 G, 3#8	60A/240V/45A/NEMA 1	
AH-2	BB-13/15/17	208-3-60	45.0	45	1"	1#10 G, 3#8	60A/240V/45A/NEMA 1	
AH-3	1B-13/15/17	208-3-60	44.0	45	1"	1#10 G, 3#8	60A/240V/45A/NEMA 1	
AH-4	BEA-31/33/35	208-3-60	45.0	45	1"	1#10 G, 3#8	60A/240V/45A/NEMA 1	
AH-5	1B-19/21/23	208-3-60	44.0	45	1"	1#10 G, 2#8	60A/240V/45A/NEMA 1	
AH-6	3B-18/20	208-1-60	45.0	45	1"	1#10 G, 2#8	60A/240V/45A/NEMA 1	
AH-7	3B-22/24	208-1-60	37.0	40	1"	1#10 G, 2#8	60A/240V/40A/NEMA 1	
AH-8	BEA-24/26	208-1-60	0.5	15	3/4"	1#10 G, 2#10	30A/240V/10A/NEMA 1	3
AH-8 RECIRC. PUMP	BEA-2	120-1-60	5.5	20	3/4"	1#12 G, 2#12	20A/120V/NF/NEMA 1	2,3
AH-9	BEA-24/26	208-1-60	0.5	15	3/4"	1#10 G, 2#10	30A/240V/10A/NEMA 1	3
AH-9 RECIRC. PUMP	BEA-2	120-1-60	5.5	20	3/4"	1#12 G, 2#12	20A/120V/NF/NEMA 1	2,3
AH-10	BEA-24/26	208-1-60	0.5	15	3/4"	1#10 G, 2#10	30A/240V/10A/NEMA 1	3
AH-10 RECIRC. PUMP	BEA-4	120-1-60	5.5	20	3/4"	1#12 G, 2#12	20A/120V/NF/NEMA 1	2,3
AH-11	1B-2/4	208-1-60	2.4	15	3/4"	1#10 G, 2#10	30A/240V/10A/NEMA 1	3
AH-11 RECIRC. PUMP	1B-1	120-1-60	5.5	20	3/4"	1#12 G, 2#12	20A/120V/NF/NEMA 1	2,3
AH-12	3B-14/16	208-1-60	0.6	15	3/4"	1#10 G, 2#10	30A/240V/10A/NEMA 1	3
AH-12 RECIRC. PUMP	3B-1	120-1-60	5.5	20	3/4"	1#12 G, 2#12	20A/120V/NF/NEMA 1	2,3
HP-1	BB-31/33/35	208-3-60	24.0	40	1"	1#10 G, 3#8	30A/240V/30A/NEMA 3R	
HP-2	BB-37/39/41	208-3-60	24.0	40	1"	1#10 G, 3#8	30A/240V/30A/NEMA 3R	
HP-3	1B-1/3/5	208-3-60	21.0	35	3/4"	1#10 G, 3#10	30A/240V/25A/NEMA 3R	
HP-4	BEA-25/27/29	208-3-60	24.0	40	3/4"	1#10 G, 3#8	30A/240V/30A/NEMA 3R	
HP-5	1B-7/9/11	208-3-60	21.0	35	3/4"	1#10 G, 3#10	30A/240V/25A/NEMA 3R	
HP-6	3B-13/15/17	208-3-60	16.0	25	3/4"	1#12 G, 2#12	30A/240V/20A/NEMA 3R	
HP-7	3B-19/21/23	208-3-60	11.0	15	3/4"	1#12 G, 2#12	30A/240V/15A/NEMA 3R	
HP-8	BEA-28/30	208-1-60	16.5	20	3/4"	1#10 G, 2#10	30A/240V/20A/NEMA 3R	
HP-9	BEA-32/34	208-1-60	16.5	20	3/4"	1#10 G, 2#10	30A/240V/20A/NEMA 3R	
HP-10	BEA-36/38	208-1-60	16.5	20	3/4"	1#10 G, 2#10	30A/240V/20A/NEMA 3R	
HP-11	3B-26/28	208-1-60	27.0	30	3/4"	1#10 G, 2#10	30A/240V/30A/NEMA 3R	
HP-12	3B-30/32	208-1-60	16.5	20	3/4"	1#10 G, 2#10	30A/240V/20A/NEMA 3R	
REF-1	ROOM LTG CKT	120-1-60	1.0	20	3/4"	1#12 G, 2#12	BUILT-IN	1
CEF-2	ROOM LTG CKT	120-1-60	1.0	20	3/4"	1#12 G, 2#12	BUILT-IN	1
CEF-3	ROOM LTG CKT	120-1-60	1.0	20	3/4"	1#12 G, 2#12	BUILT-IN	1
CEF-4	ROOM LTG CKT	120-1-60	1.0	20	3/4"	1#12 G, 2#12	BUILT-IN	1
ILF-5	1B-25	120-1-60	2.5	20	3/4"	1#12 G, 2#12	BUILT-IN	1
ILF-6	2A-25	120-1-60	2.5	20	3/4"	1#12 G, 2#12	BUILT-IN	1
ILF-7	3A-25	120-1-60	3.6	20	3/4"	1#12 G, 2#12	BUILT-IN	1
EF-EX	EXISTING	EXISTING	---	---	EXISTING	EXISTING	EXISTING	5
EWH-EX	EXISTING	EXISTING	---	---	EXISTING	EXISTING	EXISTING	5

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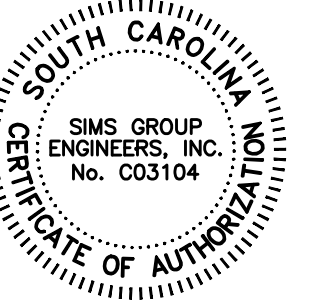
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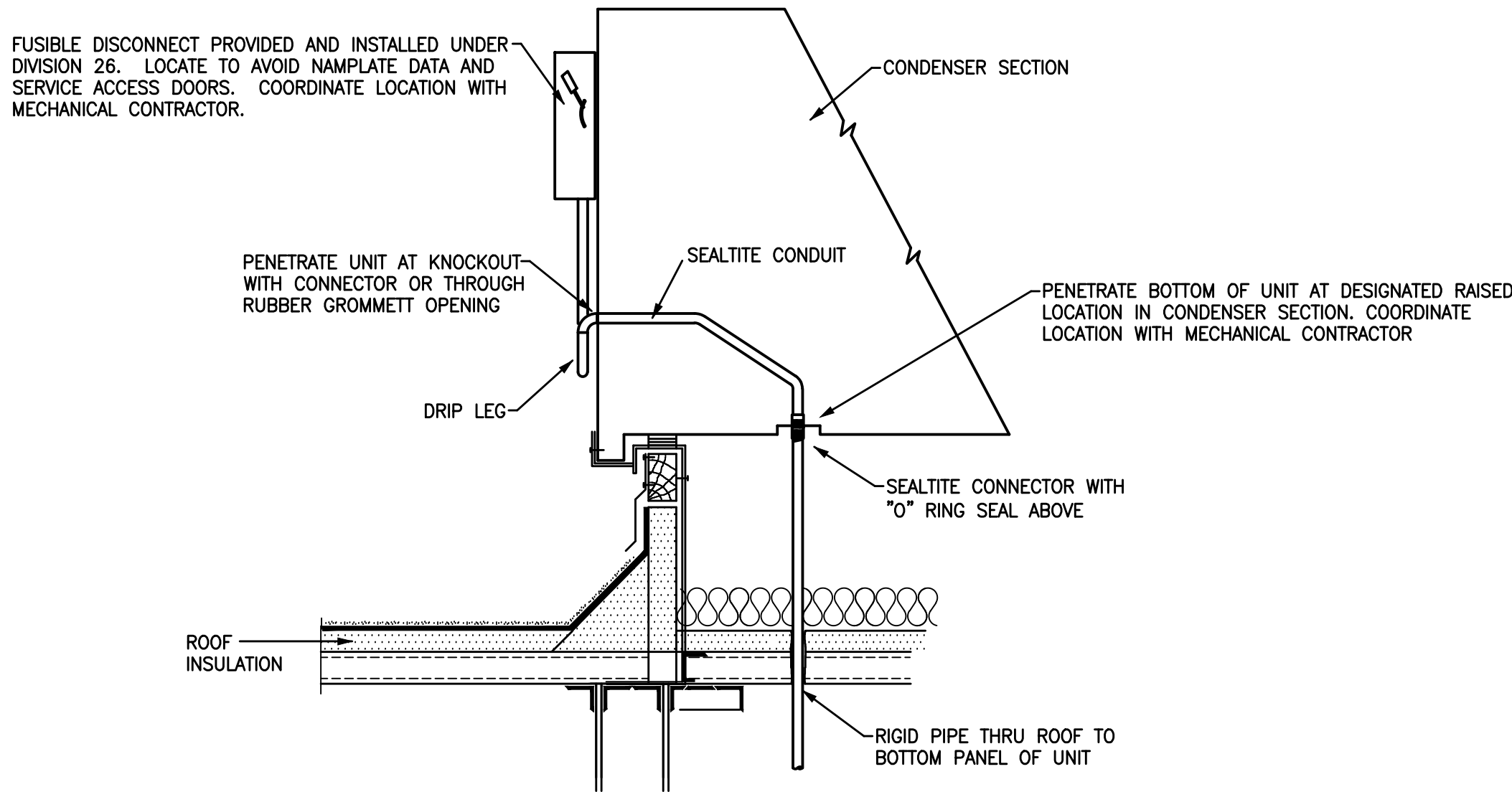
2/8/2014

