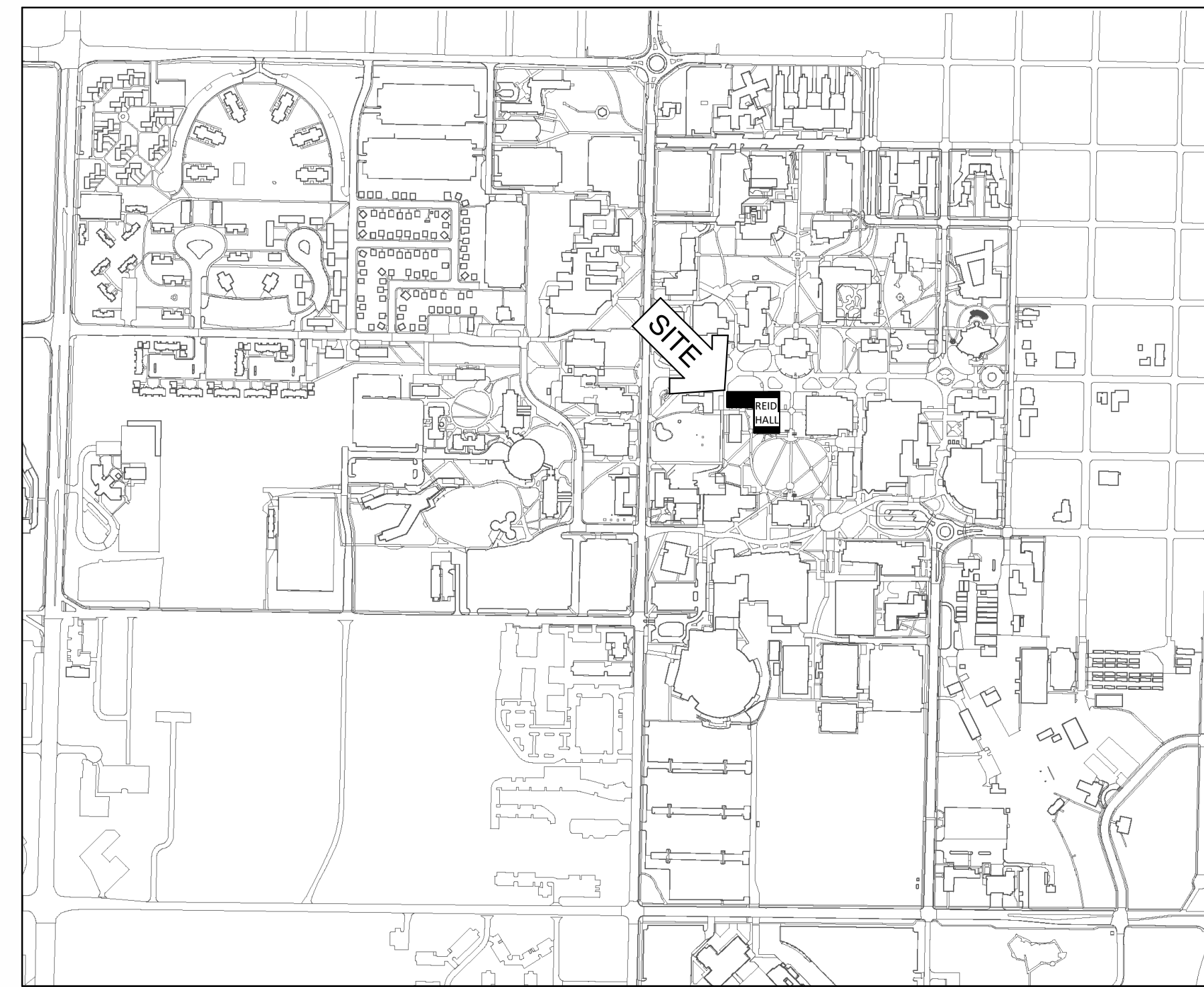
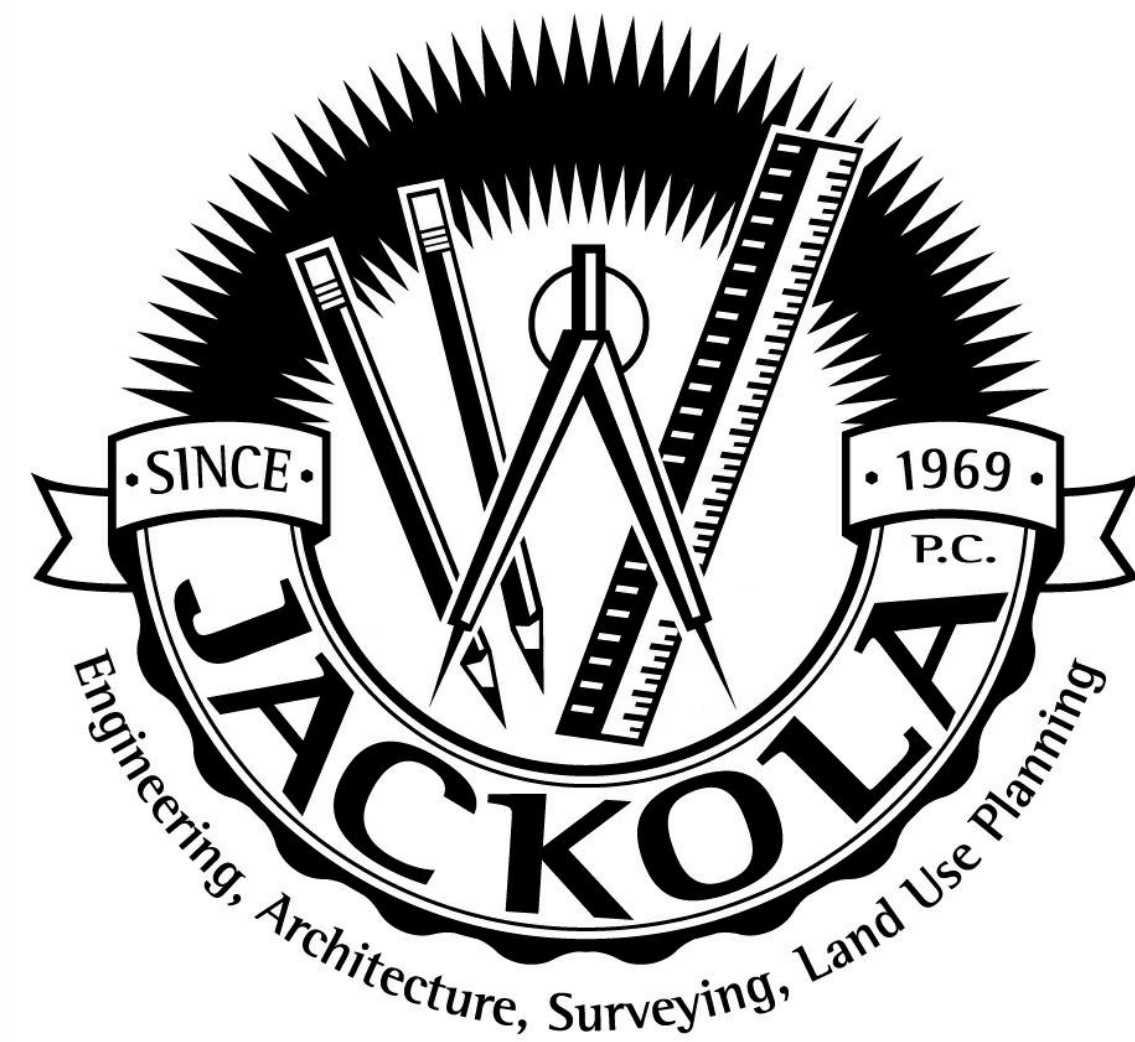
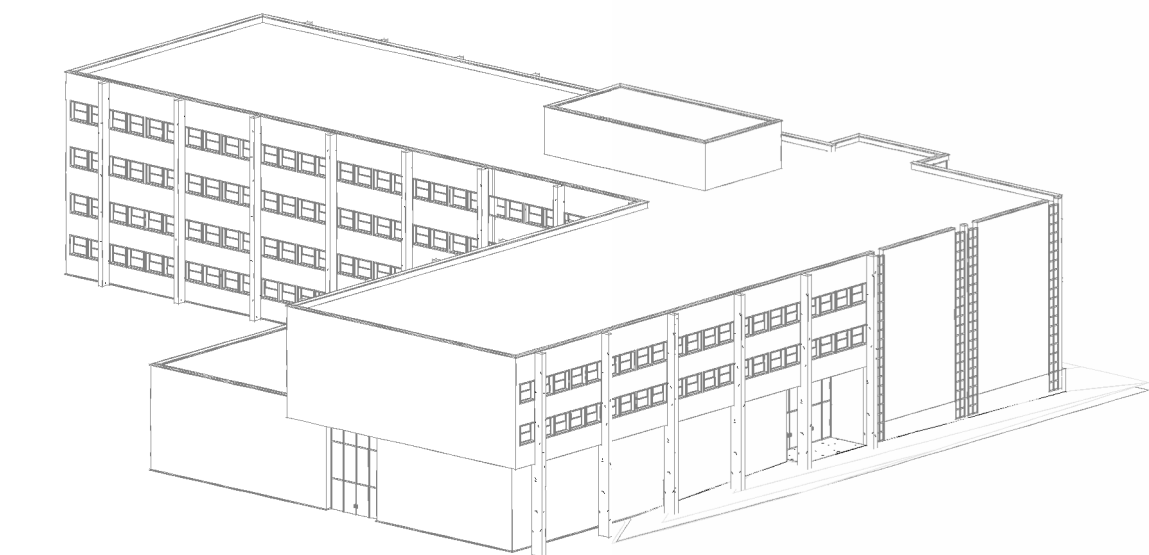
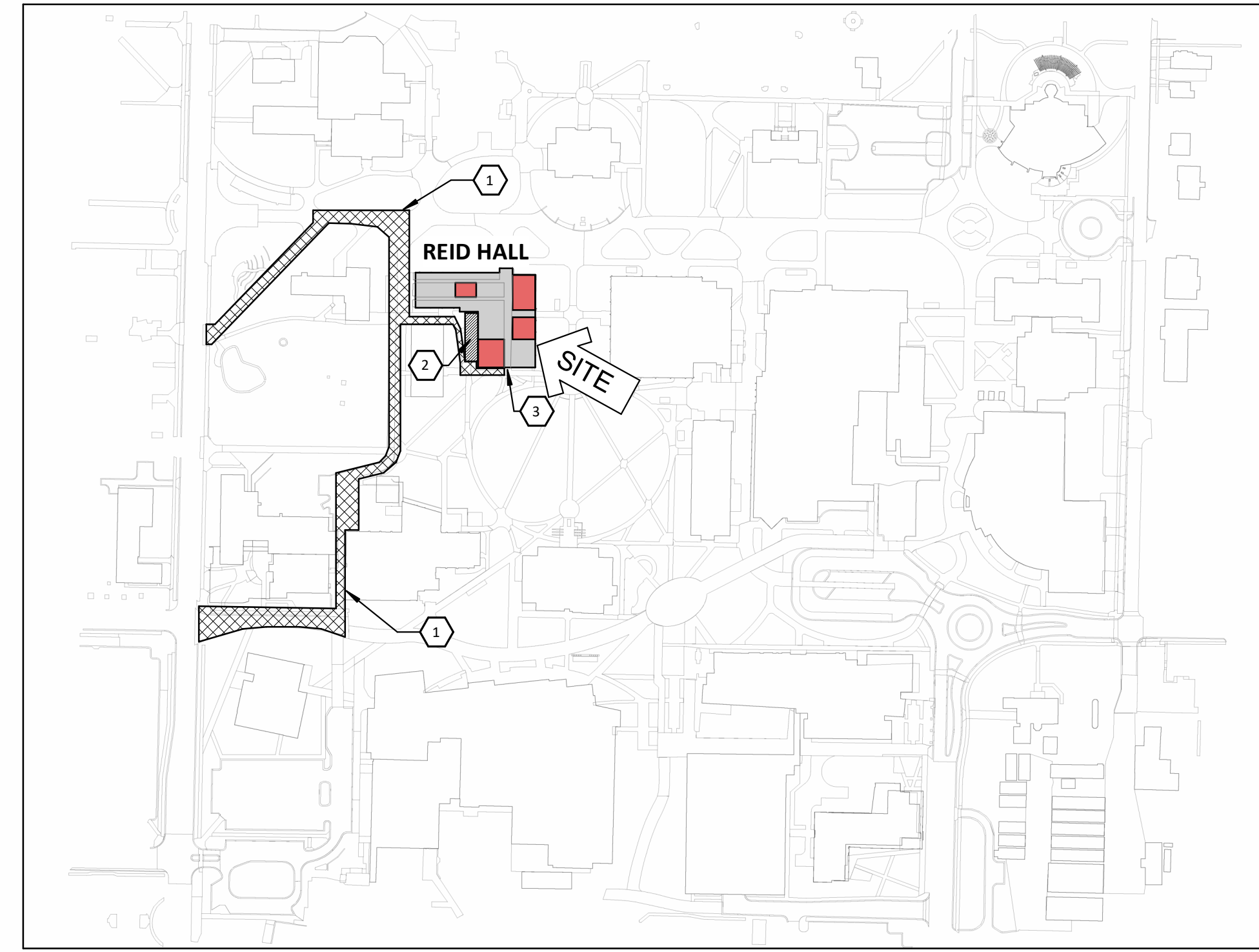


REID HALL CLASSROOM RENOVATION MONTANA STATE UNIVERSITY

930 W GARFIELD ST.
REID HALL,
BOZEMAN, MONTANA 59717
PPA#: 25-1214



SITE VICINITY MAP



SITE LOCATION MAP

INDEX OF DRAWINGS		INDEX OF DRAWINGS	
SHEET NUMBER	SHEET NAME	SHEET NUMBER	SHEET NAME
TITLE		MECHANICAL	
G-001	TITLE SHEET	M-121	101/102 HVAC CEILING PLAN
G-011	CODE REVIEW	M-122	103 REFLECTED CEILING PLAN
G-013	ACCESSIBILITY DETAILS	M-123	105 REFLECTED CEILING PLAN
REMEDICATION		M-124	126 REFLECTED CEILING PLAN
REMO1	SITE VICINITY MAP	M-601	MECHANICAL DETAILS & SCHEDULES
REMO2	ASBESTOS AND LBP REMEDIATION	ELECTRICAL	
ARCHITECTURAL		E000	ELECTRICAL, LIGHTING & TECHNOLOGY INDEX
A-001	ARCHITECTURAL TITLE SHEET	E111	101/102 ELECTRICAL PLAN
AD111	101/102 DEMO FLOOR PLAN	E112	103 ELECTRICAL PLAN
AD112	103 DEMO FLOOR PLAN ALT. #2	E113	105 ELECTRICAL PLAN
AD113	105 DEMO FLOOR PLAN ALT. #1	E114	126 ELECTRICAL PLAN
AD114	126 DEMO FLOOR PLAN ALT. #3	E115	MAIN FLOOR ELECTRICAL PLAN
AD121	101/102 DEMO REFLECTED CEILING PLAN	E501	103 & 105 ISOMETRIC VIEWS
AD122	103 DEMO REFLECTED CEILING PLAN ALT. #2	E610	ELECTRICAL ONE-LINE DIAGRAMS
AD123	105 DEMO REFLECTED CEILING PLAN ALT. #1	E620	ELECTRICAL PANEL SCHEDULES
AD124	126 DEMO REFLECTED CEILING PLAN ALT. #3	EL111	101/102 LIGHTING PLAN
AD211	101/102 DEMO INTERIOR ELEVATIONS	EL112	103 LIGHTING PLAN
AD212	103 DEMO INTERIOR ELEVATIONS ALT. #2	EL113	105 LIGHTING PLAN
AD213	105 DEMO INTERIOR ELEVATIONS ALT. #1	EL114	126 LIGHTING PLAN
AD214	126 DEMO INTERIOR ELEVATIONS ALT. #3	EL620	LUMINAIRES & LIGHTING EQUIPMENT SCHEDULES
A-111		TECHNOLOGY	
A-112	103 FLOOR PLAN ALT. #2	T001	TECHNOLOGY INFORMATION
A-1125	103 SLAB PLAN	T111	101/102 TECHNOLOGY PLANS
A-113	105 FLOOR PLAN ALT. #1	T112	103 TECHNOLOGY PLAN
A-1135	105 SLAB PLAN	T113	105 TECHNOLOGY PLAN
A-114	126 FLOOR PLAN ALT. #3	T114	105 TECHNOLOGY CEILING PLAN
A-121	101/102 REFLECTED CEILING PLAN	T115	126 TECHNOLOGY PLAN
A-122	103 REFLECTED CEILING PLAN ALT. #2	T116	MAIN FLOOR TECHNOLOGY PATHWAY PLAN
A-123	105 REFLECTED CEILING PLAN ALT. #1	T501	TECHNOLOGY TYPICAL DETAILS
A-124	126 REFLECTED CEILING PLAN ALT. #3	T502	TECHNOLOGY TYPICAL DETAILS
A-131	101/102 FINISH FLOOR PLAN	T601	TECHNOLOGY ONE-LINE DIAGRAMS
A-132	103 FINISH FLOOR PLAN ALT. #2	T602	TECHNOLOGY EQUIPMENT SCHEDULES
A-133	105 FINISH FLOOR PLAN ALT. #1	T603	TECHNOLOGY CABLING SCHEDULES
A-134	126 FINISH FLOOR PLAN ALT. #3	FIRE PROTECTION	
A-211	101/102 INTERIOR ELEVATIONS	FX001	GENERAL NOTES, DETAILS, AND LEGEND
A-212	103 INTERIOR ELEVATIONS ALT. #2	FX111	ROOM 101 & 102 FIRE SPRINKLER FLOOR PLAN
A-213	105 INTERIOR ELEVATIONS ALT. #1	FX112	ROOM 103 FIRE SPRINKLER FLOOR PLAN
A-214	126 INTERIOR ELEVATIONS ALT. #3	FX113	ROOM 105 FIRE SPRINKLER FLOOR PLAN
A-215	126 INTERIOR ELEVATIONS ALT. #4	FX114	ROOM 126 FIRE SPRINKLER FLOOR PLAN
A-521	FINISH DETAILS	FX301	EXISTING FIRE SPRINKLER DETAILS
A-601	DOOR AND WINDOW SCHEDULES		

GENERAL CONDITIONS

- THE GENERAL CONTRACTOR IS TO GUARANTEE ALL WORK INCLUDING WORK DONE BY SUBCONTRACTORS FOR A PERIOD OF ONE (1) YEAR COMMENCING WITH THE SUBSTANTIAL COMPLETION OF THE CONTRACT.
- ALL WORK IS TO BE PERFORMED IN ACCORDANCE WITH ALL GOVERNING CODES, ORDINANCES AND AUTHORITIES HAVING JURISDICTION. GENERAL CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL REQUIRED BUILDING PERMITS.
- THE GENERAL CONTRACTOR IS TO HAVE A FULL TIME QUALIFIED SUPERVISOR ON THE SITE AT ALL TIMES WHILE WORK IS BEING PERFORMED.
- ALL MATERIAL SPECIFIED IS TO BE NEW & INSTALLED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS AND SPECIFICATIONS. GENERAL CONTRACTOR IS TO CONSTRUCT PROJECT IN ACCORDANCE WITH THE DOCUMENTS. ANY DEVIATION FROM THE INTENT OF THE DOCUMENTS, WITHOUT ARCHITECT OR ENGINEER'S APPROVAL, ARE AT THE CONTRACTOR'S OWN RISK AND MAY RESULT IN THE WORK BEING DONE OVER AT CONTRACTOR'S EXPENSE (MATERIALS AND LABOR).

GENERAL NOTES

- CONTRACTOR TO REVIEW AND BECOME FAMILIAR WITH ALL EXISTING CONDITIONS PRIOR TO COMMENCING WORK. ANY CONDITIONS NOT INDICATED ON CONTRACT DOCUMENTS ARE TO BE REPORTED TO THE ARCHITECT PRIOR TO BEGINNING WORK. DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS IN FIELD. AA BUILDING COMPONENTS ARE EXISTING TO REMAIN, UNLESS NOTED OTHERWISE. CONTACT ARCHITECT FOR FURTHER CLARIFICATION.
- CONTRACTOR TO CONTACT LOCAL UTILITIES, IF NECESSARY, SUBMIT ALL APPLICABLE PERMIT DOCUMENTS, AND BE RESPONSIBLE FOR ALL FEES ASSOCIATED WITH PERMITS, UTILITY EXTENSIONS, TAP-INS, ETC.
- PROTECT IRRIGATION IN PLACE. CALL FOR LOCATION OF SPRINKLER HEADS IN ADVANCE OF WORK BEGINNING OR EQUIPMENT ARRIVAL. REPAIR DAMAGED LANDSCAPING AND IRRIGATION SYSTEM TO CONDITION EXISTING PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR SHALL REMOVE ALL DEBRIS AS A RESULT OF THIS PROJECT. THE CONTRACTOR WILL REMOVE EXISTING EQUIPMENT, FIXTURES, ETC. IN THE SPACE PRIOR TO CONSTRUCTION AND RELOCATE PER OWNER.
- THE CONTRACTOR SHALL SCHEDULE HIS WORK AND MATERIAL AND EQUIPMENT DELIVERIES SO AS NOT TO INTERFERE WITH THE DAILY OPERATIONS OF THE REMAINDER OF THE FACILITY.
- THE CONTRACTOR SHALL PROTECT EXISTING FACILITIES, EQUIPMENT, FIXTURES, EXISTING SITE IMPROVEMENTS, SITE FURNISHINGS, SIGNAGE, PERMANENT SITE FEATURES, ETC. FROM DAMAGE DURING THE COURSE OF CONSTRUCTION. OWNER WILL PHOTOGRAPH AT PRECONSTRUCTION MEETING WALK-THROUGH PRIOR TO COMMENCEMENT OF WORK.
- REPAIRING OR REPLACING DAMAGED ITEMS IS CONTRACTOR'S RESPONSIBILITY. RESTORE DAMAGED COMPONENTS TO CONDITION EXISTING PRIOR TO THE START OF CONSTRUCTION.

- THE CONTRACTOR SHALL KEEP DESIGNATED BUILDING ENTRANCES, ALL STAIRWELLS, AND ELEVATORS CLEAR OF CONSTRUCTION MATERIAL, TOOLS, AND EQUIPMENT AT ALL TIMES. ALL SURFACES AND/OR FINISHES DAMAGED AS A RESULT OF AND ADJACENT TO THE WORK SHALL BE REPAIRED AND FINISHED TO THEIR ORIGINAL CONDITION.
- ACH SUBCONTRACTOR IS RESPONSIBLE TO COORDINATE AND SCHEDULE HIS WORK WITH THE GENERAL CONTRACTOR AND ALL OTHER SUBCONTRACTORS WHOSE WORK WILL BE AFFECTED.
- USE DETAILS MARKED 'TYP' (WHENEVER APPLICABLE).
- ALL ITEMS REQUIRED BY THE DRAWINGS AND SPECIFICATIONS SHALL BE PERFORMED IN A WORKMANLIKE MANNER BY PERSONS SKILLED IN THEIR RESPECTIVE TRADE AND WHO NORMALLY PARTICIPATE IN THE WORK OF THAT TRADE.
- CONTRACTOR SHALL COORDINATE WORK OF ALL TRADES TO ENSURE SMOOTH, UNINTERRUPTED CONSTRUCTION.
- WORDS WHICH HAVE WELL KNOWN TECHNICAL OR TRADE MEANINGS ARE USED IN THE DRAWINGS AND SPECIFICATIONS IN ACCORDANCE WITH SUCH RECOGNIZED MEANINGS.
- WITHIN THE DRAWINGS AND RELATED SPECIFICATIONS THERE SHALL BE THE FOLLOWING PRECEDENCE:
 - ADDENDA OR MODIFICATIONS TO THE DRAWINGS AND SPECIFICATIONS TAKE PRECEDENCE OVER THE ORIGINAL, WHEN ISSUED BY THE ARCHITECT.
 - SPECIFICATIONS SHALL TAKE PRECEDENCE OVER DRAWINGS.
 - WITHIN THE DRAWINGS THE LARGER SCALE TAKES PRECEDENCE OVER THE SMALLER, FIGURED DIMENSIONS OVER SCALED AND NOTED MATERIALS OVER GRAPHIC INDICATIONS.

- THE ARCHITECT OR ENGINEER SHALL BE IN THE FIRST INSTANCE THE SOLE INTERPRETER OF THE DRAWINGS AND SPECIFICATIONS WITH REGARD TO THEIR MEANING OR INTENT.
- CONSTRUCTION DOCUMENTS SHOW THE DESIGN INTENT OF THE PROJECT. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES AND PROCEDURES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ASPECTS OF SAFETY DURING BUILDING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE AND BE RESPONSIBLE FOR PROTECTION WHERE NECESSARY TO PROTECT THE PUBLIC DURING THE CONSTRUCTION OF THE PROJECT.
- CONTRACTOR SHALL ALLOW FOR THE OWNER AND DESIGN TEAM TO ERECT THEIR OWN SIGNAGE AT THE EDGES OF THE PROPERTY WHICH MAY BE A WIND SCREEN MOUNTED TO THE CONTRACTOR'S SITE FENCE.
- CONTRACTOR SHALL SUBMIT FULL-SIZE SAMPLES OF ALL FINISH MATERIALS AND COLORS FOR APPROVAL BY THE OWNER'S REPRESENTATIVE. THE DRAWINGS MAY CALL OUT COLORS AND MATERIALS, BUT APPROVAL PRIOR TO PURCHASE IS REQUIRED.
- CONTRACTOR TO ACCESS SITE BY STREETS SHOWN. ACCESS MUST BE COORDINATED WITH MSU.
- CONTRACTOR SHALL OBTAIN APPROVAL OF ALL CONSTRUCTION STAGING SETUP FROM MSU PRIOR TO BEGINNING CONSTRUCTION. THE STAGING PLAN CAN BE PRESENTED AS A DRAWING AND NARRATIVE AT THE PRECONSTRUCTION MEETING AND UPDATED AT REGULAR A.O.C. MEETING.
- ALL CONTRACTOR VEHICLES PARKED ON CAMPUS, INCLUDING VEHICLES OWNED BY EMPLOYEES OF THE CONTRACTOR, SHALL BE PARKED IN DESIGNATED PARKING AREAS ONLY. ALL VEHICLES PARKED IN DESIGNATED PARKING AREAS MUST HAVE A VALID MSU PERMIT. VIOLATORS OF MSU VEHICLE REGULATIONS MAY BE TICKETED AND/OR TOWED.

- ALL WORK SHALL BE PERFORMED IN A MANNER SO AS NOT TO INCREASE/CAUSE A FIRE HAZARD.
- PROVIDE DEMOLITION AND PATCHING NOT SHOWN BUT REQUIRED FOR THE INSTALLATION OF NEW ARCHITECTURAL DETAILS OR AS REQUIRED FOR THE WORK.
- REID HALL WILL BE IN USE DURING THE CONSTRUCTION PERIOD. ALL ACCESS AND EXITS SHALL BE LEFT CLEAR UNLESS AGREED TO IN ADVANCE WITH THE MSU PROJECT MANAGER. COORDINATE WITH THE MSU PROJECT MANAGER.
- CONTRACTOR SHALL BE ALLOWED TO USE WATER AND ELECTRICITY FROM REID HALL AT NO COST TO THE CONTRACTOR.
- REID HALL IS A CONTRIBUTING RESOURCE WITHIN THE MSU HISTORIC DISTRICT LISTED IN THE NATIONAL REGISTER OF HISTORIC PLACES. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE SECRETARY OF THE INTERIOR'S STANDARDS FOR THE REHABILITATION OF HISTORIC PROPERTIES.
- DUE TO THE AGE OF THE BUILDING, ACM AND LEAD IS SUSPECTED. ENVIRONMENTAL TESTING IS RECOMMENDED PRIOR TO START OF CONSTRUCTION.

PROJECT INFORMATION:

OWNER / DEVELOPER

STATE OF MONTANA - MONTANA STATE UNIVERSITY
UNIVERSITY FACILITIES MANAGEMENT,
MANAGED BY: PLANNING, DESIGN, & CONSTRUCTION
PLEW BUILDING 6TH & GRANT
PO BOX 172760
BOZEMAN, MT 59717-2760
ATTN: ARA MESKIMEN
EMAIL: ARA.MESKIMEN@MONTANA.EDU
TEL: (406) 994-3230

BUILDING DEPARTMENT

MONTANA DEPARTMENT OF LABOR & INDUSTRY
100 N PARK AVE
HELENA, MT 59601
EMAIL: PLANNINGTECH@BOZEMAN.NET
TEL: (406) 582-2260

DESIGN PROFESSIONALS


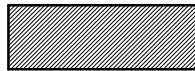

JACKOLA ENGINEERING & ARCHITECTURE, P.C.
2250 HWY 93 SOUTH
PO BOX 1134
KALISPELL, MT 59903
TEL: (406) 755-3208
ARCHITECT: CHELSEA HOLLING, AIA

ELECTRICAL & PLUMBING ENGINEER:
BLACKSHEEP
602 WEST HEALOCK ST
BOZEMAN, MT 59715
EMAIL: ANDY.M@BLACKSHEEP-ENGINEERING.TEL: (406) 551-3669
FIRE SUPPRESSION:
COFFMAN ENGINEERS, INC.
751 OSTERMAN DR
STE 104
BOZEMAN, MT 59715
TEL: (406) 582-1936

SITE KEYNOTES/STAGING NOTES

- PRIMARY ACCESS ROUTE: JOB RELATED TRAFFIC SHALL ENTER THE CONSTRUCTION AREA SITE ONLY BY THIS ROUTE. VEHICLES MAKING DELIVERIES TO THE PROJECT SITE MUST BE REMOVED FROM CAMPUS IMMEDIATELY AFTER UNLOADING. CONTRACTOR SHALL MINIMIZE INTERFERENCE WITH ADJOINING STREETS, SIDEWALKS, PARKING AREAS, AND OTHER ADJACENT OCCUPIED OR USED FACILITIES DURING CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL NOT BLOCK STREETS, SIDEWALKS, OR ACCESS TO DUMPSTER LOCATION AT ANY TIME.
- AVAILABLE CONSTRUCTION STAGING AREA: CONTRACTOR SHALL PROVIDE FENCING TO ENCLOSE ALL AREAS USED AS CONSTRUCTION STAGING AREAS, OR APPROVED EQUAL. FENCING SHALL PREVENT ACCESS FROM UNAUTHORIZED PERSONNEL. THE CONTRACTOR NEED NOT MAKE USE OF THE ENTIRE CONSTRUCTION STAGING AREA SHOWN. THE CONTRACTOR SHALL RESTORE AREAS USED FOR CONSTRUCTION STAGING THAT ARE DAMAGED DURING THE COURSE OF CONSTRUCTION OPERATIONS, TO CURRENT MSU STANDARDS AS DIRECTED BY THE MSU PROJECT MANAGER. PRIOR TO SUBSTANTIAL COMPLETION, WHERE POSSIBLE, ALL STAGING SHALL BE ON HARD SURFACING.
- PRIMARY BUILDING ACCESS. DO NOT BLOCK ANY OTHER BUILDING ENTRANCES OR EXITS.

SITE LOCATION MAP LEGEND

-  PRIMARY ACCESS ROUTE
-  CONSTRUCTION STAGING AREA
-  PROJECT LOCATION

BUILDING REQUIREMENTS FROM INTERNATIONAL EXISTING BUILDING CODE (IEBC) 2021

LEVEL 2 (CLASSROOM):

CHAPTER 6 - CLASSIFICATION OF WORK

SECTION 602 ALTERATION - LEVEL 1: LEVEL 1 ALTERATIONS INCLUDE THE REMOVAL AND REPLACEMENT OR THE COVERING OF EXISTING MATERIALS, ELEMENTS, EQUIPMENT OR FIXTURES USING NEW MATERIALS, ELEMENTS, EQUIPMENT OR FIXTURES THAT SERVE THE SAME PURPOSE.

SECTION 603 ALTERATION - LEVEL 2: ALTERATIONS INCLUDE THE ADDITION OR ELIMINATION OF ANY DOOR OR WINDOW, THE RECONFIGURATION OR EXTENSION OF ANY SYSTEM, OR THE INSTALLATION OF ANY ADDITIONAL EQUIPMENT, AND SHALL APPLY WHERE THE WORK AREA IS EQUAL TO OR LESS THAN 50 PERCENT OF THE BUILDING AREA. LEVEL 2 ALTERATIONS SHALL COMPLY WITH THE PROVISIONS OF CHAPTER 7 FOR LEVEL 1 ALTERATIONS AS WELL AS THE PROVISIONS OF CHAPTER 8.

CHAPTER 5 - PRESCRIPTIVE COMPLIANCE METHOD

SECTION 503 ALTERATIONS: EXCEPT AS PROVIDED BY SECTION 302.4, 302.5 OR THIS SECTION, ALTERATIONS TO ANY BUILDING OR STRUCTURE SHALL COMPLY WITH THE REQUIREMENTS OF THE IBC FOR NEW CONSTRUCTION. ALTERATIONS SHALL BE SUCH THAT THE EXISTING BUILDING OR STRUCTURE IS NOT LESS COMPLYING WITH THE PROVISIONS OF THE IBC THAN THE EXISTING BUILDING OR STRUCTURE WAS PRIOR TO THE ALTERATION.

CHAPTER 8 - ALTERATIONS LEVEL 2 COMPLIANCE METHOD

SECTION 801: NEW CONSTRUCTION ELEMENTS, COMPONENTS, SYSTEMS, AND SPACES SHALL COMPLY WITH THE REQUIREMENTS OF THE IBC.

EXCEPTIONS:

SECTION 806: NEWLY INSTALLED ELECTRICAL EQUIPMENT SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 806.

BUILDING REQUIREMENTS FROM INTERNATIONAL BUILDING CODE (IBC) 2021

LEVEL 2 (CLASSROOM):

USE AND OCCUPANCY CLASSIFICATION (CHAPTER 3)
ASSEMBLY: B

CHAPTER 10 - MEANS OF EGRESS

SECTION 1004 OCCUPANT LOAD:
TABLE 1004.5 MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT: EDUCATIONAL CLASSROOM OCC. TYPE
CLASSROOM 101 FLOOR AREA BY OCCUPANT TYPE - 20 NET SF: 1,195 SF/20 = 59 OCC.
PROVIDED OCCUPANT LOAD: 47 OCCUPANTS

CLASSROOM 102 FLOOR AREA BY OCCUPANT TYPE - 20 NET SF: 1,184 SF/20 = 59 OCC.
PROVIDED OCCUPANT LOAD: 47 OCCUPANTS

CLASSROOM 103 FLOOR AREA BY OCCUPANT TYPE - 20 NET SF: 1,419 SF/15 = 94 OCC.
PROVIDED OCCUPANT LOAD: 82 OCCUPANTS

CLASSROOM 105 FLOOR AREA BY OCCUPANT TYPE - 20 NET SF: 2,218 SF/15 = 149 OCC.
PROVIDED OCCUPANT LOAD: 148 OCCUPANTS

CLASSROOM 126 FLOOR AREA BY OCCUPANT TYPE - 20 NET SF: 757 SF/20 = 37 OCC.
PROVIDED OCCUPANT LOAD: 36 OCCUPANTS

COMMON PATH OF EGRESS TRAVEL (CPET):
NO CHANGE TO COMMON PATH OF EGRESS TRAVEL

SECTION 1006 NUMBER OF EXITS:

TWO EXITS FROM ANY SPACE SHALL BE PROVIDED WHERE THE DESIGN OCCUPANT LOAD EXCEEDS THE VALUES LISTED IN TABLE 1006.2.1

CLASSROOM 103: 2 EXITS REQUIRED, 2 EXITS PROVIDED

CLASSROOM 105: 2 EXITS REQUIRED, 3 EXITS PROVIDED

SECTION 1010.1.1 SIZE OF DOORS: THE REQUIRED CAPACITY OF EACH DOOR OPENING SHALL BE SUFFICIENT FOR THE OCCUPANT LOAD AND SHALL PROVIDE A MINIMUM CLEAR OPENING WIDTH OF 32-INCHES.

CHAPTER 12 - INTERIOR ENVIRONMENT

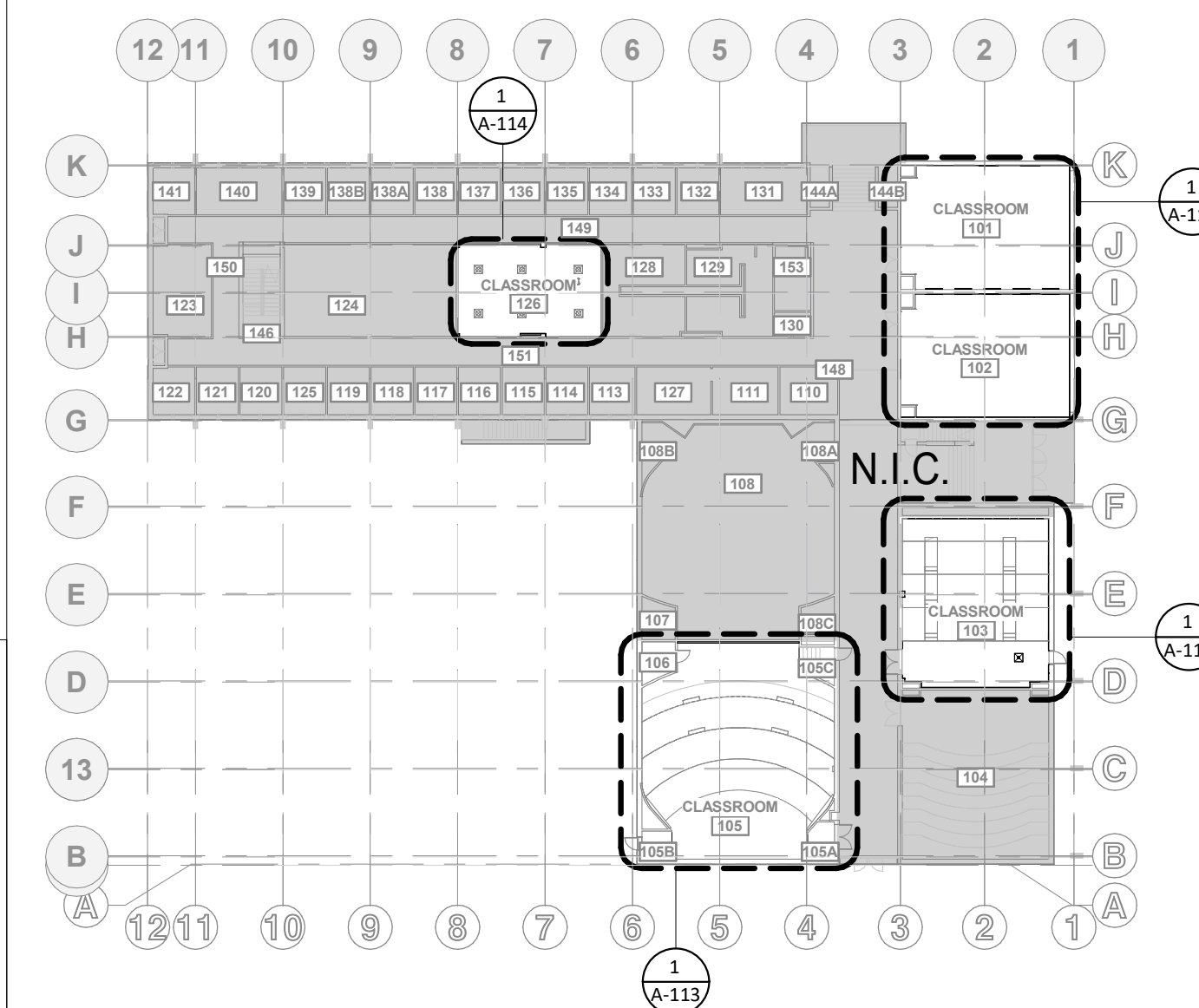
SECTION 1208.2 MINIMUM CEILING HEIGHTS: OCCUPIABLE SPACES, HABITABLE SPACES AND CORRIDORS SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 7-FEET 6-INCHES ABOVE THE FINISHED FLOOR.

NOTE: PLUMBING FIXTURE COUNT HAS NOT CHANGED.

NO CHANGE IS BEING MADE TO OCCUPANCY SIZE OR TYPE.

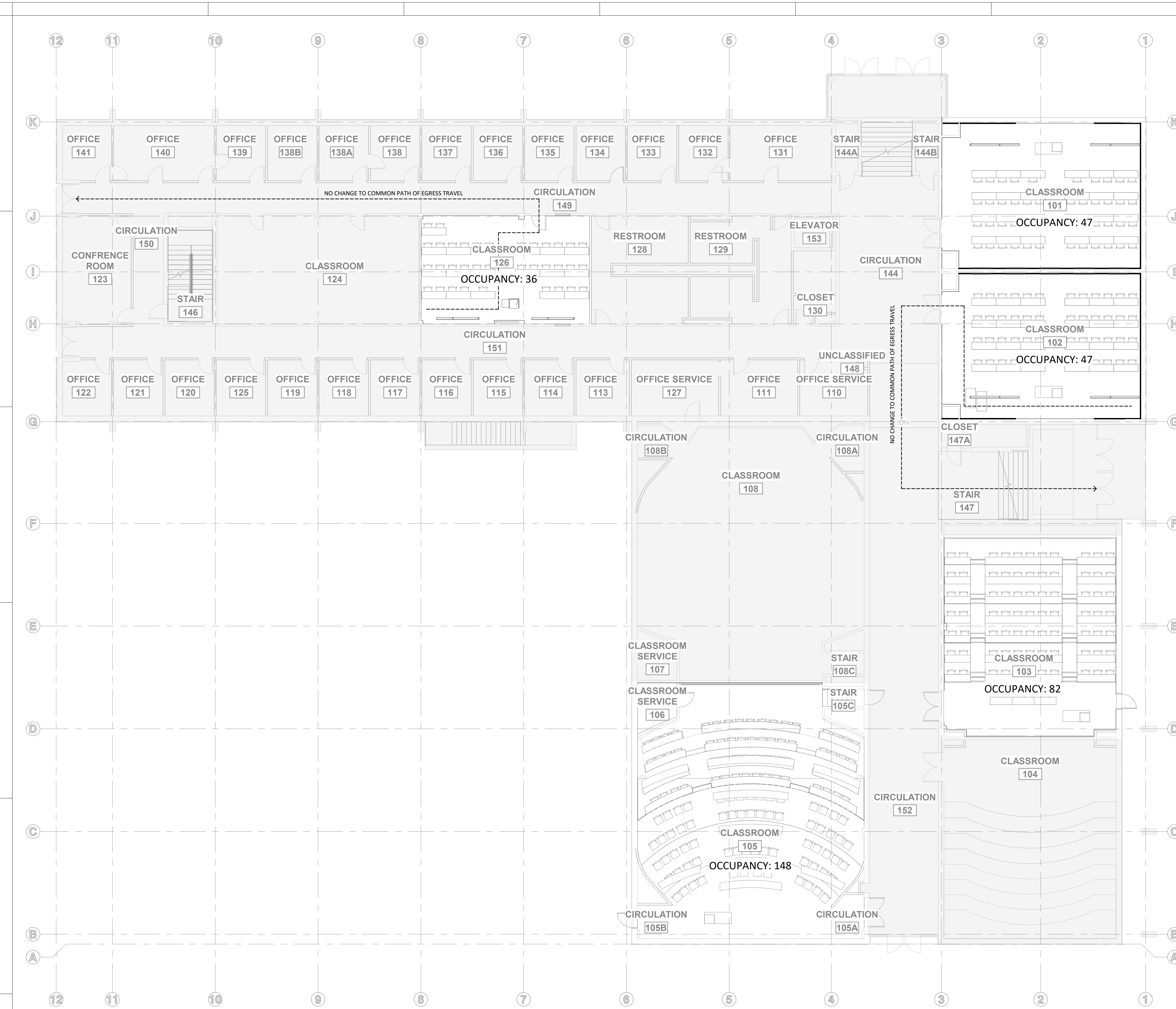
NO CHANGE TO EXIT DISTANCE OR PATH.

P LOCATION OF EXISTING ELECTRICAL PANEL. (TBC)

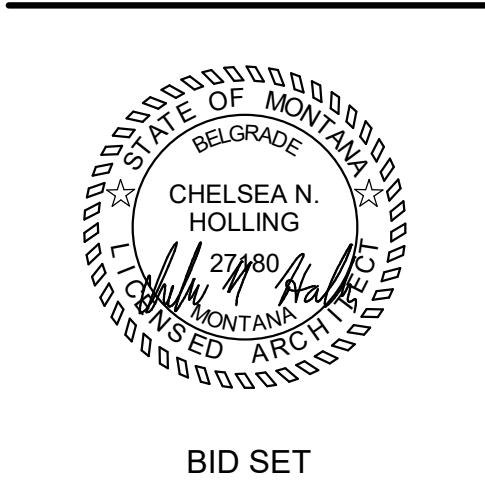
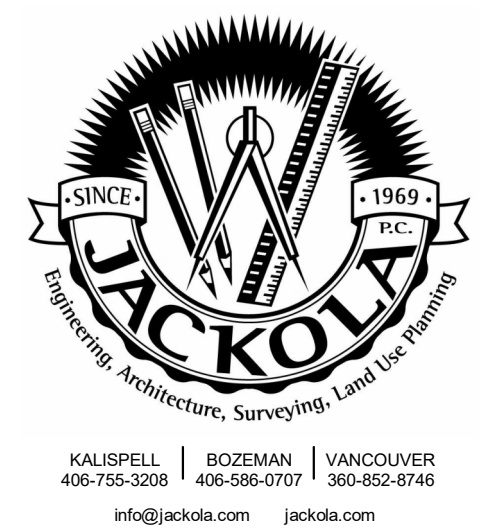


KEY PLAN

LEGEND
OCCUPANCY: X
CPET (COMMON PATH OF EGRESS TRAVEL)



1 CODE PLAN
3/32" = 1'-0"
0 8 16 24

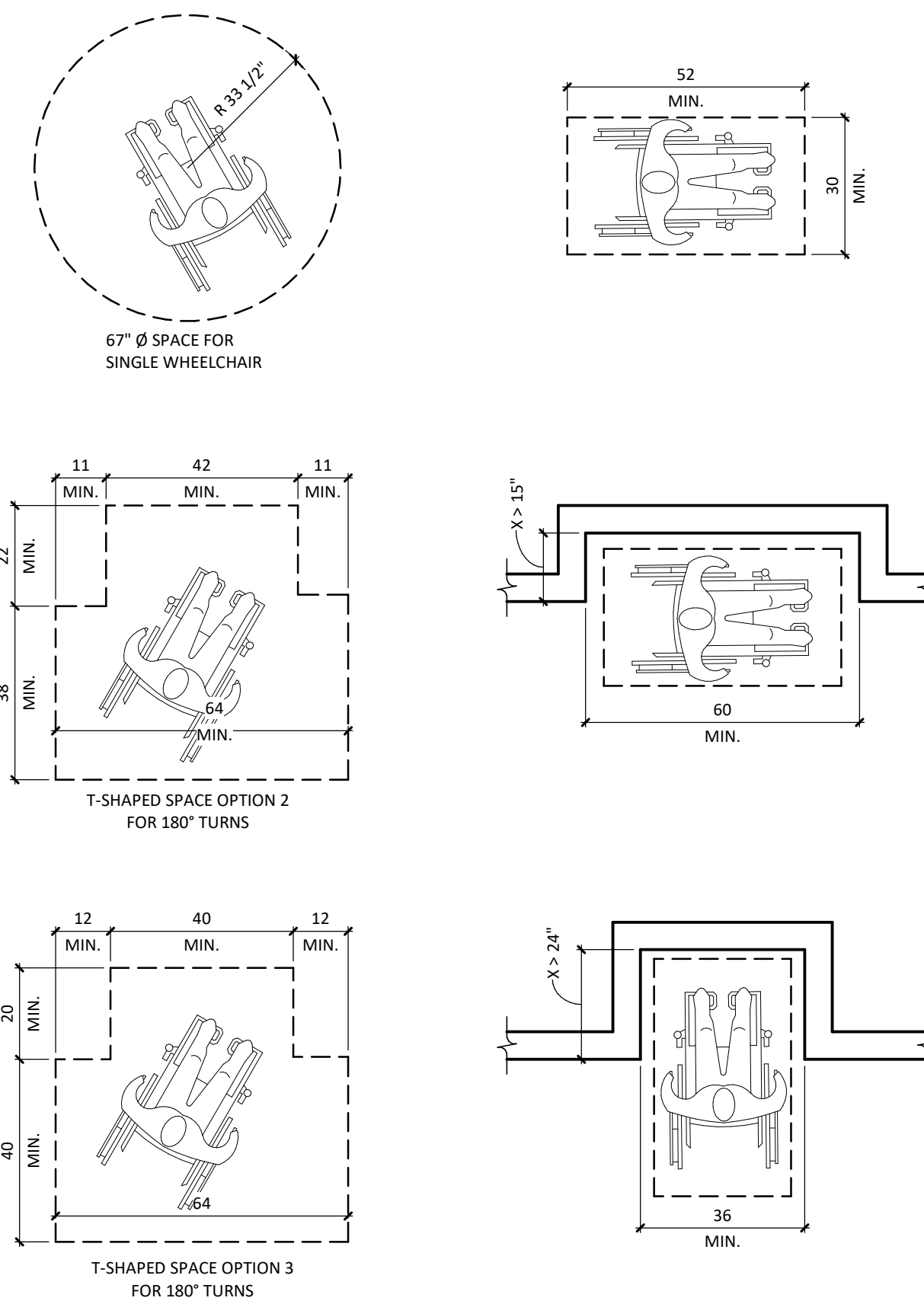


BID SET
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PPA#: 25-1214

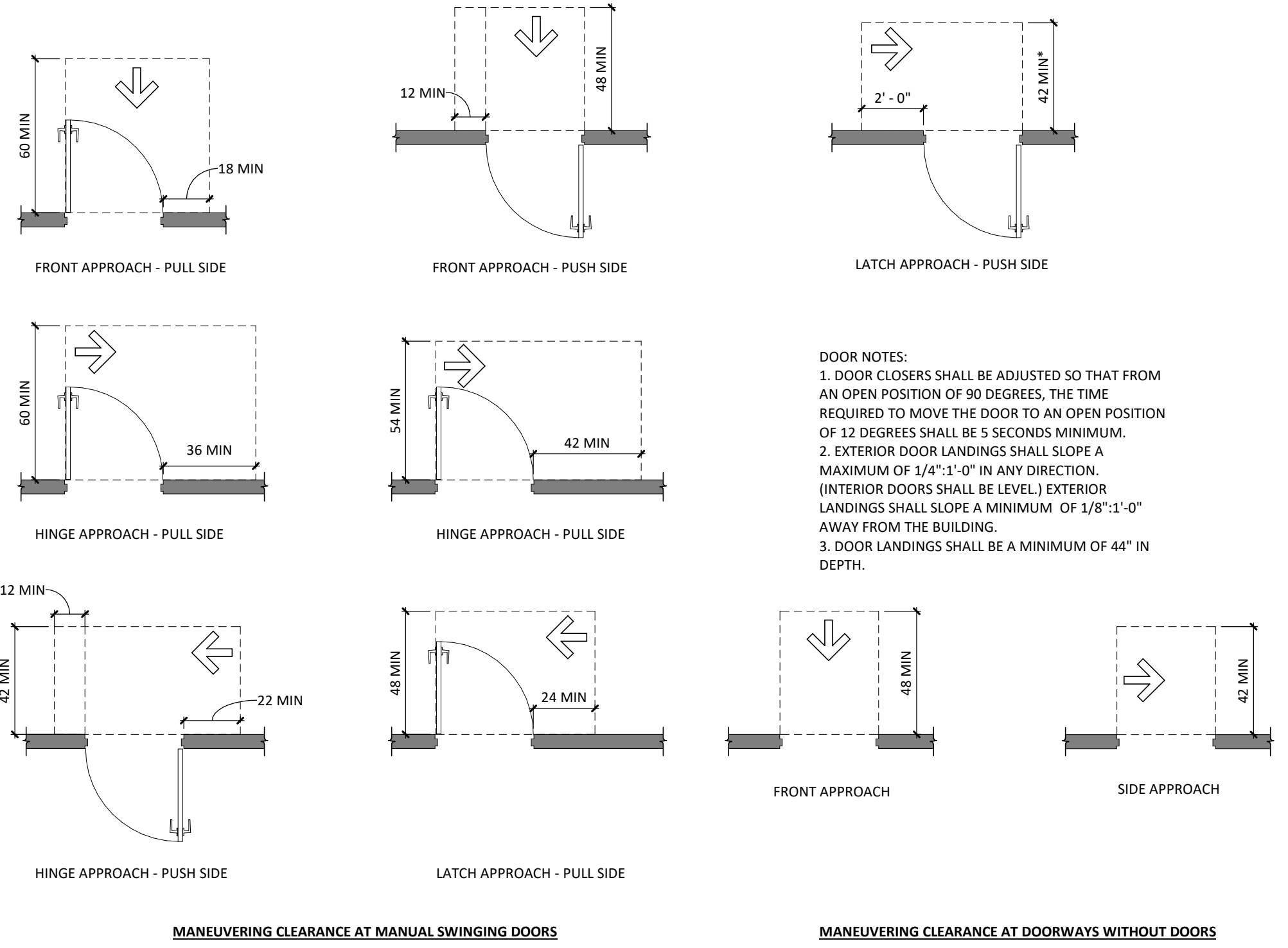
DRAWN: RH CHECKED: CH
DATE: 12/17/2025
REVISIONS:

CODE REVIEW
G-011



1 WHEELCHAIR TURNING & CLEAR FLOOR SPACE REQUIREMENTS

3/8" = 1'-0"

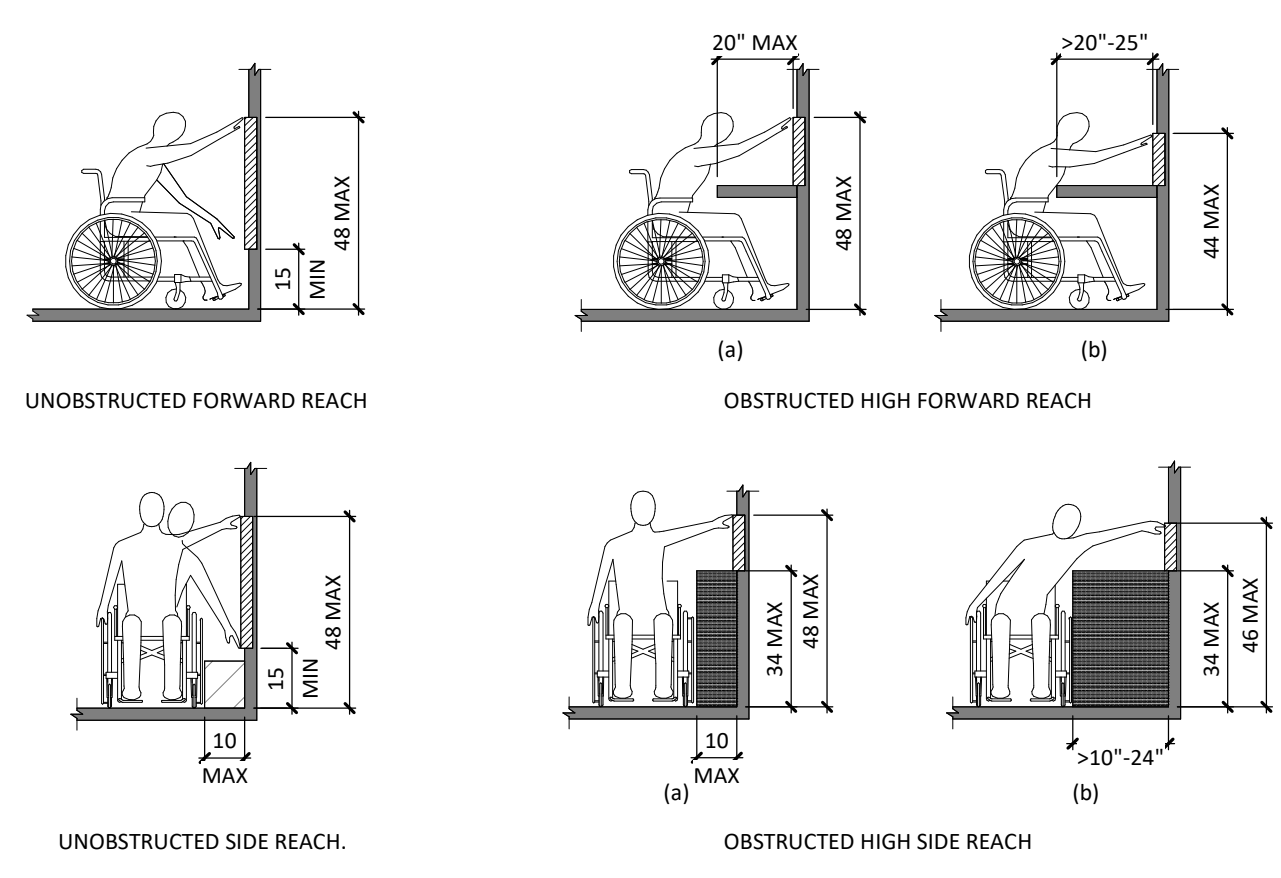


DOOR NOTES:
1. DOOR CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO AN OPEN POSITION OF 12 DEGREES SHALL BE 5 SECONDS MINIMUM.
2. EXTERIOR DOOR LANDINGS SHALL SLOPE A MAXIMUM OF 1/4"-1'-0" IN ANY DIRECTION. (INTERIOR DOORS SHALL BE LEVEL.) EXTERIOR LANDINGS SHALL SLOPE A MINIMUM OF 1/8"-1'-0" AWAY FROM THE BUILDING.
3. DOOR LANDINGS SHALL BE A MINIMUM OF 44" IN DEPTH.

MANEUVERING CLEARANCE AT MANUAL SWINGING DOORS MANEUVERING CLEARANCE AT DOORWAYS WITHOUT DOORS

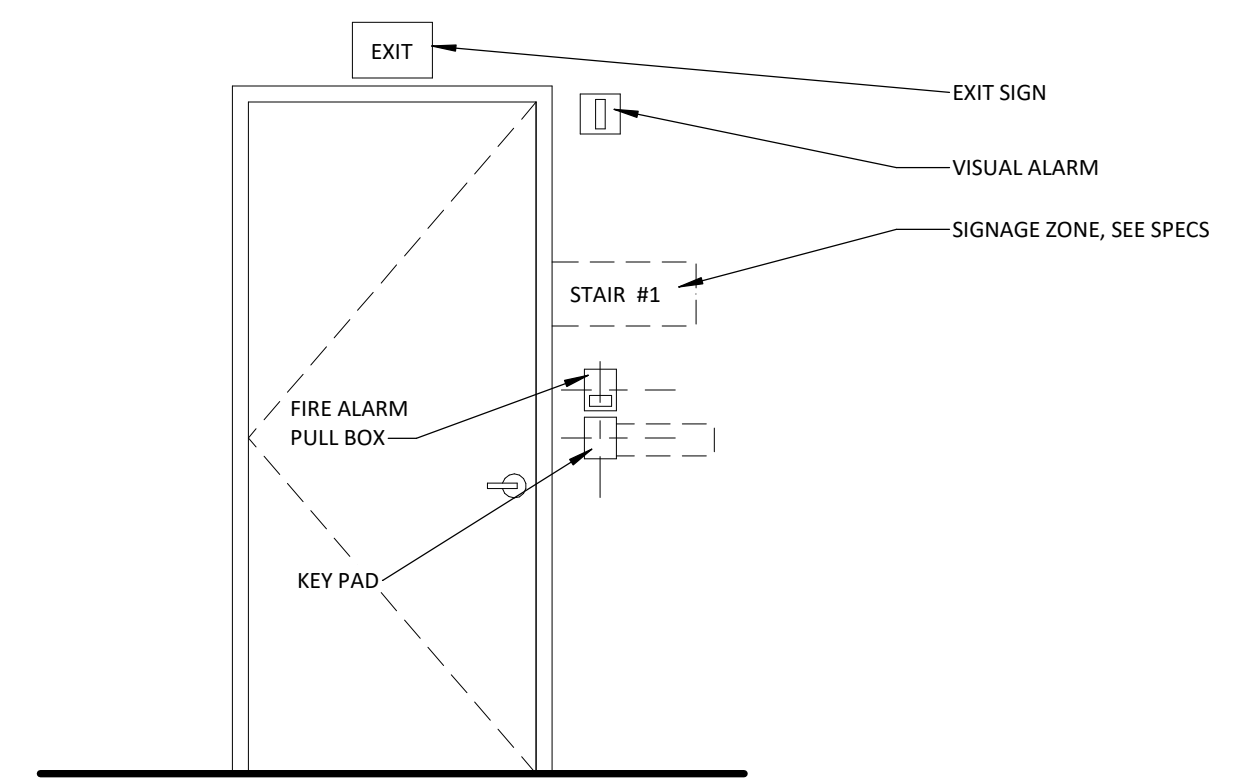
4 DOOR CLEARANCE AND LANDING REQUIREMENTS

1/4" = 1'-0"



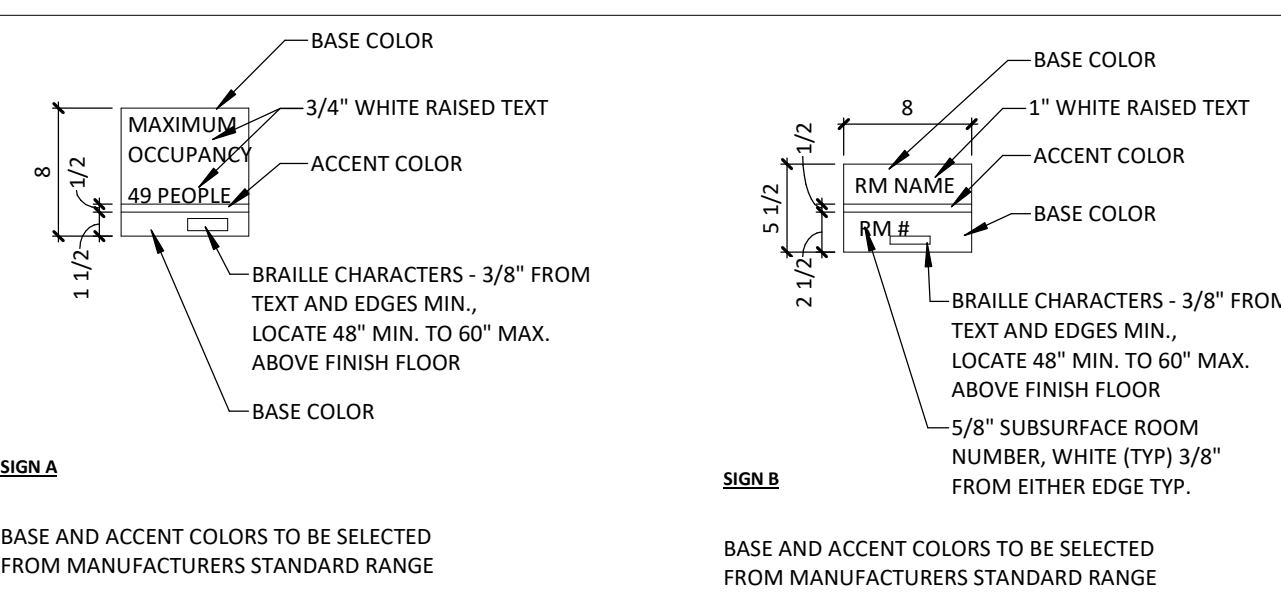
2 ADA - REACH RANGES

1/4" = 1'-0"



5 TYP. MOUNTING HTS. @ EXIT DOOR

1/2" = 1'-0"



3 ACCESSIBLE SIGNAGE

1" = 1'-0"

ABBREVIATIONS

A	ABOVE FINISH FLOOR ACOUSTICAL CEILING TILE ADJUSTABLE ANCHOR BOLT ALUMINUM ALTERNATE ANODIZED APPROXIMATE ARCHITECT	FOS FINISH FF FEC	FACE OF STUDS FINISH FINISH FLOOR FIRE EXTINGUISHER/AND OR CABINET FLASHING FLOOR FLOOR DRAIN FOOT, FEET FOOTING FOUNDATION FURNITURE FUTURE FURNISHED BY OTHERS FIBER REINFORCED PANEL	MATL MAX MECH MTL MIN MIRR MISC	MATERIAL MAXIMUM MECHANICAL, MECHANICAL ROOM METAL MINIMUM MIRROR MISCELLANEOUS
B	BSMT BATH BM BRG BEDRM BET BLDG BO BOT BN BS	G GA GALV GEN GL GWB GYPC	BASEMENT BATHROOM BEAM BEARING BEDROOM BETWEEN BUILDING BOTTOM OF BOTTOM BOUNDARY NAILING BOTH SIDES	N NOM N NA NIC NTS NO	NOMINAL NORTH NOT APPLICABLE NOT IN CONTRACT NOT TO SCALE NUMBER
C	CPT CLG CT CLR CLST COL CONC CONST CONT CONTR CORR CI CMU CFCI	H HALL HDW HVAC HT HM HORIZ HWT	CARPET CEILING CERAMIC TILE CLEAR CLOSET COLUMN CONCRETE CONSTRUCTION CONTINUOUS CONTRACT, CONTRACTOR CORRIDOR CONTROL JOINT CONCRETE MASONRY UNIT CONTRACTOR FURNISHED CONTRACTOR INSTALLED	Q OC OFF OPG OPP OD OF OFCI OFOI O/O	ON CENTER OFFICE OPENING OPPOSITE OUTSIDE DIAMETER OUTSIDE FACE OWNER FURNISHED CONTRACTOR INSTALLED OWNER FURNISHED OWNER INSTALLED OUT TO OUT
D	DEMO DTL DIA DIM DW DIV DL DR DN DS DWG DF D	I IBC INCL INFO ID INSUL INT	DEMOLISH, DEMOLITION DETAIL DIAMETER DIMENSION DISHWASHER DIVISION DEAD LOAD DOOR DOWN DOWNSPOUT DRAWING DRINKING FOUNTAIN DRYER	P PNT PNL PH PLAS P-LAM PL PLYWD PVC PREFIN PROP	PAINT, PAINTED PANEL PHASE PLASTIC PLASTIC LAMINATE PLATE PLYWOOD POLYVINYL CHLORIDE PREFINISHED PROPERTY
E	EA E ELEC ELEV EQ EQUIP EXIST EXP EJ EXT	J JAN JC JT	EACH EAST ELECTRIC ELEVATION, ELEVATOR EQUAL EQUIPMENT EXISTING EXPANSION EXPANSION JOINT EXTERIOR	R RAD RWL REF REINF RCP REQ'D RFI REV R RD RM RO	AND ANGLE AT CENTERLINE CHANNEL DIAMETER PLATE
F	FOB FOC FOM	K KIT KO	FACE OF BRICK FACE OF CONCRETE FACE OF MASONRY	S SCHD SEC SG SHTG SIM SOG S SPEC SQ STD STL STOR STRUCT SF SUSP	SCHEDULE SECTION SAFETY GLASS SHEATHING SIMILAR SLAB ON GRADE SOUTH SPECIFICATION SQUARE STANDARD STEEL STORAGE STRUCTURAL SQUARE FEET SUSPENDED

SYMBOLS USED AS ABBREVIATIONS

&	AND
L	ANGLE
@	AT
CL	CENTERLINE
u	CHANNEL
Ø	DIAMETER
PL	PLATE

SYMBOLS & MATERIALS

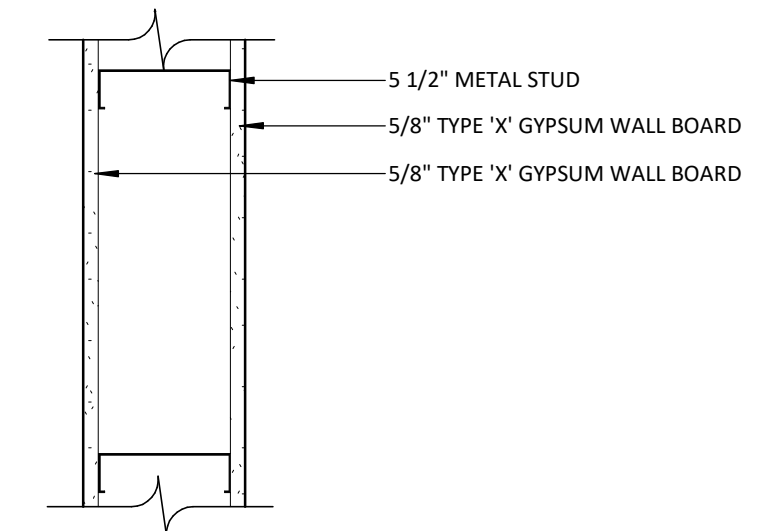
	STRUCTURAL FILL		FINISHED WOOD
	UNDISTURBED EARTH		PLYWOOD
	DISTURBED EARTH		RIGID INSULATION
	GRAVEL		BATT INSULATION
	POURED CONCRETE		SPRAYFOAM INSULATION
	CONCRETE MASONRY UNITS		SAND, PLASTER, GROUT
	CONCRETE BLOCK VENEER		METAL
	BRICK VENEER		STEEL
	EIFS		NOT IN CONTRACT (N.I.C.)
	ROUGH WOOD		WINDOW TYPE
	BLOCKING		DOOR NUMBER
	SECTION		ROOM NUMBER
	ELEVATION		WALL TYPE
	DETAIL		REVISION NUMBER
	ITEM IDENTIFICATION SHEET WHERE ITEM IS CUT		KEY NOTE
	NORTH ARROW		DEMOLITION NOTE
	ROOM FINISH KEY		FINISH TAG
			EQUIPMENT TAG
			ELEMENTS TO BE DEMOLISHED
			EXISTING TO REMAIN
			FLOOR TRANSITION

A-102

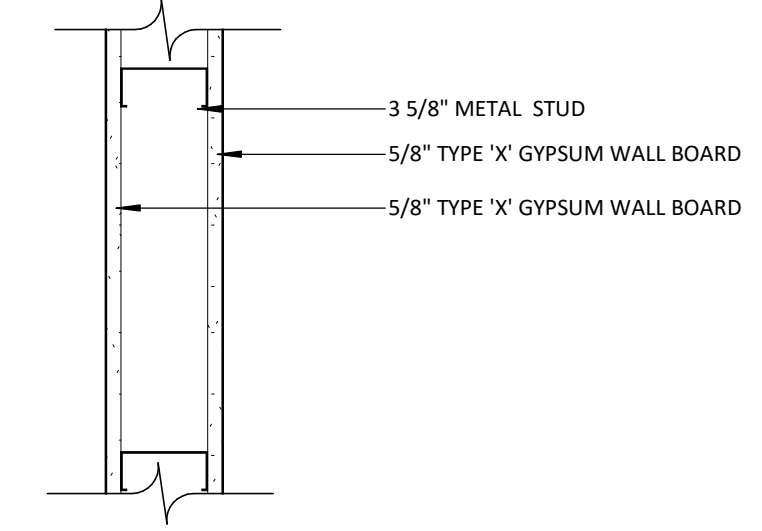
LEVEL 1 DISCIPLINE DESIGNATOR LEVEL SEQUENCE NUMBER
 LEVEL 2 DISCIPLINE DESIGNATOR PLAN TYPE SEQUENCE NUMBER
 NOTE
 THE SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET
 MAY OR MAY NOT BE USED IN THIS SET OF DRAWINGS.

ARCHITECTURAL SHEET INDEX

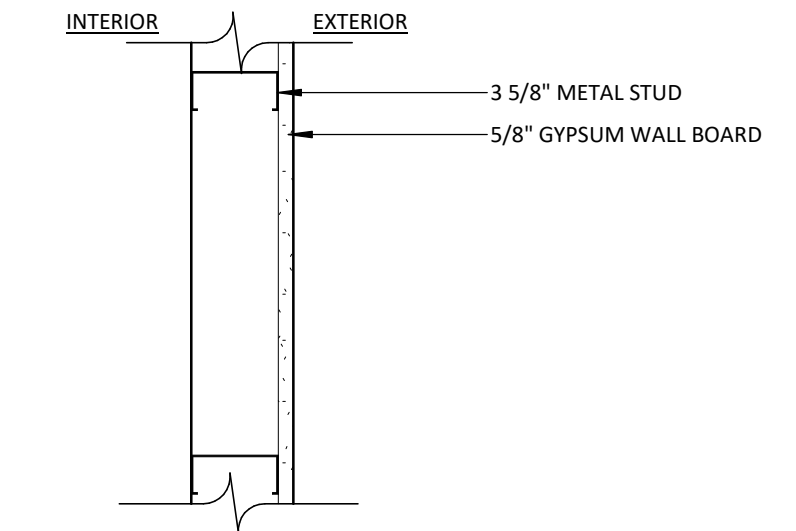
A-001	ARCHITECTURAL TITLE SHEET
AD111	101/102 DEMO FLOOR PLAN
AD112	103 DEMO FLOOR PLAN ALT. #2
AD113	105 DEMO FLOOR PLAN ALT. #1
AD114	126 DEMO FLOOR PLAN ALT. #3
AD121	101/102 DEMO REFLECTED CEILING PLAN
AD122	103 DEMO REFLECTED CEILING PLAN ALT. #2
AD123	105 DEMO REFLECTED CEILING PLAN ALT. #1
AD124	126 DEMO REFLECTED CEILING PLAN ALT. #3
AD211	101/102 DEMO INTERIOR ELEVATIONS
AD212	103 DEMO INTERIOR ELEVATIONS ALT. #2
AD213	105 DEMO INTERIOR ELEVATIONS ALT. #1
AD214	126 DEMO INTERIOR ELEVATIONS ALT. #3
A-111	101/102 FLOOR PLAN
A-112	103 FLOOR PLAN ALT. #2
A-112S	103 SLAB PLAN
A-113	105 FLOOR PLAN ALT. #1
A-113S	105 SLAB PLAN
A-114	126 FLOOR PLAN ALT. #3
A-121	101/102 REFLECTED CEILING PLAN
A-122	103 REFLECTED CEILING PLAN ALT. #2
A-123	105 REFLECTED CEILING PLAN ALT. #1
A-124	126 REFLECTED CEILING PLAN ALT. #3
A-131	101/102 FINISH FLOOR PLAN
A-132	103 FINISH FLOOR PLAN ALT. #2
A-133	105 FINISH FLOOR PLAN ALT. #1
A-134	126 FINISH FLOOR PLAN ALT. #3
A-211	101/102 INTERIOR ELEVATIONS
A-212	103 INTERIOR ELEVATIONS ALT. #2
A-213	105 INTERIOR ELEVATIONS ALT. #1
A-214	126 INTERIOR ELEVATIONS ALT. #3
A-215	126 INTERIOR ELEVATIONS ALT. #4
A-521	FINISH DETAILS
A-601	DOOR AND WINDOW SCHEDULES



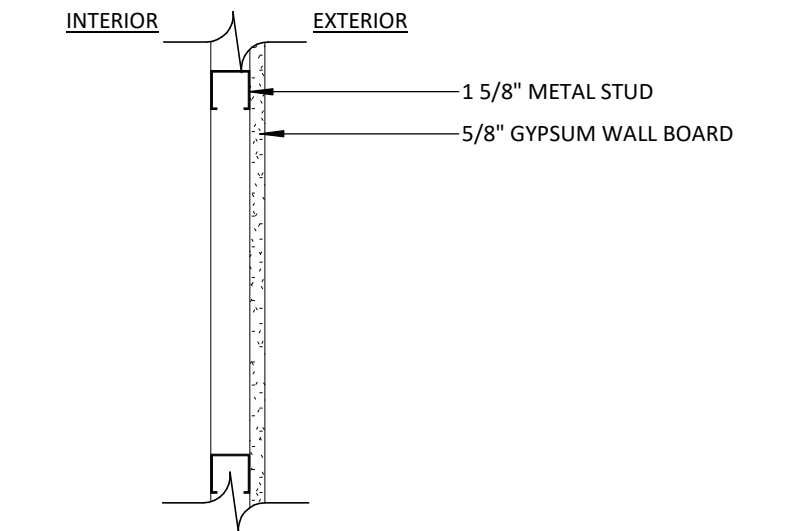
B.1 2X6 INTERIOR WALL
SCALE: 1 1/2" = 1'



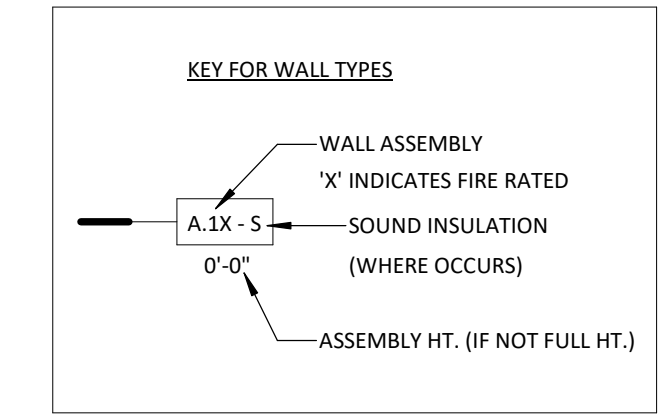
B.2 2X4 INTERIOR WALL
SCALE: 1 1/2" = 1'



F.1 2X4 FURRED WALL
SCALE: 1 1/2" = 1'



F.2 2X4 FURRED WALL
SCALE: 1 1/2" = 1'



THE INFORMATION CONTAINED HEREIN IS PROPRIETARY. THIS DOCUMENT MAY NOT BE USED OR REPRODUCED WITHOUT THE WRITTEN CONSENT OF JACKOLA ENGR. & ARCH., P.C.

REID HALL CLASSROOM RENOVATION
MONTANA STATE UNIVERSITY
 REID HALL,
 BOZEMAN, MONTANA 59717
 PPA#: 25-1214

DRAWN: RH	CHECKED: CH
DATE: 12/17/2025	
REVISIONS:	

ARCHITECTURAL TITLE SHEET

A-001

REM01 – GENERAL NOTES:

- The project abatement contractor (AC) shall coordinate asbestos and lead-based paint (LBP) work activities, including any proposed changes, with the Owner or the Owner's Representative (hereafter collectively referred to as OR) and Owner's General Contractor (GC), Asbestos and LBP work, including associated selective demolition and/or abatement activities, if any - shall be performed by the AC, unless noted otherwise. Owner may, at their option, utilize the services of a professional industrial hygienist (PIH), in which case AC shall coordinate with PIH as noted below. In the absence of a PIH, AC shall coordinate with OR.
- AC to comply with all applicable federal (EPA, OSHA), state (Montana DEQ), and local (Gallatin County, City of Bozeman) regulations, as well as requirements of the project documents. All asbestos work is to be completed by individuals holding current Montana accreditation as Asbestos Contractor/Supervisors or Asbestos Workers. All LBP work to be completed by individuals currently trained as required by OSHA for handling of LBP.
- The intent of the project is to disturb asbestos and/or LBP only where necessary to complete the renovation work. AC to coordinate with OR/GC to determine locations where removal or disturbance of these materials will be completed by AC. Where disturbance and/or removal of asbestos or LBP is necessary, intact removal shall be favored when feasible. Where intact removal is infeasible, work practices shall be selected to limit the potential for exposure to workers, building occupants, and the environment while adhering to applicable regulatory requirements. As an example, dust generated during drilling an anchor point or hole into a surface with LBP may be captured with a HEPA-filtered vacuum, a foam-filled cup, etc.
- It is understood disturbance of asbestos "target materials" required as part of AC's asbestos work for the project may be limited to quantities less than DEQ's asbestos project quantity criteria (e.g., 10 SF, 3 LF, 3 CF of RACM). In the event the quantity of ACM to be disturbed exceeds DEQ's asbestos project quantity criteria, it is also understood some asbestos target materials may be feasibly removed as either Category I/II non-friable ACM. If the DEQ asbestos project quantity criteria are not exceeded for the overall project, a DEQ asbestos project permit may not be required for this project. AC to coordinate with PIH regarding likelihood of ACM being rendered friable (RACM) in quantities exceeding the DEQ asbestos project quantity thresholds. If DEQ's asbestos project quantity criteria are exceeded, any ACM which will be or is likely to be friable during completion of the work must be included on the asbestos project permit. The inspection report denotes the anticipated condition of the asbestos target materials if impacted. However, since these determinations depend on conditions at the time of disturbance which cannot be known during the inspection, AC to determine friability during completion of the work.
- Prior to initiation of the scope of work, AC to provide all requested submittal information and receive written notice to proceed from OR. Required submittal information includes, but may not be limited to: 1) Copies of current Montana DEQ asbestos accreditation for all on-site project personnel conducting asbestos work. At least 1 individual must hold current Asbestos Contractor/Supervisor accreditation (meeting OSHA's definition of a Competent Person with regard to asbestos, per 29 CFR 1926.1101). All others may instead hold current Montana DEQ Asbestos Worker accreditations, at a minimum; 2) DEQ asbestos project permit, if required per Montana DEQ regulations; 3) Documentation of OSHA lead awareness training for all on-site project personnel conducting LBP work, per 29 CFR 1926.62, Appendix B, Paragraph L.
- Asbestos and LBP "target materials" locations are shown in the project documents for informational purposes only. The actual locations where these materials will be disturbed (and the resulting quantities) will depend on the means and methods selected by the GC for completion of the project. AC shall satisfy themselves regarding the actual quantities to be included in the work during the pre-bid site walk and/or through coordination with OR and GC.
- At the Owner's option, Owner's PIH will perform on-site oversight of AC throughout the project, which may include initial inspections of work areas (e.g., regulated areas, containments, etc.) established by AC for each work area; periodic spot checks of AC's activities; and/or post-abatement clearance monitoring. PIH will have stop-work authority over AC in the event noted deficiencies are not adequately addressed by the AC.
- AC to perform asbestos and LBP work in areas noted in the project documents, as necessary for completion of the project (see General Note 6, above). AC to coordinate removal strategies with PIH prior to initiating preparation and/or removal activities, including agreement between AC and PIH regarding which materials will be removed as RACM (if any) and which can be removed as Category I/II non-friable ACM or non-ACM (< 1% asbestos), and methods for removal and/or disturbance of LBP materials. In the event a Montana DEQ asbestos project permit is required for the project, AC to coordinate alternate work practice requests submitted to DEQ, if any, with PIH. Changes to initial removal strategies agreed upon between AC and PIH must be approved in writing by the PIH prior to being initiated.
- Discovery of additional and/or previously unidentified suspect/confirmed asbestos or LBP target materials, if any, shall be reported to the PIH and/or OR as quickly as practicable. Previously unidentified suspect target materials will be assessed by the PIH or assumed to be asbestos-containing/LBP materials, at the discretion of the PIH and in coordination with the OR. Removal of additional target materials will be coordinated between the OR, PIH, and AC. Additional RACM shall be added to the asbestos project permit by the AC prior to removal, if applicable.
- Electric and mechanical (heat, water, etc.) services at the site will be available for AC's use in completing the work, except where necessary to be deactivated to complete the work. Owner or GC will deactivate services as necessary to complete the work. AC to coordinate with OR and/or GC regarding which services to deactivate for each work area (if any) and whether or not the work may result in potential damage to the building systems.
- AC to provide ground fault circuit interrupters (GFCI) for electrical equipment to be used during asbestos or LBP work which utilizes wet methods. AC will not be allowed to begin work activities requiring electrical equipment and wet methods until GFCIs are present. AC to coordinate with OR and/or GC to ensure electrical circuits are de-energized as necessary to safely complete the work.
- AC to prevent exposure to hazardous materials associated with their work for the Owner, PIH, GC and other trades, building occupants, the public, the environment, and AC's staff. This may include - but may not be limited to - use of appropriate work area demarcation, use of appropriate work practices (e.g., wet methods, HEPA-filtered vacuums, tools with point-of-cut dust collection and HEPA filtration, etc.), and/or various combinations of the following to prevent migration of contaminants from the work areas: drop sheets, critical barriers, mini-containments, negative pressure enclosures, etc.

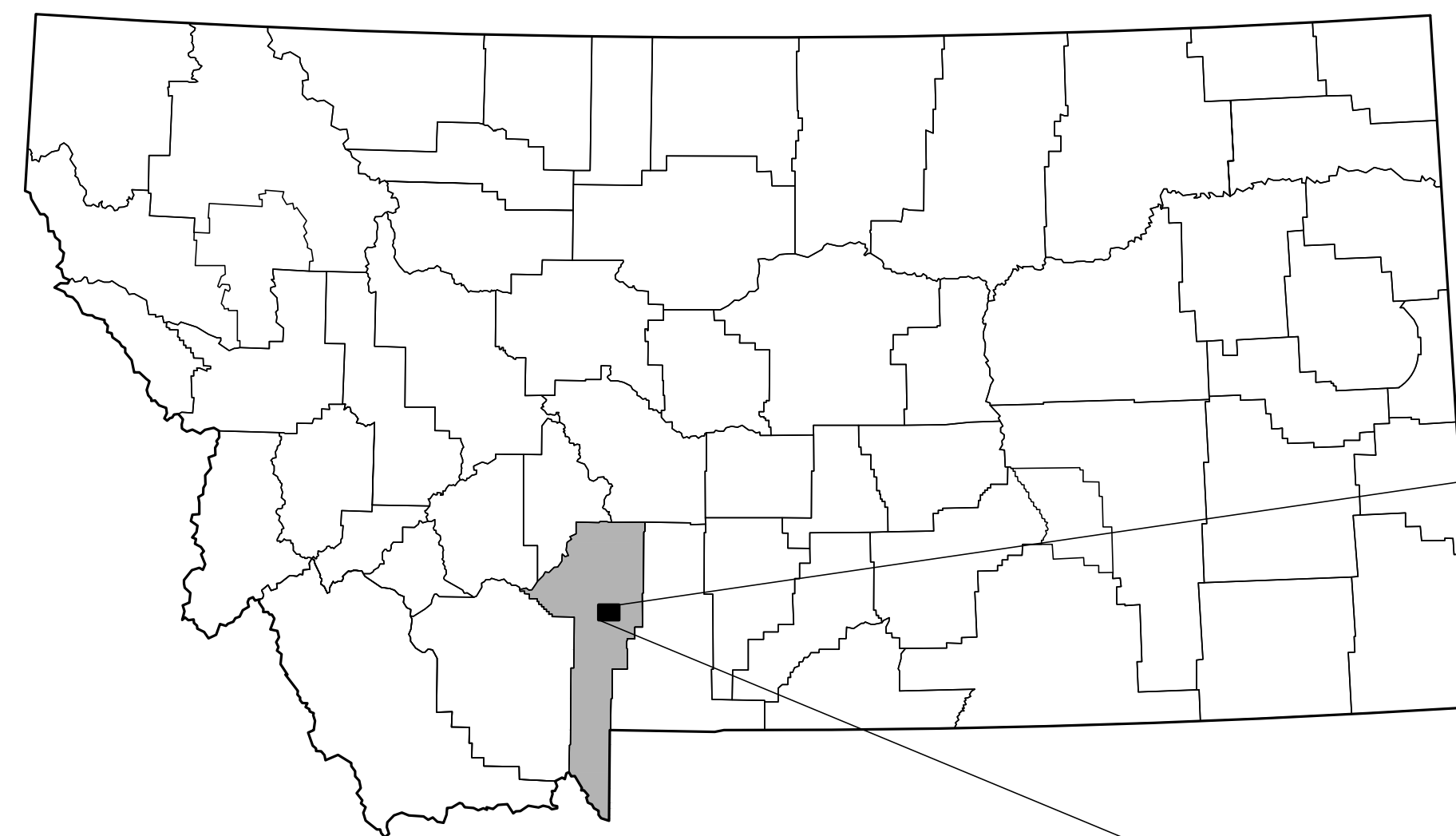
- AC to coordinate asbestos and LBP work with PIH prior to initiation of activities, including number and general layout of work areas (e.g., regulated areas, critical barriers, negative pressure enclosures, etc.). AC shall demarcate asbestos and LBP work areas in a manner consistent with OSHA requirements, and which minimizes the number of persons within the area and protects persons outside the area from exposure to contaminants which may be generated as a result of the work. Regulated areas, drop sheets, critical barriers, negative pressure enclosures, etc., shall be utilized in accordance with OSHA requirements for Class I - IV asbestos work (29 CFR 1926.1101) and OSHA requirements for disturbance of materials containing lead (29 CFR 1926.62), as appropriate.
- Based on the quantities of asbestos and LBP target materials expected to be disturbed during the project, it is anticipated that critical barriers, containments, and negative-pressure enclosures may not be required in some work areas. Where required, AC shall construct work area barriers, critical barriers, or negative pressure enclosures (as applicable) to the satisfaction of the Owner's PIH before asbestos or LBP work begins. This includes use of 6-mil, fire-retardant plastic sheeting for work area critical barriers (2 layers at HVAC openings), mini-containments, or free-standing containment walls/ceilings. Containment walls and ceilings which cover existing surfaces shall consist of 4-mil (or heavier) fire-retardant plastic sheeting unless noted otherwise. Containment floors shall consist of 6-mil (or heavier) fire-retardant plastic sheeting, unless noted otherwise. AC shall construct critical barriers and containment walls and ceilings to extend to fixed surfaces where feasible in order to prevent contaminant leakage. AC shall inspect critical barriers and containments daily and repair failed seams, rips, tears, and/or other damage immediately upon discovery.
- Where negative pressure enclosures are required or otherwise utilized, AC to ensure required air changes (4 per hour, minimum) and negative pressure (minimum of -0.02 column inches water pressure differential) are maintained in each containment from the time of the initial containment inspection (or prior to initiation of abatement activities, if no initial containment inspection is conducted) through satisfactory completion of post-abatement clearance monitoring for the respective containments. Negative air pressure shall be monitored with a manometer fitted with a recording strip or digital recorder. Negative pressure shall be achieved through use of HEPA-filtered negative air machines (NAM), with all exhaust vented to the building exterior. AC responsible for securing all exhaust locations. Additional NAMs shall be available for "scrubbing" in work areas with little or no air movement. At least 1 additional spare NAM shall be available on site for each active containment area, as a back-up in case of failure.
- Unless otherwise noted, filtered make-up air locations on negative pressure containment areas (if any) shall consist of MERV 11 filters (minimum) with interior gravity (weighted) flaps to prevent fiber release in the event of loss of negative pressure within the containment. AC is responsible for securing make-up air locations.
- Items to be left in place (e.g., cabinets, shelves, non-ACM materials, etc.) within each work area should be covered with plastic sheeting and sealed by AC prior to initiation of AC's asbestos or LBP work. Alternatively, uncovered materials which become contaminated may be thoroughly decontaminated by AC or disposed as contaminated waste. Note that non-porous surfaces (e.g., smooth painted walls) can typically be readily decontaminated, whereas porous surfaces (e.g., unpainted walls, most ceiling tiles, carpets, etc.) typically cannot be readily decontaminated. Contaminated materials not already scheduled for disposal may be subject to replacement (i.e., replaced with new materials of equal or greater quality) at AC's expense. Coordinate with OR and/or GC.
- At Owner's option, the PIH may collect and analyze work area and/or ambient air samples during AC's work; if air samples are occluded or result in concentrations above regulatory criteria, Owner's PIH may issue a stop-work order until AC satisfactorily addresses the deficiency. In any case, AC shall be responsible for conducting all required exposure monitoring for their own personnel.
- AC shall not remove target materials or contaminated materials which cannot be safely and effectively cleaned up during the same work shift they were removed. The Owner's PIH may issue a stop worker order if materials or work areas are left uncleaned.
- AC shall place all asbestos and LBP target material waste in rigid, air-tight and leak-tight containers. Alternatively, asbestos and/or LBP target material waste may be double bagged. For sharp or jagged waste, the first bag shall consist of a burlap or woven nylon sack to prevent tearing/ripping. The outer bag shall consist of 6-mil poly and must bear the appropriate labels as required by EPA, OSHA, and/or DEQ. All asbestos waste to be properly packaged, transported, and disposed by AC as asbestos special waste. In the absence of a leachable lead assessment indicating otherwise, AC shall package, transported, and dispose LBP target material waste as presumed hazardous waste, with regard to lead. AC may choose to undertake completion of a leachable lead assessment, at their own expense, following coordination with the Owner's PIH. AC's leachable lead assessment methods and results must be reviewed by Owner's PIH to confirm the findings are usable in determining waste disposal requirements.
- AC to complete asbestos and LBP work to minimize damage and leave clean edges where feasible (e.g., where ceiling/wall systems or floor tile will be left in place, etc.) to minimize deterioration of materials and allow for easier tie-in with replacement materials, as appropriate. Coordinate with OR and/or GC.
- "Post-abatement" clearance monitoring may not be regulatorily required for some work areas where abatement is not conducted, so long as the asbestos work is limited to conditions less than the Montana DEQ "asbestos project" criteria, and if the LBP work is not expected to be considered a "lead abatement" as defined by EPA (40 CFR Part 745.223). In the event some or all of these criteria are met, clearance monitoring may be required. If not required, Owner may still, at their option, choose to have the PIH perform "clearance" monitoring following completion of asbestos and LBP work in each work area. Clearance monitoring, if conducted, will consist of visual confirmation of asbestos or LBP target material removal and cleanup, at a minimum. Where asbestos clearance air sampling is conducted, either the NIOSH 7400 Method for PCM or the AHERA Method for TEM sampling and analysis will be followed. LBP clearance monitoring will consist of collection of surface wipe samples from window sills and/or floors adjacent to LBP work areas, in general accordance with select portions of the methods outlined in 40 CFR 745.277(e)(8). Successful asbestos clearance criteria will include no visible target material (or associated dust or debris) in the work area; airborne fiber concentrations of ≤ 0.01 f/cc for all asbestos clearance samples from a given PCM air sampling event; and airborne asbestos concentrations ≤ 70 S/mm² for all asbestos clearance samples from a given TEM air sampling event. Successful LBP clearance criteria will include no visible target material (or associated dust or debris) in the work area; < 5 $\mu\text{g}/\text{ft}^2$ lead for floor wipe samples; < 40 $\mu\text{g}/\text{ft}^2$ lead for window sill wipe samples; and < 100 $\mu\text{g}/\text{ft}^2$ lead for window trough wipe samples. Owner's PIH will utilize overnight shipping and will request expedited analytical turnaround for all laboratory analyses of samples. Alternatively, Owner's PIH may analyze PCM samples using a portable microscope, adhering to DEQ's analytical requirements. AC to coordinate clearance schedules with PIH and provide as much advanced notice as feasible.
- Upon completion of the work, AC to submit to PIH documentation of proper disposal of asbestos waste (and LBP waste, if applicable) resulting from their work.



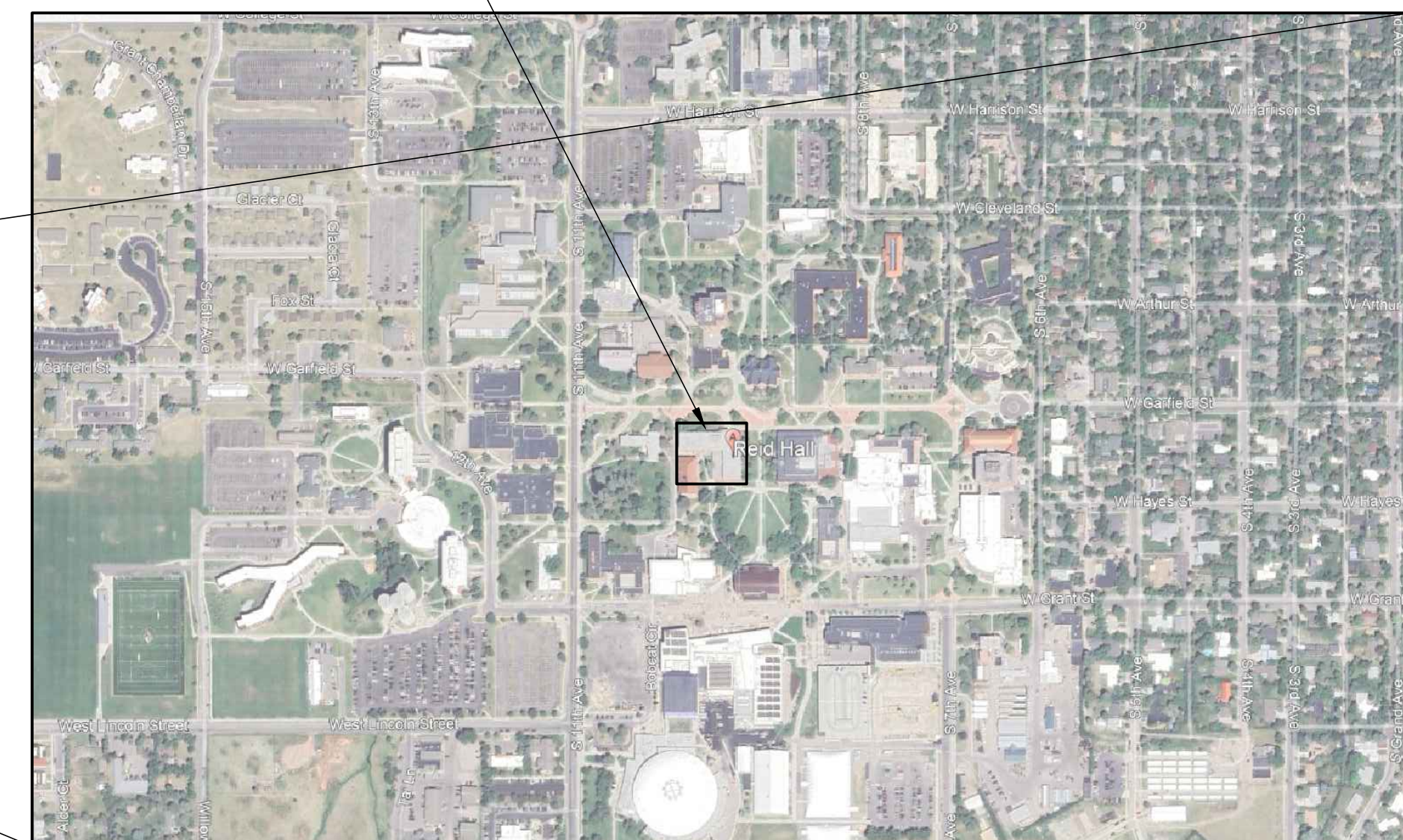
GREAT FALLS, MT
p 406.315.2201

Montana State University, Bozeman, Montana
 MSU Reid Hall First Floor - PPA 25-1214 Classroom Renovations 2025-26
 Asbestos and Lead-Based Paint Remediation Sheets
 Montana State University

BOZEMAN, GALLATIN COUNTY, MONTANA



PROJECT SITE



PREPARED BY:
 AIR WATER SOIL, LLC
 1321 8TH AVENUE NORTH, SUITE 104
 GREAT FALLS, MONTANA 59401
 CONTACT: J. SCOTT VOSEN
 406.315.2201

APPROVED BY (PROJECT OWNER):
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 UNIVERSITY FACILITIES MANAGEMENT
 PLANNING, DESIGN & CONSTRUCTION
 P.O. BOX 172760
 BOZEMAN, MONTANA 59717
 CONTACT: ARA MESKIMEN
 406.994.3230

PROPERTY OWNER:
 MONTANA STATE UNIVERSITY
 P.O. BOX 172760
 BOZEMAN, MONTANA 59717

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12.17.2025
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DRAWN BY
DRESCH
CHECKED BY
NSV

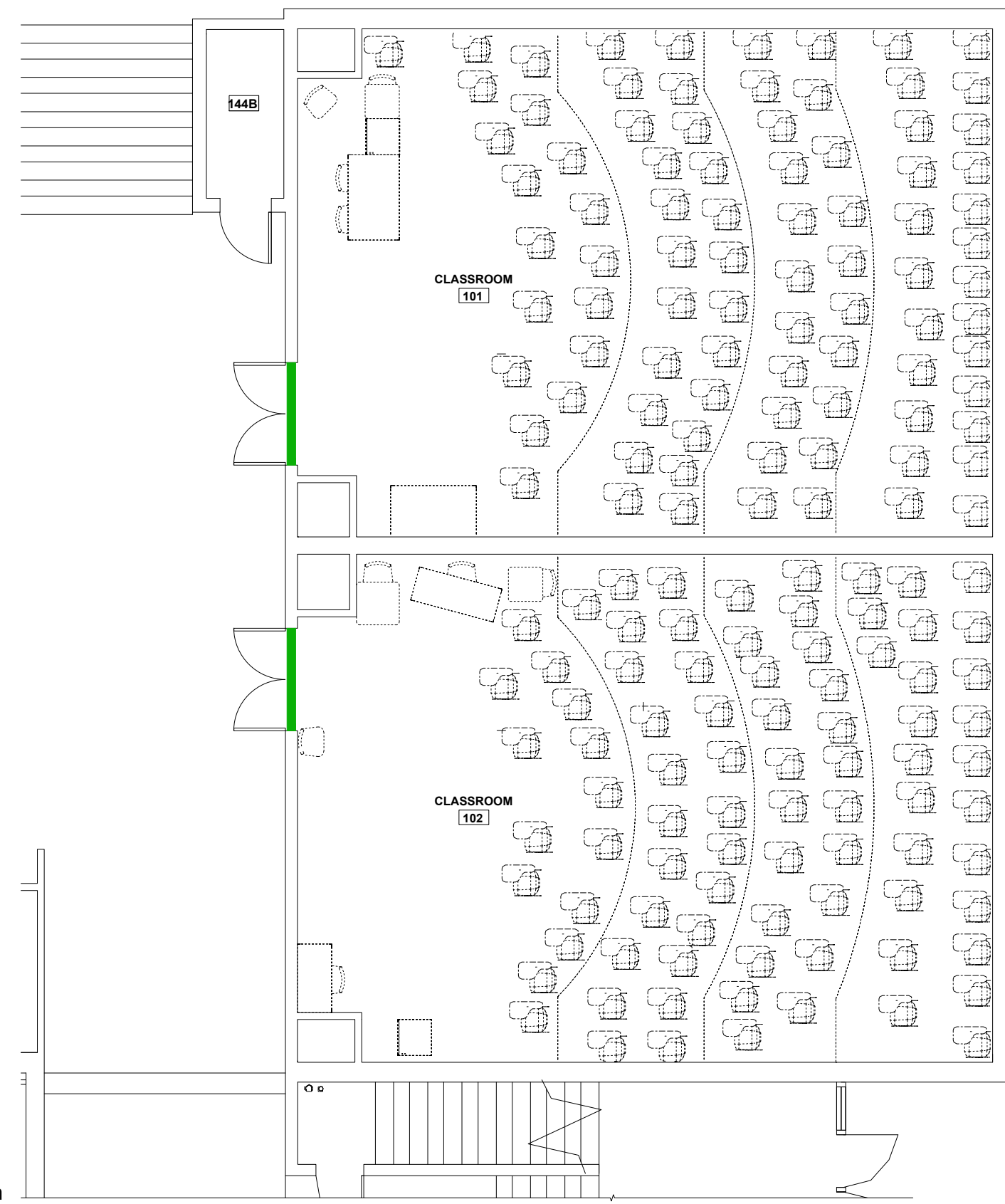


SITE VICINITY
MAP

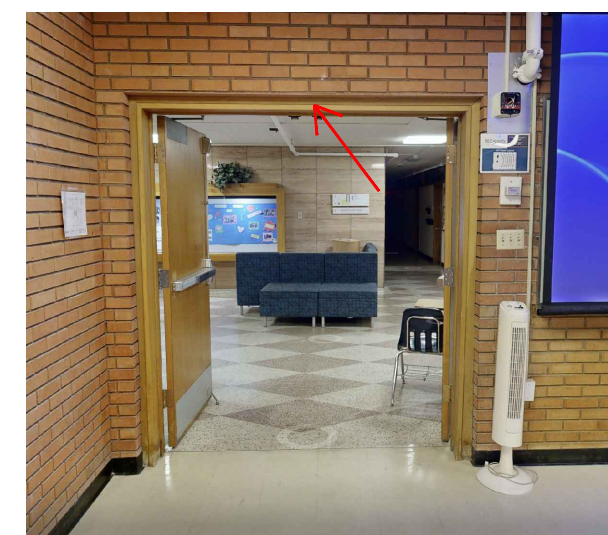
FIGURE
REM01

LEGEND
MATERIALS LISTED BELOW ARE LEAD-BASED PAINT (LBP), CONTAINING LEAD AT CONCENTRATIONS EQUAL TO OR GREATER THAN 1.0 MILLIGRAMS PER SQUARE CENTIMETER ($\geq 1.0 \text{ mg/cm}^2$). XRF SHOT NUMBERS ARE PROVIDED FOR REFERENCE (SEE DATA SUMMARY TABLE INCLUDED WITH REPORT).

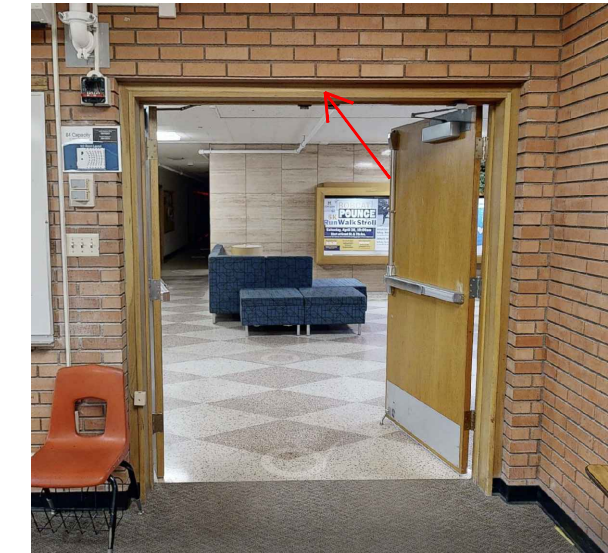
PINK PAINT ON STEEL DOOR HEADER IN ROOMS 101, 102, 103, AND 105.



1 BASE SCOPE - ROOM 101 & 102 - LBP



ROOM 101 - LBP ON STEEL DOOR HEADER



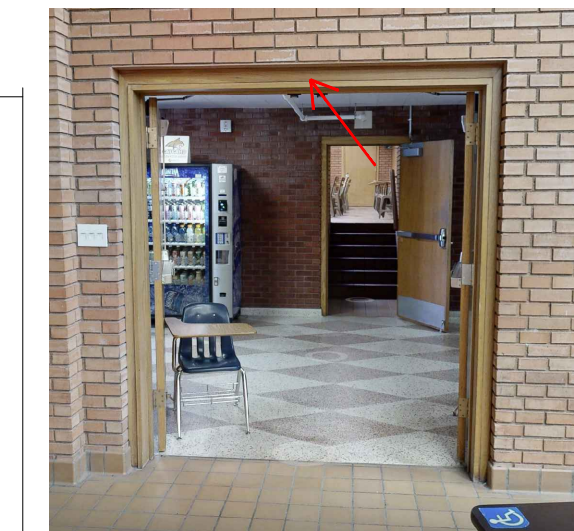
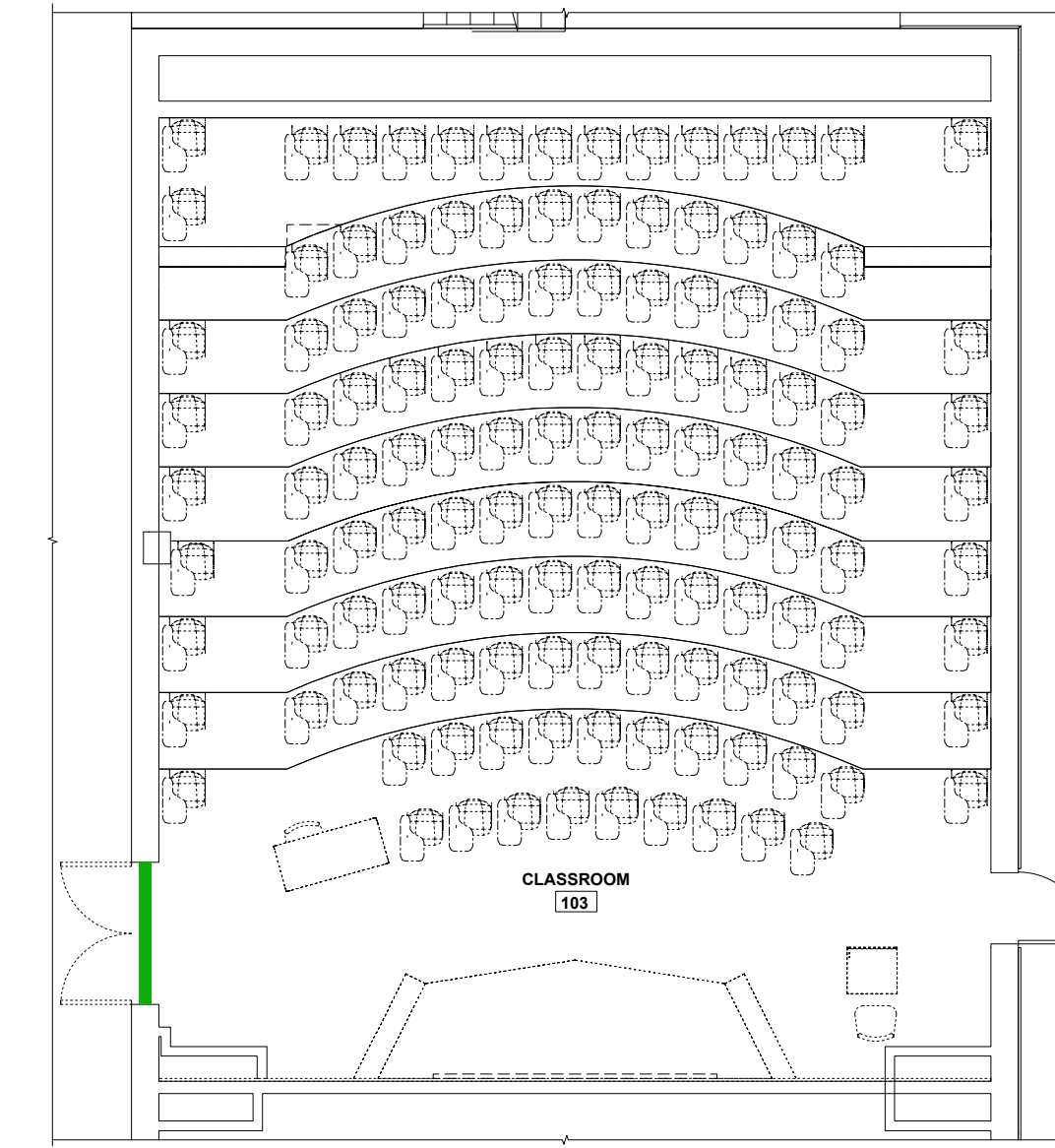
ROOM 102 - LBP ON STEEL DOOR HEADER

REM02 - DETAIL 1 - BASE SCOPE - ROOMS 101 + 102 - LBP NOTES:

- A) Owner will remove any unfastened equipment, furniture, supplies, etc., as necessary for GC/AC to complete the work.
- B) Disturbance of asbestos is not anticipated in this area.
- C) If selective demolition activities are necessary and are likely to result in disturbance of asbestos or LBP, they should be conducted using the same controls and methods required for asbestos or LBP removal, respectively.
- D) It is anticipated LBP on steel headers above door cases in Rooms 101 and 102 will be stripped of LBP to facilitate refinishing as part of the scope of work.
- E) As discussed in the General Notes, in the absence of a leachable lead assessment indicating otherwise, LBP target material waste must be packaged, transported, and disposed as presumed hazardous waste, with regard to lead. AC to coordinate with OR and PIH.
- F) As discussed in the General Notes, clearance requirements will depend on the extents of disturbance and methods employed by AC. In the event LBP is removed from steel headers over doorways in Rooms 101 and/or 102, it is anticipated post-abatement clearance monitoring will consist of visual confirmation of completion, followed by collection and laboratory analysis of floor wipe samples from within and proximate to the work area. Clearance criteria are expected to be as stated in the General Notes. Coordinate with PIH.

