

UNIVERSITY OF SOUTH CAROLINA

UNIVERSITY OF SOUTH CAROLINA SOM - BUILDING #1 4TH FLOOR ANIMAL SURGERY LABORATORY COLUMBIA, SC H27-I901

A/E Project #13030.01
NOVEMBER 21, 2013
ISSUED FOR OWNER REVIEW

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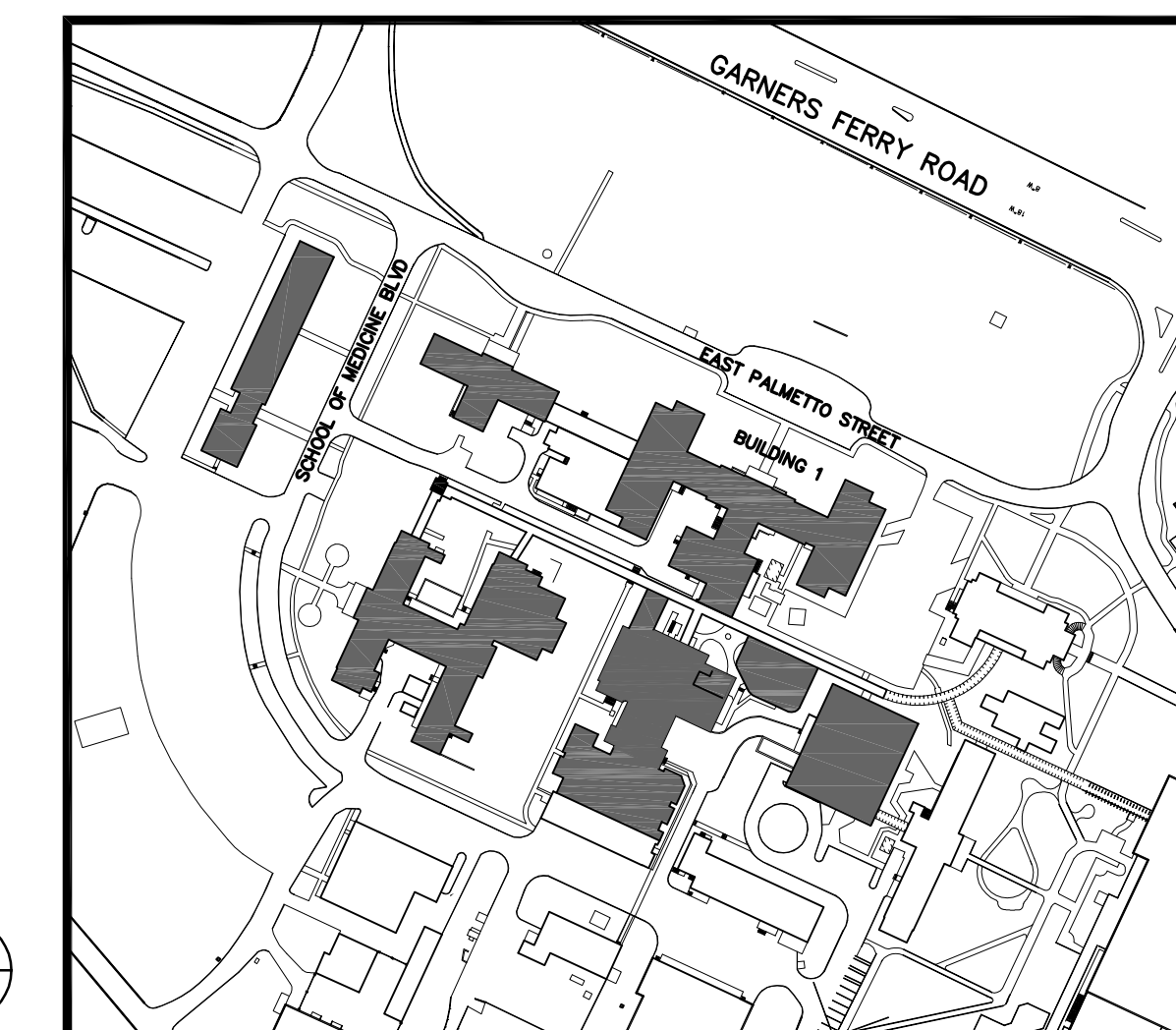
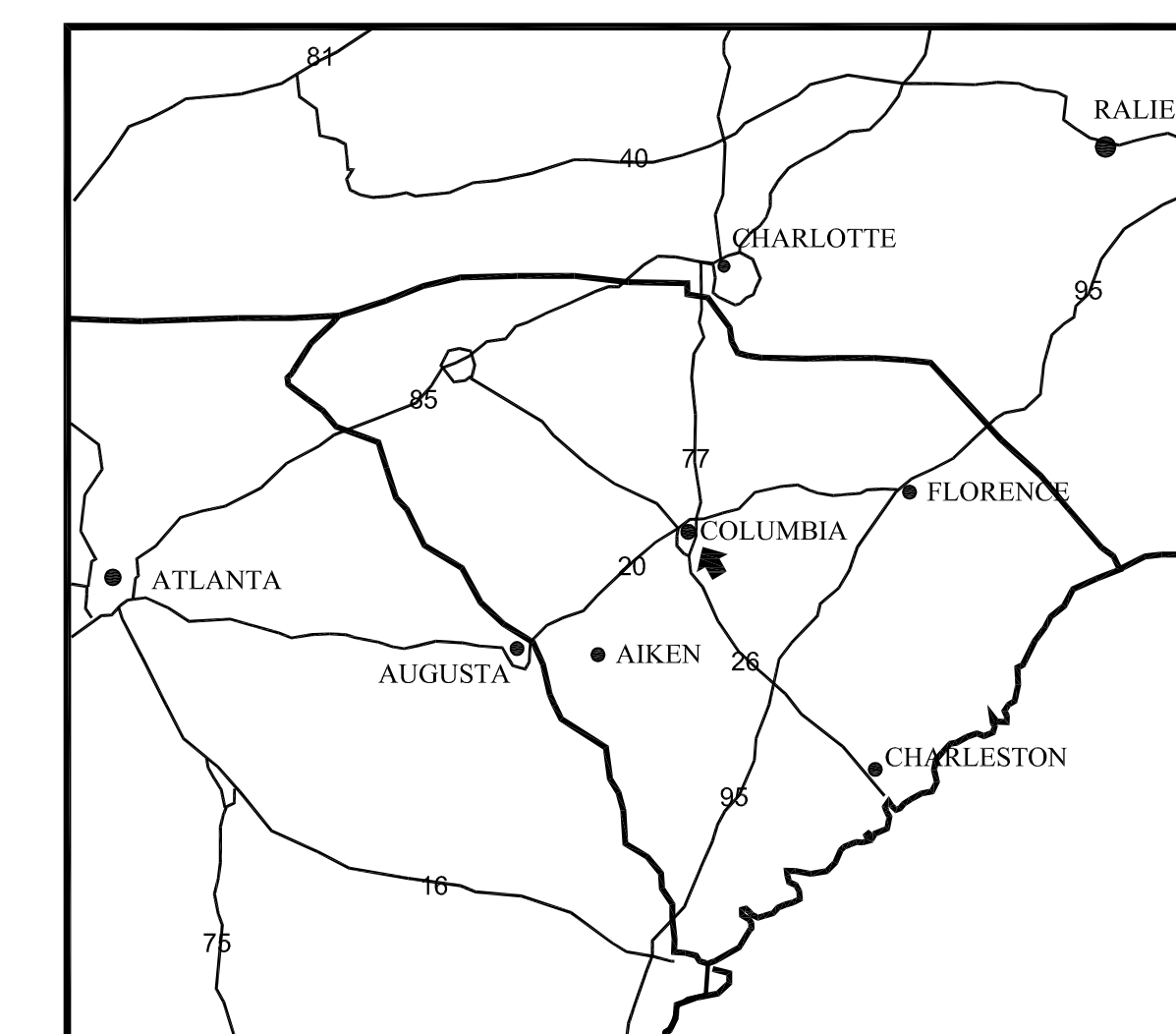
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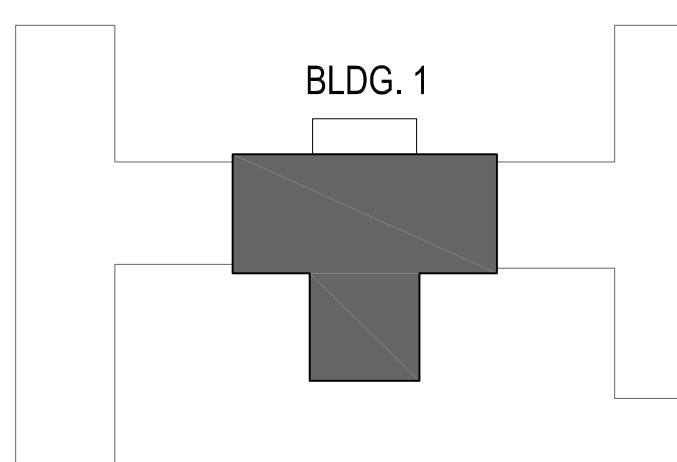
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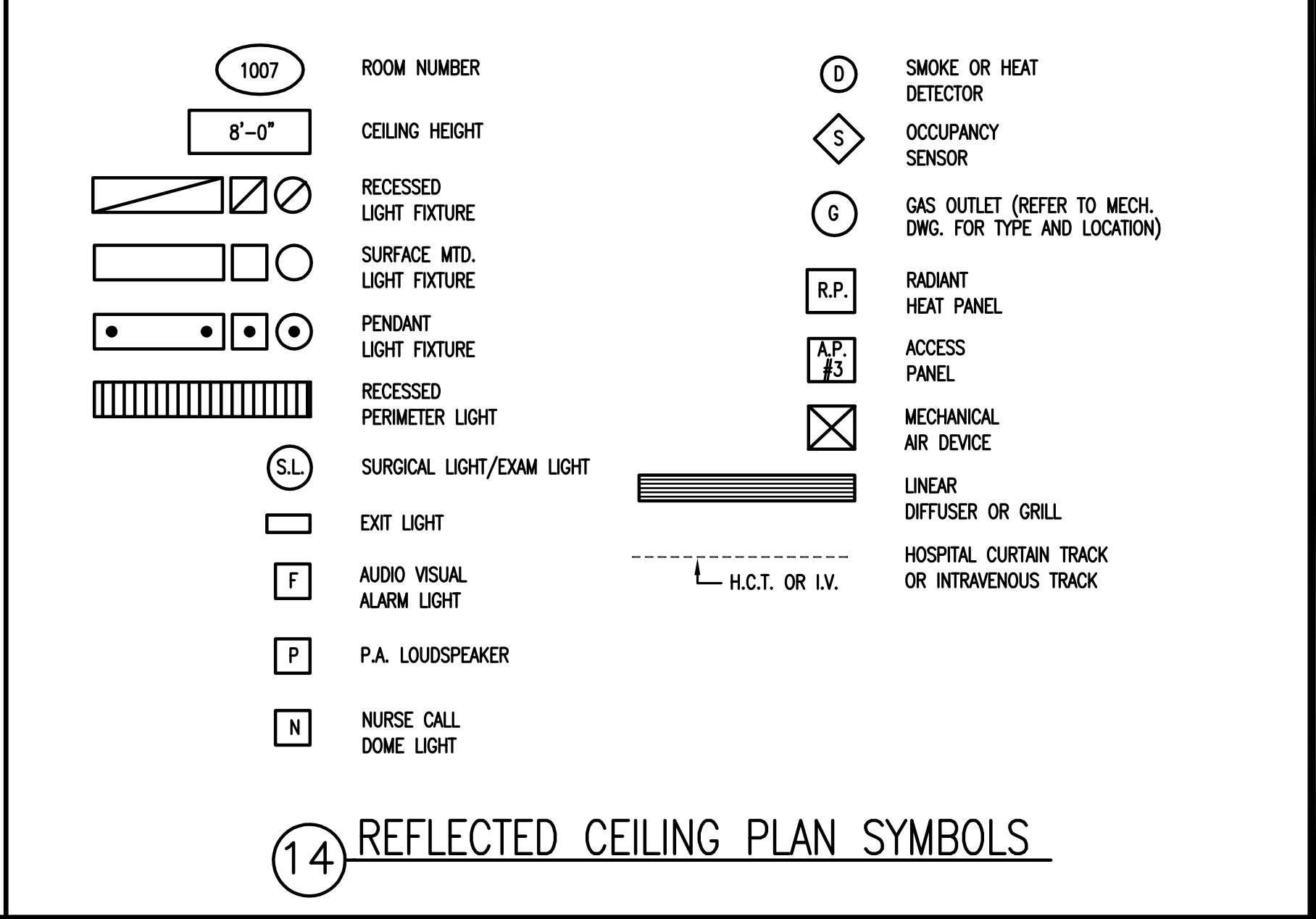
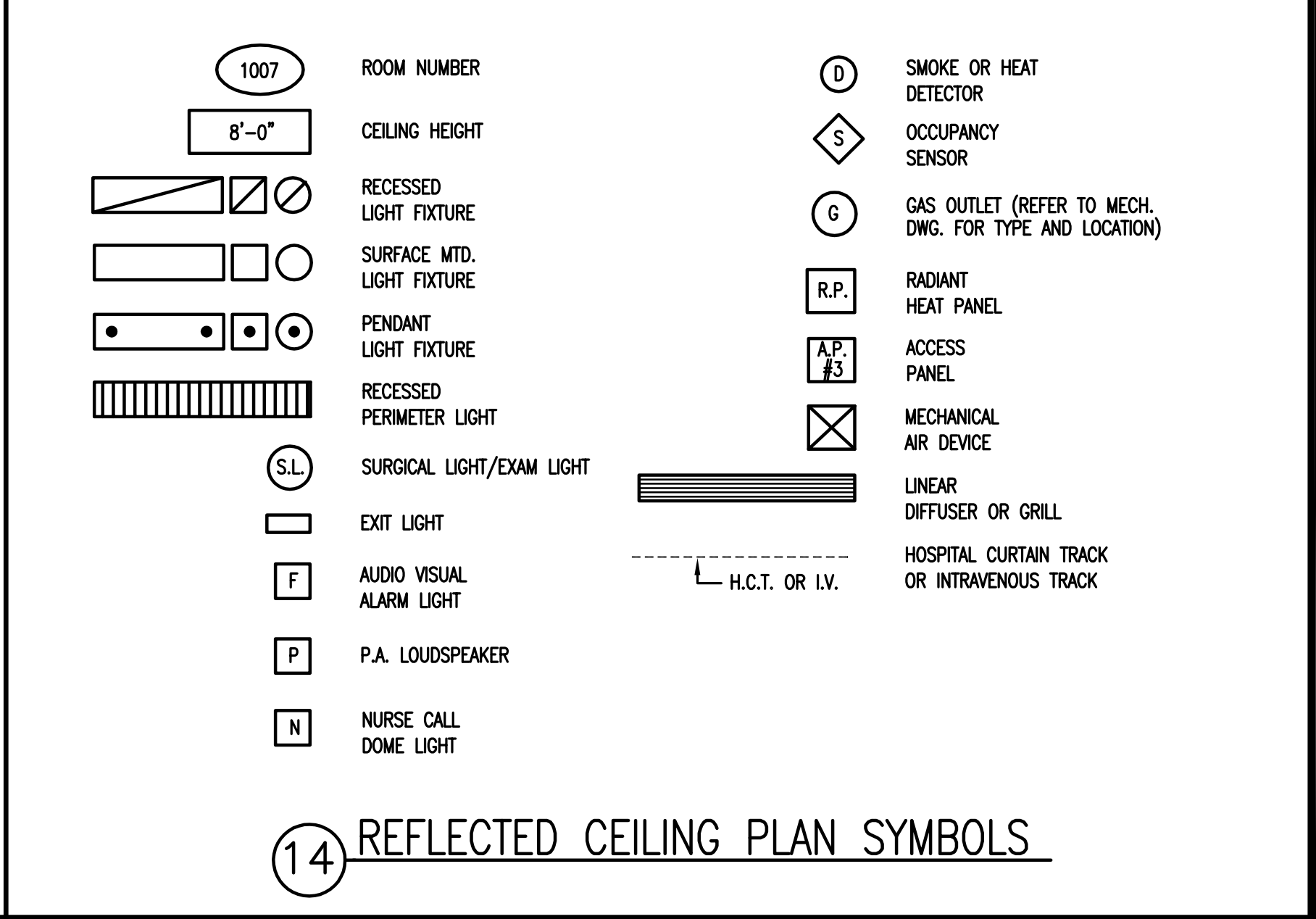
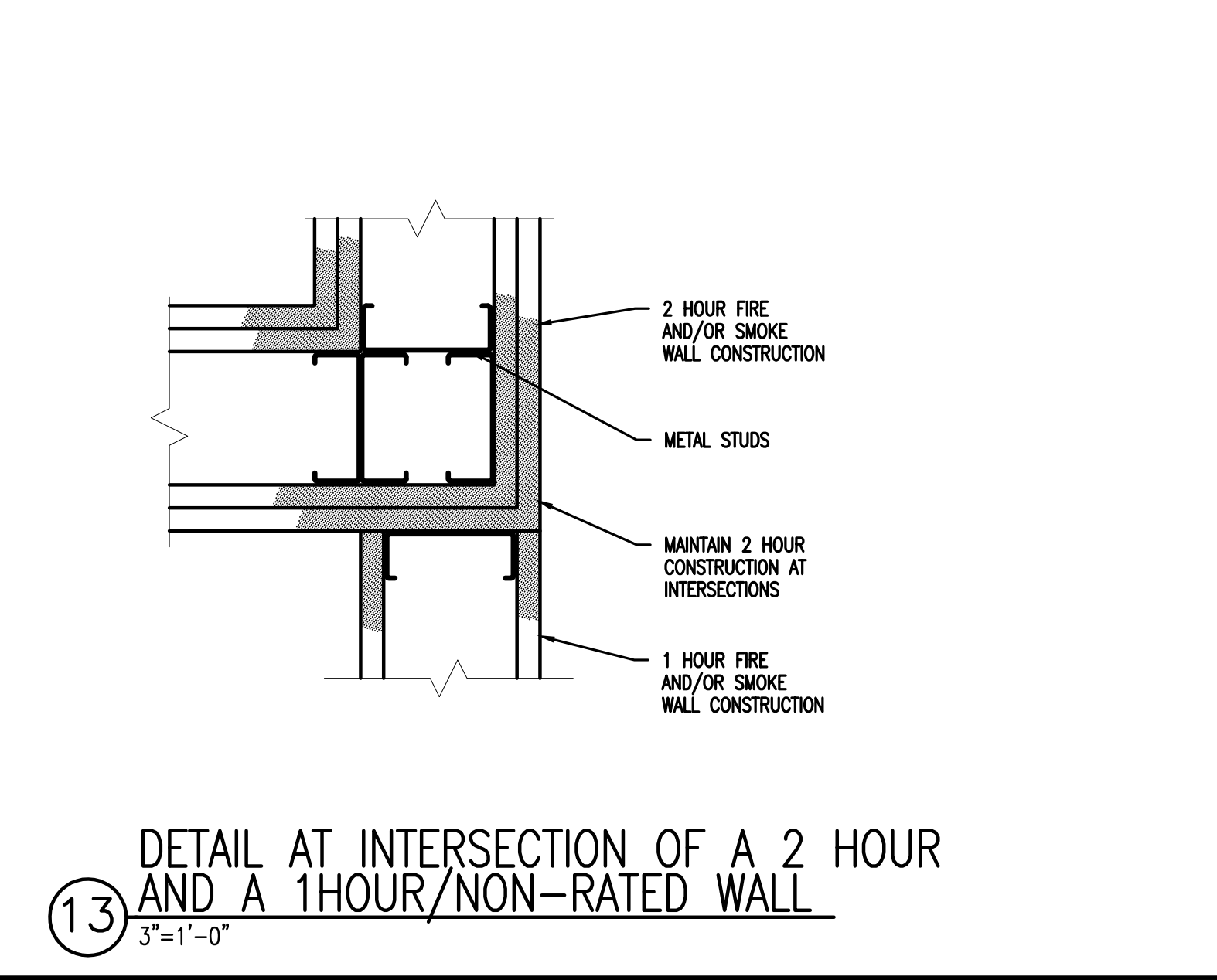
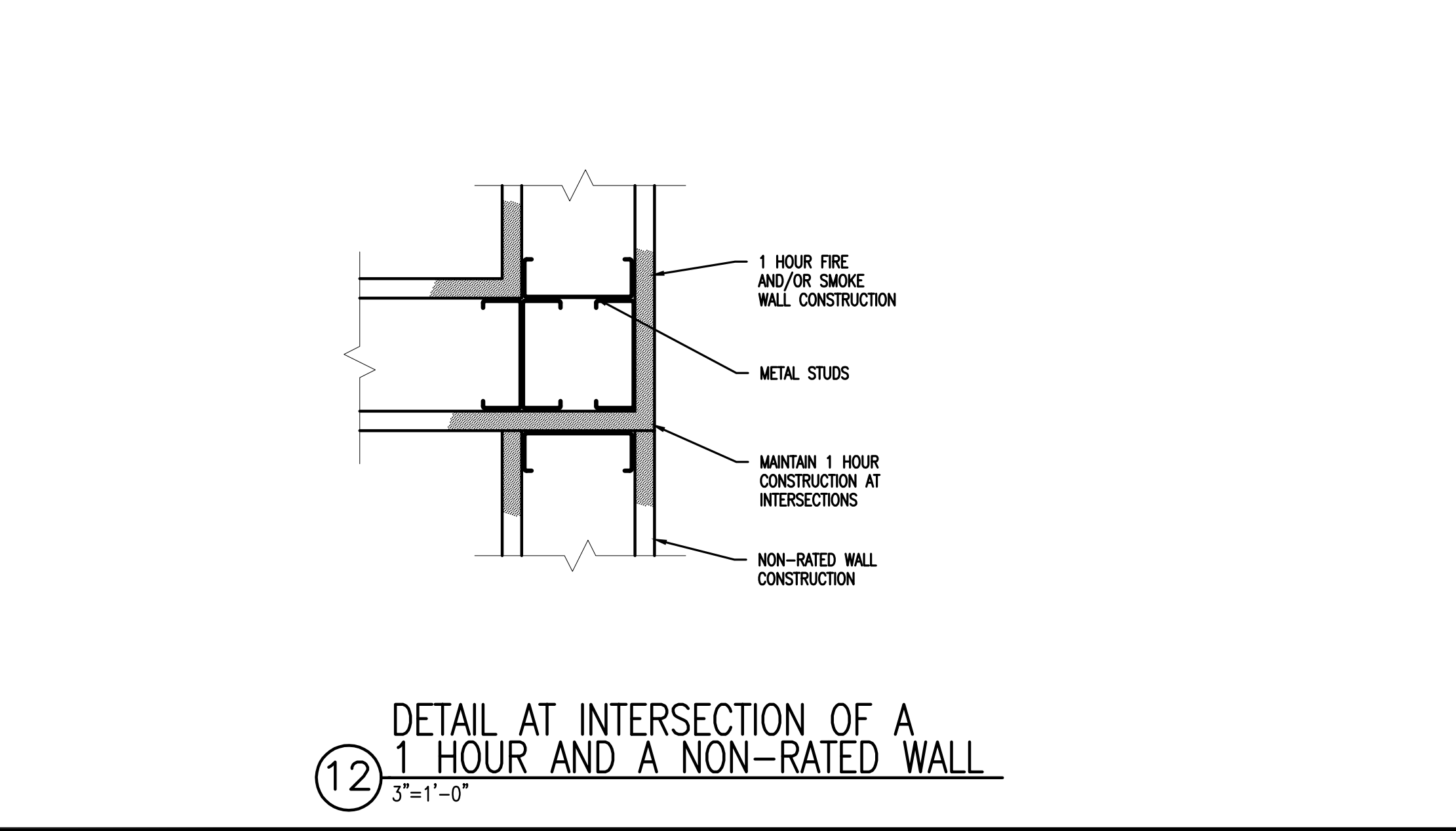
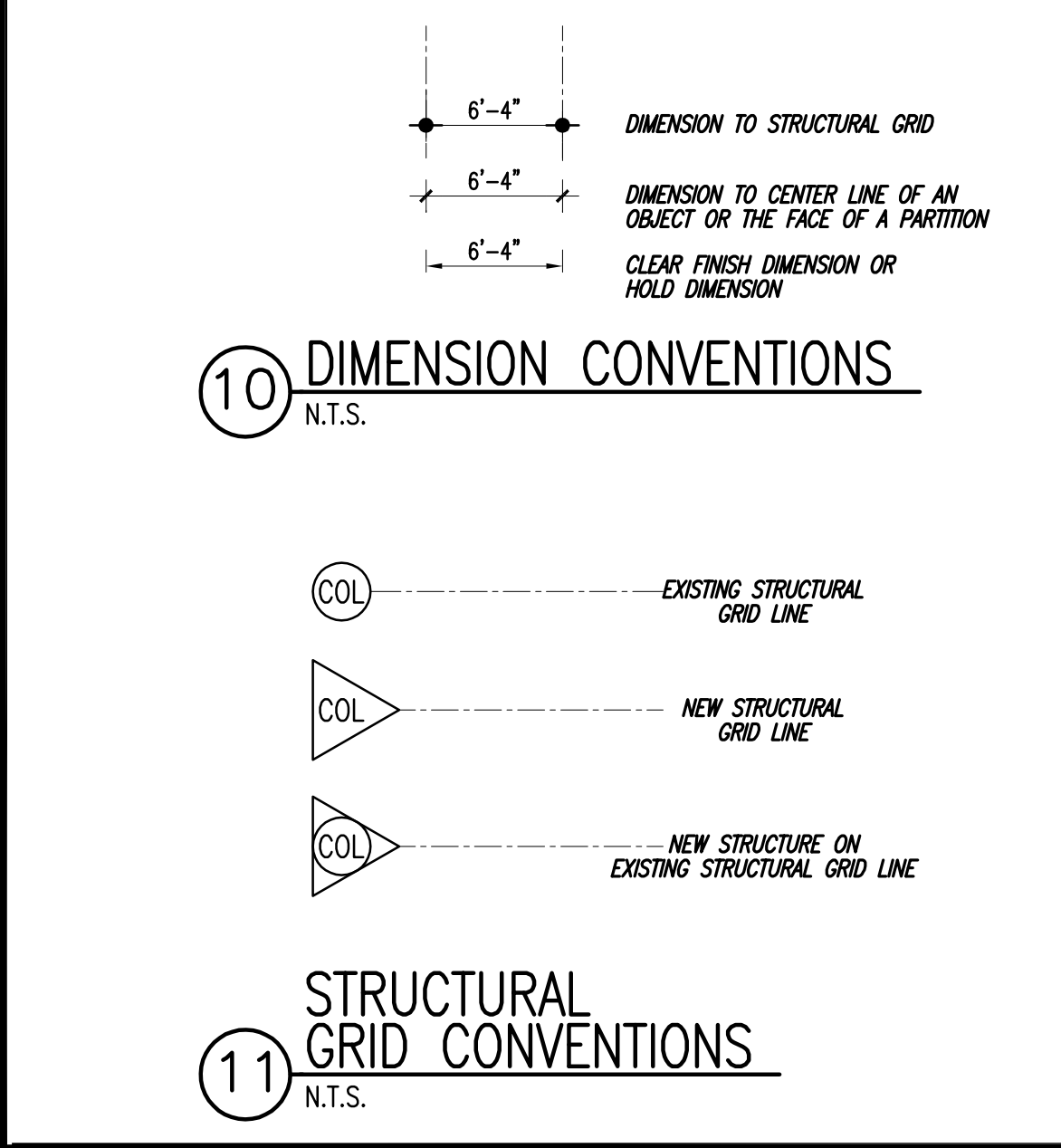
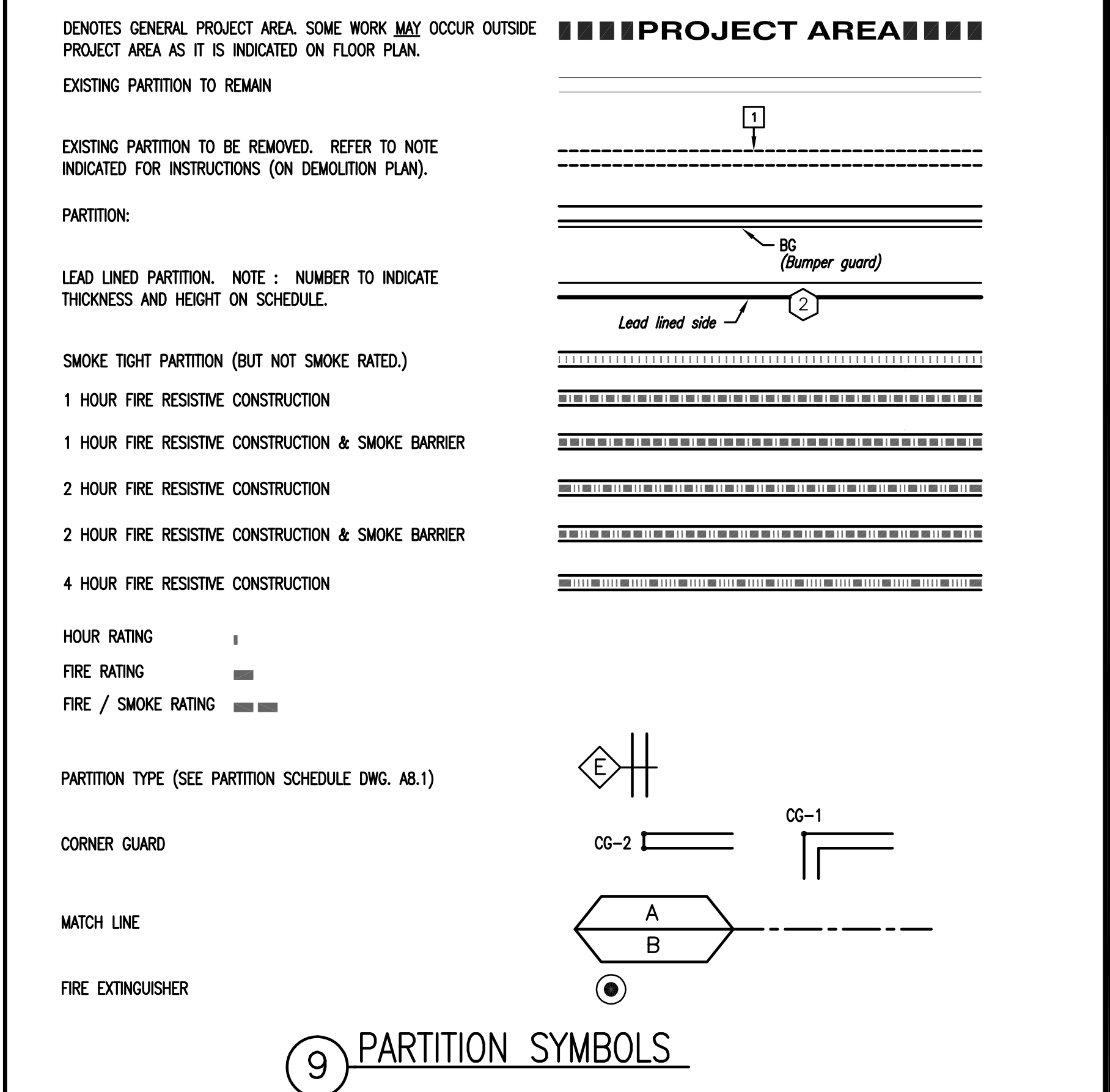
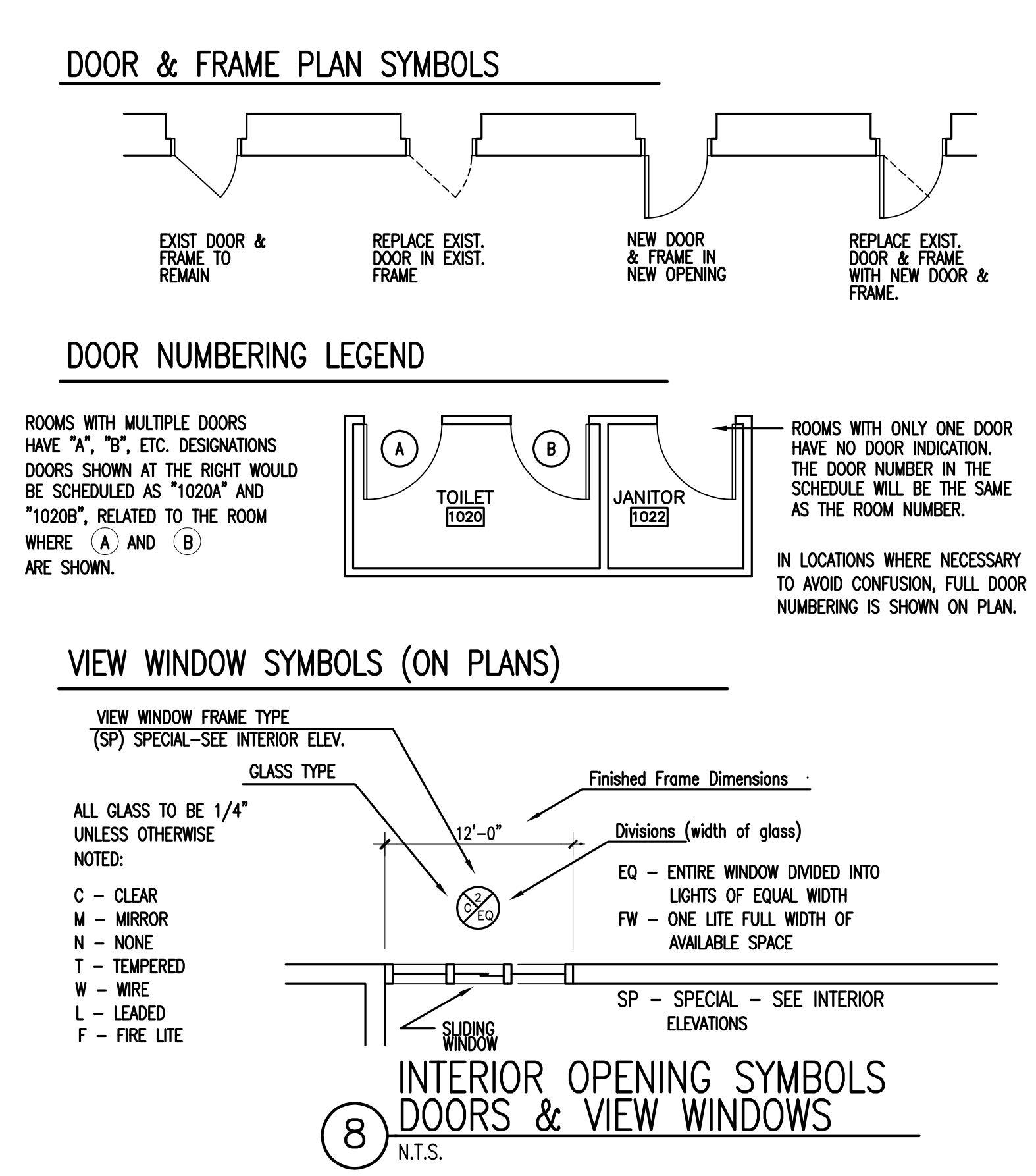
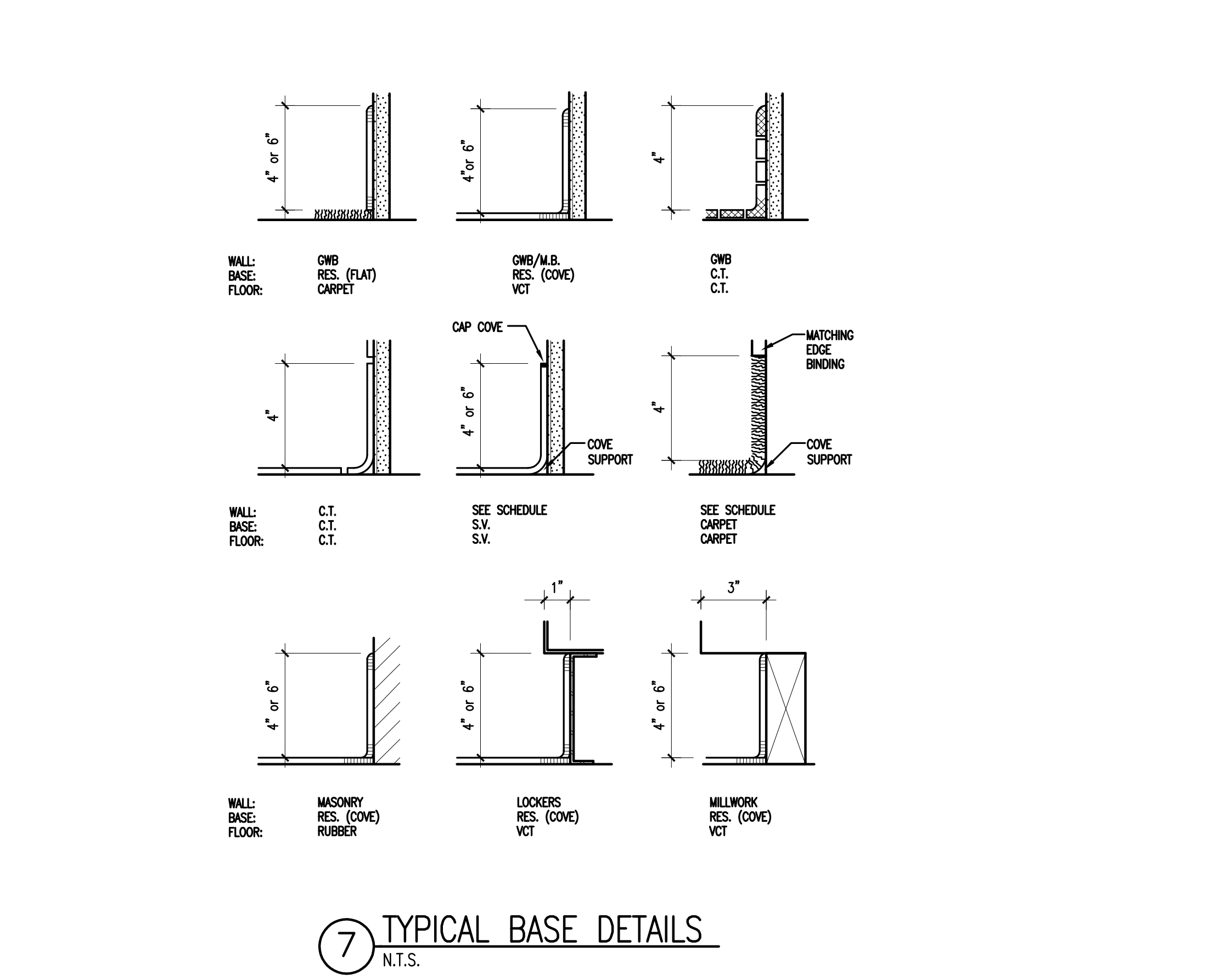
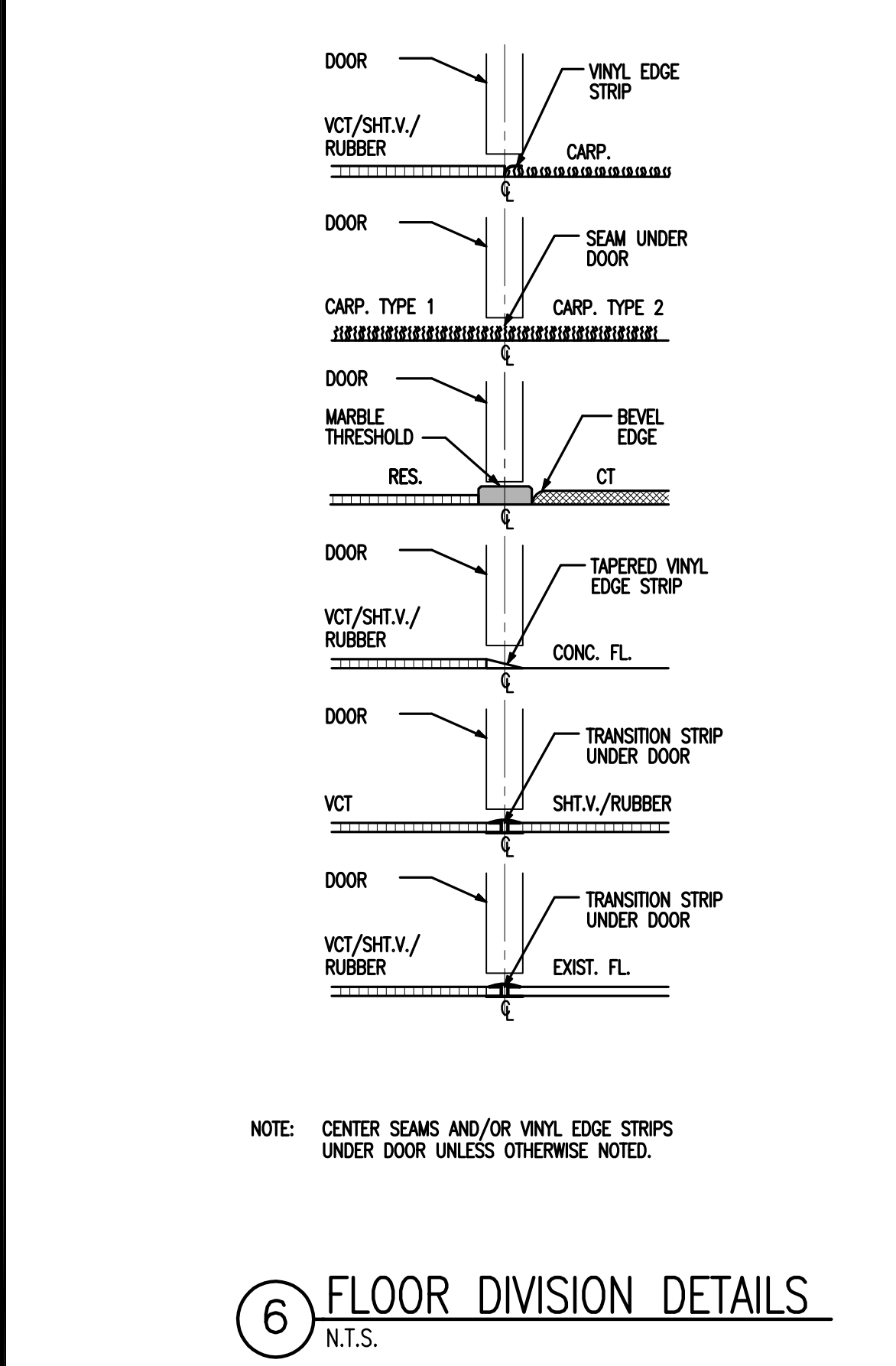
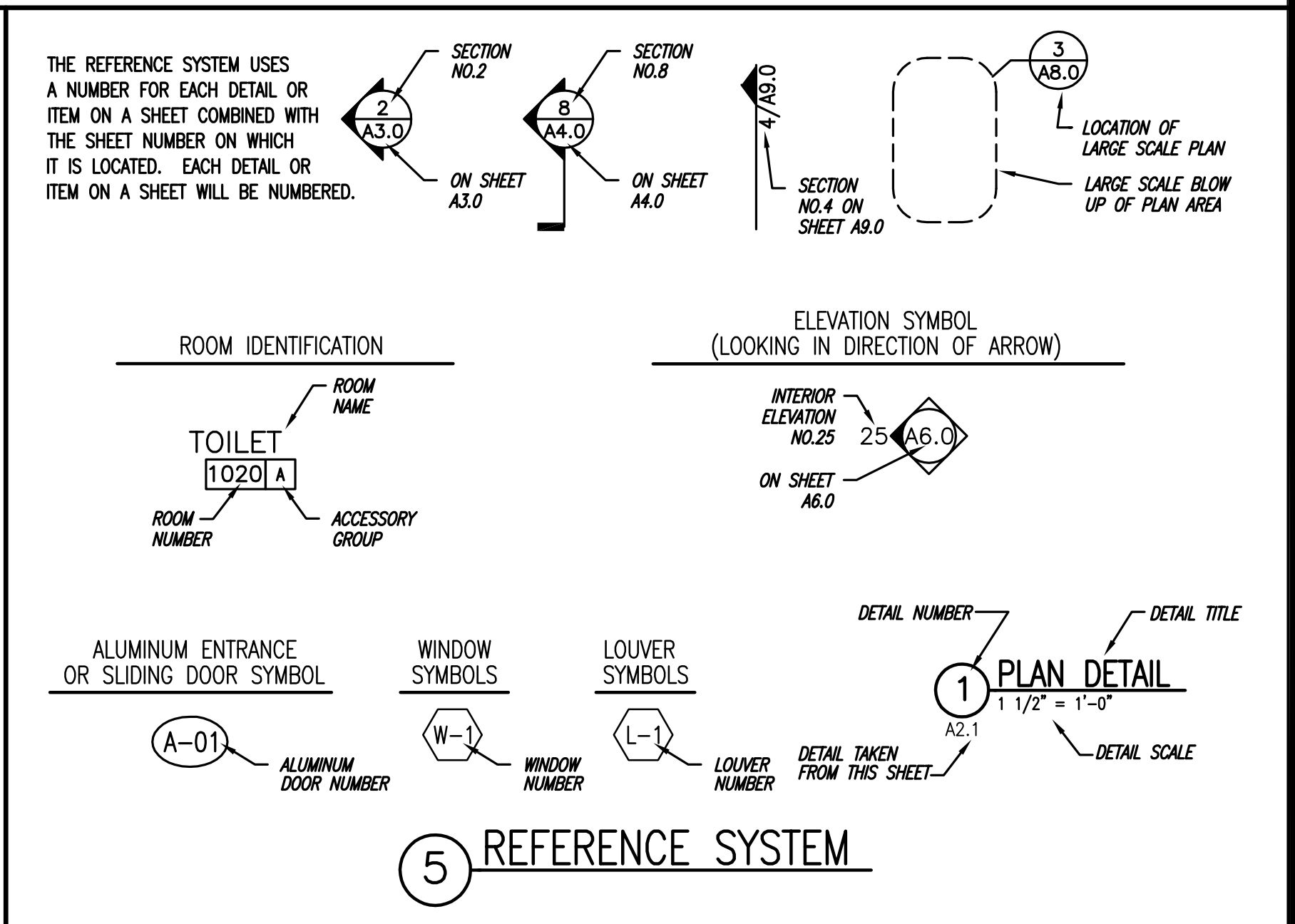
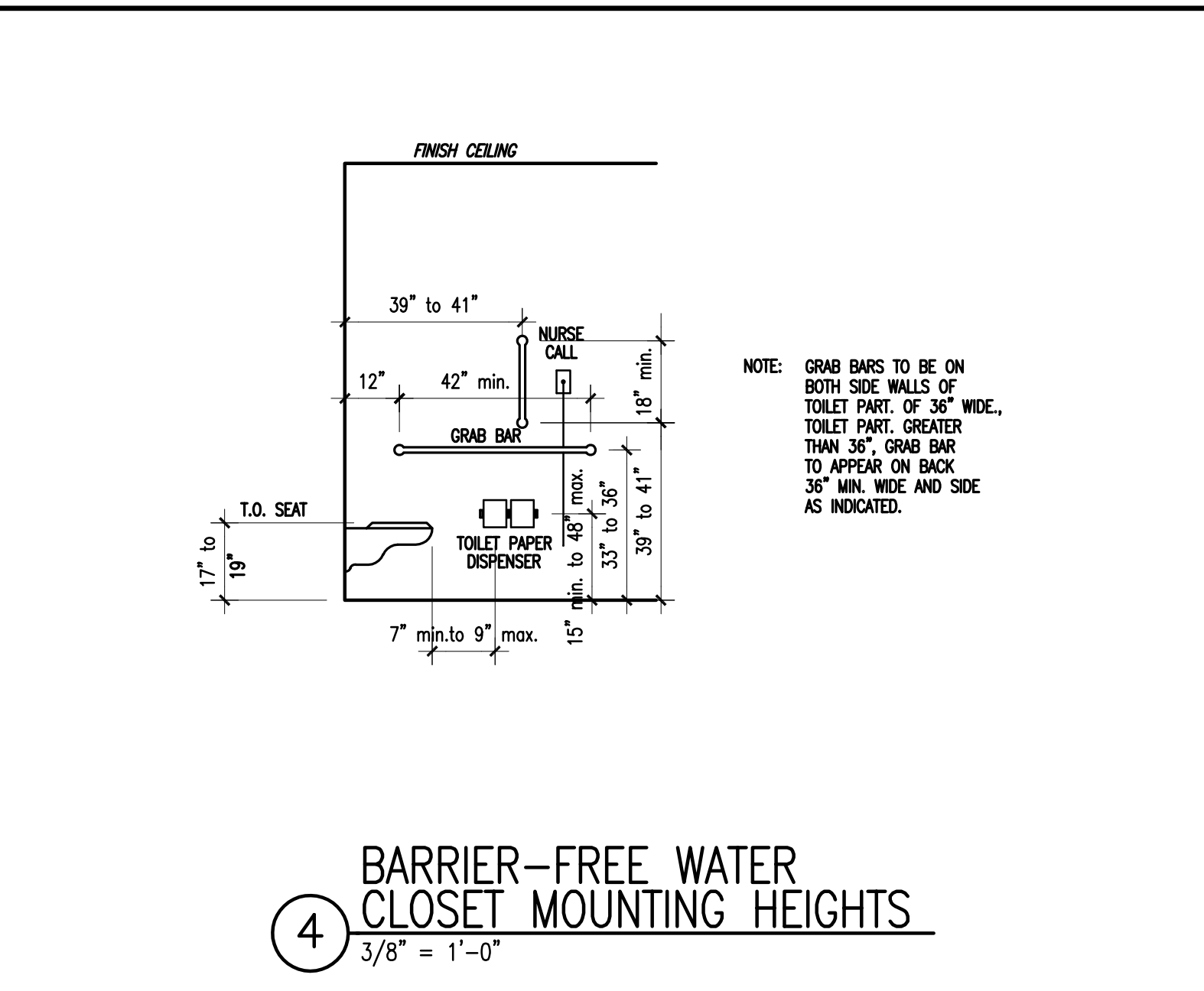
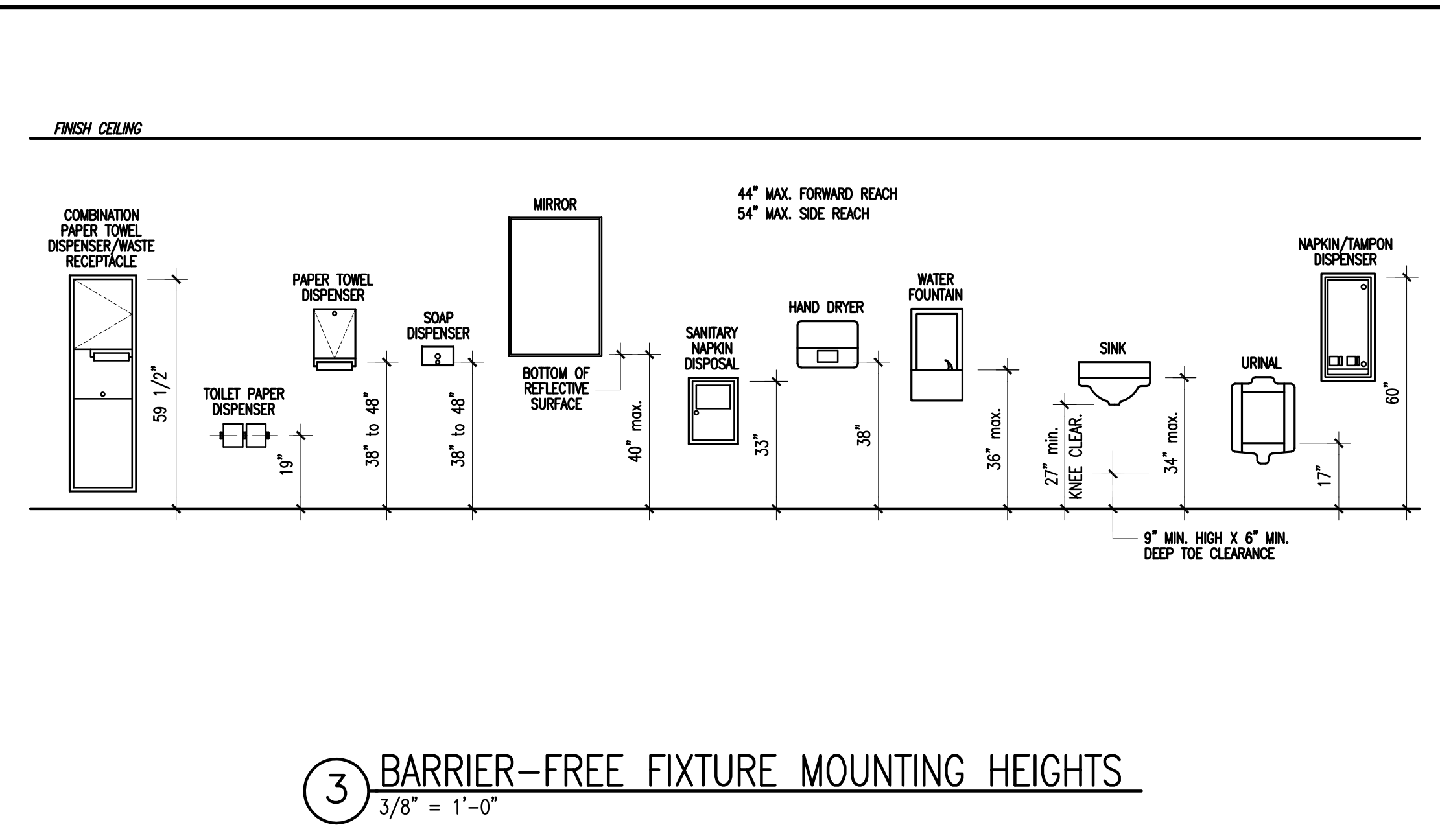
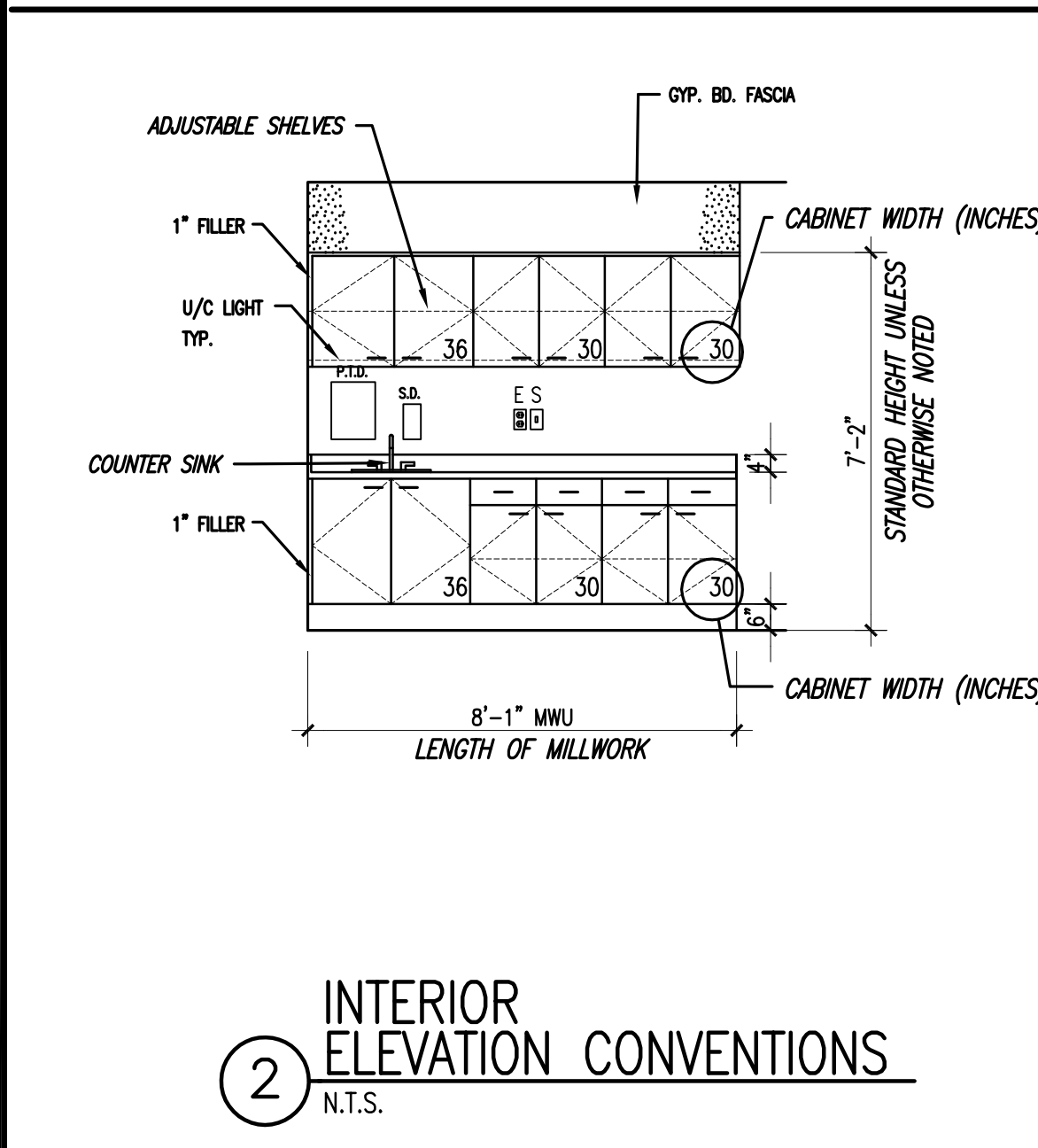
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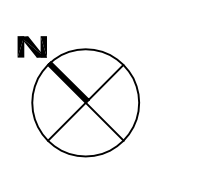
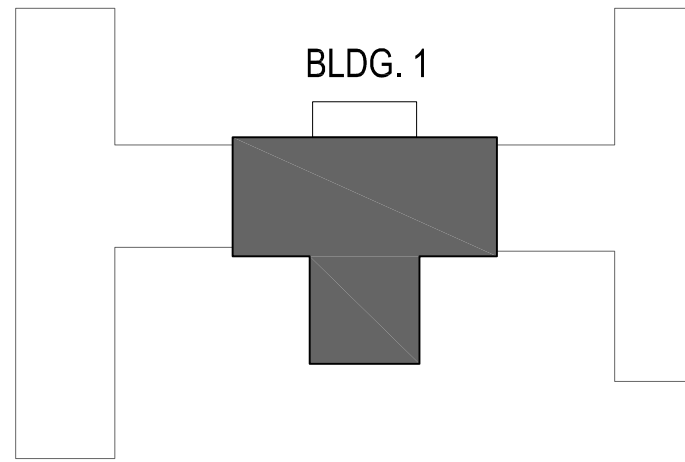
SERIES NUMBERING
A00 SYMBOLS
A01 LIFE SAFETY FLOOR PLANS
A10 DEMOLITION FLOOR PLANS AND/OR DEMOLITION ELEVATIONS AND DETAILS
A20 FLOOR PLANS, ROOF PLANS AND ENLARGED FLOOR PLANS
A30 EXTERIOR ELEVATIONS
A40 BUILDING SECTIONS, EXTERIOR WALL SECTIONS, EXTERIOR PLAN DETAILS, EXTERIOR WINDOWS AND DETAILS
A50 VERTICAL CIRCULATION PLANS (STAIRS, ELEVATORS, ESCALATORS)
A60 INTERIOR ELEVATIONS
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A80 DOOR SCHEDULE, DOOR AND FRAME TYPES, PARTITIONS TYPES, INTERIOR DETAILS
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A120 FURNITURE PLAN DRAWING SERIES