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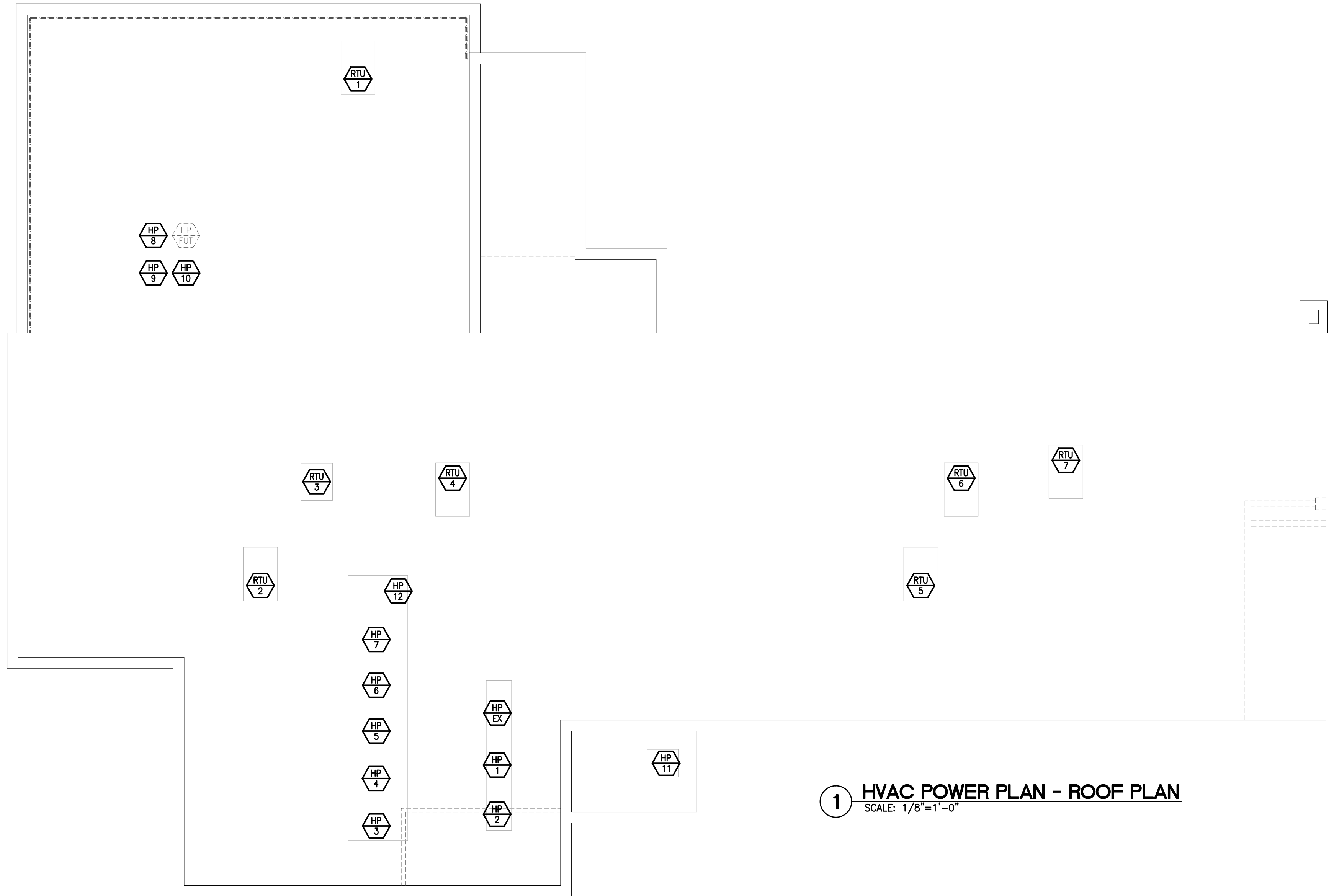
HVAC POWER PLAN-
2ND & 3RD FLOOR

SHEET NO:

E303



2 ROOF MOUNTED UNIT POWER WIRING DETAIL
NOT TO SCALE



1 HVAC POWER PLAN - ROOF PLAN
SCALE: 1/8"=1'-0"

HVAC POWER SYMBOLS AND NOTES

- CU-2** DENOTES HVAC UNIT ID TAG, TAG CORRESPONDS TO UNIT ID ON MECHANICAL DRAWINGS. TAG SHOWN IS FOR HVAC UNIT CU-2. CU = CONDENSING UNIT, 2 = UNIT NUMBER. REFER TO MECHANICAL EQUIPMENT SCHEDULE ABOVE FOR CONDUIT, WIRING, & DISCONNECT TYPES/SIZES. LOCATE DISCONNECTS ADJACENT TO EQUIPMENT IN AN ACCESSIBLE LOCATION, FIELD VERIFY.
- Ⓢ** CONDENSATE PUMP TIED TO AH UNITS, PROVIDE 120V CIRCUIT AND DISCONNECT AS NOTED ON THE DRAWINGS.
- Ⓢ** DUPLEX GFCI RECEPTACLE, 20A, 120V, NEMA 5/20R. MOUNT ADJACENT TO EQUIPMENT IN ACCESSIBLE LOCATION. "WP" DENOTES WEATHERPROOF RECEPTACLE WITH WEATHERPROOF COVER PLATE, SEE 260500.
- COORDINATE VOLTAGES WITH MECHANICAL CONTRACTOR PRIOR TO START OF WORK. IF EQUIPMENT IS SUPPLIED AT A VOLTAGE OTHER THAN THAT PROVIDED, THE GENERAL CONTRACTOR AND SUBCONTRACTORS WILL BE HELD RESPONSIBLE FOR MAKING ANY NECESSARY ADJUSTMENTS TO CORRECT THE CONFLICT, AT NO COST TO THE OWNER, TO THE SATISFACTION OF THE ELECTRICAL ENGINEER. REFER TO MECHANICAL DRAWINGS FOR EQUIPMENT LOCATIONS, SUBJECT TO FIELD VERIFICATION.
- INFORMATION SHOWN IN SCHEDULE WAS TAKEN FROM DRAWINGS FURNISHED BY THE MECHANICAL ENGINEER. PRIOR TO STARTING WORK AND BEFORE ORDERING ANY EQUIPMENT, THE ELECTRICAL CONTRACTOR SHALL REVIEW THE HVAC SHOP DRAWINGS AND SHALL VERIFY ALL EQUIPMENT FOR CONFORMANCE WITH THE INFORMATION SHOWN IN THE SCHEDULE (VOLTAGE, MCA, MOCP), AND SHALL NOTIFY THE ENGINEER AND THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES BETWEEN THE MECHANICAL SHOP DRAWINGS AND THIS SCHEDULE.
- ALL MOTOR STARTERS AND VARIABLE FREQUENCY DRIVES (VFDs) FOR HVAC-RELATED EQUIPMENT THAT ARE NOT FACTORY-MOUNTED AND PREWIRED SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR, INSTALLED AND POWER WIRED BY THE ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE ON THE DESIGN DOCUMENTS. REFER TO MECHANICAL DRAWINGS FOR LOCATIONS AND QUANTITIES OF MOTOR STARTERS AND VFDs.
- USE HACR TYPE CIRCUIT BREAKERS FOR ALL HVAC UNITS.
- WIRE EXHAUST FAN VIA BUILDING MANAGEMENT SYSTEM (BMS) RELAY FURNISHED BY HVAC CONTROLS CONTRACTOR, COORDINATE IN FIELD WITH MECHANICAL CONTRACTOR.
 - IF UNIT SUPPLIED WITH CORD & PLUG, PROVIDE RECEPTACLE TO MATCH PLUG IN LIEU OF DISCONNECT. ELIMINATE DISCONNECT IF UNIT SUPPLIED WITH BUILT-IN DISCONNECT, VERIFY VOLTAGE.
 - PROVIDE SEPARATE 120V CIRCUIT FOR CONDENSATE PUMP.
 - EXISTING CONDUIT MAY BE REUSED IN LIEU OF NEW CONDUIT IF SIZE OF CONDUIT IS EQUAL TO OR EXCEEDS THAT SPECIFIED.
 - DENOTES EXISTING EXHAUST FAN (EF-EX) OR EXISTING ELECTRIC WALL HEATER (EWH-EX) TO REMAIN. MAINTAIN CIRCUITING THROUGHOUT DEMOLITION AND CONSTRUCTION.
 - SEE POWER RISER DIAGRAM ON E601 FOR HOMERUN WIRE SIZE (200A). PROVIDE DOUBLE LUGS ON LINE SIDE OF RTU DISCONNECTS WHERE REQUIRED TO FEED OTHER RTUs.