LEGEND
MATERIALS LISTED BELOW ARE LEAD-BASED PAINT (LBP), CONTAINING LEAD AT CONCENTRATIONS EQUAL TO OR GREATER THAN 1.0 MILLIGRAMS PER SQUARE CENTIMETER ($\geq 1.0 \text{ mg/cm}^2$). XRF SHOT NUMBERS ARE PROVIDED FOR REFERENCE (SEE DATA SUMMARY TABLE INCLUDED WITH REPORT).

PINK PAINT ON STEEL DOOR HEADER IN ROOMS 101, 102, 103, AND 105.

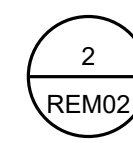


ROOM 103 - LBP ON STEEL DOOR HEADER

REM02 - DETAIL 2 - ALTERNATE #103 SCOPE - ROOM 103 - LBP NOTES:

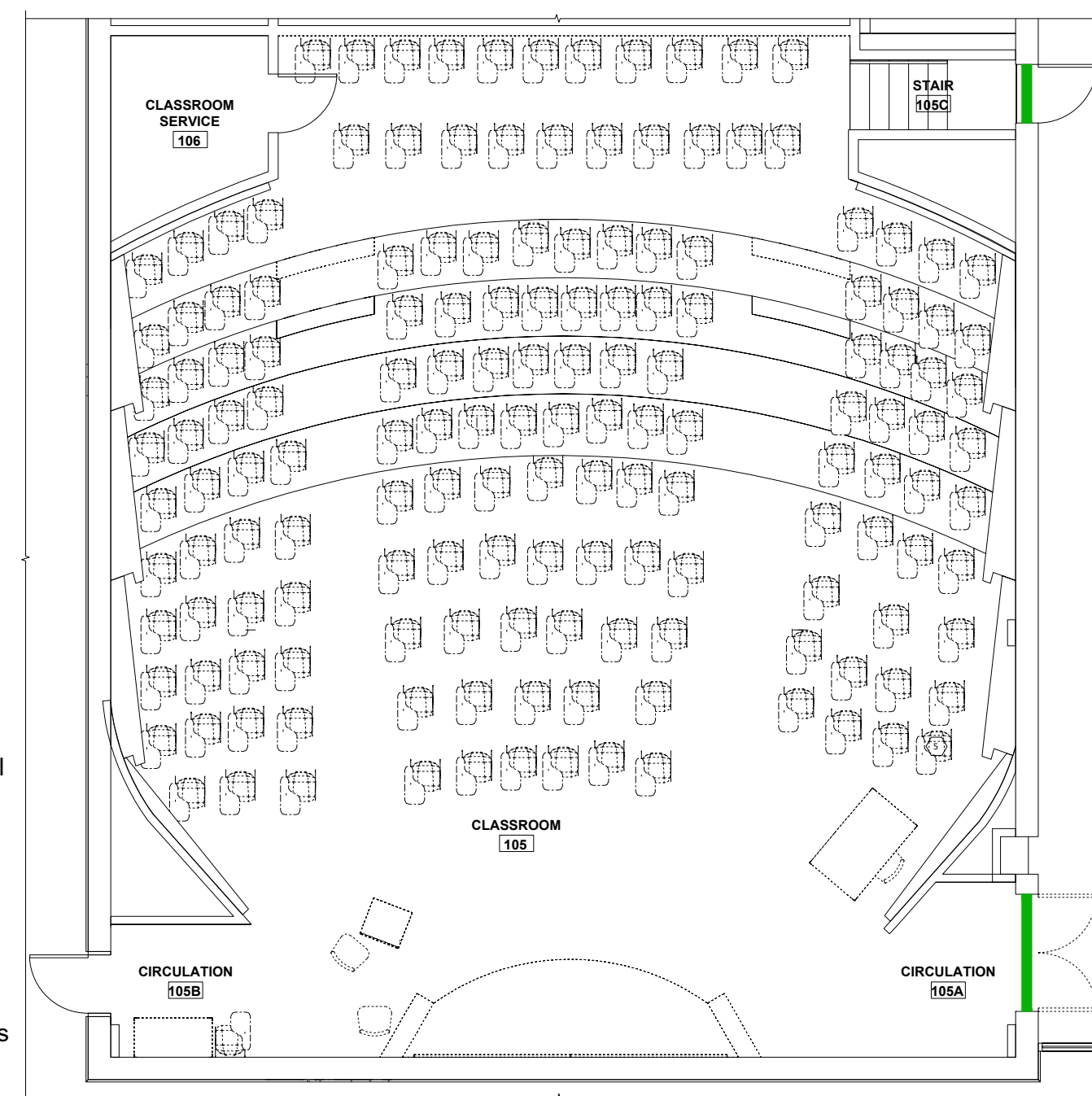
- A) Owner will remove any unfastened equipment, furniture, supplies, etc., as necessary for GC/AC to complete the work.
- B) Disturbance of asbestos is not anticipated in this area.
- C) If selective demolition activities are necessary and are likely to result in disturbance of asbestos or LBP, they should be conducted using the same controls and methods required for asbestos or LBP removal, respectively.
- D) It is anticipated LBP on steel headers above the door case in Room 103 will be stripped of LBP to facilitate refinishing as part of the scope of work.
- E) As discussed in the General Notes, in the absence of a leachable lead assessment indicating otherwise, LBP target material waste must be packaged, transported, and disposed as presumed hazardous waste, with regard to lead. AC to coordinate with OR and PIH.
- F) As discussed in the General Notes, clearance requirements will depend on the extents of disturbance and methods employed by AC. In the event LBP is removed from the steel header over the doorway in Room 103, it is anticipated post-abatement clearance monitoring will consist of visual confirmation of completion, followed by collection and laboratory analysis of floor wipe samples from within and proximate to the work area. Clearance criteria are expected to be as stated in the General Notes. Coordinate with PIH.

2 ALTERNATE #103 SCOPE - ROOM 103 - LBP

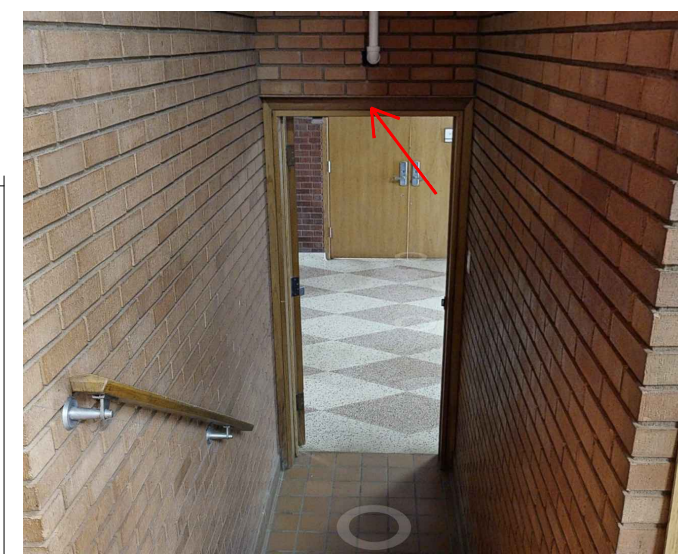


LEGEND
MATERIALS LISTED BELOW ARE LEAD-BASED PAINT (LBP), CONTAINING LEAD AT CONCENTRATIONS EQUAL TO OR GREATER THAN 1.0 MILLIGRAMS PER SQUARE CENTIMETER ($\geq 1.0 \text{ mg/cm}^2$). XRF SHOT NUMBERS ARE PROVIDED FOR REFERENCE (SEE DATA SUMMARY TABLE INCLUDED WITH REPORT).

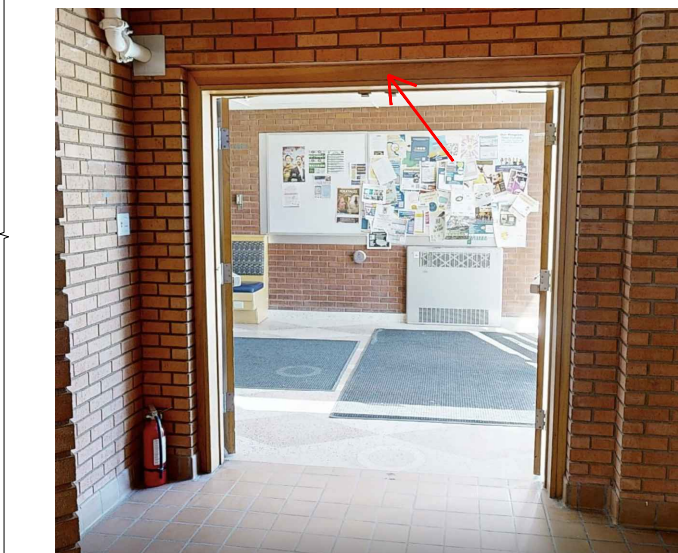
PINK PAINT ON STEEL DOOR HEADER IN ROOMS 101, 102, 103, AND 105.



3 ALTERNATE #105 SCOPE - ROOM 105 - LBP



ROOM 105 NE DOOR - LBP ON STEEL DOOR HEADER

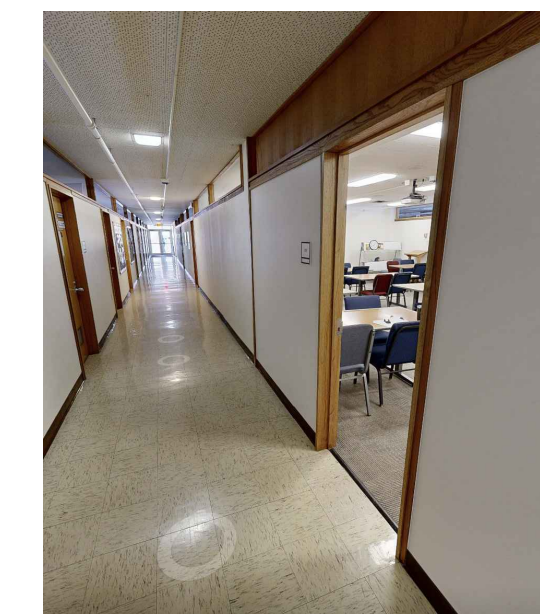
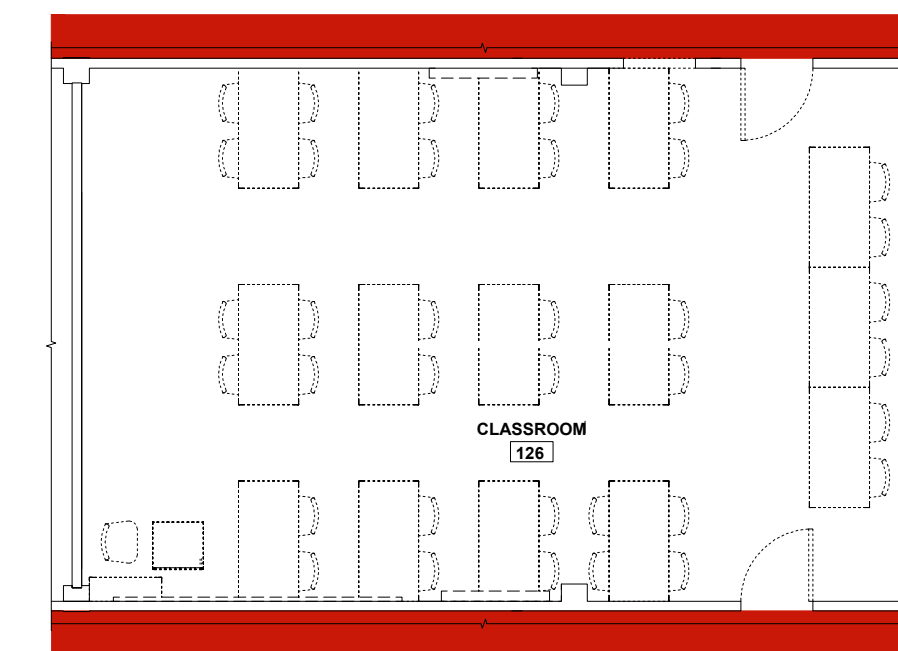


ROOM 105 SE DOOR - LBP ON STEEL DOOR HEADER

REM02 - DETAIL 3 - ALTERNATE #105 SCOPE - ROOM 105 - LBP NOTES:

- A) Owner will remove any unfastened equipment, furniture, supplies, etc., as necessary for GC/AC to complete the work.
- B) Disturbance of asbestos is not anticipated in this area.
- C) If selective demolition activities are necessary and are likely to result in disturbance of asbestos or LBP, they should be conducted using the same controls and methods required for asbestos or LBP removal, respectively.
- D) It is anticipated LBP on steel headers above the door cases in Room 105 will be stripped of LBP to facilitate refinishing as part of the scope of work.
- E) As discussed in the General Notes, in the absence of a leachable lead assessment indicating otherwise, LBP target material waste must be packaged, transported, and disposed as presumed hazardous waste, with regard to lead. AC to coordinate with OR and PIH.
- F) As discussed in the General Notes, clearance requirements will depend on the extents of disturbance and methods employed by AC. In the event LBP is removed from steel headers over doorways in Room 105, it is anticipated post-abatement clearance monitoring will consist of visual confirmation of completion, followed by collection and laboratory analysis of floor wipe samples from within and proximate to the work area. Clearance criteria are expected to be as stated in the General Notes. Coordinate with PIH.

LEGEND
F2.2 - 12-IN x 12-IN TAN WITH BROWN SMUDGES VINYL FLOOR TILES WITH BLACK AND TAN MASTIC. HALLWAYS ADJACENT TO ROOM 126. 2% CHRYSOTILE (FLOOR TILES) 2% CHRYSOTILE (MASTICS). CATEGORY I ACM (UNLESS RENDERED FRIABLE).

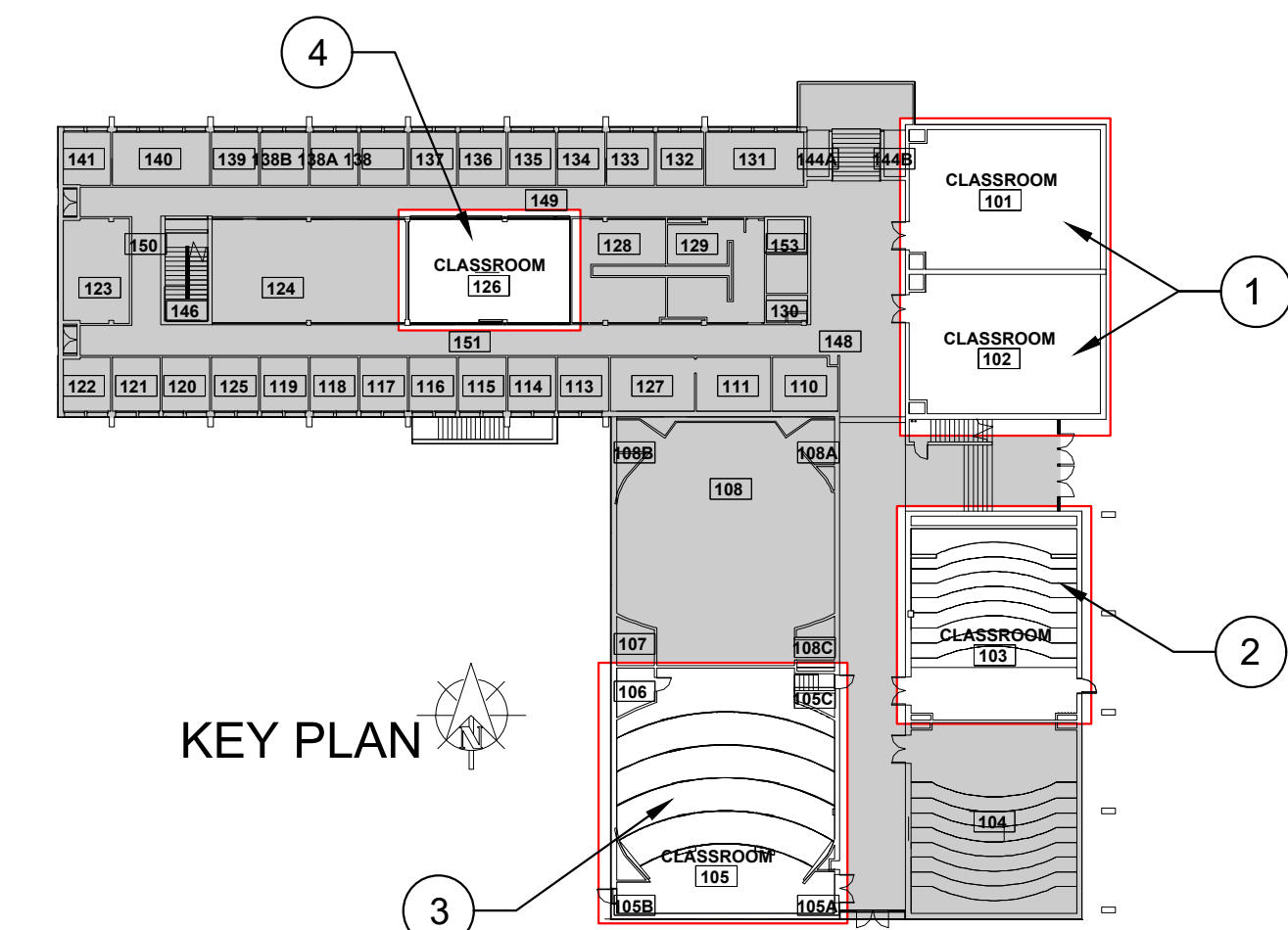
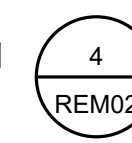


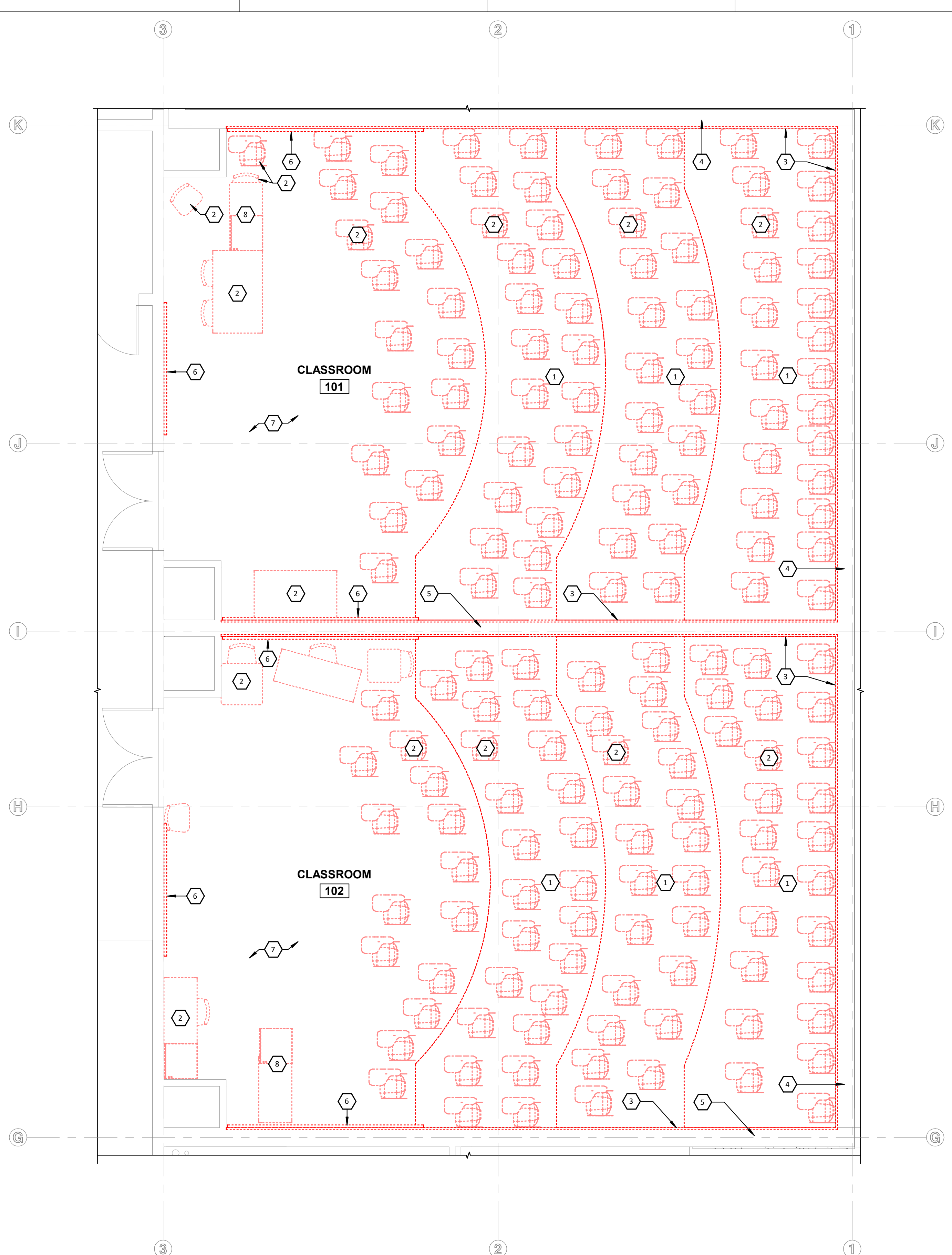
ROOM 126 - ACM FLOOR TILES (AND UNDERLYING MASTIC) IN ADJACENT HALLWAY

REM02 - DETAIL 4 - ALTERNATE #126 SCOPE - ROOM 126 - ACM NOTES:

- A) Owner will remove any unfastened equipment, furniture, supplies, etc., as necessary for GC/AC to complete the work.
- B) Disturbance of LBP is not anticipated in this area.
- C) If selective demolition activities are necessary and are likely to result in disturbance of asbestos or LBP, they should be conducted using the same controls and methods required for asbestos or LBP removal, respectively.
- D) ACM vinyl floor tiles and black mastic observed in the hallways adjacent to Room 126. AC to coordinate with GC to determine areas where these materials must be removed, if any, to complete the project. The intent of the project is to limit abatement and/or disturbance of ACM where feasible.
- E) Confirmed or presumed ACM which is non-friable in place (e.g., floor tiles and mastic) may be treated as Category I/II non-friable ACM where removed intact and/or in a non-friable condition. Non-friable ACM which becomes friable (e.g., floor tiles which become significantly broken during removal, and/or mastic that is removed through grinding or bead blasting) must be treated as RACM.
- F) Non-asbestos waste materials, if any, may be disposed as general construction debris (with regard to asbestos) if removed from the work area prior to initiation of abatement activities, unless noted otherwise. Non-asbestos materials which are contaminated with asbestos (if any) shall be removed as asbestos during abatement and are NOT to be included in the general construction waste stream. All asbestos waste shall be transported and properly disposed by AC as asbestos special waste, as discussed in the General Notes.
- G) As discussed in the General Notes, clearance requirements will depend on the extents of disturbance and methods employed by AC. In the event ACM remains non-friable during removal, it is anticipated post-abatement clearance monitoring will consist of visual confirmation of completion, at a minimum. However, the Owner may also request collection and analysis of air samples as well, at their option. In the event ACM becomes friable and/or is removed under a DEQ asbestos project permit, post-abatement clearance monitoring will consist of visual and aggressive air sampling, followed by collection and laboratory analysis of floor wipe samples from within and proximate to the work area. Clearance criteria are expected to be as stated in the General Notes Coordinate with PIH.

4 ALTERNATE #126 SCOPE - ROOM 126 - ACM





1 101/102 DEMO FLOOR PLAN
 1/4" = 1'-0"
 0 2 4 8'

101 APPROX. EXISTING OCCUPANCY: 90 (VIA MATTERPORT) - 13.2 S.F./STUDENT
 102 APPROX. EXISTING OCCUPANCY: 90 (VIA MATTERPORT) - 13.2 S.F./STUDENT

- GENERAL DEMO PLAN NOTES:**
- SEE G-001 PROJECT TITLE SHEET FOR GENERAL NOTES.
 - PROTECT EXISTING BUILDING OUTSIDE OF THIS SCOPE OF WORK AT ALL TIMES.
 - SEE OTHER SHEETS IN THIS SET FOR ADDITIONAL INFORMATION.
 - CONTRACTOR SHALL INCLUDE CUTTING AND PATCHING FOR ALL INSTANCES WHERE REQUIRED, WHETHER OR NOT SHOWN/INDICATED ON THESE CONSTRUCTION DOCUMENTS.
 - THE EXISTING BUILDING MAY NOT BE LEVEL AND PLUMB. CONTRACTOR SHALL FIELD VERIFY AND PROVIDE CONCEALED SHIMS, ETC. AS NECESSARY TO MAKE NEW WORK LEVEL AND PLUMB, UNLESS SPECIFICALLY NOTED OTHERWISE.
- DEMO FLOOR PLAN KEYNOTES 101/102**
- CAREFULLY REMOVE EXISTING RAISED PLATFORMS, INCLUDING FINISHES, SUPPORTS, AND ANCHORING METHODS, IN ITS ENTIRETY. ENSURE NO ADDITIONAL DAMAGE TO THE ADJACENT MATERIAL OCCURS.
 - ALL FURNITURE LOOSE OR FIXED, TO BE REMOVED. IF LOOSE/FREESTANDING, MSU TO REMOVE PRIOR TO THE START OF CONSTRUCTION. IF FIXED, CONTRACTOR TO REMOVE AND HAND OVER TO MSU CONTRACTOR TO PATCH ANY FLOOR OR WALL ATTACHMENT POINTS AND TOUCH UP PAINT AS REQUIRED.
 - REMOVE AND DISPOSE OF EXISTING WOOD PANELS AND BASE. CONTRACTOR TO PATCH WALL AND TOUCH UP PAINT AS REQUIRED.
 - EXISTING CONCRETE FOUNDATION AND MASONRY WALL TO REMAIN.
 - EXISTING MASONRY WALL TO REMAIN CAREFULLY CLEAN USING PROSOCC ENVIRO KLEAN KLEAN 'N' RELEASE CLEANER PRODUCT (OR APPROVED EQUAL). FOLLOW MANUFACTURER'S WRITTEN INSTRUCTIONS FOR APPROPRIATE USE AND CLEANING METHOD. REFER TO SPECS. CLEAN ALL EXISTING MASONRY WALLS THAT WILL BE EXPOSED.
 - REMOVE EXISTING WHITE BOARDS, SALVAGE AND HAND OVER TO MSU. CONTRACTOR TO PATCH WALL AND TOUCH UP PAINT AS REQUIRED.
 - REMOVE EXISTING FINISH FLOORING AND BASE, RECYCLE WHERE POSSIBLE, DISPOSE OTHERWISE.
 - PODIUM TO BE REMOVED AND REUSED. MSU TO REMOVE AND STORE PRIOR TO START OF CONSTRUCTION.



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 BOZEMAN, MONTANA 59717
 PPA#: 25-1214

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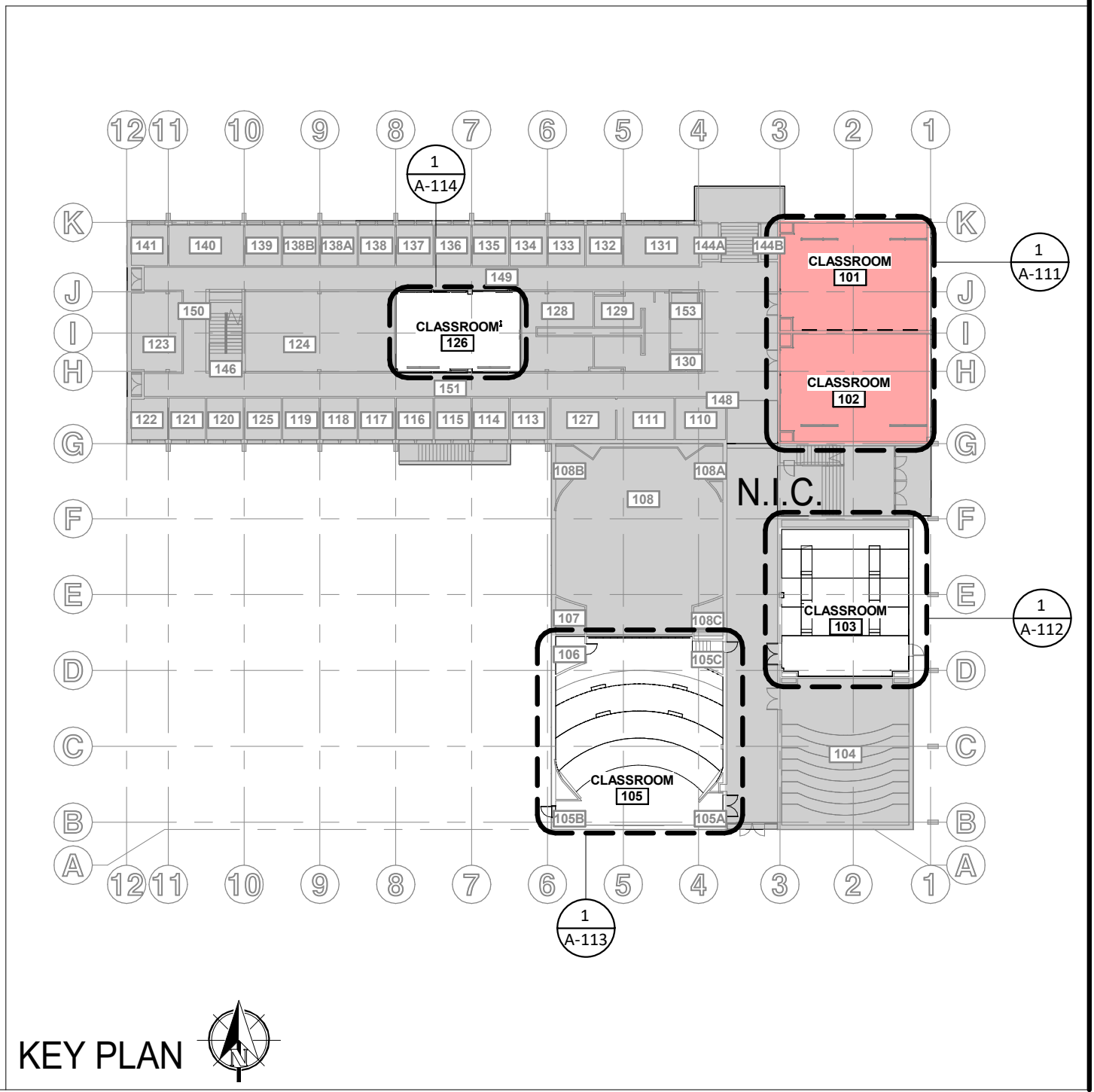
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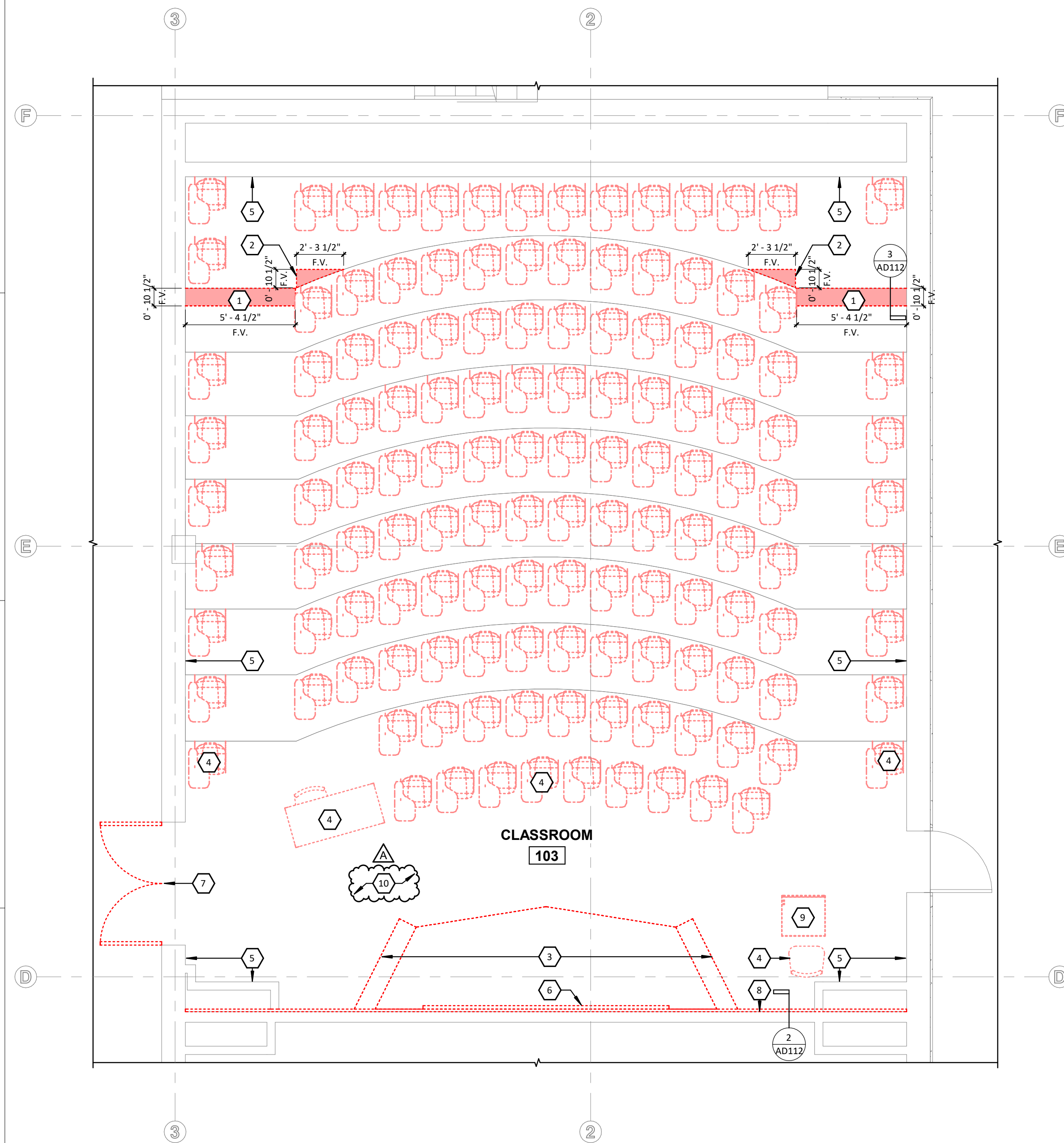
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A	ADDENDUM #1	01/21/26

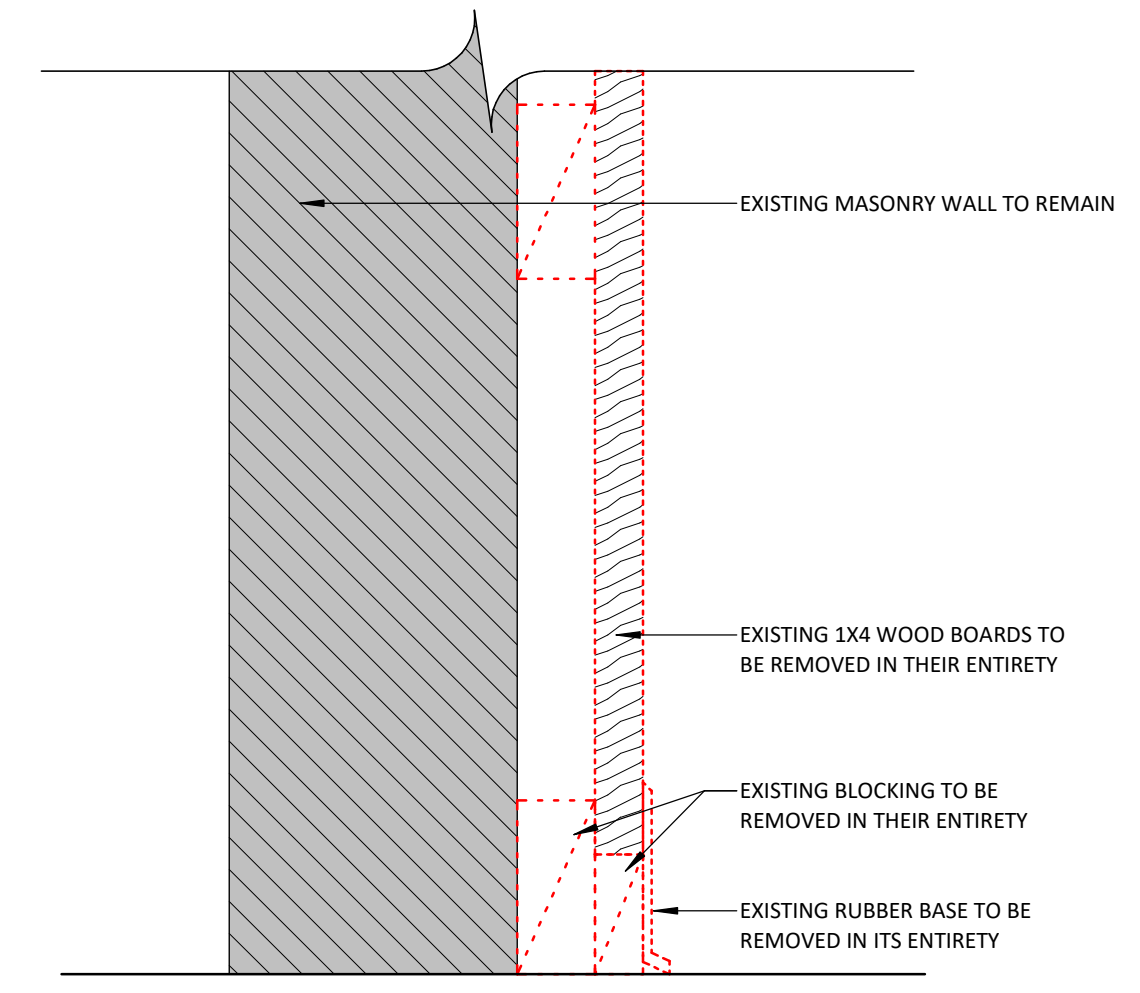
101/102 DEMO FLOOR PLAN

AD111

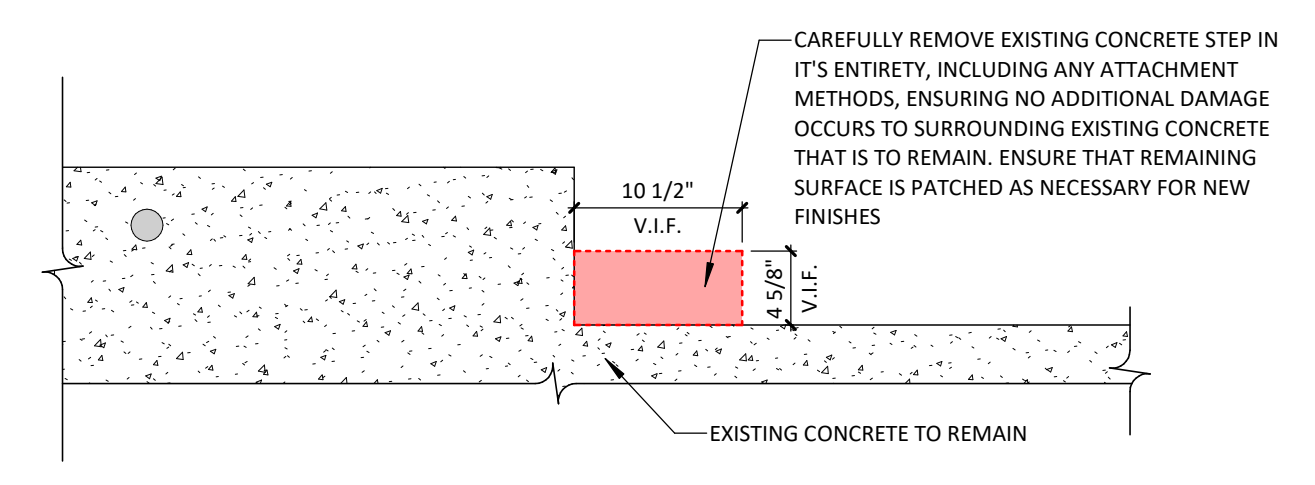




1 103 DEMO FLOOR PLAN
 1/4" = 1'-0"
 APPROXIMATE EXISTING OCCUPANCY: 134 (VIA MATTERPORT)
 10.4 S.F./STUDENT



2 WOOD WALL - DEMO
 3" = 1'-0"



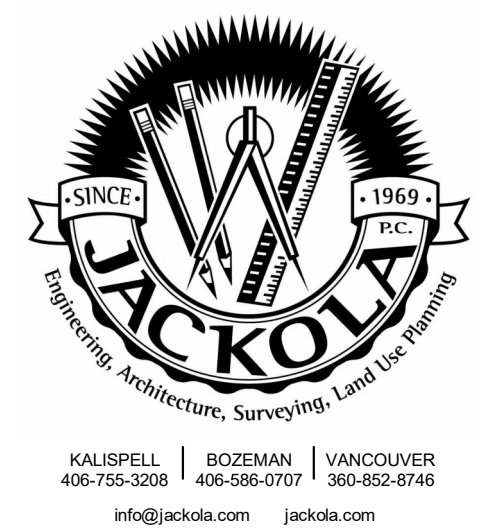
3 EXISTING CONCRETE STAIR REMOVAL
 1" = 1'-0"

GENERAL DEMO PLAN NOTES:

- A. SEE G-001 PROJECT TITLE SHEET FOR GENERAL NOTES.
- B. PROTECT EXISTING BUILDING OUTSIDE OF THIS SCOPE OF WORK AT ALL TIMES.
- C. SEE OTHER SHEETS IN THIS SET FOR ADDITIONAL INFORMATION. CONTRACTOR SHALL INCLUDE CUTTING AND PATCHING FOR ALL INSTANCES WHERE REQUIRED, WHETHER OR NOT SHOWN/INDICATED ON THESE CONSTRUCTION DOCUMENTS.
- D. THE EXISTING BUILDING MAY NOT BE LEVEL AND PLUMB. CONTRACTOR SHALL FIELD VERIFY AND PROVIDE CONCEALED SHIMS, ETC. AS NECESSARY TO MAKE NEW WORK LEVEL AND PLUMB, UNLESS SPECIFICALLY NOTED OTHERWISE.

DEMO FLOOR PLAN KEYNOTES 103

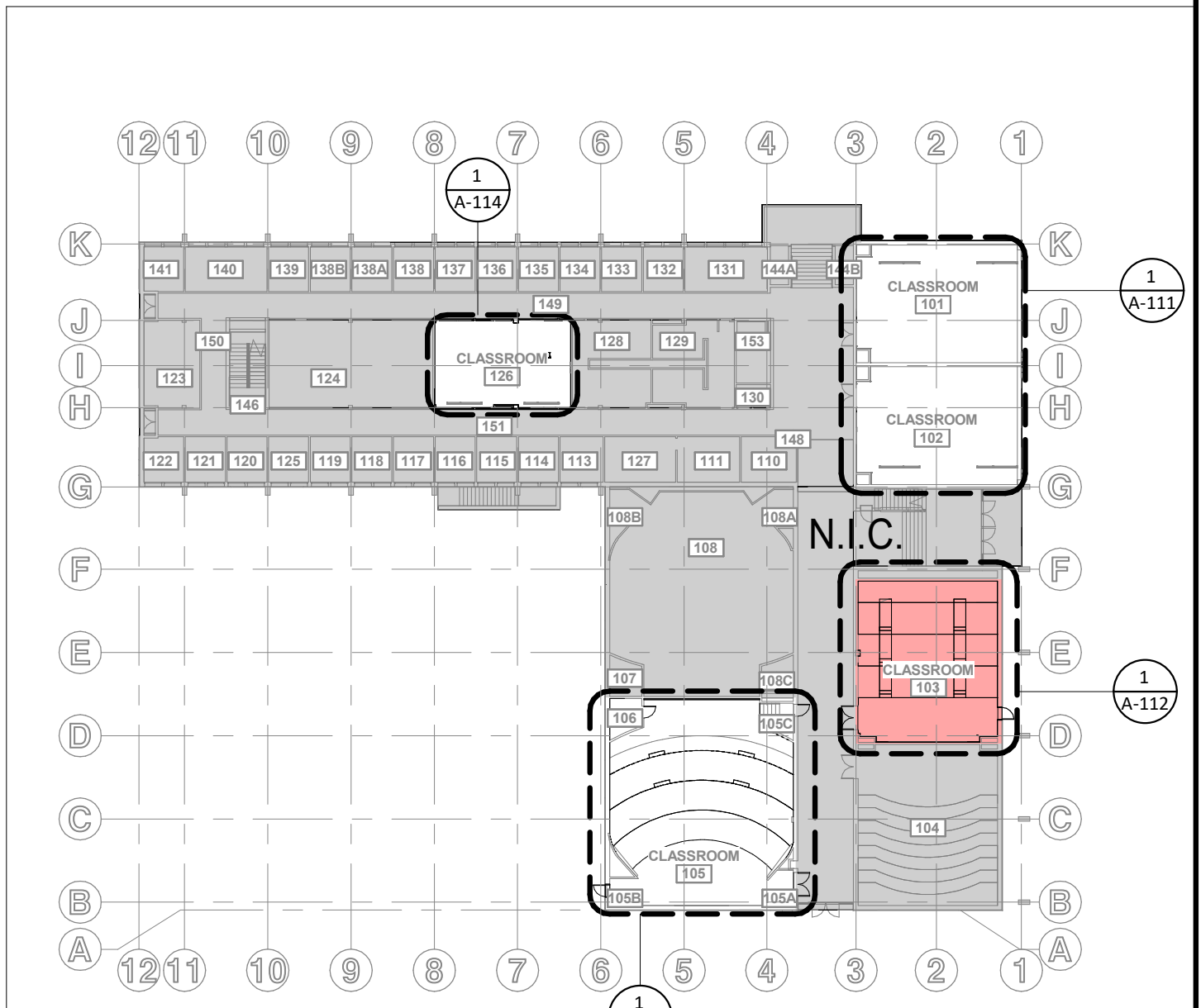
- 1 DEMOLISH CONCRETE RISER WHERE INDICATED, DEPTH 4 5/8" (F.V.); PREP FOR NEW CONCRETE RISERS.
- 2 DEMOLISH CONCRETE RISER WHERE INDICATED, DEPTH 8 3/8" (F.V.); PREP FOR NEW CONCRETE RISERS.
- 3 REMOVE EXISTING AND DISPOSE OF WOOD TEACHING PLATFORM. CONTRACTOR TO PATCH ANY FLOOR OR WALL ATTACHMENT POINTS AS REQUIRED.
- 4 ALL FURNITURE LOOSE OR FIXED, TO BE REMOVED. IF LOOSE/FREESTANDING, MSU TO REMOVE PRIOR TO THE START OF CONSTRUCTION. IF FIXED, CONTRACTOR TO REMOVE AND HAND OVER TO MSU. CONTRACTOR TO PATCH ANY FLOOR OR WALL ATTACHMENT POINTS AS REQUIRED.
- 5 REMOVE EXISTING TILE BASE AND PREP FOR NEW BASE EXISTING MASONRY WALL TO REMAIN. CAREFULLY CLEAN USING PROSOCCO ENVIRO KLEAN KLEAN 'N' RELEASE CLEANER PRODUCT (OR APPROVED EQUAL). FOLLOW MANUFACTURER'S WRITTEN INSTRUCTIONS FOR APPROPRIATE USE AND CLEANING METHOD.
- 6 REMOVE EXISTING WHITE BOARDS, SALVAGE AND HAND OVER TO MSU. CONTRACTOR TO PATCH WALL AS REQUIRED.
- 7 REMOVE AND DISPOSE OF EXISTING DOOR AND HARDWARE. SALVAGE FRAME.
- 8 REMOVE (E) WOOD WALL/CEILING IN ITS ENTIRETY. SEE 2/AD112.
- 9 PODIUM TO BE REMOVED AND REUSED. MSU TO REMOVE AND STORE PRIOR TO START OF CONSTRUCTION.
- 10 REMOVE EXISTING FINISH FLOORING AND BASE, RECYCLE WHERE POSSIBLE, DISPOSE OTHERWISE.



BID SET

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KEY PLAN

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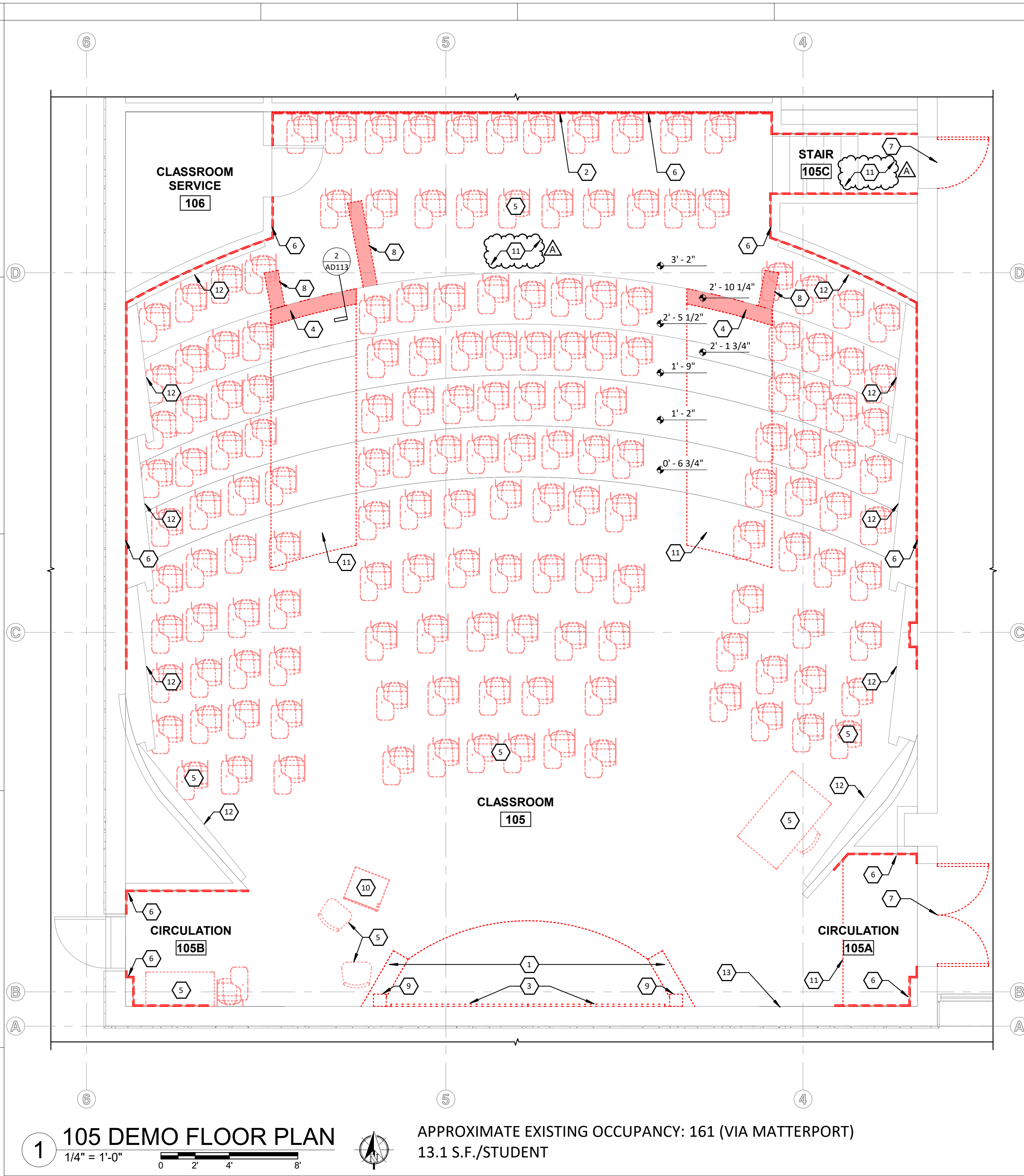
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A	ADDENDUM #1	01/21/26

103 DEMO FLOOR PLAN ALT. #2

AD112

ENTIRE SHEET IS ADD ALTERNATE #2

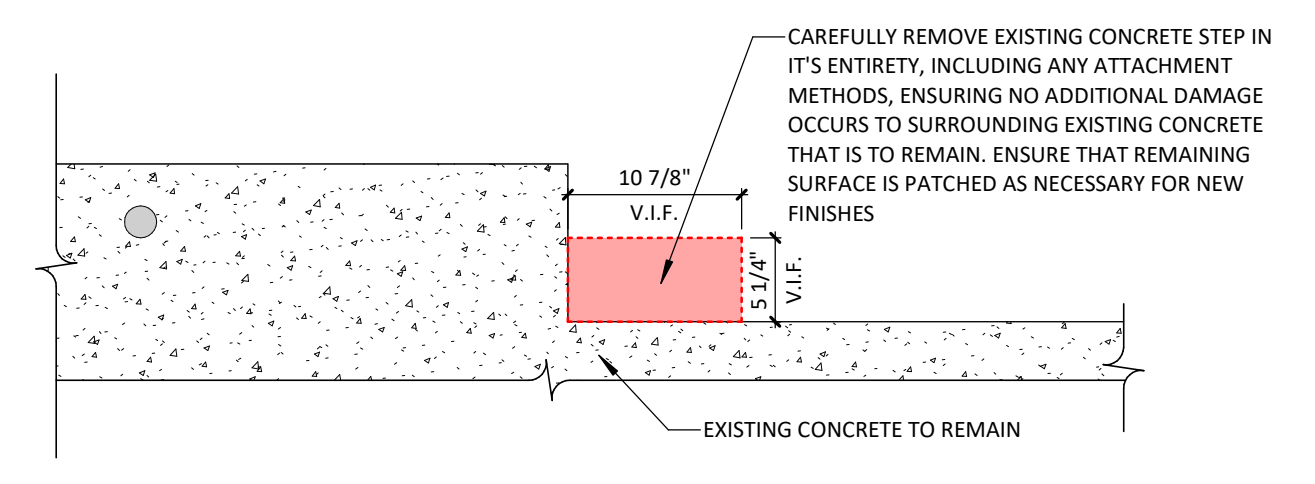
PROJECT #/Project Number



1 105 DEMO FLOOR PLAN
1/4" = 1'-0"

APPROXIMATE EXISTING OCCUPANCY: 161 (VIA MATTERPORT)
13.1 S.F./STUDENT

2 EXISTING CONCRETE STAIR REMOVAL
1" = 1'-0"

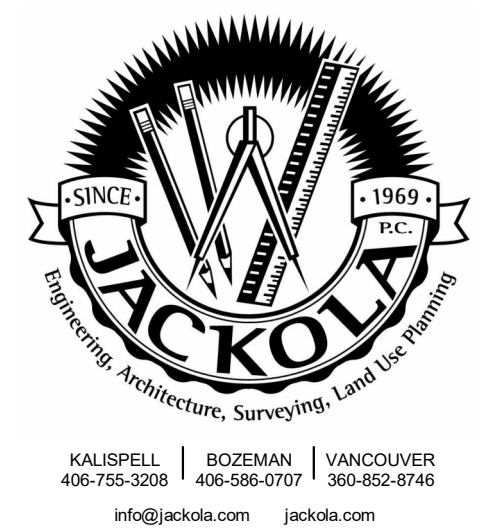


GENERAL DEMO PLAN NOTES:

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DEMO FLOOR PLAN KEYNOTES 105

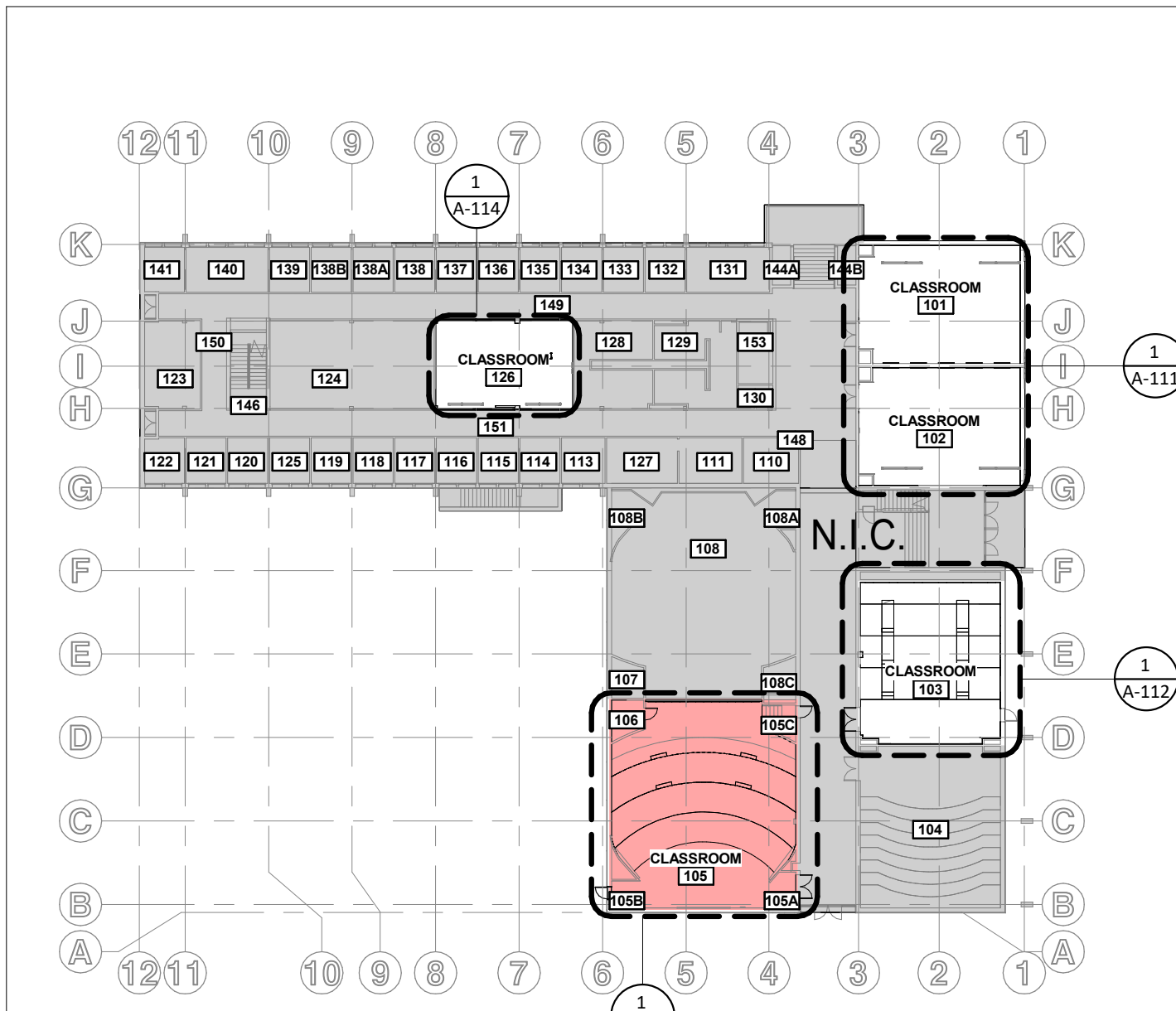
- REMOVE EXISTING AND DISPOSE OF WOOD TEACHING PLATFORM. CONTRACTOR TO PATCH ANY FLOOR OR WALL ATTACHMENT POINTS AS REQUIRED.
- REMOVE EXISTING ACOUSTICAL WALL TREATMENT. PREP WALL FOR NEW WALL TREATMENT.
- REMOVE EXISTING WHITE BOARDS, SALVAGE AND HAND OVER TO MSU. CONTRACTOR TO PATCH WALL AS REQUIRED.
- DEMOLISH EXISTING CONCRETE RISER WHERE INDICATED, DEPTH 5 1/4" (E.V.). PREP FOR NEW CONCRETE RISERS. SEE 2/AD-113.
- ALL FURNITURE LOOSE OR FIXED, TO BE REMOVED. IF LOOSE/FREESTANDING, MSU TO REMOVE PRIOR TO THE START OF CONSTRUCTION. IF FIXED, CONTRACTOR TO REMOVE AND HAND OVER TO MSU. CONTRACTOR TO PATCH ANY FLOOR OR WALL ATTACHMENT POINTS AS REQUIRED.
- REMOVE EXISTING TILE BASE AND PREP FOR NEW BASE.
- REMOVE AND DISPOSE OF EXISTING DOOR AND HARDWARE. SALVAGE FRAME.
- REMOVE PORTION OF (E) CONCRETE SLAB FOR NEW ELECTRICAL CONDUIT PATHWAY TO FLOOR BOX FOR POWERED TABLES. CUT TRENCH LARGE AND DEEP ENOUGH TO EFFECTIVELY COMPLETE THE WORK.
- REMOVE EXISTING WALL MOUNTED SPEAKERS AND MOUNTS. CONTRACTOR TO HAND OVER SPEAKERS AND MOUNTS TO MSU.
- PODIUM TO BE REMOVED AND REUSED. MSU TO REMOVE AND STORE PRIOR TO START OF CONSTRUCTION.
- REMOVE EXISTING TILE FLOORING AND PREP FOR NEW FLOORING WHERE TILE IS REMOVED, INSTALL SUITABLE GROUT THAT IS APPROVED BY NEW FLOORING MANUFACTURER TO PREP FOR NEW FLOORING.
- CAREFULLY PREPARE ALL UNDERSIDE (THAT DIRECTLY FACES FLOOR) WOOD COMPONENTS OF EXISTING ACOUSTIC PANELS. PREPARE EXISTING WOOD FOR WOOD FILLER THAT CLOSELY MATCHES EXISTING PANEL FINISH. SAND AND CLEAR COAT.
- EXISTING MASONRY WALL TO REMAIN. CAREFULLY CLEAN USING PROSDCO ENVIRO KLEAN KLEAN 'N' RELEASE CLEANER PRODUCT (OR APPROVED EQUAL). FOLLOW MANUFACTURER'S WRITTEN INSTRUCTIONS FOR APPROPRIATE USE AND CLEANING METHOD. REFER TO SPECS. CLEAN ALL EXISTING MASONRY WALLS THAT WILL BE EXPOSED.



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PPA#: 25-1214



KEY PLAN

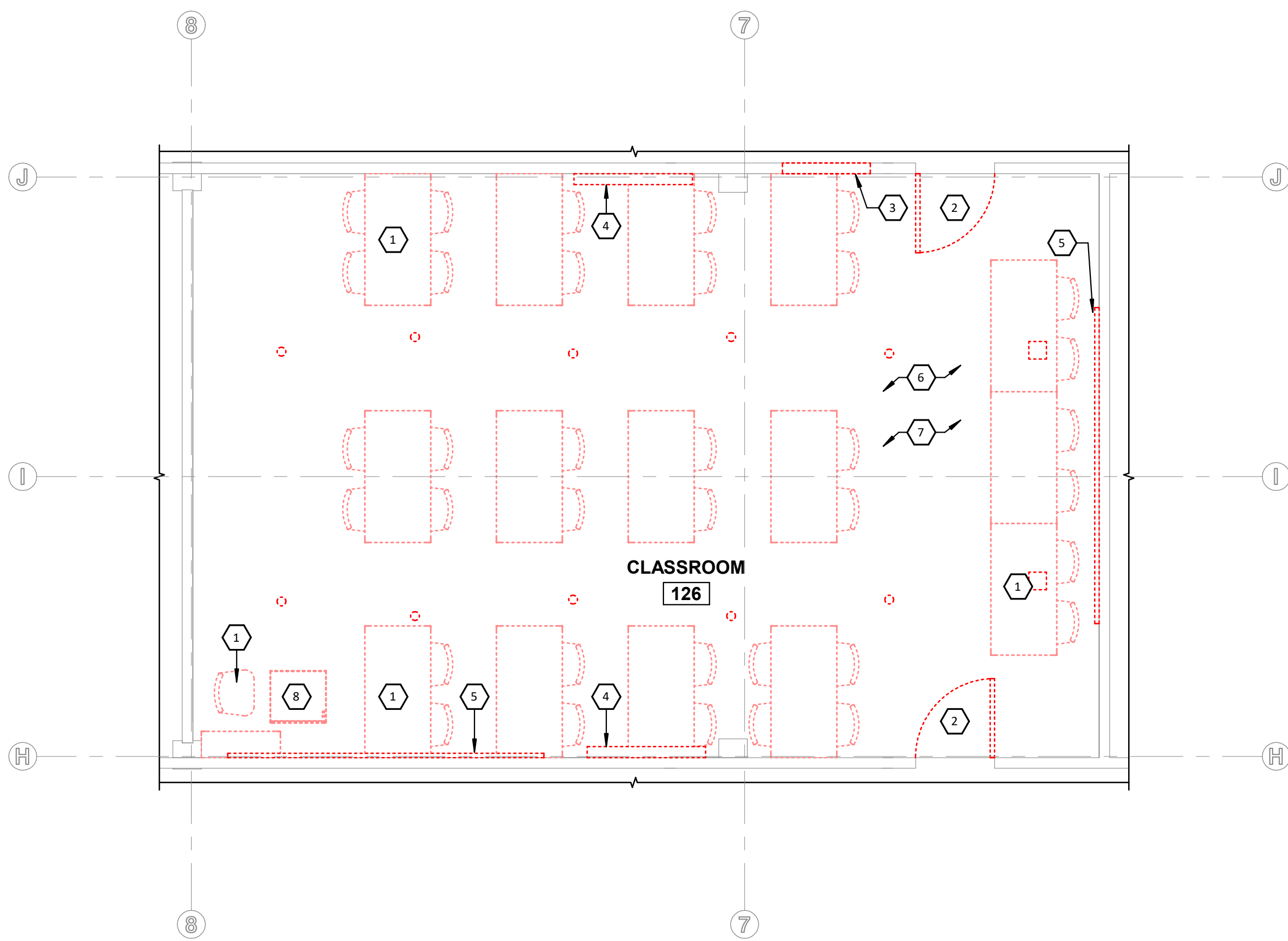
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REVISIONS:	
A	ADDENDUM #1 01/21/26

105 DEMO FLOOR PLAN
ALT. #1

AD113

ENTIRE SHEET IS
ADD ALTERNATE #1

PROJECT #/Project Number



1 126 DEMO FLOOR PLAN
1/4" = 1'-0"



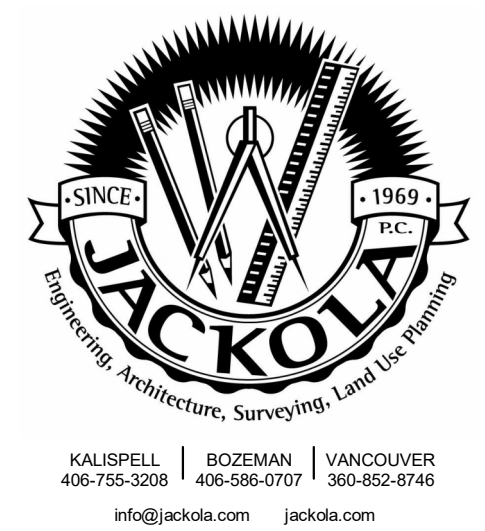
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GENERAL DEMO PLAN NOTES:

- A. SEE G-001 PROJECT TITLE SHEET FOR GENERAL NOTES.
- B. PROTECT EXISTING BUILDING OUTSIDE OF THIS SCOPE OF WORK AT ALL TIMES.
- C. SEE OTHER SHEETS IN THIS SET FOR ADDITIONAL INFORMATION.
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- E. THE EXISTING BUILDING MAY NOT BE LEVEL AND PLUMB. CONTRACTOR SHALL FIELD VERIFY AND PROVIDE CONCEALED SHIMS, ETC. AS NECESSARY TO MAKE NEW WORK LEVEL AND PLUMB, UNLESS SPECIFICALLY NOTED OTHERWISE.

DEMO FLOOR PLAN KEYNOTES 126

- 1 ALL FURNITURE LOOSE OR FIXED, TO BE REMOVED. IF LOOSE/PRE-EXISTING, MSU TO REMOVE PRIOR TO THE START OF CONSTRUCTION. IF FIXED, CONTRACTOR TO REMOVE AND HAND OVER TO MSU. CONTRACTOR TO PATCH ANY FLOOR OR WALL ATTACHMENT POINTS AS REQUIRED.
- 2 DEMOLISH DOOR, FRAME, AND HARDWARE AND DISPOSE OF. PREPARE WALL FOR INFILL.
- 3 DEMOLISH PORTION OF WALL TO THE BOTTOM OF THE TRANSOM FOR NEW DOORWAY.
- 4 REMOVE EXISTING TV SCREEN AND MOUNT, SALVAGE AND HAND OVER TO MSU. CONTRACTOR TO PATCH WALL AS REQUIRED.
- 5 REMOVE EXISTING WHITE BOARDS, SALVAGE AND HAND OVER TO MSU. CONTRACTOR TO PATCH WALL AS REQUIRED.
- 6 REMOVE EXISTING FINISH FLOORING, RECYCLE WHERE POSSIBLE, DISPOSE OTHERWISE.
- 7 ALL EXISTING FLOOR BOXES TO BE ABANDONED.
- 8 PODIUM TO BE REMOVED AND REUSED. MSU TO REMOVE AND STORE PRIOR TO START OF CONSTRUCTION.



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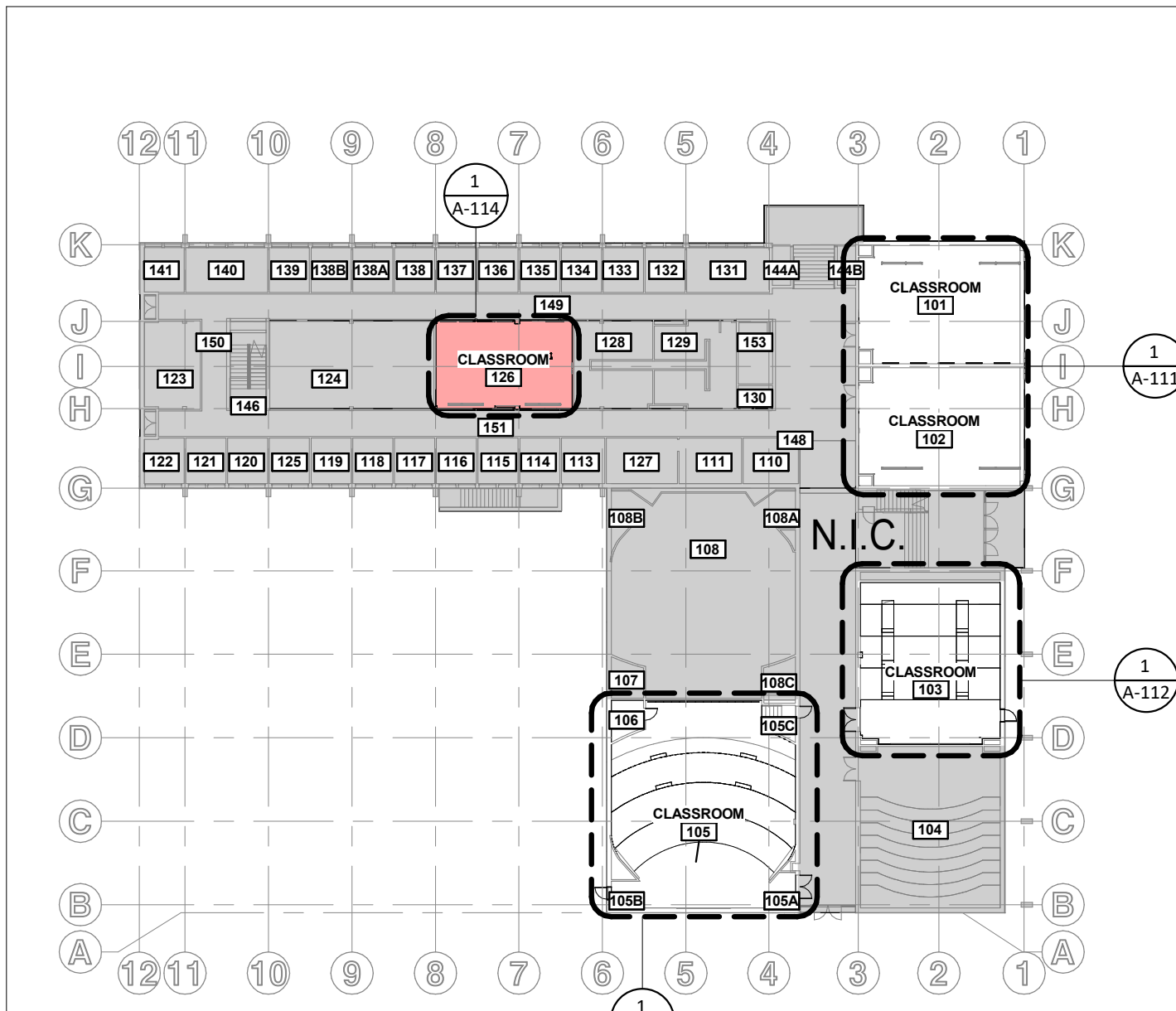
DATE: 12/17/2025

REVISIONS:

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126 DEMO FLOOR PLAN
ALT. #3

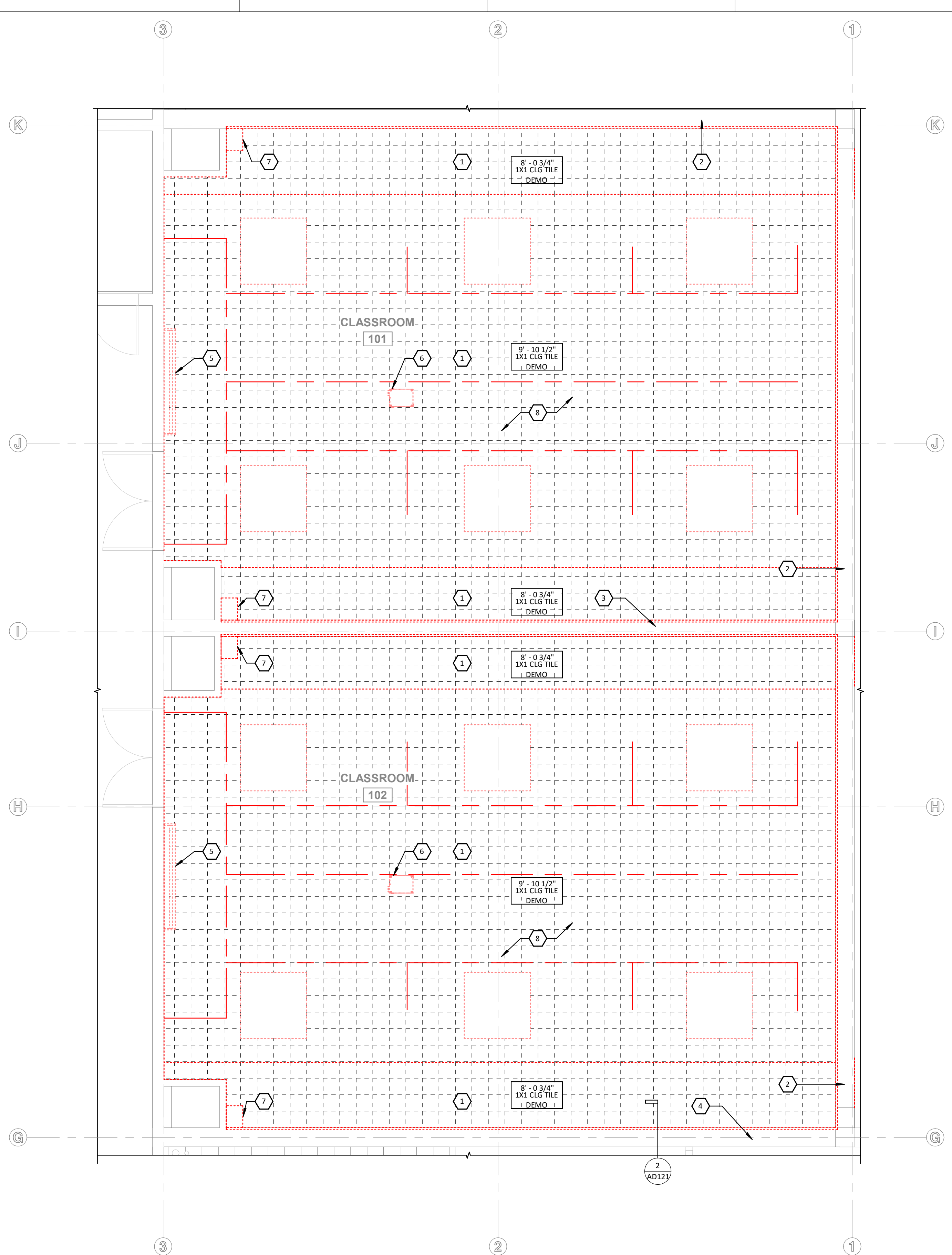
AD114



KEY PLAN

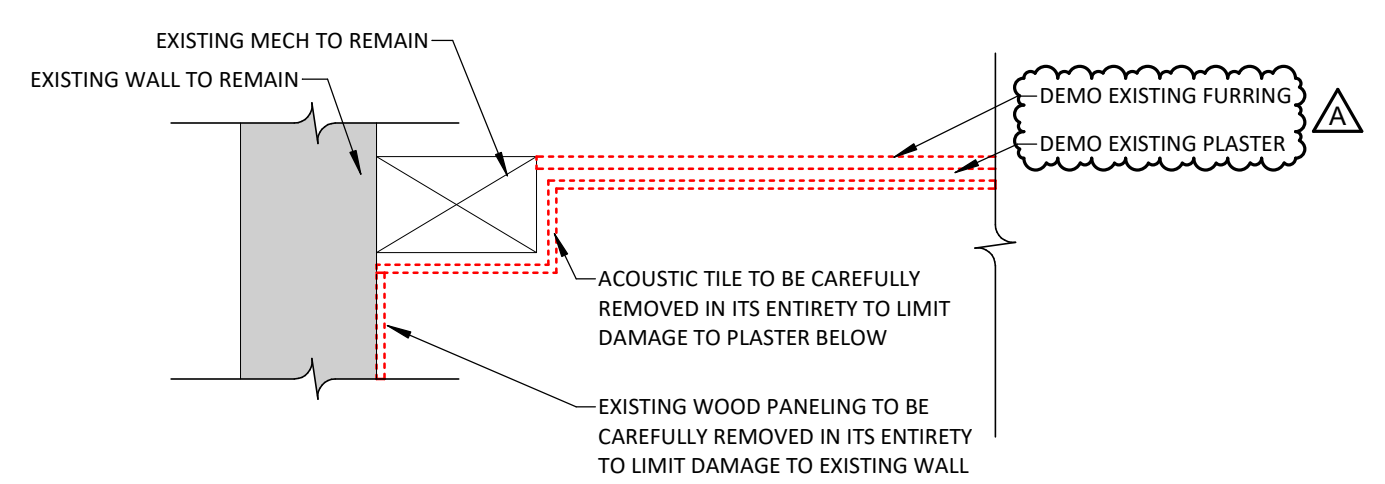
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ADD ALTERNATE #3

PROJECT #/Project Number



1 101/102 REFLECTED CEILING DEMO PLAN
 1/4" = 1'-0"
 0 2' 4' 8'

2 EXISTING CEILING TILE REMOVAL
 1" = 1'-0"



- GENERAL DEMO PLAN NOTES:**
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 - REMOVE MSU WIRELESS ACCESS POINTS AND HAND OVER TO UUT.

- RCP DEMO KEYNOTES 101/102**
- EXISTING 1X1 TILE TO BE REMOVED IN ITS ENTIRETY. SEE DETAIL 2/AD-121 FOR CEILING CONDITION.
 - EXISTING CONCRETE FOUNDATION AND MASONRY WALL TO REMAIN.
 - EXISTING CONCRETE WALL TO REMAIN.
 - EXISTING MASONRY WALL TO REMAIN.
 - REMOVE EXISTING WALL MOUNTED MOTORIZED PROJECTOR SCREEN, SALVAGE AND HAND OVER TO MSU.
 - REMOVE EXISTING CEILING MOUNTED PROJECTOR, SALVAGE AND HAND OVER TO MSU.
 - REMOVE EXISTING WALL MOUNTED SPEAKER, SALVAGE AND HAND OVER TO MSU. CONTRACTOR TO PATCH AS REQUIRED.
 - REMOVE ALL EXISTING LIGHT FIXTURES, RECYCLE WHERE POSSIBLE, DISPOSE OTHERWISE.

CEILING PLAN LEGEND

	CLG TILE DEMO
	1X1 CEILING TILE
	EXISTING LIGHT FIXTURE DEMO
	EXISTING SPRINKLER SYSTEM PIPING DEMO



BID SET

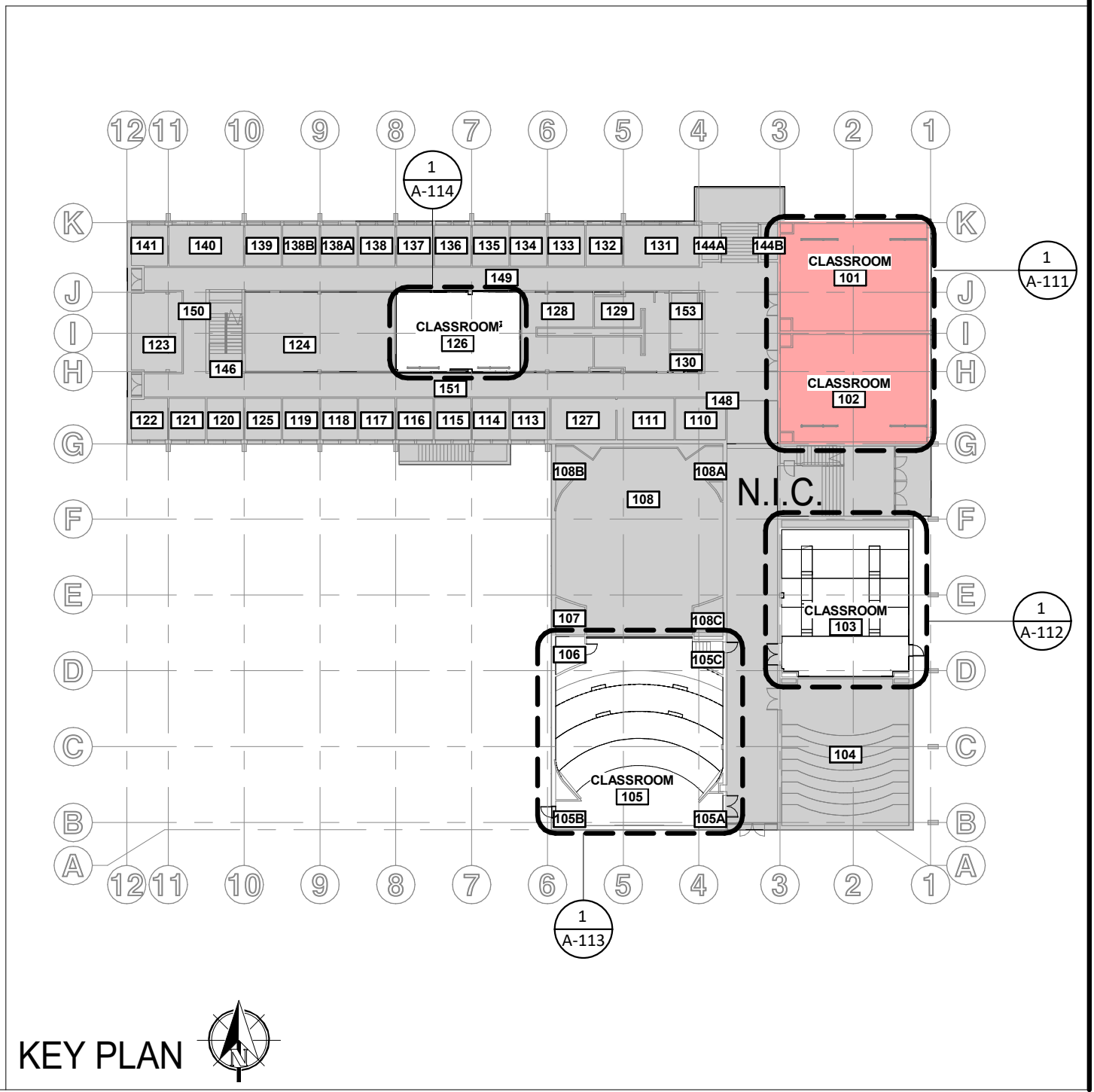
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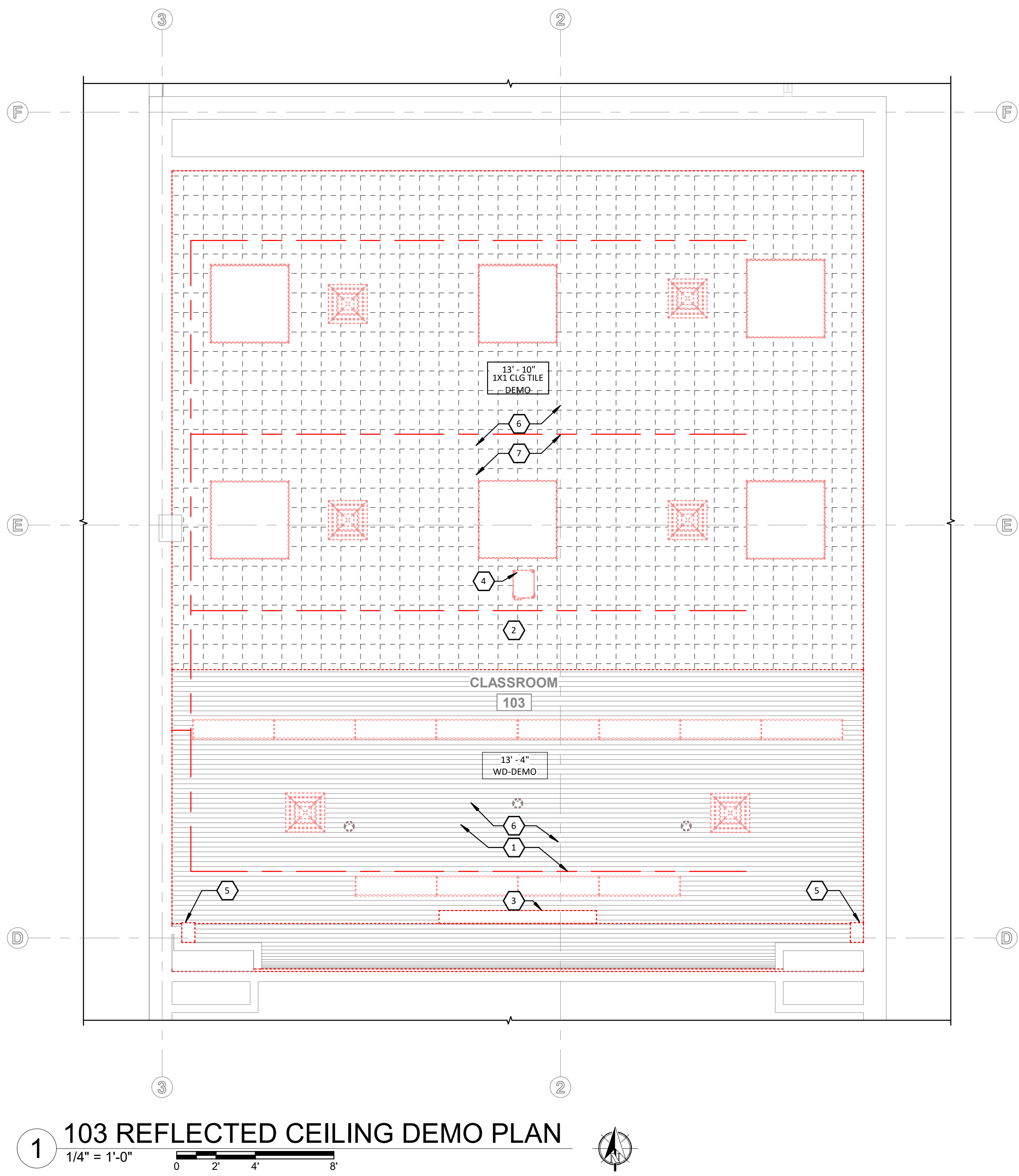
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 REVISIONS:
 A ADDENDUM #1 01/21/26

101/102 DEMO REFLECTED CEILING PLAN

AD121



PROJECT #/Project Number

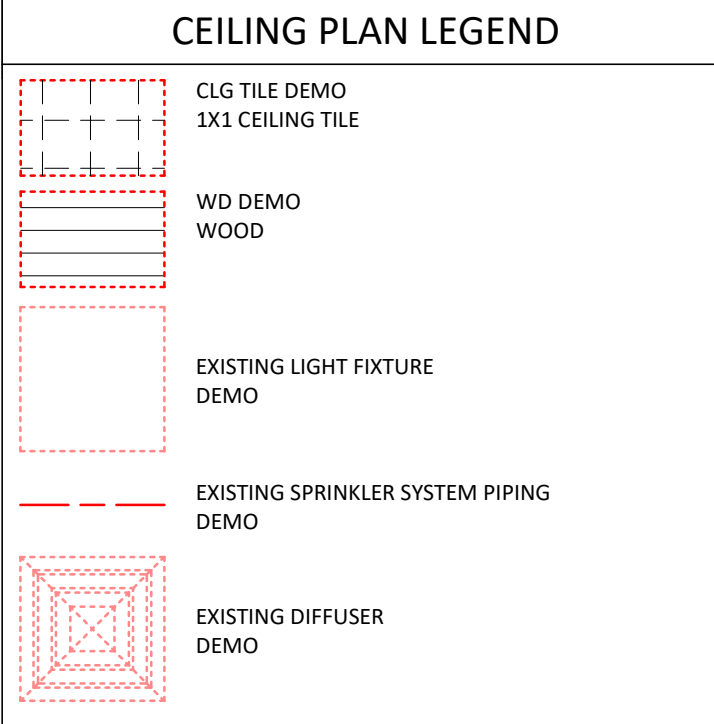


1 103 REFLECTED CEILING DEMO PLAN
 1/4" = 1'-0"
 0 2' 4' 8'

**ENTIRE SHEET IS
 ADD ALTERNATE #2**

- GENERAL DEMO PLAN NOTES:**
- SEE G-001 PROJECT TITLE SHEET FOR GENERAL NOTES.
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 - THE EXISTING BUILDING MAY NOT BE LEVEL AND PLUMB. CONTRACTOR SHALL FIELD VERIFY AND PROVIDE CONCEALED SHIMS, ETC. AS NECESSARY TO MAKE NEW WORK LEVEL AND PLUMB, UNLESS SPECIFICALLY NOTED OTHERWISE.
 - REMOVE MSU WIRELESS ACCESS POINTS AND HAND OVER TO UIT.

- RCP DEMO KEYNOTES 103**
- REMOVE EXISTING WOOD CEILING SYSTEM AND ATTACHMENT METHODS IN THEIR ENTIRETY. CONTRACTOR TO ENSURE EXISTING CEILING ATTACHMENT METHOD IS REMOVED SO THAT THE NEW CEILING MATERIAL CAN BE INSTALLED PROPERLY TO MEET MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS.
 - EXISTING 1X1 TILE, PLASTER, AND FURRING TO BE REMOVED IN ITS ENTIRETY.
 - REMOVE EXISTING WALL MOUNTED MOTORIZED PROJECTOR SCREEN, SALVAGE AND HAND OVER TO MSU.
 - REMOVE EXISTING CEILING MOUNTED PROJECTOR, SALVAGE AND HAND OVER TO MSU.
 - REMOVE EXISTING WALL MOUNTED SPEAKER, SALVAGE AND HAND OVER TO MSU.
 - REMOVE ALL EXISTING LIGHT FIXTURES, RECYCLE WHERE POSSIBLE, DISPOSE OTHERWISE.
 - REMOVE ALL EXISTING DIFFUSERS, RECYCLE WHERE POSSIBLE, DISPOSE OTHERWISE.



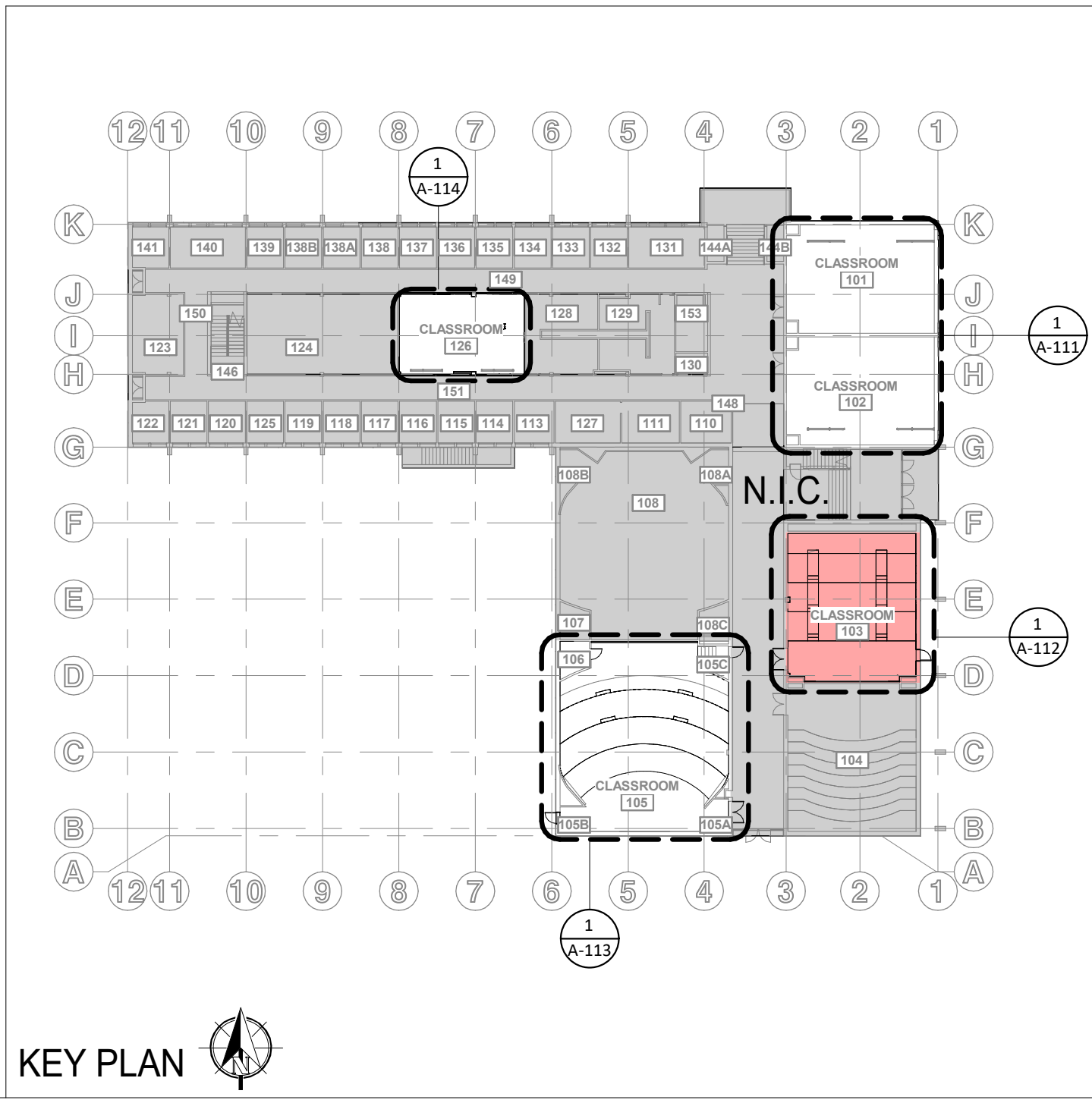
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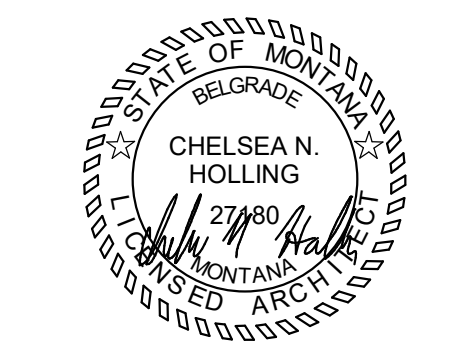
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DATE: 12/17/2025	
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A	ADDENDUM #1 01/21/26

**103 DEMO
 REFLECTED
 CEILING PLAN
 ALT. #2**

AD122



KEY PLAN



BID SET

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PPA#: 25-1214

DRAWN: RH CHECKED: CH

DATE: 12/17/2025

REVISIONS:

105 DEMO REFLECTED CEILING PLAN ALT. #1

AD123

GENERAL DEMO PLAN NOTES:

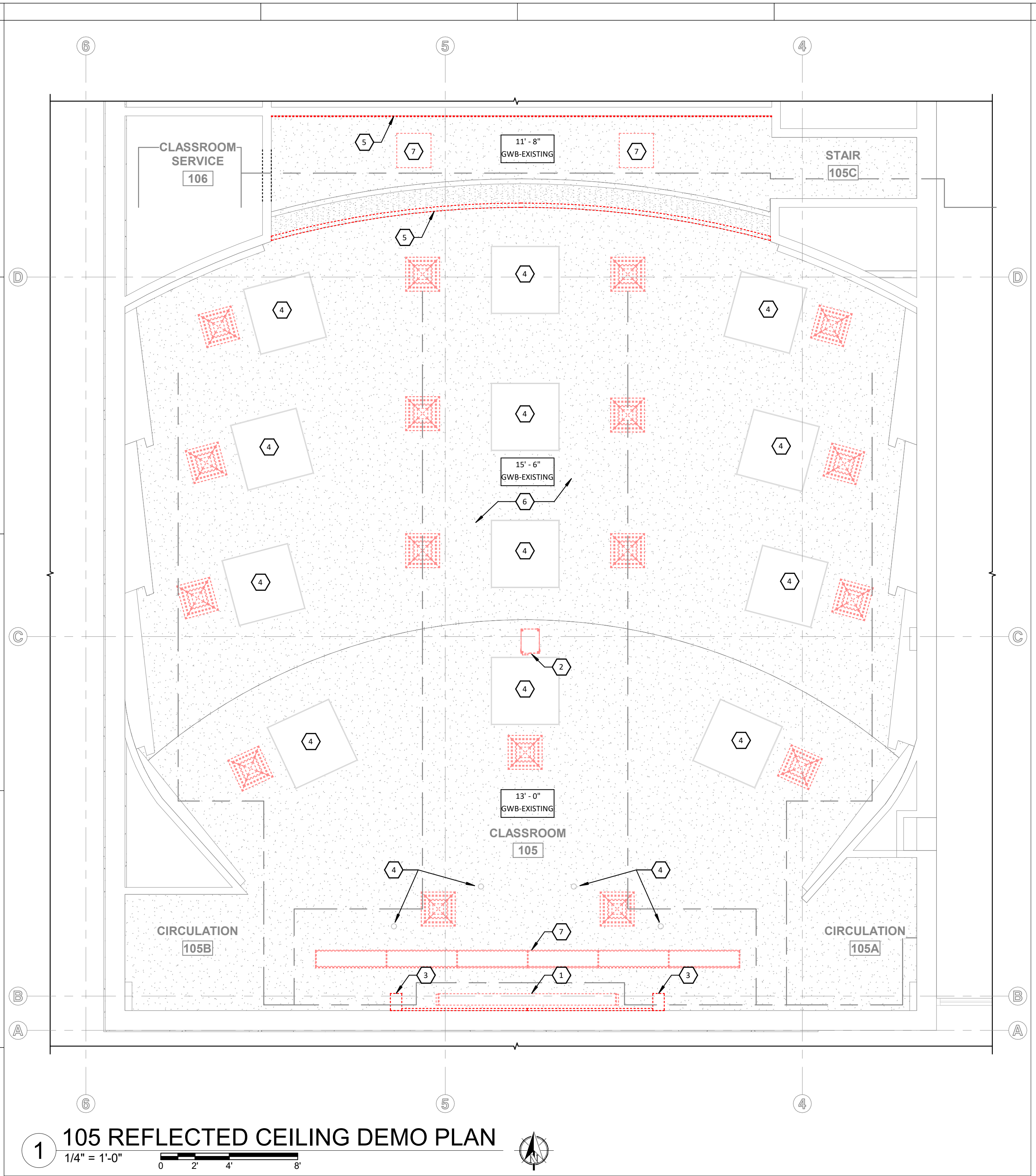
- A. SEE G-001 PROJECT TITLE SHEET FOR GENERAL NOTES.
- B. PROTECT EXISTING BUILDING OUTSIDE OF THIS SCOPE OF WORK AT ALL TIMES.
- C. SEE OTHER SHEETS IN THIS SET FOR ADDITIONAL INFORMATION.
- D. CONTRACTOR SHALL INCLUDE CUTTING AND PATCHING FOR ALL INSTANCES WHERE REQUIRED, WHETHER OR NOT SHOWN/INDICATED ON THESE CONSTRUCTION DOCUMENTS.
- E. THE EXISTING BUILDING MAY NOT BE LEVEL AND PLUMB. CONTRACTOR SHALL FIELD VERIFY AND PROVIDE CONCEALED SHIMS, ETC. AS NECESSARY TO MAKE NEW WORK LEVEL AND PLUMB, UNLESS SPECIFICALLY NOTED OTHERWISE.
- F. REMOVE MSU WIRELESS ACCESS POINTS AND HAND OVER TO UIT.

RCP DEMO KEYNOTES 105

- 1 REMOVE EXISTING CEILING MOUNTED MOTORIZED PROJECTOR SCREEN, SALVAGE AND HAND OVER TO MSU. CONTRACTOR TO PATCH CEILING AS REQUIRED.
- 2 REMOVE EXISTING CEILING MOUNTED PROJECTOR, SALVAGE AND HAND OVER TO MSU. CONTRACTOR TO PATCH CEILING AS REQUIRED.
- 3 REMOVE EXISTING WALL MOUNTED SPEAKER, SALVAGE AND HAND OVER TO MSU. CONTRACTOR TO PATCH AS REQUIRED.
- 4 EXISTING LIGHT FIXTURES TO REMAIN. REPLACE BULBS AND BALLAST.
- 5 REMOVE EXISTING ACOUSTICAL WALL TREATMENT. PREP WALL FOR NEW WALL TREATMENT.
- 6 REMOVE ALL EXISTING DIFFUSERS, RECYCLE WHERE POSSIBLE, DISPOSE OTHERWISE.
- 7 REMOVE EXISTING LIGHTS. PATCH AS REQUIRED.