THE ARCHITECTURAL CONSTRUCTION DOCUMENT REFERENCE SYSTEM ABOVE REPRESENTS TYPICAL ARCHITECTURAL DOCUMENT SET LAYOUT. ENTIRE DRAWING SERIES MAY BE OMITTED WHEN NOT APPLICABLE TO THE PROJECT. DRAWING SERIES INFORMATION MAY ALSO BE COMBINED WITH OTHER SERIES INFORMATION WHERE SPACE PERMITS (I.E. A6.0 MAY INCLUDE BOTH INTERIOR ELEVATIONS AND MILLWORK DETAILS).

- ### 1 GENERAL NOTES
- NOTIFY THE ARCHITECT IMMEDIATELY UPON DISCOVERY OF EXISTING CONDITIONS THAT ARE CONTRARY TO THOSE REPRESENTED WITHIN THE DRAWINGS
 - NEW WORK SHALL ALIGN WITH AND MATCH EXISTING WORK EXCEPT WHERE OTHERWISE DIMENSIONED OR DETAILED
 - ALL NEW VERTICAL AND HORIZONTAL DUCTS, PIPES, CONDUITS, ETC. (WHETHER SHOWN OR NOT) IN FINISHED ROOMS OR AREAS THROUGHOUT BUILDING, NOT CONCEALED, SHALL BE FURRED IN, AND FINISHED TO MATCH ROOM FINISH
 - ALL NEW PARTITIONS, UNLESS OTHERWISE SHOWN OR DETAILED, SHALL BE METAL STUDS OF THICKNESS TO ADEQUATELY COVER PIPING, CONDUITS, ETC.
 - PROVIDE AN EDGE STRIP, AS DETAILED, UNDER ALL DOORS WHERE NEW OR EXISTING FINISHES AND ADJACENT FLOOR ARE AT DIFFERENT LEVELS AND WHERE ADJACENT FLOOR FINISHES ARE OF DIFFERENT MATERIALS. SEE DETAIL 6/A1.0.
 - EXISTING DOORS, WHICH SWING INTO ROOMS WHERE NEW FLOOR FINISH IS ABOVE ADJACENT FLOOR, DOOR BOTTOM SHALL BE SEALED AND FINISHED TO MATCH EXISTING FINISH
 - OFFSET ALL DOORS 6" FROM ADJACENT WALLS UNLESS OTHERWISE NOTED
 - NEW TILE FINISHES APPLIED TO EXISTING WALLS AND PARTITIONS SHALL BE APPLIED DIRECTLY TO PLASTER OR GYP. BD. WALLS BY THE SET METHOD. NEW PARTITIONS AND CLOSURES OF OPENINGS IN ROOMS HAVING TILE BASE AND/OR TILE WANSCOT SHALL BE FINISHED WITH TILE TO MATCH EXISTING. WHEN TILE CANNOT BE MATCHED, FURNISH ARCHITECT WITH SAMPLES OF EXISTING TILE TO PERMIT SELECTION OF SUBSTITUTE TILE
 - PROVIDE ACCESS PANELS, 24" X 24", OR OF SIZES REQUIRED, WHERE PLUMBING AND HEATING VALVES, WATER SWITCHES, OXYGEN PRESSURE SWITCHES, VENTILATION SPLITTER DAMPERS, ETC. ARE SHOWN ON PLUMBING, HEATING, AND VENTILATION DRAWINGS. SUCH ACCESS PANELS TO BE INSTALLED IN THE FOLLOWING:
(A) SUSPENDED PLASTER OR GYPSUM WALLBOARD CEILINGS
(B) METAL STUD OR MASONRY PARTITIONS
 - WHEREVER EXISTING EQUIPMENT, PIPING, DUCTS, ETC. ARE REQUIRED TO BE REMOVED, SUCH REMOVAL SHALL INCLUDE ALL ANCHORS, HANGERS, FOUNDATIONS ETC. AFTER REMOVAL, FLOORS, WALLS AND CEILINGS SHALL BE FINISHED TO MATCH ADJACING SURFACES OR AS INDICATED ON ROOM FINISH SCHEDULE
 - WALL ASSEMBLIES SHALL BE MAINTAINED AT ALL RECESSED FIRE EXTINGUISHER CABINETS AND ALL RECESSED EQUIPMENT
 - WHERE PAINT IS CALLED FOR ON WALLS IN RENOVATED ROOMS IN THE EXISTING BUILDING, ALL WALLS ARE TO BE PAINTED
 - WHERE NO PAINT IS INDICATED IN AREAS WHERE PATCHING IS REQUIRED, NEW WORK IS TO BE PAINTED TO MATCH EXISTING ADJOINING SURFACES
 - WHERE THE ROOM FINISH SCHEDULE CALLS FOR A NEW CEILING, THE EXISTING CEILING AND SUSPENSION SYSTEM IS TO BE COMPLETELY REMOVED
 - PROVIDE FIRE EXTINGUISHING CABINETS OF THE TYPE SPECIFIED. REFER TO FLOOR PLANS (A2.0) FOR LOCATIONS
 - WHERE THE ROOM FINISH SCHEDULE FOR EXISTING CONSTRUCTION CALLS FOR A NEW MATERIAL, THE ENTIRE ROOM IS TO RECEIVE THE NEW MATERIAL, WHERE THE ROOM FINISH SCHEDULE CALLS FOR BOTH PATCHING AND A NEW MATERIAL, THE NEW MATERIAL IS LIMITED TO AREAS OF NEW CONSTRUCTION WITHIN THAT ROOM ONLY
 - SUPPLY BLOCKING AT ALL WALL HUNG EQUIPMENT (I.E. GRAB BARS, CASEWORK MEDICAL EQUIPMENT, ETC)
 - WHERE A NEW DOOR, VIEW WINDOW OR OPENING IS CUT THROUGH AN EXISTING MASONRY WALL, PROVIDE A LOOSE LINTEL AS REQUIRED ON THE STRUCTURAL DRAWINGS
 - ALL DIMENSIONS SHOWN IN RENOVATED AREAS ARE TO BE VERIFIED IN THE FIELD BEFORE PROCEEDING WITH WORK
 - IN ALL ROOMS BELOW AREAS WHICH RECEIVE UNDER FLOOR SERVICES, REMOVE A PORTION OF EXISTING CEILING AS REQUIRED. PATCH FINISHES TO MATCH EXISTING OR AS INDICATED ON ROOM FINISH SCHEDULE
 - WHERE THE ROOM FINISH SCHEDULE CALLS FOR A ROOM TO BE PAINTED AND THAT ROOM CONTAINS WALL PAPER AND/OR VINYL CHAIR RAILS, THESE SHALL BE COMPLETELY REMOVED FROM WALLS AND ANY HOLES OR BUMPS SHALL BE FILLED OR SANDED SMOOTH BEFORE APPLYING NEW COAT OF PAINT
 - ALL SHAFT PARTITIONS EXTEND FROM FLOOR SLAB TO UNDERSIDE OF SLAB ABOVE. EXPOSED BEAMS WITHIN SHAFTS ARE TO BE FIREPROOFED WITH 2-HOUR GYP. BD. ENCLOSURE
 - THE FIRE RATINGS OF ALL FIRE RATED WALLS SHALL BE STENCILED ABOVE CEILINGS, EACH SIDE OF WALL, BOTH SIDES OF CORRIDORS AND AS REQ'D BY IBC.



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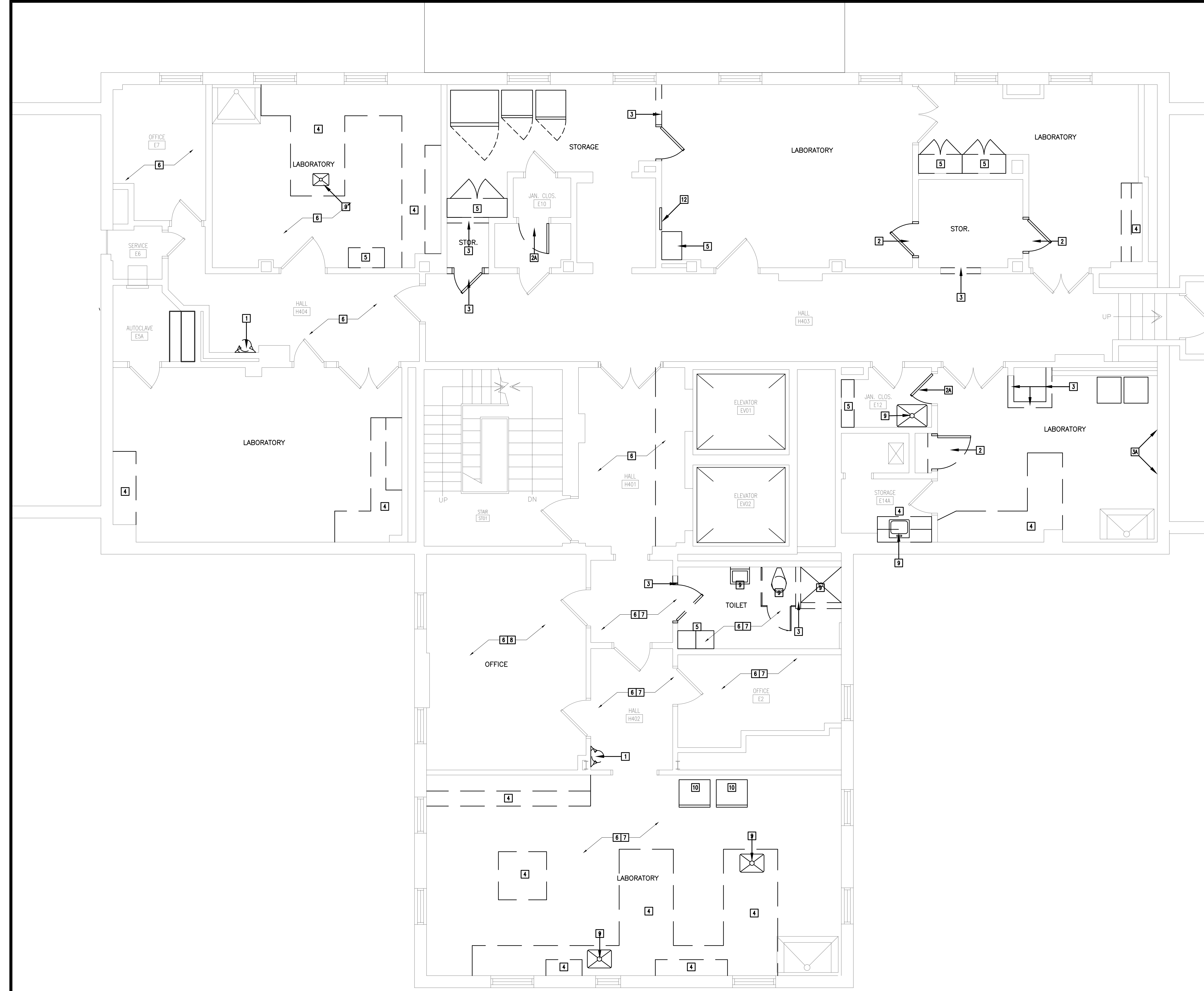
2 GENERAL DEMOLITION NOTES

1. NOTIFY THE ARCHITECT IF DISCREPANCIES ARE DISCOVERED IN THE FIELD BETWEEN WHAT IS EXISTING AND WHAT IS SHOWN ON THE DRAWINGS. DO NOT PROCEED WITH DEMOLITION UNTIL THE DISCREPANCY IS RESOLVED BY THE ARCHITECT.
2. WHERE A WALL IS INDICATED TO BE REMOVED, REMOVE ALL FINISHES, FURRING AND TRIM UNLESS NOTED OTHERWISE.
3. CONTRACTOR SHALL CLOSELY COORDINATE DEMOLITION WITH NEW CONSTRUCTION PLANS.
4. NOT ALL DEMOLITION REQUIRED BY THE INSTALLATION OF NEW MECHANICAL AND ELECTRICAL SYSTEMS IS NECESSARILY INDICATED ON ARCHITECTURAL PLANS. COORDINATE ADDITIONAL DEMOLITION WORK ON MECHANICAL, ELECTRICAL, AND PLUMBING SHEETS.
5. WHENEVER DEMOLITION DAMAGES EXISTING CONSTRUCTION TO REMAIN, THE CONTRACTOR SHALL REPAIR THOSE SURFACES TO THE FINISH AND QUALITY OF ADJACENT SURFACES OR THE ORIGINAL CONDITION.
6. THE CONTRACTOR SHALL TAKE ALL NECESSARY PREVISIONS TO PROTECT THE EXISTING CONSTRUCTION TO REMAIN. CONSTRUCT DUST BARRIERS AS REQUIRED TO PREVENT THE PASSAGE OF DUST INTO OCCUPIED AREAS.
7. PROTECT EXISTING FIREPROOFING DURING DEMOLITION AND RENOVATION WORK. REPAIR ANY DAMAGED FIREPROOFING WITH LIKE MATERIAL MATCHING REQUIRED FIRE RATINGS, U.L. APPROVED.

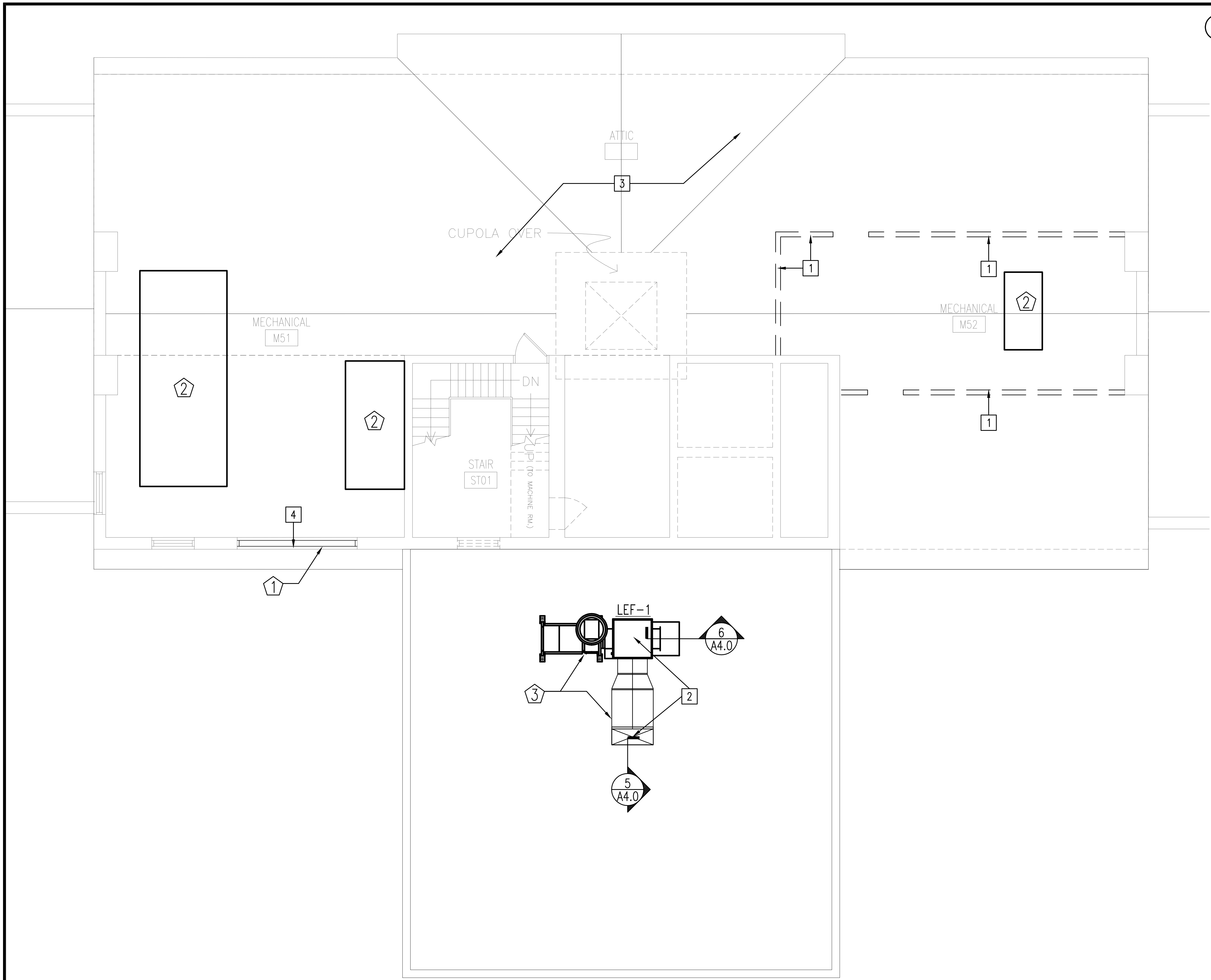
3 KEYED DEMOLITION NOTES

1. REMOVE EXISTING EMERGENCY EYE WASH AND SHOWERS COMPLETE. SEAL ALL FLOOR PENETRATIONS WITH CONCRETE FOR A 1 HOUR FIRE RATING, SIMILAR TO DETAIL X/A4.0.
2. REMOVE EXISTING DOOR, FRAME AND HARDWARE COMPLETE. SALVAGE FOR REUSE IN THIS PROJECT.
- 2A. REMOVE EXISTING DOOR AND HARDWARE, FRAME TO REMAIN, SEAL ALL HOLES AFTER REMOVAL OF HARDWARE.
3. REMOVE EXISTING WALL COMPLETE, INCLUSIVE OF DOORS AND FRAMES, WHERE APPLICABLE.
- 3A. REMOVE AND SALVAGE EXISTING MARBLE WAINSCOT AS NEEDED FOR NEW PATCHES. REFER TO A4.2 FOR SCOPE.
4. REMOVE EXISTING CASEWORK AND ALL WALL MOUNTED ITEMS COMPLETELY INCLUDING MOUNTING BRACKETS, ALL ASSOCIATED PLUMBING FIXTURES, HARDWARE, AND LAB RACKS. SALVAGE AND TURN OVER TO OWNER.
5. REMOVE EXISTING METAL CABINET(S) INCLUSIVE OF ALL MOUNTING HARDWARE AND WALL ATTACHMENTS. SALVAGE AND TURN OVER TO OWNER.
6. REMOVE EXISTING SUSPENDED CEILING TILE AND GRID OR HARD CEILINGS. REFER TO MECHANICAL AND ELECTRICAL PLANS FOR EXISTING CEILING SUPPORTED DEVICES.
7. REMOVE EXISTING SHEET FLOORING AND ACCESSORIES COMPLETE INCLUDING ADHESIVES AND RUBBER/VINYL BASE. PREPARE SUBSTRATE FOR INSTALLATION OF NEW FLOOR COVERING AS SCHEDULED. COORDINATE REMOVAL WITH ABATEMENT ACTIVITIES BY OTHERS.
8. REMOVE EXISTING CARPET FLOOR COVERING AND ACCESSORIES COMPLETE INCLUDING ADHESIVES AND RUBBER/VINYL BASE. PREPARE SUBSTRATE FOR INSTALLATION OF NEW FLOOR COVERING AS SCHEDULED.
9. REMOVE PLUMBING, HVAC OR ELECTRICAL DEVICE OR ELEMENT. REFER TO PLUMBING, MECHANICAL AND ELECTRICAL PLANS. SEAL ALL FLOOR PENETRATIONS PER DETAIL X/A4.0.
10. REMOVE EXISTING EQUIPMENT.
11. REMOVE EXISTING CEILING TILE AND GRID ON 3RD FLOOR AS REQUIRED TO REMOVE EXISTING PLUMBING AND ELECTRICAL FEEDS SERVING 4TH FLOOR. SALVAGE TILE AND GRID FOR RE-INSTALLATION. COORDINATE ACTUAL EXTENTS WITH EXISTING CONDITIONS.
12. REMOVE EXISTING FILM ILLUMINATOR AND FILL WALL OPENING. SALVAGE AND TURN OVER TO OWNER.

----- DASHED LINES INDICATE WALLS, OMBMETRY, PLUMBING AND EQUIPMENT TO BE DEMOLISHED.



1 PARTIAL FOURTH FLOOR DEMOLITION PLAN
1/4" = 1'-0"



1 ATTIC FLOOR DEMOLITION AND RENOVATION PLAN
1/4" = 1'-0"

2 GENERAL DEMOLITION NOTES

1. NOTIFY THE ARCHITECT IF DISCREPANCIES ARE DISCOVERED IN THE FIELD BETWEEN WHAT IS EXISTING AND WHAT IS SHOWN ON THE DRAWINGS. DO NOT PROCEED WITH DEMOLITION UNTIL THE DISCREPANCY IS RESOLVED BY THE ARCHITECT.
2. WHERE A WALL IS INDICATED TO BE REMOVED, REMOVE ALL FINISHES, FURRING AND TRIM UNLESS NOTED OTHERWISE.
3. CONTRACTOR SHALL CLOSELY COORDINATE DEMOLITION WITH NEW CONSTRUCTION PLANS.
4. NOT ALL DEMOLITION REQUIRED BY THE INSTALLATION OF NEW MECHANICAL AND ELECTRICAL SYSTEMS IS NECESSARILY INDICATED ON ARCHITECTURAL PLANS. COORDINATE ADDITIONAL DEMOLITION WORK ON MECHANICAL, ELECTRICAL, AND PLUMBING SHEETS.
5. WHEREVER DEMOLITION DAMAGES EXISTING CONSTRUCTION TO REMAIN, THE CONTRACTOR SHALL REPAIR THOSE SURFACES TO THE FINISH AND QUALITY OF ADJACENT SURFACES OR THE ORIGINAL CONDITION.
6. THE CONTRACTOR SHALL TAKE ALL NECESSARY PROVISIONS TO PROTECT THE EXISTING CONSTRUCTION TO REMAIN. CONSTRUCT DUST BARRIERS AS REQUIRED TO PREVENT THE PASSAGE OF DUST INTO OCCUPIED AREAS.
7. PROTECT EXISTING FIREPROOFING DURING DEMOLITION AND RENOVATION WORK. REPAIR ANY DAMAGED FIREPROOFING WITH LIKE MATERIAL MATCHING REQUIRED FIRE RATING, U.L. APPROVED.

3 KEYED DEMOLITION NOTES

- 1 REMOVE EXISTING WALL COMPLETE, INCLUSIVE OF DOORS AND FRAMES, WHERE APPLICABLE.
- 2 REMOVE ROOFING, INSULATION AND CUT EXISTING ROOF STRUCTURE FOR NEW EXHAUST FAN AND CURB. REFER TO MECHANICAL DRAWINGS.
- 3 REMOVE EXISTING MECHANICAL EQUIPMENT, DUCTWORK, ETC. REFER TO MECHANICAL DRAWINGS.
- 4 REMOVE EXISTING LOUVER, LINTEL AND MASONRY. SALVAGE EXISTING BRICK FOR REUSE TO PATCH NEW OPENING.

4 KEYED RENOVATION NOTES

- 1 NEW ALUMINUM LOUVER W/ BIRDSCREEN, WIDTH TO MATCH EXISTING OPENING AND HEIGHT AS REQUIRED FOR 46 S.F. GROSS LOUVER AREA. INSTALL NEW LINTEL, FLASHING AND PATCH MASONRY OPENING W/ SALVAGED BRICK.
- 2 NEW 4" HIGH CONCRETE HOUSEKEEPING PAD. COORDINATE SIZE WITH SELECTED MECHANICAL EQUIPMENT.
- 3 NEW EXHAUST FAN AND DUCTWORK. SEE MECHANICAL.

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project name
USC SOM - BLDG #1
4TH FLOOR ANIMAL SURGERY LAB
H27-1901

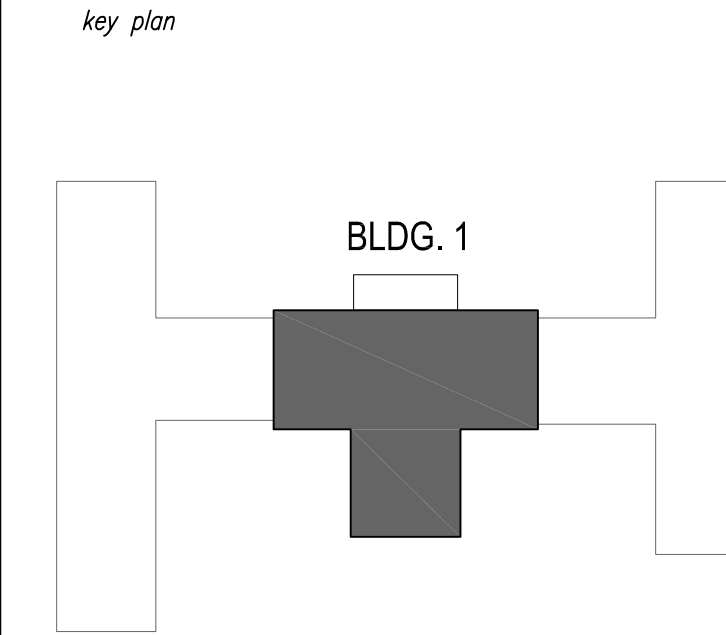
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13030.01

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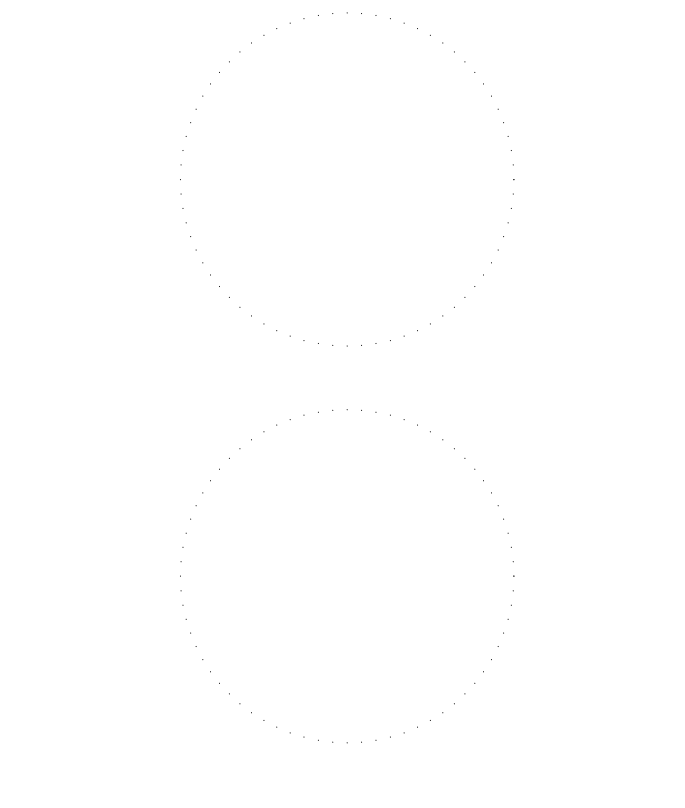
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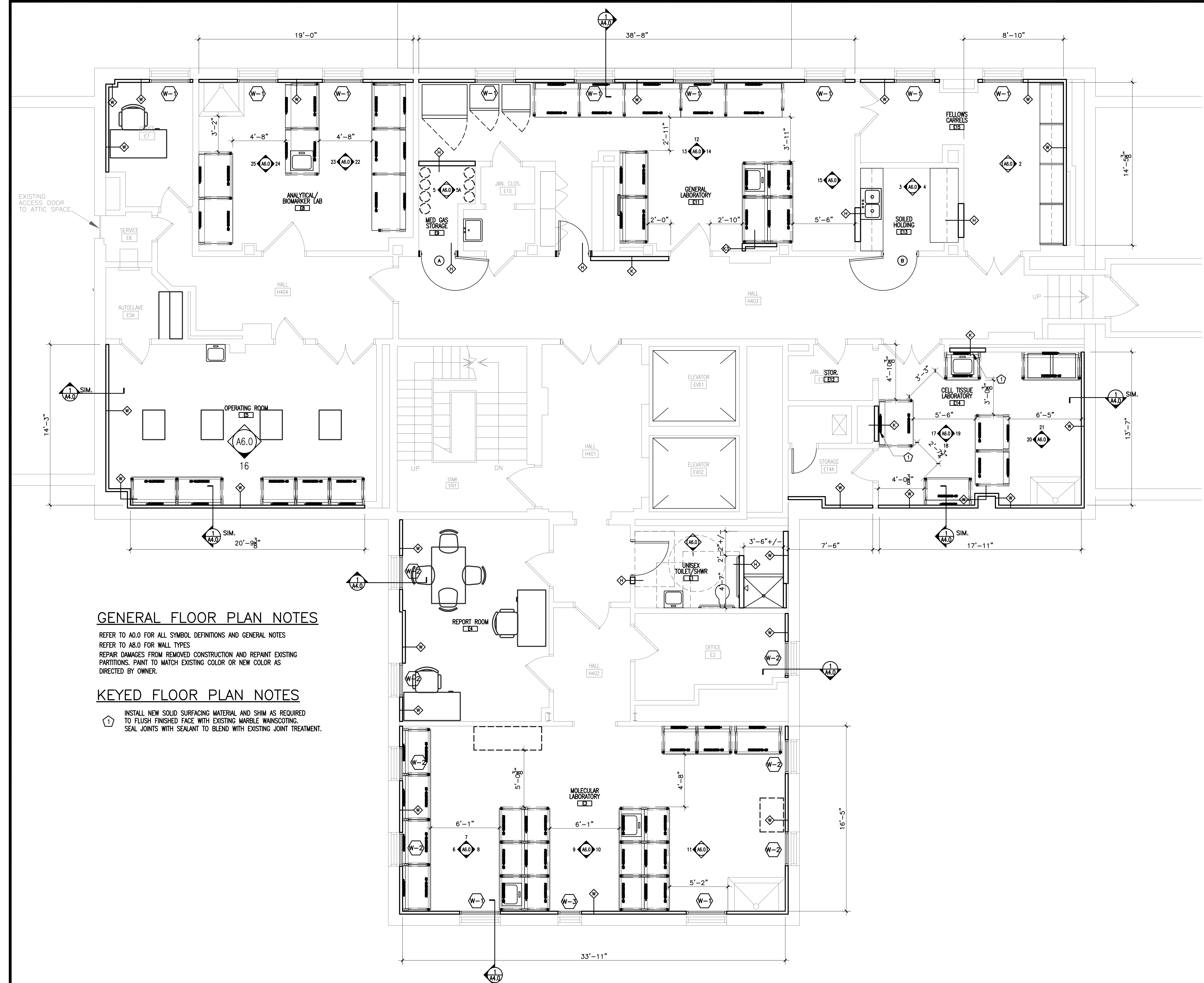
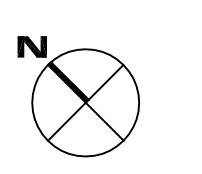
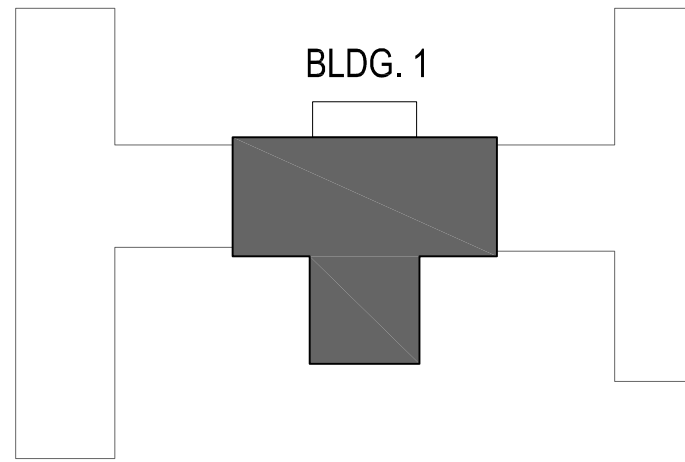
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PARTIAL ATTIC FLOOR DEMOLITION AND RENOVATION PLAN
DEMOLITION AND RENOVATION NOTES

sheet number
A1.5

drawn by RTG
checked by BLEK



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GENERAL FLOOR PLAN NOTES

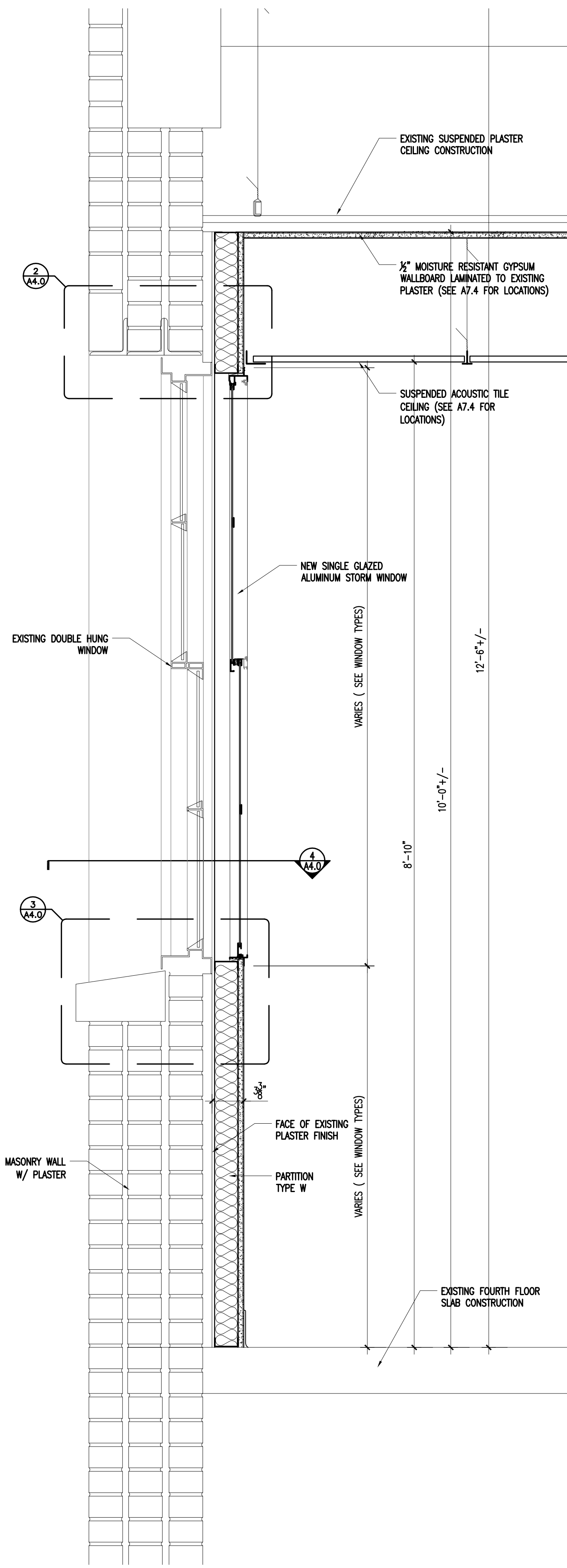
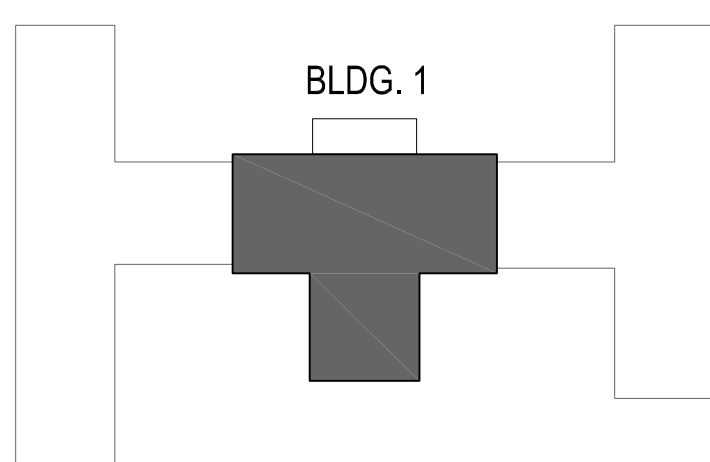
REFER TO A6.0 FOR ALL SYMBOL DEFINITIONS AND GENERAL NOTES
REFER TO A6.0 FOR WALL TYPES
REPAIR DAMAGES FROM REMOVED CONSTRUCTION AND REPAIR EXISTING PARTITIONS. PAINT TO MATCH EXISTING COLOR OR NEW COLOR AS DIRECTED BY OWNER.

KEYED FLOOR PLAN NOTES

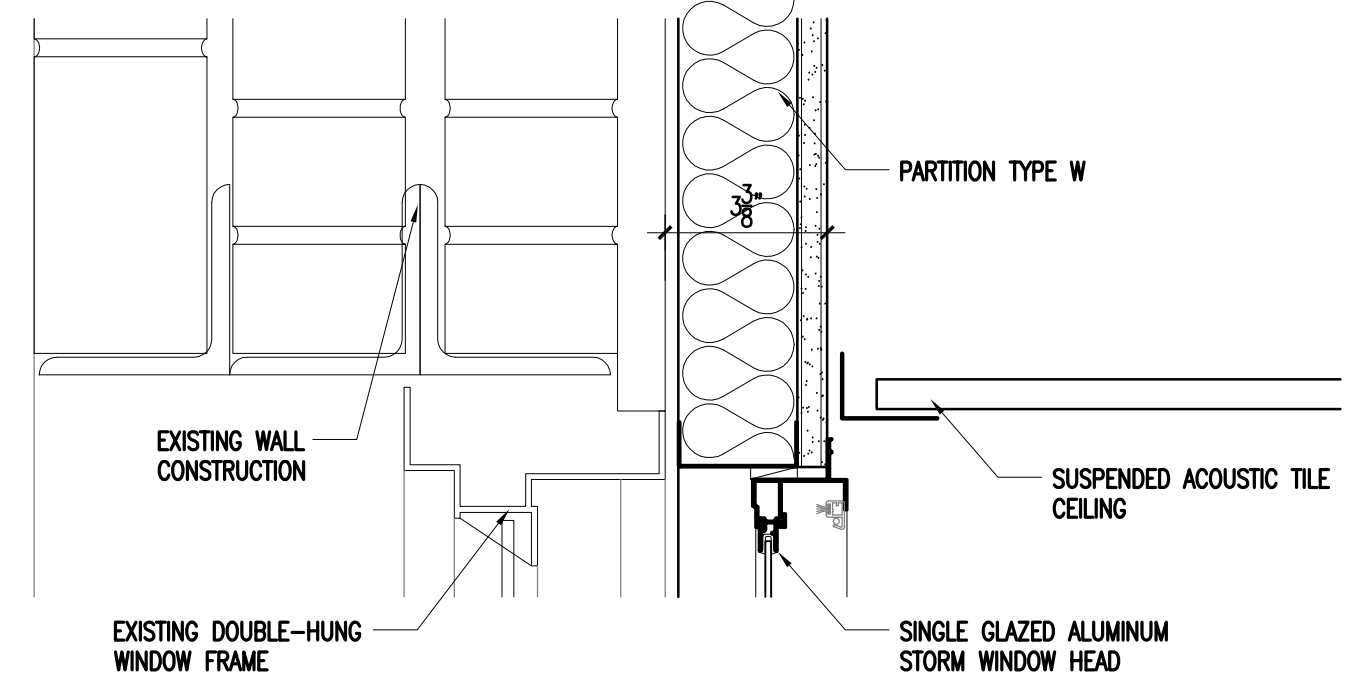
◊ INSTALL NEW SOLID SURFACING MATERIAL AND SHM AS REQUIRED TO FLUSH FINISHED FACE WITH EXISTING MARBLE MANSICOTING. SEAL JOINTS WITH SEALANT TO BLEND WITH EXISTING JOINT TREATMENT.