HVAC POWER EQUIPMENT SCHEDULE								
ITEM	CIRCUIT	VOLTAGE	MCA	MOCP	CONDUIT	WIRING	DISCONNECT A/V/FUSE/ENCLOSURE	NOTES
RTU-1	MP-13	208-3-60	75.6	80	1 1/4"	1#8 G, 3#3	100A/240V/80A/NEMA 3R	4
RTU-2	MP-5	208-3-60	55.2	60	1"	1#8 G, 3#6	60A/240V/60A/NEMA 3R	6
RTU-3	MP-5	208-3-60	55.2	60	1"	1#8 G, 3#6	60A/240V/60A/NEMA 3R	6
RTU-4	MP-12	208-1-60	84.0	90	1 1/4"	1#8 G, 3#3	100A/240V/90A/NEMA 3R	
RTU-5	MP-6	208-3-60	55.2	60	1"	1#8 G, 3#6	60A/240V/60A/NEMA 3R	6
RTU-6	MP-6	208-3-60	55.2	60	1"	1#8 G, 3#6	60A/240V/60A/NEMA 3R	6
RTU-7	MP-6	208-3-60	56.9	60	1"	1#8 G, 3#6	60A/240V/60A/NEMA 3R	6
AH-1	BB-7/9/11	208-3-60	45.0	45	1"	1#10 G, 3#8	60A/240V/45A/NEMA 1	
AH-2	BB-13/15/17	208-3-60	45.0	45	1"	1#10 G, 3#8	60A/240V/45A/NEMA 1	
AH-3	1B-13/15/17	208-3-60	44.0	45	1"	1#10 G, 3#8	60A/240V/45A/NEMA 1	
AH-4	BEA-31/33/35	208-3-60	45.0	45	1"	1#10 G, 3#8	60A/240V/45A/NEMA 1	
AH-5	1B-19/21/23	208-3-60	44.0	45	1"	1#10 G, 3#8	60A/240V/45A/NEMA 1	
AH-6	3B-18/20	208-1-60	45.0	45	1"	1#10 G, 2#8	60A/240V/45A/NEMA 1	
AH-7	3B-22/24	208-1-60	37.0	40	1"	1#10 G, 2#8	60A/240V/40A/NEMA 1	
AH-8	BEA-24/26	208-1-60	0.5	15	3/4"	1#10 G, 2#10	30A/240V/10A/NEMA 1	3
AH-8 RECIRC. PUMP	BEA-2	120-1-60	5.5	20	3/4"	1#12 G, 2#12	20A/120V/NF/NEMA 1	2,3
AH-9	BEA-24/26	208-1-60	0.5	15	3/4"	1#10 G, 2#10	30A/240V/10A/NEMA 1	3
AH-9 RECIRC. PUMP	BEA-2	120-1-60	5.5	20	3/4"	1#12 G, 2#12	20A/120V/NF/NEMA 1	2,3
AH-10	BEA-24/26	208-1-60	0.5	15	3/4"	1#10 G, 2#10	30A/240V/10A/NEMA 1	3
AH-10 RECIRC. PUMP	BEA-4	120-1-60	5.5	20	3/4"	1#12 G, 2#12	20A/120V/NF/NEMA 1	2,3
AH-11	1B-2/4	208-1-60	2.4	15	3/4"	1#10 G, 2#10	30A/240V/10A/NEMA 1	3
AH-11 RECIRC. PUMP	1B-1	120-1-60	5.5	20	3/4"	1#12 G, 2#12	20A/120V/NF/NEMA 1	2,3
AH-12	3B-14/16	208-1-60	0.6	15	3/4"	1#10 G, 2#10	30A/240V/10A/NEMA 1	3
AH-12 RECIRC. PUMP	3B-1	120-1-60	5.5	20	3/4"	1#12 G, 2#12	20A/120V/NF/NEMA 1	2,3
HP-1	BB-31/33/35	208-3-60	24.0	40	1"	1#10 G, 3#8	30A/240V/30A/NEMA 3R	
HP-2	BB-37/39/41	208-3-60	24.0	40	1"	1#10 G, 3#8	30A/240V/30A/NEMA 3R	
HP-3	1B-1/3/5	208-3-60	21.0	35	3/4"	1#10 G, 3#10	30A/240V/25A/NEMA 3R	
HP-4	BEA-25/27/29	208-3-60	24.0	40	3/4"	1#10 G, 3#8	30A/240V/30A/NEMA 3R	
HP-5	1B-7/9/11	208-3-60	21.0	35	3/4"	1#10 G, 3#10	30A/240V/25A/NEMA 3R	
HP-6	3B-13/15/17	208-3-60	16.0	25	3/4"	1#12 G, 2#12	30A/240V/20A/NEMA 3R	
HP-7	3B-19/21/23	208-3-60	11.0	15	3/4"	1#12 G, 2#12	30A/240V/15A/NEMA 3R	
HP-8	BEA-28/30	208-1-60	16.5	20	3/4"	1#10 G, 2#10	30A/240V/20A/NEMA 3R	
HP-9	BEA-32/34	208-1-60	16.5	20	3/4"	1#10 G, 2#10	30A/240V/20A/NEMA 3R	
HP-10	BEA-36/38	208-1-60	16.5	20	3/4"	1#10 G, 2#10	30A/240V/20A/NEMA 3R	
HP-11	3B-26/28	208-1-60	27.0	30	3/4"	1#10 G, 2#10	30A/240V/30A/NEMA 3R	
HP-12	3B-30/32	208-1-60	16.5	20	3/4"	1#10 G, 2#10	30A/240V/20A/NEMA 3R	
REF-1	ROOM LTG CKT	120-1-60	1.0	20	3/4"	1#12 G, 2#12	BUILT-IN	1
CEF-2	ROOM LTG CKT	120-1-60	1.0	20	3/4"	1#12 G, 2#12	BUILT-IN	1
CEF-3	ROOM LTG CKT	120-1-60	1.0	20	3/4"	1#12 G, 2#12	BUILT-IN	1
CEF-4	ROOM LTG CKT	120-1-60	1.0	20	3/4"	1#12 G, 2#12	BUILT-IN	1
ILF-5	1B-25	120-1-60	2.5	20	3/4"	1#12 G, 2#12	BUILT-IN	1
ILF-6	2A-25	120-1-60	2.5	20	3/4"	1#12 G, 2#12	BUILT-IN	1
ILF-7	3A-25	120-1-60	3.6	20	3/4"	1#12 G, 2#12	BUILT-IN	1
EF-EX	EXISTING	EXISTING	---	---	EXISTING	EXISTING	EXISTING	5
EWH-EX	EXISTING	EXISTING	---	---	EXISTING	EXISTING	EXISTING	5

Jumper

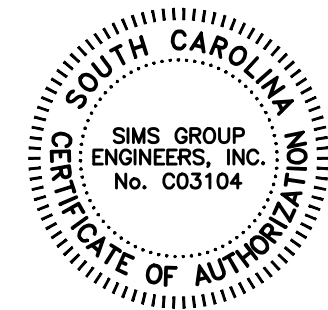
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UNIVERSITY OF SOUTH CAROLINA

REVISIONS:

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CLP

COMM NO:

12113

DATE:

2/8/2014

SHEET TITLE:

HVAC POWER PLAN-
ROOF PLAN

BID SET

C14002

sims group

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SHEET NO:

E304

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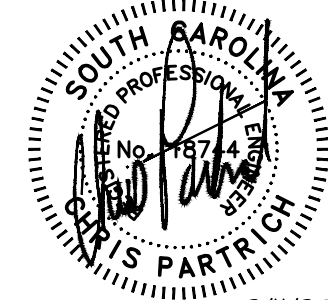
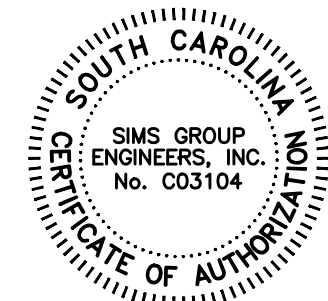
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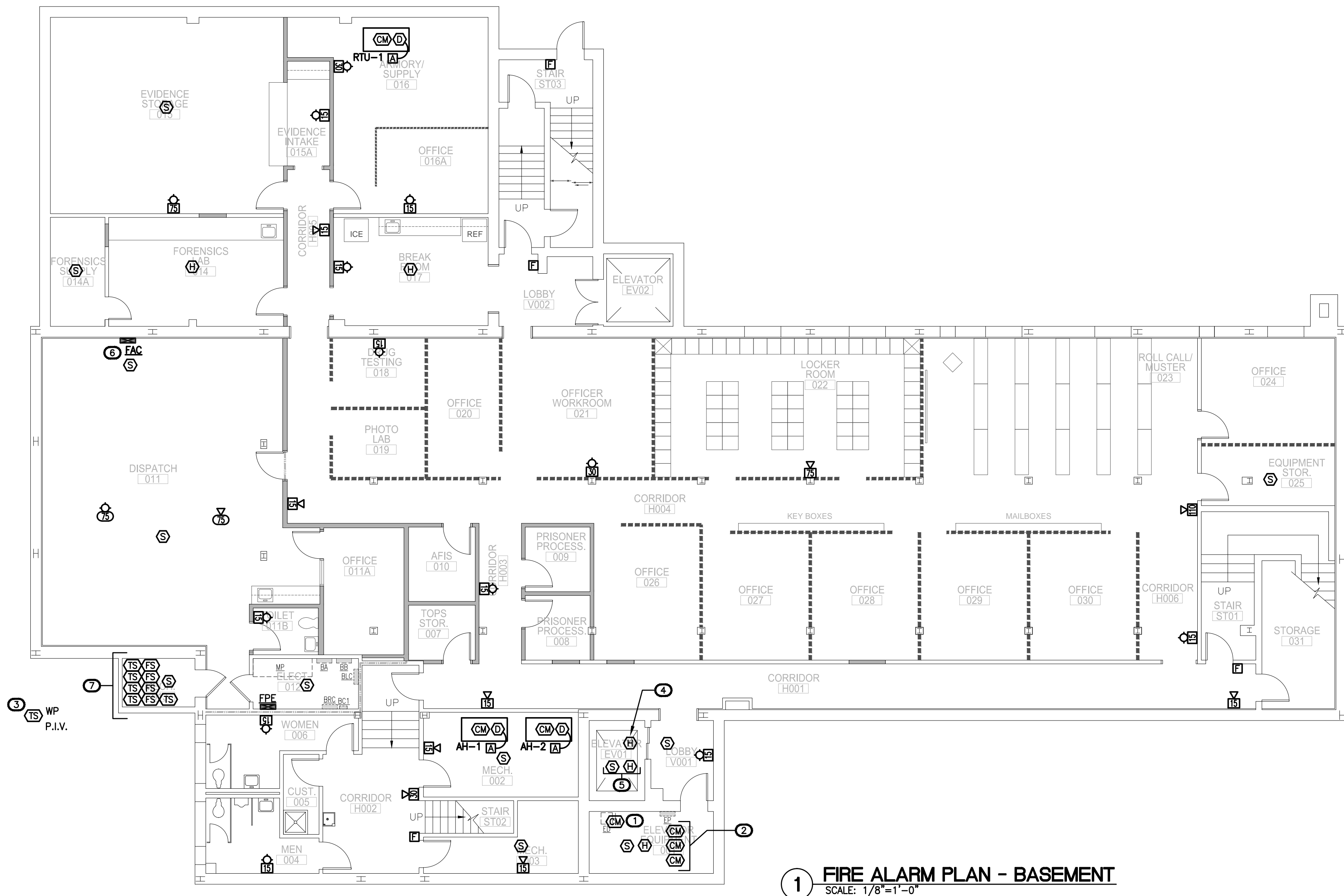
SHEET TITLE:

FIRE ALARM PLAN-BASEMENT

SHEET NO:

E501

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FIRE ALARM DRAWING E501 PLAN NOTES:

1. PROVIDE CONTROL MODULE FOR SHUNT TRIP OF ELEVATOR CIRCUIT BREAKER PER NFPA-72. COORDINATE LOCATION WITH ELEVATOR CIRCUIT BREAKER. PROVIDE ALL CONDUIT, WIRING, SLAVE RELAY, APPURTENANCES AND PROGRAMMING FOR FULL OPERATION.
2. PROVIDE CONTROL MODULES FOR ELEVATOR RECALL PER NFPA-72 AT ELEVATOR CONTROLLER. PROVIDE ALL CONDUIT, WIRING, SLAVE RELAY, APPURTENANCES AND PROGRAMMING FOR FULL OPERATION.
3. CONTRACTOR SHALL LOCATE EXISTING P.I.V. VALVE FOR BUILDING AND PROVIDE A WEATHERPROOF MONITORING MODULE.
4. LOCATE IN ELEVATOR PIT WITHIN 18" OF SPRINKLER HEAD.
5. LOCATE IN TOP OF ELEVATOR SHAFT.
6. FIRE ALARM CONTROL PANEL TO BE LOCATED ADJACENT TO FIRE ALARM MONITORING STATION EQUIPMENT. COORDINATE EXACT LOCATION WITH ARCHITECT AND OWNER.
7. TAMPER AND FLOW SWITCHES SHOWN ARE BASED ON ONE ZONE PER FLOOR. PROVIDE ONE MONITORING MODULE FOR EACH FIRE PROTECTION SWITCH INSTALLED. FIELD COORDINATE ACTUAL QUANTITY AND LOCATIONS.