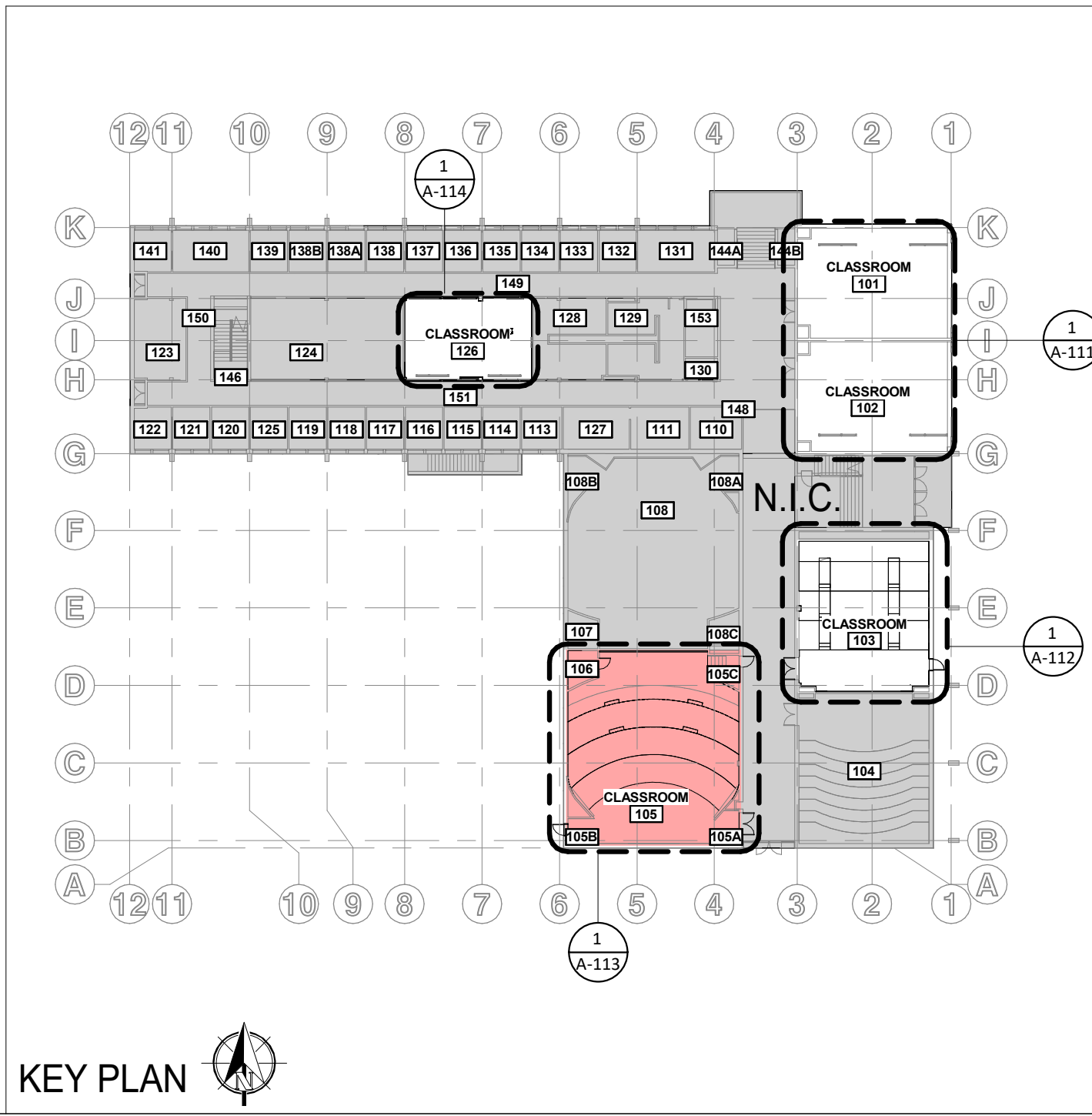
CEILING PLAN LEGEND

	EXISTING GWB
	GYPSUM WALL BOARD REMAINING
	EXISTING LIGHT FIXTURE DEMO
	EXISTING LIGHT FIXTURE REMAINING
	EXISTING SPRINKLER SYSTEM PIPING REMAINING
	EXISTING DIFFUSER DEMO



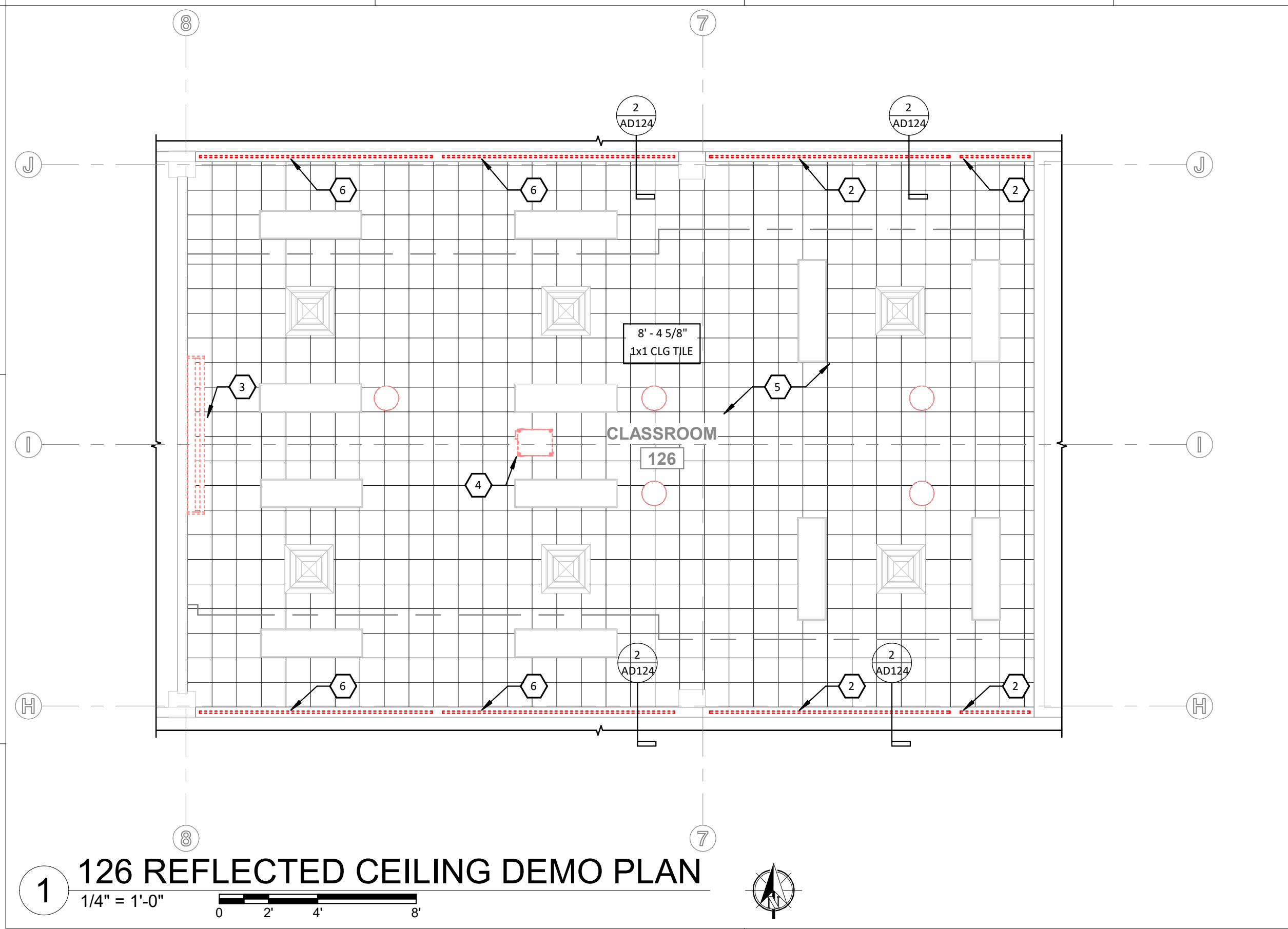
1 105 REFLECTED CEILING DEMO PLAN
1/4" = 1'-0"
0 2 4 8'

**ENTIRE SHEET IS
ADD ALTERNATE #1**

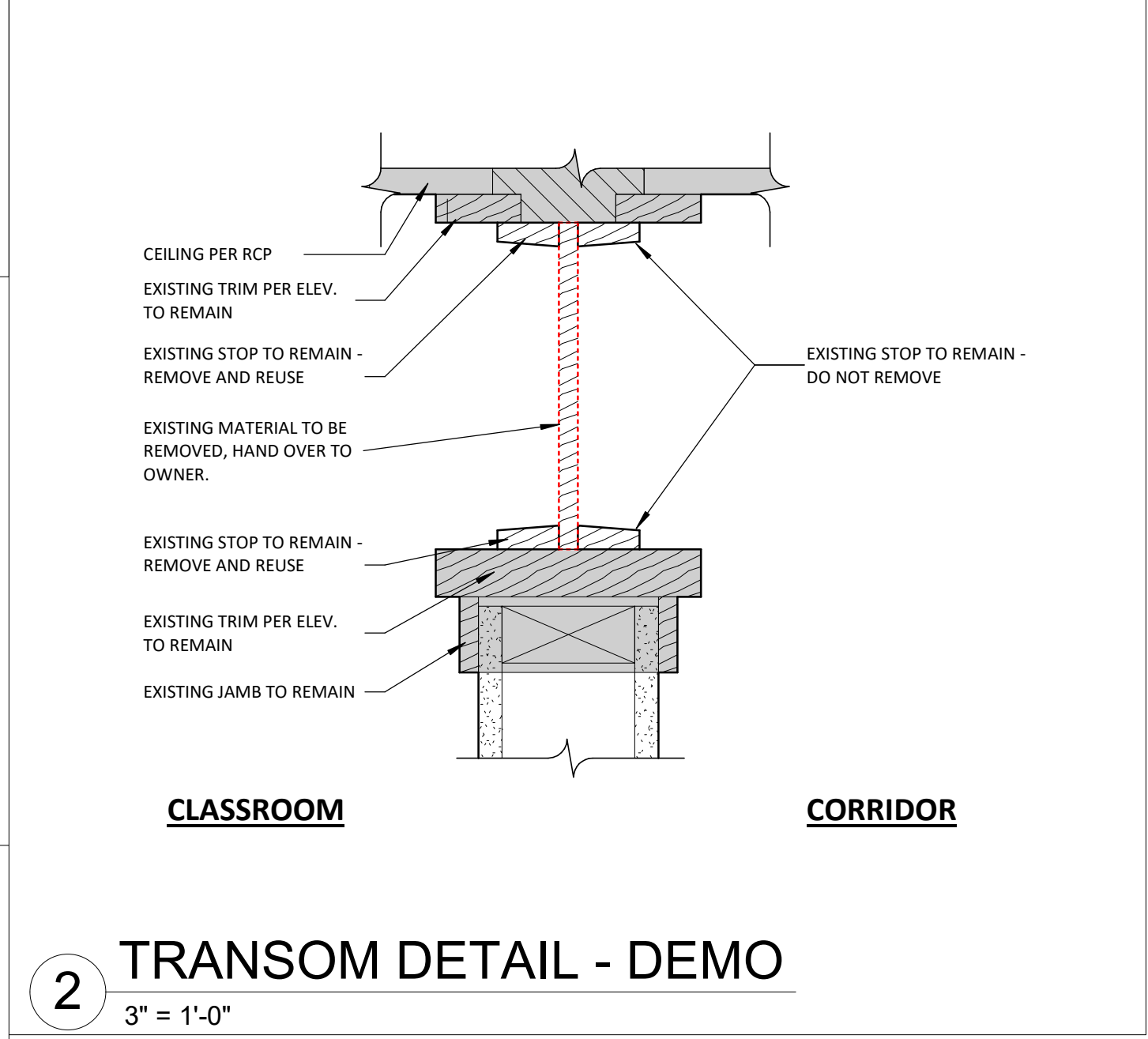


KEY PLAN

PROJECT #/Project Number



1 126 REFLECTED CEILING DEMO PLAN
1/4" = 1'-0"

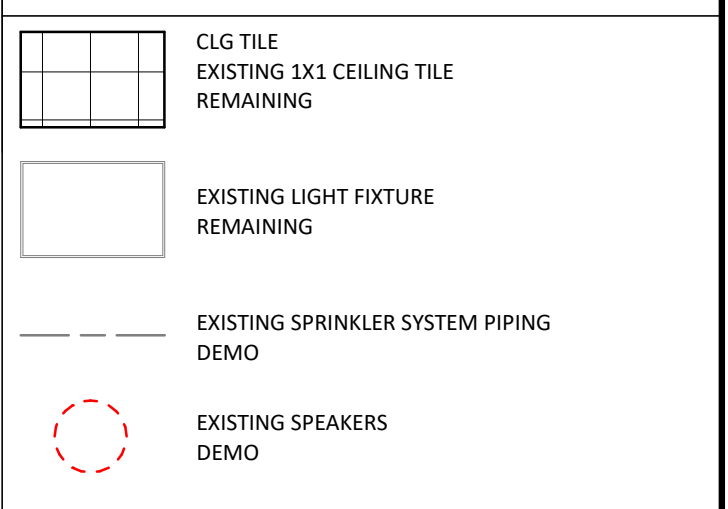


**ENTIRE SHEET IS
ADD ALTERNATE #3**

GENERAL DEMO PLAN NOTES:

- SEE G-001 PROJECT TITLE SHEET FOR GENERAL NOTES.
- PROTECT EXISTING BUILDING OUTSIDE OF THIS SCOPE OF WORK AT ALL TIMES.
- SEE OTHER SHEETS IN THIS SET FOR ADDITIONAL INFORMATION.
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- THE EXISTING BUILDING MAY NOT BE LEVEL AND PLUMB. CONTRACTOR SHALL FIELD VERIFY AND PROVIDE CONCEALED SHIMS, ETC. AS NECESSARY TO MAKE NEW WORK LEVEL AND PLUMB, UNLESS SPECIFICALLY NOTED OTHERWISE.
- REMOVE MSU WIRELESS ACCESS POINTS AND HAND OVER TO UIT.

- RCP DEMO KEYNOTES 126**
- EXISTING 1X1 TILE TO BE REMOVED IN ITS ENTIRETY. SEE DETAIL 2/AD124 FOR SIMILAR CEILING REMOVAL CONDITION.
 - REMOVE EXISTING PLYWOOD INSIDE TRANSOM FRAME. PROTECT EXISTING FRAME AND SALVAGE STOPS.
 - REMOVE EXISTING WALL MOUNTED MOTORIZED PROJECTOR SCREEN, SALVAGE AND HAND OVER TO MSU.
 - REMOVE EXISTING CEILING MOUNTED PROJECTOR, SALVAGE AND HAND OVER TO MSU.
 - EXISTING LIGHT FIXTURE HOUSING TO REMAIN. SEE ELECTRICAL.
 - REMOVE EXISTING GLAZING INSIDE TRANSOM FRAME. PROTECT EXISTING FRAME.



BID SET

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MONTANA STATE UNIVERSITY**

REID HALL,
BOZEMAN, MONTANA 59717
PPA#: 25-1214

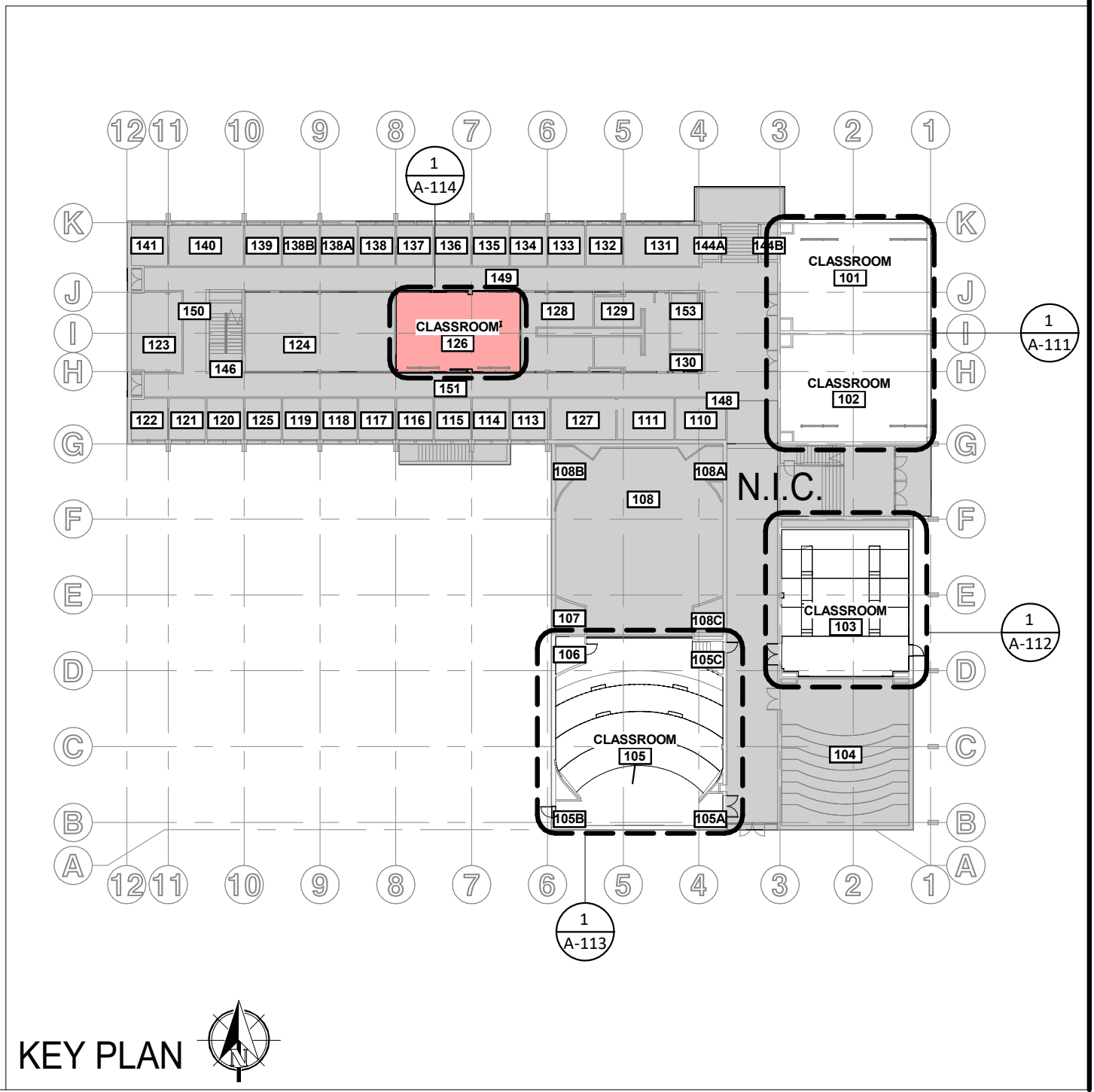
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DATE: 12/17/2025

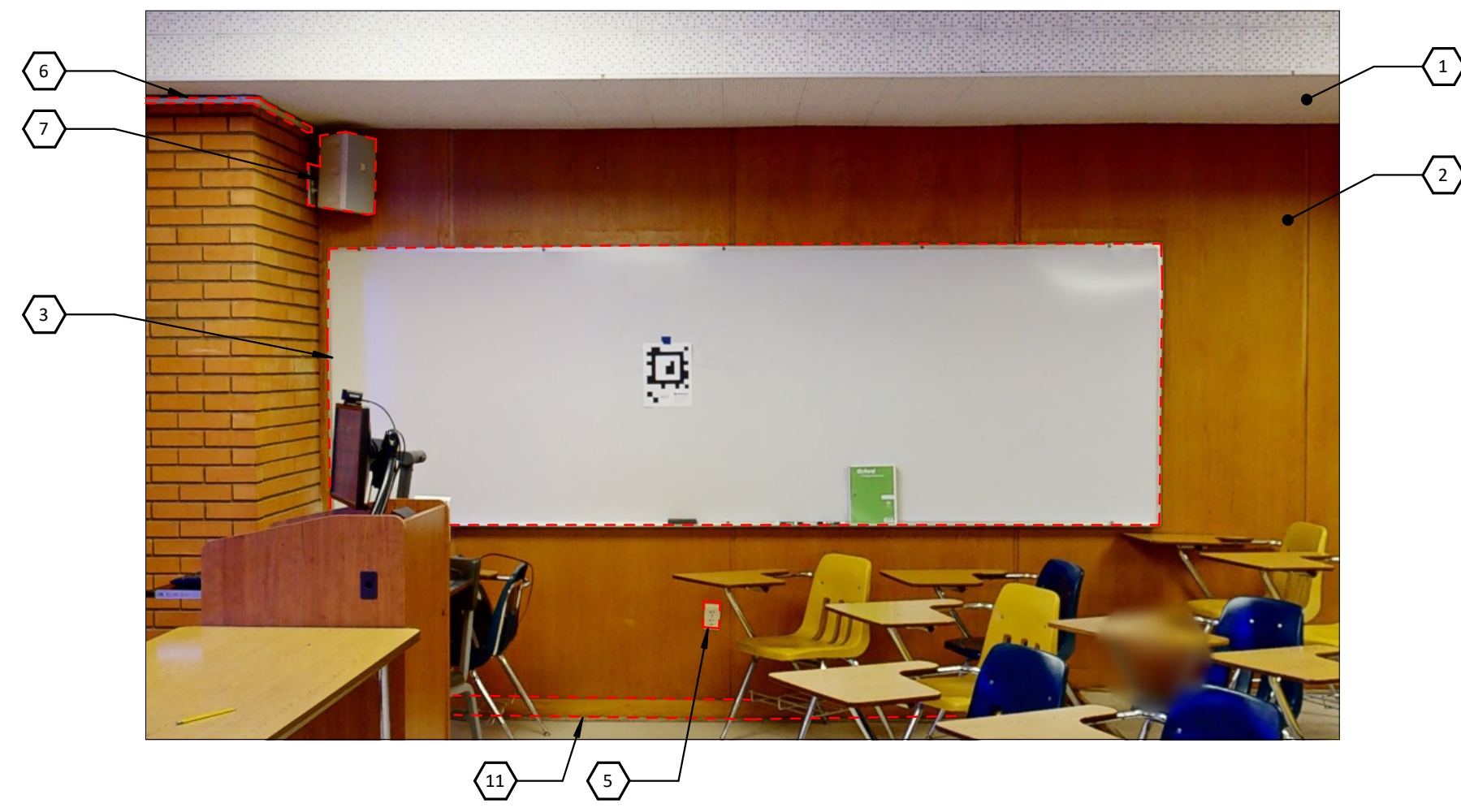
REVISIONS:

**126 DEMO
REFLECTED
CEILING PLAN
ALT. #3**

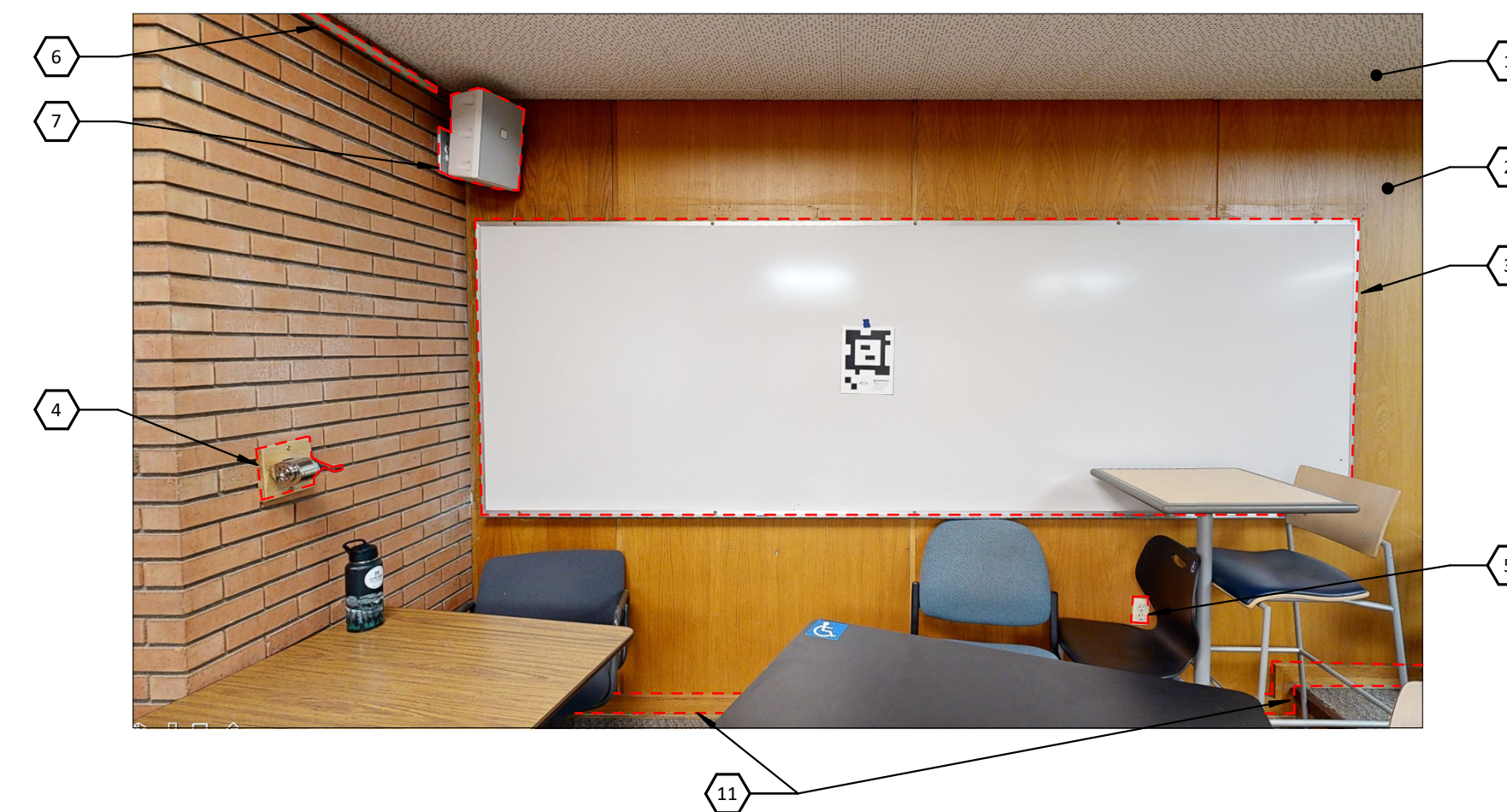
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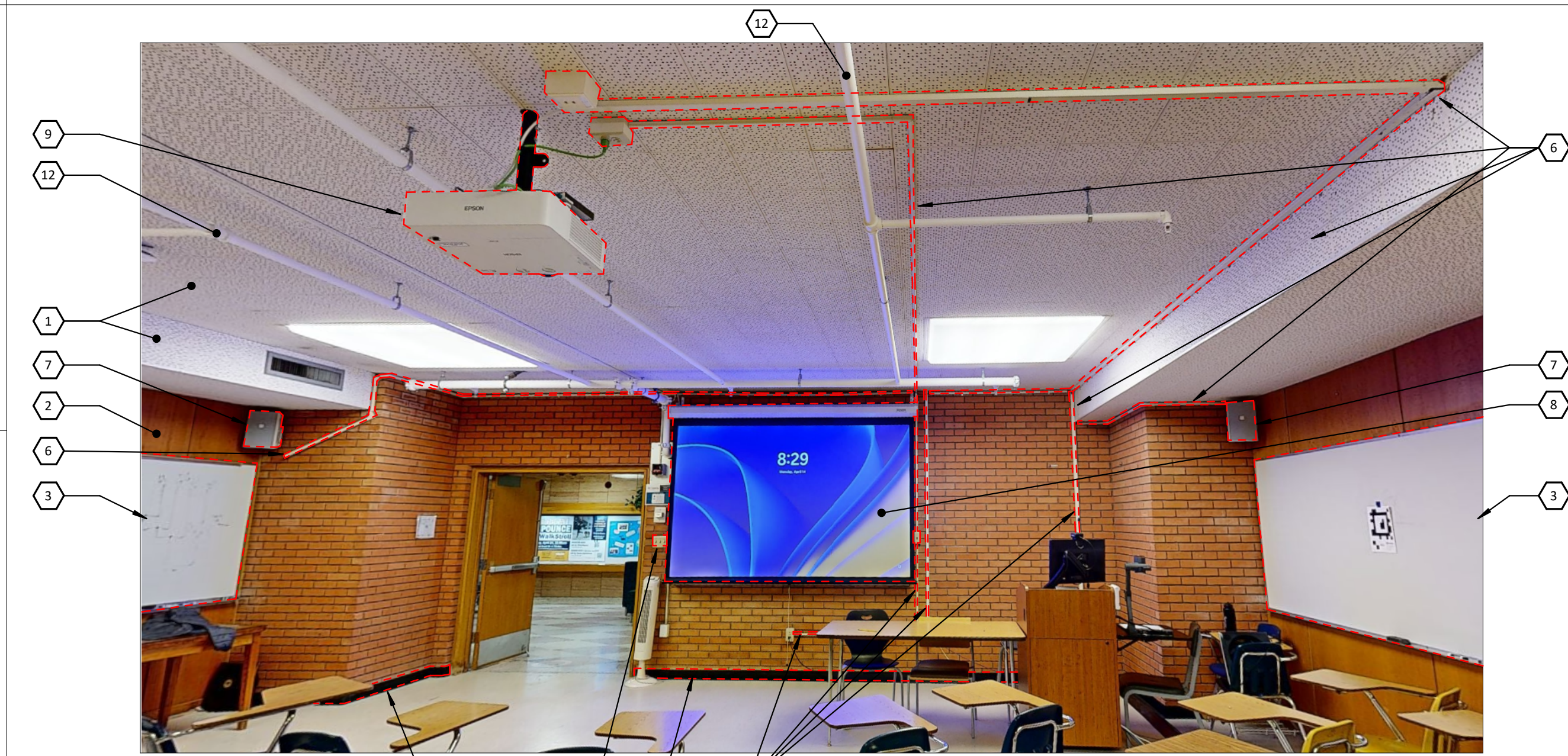
PROJECT #/Project Number



1 DEMO 101 NORTH
NTS



4 DEMO 102 NORTH
NTS



2 DEMO 101 WEST
NTS



5 DEMO 102 SOUTHWEST
NTS



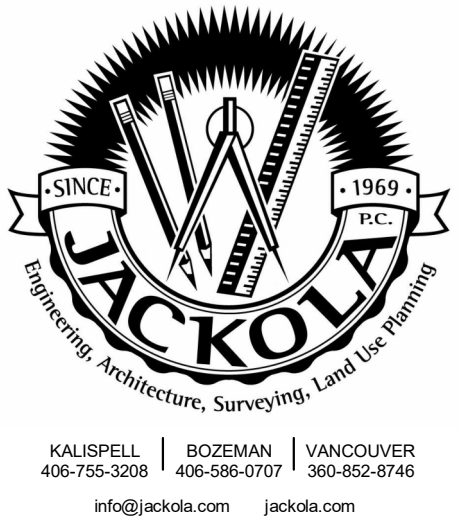
3 DEMO 101 SOUTH
NTS

GENERAL DEMO ELEVATION NOTES:

- A. SEE G-001 PROJECT TITLE SHEET FOR GENERAL NOTES.
- B. PROTECT EXISTING BUILDING OUTSIDE OF THIS SCOPE OF WORK AT ALL TIMES.
- C. SEE OTHER SHEETS IN THIS SET FOR ADDITIONAL INFORMATION.
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- F. CONDUIT THAT IS DIRECTLY CONNECTED TO COMPONENTS THAT ARE TO BE REMOVED ARE TIED INTO EXISTING ELECTRICAL THAT IS TO REMAIN OR TERMINATES WITHIN THE CEILING. REROUTE OR DEMO PER ELECTRICAL. SEE ELECTRICAL.
- G. CONTRACTOR TO VERIFY WITH MSU EXISTING CONDUIT PATH AND EQUIPMENT FOLLOWING REMOVAL OF DEVICES BY MSU PRIOR TO DEMO.

DEMO ELEVATION KEYNOTES 101/102

- 1 EXISTING 1X1 TILE TO BE REMOVED IN ITS ENTIRETY. SEE DETAIL 2/AD-121 FOR CEILING CONDITION.
- 2 REMOVE AND DISPOSE OF EXISTING WOOD PANELS AND BASE. CONTRACTOR TO PATCH WALL AS REQUIRED.
- 3 REMOVE EXISTING WHITE BOARDS, SALVAGE AND HAND OVER TO MSU. CONTRACTOR TO PATCH WALL AS REQUIRED.
- 4 DEMOLISH PENCIL SHARPENER, HAND OVER TO MSU.
- 5 REMOVE OUTLET. PREPARE FOR REINSTALLATION IN NEW WALL.
- 6 REMOVE CONDUIT.
- 7 REMOVE EXISTING WALL MOUNTED SPEAKER, SALVAGE AND HAND OVER TO MSU. CONTRACTOR TO PATCH AS REQUIRED.
- 8 REMOVE EXISTING WALL MOUNTED MOTORIZED PROJECTOR SCREEN, SALVAGE AND HAND OVER TO MSU.
- 9 REMOVE EXISTING CEILING MOUNTED PROJECTOR, SALVAGE AND HAND OVER TO MSU.
- 10 REMOVE LIGHT SWITCH. PATCH AS REQUIRED.
- 11 REMOVE EXISTING FINISH FLOORING AND BASE, RECYCLE WHERE POSSIBLE, DISPOSE OTHERWISE.
- 12 REMOVE FIRE SUPPRESSION SYSTEM. PREPARE FOR NEW. SEE FIRE PROTECTION SHEETS.



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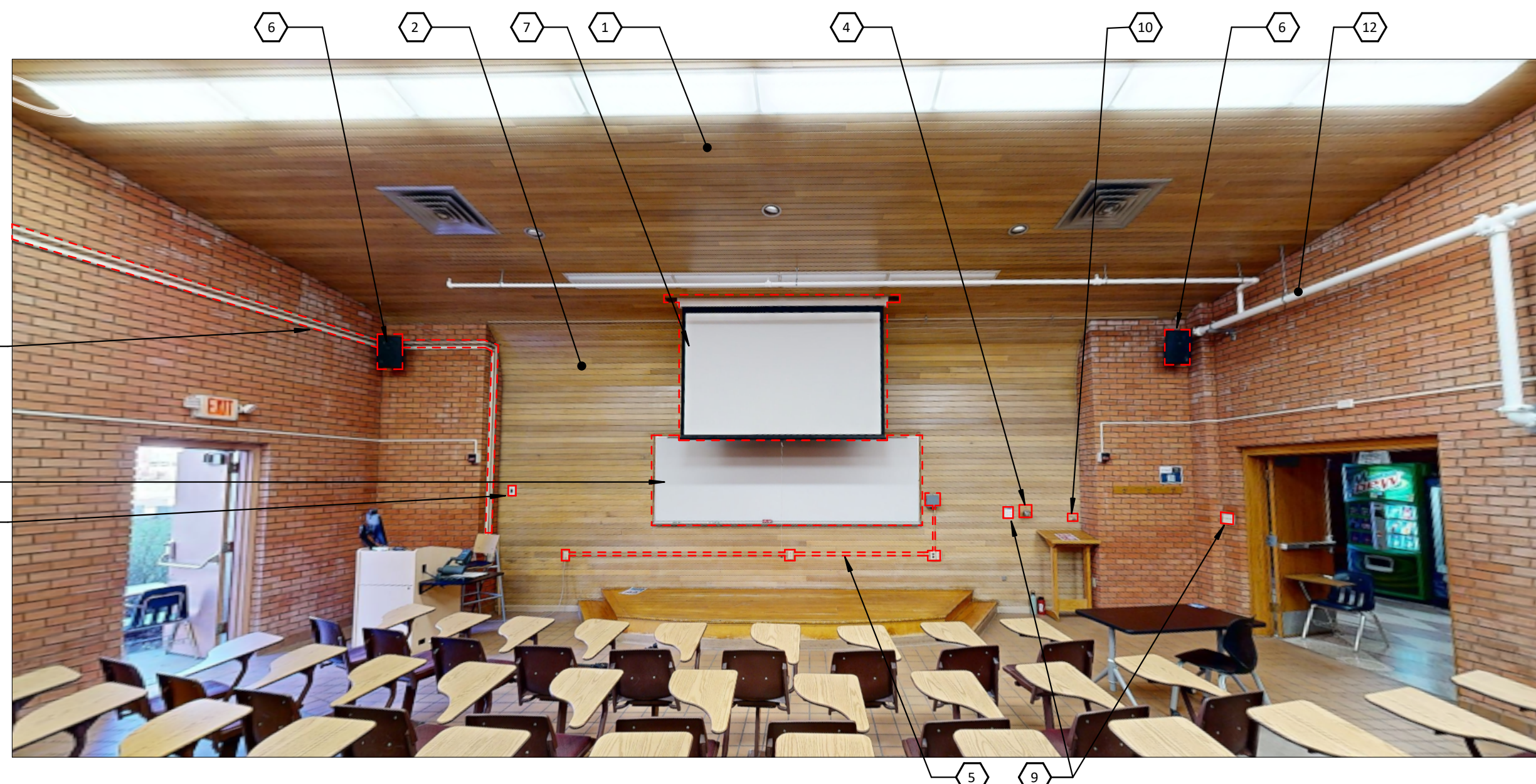
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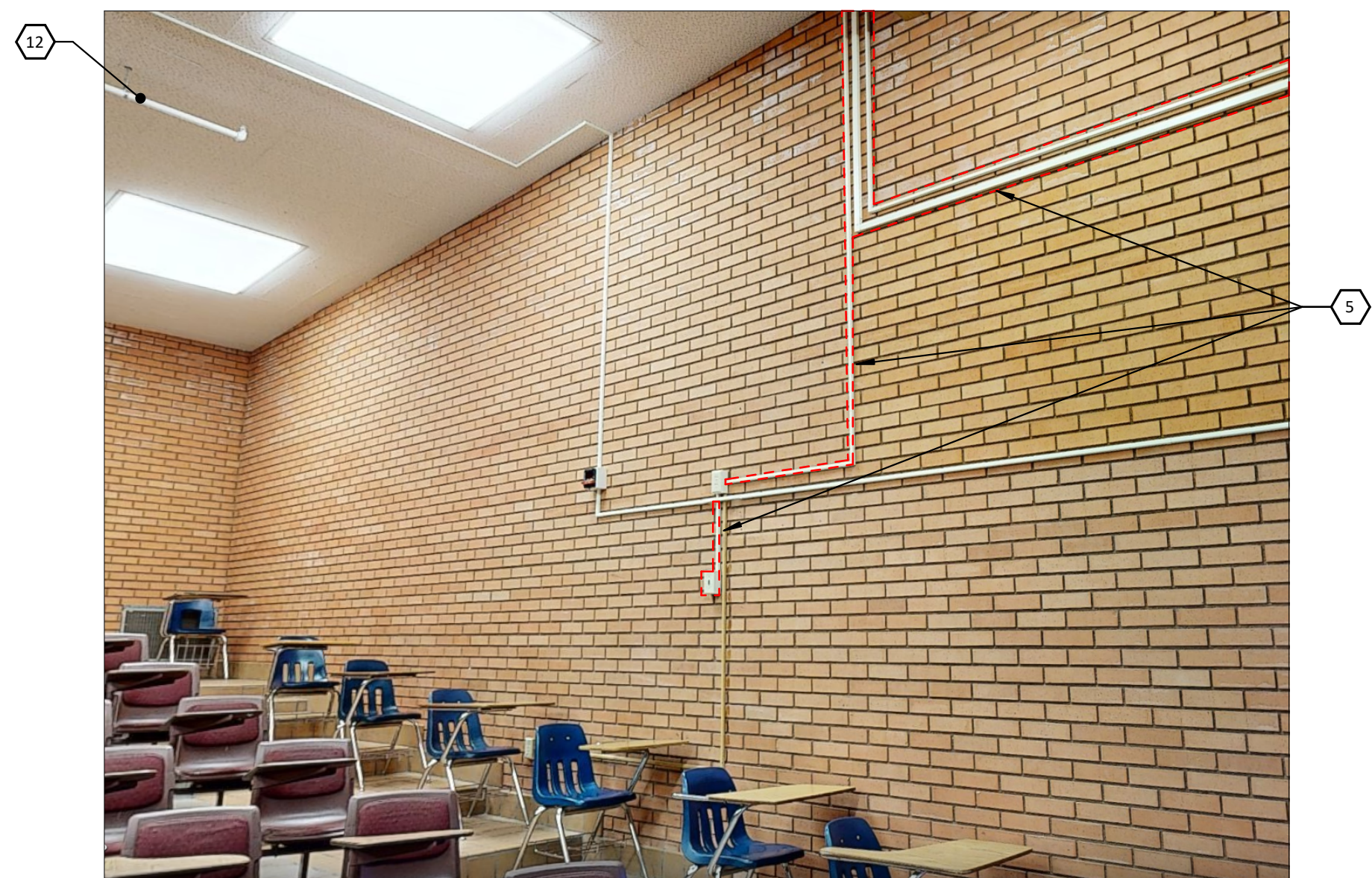
#	REVISIONS:

101/102 DEMO
INTERIOR
ELEVATIONS

AD211



1 DEMO 103 SOUTH
NTS



2 DEMO 103 EAST
NTS



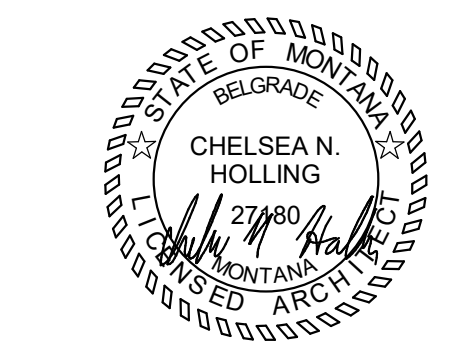
3 DEMO 103 WEST
NTS

GENERAL DEMO ELEVATION NOTES:

- A. SEE G-001 PROJECT TITLE SHEET FOR GENERAL NOTES.
- B. PROTECT EXISTING BUILDING OUTSIDE OF THIS SCOPE OF WORK AT ALL TIMES.
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- F. CONDUIT THAT IS DIRECTLY CONNECTED TO COMPONENTS THAT ARE TO BE REMOVED ARE TIED INTO EXISTING ELECTRICAL THAT IS TO REMAIN OR TERMINATES WITHIN THE CEILING. REROUTE OR DEMO PER ELECTRICAL. SEE ELECTRICAL.
- G. CONTRACTOR TO VERIFY WITH MSU EXISTING CONDUIT PATH AND EQUIPMENT FOLLOWING REMOVAL OF DEVICES BY MSU PRIOR TO DEMO.

DEMO ELEVATION KEYNOTES 103

- 1 REMOVE EXISTING WOOD CEILING SYSTEM AND ATTACHMENT METHODS IN THEIR ENTIRETY. CONTRACTOR TO ENSURE EXISTING CEILING ATTACHMENT METHOD IS REMOVED SO THAT THE NEW CEILING MATERIAL CAN BE INSTALLED PROPERLY TO MEET MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS.
- 2 REMOVE AND DISPOSE OF EXISTING WOOD PANELS AND BASE. CONTRACTOR TO PATCH WALL AS REQUIRED.
- 3 REMOVE EXISTING WHITE BOARDS, SALVAGE AND HAND OVER TO MSU. CONTRACTOR TO PATCH WALL AS REQUIRED.
- 4 DEMOLISH PENCIL SHARPENER, HAND OVER TO MSU.
- 5 REMOVE CONDUIT.
- 6 REMOVE EXISTING WALL MOUNTED SPEAKER, SALVAGE AND HAND OVER TO MSU. CONTRACTOR TO PATCH AS REQUIRED.
- 7 REMOVE EXISTING WALL MOUNTED MOTORIZED PROJECTOR SCREEN, SALVAGE AND HAND OVER TO MSU.
- 8 REMOVE EXISTING CEILING MOUNTED MOTORIZED PROJECTOR SCREEN, SALVAGE AND HAND OVER TO MSU.
- 9 REMOVE LIGHT SWITCH. PATCH AS REQUIRED.
- 10 DEMOLISH HOOK.
- 11 REMOVE EXISTING THERMOSTAT.
- 12 REMOVE FIRE SUPPRESSION SYSTEM. PREPARE FOR NEW. SEE FIRE PROTECTION SHEETS.



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BOZEMAN, MONTANA 59717
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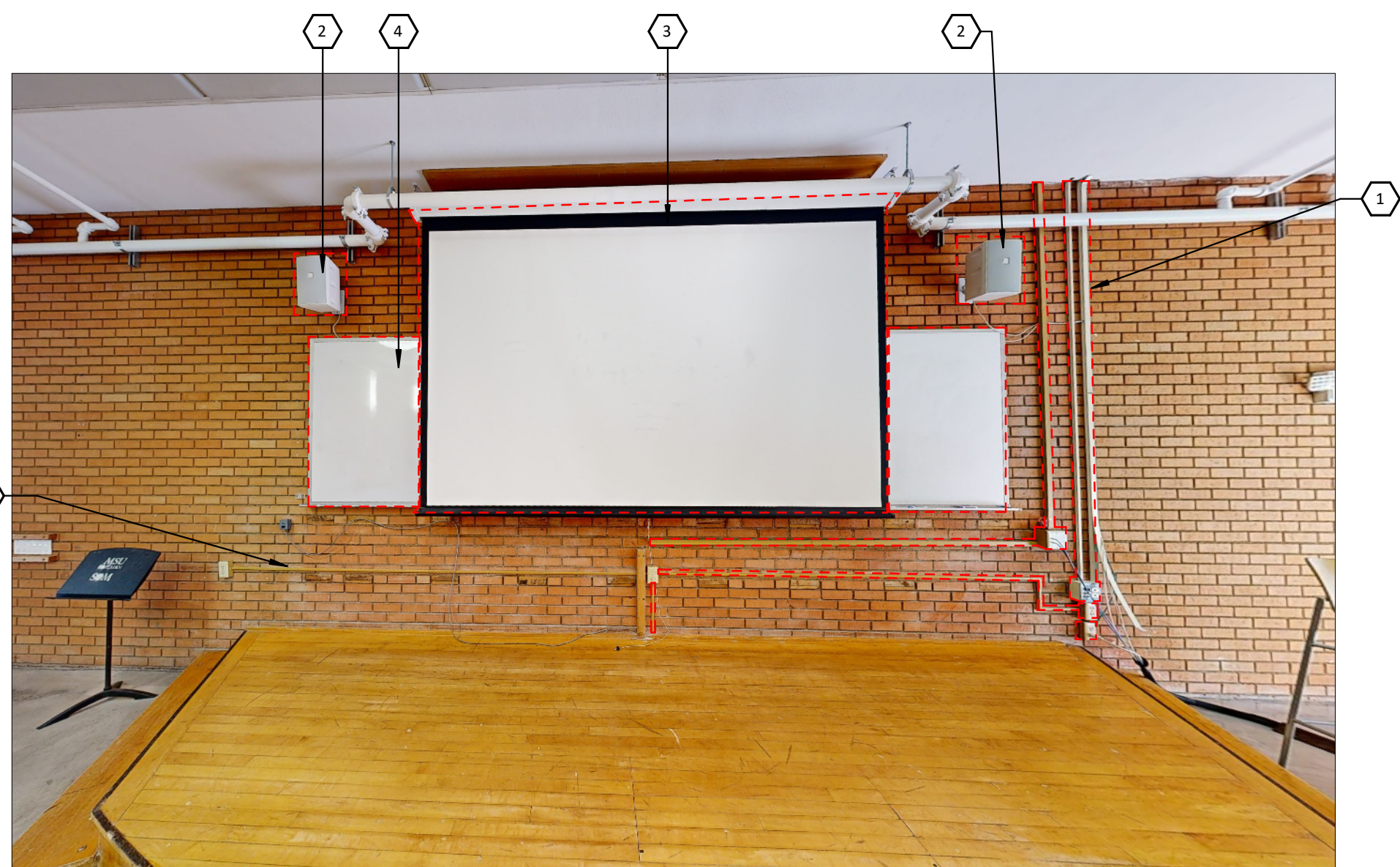
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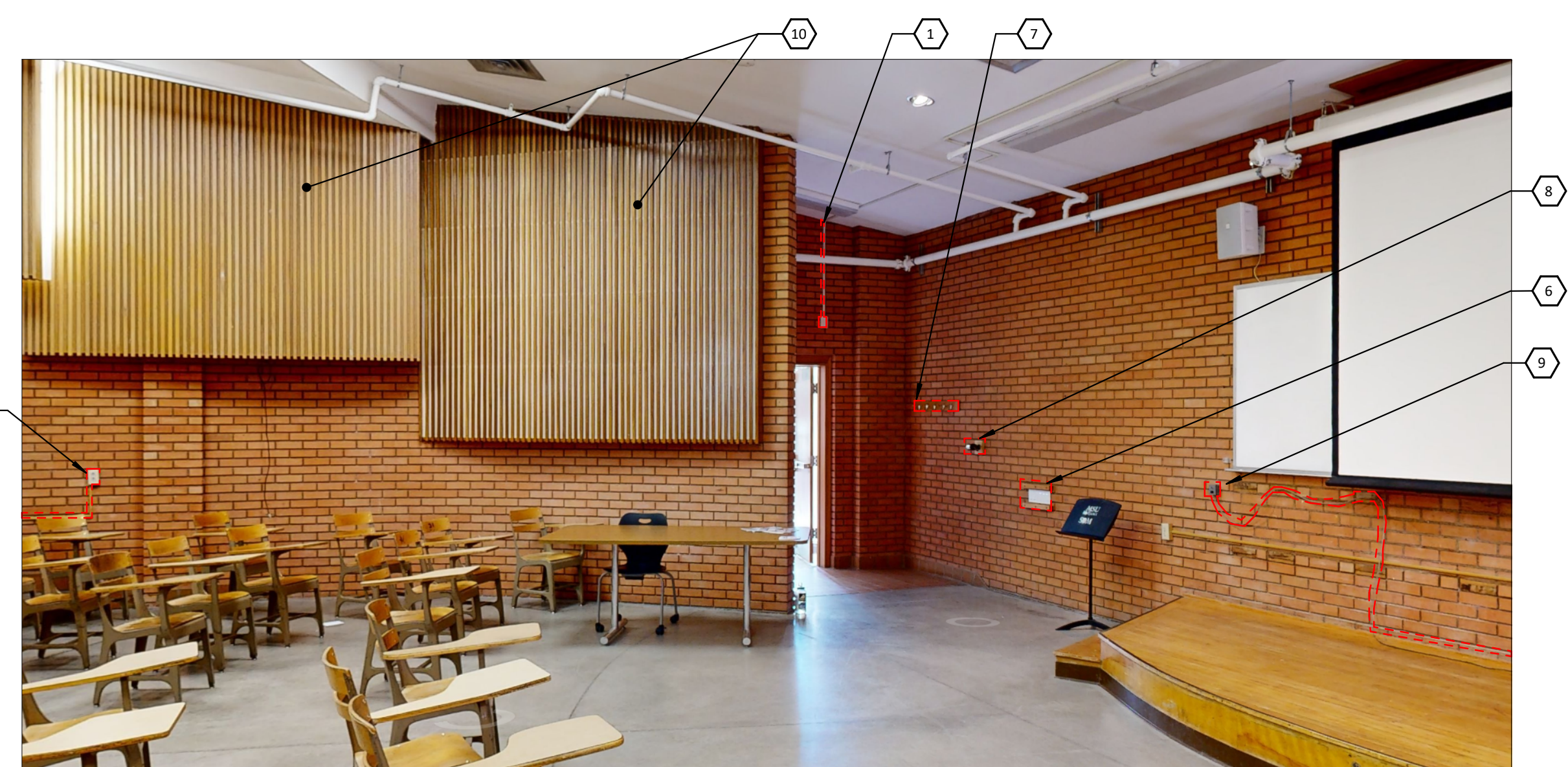
103 DEMO INTERIOR ELEVATIONS ALT. #2

ENTIRE SHEET IS ADD ALTERNATE #2

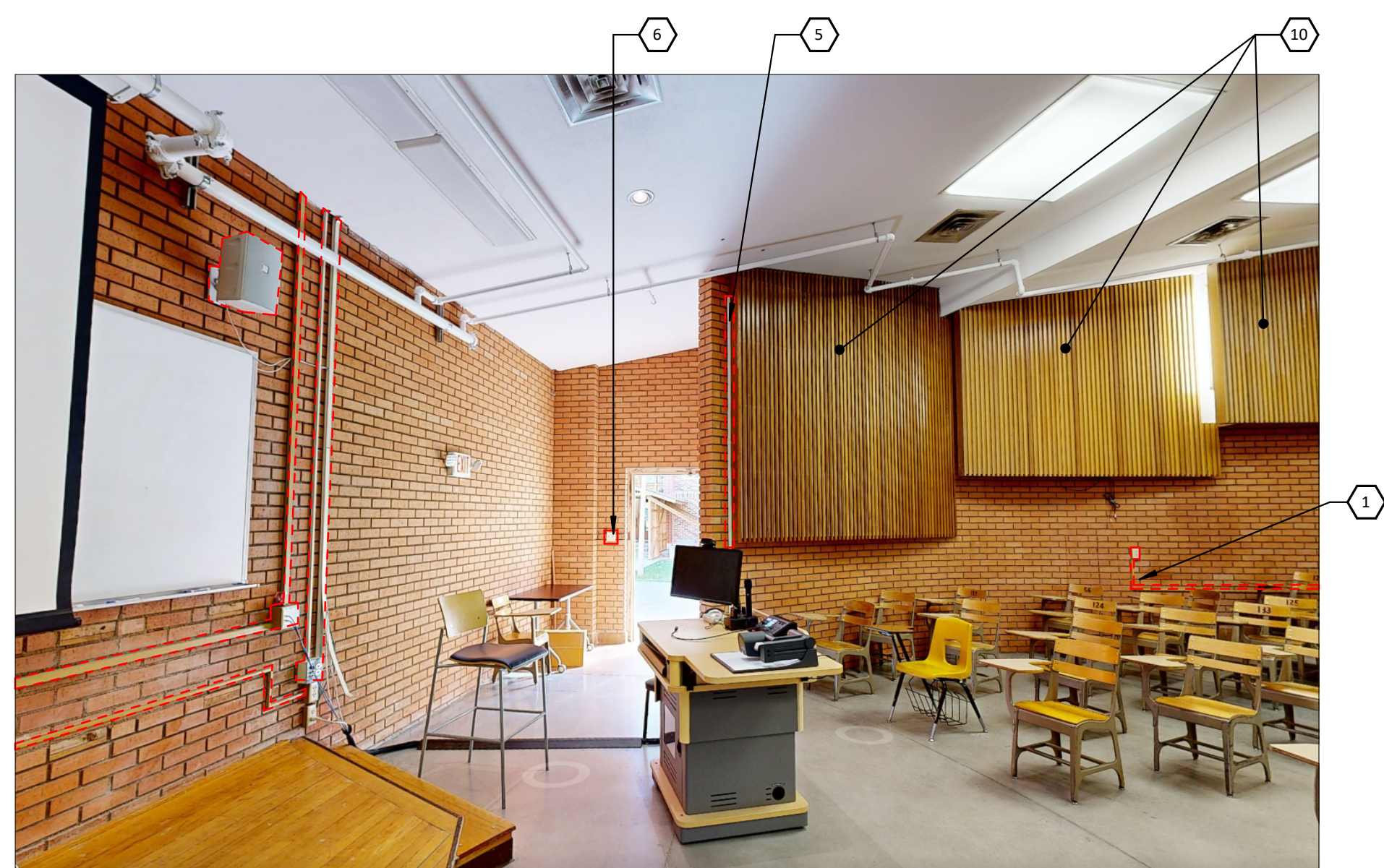
AD212



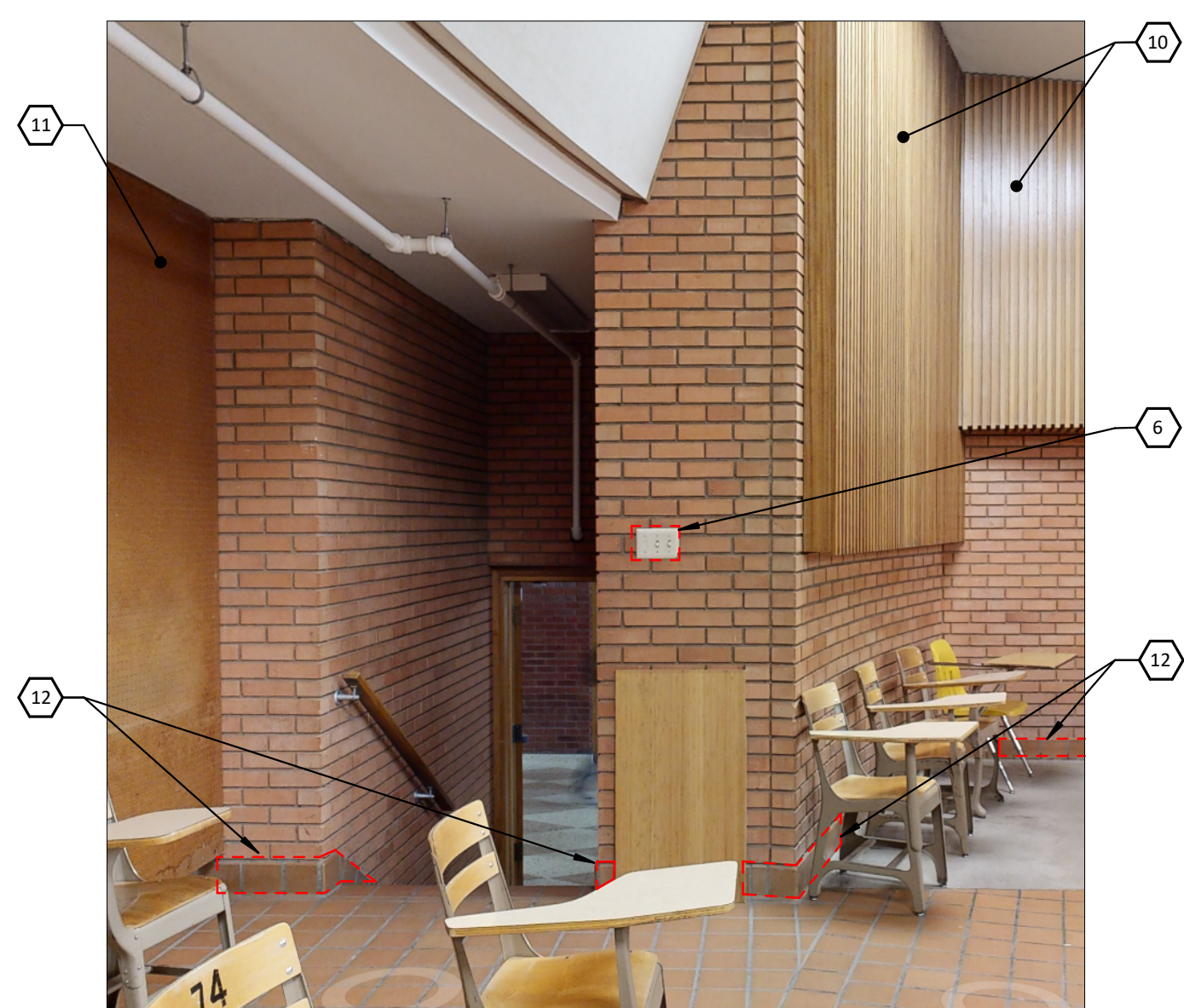
1 DEMO 105 SOUTH
NTS



5 105 DEMO EAST
NTS



2 105 DEMO WEST
NTS



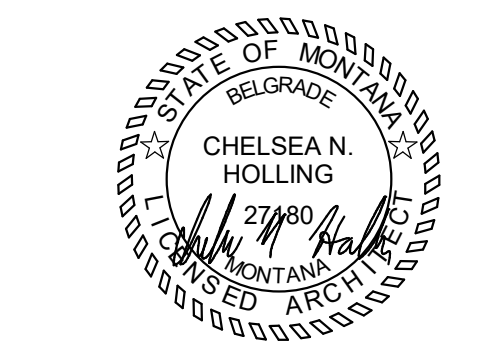
3 105 DEMO NORTH EAST
NTS

GENERAL DEMO ELEVATION NOTES:

- A. SEE G-001 PROJECT TITLE SHEET FOR GENERAL NOTES.
- B. PROTECT EXISTING BUILDING OUTSIDE OF THIS SCOPE OF WORK AT ALL TIMES.
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- G. CONTRACTOR TO VERIFY WITH MSU EXISTING CONDUIT PATH AND EQUIPMENT FOLLOWING REMOVAL OF DEVICES BY MSU PRIOR TO DEMO.

DEMO ELEVATION KEYNOTES 105

- 1 REMOVE CONDUIT AND JUNCTION BOXES.
- 2 REMOVE WALL MOUNTED SPEAKER, SALVAGE AND HAND OVER TO MSU. CONTRACTOR TO PATCH AS REQUIRED.
- 3 REMOVE EXISTING CEILING MOUNTED PROJECTOR SCREEN, SALVAGE AND HAND OVER TO MSU.
- 4 REMOVE EXISTING WHITE BOARDS, SALVAGE AND HAND OVER TO MSU. CONTRACTOR TO PATCH WALL AS REQUIRED.
- 5 REMOVE CONDUIT.
- 6 REMOVE SWITCH.
- 7 REMOVE HOOKS.
- 8 REMOVE PENCIL SHARPENER, HAND OVER TO MSU.
- 9 REMOVE ELECTRICAL BOX, WIRE AND HOOKS.
- 10 CAREFULLY SAND DOWN WOOD COMPONENTS OF EXISTING ACOUSTIC PANELS. PREPARE FOR NEW STAIN AND CLEAR COAT FINISH.
- 11 REMOVE EXISTING ACOUSTICAL WALL TREATMENT. PREP WALL FOR NEW WALL TREATMENT.
- 12 REMOVE EXISTING TILE BASE AND PREP FOR NEW BASE.



BID SET

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**REID HALL,
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PPA#: 25-1214**

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DATE: 12/17/2025

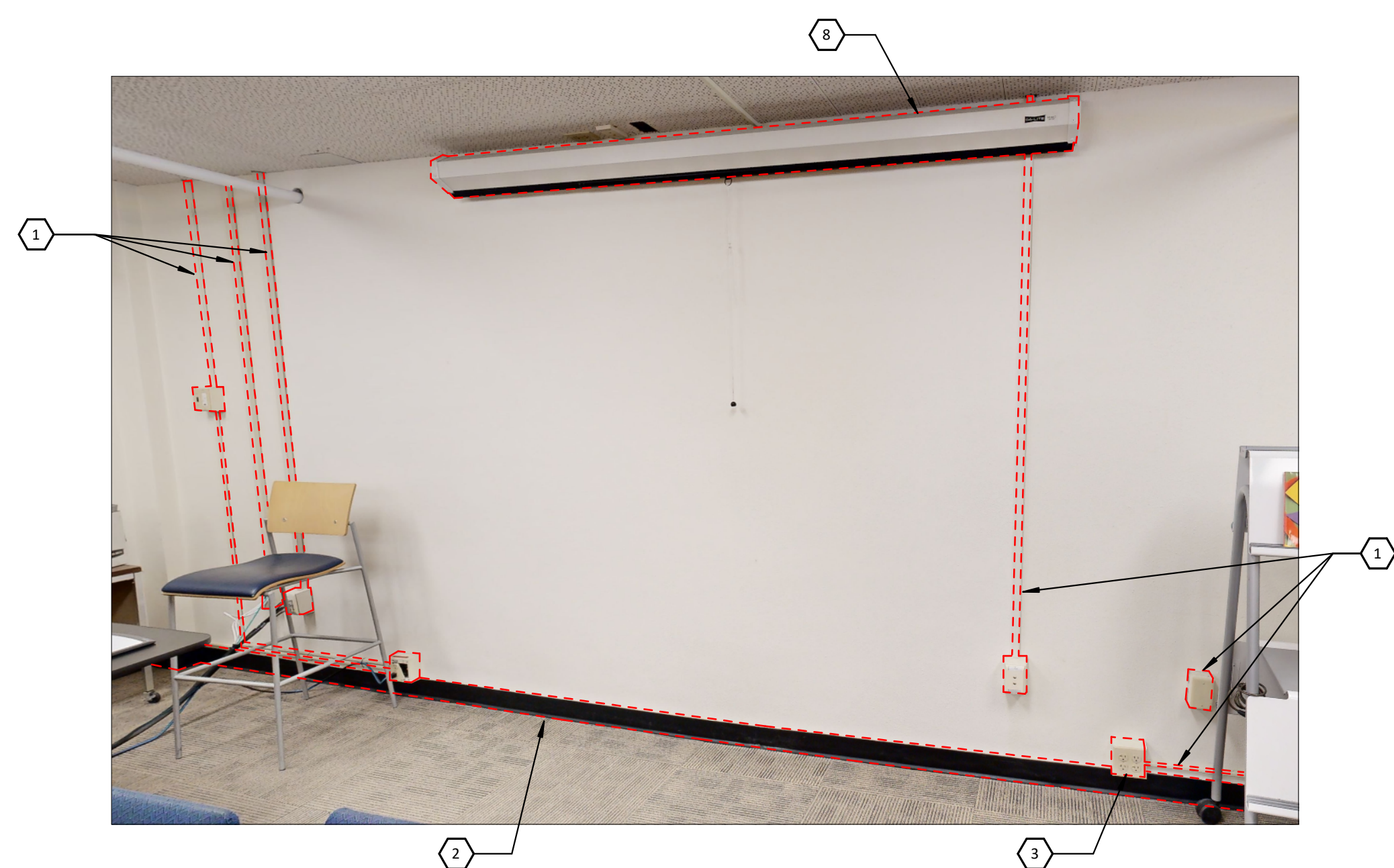
REVISIONS:

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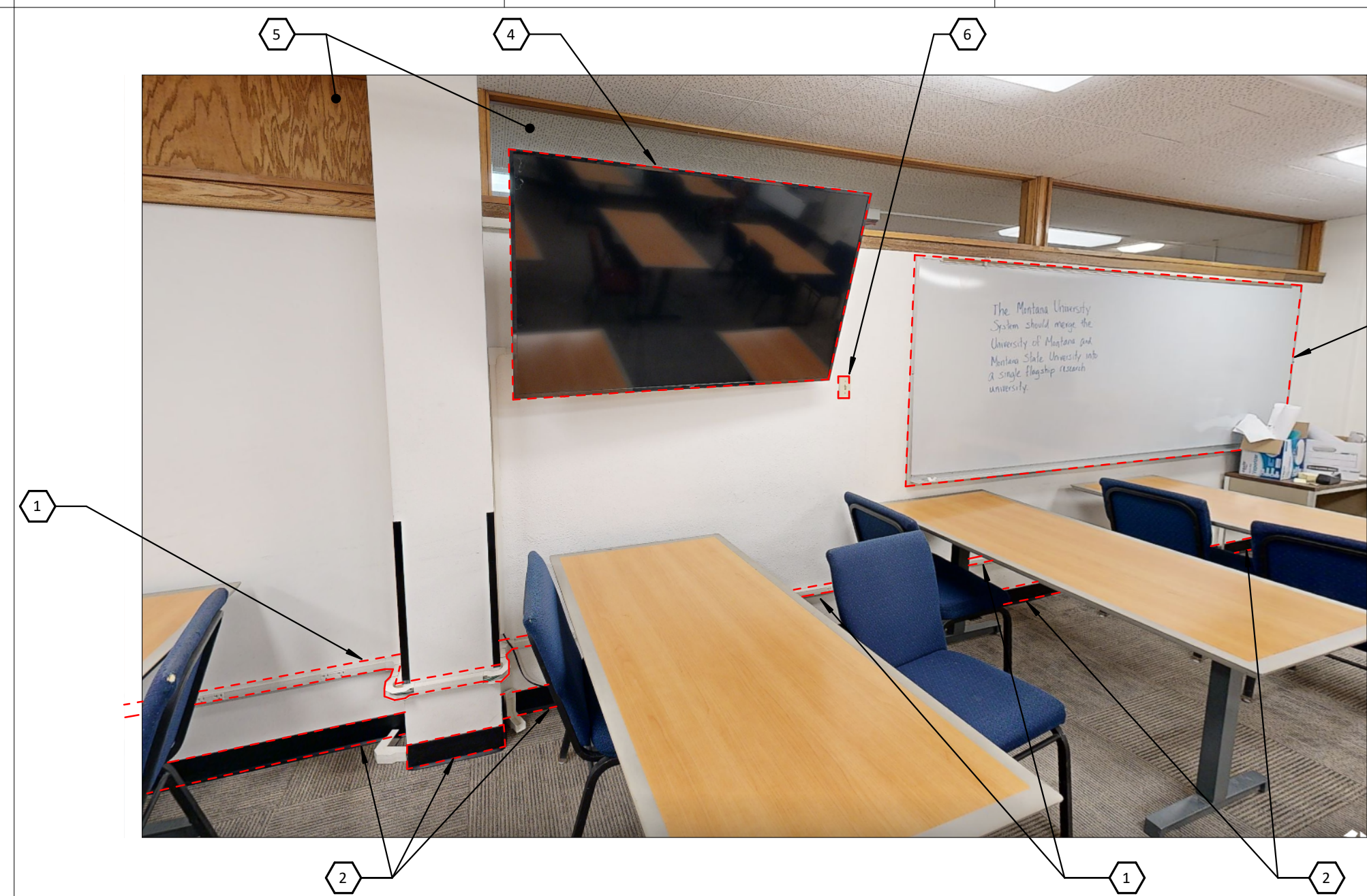
**105 DEMO
INTERIOR
ELEVATIONS
ALT. #1**

**ENTIRE SHEET IS
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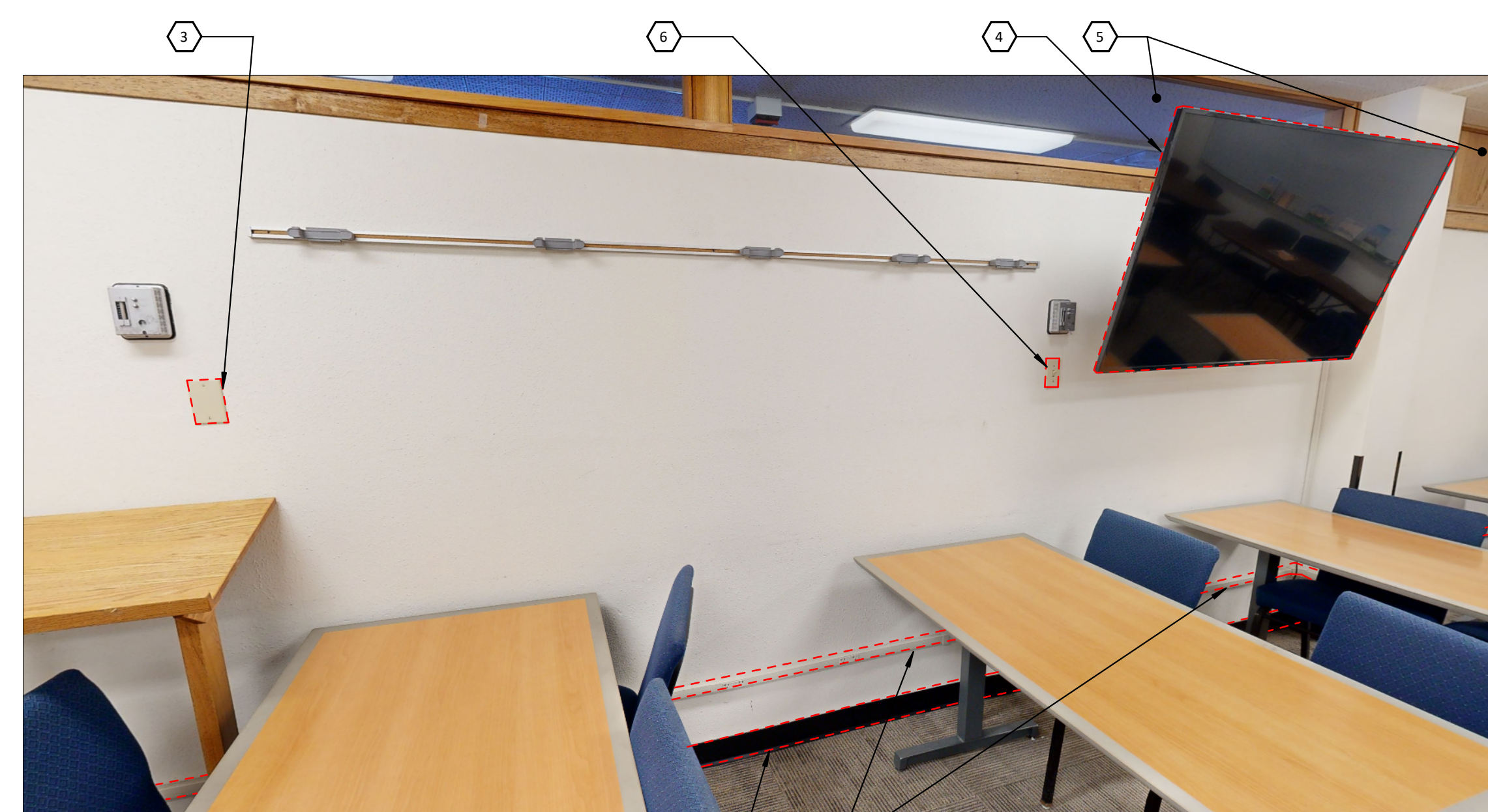
AD213



1 DEMO 126 WEST
NTS



4 DEMO 126 SOUTH
NTS



2 DEMO 126 NORTH
NTS



3 DEMO 126 NORTHEAST
NTS

GENERAL DEMO ELEVATION NOTES:

- SEE G-001 PROJECT TITLE SHEET FOR GENERAL NOTES.
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- CONTRACTOR TO VERIFY WITH MSU EXISTING CONDUIT PATH AND EQUIPMENT FOLLOWING REMOVAL OF DEVICES BY MSU PRIOR TO DEMO.

DEMO ELEVATION KEYNOTES 126

- REMOVE CONDUIT AND JUNCTION BOXES.
- REMOVE EXISTING FINISH FLOORING AND BASE, RECYCLE WHERE POSSIBLE, DISPOSE OTHERWISE.
- REMOVE OUTLET.
- REMOVE EXISTING WALL MOUNTED TV, SALVAGE AND HAND OVER TO MSU.
- REMOVE AND PREPARE FOR NEW GLAZING. SEE DETAILS.
- REMOVE LIGHTSWITCH.
- REMOVE EXISTING WHITE BOARDS, SALVAGE AND HAND OVER TO MSU. CONTRACTOR TO PATCH WALL AS REQUIRED.



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PPA#: 25-1214

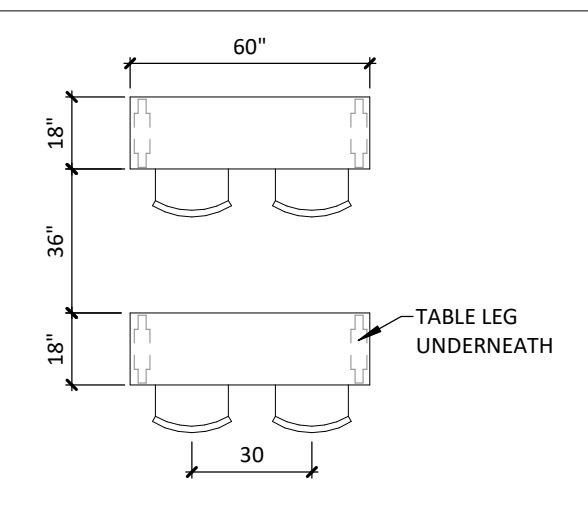
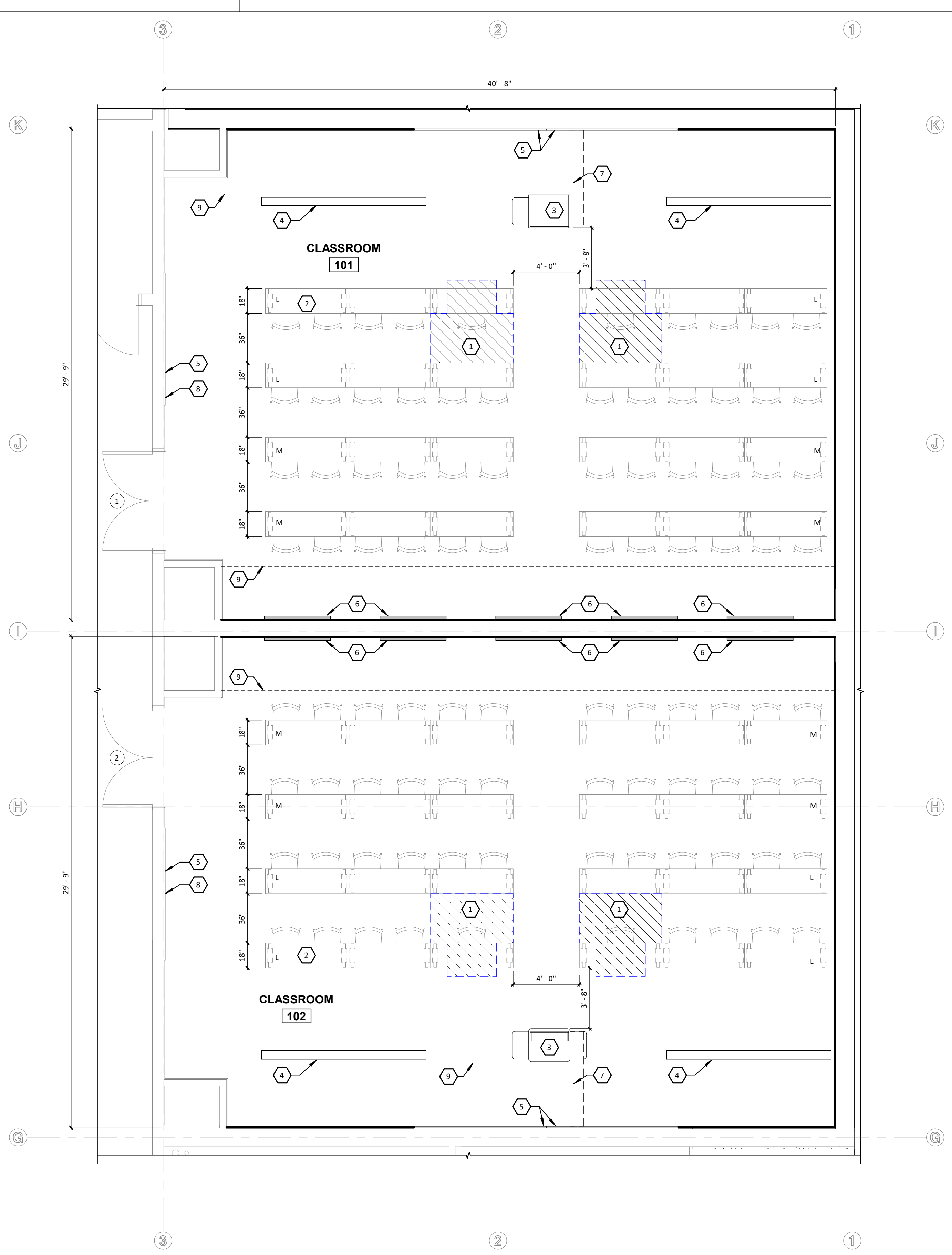
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DATE: 12/17/2025	
#	REVISIONS:

**ENTIRE SHEET IS
ADD ALTERNATE #3**

**126 DEMO
INTERIOR
ELEVATIONS
ALT. #3**

AD214

PROJECT #/Project Number



MOVABLE TABLES AND SEATING

TABLES: 18" X 60"
 TIERED SEATING HEIGHTS:
 LOW - 29" A.F.F.
 MEDIUM - 36" A.F.F.

2 FURNITURE KEY
 1/4" = 1'-0"

GENERAL FLOOR PLAN NOTES:

- SEE G-001 PROJECT TITLE SHEET FOR GENERAL NOTES.
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FLOOR PLAN KEYNOTES 101/102

- ADA ACCESSIBLE LOCATION
- ALL FURNITURE CFCI BASIS OF DESIGN: SEDIA SYSTEMS
- HEIGHT ADJUSTABLE INSTRUCTOR STATION WITH DEDICATED COMPUTER AND CONNECTIONS TO MSU NETWORKS.SMART PODIUM LOCATION WILL REQUIRE POWER/NETWORK/AV PATHWAY. SEE ELECTRICAL DRAWINGS.
- CEILING MOUNTED PROJECTOR SCREENS, MANUAL CONTROL, OFCI.
- 4' X 8' WHITEBOARD, CFCI. NO TRAY. BASIS OF DESIGN: OPTIMA GREAT WHITE MAGNETIC WHITEBOARD.
- ACOUSTIC WALL PANELS. BASIS OF DESIGN: ARMSTRONG FELTWORKS. SIZE: 4'X4'. COLOR: DARK GREY (FDG). 0.75 NRC
- ON-FLOOR WIRE RACEWAY, SEE ELECTRICAL.
- POE CLOCK VISIBLE TO EVERYONE IN ROOM, SEE ELECTRICAL.
- SOFFIT ABOVE, TYP.



BID SET

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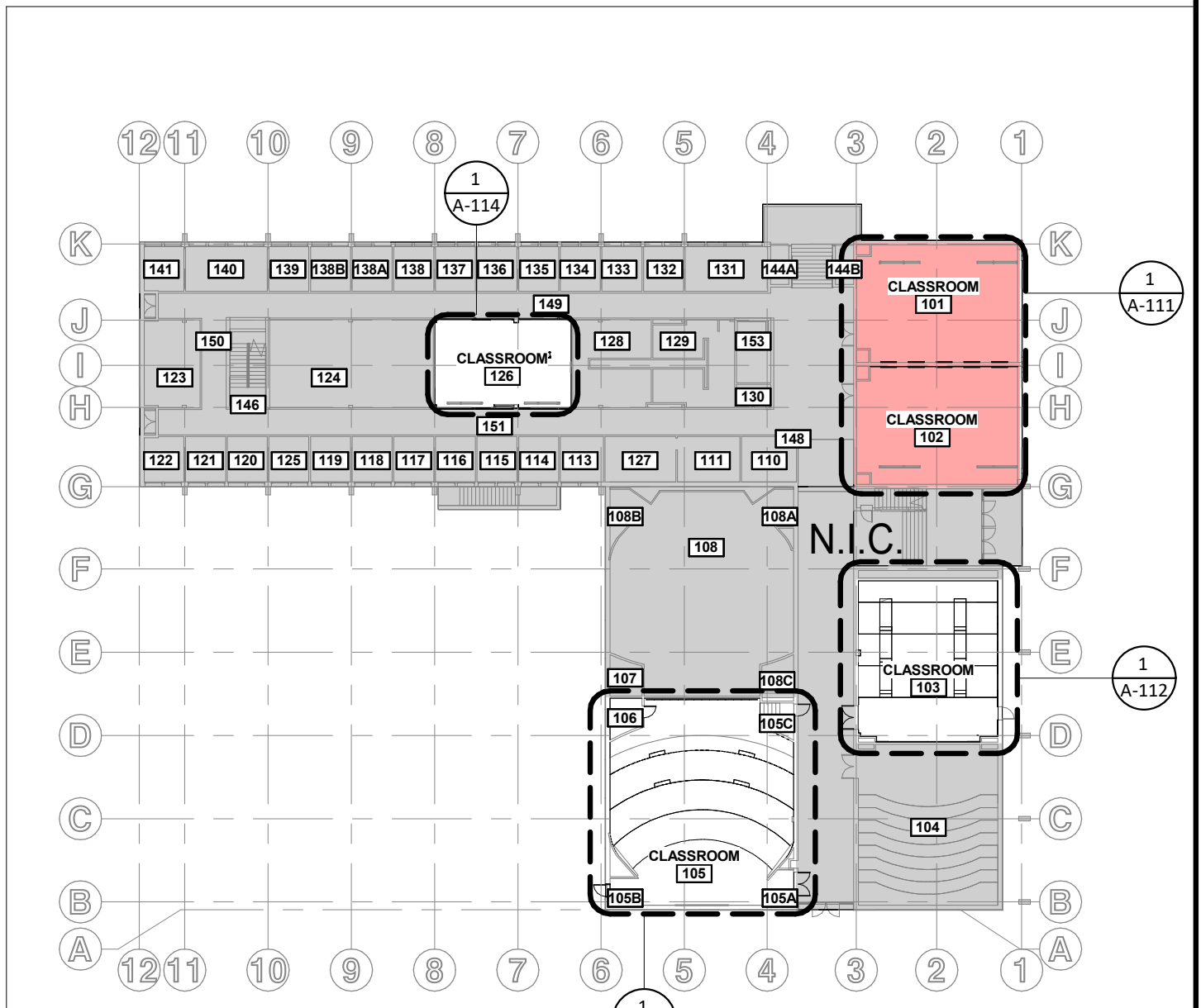
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DATE: 12/17/2025

REVISIONS:

101/102 FLOOR PLAN

A-111



KEY PLAN

1 101/102 FLOOR PLAN
 1/4" = 1'-0"

101 OCCUPANCY: 47 - 25.4 S.F./STUDENT
 102 OCCUPANCY: 47 - 25.1 S.F./STUDENT

PROJECT #/Project Number

GENERAL FLOOR PLAN NOTES:

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FLOOR PLAN KEYNOTES 103

- ADA ACCESSIBLE LOCATION
- LOOSE FURNITURE C.F.C.I. BASIS OF DESIGN: SEDIA SYSTEMS.
- FIXED FURNITURE C.F.C.I. BASIS OF DESIGN: SEDIA SYSTEMS.
- HEIGHT ADJUSTABLE INSTRUCTOR STATION WITH DEDICATED COMPUTER AND CONNECTIONS TO MSU NETWORK. SMART PODIUM LOCATION WILL REQUIRE POWER/NETWORK/AV PATHWAY. SEE ELECTRICAL DRAWINGS.
- WALL MOUNTED FIXED PROJECTOR SCREENS, OFCI.
- 10' x 4' FIXED WHITEBOARDS C.F.C.I. NO TRAY. BASIS OF DESIGN: OPTIMA GREAT WHITE MAGNETIC WHITEBOARD.
- POE CLOCK VISIBLE TO EVERYONE IN ROOM. SEE ELECTRICAL.
- ON-FLOOR WIRE RACEWAY. SEE ELECTRICAL.
- POWER STUB-UP AT TABLE LEG. SEE ELECTRICAL.
- NEW CONCRETE STEPS.



BID SET

**ENTIRE SHEET IS
ADD ALTERNATE #2**

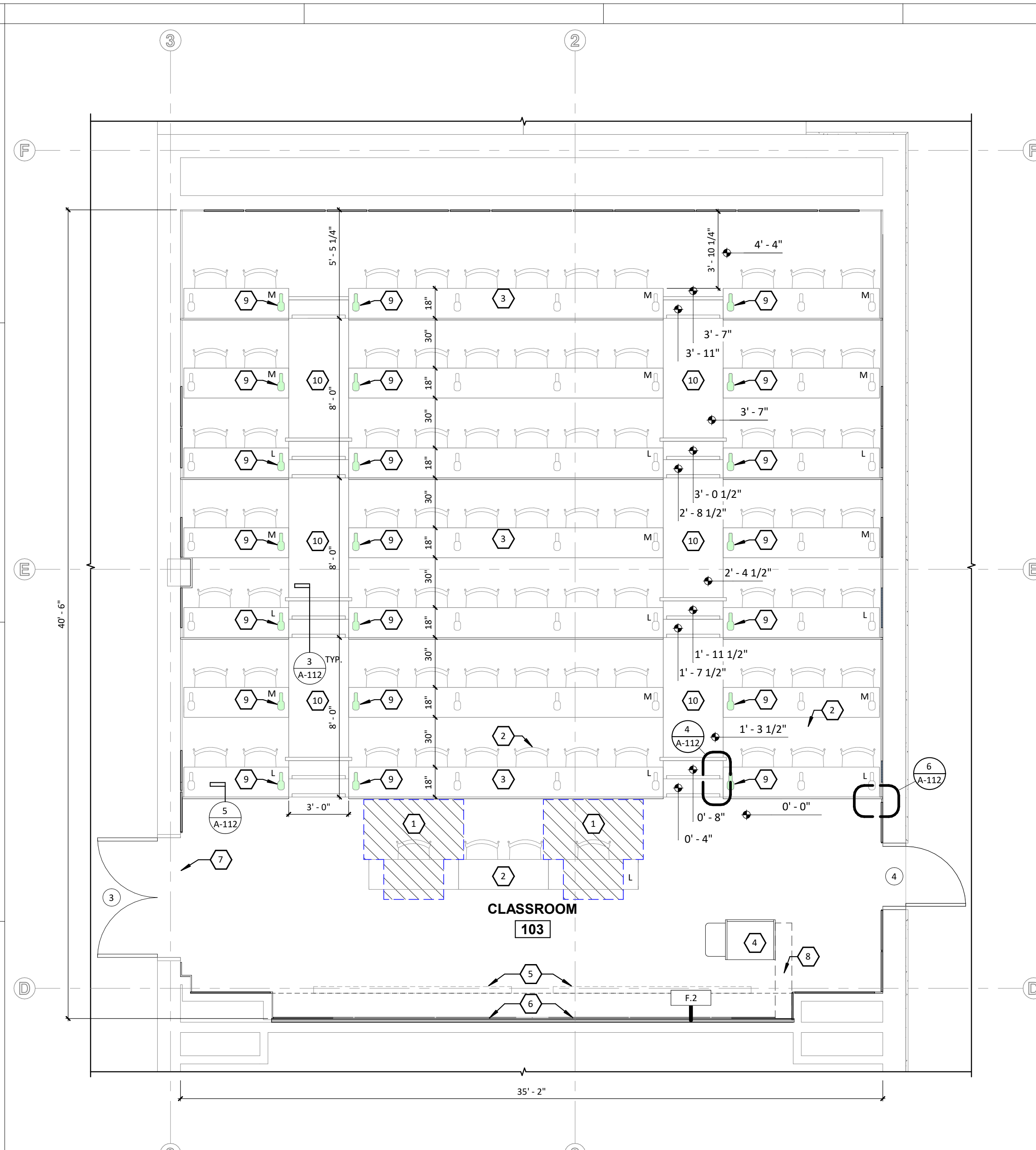
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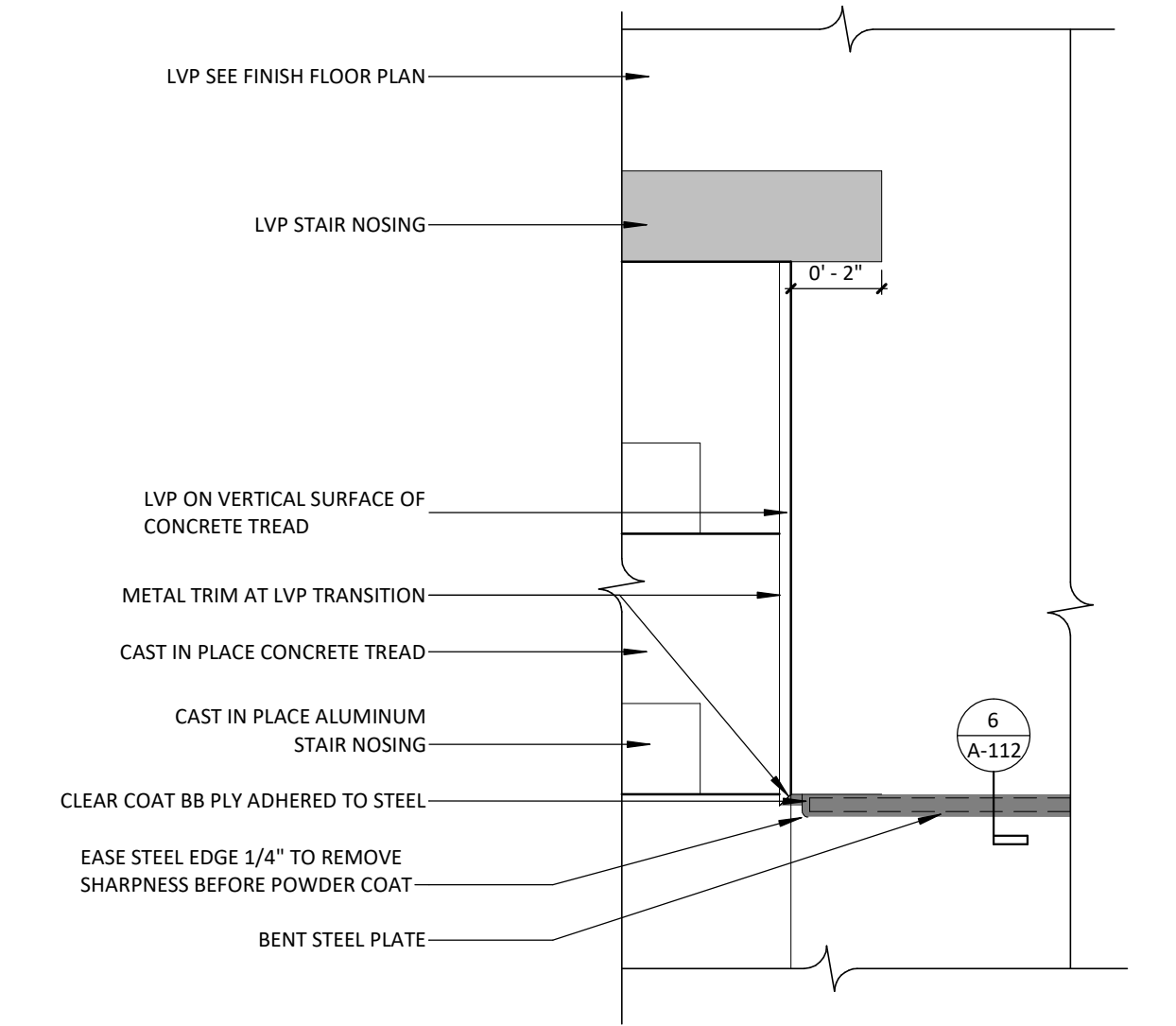
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REVISIONS:
A ADDENDUM #1 01/21/26

103 FLOOR PLAN ALT. #2

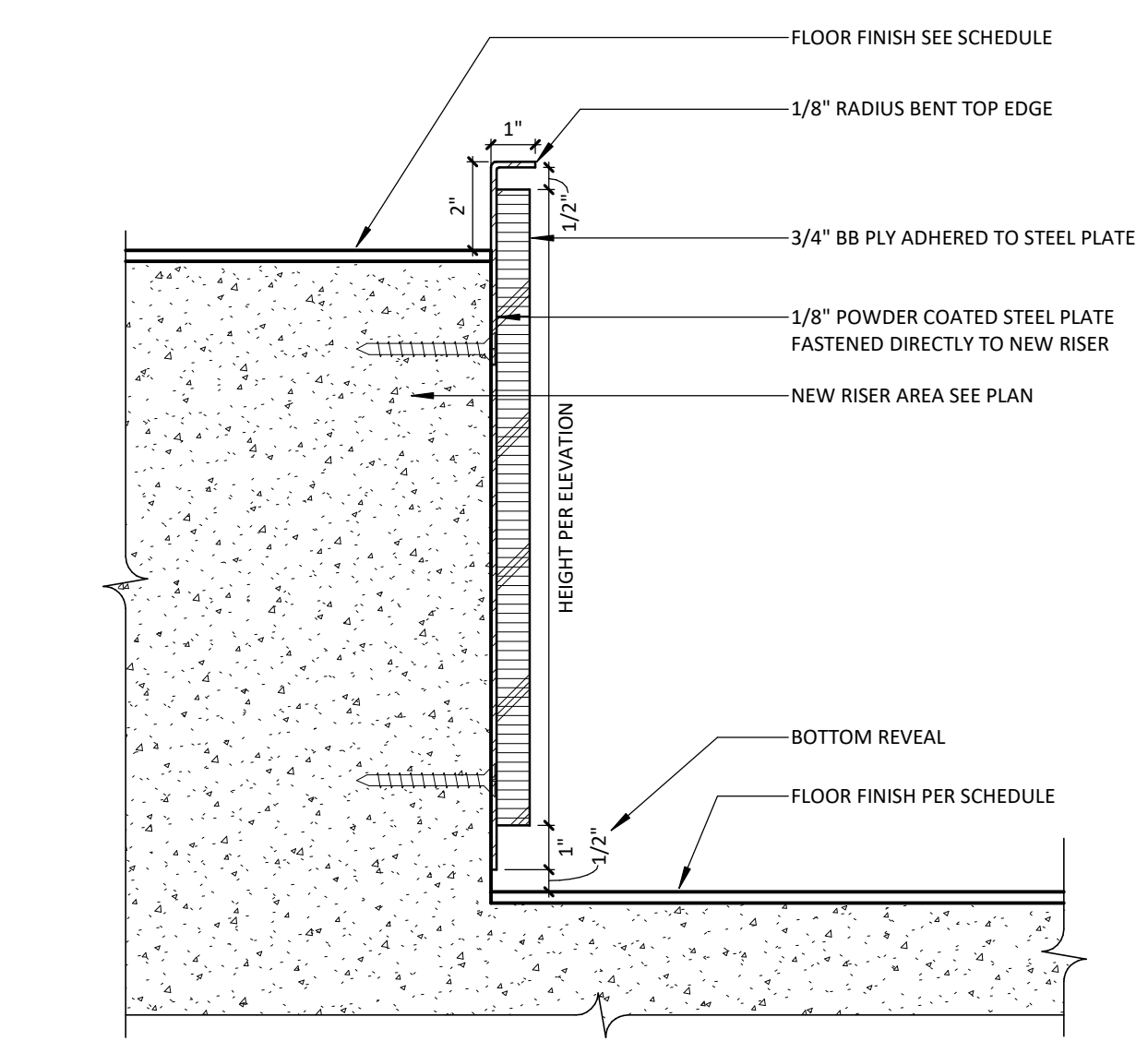
A-112



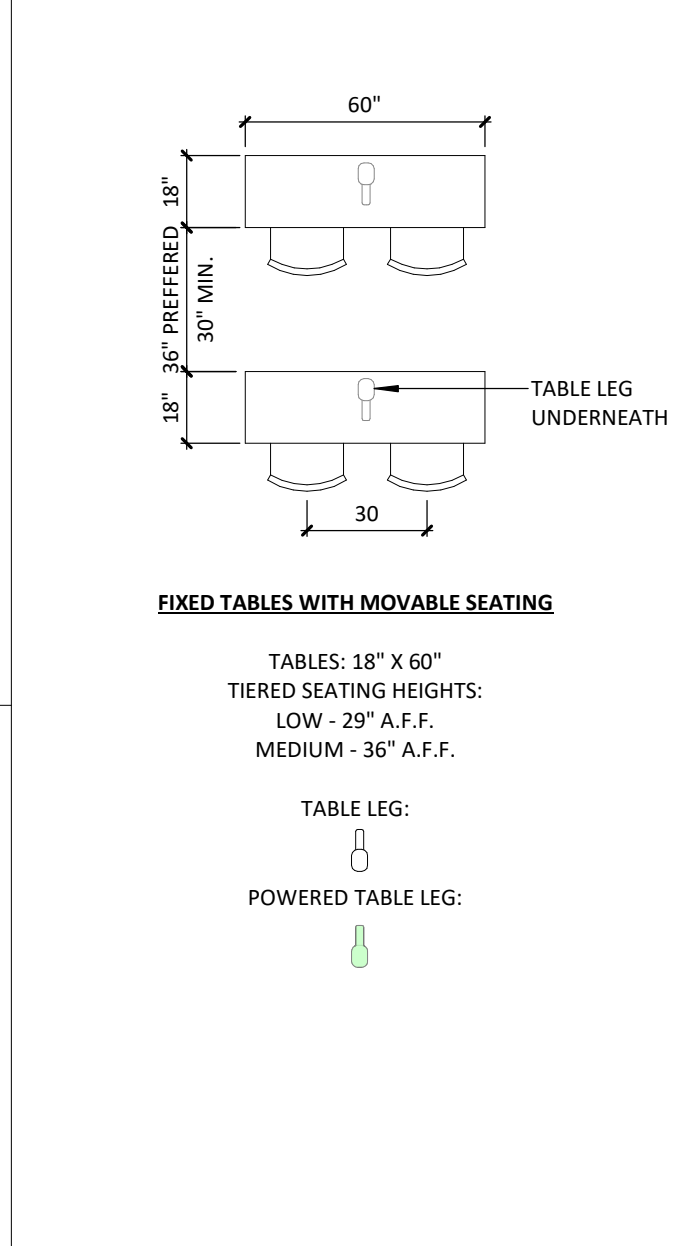
1 103 FLOOR PLAN
1/4" = 1'-0" OCCUPANCY: 82 - 17.3 S.F. / STUDENT



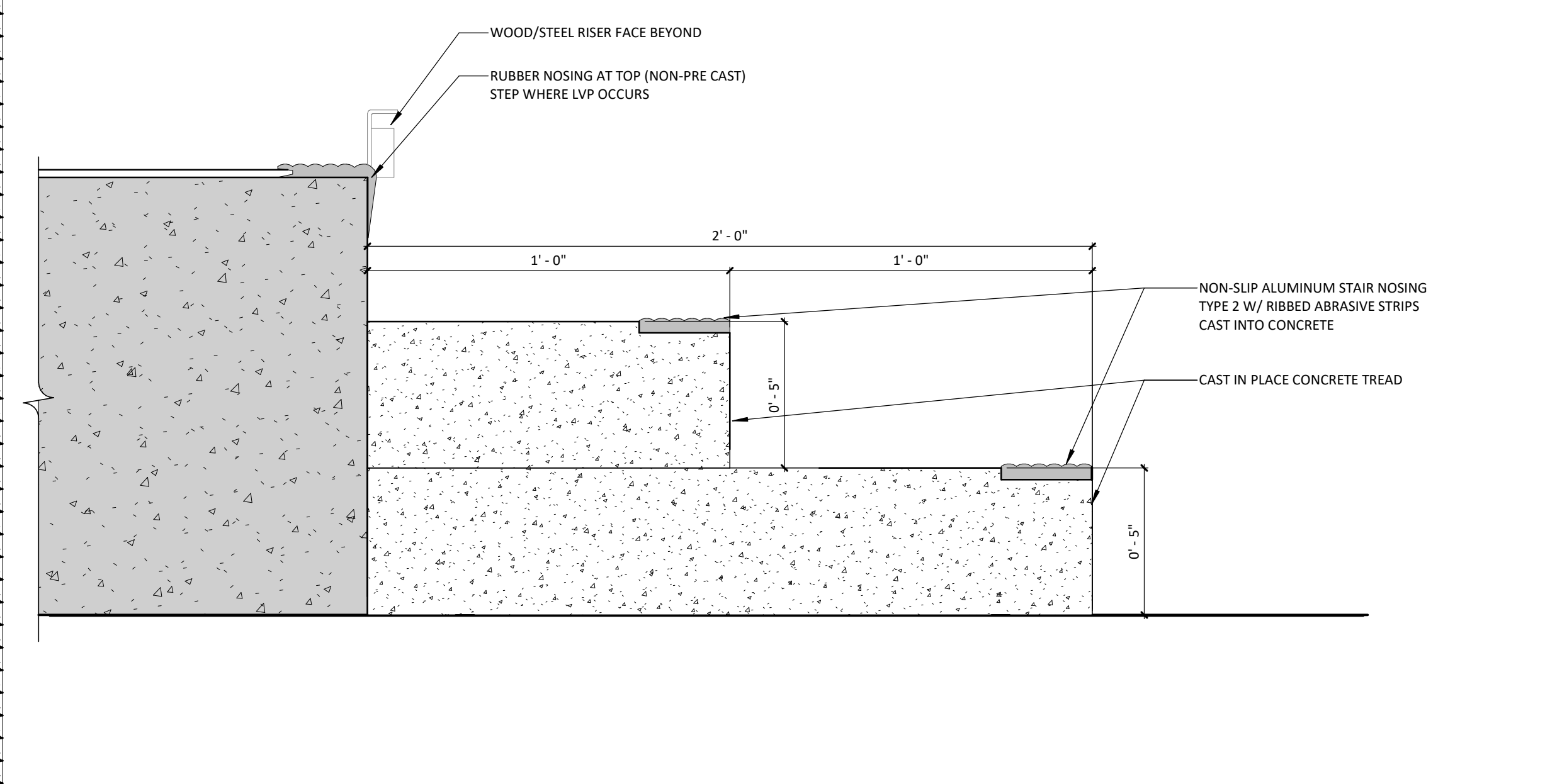
4 PLAN DETAIL TOP OF STEP
3" = 1'-0"



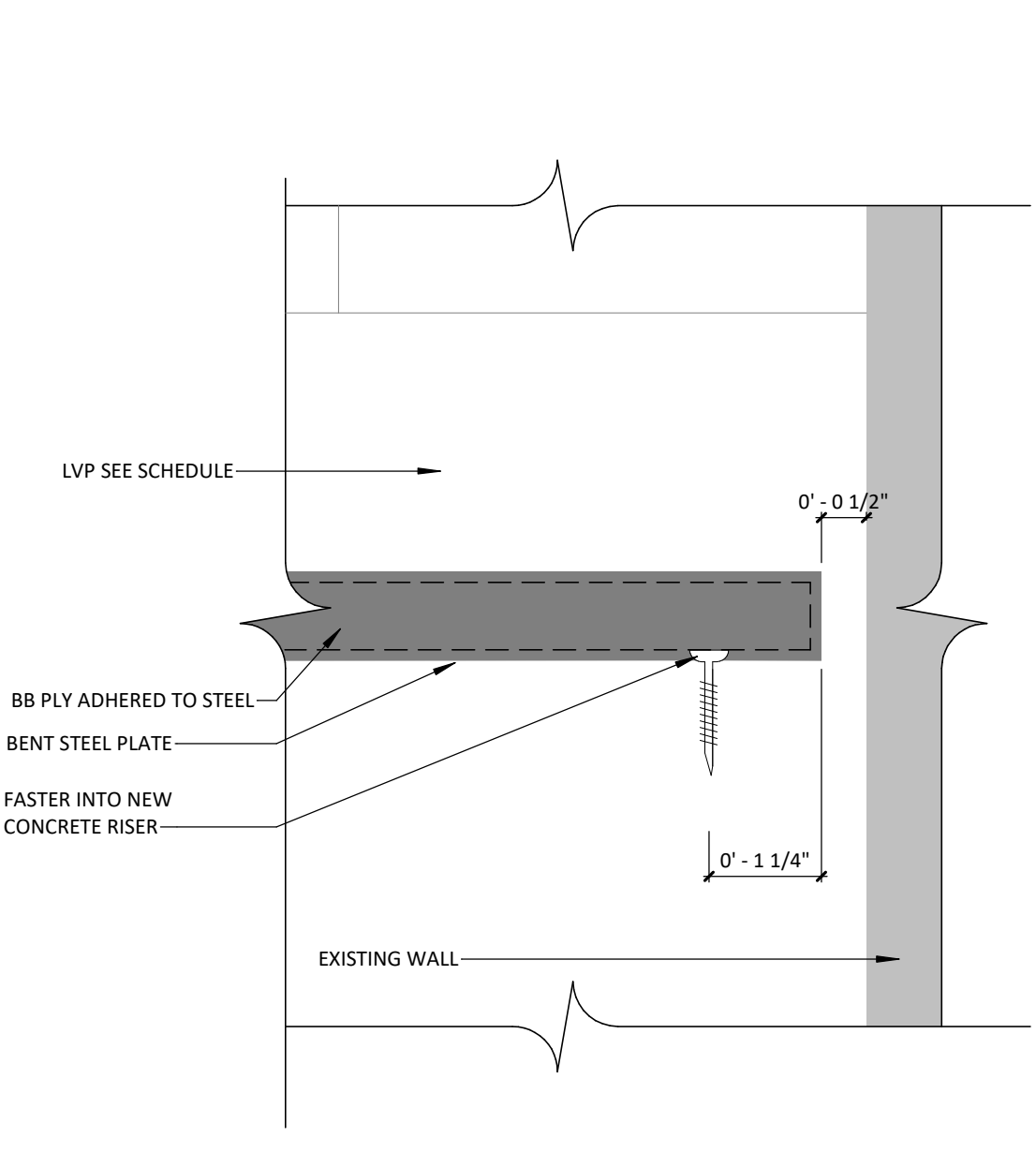
5 RISER EDGE DETAIL
3" = 1'-0"



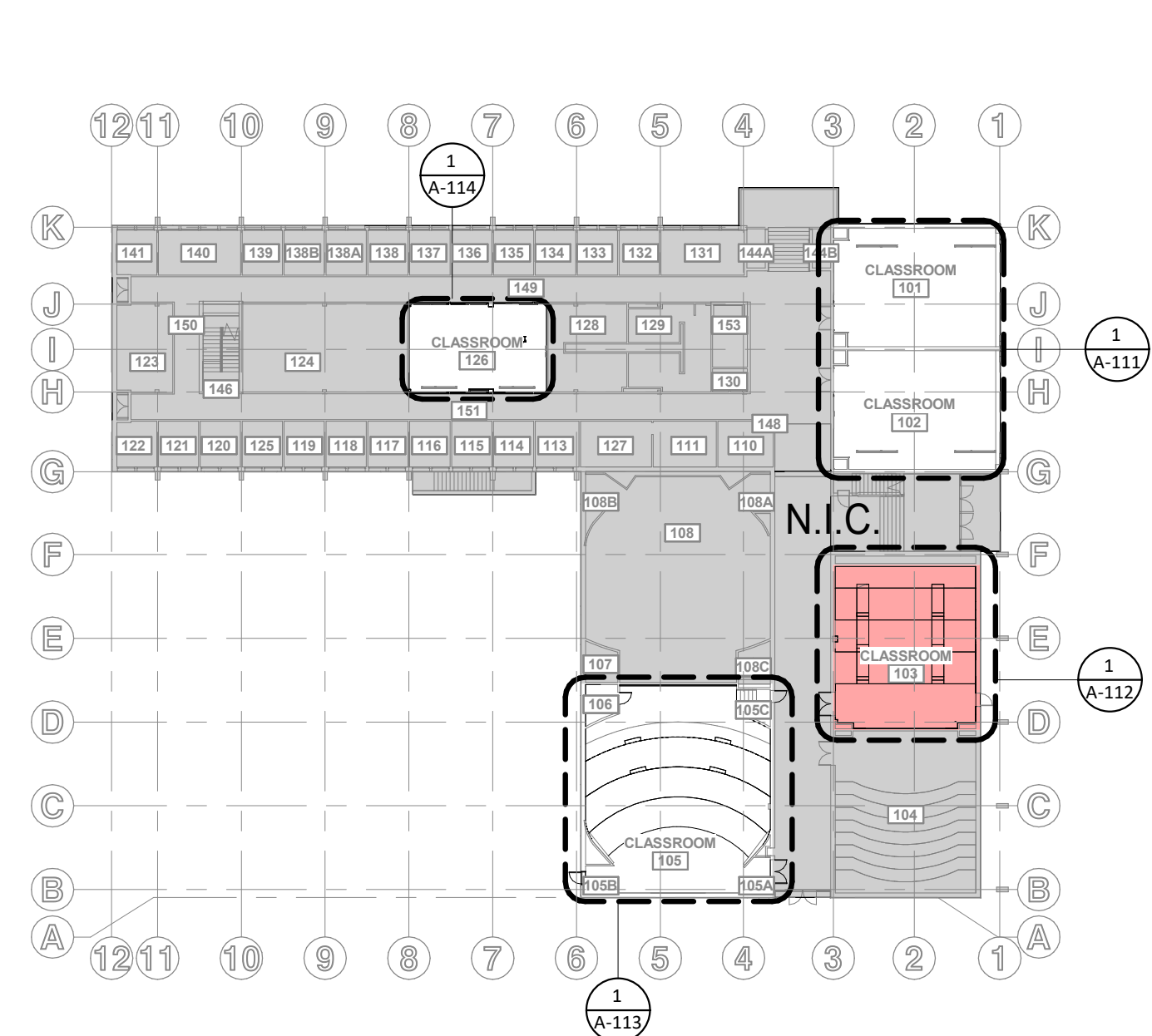
2 FURNITURE KEY
1/4" = 1'-0"



3 TYPICAL STAIR SECTION
3" = 1'-0"

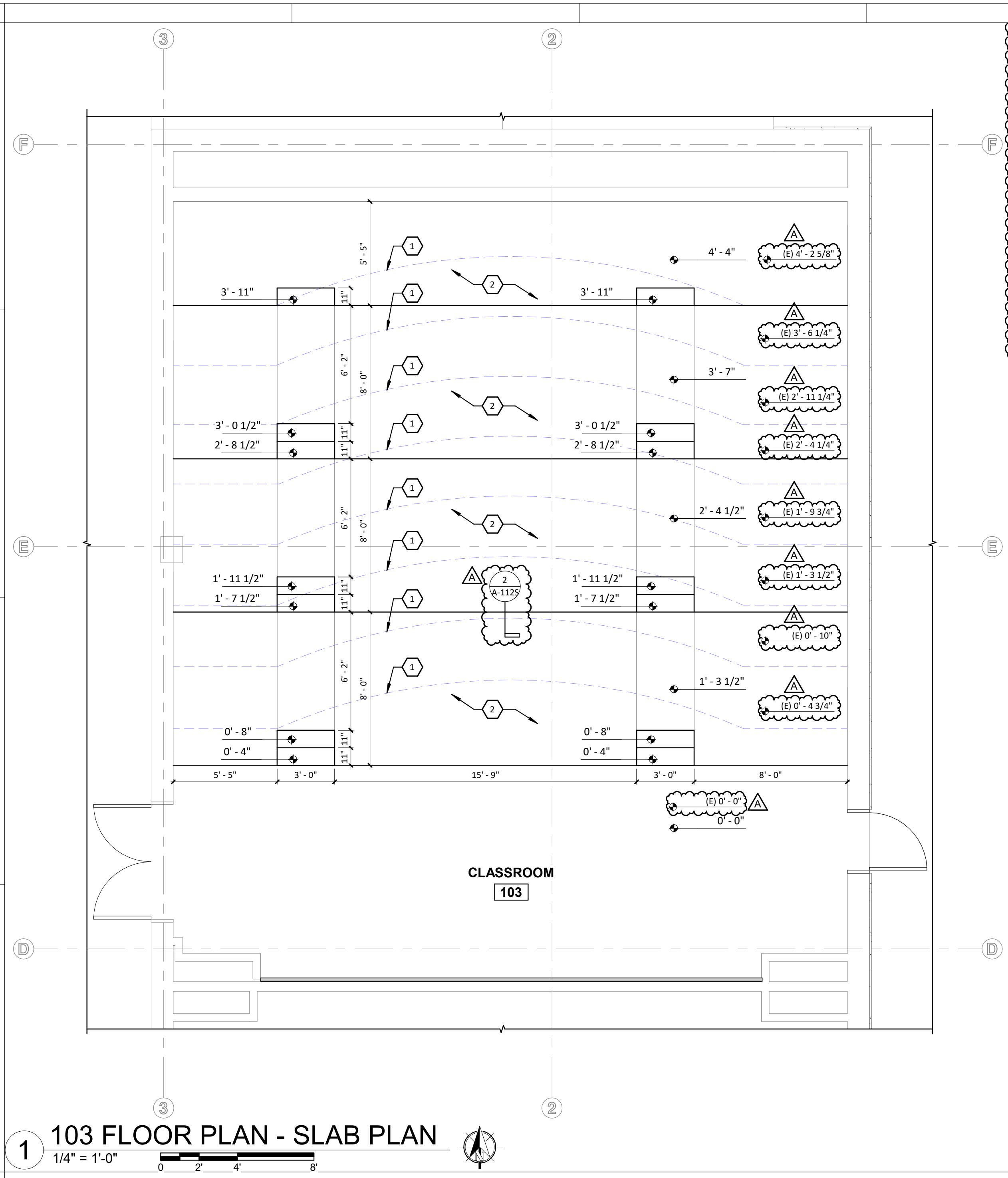


6 STEEL RISER PLATE @ WALL
6" = 1'-0"

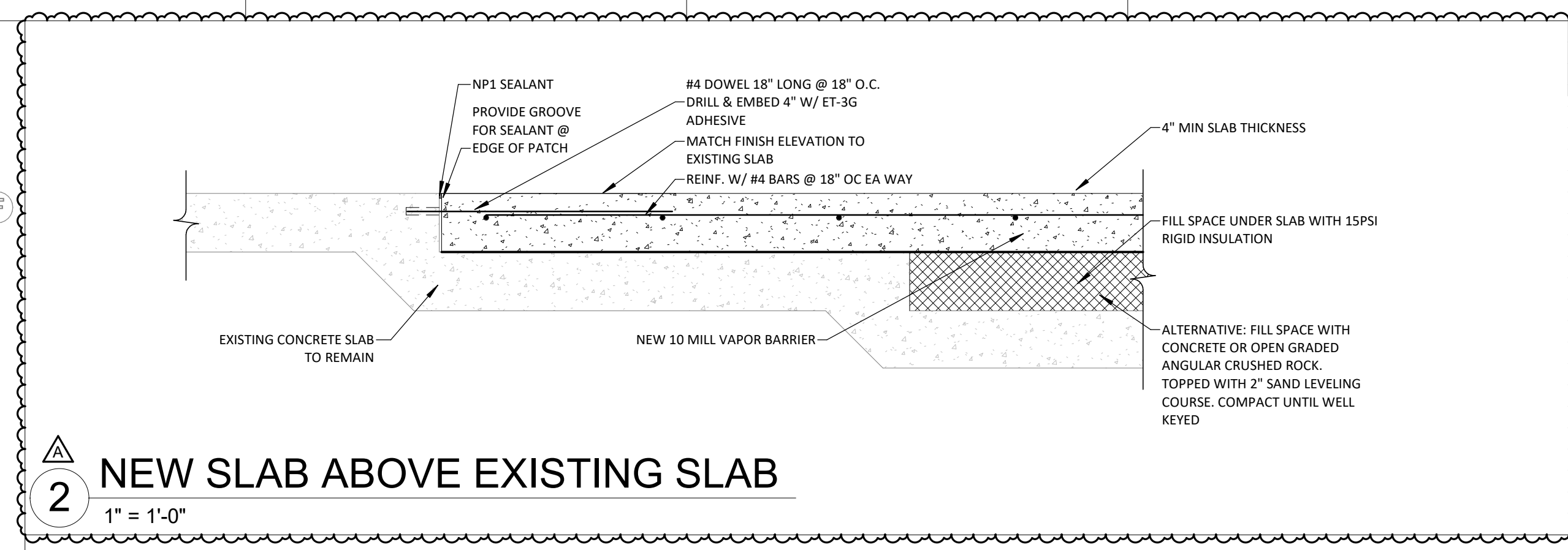


KEY PLAN

PROJECT #/Project Number



1 103 FLOOR PLAN - SLAB PLAN
 1/4" = 1'-0"
 0 2 4 8



2 NEW SLAB ABOVE EXISTING SLAB
 1" = 1'-0"

GENERAL SLAB PLAN NOTES:
 SEE AD112 FOR DEMOLITION PLAN.
 SLAB PLAN KEYNOTES 103
 EXISTING RISER.
 NEW CONCRETE RISER.