1 PARTIAL FOURTH FLOOR RENOVATION PLAN
1/4" = 1'-0"

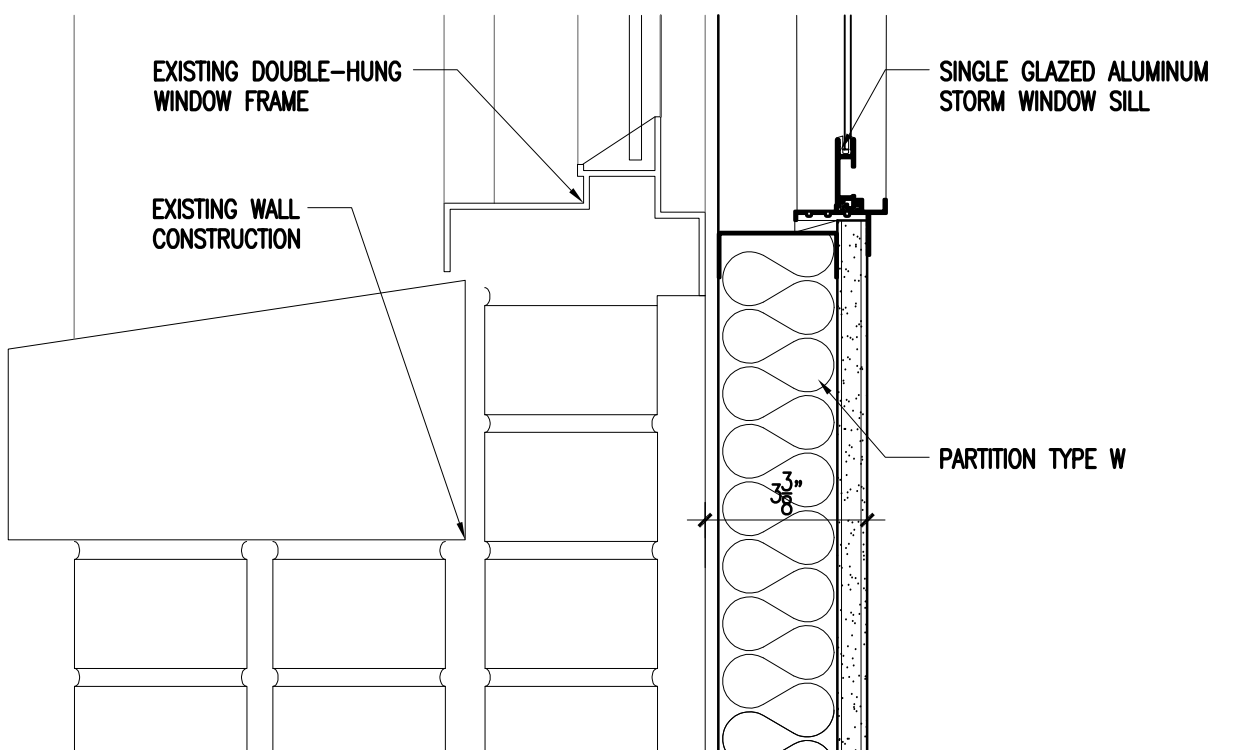
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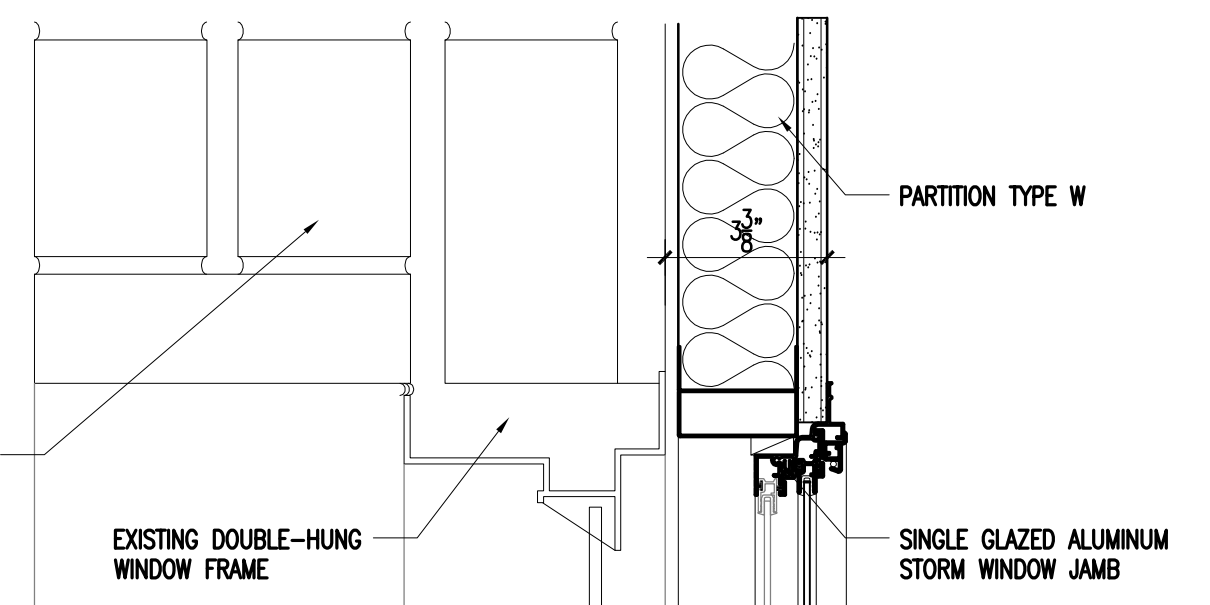
1 TYPICAL WALL SECTION AT WINDOW
1 1/2" = 1'-0"



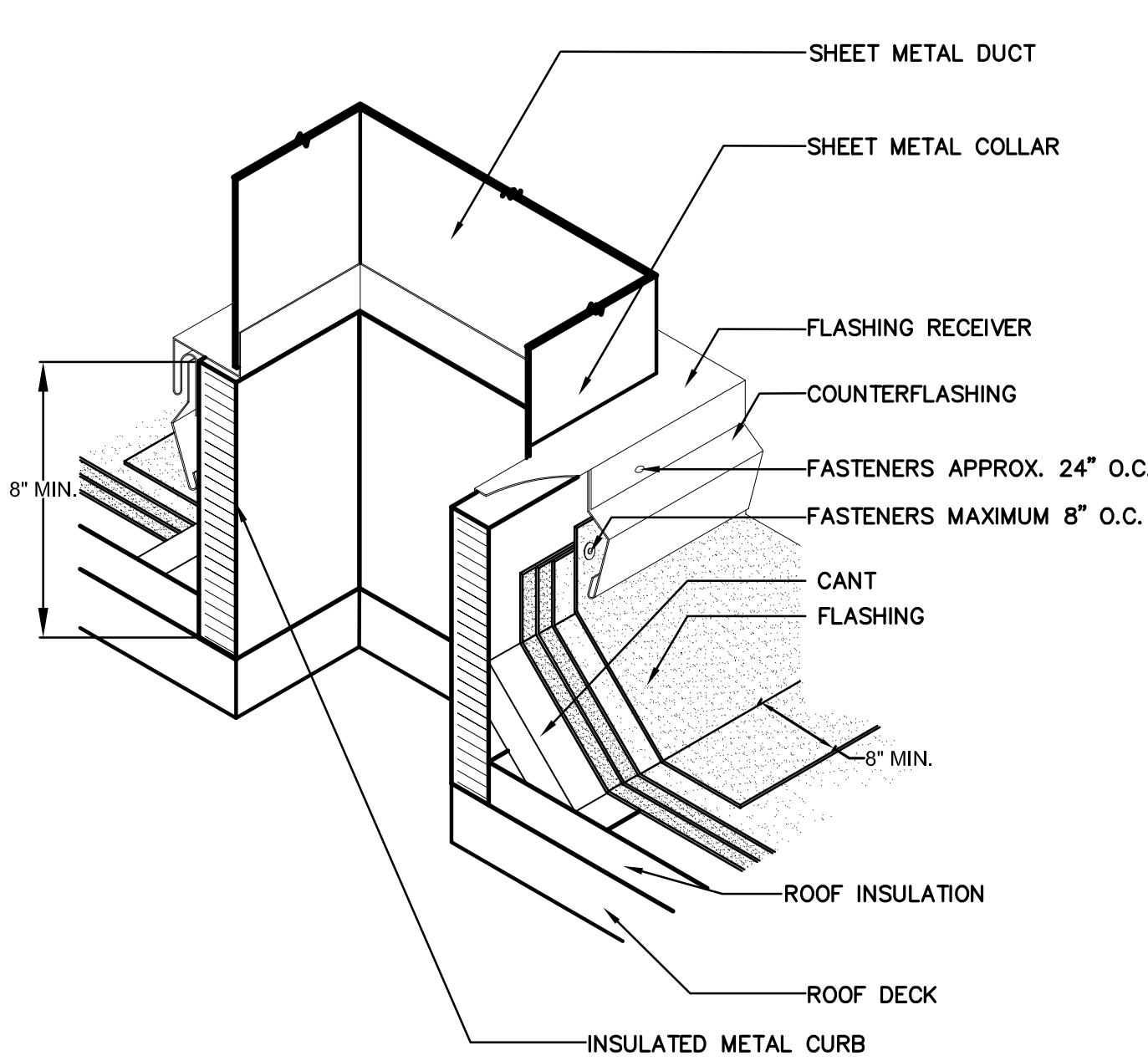
2 TYPICAL HEAD DETAIL
3" = 1'-0"



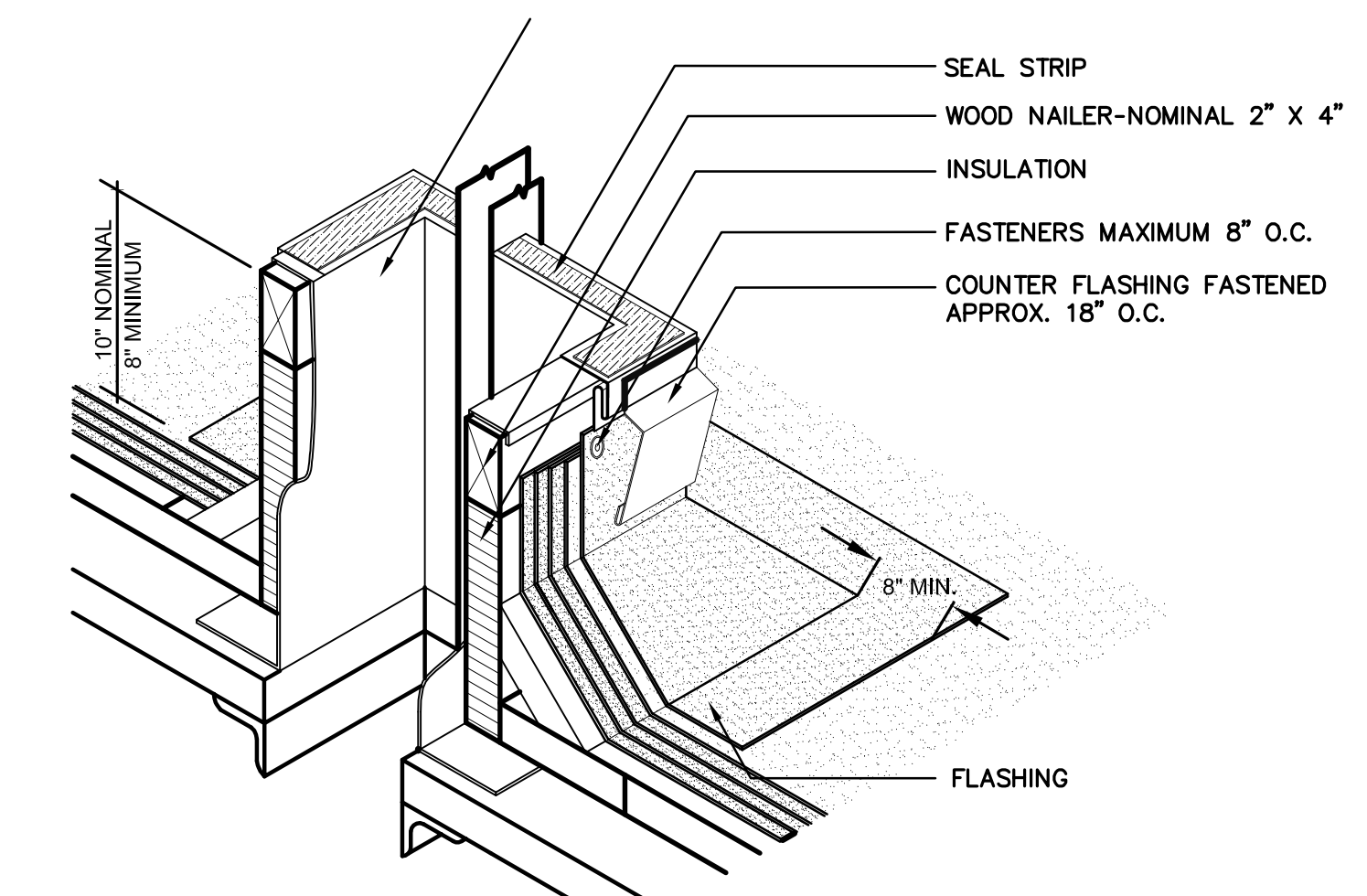
3 TYPICAL SILL DETAIL
3" = 1'-0"



4 TYPICAL JAMB DETAIL
3" = 1'-0"

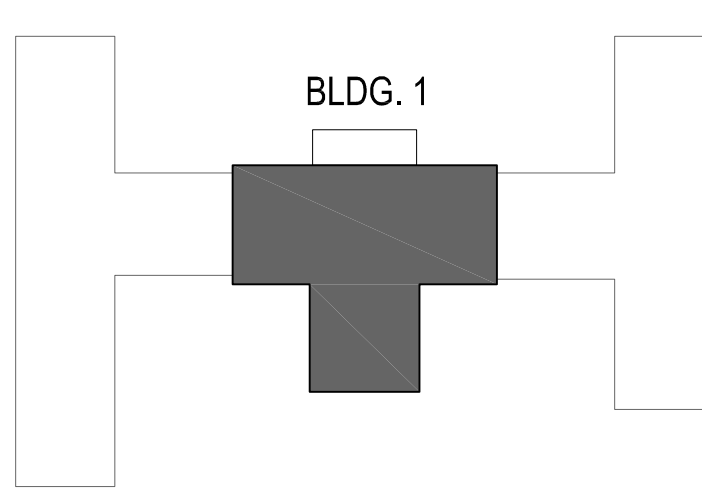


5 SQUARE DUCT PENETRATION DETAIL
NOT TO SCALE



6 ROOF EQUIPMENT CURB DETAIL
NOT TO SCALE

number	item	date



1 TOILET E1
1/4"=1'-0"
REFER TO SHEET A0.0 FOR ADA/ANSI MOUNTING HEIGHTS

2 FELLOWS CARRELS E14
1/4"=1'-0"

3 SOILED HOLDING E13
1/4"=1'-0"

4 SOILED HOLDING E13
1/4"=1'-0"

5 MED GAS STORAGE E9
1/4"=1'-0"

5A MED GAS STORAGE E9
1/4"=1'-0"

6 MOLECULAR LABORATORY E3
1/4"=1'-0"

7 MOLECULAR LABORATORY E3
1/4"=1'-0"

8 MOLECULAR LAB E3
1/4"=1'-0"

9 MOLECULAR LAB E3
1/4"=1'-0"

10 MOLECULAR LAB E3
1/4"=1'-0"

11 MOLECULAR LAB E3
1/4"=1'-0"

12 GENERAL LABORATORY E11
1/4"=1'-0"

13 GENERAL LAB E11
1/4"=1'-0"

14 GENERAL LAB E11
1/4"=1'-0"

15 GENERAL LAB E11
1/4"=1'-0"

16 OPERATING ROOM E5
1/4"=1'-0"

17 CELL TISSUE LAB E14
1/4"=1'-0"

18 CELL TISSUE LAB E14
1/4"=1'-0"

19 CELL TISSUE LAB E14
1/4"=1'-0"

20 CELL TISSUE LAB E14
1/4"=1'-0"

21 CELL TISSUE LAB E14
1/4"=1'-0"

22 ANALYTICAL LAB E8
1/4"=1'-0"

23 ANALYTICAL LAB E8
1/4"=1'-0"

24 ANALYTICAL LAB E8
1/4"=1'-0"

25 ANALYTICAL LAB E8
1/4"=1'-0"

26 MILLWORK DETAIL
1 1/2"=1'-0"

27 MILLWORK DETAIL
1 1/2"=1'-0"

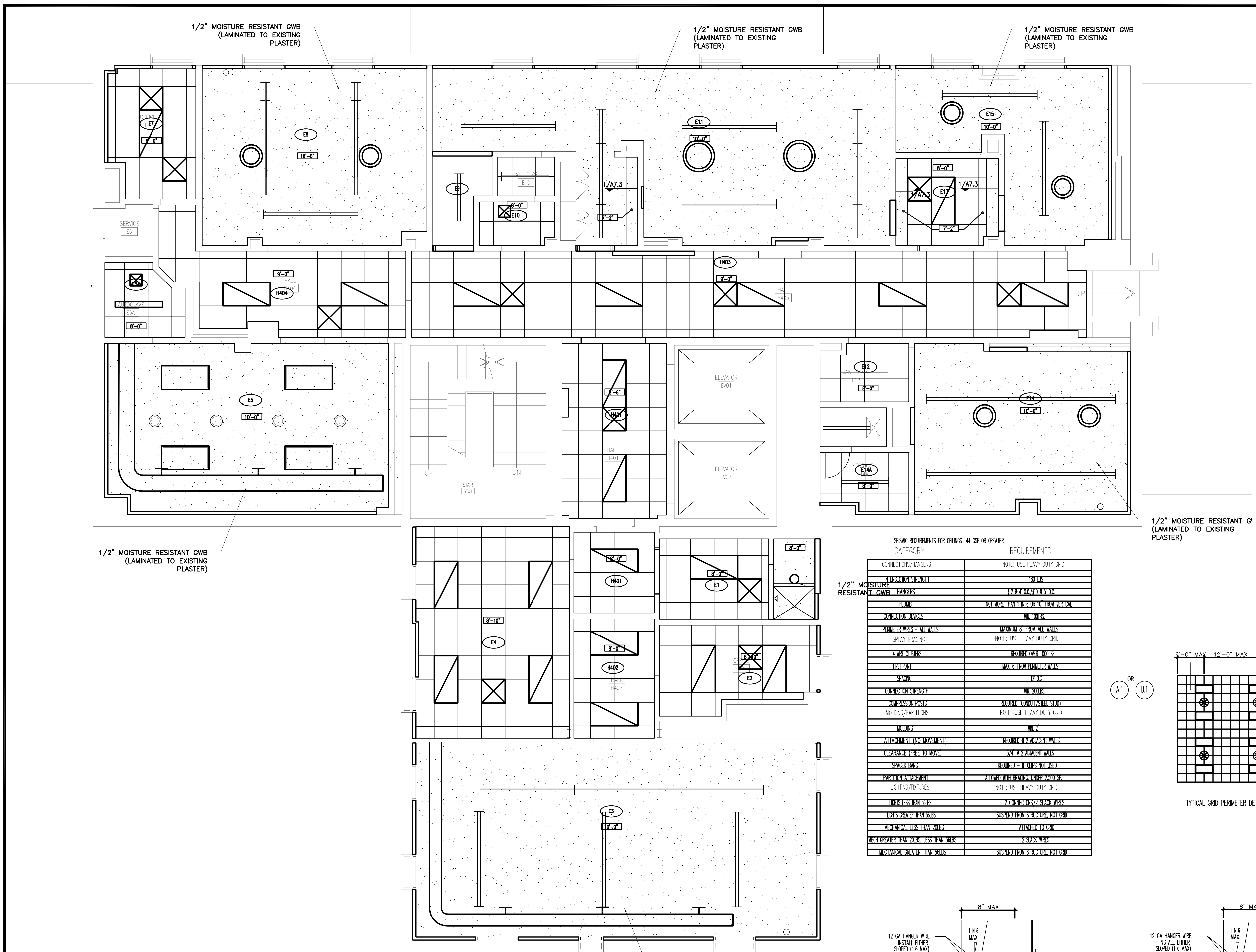
28 MILLWORK DETAIL
1 1/2"=1'-0"

29 MILLWORK DETAIL
1 1/2"=1'-0"

GENERAL NOTES FOR ALL MILLWORK

- UNLESS OTHERWISE NOTED ON DETAILS, TYPICAL DRAWER CONSTRUCTION IS TO BE AS FOLLOWS:
3/4" PARTICLE BOARD FRONT
1/2" PLYWOOD SIDES AND BACK
1/4" PLYWOOD BOTTOM
- UNLESS OTHERWISE NOTED ON DETAILS, ALL DOOR FRONTS ARE TO BE 3/4" PARTICLE BOARD CONSTRUCTION.
- UNLESS OTHERWISE NOTED ON DETAILS, ALL MILLWORK TO BE 3/4" PLYWOOD CONSTRUCTION.
- WHERE ELECTRICAL RECEPTACLES OCCUR UNDER COUNTERTOPS PROVIDE CORD SLOTS W/ GROMMETS IN COUNTERTOP.
- UNLESS OTHERWISE NOTED, ALL EXPOSED SURFACES TO RECEIVE PLASTIC LAMINATE FINISH.
- REFER TO INTERIOR ELEVATIONS FOR LOCATIONS OF U/C LIGHT FIXTURES.

ALL MILLWORK, UNLESS SPECIFICALLY DETAILED, IS TO BE MODULAR LABORATORY CASEWORK WITH PHENOLIC COUNTERTOP AND BACKSPASH



1/2" MOISTURE RESISTANT GWB (LAMINATED TO EXISTING PLASTER)

1/2" MOISTURE RESISTANT GWB (LAMINATED TO EXISTING PLASTER)

1/2" MOISTURE RESISTANT GWB (LAMINATED TO EXISTING PLASTER)

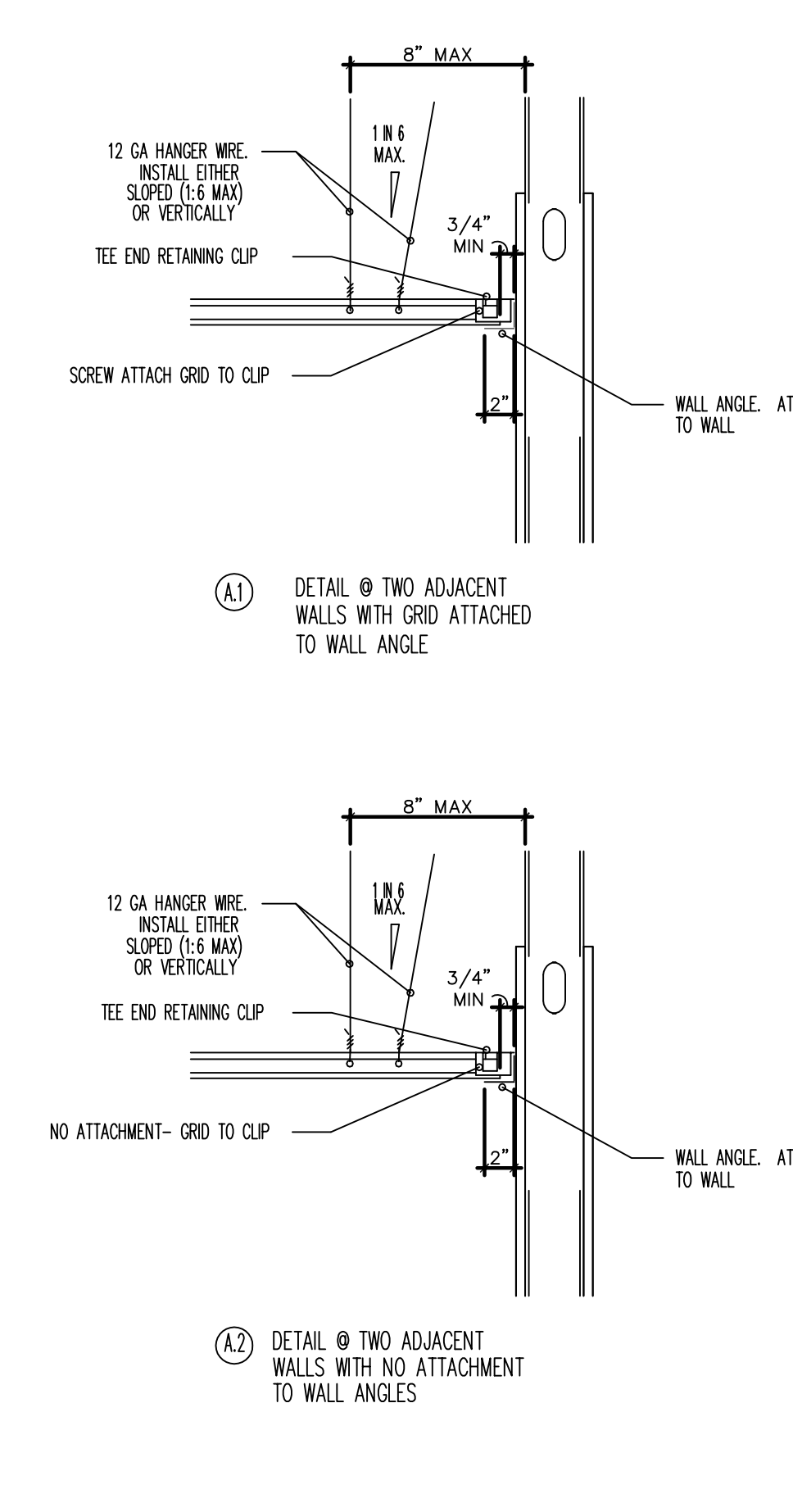
1/2" MOISTURE RESISTANT GWB (LAMINATED TO EXISTING PLASTER)

1/2" MOISTURE RESISTANT GWB (LAMINATED TO EXISTING PLASTER)

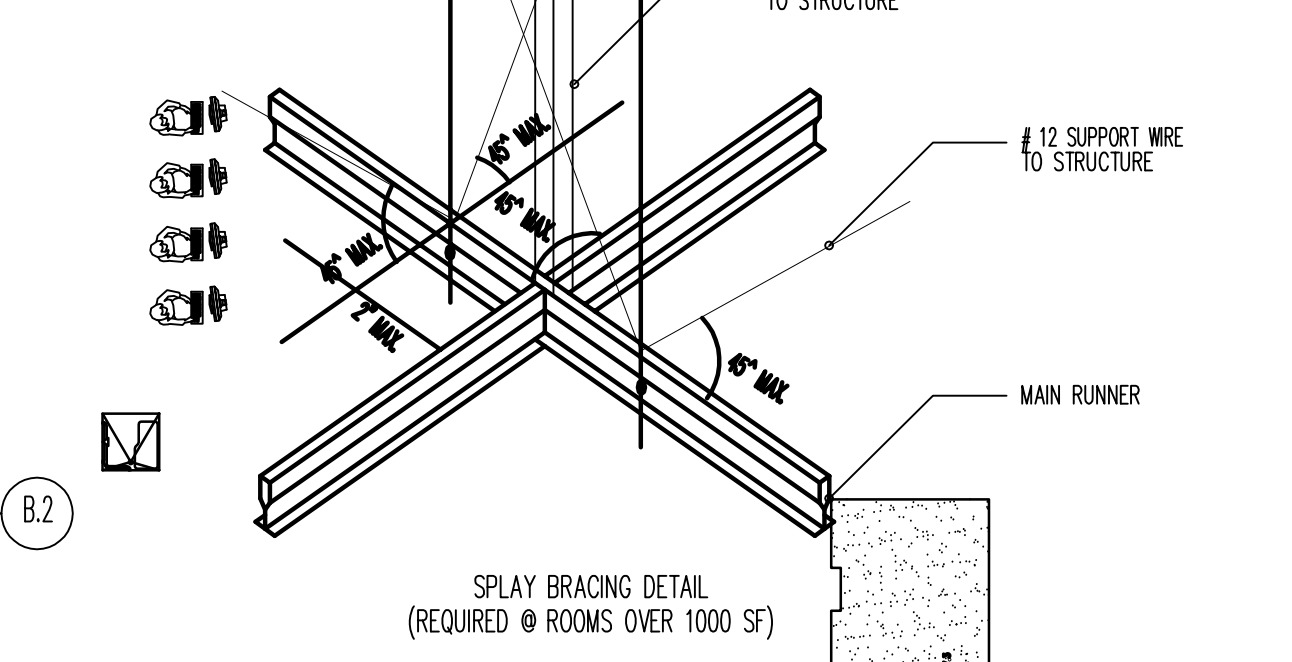
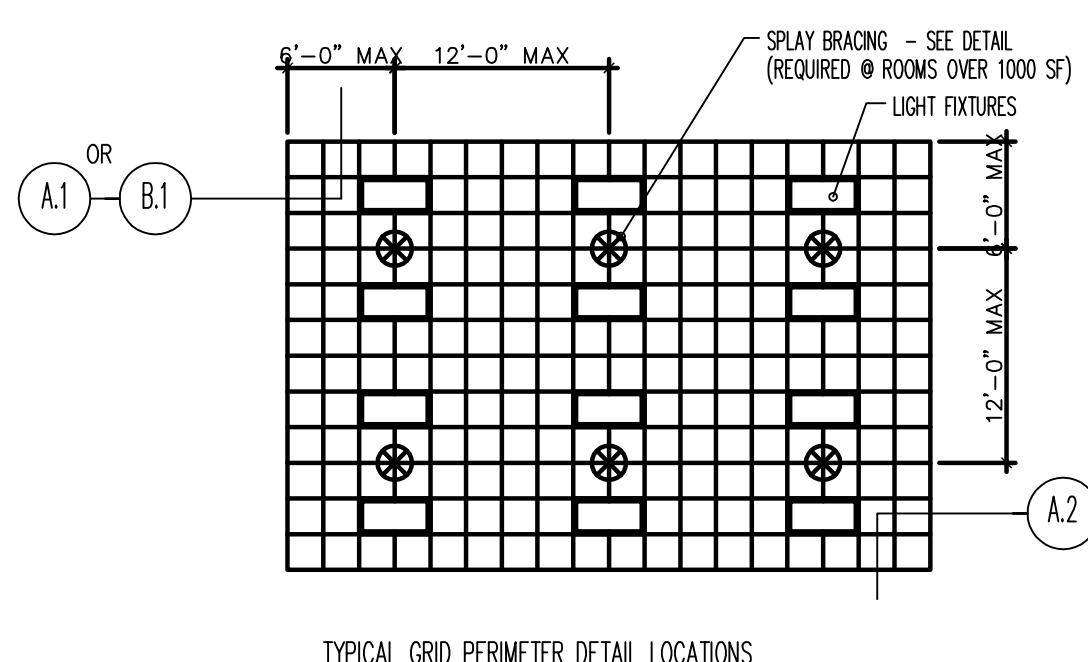
1/2" MOISTURE RESISTANT GWB (LAMINATED TO EXISTING PLASTER)

1 PARTIAL FOURTH FLOOR REFLECTED CEILING PLAN
1/4" = 1'-0"

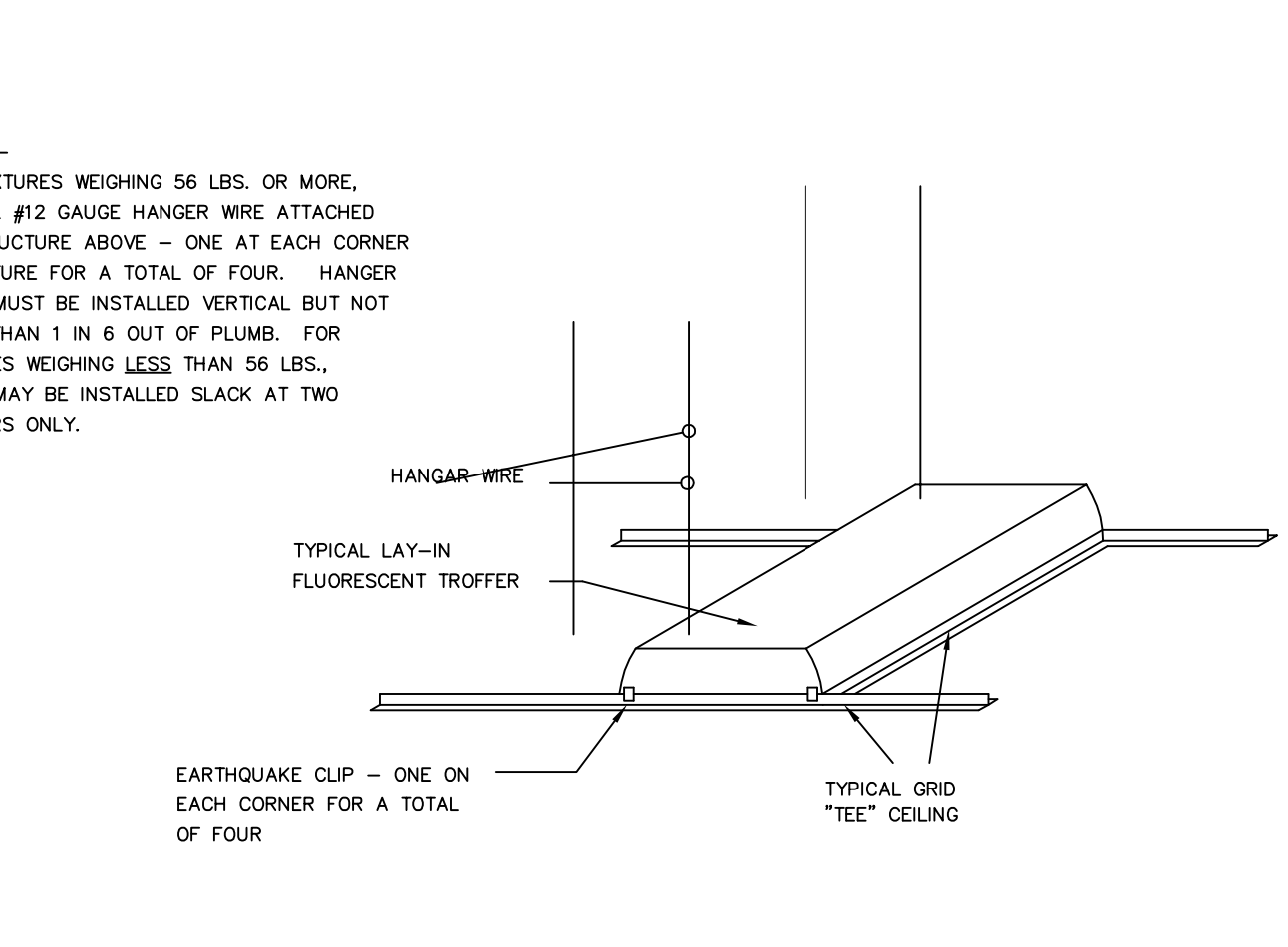
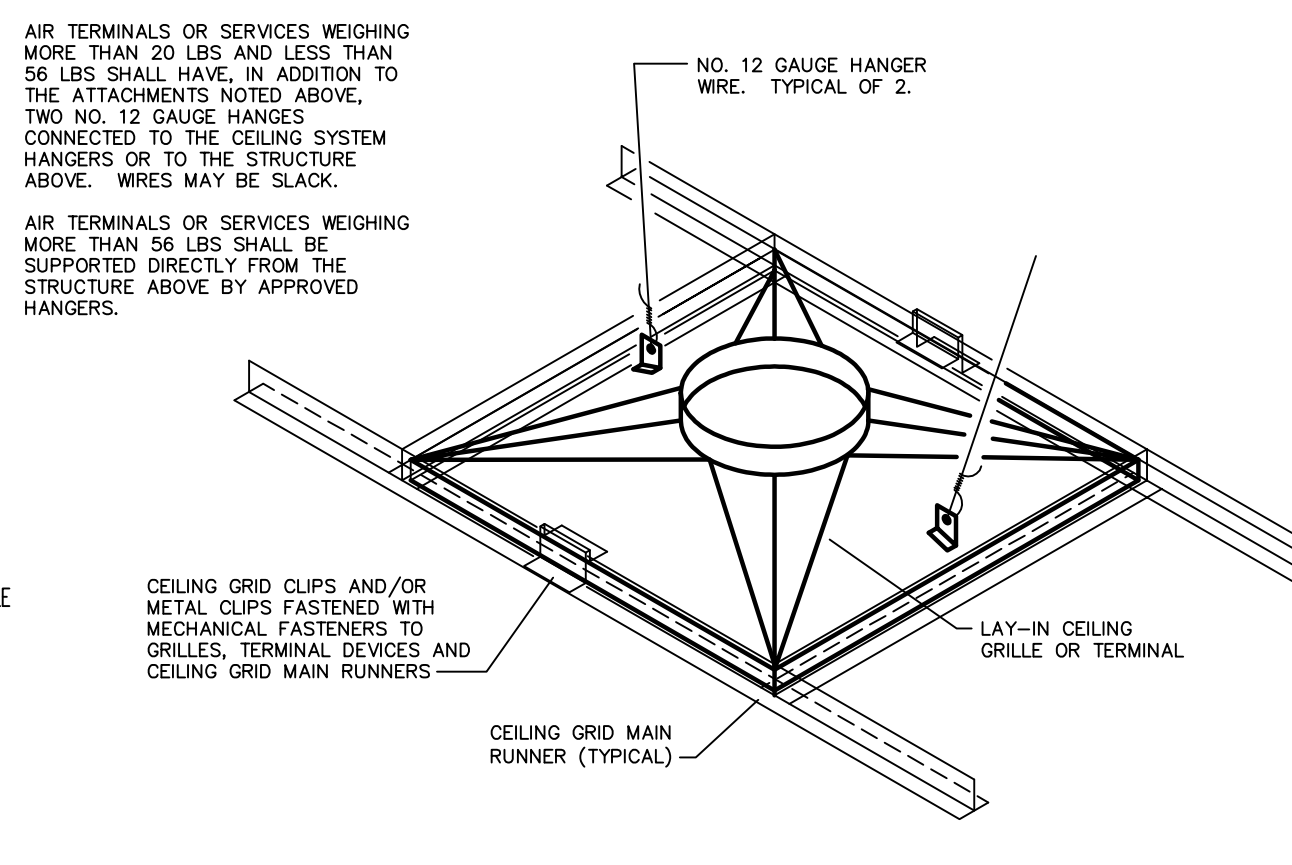
CATEGORY	REQUIREMENTS
CONNECTIONS/HANGERS	NOTE: USE HEAVY DUTY GRID
BUSHING/SUBSTRATE	MIN. 1"
CEILING GWB HANGERS	#10 @ 18" O.C. MIN. 1"
PLUMB	NUT WARE SHALL BE 1/2" OR 5/8" FROM VERTICAL
CONNECTION DEVICES	MIN. 1/2"
PERIMETER WIRE - ALL WALLS	MAXIMUM 2" FROM ALL WALLS
SPLAY BRACING	NOTE: USE HEAVY DUTY GRID
2" MEC DECKING	REQUIRED OVER 1000 SF
TEST POINT	MAX. 6" FROM PERIMETER WALLS
SPACING	16 O.C.
DIVERSION STRENGTH	MIN. 300 LBS.
COMPRESSION DEVICES	SEE DETAIL FOR WIRE WALL
WALLING/PARTITIONS	NOTE: USE HEAVY DUTY GRID
WALLING	MIN. 7"
ATTACHMENT (NO MOVEMENT)	REQUIRED @ 2' ADJACENT WALLS
CLEARANCE (FREE TO MOVE)	3/4" @ 2' ADJACENT WALLS
SPRINKLE IRIS	REQUIRED - 1" OVER MIN. USED
PARTITION ATTACHMENT	MINIMUM TO BE 2" FROM CORNER 2500 SF
LIGHTING/FIXTURES	NOTE: USE HEAVY DUTY GRID
LIGHTS/HUNG SIGN	2 CONNECTIONS/5' WALL WIRE
UPPER DECK/MECH ROOMS	SUPPORT FROM STRUCTURE, NOT GRID
MECHANICAL UPS/HUNG JOISTS	ATTACHED TO GRID
MUST BE AT LEAST 1" FROM WALLS	2 MAX WIRE
MECHANICAL GREATER THAN WALLS	SUPPORT FROM STRUCTURE, NOT GRID



2 SEISMIC CEILING DETAILS
NOT TO SCALE



AIR TERMINAL / SERVICES SEISMIC RESTRAINT DETAIL
NO SCALE



TYPICAL LAY-IN FLUORESCENT TROFFER
EARTHQUAKE CLIP - ONE ON EACH CORNER FOR A TOTAL OF FOUR

Design/Planning/Construction
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743 GREENE STREET
COLUMBIA, SOUTH CAROLINA 29208

project name
**USC SOM - BLDG #1
4TH FLOOR ANIMAL SURGERY LAB
H27-1901**

project number
13030.01

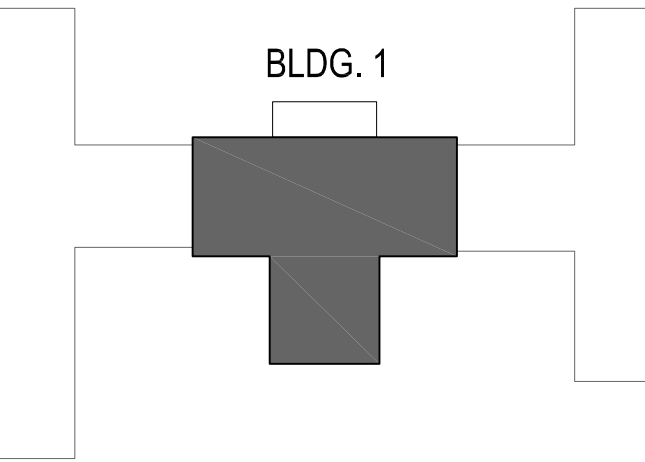
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issued for
CONSTRUCTION DOCUMENTS

date
NOVEMBER 21, 2013

number	item	date

key plan

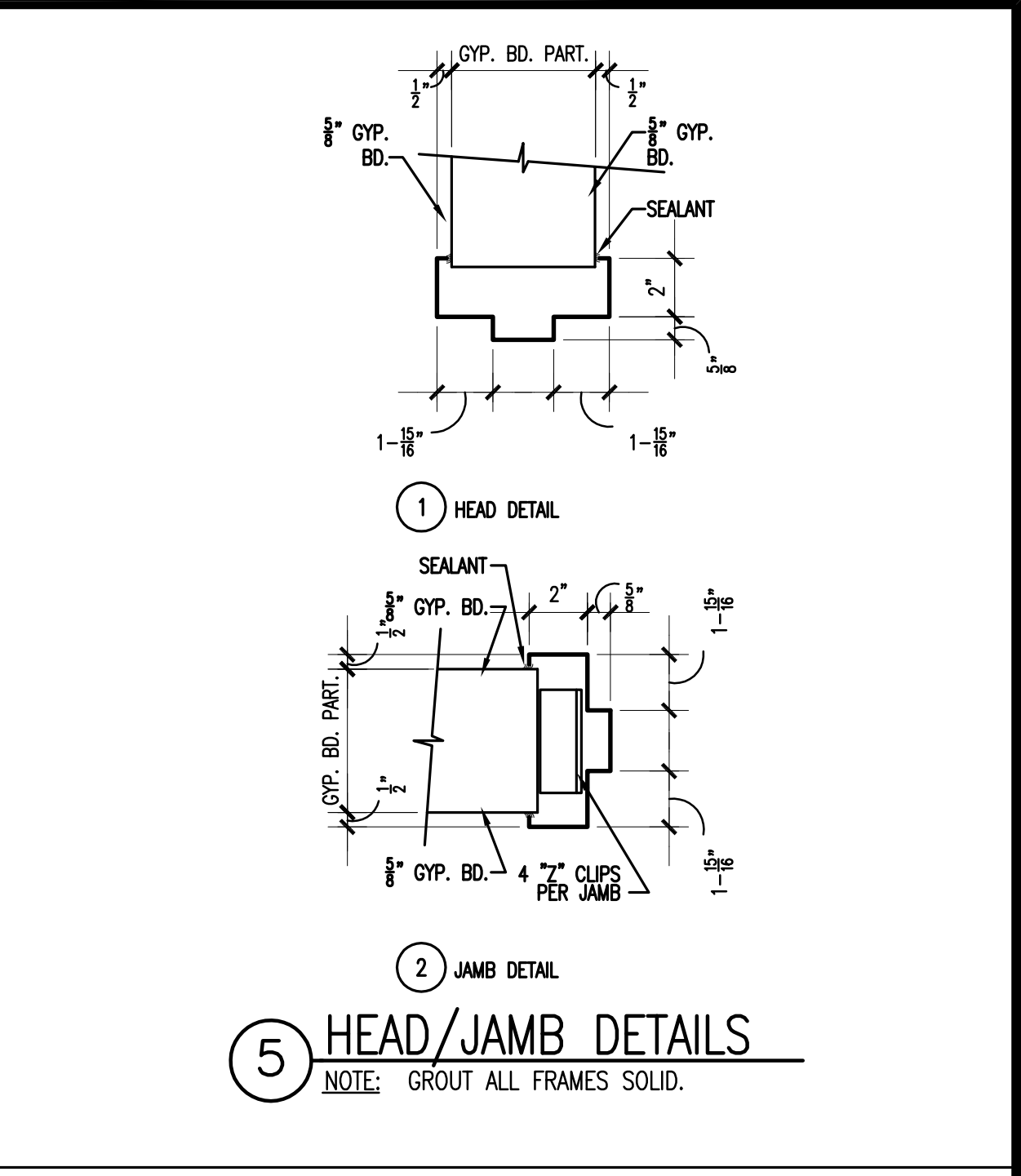
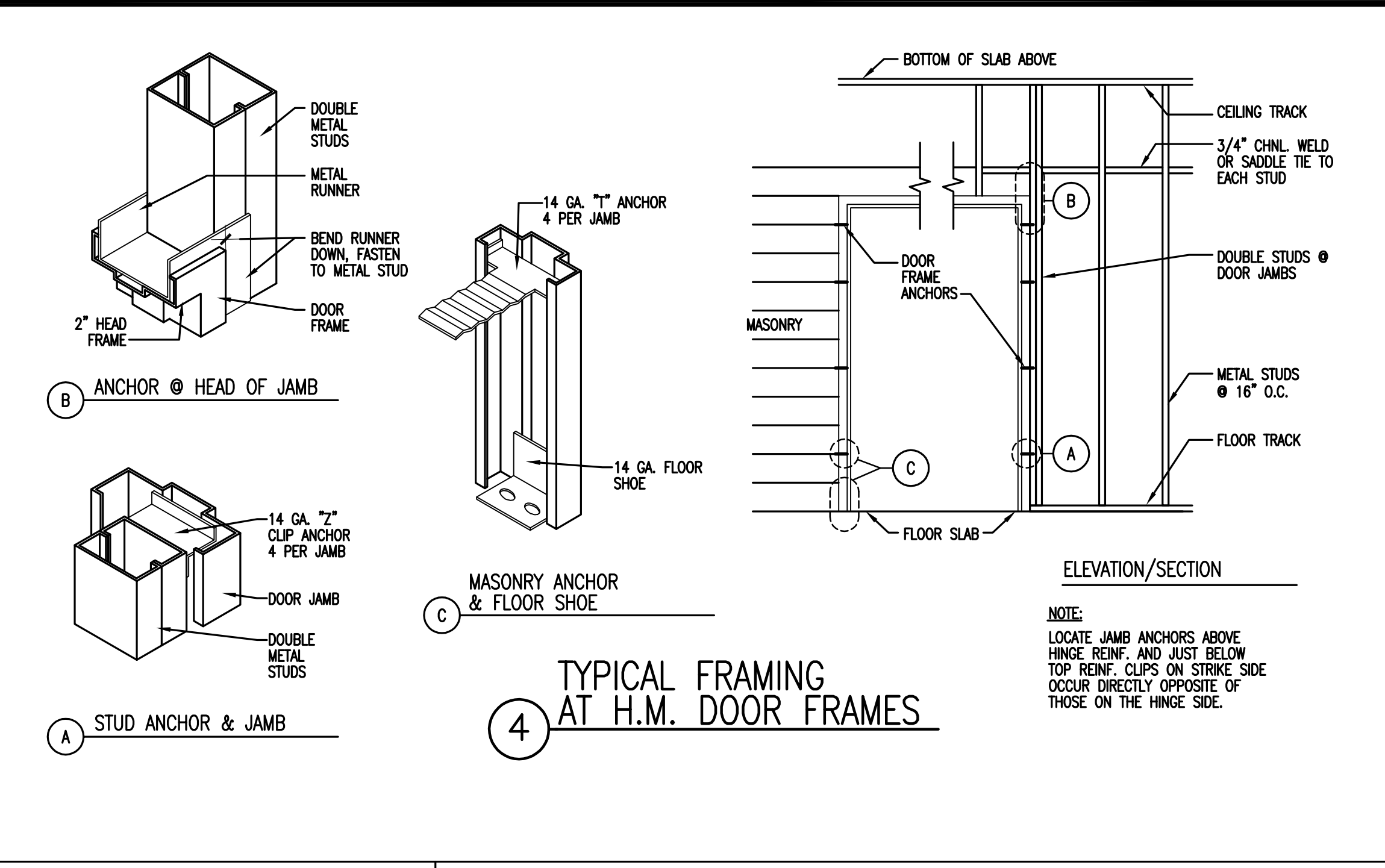
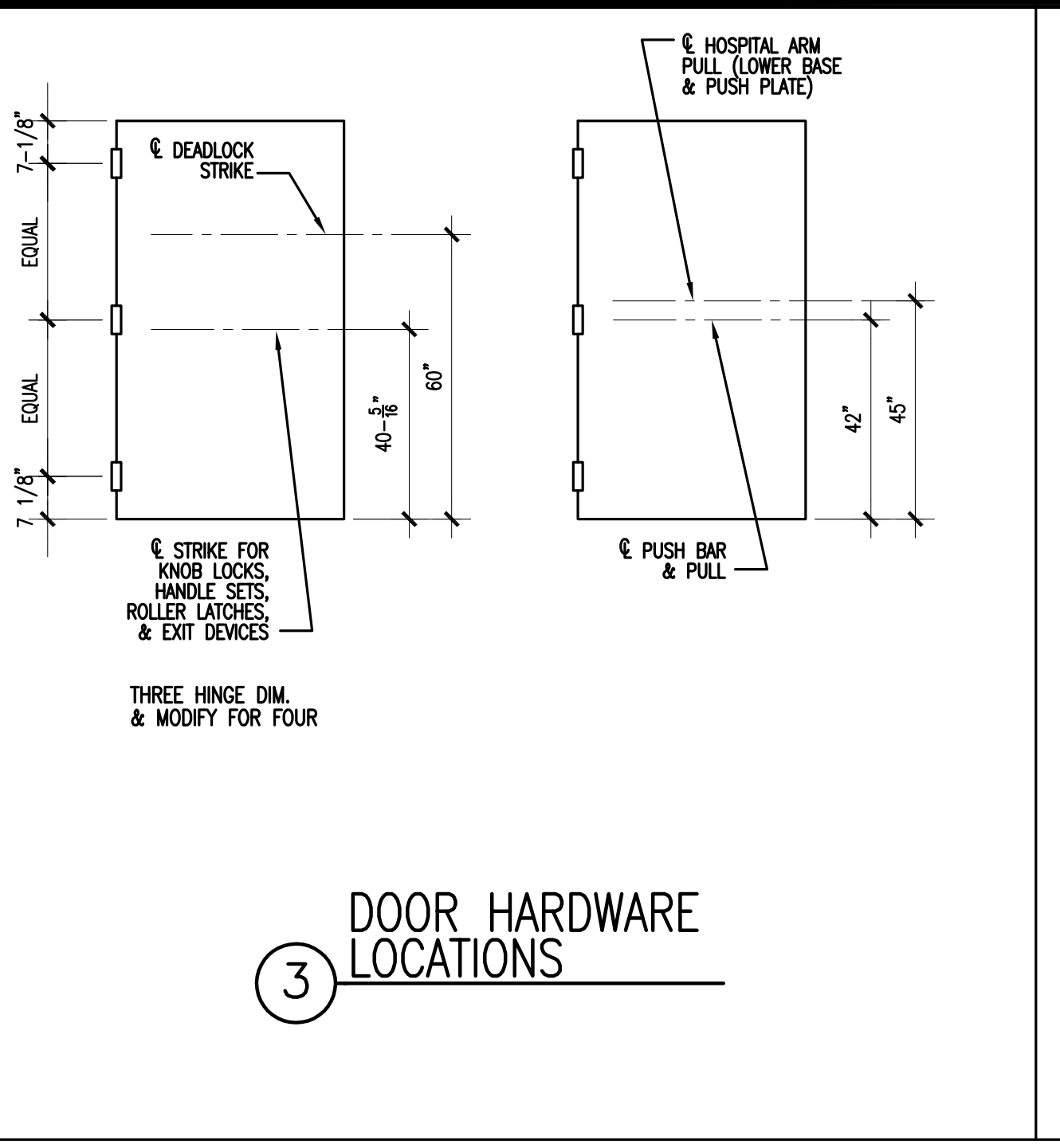
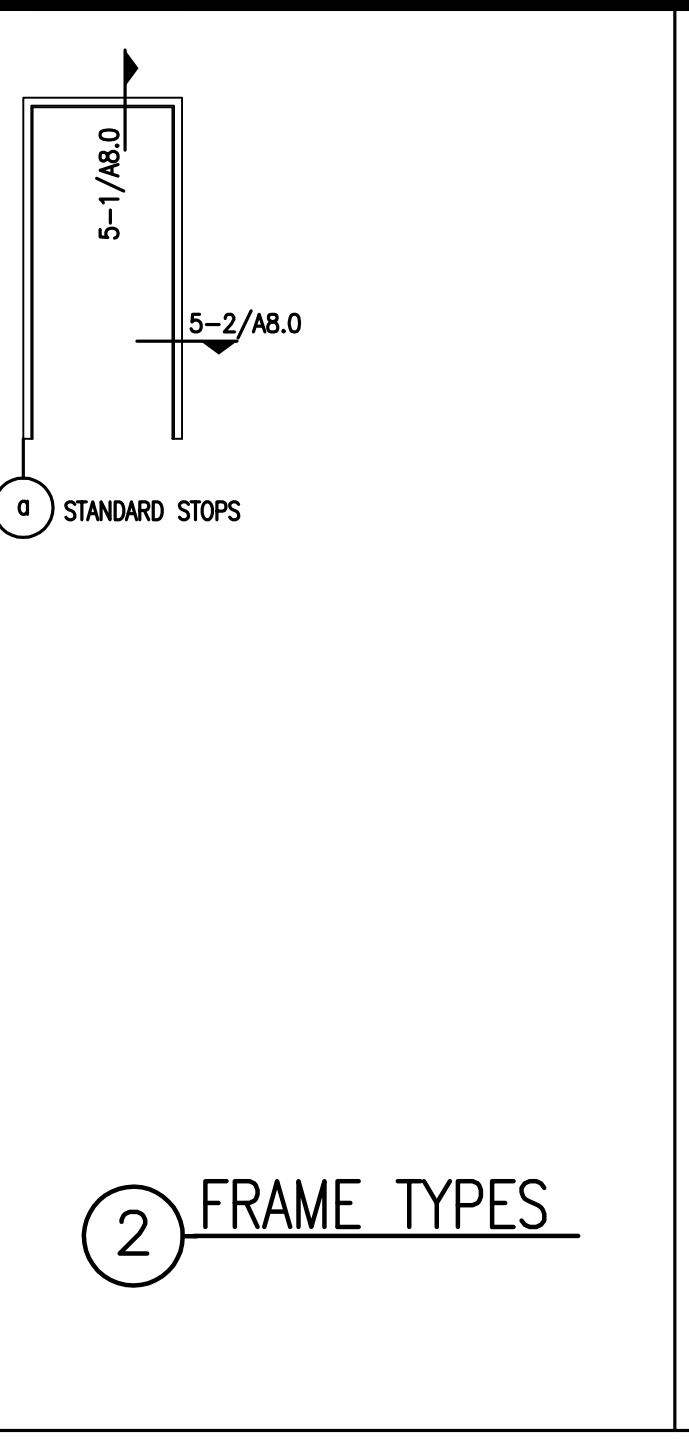
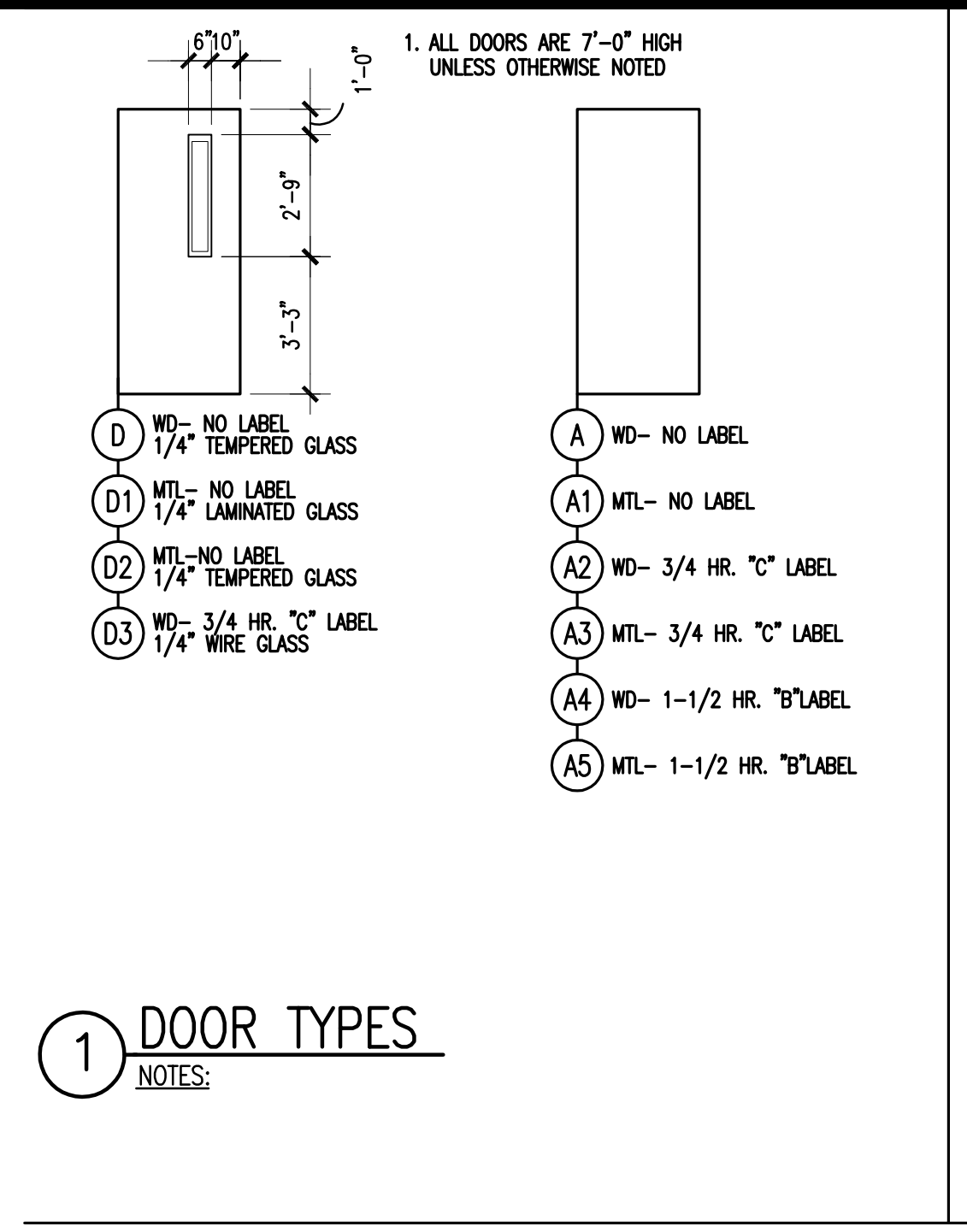
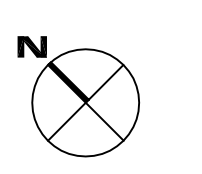
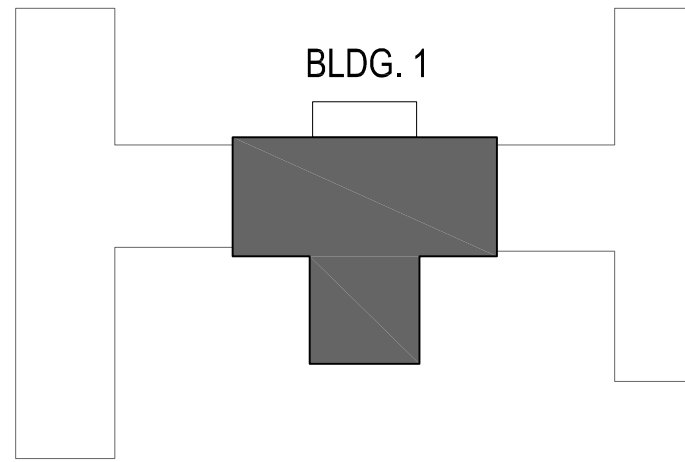


sheet title
**PARTIAL FOURTH FLOOR
REFLECTED CEILING PLAN
SEISMIC CEILING DETAILS**

sheet number

A7.4
drawn by RTC
checked by LEK

number	item	date



ROOM FINISH SCHEDULE

ROOM NUMBER	ROOM NAME	SURFACE	FLOOR		BASE	WALLS		CEILING		MILLWORK MATERIALS			REMARKS
			MATERIAL	ACCENT		MATERIAL/FINISH	ACCENT	MATERIAL	ACCENT	SURF.-A	SURF.-B	SURF.-C	
H401	CORRIDOR		TERR (EX)	-	RB	PNT	-	ACT	-	-	-	-	-
H402	CORRIDOR		VCT	-	RB	PNT	-	ACT	-	-	-	-	-
H403	CORRIDOR		TERR (EX)	-	RB	PNT	-	ACT	-	-	-	-	-
H404	CORRIDOR		TERR (EX)	-	RB	PNT	-	ACT	-	-	-	-	-
ST01	STAIR		EX	-	EX	EX	-	EX	-	-	-	-	-
E1	UNISEX TOIL./SHR.		SV	-	INT	PNT*	-	ACT	-	-	-	-	*EPOXY PAINT
E2	OFFICE		CPT	-	RB	PNT	-	ACT	-	-	-	-	-
E3	MOLECULAR LAB.		VCT	-	RB	PNT	-	PNT*	-	-	-	-	*EPOXY PAINT
E4	REPORT ROOM		CPT	-	RB	PNT	-	ACT	-	-	-	-	-
E5	OPERATING ROOM		TERR (EX)	-	RB	EPOXY PNT	MARBLE	PNT*	-	-	-	-	*EPOXY PAINT
E5A	AUTOCLAVE		TERR (EX)	-	RB	PNT	-	ACT	-	-	-	-	-
E7	OFFICE		CPT	-	RB	PNT	-	ACT	-	-	-	-	-
E8	ANALYTICAL LAB.		TERR (EX)	-	RB	PNT	-	PNT*	-	-	-	-	*EPOXY PAINT
E9	MED GAS STORAGE		TERR (EX)	-	RB	PNT	-	ACT	-	-	-	-	-
E10	JANITOR CLOSET		TERR (EX)	-	RB	PNT	-	ACT	-	-	-	-	-
E11	GENERAL LAB.		TERR (EX)	-	RB	PNT**	-	PNT*	-	-	-	-	*EPOXY PAINT, **SKIM COAT OVER EX. C.T.
E12	STORAGE		TERR (EX)	-	RB	PNT	-	ACT	-	-	-	-	-
E13	SOILED HOLDING		TERR (EX)	-	RB	PNT	-	ACT	-	-	-	-	-
E14	CELL TISSUE LAB.		TERR (EX)	-	RB	PNT	MARBLE	PNT*	-	-	-	-	*EPOXY PAINT
E14A	STORAGE		TERR (EX)	-	RB	PNT	-	ACT	-	-	-	-	-
E15	FELLOWS CARRELS		TERR (EX)	-	RB	PNT	-	PNT	-	-	-	-	-