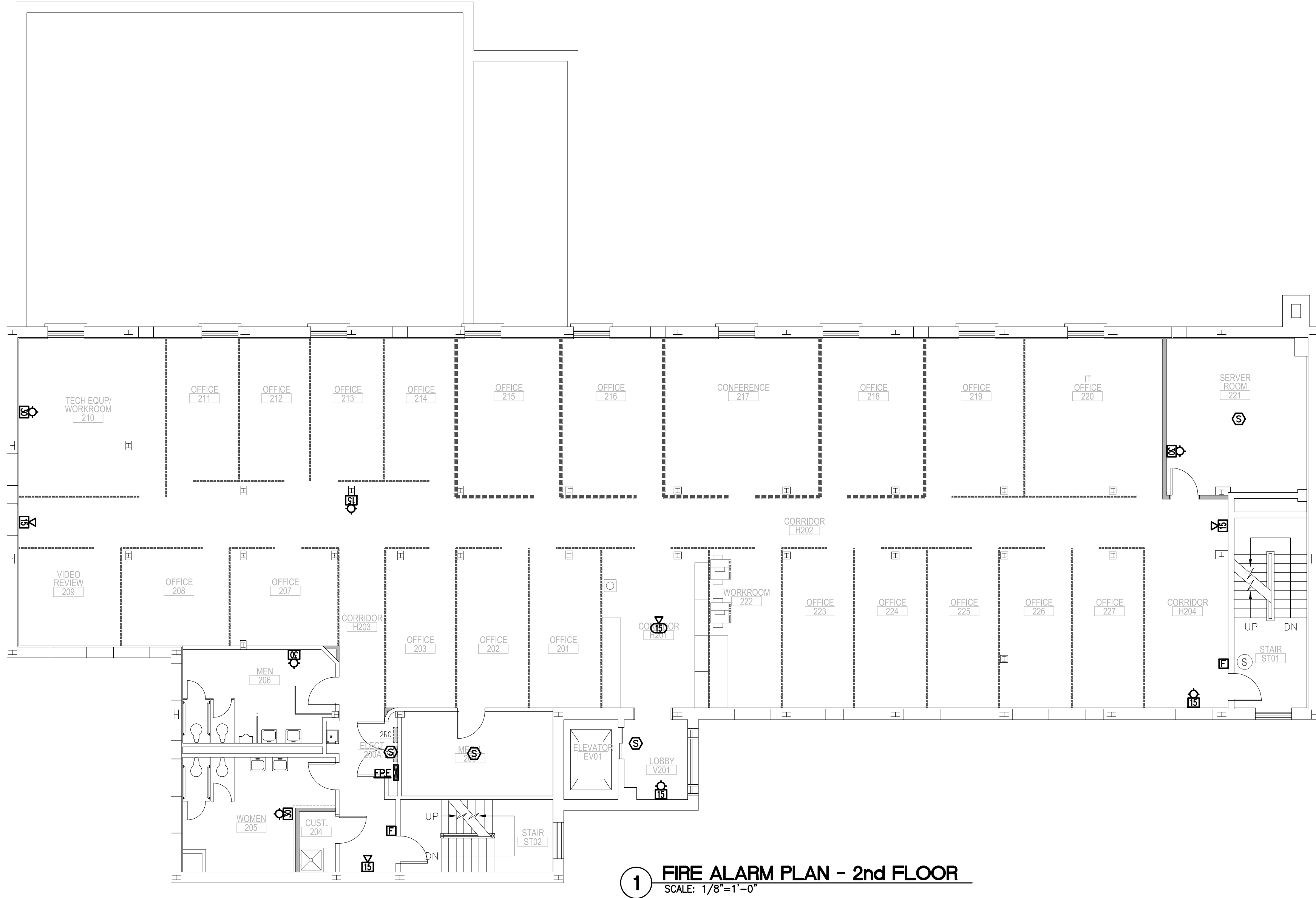
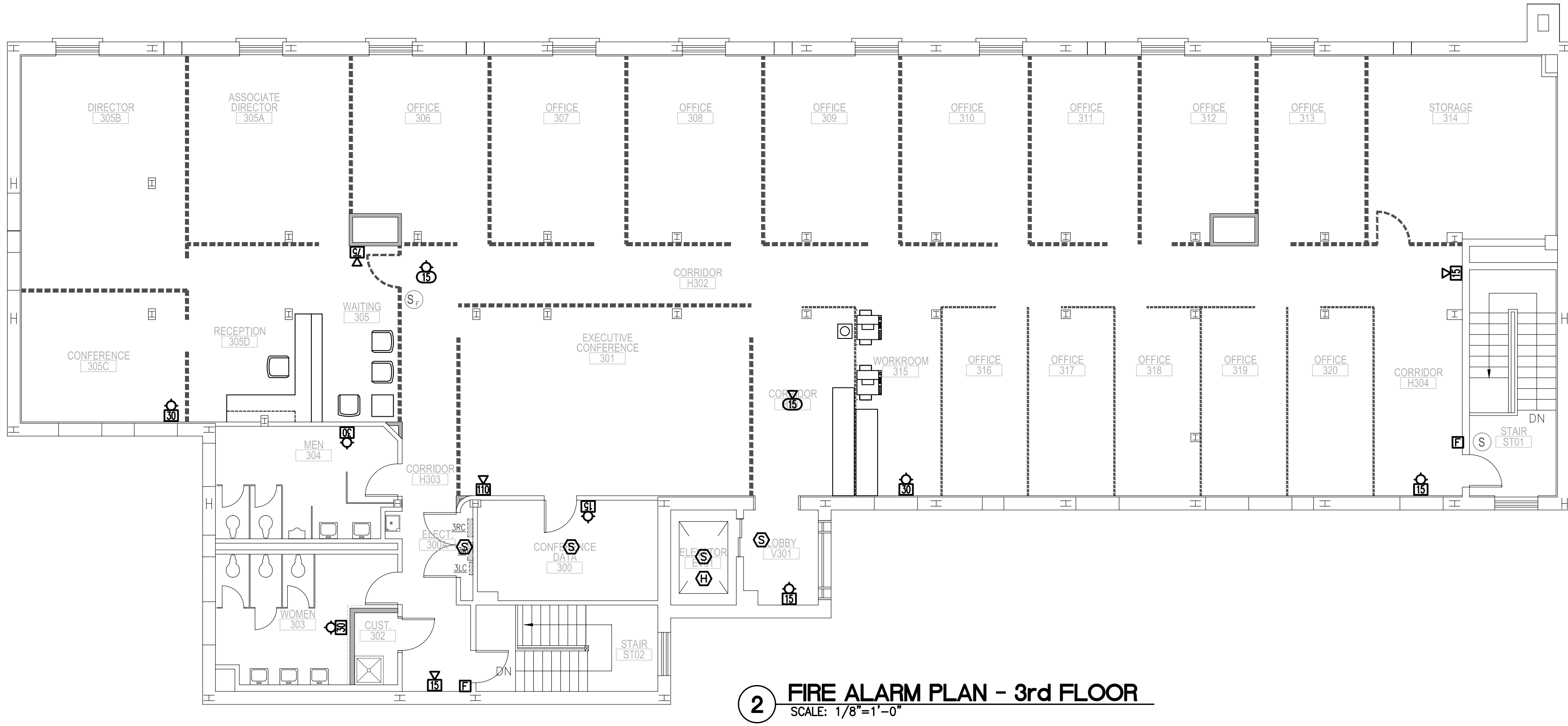
GENERAL NOTE: NEW WALLS ARE BEING ADDED UNDER A SEPARATE CONTRACT. THIS CONTRACTOR SHALL FIELD COORDINATE INSTALLATION OF FIRE ALARM DEVICES WITH THE WALLS, PARTITIONS, AND DEMOUNTABLE WALLS BEING ADDED UNDER THAT CONTRACT. TYPICAL FOR ALL FLOORS.

1 FIRE ALARM PLAN - BASEMENT
SCALE: 1/8" = 1'-0"

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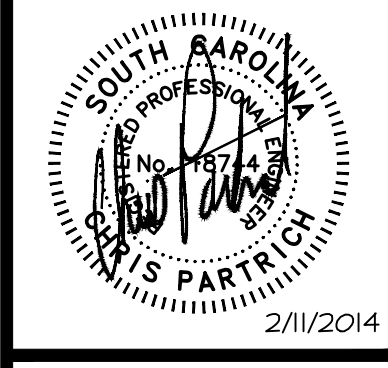
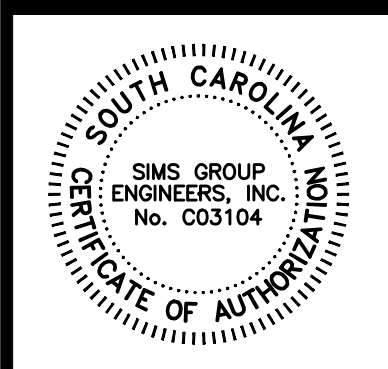
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FIRE ALARM PLAN-
2ND & 3RD FLOOR