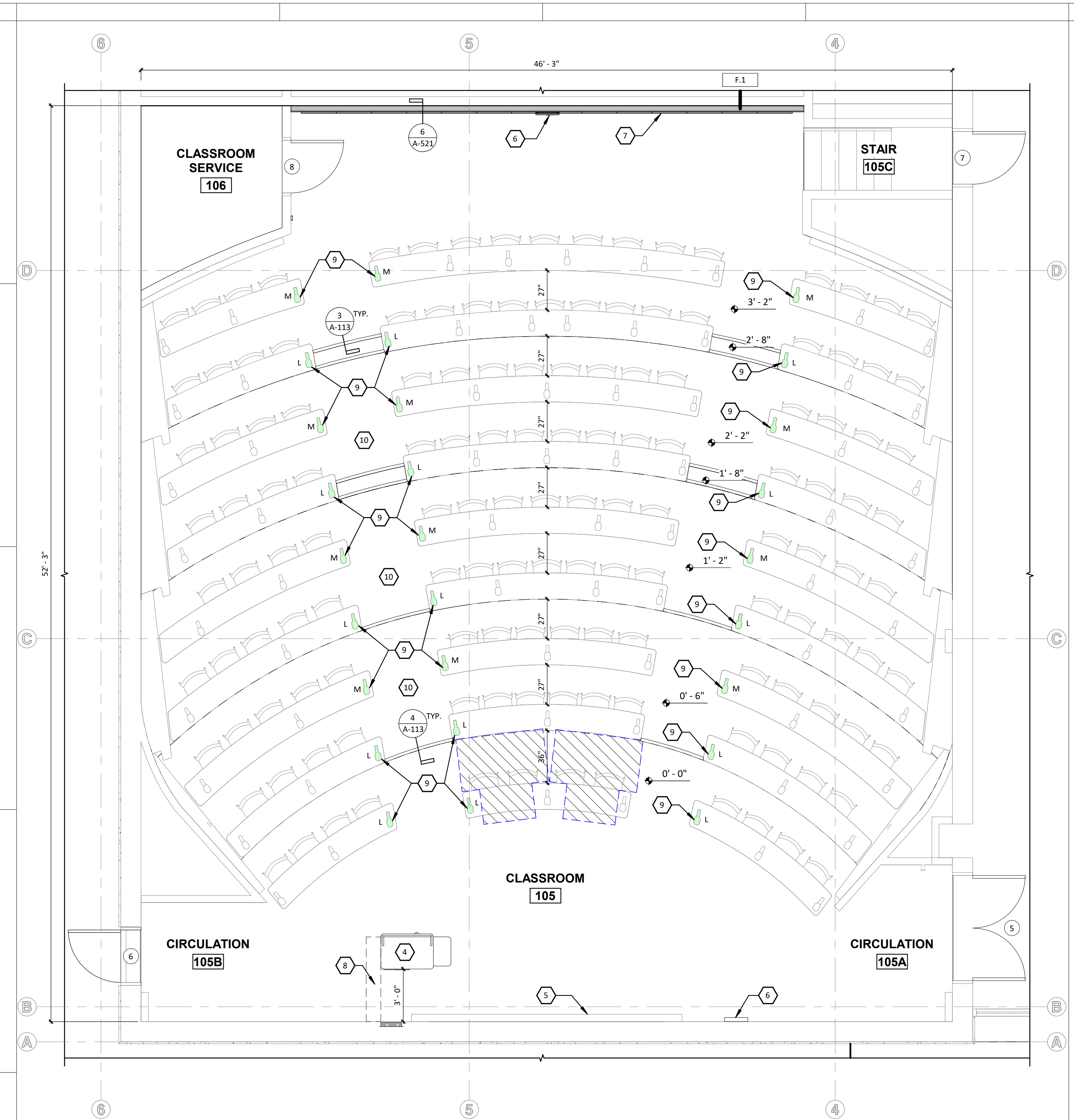


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MONTANA STATE UNIVERSITY
 REID HALL,
 BOZEMAN, MONTANA 59717
 PPA#: 25-1214

DRAWN: KE	CHECKED: CH
DATE: 12/17/2025	
REVISIONS:	
A	ADDENDUM #1 01/21/26

103 SLAB PLAN
A-112S



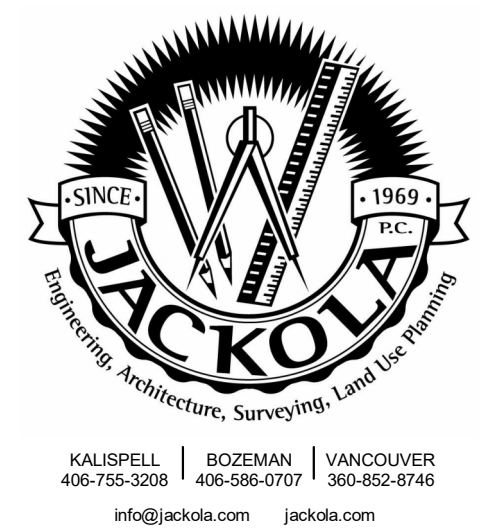
GENERAL FLOOR PLAN NOTES:

- SEE G-001 PROJECT TITLE SHEET FOR GENERAL NOTES.
- PROTECT EXISTING BUILDING OUTSIDE OF THIS SCOPE OF WORK AT ALL TIMES.
- SEE OTHER SHEETS IN THIS SET FOR ADDITIONAL INFORMATION.
- CONTRACTOR SHALL INCLUDE CUTTING AND PATCHING FOR ALL INSTANCES WHERE REQUIRED, WHETHER OR NOT SHOWN/INDICATED ON THESE CONSTRUCTION DOCUMENTS.
- THE EXISTING BUILDING MAY NOT BE LEVEL AND PLUMB. CONTRACTOR SHALL FIELD VERIFY AND PROVIDE CONCEALED SHIMS, ETC. AS NECESSARY TO MAKE NEW WORK LEVEL AND PLUMB, UNLESS SPECIFICALLY NOTED OTHERWISE.

FLOOR PLAN KEYNOTES 105

- ADA ACCESSIBLE LOCATION
- LOOSE FURNITURE CFCL. BASIS OF DESIGN: SEDIA SYSTEMS.
- FIXED FURNITURE CFCL. BASIS OF DESIGN: SEDIA SYSTEMS.
- HEIGHT ADJUSTABLE INSTRUCTOR STATION WITH DEDICATED COMPUTER AND CONNECTIONS TO MSU NETWORK/SMART PODIUM LOCATION WILL REQUIRE POWER/NETWORK/AV PATHWAY. SEE ELECTRICAL DRAWINGS.
- WALL MOUNTED FIXED PROJECTOR SCREEN, CFCL.
- POE CLOCK VISIBLE TO EVERYONE IN ROOM. SEE ELECTRICAL.
- ACOUSTICAL WALL TREATMENT.
- ON-FLOOR WIRE RACEWAY. SEE ELECTRICAL.
- POWER STUB-UP AT TABLE LEG. SEE ELECTRICAL.
- NEW CONCRETE RISER.

**ENTIRE SHEET IS
ADD ALTERNATE #1**



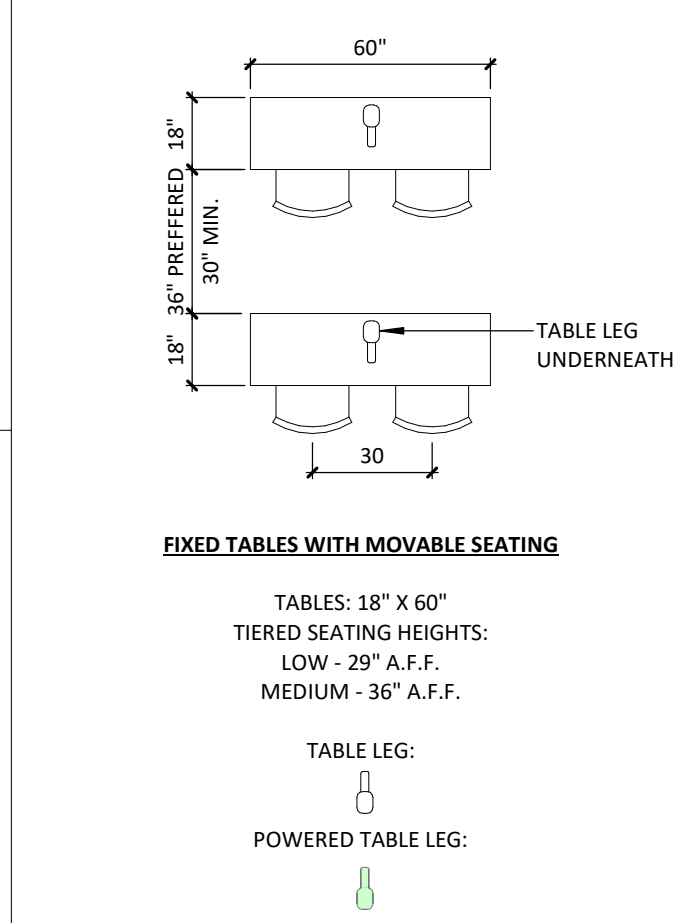
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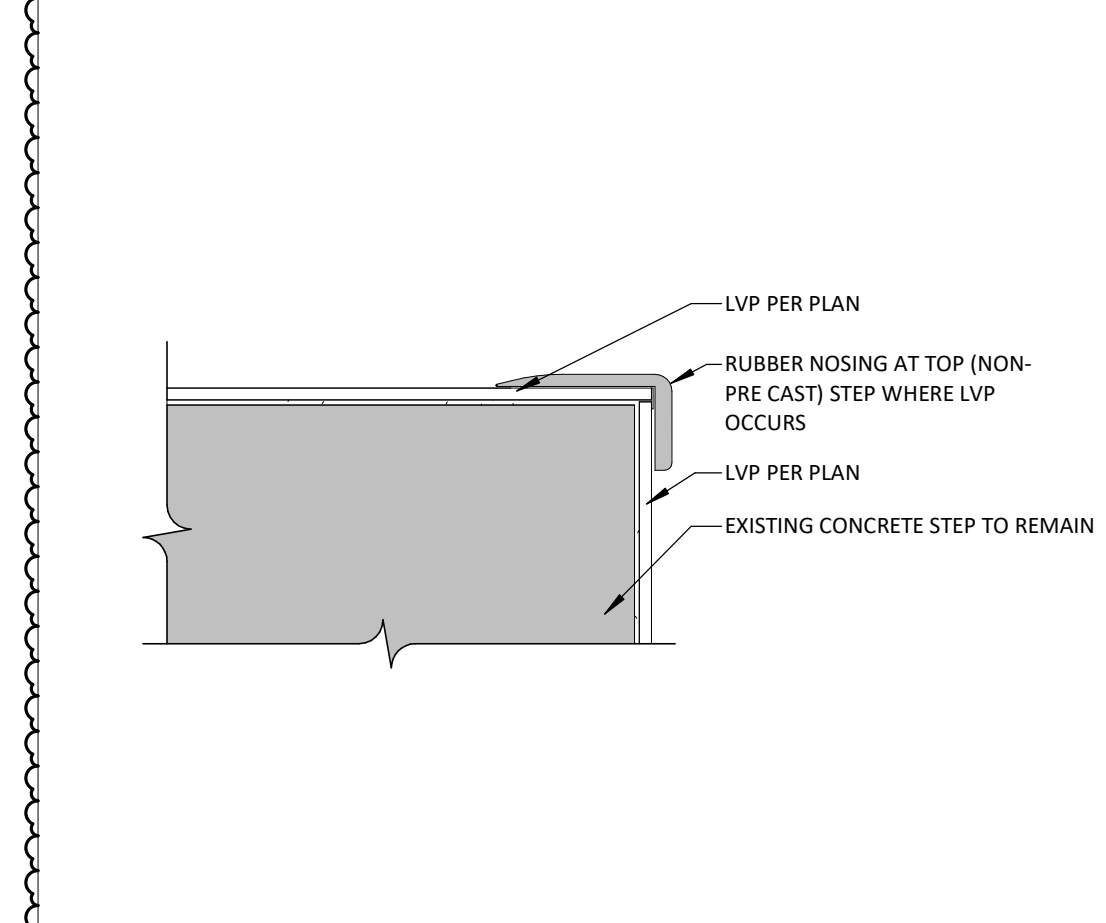
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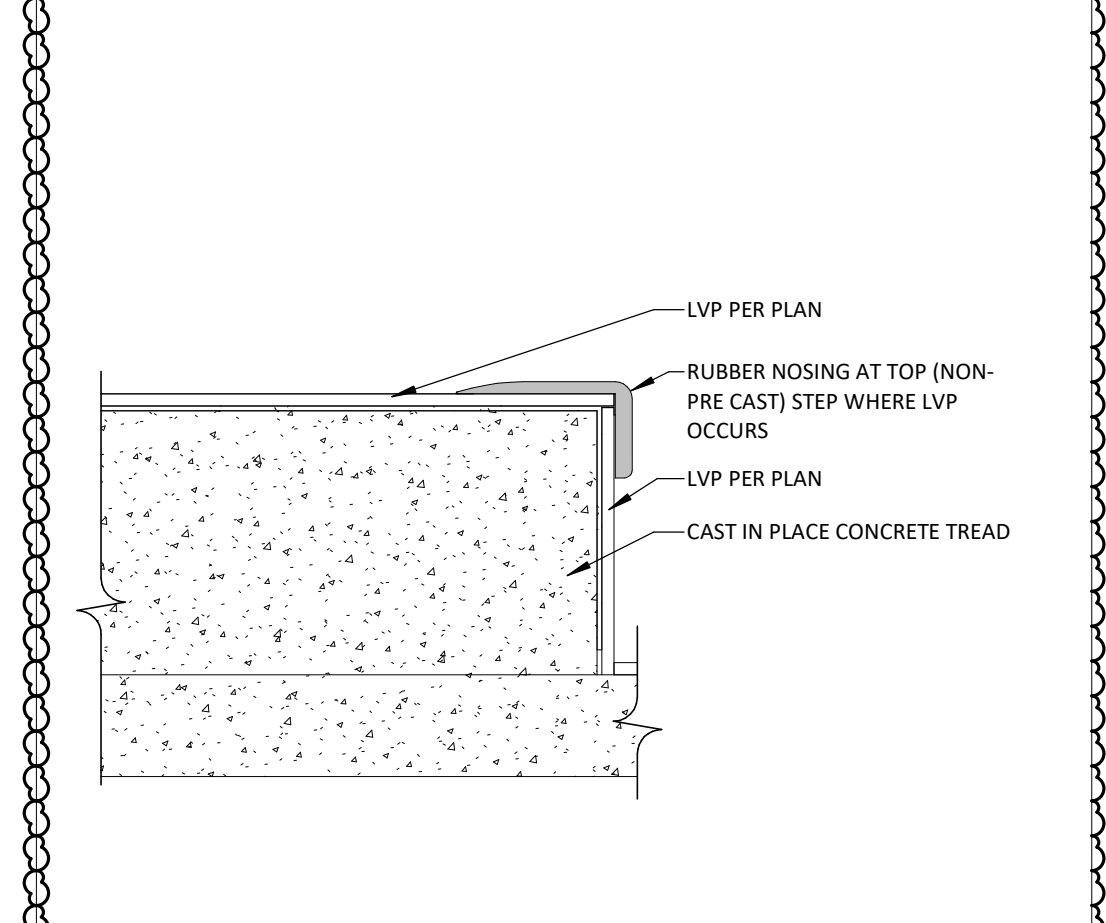
1 105 FLOOR PLAN
1/4" = 1'-0"
OCCUPANCY: 148 - 15.0 S.F./STUDENT



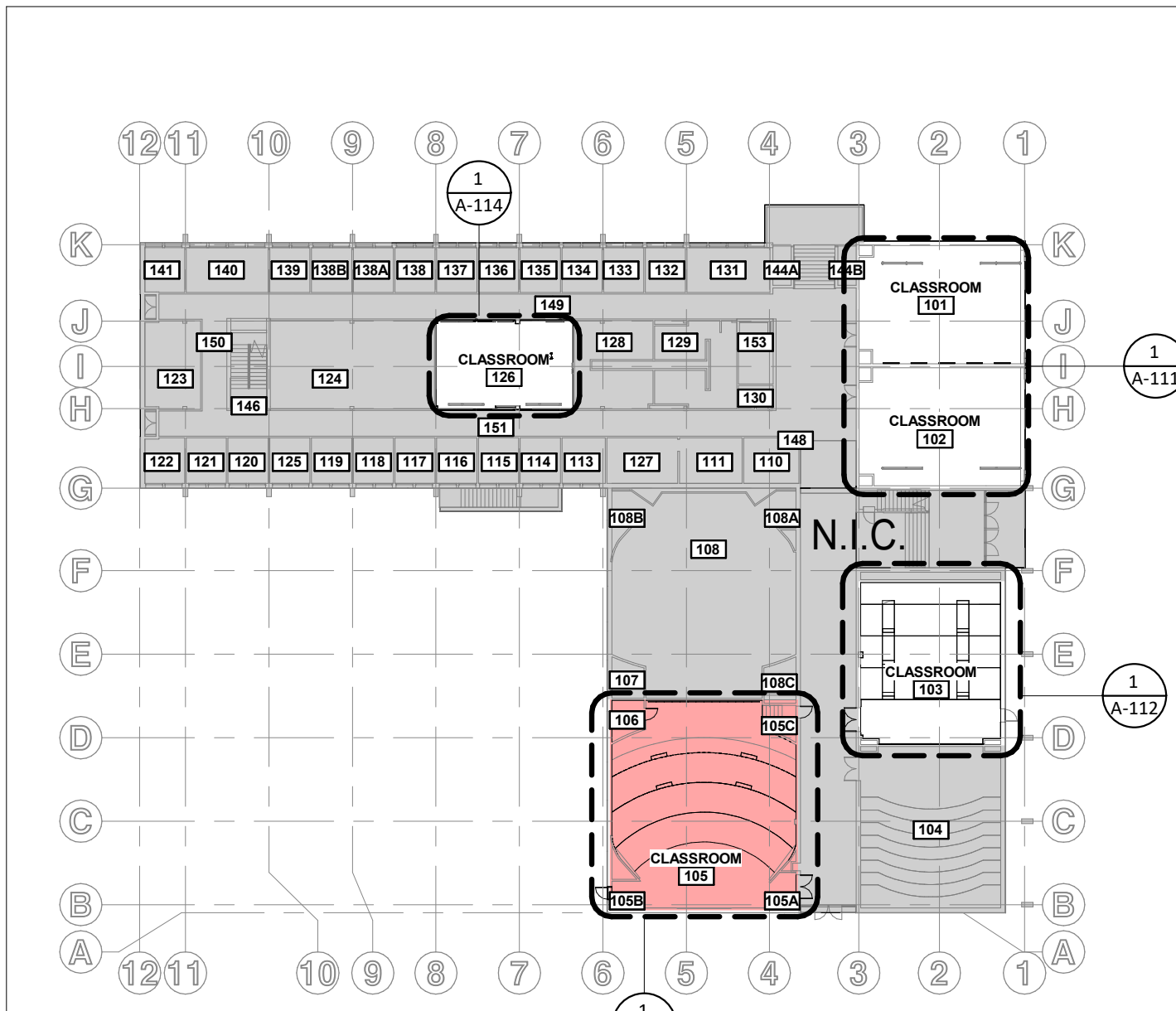
2 FURNITURE KEY
1/4" = 1'-0"



3 NOSING DETAIL LVP TO LVP
3" = 1'-0"



4 TYPICAL STAIR SECTION
3" = 1'-0"



KEY PLAN

DRAWN: KE CHECKED: CH
DATE: 12/17/2025
REVISIONS:
A ADDENDUM #1 01/21/26

**105 FLOOR
PLAN ALT. #1**

A-113

PROJECT #/Project Number

GENERAL SLAB PLAN NOTES:

A. SEE AD113 FOR DEMOLITION PLAN.

SLAB PLAN KEYNOTES 105

- 1 EXISTING RISER.
- 2 NEW CONCRETE RISER.



BID SET

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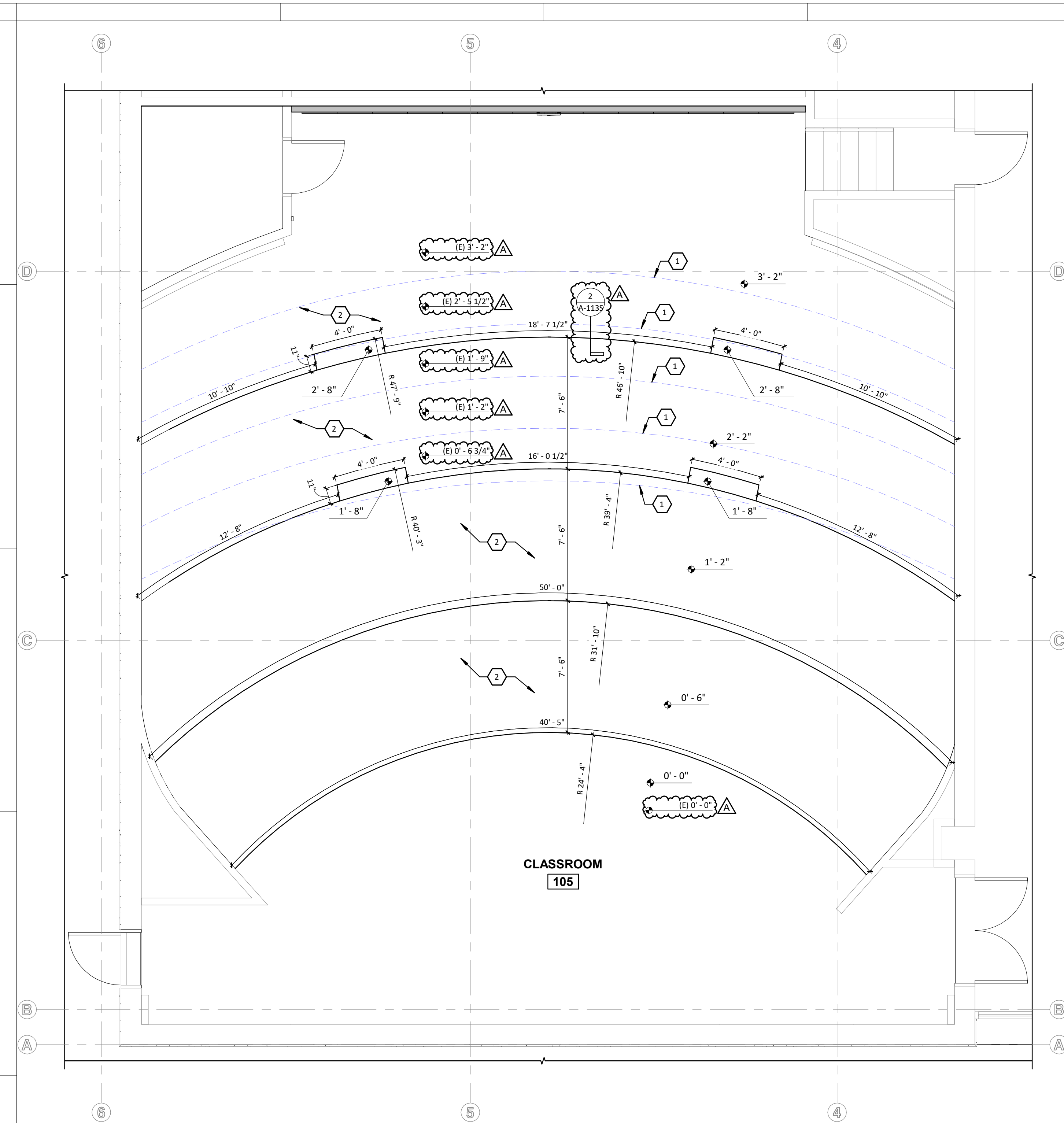
DATE: 12/17/2025

REVISIONS:

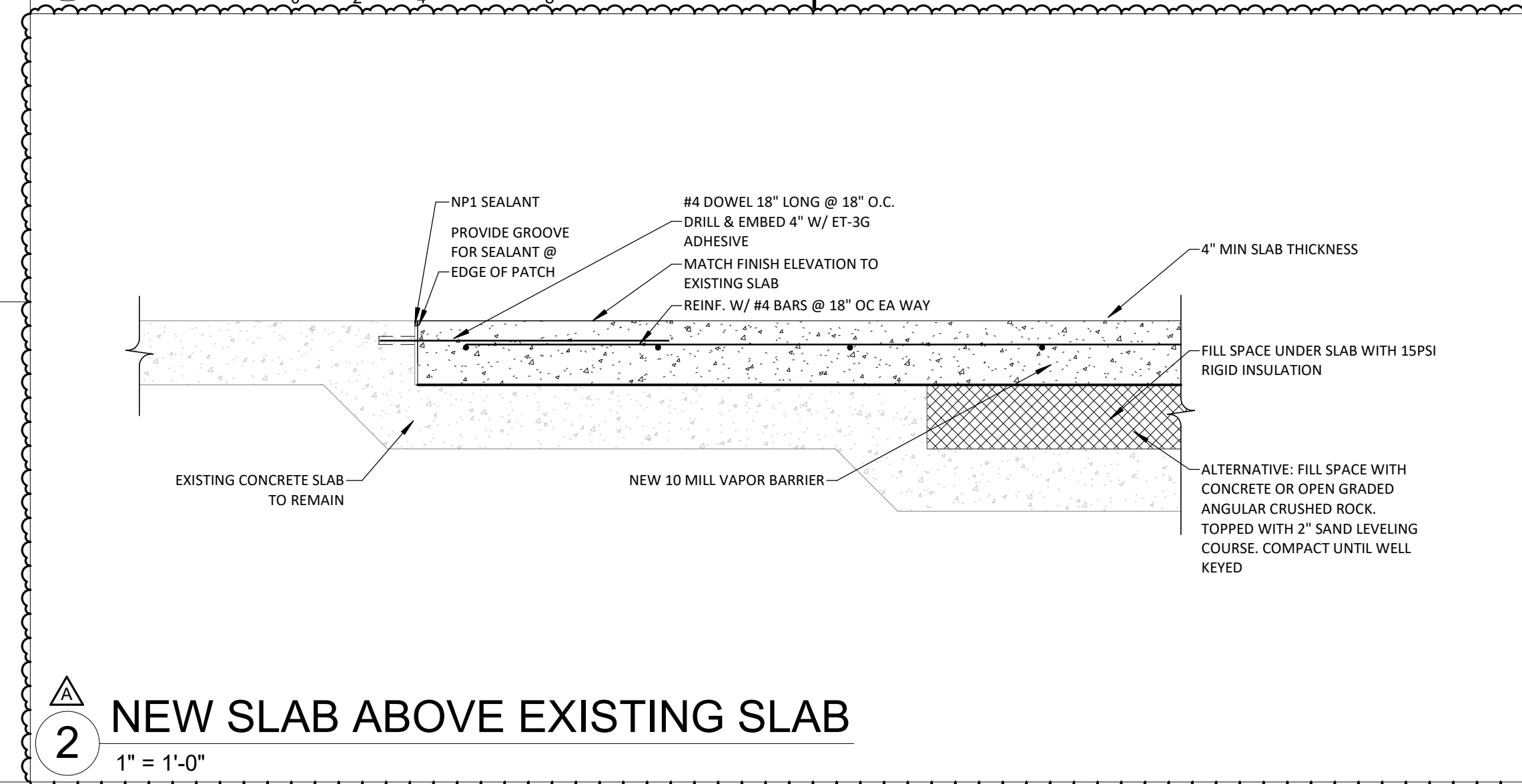
A ADDENDUM #1 01/21/26

105 SLAB PLAN

A-113S



1 105 FLOOR PLAN - SLAB PLAN
1/4" = 1'-0"



PROJECT #/Project Number

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126 FLOOR PLAN ALT. #3

A-114

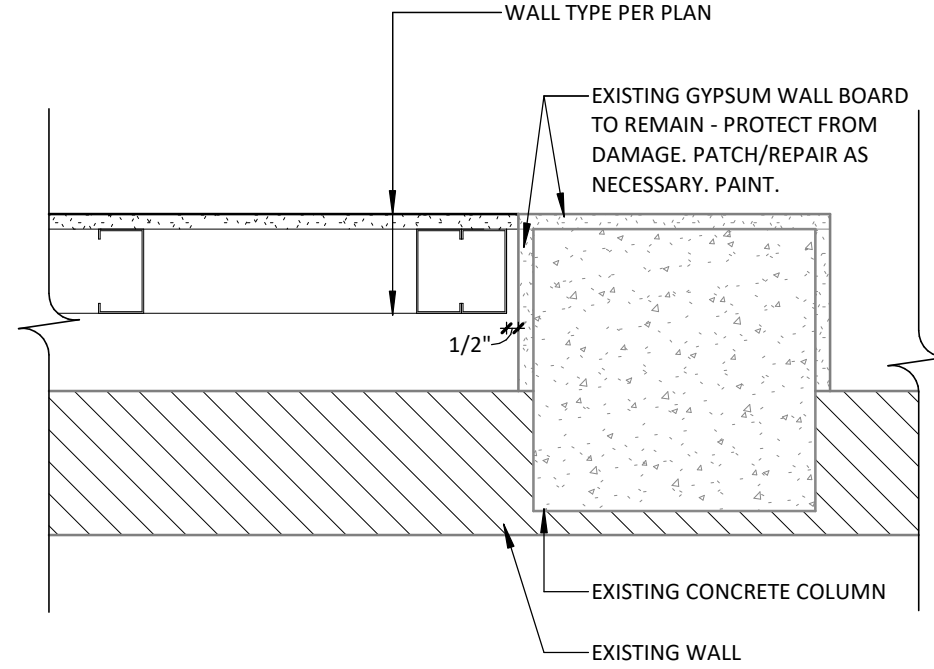
GENERAL FLOOR PLAN NOTES:

- SEE G-001 PROJECT TITLE SHEET FOR GENERAL NOTES.
- PROTECT EXISTING BUILDING OUTSIDE OF THIS SCOPE OF WORK AT ALL TIMES.
- SEE OTHER SHEETS IN THIS SET FOR ADDITIONAL INFORMATION.
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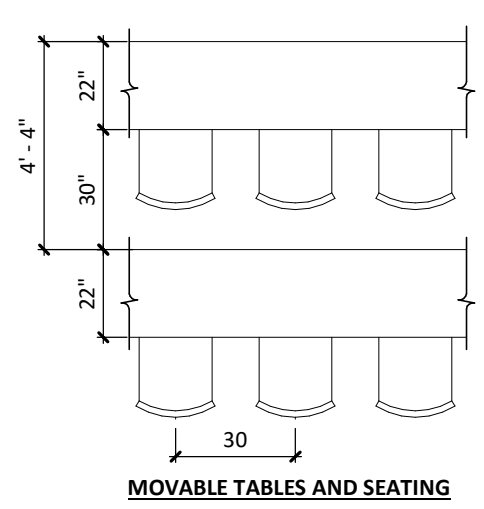
FLOOR PLAN KEYNOTES 126

- ADA ACCESSIBLE LOCATION
- NEW DOOR AND FRAME
- INFILL EXISTING DOORWAY, MATCH EXISTING WALL CONSTRUCTION. SURFACES ON CLASSROOM AND HALLWAY SIDES TO BE SMOOTH AND SEAMLESS FOR PAINT.
- ALL FURNITURE CFCI. BASIS OF DESIGN: SEDIA SYSTEMS
- HEIGHT ADJUSTABLE INSTRUCTOR STATION WITH DEDICATED COMPUTER AND CONNECTIONS TO MSU NETWORK SMART PODIUM LOCATION WILL REQUIRE POWER/NETWORK/AV PATHWAY. SEE ELECTRICAL DRAWINGS.
- CEILING MOUNTED PROJECTOR SCREENS, CFCI.
- CUSTOM 5' 9" X 3' 9" WHITEBOARD CFCI, NO TRAY. BASIS OF DESIGN: OPTIMA GREAT WHITE MAGNETIC WHITEBOARD.
- POE CLOCK VISIBLE TO EVERYONE IN ROOM. SEE ELECTRICAL.
- ON-FLOOR WIRE RACEWAY, SEE ELECTRICAL.

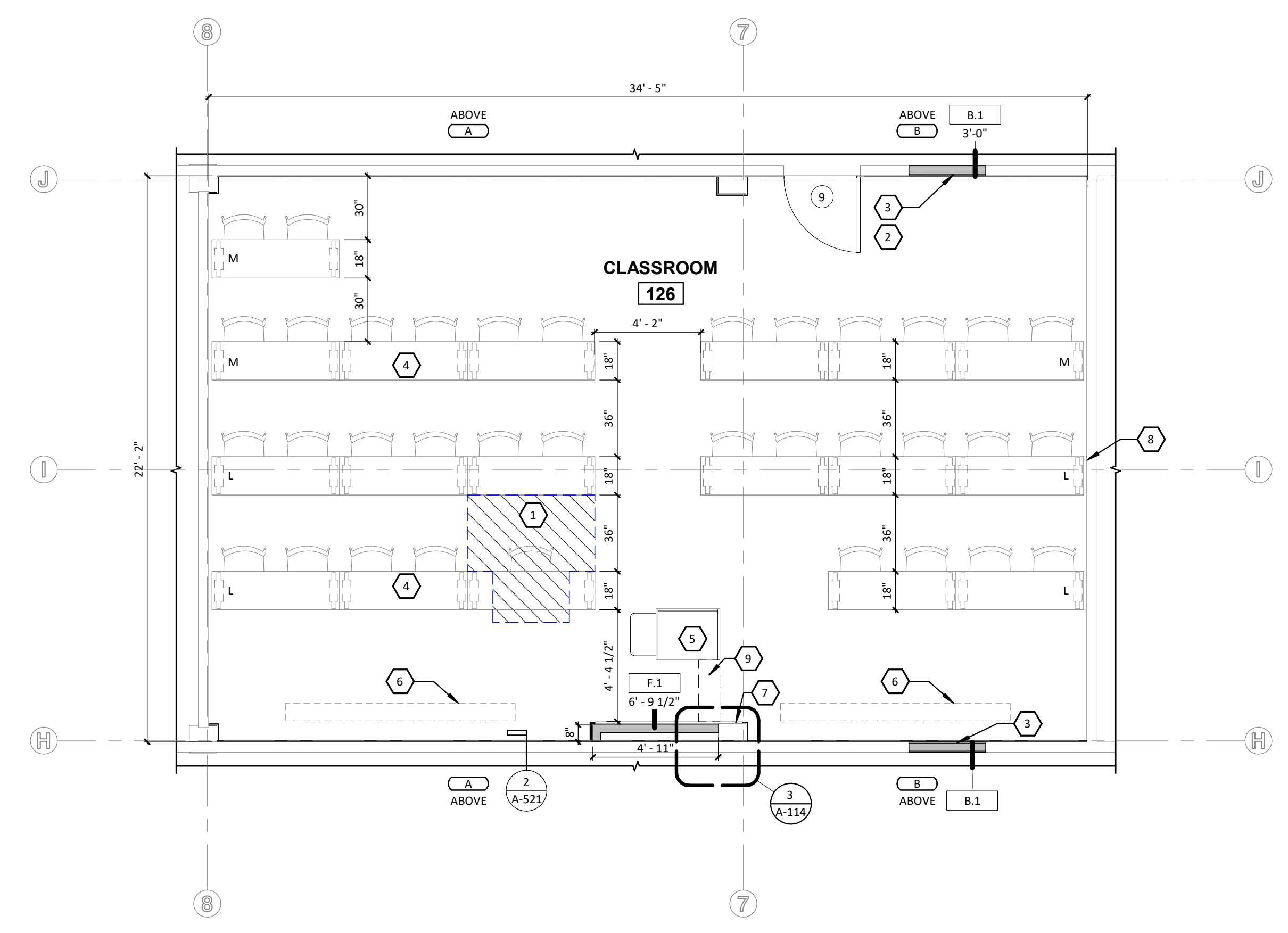
**ENTIRE SHEET IS
ADD ALTERNATE #3**



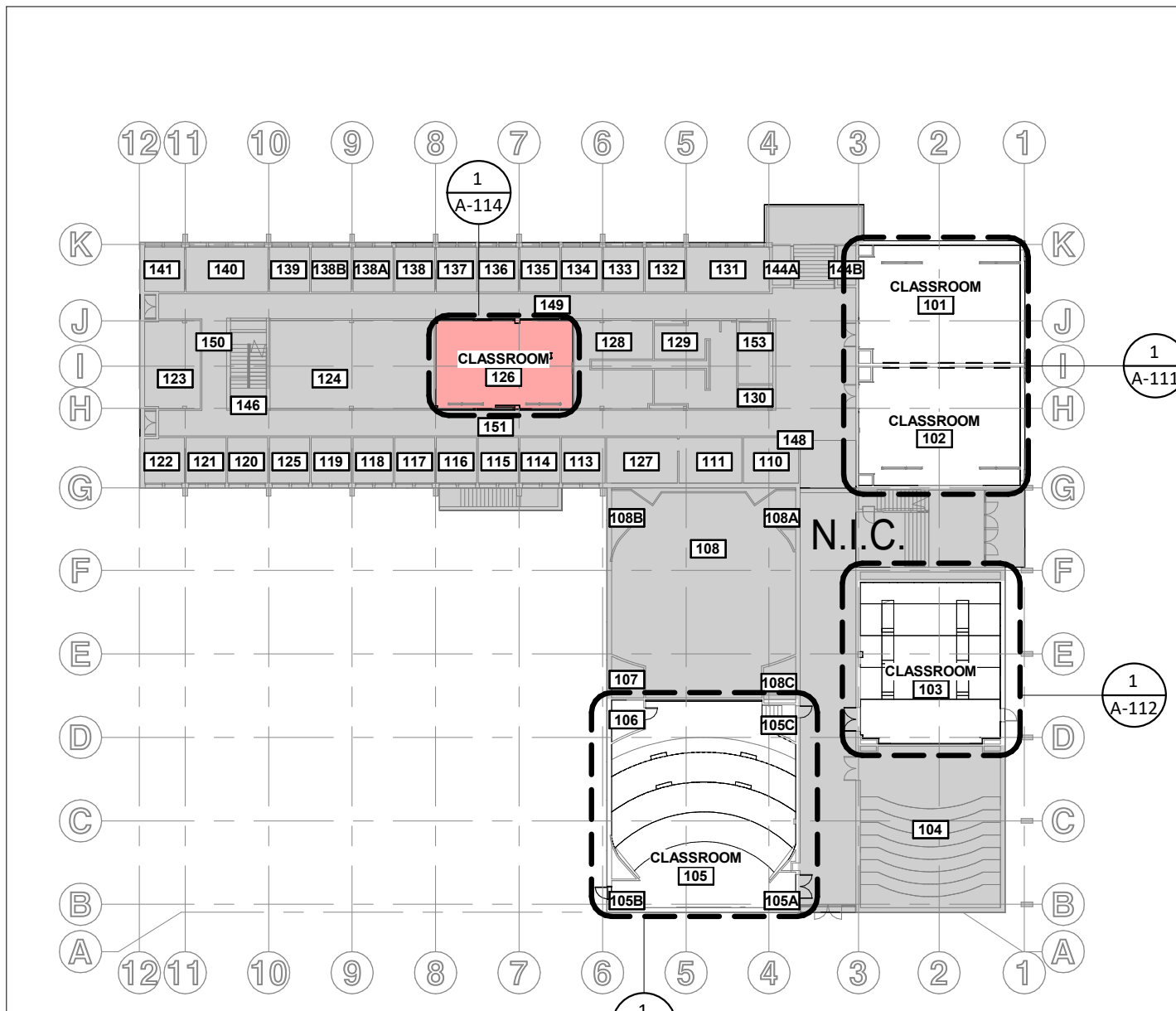
3 FURRED WALL @ COLUMN
1 1/2" = 1'-0"



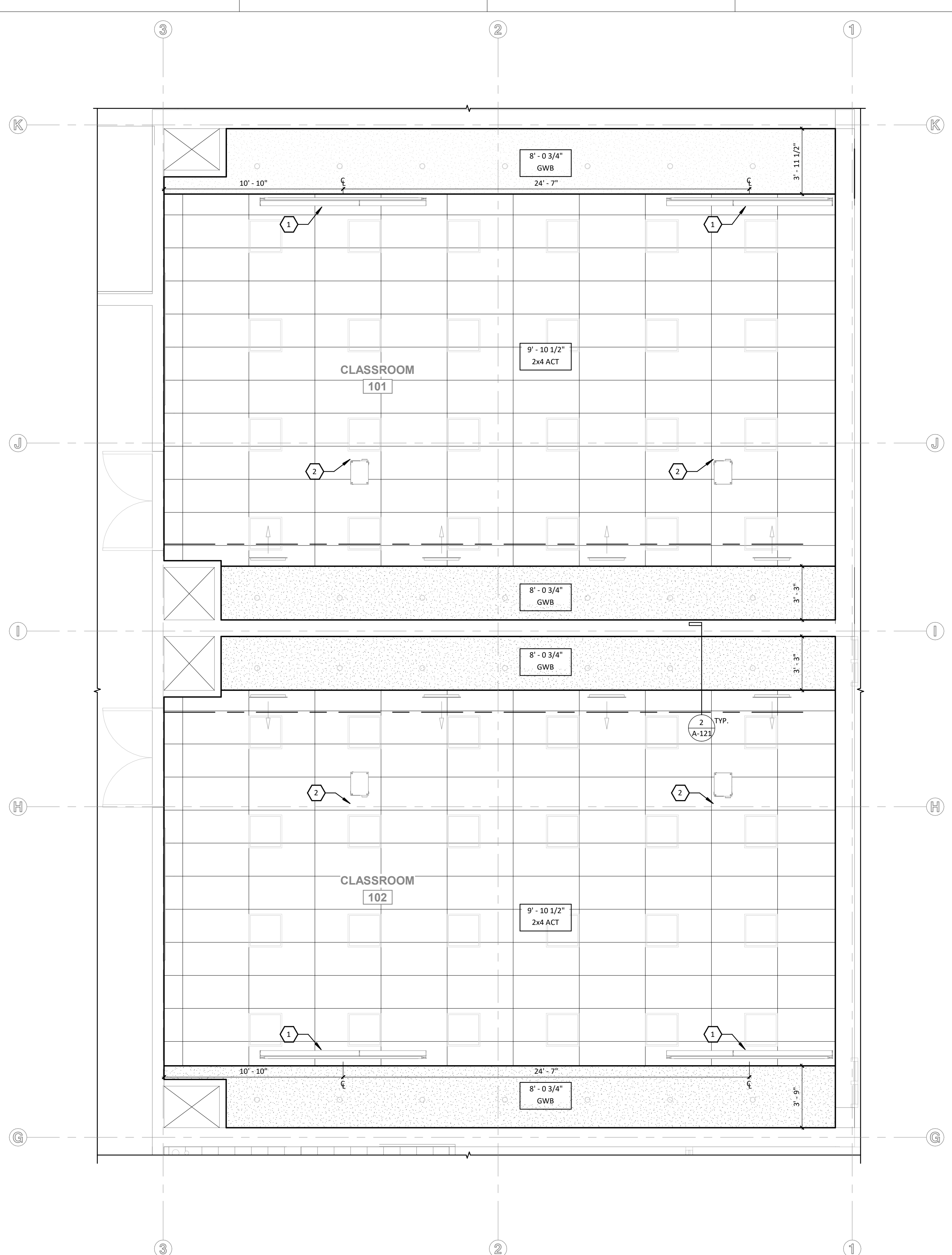
2 FURNITURE KEY
1/4" = 1'-0"



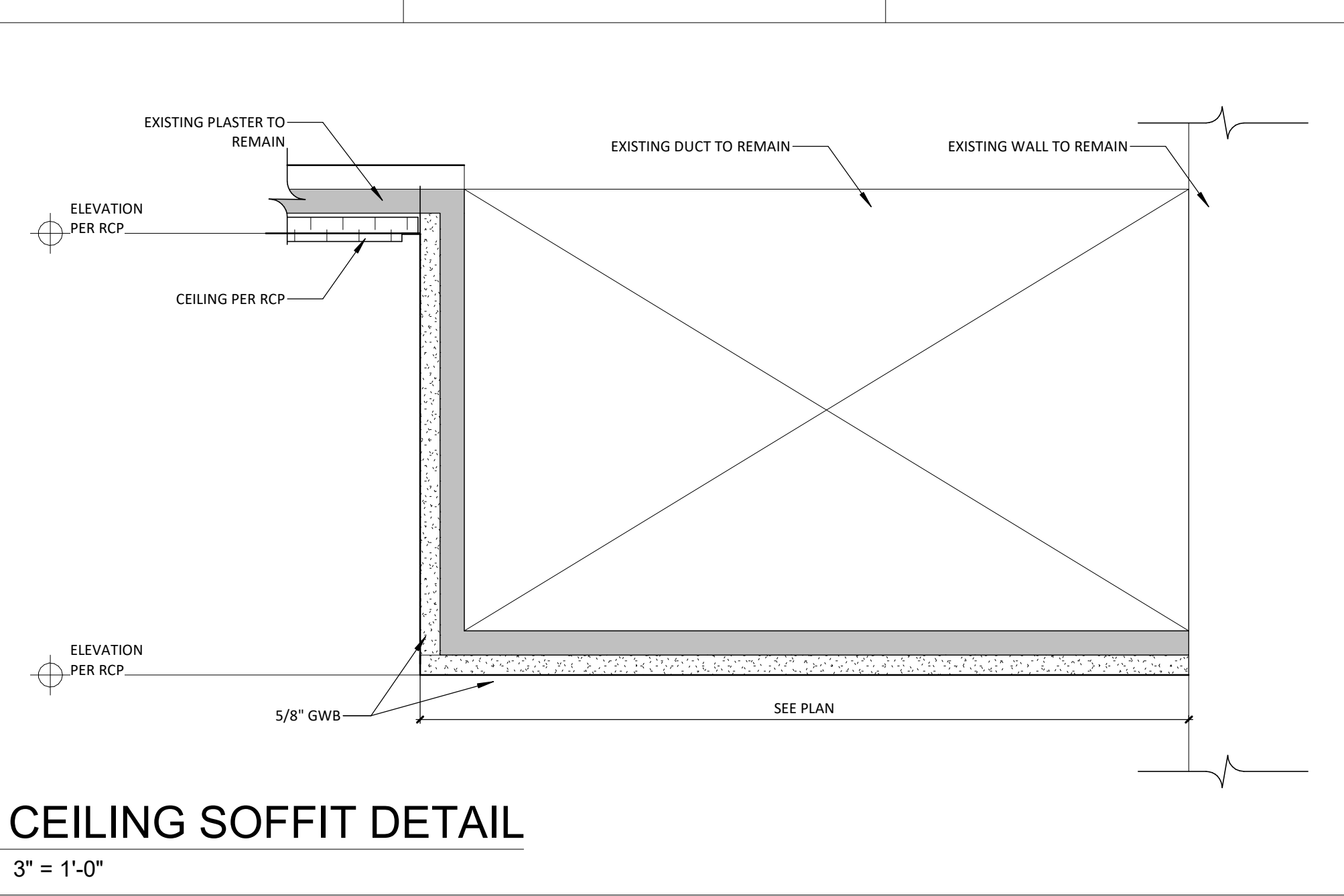
1 126 FLOOR PLAN
1/4" = 1'-0" OCCUPANCY: 36 - 21 S.F./STUDENT



KEY PLAN



1 101/102 REFLECTED CEILING PLAN
 1/4" = 1'-0"
 0 2 4 8
 101 APPROXIMATE OCCUPANCY: 47 - 25.4 S.F./STUDENT
 102 APPROXIMATE OCCUPANCY: 47 - 25.1 S.F./STUDENT



2 CEILING SOFFIT DETAIL
 3" = 1'-0"

GENERAL RCP NOTES:

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RCP KEYNOTES 101/102

- CEILING MOUNTED PROJECTOR SCREENS. CONTRACTOR TO PROVIDE BLOCKING PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- CEILING MOUNTED PROJECTOR. CONTRACTOR TO PROVIDE BLOCKING PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

CEILING PLAN LEGEND

- 2x4 ACT ACOUSTIC CEILING TILE
- GWB GYPSUM WALL BOARD
- SPRINKLER SYSTEM PIPING NEW



BID SET

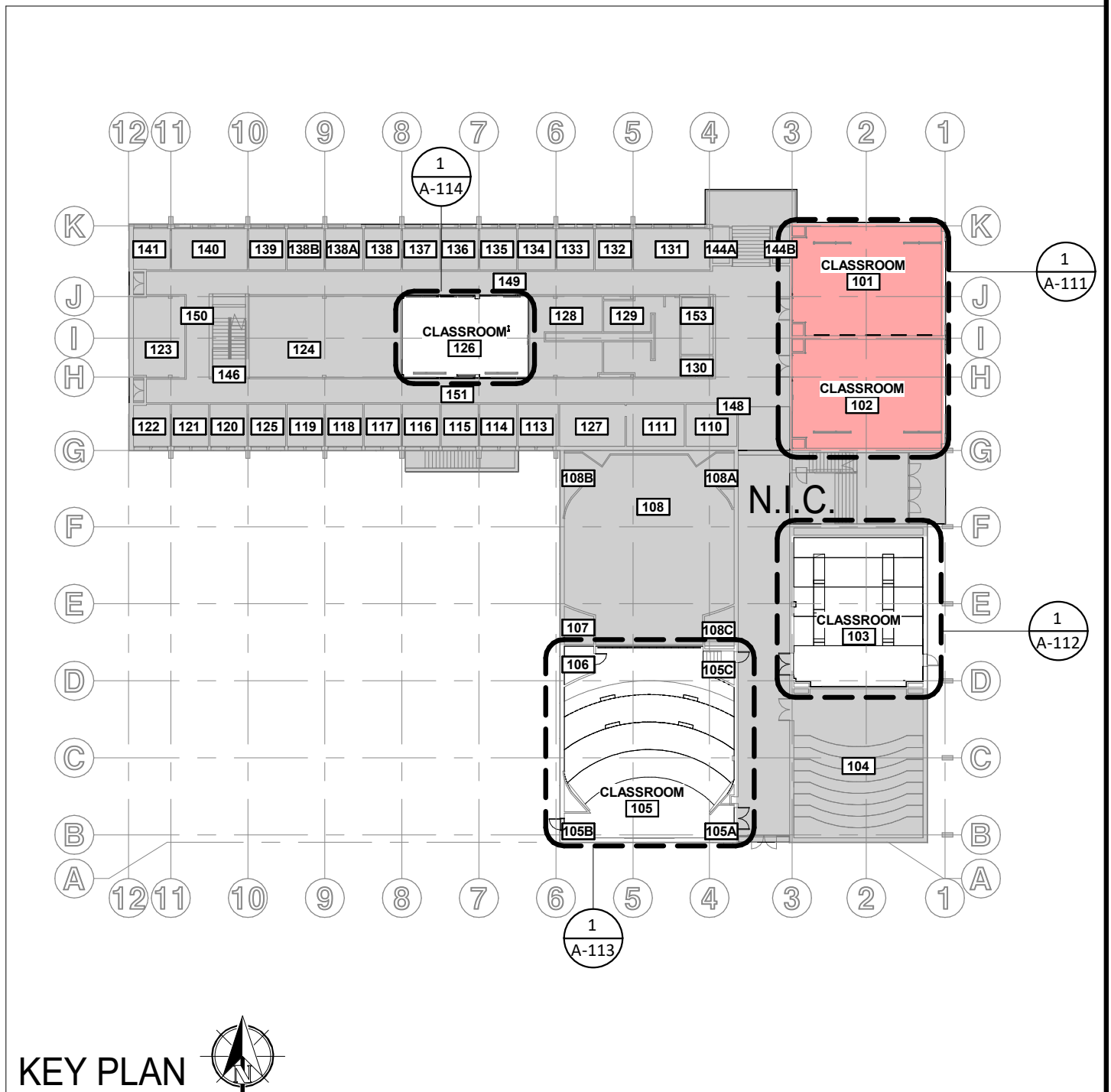
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 DATE: 12/17/2025
 REVISIONS:

101/102 REFLECTED CEILING PLAN

A-121



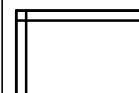
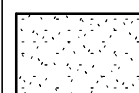
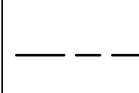
**ENTIRE SHEET IS
ADD ALTERNATE #2**

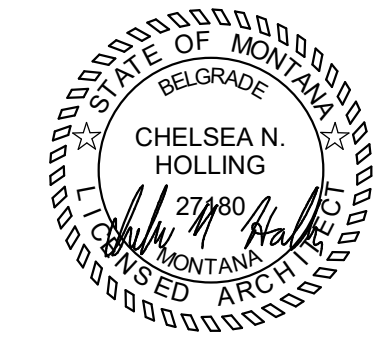
- GENERAL RCP NOTES:**
- SEE G-001 PROJECT TITLE SHEET FOR GENERAL NOTES.
 - PROTECT EXISTING BUILDING OUTSIDE OF THIS SCOPE OF WORK AT ALL TIMES.
 - SEE OTHER SHEETS IN THIS SET FOR ADDITIONAL INFORMATION.
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 - THE EXISTING BUILDING MAY NOT BE LEVEL AND PLUMB. CONTRACTOR SHALL FIELD VERIFY AND PROVIDE CONCEALED SHIMS, ETC. AS NECESSARY TO MAKE NEW WORK LEVEL AND PLUMB, UNLESS SPECIFICALLY NOTED OTHERWISE.

RCP KEYNOTES 103

- WALL MOUNTED FIXED FRAME PROJECTOR SCREENS. CONTRACTOR TO PROVIDE BLOCKING PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- MECHANICAL CONTRACTOR TO REPLACE EXISTING SUPPLY DIFFUSERS WITH TITUS DIFFUSER MODEL NUMBER TMS. MECHANICAL CONTRACTOR TO VERIFY EXISTING NECK SIZES PRIOR TO ORDERING NEW DIFFUSERS. LOCATE NEW DIFFUSERS IN AS CLOSE PROXIMITY TO EXISTING LOCATIONS AS POSSIBLE. EXISTING AIR-FLOW SHALL REMAIN THE SAME. MECHANICAL CONTRACTOR TO REPLACE FLEX DUCT BETWEEN DUCT RUN OUT TO DIFFUSERS. SEE MECHANICAL.
- CEILING MOUNTED PROJECTOR. CONTRACTOR TO PROVIDE BLOCKING PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

CEILING PLAN LEGEND

-  2x4 ACT
ACOUSTIC CEILING TILE
-  GWB
GYPSUM WALL BOARD
-  SPRINKLER SYSTEM PIPING
NEW



BID SET

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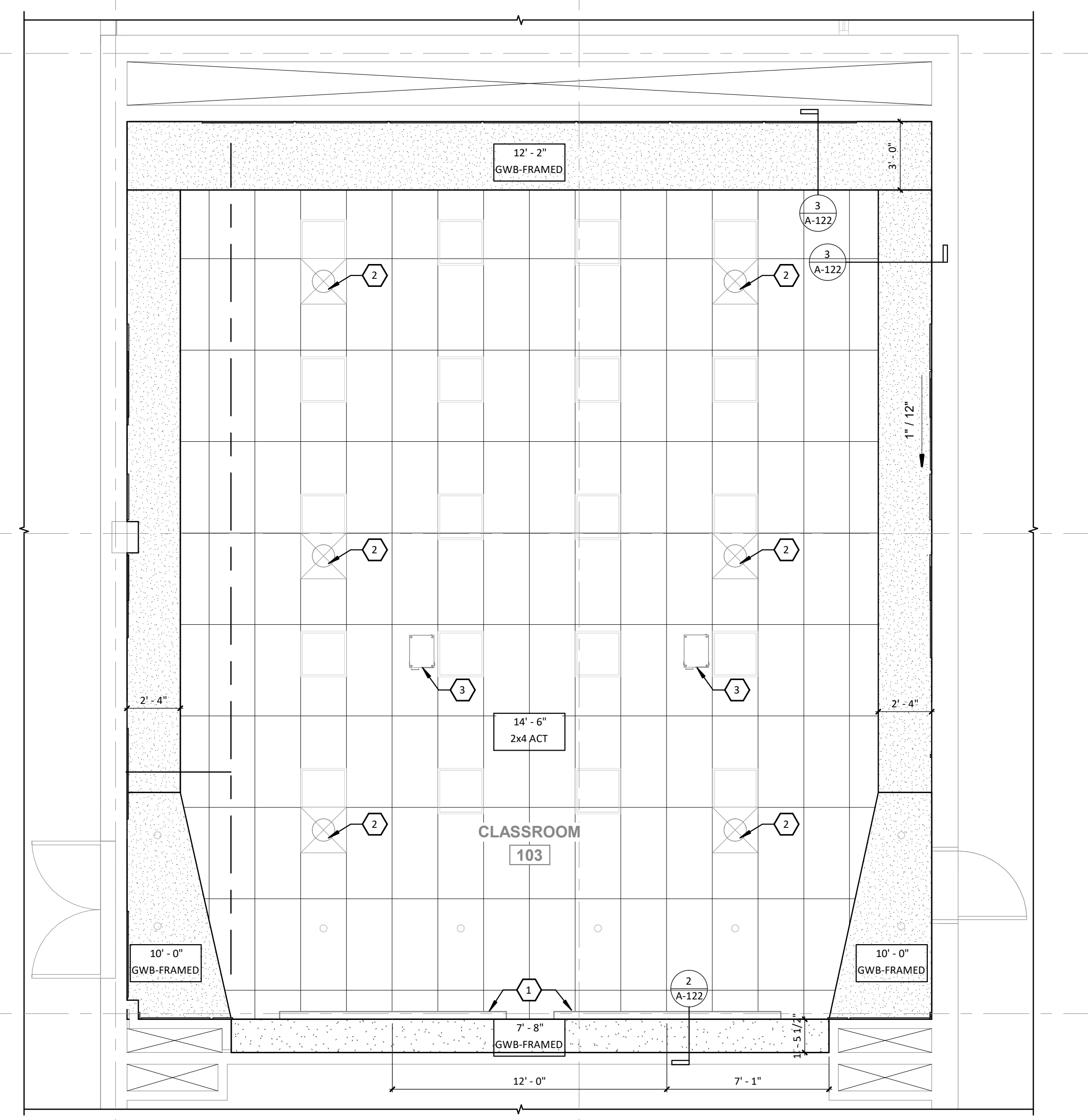
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BOZEMAN, MONTANA 59717
PPA#: 25-1214

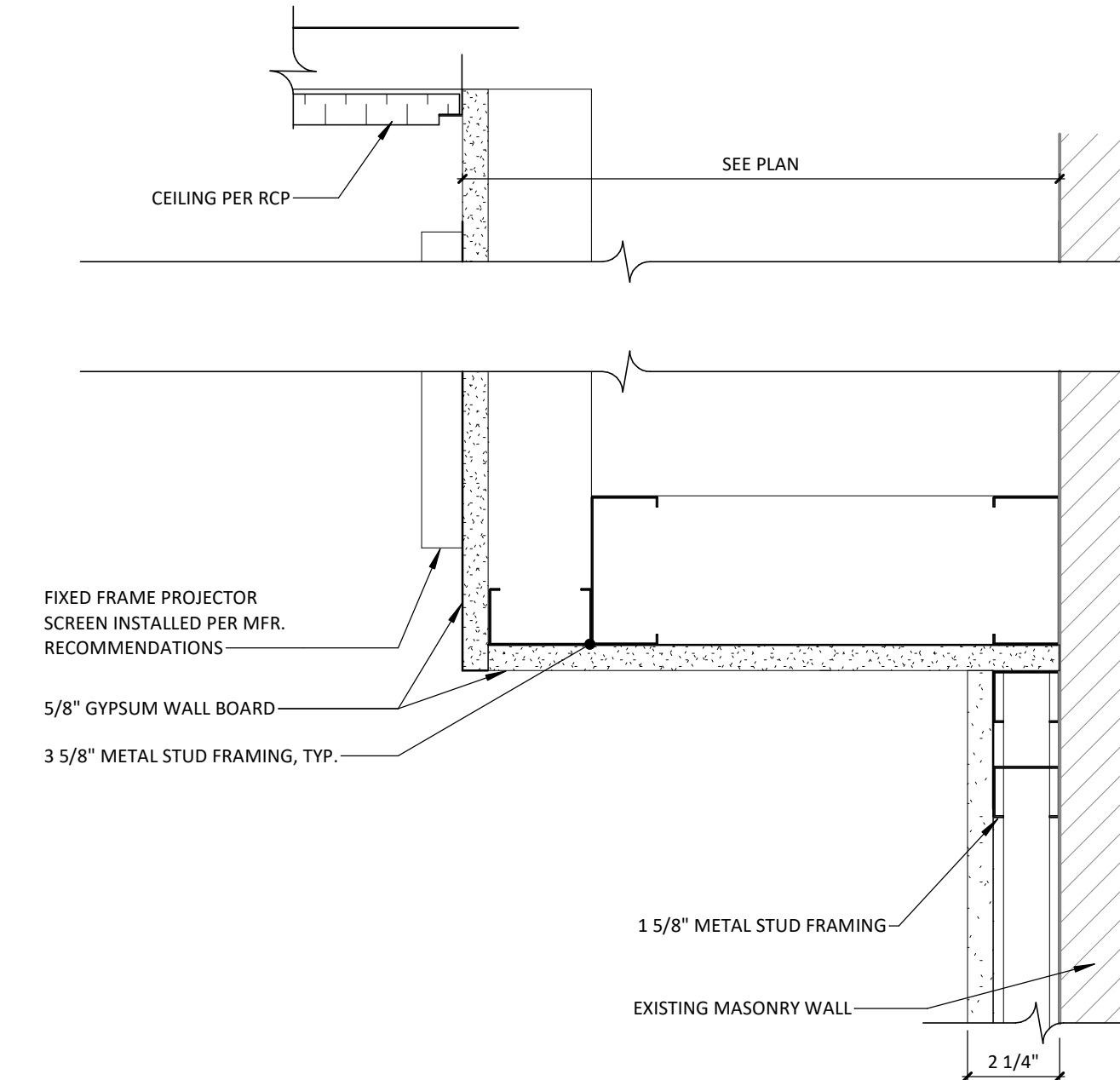
DRAWN: RH CHECKED: CH
DATE: 12/17/2025
REVISIONS:

**103 REFLECTED
CEILING PLAN
ALT. #2**

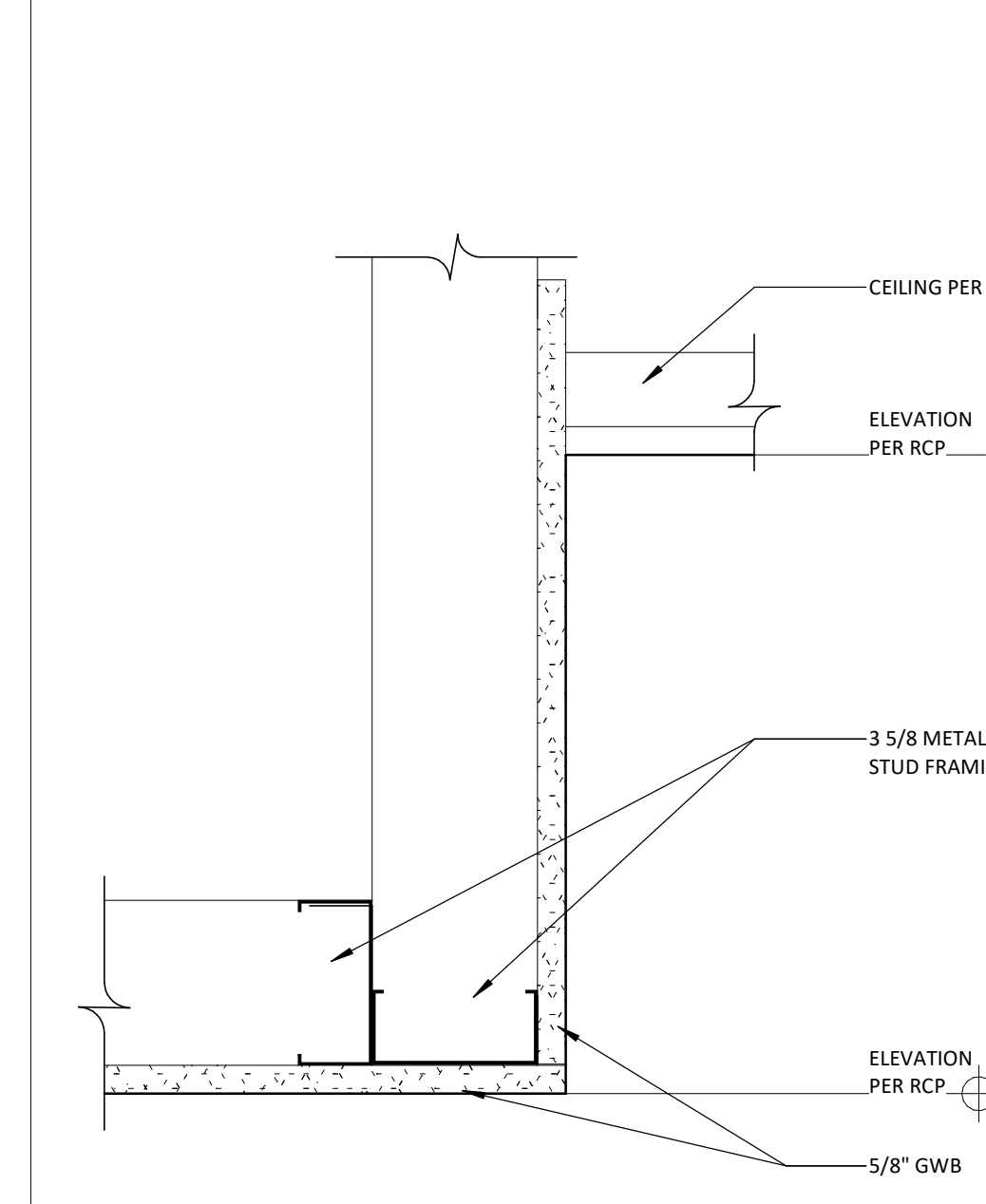
A-122



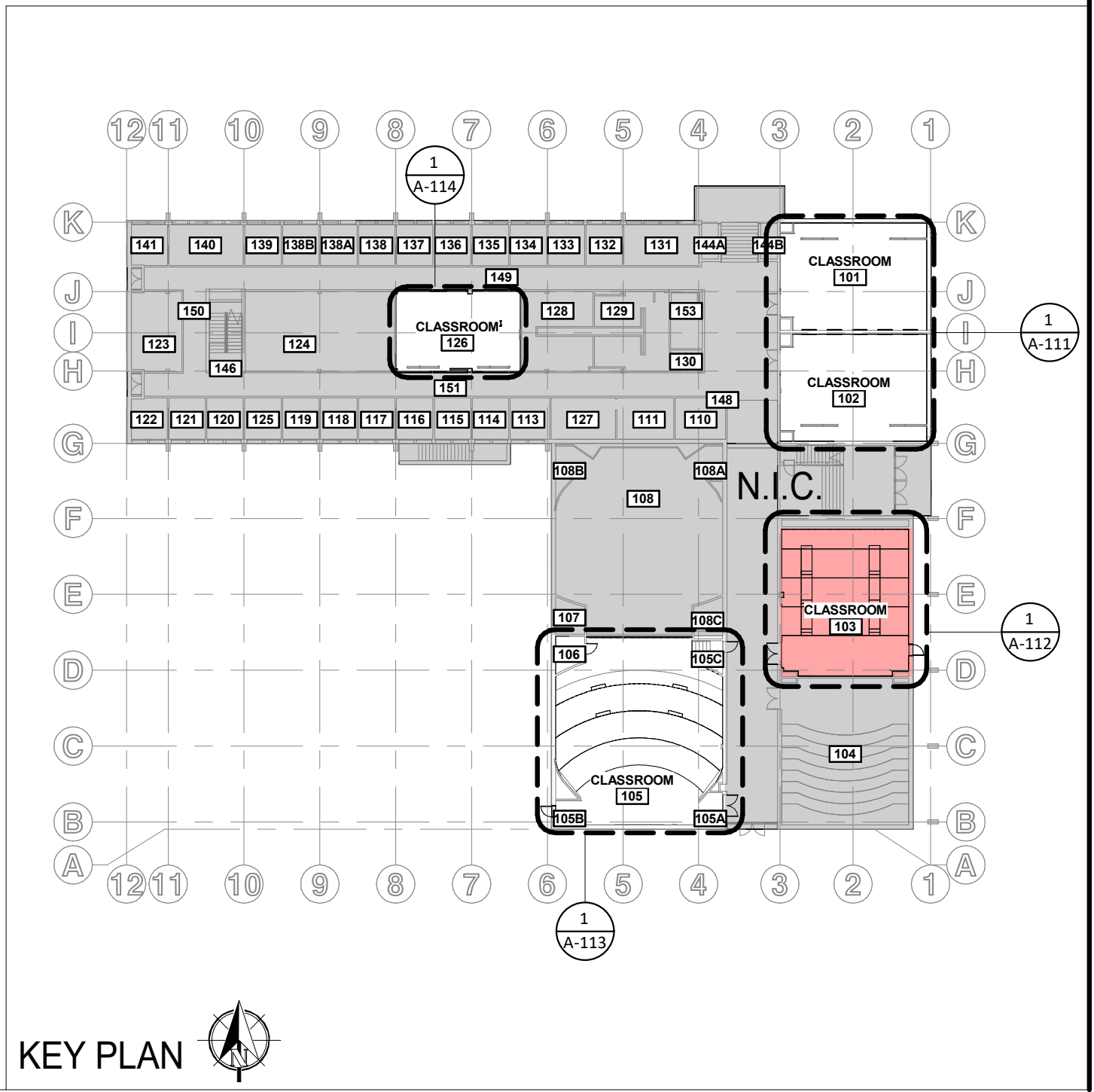
1 103 REFLECTED CEILING PLAN
1/4" = 1'-0"



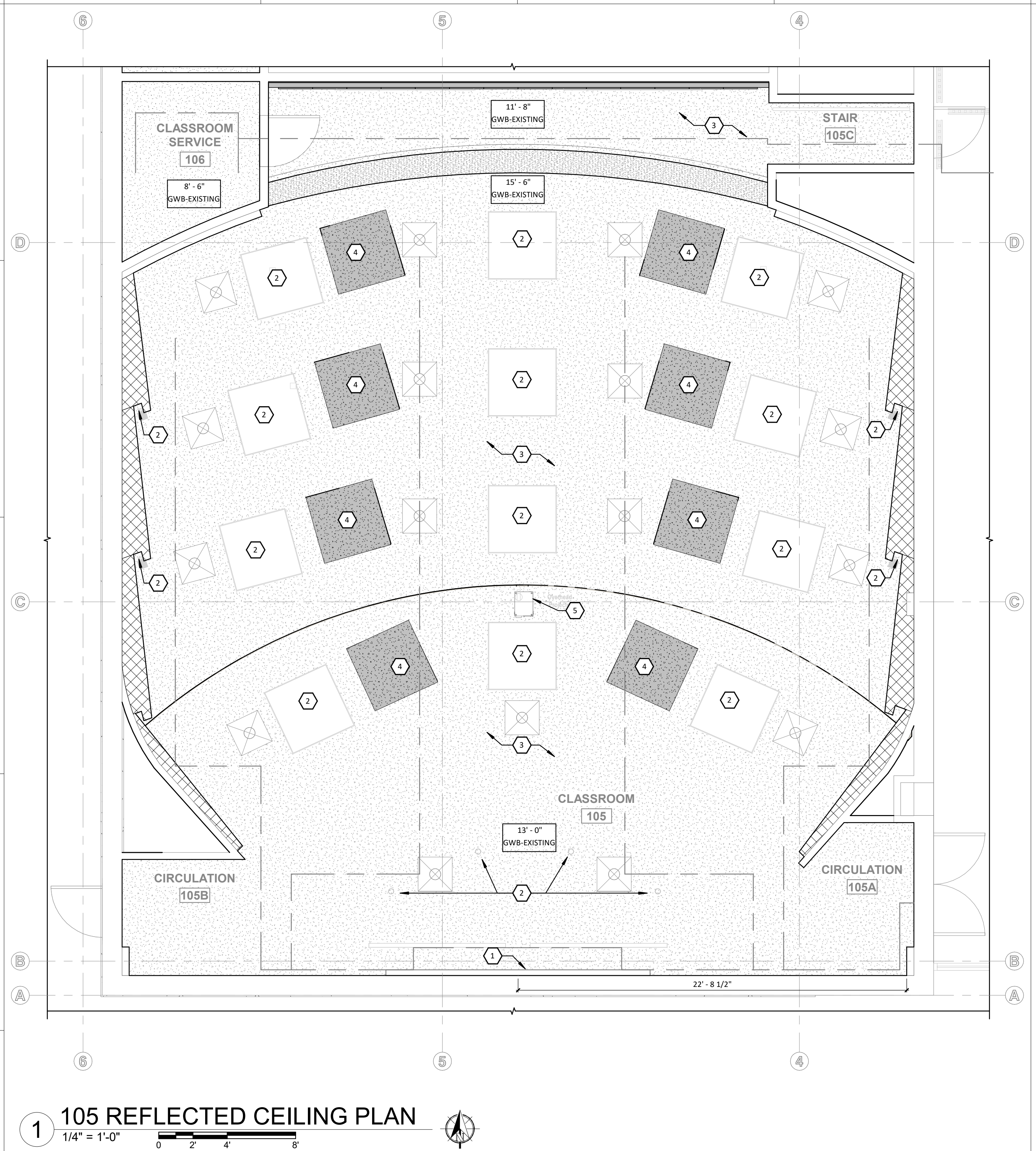
2 SOFFIT @ INSTRUCTOR WALL
3" = 1'-0"



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



PROJECT #/Project Number



1 105 REFLECTED CEILING PLAN
 1/4" = 1'-0"
 0 2' 4' 8'

GENERAL RCP NOTES:
 A. SEE G-001 PROJECT TITLE SHEET FOR GENERAL NOTES.
 B. PROTECT EXISTING BUILDING OUTSIDE OF THIS SCOPE OF WORK AT ALL TIMES.
 C. SEE OTHER SHEETS IN THIS SET FOR ADDITIONAL INFORMATION.
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 E. THE EXISTING BUILDING MAY NOT BE LEVEL AND PLUMB. CONTRACTOR SHALL FIELD VERIFY AND PROVIDE CONCEALED SHIMS, ETC. AS NECESSARY TO MAKE NEW WORK LEVEL AND PLUMB, UNLESS SPECIFICALLY NOTED OTHERWISE.

RCP KEYNOTES 105
 1. WALL MOUNTED PROJECTOR SCREEN. CONTRACTOR TO PROVIDE BLOCKING PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
 2. EXISTING LIGHT FIXTURE HOUSING TO REMAIN. SEE ELECTRICAL.
 3. PAINT CEILING.
 4. SURFACE MOUNTED ACOUSTIC CEILING PANELS. BASIS OF DESIGN: ARMSTRONG FELTWORKS ACOUSTICAL CEILING PANELS. SIZE: 48"x48". COLOR: LIGHT GREY(FG).
 5. CEILING MOUNTED PROJECTOR. CONTRACTOR TO PROVIDE BLOCKING PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

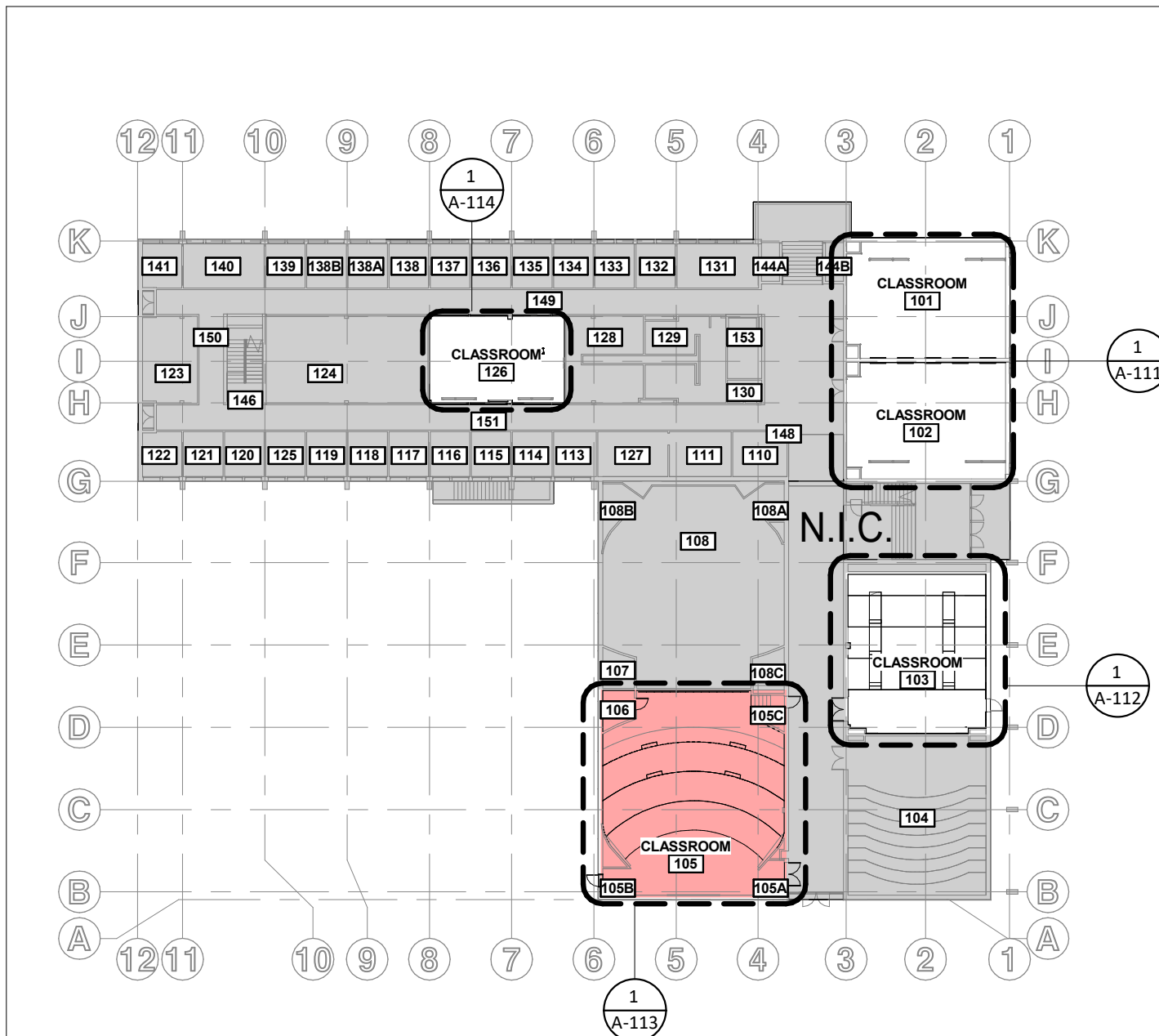
CEILING PLAN LEGEND

	GWB-EXISTING GYPSUM WALL BOARD
	EXISTING ACOUSTIC WALL PANELS
	ACOUSTIC CEILING PANELS
	EXISTING SPRINKLER SYSTEM PIPING REMAINING



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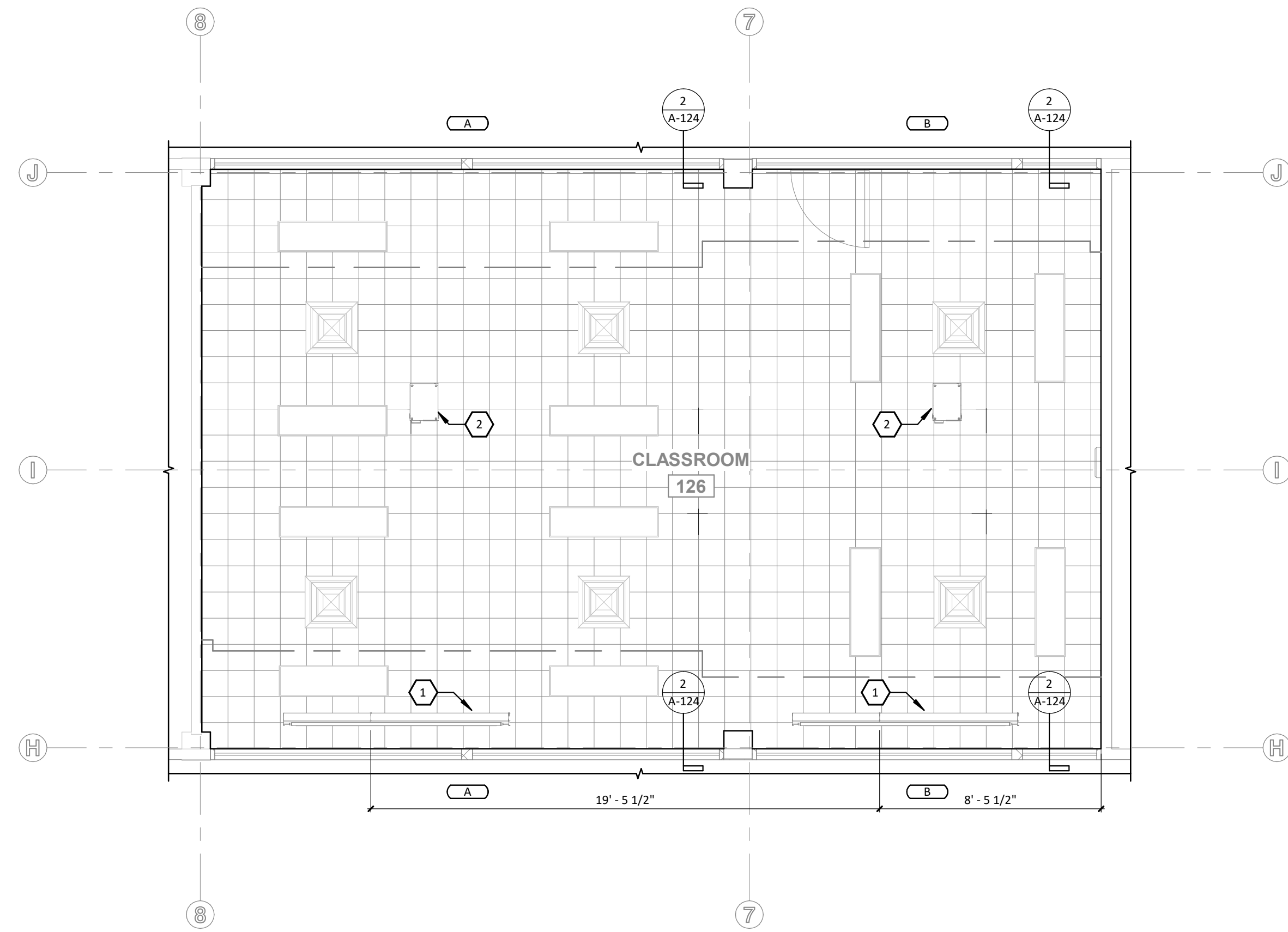
KEY PLAN

DRAWN: RH CHECKED: CH
 DATE: 12/17/2025
 REVISIONS:

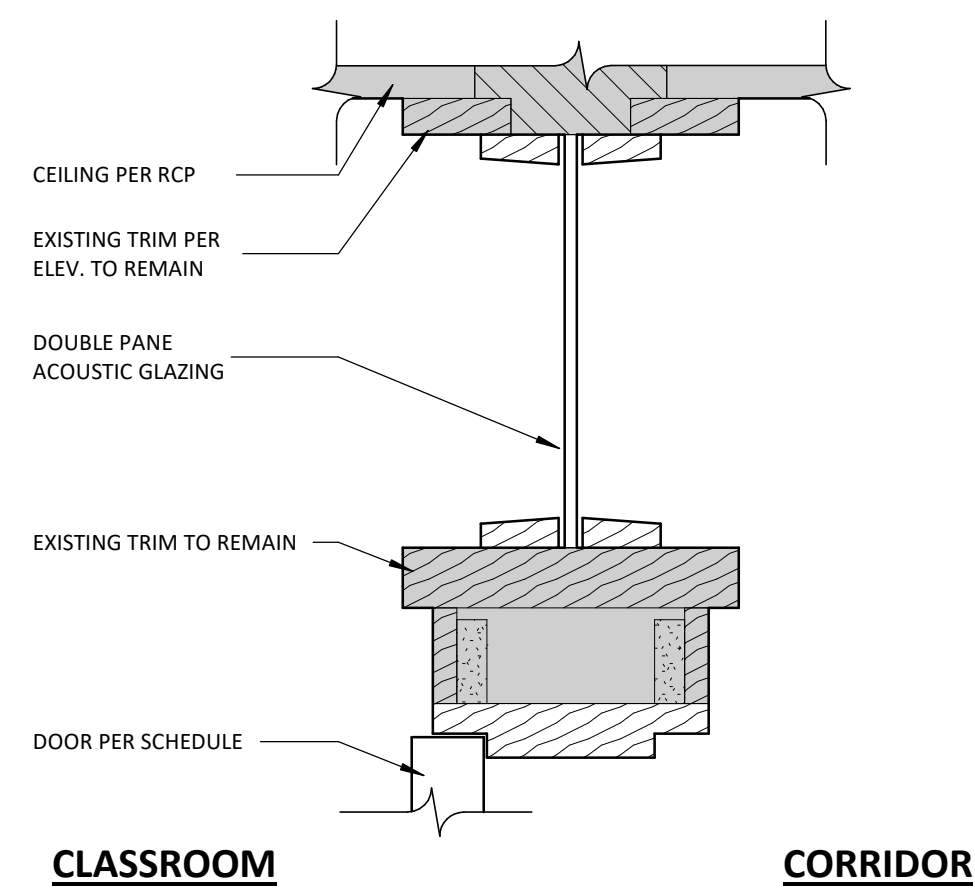
**105 REFLECTED CEILING PLAN
 ALT. #1**

**ENTIRE SHEET IS
 ADD ALTERNATE #1**

PROJECT #/Project Number



1 126 REFLECTED CEILING PLAN
1/4" = 1'-0"



2 TRANSOM DETAIL - NEW
3" = 1'-0"

**ENTIRE SHEET IS
ADD ALTERNATE #3**

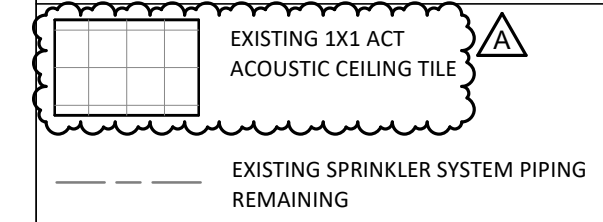
GENERAL RCP NOTES:

- A. SEE G-001 PROJECT TITLE SHEET FOR GENERAL NOTES.
- B. PROTECT EXISTING BUILDING OUTSIDE OF THIS SCOPE OF WORK AT ALL TIMES.
- C. SEE OTHER SHEETS IN THIS SET FOR ADDITIONAL INFORMATION.
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RCP KEYNOTES 126

- 1. CEILING MOUNTED PROJECTOR SCREEN. CONTRACTOR TO PROVIDE BLOCKING PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- 2. CEILING MOUNTED PROJECTOR. CONTRACTOR TO PROVIDE BLOCKING PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

CEILING PLAN LEGEND



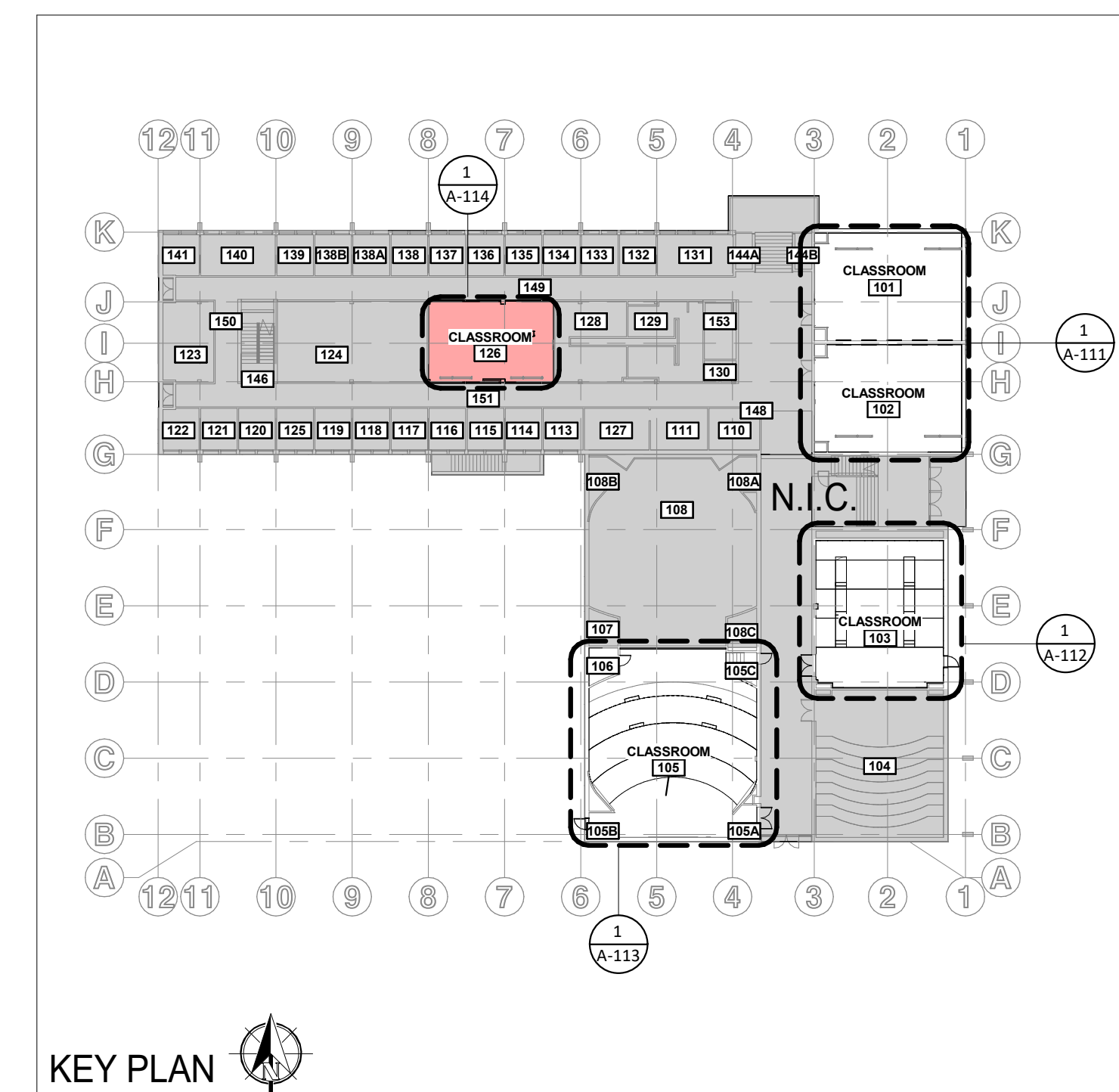
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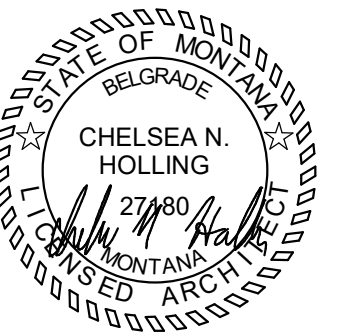
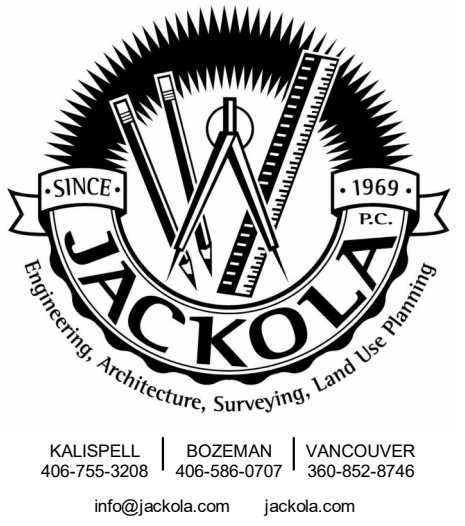
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REID HALL,
BOZEMAN, MONTANA 59717
PPA#: 25-1214

DRAWN: RH CHECKED: CH
DATE: 12/17/2025
REVISIONS:
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**126 REFLECTED
CEILING PLAN
ALT. #3**

A-124





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PPA#: 25-1214

DRAWN: RH CHECKED: CH

DATE: 12/17/2025

REVISIONS:

101/102 FINISH FLOOR PLAN

A-131

FINISH SCHEDULE

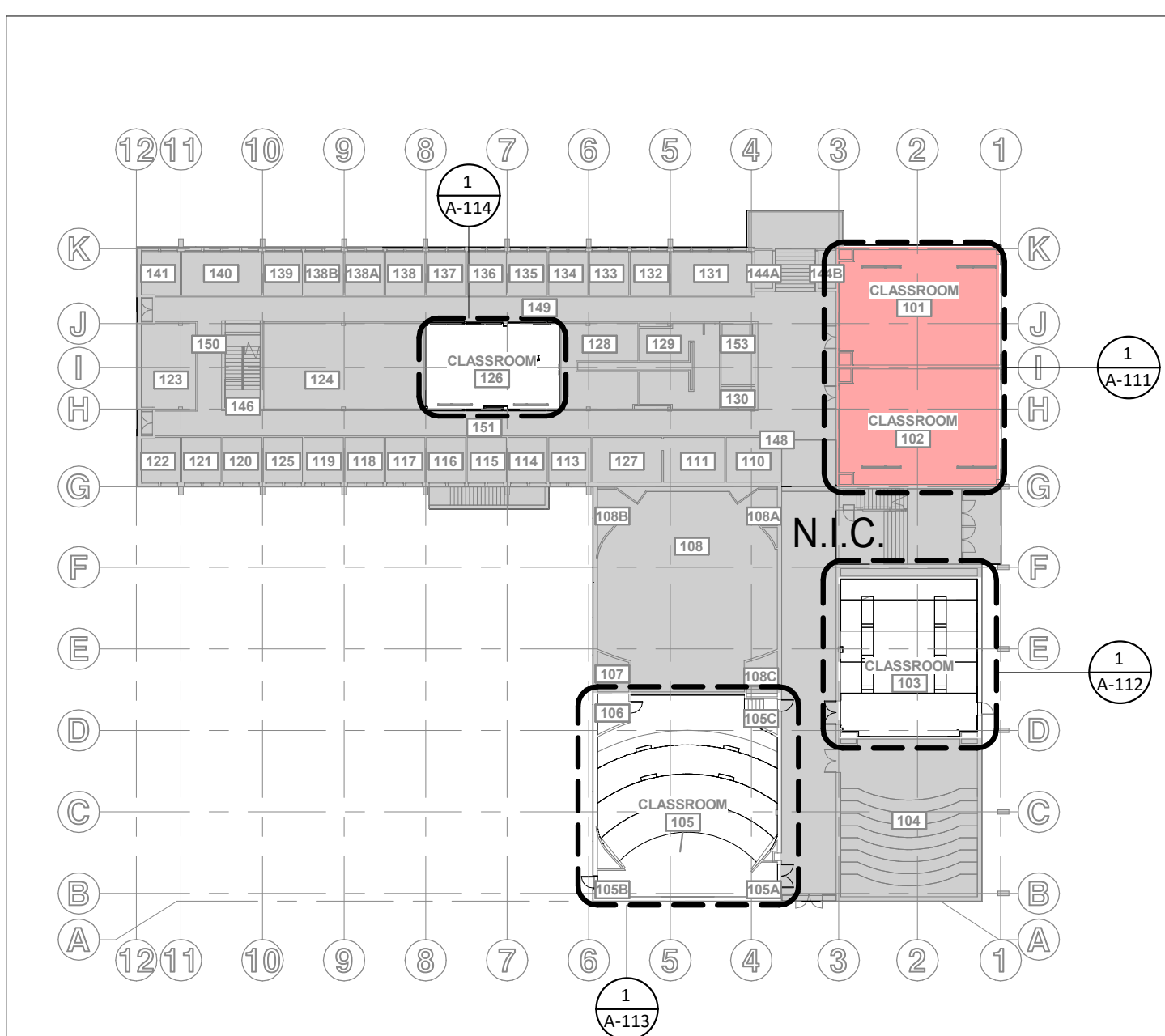
TAG	KEY	COLOR	MANUFACTURER	STYLE	NOTE
ACT	ACOUSTIC CEILING TILE	WHITE	ARMSTRONG	CIRRUS 584	24" X 48" SQUARE LAY-IN 15/16, 0.70 NRC
CPT	CARPET TILE	IMAGE 26557	SHAW CONTRACT	ALTERED, GLITCH TILE	INSTALLATION METHOD: ASHLAR
EXIST	EXISTING	EXISTING	EXISTING	EXISTING	
FAB-1	ACOUSTIC FELT PANEL	DARK GREY (PDG)	ARMSTRONG	FELTWORKS	SIZE: 4' X 4' X 1". NRC 0.75
PT-2	PAINT	SW 9165 GOSSAMER VEIL	SHERWIN WILLIAMS	EGGSHELL	
PT-3	PAINT	SW 7019 GAUNTLET GRAY	SHERWIN WILLIAMS	EGGSHELL	
RUB-1	RUBBER BASE	BLACK	JOHNSONITE	DURACOVE 4"	THERMOPLASTIC RUBBER 1/8"
SS-1	SOLID SURFACE	DEEP STORM	CORIAN		CHAIR RAIL (9 5/8" H X 1/2" D)

ROOM FINISH KEY

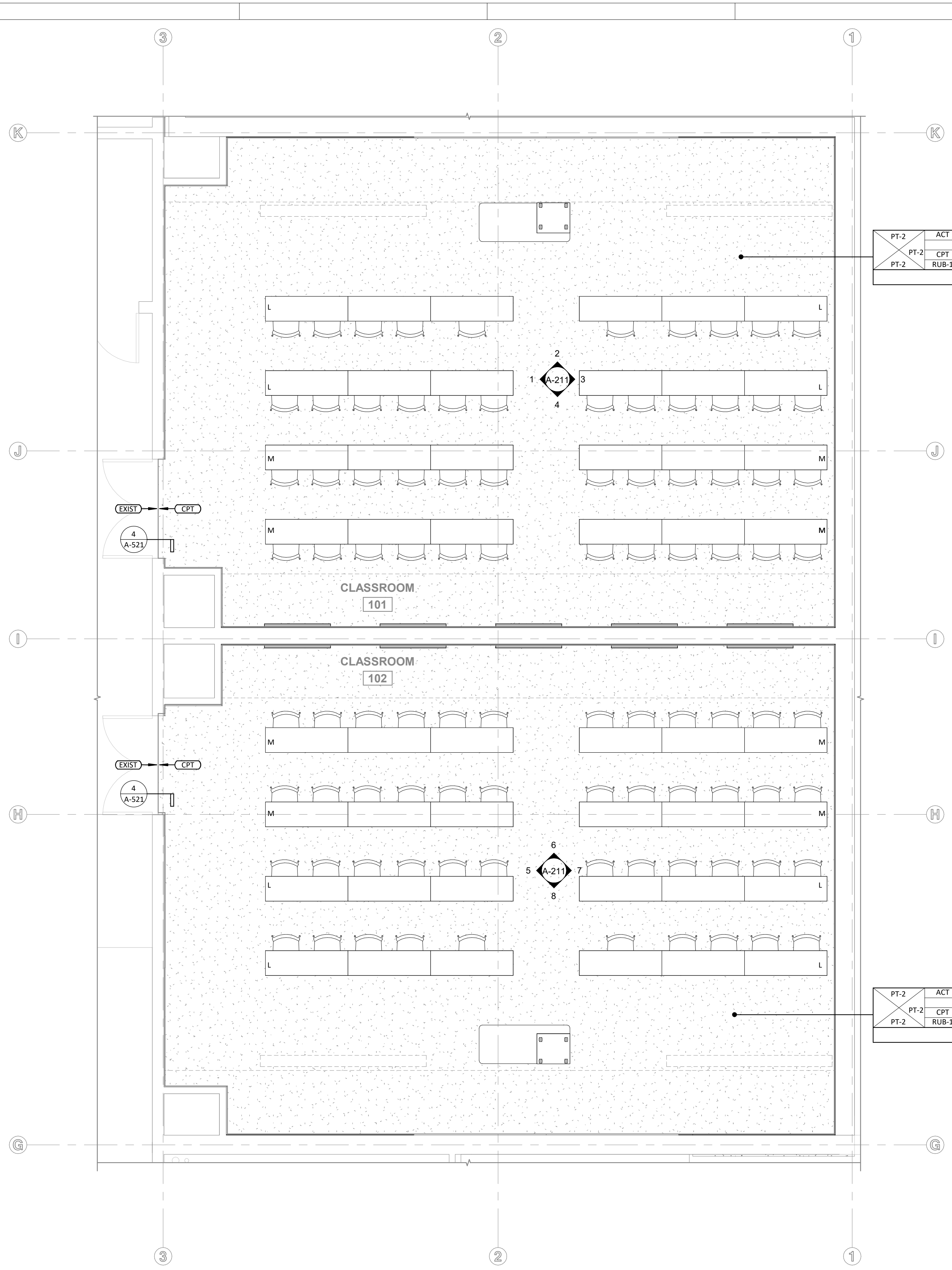
WALL	CEILING
	SILL
	FLOOR
	BASE
NOTES	

PT-2	ACT
PT-2	CPT
PT-2	RUB-1

PT-2	ACT
PT-2	CPT
PT-2	RUB-1

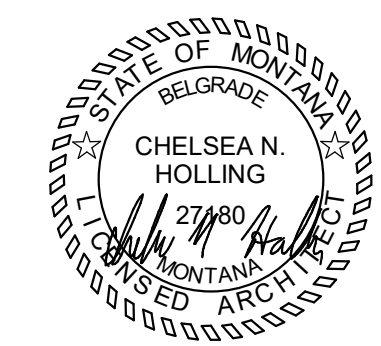


KEY PLAN



1 101/102 FINISH FLOOR PLAN
1/4" = 1'-0"
0 2 4 8

PROJECT #/Project Number



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MONTANA STATE UNIVERSITY
 REID HALL,
 BOZEMAN, MONTANA 59717
 PPA#: 25-1214

DRAWN: RH CHECKED: CH
 DATE: 12/17/2025
 REVISIONS:
 A ADDENDUM #1 01/21/26

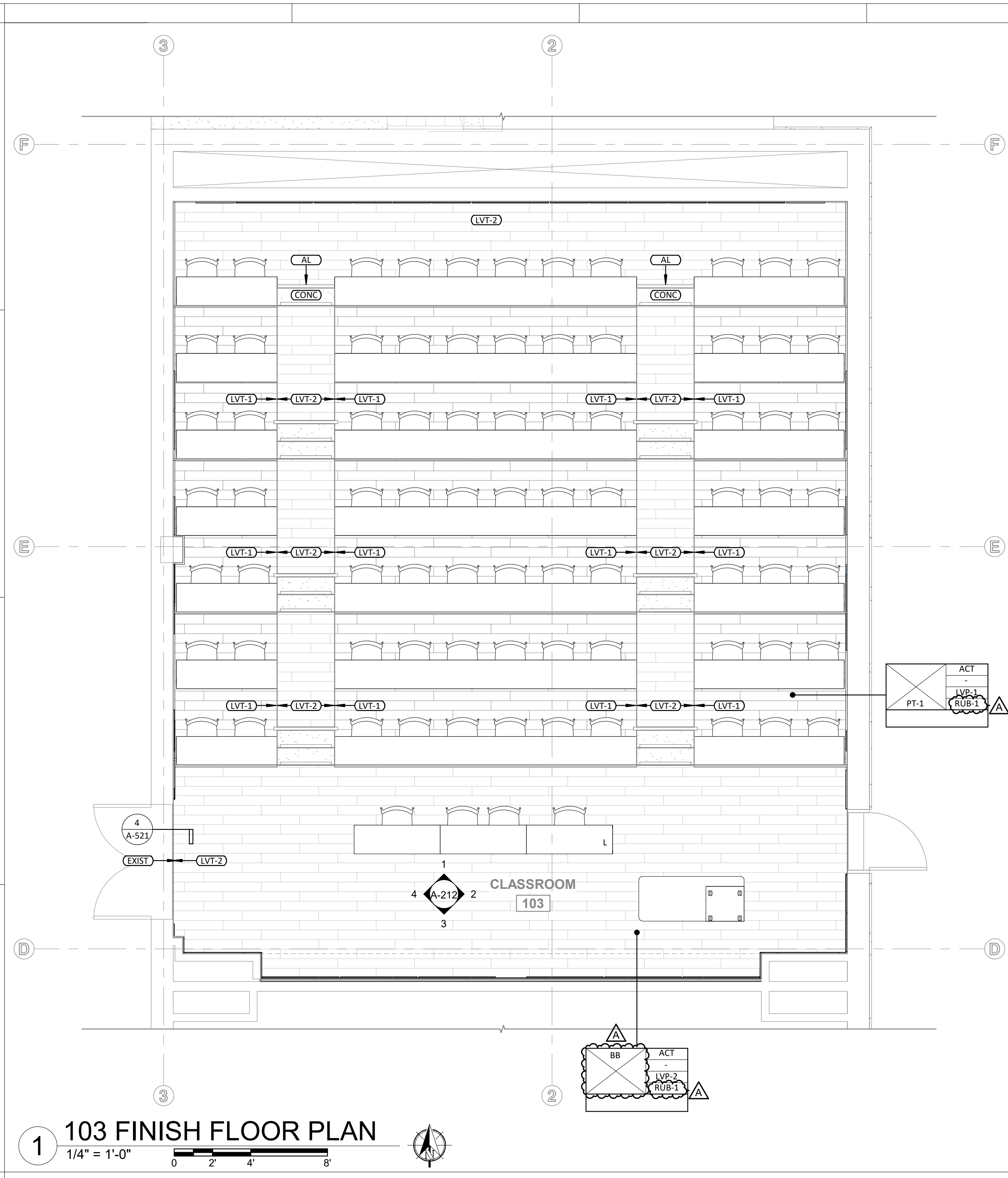
103 FINISH FLOOR PLAN
ALT. #2

A-132

FINISH SCHEDULE					
TAG	KEY	COLOR	MANUFACTURER	STYLE	NOTE
ACT	ACOUSTIC CEILING TILE	WHITE	ARMSTRONG	CIRRUS 584	24" X 48" SQUARE LAY-IN 15/16, 0.70 NRC
AL	ALUMINUM TRANSITION STRIP	GRAPHITE GRAY			
BB	NON-ACOUSTIC FLAT BAMBOO PANEL	AMBER	PLYBOO		FRONT OF PLATFORM RISERS ONLY.
CONC	CONCRETE				
EXIST	EXISTING	EXISTING	EXISTING	EXISTING	
FAB-2	ACOUSTIC FABRIC PANEL	WEDGEWOOD	G & S ACOUSTICS	MELODY MSCORES-RAP	SIZES: 2' X 2', 2' X 4', 4' X 4', 1" THICKNESS. NRC 0.85
LVT-1	LUXURY VINYL TILE	WREATH PT69/PT82	DALTILE	PIPES TERRACE	
LVT-2	LUXURY VINYL PLANK	SADDLE BP14	DALTILE	BELLAMY PLACE	
PT-1	PAINT	SW-7012 CREAMY	SHERWIN WILLIAMS		
RUB-1	RUBBER BASE	BLACK	JOHNSONITE	DURAVOVE 4"	THERMOPLASTIC RUBBER 1/8"