LEGEND:
CPT - CARPET
PNT - PAINT
RB - RUBBER BASE
ACT - ACUSTICAL TILE CEILING
TERM - TERRAZZO (EXISTING)
VCT - VINYL COMPOSITION TILE
SV - SHEET VINYL
INT - INTEGRAL COVERED BASE
C.T. - CERAMIC TILE (7" WANSOCT)

GENERAL NOTES:
1. WHERE PAINT IS CALLED FOR, PAINT ALL WALLS OF THE ROOM WHETHER NEW OR EXISTING, EXCEPT FOR EXISTING OR ADDED MARBLE WANSOCT.
2. RUBBER BASE TO BE APPLIED TO ALL WALLS WHETHER NEW OR EXISTING AND TO BASE OF ALL MILLWORK INDICATED, EXCEPT WHERE OTHER BASE MATERIAL IS SCHEDULED.
3. INSTALL SLAB LEVEL/TOPPING SLAB THROUGHOUT AREA OF THE PROJECT, EXCEPT WHERE EXISTING FLOORING IS TO REMAIN.

DOOR SCHEDULE

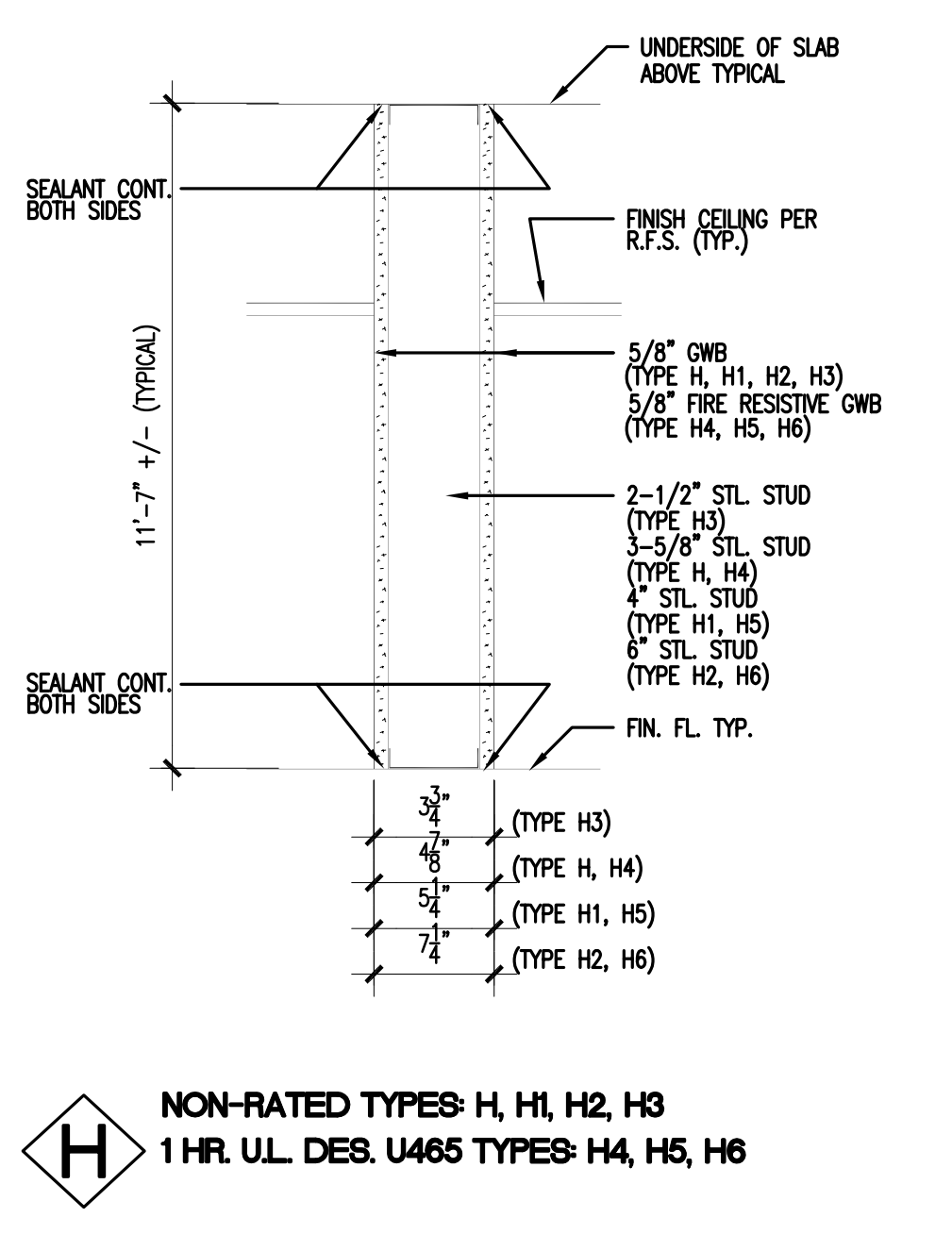
ROOM NAME	DOOR NUMBER	DOOR ELEV	DOOR SIZE	FRAME ELEV	HDWR SET
UNISEX TOILET/SHOWER	E1	D	3'-0" X 7'-0"	a	NEW DOOR & FRAME, NEW HARDWARE, TOILET FUNCTION
GENERAL LABORATORY	E11	D	3'-0" X 7'-0"	a	NEW DOOR & FRAME, NEW HARDWARE, CLASSROOM FUNCTION
STORAGE	E14A	D	2'-2" +/- X 7'-0"	-	NEW DOOR, EX. FRAME, NEW HARDWARE, STOREROOM FUNCTION
CORRIDOR	H403-A	D	3'-0" X 7'-0"	a	NEW DOOR & FRAME, NEW HARDWARE, STOREROOM FUNCTION
CORRIDOR	H403-B	D	3'-0" X 7'-0"	a	NEW DOOR, NEW FRAME, NEW HARDWARE, STOREROOM FUNCTION

DOOR HARDWARE:
1. ALL HARDWARE TO BE BHMA OPERATIONAL GRADE 1 - HEAVY DUTY COMMERCIAL.
2. ALL HARDWARE SHALL MEET ANSI 117.1 AND ADA AS APPLICABLE.
3. FINISH SHALL BE SATIN NICKEL.
4. KEYING SHALL BE COORDINATED WITH OWNER AND KEYS PROVIDED.
5. EXACT TRIM, FINISH AND STYLE SHALL MATCH EXISTING 4TH FLOOR HARDWARE.
6. HARDWARE SUPPLIER SHALL COORDINATE WITH DOOR AND FRAME SUPPLIER ON PREPARATION FOR HARDWARE.
7. MINIMUM 7 YEAR WARRANTY
8. SUBMIT SCHEDULE, SPECS, PRODUCT DATA TO THE ARCHITECT FOR APPROVAL AS PER SECTION 01300.

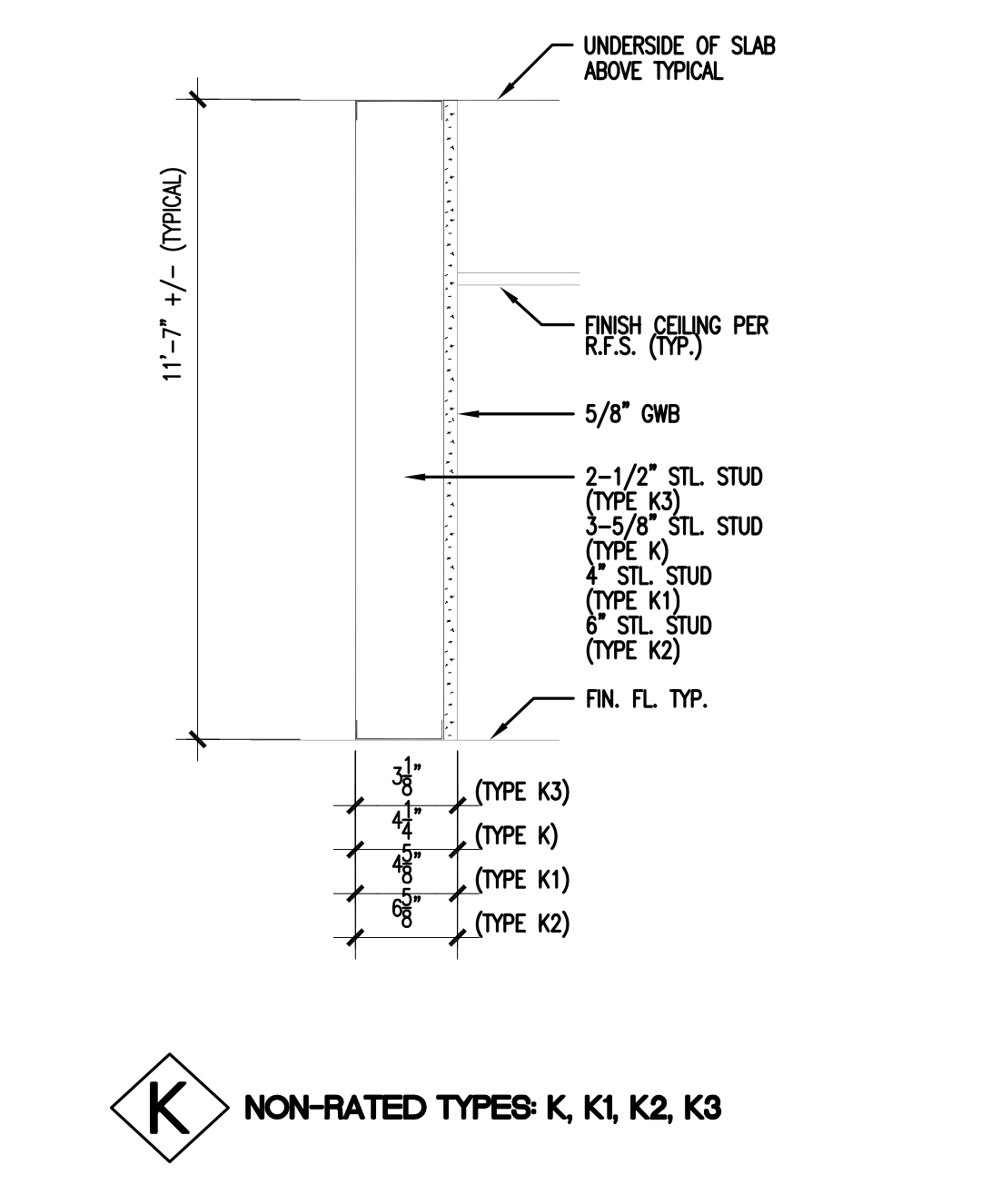
STOREROOM FUNCTION:
A. 3 MORTISE HINGES EACH DOOR LEAF FOR DOORS UP TO 3'-6" WIDE.
B. 1 MORTISE LOCKSET (LEVER), STOREROOM FUNCTION.
C. DOOR SILENCERS IN FRAME.
D. OVERHEAD STOP OR WALL BUMPER AS REQUIRED.
E. CLOSER.

CLASSROOM FUNCTION:
A. 3 MORTISE HINGES EACH DOOR LEAF FOR DOORS UP TO 3'-6" WIDE.
B. 1 MORTISE LOCKSET (LEVER), CLASSROOM FUNCTION.
C. DOOR SILENCERS IN FRAME.
D. WALL BUMPER.
E. CLOSER.

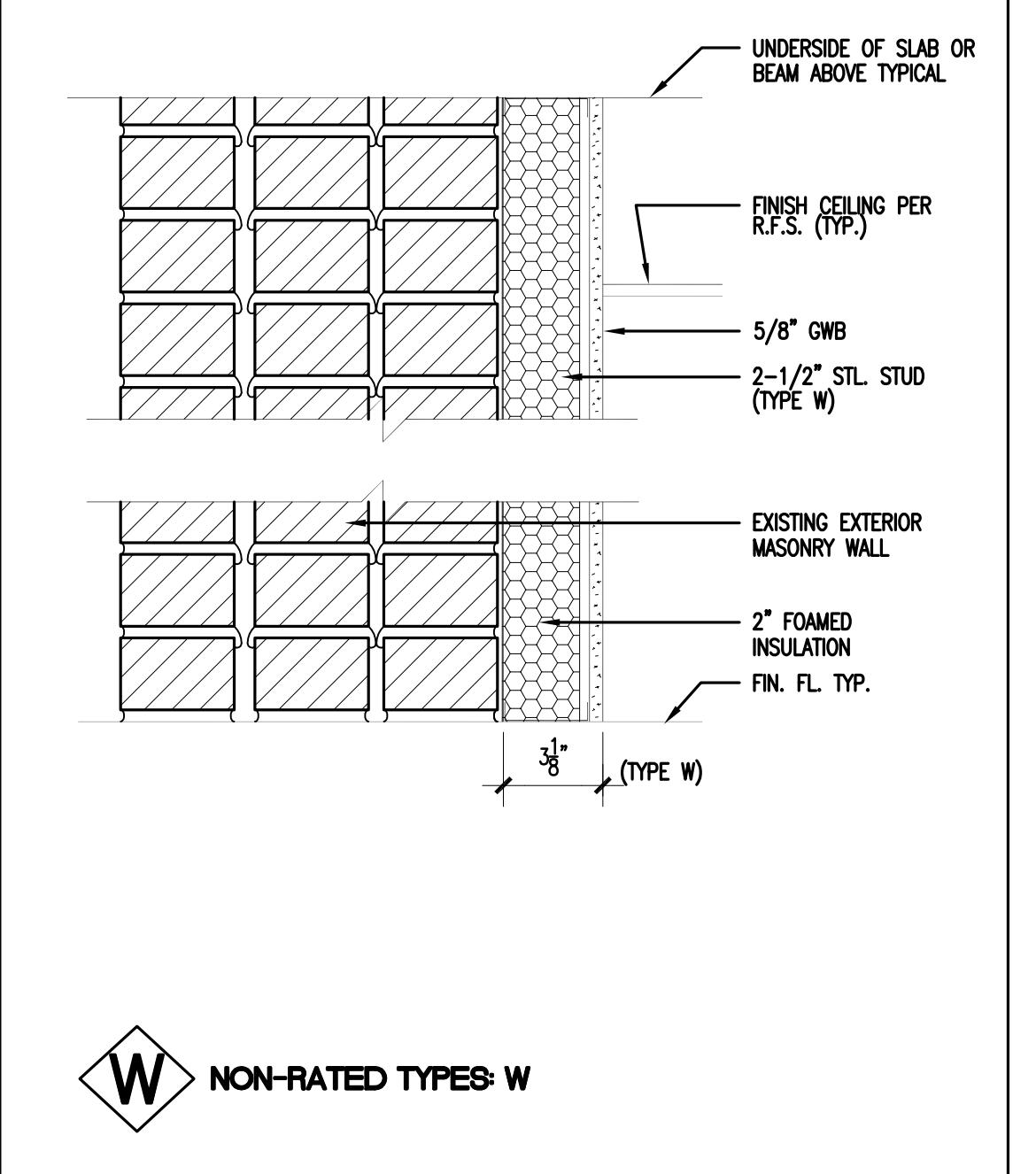
TOILET FUNCTION:
A. 3 MORTISE HINGES EACH DOOR LEAF FOR DOORS UP TO 3'-6" WIDE.
B. 1 MORTISE LOCKSET (LEVER), TOILET FUNCTION.
C. DOOR SILENCERS IN FRAME.
D. WALL BUMPER.



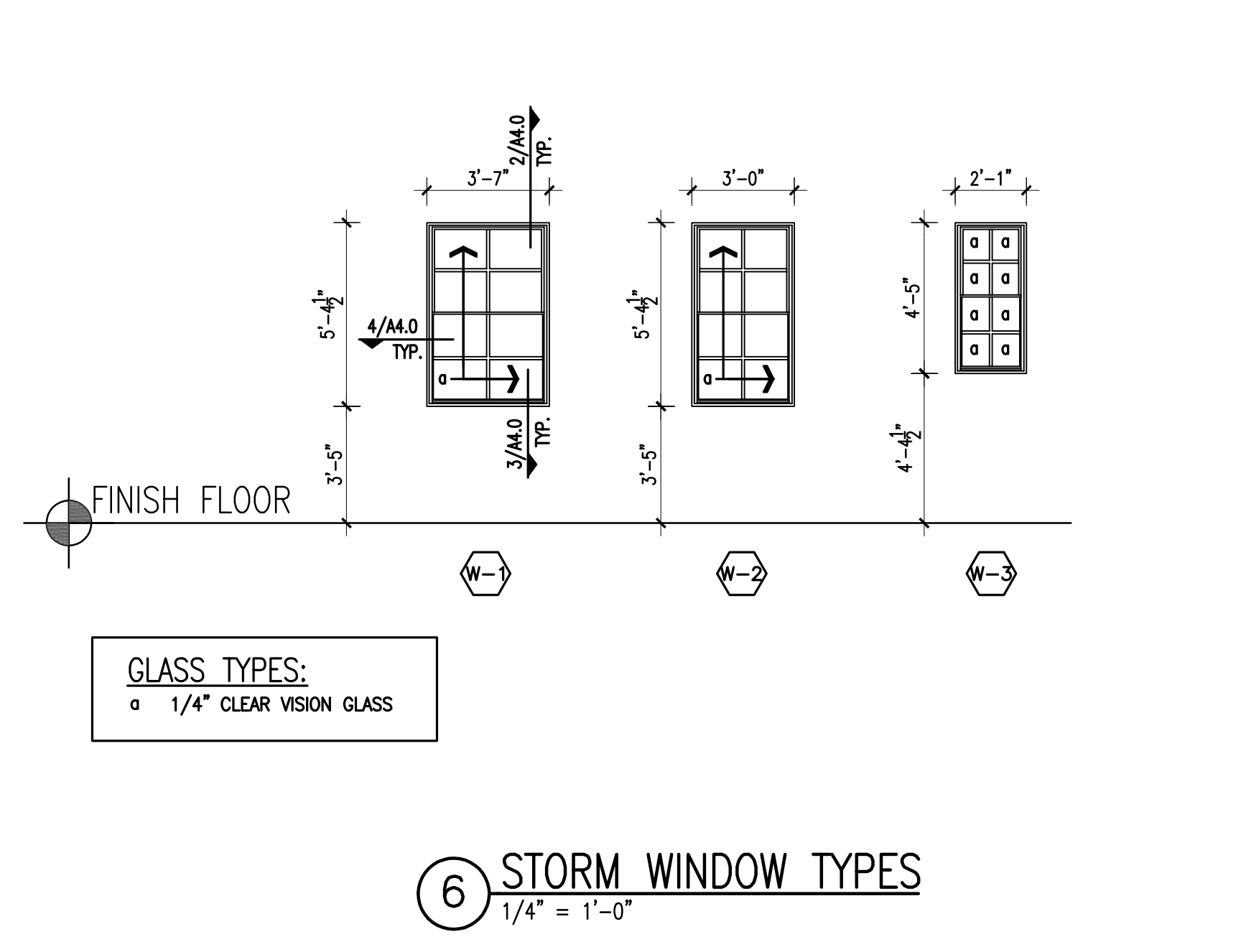
H NON-RATED TYPES: H, H1, H2, H3
1 HR. UL. DES. U465 TYPES: H4, H5, H6



K NON-RATED TYPES: K, K1, K2, K3



W NON-RATED TYPES: W



6 STORM WINDOW TYPES
1/4" = 1'-0"

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project name

USC SOM - BLDG #1
4TH FLOOR ANIMAL SURGERY LAB
H27-1901

project number

13030.01

seals/signature

PLUMBING FIXTURE SCHEDULE

<p>WC-1A; WATER CLOSET (ADA-FLOOR MOUNTED) 1. TYPE A. KOHLER K-4302 SIPHON JET, ELONGATED BOWL, VITREOUS CHINA, 1.6 GAL FLUSH VALVE. 2. SEAT A. BENEKE 523-SS WHITE SOLID PLASTIC ELONGATED OPEN FRONT, STAINLESS STEEL POST, SELF-SUSTAINING CHECK HINGES. 3. CONNECTION A. 3" WASTE. 1" COLD WATER. 4. MOUNTING A. FLOOR 16-1/2" TO RIM. 5. FLUSH VALVE A. SLOAN RECAL WITH SCREW DRIVER STOPS. ROUGH IN FOR VALVE OPERATOR TO WIDE SIDE OF STALL.</p>		<p>SK--3; SERVICE SINK (WALL/FLOOR MOUNTED) 1. TYPE A. KOHLER K-6650 VITREOUS CHINA SERVICE SINK. 2. SIZE A. 22x20x13. 3. CONNECTION A. 3" WASTE, 1/2" CW, 1/2" HW. 4. MOUNTING A. WALL/FLOOR. 5. FITTING A. CHICAGO 897 W/ VACUUM BREAKER, LOOSE KEY STOPS NO. 369 HANDLES, HOSE WALL HOOD WITH 24" HOSE. 6. DRAIN A. INTEGRAL 3". 7. TRAP A. K-8673 3" CAST IRON ENAMELED INSIDE DEEP SEAL. 8. ACCESSORIES A. K-8932 & K-8934 RIM GUARDS (ALL SIDES).</p>	
<p>L-1A; LAVATORY (ADA WALL HUNG) 1. TYPE A. KOHLER K-2030 VITREOUS CHINA. 2. SIZE A. 20"x18" RECTANGULAR. 3. CONNECTION A. 1-1/4" WASTE, 1/2" CW, 1/2" HW. 4. MOUNTING A. WALL 34" AFF TO RIM. 5. FITTING A. LAVATORY FAUCET MOEN 8422 WASHLESS SINGLE HANDLE / AERATOR, 1.5 GPM FLOW CONTROL. 6. SUPPLIES A. MCGUIRE 165LK WITH LOOSE KEY STOPS. 7. DRAIN A. MCGUIRE 155WC 1-1/4" W/ OPEN GRID STRAINER & 1-1/4" OFFSET TAILPIECE. 8. TRAP A. MCGUIRE 8872 1-1/4" P-TRAP WITH C.O. PLUG. 9. INSULATION A. ALL EXPOSED PIPING BENEATH WITH HANDI LAV-GUARD MODEL 102. 10. CARRIER A. J.R. SMITH 700-E CONCEALED ARM.</p>		<p>EE-1; [EMV-1]; EMERGENCY EYE/FACE WASH 1. TYPE A. WATERSAVER EW806 DECK MOUNTED SWIVEL EYEWASH WITH DUAL SPRAY-HEADS. 2. CONNECTION A. 1/2" TEMPERED WATER. 3. HEADS A. ABS PLASTIC PROTECTIVE COVERED EYEWASH HEADS. 4. VALVE A. CHROME PLATED BRASS STAY-OPEN BALL VALVE WITH EXTENDED HANDLE. 5. SINK A. ALUMINUM DESIGNED FOR WALL MOUNTING LABELED "EMERGENCY EYEWASH FOUNTAIN". 6. VACUUM BREAKER A. WATERSAVER IN-LINE VACUUM BREAKER BETWEEN VALVE AND SPRAY HEADS. 7. MIXING VALVE; EMV-1 A. WATERSAVER AP3602 EMERGENCY THERMOSTATIC MIXING VALVE. 8. VALVE BOX A. SURFACE MOUNTED STAINLESS STEEL.</p>	
<p>L-2; LAVATORY (STANDARD WALL HUNG) 1. TYPE A. KOHLER K-2030 VITREOUS CHINA. 2. SIZE A. 20"x18" RECTANGULAR. 3. CONNECTION A. 1-1/4" WASTE, 1/2" CW, 1/2" HW. 4. MOUNTING A. WALL 31" AFF TO RIM. 5. FITTING A. LAVATORY FAUCET MOEN 8278SM SMOOTH DOUBLE WRIST BLADES / LAMINAR, 2.2 GPM FLOW. 6. SUPPLIES A. MCGUIRE 165LK WITH LOOSE KEY STOPS. 7. DRAIN A. MCGUIRE 155A W/ OPEN GRID STRAINER & 1-1/4" TAILPIECE. 8. TRAP A. MCGUIRE 8872 1-1/4" P-TRAP WITH C.O. PLUG. 9. CARRIER A. J.R. SMITH 700-E CONCEALED ARM.</p>		<p>SH-1A; SHOWER (ADA) 1. TYPE A. STERLING MODEL 72250100 ACCORD SHOWER RECEPTOR. 2. SIZE A. NOMINAL 42"x36" 3. CONNECTION A. 2" WASTE, 1/2" CW, 1/2" HW. 4. FITTING A. MOEN 8375 PRESSURE BALANCING SHOWER KIT, MOEN 8372HD SHOWER VALVE. 5. HEAD A. ADJUSTABLE VOLUME CONTROL TO MEET ANSI A112.18.1. 6. MOUNTING A. 45" VALVE CENTER LINE & 77" HEAD CENTER LINE. 7. DRAIN A. FD-1 8. TRAP A. 2" DEEP SEAL CAST IRON</p>	
<p>SK-1; UTILITY SINK (COUNTER TOP) 1. TYPE A. ELKAY LR402521-6.5 18 GA. STAINLESS STEEL, SINGLE HOLE. 2. SIZE A. 25"x21.25"x6.5" OVERALL, 21"x15.75"x6.5" INSIDE BOWL. 3. CONNECTION A. 1-1/2" WASTE, 1/2" CW, 1/2" HW. 4. MOUNTING A. COUNTER AS SHOWN ON ARCH DRAWINGS. 5. FITTING A. MOEN 8116 SINGLE MOUNT, LEVER HANDLES, 6" VACUUM BREAKER SPOUT. 6. SUPPLIES A. MCGUIRE 165LK WITH LOOSE KEY STOPS. 7. DRAIN A. MCGUIRE 152 1-1/2" W/ OPEN GRID STRAINER & 1-1/2" TAILPIECE. 8. TRAP A. MCGUIRE 8912 1-1/2" P-TRAP WITH C.O. PLUG.</p>		<p>FD-1; FLOOR DRAIN (SHOWER DRAIN) 1. TYPE A. SIMILAR TO KOHLER K-9132-BN 2. TOP A. BRUSHED NICKEL 3. CONNECTION A. 2" WASTE 4. TRAP A. DEEP SEAL</p>	
<p>SK-2; UTILITY SINK (TWO COMPARTMENT COUNTER TOP) 1. TYPE A. ELKAY DLR-3322-18 18 GA. STAINLESS STEEL, FIVE HOLE 8" CENTER. 2. SIZE A. 33"x22"x12.125" OVERALL, 13.5"x16"x12.125" INSIDE BOWL. 3. CONNECTION A. 1-1/2" WASTE, 1/2" CW, 1/2" HW. 4. MOUNTING A. COUNTER AS SHOWN ON ARCH DRAWINGS. 5. FITTING A. MOEN 8225SM SWIVEL GOODENCK SPOUT WITH 4" SMOOTH WRIST BLADE HANDLES & 2.2 GPM FLOW CONTROL. 6. SUPPLIES A. MCGUIRE 165LK WITH LOOSE KEY STOPS. 7. DRAIN A. TWO (2) ELKAY LK-94 1-1/2" W/ REMOTE CONTROL KNOB, STAINLESS STEEL STRAINER, & 1-1/2" TAILPIECE. 8. TRAP A. TWO (2) MCGUIRE 8912 1-1/2" P-TRAP WITH C.O. PLUG.</p>		<p>FD-2; FLOOR DRAIN (MECHANICAL ROOMS & INDIRECT WASTE) 1. TYPE A. J.R. SMITH 3430-Y CAST IRON DRAIN WITH A.R.C. INTERIOR, SEEPAGE FLANGE. 2. TOP A. A.R.C. GRATE WITH 8-1/4"x3-1/4"x4-1/2" HIGH OVAL A.R.C. FUNNEL. 3. ACCESSORIES A. ALUMINUM SEDIMENT BUCKET. 4. CONNECTION A. 2" 5. TRAP A. CAST IRON DEEP SEAL</p>	
<p>P-1; LABORATORY DECK MOUNT DOUBLE GAS VALVE 1. TYPE A. WATERSAVER L4200-1325WSA, 180° DOUBLE D. FORGED BRASS VALVE BODY E. CHROME PLATED BRASS BALL WITH MOLDED TEFLON SEALS F. CHROME FINISH 2. CONNECTION A. 3/4" IPS 3. MOUNTING A. DECK MOUNTED</p>			

FIXTURE SIZE SCHEDULE

MARK	WASTE	VENT	CW	HW
WC	4"	2"	1"	----
L	2"	1 1/2"	1/2"	1/2"
SK	2"	1 1/2"	1/2"	1/2"
SH	2"	1 1/2"	1/2"	1/2"

NOTE: USE THESE SIZES FOR FIXTURE CONNECTIONS UNLESS OTHERWISE NOTED

ABBREVIATIONS *

ABV Above	NC Normally Closed
AD Access Door	NO Not in Contract
AFF Above Finished Floor	NO Normally Open
BFP Backflow Preventer	NPT National Pipe Thread
CI Cast Iron	NIS Not To Scale
COL Column Line	OFST Over Flow Storm Drain
CONN Connection	OX Oxygen
CW Cold Water	PC Plumbing Contractor
DI Disturbed Water	P-# Pump - No.
DN Down	PRV Pressure Reducing Valve
EC Electrical Contractor	PSI Pounds Per Square Inch
ELEV Elevation	RD Roof Drain
ET Expansion Tank	SA Shock Absorber
EW-# Electric Water Cooler	SH-# Shower
FD Floor Drain	SK-# Sink
FL Floor	SS Stainless Steel
FT Feet	ST Storm Drain
GC General Contractor	STD Standard
GPH Gallons Per Hour	TEMP Temperature
GPM Gallons Per Minute	TOS Top of Steel
HW Hot Water	TYP Typical
HRW Hot Water Return	U-# Unlabeled
IE Invert Elevation	VAC Vacuum
L-# Lavatory	VB Vacuum Breaker
MA Medical Air	V Sanitary Vent
MAX Maximum	VTR Vent Through Roof
MC Mechanical Contractor	W Sanitary Waste
MIN Minimum	WB-# Wall Box
MFT Male Pipe Thread	WC-# Water Closet
MSB-# Map Sink Basin	WTS Water Tight Sleeve
N/A Not Applicable	

* Not All Abbreviations Used

PLUMBING GENERAL NOTES

- VERIFY EXACT LOCATION OF ALL PLUMBING FIXTURES IN OR ATTACHED TO CASEWORK WITH THE ARCHITECT AND THE MILLWORK SHOP DRAWINGS. COORDINATE PRIOR TO INSTALLATION.
- CONFIRM OR VERIFY EXACT LOCATION AND ACTUAL INVERT OF ACID WASTE LINES PRIOR TO INSTALLATION.
- DUE TO THE LARGE QUANTITY OF PIPING, DUCTWORK, CONDUIT, ETC. ABOVE THE CEILING COORDINATION WITH OTHER DISCIPLINES IS MANDATORY.
- COUNTER SHUT-OFF VALVE ABOVE CEILING AND IN LOCATIONS ACCESSIBLE FOR SERVICE. LOCATION SHALL COMPLY WITH THE REQUIREMENTS OF ALL CODES REFERENCED HEREIN.
- ALL SANITARY/ACID DRAINAGE PIPING 3" AND LARGER SHALL SLOPE 1/8" PER FOOT UNLESS NOTED OTHERWISE. ALL SANITARY/ACID DRAINAGE PIPING 2" AND SMALLER SHALL SLOPE 1/4" PER FOOT UNLESS NOTED OTHERWISE.
- REFERENCE PLUMBING FIXTURE CONNECTION SCHEDULE ON DRAWING P.01 FOR LINE SIZES NOT SHOWN TO FIXTURES/EQUIPMENT.
- ALL FLOOR DRAINS SHALL BE INSTALLED PLUMB AND LEVEL WITH FINISHED FLOOR ELEVATION FOR SLAB INSTALLATION.
- CONTRACTOR SHALL PROVIDE HANGERS AND SUPPORTS FOR SEISMIC RESTRAINT PER THE 2012 SOUTH CAROLINA PLUMBING CODE. (PC 2012).
- ALL DRAINAGE PIPING AND PRESSURE SYSTEM PIPING SHALL BE RUN AS HIGH AS POSSIBLE TO BOTTOM OF STRUCTURE, UNLESS NOTED OTHERWISE. COORDINATE PIPE ROUTING WITH ALL OTHER TRADES.
- THE FOLLOWING PLUMBING SYSTEMS SHALL BE INSULATED: COLD WATER, HOT WATER, HOT WATER RECIRCULATION, P-TRAPS AND HORIZONTAL PIPING RECEIVING CONDENSATE ABOVE CEILING, HORIZONTAL ROOF DRAIN LEADERS (REFERENCE DIVISION 15 OF THE SPECIFICATIONS).
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT ITEMS TO BE FURNISHED FIT THE SPACE AVAILABLE.
- ALL WALL HUNG FIXTURES SHALL BE SEALED BETWEEN WALL AND FIXTURES WITH WHITE SILICONE CAULKING.
- ALL WALL MOUNTED FIXTURE RIMS SHALL BE SEALED WITH SILICONE CAULKING.
- LOCATE FLOOR CLEANOUTS PAST LIMITS OF THE CASEWORK.
- CONTRACTOR SHALL MAKE PROVISIONS FOR EXPANSION LOOPS WHERE NECESSARY WHETHER OR NOT SHOWN ON DRAWINGS.
- OFFSET PLUMBING VENTS, WATER PIPING AS NECESSARY TO AVOID CONFLICTS WITH DUCTWORK. SEE HVAC PLANS.
- IT IS THE INTENT AND MEANING OF THE DRAWINGS TO PROVIDE COMPLETE AND OPERABLE PLUMBING AND DRAINAGE SYSTEMS.
- CONTRACTOR SHALL BE BOUND BY THE REQUIREMENTS OF THE UNDERGROUND UTILITIES DAMAGE PREVENTION ACT, STATUTE 58-35-10.
- ALL PLUMBING LINE SIZE REDUCTIONS SHALL BE MADE WITH REDUCERS AND/OR REDUCING FITTINGS.
- PLUMBING CONTRACTOR SHALL TEST EACH REDUCED PRESSURE BACKFLOW PREVENTER AND DOUBLE CHECK VALVE INSTALLED USING A CERTIFIED TESTER IN ACCORDANCE WITH SOUTH CAROLINA PRIMARY DRINKING WATER REGULATIONS.
- ALL GAS PIPING IN PARTITION WALLS SHALL BE ANNEALED COPPER WITH BRAZED JOINTS. A STEEL STRIKER BARRIER NOT LESS THAN 0.0058 INCH THICK SHALL BE INSTALLED BETWEEN THE PIPING AND THE FINISHED WALL EXTENDING AT LEAST 4 INCHES BEYOND CONCEALED PENETRATIONS OF PLATES, FIRE STOPS, WALL STUDS, ETC. GAS PIPING SHALL NOT BE INSTALLED IN CMU OR SOLID WALLS.
- PLUMBING CONTRACTOR TO MAKE FINAL CONNECTIONS ON ALL LAB FIXTURES.
- PROVIDE WATTS #7C BACKFLOW PREVENTER AND DOWN STREAM OF DUAL OUTLET SHUT OFF VALVE FOR DISHWASHER.
- THESE DRAWINGS ARE SCHEMATIC IN NATURE AND DO NOT SHOW EXACT LOCATIONS OF FIXTURES AND EQUIPMENT. ALL OFFSETS AND FITTINGS FOR COMPLETE INSTALLATION MAY NOT BE DEFINED ON THE DRAWINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING EXACT DIMENSIONS AT THE BUILDING AND ANY NECESSARY CHANGES MADE IN ACCORDANCE WITH STRUCTURAL CONDITIONS, EQUIPMENT TO BE INSTALLED AND COORDINATION WITH OTHER SYSTEMS. IF CONFLICTS CANNOT BE RESOLVED THEY SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT/ENGINEER.
- CONTRACTOR SHALL COMPLY WITH THE FOLLOWING CODES AND STANDARDS INSOPAR AS THEY APPLY: NFPA 54, 2008 INTERNATIONAL BUILDING, GAS AND PLUMBING CODES.
- CONTRACTOR SHALL SECURE ALL PERMITS, INSPECTIONS, LICENSES AND TESTS REQUIRED FOR THIS WORK AND PAY ALL FEES IN CONNECTION THEREWITH.
- ALL MATERIALS SHALL BEAR THE MANUFACTURER'S NAME, TRADE NAME AND BE U.L. LABELED IF REQUIRED, UNLESS SPECIFICALLY INDICATED OTHERWISE. ALL EQUIPMENT AND MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER. ALL EQUIPMENT OF A SIMILAR TYPE SHALL BE OF THE SAME MANUFACTURER.
- CONTRACTOR SHALL LOCATE AND SIZE ALL OPENINGS REQUIRED FOR PLUMBING EQUIPMENT AND PIPING, AND PROVIDE THIS INFORMATION TO THE GENERAL CONTRACTOR IN TIME NOT TO DELAY BUILDING CONSTRUCTION.
- CONTRACTOR SHALL PROVIDE AND LOCATE SLEEVES AND INSERTS REQUIRED BEFORE THE FLOOR AND WALLS ARE BUILT OR SHALL BE RESPONSIBLE FOR THE COST OF CUTTING AND PATCHING REQUIRED FOR PIPES WHERE SLEEVES AND INSERTS WERE NOT INSTALLED OR WHERE THEY WERE INCORRECTLY LOCATED.
- CONTRACTOR SHALL NOTE THAT DEMOLITION AND CORE DRILLING SHALL COORDINATED WITH OWNER AFTER NORMAL BUSINESS HOURS.
- THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OF CONSTRUCTION SELECTED BY THE CONTRACTOR OR OF THE SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL TO THE WORK OF THE CONTRACTOR. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE FAILURE OF THE CONTRACTOR TO PERFORM THE CONSTRUCTION WORK IN ACCORDANCE WITH THE DRAWINGS.

PLUMBING LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
----	COLD WATER LINE - ABOVE GROUND (CW)	—[]	END CAP
----	HOT WATER LINE - ABOVE GROUND (HW)	—[]	STRAINER
----	HOT WATER RECIRCULATING LINE (HWR)	FCO []	FLOOR CLEANOUT
—AW—	ACID WASTE LINE (AW)	FD []	FLOOR DRAIN
—G—	NATURAL GAS LINE (G)	—●—	BALL VALVE
—MA—	MEDICAL AIR LINE (MA)	—∇—	GAS COCK
—VAC—	VACUUM LINE (VAC)	—[X]—	PRV
—CO2—	CARBON DIOXIDE LINE (CO2)	—[]	POINT OF CONNECTION - NEW TO EXISTING
—GAS—	NATURAL GAS LINE (GAS)	[//]	AREA TO BE DEMOLISHED
—OX—	OXYGEN LINE (OX)	[H]	DUAL CHECK VALVE
—(V)—	VACUUM LINE OUTLET		
—(CO2)—	CARBON DIOXIDE OUTLET		
—(OX)—	COMPRESSED NITROGEN OUTLET		
—(D) / —(D)	PIPE DOWN OR DROP (DN OR DROP)		
—(U)	PIPE UP		
—[]	PIPE BREAK OR CONTINUATION		

THERMOSTATIC MIXING VALVE SCHEDULE

TAG NO.	LOCATION	TYPE	FLOW GPM	PRESS. DROP PSI	ENT. TEMP. °F	LEV. TEMP. °F	MFR.	MODEL	REMARKS
EMV-1	EW-1	THERMOSTATIC	6.0	20	115	85	WATERSAVER	AP3602	1,3

- MIXING ASSEMBLY SHALL INCLUDE MANUFACTURER'S RETURN FITTING, INTEGRAL THERMOMETER, INTEGRAL THERMOSTATIC RETURN LIMITER, INTEGRAL CHECKS AND STRAINERS.
- LOCATE ABOVE CEILING
- LOCATE BELOW CABINET

WATER-HAMMER ARRESTER SCHEDULE

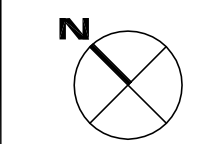
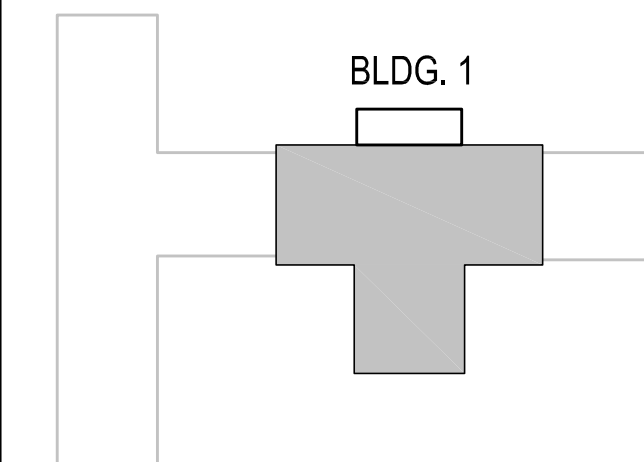
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FIXTURE UNITS	1-11	12-32	33-60	61-113	114-154	155-330

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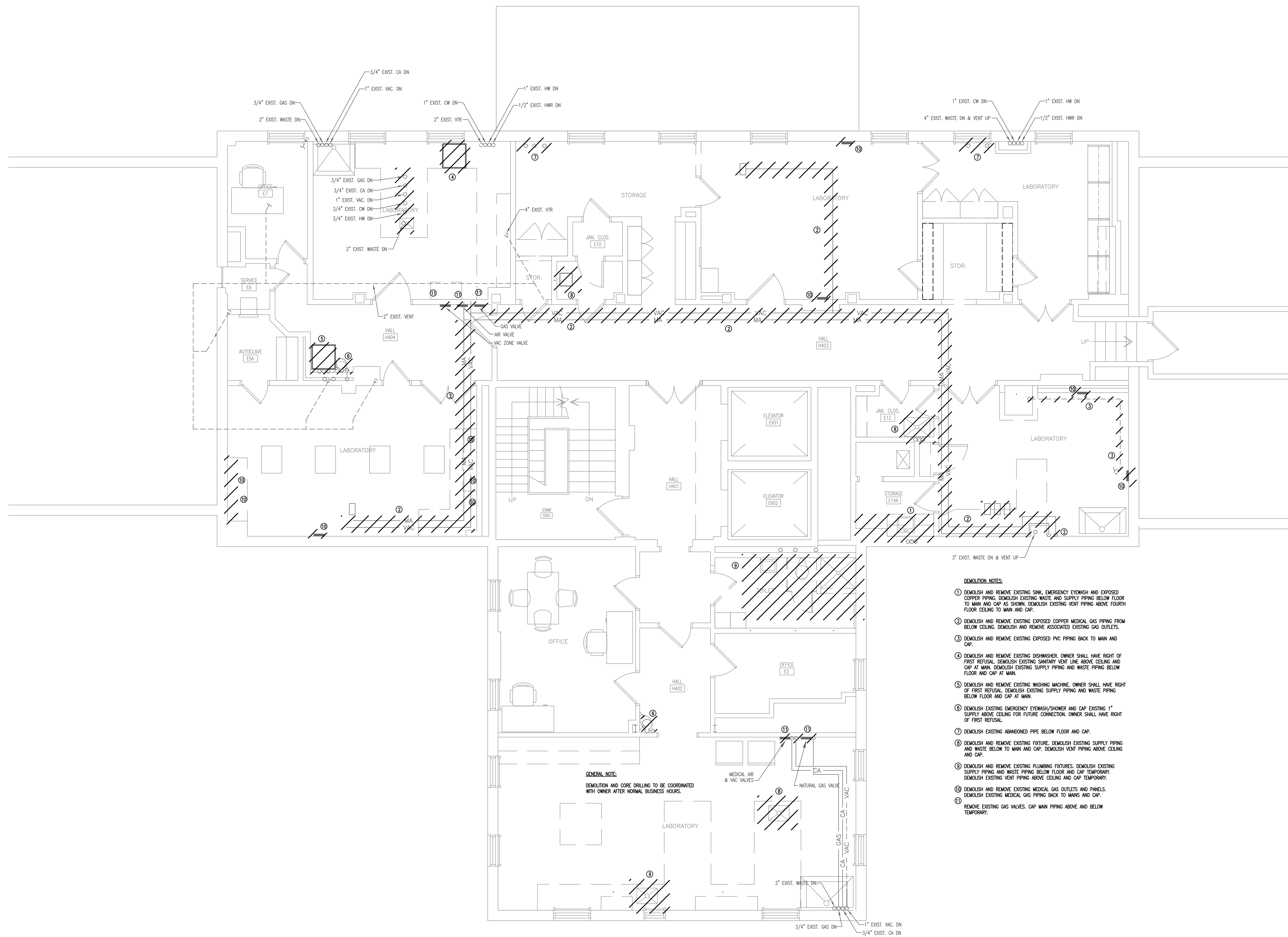
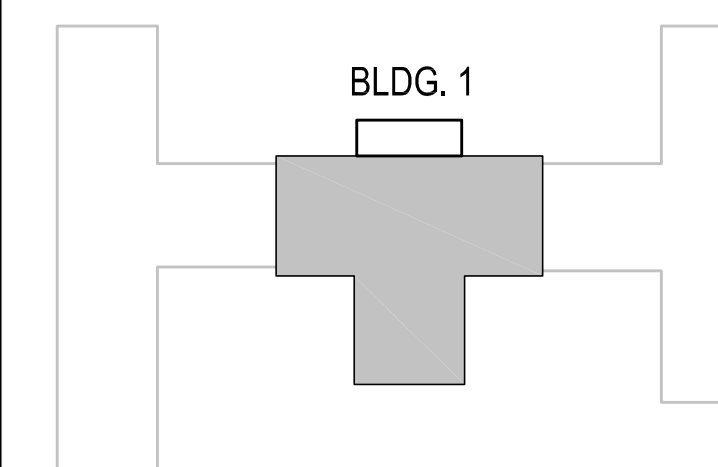
sheet title
**PLUMBING SCHEDULES, NOTES
ABBREVIATIONS AND LEGENDS**

sheet number

P.0.0

drawn by **JR**
checked by **JWB**

number	item	date



1 FOURTH FLOOR – PLUMBING DEMOLITION PLAN
1/4"=1'-0"

GENERAL NOTE:
DEMOLITION AND CORE DRILLING TO BE COORDINATED WITH OWNER AFTER NORMAL BUSINESS HOURS.