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SHEET NO:
E503

FIRE ALARM SYSTEM NOTES

1. ALL FIRE ALARM SYSTEM WIRING SHALL BE RUN ABOVE GRADE IN WALLS AND ABOVE CEILING IN METAL RACEWAYS. RACEWAYS SHALL BE RUN CONCEALED WHERE PRACTICAL. FIRE ALARM WIRING MAY NOT BE RUN UNDERGROUND OR IN SLAB UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS.
2. VERIFY WIRING REQUIREMENTS WITH EQUIPMENT MFR PRIOR TO ROUGH-IN AND INSTALL ACCORDINGLY. NOTIFICATION APPLIANCE CIRCUITS SHALL BE RUN AS REQ'D TO PROVIDE A 3-PULSE TEMPORAL AUDIBLE SIGNAL WITHOUT COMPROMISING THE OPERATION OF THE STROBES.
3. PROVIDE SYNCHRONIZATION OF ALL STROBE LIGHTS.
4. FIRE ALARM SYSTEM TO BE CLASS B SUPERVISED SYSTEM (STYLE B INITIATING DEVICE CIRCUITS, STYLE 4 SIGNALING LINE CIRCUITS, CLASS B NOTIFICATION APPLIANCE CIRCUITS). FURNISH & INSTALL END-OF-LINE RESISTORS WHERE REQUIRED.
5. EQUIPMENT SUPPLIER SHALL SUBMIT SHOP DRAWINGS INDICATING EXACT ROUTING OF RACEWAYS AND NUMBER AND SIZE OF CONDUCTORS IN RACEWAYS FOR THE FIRE ALARM SYSTEM. THE ELECTRICAL CONTRACTOR SHALL USE THE REVIEWED DRAWING FOR ROUGH-IN OF FIRE ALARM SYSTEM RACEWAYS AND OUTLET BOXES.
6. SMOKE DETECTORS FOR AREA DETECTION SHALL BE LOCATED AS NEAR THE CENTER OF THE ROOM AS PRACTICAL. DO NOT LOCATE ANY DETECTOR WITHIN 3'-FT. OF AN HVAC SUPPLY GRILLE. PROVIDE AUXILIARY CONTACT ON SMOKE DETECTORS LOCATED AT SMOKE DOORS. WIRE MAGNETIC DOOR HOLDERS THRU AUXILIARY CONTACT TO RELEASE DOOR WHEN THOSE DETECTORS ARE ACTUATED.
7. DUCT DETECTORS SHALL BE FURNISHED BY THE FIRE ALARM SYSTEM SUPPLIER AND INSTALLED BY A QUALIFIED HVAC TECHNICIAN UNDER DIVISION 23. FIRE ALARM SYSTEM WIRING WILL FURNISHED & INSTALLED BY THE FIRE ALARM SYSTEM SUPPLIER UNDER DIVISION 28. HVAC CONTROL WIRING WILL BE FURNISHED & INSTALLED BY THE MECHANICAL CONTRACTOR UNDER DIVISION 23. PROVIDE AUXILIARY CONTACT WITH EACH DUCT DETECTOR FOR USE BY HVAC CONTROLS CONTRACTOR.
- DUCT DETECTORS TO BE LOCATED AND INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. COORDINATE THE LOCATION OF EACH DUCT DETECTOR IN THE FIELD WITH THE MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN TO INSURE COMPLIANCE WITH THE MANUFACTURER'S REQUIREMENTS.
- PROVIDE DOCUMENTATION OF DUCT DETECTOR TESTING PER NFPA 72 TABLE 14.4.2.2-14(G)(6). AIR DUCT DETECTORS SHALL BE TESTED/INSPECTED TO ENSURE THAT THE DEVICE WILL SAMPLE THE AIRSTREAM. THE TEST SHALL BE MADE IN ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED INSTRUCTIONS.
- WHERE DUCT DETECTORS ARE INDICATED FOR HVAC FAN RETURN DUCT PROVIDE CONTROL MODULE PROGRAMMED FOR SHUT DOWN OF HVAC UNIT BASED UPON ACTIVATION OF ASSOCIATED DUCT DETECTOR. WHERE DUCT DETECTORS ARE INDICATED FOR FIRE/SMOKE DAMPERS, PROVIDE CONTROL MODULE PROGRAMMED FOR CLOSURE OF DAMPER BASED ON ACTIVATION OF ASSOCIATED DUCT DETECTOR.
8. LOCATE MANUAL PULL STATIONS WITHIN 5'-0" OF THE EXIT DOOR PER NFPA AND IBC REQUIREMENTS. PROVIDE ANY SPECIAL ADAPTER PLATES OR COVER PLATES REQ'D TO MOUNT PULL STATIONS IN DOOR MULLIONS WHERE APPLICABLE.
9. EACH HORN/STROBE LOCATED AT THE END OF A CORRIDOR MUST BE WITHIN 15'-0" OF THE END WALL PER NFPA 72. HORN/STROBES IN CLASSROOMS AND OFFICES MUST BE LOCATED TO COMPLY WITH TABLE 7.5.4.3.1(c) & TABLE 7.5.4.3.1(b) OF NFPA 72. DO NOT ADJUST LOCATIONS OF HORN/STROBES WITHOUT CONSULTING WITH THE ENGINEER AND OBTAINING WRITTEN PERMISSION. ALL HORNS IN CORRIDORS AND IN SPACES LARGER THAN 2,000SF SHALL BE SET TO "HIGH". ALL OTHER HORNS SHALL BE SET TO "LOW".
10. FIELD VERIFY LOCATION OF FIRE ALARM PANEL "FAC" AND/OR REMOTE FIRE ALARM ANNUNCIATOR "FAA" WITH OWNER AND AUTHORITY HAVING JURISDICTION PRIOR TO ROUGH-IN.
11. SYSTEM SHALL BE U.L. CERTIFICATED AND PLACARD AS REQUIRED BY NFPA AND LOCAL AHJ.
12. IN ADDITION TO SMOKE DETECTORS SHOWN, CONTRACTOR WILL BE REQUIRED TO FURNISH & INSTALL SMOKE DETECTORS IN ALL ROOMS WITH FIRE ALARM POWER SUPPLIES AND POWER BOOSTERS. IN ADDITION TO 120V CIRCUITS SHOWN, CONTRACTOR SHALL BE REQUIRED TO FURNISH & INSTALL ANY 120V CIRCUITS NECESSARY TO PROVIDE A COMPLETE AND OPERABLE FIRE ALARM SYSTEM.
13. FURNISH & INSTALL STI STOPPER II PROTECTIVE GUARD COVERS WITH BUILT-IN AUDIBLE ALARM FOR ALL PULL STATIONS.
14. ADDITIONAL FIRE ALARM DEVICES: THE ELECTRICAL CONTRACTOR AND FIRE ALARM SYSTEM INSTALLER SHALL FURNISH AND INSTALL ADDITIONAL FIRE ALARM DEVICES AT THE DISCRECTION OF THE ARCHITECT/ENGINEER AND/OR THE AUTHORITY HAVING JURISDICTION IN THE FOLLOWING QUANTITIES:

- (2) HORN/STROBE LIGHTS
- (2) STROBE LIGHTS
- (1) DUCT MOUNTED SMOKE DETECTORS
- (1) MANUAL PULL STATIONS
- (2) CEILING MOUNTED SMOKE OR HEAT DETECTORS

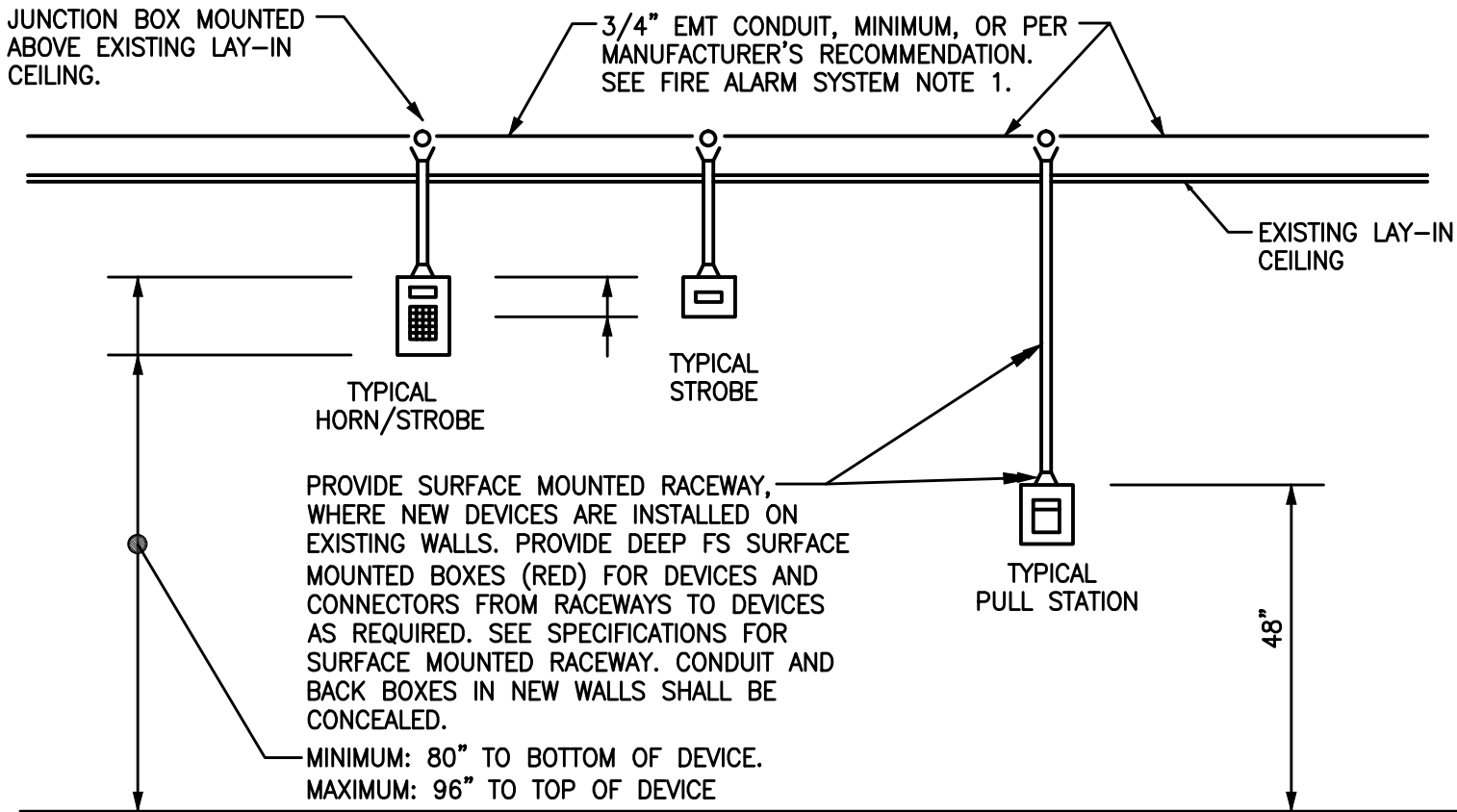
INCLUDE COMPLETE COSTS TO FURNISH AND INSTALL THE ABOVE ADDITIONAL DEVICES IN BASE BID, INCLUDING ALL CONDUIT, OUTLET BOXES, 120V POWER, WIRING, AND SYSTEM PROGRAMMING. ANY DEVICES NOT USED SHALL BE TURNED OVER TO THE OWNER AS SPARE DEVICES AT THE END OF THE PROJECT.