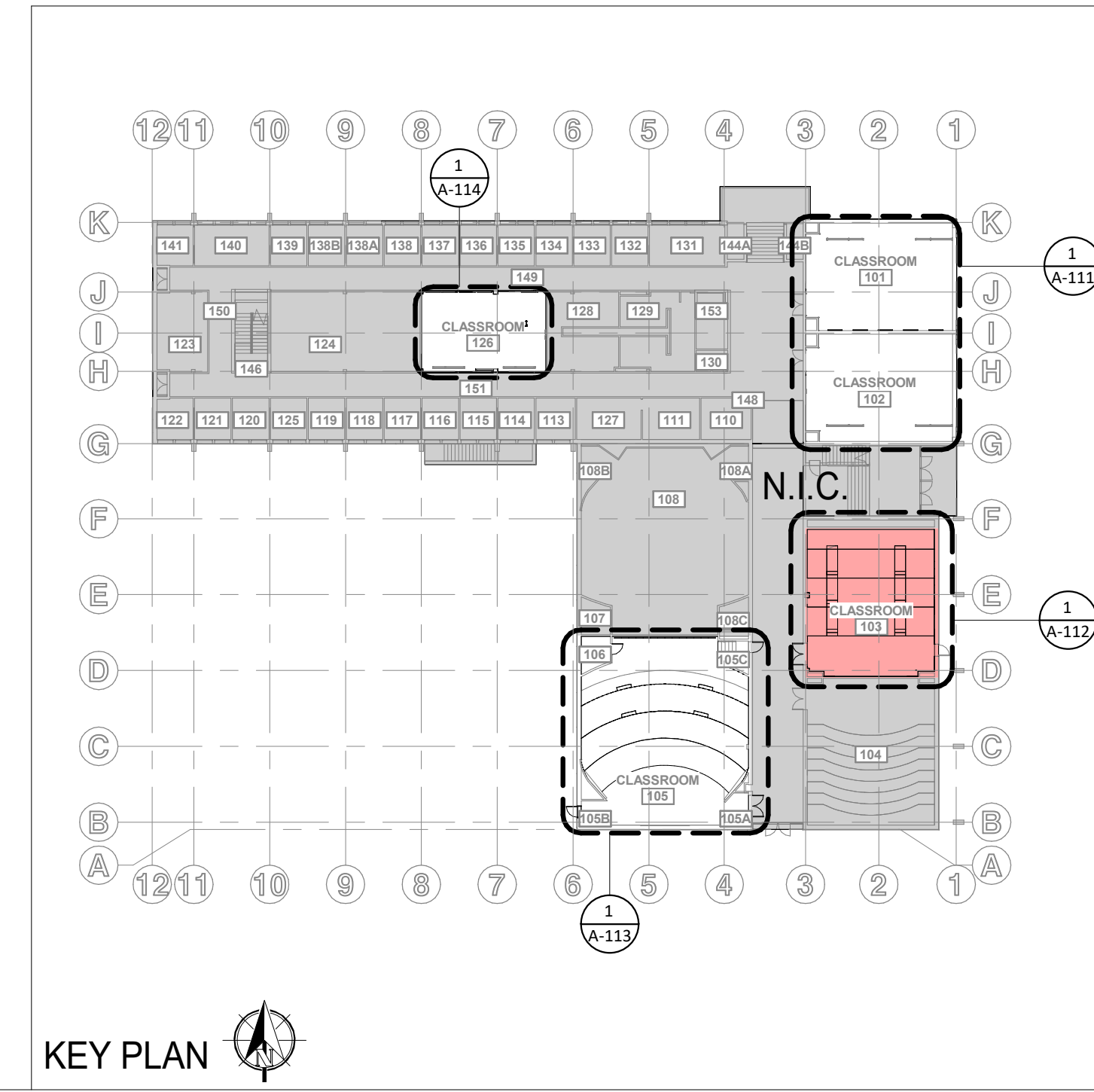
ROOM FINISH KEY

WALL	CEILING
WALL	SILL
WALL	FLOOR
WALL	BASE
NOTES	



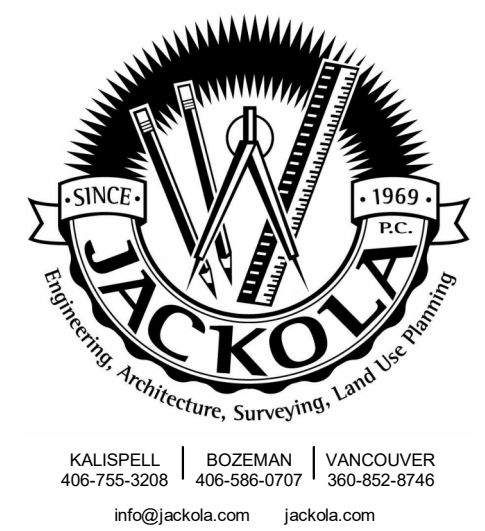
1 103 FINISH FLOOR PLAN
1/4" = 1'-0"

**ENTIRE SHEET IS
ADD ALTERNATE #2**



KEY PLAN

PROJECT #/Project Number



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**105 FINISH FLOOR PLAN
ALT. #1**

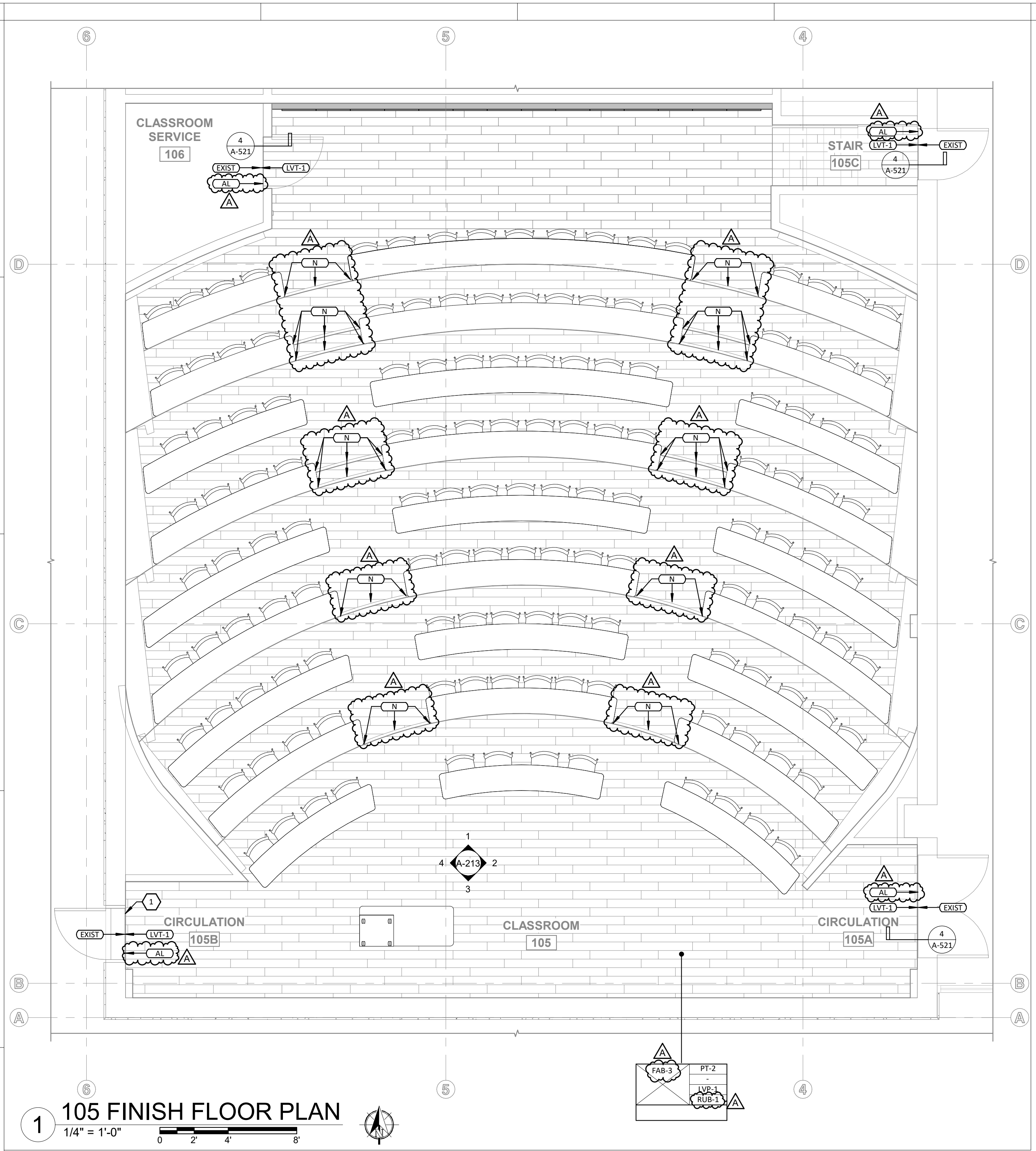
A-133

FINISH SCHEDULE

TAG	KEY	COLOR	MANUFACTURER	STYLE	NOTE
AL	ALUMINUM TRANSITION STRIP	ALUMINUM	SCHLUTER SYSTEMS	RENO-T - T9/14A	
EXIST	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING
FAB-3	ACOUSTIC WALL PANEL	FR-701 BLUE PLUM	ARMSTRONG	SOUNDSOAK 85	SIZE: 2' X 8' X 1". NRC 0.80
LVT-1	LUXURY VINYL TILE	WIREBATH PEBBLE	DALTEC	PINES TERRACE	
N	NOSE STRIP	ASH	FLEXITONS	#129 FLEXITONS 1" TOP MOUNT	FLEXIBLE STAIR NOSING FOR STAIR TREADS AND PLATFORM RISERS.
PT-2	PAINT	SW 9EG GOSSAMER VEIL	SHERWIN WILLIAMS	EGGSHELL	
RUB-1	RUBBER BASE	BLACK	JOHNSONITE	DURACOVE 4"	

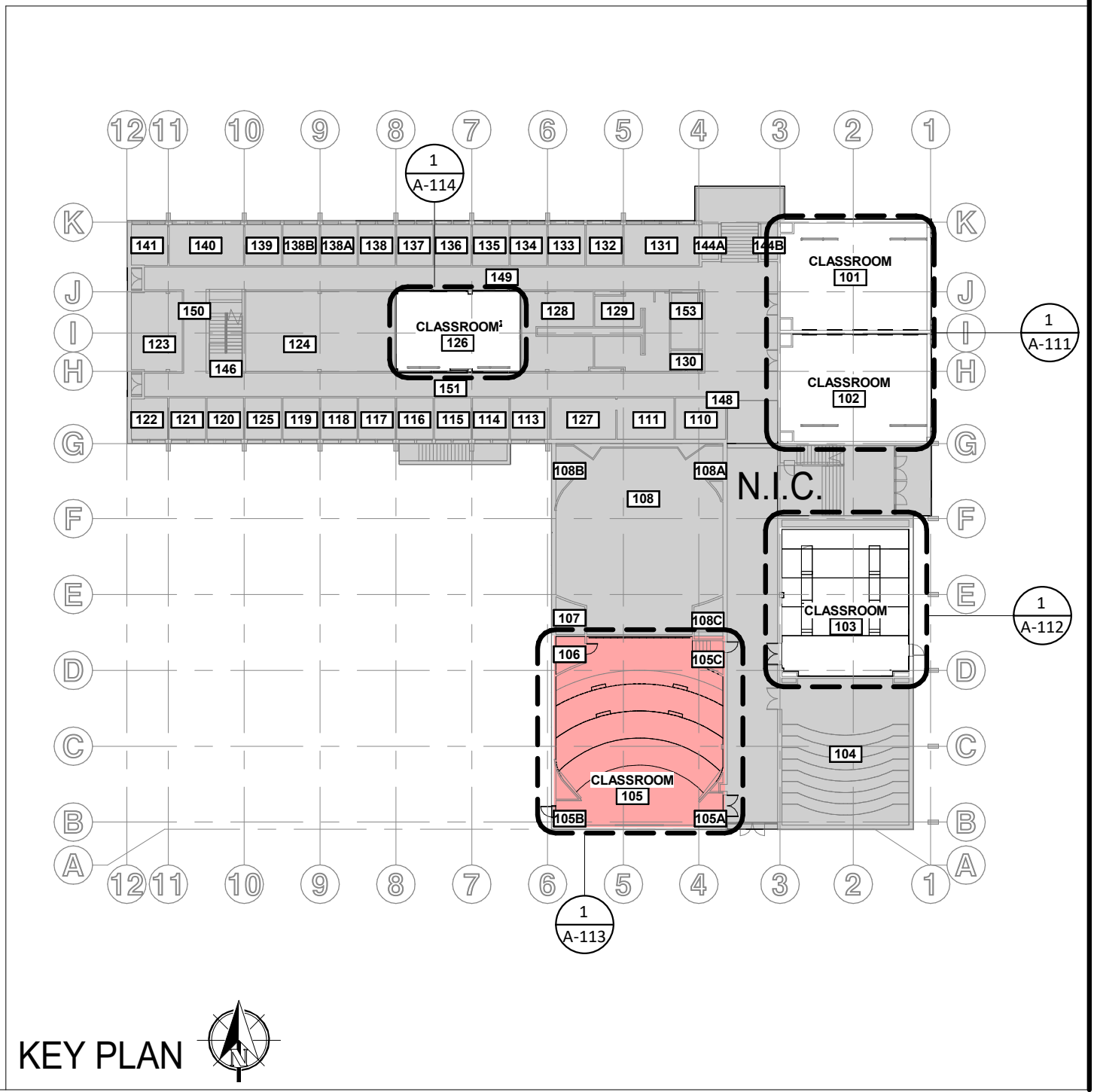
ROOM FINISH KEY

WALL	CEILING
WALL	SILL
WALL	FLOOR
WALL	BASE
NOTES	



1 105 FINISH FLOOR PLAN
1/4" = 1'-0"

**ENTIRE SHEET IS
ADD ALTERNATE #1**



PROJECT #/Project Number

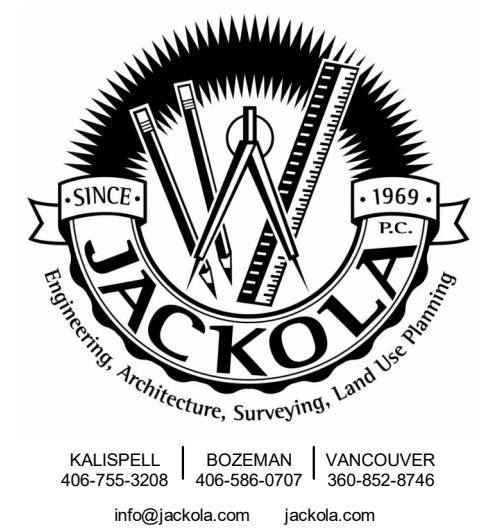
1 126 FINISH FLOOR PLAN
 1/4" = 1'-0"
 0 2' 4' 8'

ROOM FINISH KEY

WALL	CEILING
	SILL
	FLOOR
WALL	BASE
NOTES	

FINISH SCHEDULE

TAG	KEY	COLOR	MANUFACTURER	STYLE	NOTE
EXIST	EXISTING	EXISTING	EXISTING	EXISTING	
FAB-4	ACOUSTIC FELT PANEL	DARK GREY (FDG)	ARMSTRONG	FELTWORKS	SIZE: 2' X 4' X 1". NRC 0.75
PT-2	PAINT	SW 9165 GOSSAMER VEIL	SHERWIN WILLIAMS	EGGSHELL	
PT-3	PAINT	SW 9133 JASPER STONE	SHERWIN WILLIAMS	EGGSHELL	
PT-4	PAINT	SW 7757 HIGH REFLECTIVE WHITE	SHERWIN WILLIAMS	DRYFALL	BASE BID: SHERWIN WILLIAMS DRYFALL PAINT ON CEILING
RUB-1	RUBBER BASE	BLACK	JOHNSONITE	DURACOVE 4"	THERMOPLASTIC RUBBER 1/8"
SS-1	SOLID SURFACE	DEEP STORM	CORIAN		CHAIR RAIL (9 5/8" H X 1/2" D)



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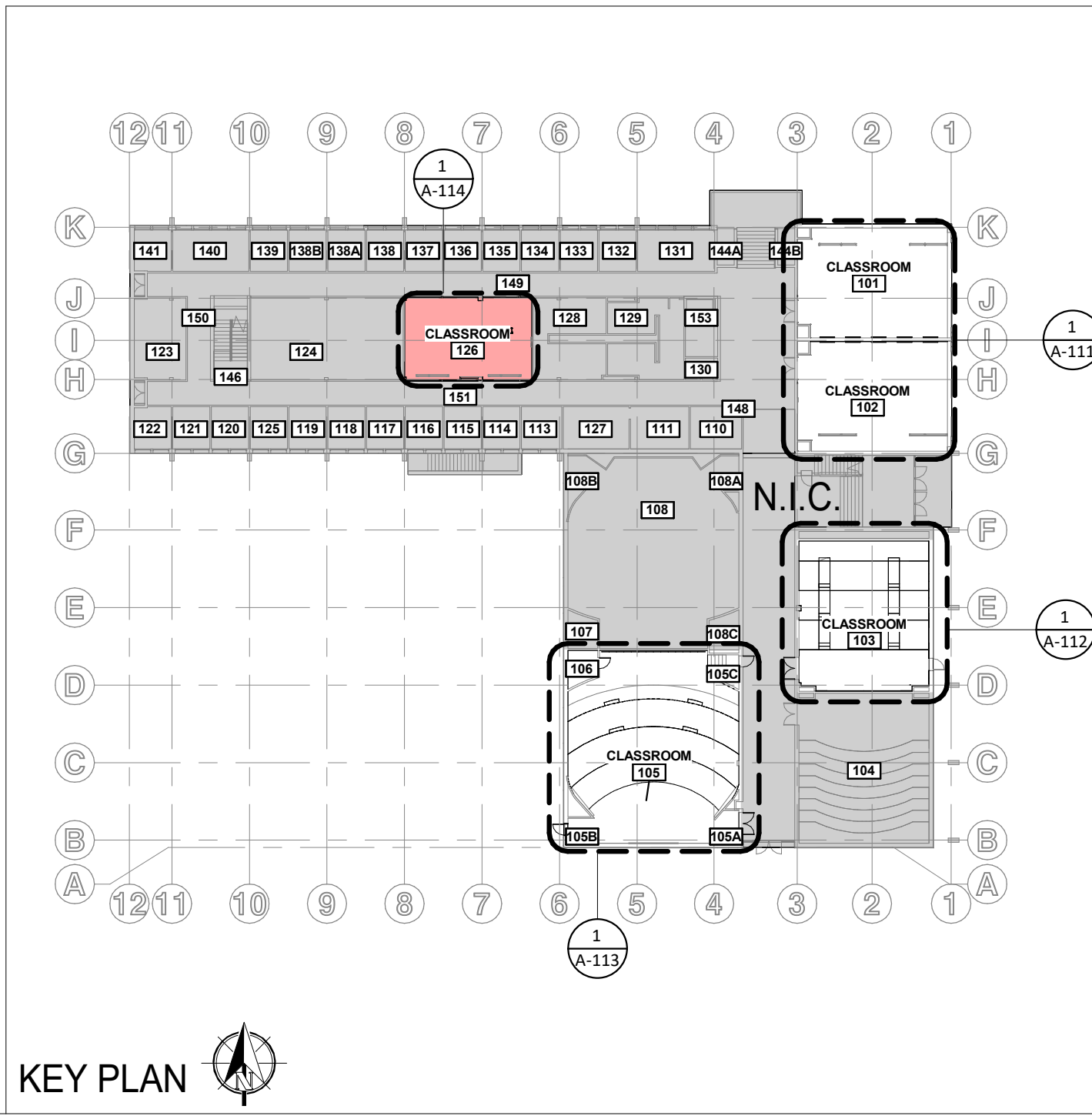
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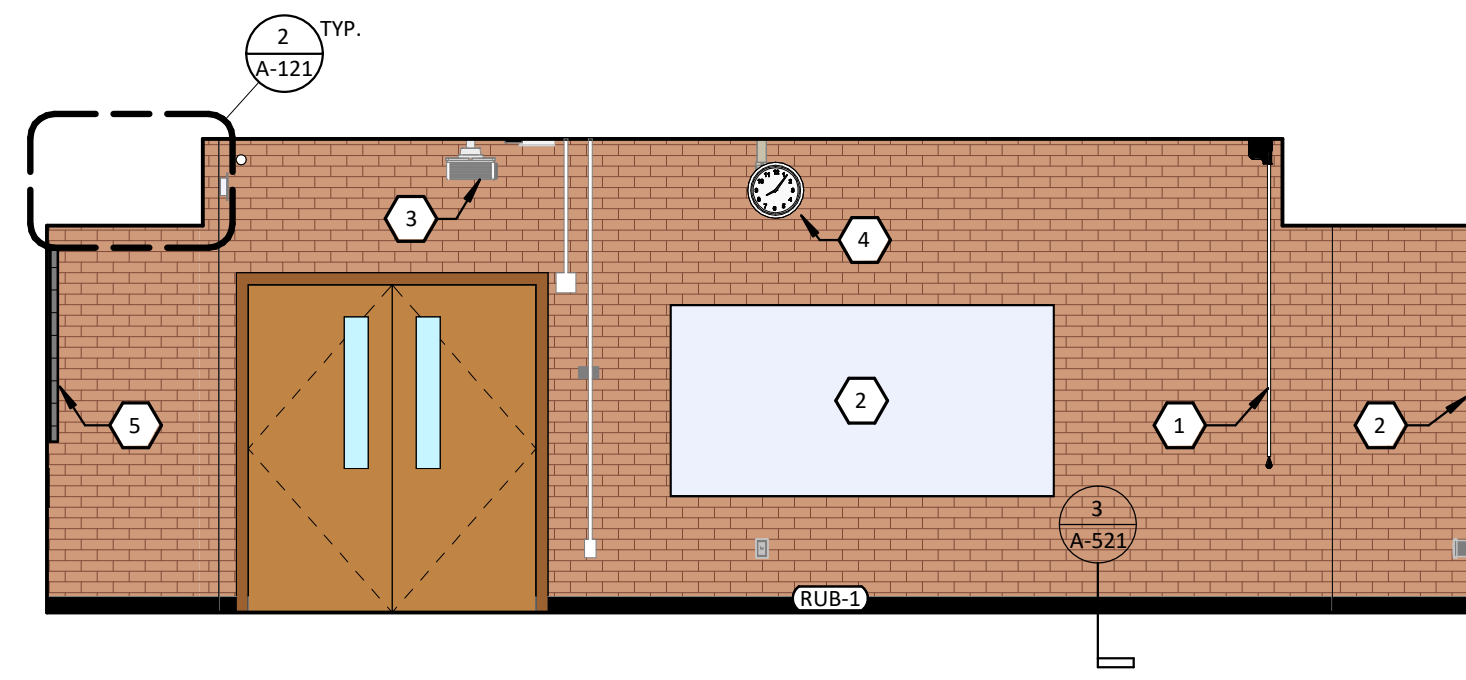
126 FINISH FLOOR PLAN
ALT. #3

A-134

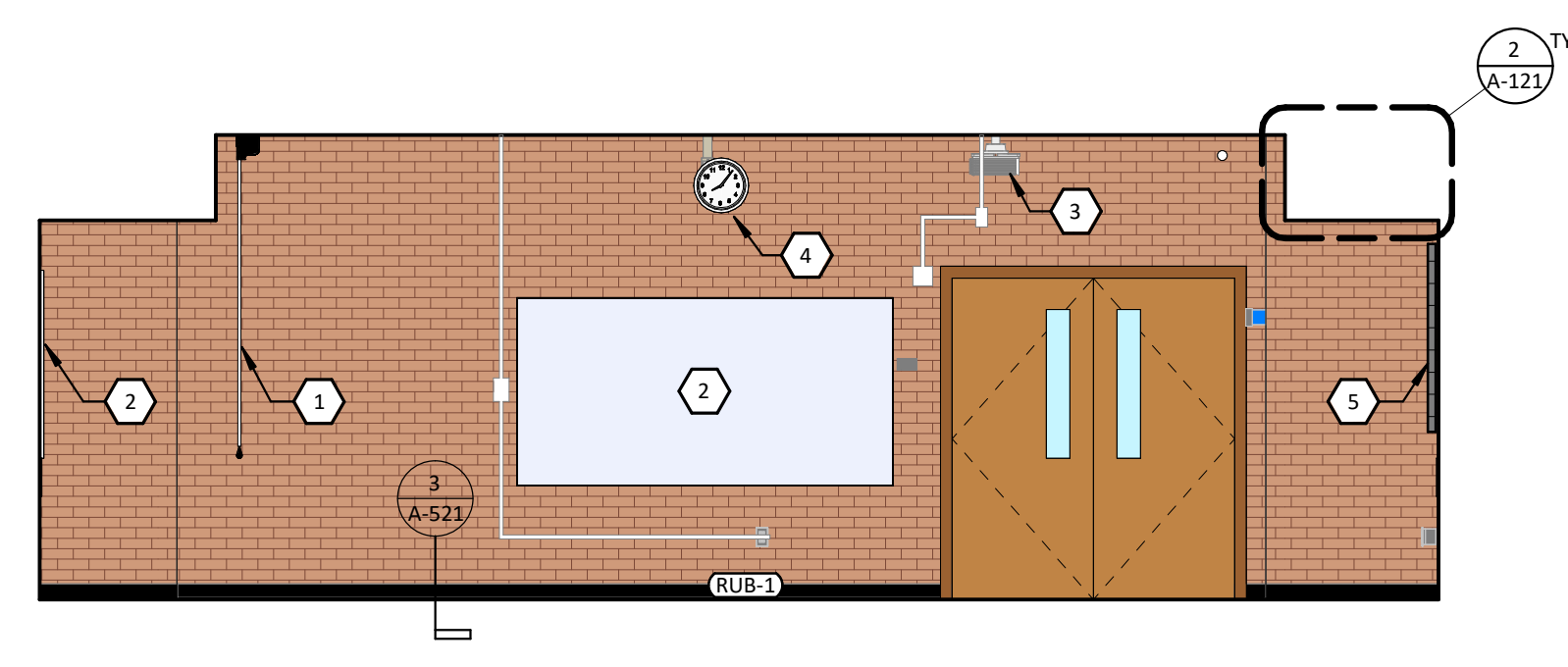


**ENTIRE SHEET IS
 ADD ALTERNATE #3**

PROJECT #/Project Number

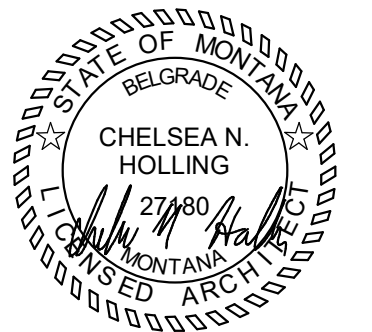
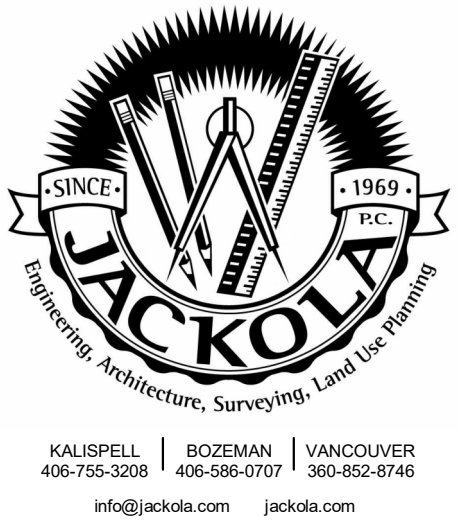


1 101 WEST INTERIOR ELEVATION
1/4" = 1'-0"



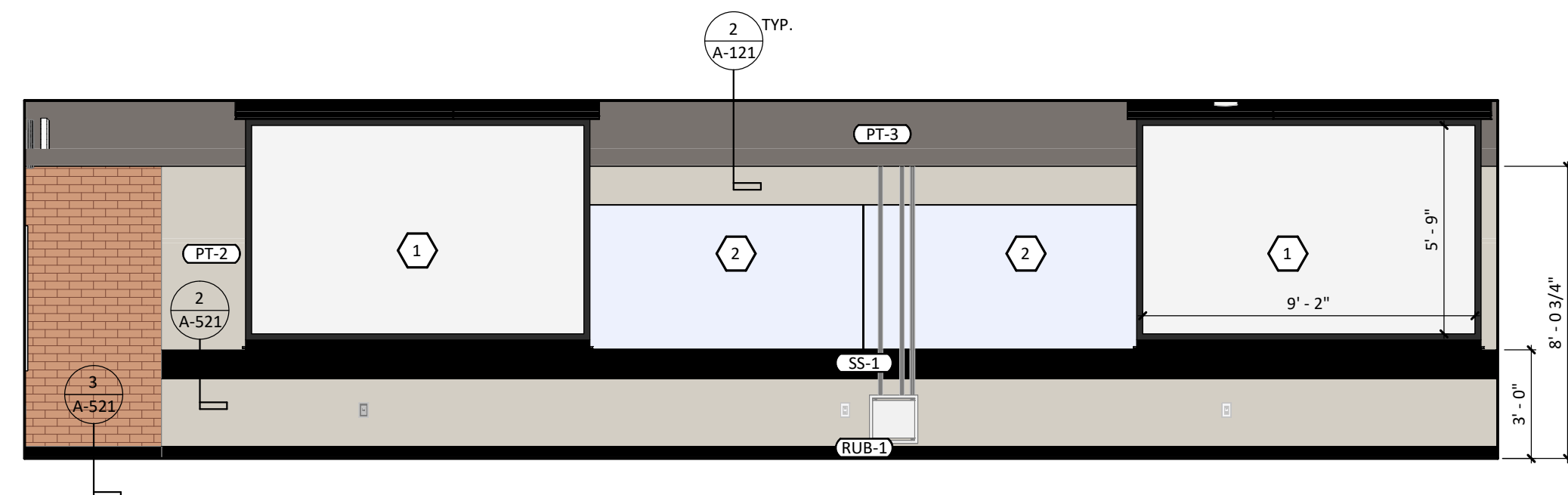
5 102 WEST INTERIOR ELEVATION
1/4" = 1'-0"

- ELEVATION KEYNOTES 101/102**
- 1 CEILING MOUNTED PROJECTOR SCREEN.
 - 2 FIXED WHITEBOARDS, NO TRAY. 4' X 8'. BASIS OF DESIGN: OPTIMA GREAT WHITE MAGNETIC WHITEBOARD
 - 3 CEILING MOUNTED PROJECTOR.
 - 4 POE CLOCK VISIBLE TO EVERYONE IN ROOM.
 - 5 ACOUSTIC WALL PANELS. BASIS OF DESIGN: ARMSTRONG FELTWORKS. SIZE: 4'x4', COLOR: DARK GREY (FDG). 0.75 NRC

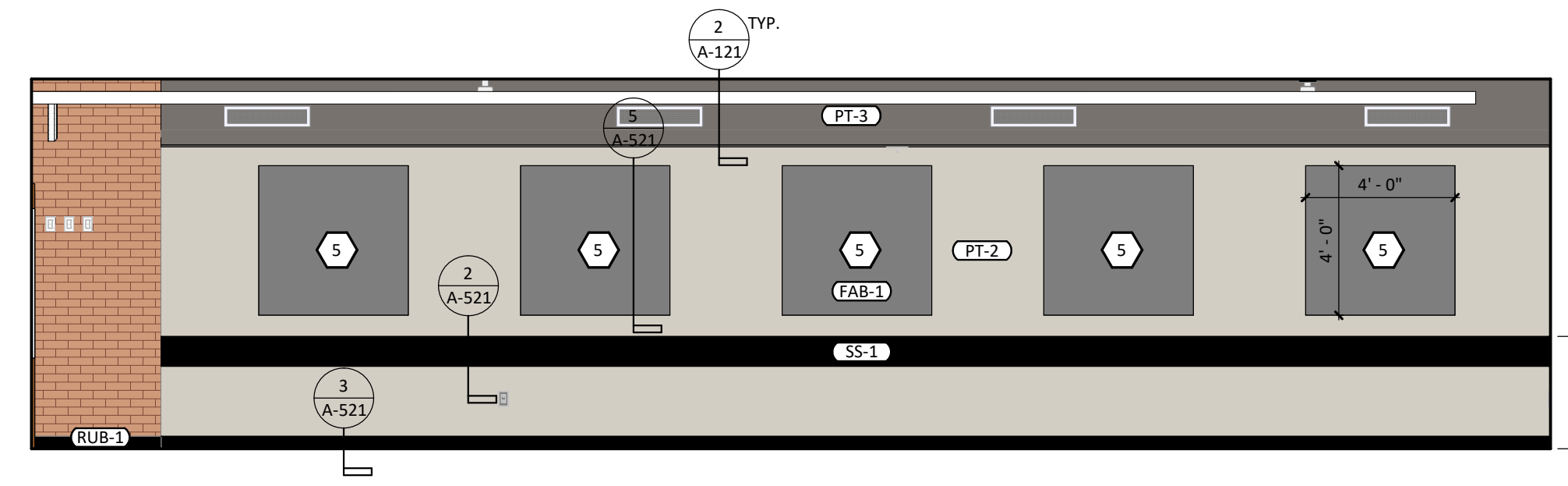


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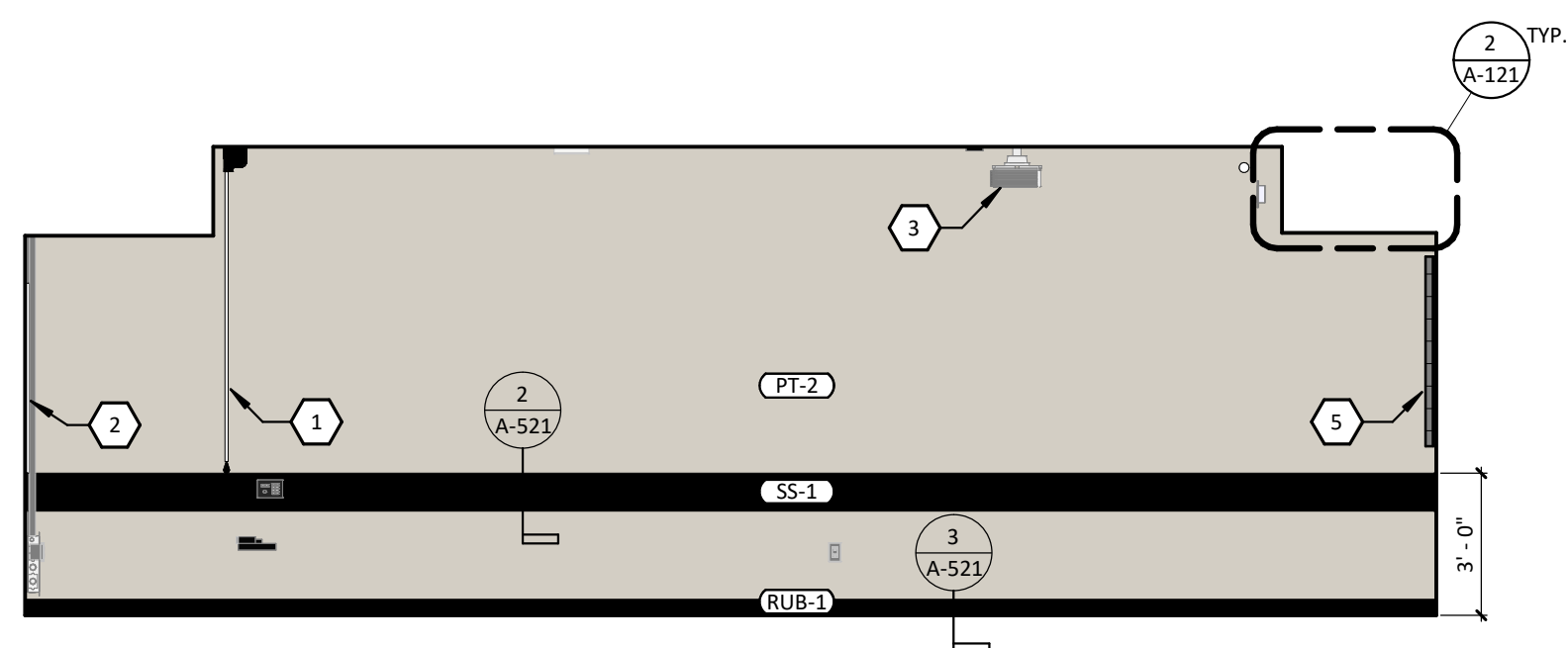
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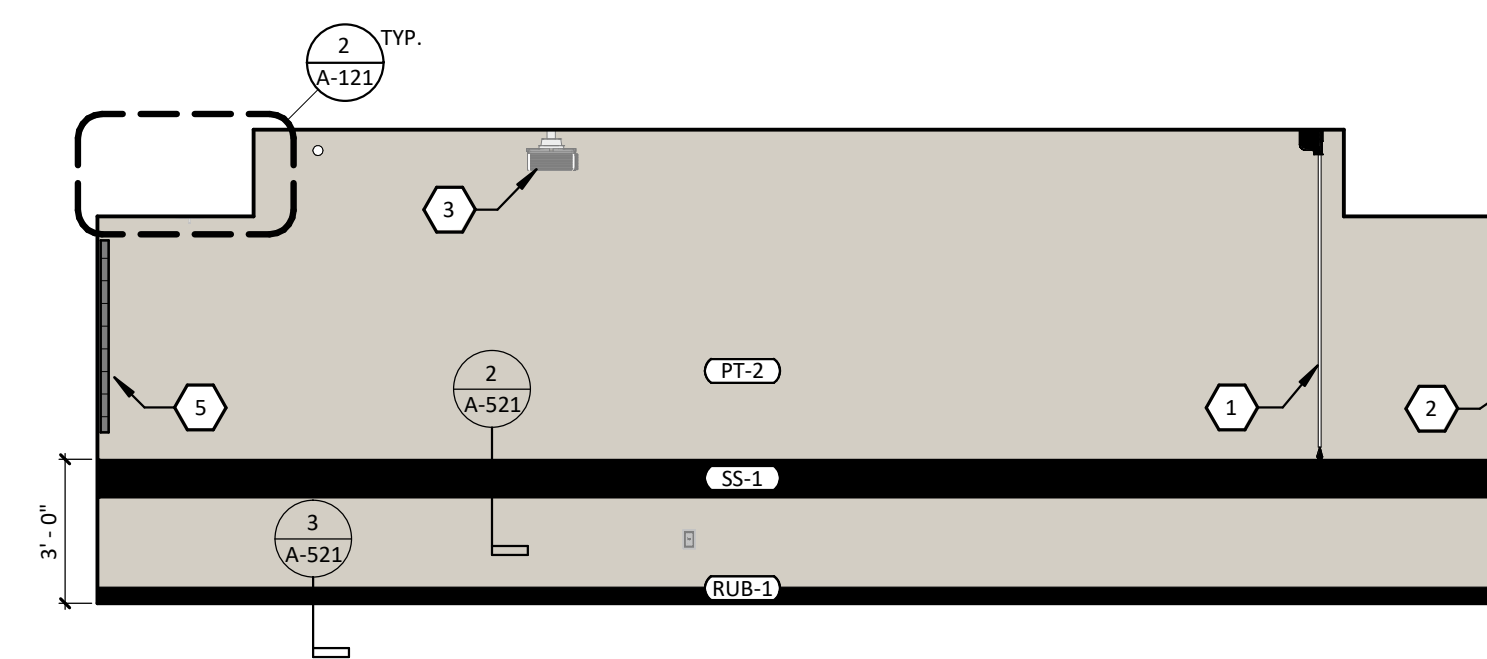
2 101 NORTH INTERIOR ELEVATION
1/4" = 1'-0"



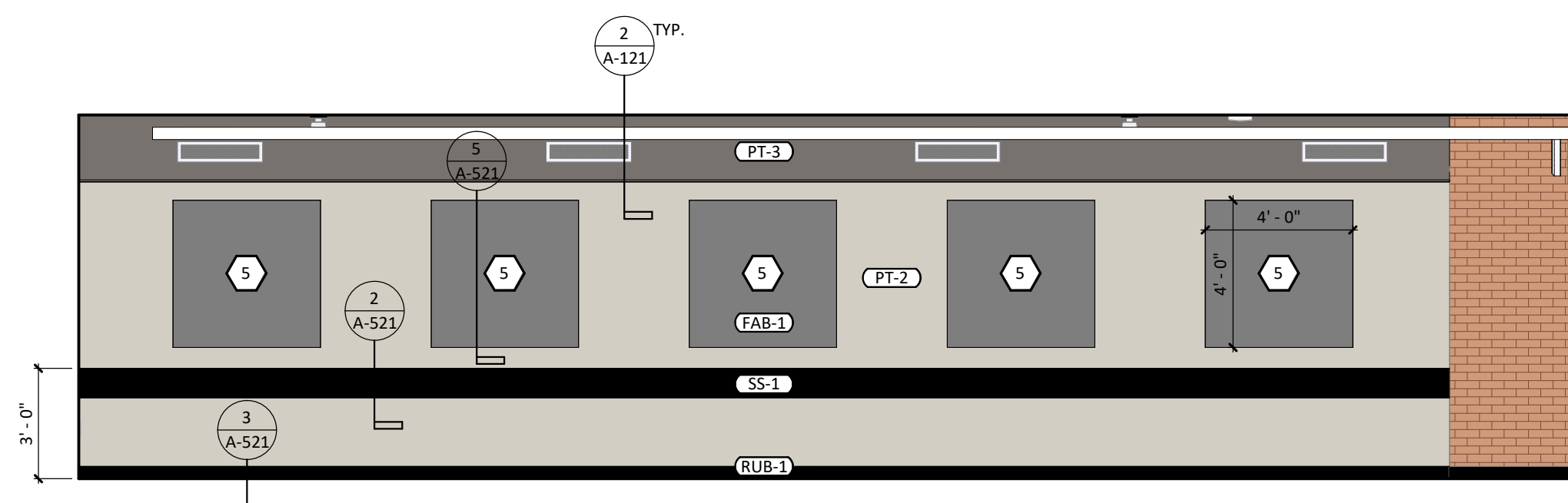
6 102 NORTH INTERIOR ELEVATION
1/4" = 1'-0"



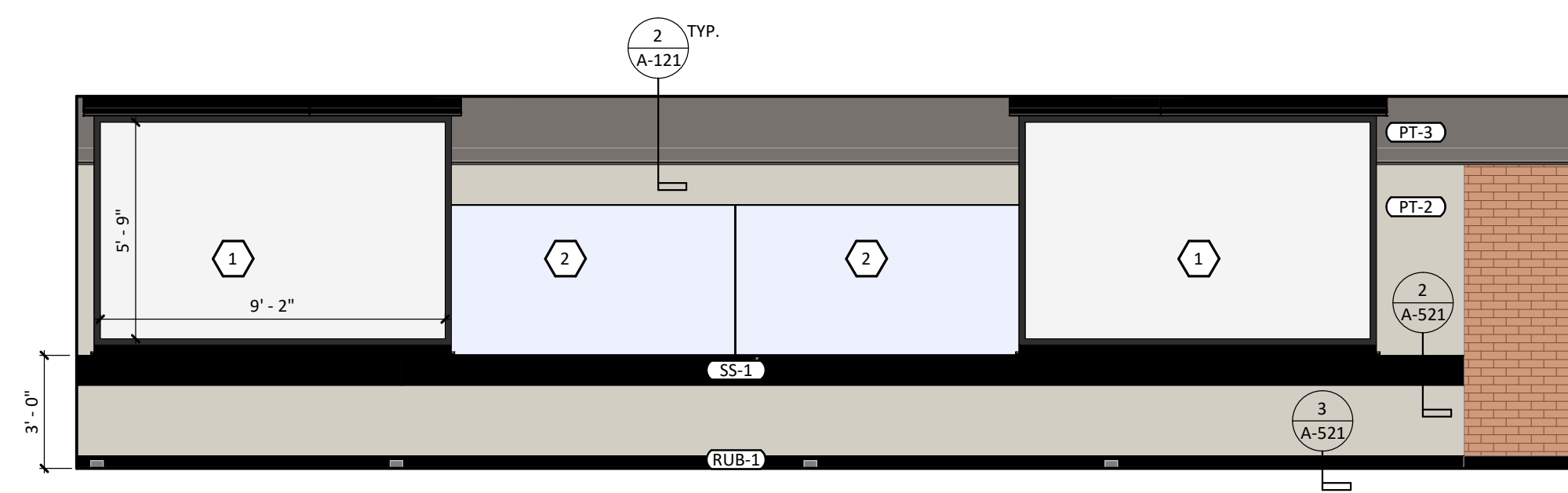
3 101 EAST INTERIOR ELEVATION
1/4" = 1'-0"



7 102 EAST INTERIOR ELEVATION
1/4" = 1'-0"



4 101 SOUTH INTERIOR ELEVATION
1/4" = 1'-0"



8 102 SOUTH INTERIOR ELEVATION
1/4" = 1'-0"

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MONTANA STATE UNIVERSITY**

REID HALL,
BOZEMAN, MONTANA 59717
PPA#: 25-1214

DRAWN: RH CHECKED: CH

DATE: 12/17/2025

REVISIONS:

101/102
INTERIOR
ELEVATIONS

A-211

**ENTIRE SHEET IS
ADD ALTERNATE #2**

INTERIOR ELEVATION KEYNOTES 103

- 1 WALL MOUNTED PROJECTOR SCREEN.
- 2 FIXED WHITEBOARDS, NO TRAY. 4' X 10'. BASIS OF DESIGN: OPTIMA GREAT WHITE MAGNETIC WHITEBOARD.
- 3 CEILING MOUNTED PROJECTOR.
- 4 POE CLOCK VISIBLE TO EVERYONE IN ROOM.
- 5 WALL MOUNTED FABRIC PANELS. BASIS OF DESIGN: G & S ACOUSTICS MELODY MSCORES-RAP. COLOR: WEDGEWOOD, NRC 0.75



BID SET

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REID HALL,
BOZEMAN, MONTANA 59717
PPA#: 25-1214

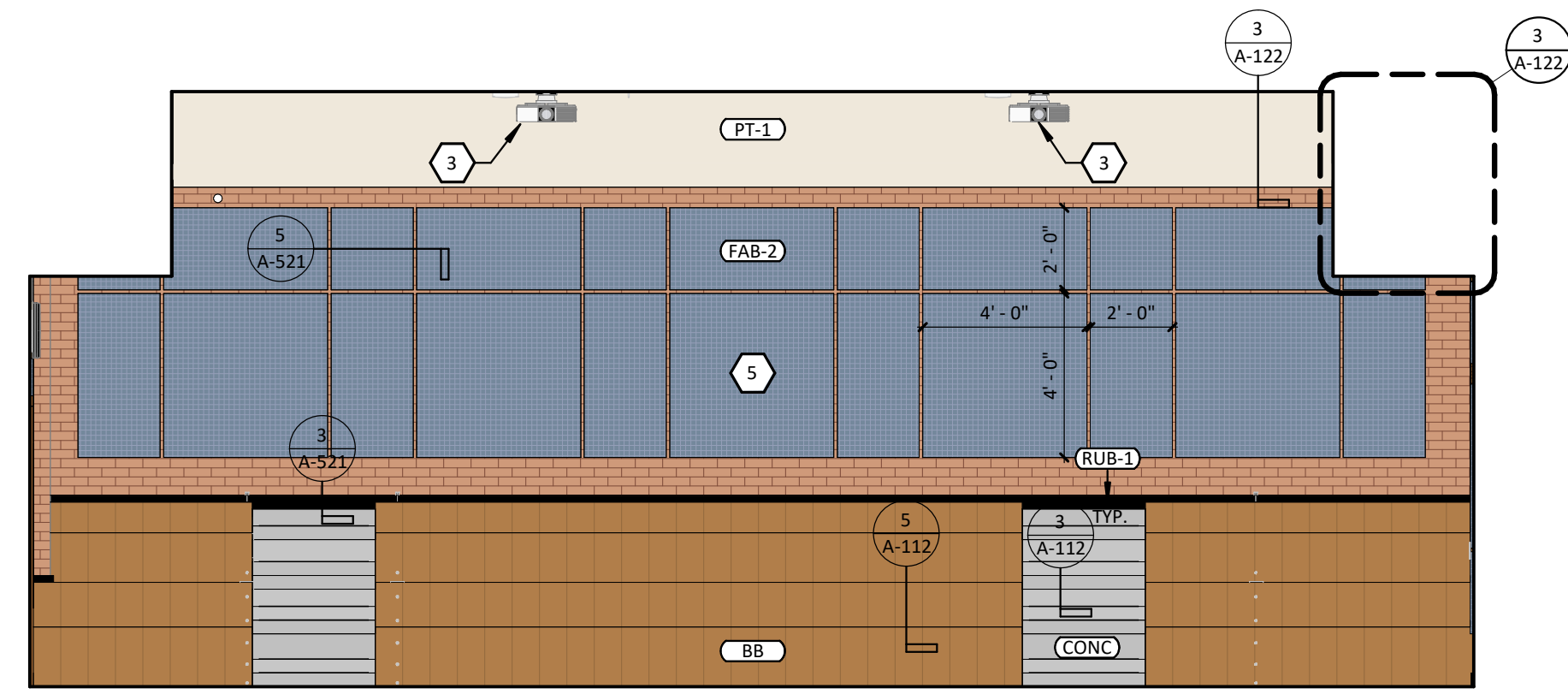
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DATE: 12/17/2025

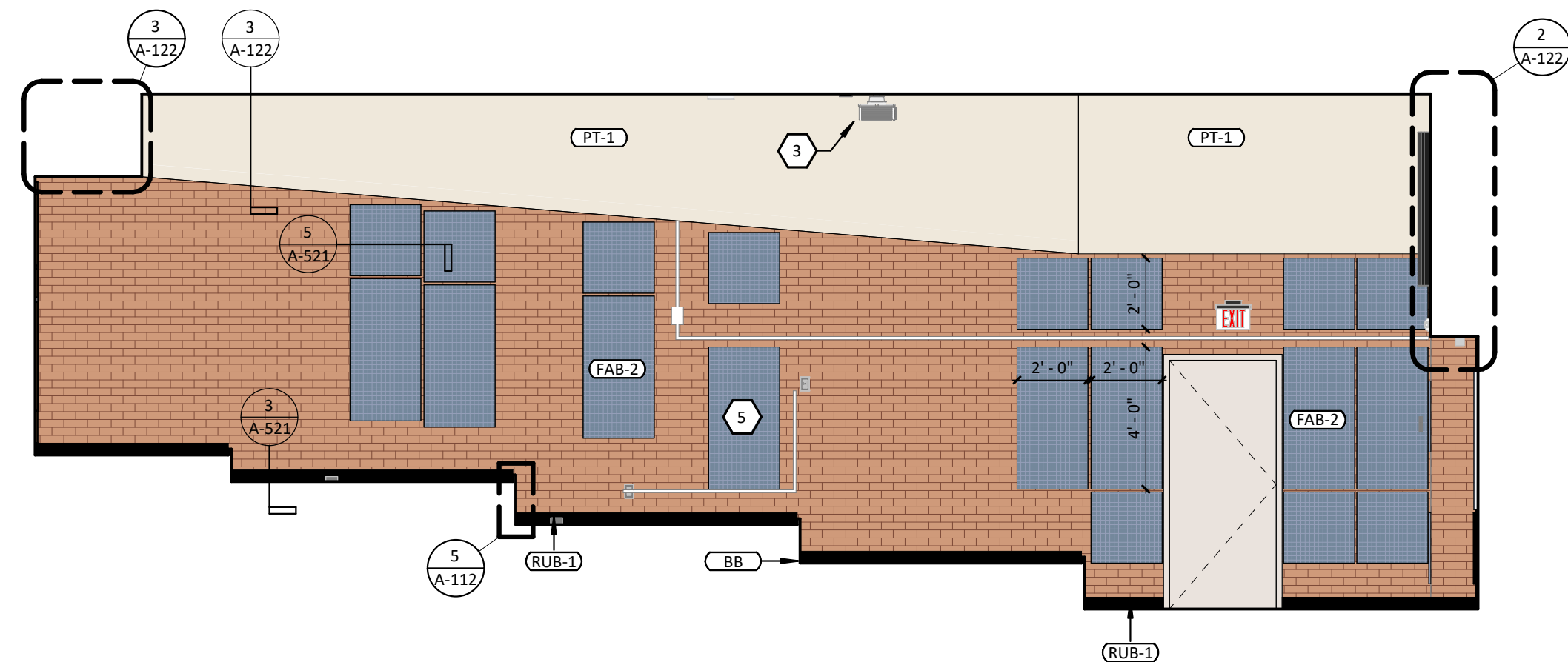
REVISIONS:

**103 INTERIOR
ELEVATIONS
ALT. #2**

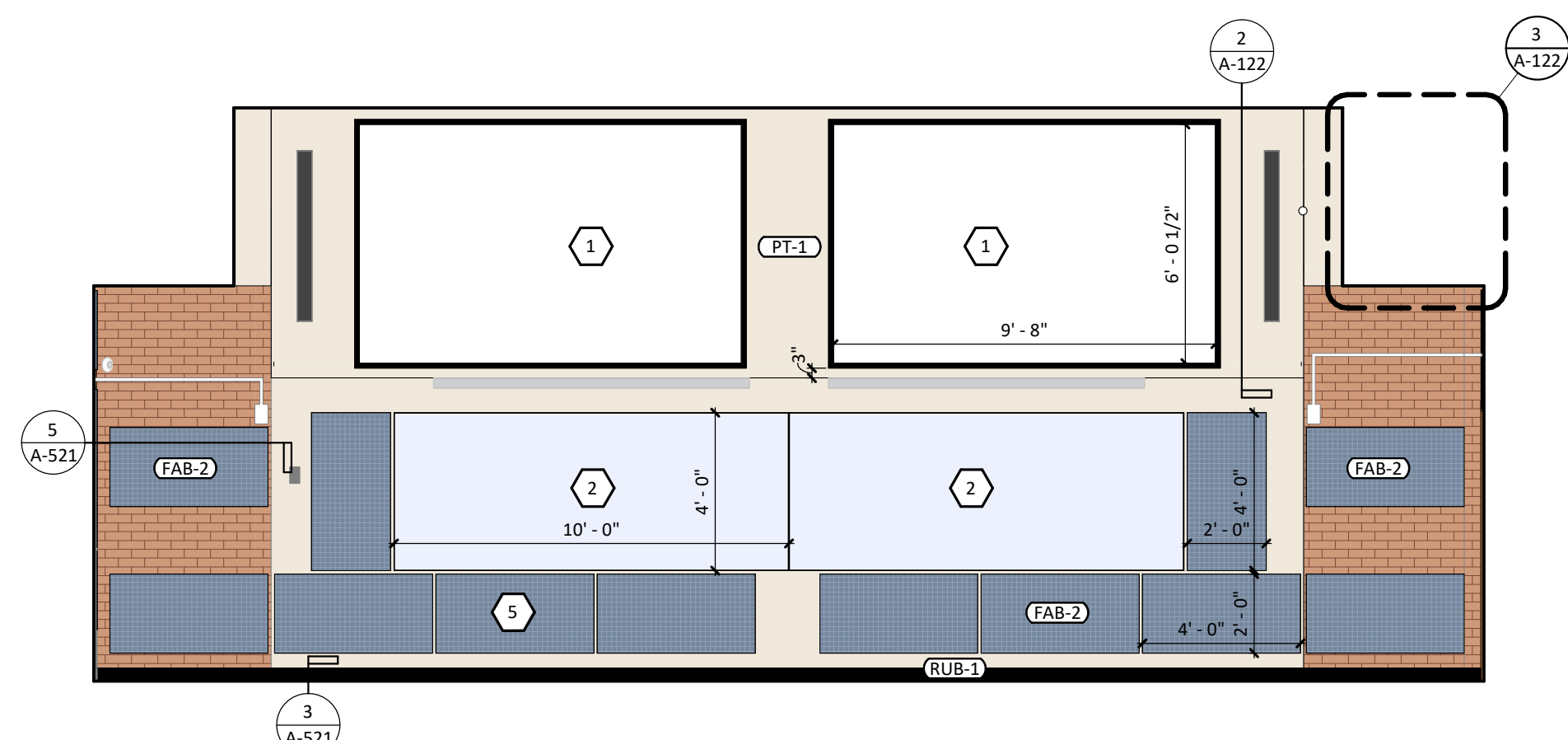
A-212



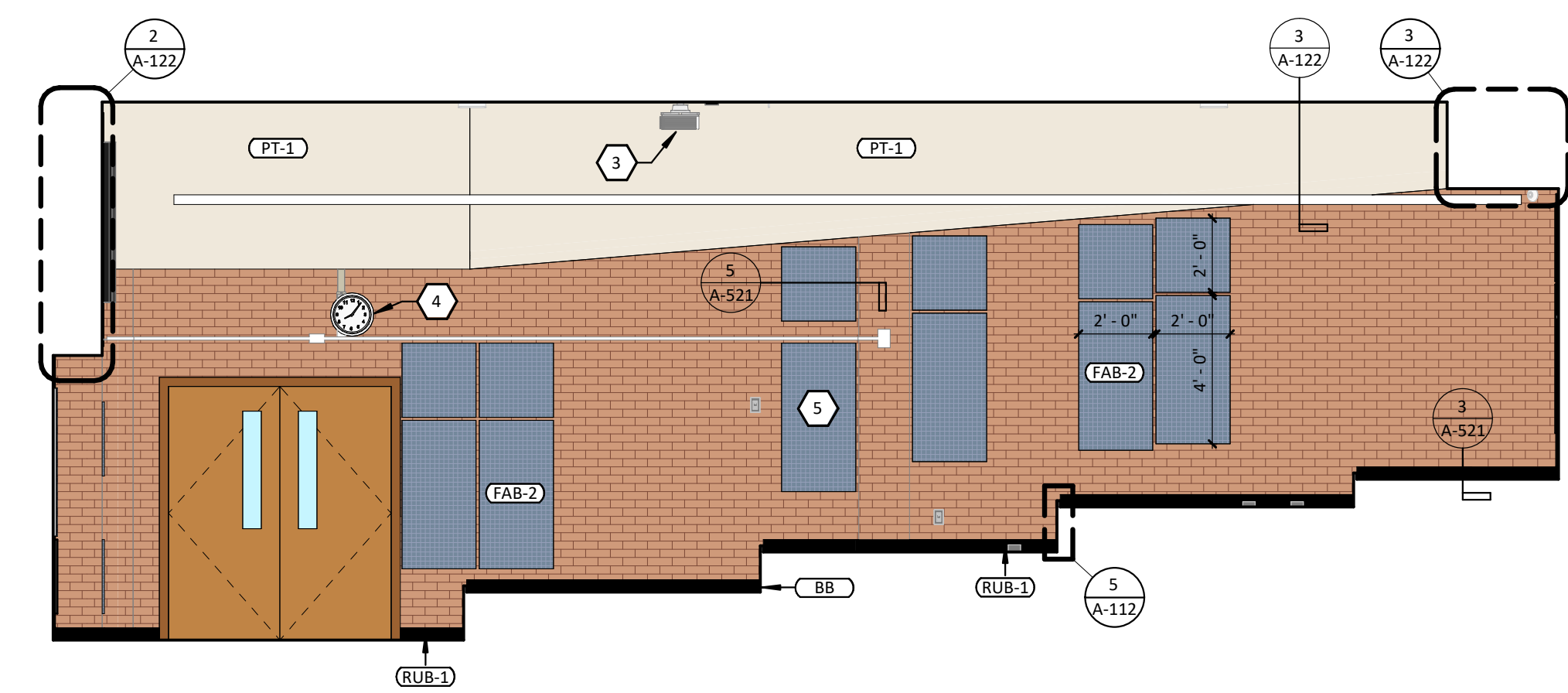
1 103 NORTH INTERIOR ELEVATION
1/4" = 1'-0"



2 103 EAST INTERIOR ELEVATION
1/4" = 1'-0"



3 103 SOUTH INTERIOR ELEVATION
1/4" = 1'-0"



4 103 WEST INTERIOR ELEVATION
1/4" = 1'-0"

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MONTANA STATE UNIVERSITY**

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PPA#: 25-1214

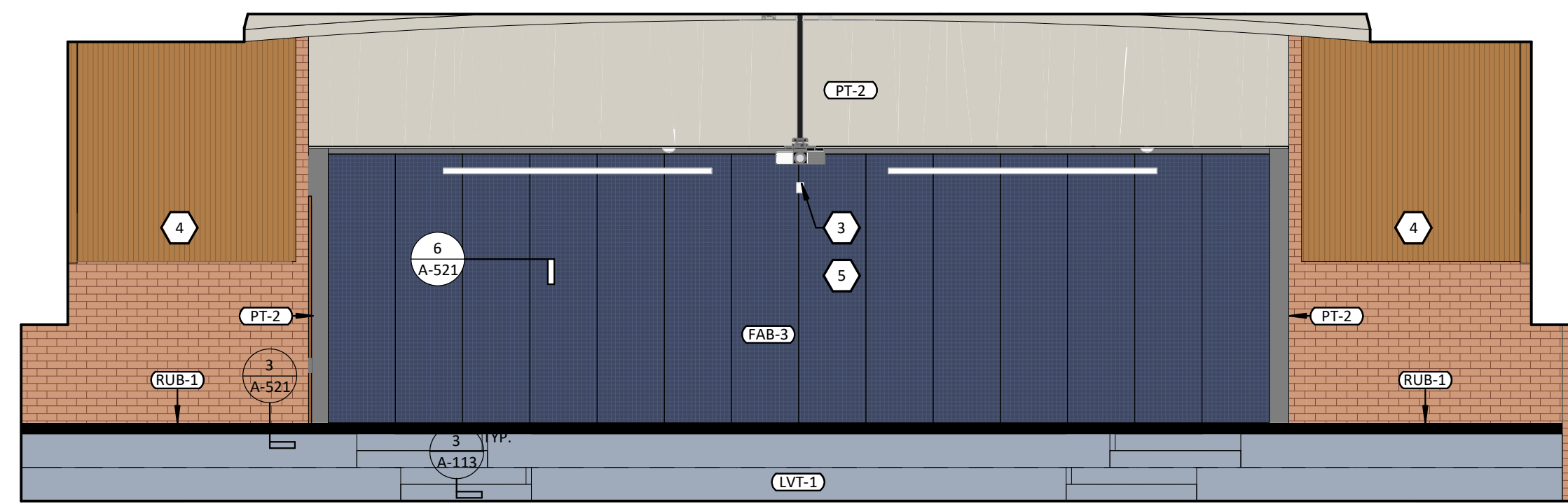
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DATE: 12/17/2025

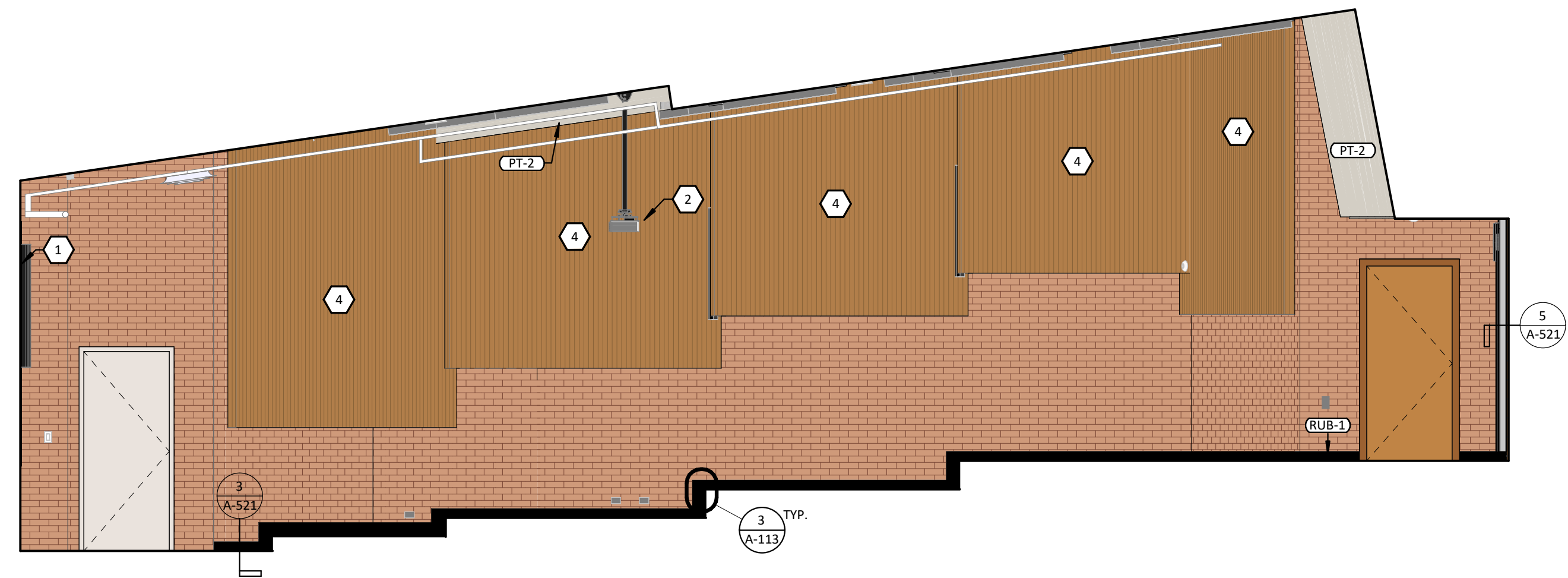
REVISIONS:

105 INTERIOR ELEVATIONS
ALT. #1

A-213

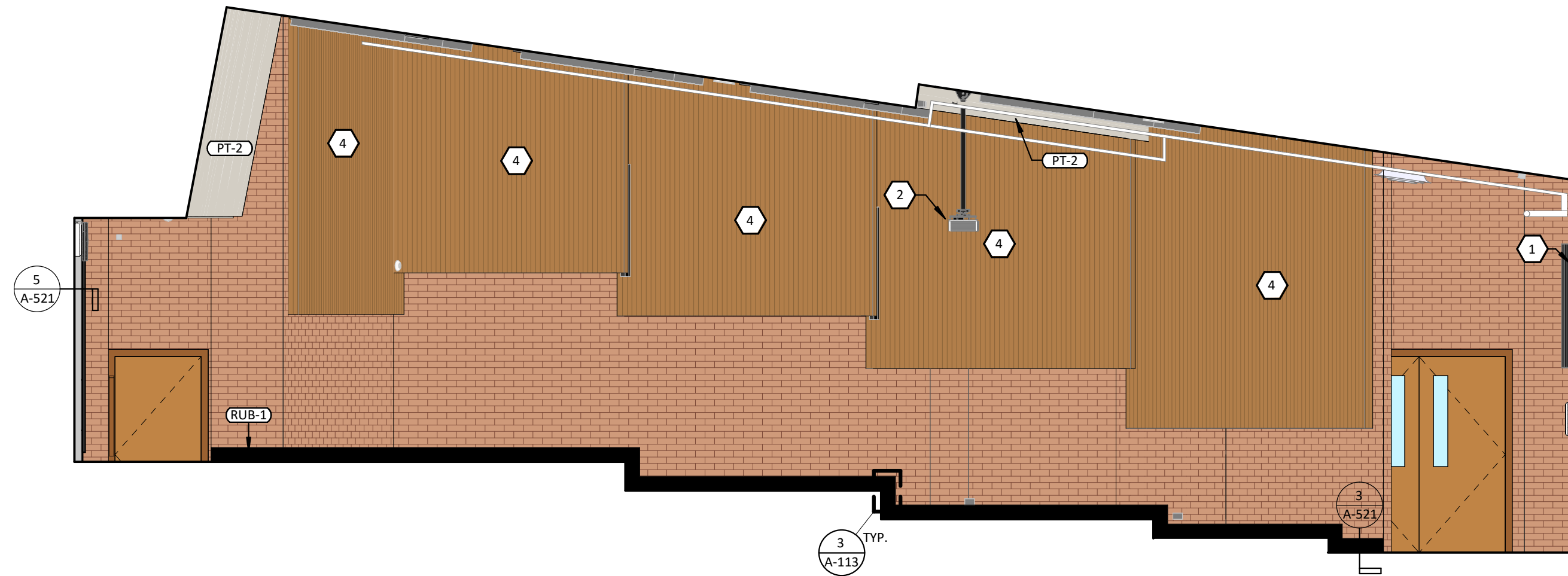


1 105 NORTH INTERIOR ELEVATION
1/4" = 1'-0"

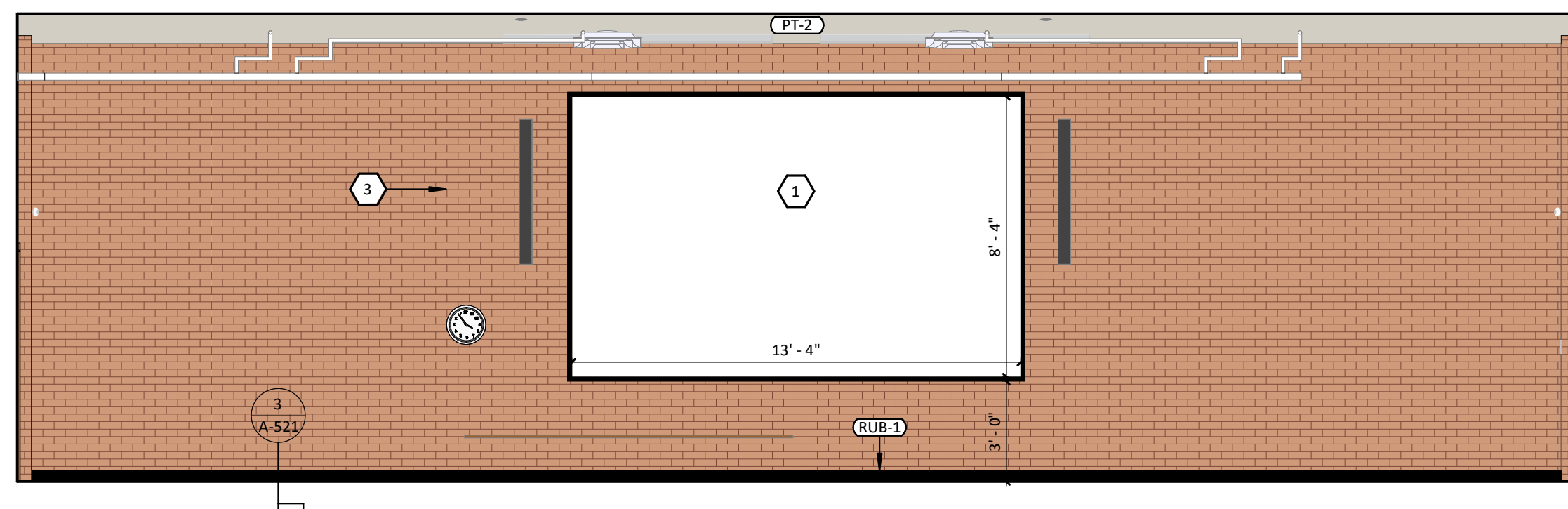


4 105 WEST INTERIOR ELEVATION
1/4" = 1'-0"

- INTERIOR ELEVATION KEYNOTES 105**
- 1 WALL MOUNTED PROJECTOR SCREEN.
 - 2 CEILING MOUNTED PROJECTOR.
 - 3 POE CLOCK VISIBLE TO EVERYONE IN ROOM.
 - 4 REFINISH UNDERSIDE OF EXISTING ACOUSTIC WALL PANELS. SEE DEMO NOTES ON AD113.
 - 5 ACOUSTICAL WALL TREATMENT. BASIS OF DESIGN: ARMSTRONG SOUNDSOAK 85. SIZE: 2'X8'. COLOR: BLUE PLUM FR-701 (FRBE)



2 105 EAST INTERIOR ELEVATION
1/4" = 1'-0"



3 105 SOUTH INTERIOR ELEVATION
1/4" = 1'-0"

**ENTIRE SHEET IS
ADD ALTERNATE #1**

**ENTIRE SHEET IS
ADD ALTERNATE #3**

INTERIOR ELEVATION KEYNOTES 126

- 1 CEILING MOUNTED PROJECTOR SCREEN.
- 2 CUSTOM FIXED WHITEBOARD, NO TRAY. 5' 9" X 3' 9". BASIS OF DESIGN: OPTIMA GREAT WHITE MAGNETIC WHITEBOARD.
- 3 NEW GLAZING IN EXISTING FRAME. MATCH EXISTING.
- 4 EXISTING GLAZING AND FRAME TO REMAIN.
- 5 CEILING MOUNTED PROJECTOR.
- 6 POE CLOCK VISIBLE TO EVERYONE IN ROOM.
- 7 ACOUSTIC WALL PANELS. BASIS OF DESIGN: ARMSTRONG FELTWORKS. SIZE: 2'x4', COLOR: DARK GREY (FDG). 0.75 NRC.
- 8 NEW ALUMINUM-FRAMED STOREFRONT SWINGING DOOR. B.O.D: KAWNEER 451 UT.
- 9 NEW ALUMINUM-FRAMED STOREFRONT SWINGING DOOR. B.O.D: KAWNEER 350.



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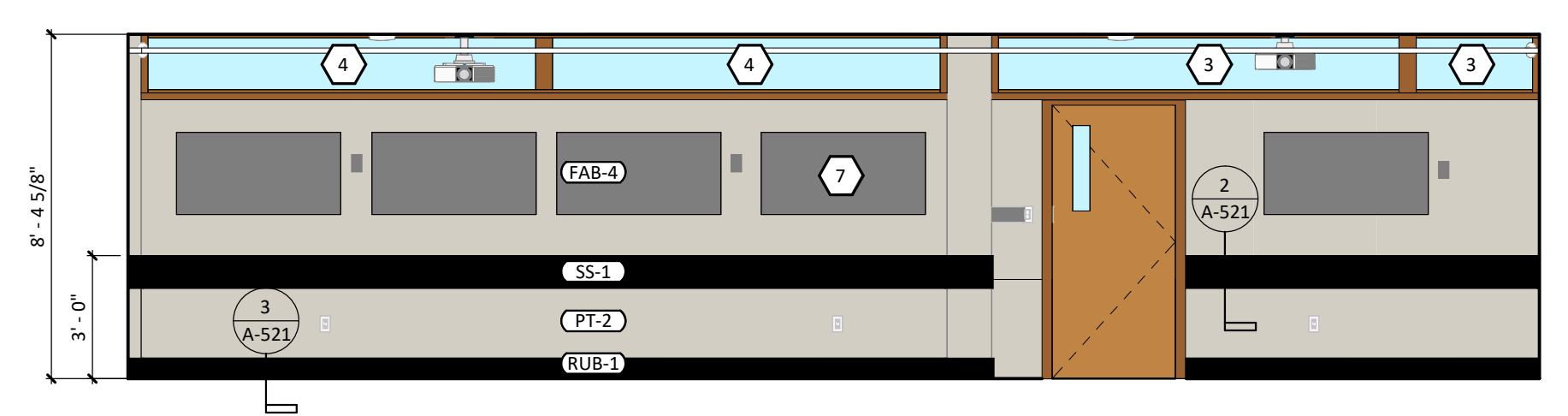
DATE: 12/17/2025

REVISIONS:

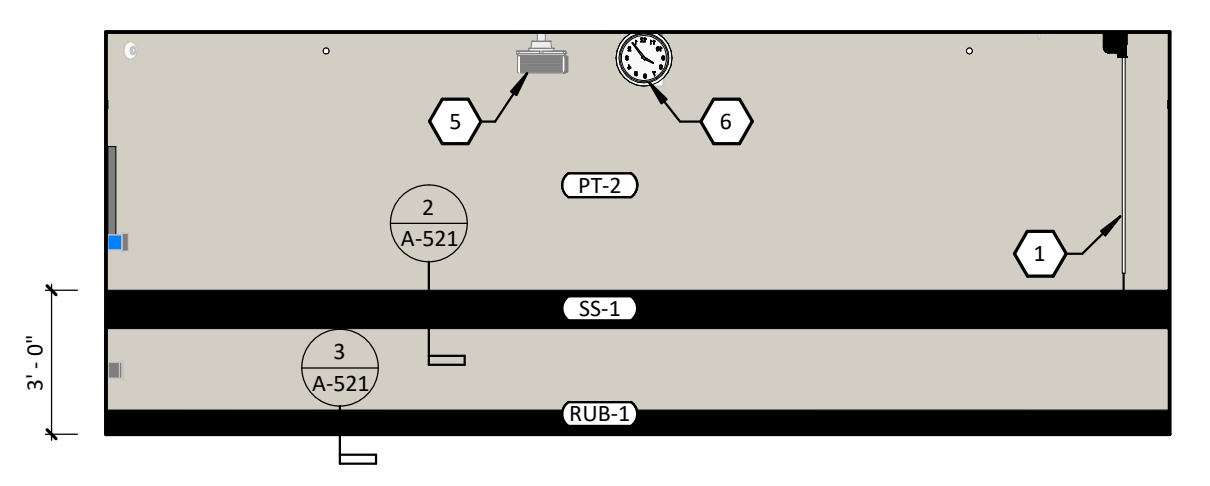
#	DESCRIPTION

**126 INTERIOR
ELEVATIONS
ALT. #3**

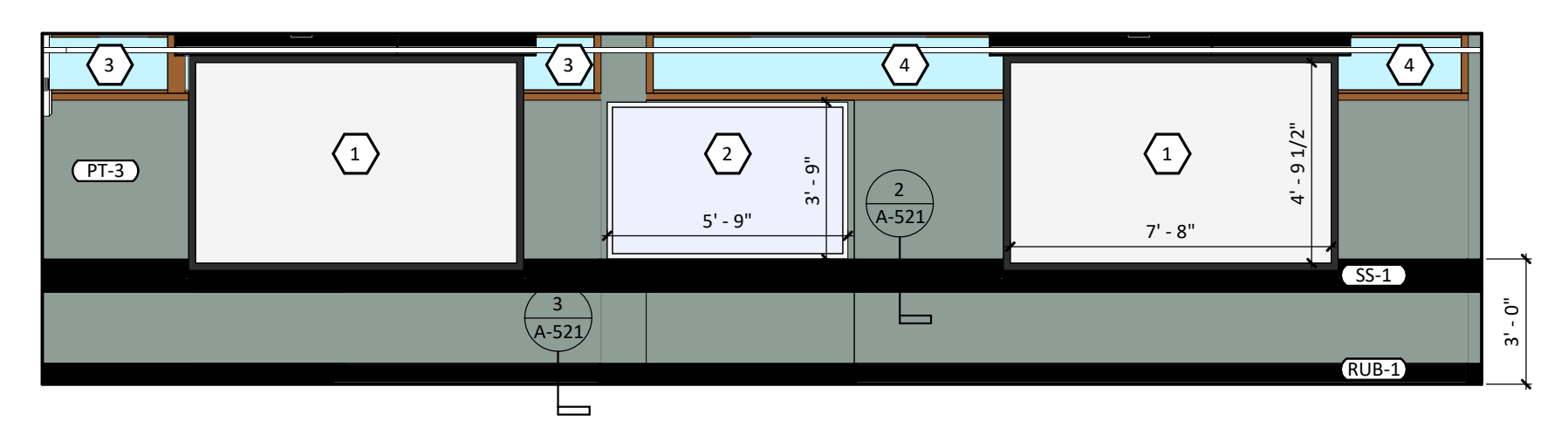
A-214



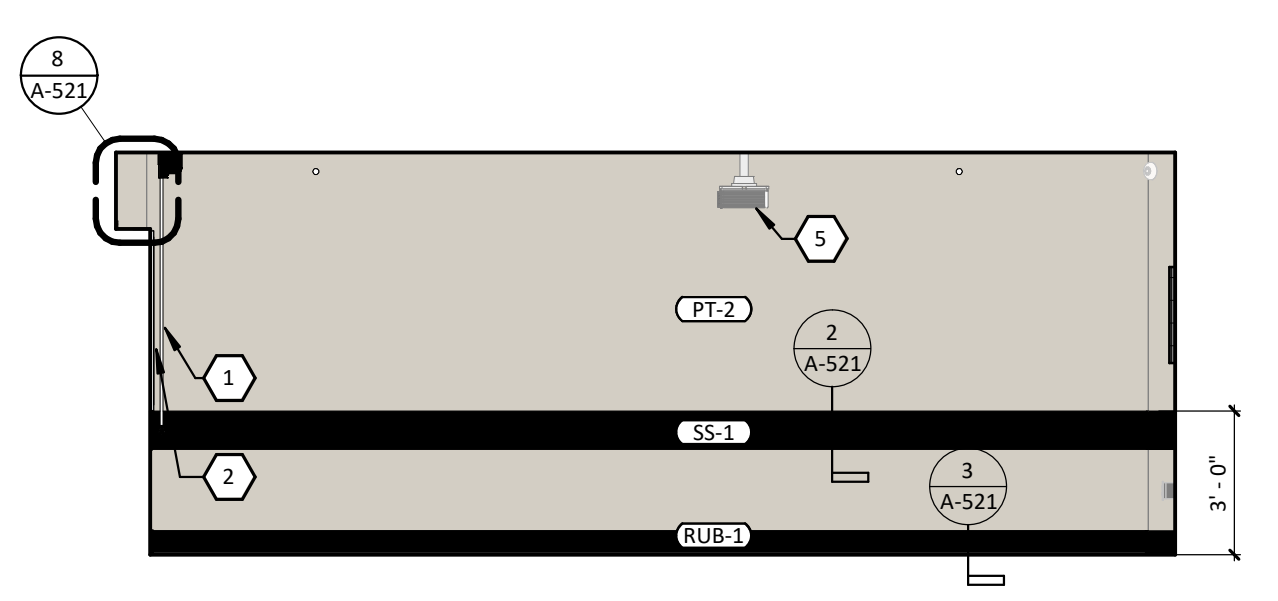
1 126 NORTH INTERIOR ELEVATION
1/4" = 1'-0"



2 126 EAST INTERIOR ELEVATION
1/4" = 1'-0"



3 126 SOUTH INTERIOR ELEVATION
1/4" = 1'-0"



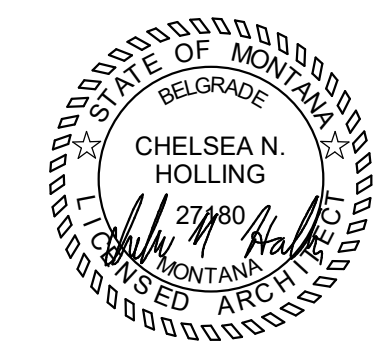
4 126 WEST INTERIOR ELEVATION
1/4" = 1'-0"

PROJECT #/Project Number

**ENTIRE SHEET IS
ADD ALTERNATE #4**

INTERIOR ELEVATION KEYNOTES 126

- 1 CEILING MOUNTED PROJECTOR SCREEN.
- 2 CUSTOM FIXED WHITEBOARD, NO TRAY, 5' 9" X 3' 9", BASIS OF DESIGN: OPTIMA GREAT WHITE MAGNETIC WHITEBOARD.
- 3 NEW GLAZING IN EXISTING FRAME, MATCH EXISTING.
- 4 EXISTING GLAZING AND FRAME TO REMAIN.
- 5 CEILING MOUNTED PROJECTOR.
- 6 POE CLOCK VISIBLE TO EVERYONE IN ROOM.
- 7 ACOUSTIC WALL PANELS, BASIS OF DESIGN: ARMSTRONG FELTWORKS, SIZE: 2'-4" COLOR: DARK GREY FEG01 0-75-NBC 451-LIT.
- 8 NEW ALUMINUM-FRAMED STOREFRONT SYSTEM, B.O.D.: KAWNEER 350.
- 9 NEW ALUMINUM-FRAMED STOREFRONT SWINGING DOOR, B.O.D.: KAWNEER 350.



BID SET

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BOZEMAN, MONTANA 59717
PPA#: 25-1214

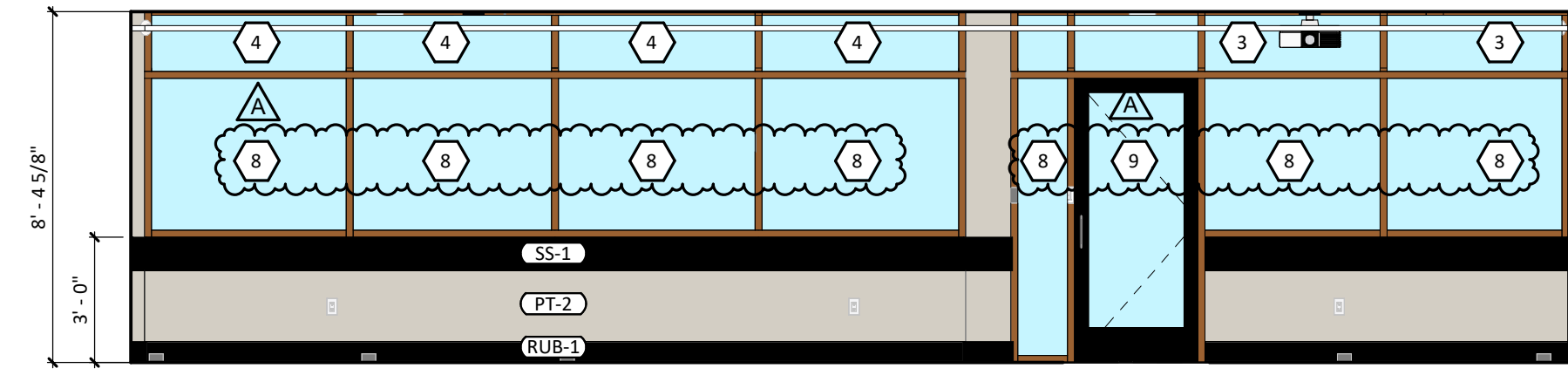
DRAWN: RH CHECKED: CH

DATE: 12/17/2025

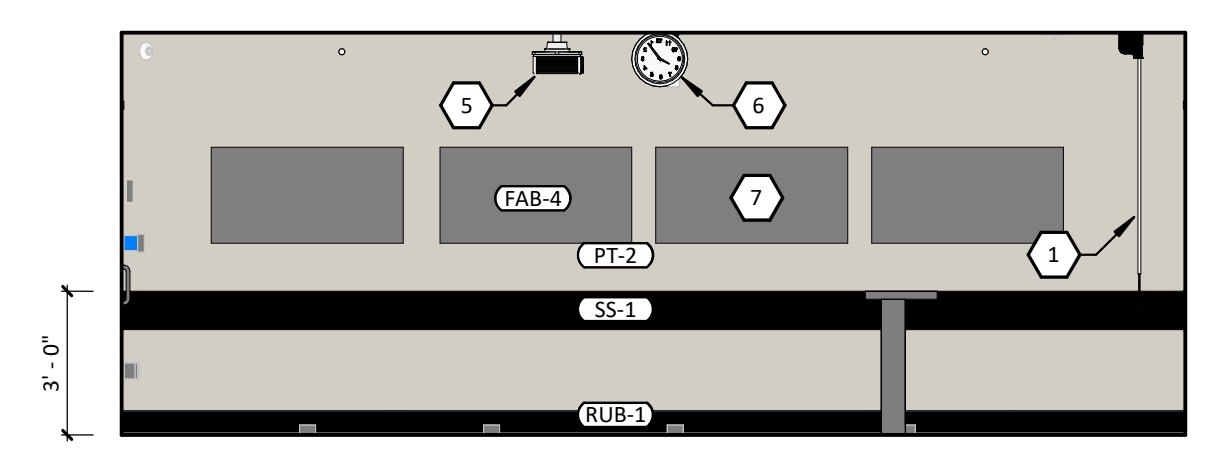
REVISIONS:
A ADDENDUM #1 01/21/26

**126 INTERIOR
ELEVATIONS
ALT. #4**

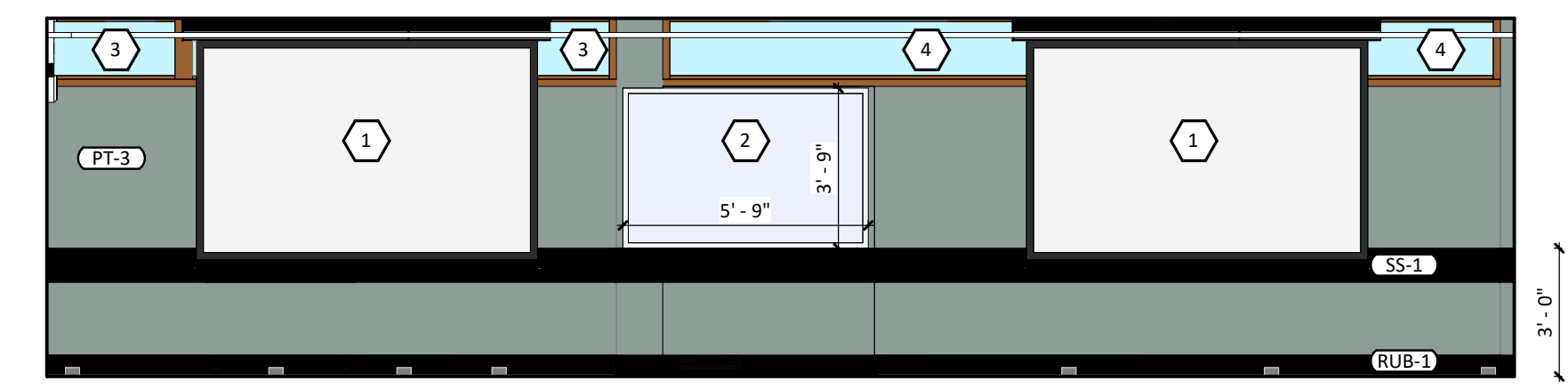
A-215



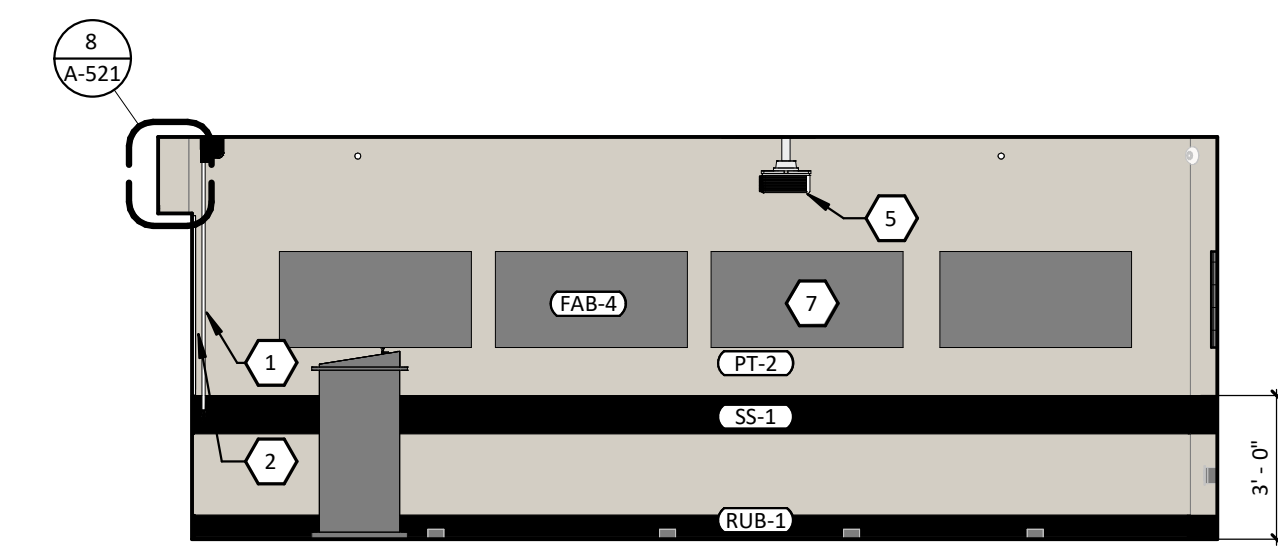
1 126 NORTH INTERIOR ELEVATION ALT. #4
1/4" = 1'-0"



2 126 EAST INTERIOR ELEVATION ALT. #4
1/4" = 1'-0"

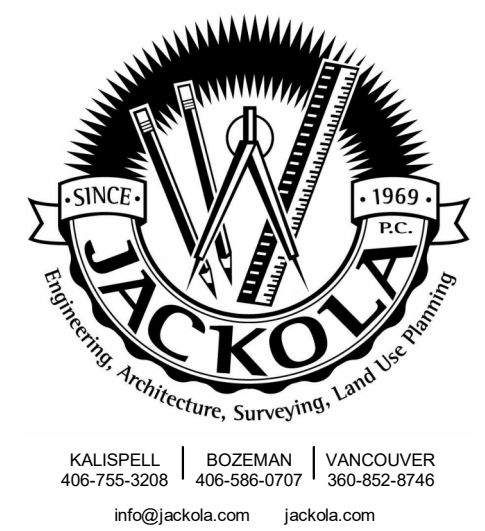


3 126 SOUTH INTERIOR ELEVATION ALT. #4
1/4" = 1'-0"



4 126 WEST INTERIOR ELEVATION ALT. #4
1/4" = 1'-0"

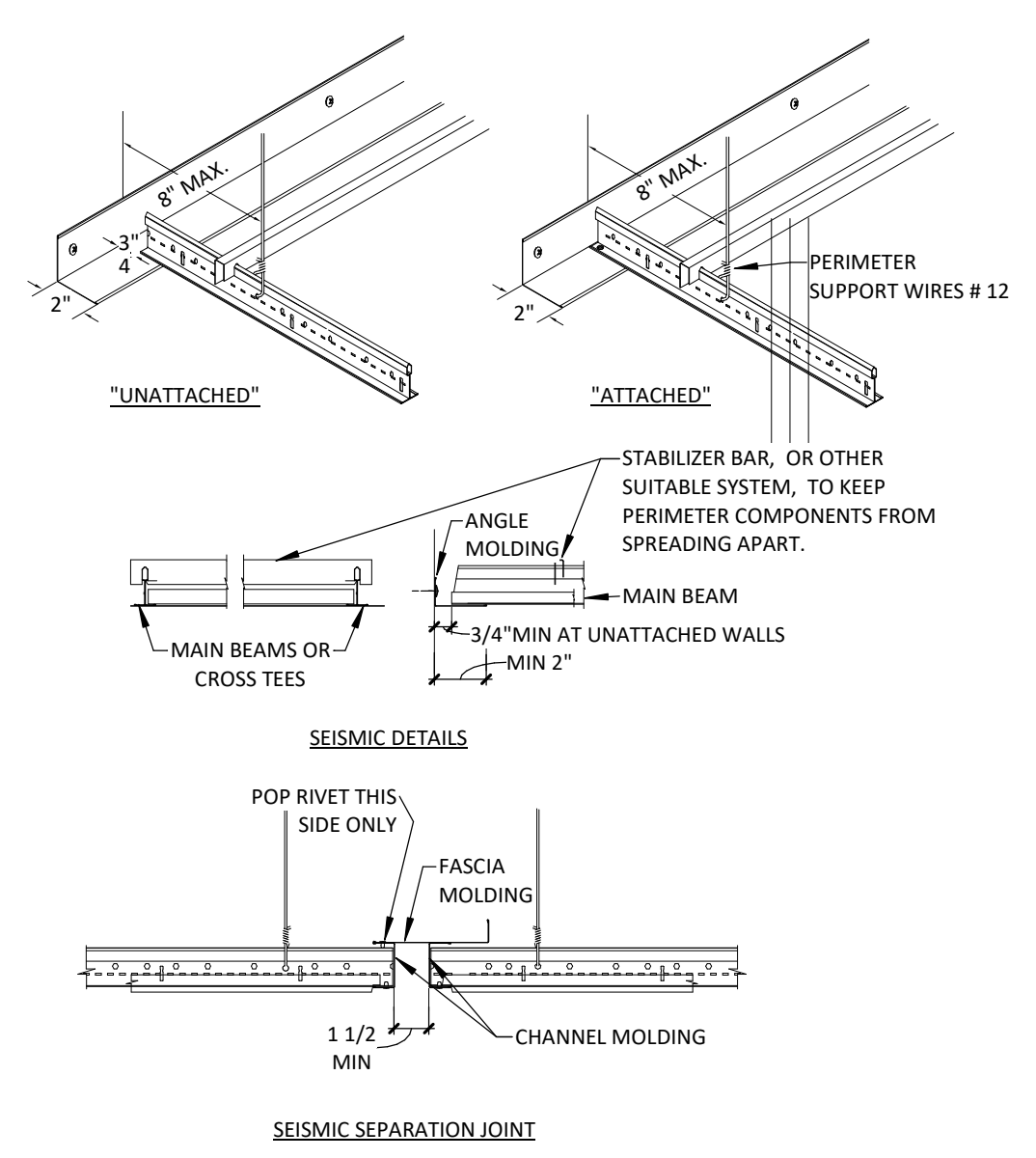
PROJECT #/Project Number



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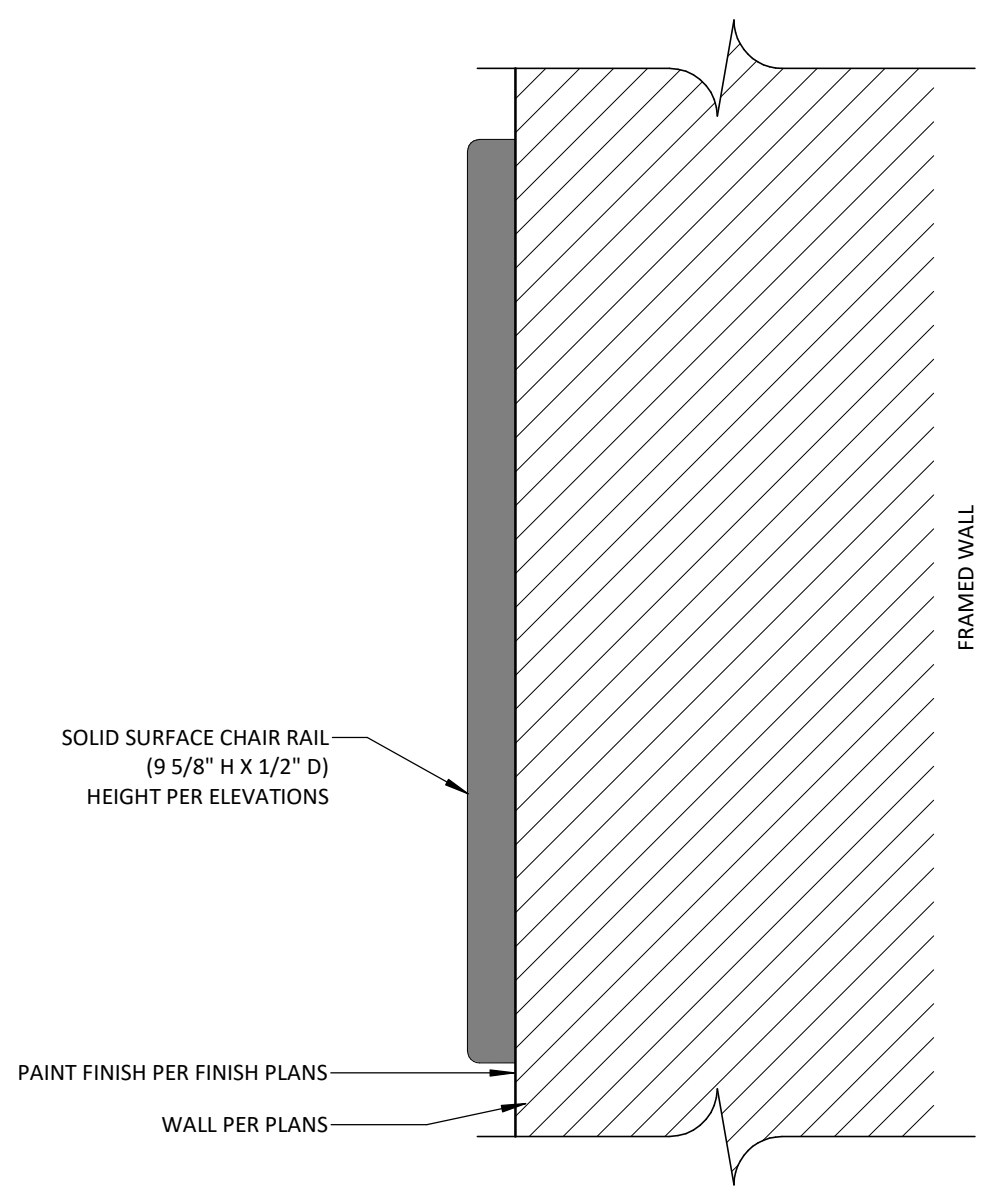
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- GENERAL INTERIOR NOTES:**
- A. GC TO COORDINATE WITH OWNER/EQUIPMENT SUPPLIER FOR REQUIRED DIM, CLEARANCES, AND ALL OTHER REQUIREMENTS PRIOR TO CASEWORK CONSTRUCTION/INSTALL.
 - B. ALL PRODUCTS ARE TO BE INSTALLED PER MANUFACTURERS INSTRUCTIONS, USING MANUFACTURERS ADHESIVES, TOOLS AND METHODS.
 - C. GWB TO HAVE SMOOTH TEXTURE. ALL GWB EDGES TO HAVE 3/4" SQUARE EDGES.
 - D. ALL WALL SUPPORTED CABINETS, WHITEBOARDS AND SHELVING TO HAVE BLOCKING.
 - E. PROVIDE TRANSITION STRIPS AT ALL LOCATIONS WHERE DISSIMILAR FLOOR MATERIALS MEET.
 - F. FLOOR THRESHOLDS AND TRANSITION STRIPS MUST BE ADA ACCESSIBLE.
 - G. PROVIDE STAINLESS STEEL TRANSITION STRIPS/REDUCERS AT ALL LOCATIONS WHERE CERAMIC TILE MEETS A DIFFERENT MATERIAL.
 - H. PROVIDE APPROPRIATE TRANSITION STRIPS/REDUCERS AT ALL OTHER LOCATIONS BETWEEN DIFFERING MATERIALS UNLESS NOTED OTHERWISE. SEE TRANSITION CALL OUTS. ALL TRANSITIONS TO MEET ADA REQUIREMENTS. INSTALLATION TECHNIQUES SHALL CONFORM TO TILE COUNCIL OF AMERICA HANDBOOK AND REQUIREMENTS OF ANSI A137.1.
 - I. COORDINATE LOCATIONS OF ELECTRIC SWITCHES, PANELS, WATER SERVICE, TELEPHONE SERVICE, ETC. WITH UTILITIES COMPANIES. COORDINATE ALL WORK WITH THE MECHANICAL, PLUMBING & ELECTRICAL CONTRACTORS.
 - J. ALL INTERIOR FINISHES MUST COMPLY WITH GOVERNING CODES.
 - K. REFER TO SPECIFICATIONS AND FINISH SCHEDULES FOR FURTHER FINISH MATERIAL PRODUCT INFORMATION.
 - L. SEE ELEVATIONS FOR ADDITIONAL FINISHES FOR CEILING HEIGHTS AND ADDITIONAL FINISHES SEE RCP'S.
 - M. FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION.
 - N. ALL FLOOR TRANSITIONS ARE TO OCCUR DIRECTLY BENEATH DOOR UNLESS NOTED OTHERWISE.
 - O. ALL METAL ACCESS PANELS, COVER PLATES, VENTS AND GRILLES TO BE PAINTED TO MATCH THE SURFACE IT IS LOCATED ON, UNLESS PREFINISHED.