DEMOLITION NOTES:

- 1 DEMOLISH AND REMOVE EXISTING SINK, EMERGENCY EYEWASH AND EXPOSED COPPER PIPING. DEMOLISH EXISTING WASTE AND SUPPLY PIPING BELOW FLOOR TO MAN AND CAP AS SHOWN. DEMOLISH EXISTING VENT PIPING ABOVE FOURTH FLOOR CEILING TO MAN AND CAP.
- 2 DEMOLISH AND REMOVE EXISTING EXPOSED COPPER MEDICAL GAS PIPING FROM BELOW CEILING. DEMOLISH AND REMOVE ASSOCIATED EXISTING GAS OUTLETS.
- 3 DEMOLISH AND REMOVE EXISTING EXPOSED PVC PIPING BACK TO MAN AND CAP.
- 4 DEMOLISH AND REMOVE EXISTING DSHWASHER. OWNER SHALL HAVE RIGHT OF FIRST REFUSAL. DEMOLISH EXISTING SANITARY VENT LINE ABOVE CEILING AND CAP AT MAN. DEMOLISH EXISTING SUPPLY PIPING AND WASTE PIPING BELOW FLOOR AND CAP AT MAN.
- 5 DEMOLISH AND REMOVE EXISTING WASHING MACHINE. OWNER SHALL HAVE RIGHT OF FIRST REFUSAL. DEMOLISH EXISTING SUPPLY PIPING AND WASTE PIPING BELOW FLOOR AND CAP AT MAN.
- 6 DEMOLISH EXISTING EMERGENCY EYEWASH/SHOWER AND CAP EXISTING 1" SUPPLY ABOVE CEILING FOR FUTURE CONNECTION. OWNER SHALL HAVE RIGHT OF FIRST REFUSAL.
- 7 DEMOLISH EXISTING ABANDONED PIPE BELOW FLOOR AND CAP.
- 8 DEMOLISH AND REMOVE EXISTING FIXTURE. DEMOLISH EXISTING SUPPLY PIPING AND WASTE BELOW TO MAN AND CAP. DEMOLISH VENT PIPING ABOVE CEILING AND CAP.
- 9 DEMOLISH AND REMOVE EXISTING PLUMBING FIXTURES. DEMOLISH EXISTING SUPPLY PIPING AND WASTE PIPING BELOW FLOOR AND CAP TEMPORARY. DEMOLISH EXISTING VENT PIPING ABOVE CEILING AND CAP TEMPORARY.
- 10 DEMOLISH AND REMOVE EXISTING MEDICAL GAS OUTLETS AND PANELS. DEMOLISH EXISTING MEDICAL GAS PIPING BACK TO MANS AND CAP.
- 11 REMOVE EXISTING GAS VALVES. CAP MAN PIPING ABOVE AND BELOW TEMPORARY.

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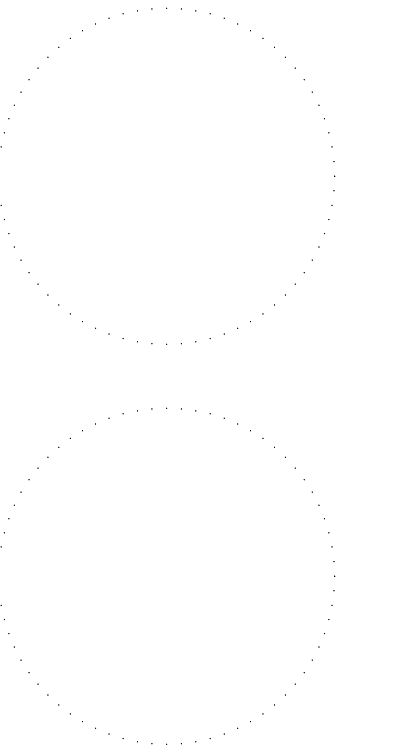
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USC SOM - BLDG #1
4TH FLOOR ANIMAL SURGERY LAB
H27-1901

project number

13030.01

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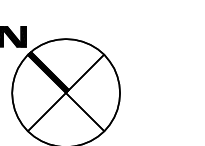
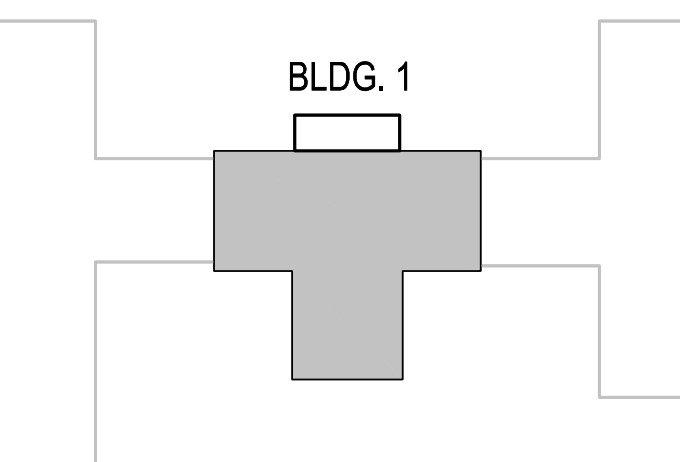


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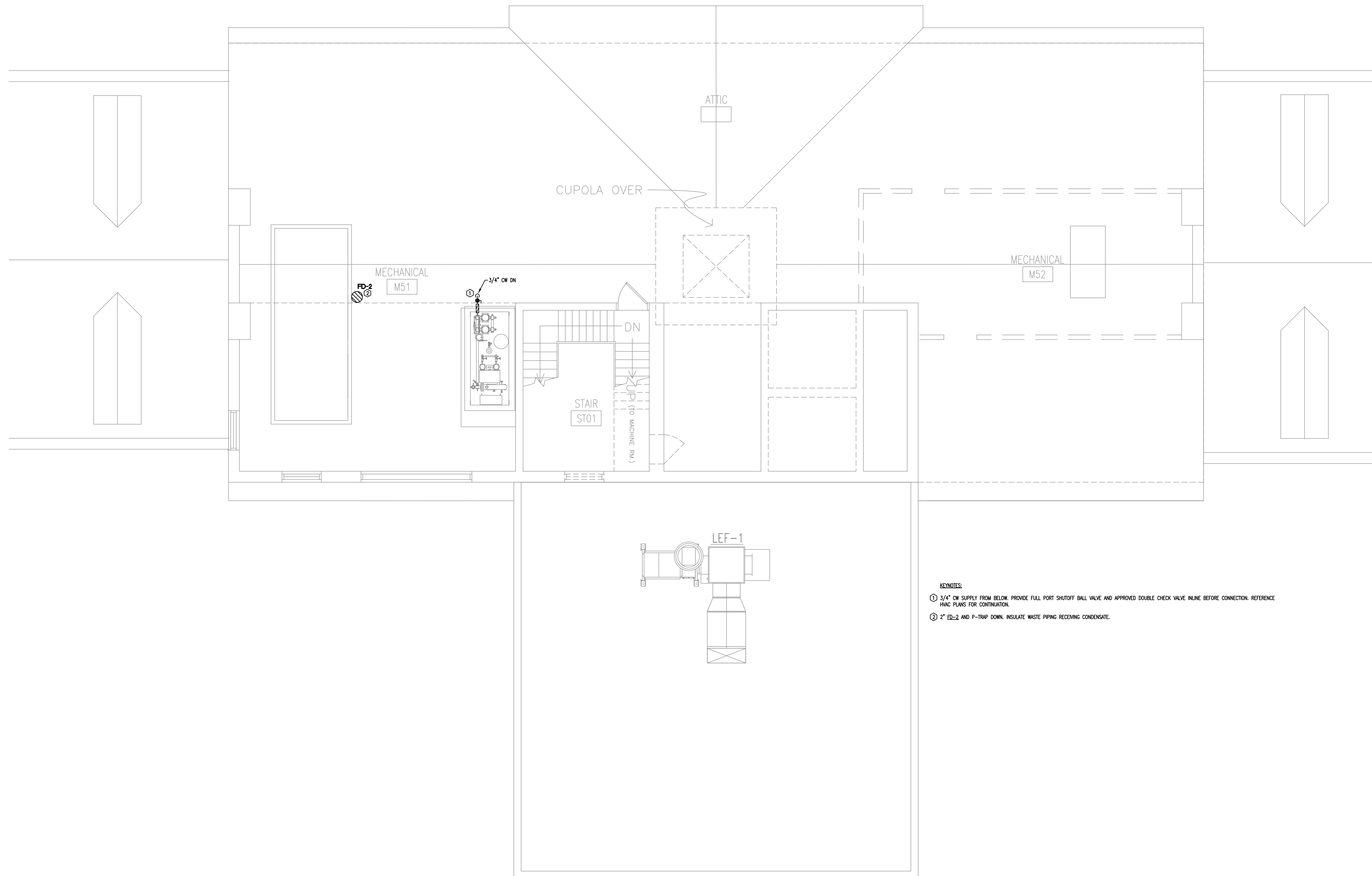


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ATTIC PLAN
PLUMBING RENOVATION

sheet number

P2.5

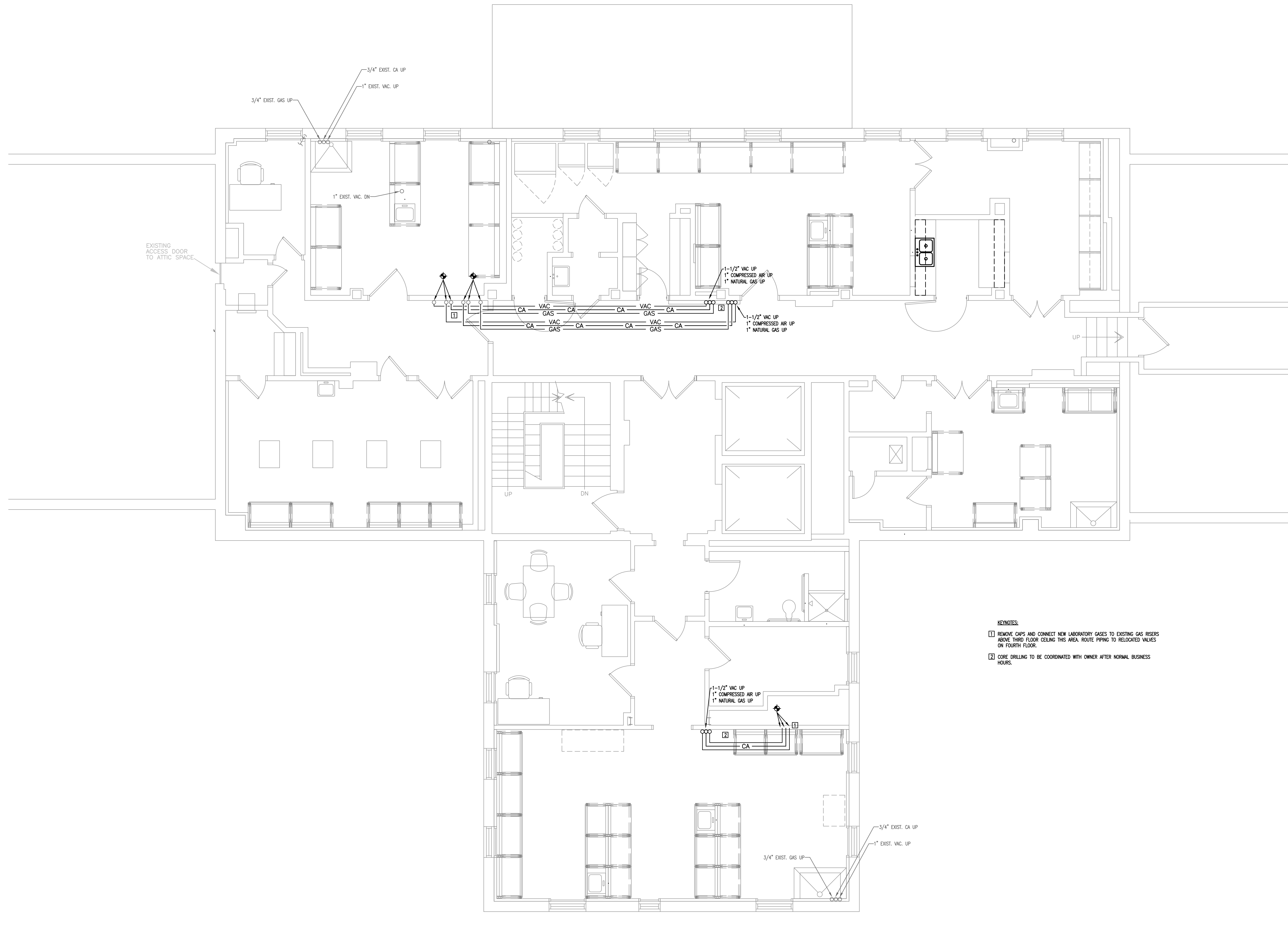
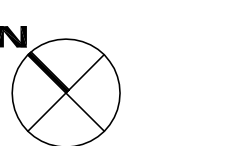
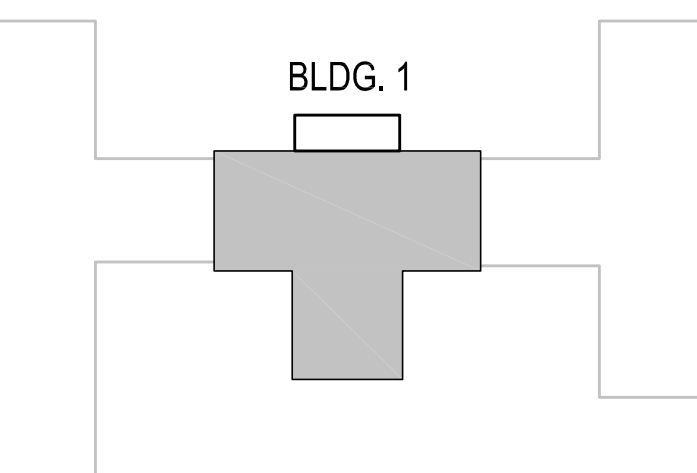
drawn by JJR
checked by JWB



- KEYNOTES:**
- ① 3/4" CW SUPPLY FROM BELOW. PROVIDE FULL PORT SHUTOFF BALL VALVE AND APPROVED DOUBLE CHECK VALVE IN LINE BEFORE CONNECTION. REFERENCE HVAC PLANS FOR CONTINUATION.
 - ② 2" ED-2 AND P-TRAP DOWN. INSULATE WASTE PIPING RECEIVING CONDENSATE.

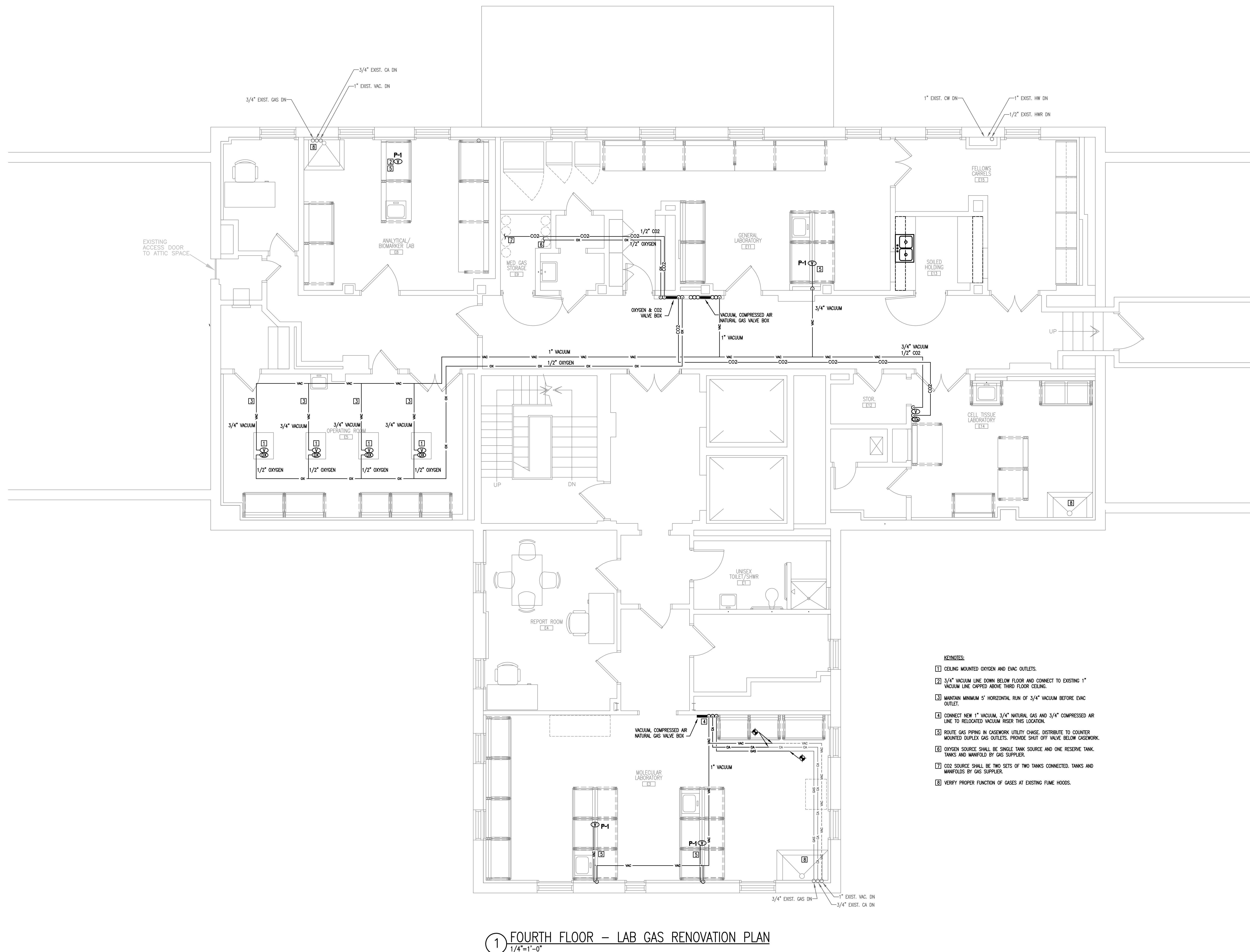
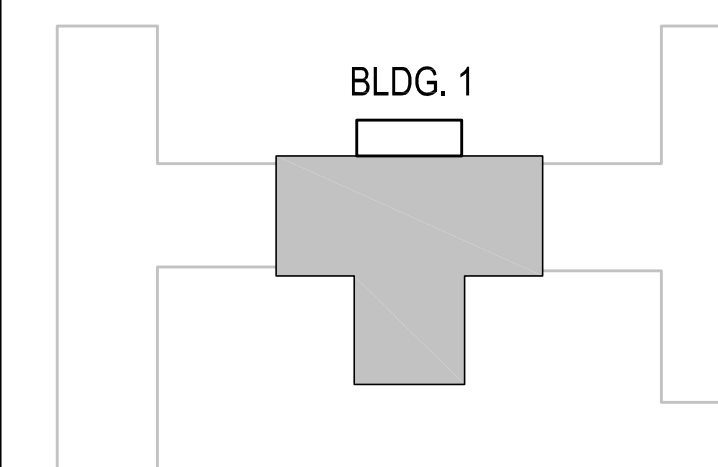
① ATTIC PLAN - PLUMBING RENOVATION
1/4"=1'-0"

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1 THIRD FLOOR – LAB GAS RENOVATION PLAN
1/4"=1'-0"

number	item	date



- KEYNOTES:**
- 1 CEILING MOUNTED OXYGEN AND EVAC OUTLETS.
 - 2 3/4" VACUUM LINE DOWN BELOW FLOOR AND CONNECT TO EXISTING 1" VACUUM LINE CAPPED ABOVE THIRD FLOOR CEILING.
 - 3 MAINTAIN MINIMUM 5' HORIZONTAL RUN OF 3/4" VACUUM BEFORE EVAC OUTLET.
 - 4 CONNECT NEW 1" VACUUM, 3/4" NATURAL GAS AND 3/4" COMPRESSED AIR LINE TO RELOCATED VACUUM RISER THIS LOCATION.
 - 5 ROUTE GAS PIPING IN CASEWORK UTILITY CHASE. DISTRIBUTE TO COUNTER MOUNTED DUPLEX GAS OUTLETS. PROVIDE SHUT OFF VALVE BELOW CASEWORK.
 - 6 OXYGEN SOURCE SHALL BE SINGLE TANK SOURCE AND ONE RESERVE TANK. TANKS AND MANIFOLD BY GAS SUPPLIER.
 - 7 CO2 SOURCE SHALL BE TWO SETS OF TWO TANKS CONNECTED. TANKS AND MANIFOLDS BY GAS SUPPLIER.
 - 8 VERIFY PROPER FUNCTION OF GASES AT EXISTING FUME HOODS.

1 FOURTH FLOOR - LAB GAS RENOVATION PLAN
1/4"=1'-0"

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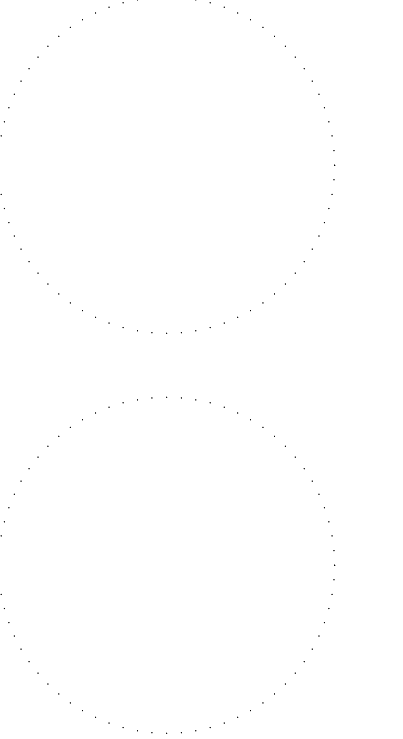


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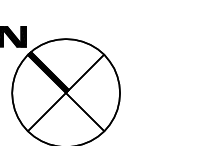
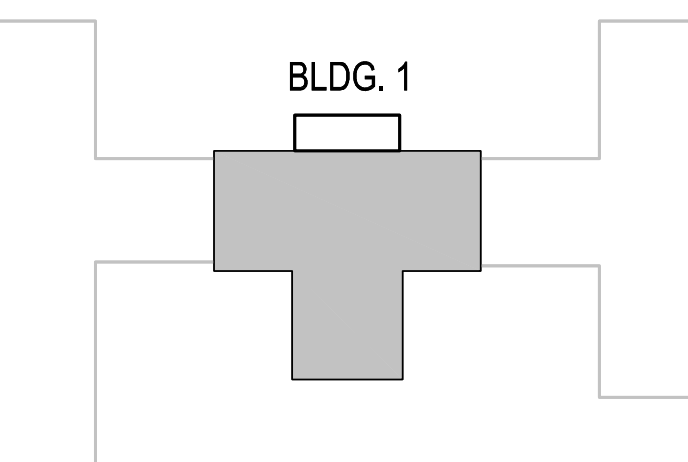


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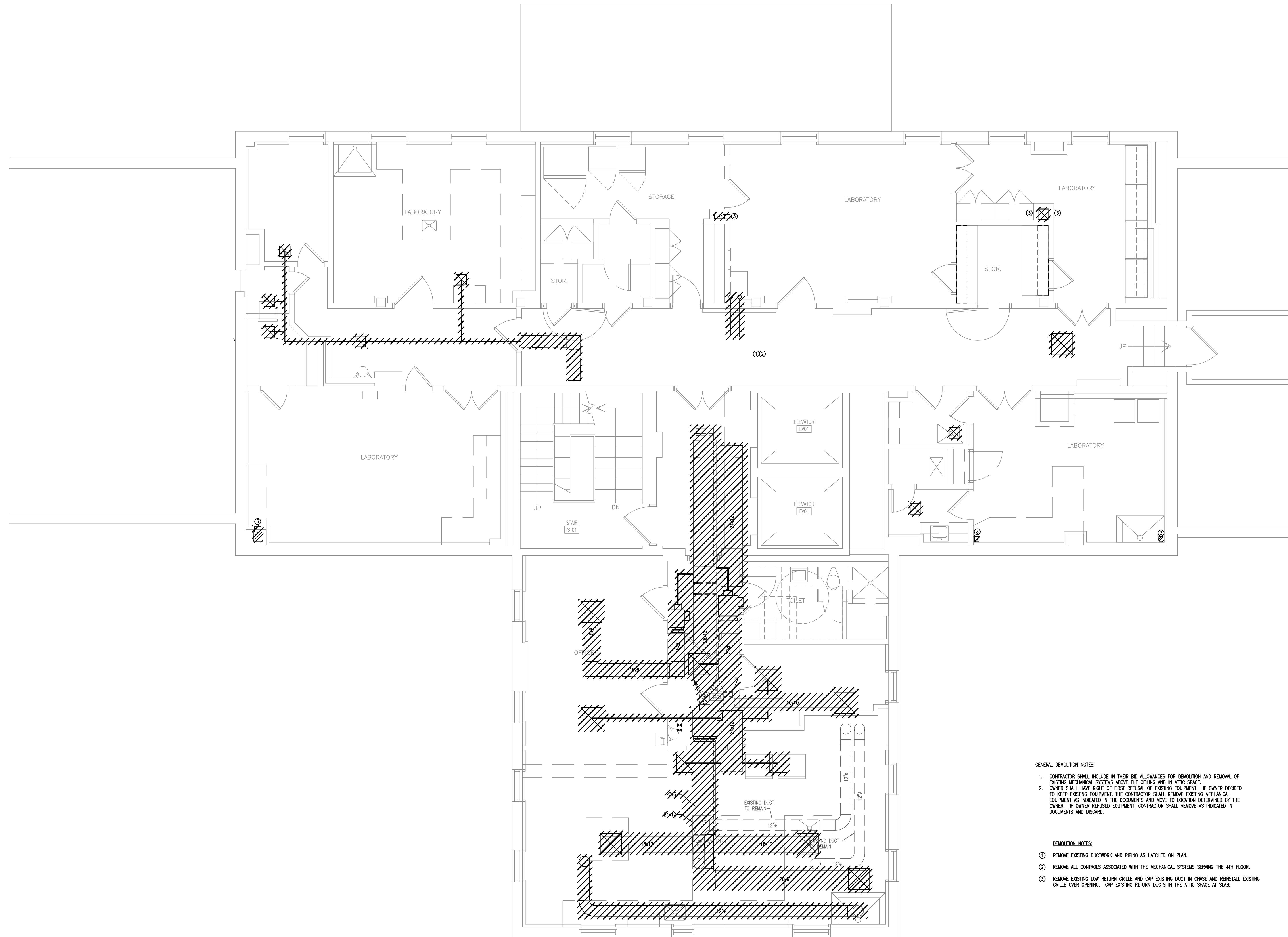


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FOURTH FLOOR PLAN
HVAC DEMOLITION

sheet number

M1.4

drawn by JDR
checked by JWB



GENERAL DEMOLITION NOTES:

- CONTRACTOR SHALL INCLUDE IN THEIR BID ALLOWANCES FOR DEMOLITION AND REMOVAL OF EXISTING MECHANICAL SYSTEMS ABOVE THE CEILING AND IN ATTIC SPACE.
- OWNER SHALL HAVE RIGHT OF FIRST REFUSAL OF EXISTING EQUIPMENT. IF OWNER DECIDED TO KEEP EXISTING EQUIPMENT, THE CONTRACTOR SHALL REMOVE EXISTING MECHANICAL EQUIPMENT AS INDICATED IN THE DOCUMENTS AND MOVE TO LOCATION DETERMINED BY THE OWNER. IF OWNER REFUSED EQUIPMENT, CONTRACTOR SHALL REMOVE AS INDICATED IN DOCUMENTS AND DISCARD.

DEMOLITION NOTES:

- REMOVE EXISTING DUCTWORK AND PIPING AS HATCHED ON PLAN.
- REMOVE ALL CONTROLS ASSOCIATED WITH THE MECHANICAL SYSTEMS SERVING THE 4TH FLOOR.
- REMOVE EXISTING LOW RETURN GRILLE AND CAP EXISTING DUCT IN CHASE AND REINSTALL EXISTING GRILLE OVER OPENING. CAP EXISTING RETURN DUCTS IN THE ATTIC SPACE AT SLAB.

① FOURTH FLOOR LEVEL - HVAC DEMOLITION
1/4"=1'-0"

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project number
13030.01

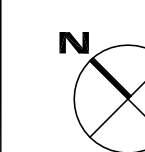
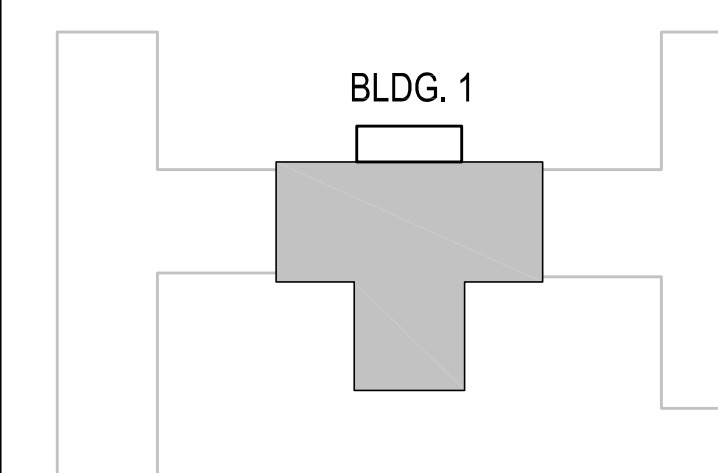
seals/signature

issued for
CONSTRUCTION DOCUMENTS

date
NOVEMBER 21, 2013

number	item	date

key plan

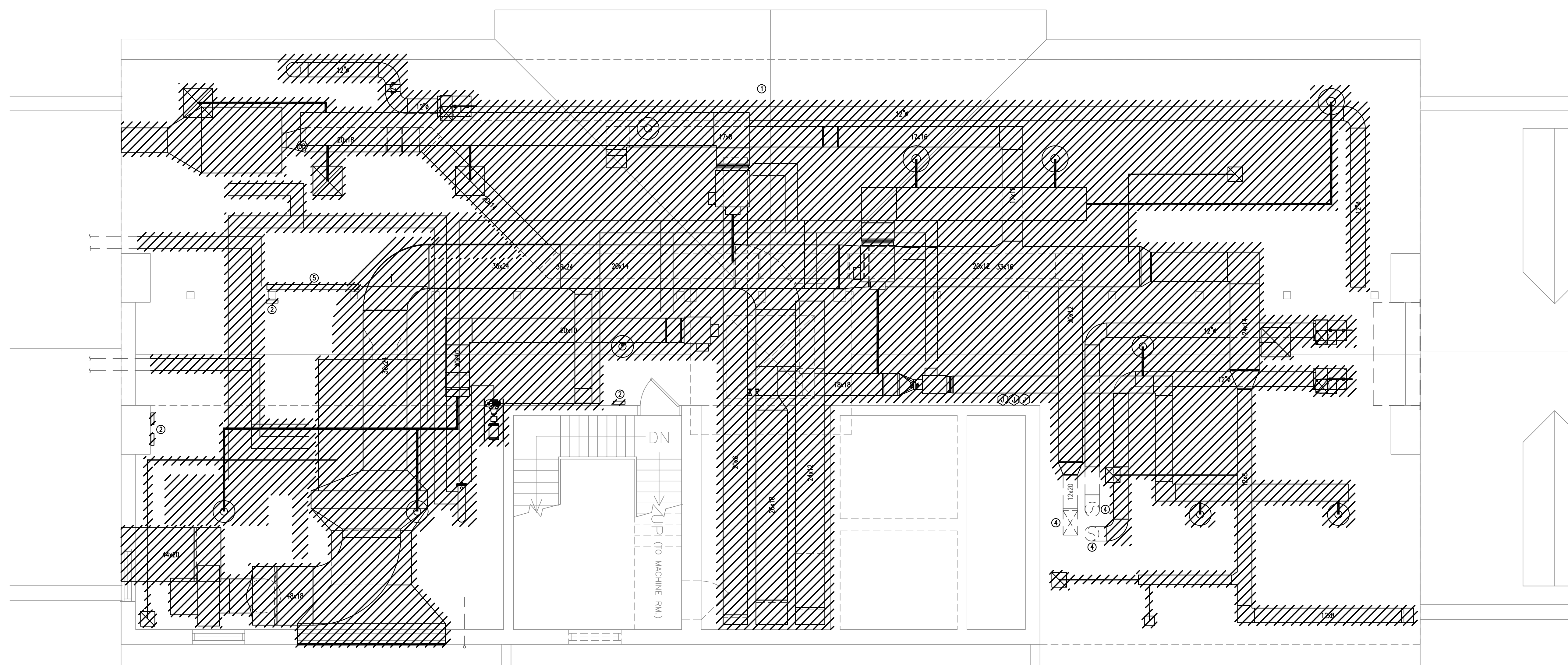


sheet title
**ATTIC FLOOR PLAN
HVAC DEMOLITION**

sheet number

M1.5

drawn by **JDR**
checked by **JWB**

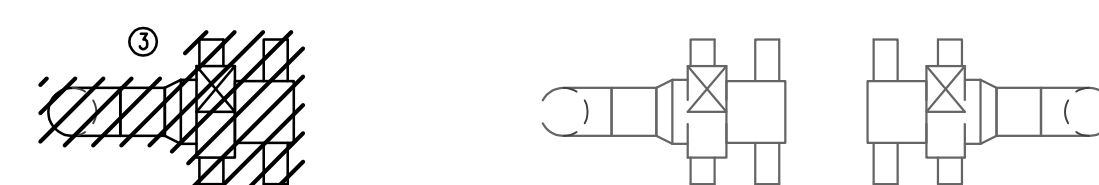


DEMOLITION NOTES:

- ① REMOVE EXISTING DUCTWORK AND PIPING AS HATCHED ON PLAN.
- ② REMOVE ALL CONTROLS ASSOCIATED WITH THE MECHANICAL SYSTEMS SERVING THE 4TH FLOOR SYSTEMS DEMOLISHED IN THE ATTIC.
- ③ REMOVE EXISTING FUME HOOD EXHAUST FAN ON ROOF. PATCH ROOF OPENING AS REQUIRED. CONTRACTOR SHALL VERIFY EXHAUST FAN DEMOLISHED IS CONNECTED EXISTING FUME HOOD ON THE FOURTH FLOOR.
- ④ EXISTING MAKE-UP AIR AND EXHAUST DUCT DOWN TO FLOORS BELOW. CONTRACTOR SHALL COORDINATE WITH THE OWNER WHEN THESE EXISTING FUME HOODS CAN BE TAKEN OFFLINE UNTIL NEW MECHANICAL SYSTEM HAS BEEN INSTALLED.
- ⑤ REMOVE EXISTING STEAM PRV.

GENERAL DEMOLITION NOTES:

- 1. CONTRACTOR SHALL INCLUDE IN THEIR BID ALLOWANCES FOR DEMOLITION AND REMOVAL OF EXISTING MECHANICAL SYSTEMS ABOVE THE CEILING AND IN ATTIC SPACE.
- 2. OWNER SHALL HAVE RIGHT OF FIRST REFUSAL OF EXISTING EQUIPMENT. IF OWNER DECIDED TO KEEP EXISTING EQUIPMENT, THE CONTRACTOR SHALL REMOVE EXISTING MECHANICAL EQUIPMENT AS INDICATED IN THE DOCUMENTS AND MOVE TO LOCATION DETERMINED BY THE OWNER. IF OWNER REFUSED EQUIPMENT, CONTRACTOR SHALL REMOVE AS INDICATED IN DOCUMENTS AND DISCARD.



① ATTIC FLOOR LEVEL - HVAC DEMOLITION
1/4"=1'-0"

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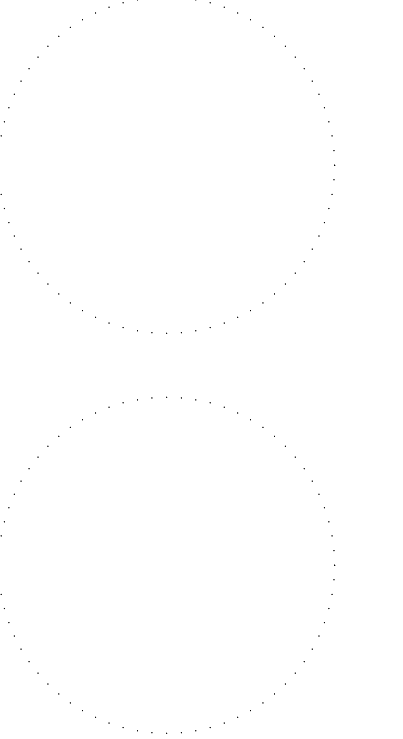


UNIVERSITY OF SOUTH CAROLINA
USC CAMPUS PLANNING AND CONSTRUCTION
743 GREENE STREET
COLUMBIA, SOUTH CAROLINA 29208

project name
USC SOM - BLDG #1
4TH FLOOR ANIMAL SURGERY LAB
H27-1901

project number
13030.01

seals/signature

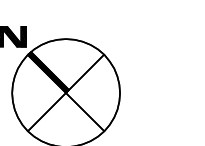
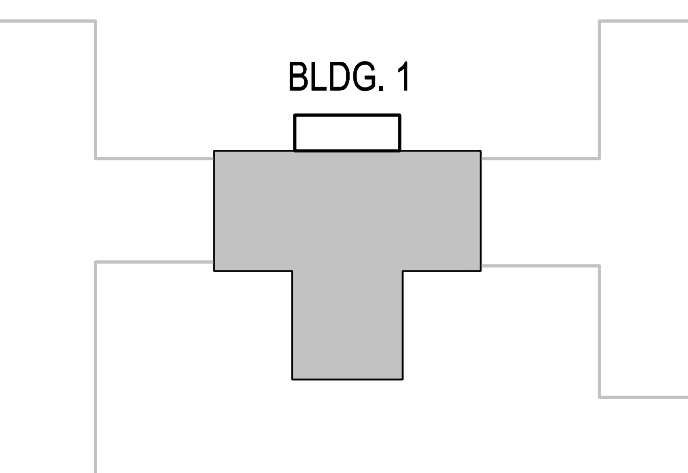


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date
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number	item	date

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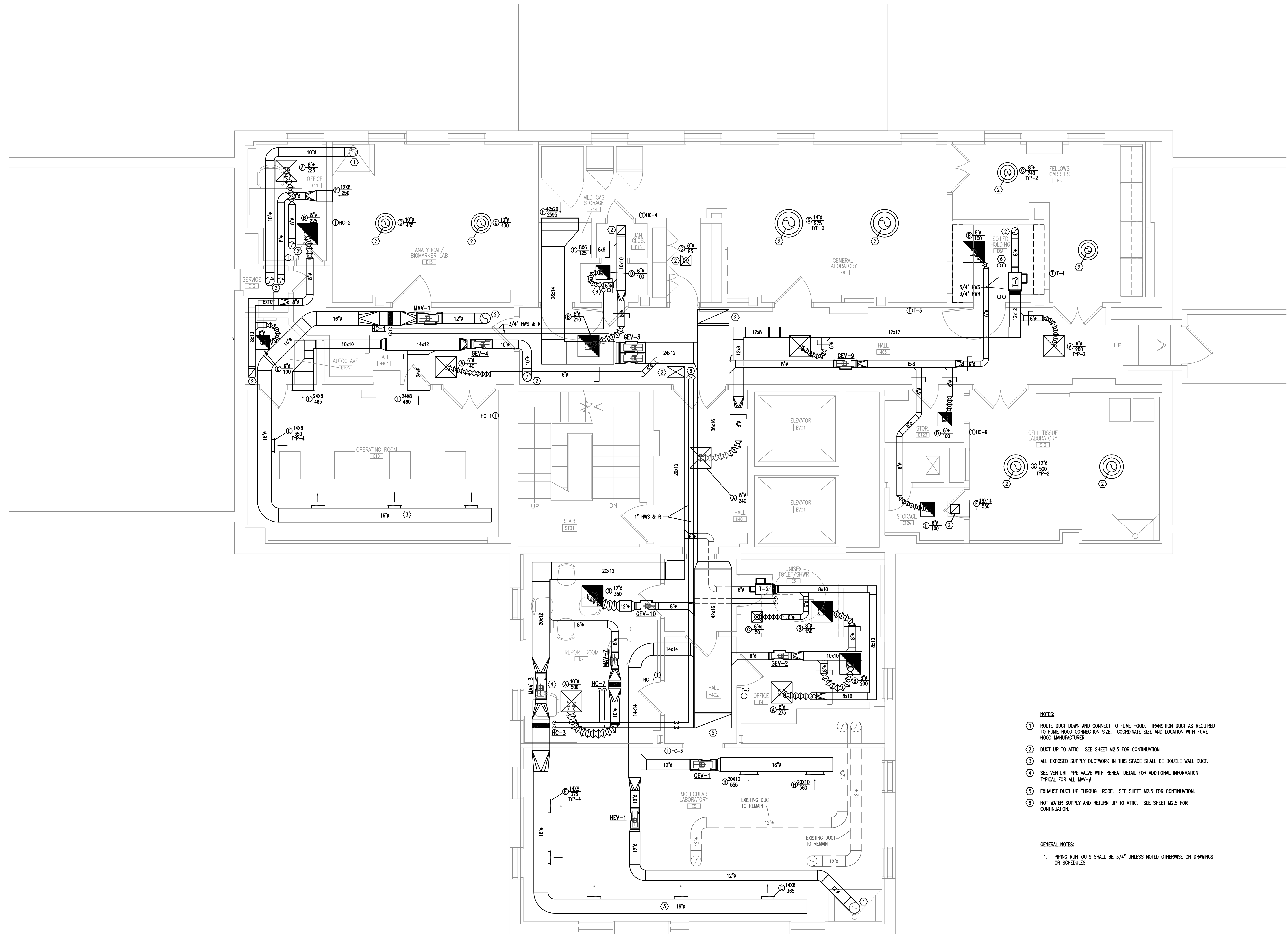


sheet title
FOURTH FLOOR PLAN
HVAC RENOVATION

sheet number

M2.4

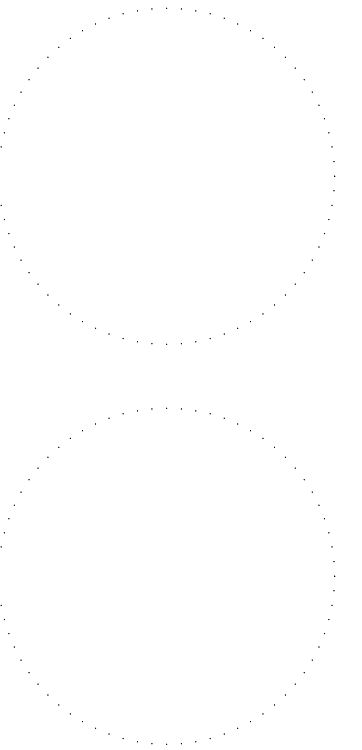
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checked by JWB



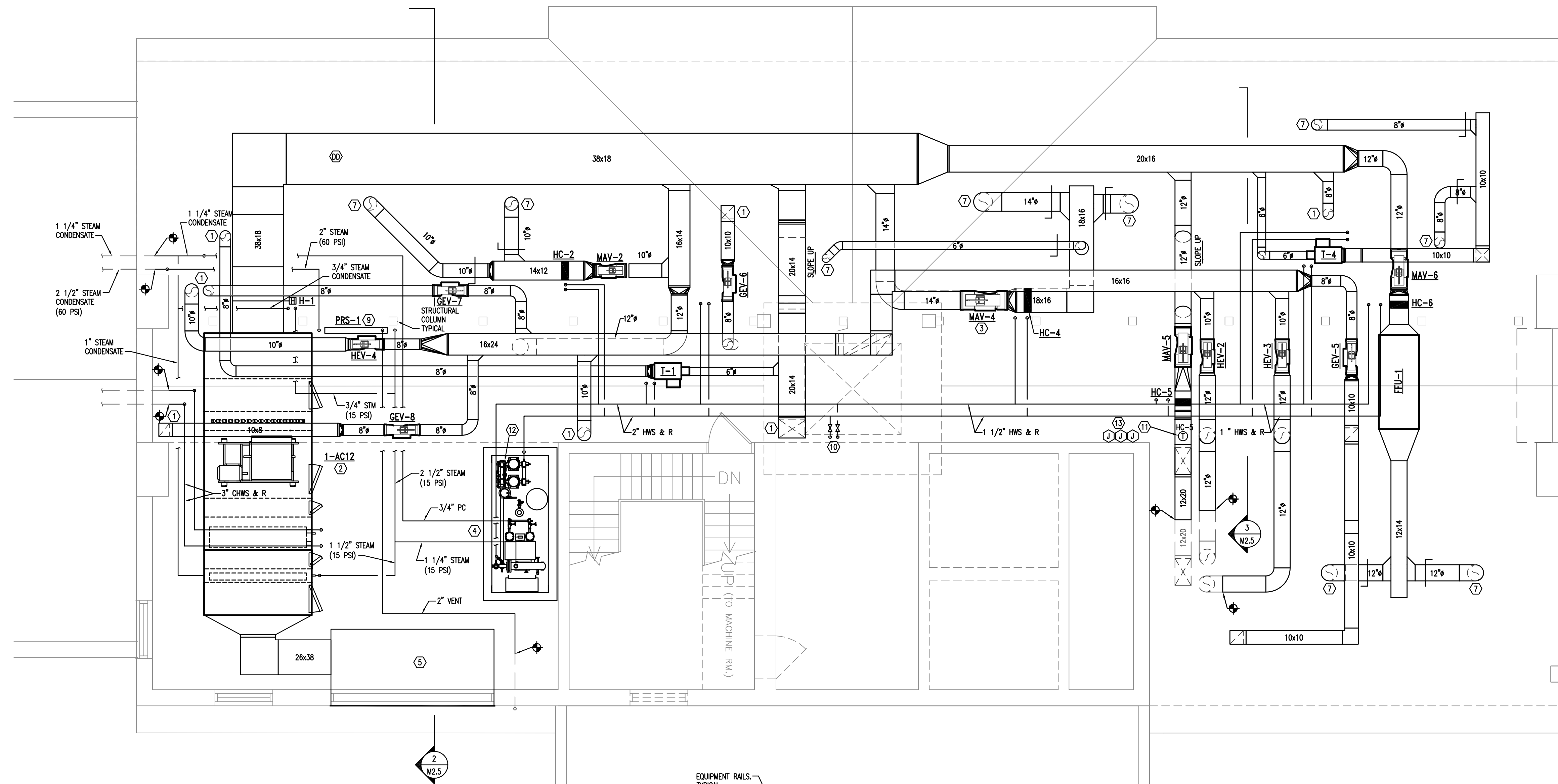
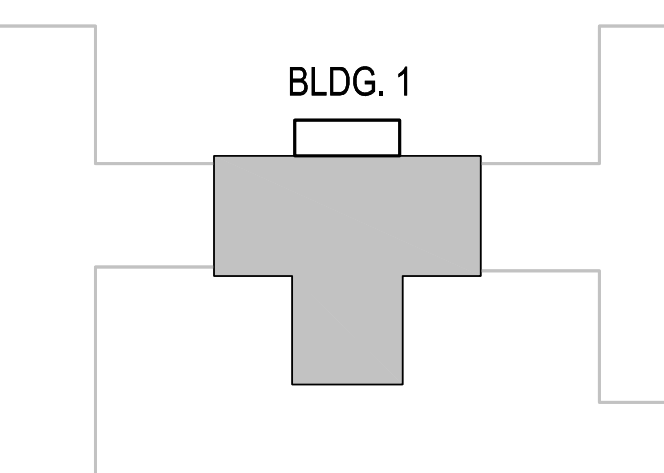
- NOTES:
- ROUTE DUCT DOWN AND CONNECT TO FUME HOOD. TRANSITION DUCT AS REQUIRED TO FUME HOOD CONNECTION SIZE. COORDINATE SIZE AND LOCATION WITH FUME HOOD MANUFACTURER.
 - DUCT UP TO ATTIC. SEE SHEET M2.5 FOR CONTINUATION.
 - ALL EXPOSED SUPPLY DUCTWORK IN THIS SPACE SHALL BE DOUBLE WALL DUCT.
 - SEE VENTURI TYPE VALVE WITH REHEAT DETAIL FOR ADDITIONAL INFORMATION. TYPICAL FOR ALL MAV-#.
 - EXHAUST DUCT UP THROUGH ROOF. SEE SHEET M2.5 FOR CONTINUATION.
 - HOT WATER SUPPLY AND RETURN UP TO ATTIC. SEE SHEET M2.5 FOR CONTINUATION.

- GENERAL NOTES:
- PIPING RUN-OUTS SHALL BE 3/4" UNLESS NOTED OTHERWISE ON DRAWINGS OR SCHEDULES.