FIRE ALARM SYMBOLS

	FIRE ALARM CONTROL PANEL
	FIRE ALARM ANNIUNCIATOR
	FIRE ALARM POWER EXTENDER PANEL
	FIRE/SMOKE DAMPER, NOTE 2.
	FIRE ALARM MANUAL PULL STATION. 48" AFF.
	FIRE ALARM WALL MOUNTED HORN WITH STROBE LIGHT, CANDELA RATING AS NOTED. MOUNT BETWEEN 80" AND 96" AFF PER NFPA 72 AND ADA REQUIREMENTS.
	CEILING MOUNTED FIRE ALARM HORN WITH STROBE LIGHT, CANDELA RATING AS NOTED.
	CEILING MOUNTED FIRE ALARM HORN.
	FIRE ALARM WALL MOUNTED STROBE LIGHT, CANDELA RATING AS NOTED. MOUNT BETWEEN 80" AND 96" AFF PER NFPA 72 AND ADA REQUIREMENTS.
	CEILING MOUNTED FIRE ALARM STROBE LIGHT, CANDELA RATING AS NOTED.
	MULTI SENSOR (PHOTOELECTRIC, THERMAL) DETECTOR. CEILING MOUNTED, UNLESS NOTED.
	HEAT DETECTOR. CEILING MOUNTED, UNLESS NOTED OTHERWISE.
	DUCT MOUNTED SMOKE DETECTOR, FURNISHED & INSTALLED UNDER DIVISION 28. SEE ELECTRICAL SPECIFICATIONS AND DETAIL ON DRAWINGS FOR WIRING.
	DUCT SMOKE DETECTOR REMOTE ALARM INDICATOR WITH INTEGRATED KEYED TEST SWITCH. PROVIDE LABEL OF ASSOCIATED HVAC UNIT. FOR CEILINGS UP TO 12'-0" HIGH, LOCATE ON CEILING DIRECTLY BELOW ASSOCIATED DUCT DETECTOR. FOR OTHER INSTALLATIONS, LOCATE ON WALL AT 80" AFF.
	FIRE ALARM MONITORING MODULE.
	FIRE ALARM CONTROL MODULE.
	SPRINKLER SYSTEM TAMPER SWITCH MONITORING MODULE
	SPRINKLER SYSTEM FLOW SWITCH MONITORING MODULE
	WEATHERPROOF DEVICE. PROVIDE BACKBOX AND COVER U.L. LISTED AS WEATHERPROOF.

FIRE ALARM SYMBOL SCHEDULE NOTES:

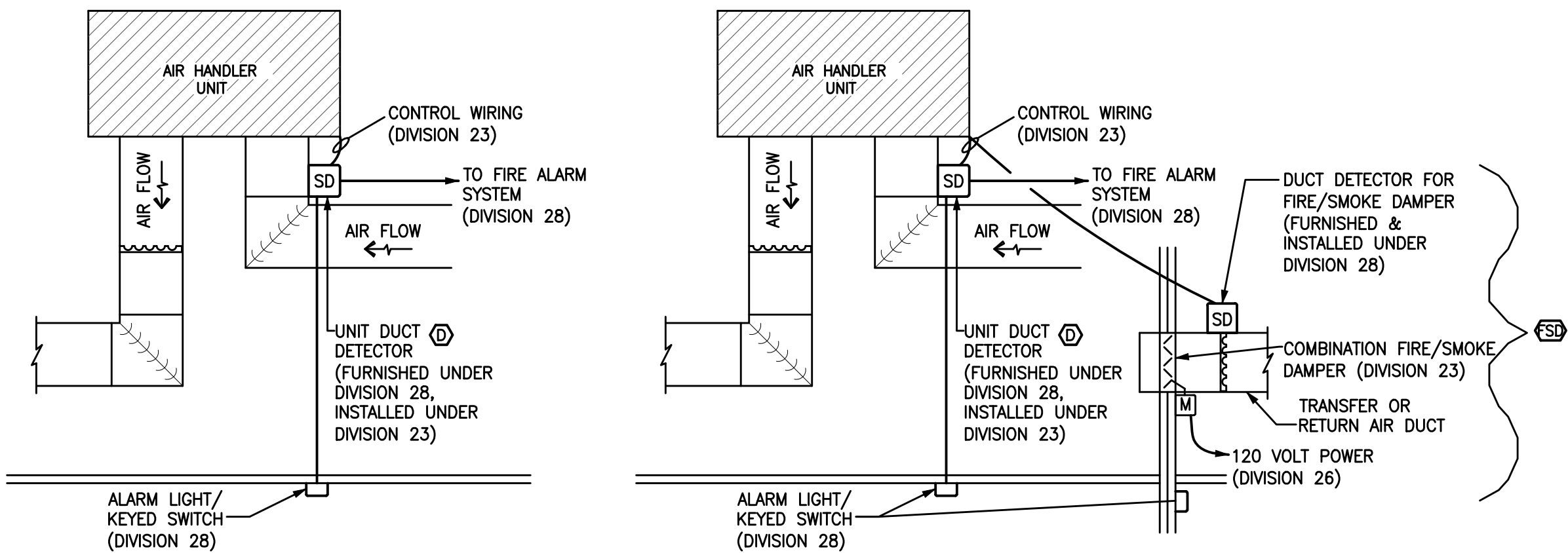
1. WALL MOUNTED NOTIFICATION DEVICES SHALL BE LOCATED AT UNIFORM HEIGHT ABOVE FINISHED FLOOR WHERE CEILING HEIGHTS ALLOW.
2. DUCT DETECTOR FOR FIRE/SMOKE DAMPER SHALL BE LOCATED WITHIN 5' OF DAMPER OPENING.



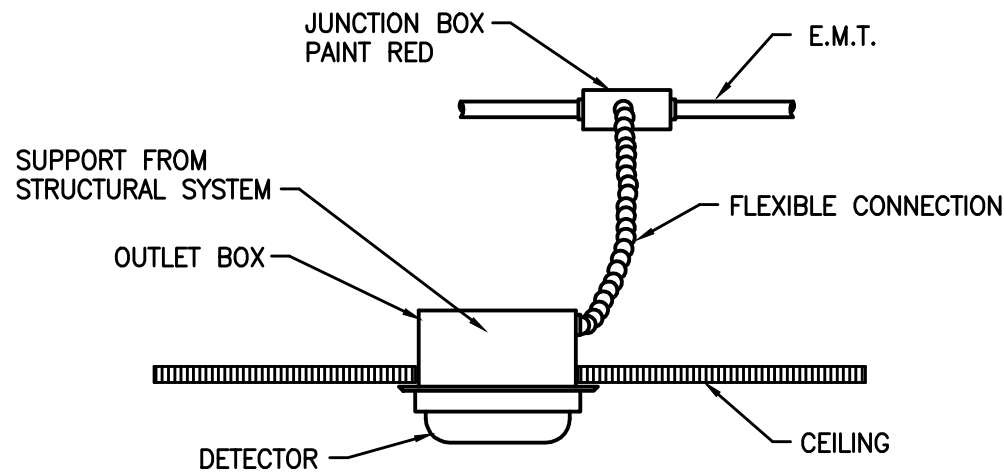
2 TYPICAL ELEVATIONS-LAY-IN CEILING
NOT TO SCALE

FIRE ALARM DEMOLITION NOTES

- FD1. THE EXISTING FIRE ALARM SYSTEM SHALL BE DEMOLISHED COMPLETELY AND A NEW SYSTEM INSTALLED.
- FD2. IN ALL AREAS WHERE EXISTING FIRE ALARM DEVICES ARE BEING REMOVED, AND WHERE OTHER DEMOLITION WORK IS OCCURRING, REMOVE ALL EXISTING FIRE ALARM DEVICES AND OTHER RELATED EQUIPMENT NO LONGER IN USE, AND ALL WIRING AND CONDUIT NOT BEING REUSED. EXISTING CONDUIT RUN CONCEALED IN EXISTING WALLS NOT BEING REMOVED AND/OR REPLACED MAY BE ABANDONED. WHERE EXISTING DEVICES ARE SURFACE MOUNTED, THE EXISTING DEVICE, BOX, CONDUIT AND WIRE MUST BE REMOVED TO A POINT ABOVE THE FINISH CEILING AND THEN ABANDONED.