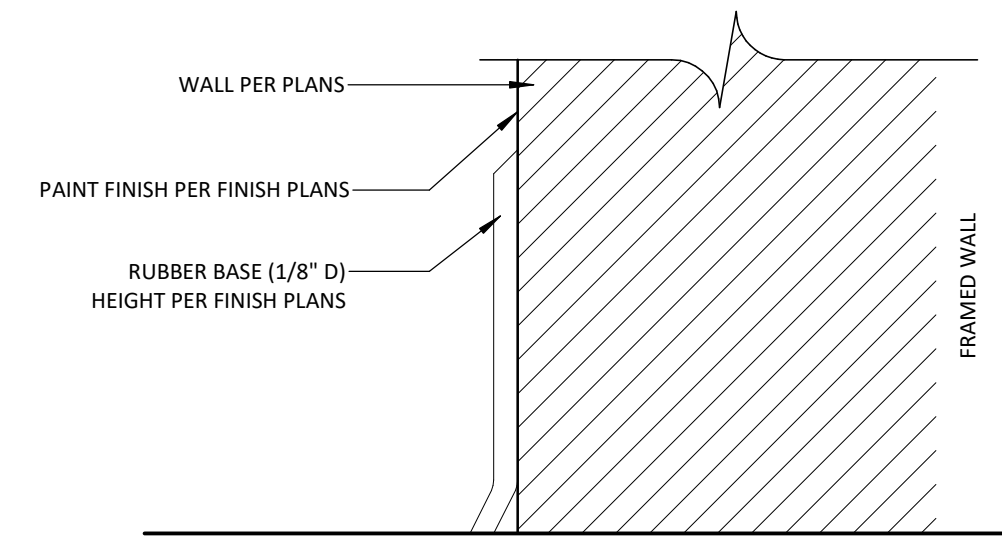


- NOTES:**
1. CEILING AREAS OVER 1,000 SF MUST HAVE HORIZONTAL RESTRAINT WIRE OR RIGID BRACING
 2. USE HEAVY DUTY GRID SYSTEM
 3. USE PERIMETER SUPPORT WIRES
 4. CEILINGS WITHOUT RIGID BRACING MUST HAVE 2" OVERSIZED TRIM RINGS FOR SPRINKLERS AND OTHER PENETRATIONS
 5. GRID MUST BE ATTACHED TO 2 ADJACENT WALLS, OPPOSITE WALLS MUST HAVE 3/4" CLEARANCE
 6. MIN 2" WALL MOLDING

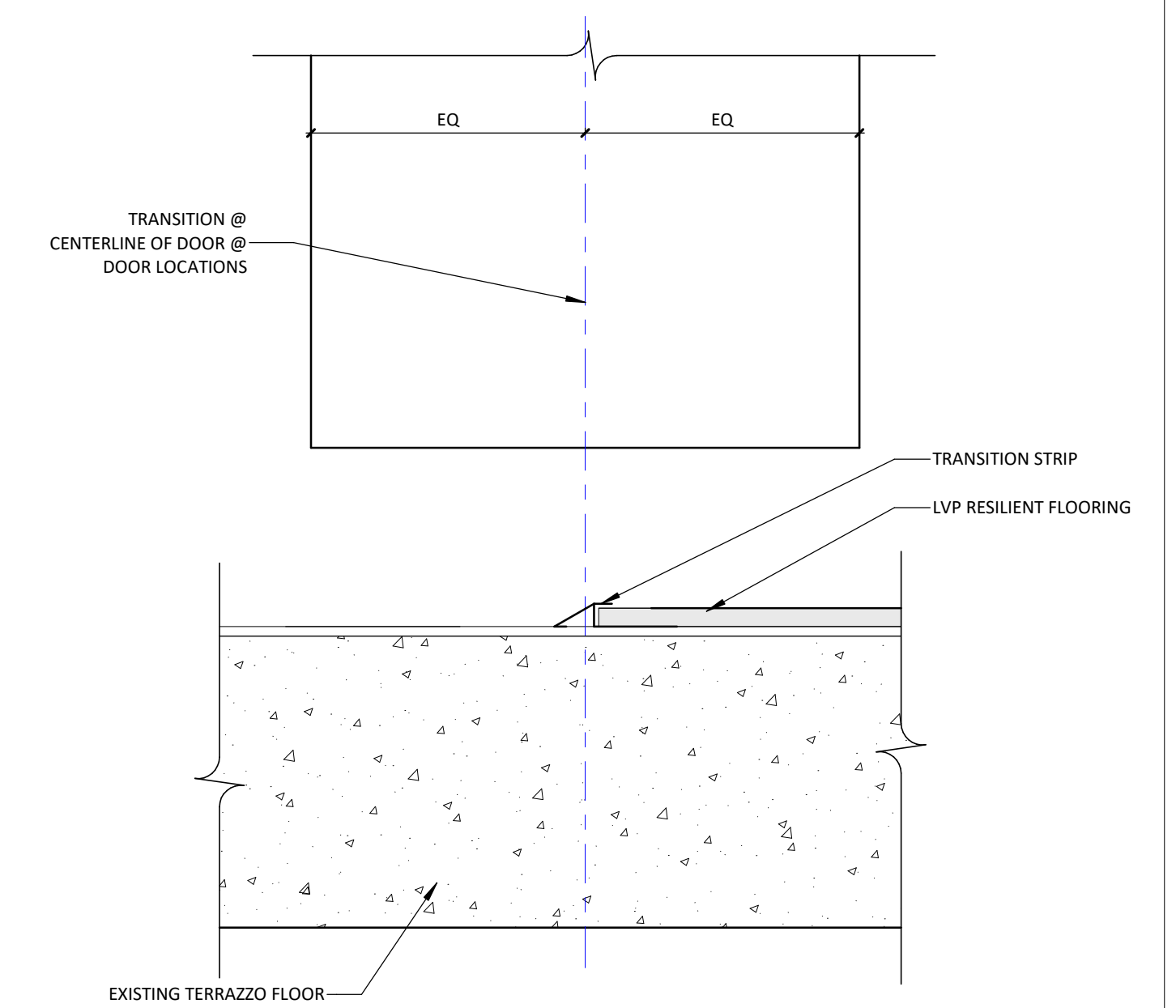
1 HUNG CEILING DETAILS - SEISMIC
1 1/2" = 1'-0"



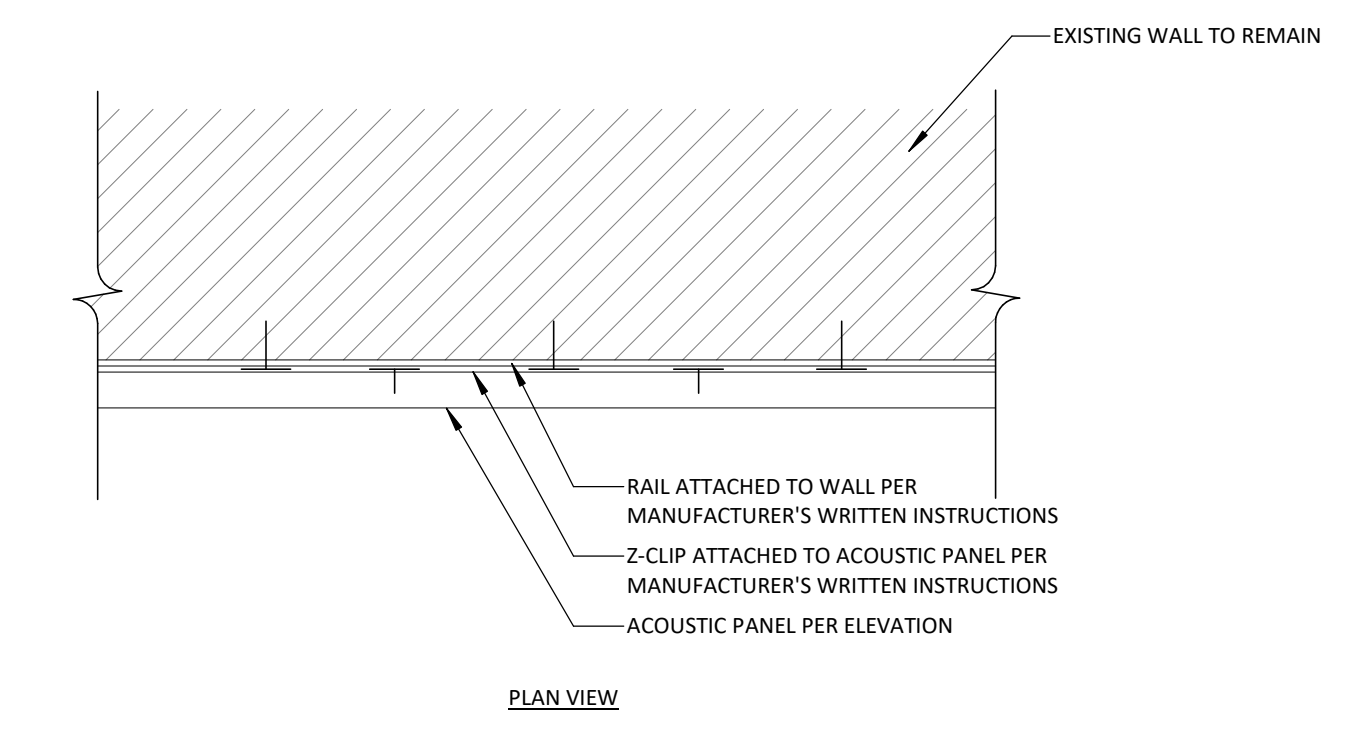
2 CHAIR RAIL DETAIL
6" = 1'-0"



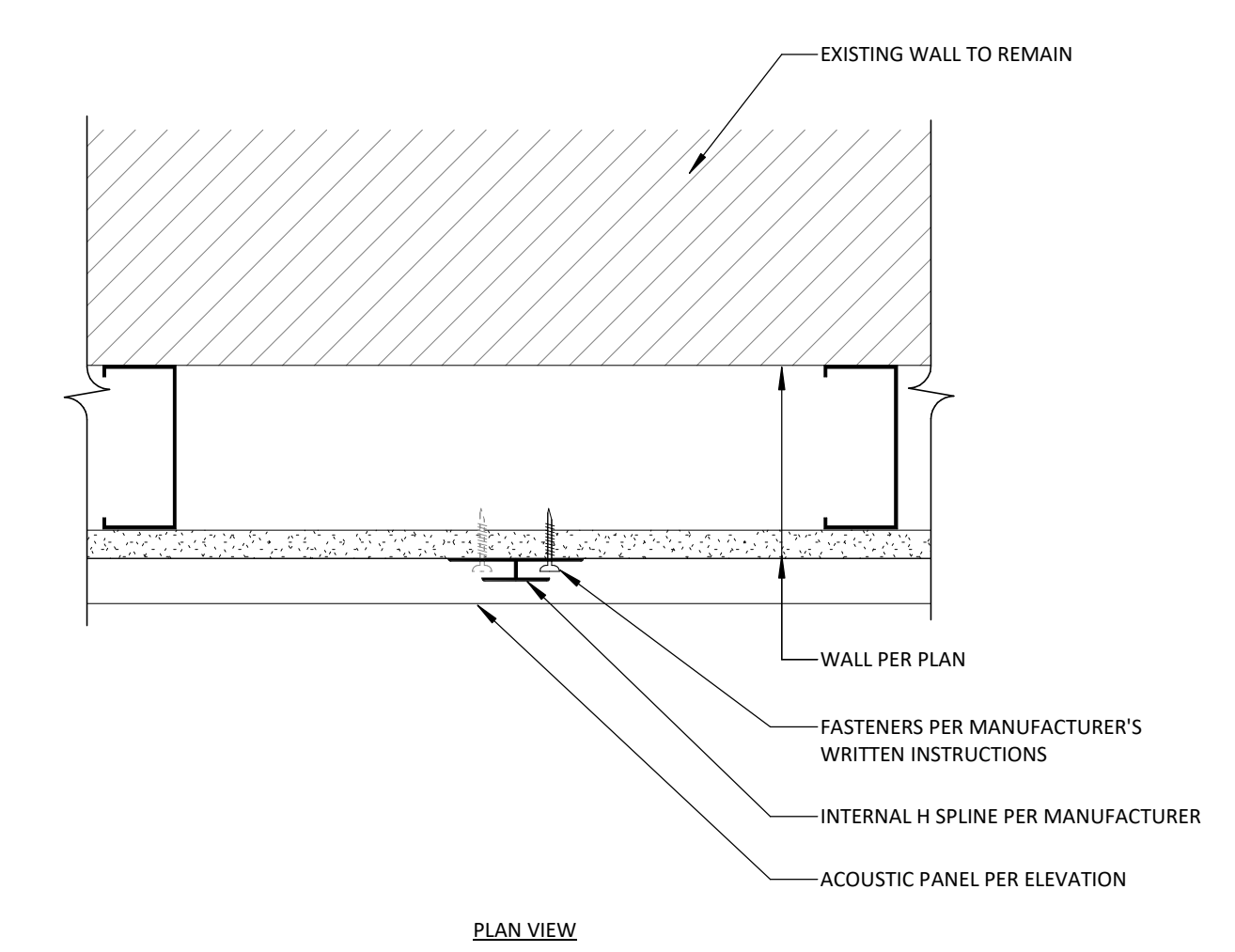
3 BASE DETAIL
6" = 1'-0"



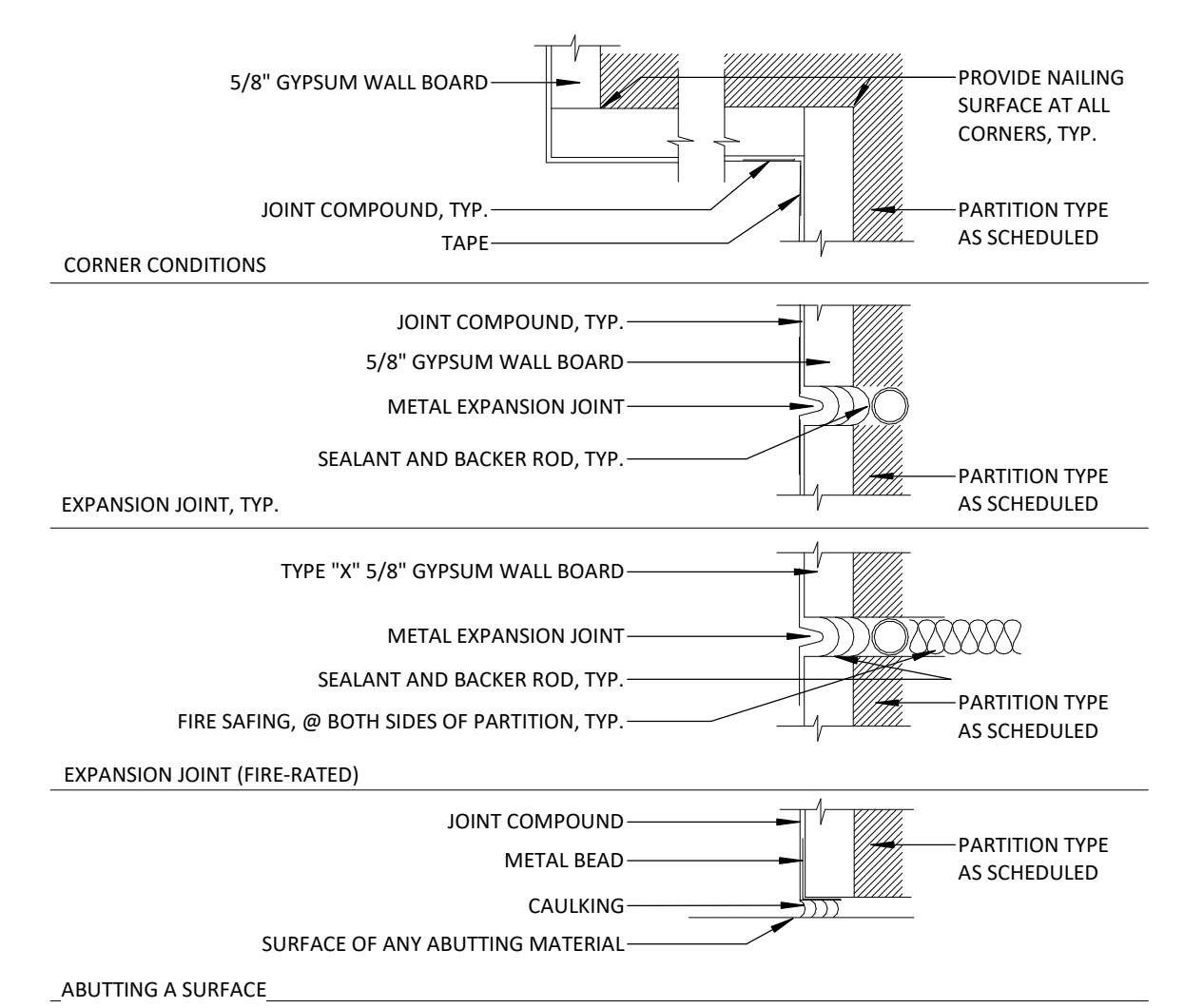
4 TRANSITION-TERRAZZO/RESILIENT(LVP)
6" = 1'-0"



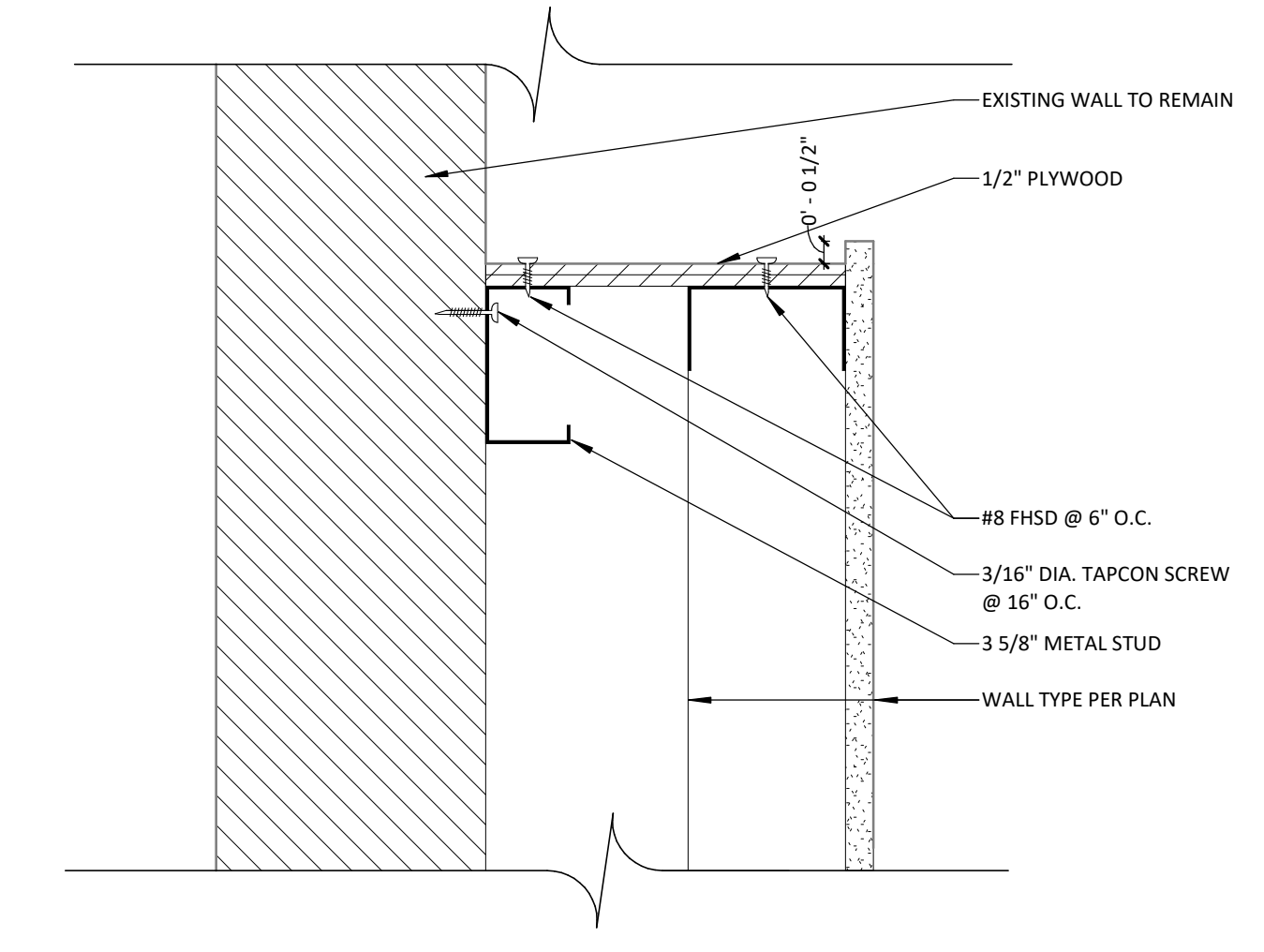
5 ACOUSTIC PANEL DETAIL - Z-CLIP
3" = 1'-0"



6 ACOUSTIC PANEL DETAIL - H SPLINE
3" = 1'-0"



7 GYPSUM WALLBOARD DETAIL
3" = 1'-0"



8 TOP OF FURRED WALL
3" = 1'-0"

PROJECT #/Project Number

REID HALL CLASSROOM RENOVATION
MONTANA STATE UNIVERSITY

REID HALL,
BOZEMAN, MONTANA 59717
PPA#: 25-1214

DRAWN: MC CHECKED: CH

DATE: 12/17/2025

REVISIONS:

DOOR SCHEDULE

DOOR NO.	FROM	TO	SIZE	ELEVATION TYPE	DOOR MAT.	FRAME MAT.	LITE	HARDWARE	REMARKS
1	CLASSROOM 101	CIRCULATION 144	(2) 3' x 6'-10" x 1 3/4"	A	WD	WD	QUARTER	HDW-2 DOUBLE ENTRANCE	EXISTING FRAME TO REMAIN, NEW LEAF AND HARDWARE.
2	CLASSROOM 102	CIRCULATION 144	(2) 3' x 6'-10" x 1 3/4"	A	WD	WD	QUARTER	HDW-2 DOUBLE ENTRANCE	EXISTING FRAME TO REMAIN, NEW LEAF AND HARDWARE.
3	CLASSROOM 103	CIRCULATION 152	(2) 3' x 6'-10" x 1 3/4"	A	WD	WD	QUARTER	HDW-2 DOUBLE ENTRANCE	EXISTING FRAME TO REMAIN, NEW LEAF AND HARDWARE.
4	OUTSIDE 0	CLASSROOM 103	3'-0" x 7'-0" x 1 3/4"	B	HM	HM	NONE	HDW-9 EXIT DOOR	EXISTING FRAME TO REMAIN, NEW LEAF AND PANIC HARDWARE.
5	CIRCULATION 105A	CIRCULATION 152	(2) 3' x 6'-10" x 1 3/4"	A	WD	WD	QUARTER	HDW-2 DOUBLE ENTRANCE	EXISTING FRAME TO REMAIN, NEW LEAF AND HARDWARE.
6	OUTSIDE 0	CIRCULATION 105B	3'-0" x 7'-0" x 1 3/4"	B	HM	HM	NONE	HDW-9 EXIT DOOR	EXISTING FRAME TO REMAIN, NEW LEAF AND PANIC HARDWARE.
7	STAIR 105C	CIRCULATION 152	3'-0" x 6'-10" x 1 3/4"	C	WD	WD	NONE	HDW-1 SINGLE ENTRANCE	EXISTING FRAME TO REMAIN, NEW LEAF AND HARDWARE.
8	CLASSROOM SERVICE 106	CLASSROOM 105	3'-0" x 6'-10" x 1 3/4"	C	WD	WD	(none)	(none)	EXISTING FRAME, LEAF, AND HARDWARE TO REMAIN. NO CHANGES.
9	CIRCULATION 149	CLASSROOM 126	3'-0" x 6'-8" x 1 3/4"	D	WD	WD	QUARTER	HDW-1 SINGLE ENTRANCE	NEW FRAME, LEAF, AND HARDWARE.

AL - ALUMINUM
HM - HOLLOW METAL, WELDED STEEL
WD - WOOD

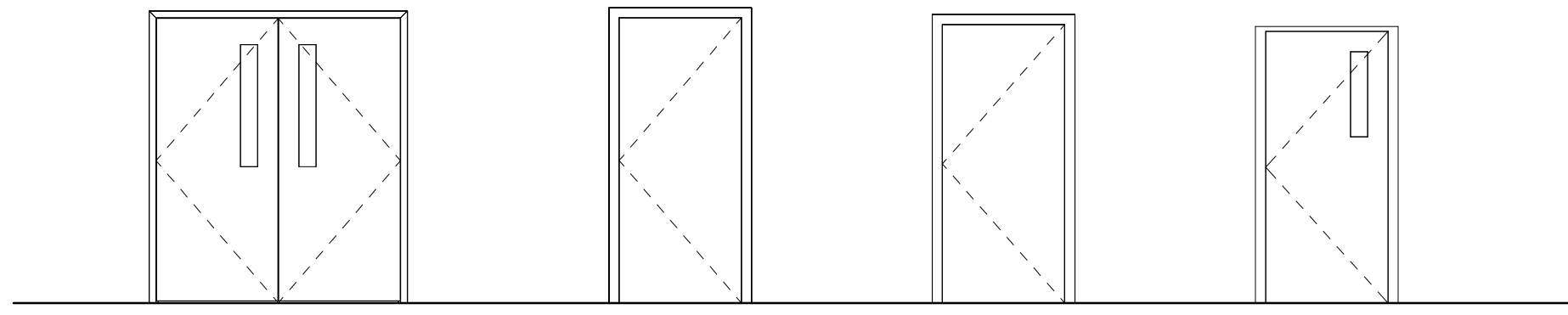
GENERAL NOTES:
1. **HARDWARE:**
HINGES: BY STANLEY, HAGER OR APPROVED EQUAL.
LOCKS: BY SARGENT, ADAMS-RITE, SCHLAGE OR APPROVED EQUAL.
CLOSERS: BY LCN, DORMA OR APPROVED EQUAL.
WEATHERSTRIPPING, THRESHOLD, AND SWEEP: BY PEMKO OR APPROVED EQUAL
KEY SYSTEM - SARGENT (CY-1) CYLINDERS FOR ALUMINUM ENTRANCES.

2. CONTRACTOR RESPONSIBLE TO NOTIFY DESIGNER OF SUBSTITUTIONS FOR NOTED HARDWARE.
3. DOOR & DOOR HARDWARE SUBMITTAL REQUIRED.
4. HOLLOW METAL DOORS: 18 GAUGE METAL. HOLLOW METAL DOOR FRAMES: 16 GAUGE AND WELD UP.
5. KNOCKDOWN FRAMES: 18 GA

DOOR HARDWARE

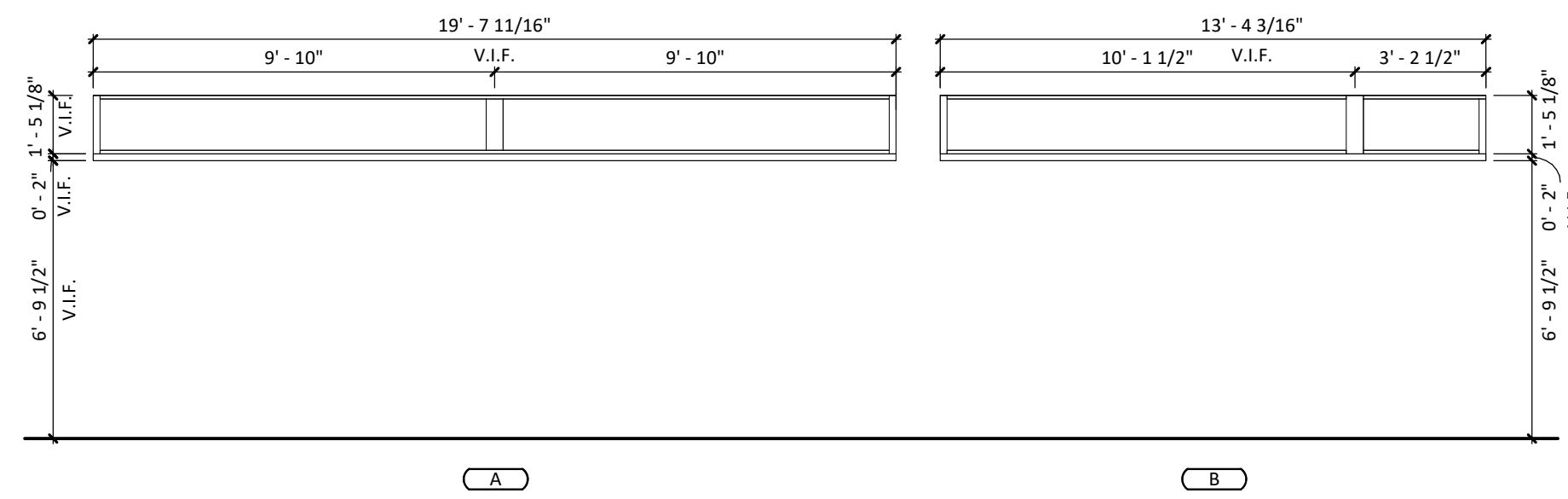
HDW	HARDWARE
HDW-1 SINGLE ENTRANCE	RIM EXIT DEVICE 1 CYLINDER LOCK 1 SET PIVOTS 1 CLOSER (specify drop plate if used on medium or narrow style alum. doors) PULL HANDLE 1 THRESHOLD WEATHERSTRIPPING PILE WEATHERING
HDW-2 DOUBLE ENTRANCE	2 RIM EXIT DEVICES 1 CYLINDER LOCK 2 SETS PIVOTS 2 CLOSERS (specify drop plate if used on medium or narrow style alum. doors) PULL HANDLES 1 THRESHOLD WEATHERSTRIPPING 2 PILE WEATHERING 1 PAIR FLUSH BOLTS
HDW-9 EXIT DOOR	1 1/2 PR BUTTS 1 RIM EXIT DEVICE 1 CYLINDER LOCK 1 CLOSER 1 PULL HANDLE 1 THRESHOLD 1 SWEEP WEATHERSTRIPPING

HARDWARE NOTE:
CLASSROOMS ARE ACCESS CONTROLLED AND WILL NEED TO BE REWIRED UPON COMPLETION. ALL HARDWARE AND LOCKS SHOULD BE RETURNED TO ACCESS CONTROL.

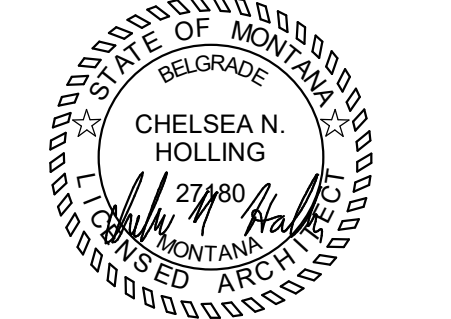
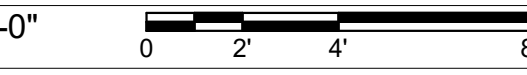


A DOUBLE WOOD DOOR QUARTER LITE
B EXISTING INSULATED HOLLOW METAL DOOR
C INTERIOR WOOD DOOR
D INTERIOR WOOD DOOR QUARTER LITE

1 DOOR LEGEND
1/4" = 1'-0"



2 TRANSOM WINDOW LEGEND
1/4" = 1'-0"



BID SET

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MONTANA STATE UNIVERSITY
 REID HALL,
 BOZEMAN, MONTANA 59717
 PPA#: 25-1214

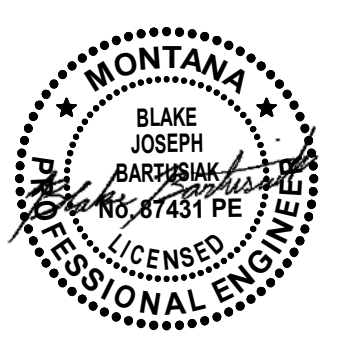
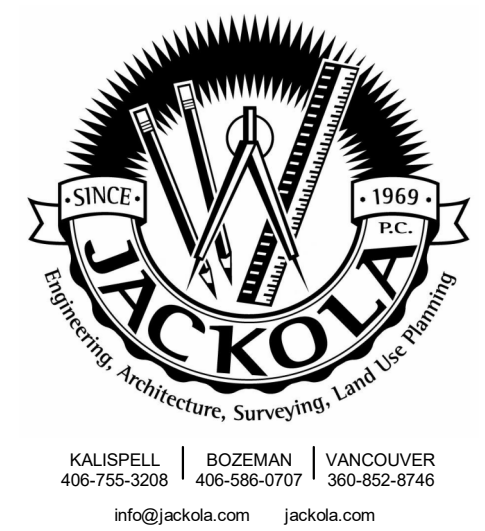
DRAWN: KE	CHECKED: CH
DATE: 12/17/2025	
REVISIONS:	

DOOR AND WINDOW SCHEDULES

A-601

HVAC KEYNOTES 101/102

1 DEMO EXISTING SUPPLY DIFFUSER AND REPLACE WITH NEW DIFFUSER PER SCHEDULE ON M-161.



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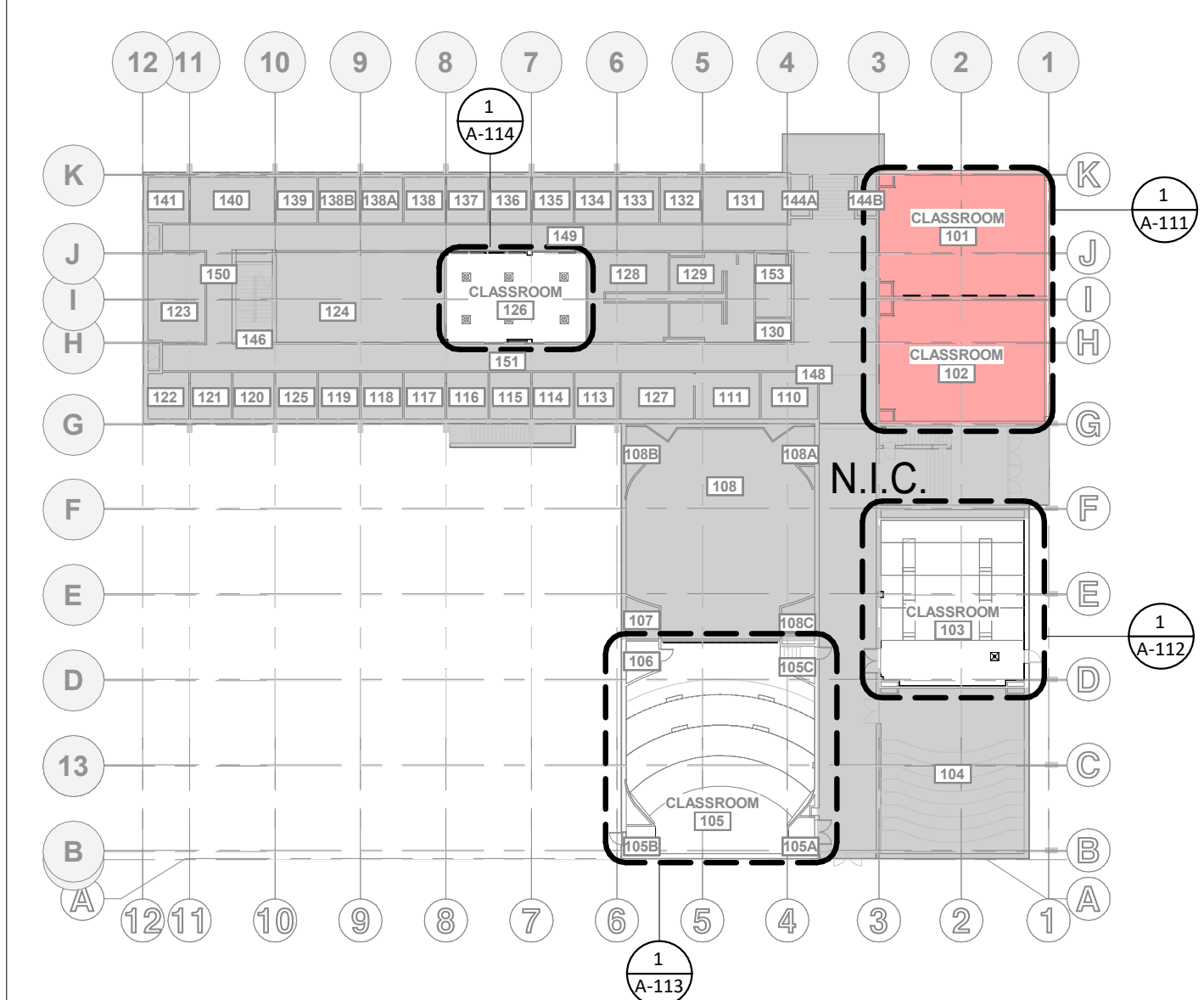
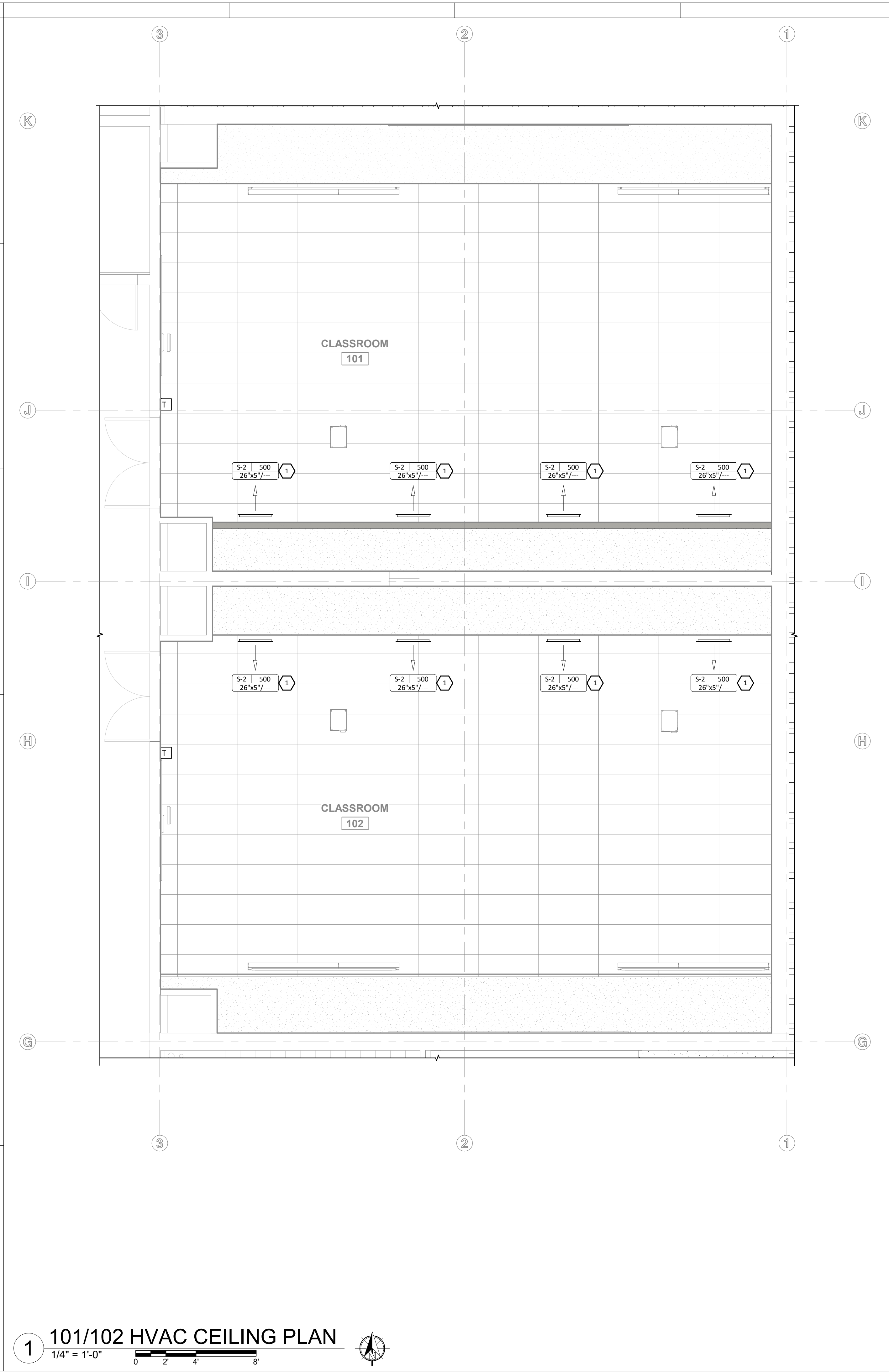
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DATE: 12/17/2025

REVISIONS:

101/102 HVAC
CEILING PLAN

M-121



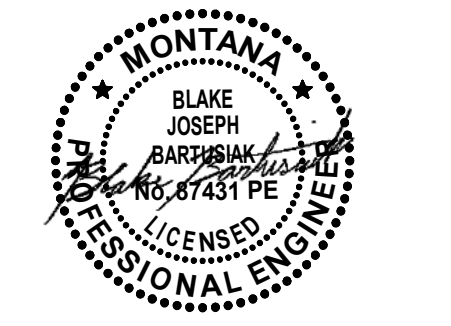
KEY PLAN

1 101/102 HVAC CEILING PLAN
 1/4" = 1'-0"
 0 2 4 8'

PROJECT #/Project Number

HVAC KEYNOTES 103

1 DEMO EXISTING SUPPLY DIFFUSER AND REPLACE WITH NEW DIFFUSER PER SCHEDULE ON M-161.



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PPA#: 25-1214

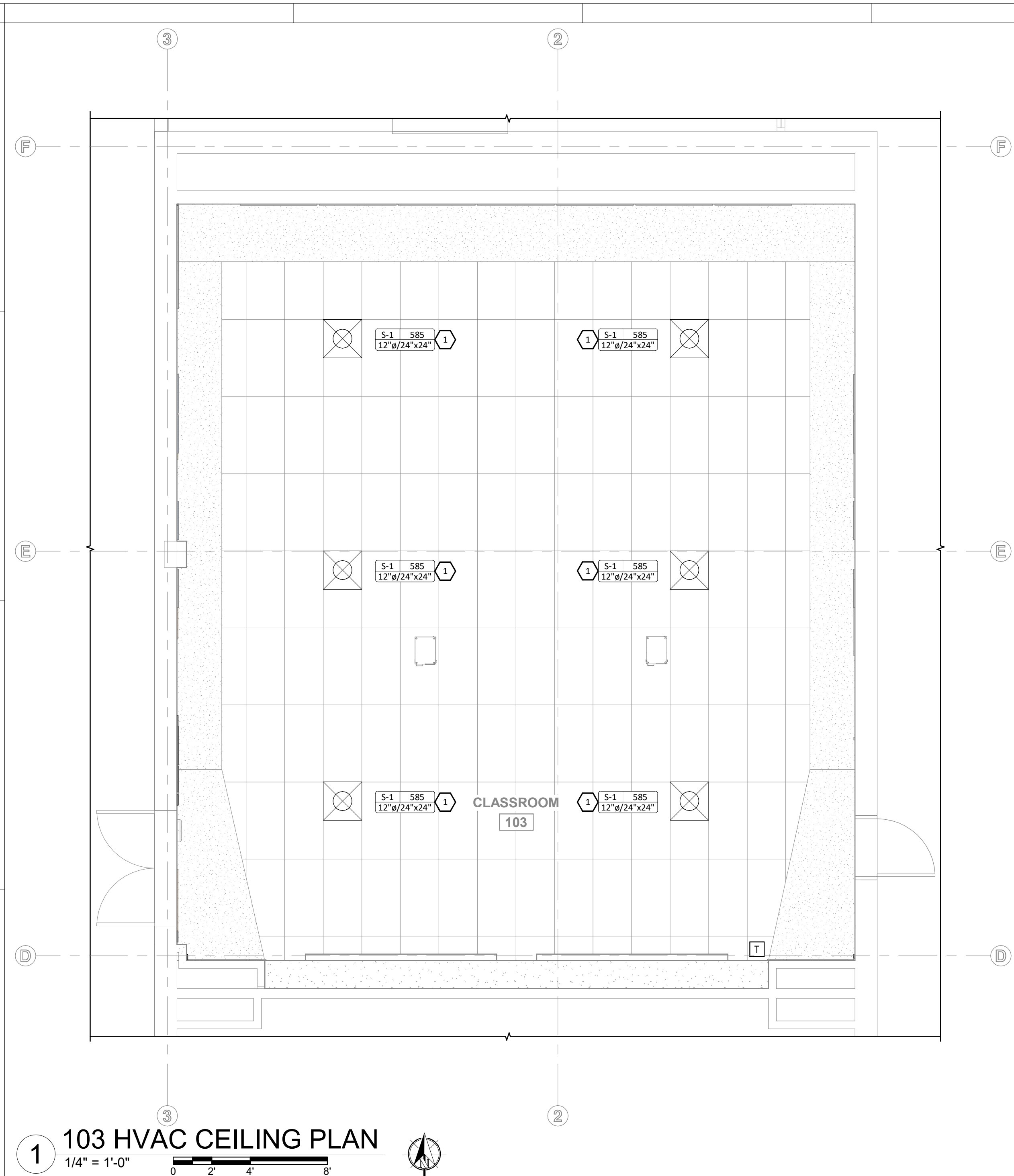
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DATE: 12/17/2025

REVISIONS:

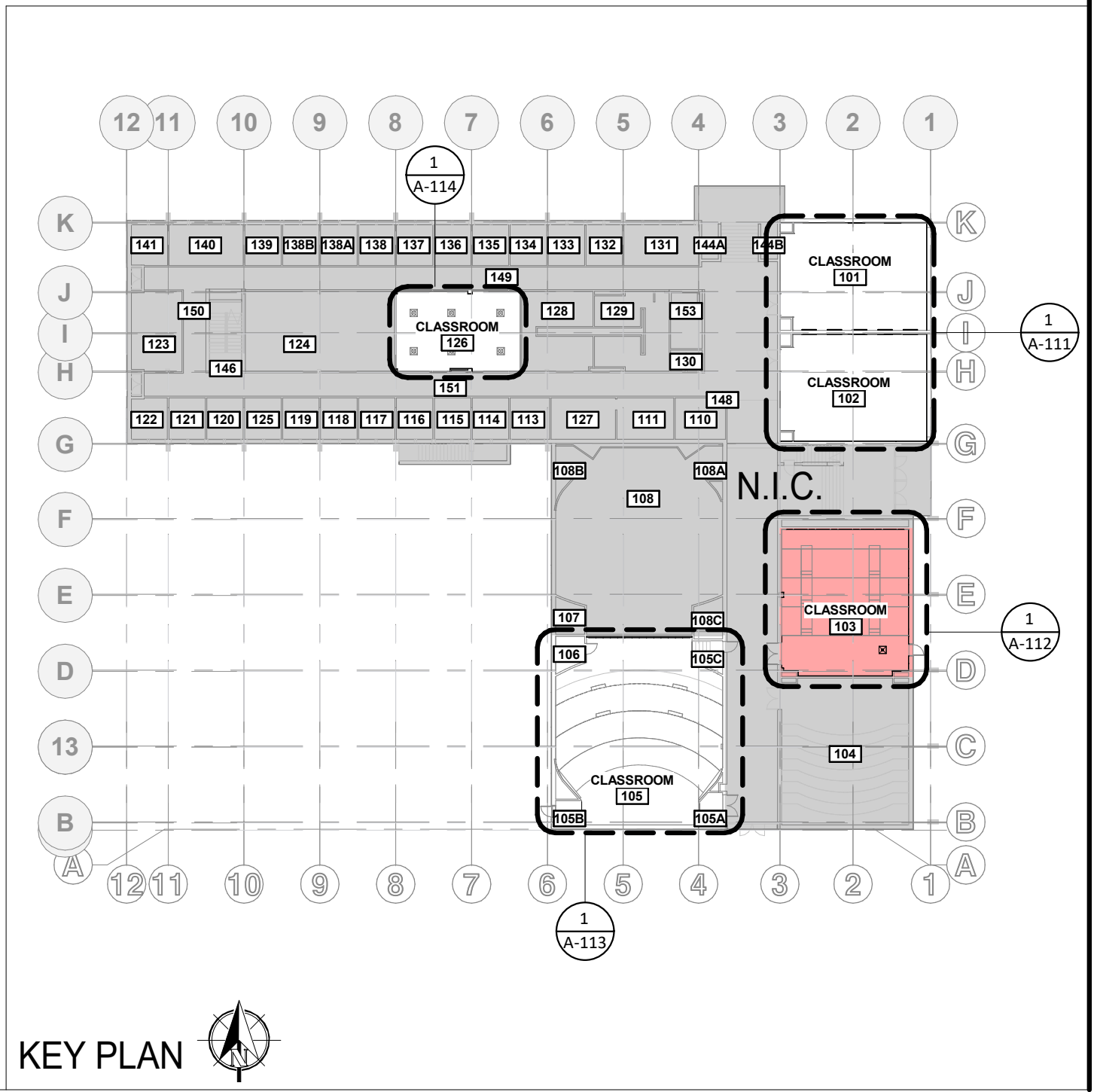
103 REFLECTED
CEILING PLAN

M-122



1 103 HVAC CEILING PLAN
1/4" = 1'-0"
0 2' 4' 8'

ENTIRE SHEET IS
ADD ALTERNATE #2

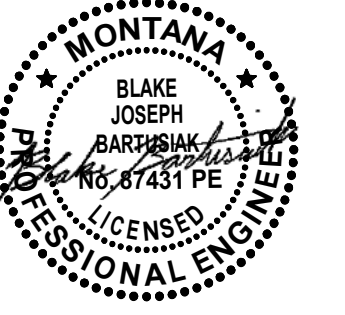


KEY PLAN

PROJECT #/Project Number

HVAC KEYNOTES 105

1 DEMO EXISTING SUPPLY DIFFUSER AND REPLACE WITH NEW DIFFUSER PER SCHEDULE ON M-161.



BID SET

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PPA#: 25-1214

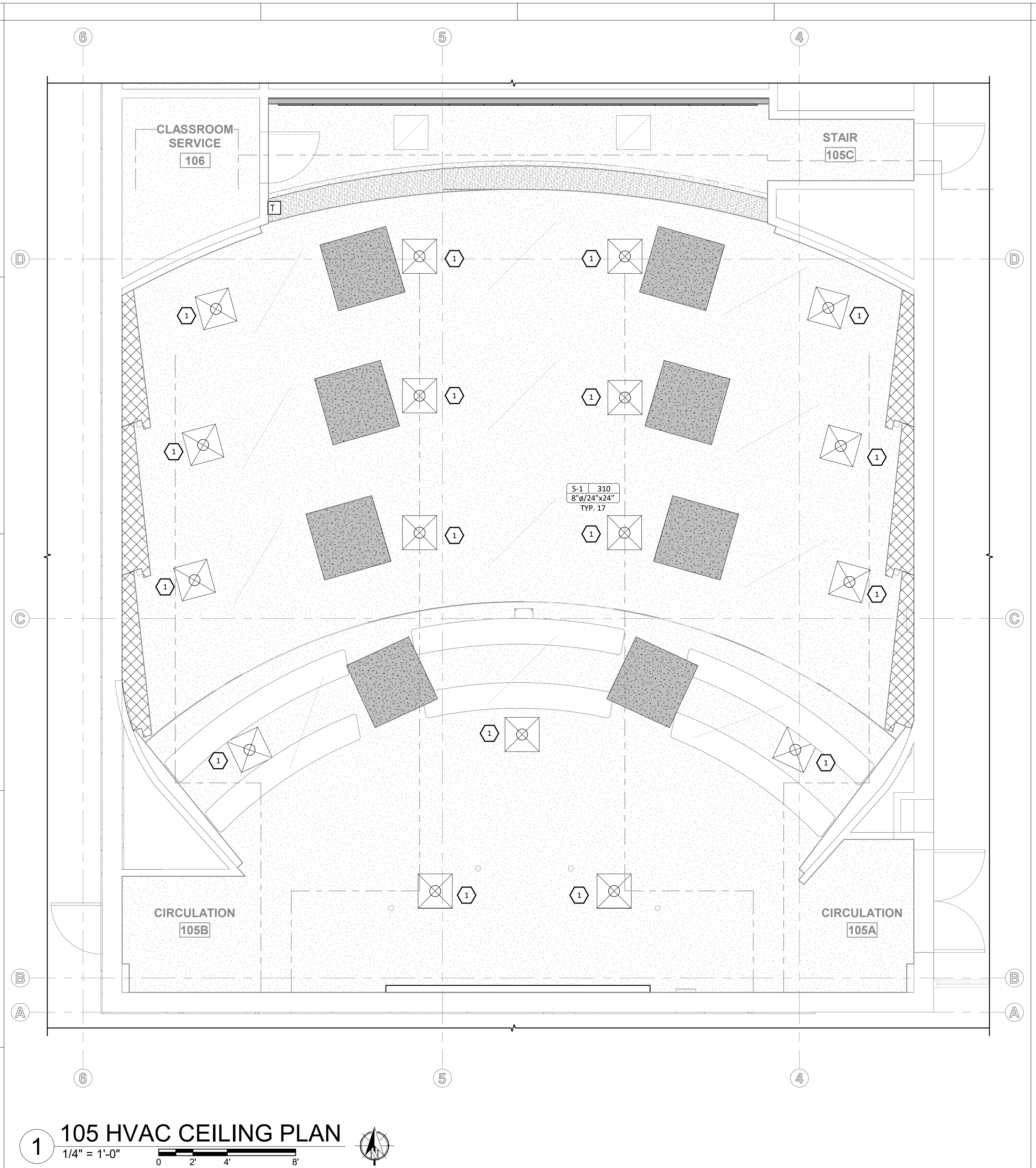
DRAWN: BJB CHECKED: BJB

DATE: 12/17/2025

REVISIONS:

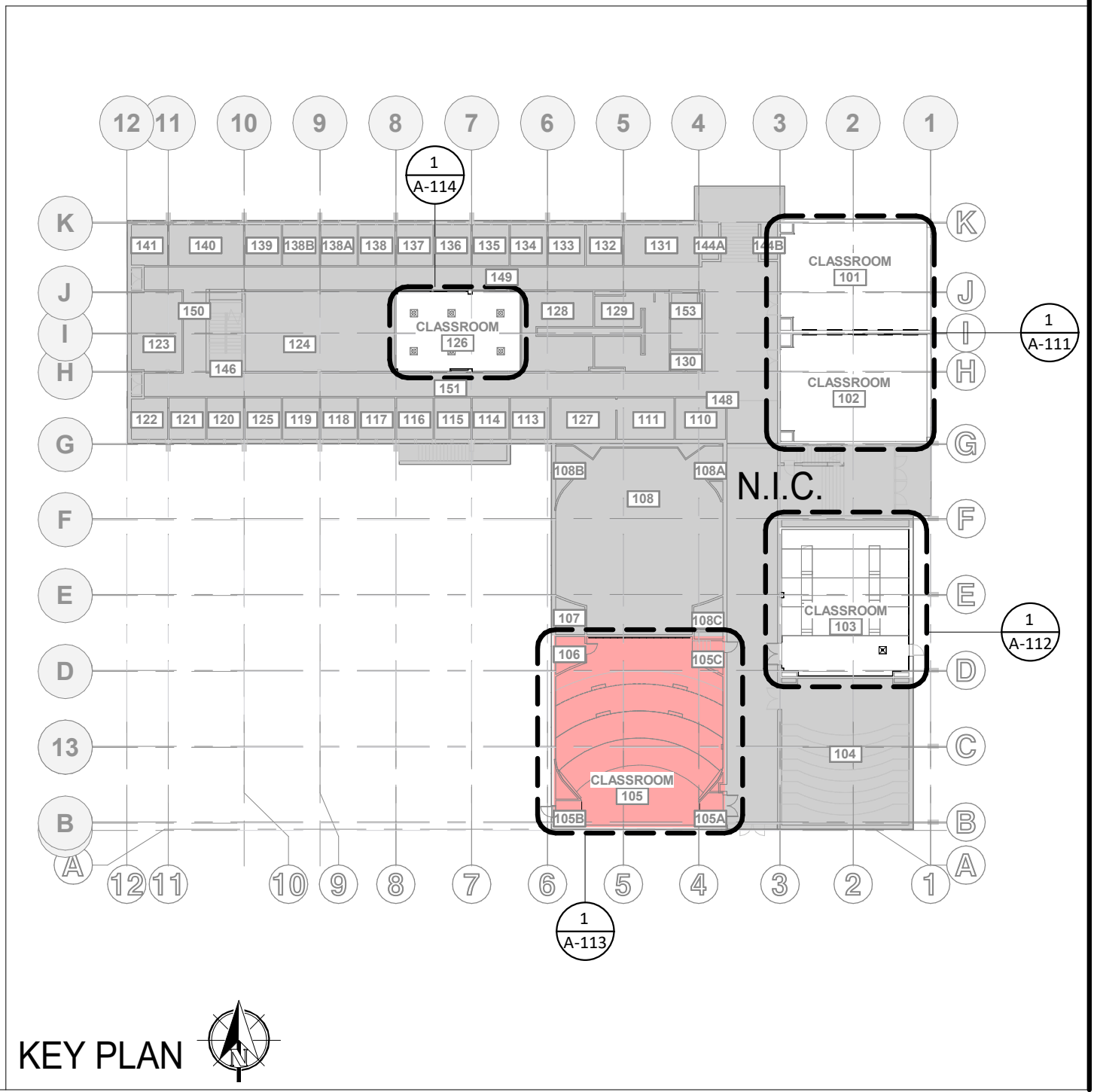
105 REFLECTED
CEILING PLAN

M-123



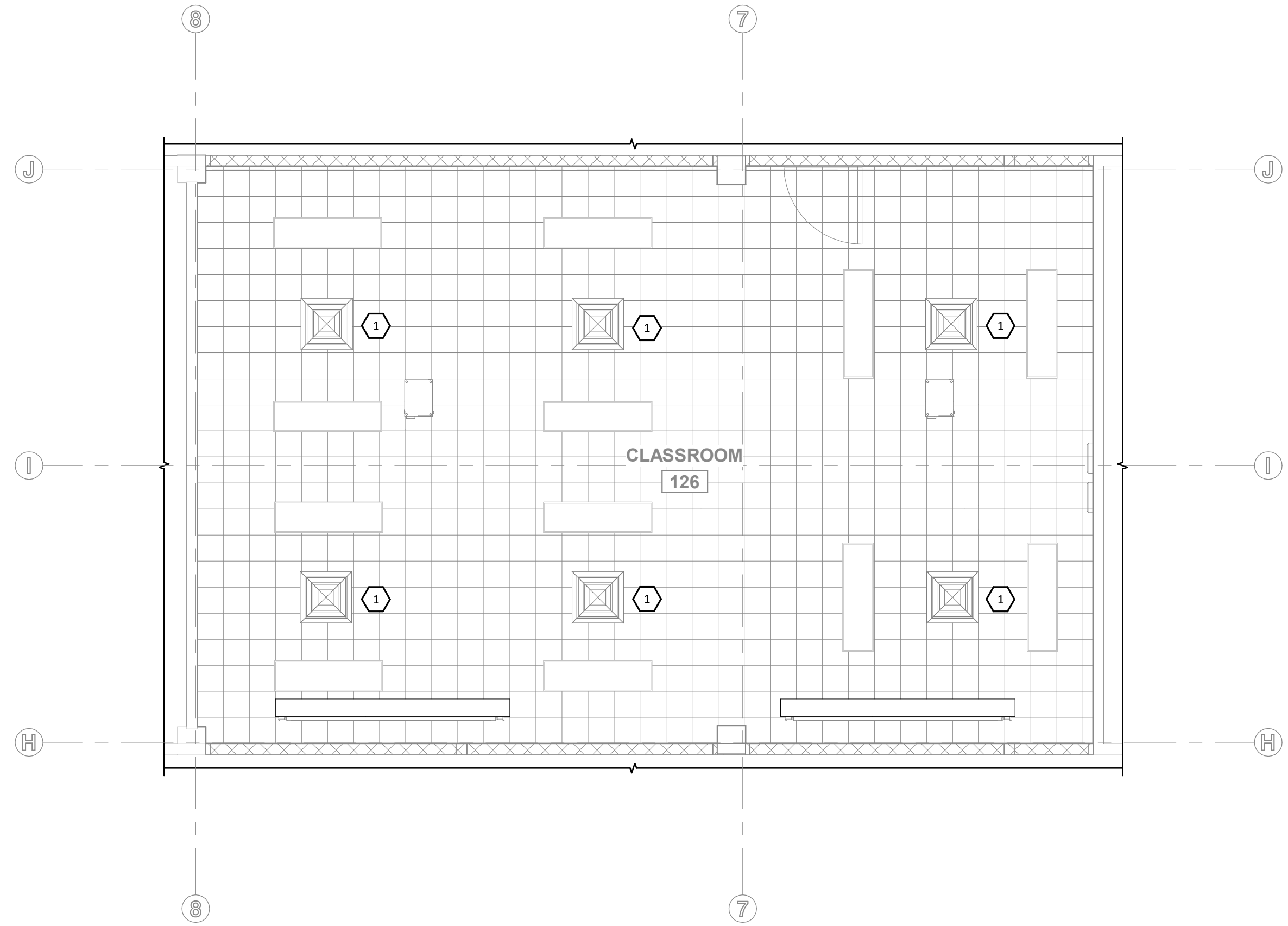
1 105 HVAC CEILING PLAN
1/4" = 1'-0"
0 2' 4' 8'

ENTIRE SHEET IS
ADD ALTERNATE #1



KEY PLAN

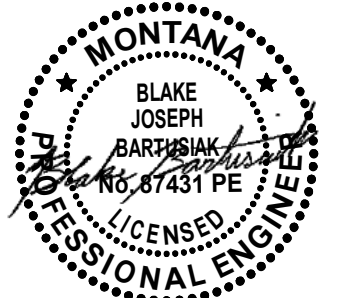
PROJECT #/Project Number



1 126 HVAC CEILING PLAN
 1/4" = 1'-0"
 0 2 4 6

**ENTIRE SHEET IS
 ADD ALTERNATE #3**

HVAC KEYNOTES 126
 1 EXISTING SUPPLY DIFFUSER TO BE CLEAN, PAINTED WHITE TO MATCH CEILING, AND REINSTALLED.



BID SET

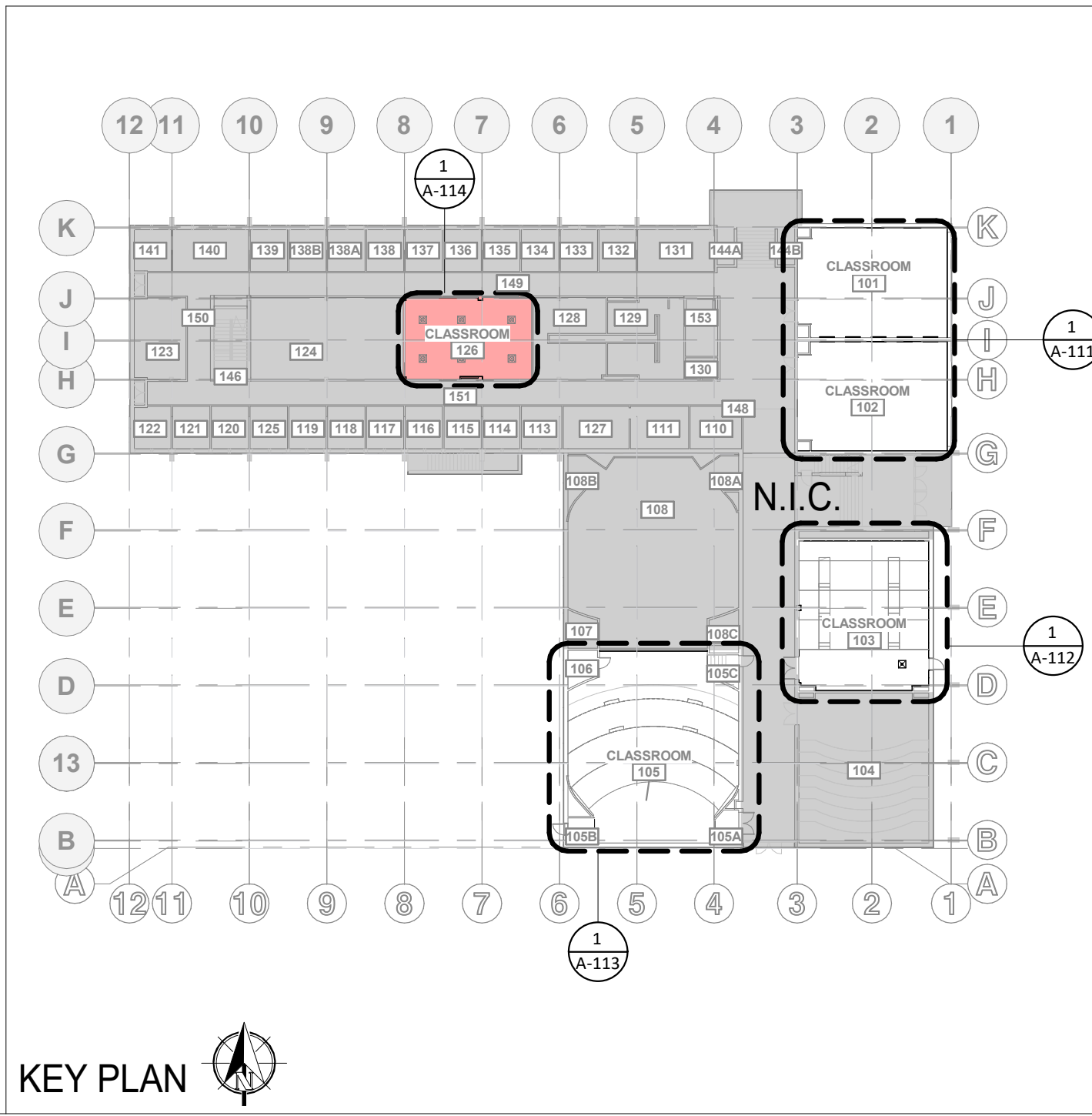
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DATE: 12/17/2025	
REVISIONS:	

**126 REFLECTED
 CELING PLAN**

M-124



KEY PLAN

PROJECT #/Project Number

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MONTANA STATE UNIVERSITY**

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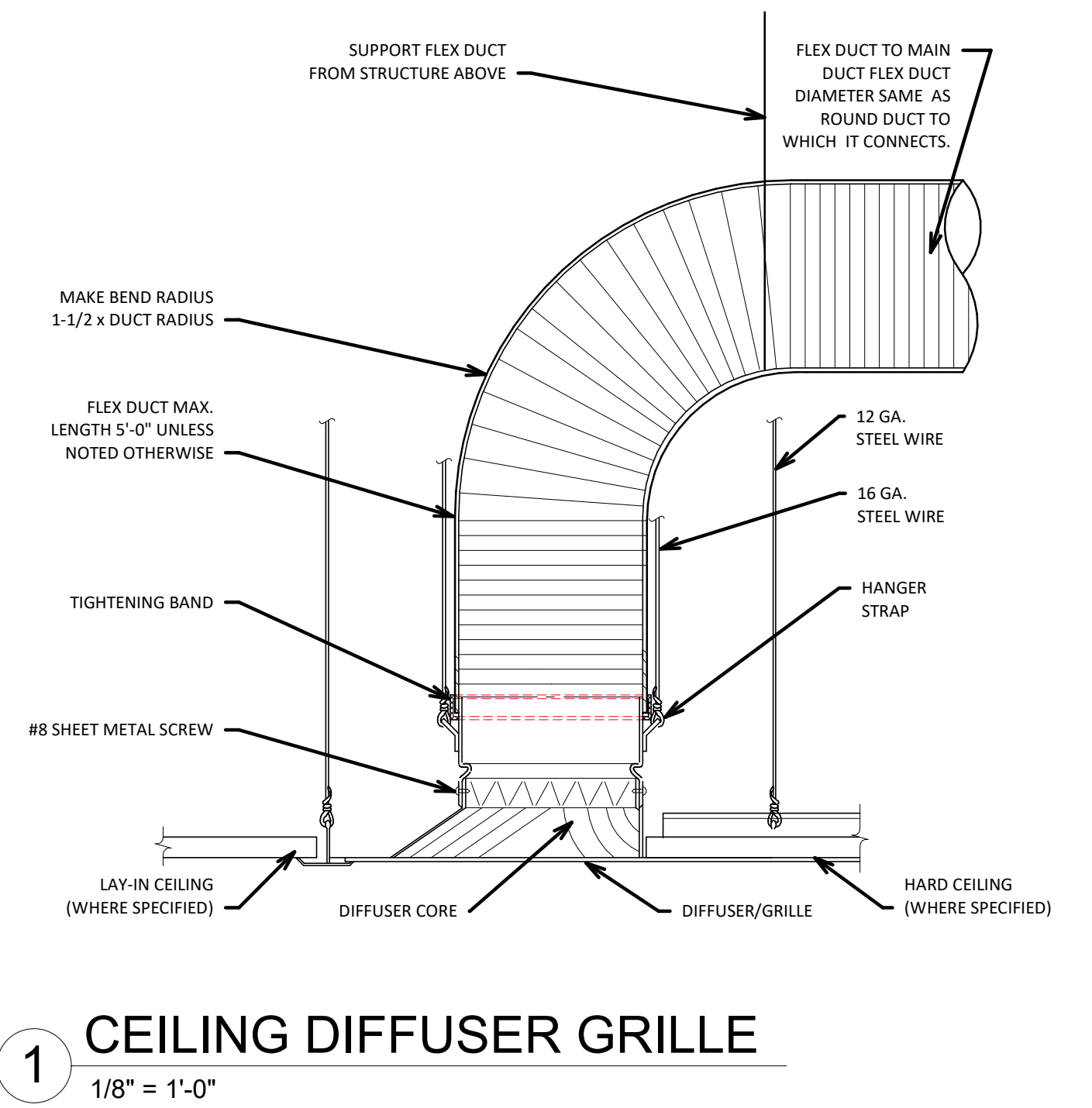
REVISIONS:

**MECHANICAL
DETAILS &
SCHEDULES**

M-601

INTERIOR AIR INLETS & OUTLETS SCHEDULE

TAG	DESCRIPTION	BASIS OF DESIGN				INSTALLATION		REMARKS
		MANUFACTURER	MODEL NO.	FINISH	FACE SIZE	NECK SIZE	BORDER TYPE	
S-1	3-CONE DIFFUSER	TITUS	TMS-AA	WHITE ENAMEL	24"x24"	8"ø	TYPE 3 (LAY-IN)	---
S-1	3-CONE DIFFUSER	TITUS	TMS-AA	WHITE ENAMEL	24"x24"	12"ø	TYPE 3 (LAY-IN)	---
S-2	LOUVERED DOUBLE DEFLECTION GRILLE	TITUS	300FS	WHITE ENAMEL	---	26"x5"	TYPE 1 (SURFACE)	---



Reid Hall Renovation . Electrical, Lighting & Technology

Reid Hall
Bozeman, MT 59717

Construction Documents

Date Issued | 12.17.2025
Project Manager | Andrew Moore

Issue

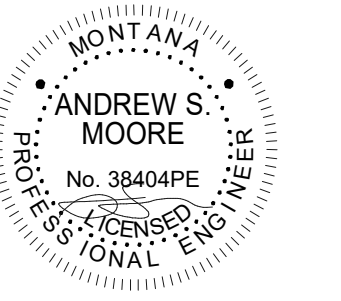


BLACK SHEEP

Mechanical | Electrical | Plumbing | Lighting | Technology
602 W. Hancock | Bozeman, MT 59715
Blacksheepengineering | 406.312.2114

Construction Documents

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Reid Hall Renovation
Reid Hall
Bozeman, MT 59717

DRAWN: APH CHECKED: ASM

DATE: 12/17/2025

REVISIONS:

ELECTRICAL, LIGHTING & TECHNOLOGY INDEX

E000

SHEET INDEX & REVISION HISTORY

Sheet	Sheet Name	Rev.	Description	Date
E000	ELECTRICAL LIGHTING & TECHNOLOGY INDEX			
E111	101/102 ELECTRICAL PLAN			
E112	103 ELECTRICAL PLAN			
E113	105 ELECTRICAL PLAN			
E114	126 ELECTRICAL PLAN			
E116	MAIN FLOOR ELECTRICAL PLAN			
E501	103 & 105 ISOMETRIC VIEWS			
E610	ELECTRICAL ONE-LINE DIAGRAMS			
E620	ELECTRICAL PANEL SCHEDULES			
EL111	101/102 LIGHTING PLAN			
EL112	103 LIGHTING PLAN			
EL113	105 LIGHTING PLAN			
EL114	126 LIGHTING PLAN			
EL620	LUMINAIRES & LIGHTING EQUIPMENT SCHEDULES			
T001	TECHNOLOGY INFORMATION			
TT11	101/102 TECHNOLOGY PLANS			
TT12	103 TECHNOLOGY PLANS			
TT13	105 TECHNOLOGY PLAN			
TT14	105 TECHNOLOGY CEILING PLAN			
TT15	126 TECHNOLOGY PLAN			
TT16	MAIN FLOOR TECHNOLOGY PATHWAY PLAN			
TS01	TECHNOLOGY TYPICAL DETAILS			
TS02	TECHNOLOGY TYPICAL DETAILS			
T601	TECHNOLOGY ONE-LINE DIAGRAMS			
T602	TECHNOLOGY EQUIPMENT SCHEDULES			
T603	TECHNOLOGY CABLING SCHEDULES			

ABBREVIATIONS

A, AMP	Ampere	LV	Low Voltage
AIC	Amps Interrupting Capacity	LVR	Low Voltage Relay
AC	Alternating Current	MCB	Main Circuit Breaker
AFCI	Arc-Fault Circuit Interrupter	MDP	Main Distribution Panel
AFF	Above Finished Floor	MFR	Manufacturer
AFS	Above Finished Grade	MIN	Minimum
ATS	Automatic Transfer Switch	MLO	Main Lug Only
AV	Audio Visual	MSB	Main Switchboard
AWG	American Wire Gauge	MV	Medium Voltage
BAS	Building Automation System	N	Neutral
BTU	British Thermal Units	(N)	New
C, CDT	Conduit	NA, N/A	Not Applicable
CB	Circuit Breaker	NEMA	National Electrical Manufacturer Association
CKT	Circuit	N.C.	Normally Closed
CL	Centerline	N.O.	Normally Open
CLG	Ceiling	NTS	Not to Scale
CO	Carbon Monoxide	OCPD	Overcurrent Protective Device
C.O.	Conduit Only	P	Poles
CT	Current Transformer	PB	Pullbox
CU	Copper	PH	Phase
DDC	Digital Data Control	PNL	Panelboard
DWG	Drawing	POE	Power Over Ethernet
(E)	Existing	PWR	Power
E.C.	Electrical Contractor	RECP	Receptacle
ELEC	Electric / Electrical	RS	Rigid Steel
EM	Emergency	SD	Smoke Detector
EMT	Electrical Metallic Tubing	SHT	Sheet
ED	Equal	SOH	Standard Outlet Height
FA	Fire Alarm	SP	Spare
FACP	Fire Alarm Control Panel	SPEC	Specification
FBO	Furnished by Others	SPD	Surge Protective Device
FLA	Full Load Amps	SS	Surge Suppression
FSD	Fire Smoke Damper	SW	Switch
G, GND	Ground	SWBD	Switchboard
G.C.	General Contractor	SWGR	Switchgear
GEN	Generator	TEMP	Temporary
GFCI	Ground-Fault Circuit Interrupter	TVSS	Transient Voltage Surge Suppressor
HP	Horse Power	TYP	Typical
IBEC	Installed by Electrical Contractor	UG	Underground
IG	Isolated Ground	UON	Unless Otherwise Noted
J, JB	Junction Box	UPS	Uninterruptible Power Supply
KV	Kilovolt	V	Voltage
KVA	Kilovolt Ampere	VA	Volt Amperes
KW	Kilowatt	W	Watt
KWH	Kilowatt Hour	WD	Warm Dim or Water Detector
LCP	Lighting Control Panel	WP	Weatherproof
LTG	Lighting	XFMR	Transformer

GENERAL NOTES

- All work shall be installed in accordance with the latest National Electrical Code (NEC) and all local codes having jurisdiction. General work practices for construction shall be in accordance with NECA 1 standard for good workmanship in electrical construction (ANSI).
- All materials provided by the contractor shall be new and free of defects, listed / labeled for the intended purpose by Underwriters (UL) or other organization that is acceptable to the AHJ.
- The contractor is responsible for providing all equipment required to complete the project. Any bill of materials referenced in this plan set is for reference only to illustrate design intent.
- The contractor is responsible for laying out all work to conform to NEC clearances, architectural, structural, mechanical, and site conditions, to avoid obstructions and to allow the proper installation of each item. Coordinate with drawings of other trades to fit the actual space conditions.
- Upon the completion of the work, the entire electrical system shall be tested and shall be shown to be in proper working condition in accordance with the intent of the specifications and drawings. It shall be the responsibility of the contractor to have all systems ready for operation and inspection by AHJ.
- Electrical contractor to verify actual installed equipment electrical name plate data before energizing the circuit. Confirm electrical design values and actual equipment being installed in compliance with electrical code and manufacturer installation requirements.
- Conduit runs are diagrammatic. Final location and routing shall be established by the contractor based on the installation conditions and shall be verified in the field. All conduit types and installation requirements shall be in accordance with the specifications. Where conductor and cable routing are not shown on the plans, contractor shall determine routing and lengths required.
- Provide conduit expansion fittings with bonding jumpers to allow for thermal expansion and contraction where necessary, per NEC 300.7(B).
- Provide support for conductors in vertical conduits per NEC 300.19. Support conduit using steel pipe straps, lay-in adjustable hangers, clevis hangers, or split hangers. Hanger spacing shall be installed per NEC requirements for the type of conduit being installed.
- Provide pull or junction boxes where required to facilitate the installation of conductors. Bends in conduit between pull boxes shall not exceed a total of 360-degrees.
- Provide branch circuit wiring to all items requiring electrical connections. Where branch circuit wiring is not shown, connect items to circuits indicated. Unless indicated otherwise, all branch circuits shall be minimum #12 AWG.
- Provide independent support for disconnect switches, control stations, boxes, panels, etc. where no walls or other structural surface exists.
- Provide disconnect switches for HVAC equipment within eyesight of the equipment.
- Contractor shall provide signage to all electrical boxes, junction boxes, disconnects, conduit runs, subpanels, and main service equipment.
- Grounding system: Permanently and effectively ground all metallic conduit, supports, cabinets, panelboards, and system neutral conductors. Maintain continuity of equipment ground throughout the system. Ground clamps shall be approved type, specifically designed for grounding. Where grounding conductor is enclosed in conduit, ground clamp shall be of a type which grounds both conductor and conduit. All circuits in flexible metal or plastic conduit shall include a ground wire sized in accordance with NEC.
- Conductors: Copper with color coding, #10 AWG and smaller to be solid or stranded, #8 AWG and larger to be stranded. Minimum #12 AWG unless otherwise indicated. Aluminum conductors permitted for feeders 100A and larger. Conductors must be installed in accordance with NEC and cannot be supported from ceiling support wires. All power conductors in conduit shall be THWN-2, XHHN-2, RHN-2, PVWIRE, or XLPE.
- All smoke detectors to be listed and installed in accordance with the latest edition of NFPA 72. Smoke detectors to be wired together and receive primary power from the buildings wiring.
- Submittals shall be provided by the installer for Blacksheep review and approved prior to ordering.
- The EC may submit substitution requests for prior approval no less than 10 days prior to bid date. Blacksheep separates prior approval packages for luminaires & controls. The EC shall break out separate line items for each to prevent 'lockout' of pricing respective to this project.
- It is the responsibility of the EC and GC to schedule the following milestones with the lighting designer, no less than 1 week prior to the requested date.
 - Rough-In Inspection - prior to drywall/finish work.
 - Punch List / Aiming - once artwork and furniture is installed. If a punch list is required prior to the site being ready for aiming, additional construction administration cost (an additional site visit) will be incurred to the project.
 - Where directional (aimable) luminaires are present in the design, EC shall include time for aiming luminaires with Blacksheep oversight. Pre-aiming diagrams have been provided on the construction documents and these initial settings will save time during the final aiming visit. EC may request an estimate of time per project for bidding aiming time, based on products utilized and scale of project. Minimum one (1) day of on-site coordination.

SYMBOL LEGEND

Symbols listed below are for reference and for the use in understanding the design intent. Not all symbols listed below are necessarily used elsewhere in the construction documents. Cabling information is for reference only. All devices need to be assessed on an individual basis. Halftone symbols represent scope that is not included in the construction documents.

Electrical	Lighting Luminaires	Communications Audio Video
NEMA 5-15R / 5-20R, Mounted Vertically, Non-Essential Power	Bollard	Cabling Enclosure
NEMA 5-15R / 5-20R, Mounted Horizontally, Non-Essential Power	Ceiling Mounted	Data Outlet
NEMA 5-15R Quadruplex	Wall Mounted	Wireless Access Point
Unfilled = Protected by GFCI Breaker Filled = GFCI Receptacle	Uplight In-Grade	Touch Panel
Unfilled = Weatherproof Receptacle Filled = Weatherproof Receptacle, In-Use	Recessed Downlight Round or Square	Control RF Gateway
Red = Essential Power Blue = Optional Standby Power	Pendant Round or Square	Control System Integration Wiring
Half Switched Receptacle '+' Indicates Height AFF	Art Light Wall Mounted	Television
NEMA 6-XOR, 250V, 2-Pole; Number Indicates Amperage (i.e., 2 = 20A)	Linear LED	Projector
NEMA 14-XOR, 250/125V, 2-Pole w/ Neutral; Number Indicates Amperage	Linear LED Vertical Recessed or Surface	Classroom AV Location
NEMA 15-XOR, 250V, 3-Pole; Number Indicates Amperage	Linear Recessed	Clock
NEMA L6-XOR, 250V, 2-Pole; Number Indicates Amperage	Linear Surface	Microphone
NEMA L14-XOR, 250/125V, 2-Pole w/ Neutral; Number Indicates Amperage	Linear Suspended	Conference Camera
NEMA L15-XOR, 250V, 3-Pole; Number Indicates Amperage	Step Light	Speaker
Electrical Provision or Equipment Connection Provision	Track & Track Heads	Subwoofer
Electrical Floor Receptacle, Flush Mounted	Monopoint Ceiling or Wall Mounted	Remote Control
Junction Box, Mounted Above Accessible Ceiling	Pole Mounted, Below Round or Square	Backbox
Junction Box, Recessed Wall Mounted	Pole Mounted, Side Round or Square	Equipment Rack
Junction Box, Flush Floor Mounted	Exit Sign Ceiling Mounted Shade Denotes Face Read Arrow Denotes Directional Sign	Security Panel
Wiremod Power Outlet Strip	Exit Sign Wall Mounted Shade Denotes Face Read Arrow Denotes Directional Sign	Security Keypad
Non-Fused Disconnect Switch, Surface Mounted	Exit Sign w/ Emergency Lighting Wall Mounted Shade Denotes Face Read Arrow Denotes Directional Sign	Cellular Communicator
Fused Disconnect Switch, Surface Mounted	Emergency Lighting Unit	RF Receiver
Panelboard, Flush Mounted	Half Switch Receptacle For System Control Only	RF Repeater
Panelboard, Surface Mounted	Floor Half Switch Receptacle For System Control Only	Door / Window Contact Sensor
Push Button EPO = Emergency Power Off	Exhaust Fan For System Control Only	Motion Detector
Manual Motor Start / Switch	Electric Patio Heater For System Control Only	Glass Break Sensor
Inverter	Fireplace 120V System Control	Interior Siren
Fire & Life Safety	Lighting Control Shades Environmental	Sewage Ejector Interface
Smoke Detector	Lighting Control Panel	Water / Flood Sensor
Combination Smoke/CO Detector	Lighting Control Dimming Panel	Low Temperature Sensor
Heat Detector	Lighting Repeater	Wireless Flood / Low Temp Sensor
Carbon Monoxide Detector	Lighting/Shade Keypad	Water Shutoff Valve
Gas Detector	Occupancy Sensor	Surveillance Camera
Horn Strobe	Fireplace Control	Access Control
Strobe	Dimmer	Access Control Panel
Sprinkler Flow Switch	Remote Dimmer - 3-Way	Access Control Interface
Tamper Switch	Switch	Access Control Lock
General Drawing Symbols	Remote Switch - 3-Way	
Callout View Tag	Non-Controlled Dimmer/Switch (Provided by the EC)	
Elevation Tag	Power Pack	Lighting Tag w/ Circuit ID
Section Head & Tail	Low Voltage Driver	Technology Tag w/ Cable ID
	Shade Panel	
	Single Roller Motorized Shade	
	Dual Roller Motorized Shade	
	Motorized Drapes	
	Electronic Smart Glass	

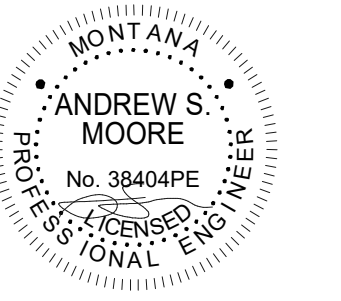


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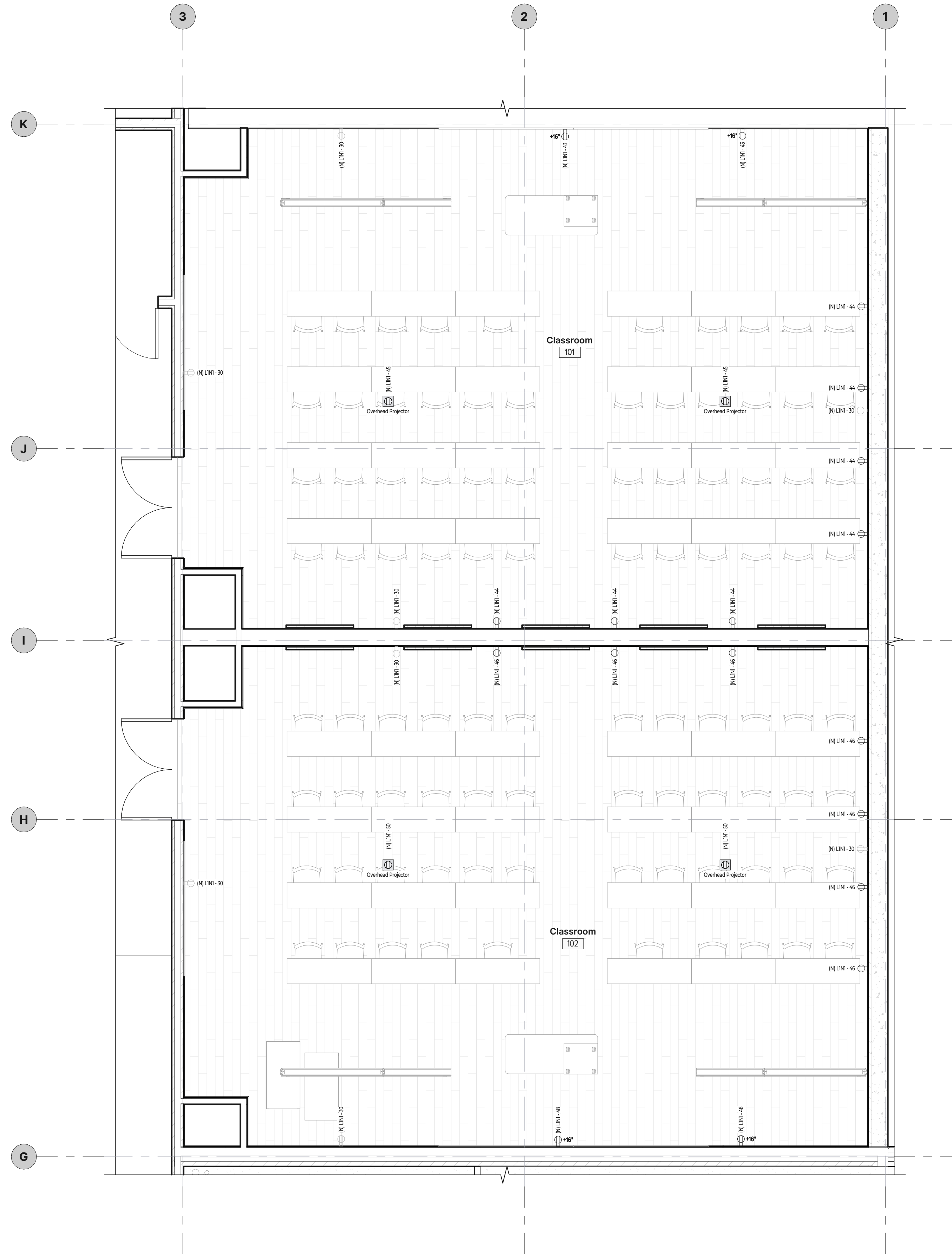
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DATE: 12/17/2025

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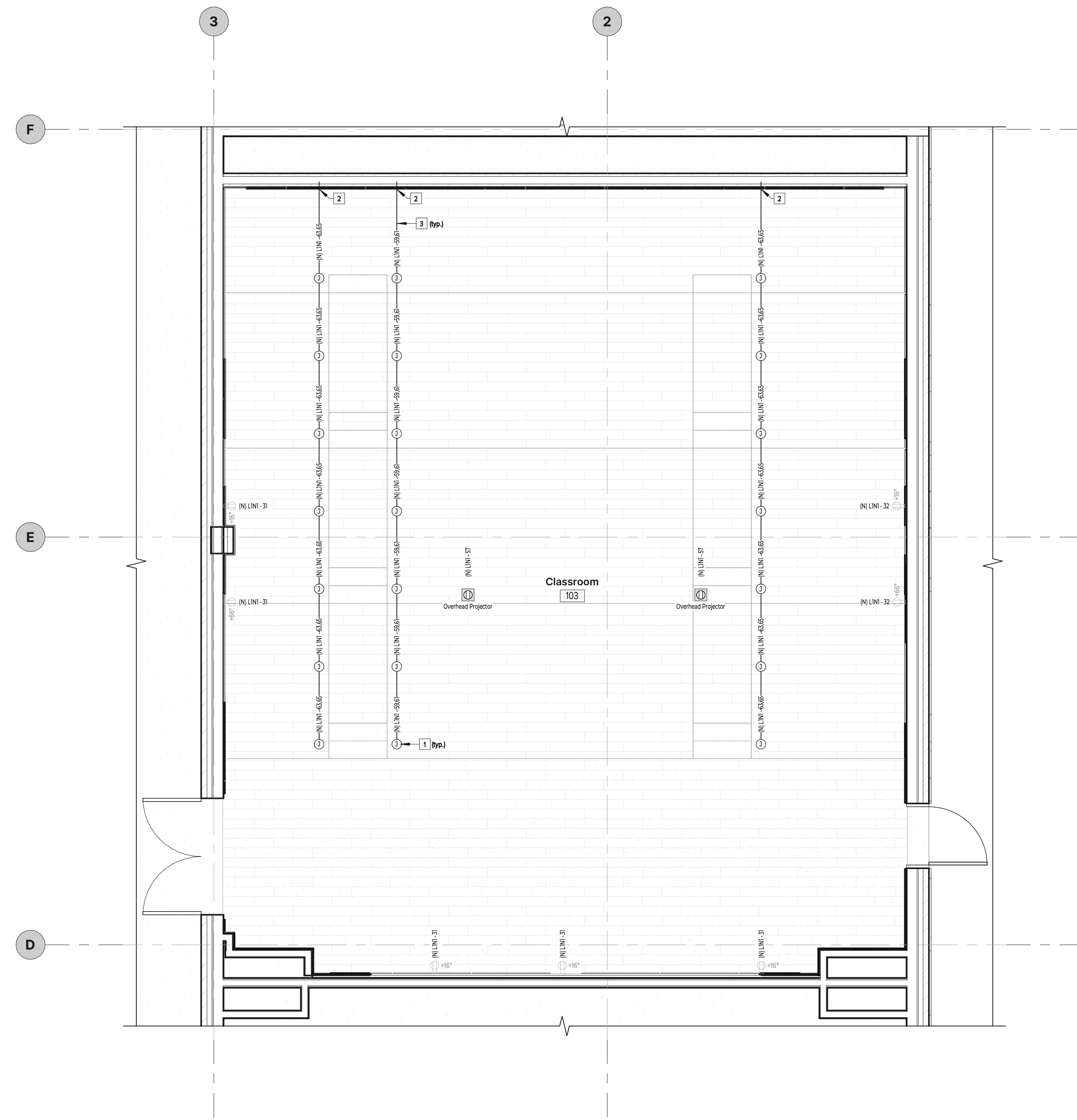
**101/102
ELECTRICAL
PLAN**

E111



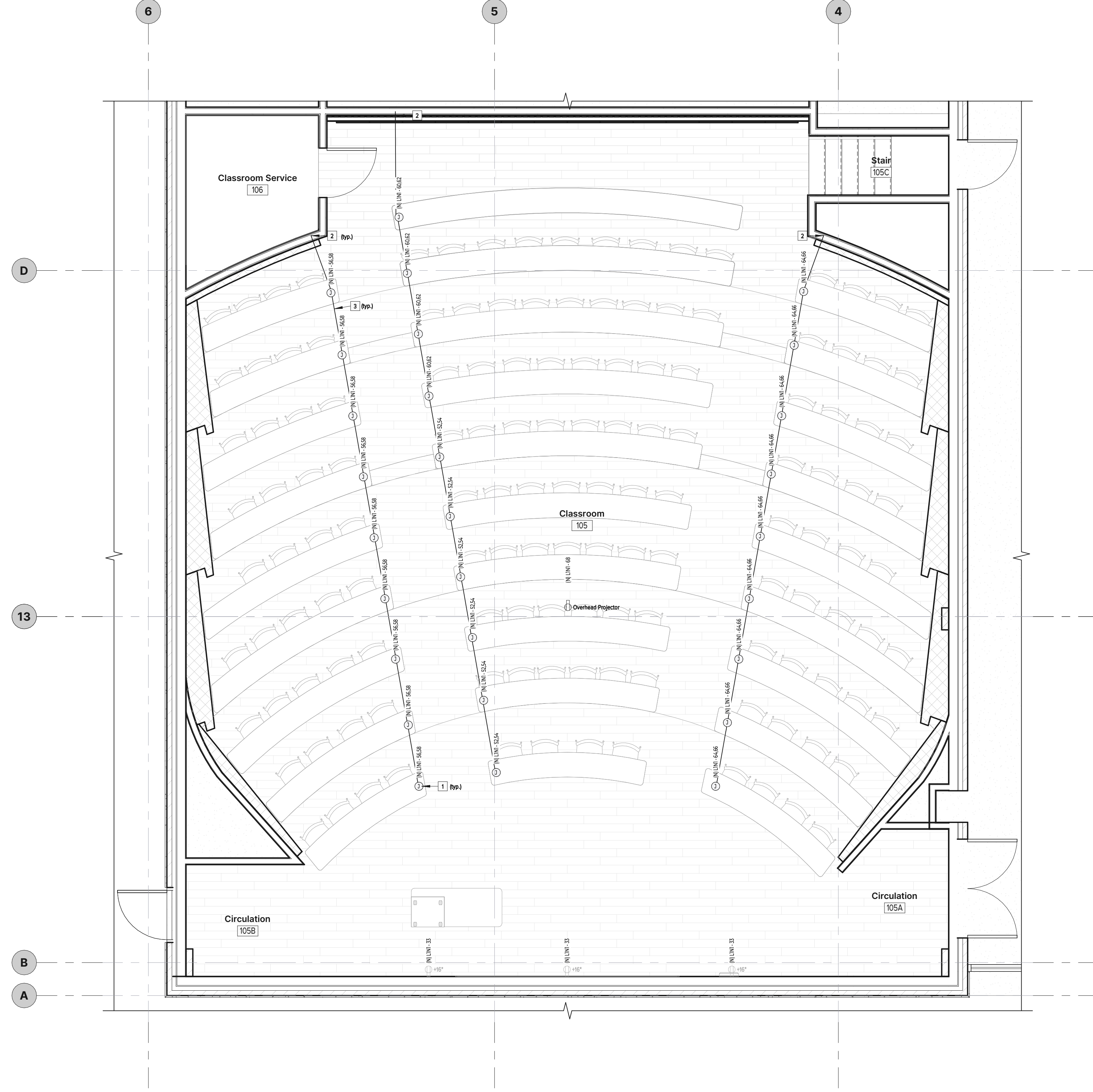
1 101/102 Electrical Plan
1/4" = 1'-0"

- Reference Keynotes**
- PVC stub into stationary table leg. Reference furniture drawings for exact dimensions.
 - Route conduit to recessed junction box in wall at 1'-6" AFF.
 - 3/4" PVC conduit in trench. Cutting and backfill by others.



1 103 Electrical Plan
 1/4" = 1'-0"

- Reference Keynotes**
- PVC stub into stationary table leg. Reference furniture drawings for exact dimensions.
 - Route conduit to recessed junction box in wall at 1'-6" AFF.
 - 3/4" PVC conduit in trench. Cutting and backfill by others.



1 105 Electrical Plan
 1/4" = 1'-0"

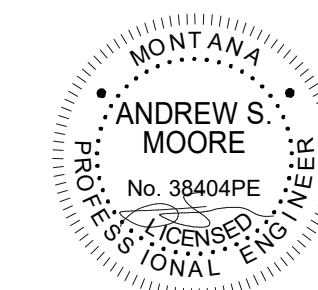


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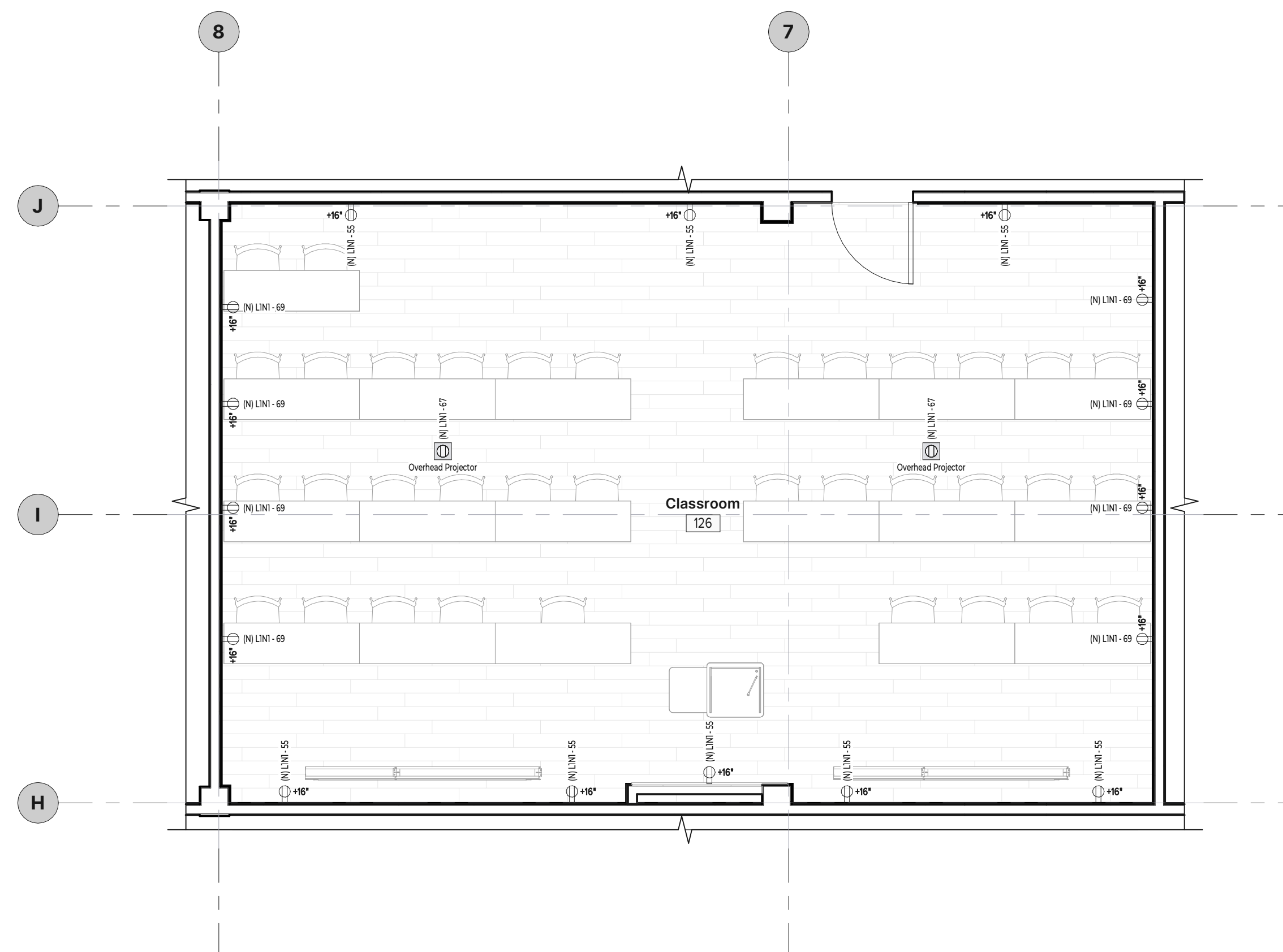
REVISIONS:

126 ELECTRICAL PLAN

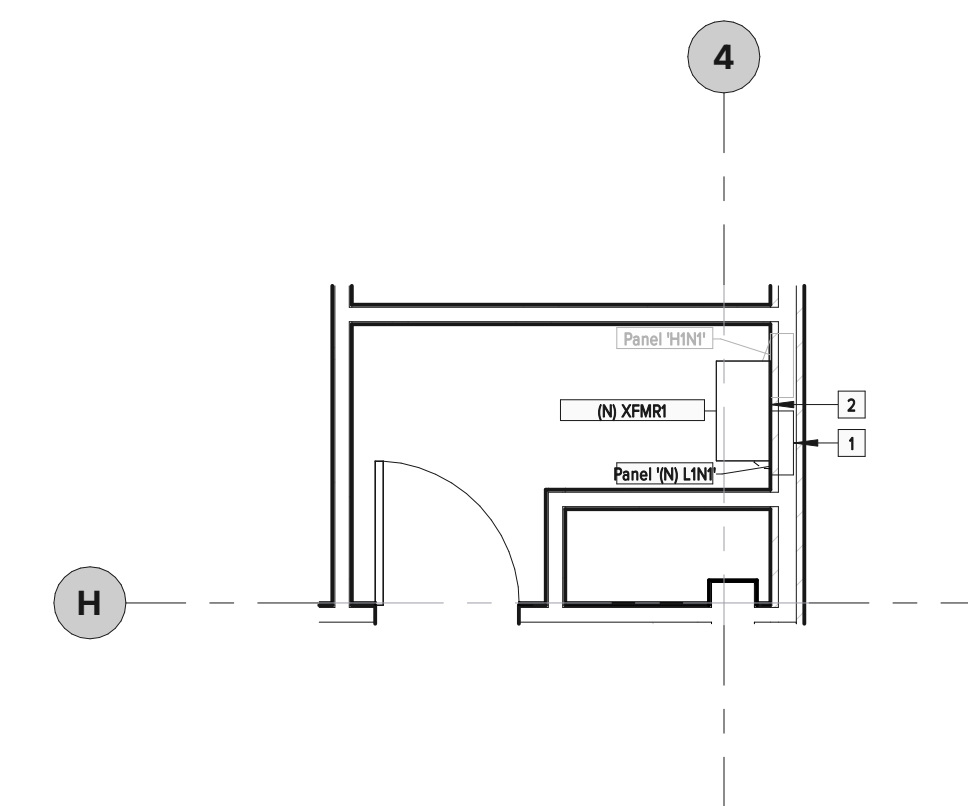
E114

Reference Keynotes

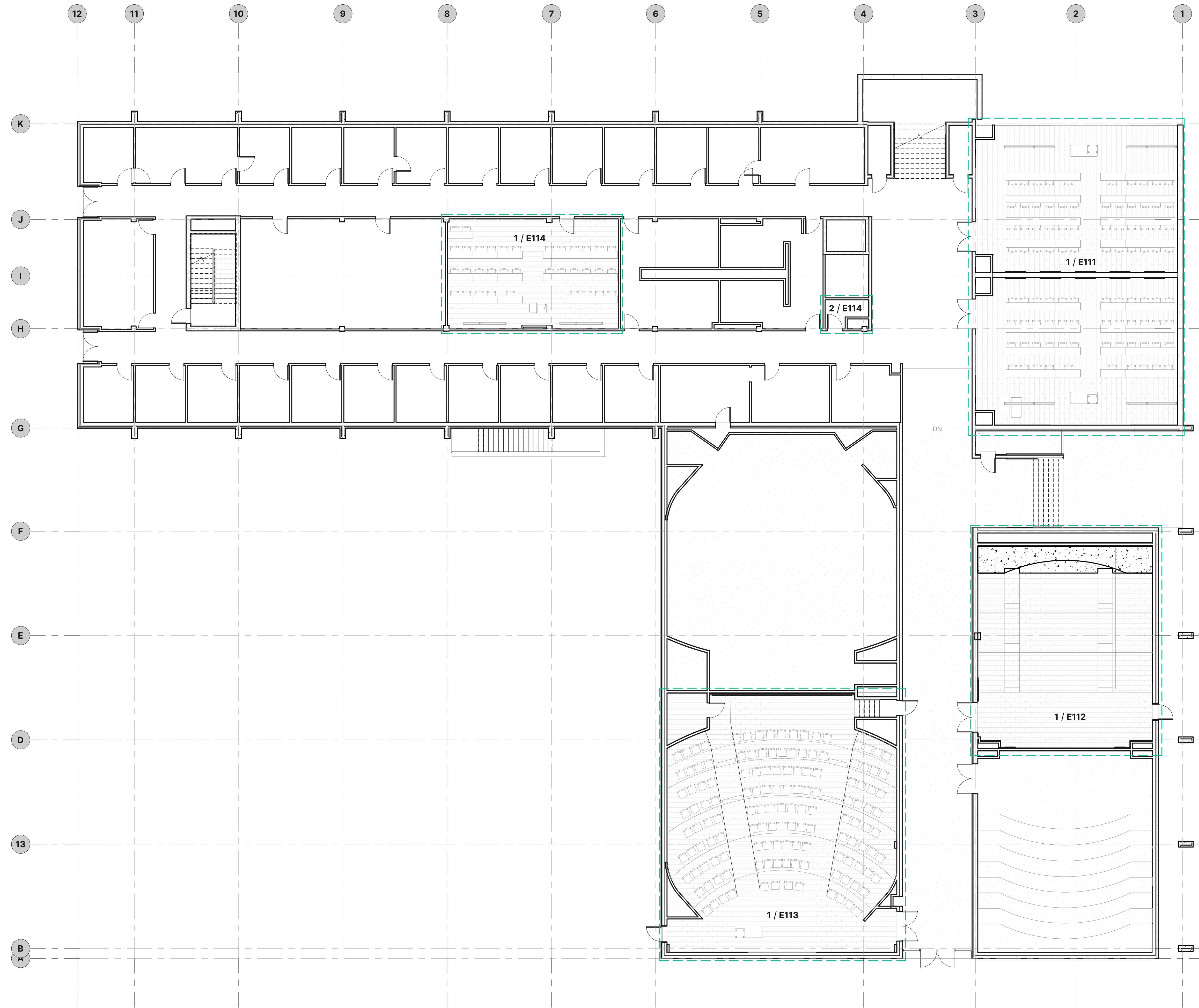
1. EC to demolish and replace existing 208Y/120V electrical panel due to limited breaker space in existing panel.
2. EC to demolish and replace existing transformer. E.C. shall ensure minimum clearances are met prior to installation. Refer to one-line diagram on sheet E610 for additional information.



1 126 Electrical Plan
1/4" = 1'-0"



2 Janitor Closet Electrical Plan
1/4" = 1'-0"

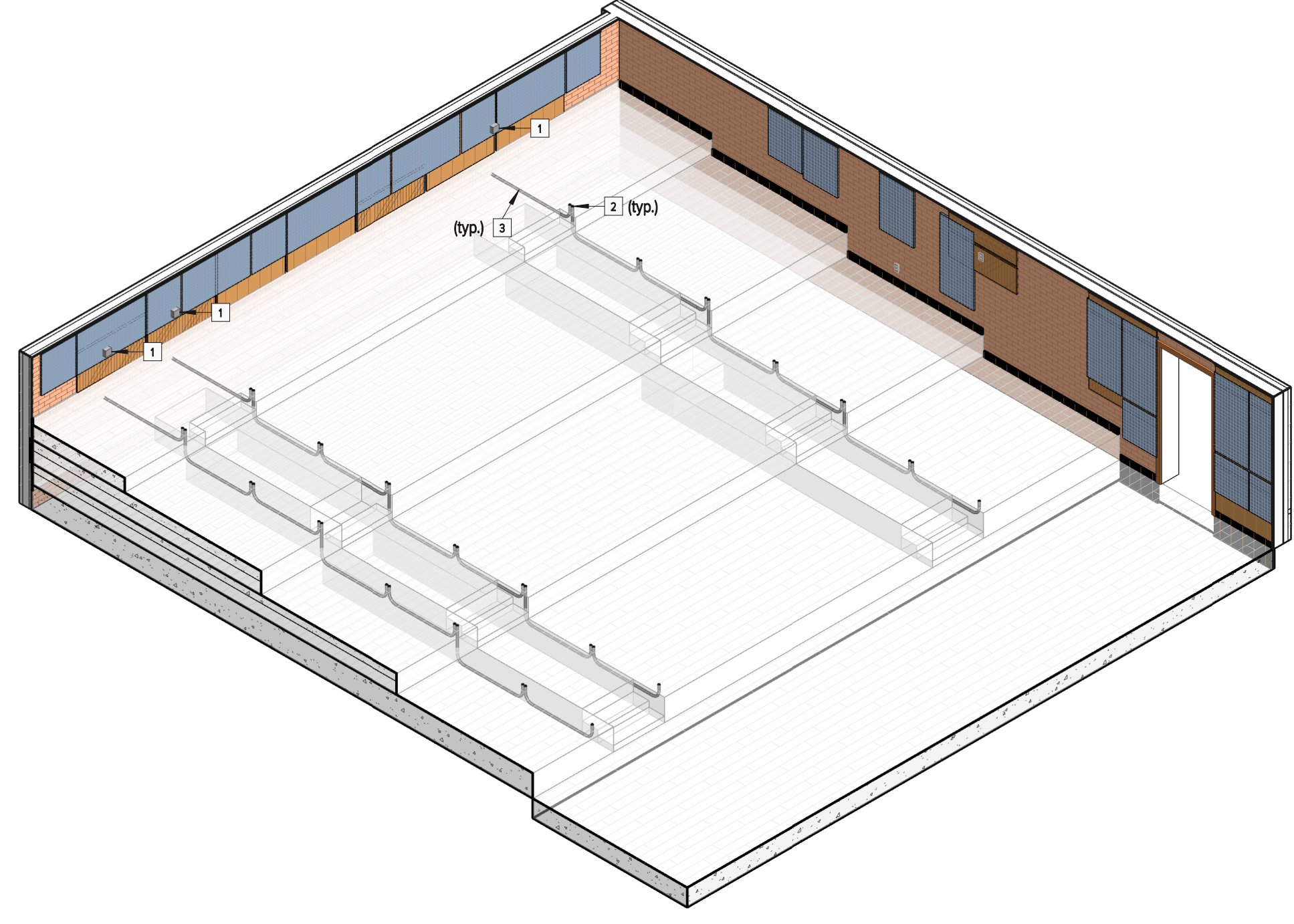


1 First Floor Electrical Plan
1" = 10'-0"

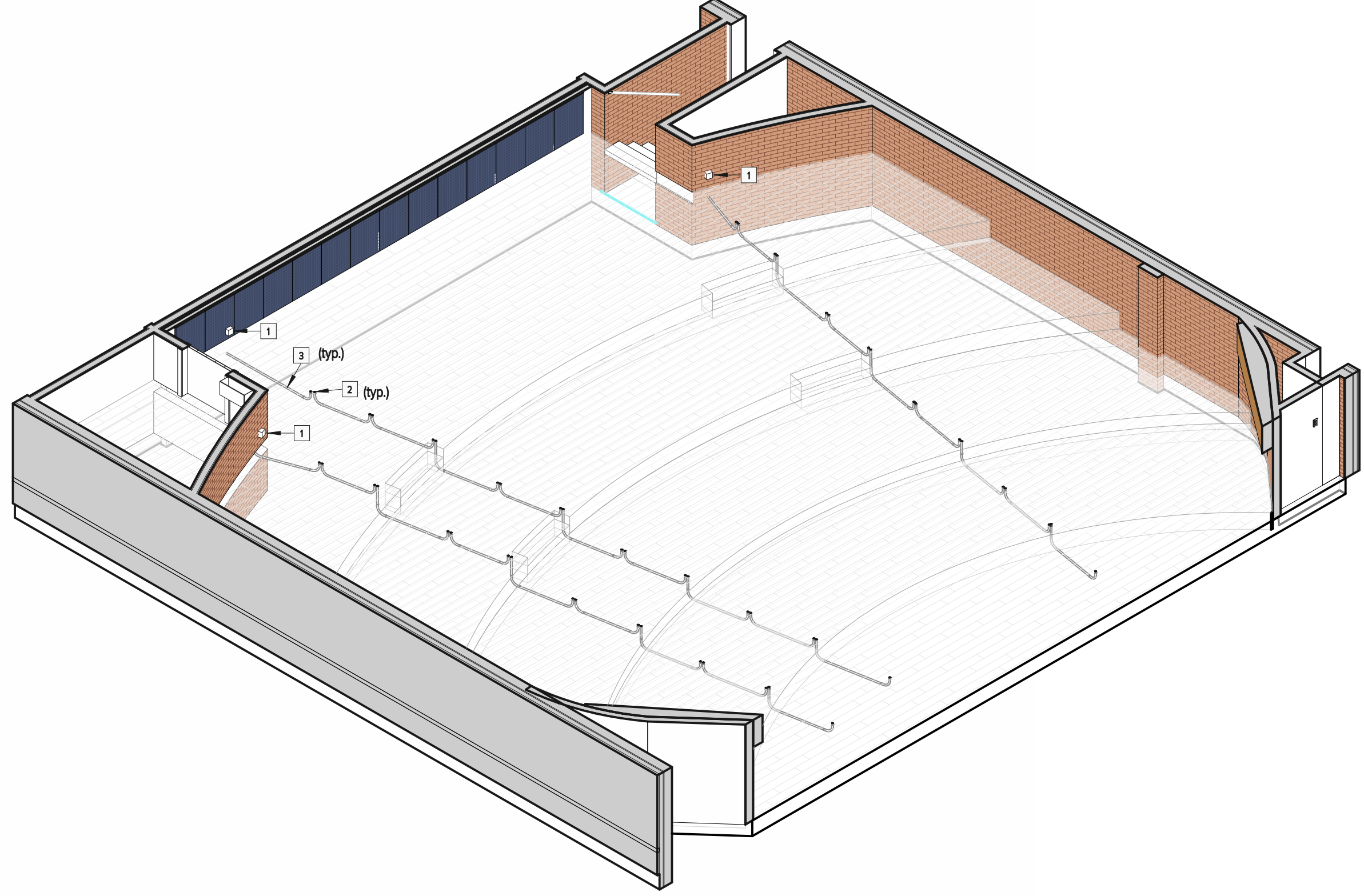
PROJECT #Project Number

Reference Keynotes

1. Route conduit to recessed junction box in wall at 1'-6" AFF.
2. PVC stub into stationary table leg. Reference furniture drawings for exact dimensions.
3. 3/4" PVC conduit in trench. Cutting and backfill by others.