① FOURTH FLOOR LEVEL - HVAC RENOVATION
1/4"=1'-0"



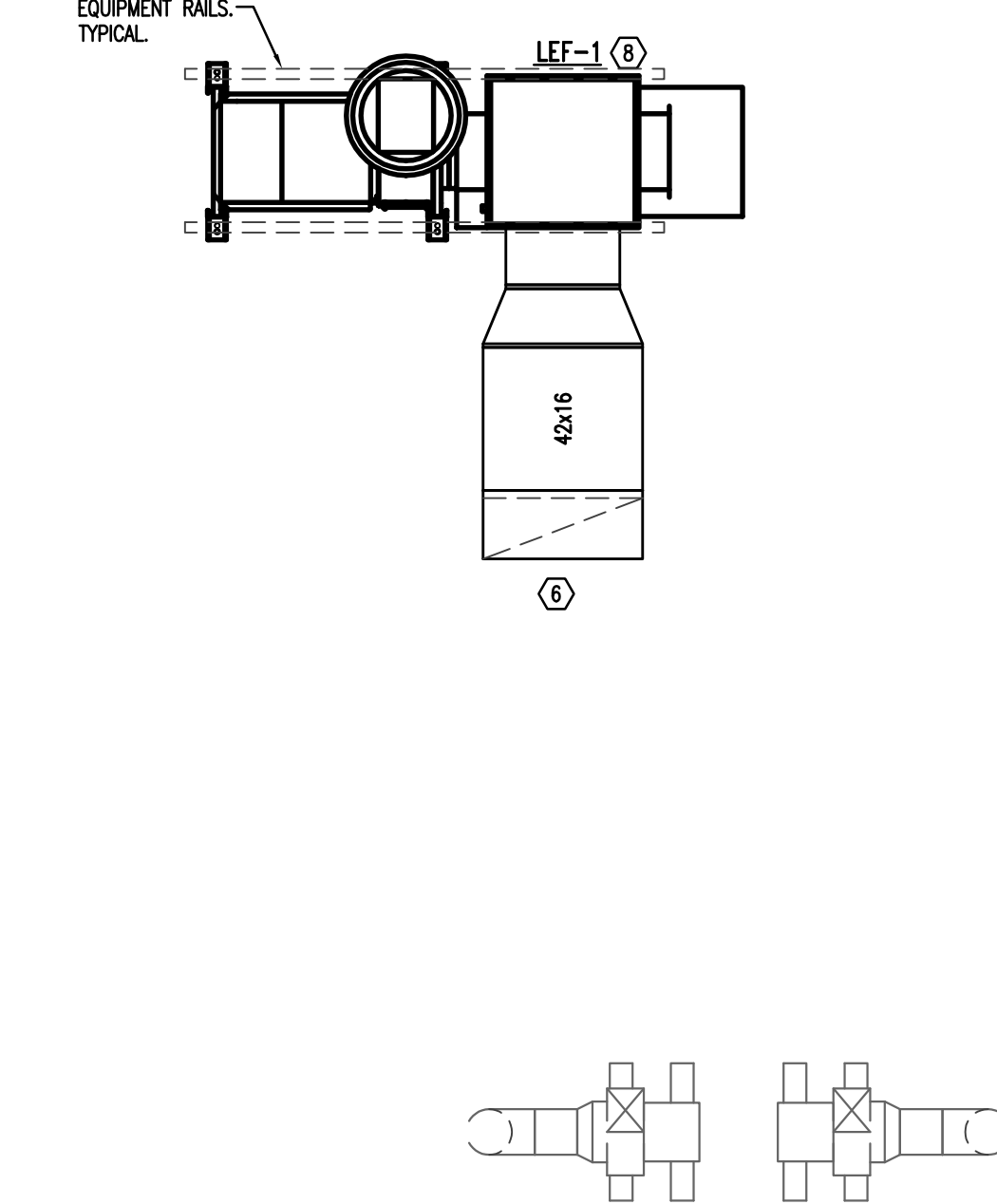
number	item	date



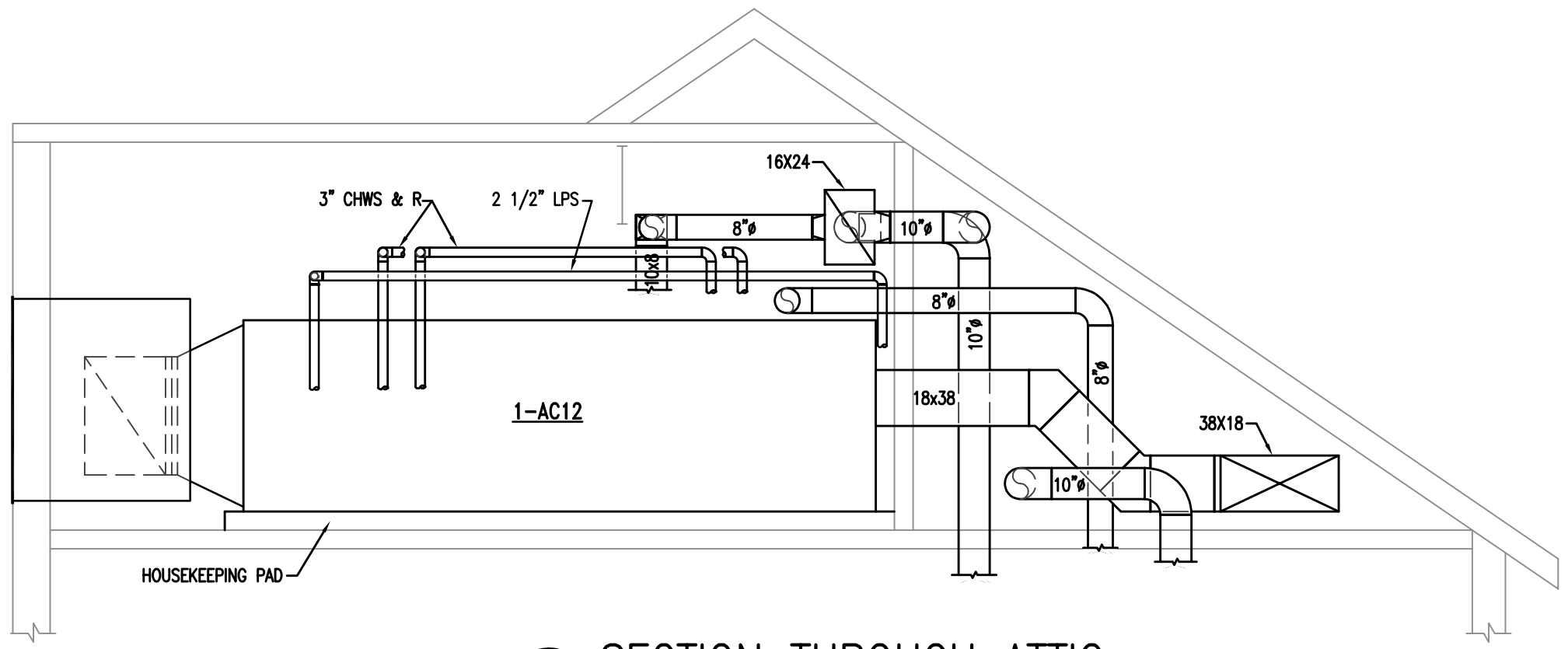
- NOTES:**
- DUCT DOWN THROUGH ATTIC SLAB. SEE SHEET M2.4 FOR CONTINUATION.
 - PROVIDE DEEP SEAL P-TOP FULL SIZE OF UNIT CONNECTION AND ROUTE CONDENSATE TO NEAREST FLOOR DRAIN.
 - SEE VENTURI TYPE VALVE WITH REHEAT DETAIL FOR ADDITIONAL INFORMATION. TYPICAL FOR ALL MAV-#.
 - HOT WATER PUMP PACKAGE. SEE DETAILS AND SCHEDULES FOR ADDITIONAL INFORMATION.
 - FIELD FABRICATED INSULATED SHEET METAL PLENUM. PLENUM SHALL BE SIZE OF INTAKE LOUVER.
 - EXHAUST DUCT THROUGH ROOF. SEE SHEET M2.4 FOR CONTINUATION.
 - ROUTE DUCT DOWN THROUGH ATTIC SLAB AND CONNECT TO AIR DISTRIBUTION GRILLE. SEE SHEET M2.4 FOR GRILLE TYPE AND LOCATION.
 - INSTALL LEF-1 ON ROOF. SEE LAB EXHAUST FAN DETAIL FOR ADDITIONAL INFORMATION.
 - NEW STEAM PRESSURE REDUCING STATION. SEE STEAM PRESSURE REDUCING STATION DETAIL ON FOR ADDITIONAL INFORMATION.
 - HOT WATER DOWN TO 4TH FLOOR. SEE SHEET M2.4 FOR CONTINUATION.
 - DUCT MOUNTED TEMPERATURE SENSOR. SET TO 75 DEGREES F (ADJUSTABLE).
 - REFER TO PLUMBING DRAWINGS FOR MAKE-UP WATER. MECHANICAL CONTRACTOR SHALL MAKE MAKE-UP WATER CONNECTION TO PUMP PACKAGE.
 - JUNCTION BOX FOR CONTROLS. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.

GENERAL NOTES:

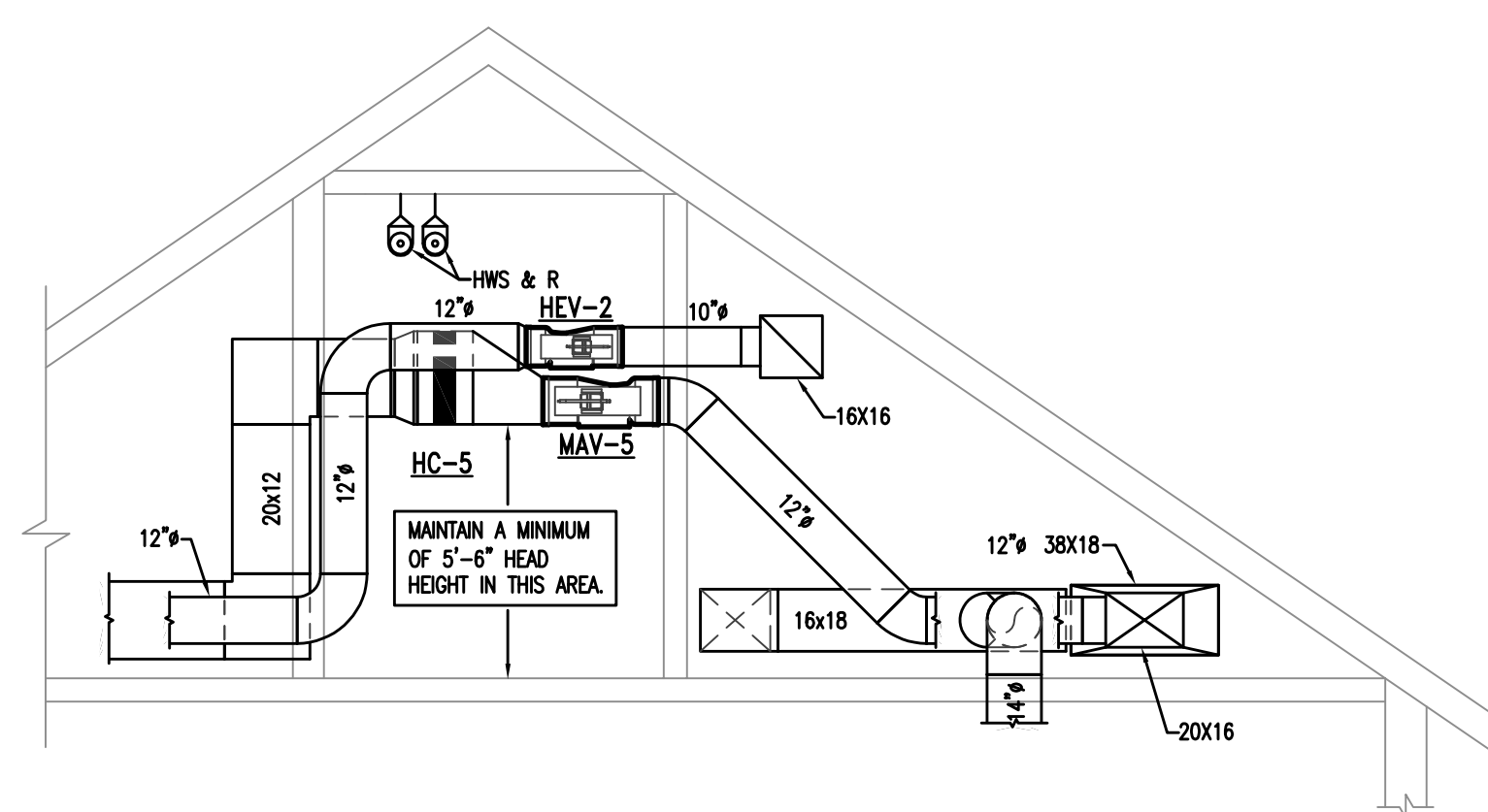
1. PIPING RUN-OUTS SHALL BE 3/4" UNLESS NOTED OTHERWISE ON DRAWINGS OR SCHEDULES.



1 ATTIC FLOOR LEVEL - HVAC RENOVATION
1/4"=1'-0"

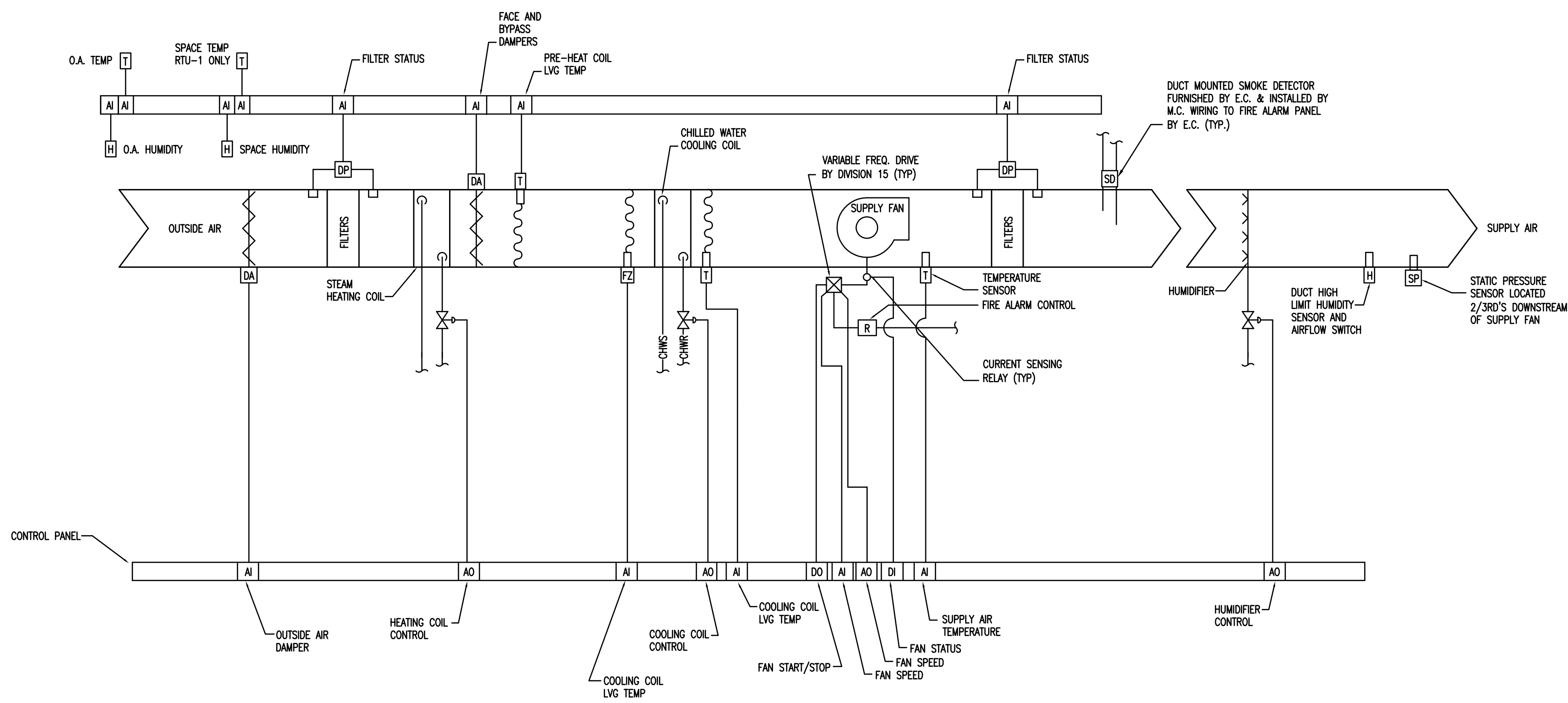
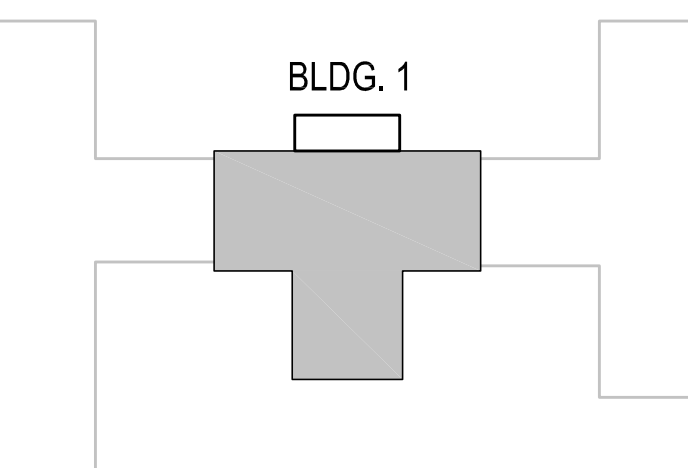


2 SECTION THROUGH ATTIC
1/4"=1'-0"

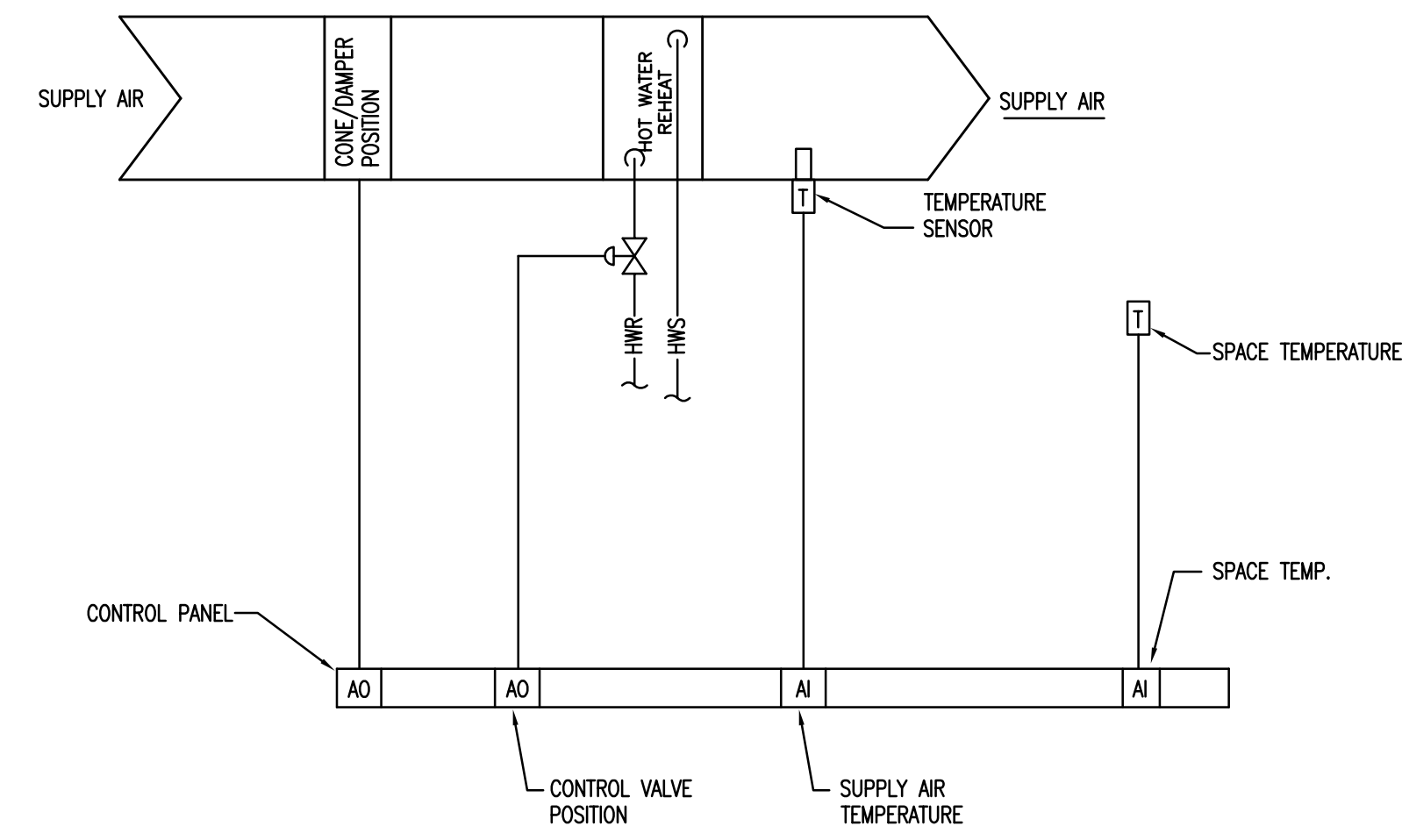


3 SECTION THROUGH ATTIC
1/4"=1'-0"

number	item	date

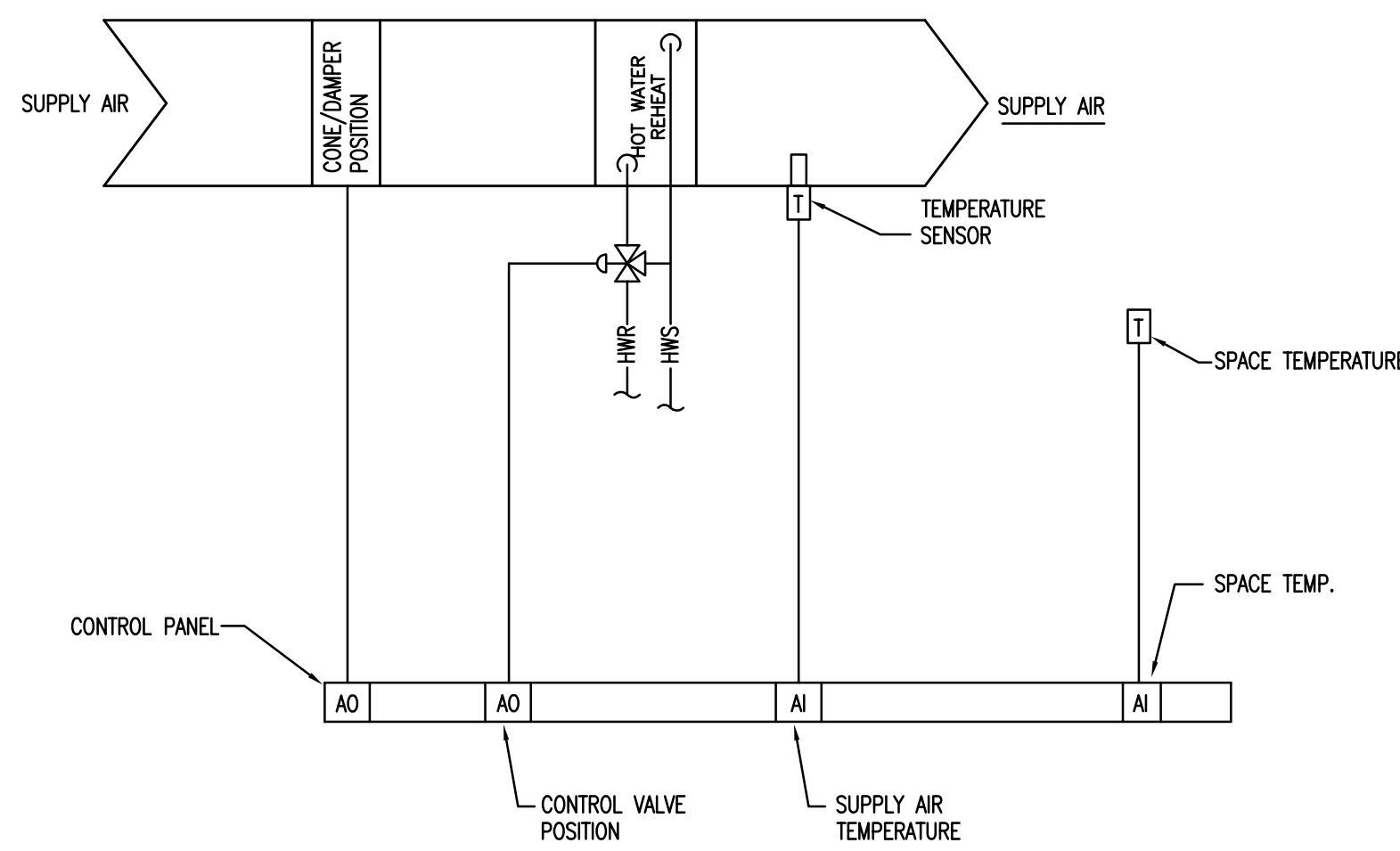


1-AC-12 CONTROL DIAGRAM
NTS



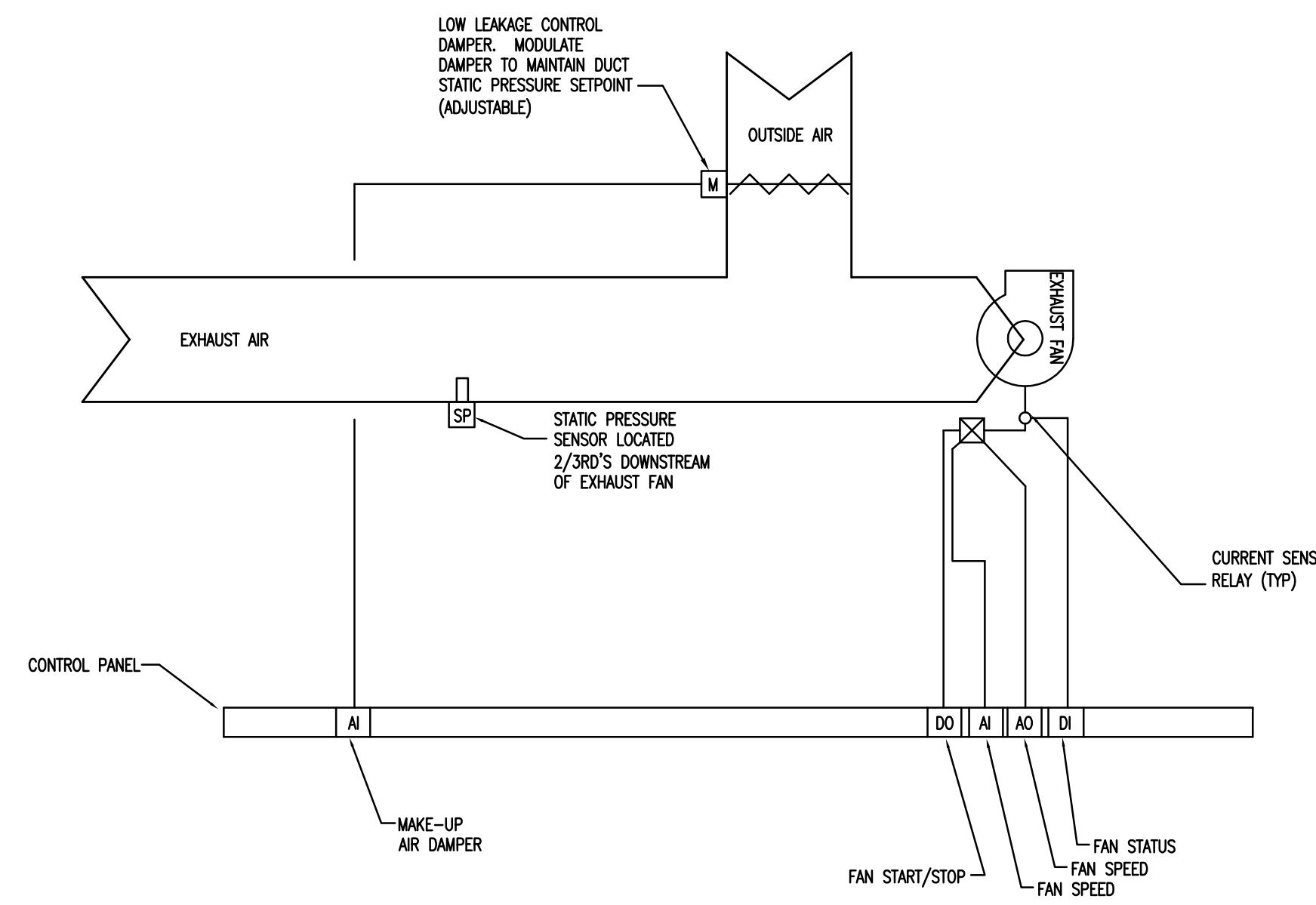
2 TERMINAL BOX CONTROL DIAGRAM
NTS

NOTES:
1. TYPICAL FOR ALL VAV, CAV, AND MAV BOXES



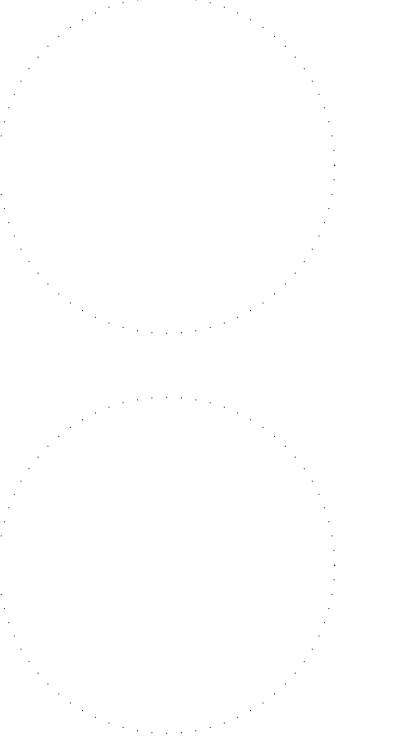
3 TERMINAL BOX CONTROL DIAGRAM (MAV-5 & 7)
NTS

NOTES:
1. TYPICAL FOR ALL VAV, CAV, AND MAV BOXES

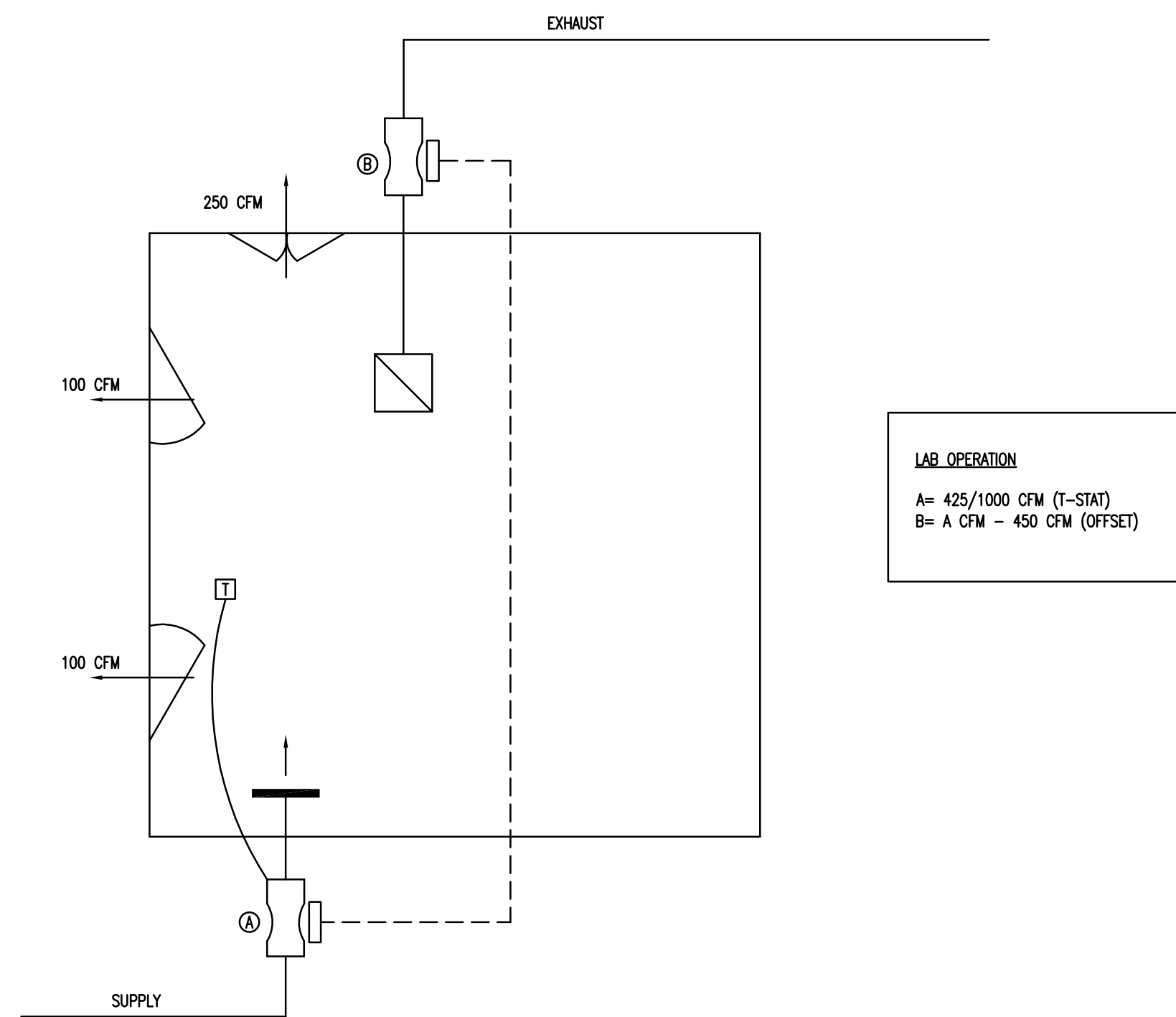
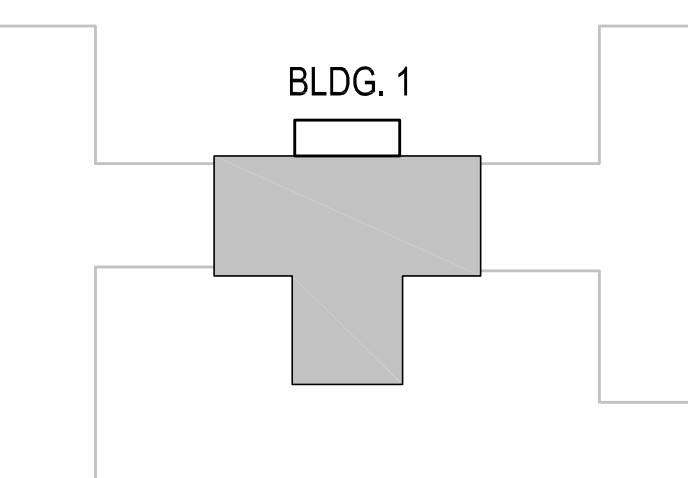


4 LAB EXHAUST FAN CONTROL DIAGRAM
NTS

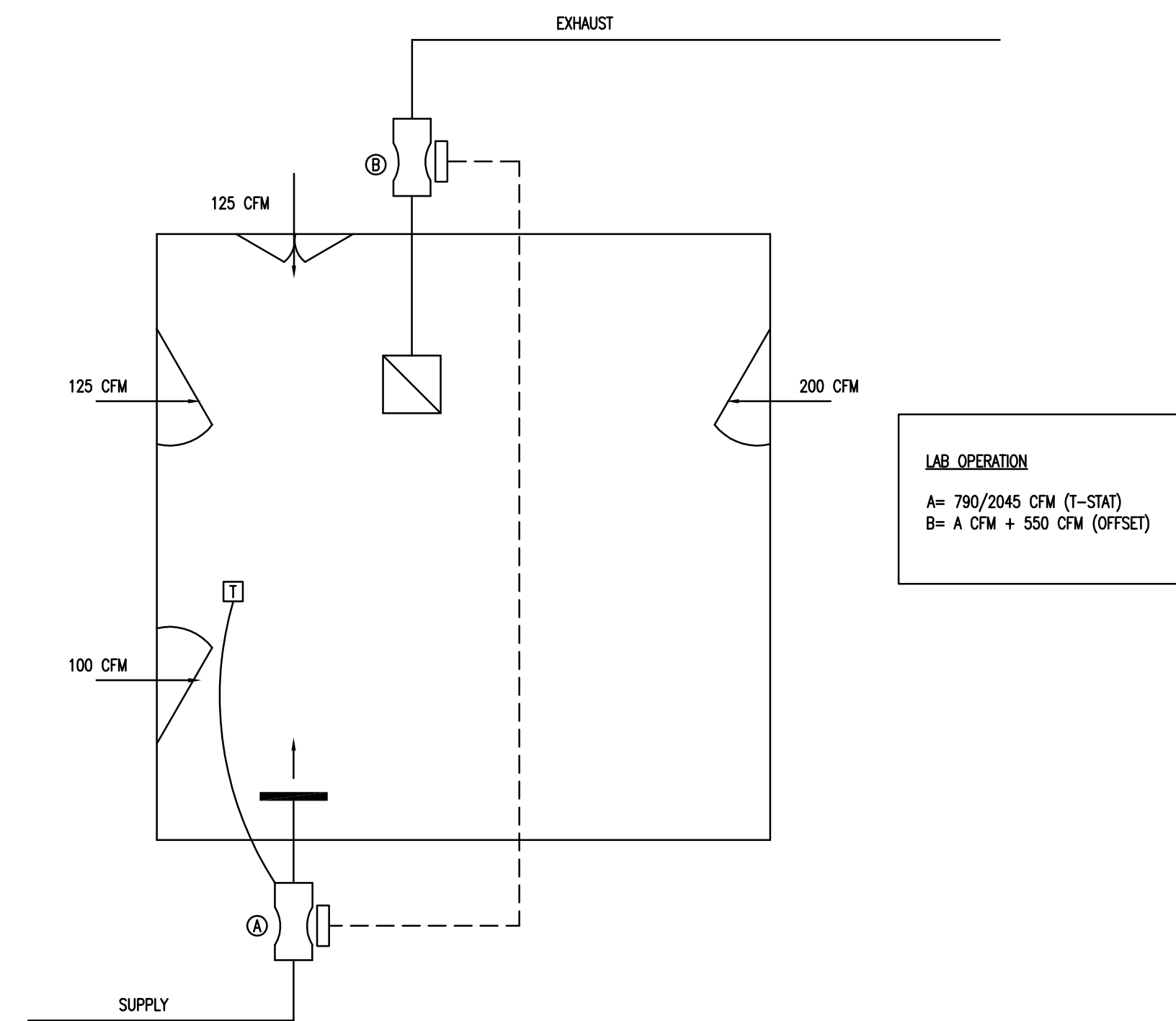
NOTES:
1. TYPICAL FOR ALL LAB EXHAUST FANS.



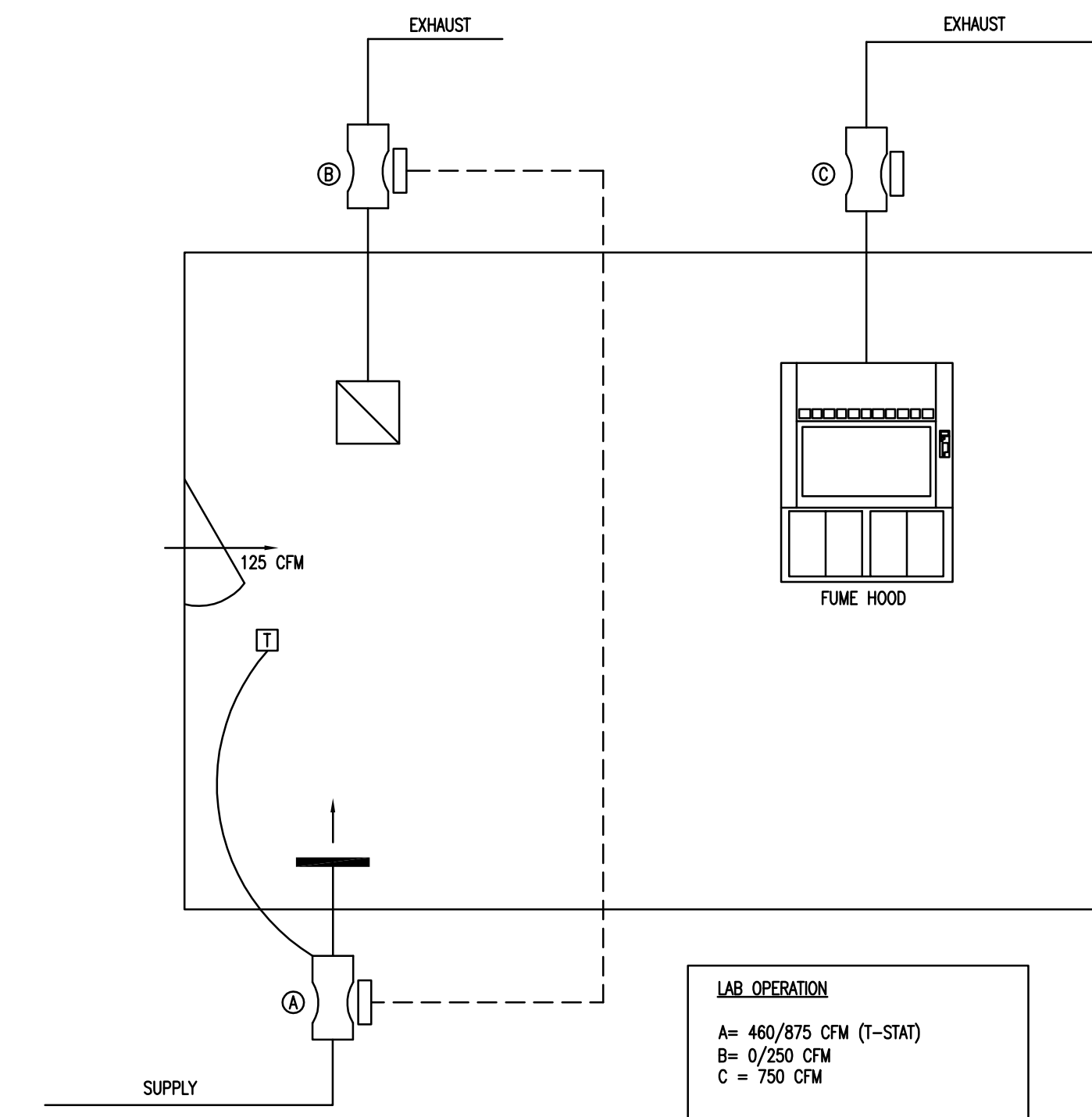
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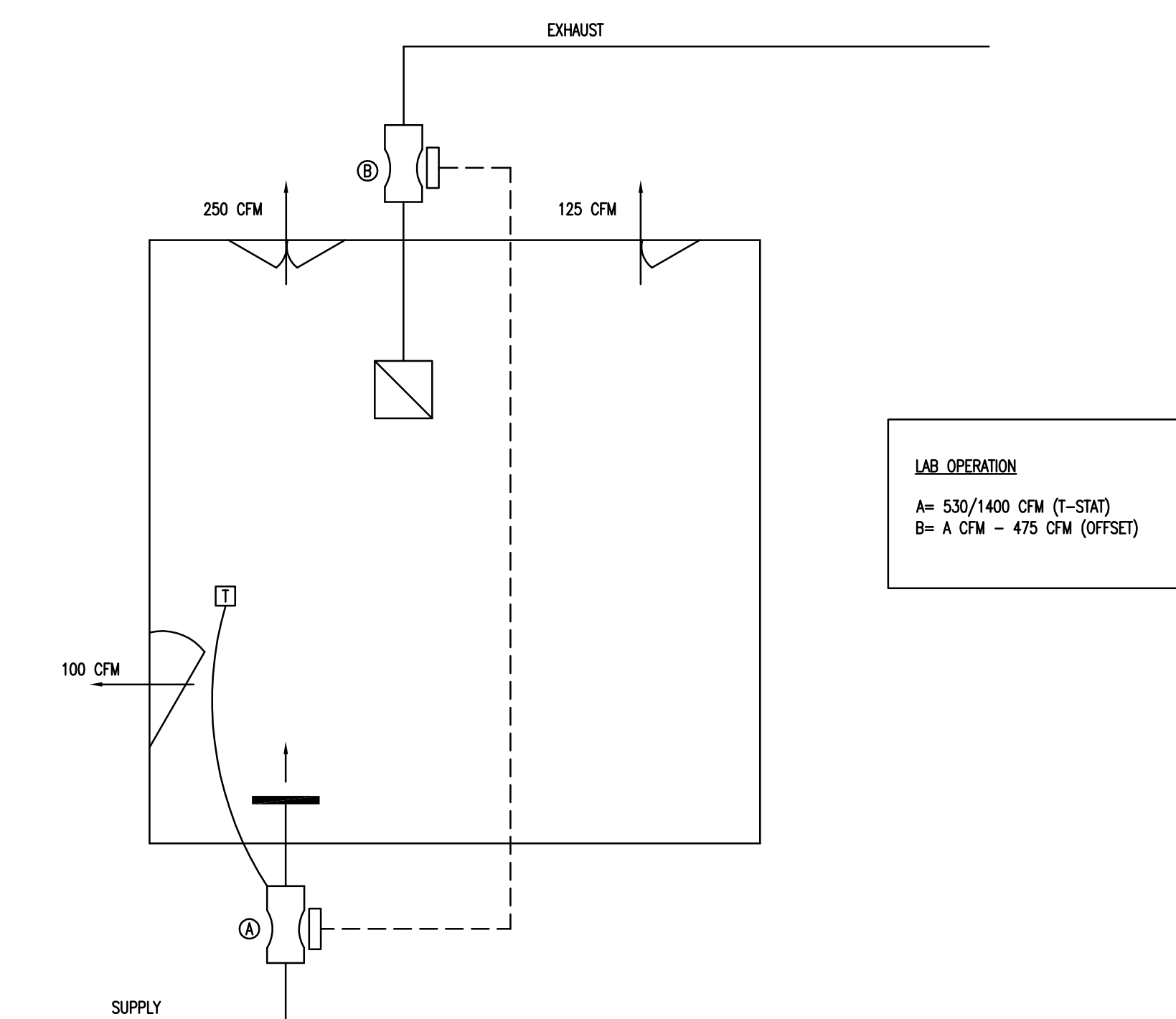
1 CELL TISSUE LAB E12 CONTROL SCHEMATIC
NTS



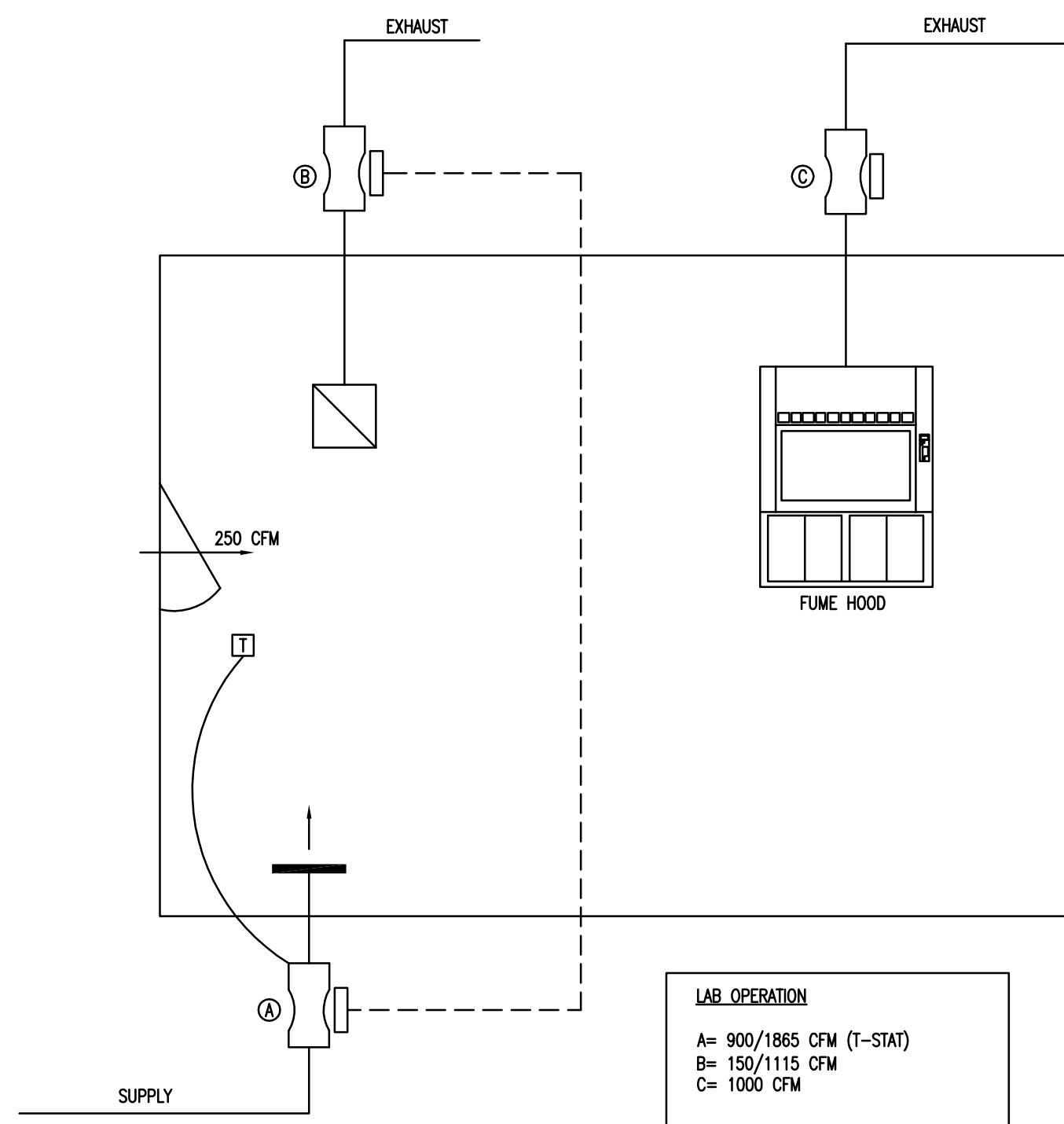
2 GENERAL LAB E8 CONTROL SCHEMATIC
NTS



3 ANALYTICAL/BIOMARKER LAB E15 CONTROL SCHEMATIC
NTS



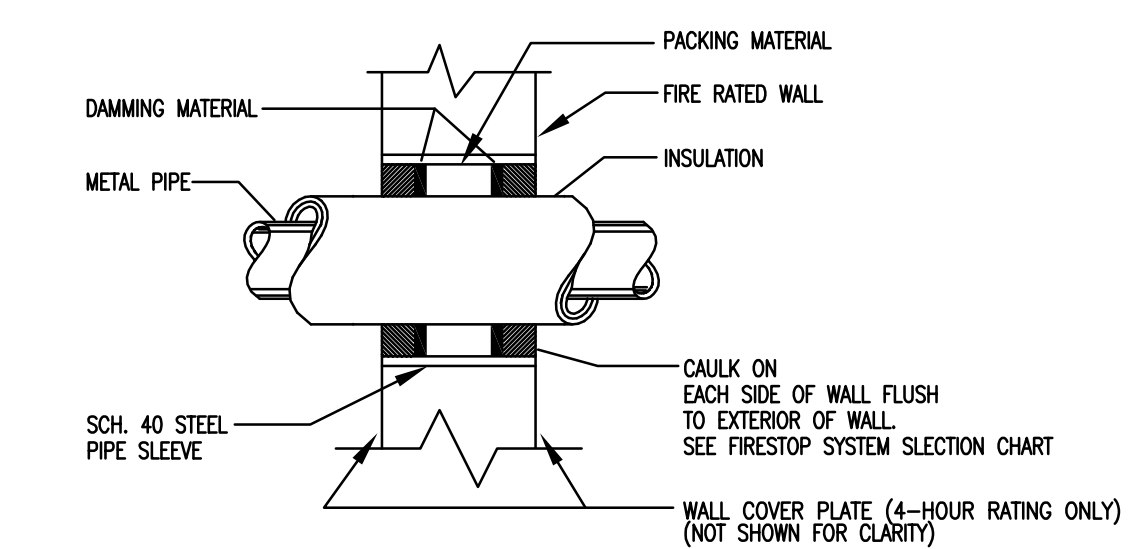
4 OPERATING ROOM E10 CONTROL SCHEMATIC
NTS