3 HVAC AUTOMATIC FAN SHUTDOWN
NOT TO SCALE



4 SMOKE DETECTOR INSTALLATION DETAIL
NOT TO SCALE

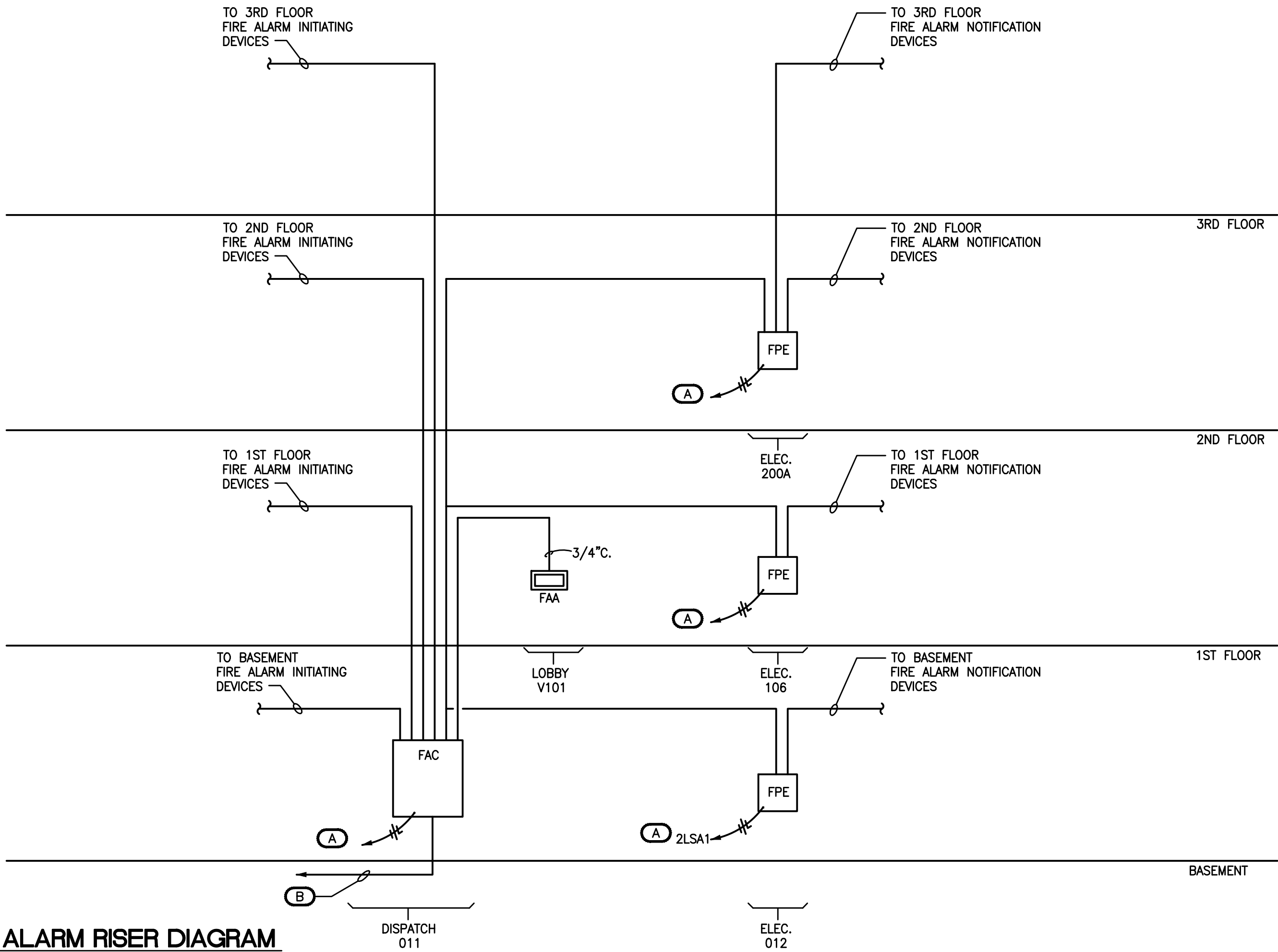
SPRINKLER SYSTEM MONITORING NOTE:
FLOW, TAMPER, AND PIV MONITORING LOCATIONS SHOWN ARE PER FIRE PROTECTION DRAWINGS. FURNISH & INSTALL MONITORING MODULES AS NEEDED TO MONITOR SPRINKLER FLOW, TAMPER, & PIV SWITCHES. VERIFY NUMBER REQ'D AND LOCATIONS WITH SPRINKLER CONTRACTOR AND SPRINKLER SYSTEM SHOP DRAWINGS PRIOR TO STARTING WORK AND INSTALL ACCORDINGLY. PROVIDE A MONITORING MODULE FOR EACH VALVE. NO CHANGEOVER WILL BE ISSUED FOR ADDITIONAL WORK NOT INDICATED ON THE DRAWINGS BUT REQ'D TO PROPERLY MONITOR THE SPRINKLER SYSTEM.

FIRE ALARM RISER KEYNOTES:

- (A) (2) #12 AWG + #12 AWG GROUND IN 3/4" C. TO SPARE 20A 1P 120V CIRCUIT BREAKER IN NEAREST EMERGENCY PANELBOARD. PROVIDE LOCK-OUT HASP FOR BREAKER AND PAINT CIRCUIT BREAKER HANDLE RED.
- (B) PROVIDE DACT FOR REPORTING TO UNIVERSITY'S CURRENT REPORTING STATION. PANEL SHALL ALSO BE CAPABLE OF BEING CONNECTED DIRECTLY TO OWNER'S REPORTING EQUIPMENT UPON ITS RELOCATION TO THIS FACILITY. COORDINATE REQUIREMENTS WITH OWNER AND PROVIDE ALL MODULE, CONDUCTORS, CONDUIT HARDWARE, SOFTWARE AND PROGRAMMING REQUIRED FOR BOTH TYPES OF REPORTING CONNECTIONS. COORDINATE ANY NECESSARY TELEPHONE LINE ACCESS FOR PRIMARY AND SECONDARY REPORTING WITH OWNER.

FIRE ALARM RISER GENERAL NOTES:

1. ALL RISER CONDUIT SHALL BE MINIMUM 1" OR LARGER AS REQUIRED UNLESS NOTED OTHERWISE.
2. ALL DEVICE CIRCUIT CONDUIT RUNS SHALL BE 3/4" MINIMUM.
3. PROVIDE QUANTITY OF FPE PANELS AS REQUIRED FOR ACTUAL LOADS. FPE PANELS MAY BE STACKED UP TO TWO HIGH ON WALL.
4. NEW WALLS ARE BEING ADDED UNDER A SEPARATE CONTRACT. THIS CONTRACTOR SHALL FIELD COORDINATE INSTALLATION OF FIRE ALARM DEVICES WITH THE WALLS, PARTITIONS, AND DEMOUNTABLE WALLS BEING ADDED UNDER THAT CONTRACT.



1 FIRE ALARM RISER DIAGRAM
NOT TO SCALE

Jumper

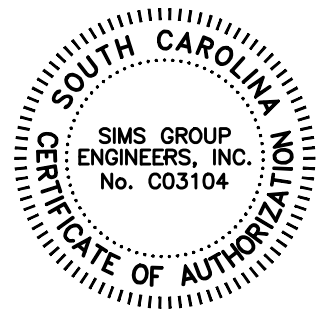
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FIRE ALARM
DETAILS

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