1 103 Electrical Conduit Isometric View



2 105 Electrical Conduit Isometric View

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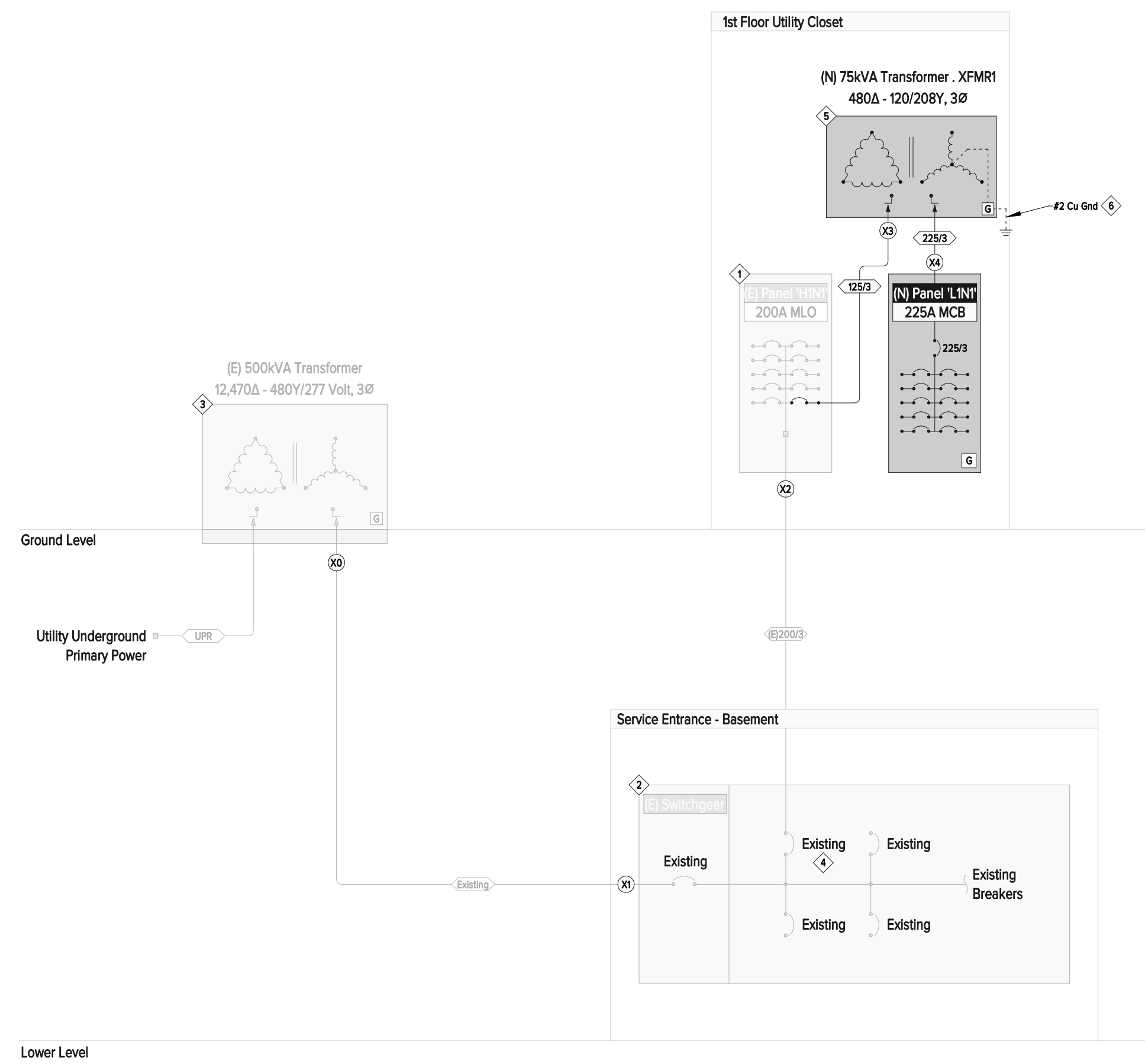
REVISIONS:

#	REVISIONS

103 & 105 ISOMETRIC VIEWS

One-Line Diagram Notes

- ① EC to conduct 30-day peak demand study per NEC 220.87 to ensure capacity of panel H1N1.
- ② It is assumed that the existing switchgear is 2000A minimum and rated 65,000A SCCR. Lengths of short circuit schedule are best engineering judgement and E.C. shall let Engineer of Record know if anything deviates from what is on plan.
- ③ Transformer size is assumed and max available fault current at utility transformer is assumed to be 51,463 A, taken from Cooper Bussmann's Short Circuit Current Calculations handbook. Available fault current calculations assume:
 - 500 kVA, 1.3% Z utility transformer
 - 200-foot service conductor length or longer
 - (6) 500 kcmil copper service conductors per phase, minimum
 E.C. shall verify these assumptions with the utility. If assumptions are not valid, E.C. shall request updated available fault currents from engineer in writing.
- ④ Breaker feeding panel H1N1 is assumed to be 200A. E.C. shall verify and let Engineer of Record know if anything deviates in the field.
- ⑤ Remove existing transformer and replace with new.
- ⑥ Bond secondary neutral conductor to grounding system per NEC 250. Connect to existing grounding connection.



Short Circuit and Feeder Schedule

Point	Device	Short Circuit Current		Voltage	Feeder (Cu THWN-2)				Transformer		Fault at Primary	
		Fault at Device	AIC Rating		Feeder ID	Phase	Neutral	Ground	Conduit	Length		kVA
X0	Utility	51,463		480V						500	2.5	
X1	(E) Switchgear	37,270	65,000 A	480V	Existing	(5)600kcmil	600kcmil	1/0	3-1/2" C			
X2	H1N1	12,277	14,000 A	480V	(E) 200/3	3/0	3/0	#6	2" C			
X3	(N) XFMR1	8,597		480V	125/3	1/0			1-1/4" C	75	1.75	11,357
X4	(N) L1N1	8,052	10,000 A	208V	225/3	4/0	4/0	#2	2-1/2" C			

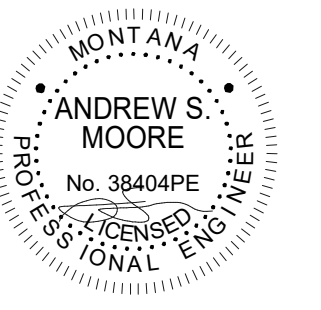


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Bozeman, MT 59717

DRAWN: Author CHECKED: Checker

DATE: 12/17/2025

REVISIONS:

ELECTRICAL PANEL SCHEDULES

E620

Panel 'H1N1'														
PANEL	H1N1	VOLTAGE	480/277 Wye			MAIN BUS RATING	200 A			MAIN BUS FEED LOCATION				
LOCATION	CLOSET 130	PHASE	3Ø			MAINS TYPE	MLO			MAIN BUS FEED-THROUGH LOAD				
MOUNTING	(E) Switchgear	WIRE	4			MAIN CIRCUIT BREAKER	200 A			SUB-FEED #1 BREAKER RATING				
FED FROM	(E) Switchgear	ENCLOSURE TYPE				SHORT CIRCUIT AIC RATING	14,000 A			SUB-FEED #2 BREAKER RATING				
Details: Circuit Breaker Protection Types A = Arc-Fault Protection G = Ground-Fault Personnel D = Dual Arc-Fault and Ground-Fault Protection E = Ground-Fault Equipment L = Breaker Lock-Off Device S = Furnish with Standard Breaker ST = Shunt Trip Device						Notes:								
CKT	CIRCUIT DESCRIPTION	WIRE	TYPE	TRIP	POLES	A	B	C	POLES	TRIP	TYPE	WIRE	CIRCUIT DESCRIPTION	CKT
1	(E) Lighting Classrooms 124, 125, 127	--	--	--	1	--	--	--	1	--	--	--	(E) Lighting Classrooms 135 through 142	2
3	(E) Lighting Classrooms 113 through 122	--	--	--	1	--	--	--	1	--	--	--	(E) Lighting Classrooms 128 through 130	4
5	(E) Lighting Classrooms 131 through 134	--	--	--	1	--	--	--	1	--	S	3/4"C, 1#12, #12N, #12G	Lighting Classrooms 101, 102	6
7	Lighting Classroom 103	3/4"C, 1#12, #12N, #12G	S	20 A	1	941 VA	--	--	1	--	--	--	(E) Lighting Classroom 104	8
9	(E) Lighting Classroom 108	--	--	--	1	--	--	--	1	--	--	--	(E) Lighting Classroom 108	10
11	Lighting Classroom 105	3/4"C, 1#12, #12N, #12G	S	20 A	1	--	--	960 VA	--	--	--	--	--	12
13	(E) Lighting Classroom 108	--	--	--	1	--	--	--	1	--	--	--	Provision	14
15	Provision	--	--	--	1	--	--	--	1	--	--	--	Provision	16
17	Provision	--	--	--	1	--	--	--	1	--	--	--	Provision	18
19	Provision	--	--	--	1	--	--	--	1	--	--	--	Provision	20
21	Transformer T2	1-1/4"C, 3-1/0	S	125 A	3	--	9565 VA	--	3	--	--	--	Provision	22
23	--	--	--	--	--	--	--	9020 VA	--	--	--	--	--	24
25	--	--	--	--	--	6435 VA	--	--	--	--	--	--	--	26
27	Provision	--	--	--	1	--	--	--	1	--	--	--	Provision	28
29	Provision	--	--	--	1	--	--	--	1	--	--	--	Provision	30
Total Apparent Power Phase Loads:						7376 VA	9565 VA	11710 VA						
Total Current Phase Loads:						27 A	36 A	43 A						
CONNECTED LOADS:		LOAD CLASSIFICATION		CONNECTED LOADS (VA)		DEMAND FACTOR		ESTIMATED DEMAND (VA)		PANEL TOTALS				
Phase A:	7376 VA	Commercial - Receptacles		20520 VA	74.37%	15260 VA	Total Connected Load:			28651 VA				
Phase B:	9565 VA	Commercial - Appliances		4500 VA	75.00%	3375 VA	Total Estimated Demand:			22266 VA				
Phase C:	11710 VA	Lighting		3631 VA	100.00%	3631 VA	Total Connected Current:			34 A				
Total:	28651 VA									Total Estimated Demand Current:			27 A	

Panel '(N) L1N1'															
PANEL	(N) L1N1	VOLTAGE	120/208 Wye			MAIN BUS RATING	225 A			MAIN BUS FEED LOCATION					
LOCATION	CLOSET 130	PHASE	3Ø			MAINS TYPE	MCB			MAIN BUS FEED-THROUGH LOAD					
MOUNTING	Recessed	WIRE	4			MAIN CIRCUIT BREAKER	225 A			SUB-FEED #1 BREAKER RATING					
FED FROM	(N) XFMR1	ENCLOSURE TYPE	NEMA 1			SHORT CIRCUIT AIC RATING	10,000 A			SUB-FEED #2 BREAKER RATING					
Details: Circuit Breaker Protection Types A = Arc-Fault Protection G = Ground-Fault Personnel D = Dual Arc-Fault and Ground-Fault Protection E = Ground-Fault Equipment L = Breaker Lock-Off Device S = Furnish with Standard Breaker ST = Shunt Trip Device						Notes: 1. All conductors to be copper unless otherwise noted. Conductors shall be upsized for all runs over 100 feet to keep maximum allowable voltage drop at 3%. 2. Where panel schedule and plans indicate GFCI protection for the same circuit, E.C. shall determine whether to install a GFCI receptacle / device or a GFCI circuit breaker but not both. 3. Reference Mechanical Equipment Connection Schedule and manufacturer instructions for electrical installation requirements. 4. If mechanical equipment is within sight (less than 50-feet) of the load center, a molded case circuit breaker may serve as the disconnecting means. The circuit breaker must be capable of being locked in the open position. 5. Provide door-in-door hinged cover per MSU standards.									
CKT	CIRCUIT DESCRIPTION	WIRE	TYPE	TRIP	POLES	A	B	C	POLES	TRIP	TYPE	WIRE	CIRCUIT DESCRIPTION	CKT	
1	(E) Lighting Corridor B	--	--	--	1	--	--	--	1	--	--	--	(E) Lighting Corridor A	2	
3	(E) Lighting West End Corridor	--	--	--	1	--	--	--	1	--	--	--	(E) Show case and pipe chase	4	
5	(E) Lighting Lobby A & Stairwell	--	--	--	1	--	--	--	1	--	--	--	(E) Lighting Stairway C	6	
7	(E) Lighting Corridor C	--	--	--	1	--	--	--	1	--	--	--	(E) Lighting Exterior East & South	8	
9	Provision	--	--	--	1	--	--	--	1	--	--	--	(E) Lighting Room 108	10	
11	(E) Lighting Room 103, 104	--	--	--	1	--	--	--	1	--	--	--	(E) Rcpts Rooms 131, 132	12	
13	(E) Rcpts Rooms 133, 134, 135	--	--	--	1	--	--	--	1	--	--	--	(E) Rcpts Rooms 136, 137, 138, 138A	14	
15	(E) Rcpts Rooms 138B, 139	--	--	--	1	--	--	--	1	--	--	--	(E) Rcpts Rooms 140, 141, 142	16	
17	(E) Rcpts Rooms 125, 126, 127 North	--	--	--	1	--	--	--	1	--	--	--	(E) Rcpts Room 124 North	18	
19	(E) Rcpts Rooms 125, 126, 127 South	--	--	--	1	--	--	--	1	--	--	--	(E) Rcpts Room 124 South	20	
21	(E) Rcpts Rooms 112, 113	--	--	--	1	--	--	--	1	--	--	--	(E) Rcpts Rooms 114, 115, 116	22	
23	(E) Rcpts Rooms 117, 118, 119	--	--	--	1	--	--	--	1	--	--	--	(E) Rcpts Rooms 120, 121, 122	24	
25	(E) Rcpts Room 123, West Corridor	--	--	--	1	--	--	--	1	--	--	--	(E) Rcpts Room 128, Corridor B	26	
27	(E) Rcpts Room 129, Corridor A	--	--	--	1	--	--	--	1	--	--	--	(E) Rcpts Rooms 108, 109, 110, 111	28	
29	(E) Rcpts Rooms 108, 109, 110	--	--	--	1	--	--	--	1	--	--	--	(E) Rcpts Rooms 101, 102	30	
31	(E) Rcpts Room 102, 103	3/4"C, 1#12, #12N, #12G	S	20 A	1	900 VA	360 VA	--	1	20 A	S	3/4"C, 1#12, #12N, #12G	(E) Rcpts Rooms 103, 104 East Wall	32	
33	(E) Rcpts Room 105	3/4"C, 1#12, #12N, #12G	S	20 A	1	--	540 VA	--	1	--	--	--	(E) Rcpts Exterior South	34	
35	(E) Rcpts Exterior East	--	--	--	1	--	--	--	1	--	--	--	(E) Rcpts Exterior North	36	
37	(E) Rcpts Exterior West	--	--	--	1	--	--	--	1	--	--	--	(E) West End Heaters	38	
39	(E) Rcpts Rooms 129	--	--	--	1	--	--	--	1	--	--	--	(E) Illegible	40	
41	(E) Lighting Lobby A	--	--	--	1	--	--	--	1	20 A	--	--	Spare 'S'	42	
43	Rcpts Room 101	3/4"C, 1#12, #12N, #12G	S	20 A	1	360 VA	1260 VA	--	1	20 A	S	3/4"C, 1#12, #12N, #12G	Rcpts Room 101	44	
45	Overhead Projectors Room 101	3/4"C, 1#12, #12N, #12G	S	20 A	1	--	1000 VA	1260 VA	1	20 A	S	3/4"C, 1#12, #12N, #12G	Rcpts Room 102	46	
47	Spare 'S'	--	--	--	1	0 VA	1000 VA	--	1	20 A	S	3/4"C, 1#12, #12N, #12G	Rcpts Room 102	48	
49	Spare 'S'	--	--	--	1	0 VA	1000 VA	--	1	20 A	S	3/4"C, 1#12, #12N, #12G	Overhead Projectors Room 102	50	
51	Spare 'S'	--	--	--	1	0 VA	1000 VA	0 VA	2	20 A	S	3/4"C, 2#12, #12N, #12G	Desk Power Room 105	52	
53	Spare 'S'	--	--	--	1	0 VA	1000 VA	0 VA	2	20 A	S	3/4"C, 2#12, #12N, #12G	--	54	
55	Rcpts Room 126	3/4"C, 1#12, #12N, #12G	S	20 A	1	1440 VA	945 VA	--	2	20 A	S	3/4"C, 2#12, #12N, #12G	Desk Power Room 105	56	
57	Overhead Projectors Room 103	3/4"C, 1#12, #12N, #12G	S	20 A	1	--	1000 VA	945 VA	--	2	20 A	S	3/4"C, 2#12, #12N, #12G	--	58
59	Desk Power Room 103	3/4"C, 2#12, #12N, #12G	S	20 A	2	--	945 VA	855 VA	2	20 A	S	3/4"C, 2#12, #12N, #12G	Desk Power Room 105	60	
61	--	--	--	--	--	945 VA	855 VA	--	2	20 A	S	3/4"C, 2#12, #12N, #12G	--	62	
63	Desk Power Room 103	3/4"C, 2#12, #12N, #12G	S	20 A	2	--	945 VA	945 VA	2	20 A	S	3/4"C, 2#12, #12N, #12G	Desk Power Room 105	64	
65	--	--	--	--	--	--	--	--	--	--	--	--	--	66	
67	Overhead Projectors Room 126	3/4"C, 1#12, #12N, #12G	S	20 A	1	1000 VA	500 VA	--	1	20 A	S	3/4"C, 1#12, #12N, #12G	Overhead Projector Room 105	68	
69	Rcpts Room 126	3/4"C, 1#12, #12N, #12G	S	20 A	1	--	1440 VA	0 VA	1	20 A	--	--	Spare 'S'	70	
71	Spare 'S'	--	--	--	1	--	20 A	0 VA	1	20 A	--	--	Spare 'S'	72	
Total Apparent Power Phase Loads:						9565 VA	9020 VA	6435 VA							
Total Current Phase Loads:						83 A	78 A	54 A							
CONNECTED LOADS:		LOAD CLASSIFICATION		CONNECTED LOADS (VA)		DEMAND FACTOR		ESTIMATED DEMAND (VA)		PANEL TOTALS					
Phase A:	9565 VA	Commercial - Receptacles		20520 VA	74.37%	15260 VA	Total Connected Load:			25020 VA					
Phase B:	9020 VA	Commercial - Appliances		4500 VA	75.00%	3375 VA	Total Estimated Demand:			18635 VA					
Phase C:	6435 VA						Total Connected Current:			69 A					
Total:	25020 VA									Total Estimated Demand Current:			52 A		

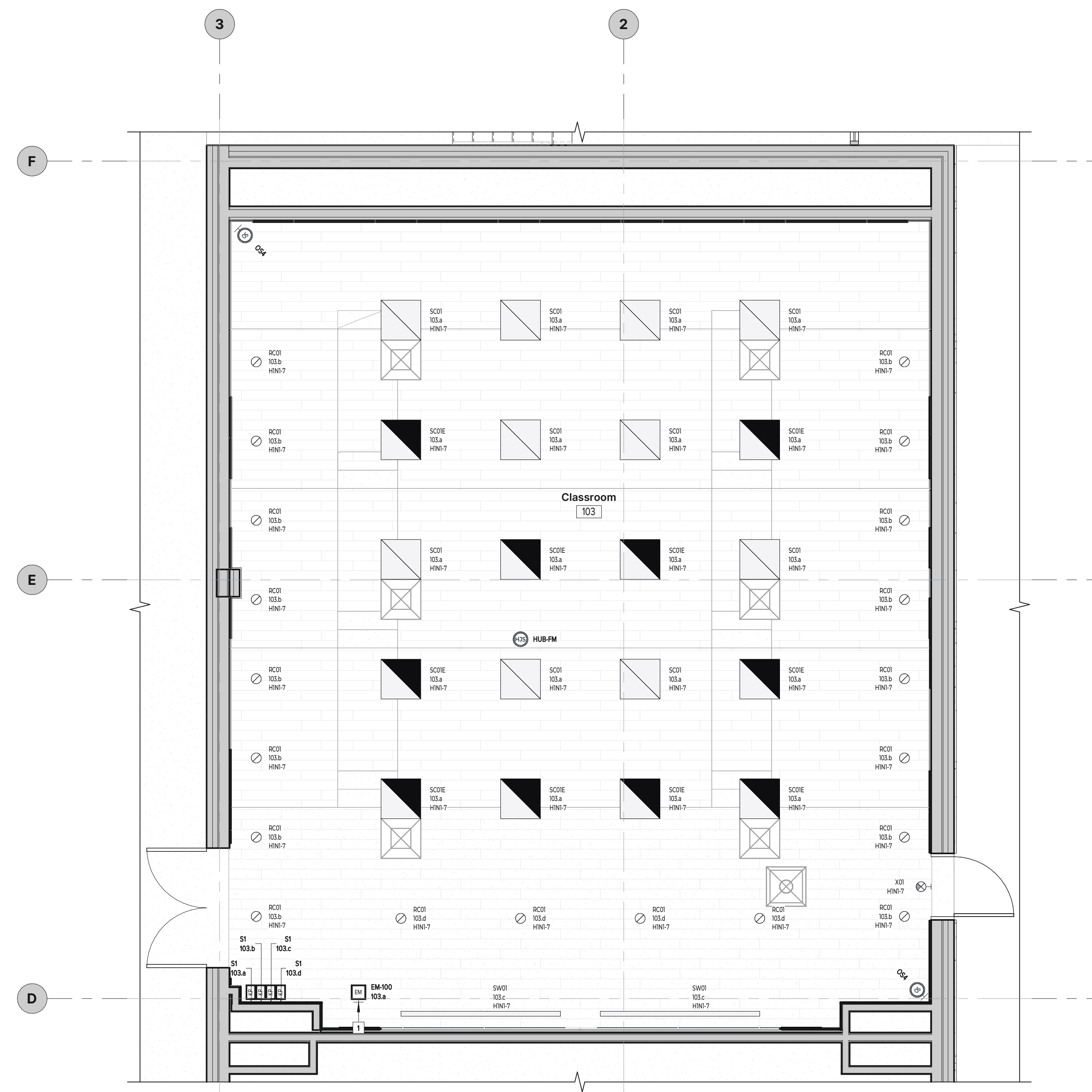
Reference Keynotes
 1. Remote test switch at accessible location. Battery pack located above lay-in ceiling.



1 101/102 Lighting Plan
 1/4" = 1'-0"

Reference Keynotes

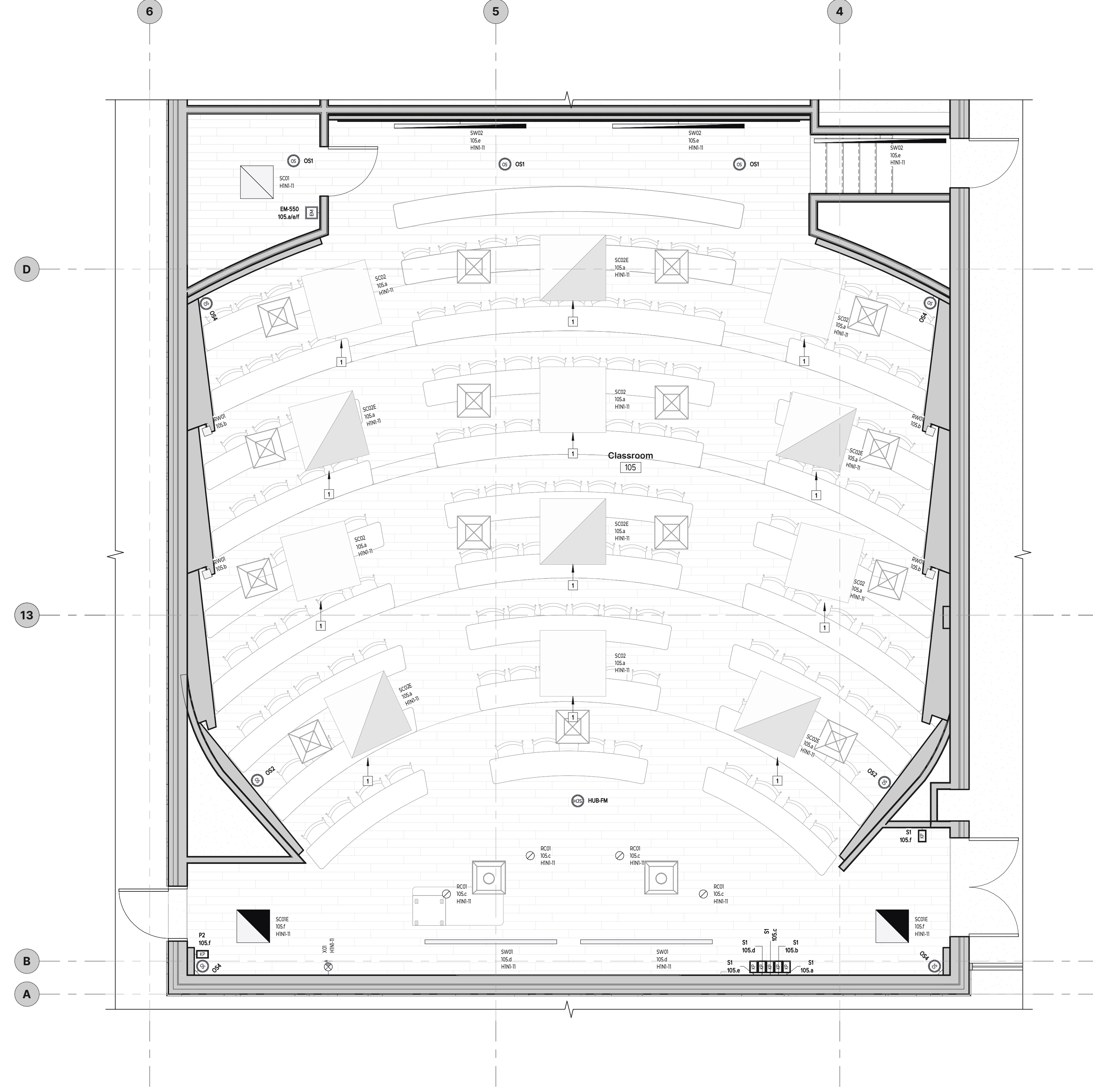
1. Remote test switch at accessible location. Battery pack located above lay-in ceiling.



1 103 Lighting Plan
 1/4" = 1'-0"

Reference Keynotes

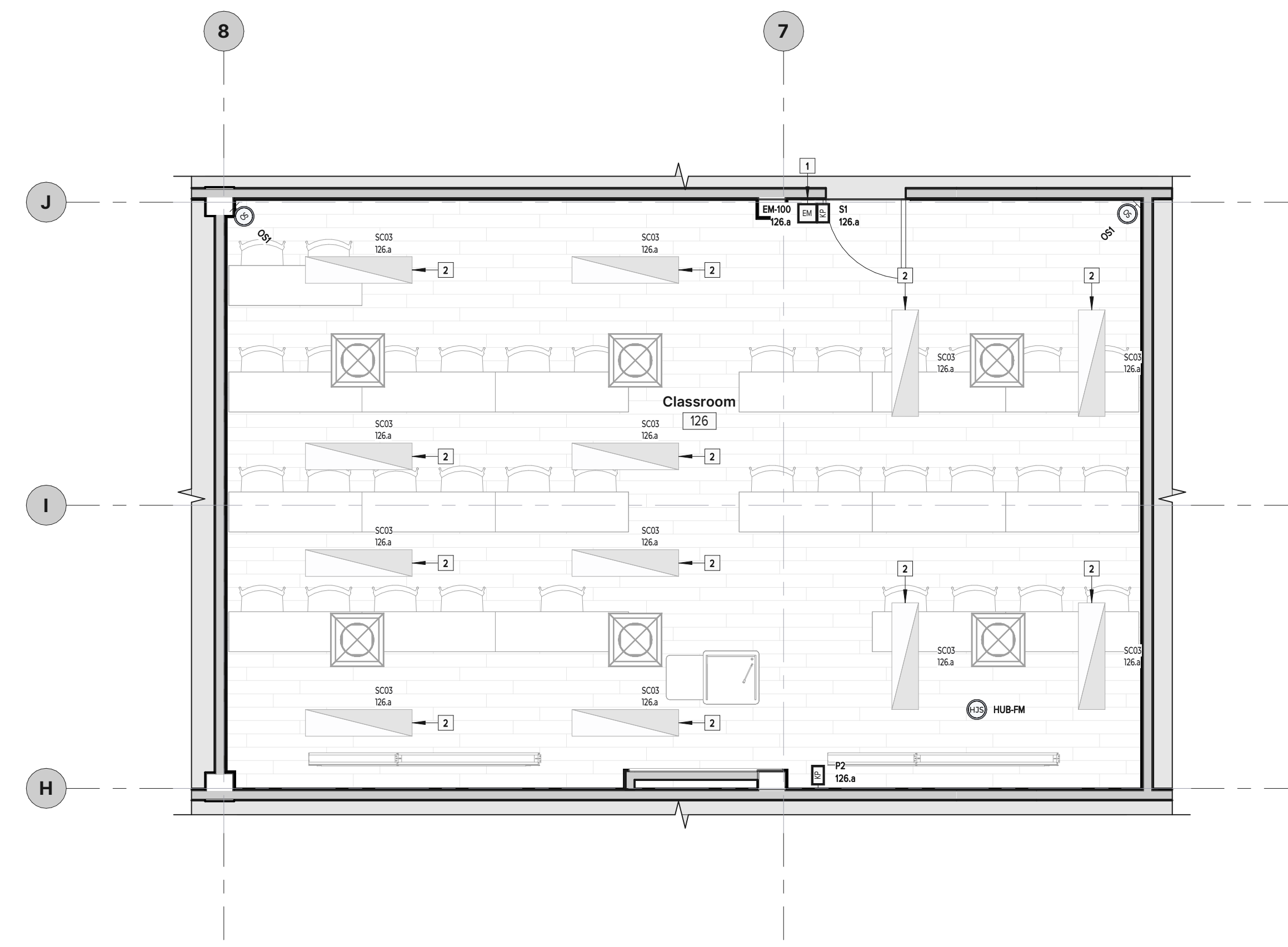
- EC to remove and bypass existing ballast. Dispose of ballast in accordance with state environmental requirements. Refer to luminaire schedule on EL602 for lamp specifications.



1 105 Lighting Plan
1/4" = 1'-0"

Reference Keynotes

1. Remote test switch at accessible location. Battery pack located above lay-in ceiling.
2. EC to remove and bypass existing ballast. Dispose of ballast in accordance with state environmental requirements. Refer to luminaire schedule on EL602 for lamp specifications.



1 126 Lighting Plan
 1/4" = 1'-0"

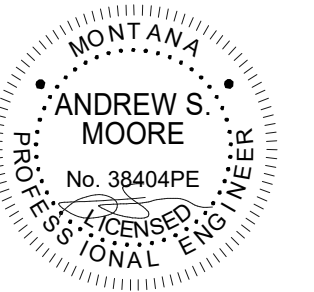


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Reid Hall
Bozeman, MT 59717

DRAWN: APH CHECKED: ASM

DATE: 12/17/2025

REVISIONS:

LUMINAIRES & LIGHTING EQUIPMENT SCHEDULES

EL620

Type	Description	Manufacturer	Model	CCT	CRI	Dimming	Load	Lumens	Notes
RC01	4" Architectural Koto Downlight	ELCO Lighting	E4LK78ICAD ELK2435D-W ELK4129W	3500K	95+	0-10V	19 VA	2181 lm	
RW01	Cove Light w/ Asymmetric Louvre	Moda Light	MMGH-S-0-35H-4-310	3500K	95+	0-10V	37 VA	2505 lm	
SC01	2' x 2' Lay-in Panel	RAB	EZP2x240W/D10	3500K	84	0-10V	25 VA	3140 lm	3, 4
SC01E	2' x 2' Lay-in Panel	RAB	EZP2x240W/D10	3500K	84	0-10V	25 VA	3140 lm	3, 4, 5
SC02	Existing 4' x 4' Panel	N/A	N/A	3500K	83	0-10V	42 VA	6600 lm	1, 2
SC02E	Existing 4' x 4' Panel	N/A	N/A	3500K	83	0-10V	42 VA	6600 lm	1, 2, 5
SC03	Existing 1' x 4' Panel	N/A	N/A	3500K	84	0-10V	25 VA	3140 lm	1, 2
SW01	Asymmetric Wall Wash	Prudential Lighting	MWR-PRO-LED35-90-HO-8-TMW-SC-UNV-SUR-X3-X3-DM01	3500K	90	0-10V	30 VA	3560 lm	
SW02	Wall Mounted Linear Light	Lumenwex	SQUW-DI-MPL-WH-WAI2-SW-90CRI-500LMF-500LMF-35K-8FT-UNV-D1-C-DMB-W	3500K	90	0-10V	81 VA	8000 lm	5
X01	Exit Sign	Eventlite	SOVII-EM-G-1C-BA-SW-SU-[XX]	--	--	--	3 VA	0 lm	6

Notes:

- EC to remove fluorescent ballast and rewire with 277V, 0-10V dimming circuit.
- EC to furnish and install Type B T8 LED lamp; KT-LED10.5T8-48GC-8XX-D-VDIM, or equal.
- EC to set adjustable output to 30W during installation.
- EC to set adjustable color temperature to 3500K during installation.
- Connect emergency lighting to mini inverter per manufacturer's installation instructions.
- EC to order exit signs with arrows as indicated on floor plans. See floor plans.

Lighting Control Devices

Type	Description	Manufacturer	Model	Notes
EM-100	Mini Inverter - Single Zone	Eventlite	MP-100-MINV-ACCY-TSP	6
EM-550	Mini Inverter - Multiple Zones	Eventlite	PWII-55-LC-FD	6
HUB-FM	Vive Wireless Hub without BACnet, Up to 75 Devices, Flush Mount.	Lutron	HJS-0-FM	1, 2, 3, 4
OS1	Radio Power Saver Wireless Occupancy Sensor - Ceiling Mounted	Lutron	LRF2-OCR2B-P-WH	1, 2, 3, 4, 5
OS4	Radio Power Saver Wireless Occupancy Sensor - Corner Mounted	Lutron	LRF2-OKLB-P-WH	1, 2, 3, 4, 5
OS2	Radio Power Saver Wireless Occupancy Sensor - Wall Mounted	Lutron	LRF2-OWLB-P-WH	1, 2, 3, 4, 5
P2	Pico Remote - 2-Button with Raise/Lower	Lutron	N/A	1, 2, 3, 4
S1	Maestro Wireless 0-10V Dimming Switch	Lutron	N/A	1, 2, 3, 4
4B	Vive 4-Button Zone Control	Lutron	PJZ-4B-GWH-L01	1, 2, 3, 4

Notes:

- EC to install a complete working system.
- EC to provide startup, commissioning, and training services for lighting control system.
- Refer to specifications for additional control system requirements.
- EC to install Vive lighting control equipment according to plans to ensure the best connectivity to wireless control devices.
- Occupancy sensors to be installed in locations according to plans. They are to be installed at levels that allow the sensor to operate properly and are also unobstructed by building infrastructure and luminaires.
- Connect emergency lighting to mini inverter per manufacturer's installation instructions.

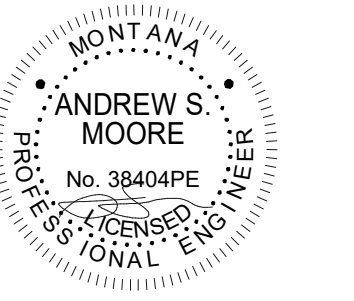


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Bozeman, MT 59717

DRAWN: Author CHECKED: Checker

DATE: 12/17/2025

REVISIONS:

TECHNOLOGY INFORMATION

T001

PROJECT #/Project Number

Conduit Sizing	
Conduit Size	Maximum Number of Cables
1-1/4"	(8) Cat6A
1-1/2"	(19) Cat6A
2"	(19) Cat6A
2-1/2"	(21) Cat6A
3"	(55) Cat6A
4"	(92) Cat6A

J-Hook Sizing		
B-Line Series J-Hooks		Maximum Number of Cables
Part Number	Size	Commscope Cable UNS84019304/10 (.285" Diam.)
BCH21	1-5/16"	(12) Cat6A
BCH32	2"	(20) Cat6A
BCH64	4"	(92) Cat6A

Cabletray Sizing		
Flextray Series		Maximum Number of Cables
Part Number	Size	Commscope Cable UNS84019304/10 (.285" Diam.)
FT4X4	4' x 4'	(100) Cat6A
FT4X8	4' x 8'	(200) Cat6A
FT4X12	4' x 12'	(300) Cat6A
FT4X18	4' x 18'	(451) Cat6A
FT4X24	4' x 24'	(601) Cat6A

Cabletray Load Capacity					
Flextray Series		Support Span / Load Capacity (lbs/Ft Max.)			
Part Number	Size	5'-0"	6'-0"	7'-0"	8'-0"
FT4X4	4' x 4'	58	49	42	36
FT4X8	4' x 8'	94	78	61	47
FT4X12	4' x 12'	119	83	61	47
FT4X18	4' x 18'	119	83	61	47
FT4X24	4' x 24'	128	89	65	50

Technology Responsibility Matrix					
Equipment	Description	Qty.	Furnished	Installed	
AV = University Audio/Video Department UIT = University IT Department GC = General Contractor or Subcontractor					
Audio/Visual and Control Equipment, Mounts and Accessories					
Audio Technica TBD	Wireless Mic Room PA	1	AV	AV	
Epson L530U	PowerLite Series Full HD WUXGA Long Throw Laser Projector	4	AV	AV	
Epson L630U	PowerLite Series Full HD WUXGA Long Throw Laser Projector	2	AV	AV	
Epson L690U	PowerLite Series Full HD WUXGA Long Throw Laser Projector	3	AV	AV	
Existing Projector Extension	Existing Projector Extension	1	AV	AV	
Existing Projector Mount	Existing Projector Mount	1	AV	AV	
Extron 42-338-02	Long Throw Column Array Speaker, 8 Ohm, Black	4	AV	AV	
Extron 60-849-01	2-Channel Low Impedance Amplifier 60/100 Watts per Channel	2	AV	AV	
Extron 60-1081-01	Six Input HDCP-Compliant Scaling Presentation Switcher	4	AV	AV	
Extron 60-1271-12	DTP Transmitter for HDMI	3	AV	AV	
Extron 60-1271-13	DTP Receiver for HDMI	9	AV	AV	
Extron 60-1449-01	Mono 70/100V Amplifier, 60W	3	AV	AV	
Extron 60-1470-02	MediaLink Plus Controller, Black	4	AV	AV	
Extron 60-1491-12	DTP Transmitter for HDMI with Input Loop-Out	3	AV	AV	
Extron 60-1515-01	8x4 Seamless 4K Scaling Presentation Matrix Switcher	1	AV	AV	
Extron 60-1562-12	7" Tablet Pro TouchLink Pro Touchpanel, Black	1	AV	AV	
Extron FF-220T	Full-Range Flat Field Speakers w/ Low Profile Enclosure, 70/100V Transformer	6	AV	AV	
WolfVision V2-3neo	Visualizer and Document Camera	4	AV	AV	
WolfVision V2-8UHD	Visualizer and Document Camera	1	AV	AV	
Cabling - Classroom AV, Category, Speaker, Line, Video, Etc.					
AV Cabling	AV System Cabling from Device to Device	1	AV	AV	
Cabling - IT, Wiring to Telecommunications Rooms					
Typical UIT Cabling	University IT Category Cabling to TR	1	UIT	UIT	
Cabling - IT, Wiring within Telecommunication Rooms; Category Cabling, Patch Cables, Power Cables, Etc.					
TR Cabling	Interconnect Cabling within TR	1	UIT	UIT	
Instructor's Lecterns with Integrated AV Equipment Storage					
Lecturns	Lecturns w/ Integrated AV Equipment Storage	1	AV	AV	
Network Equipment; Wireless Access Points, Network Switches and Licenses					
Typical Existing Access Point	Existing Wireless Access Point	15	UIT	UIT	
Pathway Equipment; Cable Tray, J-Hooks, and Supporting Hardware					
Cabling Pathways	University IT and System Cabling Pathway Equipment	1	UIT	GC	
Cooper B-Line FT4X4	Straight Flex Tray Section, 4" Deep, 4" Wide	6	GC	GC	
Cooper B-Line FT4X4 Tee	4" Deep, 4" Wide Horizontal Tee Created with One FT4X4 and Three Washer SPL Kits	1	GC	GC	
Legrand 2300BAC	Wiremold 2300 Series Raceway, Ivory	6	GC	GC	
Legrand 2348S51	Wiremold Single Gang Shallow Device Box	4	GC	GC	
Typical 4" Sleeve	Typical 4" Conduit Sleeve for Penetrations	2	GC	GC	
Projection Screens					
Da-Lite 70292	Model C with CSR, 109" Diagonal (16:10), Matte White	2	AV	GC	
Da-Lite 70296	Model C with CSR, 137" Diagonal (16:10), Matte White	4	AV	GC	
Da-Lite 70362	Da-Snap Series 137" Diagonal Fixed Screen with Da-Mat Material	2	AV	GC	
Da-Lite 70373	Da-Snap Series 189" Diagonal Fixed Screen with Da-Mat Material	1	AV	GC	
Rough-In Conduit, Junction Boxes, Mud Rings, Floor Boxes, Display Back Boxes and Supporting Hardware					
2" Conduit Sleeve	2" Conduit Sleeve for Penetrations	4	GC	GC	
Chief SYS-AUW	Suspended Ceiling Projector System, White	8	AV	GC	
Existing Projector Ceiling Plate	Existing Projector Ceiling Plate	1	AV	GC	
FSR PWB-323-CV	Project Wall Box Decorative Cover	5	AV	AV	
FSR PWB-323-TRK	3" Depth Large Open Style Wall Box w/ Trim Ring	5	AV	GC	
Raco 260	4-11/16" Square Box, Large Capacity, Welded, 3-1/4" Depth w/ 12 Knockouts	6	GC	GC	
Raco 837	4-11/16" Square Single Device Cover, 1/2" Raised	1	GC	GC	
Raco 843	4-11/16" Square Single Device Cover, 5/8" Raised	4	GC	GC	
Typical EMT 1-1/4"	Typical 1-1/4" EMT for UIT & AV Cabling	1	GC	GC	
Typical EMT 90° Bend	Typical 90° Bend for 1-1/4" UIT EMT	14	GC	GC	
Trim - AV, Faceplates, Quickports and Accessories					
Typical 1G Passthrough Plate	Single Gang Passthrough Plate for AV System Cabling	6	AV	AV	
Trim - IT; Faceplates, Quickports and Accessories					
Commscope FP-LBL-2P-448	Faceplate Kit, Labeled, 1-Gang, 2-Port, Light Almond	1	UIT	UIT	
Commscope USL10G-LAL	SL Series Modular Jack, RJ45, Cat6A Unshielded, Light Almond	2	UIT	UIT	
Commscope 1-1933674-3	6-Port Surface Mount Module	5	UIT	UIT	
Commscope SMB-2P-266	2-Port Universal Surface Mount Jack for Lutron WVE Hub Locations	3	UIT	UIT	
Commscope SMB-2P-266	2-Port Universal Surface Mount Jack for PoE Clocks	6	UIT	UIT	
Commscope SMB-2P-266	2-Port Universal Surface Mount Jack for Projector Locations	9	UIT	UIT	
Commscope SMB-2P-266	2-Port Universal Surface Mount Jack for Wireless Access Points	15	UIT	UIT	
Typical 2-Port Data Jack	2-Port Data Jack Wiring and Trim Plate Location	1	UIT	UIT	
University Informational Systems					
American Time PE6486PD904	15" PoE Round Surface Clock, Black	6	UIT	UIT	

Sheet Notes

- Final cabling pathways to be determined on site.
- All equipment locations shall be finalized by MSU AV and UIT departments before wired and installed.

Reference Keynotes

- 13'-2 3/16" to 21'-4 1/8" projector throw distance range for 137" diagonal screen.

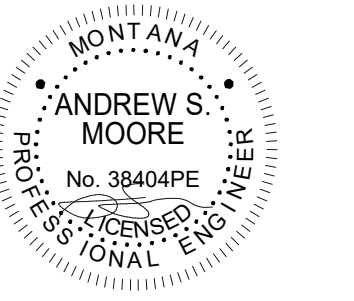


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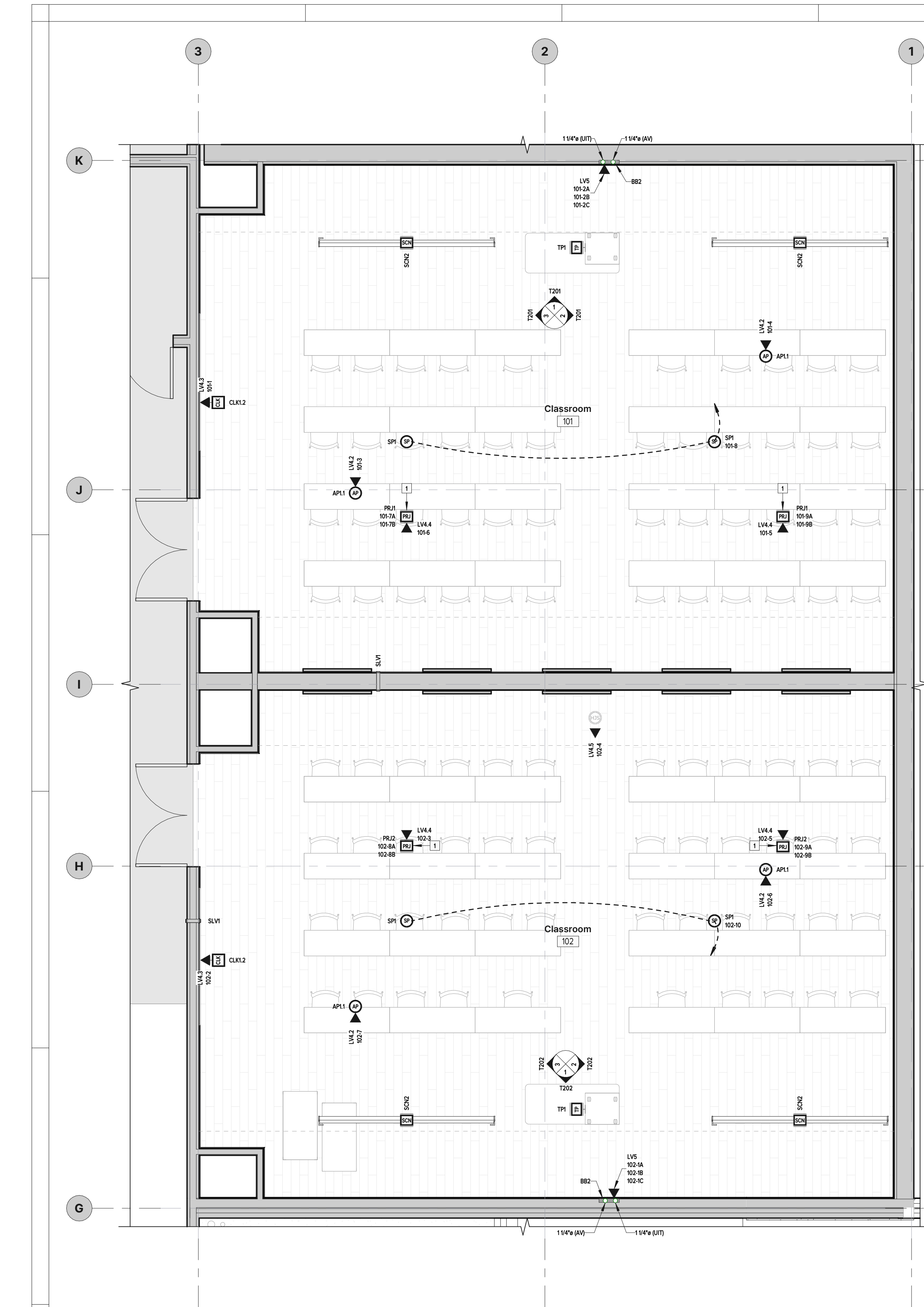
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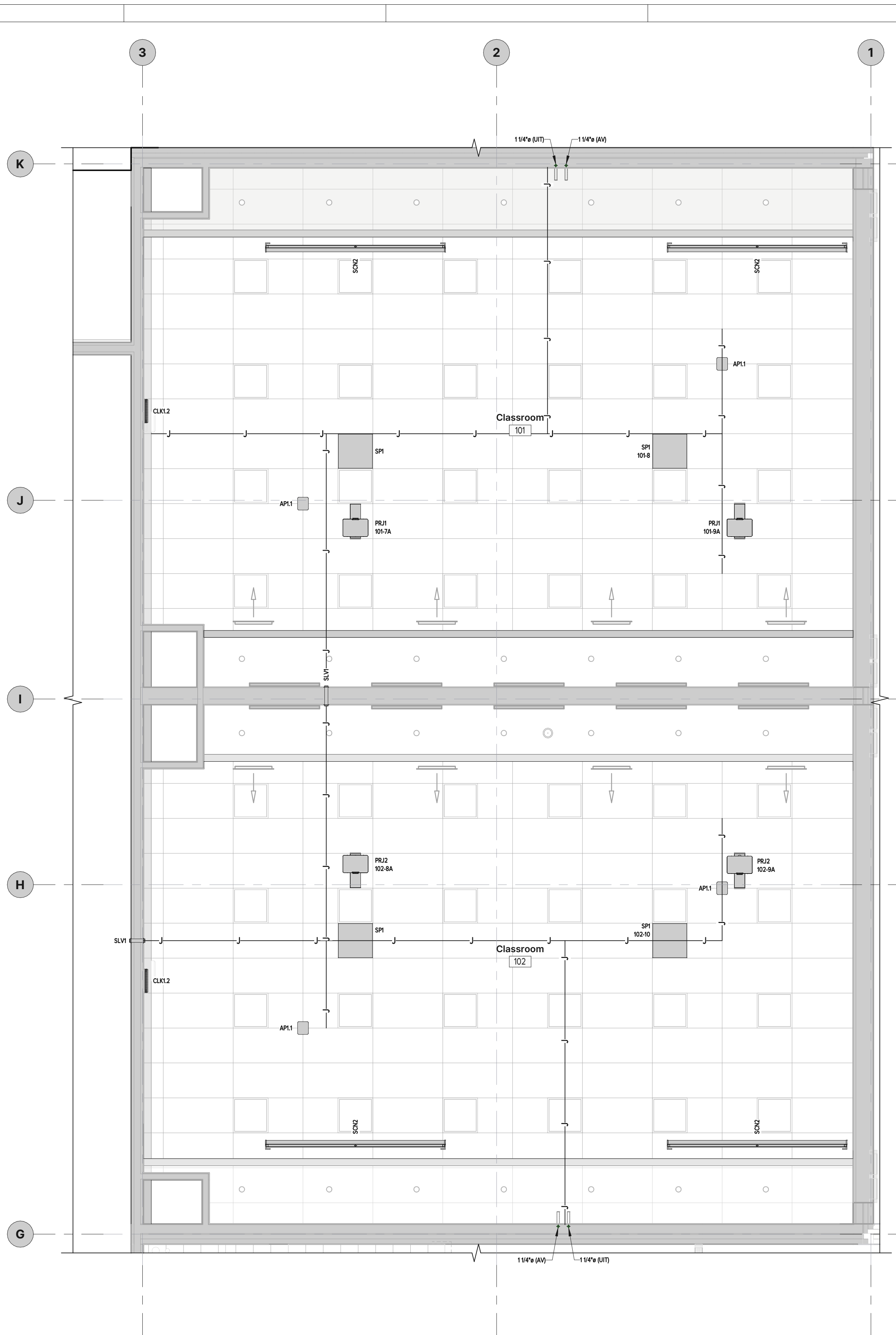
REVISIONS:

101/102 TECHNOLOGY PLANS

T111



1 101/102 Technology Plan
1/4" = 1'-0"



2 101/102 Technology Ceiling Plan
1/4" = 1'-0"

Sheet Notes

1. Final cabling pathways to be determined on site.
2. All equipment locations shall be finalized by MSU AV and UIT departments before wired and installed.

Reference Keynotes

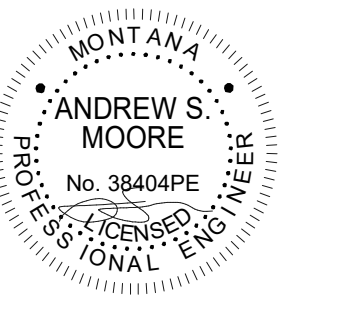
1. 13'-2 3/16" to 21'-4 1/8" projector throw distance range for 137" diagonal screen.

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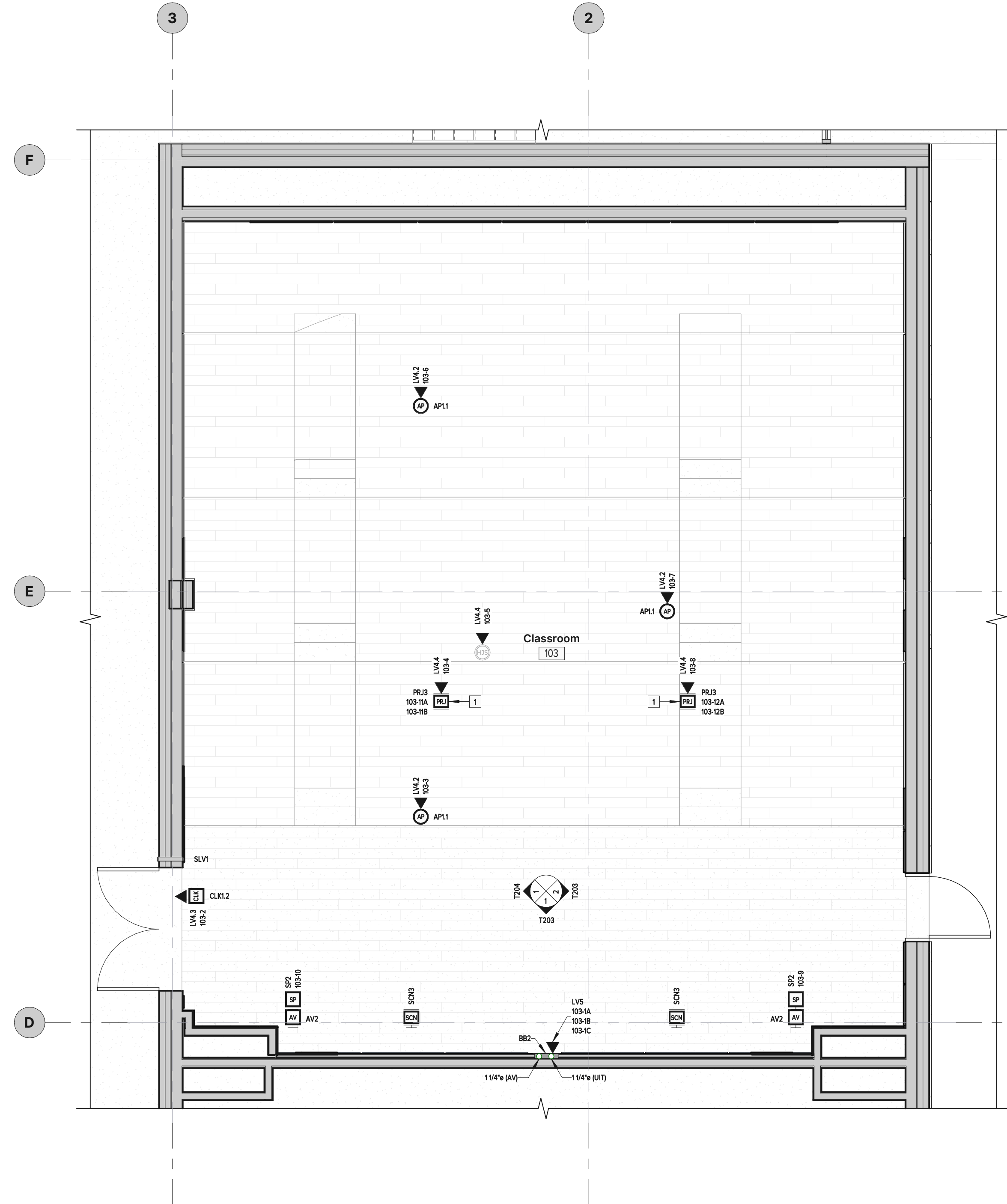
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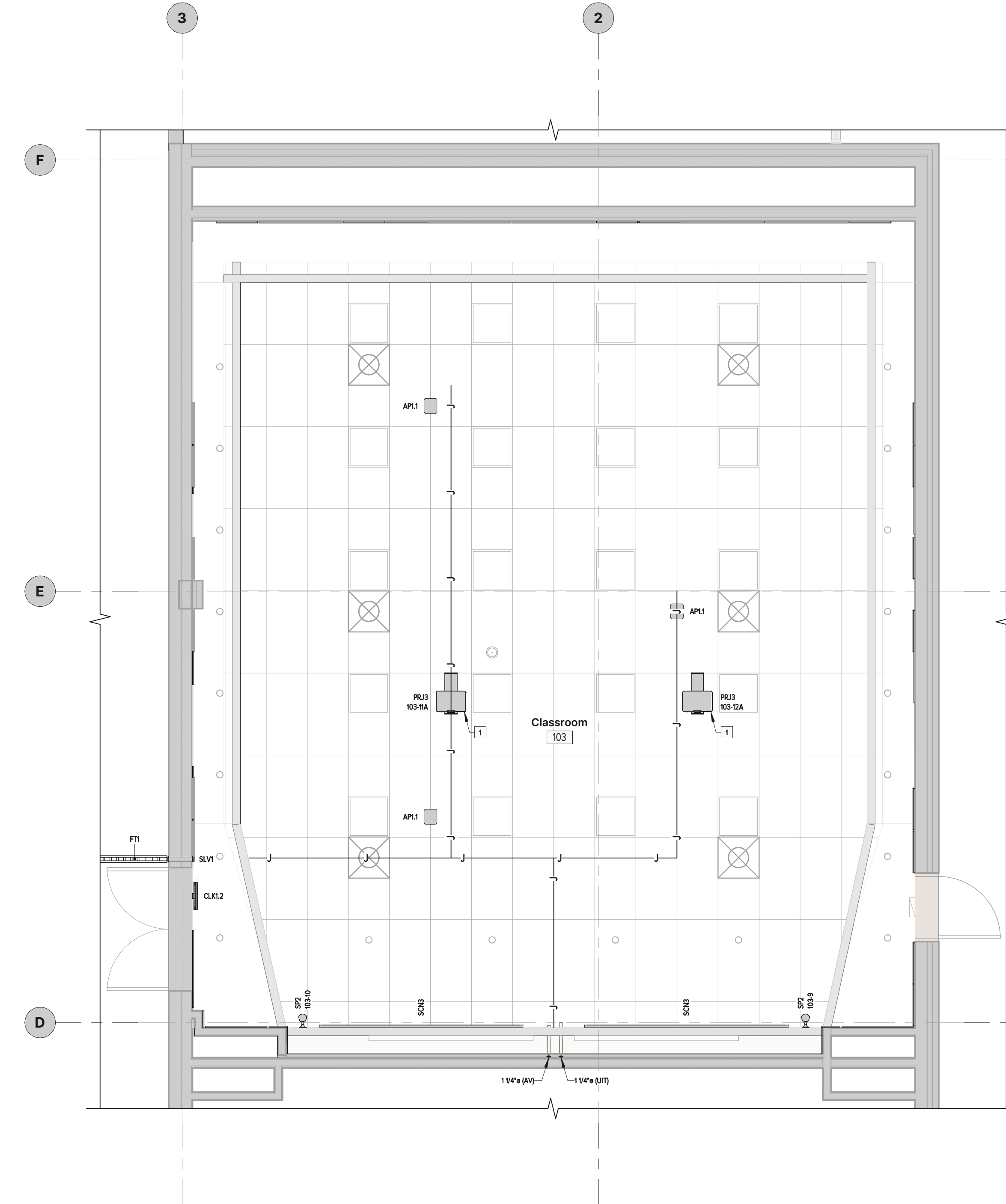
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1 103 Technology Plan
1/4" = 1'-0"



2 103 Technology Ceiling Plan
1/4" = 1'-0"

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DATE: 12/17/2025

REVISIONS:

NO.	DESCRIPTION

103 TECHNOLOGY PLANS

T112

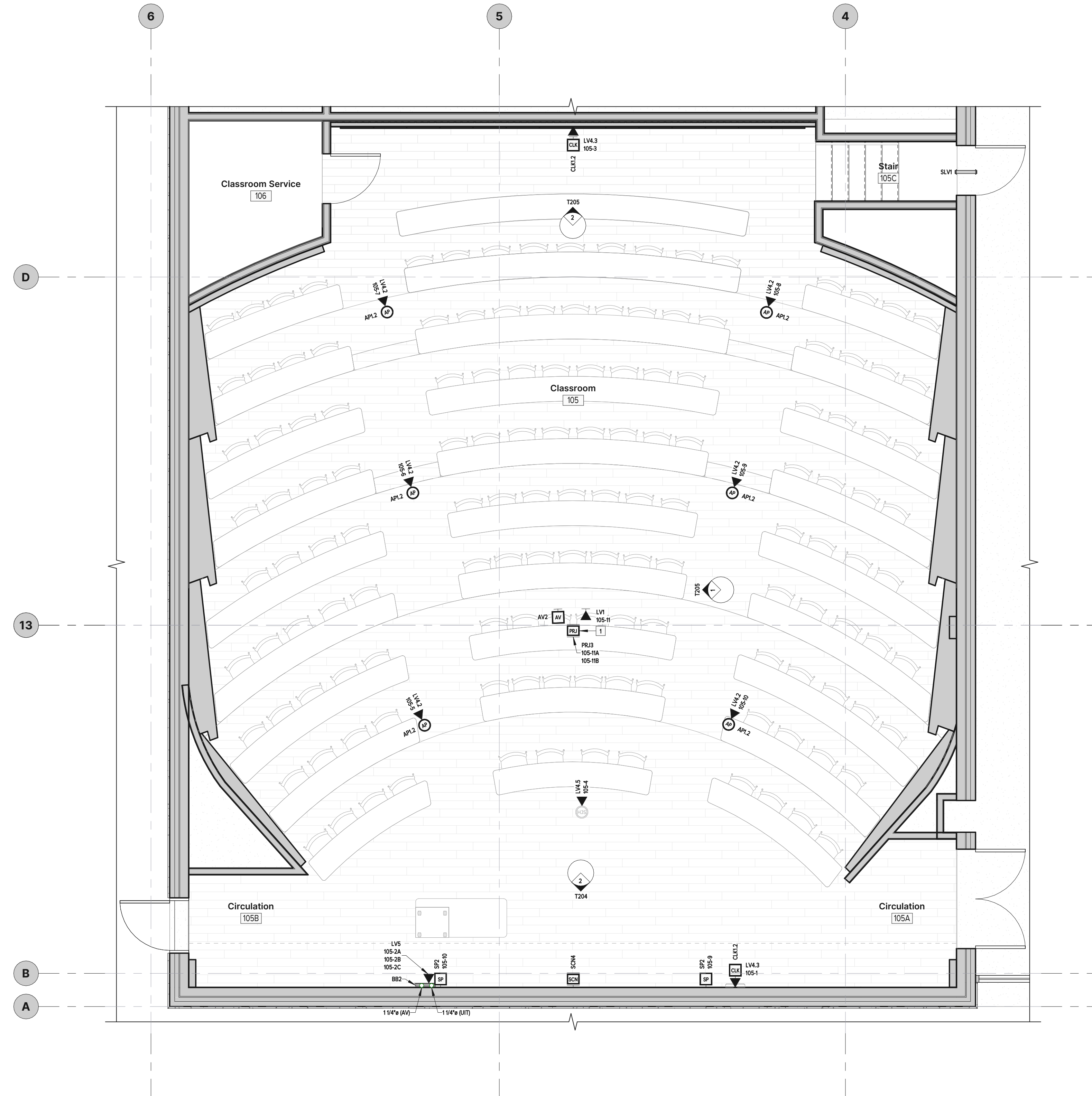
NO.	DESCRIPTION

Sheet Notes

- Final cabling pathways to be determined on site.
- All equipment locations shall be finalized by MSU AV and UIT departments before wired and installed.

Reference Keynotes

- 18'-2 3/4" to 29'-5 7/8" projector throw distance range for 189" diagonal screen.



1 105 Technology Plan
1/4" = 1'-0"



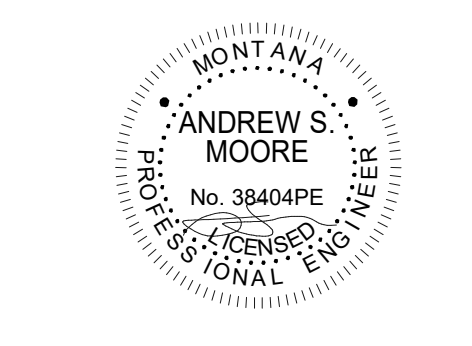
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DATE: 12/17/2025

REVISIONS:

NO.	DESCRIPTION

105 TECHNOLOGY CEILING PLAN

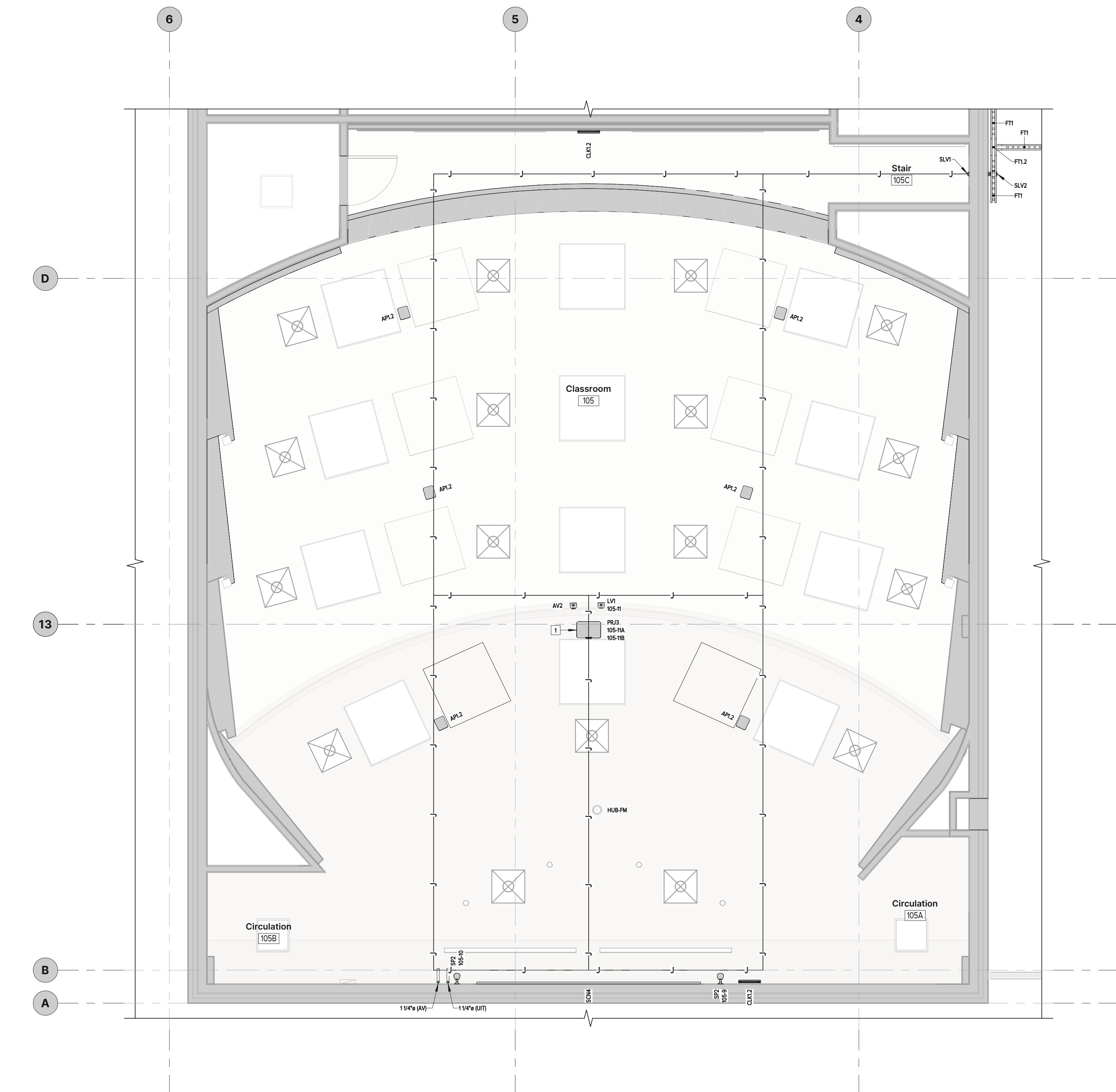
T114

Sheet Notes

1. Final cabling pathways to be determined on site.
2. All equipment locations shall be finalized by MSU AV and UIT departments before wired and installed.

Reference Keynotes

1. 18'-2 3/4" to 29'-5 7/8" projector throw distance range for 189" diagonal screen.



1 105 Technology Ceiling Plan
1/4" = 1'-0"

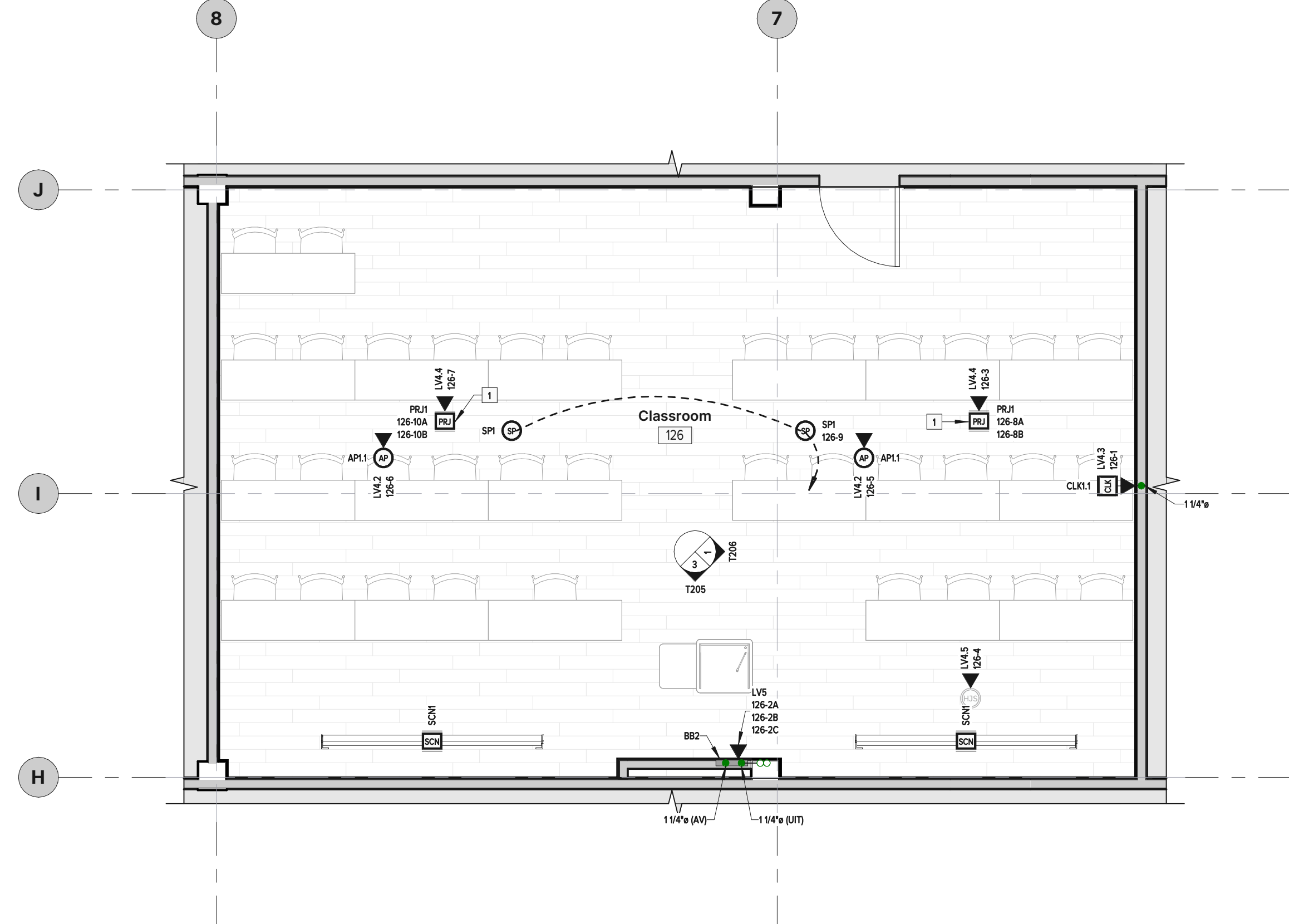
PROJECT #/Project Number

Sheet Notes

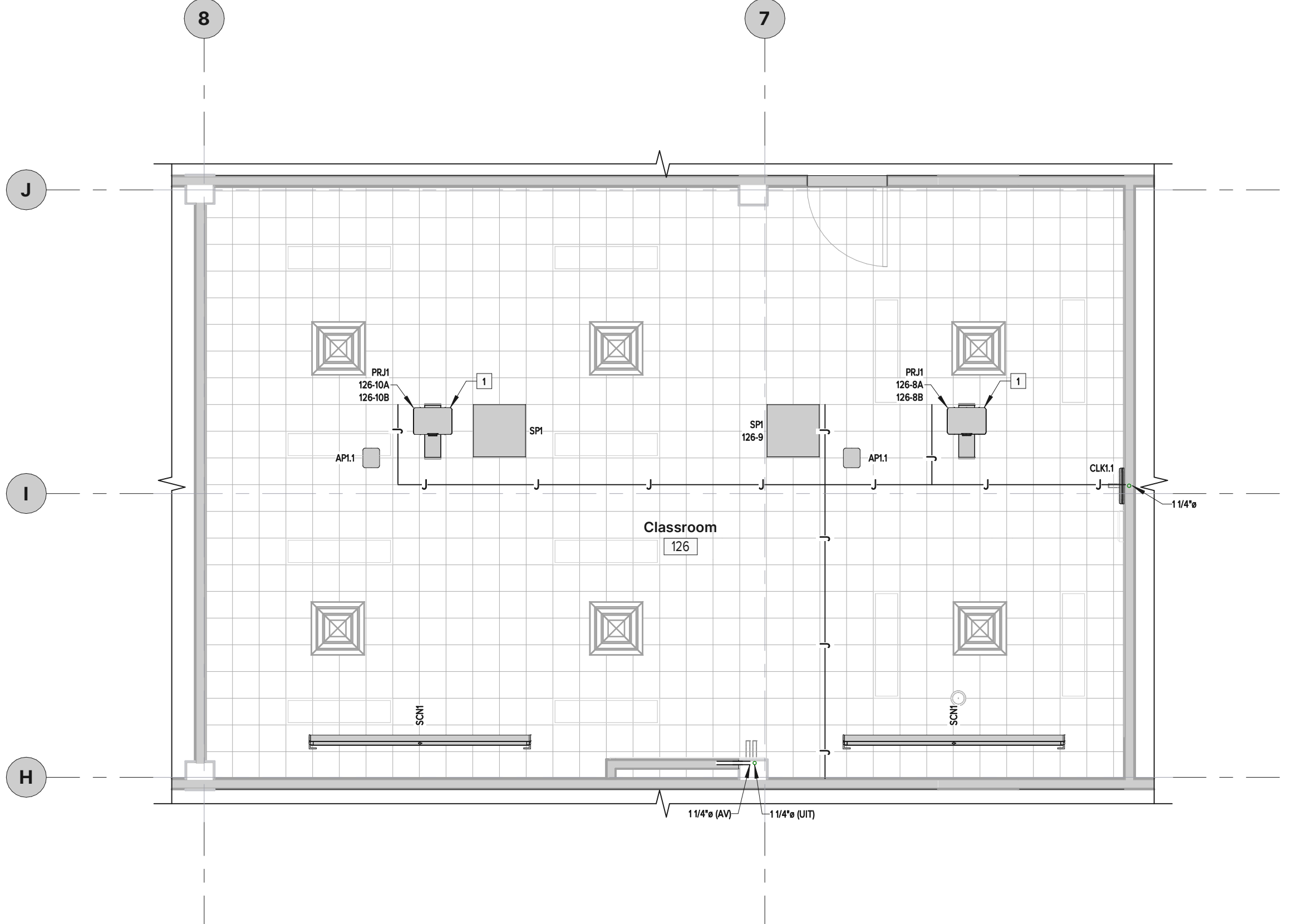
- Final cabling pathways to be determined on site.
- All equipment locations shall be finalized by MSU AV and UIT departments before wired and installed.

Reference Keynotes

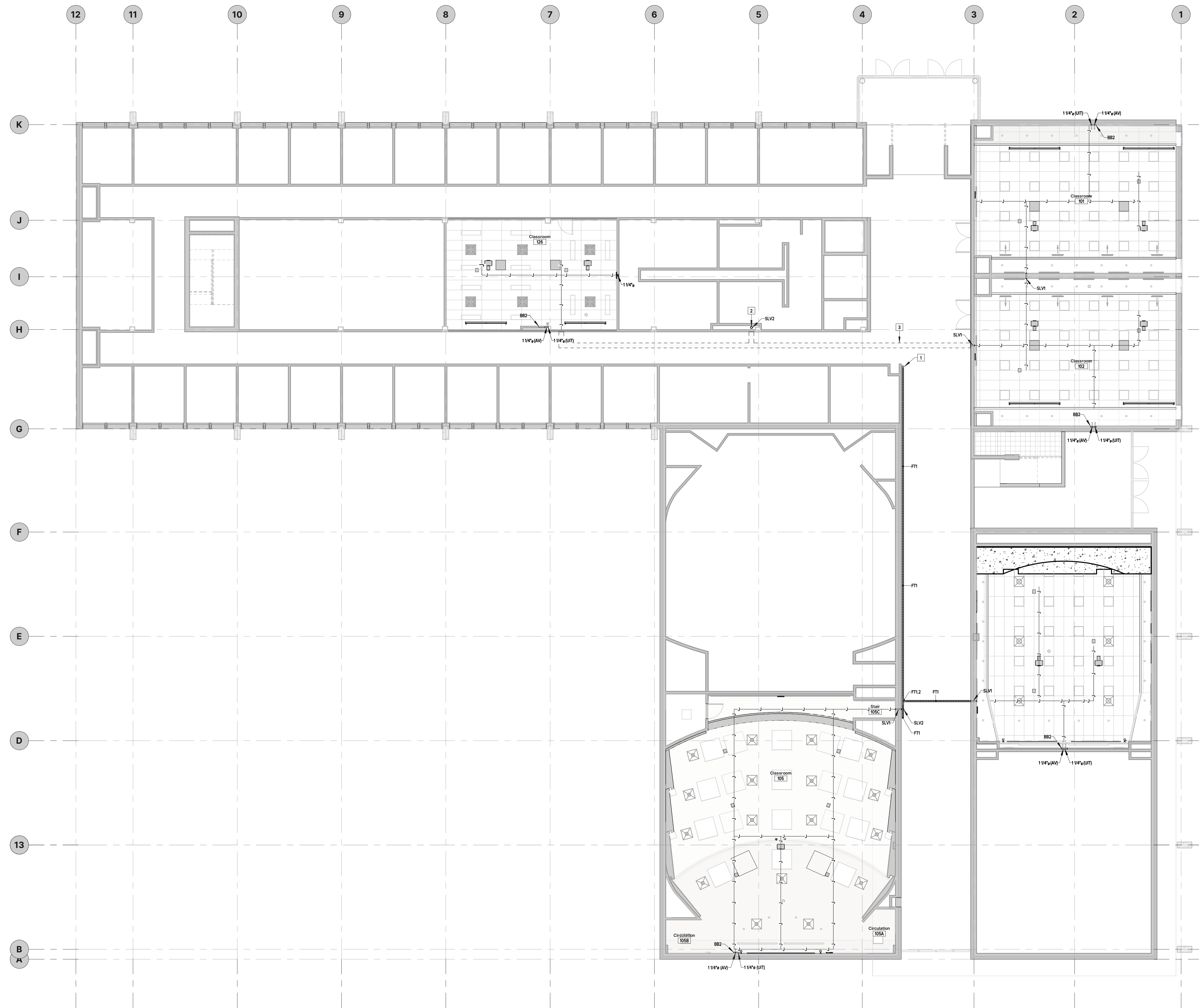
- 10'-5 9/16" to 16'-11 1/2" projector throw distance range for 109" diagonal screen.



1 126 Technology Plan
1/4" = 1'-0"



2 126 Technology Ceiling Plan
1/4" = 1'-0"

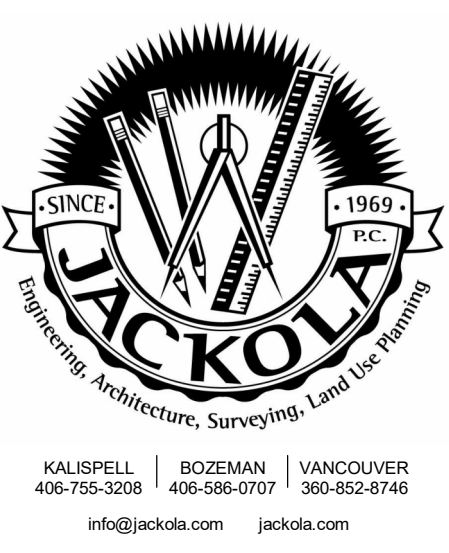


Sheet Notes

1. Final cabling pathways to be determined on site.
2. All equipment locations shall be finalized by MSU AV and UIT departments before wired and installed.

Reference Keynotes

1. 4" Conduit to space above finished ceiling.
2. New 4" sleeve and conduit for new cabling, final location to be determined.
3. Existing wiring pathway in ceiling.

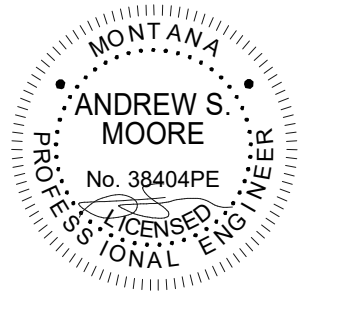


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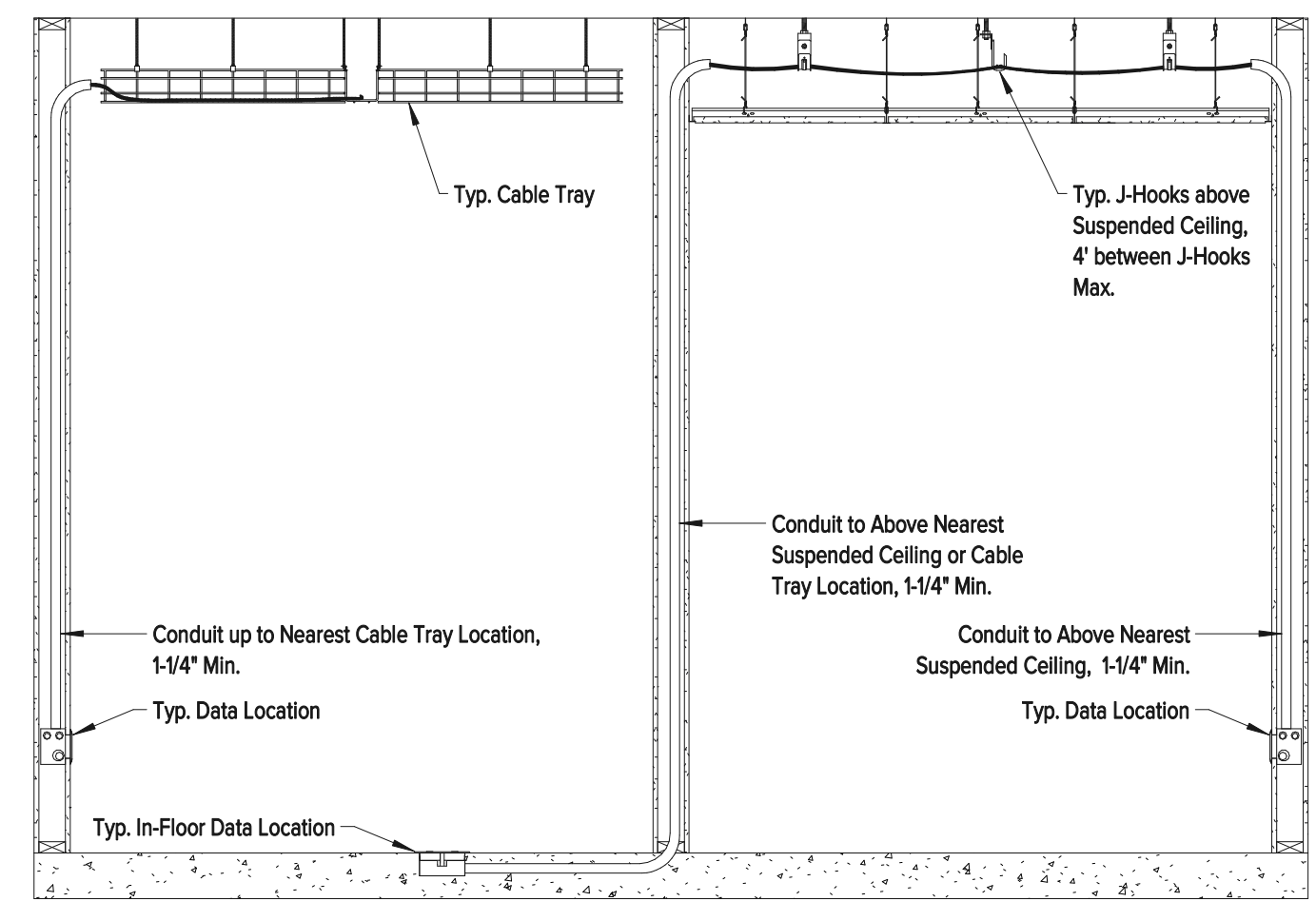
REVISIONS:

MAIN FLOOR TECHNOLOGY PATHWAY PLAN

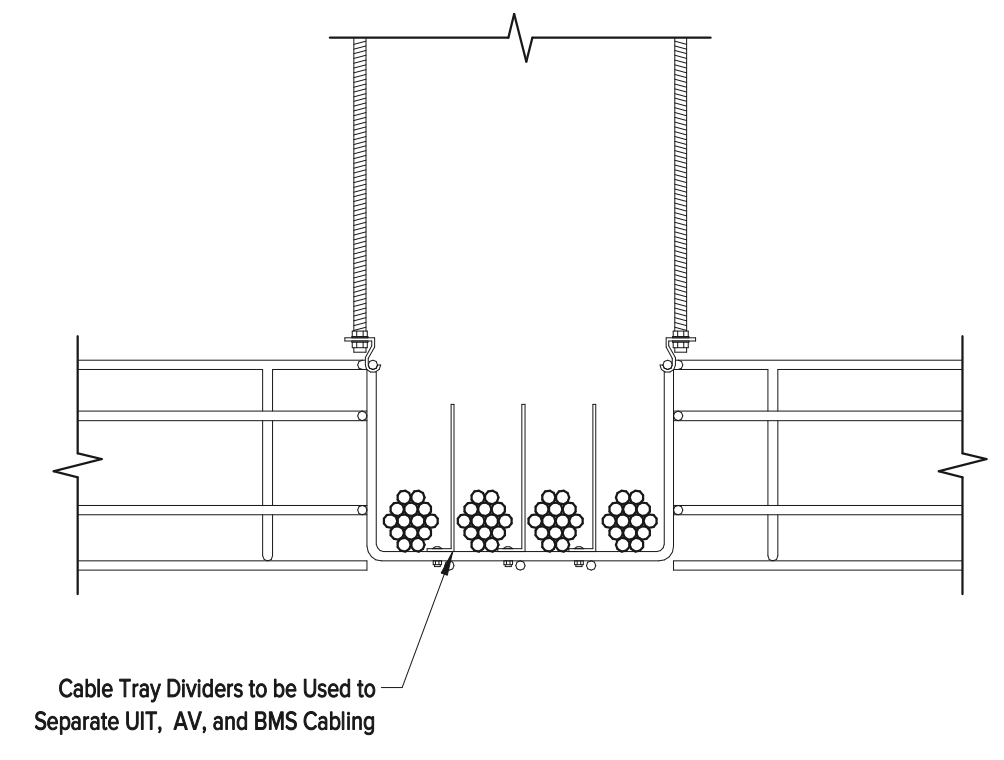
T116

1 Main Floor Technology Pathway Plan
 1" = 10'-0"

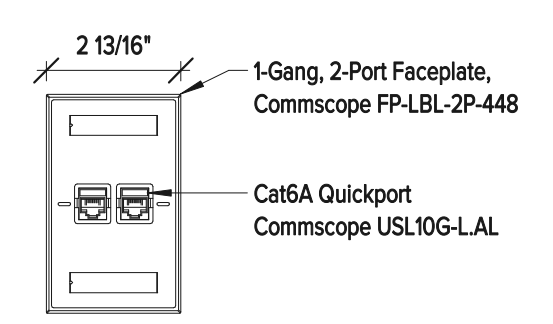
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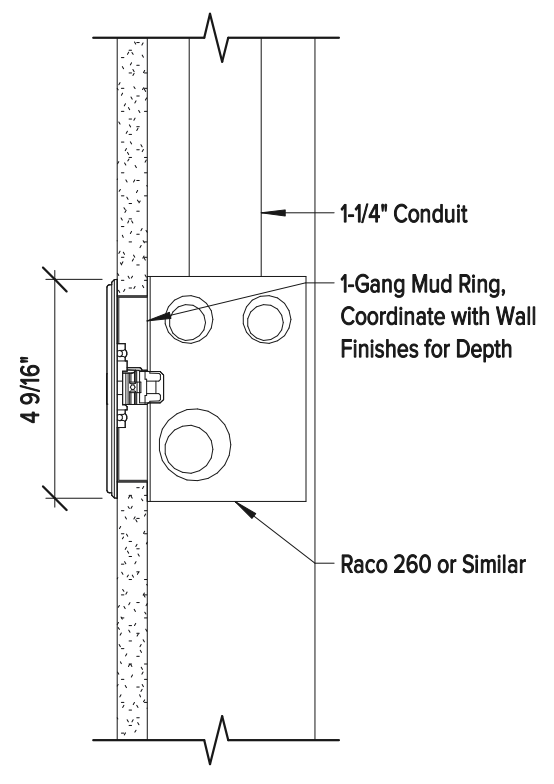
1 Typ. Infrastructure Cabling Support Hardware
1/2" = 1'-0"



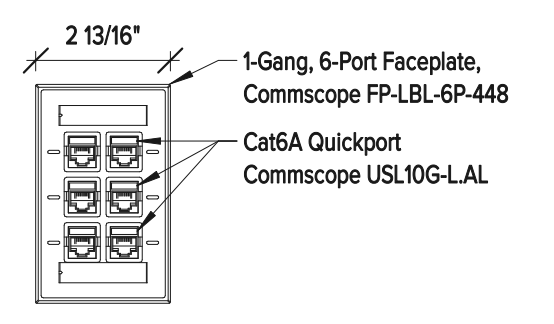
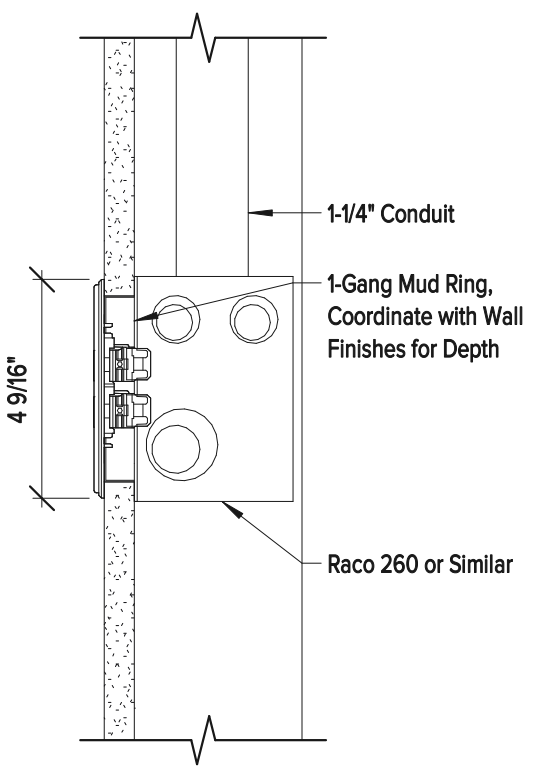
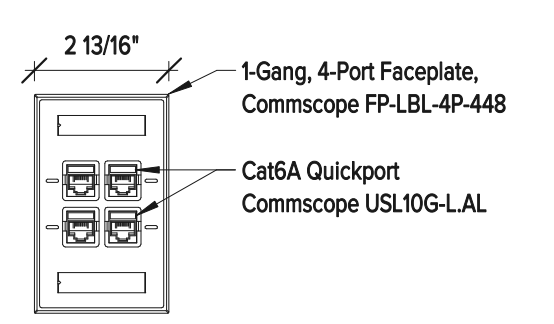
2 Typ. Cable Tray Section
3" = 1'-0"



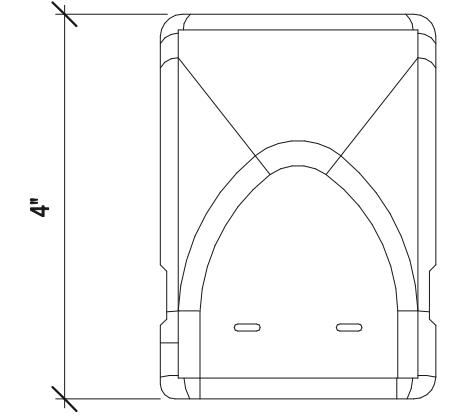
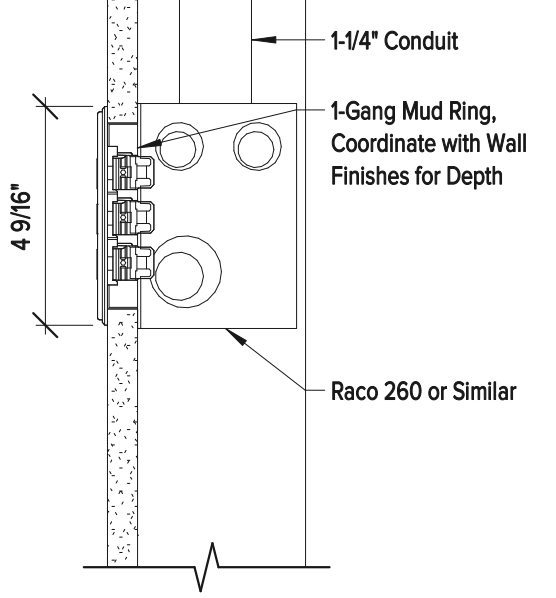
3 Typ. 2-Port Data Trim Plate [LV1]
3" = 1'-0"



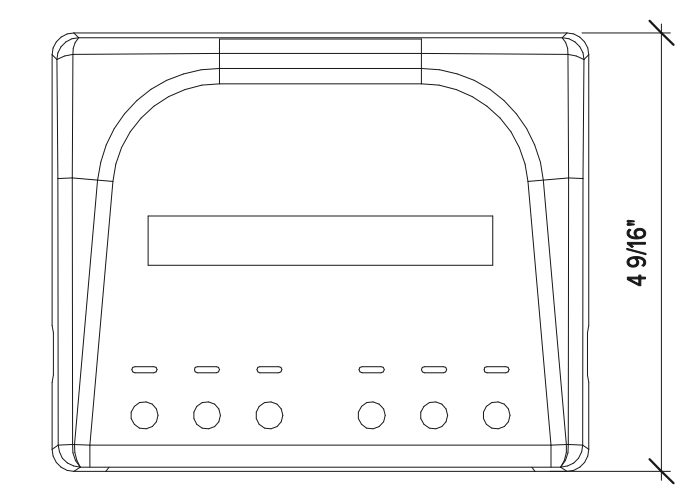
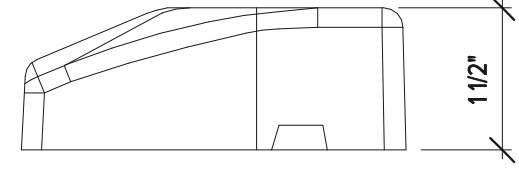
4 Typ. 4-Port Data Trim Plate [LV2]
3" = 1'-0"



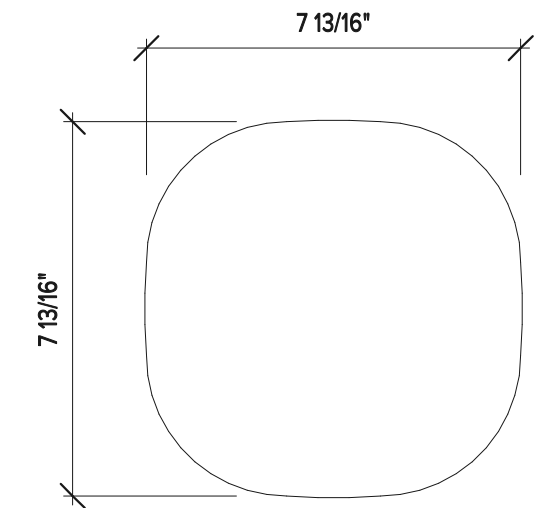
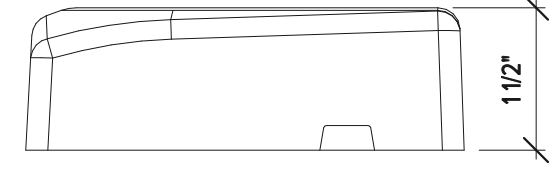
5 Typ. 6-Port Data Trim Plate [LV3]
3" = 1'-0"



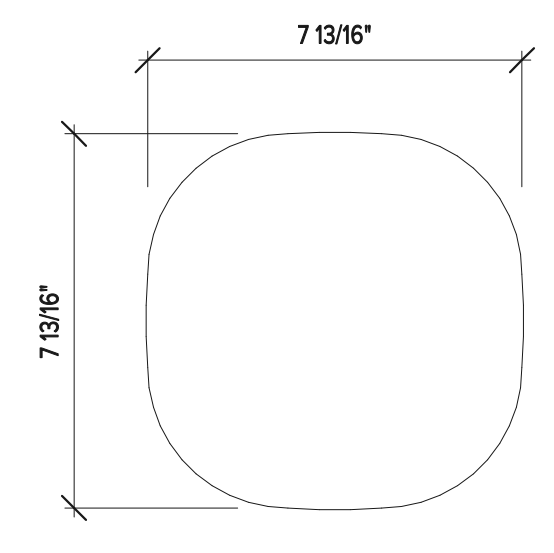
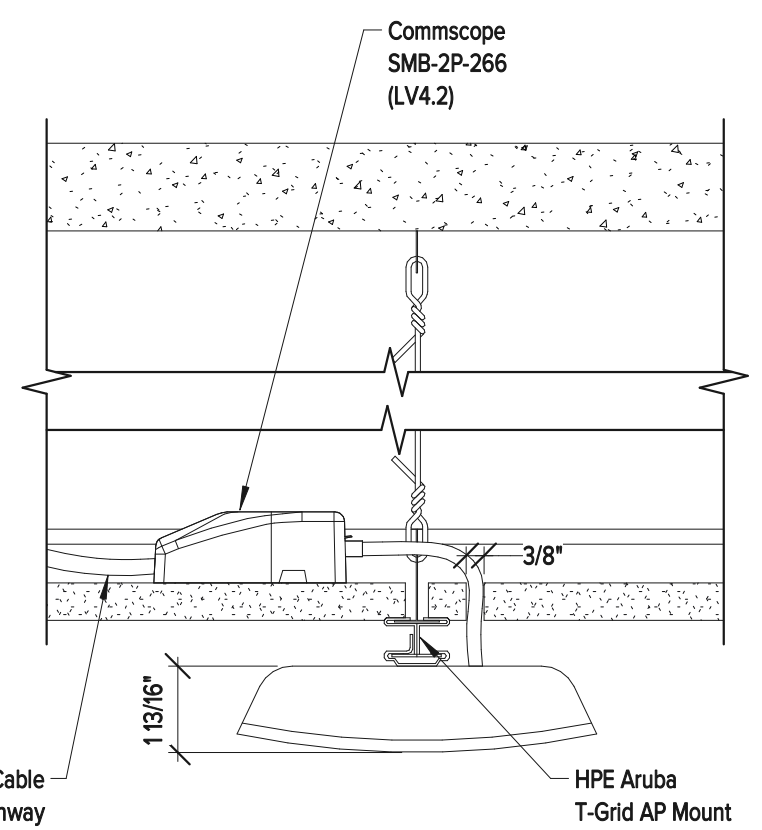
6 Typ. Commscope SMB-2P-266 [LV4.1]
6" = 1'-0"



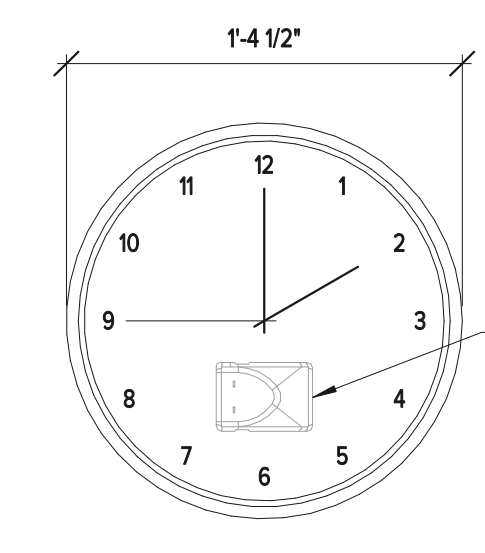
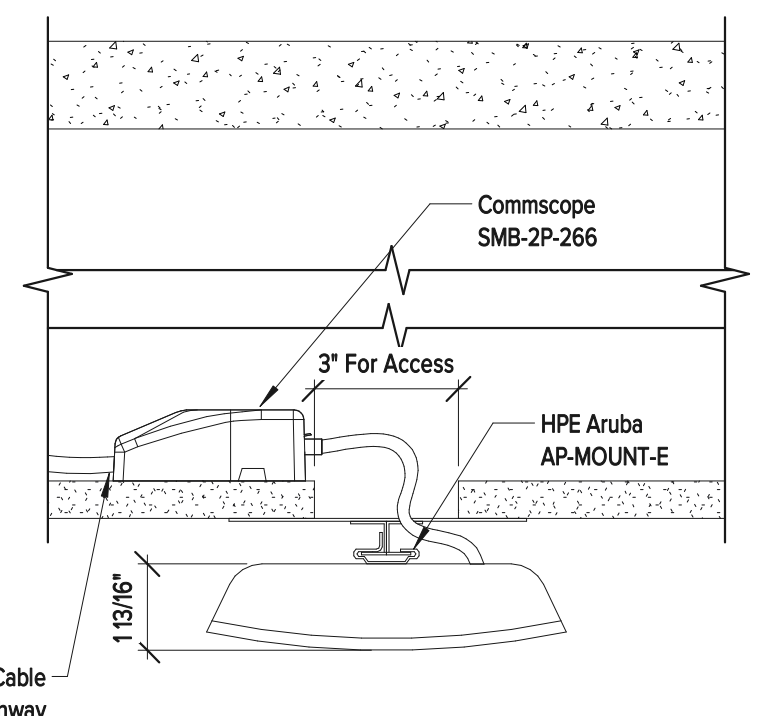
7 Typ. Commscope 1-1933674-3 [LV5]
6" = 1'-0"



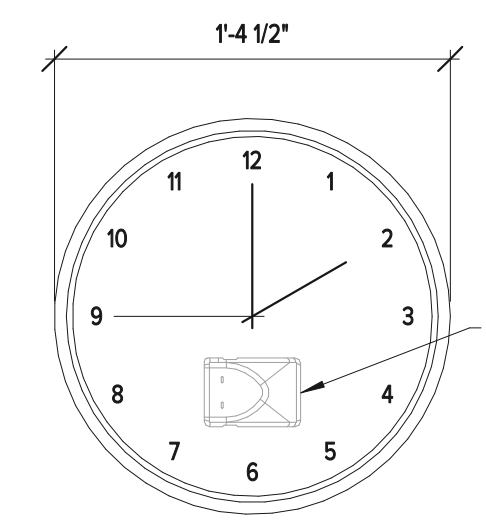
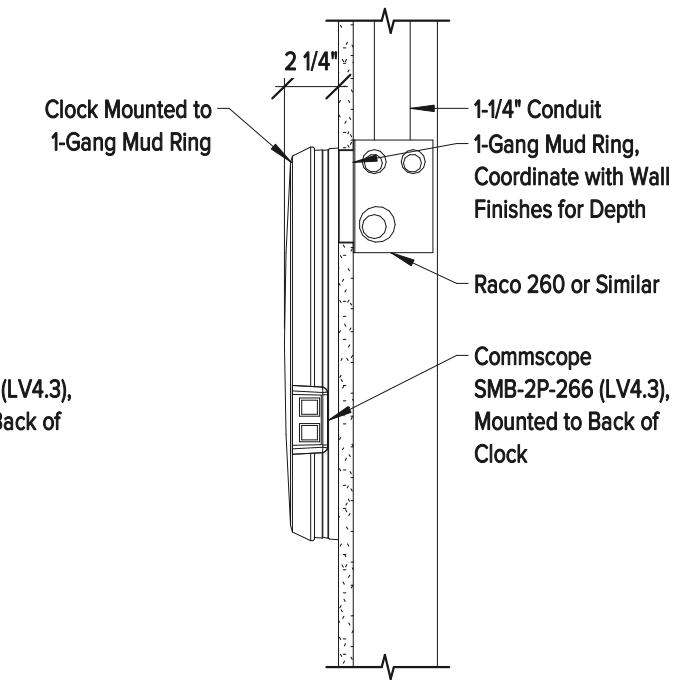
8 Typ. Ceiling Mounted Interior Access Point [AP1.1]
3" = 1'-0"



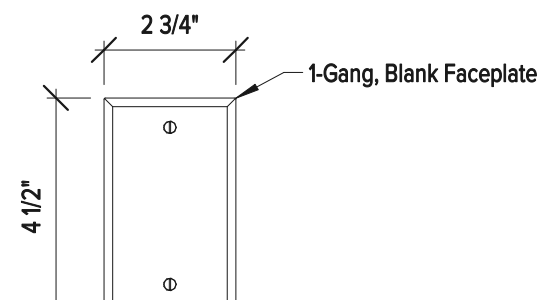
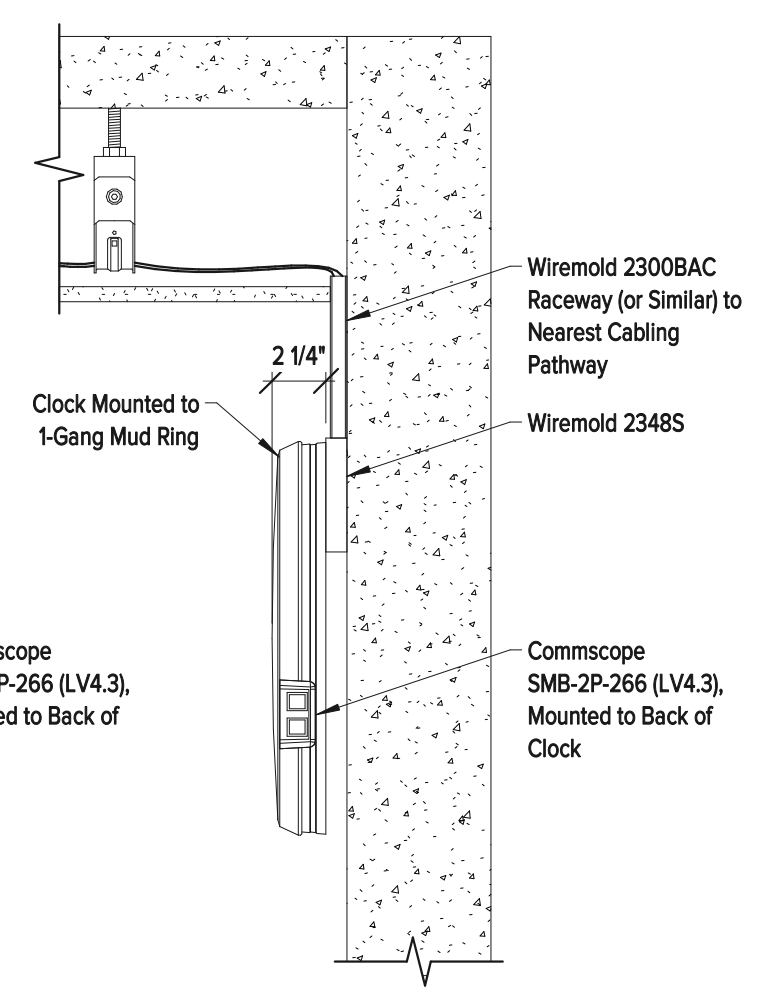
9 Typ. Ceiling Mounted Interior Access Point [AP1.2]
3" = 1'-0"



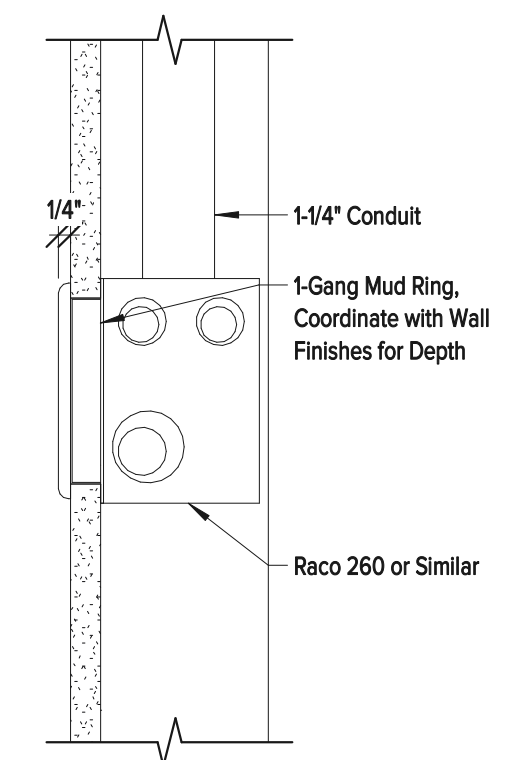
10 Typ. PoE Clock w/ 4 Square Box [CLK1.1]
1 1/2" = 1'-0"

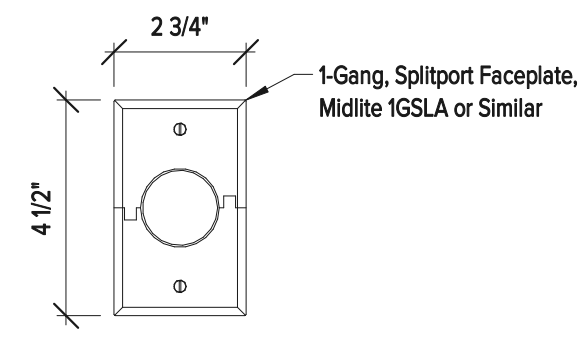


11 Typ. PoE Clock w/ Wiremold [CLK1.2]
1 1/2" = 1'-0"

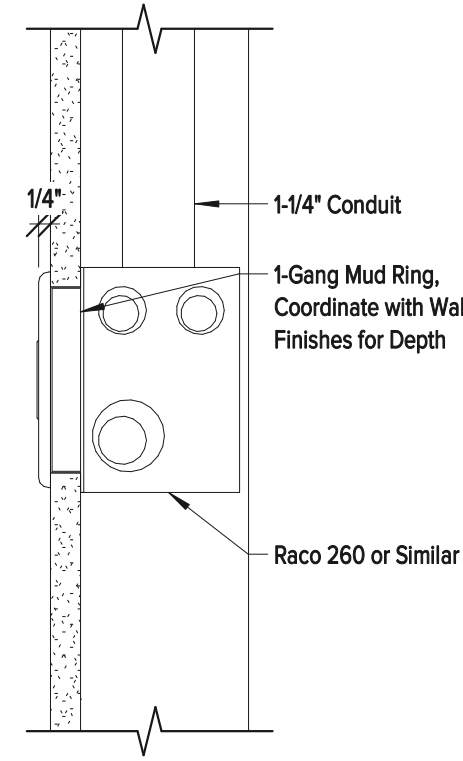


12 Typ. Future AV Wiring Location [AV1]
3" = 1'-0"



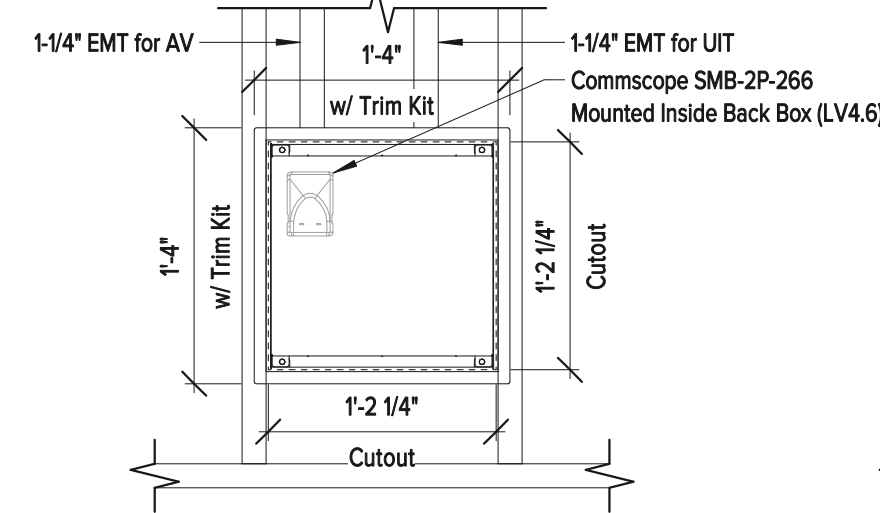


1-Gang, Splitport Faceplate, Midlite IGSLA or Similar

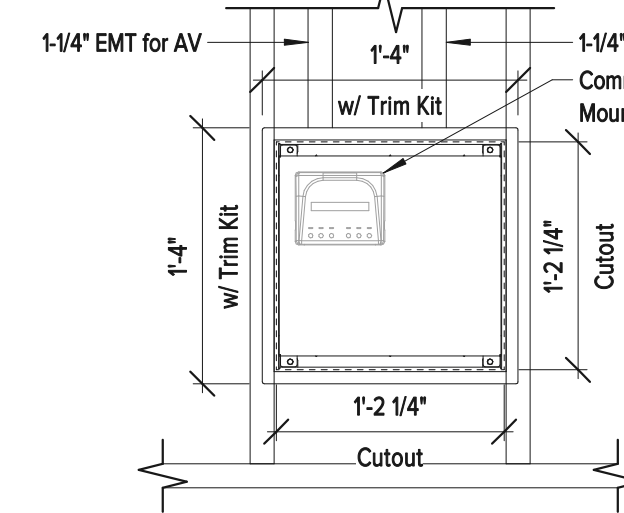
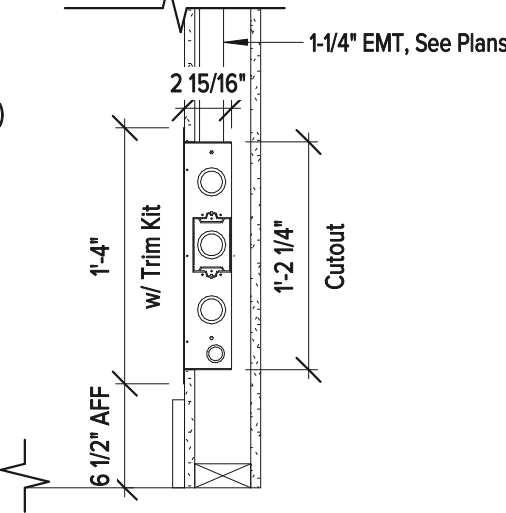


1-Gang Mud Ring, Coordinate with Wall Finishes for Depth

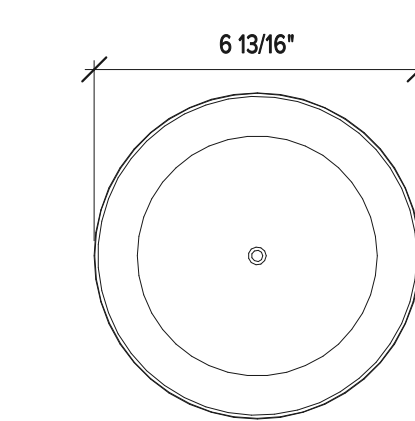
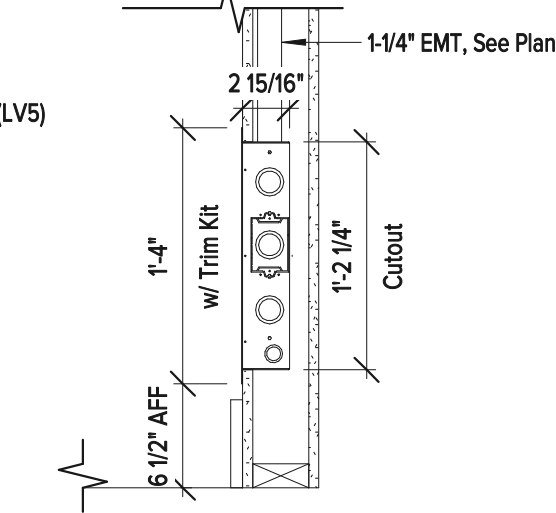
Raco 260 or Similar



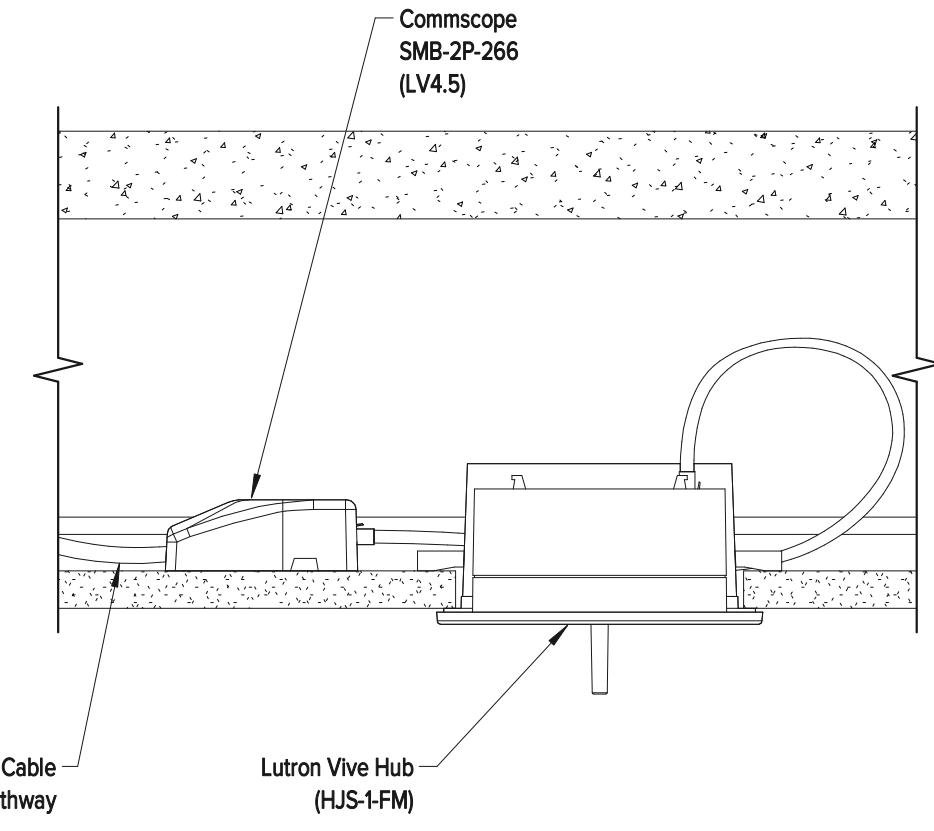
2 Typ. FSR PWB-323-TRK [BB2 & LV4.6]
1" = 1'-0"



3 Typ. FSR PWB-323-TRK [BB2 & LV5]
1" = 1'-0"



4 Typ. Lutron Vive Hub [HUB-FM & LV4.5]
3" = 1'-0"



1 Typ. AV Wiring Location w/ Splitport Faceplate [AV2]
3" = 1'-0"

#	REVISIONS:

One-Line Diagram

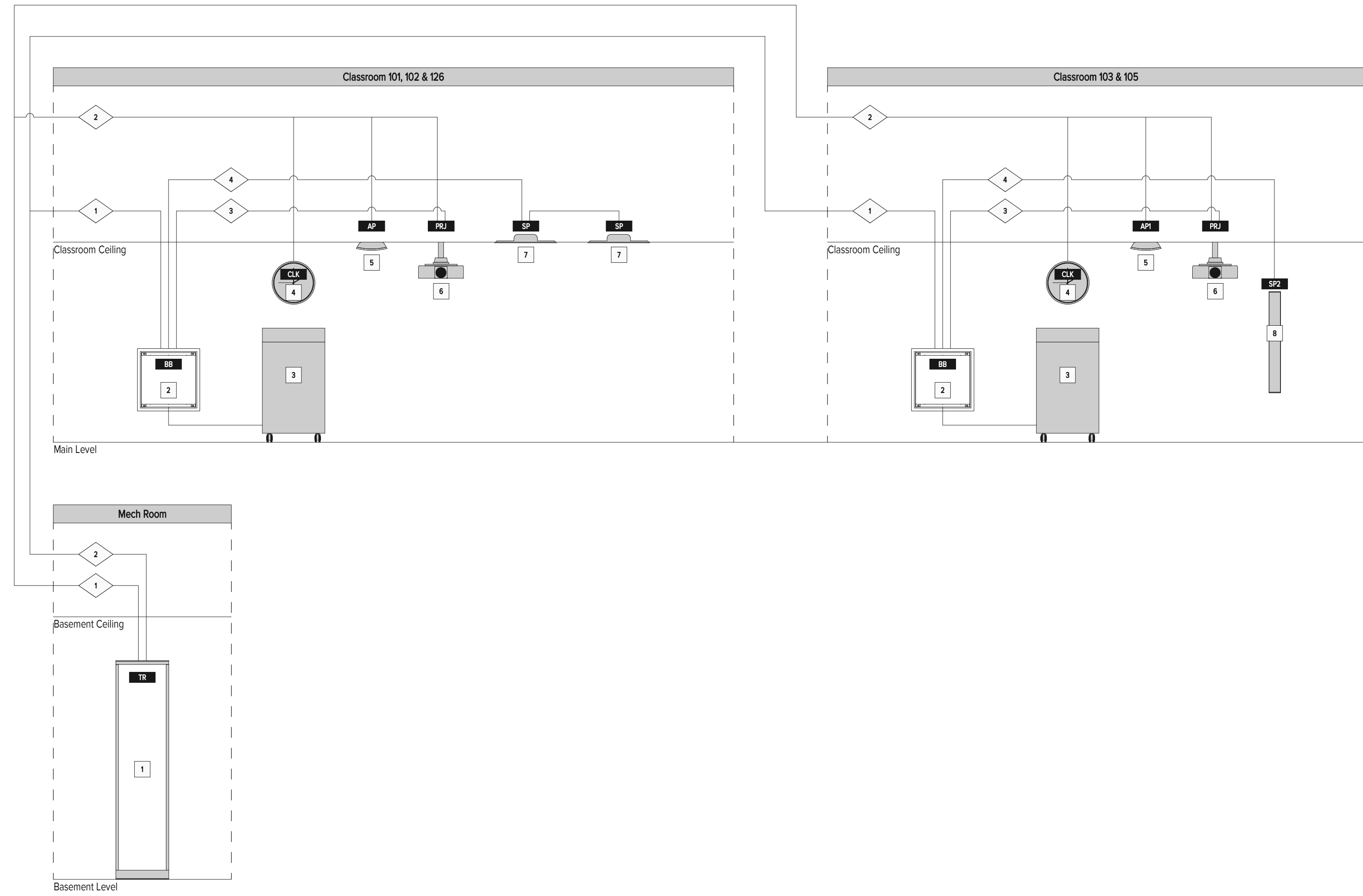
Sheet Notes II One-Line Diagram

- 1 Existing telecommunications room equipment rack.
- 2 Wall box for AV cabling and 6-port surface mount module.
- 3 Classroom podium with location AV equipment.
- 4 PoE clock.
- 5 Wireless access point.
- 6 Projector.
- 7 In-ceiling 70v speaker.
- 8 On-wall 8ohm column speaker.