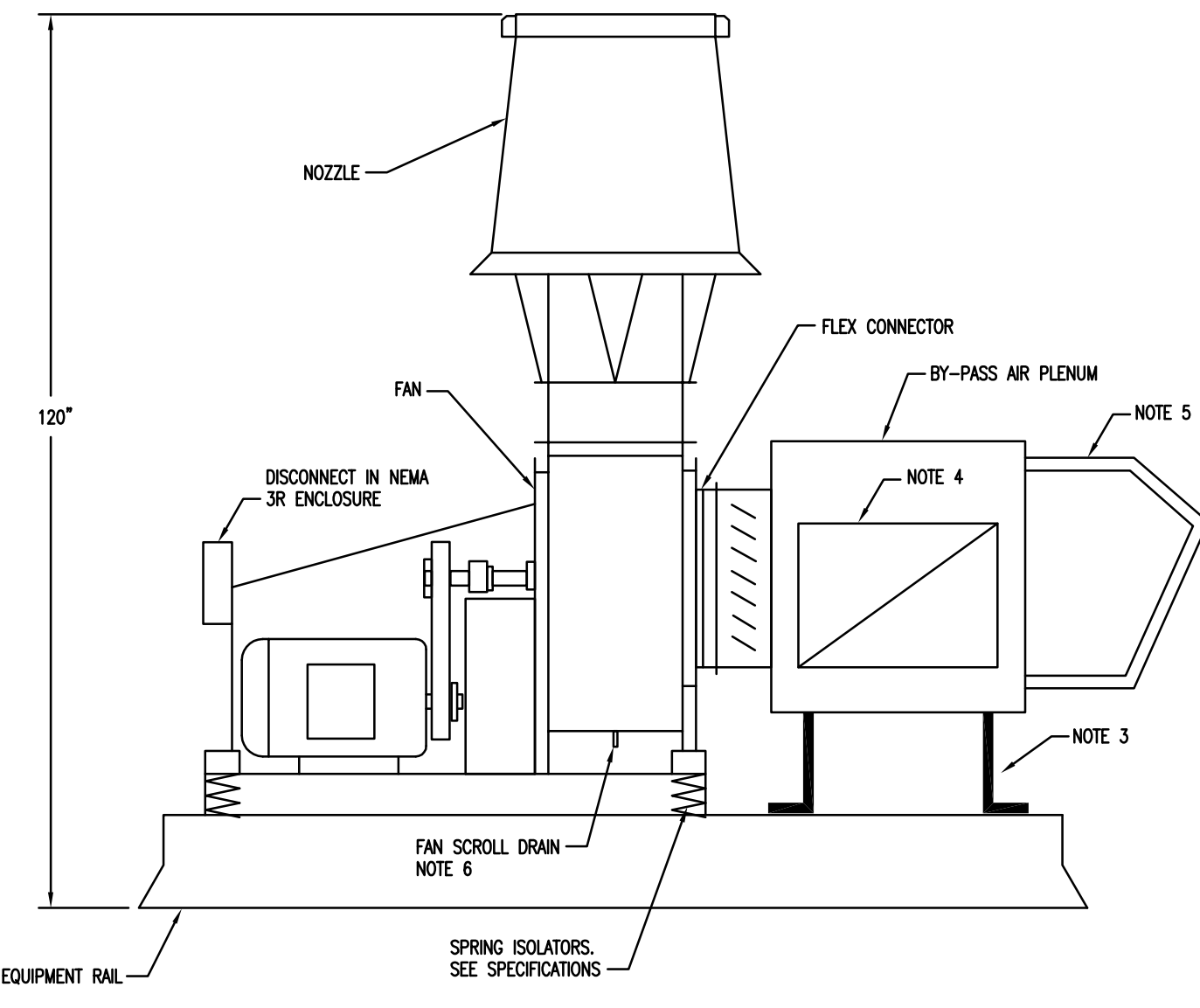
5 MOLECULAR LAB E5 CONTROL SCHEMATIC
NTS

FIRESTOP SYSTEM SELECTION CHART

PENETRATION ITEM	FIRE RATING	UL SYSTEM NO.	PENETRATION ITEM	FIRE RATING	UL SYSTEM NO.
METAL PIPE THROUGH GYPSUM WALL			METAL PIPE THROUGH CONCRETE/CONCRETE BLOCK		
1/2" - 1" STEEL PIPE	1-HOUR	WL1058	1/2" - 6" STEEL PIPE	3-HOUR	CA1150
1/2" - 30" STEEL PIPE	1-HOUR OR 2-HOUR	WL1054	1/2" - 4" EMT OR STEEL CONDUIT (NO SLEEVE) WHERE FLEXIBLE SEALANT IS REQUIRED	3-HOUR	CA1150
1/2" - 8" COPPER PIPE (NO SLEEVE)			1/2" - 24" STEEL PIPE	4-HOUR	CA1079
METAL INSULATED PIPE THROUGH GYPSUM WALL			MULTIPLE METAL PIPE THROUGH CONCRETE/CONCRETE BLOCK		
1/2" - 4" STEEL PIPE	1-HOUR	WL5022	12" OR SMALLER STEEL PIPE AND/OR 4" OR SMALLER COPPER PIPE, EMT OR CONDUIT	3-HOUR	CA1140
1/2" - 2" STEEL PIPE	2-HOUR	WL5027	INSULATED METAL PIPE THROUGH CONCRETE/CONCRETE BLOCK		
1/2" - 10" STEEL PIPE (NO SLEEVE)	2-HOUR	WL5029	1/2" - 8" STEEL PIPE WITH 1" THICK GLASS FIBER	2-HOUR	CA5046
METAL PIPE THROUGH CONCRETE/CONCRETE BLOCK			1/2" - 6" STEEL PIPE OR 1/2" - 4" COPPER PIPE, EMT OR CONDUIT WITH 1-1/2" GLASS FIBER	2-HOUR	CA5045
12" - 21" STEEL PIPE (NO SLEEVE)	3-HOUR	CA1156	MULTIPLE INSULATED PIPES, MAXIMUM QUANTITY OF 4	3-HOUR	CA5044
1/2" - 20" STEEL PIPE	3-HOUR	CA1155	1/2" - 3" STEEL PIPE, COPPER PIPE, EMT OR CONDUIT WITH 3/4" GLASS FIBER		
1/2" - 8" COPPER PIPE (NO SLEEVE)	3-HOUR	CA1154			
1/2" - 10" STEEL PIPE (NO SLEEVE)	3-HOUR	CA1154			
8" - 10" STEEL PIPE (NO SLEEVE)	2-HOUR	CA1158			

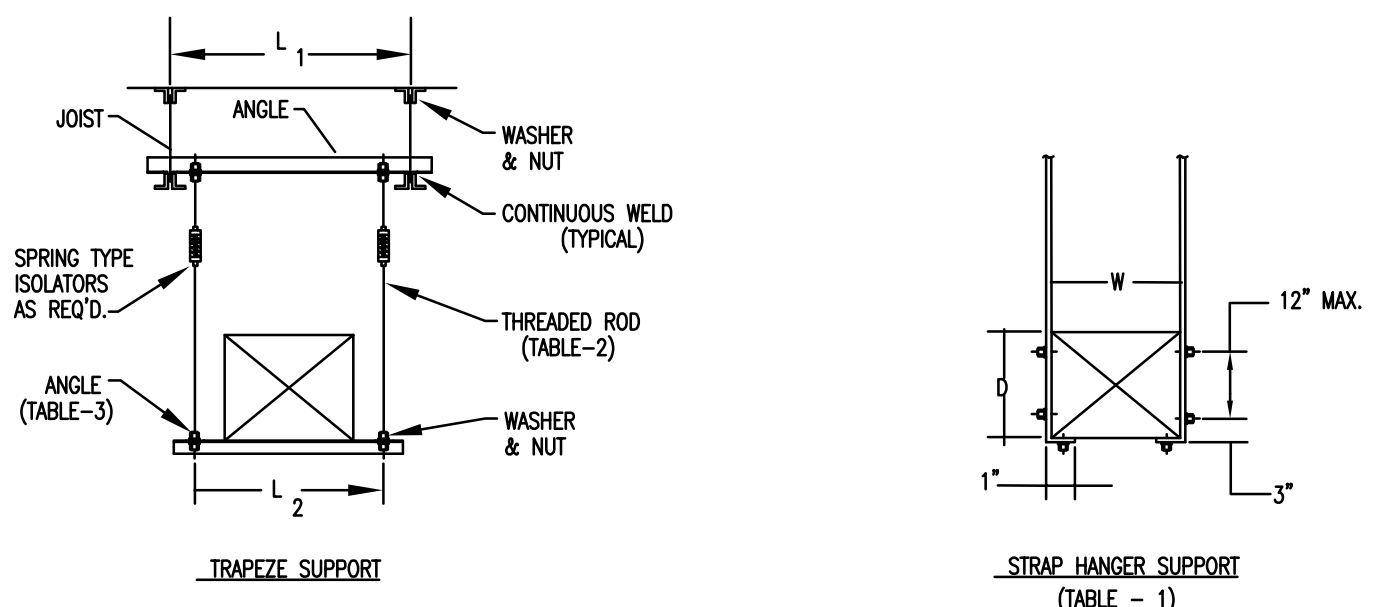


1 RATED WALL PENETRATION
NTS



- NOTES:
- CONTRACTOR SHALL PROVIDE SUPPLEMENT SUPPORTS AS REQUIRED TO SUPPORT EXHAUST FAN ON EQUIPMENT RAIL.
 - INSTALL EXHAUST FAN IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
 - ATTACH PLENUM BOX TO EQUIPMENT RAIL.
 - FLEXIBLE DUCT CONNECTION TO PLENUM BOX. SEE PLAN FOR ADDITIONAL INFORMATION ON LOCATION OF DUCT CONNECTION.
 - WEATHERHOOD WITH BYPASS DAMPER. SEE PLAN FOR ADDITIONAL INFORMATION ON LOCATION OF MAKE-UP AIR HOOD.
 - PROVIDE P-TRAPS AT EACH DRAIN CONNECTION AND ROUTE DRAIN TO NEAREST ROOF DRAIN. EXHAUST FAN HAS MULTIPLE LOCATIONS FOR DRAIN CONNECTIONS. ONE ON EACH PLENUM SECTION, AND ANOTHER ON EACH TUBULAR FAN HOUSING LOCATED AT THE BOTTOM OF THE SCROLL.

4 LAB EXHAUST FAN DETAIL
NTS

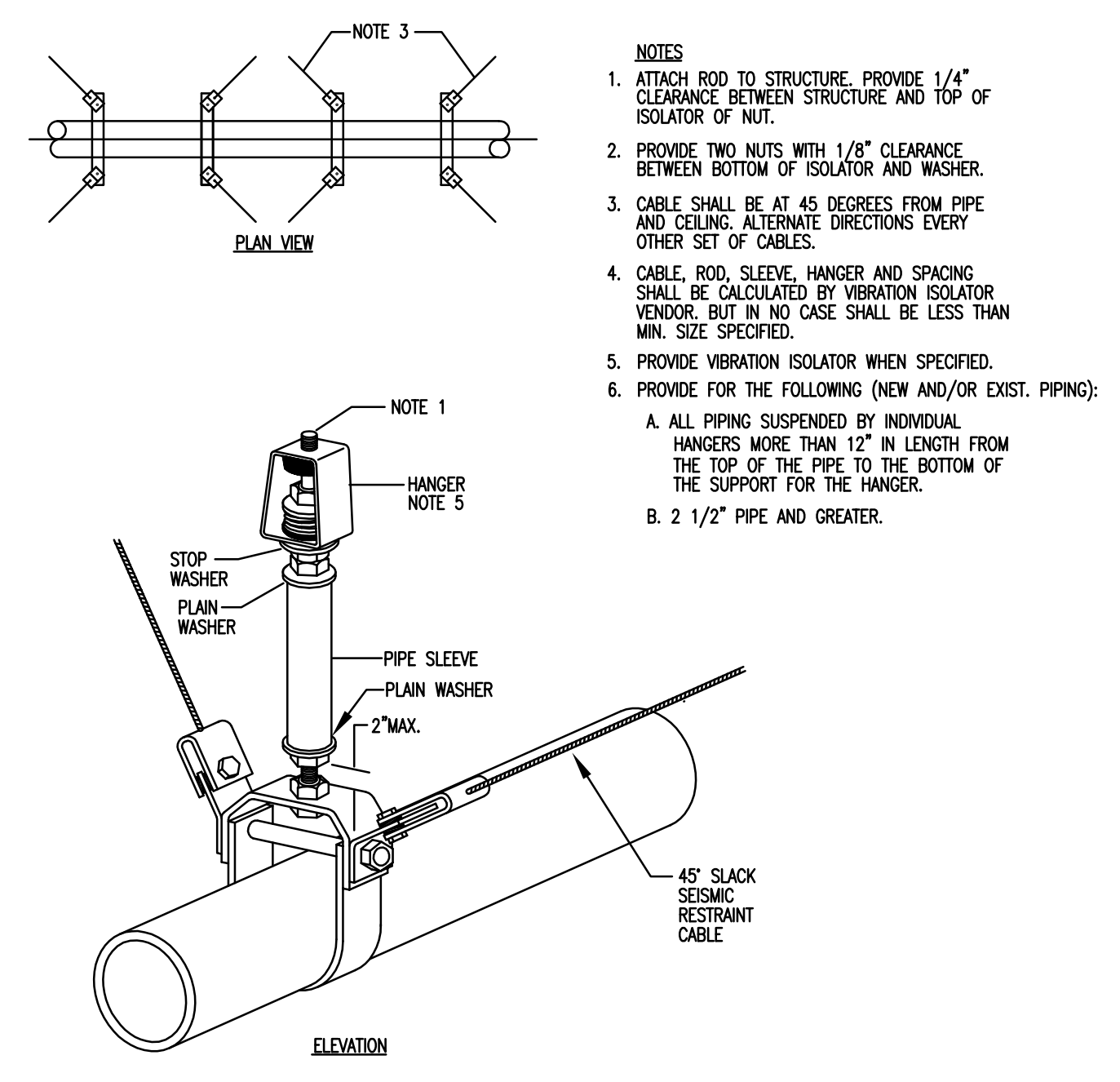


W x D MAX.	10'-0" MAX.	8'-0" MAX.	6'-0" OR LESS
72"	1" x 220g.	1" x 220g.	1" x 220g.
96"	1" x 200g.	1" x 200g.	1" x 200g.
120"	1" x 180g.	1" x 220g.	1" x 220g.
168"	1" x 180g.	1" x 180g.	1" x 180g.
192"	1" x 180g.	1" x 180g.	1" x 180g.

STRAPS	LBS.	RODS	LBS.
2 - 1"x220g.	520	2 - 1/4" DIA.	540
2 - 1"x200g.	640	2 - 3/8" DIA.	1360
2 - 1"x180g.	840	2 - 1/2" DIA.	2500
2 - 1"x180g.	1400	2 - 5/8" DIA.	4000
		2 - 3/4" DIA.	6000

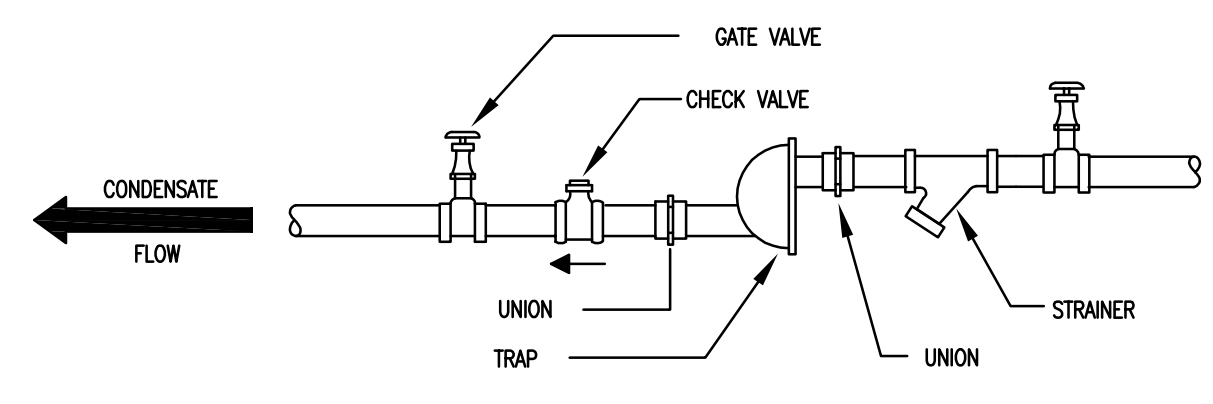
L ₁ OR L ₂	2"x2"x1-1/4"	2-1/2"x2-1/2"x1/4"
36"	1200 LBS.	1840 LBS.
48"	1160 LBS.	1900 LBS.
60"	1060 LBS.	1800 LBS.
72"	900 LBS.	1640 LBS.
84"	660 LBS.	1400 LBS.
96"	520 LBS.	1060 LBS.

2 DUCT AND EQUIPMENT SUPPORT DETAILS
NTS

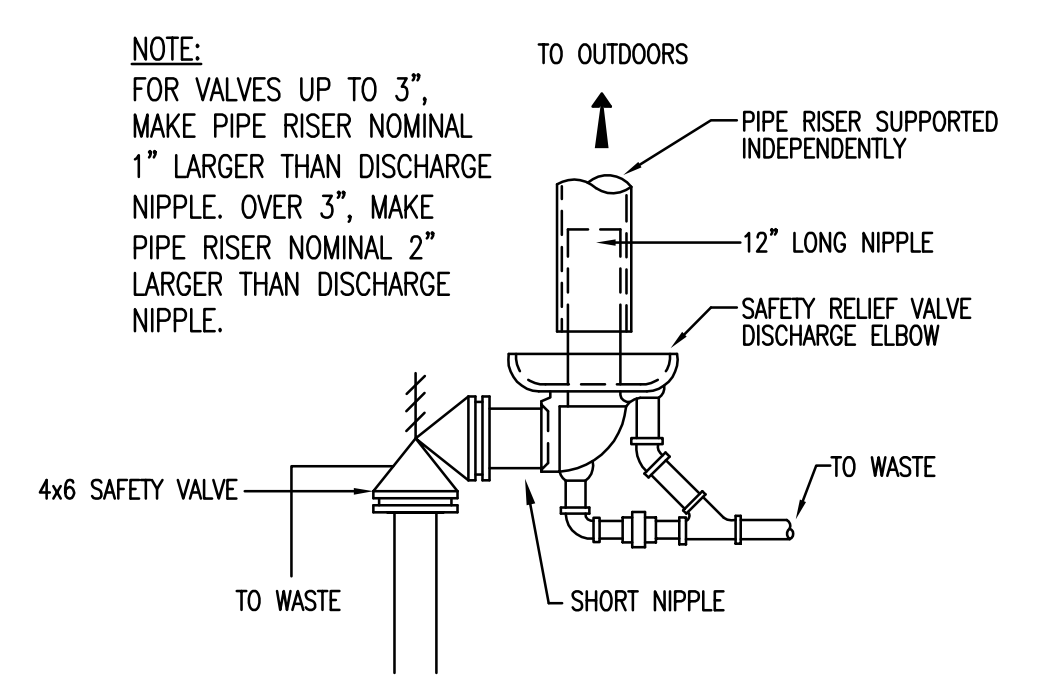


- NOTES:
- ATTACH ROD TO STRUCTURE. PROVIDE 1/4" CLEARANCE BETWEEN STRUCTURE AND TOP OF ISOLATOR OR NUT.
 - PROVIDE TWO NUTS WITH 1/8" CLEARANCE BETWEEN BOTTOM OF ISOLATOR AND WASHER.
 - CABLE SHALL BE AT 45 DEGREES FROM PIPE AND CEILING. ALTERNATE DIRECTIONS EVERY OTHER SET OF CABLES.
 - CABLE, ROD, SLEEVE, HANGER AND SPACING SHALL BE CALCULATED BY VIBRATION ISOLATOR VENDOR. BUT IN NO CASE SHALL BE LESS THAN MIN. SIZE SPECIFIED.
 - PROVIDE VIBRATION ISOLATOR WHEN SPECIFIED.
 - PROVIDE FOR THE FOLLOWING (NEW AND/OR EXIST. PIPING):
A. ALL PIPING SUSPENDED BY INDIVIDUAL HANGERS MORE THAN 12" IN LENGTH FROM THE TOP OF THE PIPE TO THE BOTTOM OF THE SUPPORT FOR THE HANGER.
B. 2 1/2" PIPE AND GREATER.

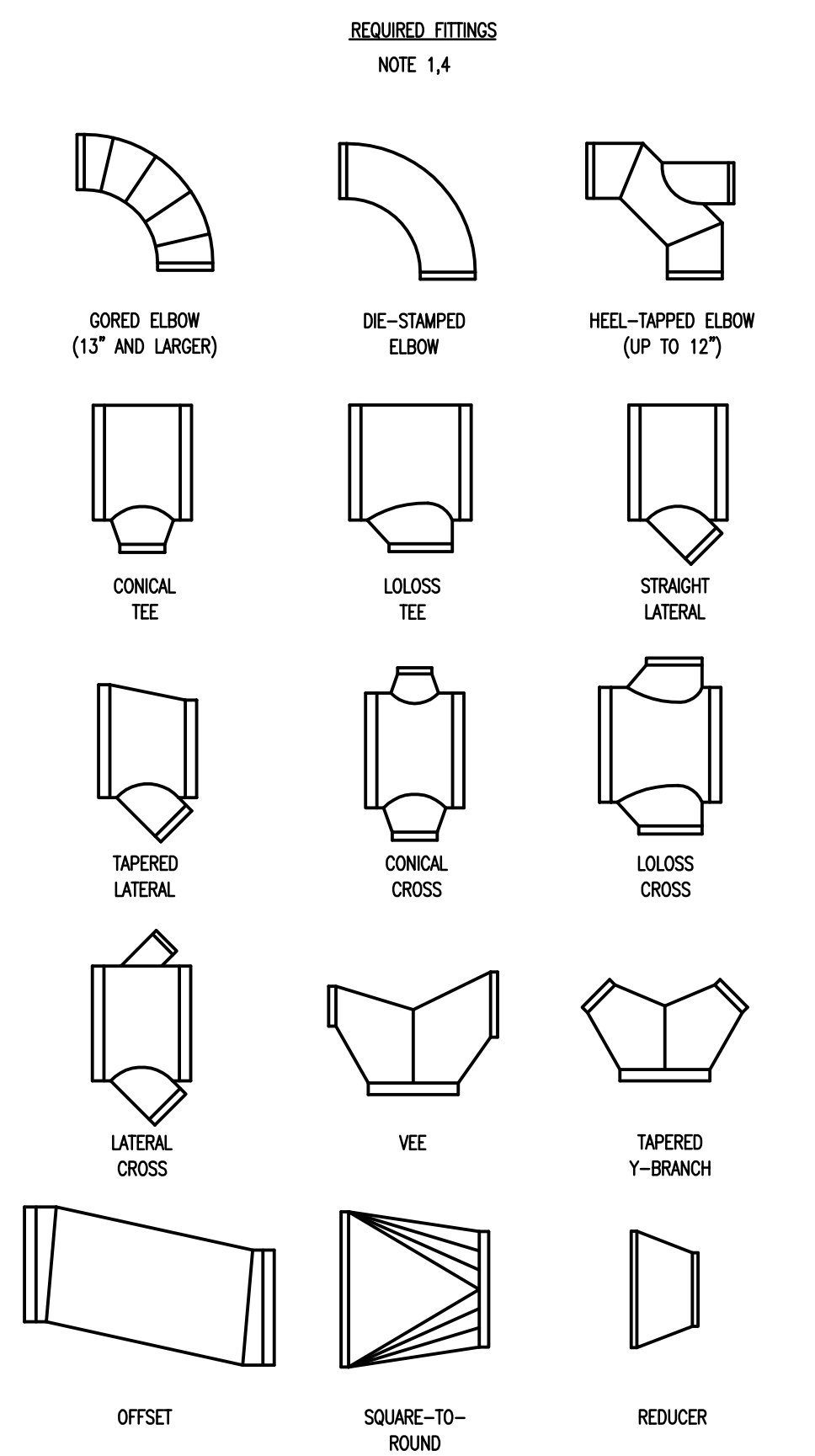
5 PIPE SEISMIC DETAIL
NTS



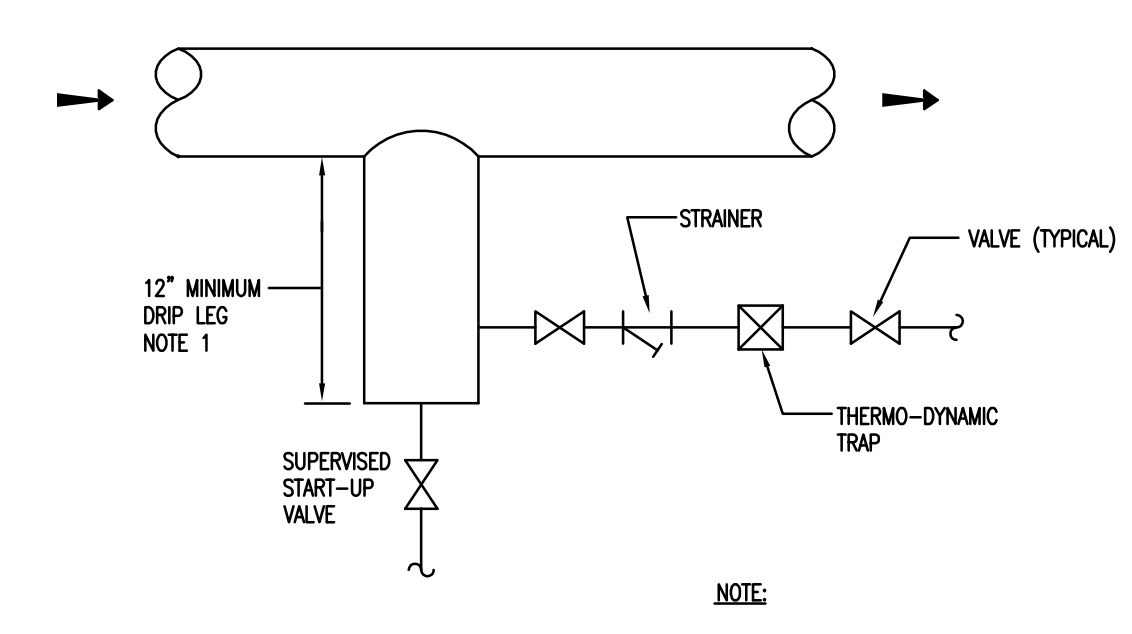
9 F & T TRAP DETAIL
NTS



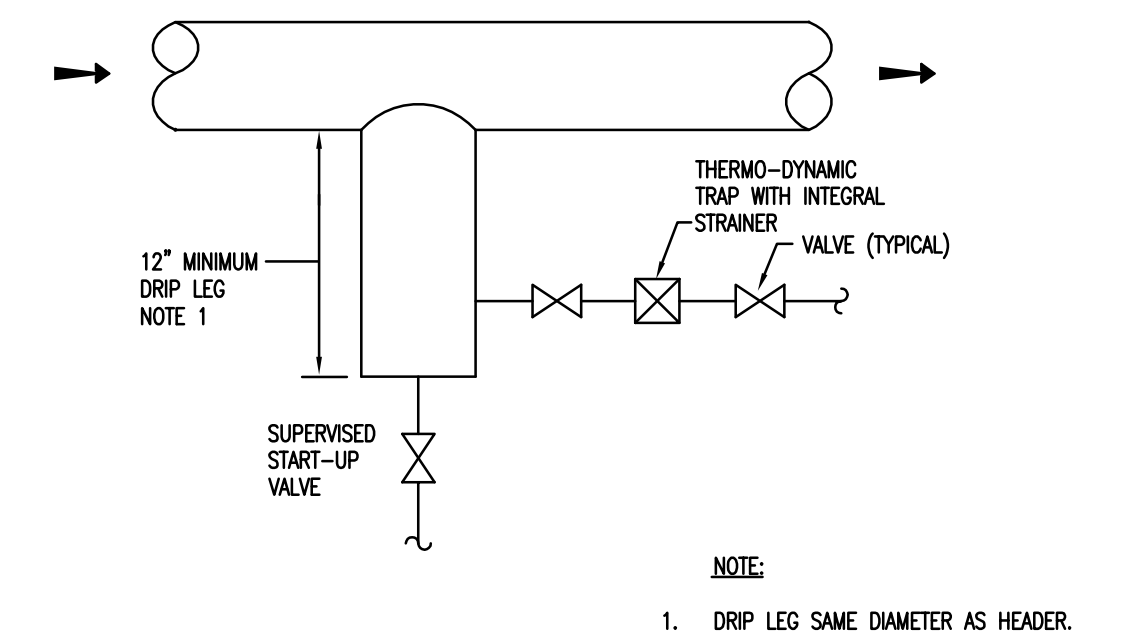
10 SAFETY STEAM RELIEF VALVE DETAIL
NTS



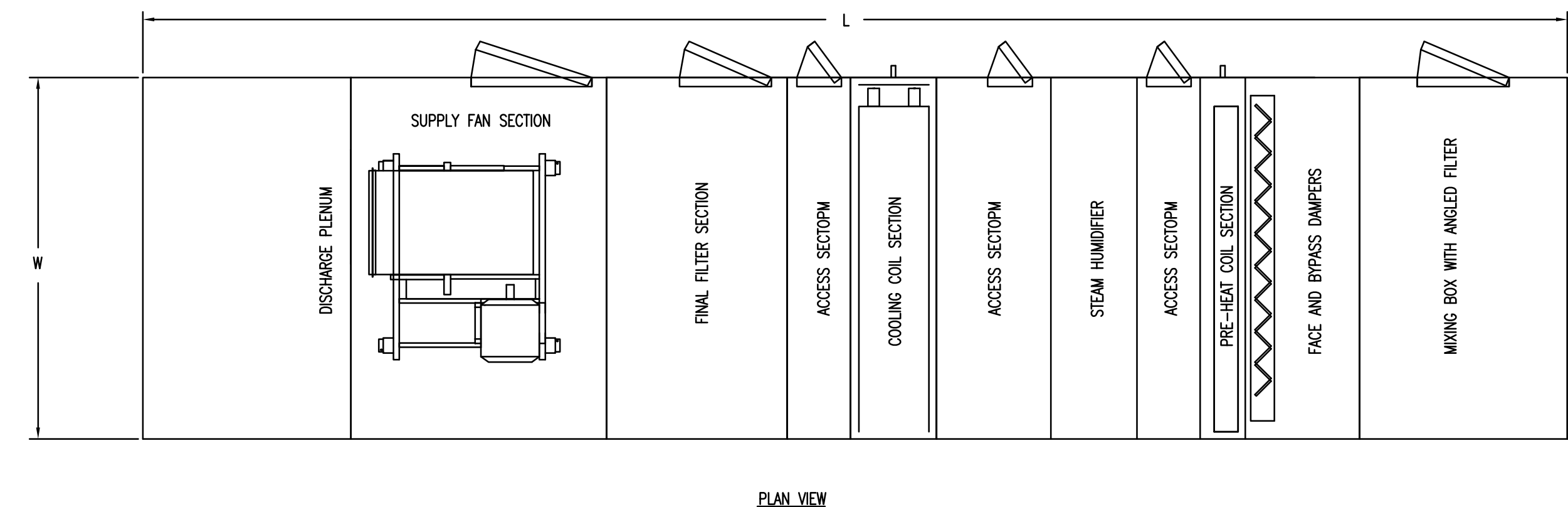
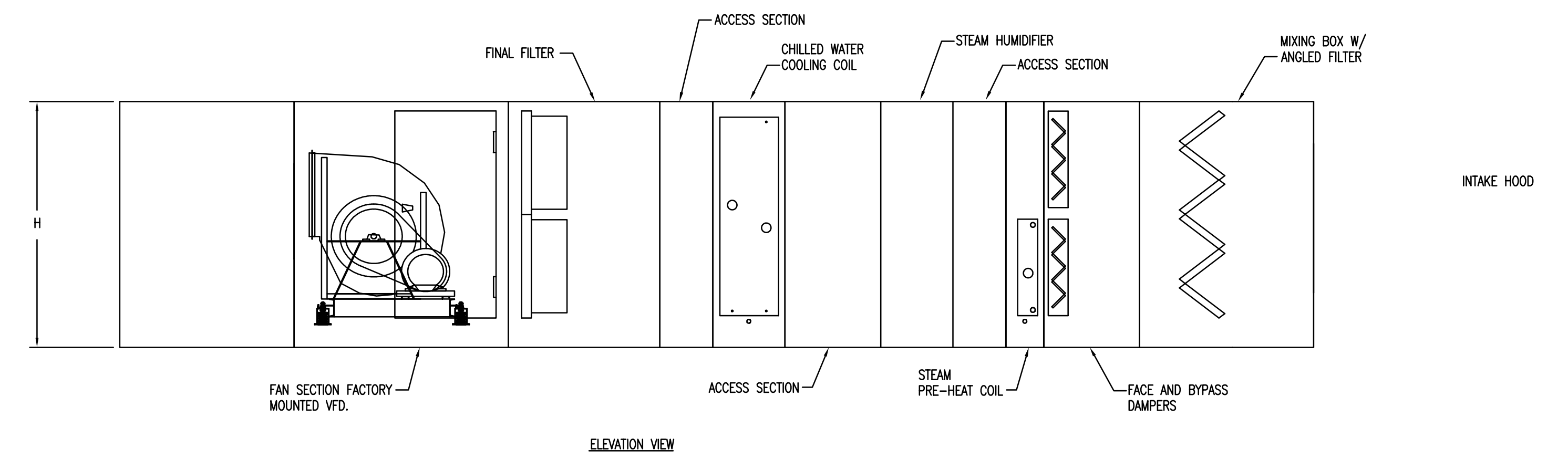
3 ROUND DUCT FITTINGS
NTS



6 DRIP LEG DETAIL (UP TO 30 PSIG)
NTS



7 DRIP LEG DETAIL (30 PSIG AND ABOVE)
NTS

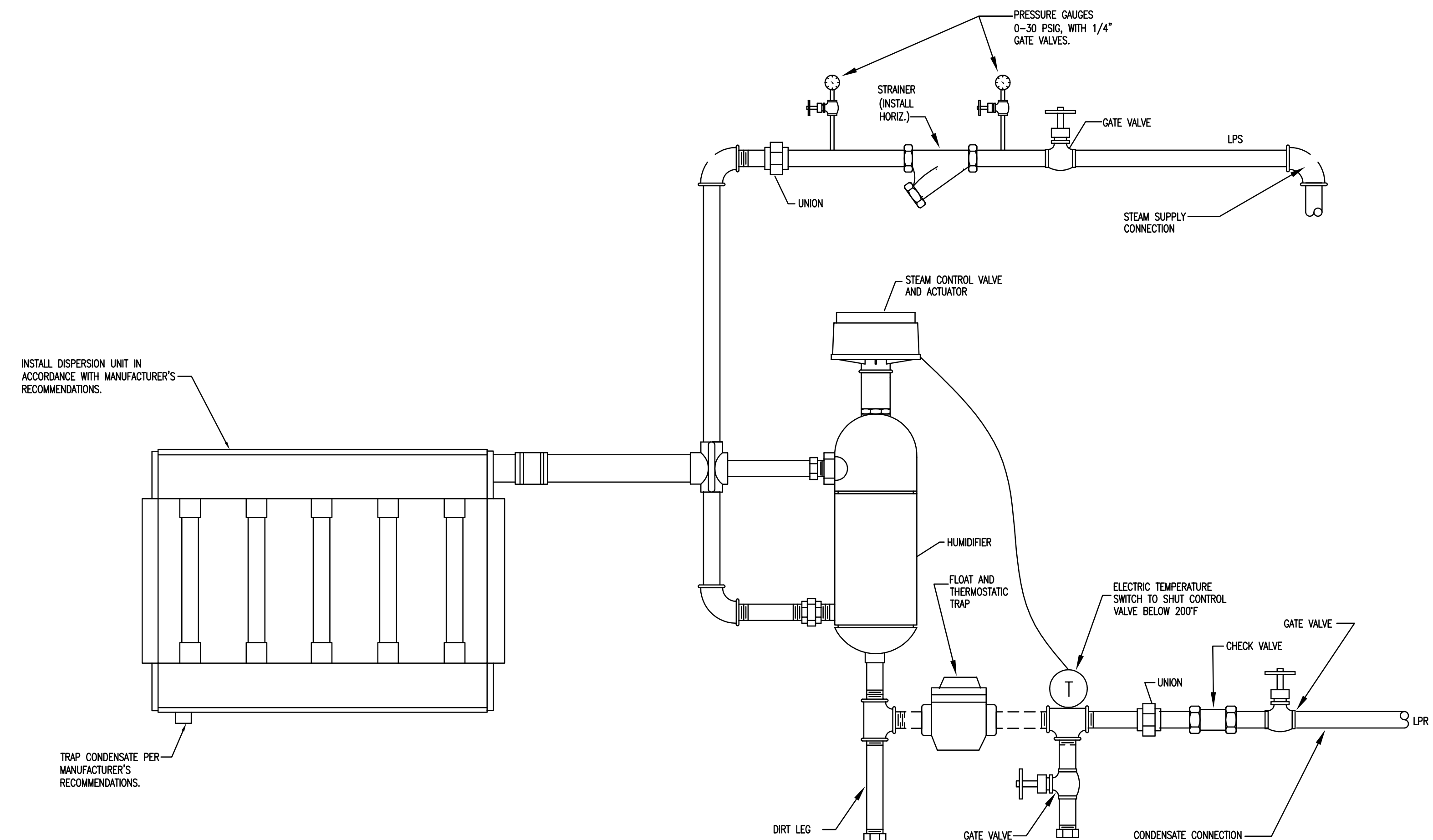


TAG	MAX. LENGTH	MAX. WIDTH	MAX. HEIGHT
1-AC12	223.25	80	61.5

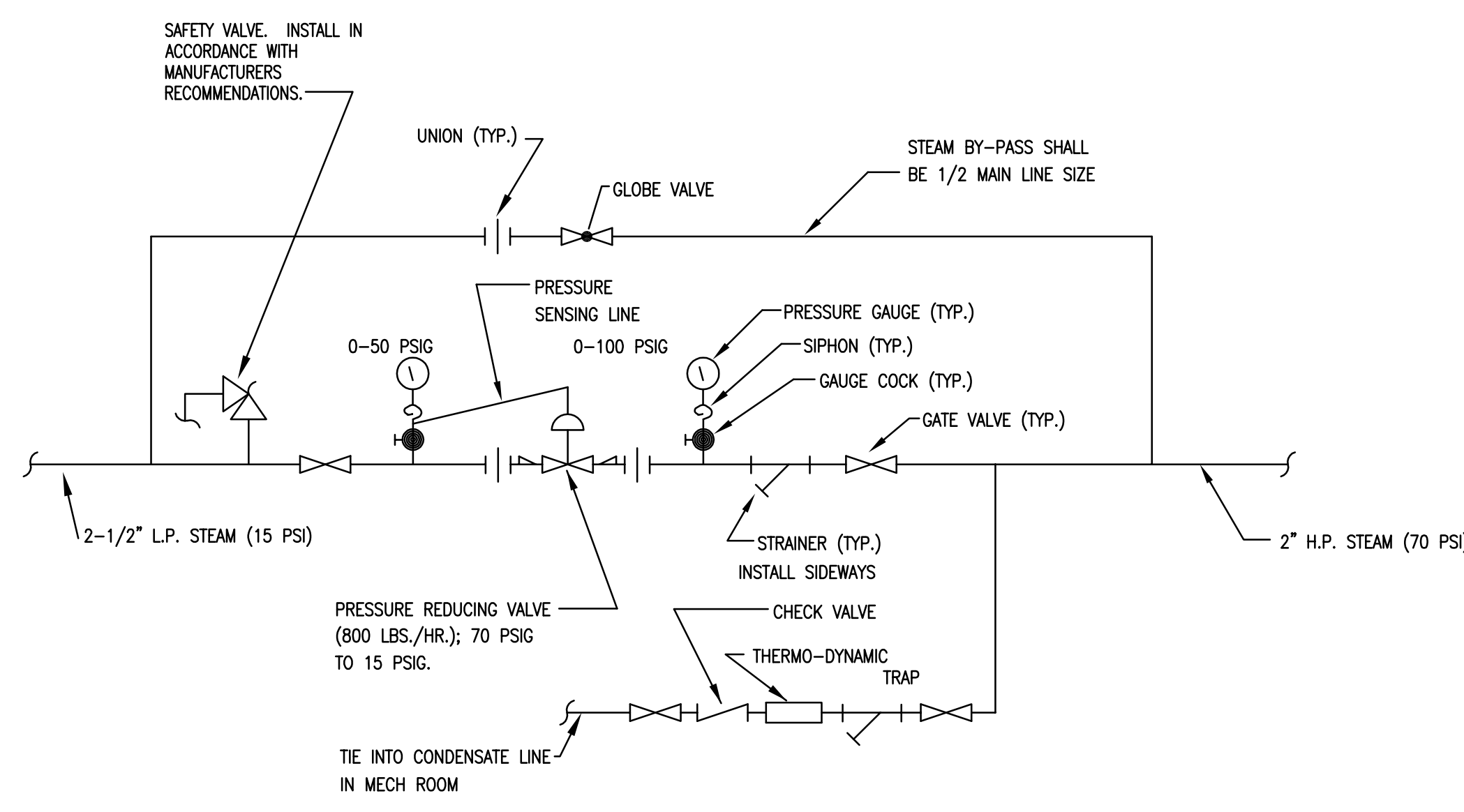
- NOTES:
- PROVIDE ACCESS DOORS, AS SHOWN ABOVE. (ORIENTATION DETERMINED BY "FACING" DISCHARGE AIRFLOW).
 - LEFT HAND COIL AND CONDENSATE DRAIN CONNECTIONS (ORIENTATION DETERMINED BY "FACING" DISCHARGE AIRFLOW).

11 1-AC12 UNIT CONFIGURATION DETAIL
NTS

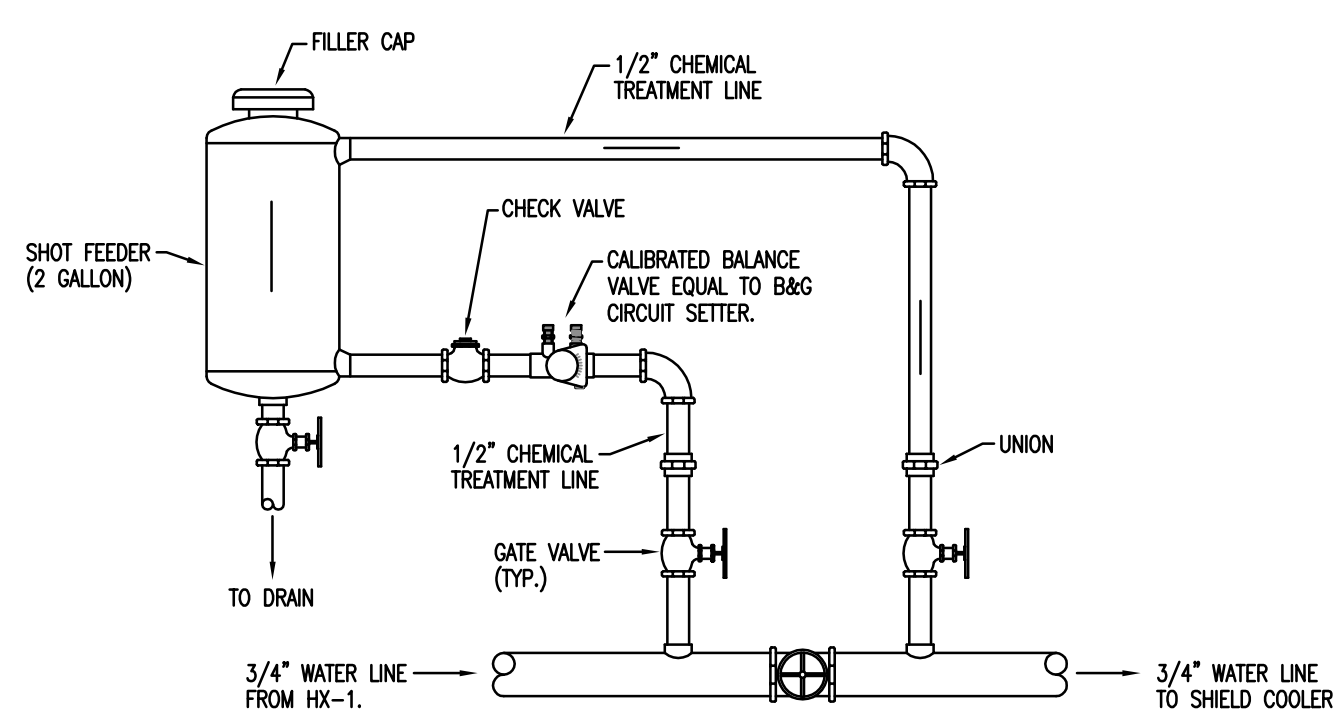
8 SUSPENDED EQUIPMENT SEISMIC DETAIL
NTS



1 STEAM HUMIDIFIER DETAIL
NTS



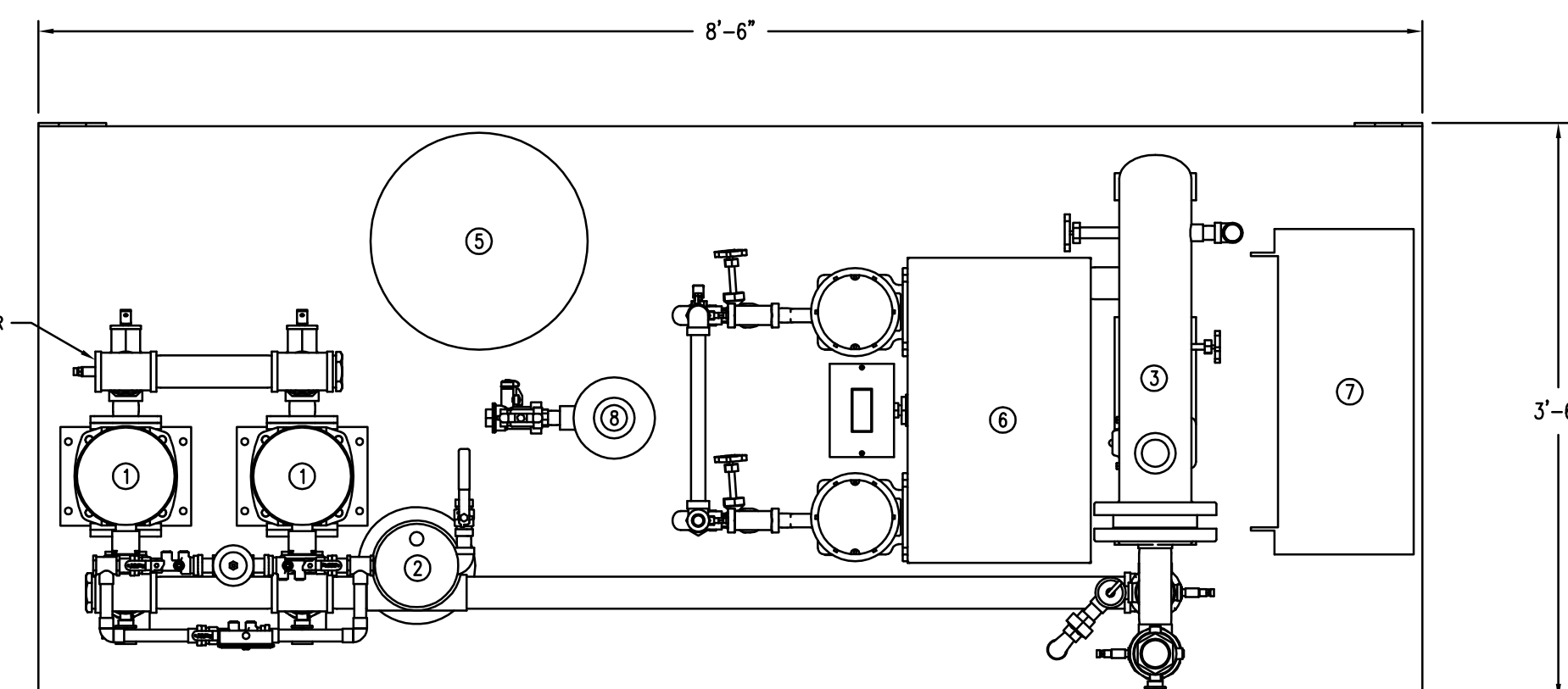
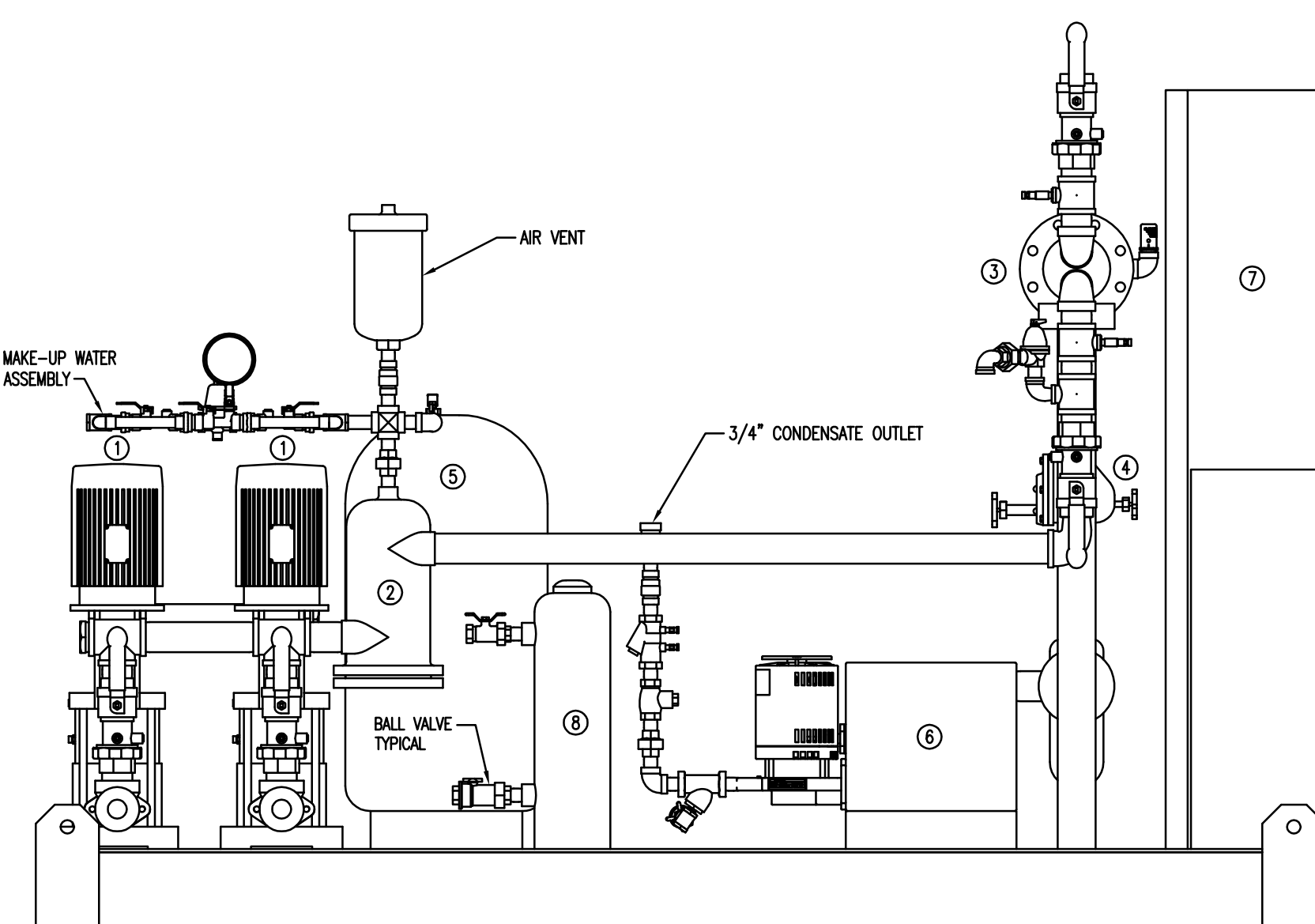
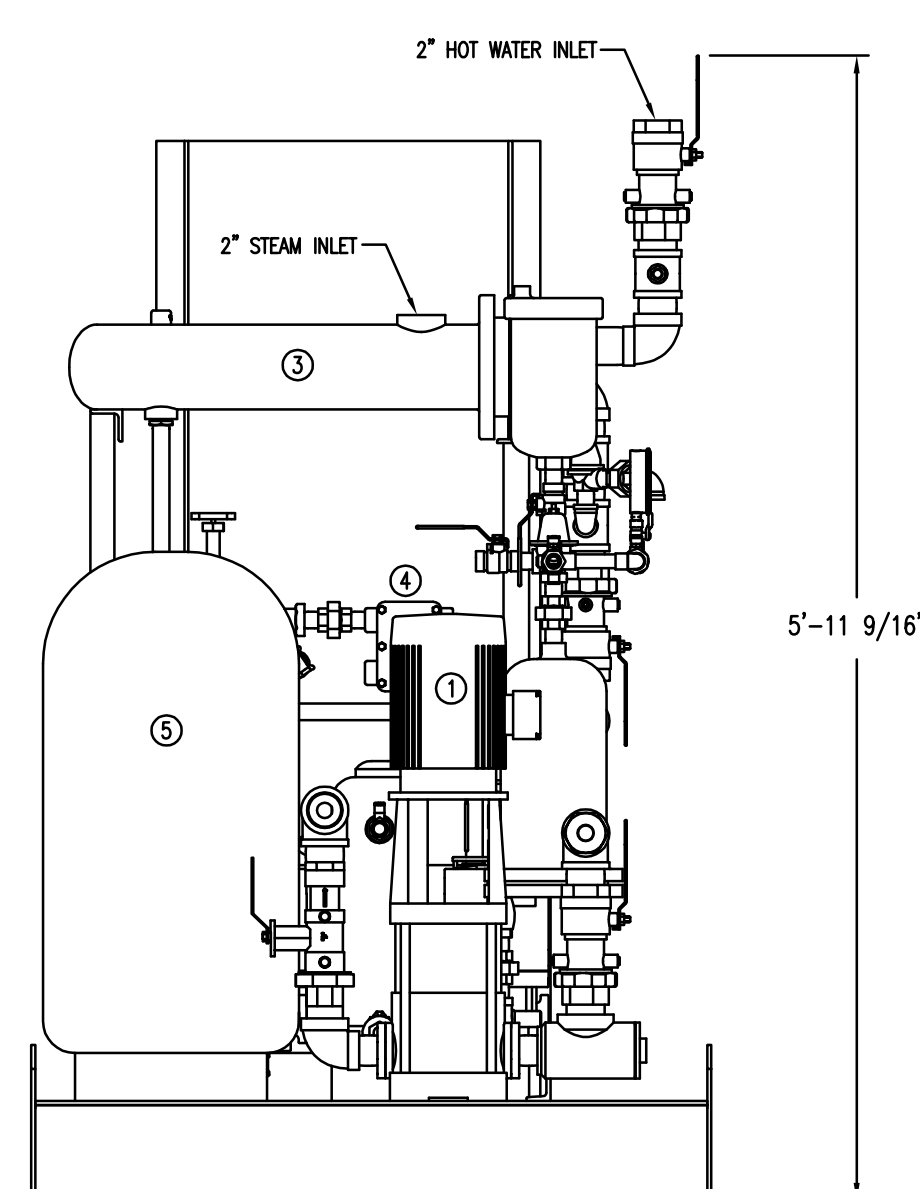
2 STEAM PRESSURE REDUCING DETAIL
NTS



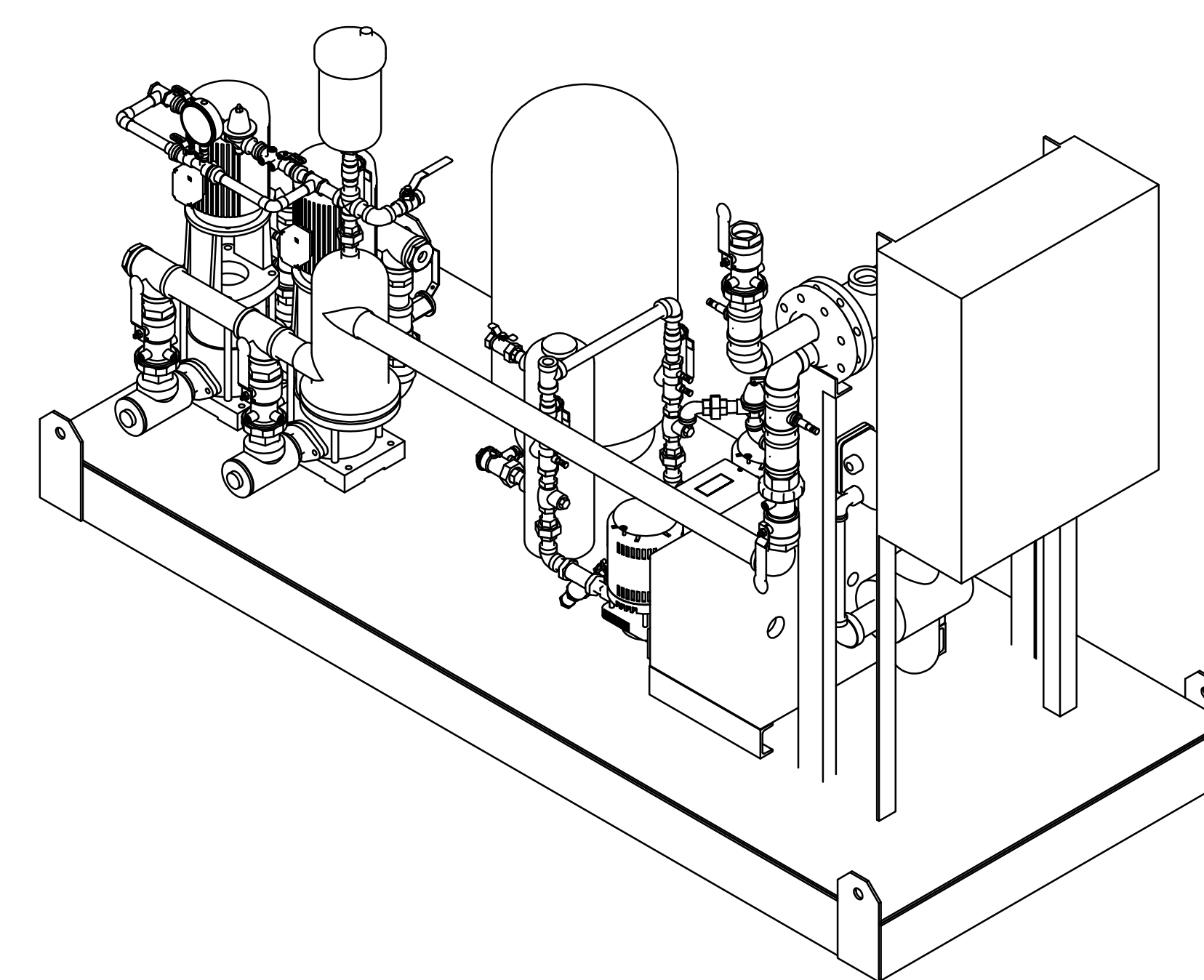
3 CHEMICAL TREATMENT SHOT FEEDER
NTS

PARTS LIST		
TAG	QTY	DESCRIPTION
1	2	HMP-1,2
2	1	BAG MODEL RL-2 AIR SEPARATOR
3	1	HE-1
4	1	FAT TRAP
5	1	BAG MODEL B-BOLA EXPANSION TANK
6	1	CP-1
7	1	STARTER PANEL WITH SINGLE POINT CONNECTION
8	1	CHEMICAL TREATMENT SHOT FEEDER

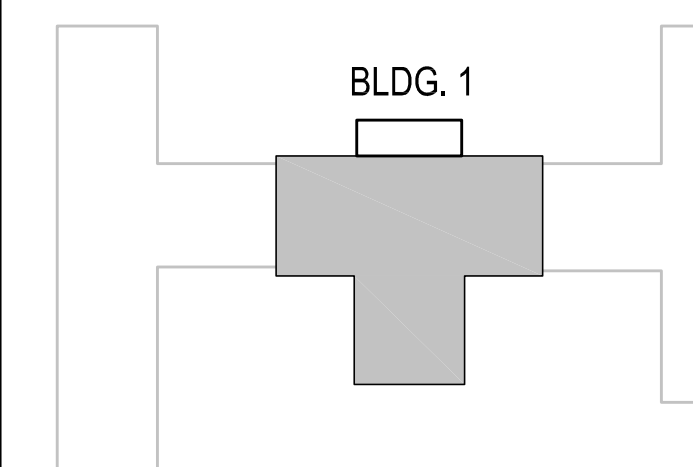
NOTES:
1. PUMP PACKAGE SHALL INCLUDE ALL VALVES SPECIFIED. PROVIDE VALVES AND UNIONS AS REQUIRED TO ISOLATE AND REMOVE EACH COMPONENT WITHOUT HAVING TO DRAIN SYSTEM.



4 HOT WATER PUMP PACKAGE DETAIL
NTS



number	item	date



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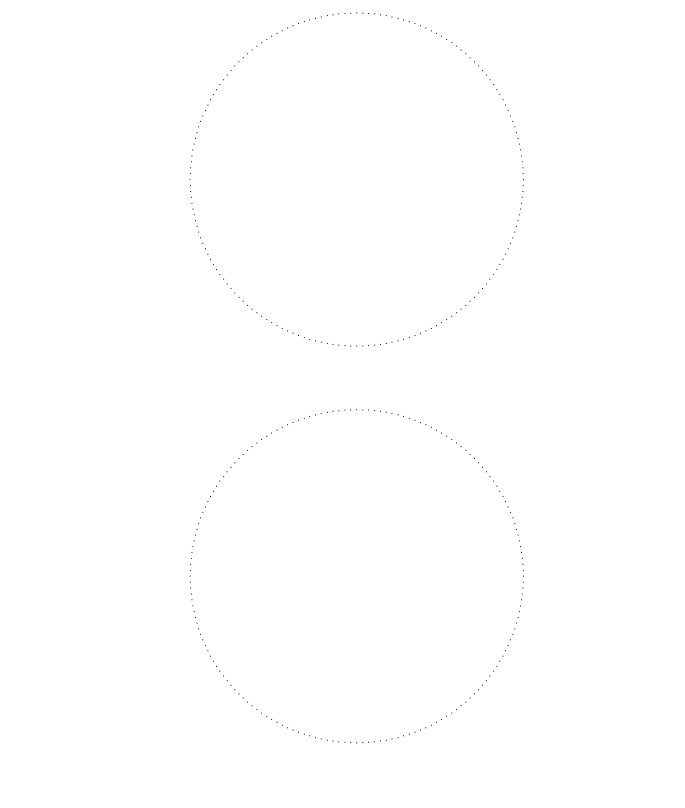


USC CAMPUS PLANNING AND CONSTRUCTION
743 GREENE STREET
COLUMBIA, SOUTH CAROLINA 29208

project name
**USC SOM - BLDG #1
4TH FLOOR ANIMAL SURGERY LAB
H27-1901**

project number
13030.01

seals/signature

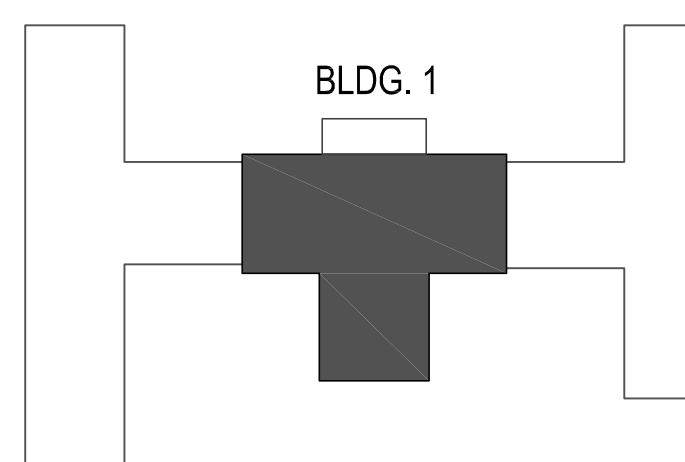


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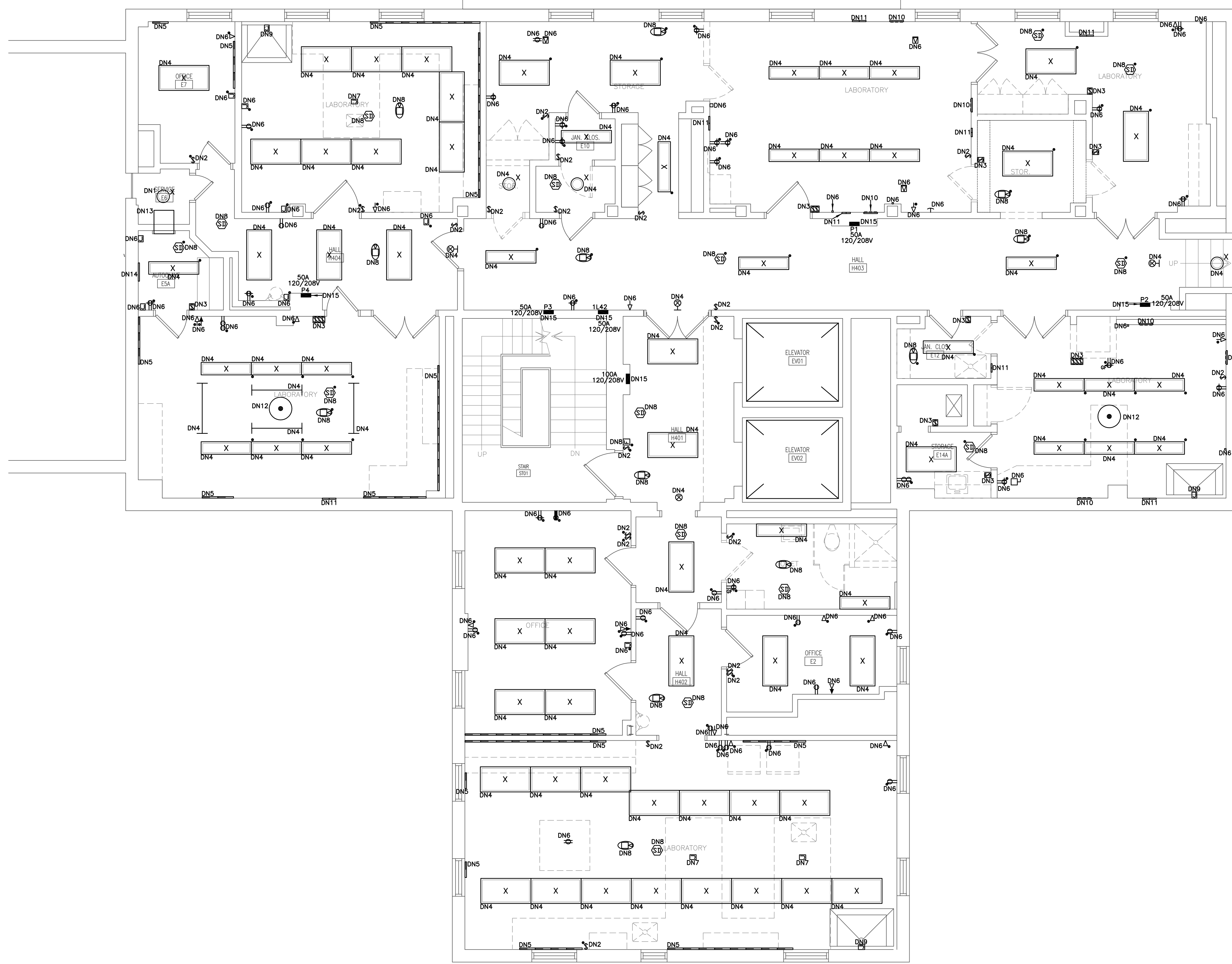


sheet title
**FOURTH FLOOR
DEMOLITION PLAN**

sheet number

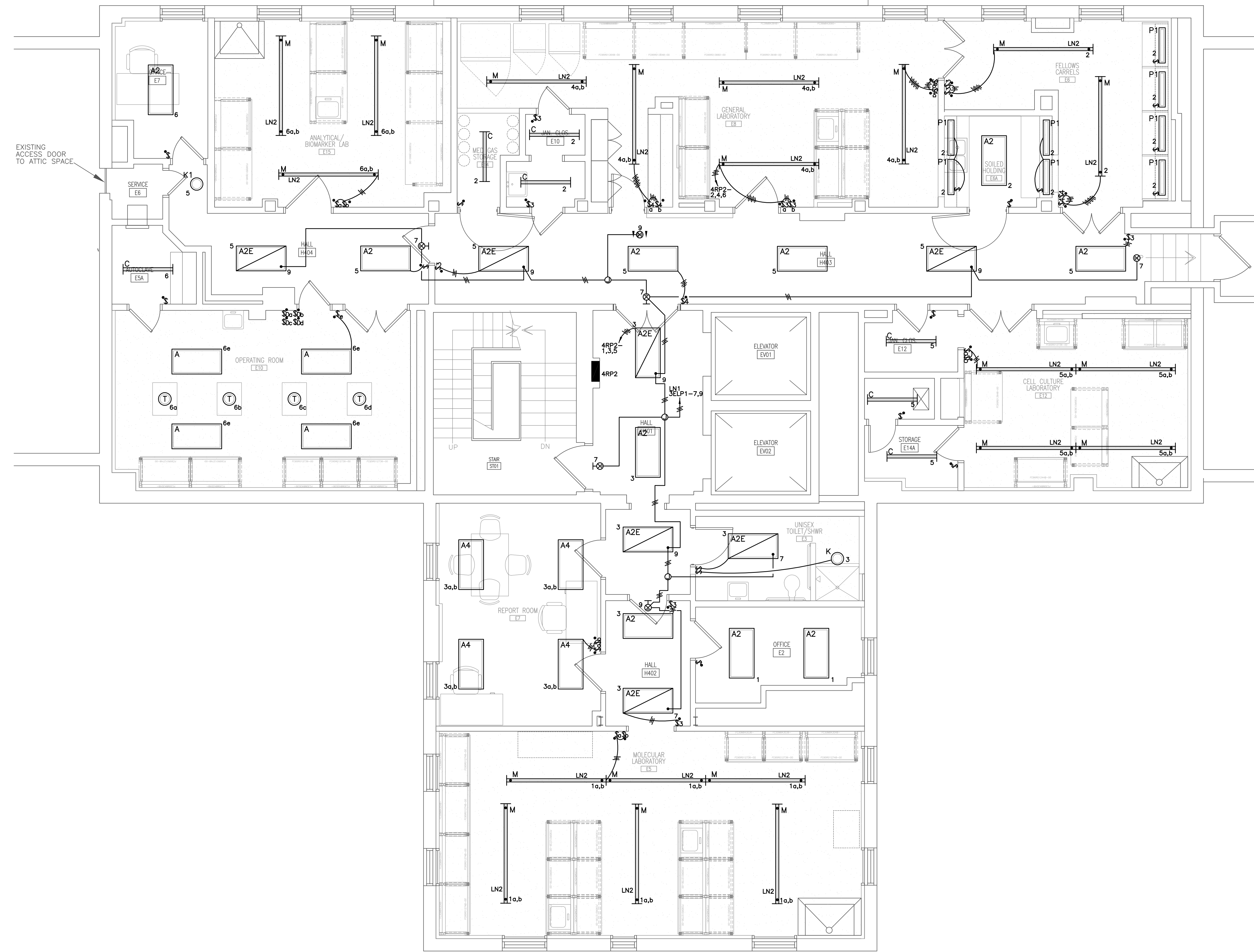
E1.4

drawn by TLK
checked by JBF



1 FOURTH FLOOR DEMOLITION PLAN
1/4"=1'-0"

- GENERAL NOTES (GN):**
- GN1. REMOVE ALL ABANDONED WIRING IN ALL SPACES TO SOURCE OF SUPPLY.
 - GN2. REMOVE ALL EXPOSED ABANDONED CONDUIT IN ALL SPACES.
 - GN3. DISCONNECT AND REMOVE ELECTRICAL DEVICES SERVICING DEMOLISHED EQUIPMENT IN ALL SPACES.
 - GN4. DISCONNECT AND REMOVE ABANDONED LUMINAIRES. REMOVE BRACKETS, STEMS, HANGERS, AND OTHER ACCESSORIES IN ALL SPACES.
 - GN5. ALL REMOVED EQUIPMENT, CONDUIT, AND WIRE SHALL BE TRANSPORTED TO THE OWNER'S STORAGE FACILITY BY THE CONTRACTOR. ALL EQUIPMENT/ITEMS THAT THE OWNER DOES NOT WANT TO RETAIN OWNERSHIP SHALL BECOME PROPERTY OF THE CONTRACTOR AND CONTRACTOR SHALL TRANSPORT OFF SITE AND DISPOSE.
- DEMOLITION NOTES (DN):**
- DN1. EXISTING ELECTRICAL ELEMENTS SHALL REMAIN AS-IS UNLESS OTHERWISE NOTED.
 - DN2. EXISTING LIGHT SWITCH, BACKBOX, FACE PLATE, AND SWITCH LEG SHALL BE DISCONNECTED AND REMOVED COMPLETELY. REPAIR WALL TO THE CONDITION OF THE REMAINING WALL.
 - DN3. EXISTING EXPLOSION PROOF LIGHT SWITCH, BACKBOX, AND SWITCH LEG SHALL BE DISCONNECTED AND REMOVED COMPLETELY. REPAIR WALL TO THE CONDITION OF THE REMAINING WALL.
 - DN4. EXISTING LIGHT FIXTURE SHALL BE DISCONNECTED AND REMOVED. EXISTING LIGHTING CIRCUIT SHALL BE REMOVED BACK TO SOURCE PANEL COMPLETELY. DISCONNECT AND REMOVE EXISTING ELECTRICAL DEVICE, CONDUIT, WIRE, AND BACKBOX SHALL BE REMOVED COMPLETELY BACK TO SOURCE PANEL. EXISTING WIRING SHALL BE REMOVED COMPLETELY. REPAIR WALL TO THE CONDITION OF THE REMAINING WALL.
 - DN5. DISCONNECT AND REMOVE EXISTING ELECTRICAL DEVICE, CONDUIT, WIRE, AND BACKBOX SHALL BE REMOVED COMPLETELY BACK TO SOURCE PANEL. REPAIR WALL TO CONDITION OF REMAINING WALL.
 - DN6. DISCONNECT AND REMOVE EXISTING ELECTRICAL DEVICE, CONDUIT, WIRE, AND BACKBOX SHALL BE REMOVED COMPLETELY BACK TO SOURCE PANEL. REPAIR WALL TO CONDITION OF REMAINING WALL.
 - DN7. DISCONNECT AND REMOVE ALL BENCH POWER CONNECTIONS. CONDUIT AND WIRE TO BENCHES SHALL BE REMOVED COMPLETELY BACK TO SOURCE PANEL. COORDINATE. DISCONNECT AND REMOVE EXISTING FIRE ALARM DEVICE. DISCONNECT AND REMOVE EXISTING FIRE ALARM CIRCUIT COMPLETELY.
 - DN8. EXISTING FUME HOOD CIRCUIT SHALL BE DISCONNECTED AND REMOVED. CONDUIT, WIRE, AND BACKBOX SHALL BE REMOVED BACK TO SOURCE PANEL. EXISTING HOOD SHALL BE RE-CIRCUITED FROM NEW PANEL IN RENOVATION. SEE SHEET E3.4.
 - DN9. EXISTING RECESSED RECEPTACLE PANEL SHALL BE DISCONNECTED AND REMOVED. CONDUIT, WIRE, AND BACKBOX SHALL BE REMOVED COMPLETELY BACK TO SOURCE PANEL. REPAIR WALL TO CONDITION OF REMAINING WALL.
 - DN10. EXISTING RECESSED WIRING SHALL BE DISCONNECTED AND REMOVED. CONDUIT, WIRE, AND BACKBOX SHALL BE REMOVED COMPLETELY BACK TO SOURCE PANEL. REPAIR WALL TO CONDITION OF REMAINING WALL.
 - DN11. EXISTING BOOM LIGHT SHALL BE DISCONNECTED AND REMOVED COMPLETELY. CONDUIT, WIRE, AND BACKBOX SHALL BE REMOVED BACK TO SOURCE PANEL. REPAIR CEILING TO CONDITION OF REMAINING CEILING.
 - DN12. EXISTING AUTOCLAVE SHALL REMAIN AS-IS UNLESS OTHERWISE NOTED.
 - DN13. EXISTING TELEPHONE BOARD SHALL REMAIN AS-IS UNLESS OTHERWISE NOTED.
 - DN14. DISCONNECT AND REMOVE EXISTING ELECTRICAL PANEL COMPLETELY. ALL EXISTING CIRCUITS TO EXISTING PANEL SHALL BE DISCONNECTED AND DISPOSED BACK TO SOURCE ELECTRICAL DEVICE. EXISTING MAIN FEEDER TO EXISTING UPSTREAM PANEL SHALL BE DISCONNECTED AND REMOVED. REPAIR WALL TO CONDITION OF REMAINING WALL.
 - DN15. DISCONNECT AND REMOVE EXISTING ELECTRICAL PANEL COMPLETELY. ALL EXISTING CIRCUITS TO EXISTING PANEL SHALL BE DISCONNECTED AND DISPOSED BACK TO SOURCE ELECTRICAL DEVICE. EXISTING MAIN FEEDER TO EXISTING UPSTREAM PANEL SHALL BE DISCONNECTED AND REMOVED. REPAIR WALL TO CONDITION OF REMAINING WALL.



① FOURTH FLOOR LIGHTING PLAN
 1/4"=1'-0"

- GENERAL NOTES (LN):**
- LN1. FOR ALL EXISTING CIRCUITS FROM DEMOLITION PROVIDE ALL REQUIRED HANGERS, FASTENERS, AND FITTINGS AS REQUIRED TO PROPERLY SUPPORT ALL EXISTING ELECTRICAL CIRCUITS IN SPACE.
 - LN2. INSTALL BLANK COVERS MISSING ON EXISTING JUNCTION BOXES.
- LIGHTING NOTES (LN):**
- LN1. CONNECT TO EXISTING EMERGENCY EGRESS CIRCUIT FROM DEMOLITION IN EXISTING THIRD FLOOR PANEL SELF1.
 - LN2. TYPE "M" INDIRECT/DIRECT PENDANT MOUNT LAB FIXTURE SHALL HAVE INDIRECT LAMPS ON SWITCH LEG "A" AND DIRECT LAMPS ON SWITCH LEG "B". COORDINATE.

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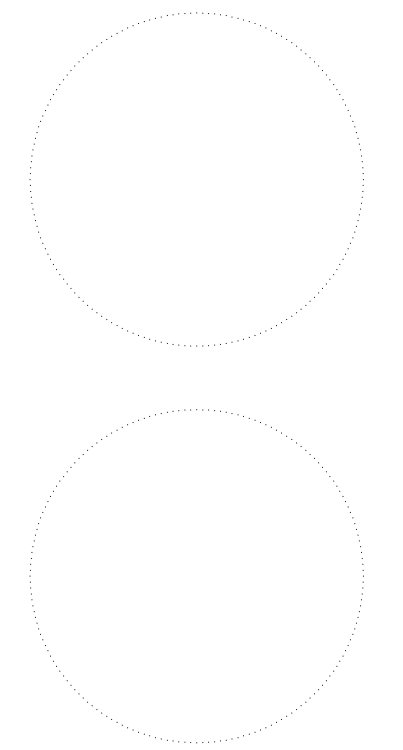


owner
UNIVERSITY OF SOUTH CAROLINA
 USC CAMPUS PLANNING AND CONSTRUCTION
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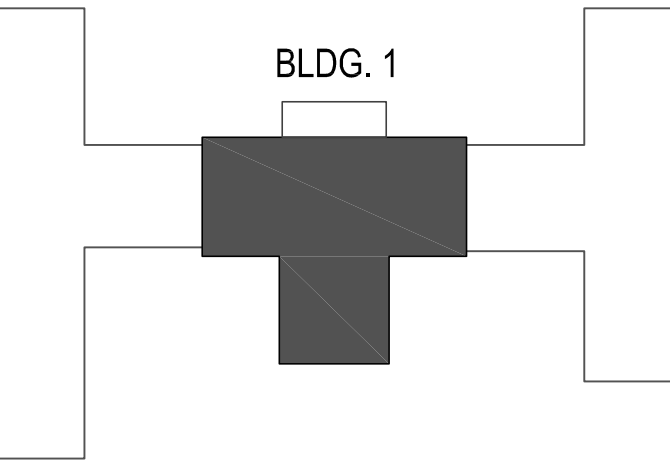


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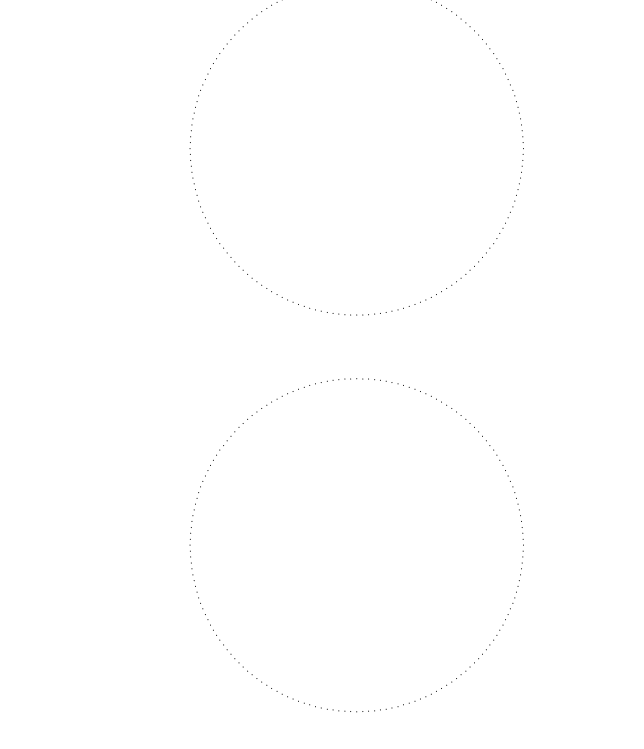


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FOURTH FLOOR LIGHTING PLAN

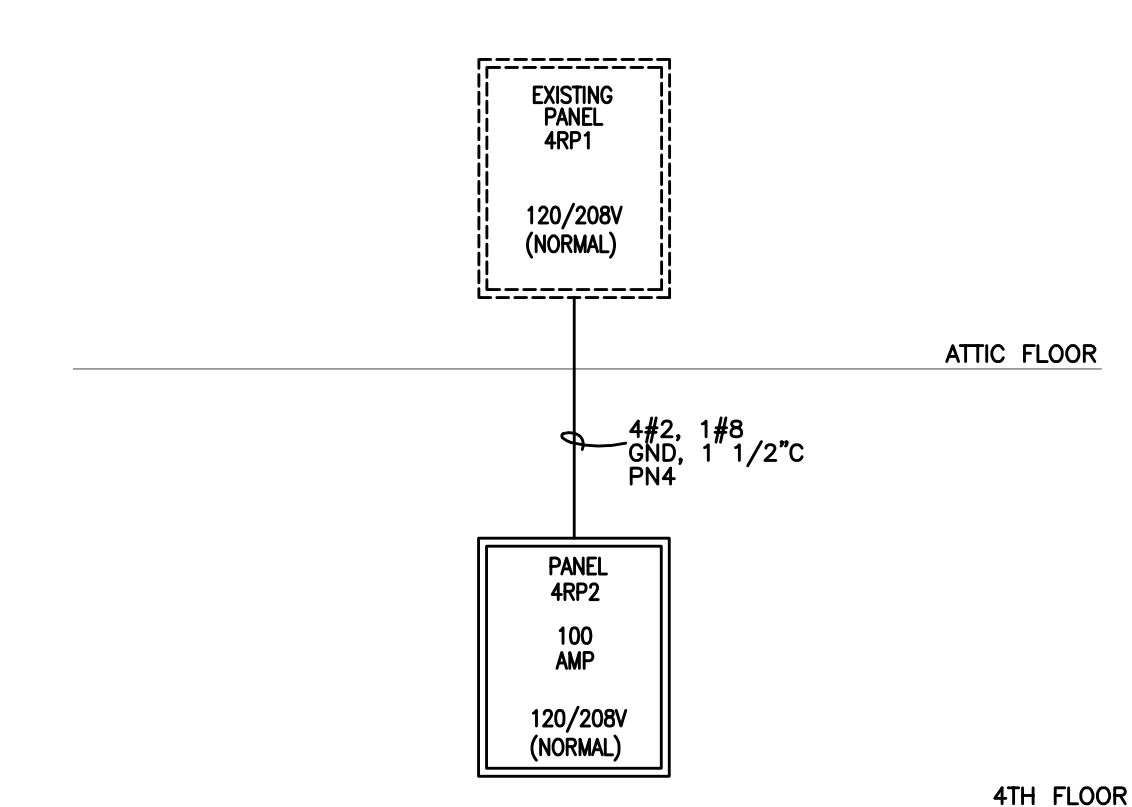
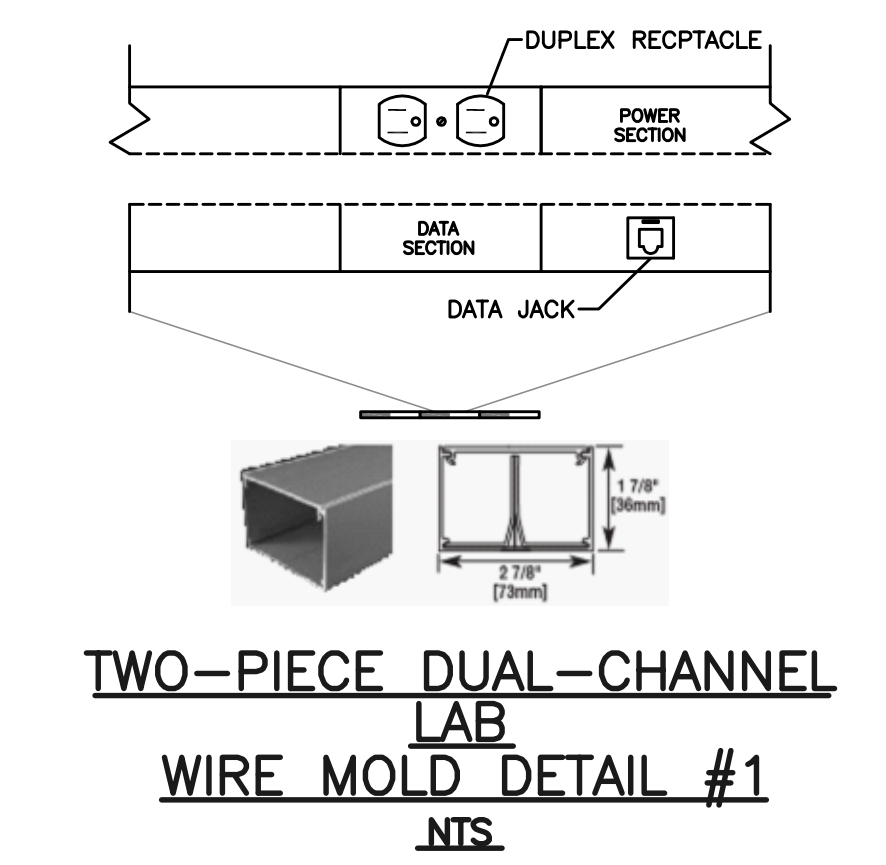
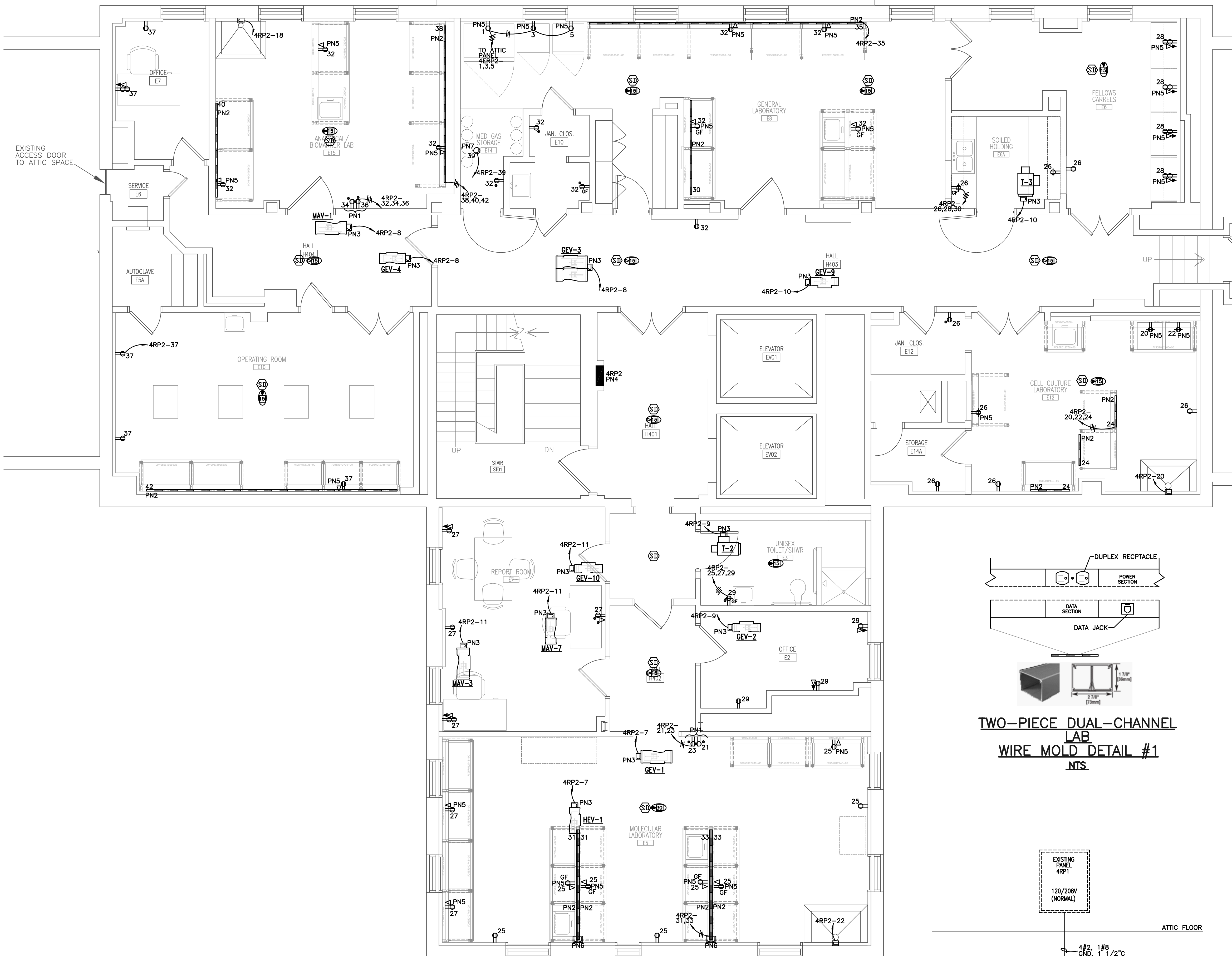
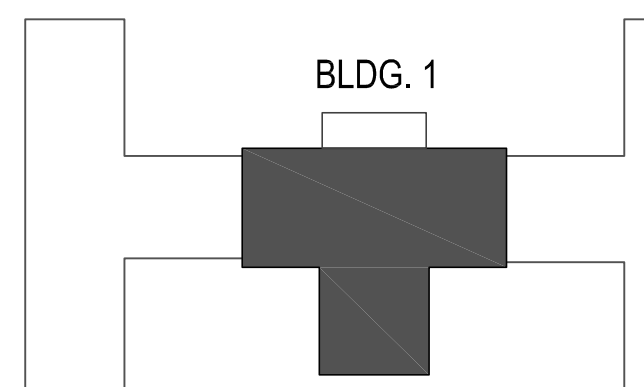
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E2.4

drawn by TLK
 checked by JBF



number	item	date



1 FOURTH FLOOR POWER PLAN
1/4"=1'-0"

- GENERAL NOTES (GN):**
 GN1. FOR ALL EXISTING CIRCUITS FROM DEMOLITION PROVIDE ALL REQUIRED HANGERS, FASTENERS, AND FITTINGS AS REQUIRED TO PROPERLY SUPPORT ALL EXISTING ELECTRICAL CIRCUITS IN SPACE.
 GN2. INSTALL BLANK COVERS MISSING ON EXISTING JUNCTION BOXES.
- POWER NOTES (PN):**
 PN1. DEDICATED LAB UPS RECEPTACLE. COORDINATE EXACT MOUNTING HEIGHT AND LOCATION WITH OWNER PRIOR TO ANY ROUGH-INS.
 PN2. COORDINATE MOUNTING HEIGHT AND LOCATION WITH ARCHITECTURAL ELEVATIONS ON SHEET A6.0. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL WIREMOLD RACEWAY SERIES #AL300. SEE WIREMOLD DETAIL #2 THIS SHEET.
 PN3. CONTROL POWER J-BOX FOR MECHANICAL UNIT LOCATED ABOVE CEILING. CONNECT TO EXISTING 100A SPARE BREAKER IN EXISTING ATTIC PANEL 4RP1. SEE POWER RISER DIAGRAM THIS SHEET. COORDINATE.
 PN5. COORDINATE MOUNTING HEIGHT AND LOCATION WITH ARCHITECTURAL ELEVATIONS ON SHEET A6.0.
 PN6. EC SHALL FURNISH AND INSTALL J-BOX(S) FOR POWER AND DATA CONDUIT INSIDE THE CHASE WALLS OF BENCH TABLE. EC SHALL VERIFY CONNECTION POINT WITH LAB BENCH SHOP DRAWINGS.
 PN7. ABOVE CEILING J-BOX FOR MEDGAS ALARM PANEL. FLEX AND CONNECT. COORDINATE.

TYPE	NO.	DESCRIPTION	NO.	DESCRIPTION
LOAD NAME LIGHTING	1	1	1	1
GEV-1, HEV-1	2	2	2	2
GEV-2, MAV-2	3	3	3	3
GEV-3, GEV-4, MAV-1	4	4	4	4
GEV-5, MAV-3	5	5	5	5
SPARE	6	6	6	6
SPARE	7	7	7	7
SPARE	8	8	8	8
SPARE	9	9	9	9
SPARE	10	10	10	10
SPARE	11	11	11	11
SPARE	12	12	12	12
SPARE	13	13	13	13
SPARE	14	14	14	14
SPARE	15	15	15	15
SPARE	16	16	16	16
SPARE	17	17	17	17
SPARE	18	18	18	18
SPARE	19	19	19	19
SPARE	20	20	20	20
SPARE	21	21	21	21
SPARE	22	22	22	22
SPARE	23	23	23	23
SPARE	24	24	24	24
SPARE	25	25	25	25
SPARE	26	26	26	26
SPARE	27	27	27	27
SPARE	28	28	28	28
SPARE	29	29	29	29
SPARE	30	30	30	30
SPARE	31	31	31	31
SPARE	32	32	32	32
SPARE	33	33	33	33
SPARE	34	34	34	34
SPARE	35	35	35	35
SPARE	36	36	36	36
SPARE	37	37	37	37
SPARE	38	38	38	38
SPARE	39	39	39	39
SPARE	40	40	40	40
SPARE	41	41	41	41
SPARE	42	42	42	42

PANEL 4RP1
NORMAL - 120/208 VOLTS
SOURCE: PANEL 4RP2

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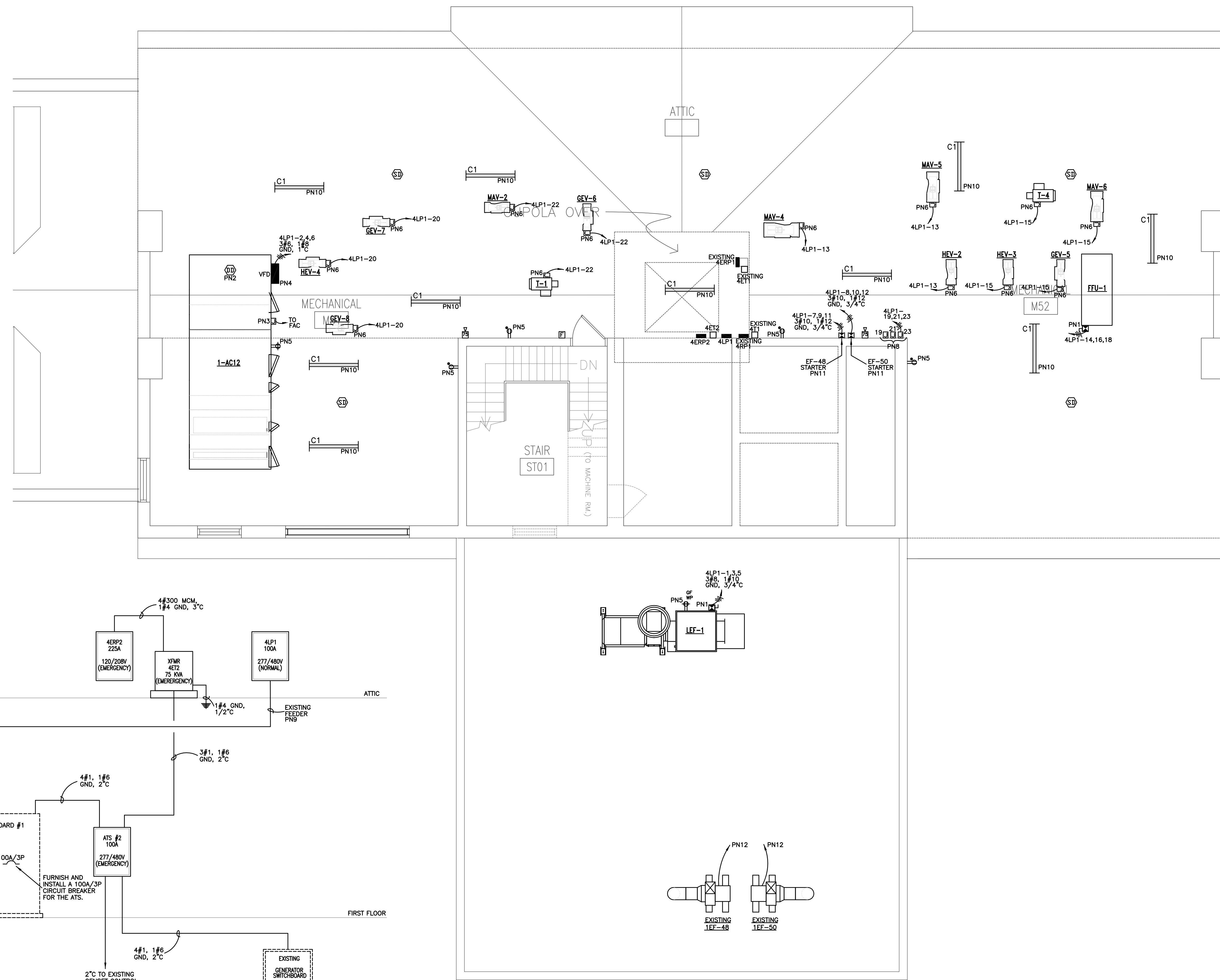


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POWER RISER DIAGRAM
NTS

ATTIC FLOOR POWER PLAN
1/4"=1'-0"

TYPE : AO, SURFACE				PANEL NAME 4LP1	
BUS AMPS : 100 AMPS				RMS SYM AMPS 42K AIC	
MAIN : MLO				SYSTEM NORMAL	
VOLTAGE : 277-480V/3Φ/4W/SN				SOURCE : SWITCHBOARD #1	
EXISTING MAIN SWITCHBOARD #1					
LOAD NAME	RANKING	POLES	A B C	LOAD NAME	RANKING
LEF-1	50	3	1 2 3	1-AC12	90
			4 5 6 7 8		
EF-48	20	3	9 10 11 12	EF-50	20
			13 14 15 16		
MAV-4, MAV-5, HEV-2	20	1	17 18 19	FFU-1	20
HEV-3, GEV-5, MAV-6, T-4	15	3	20 21 22		
SPARE	21	1	23 24 25 26	HEV-4, GEV-7, GEV-8	20
HVAC CONTROLS	19	1	27 28 29 30	MAV-2, GEV-6, T-1	20
HVAC CONTROLS	23	1	31 32 33 34	SPACE	SPACE
HVAC CONTROLS	25	1	35 36 37 38		
SPACE	27	1	39 40 41 42		

PANEL 4LP1
• NORMAL - 277/480 VOLTS •
• SOURCE: SWITCHBOARD #1

TYPE : AO, SURFACE				PANEL NAME 4ERP2	
BUS AMPS : 225 AMPS				RMS SYM AMPS 42K AIC	
MAIN : MAIN BREAKER (2000A/3Φ/208V)				SYSTEM EMERGENCY	
VOLTAGE : 120-208V/3Φ/4W/SN				SOURCE : XMR 4ET2	
EXISTING GENERATOR SWITCHBOARD					
LOAD NAME	RANKING	POLES	A B C	LOAD NAME	RANKING
ULTRA LOW FREEZER	20	1	1 2	STACK INCUBATOR	200
CHROMA FRIDGE	17	1	3 4	STACK INCUBATOR	200
FRIDGE/FREEZER	3	1	5 6		
SPARE	7	1	7 8		
			9 10 11 12		
SPACE	13	1	13 14 15 16	SPACE	SPACE
			17 18 19 20		
			21 22 23 24		
			25 26 27 28		
			29 30 31 32		
			33 34 35 36		
			37 38 39 40		
			41 42		

PANEL 4ERP2
• EMERGENCY - 120/208 VOLTS •
• SOURCE: XMR 4ET2

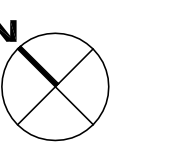
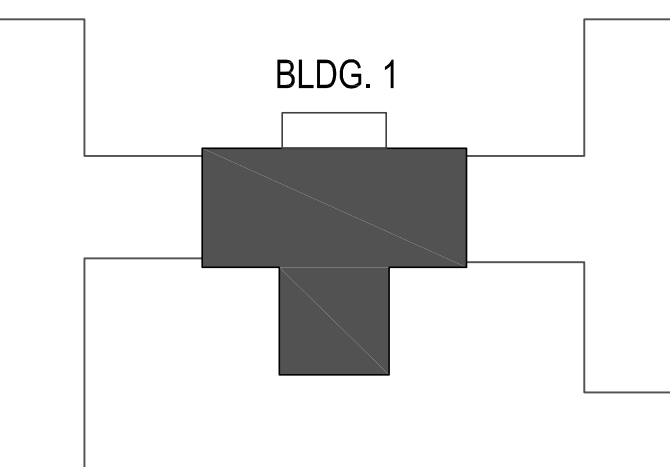
- POWER NOTES (PN):
- PN1. MECHANICAL CONTRACTOR SHALL FURNISH COMBINATION STARTER/DISCONNECT. ELECTRICAL CONTRACTOR SHALL INSTALL AND WIRE.
 - PN2. NEW DUST DETECTOR FOR HVAC UNIT AHU-1 SHALL BE FURNISHED BY ELECTRICAL CONTRACTOR, INSTALLED BY MECHANICAL CONTRACTOR AND WIRED BY ELECTRICAL CONTRACTOR TO EXISTING FIRE ALARM CONTROL PANEL LOCATED IN THE BASEMENT MECHANICAL ROOM. SEE SHEET E3.1 FOR LOCATION. CONTROL WIRING TO SHUT DOWN UNIT ON ANY ALARM CONDITION OF EXISTING FIRE ALARM SYSTEM.
 - PN3. MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL VFD. ELECTRICAL CONTRACTOR TO WIRE.
 - PN4. CONNECT TO NEAREST NORMAL POWER RECEPTACLE CIRCUIT.
 - PN5. CONTROL POWER J-BOX FOR MECHANICAL UNIT LOCATED IN ATTIC.
 - PN7. FURNISH AND INSTALL A 20A/2P/208V BREAKER IN EXISTING BREAKER SPACES 28 AND 30 OF EXISTING PANEL 4RP1.
 - PN8. HVAC CONTROLS J-BOX. COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT MOUNTING LOCATION OF J-BOX. FLEX AND CONNECT AS REQUIRED.
 - PN9. EXTEND EXISTING FEEDER AND RE-ROUTE THROUGH BUILDING AS REQUIRED TO CONNECT TO AND INSTALL PANEL 4LP1.
 - PN10. CONNECT TO EXISTING EMERGENCY POWER LIGHTING CIRCUIT FROM DEMOLITION. EXTEND EXISTING CIRCUIT AS REQUIRED FROM DEMOLITION TO NEW CHAIN HUNG FUTURE. COORDINATE MOUNTING HEIGHT AND FIXTURE LOCATION WITH HVAC EQUIPMENT AND DUCT WORK.
 - PN11. MOTOR STARTER SHALL BE FURNISHED, INSTALLED, AND WIRED BY THE ELECTRICAL CONTRACTOR. COORDINATE EXACT MOUNTING LOCATION.
 - PN12. EXISTING EXHAUST FAN FEEDER FROM DEMOLITION. ROUTE, EXTEND AS REQUIRED, AND CONNECT EXISTING FEEDER TO NEW EXHAUST FAN MOTOR STARTER IN ATTIC. COORDINATE.

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**ATTIC FLOOR
POWER PLAN**

sheet number

E3.5

drawn by: TLK
checked by: JBF