Sheet Notes II One-Line Cabling

- 1 (6) Commscope UN884019314 cables from TR.
- 2 (2) Commscope UN884019314 cables from TR to each device.
- 3 (4) Shielded category 6 cables to each projector.
- 4 (1) 16/4 speaker cable to first speaker and looped to remaining speakers.
- 5 (1) 16/4 speaker cable to each speaker.

Notes:
 • Bonding to ground to be provided to all equipment racks, cabling ladder racks, panels satellite dish and demarcation.



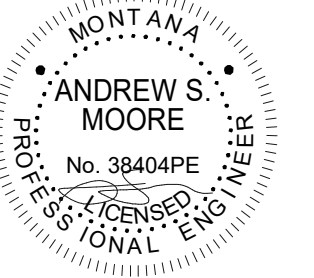


BLACK SHEEP

Mechanical | Electrical | Plumbing | Lighting | Technology
602 W. Hancock | Bozeman, MT 59715
BozemanEngineering | 406.331.2314

Construction Documents

THE INFORMATION CONTAINED HEREIN IS PROPRIETARY. THIS DOCUMENT MAY NOT BE USED OR REPRODUCED WITHOUT THE WRITTEN CONSENT OF JACKOLA ENGR. & ARCH., P.C.



Reid Hall Renovation
Reid Hall
Bozeman, MT 59717

DRAWN: Author CHECKED: Checker

DATE: 12/17/2025

REVISIONS:

TECHNOLOGY CABLING SCHEDULES

T603

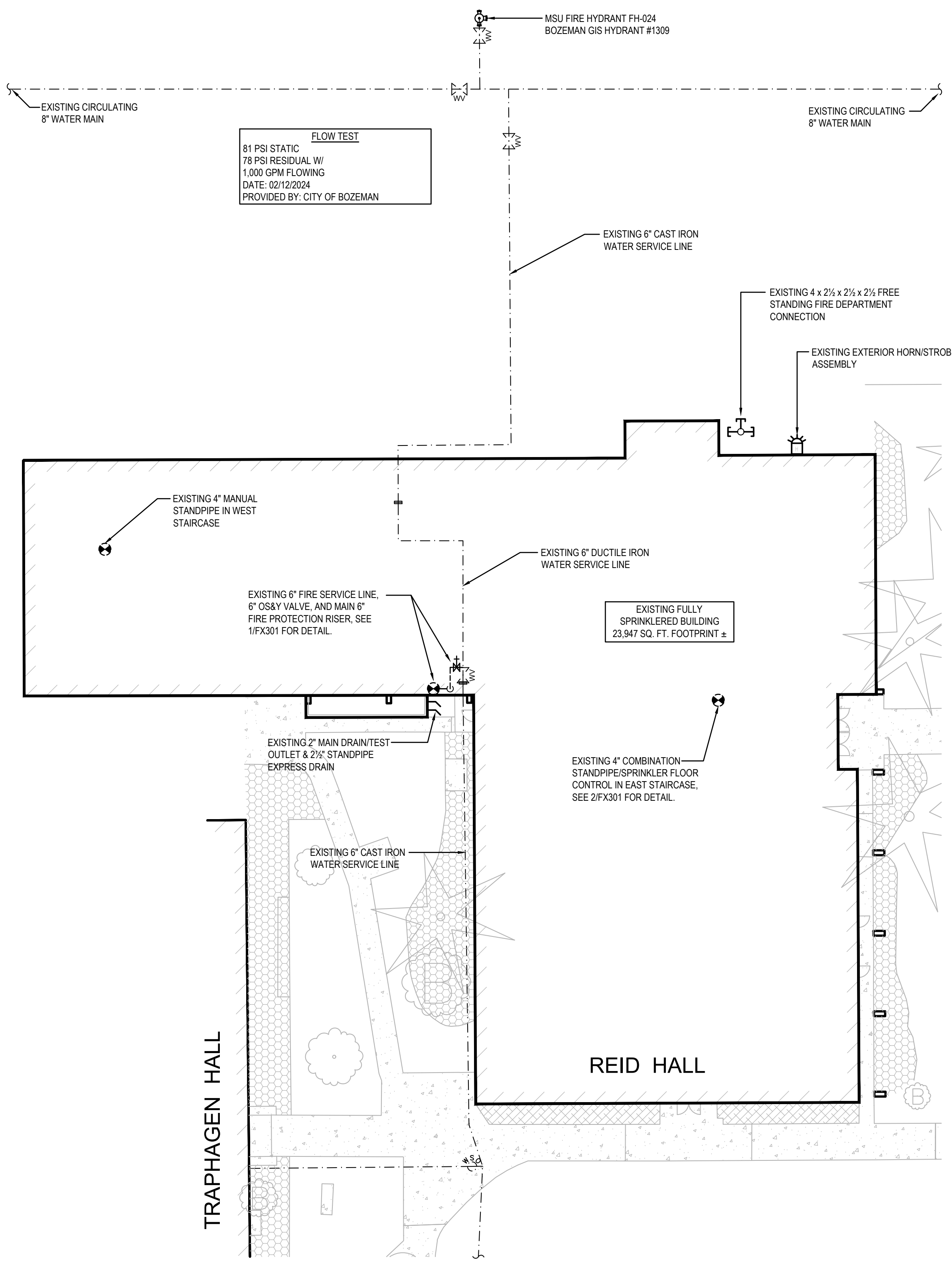
Typical Technology Device Cabling Types					
Manufacturer	Model	Description	Type	Cabling Types	Cabling Headend
Audio					
Extron	FF 220T	Full-Range Flat Field Speakers w/ Low Profile Enclosure, 70/100V Transformer	SP1	(1) 16/4 Speaker Cable	Classroom AV Equipment
Extron	42-338-02	Long Throw Column Array Speaker, 8 Ohm, Black	SP2	(1) 16/4 Speaker Cable	Classroom AV Equipment
Control					
Extron	60-1470-02	MediaLink Plus Controller, Black	TP1	(1) Shielded CAT6 Cable	Classroom AV Equipment
Data					
Typical	Existing Access Point	Existing Wireless Access Point	AP1.1	(1) Commscope UC1AAA2-0CF00X (Length TBD)	Telecommunications Room (TR#)
Typical	Existing Access Point	Existing Wireless Access Point	AP1.2	(1) Commscope UC1AAA2-0CF00X (Length TBD)	Telecommunications Room (TR#)
American Time	PE64BGP094	15" PoE Round Surface Clock, Black	CLK1.1	(2) Commscope UN884019314 Cables	Telecommunications Room (TR#)
American Time	PE64BGP094	15" PoE Round Surface Clock, Black	CLK1.2	(2) Commscope UN884019314 Cables	Telecommunications Room (TR#)
Typical	2-Port Data Jack	2-Port Data Jack Wiring and Trim Plate Location	LV1	(2) Commscope UN884019314 Cables	Telecommunications Room (TR#)
Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for Wireless Access Points	LV4.2	(2) Commscope UN884019314 Cables	Telecommunications Room (TR#)
Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for PoE Clocks	LV4.3	(2) Commscope UN884019314 Cables	Telecommunications Room (TR#)
Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for Projector Locations	LV4.4	(2) Commscope UN884019314 Cables	Telecommunications Room (TR#)
Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for Lutron VIVE Hub Locations	LV4.5	(2) Commscope UN884019314 Cables	Telecommunications Room (TR#)
Commscope	1-1933674-3	6-Port Surface Mount Module	LVS	(6) Commscope UN884019314 Cables	Telecommunications Room (TR#)
Video					
Epson	L530U	PowerLite Series Full HD WUXGA Long Throw Laser Projector	PRJ1	(4) Shielded CAT6 Cables	Classroom AV Equipment
Epson	L630U	PowerLite Series Full HD WUXGA Long Throw Laser Projector	PRJ2	(4) Shielded CAT6 Cables	Classroom AV Equipment
Epson	L690U	PowerLite Series Full HD WUXGA Long Throw Laser Projector	PRJ3	(4) Shielded CAT6 Cables	Classroom AV Equipment

Classroom 101 & 102 Device Wiring						
Room #	Room Name	Manufacturer	Model	Description	Type	Wire Label
101	Classroom	Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for PoE Clocks	LV4.3	101-1
101	Classroom	Commscope	1-1933674-3	6-Port Surface Mount Module	LVS	101-2A, 101-2B, 101-2C
101	Classroom	Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for Wireless Access Points	LV4.2	101-3
101	Classroom	Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for Wireless Access Points	LV4.2	101-4
101	Classroom	Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for Projector Locations	LV4.4	101-5
101	Classroom	Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for Projector Locations	LV4.4	101-6
101	Classroom	Epson	L530U	PowerLite Series Full HD WUXGA Long Throw Laser Projector	PRJ1	101-7A, 101-7B
101	Classroom	Extron	FF 220T	Full-Range Flat Field Speakers w/ Low Profile Enclosure, 70/100V Transformer	SP1	101-8
101	Classroom	Epson	L530U	PowerLite Series Full HD WUXGA Long Throw Laser Projector	PRJ1	101-9A, 101-9B
101	Classroom	Commscope	1-1933674-3	6-Port Surface Mount Module	LVS	102-1A, 102-1B, 102-1C
102	Classroom	Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for PoE Clocks	LV4.3	102-2
102	Classroom	Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for Projector Locations	LV4.4	102-3
102	Classroom	Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for Lutron VIVE Hub Locations	LV4.5	102-4
102	Classroom	Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for Projector Locations	LV4.4	102-5
102	Classroom	Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for Wireless Access Points	LV4.2	102-6
102	Classroom	Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for Wireless Access Points	LV4.2	102-7
102	Classroom	Epson	L630U	PowerLite Series Full HD WUXGA Long Throw Laser Projector	PRJ2	102-8A, 102-8B
102	Classroom	Epson	L630U	PowerLite Series Full HD WUXGA Long Throw Laser Projector	PRJ2	102-9A, 102-9B
102	Classroom	Extron	FF 220T	Full-Range Flat Field Speakers w/ Low Profile Enclosure, 70/100V Transformer	SP1	102-10

Classroom 103 Device Wiring						
Room #	Room Name	Manufacturer	Model	Description	Type	Wire Label
103	Classroom	Commscope	1-1933674-3	6-Port Surface Mount Module	LVS	103-1A, 103-1B, 103-1C
103	Classroom	Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for PoE Clocks	LV4.3	103-2
103	Classroom	Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for Wireless Access Points	LV4.2	103-3
103	Classroom	Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for Projector Locations	LV4.4	103-4
103	Classroom	Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for Projector Locations	LV4.4	103-5
103	Classroom	Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for Wireless Access Points	LV4.2	103-6
103	Classroom	Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for Wireless Access Points	LV4.2	103-7
103	Classroom	Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for Projector Locations	LV4.4	103-8
103	Classroom	Extron	42-338-02	Long Throw Column Array Speaker, 8 Ohm, Black	SP2	103-9
103	Classroom	Extron	42-338-02	Long Throw Column Array Speaker, 8 Ohm, Black	SP2	103-10
103	Classroom	Epson	L690U	PowerLite Series Full HD WUXGA Long Throw Laser Projector	PRJ3	103-11A, 103-11B
103	Classroom	Epson	L690U	PowerLite Series Full HD WUXGA Long Throw Laser Projector	PRJ3	103-12A, 103-12B

Classroom 105 Device Wiring						
Room #	Room Name	Manufacturer	Model	Description	Type	Wire Label
105	Classroom	Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for PoE Clocks	LV4.3	105-1
105	Classroom	Commscope	1-1933674-3	6-Port Surface Mount Module	LVS	105-2A, 105-2B, 105-2C
105	Classroom	Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for PoE Clocks	LV4.3	105-3
105	Classroom	Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for Lutron VIVE Hub Locations	LV4.5	105-4
105	Classroom	Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for Wireless Access Points	LV4.2	105-5
105	Classroom	Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for Wireless Access Points	LV4.2	105-6
105	Classroom	Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for Wireless Access Points	LV4.2	105-7
105	Classroom	Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for Wireless Access Points	LV4.2	105-8
105	Classroom	Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for Wireless Access Points	LV4.2	105-9
105	Classroom	Extron	42-338-02	Long Throw Column Array Speaker, 8 Ohm, Black	SP2	105-9
105	Classroom	Extron	42-338-02	Long Throw Column Array Speaker, 8 Ohm, Black	SP2	105-10
105	Classroom	Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for Wireless Access Points	LV4.2	105-10
105	Classroom	Typical	2-Port Data Jack	2-Port Data Jack Wiring and Trim Plate Location	LV1	105-11
105	Classroom	Epson	L690U	PowerLite Series Full HD WUXGA Long Throw Laser Projector	PRJ3	105-11A, 105-11B

Classroom 126 Device Wiring						
Room #	Room Name	Manufacturer	Model	Description	Type	Wire Label
126	Classroom	Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for PoE Clocks	LV4.3	126-1
126	Classroom	Commscope	1-1933674-3	6-Port Surface Mount Module	LVS	126-2A, 126-2B, 126-2C
126	Classroom	Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for Projector Locations	LV4.4	126-3
126	Classroom	Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for Lutron VIVE Hub Locations	LV4.5	126-4
126	Classroom	Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for Wireless Access Points	LV4.2	126-5
126	Classroom	Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for Wireless Access Points	LV4.2	126-6
126	Classroom	Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for Projector Locations	LV4.4	126-7
126	Classroom	Epson	L530U	PowerLite Series Full HD WUXGA Long Throw Laser Projector	PRJ1	126-8A, 126-8B
126	Classroom	Extron	FF 220T	Full-Range Flat Field Speakers w/ Low Profile Enclosure, 70/100V Transformer	SP1	126-9
126	Classroom	Epson	L530U	PowerLite Series Full HD WUXGA Long Throw Laser Projector	PRJ1	126-10A, 126-10B



1 EXISTING FIRE SPRINKLER REFERENCE SITE PLAN
SCALE: 1" = 20'

NORTH

GENERAL FIRE SUPPRESSION SYSTEM NOTES

- SCOPE OF WORK: DEMOLISH THE EXISTING WET PIPE SPRINKLER SYSTEM IN THE AREAS OF WORK AS INDICATED ON THE DRAWINGS. MODIFY THE EXISTING WET PIPE SPRINKLER SYSTEM AS REQUIRED IN THE AREAS OF WORK TO PROVIDE COMPLETE PROTECTION THROUGHOUT THE RENOVATED AREAS AS SHOWN ON THE DRAWINGS. THE AUTOMATIC SPRINKLER SYSTEM SHALL BE HYDRAULICALLY CALCULATED. CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, LABOR, AND MATERIAL FOR AN ACCEPTED AUTOMATIC SPRINKLER SYSTEM, INCLUDING FIRE PROTECTION PIPING, HANGERS, EARTHQUAKE BRACING, SPRINKLERS, DRAINS, AND ALL OTHER ASSOCIATED EQUIPMENT INDICATED OR NOT ON THESE DRAWINGS AND THE SPECIFICATIONS, FOR A COMPLETE FIRE SUPPRESSION SYSTEM COMPLYING WITH NFPA 13 AND ANY OTHER LISTED CODES OR REFERENCE.
- THE FIRE PROTECTION SYSTEMS SHALL BE DESIGNED, INSTALLED, TESTED, AND FLUSHED IN ACCORDANCE WITH THE FOLLOWING:
 - INTERNATIONAL BUILDING CODE (IBC) - 2021 EDITION WITH LOCALLY ADOPTED MODIFICATIONS
 - NFPA 13 (STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS) - 2019 EDITION
 - PROJECT SPECIFICATIONS
- THE FIRE SUPPRESSION SYSTEM SHOWN ON THE PLANS IS CONCEPTUAL ONLY AND PROVIDED TO CONVEY DESIGN INTENT. THE CONTRACTOR SHALL PROVIDE A COMPLETE SPRINKLER SYSTEM IN THE AREA(S) OF WORK. COORDINATE FINAL PIPE ROUTING AND SPRINKLER LOCATIONS WITH ALL OTHER TRADES AS REQUIRED. THE CONTRACTOR SHALL INSTALL THE SYSTEM IN ACCORDANCE WITH ALL APPLICABLE CODES, THE MANUFACTURER'S RECOMMENDATIONS, AND PER THE EQUIPMENT'S LISTING.
- DRAWINGS AND REFLECTED CEILING PLANS ARE PROVIDED FOR REFERENCE ONLY. SEE ARCHITECTURAL, ELECTRICAL, MECHANICAL, AND STRUCTURAL DRAWINGS FOR CEILING TYPES AND HEIGHTS, LIGHTING FIXTURE LOCATIONS, DUCTS, BEAMS, AND OTHER OBSTRUCTIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL JOB CONDITIONS AND DIMENSIONS ON DRAWINGS PRIOR TO EXECUTION OF THIS CONTRACT AND COORDINATE WITH ALL TRADES.
- FIRE SPRINKLER PIPING SHALL COMPLY WITH NFPA 13 AND THE PROJECT SPECIFICATIONS. ALL PIPING IN FINISHED AREAS SHALL BE CONCEALED UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
- ALL NEW SPRINKLERS SHALL BE INSTALLED IN THE CENTER OF TILE IN AREAS WITH 2'x2' SUSPENDED CEILING TILES. SPRINKLERS SHALL BE INSTALLED IN QUARTER POINTS OR IN THE CENTER OF CEILING TILE IN AREAS WITH 2'x4' SUSPENDED CEILING TILES.
- ALL SPRINKLERS SHALL BE QUICK RESPONSE UNLESS OTHERWISE NOTED OR REQUIRED BY CODE. IN THE AREAS OF WORK, SPRINKLERS SHALL BE WHITE RECESSED PENDENTS U.O.N.
- IT IS THE INTENT OF THIS DESIGN TO NOT CORE DRILL STRUCTURAL MEMBERS EXCEPT WHERE INDICATED FOR FLOOR SLABS AND CMU WALLS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CORE DRILLING. ALL PENETRATIONS IN WALLS SHALL BE SEALED TO THE FULL THICKNESS OF THE PENETRATION WITH APPROVED FIRE STOPPING MATERIAL OF EQUAL OR GREATER FIRE RESISTANCE. SEE ARCHITECTURAL PLANS FOR LOCATION OF SMOKE AND FIRE BARRIER WALLS.
- PROVIDE HANGERS, BRANCHLINE RESTRAINT, AND SEISMIC BRACING THROUGHOUT THE AREA(S) OF WORK IN ACCORDANCE WITH NFPA 13. ADDITIONALLY, PROVIDE PROPER CLEARANCES, SLEEVES, OR FLEXIBLE COUPLINGS AROUND PIPING WHERE REQUIRED IN ACCORDANCE WITH NFPA 13.
- SPARE SPRINKLERS SHALL BE PROVIDED IN ACCORDANCE WITH NFPA 13.
- PROVIDE LABEL TAG INDICATING "NORMALLY OPEN" OR "NORMALLY CLOSED" ON ALL VALVES INCLUDING AND NOT LIMITED TO ALL RISER AND TRIM, SECTIONAL VALVES, INSPECTOR'S TEST VALVES, AND DRAINS.
- ALL FIRE PROTECTION DEVICES AND EQUIPMENT SHALL BE UL LISTED OR FM APPROVED AND INSTALLED PER THE LISTING AND MANUFACTURER'S INSTALLATION REQUIREMENTS.
- PROVIDE AUXILIARY LOW POINT DRAINS FOR THE WET PIPE SYSTEM IN ACCORDANCE WITH NFPA 13. WHERE AUXILIARY DRAINS ARE INSTALLED BEHIND A HARD-LID CEILING, PROVIDE AN ACCESS PANEL DIRECTLY BENEATH THE DRAIN. LOCATIONS OF AUXILIARY DRAINS SHALL BE CLEARLY INDICATED ON THE WORKING DRAWINGS.
- THE FIRE SUPPRESSION SYSTEM SHALL BE SUPERVISED IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE AND NFPA 72. ALL FIRE PROTECTION SYSTEM WATER FLOW AND CONTROL VALVE SUPERVISORY SWITCHES SHALL BE MONITORED BY THE BUILDING'S FIRE ALARM SYSTEM. COORDINATE WITH THE FIRE ALARM CONTRACTOR SUCH THAT ELECTRICAL CONNECTIONS CAN BE MADE BETWEEN THESE DEVICES AND THE BUILDING'S FIRE ALARM SYSTEM.
- IT IS THE OWNER'S RESPONSIBILITY TO PROVIDE ADEQUATE HEAT TO PREVENT FREEZING THROUGHOUT WET PIPE SPRINKLER SYSTEM AREAS AND IN ENCLOSURES FOR DRY PIPE AND OTHER TYPES OF VALVES CONTROLLING WATER SUPPLIES TO SPRINKLER SYSTEMS.
- PROVIDE INSPECTION AND TESTING IN ACCORDANCE WITH NFPA 13 AND THE PROJECT SPECIFICATIONS.
- NO INSTALLATION OF ANY PIPING OR EQUIPMENT IS TO BEGIN PRIOR TO APPROVAL OF PLANS BY THE AUTHORITY HAVING JURISDICTION AND THE OWNER'S REPRESENTATIVE.

FIRE PROTECTION DESIGN CRITERIA

THE FIRE SUPPRESSION SYSTEM SHALL BE HYDRAULICALLY DESIGNED AND INSTALLED IN ACCORDANCE WITH THE FOLLOWING CRITERIA FROM NFPA 13. HAZARDS FOR INDIVIDUAL AREAS ARE NOTED ON THE DRAWINGS.

- AUTOMATIC WET PIPE FIRE SPRINKLER SYSTEM**
- LIGHT HAZARD AREAS
 - DESIGN DENSITY: 0.10 GPM/SQ FT
 - DESIGN AREA: 1,500 SQ FT
 - HOSE ALLOWANCE: 100 GPM
 - ORDINARY HAZARD GROUP 1 AREAS
 - DESIGN DENSITY: 0.15 GPM/SQ FT
 - DESIGN AREA: 1,500 SQ FT
 - HOSE ALLOWANCE: 250 GPM
 - ORDINARY HAZARD GROUP 2 AREAS
 - DESIGN DENSITY: 0.20 GPM/SQ FT
 - DESIGN AREA: 1,500 SQ FT
 - HOSE ALLOWANCE: 250 GPM

- NOTES:**
- DESIGN AREA REDUCTIONS FOR QUICK-RESPONSE SPRINKLERS MAY BE USED ON THE WET PIPE SPRINKLER SYSTEM IF PERMITTED BY NFPA 13.
 - INCREASE THE DESIGN AREA BY 30% FOR SLOPED CEILINGS AS REQUIRED BY NFPA 13.
 - FIRE PROTECTION CONTRACTOR MAY REDUCE PIPE SIZES SHOWN ON PLANS BASED ON FINAL HYDRAULIC CALCULATIONS.

SEISMIC BRACING REQUIREMENTS

EARTHQUAKE BRACING SHALL CONFORM WITH N.F.P.A. #13, INTERNATIONAL BUILDING CODE, NEHRP, AND ASCE/SEI 7 CRITERIA.

DESCRIPTION OF SITE CONDITIONS	
MAPPED SPECTRAL ACCELERATION FOR SHORT PERIODS	$S_s = 0.680$
MAPPED SPECTRAL ACCELERATION FOR A 1-SECOND PERIOD	$S_1 = 0.214$
SITE CLASS	D
SEISMIC OCCUPANCY CATEGORY OF BUILDING	II
MAXIMUM SPECTRAL RESPONSE ACCELERATION AT SHORT PERIODS	$S_{DS} = 0.590$
MAXIMUM SPECTRAL RESPONSE ACCELERATION AT 1-SECOND PERIODS	$S_{D1} = 0.330$
SEISMIC DESIGN CATEGORY BASED ON S_{DS}	D
SEISMIC DESIGN CATEGORY BASED ON S_{D1}	D

SEE CALCULATIONS BELOW FOR DETERMINATION OF FORCE FACTOR FOR SEISMIC DESIGN CATEGORY 'C' & 'D'.

COMPONENT IMPORTANCE FACTOR	$I_p = 1.50$
COMPONENT RESPONSE MODIFICATION FACTOR	$R_p = 4.50$
COMPONENT AMPLIFICATION FACTOR	$A_p = 2.50$
HEIGHT IN STRUCTURE OF POINT OF ATTACHMENT W/ RESPECT TO THE BASE	$Z = 50'$
AVERAGE ROOF HEIGHT OF STRUCTURE W/ RESPECT TO THE BASE	$H = 50'$

$F_p = 0.4 \cdot A_s \cdot \frac{S_{DS}}{R_p} \cdot W_p \cdot (1+2Z/H)$ $F_p = C_u \cdot W_p$ $F_p = 0.590 \cdot W_p$

ASCE 7 ALLOWS A REDUCTION FACTOR OF 1.4 FOR STRESS BASED DESIGN: $F_p = 0.421 \cdot W_p$

BRANCHLINE RESTRAINT REQUIREMENTS

SEISMIC COEFFICIENT, $C_p = 0.421$

SEISMIC CALCULATIONS FOR C_p VALUES	STEEL BRANCH LINE SIZE		
	1"	1 1/2"	2"
MAXIMUM SPACING OF BRANCH LINE RESTRAINTS	43"	46"	53"

WHERE NOT REQUIRED:
NO RESTRAINT REQUIRED IF HANGER ROD IS LESS THAN 6" LONG MEASURED BETWEEN THE TOP OF THE PIPE AND THE POINT OF ATTACHMENT TO THE BUILDING STRUCTURE.
WHERE REQUIRED:
ON ALL BRANCH LINES (WITH HANGER ROD > 6") AT INTERVALS NOT EXCEEDING THOSE SPECIFIED IN TABLE ABOVE BASED ON BRANCH LINE DIAMETER AND THE VALUE OF C_p .
SPRIG-UPS 4" OR LONGER SHALL BE RESTRAINED AGAINST LATERAL MOVEMENT.

RESTRAINT SHALL BE PROVIDED BY USE OF ONE OF THE FOLLOWING:
1) A LISTED SWAY BRACE ASSEMBLY
2) A WRAP-AROUND U-BOLK
3) #12, 440 LB WIRE INSTALLED AT LEAST 45° FROM THE VERTICAL PLANE AND ANCHORED ON BOTH SIDES OF THE PIPE.
4) A HANGER NOT LESS THAN 45° FROM VERTICAL INSTALLED WITHIN 6" OF THE VERTICAL HANGER ARRANGED FOR RESTRAINT AGAINST UPWARD MOVEMENT.
PROVIDED IT IS UTILIZED SUCH THAT LR DOES NOT EXCEED 300, WHERE THE ROD SHALL EXTEND TO THE PIPE OR HAVE A SURGE CLIP RESTRAINT.
5) OTHER APPROVED MEANS

WIRES USED FOR PIPING RESTRAINTS SHOULD BE ATTACHED TO THE BRANCH LINE WITH TWO TIGHT TURNS AROUND THE PIPE AND FASTENED WITH FOUR TIGHT TURNS WITHIN 1'-1/2" (SEE DETAIL), AND ATTACHED TO THE STRUCTURE WITH MEANS APPROVED BY NFPA.

RESTRAINT SHALL BE LOCATED WITHIN 2 FT OF A HANGER. THE HANGER CLOSEST TO THE RESTRAINT SHALL BE OF A TYPE THAT RESISTS UPWARD MOVEMENT OF A BRANCH LINE SUCH AS A SURGE CLIP.

SEISMIC CLEARANCE REQUIREMENTS

PROVIDE CLEARANCE AT ALL PIPING EXTENDING THROUGH WALLS, FLOORS, FOUNDATIONS. NO CLEARANCE REQUIRED AT GYPSUM BOARD OR EQUALLY FRANGIBLE CONSTRUCTION THAT IS NOT REQUIRED TO HAVE A FIRE RESISTANCE RATING.

NOMINAL PIPE SIZE	CORE DRILL HOLE OR PIPE SLEEVE SIZE	
	INCH	MM
1	25	30
1 1/2	32	40
2	40	50
2 1/2	50	60
3	60	75
4	80	100
6	100	125

AT CONTRACTOR'S OPTION FLEXIBLE COUPLINGS MAY BE INSTALLED WITHIN 12" OF THE WALL SURFACE ON EACH SIDE, OR WITHIN 12" ABOVE FLOOR AND 24" BELOW FLOOR, AND THE CLEARANCES NOTED ARE NOT REQUIRED.

FIRE CAULK HOLE AND PROVIDE SPLIT CHROME WALL PLATES AT ALL EXPOSED WALL LOCATIONS.
(NOTE THAT AT NON-RATED FRANGIBLE GYPSUM BOARD WALLS NO CLEARANCE IS REQUIRED)

HANGER SPACING REQUIREMENTS

NOMINAL PIPE SIZE	MAXIMUM DISTANCE BETWEEN HANGERS (FT-IN.) - N.F.P.A. #13									
	3/4"	1"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"	10"
STEEL PIPE	N/A	12-0	12-0	15-0	15-0	15-0	15-0	15-0	15-0	15-0

NOTE:
TYPICAL HANGER SYMBOLS AS SHOWN ON PIPING PLAN MAY NOT REFLECT ACTUAL FIELD INSTALLATION. FINAL HANGER INSTALLATION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF N.F.P.A. #13.

DISTANCE FROM SPRINKLER TO HANGER - N.F.P.A. #13 - MAX PRESSURES ≤ 100 PSI (ALL SPRINKLER TYPES)

SPRINKLER PIPE AND FITTINGS TABLE

MATERIAL NOTES

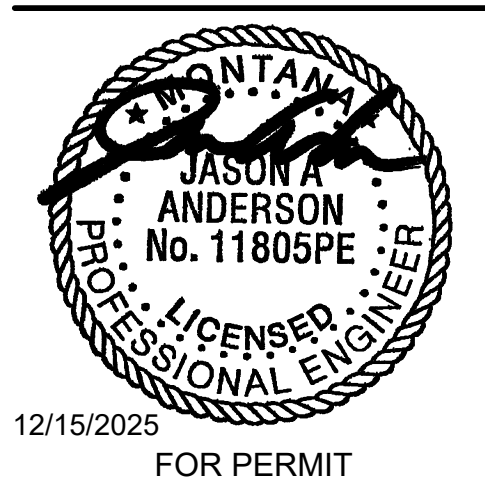
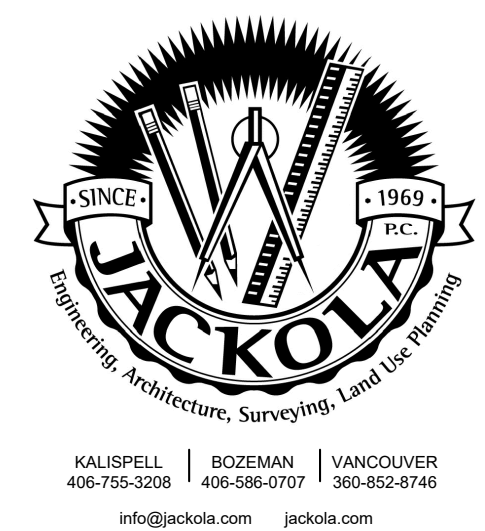
- MATERIALS MAY BE OF DOMESTIC OR IMPORT ORIGIN.
- SEE INDIVIDUAL NOTES ON PLANS FOR VARIATION IN SIZE, TYPE, FITTINGS, ETC.
- AT THE CONTRACTOR'S OPTION, 1 1/2" - 2" PIPE MAY BE GROOVED BUT MUST REMAIN SCHEDULE 40.

PIPE SIZE	PIPE	FITTINGS AND OUTLETS
1" TO 2"	SCHEDULE 40	BLACK CLASS-125 CAST IRON (175 PSI RATED) OR BLACK CLASS-150 MALLEABLE IRON (300 PSI RATED) OR BLACK CLASS-300 DUCTILE IRON (300 PSI RATED) THREADED FITTINGS
2 1/2" TO 6"	SCHEDULE 10	WELDED OUTLETS WITH ROLL GROOVED ENDS AND PAINTED DUCTILE IRON GROOVED FITTINGS (300 PSI RATED)

FIRE SPRINKLER LEGEND

NOTE: ALTERNATE SPRINKLER TEMPERATURES MAY BE NOTED NEXT TO SPRINKLER SYMBOLS (I.E. INT = INTERMEDIATE TEMPERATURE; HIGH = HIGH TEMPERATURE)

SYMBOL	DESCRIPTION
○	STANDARD SPRAY PENDENT SPRINKLER ON - DROP
●	STANDARD SPRAY PENDENT SPRINKLER ON - LINE
○	STANDARD SPRAY DRY PENDENT SPRINKLER
○	STANDARD SPRAY UPRIGHT SPRINKLER ON - LINE
○	STANDARD SPRAY UPRIGHT SPRINKLER ON - SPRIG
◁	STANDARD SPRAY SIDEWALL SPRINKLER
▷	STANDARD SPRAY SIDEWALL SPRINKLER
○	EXISTING PENDENT SPRINKLER
○	EXISTING UPRIGHT SPRINKLER
+	LATERAL OR LONGITUDINAL SWAY BRACE
+	COMBINATION LATERAL AND LONGITUDINAL SWAY BRACE
FS	FLOW SWITCH
TS	TAMPER SWITCH
OR	CHECK VALVE (GROOVED OR THREADED)
OR	BUTTERFLY VALVE (GROOVED OR THREADED)
OR	GLOBE VALVE
OR	HOSE VALVE
OR	ANGLE HOSE VALVE
OR	HORNSTROBE ASSEMBLY
OR	FREE STANDING FIRE DEPARTMENT CONNECTION
OR	PIPE CENTERLINE FROM FINISHED FLOOR
OR	HYDRAULIC NODE POINT
OR	CEILING HEIGHT
OR	RISER
OR	CENTERLINE DISTANCE OF PIPE FROM DECK
OR	FLANGE
OR	GROOVED ELBOW UP
OR	GROOVED ELBOW DOWN
OR	GROOVED COUPLING
OR	SCREWED ELBOW UP
OR	SCREWED ELBOW DOWN
OR	HANGER SYMBOL - SEE DETAIL FOR TYPE
OR	HANGER SYMBOL - SEE DETAIL FOR TYPE
OR	HANGER SYMBOL - SEE DETAIL FOR TYPE
OR	HANGER SYMBOL - SEE DETAIL FOR TYPE
OR	SEISMIC RESTRAINT #1
OR	SEISMIC RESTRAINT #2
OR	NEW WET SPRINKLER PIPE
OR	EXISTING SPRINKLER PIPE
OR	DEMO SPRINKLER PIPE
OR	EXISTING UNDERGROUND WATER MAIN/FIRE MAIN
OR	1-HOUR FIRE BARRIER (SEE ARCHITECTURAL FOR DETAILS)
OR	2-HOUR FIRE BARRIER (SEE ARCHITECTURAL FOR DETAILS)
OR	ABOVE FINISHED FLOOR
OR	ALL THREAD ROD
OR	AUTOMATIC SPRINKLER
OR	CUT IN FIELD
OR	DN DOWN
OR	FINISHED GRADE
OR	GALVANIZED
OR	GROOVE BOTH ENDS
OR	GROOVE ONE END
OR	GALVANIZED MALLEABLE IRON
OR	NOT TO SCALE
OR	OUTSIDE STEM & YOKE
OR	RISER NIPPLE
OR	THREAD BOTH ENDS
OR	THREAD ONE END
OR	THREAD AND GROOVE
OR	UNLESS OTHERWISE NOTED
OR	WITH



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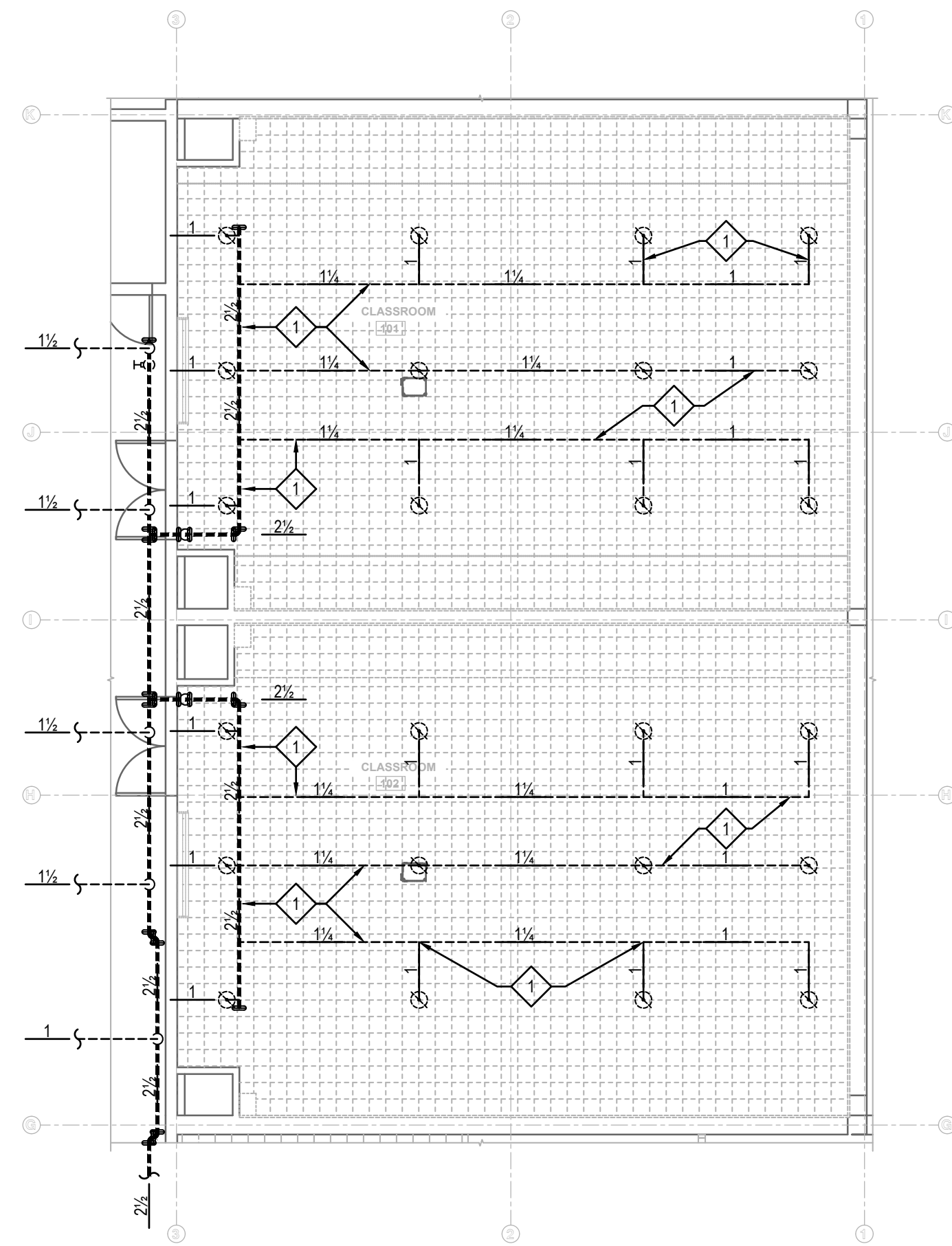
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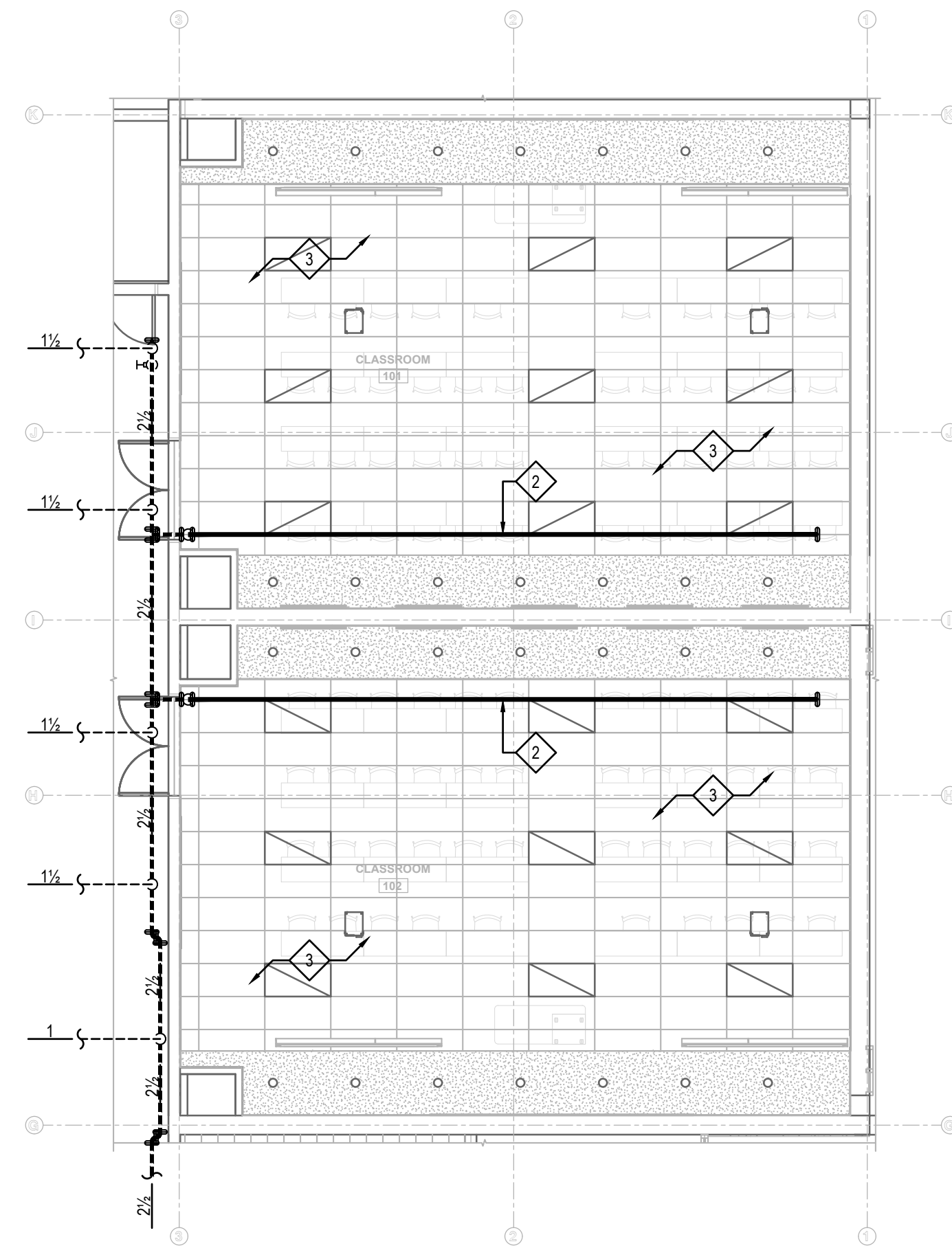
GENERAL NOTES, DETAILS, AND LEGEND

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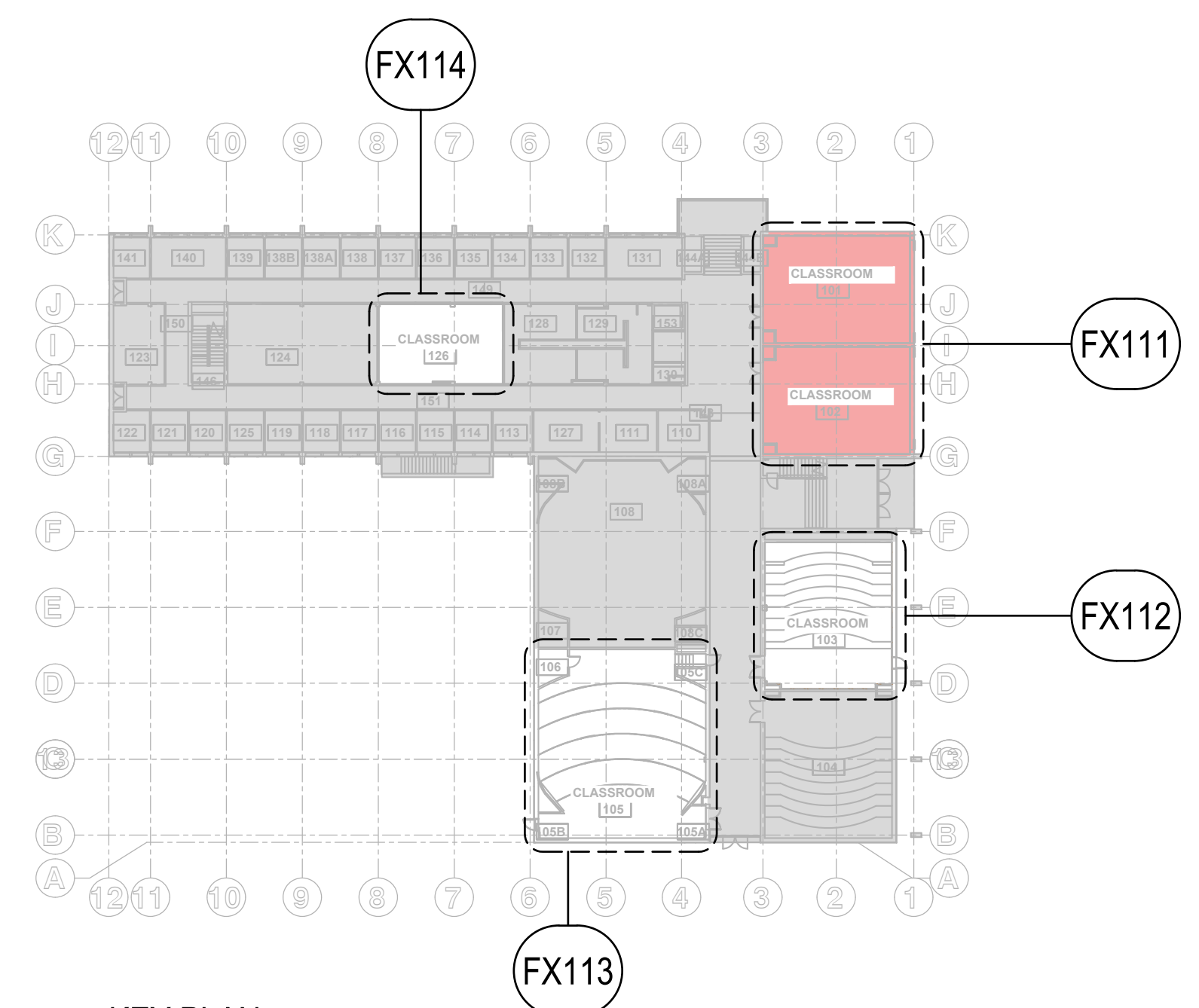
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1 ROOM 101 & 102 FIRE SPRINKLER DEMO PLAN - LEVEL 1
SCALE: 1/8" = 1'-0"
NORTH



2 ROOM 101 & 102 FIRE SPRINKLER FLOOR PLAN - LEVEL 1
SCALE: 1/8" = 1'-0"
NORTH



KEY PLAN
NOT TO SCALE

GENERAL DEMOLITION NOTES

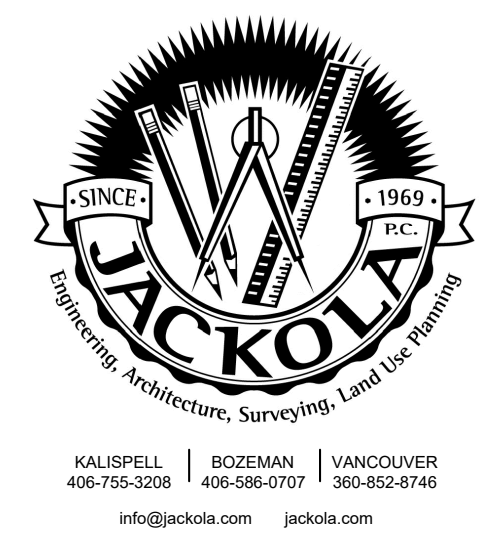
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2. THE REQUIRED DEMOLITION IS NOT LIMITED TO WHAT IS INDICATED ON THE PLANS ALONE. BUT SHALL INCLUDE ALL NECESSARY WORK INDICATED ELSEWHERE IN THE DRAWINGS AND SPECIFICATIONS TO ACCOMPLISH THE INTENT OF THE CONTRACT DOCUMENTS.
3. THE EXISTING WET PIPE FIRE SPRINKLER SYSTEM OUTSIDE OF THE AREA(S) OF WORK SHALL REMAIN U.O.N.
4. DEMOLISH THE EXISTING WET PIPE SPRINKLER SYSTEM AS INDICATED ON THE DRAWINGS IN THE AREA(S) OF WORK.

GENERAL FIRE SPRINKLER NOTES

1. THE FIRE SPRINKLER SYSTEM SHOWN IS CONCEPTUAL ONLY AND PROVIDED TO CONVEY DESIGN INTENT. THE CONTRACTOR SHALL PROVIDE A COMPLETE SPRINKLER SYSTEM IN THE AREA(S) OF WORK SHOWING ALL REQUIRED PIPING, OFFSETS, SPRINKLERS, RISERS, DROPS, HANGERS, BRACING, ETC. COORDINATE FINAL PIPE ROUTING AND SPRINKLER LOCATIONS WITH ALL OTHER TRADES AS REQUIRED. THE CONTRACTOR SHALL INSTALL THE SYSTEM IN ACCORDANCE WITH ALL APPLICABLE CODES, THE MANUFACTURER'S RECOMMENDATIONS, AND PER THE EQUIPMENT'S LISTING.
2. SEE ARCHITECTURAL PLANS FOR CEILING TYPES AND HEIGHTS.
3. PROVIDE SPRINKLER PROTECTION UNDER OBSTRUCTIONS OVER 4'-0" WIDE (TYPICAL).
4. SPRINKLERS SHALL BE INSTALLED IN THE CENTER OF TILE IN AREAS WITH 2x2' SUSPENDED CEILING TILES. SPRINKLERS SHALL BE INSTALLED IN QUARTER POINTS OR IN THE CENTER OF TILE IN AREAS WITH 2x4' SUSPENDED CEILING TILES.
5. WITHIN THE SCOPE OF WORK, PROVIDE WHITE RECESSED PENDENT SPRINKLERS IN ALL AREAS WITH FINISHED CEILINGS U.O.N. WITHIN THE SCOPE OF WORK, PROVIDE BRASS UPRIGHT SPRINKLERS IN ALL OPEN TO STRUCTURE AREAS U.O.N.
6. PROVIDE SPLIT CHROME WALL PLATES AT ALL EXPOSED WALL PENETRATIONS IN FINISHED ROOMS.
7. ALL GROOVED COUPLINGS SHALL BE ZERO FLEX/RIGID U.O.N AND/OR REQUIRED BY CODE.
8. EXISTING FIRE SPRINKLER SYSTEM PIPING, DENOTED:
9. NEW FIRE SPRINKLER SYSTEM PIPING, DENOTED:
10. ALL ROOMS WITHIN THE AREA OF WORK ARE CLASSIFIED AS LIGHT HAZARD OCCUPANCY (0.10 GPM/SQ FT OVER REMOTE AREA - 100 GPM HOSE) PER NFPA 13.

PLAN KEY NOTES

1. DEMOLISH EXISTING PENDENT SPRINKLERS, PIPING, HANGERS, BRACING, ETC IN CLASSROOM.
2. NEW 2 1/2" WET PIPE SPRINKLER MAIN TO SERVE CLASSROOM.
3. PROVIDE AUTOMATIC SPRINKLER PROTECTION THROUGHOUT THE RENOVATED CLASSROOM AS REQUIRED FOR THE NOTED HAZARD OCCUPANCY. COORDINATE NEW PIPE ROUTING AND FINAL SPRINKLER LOCATIONS WITH ALL OTHER TRADES AS REQUIRED.



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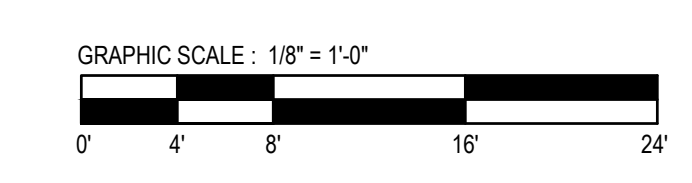
ROOM 101 & 102
FIRE SPRINKLER
FLOOR PLAN

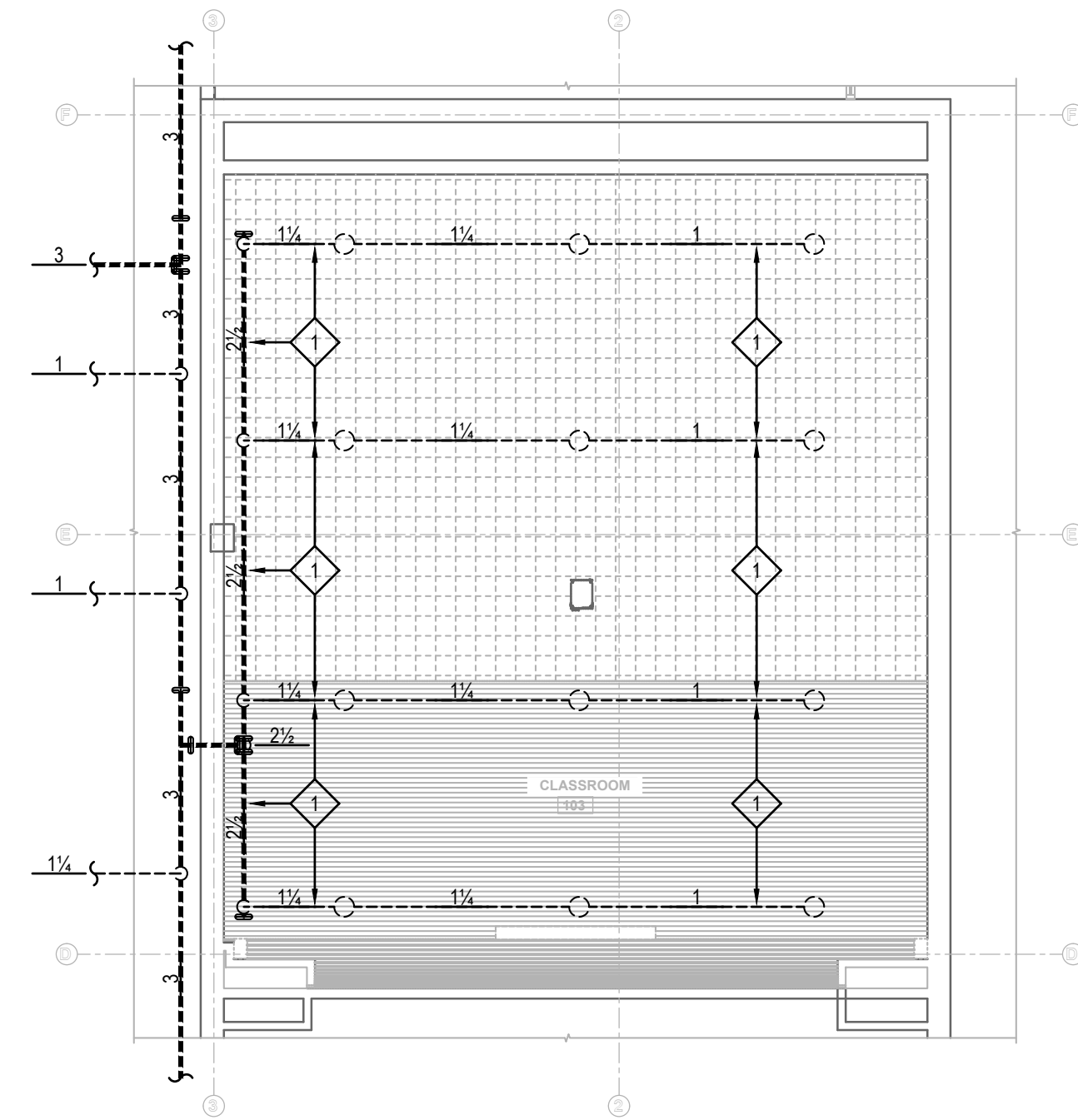
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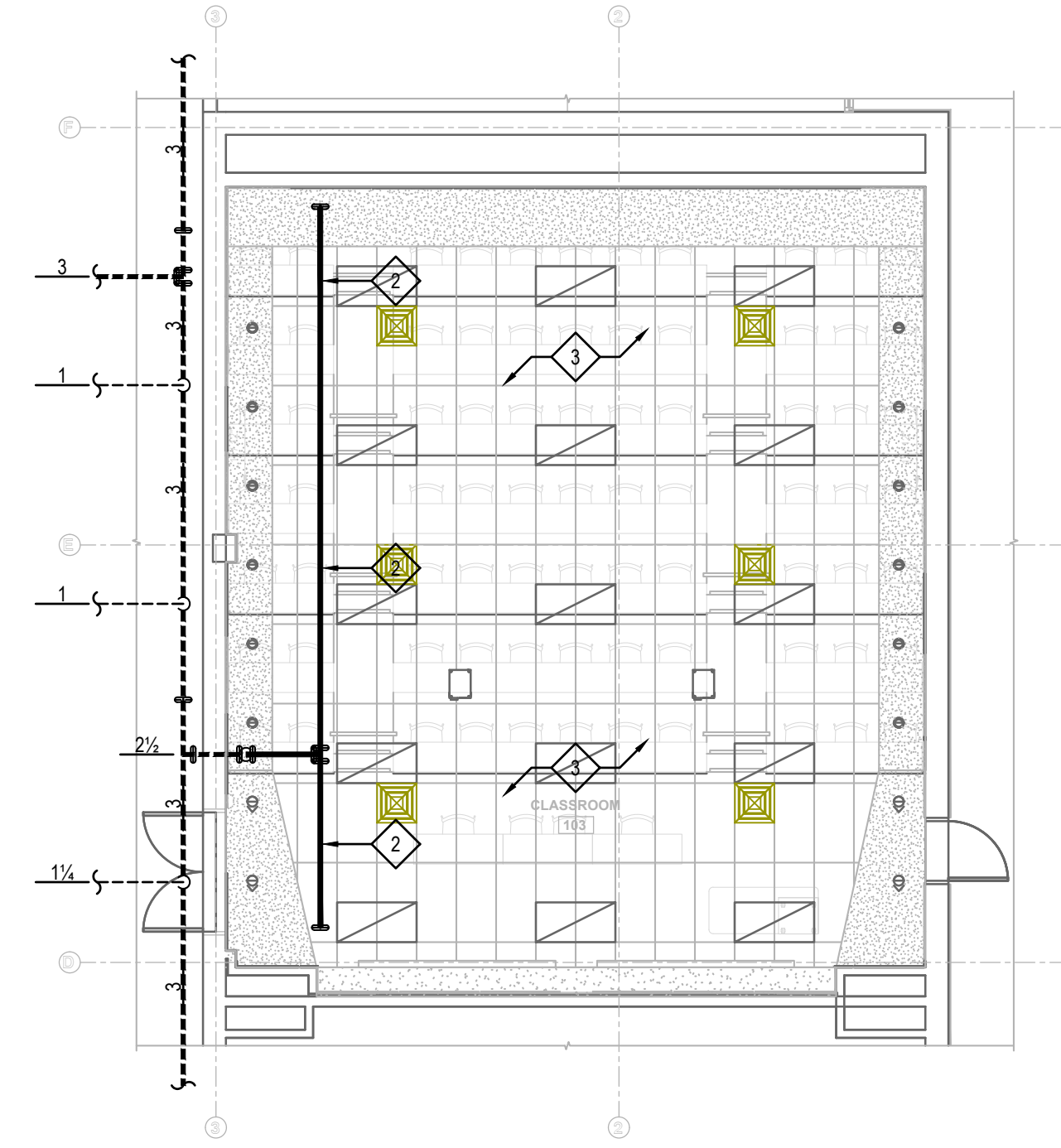
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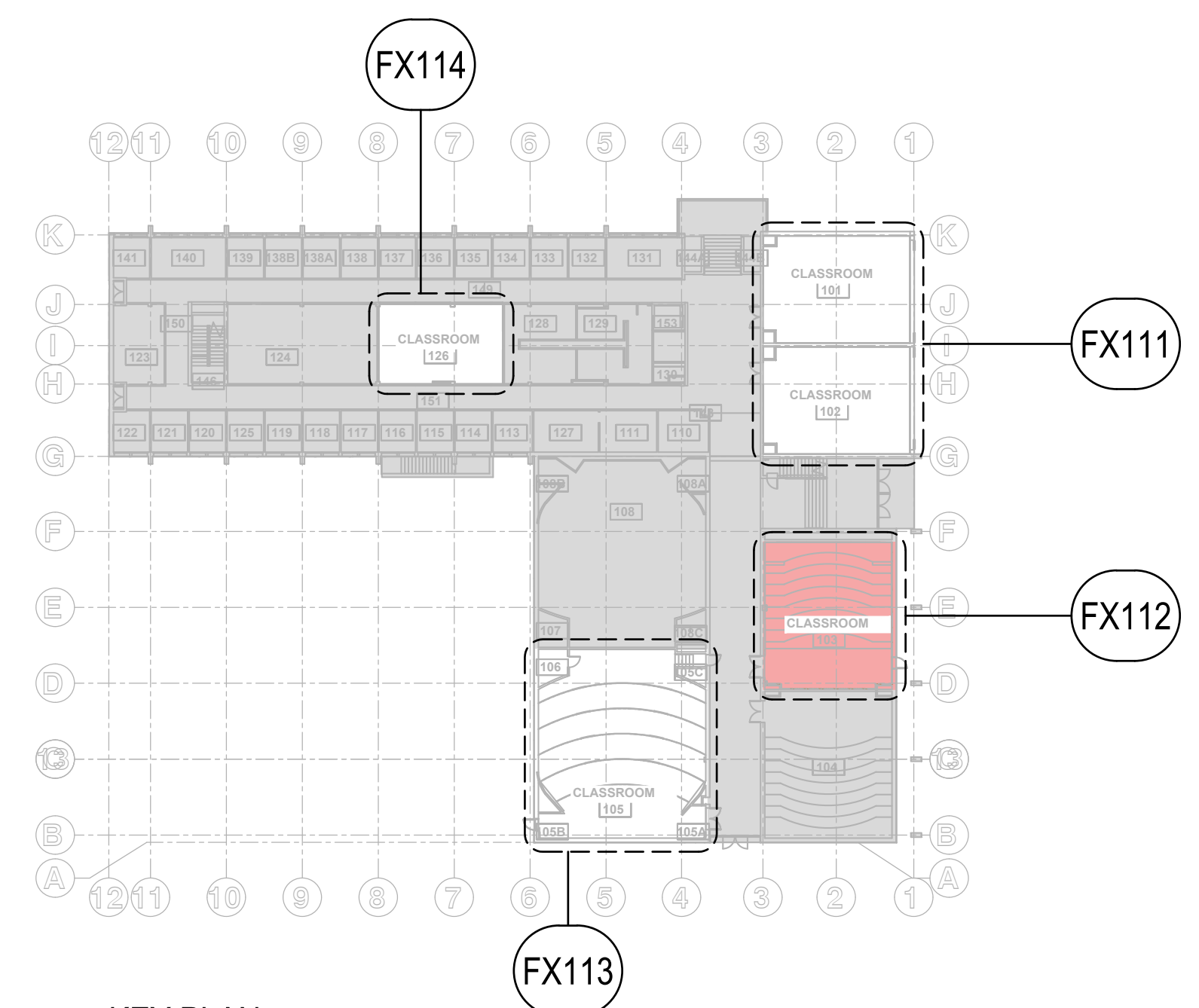




1 ROOM 103 FIRE SPRINKLER DEMO PLAN - LEVEL 1
SCALE: 1/8" = 1'-0"



2 ROOM 103 FIRE SPRINKLER FLOOR PLAN - LEVEL 1
SCALE: 1/8" = 1'-0"



KEY PLAN
NOT TO SCALE

GENERAL DEMOLITION NOTES

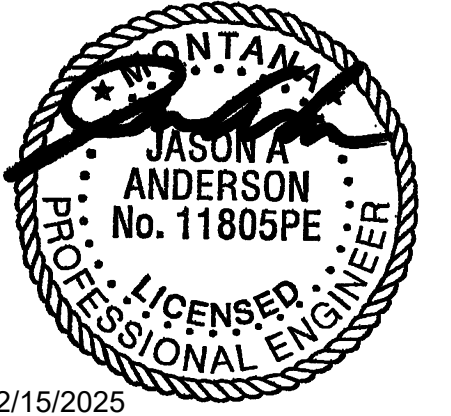
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PLAN KEY NOTES

1. DEMOLISH EXISTING UPRIGHT SPRINKLERS, PIPING, HANGERS, BRACING, ETC IN CLASSROOM.
2. NEW 2 1/2" WET PIPE SPRINKLER MAIN TO SERVE CLASSROOM.
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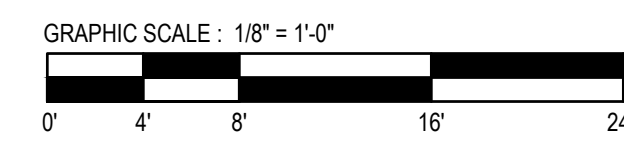
ROOM 103 FIRE SPRINKLER FLOOR PLAN

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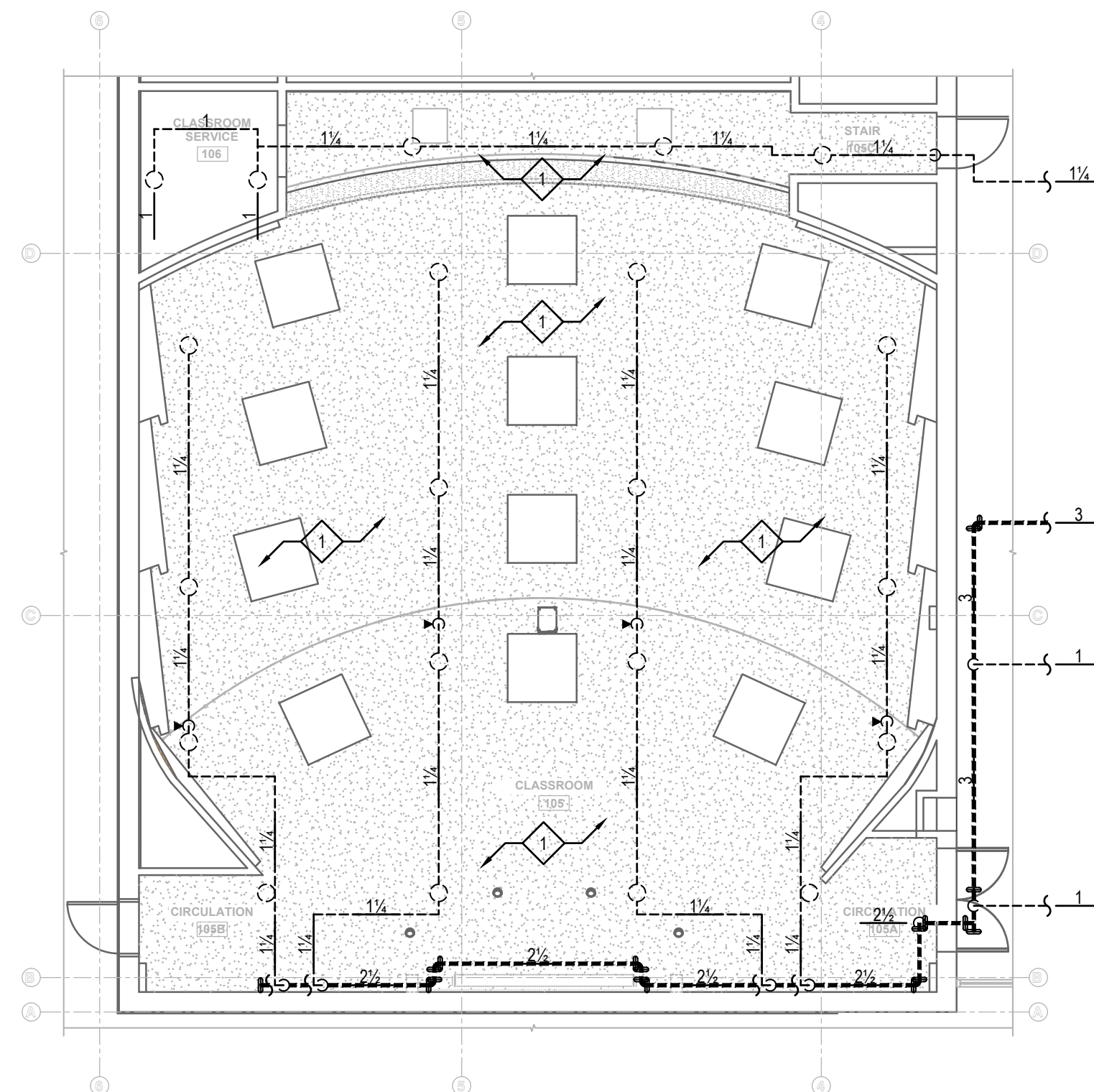


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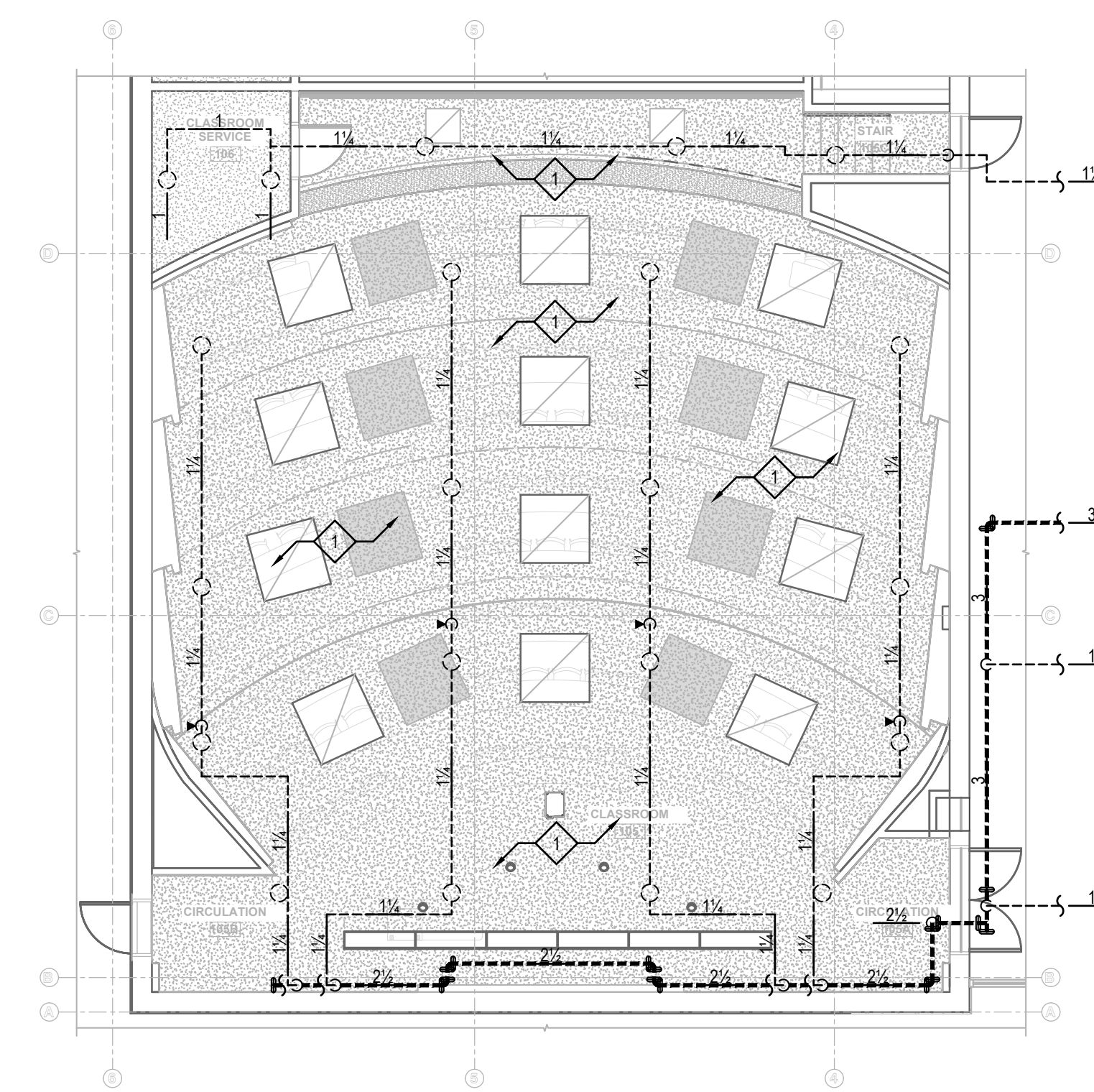
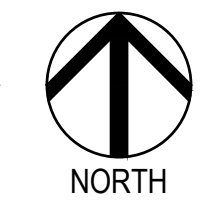
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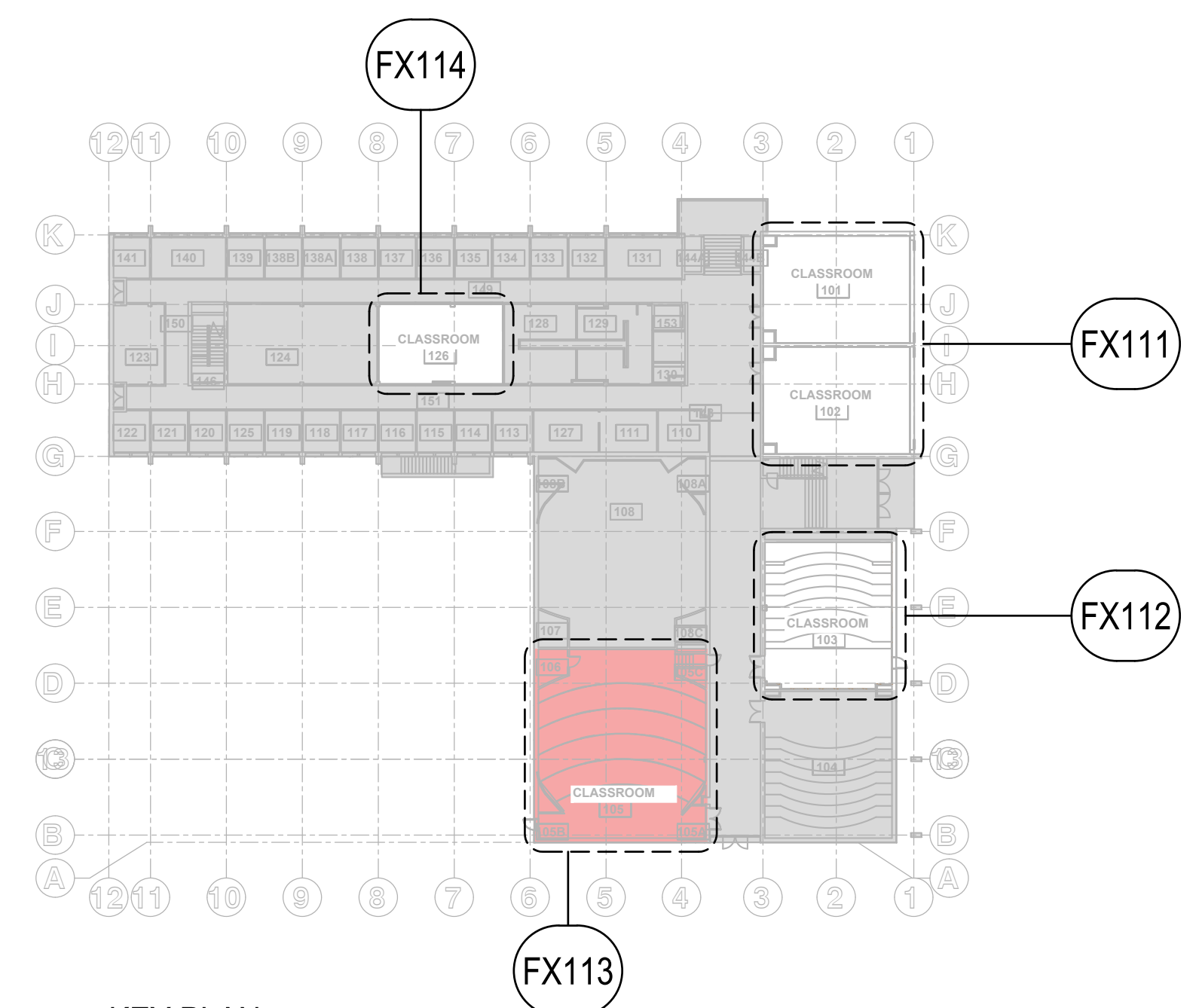
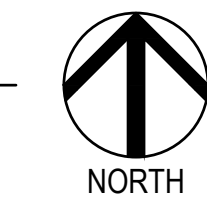
PROJECT #25048



1 ROOM 105 FIRE SPRINKLER DEMO PLAN - LEVEL 1
SCALE: 1/8" = 1'-0"



2 ROOM 105 FIRE SPRINKLER FLOOR PLAN - LEVEL 1
SCALE: 1/8" = 1'-0"



KEY PLAN
NOT TO SCALE

GENERAL DEMOLITION NOTES

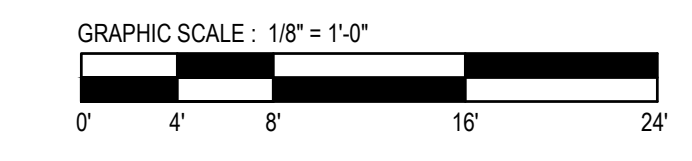
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GENERAL FIRE SPRINKLER NOTES

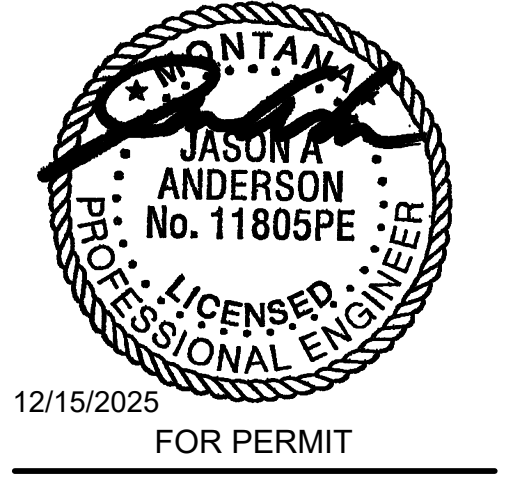
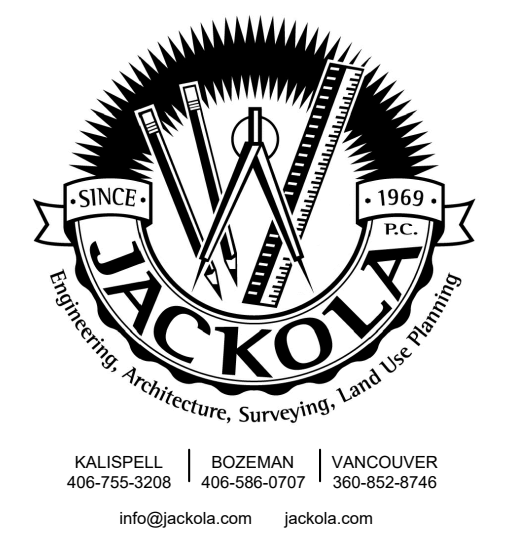
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PLAN KEY NOTES

1. EXISTING WET PIPE SPRINKLER SYSTEM TO REMAIN THIS ROOM.



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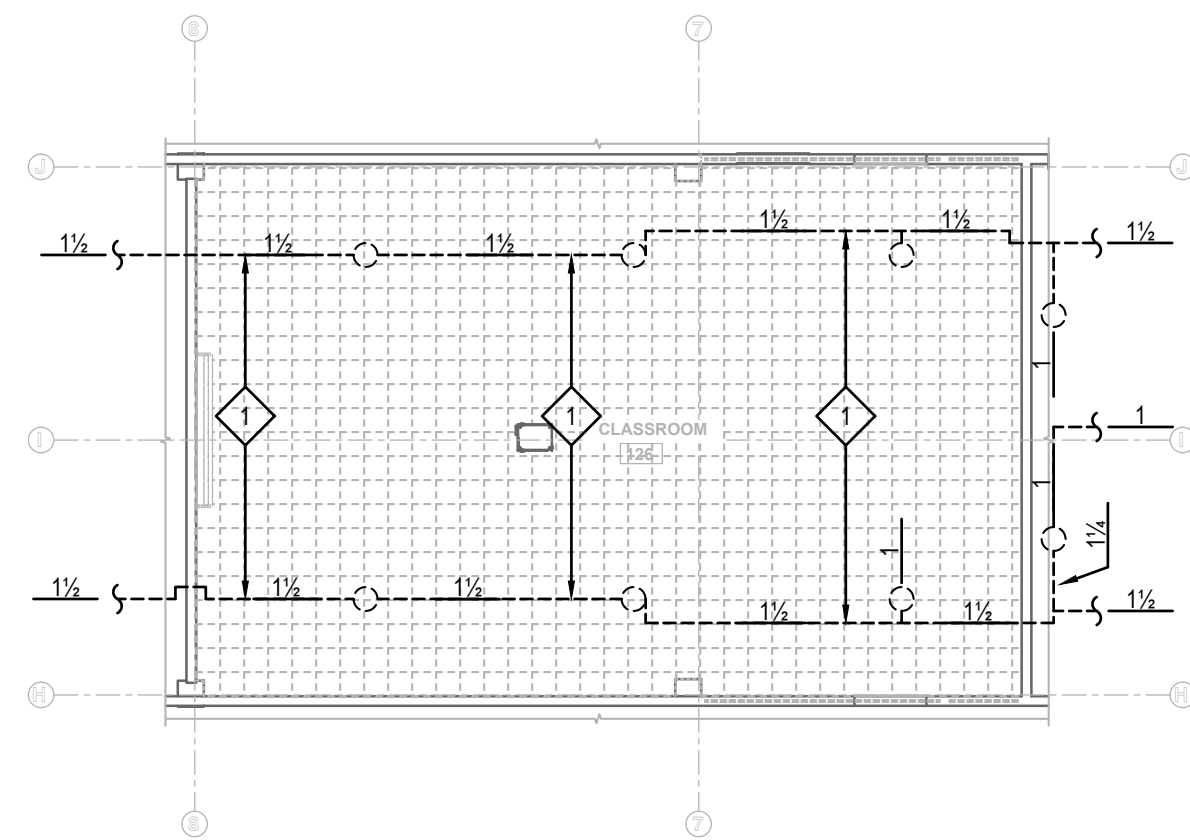
REID HALL RENOVATION
MONTANA STATE UNIVERSITY
REID HALL,
BOZEMAN, MONTANA 59717
PPA#: 25-1214

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DATE: 12/15/2025

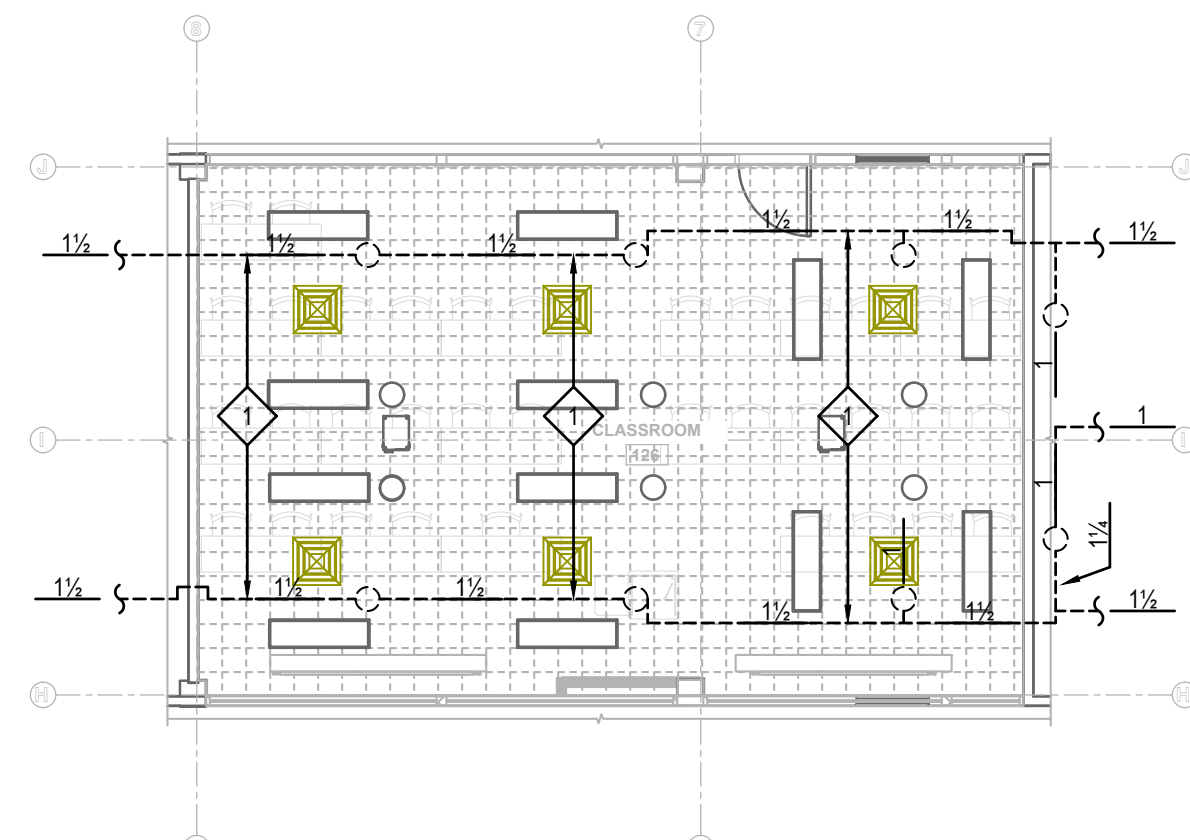
REVISIONS:

ROOM 105 FIRE SPRINKLER FLOOR PLAN

FX113



1 ROOM 126 FIRE SPRINKLER DEMO PLAN - LEVEL 1
SCALE: 1/8" = 1'-0"
NORTH



2 ROOM 126 FIRE SPRINKLER FLOOR PLAN - LEVEL 1
SCALE: 1/8" = 1'-0"
NORTH

GENERAL DEMOLITION NOTES

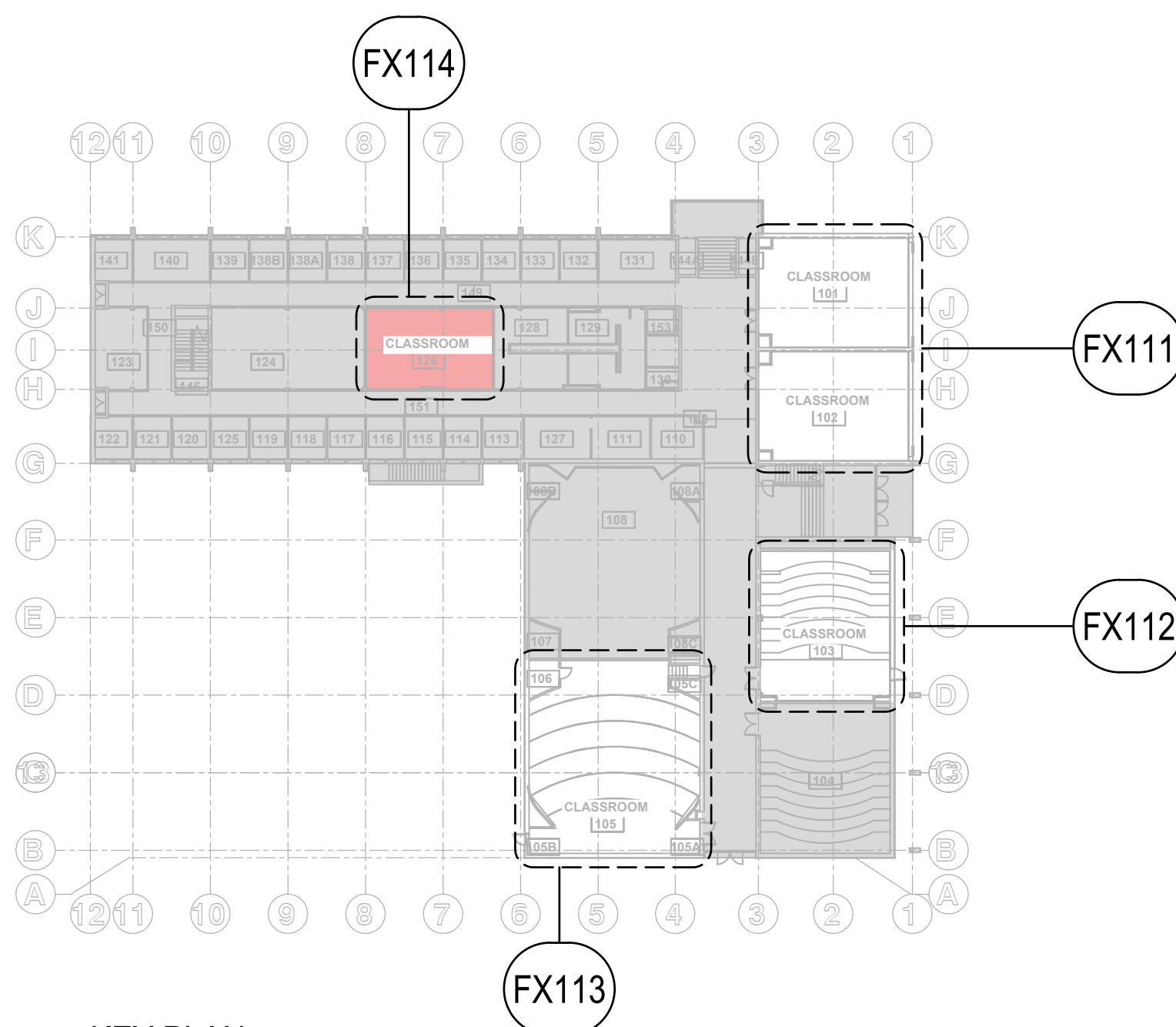
1. THE EXISTING FIRE SPRINKLER SYSTEM SHOWN IS BASED ON AS-BUILT DOCUMENTATION AND A NON-DESTRUCTIVE WALK THROUGH OF THE BUILDING. ALL COMPONENTS OF THE EXISTING FIRE SPRINKLER SYSTEM ARE NOT SHOWN ON THE PLANS. THE EXISTING COMPONENTS SHOWN ON THE PLANS MAY NOT BE SHOWN IN THE EXACT LOCATION OR CORRECT ORIENTATION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS.
2. THE REQUIRED DEMOLITION IS NOT LIMITED TO WHAT IS INDICATED ON THE PLANS ALONE, BUT SHALL INCLUDE ALL NECESSARY WORK INDICATED ELSEWHERE IN THE DRAWINGS AND SPECIFICATIONS TO ACCOMPLISH THE INTENT OF THE CONTRACT DOCUMENTS.
3. THE EXISTING WET PIPE FIRE SPRINKLER SYSTEM OUTSIDE OF THE AREA(S) OF WORK SHALL REMAIN U.O.N.
4. DEMOLISH THE EXISTING WET PIPE SPRINKLER SYSTEM AS INDICATED ON THE DRAWINGS IN THE AREA(S) OF WORK.

GENERAL FIRE SPRINKLER NOTES

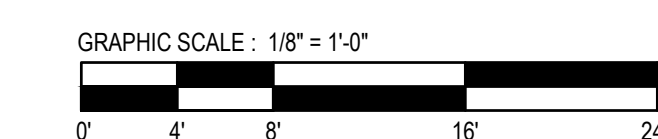
1. THE FIRE SPRINKLER SYSTEM SHOWN IS CONCEPTUAL ONLY AND PROVIDED TO CONVEY DESIGN INTENT. THE CONTRACTOR SHALL PROVIDE A COMPLETE SPRINKLER SYSTEM IN THE AREA(S) OF WORK SHOWING ALL REQUIRED PIPING, OFFSETS, SPRINKLERS, RISERS, DROPS, HANGERS, BRACING, ETC. COORDINATE FINAL PIPE ROUTING AND SPRINKLER LOCATIONS WITH ALL OTHER TRADES AS REQUIRED. THE CONTRACTOR SHALL INSTALL THE SYSTEM IN ACCORDANCE WITH ALL APPLICABLE CODES, THE MANUFACTURER'S RECOMMENDATIONS, AND PER THE EQUIPMENT'S LISTING.
2. SEE ARCHITECTURAL PLANS FOR CEILING TYPES AND HEIGHTS.
3. PROVIDE SPRINKLER PROTECTION UNDER OBSTRUCTIONS OVER 4'-0" WIDE (TYPICAL).
4. SPRINKLERS SHALL BE INSTALLED IN THE CENTER OF TILE IN AREAS WITH 2x2' SUSPENDED CEILING TILES. SPRINKLERS SHALL BE INSTALLED IN QUARTER POINTS OR IN THE CENTER OF TILE IN AREAS WITH 2x4' SUSPENDED CEILING TILES.
5. WITHIN THE SCOPE OF WORK, PROVIDE WHITE RECESSED PENDENT SPRINKLERS IN ALL AREAS WITH FINISHED CEILINGS U.O.N. WITHIN THE SCOPE OF WORK, PROVIDE BRASS UPRIGHT SPRINKLERS IN ALL OPEN TO STRUCTURE AREAS U.O.N.
6. PROVIDE SPLIT CHROME WALL PLATES AT ALL EXPOSED WALL PENETRATIONS IN FINISHED ROOMS.
7. ALL GROOVED COUPLINGS SHALL BE ZERO FLEX/RIGID U.O.N AND/OR REQUIRED BY CODE.
8. EXISTING FIRE SPRINKLER SYSTEM PIPING, DENOTED:
9. NEW FIRE SPRINKLER SYSTEM PIPING, DENOTED:
10. ALL ROOMS WITHIN THE AREA OF WORK ARE CLASSIFIED AS LIGHT HAZARD OCCUPANCY (0.10 GPM/SQ FT OVER REMOTE AREA - 100 GPM HOSE) PER NFPA 13.

PLAN KEY NOTES

1. EXISTING WET PIPE SPRINKLER SYSTEM TO REMAIN THIS ROOM.

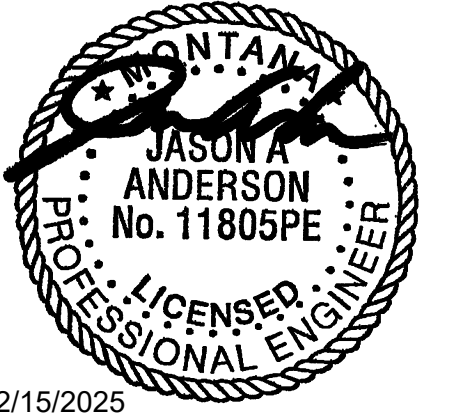


KEY PLAN
NOT TO SCALE



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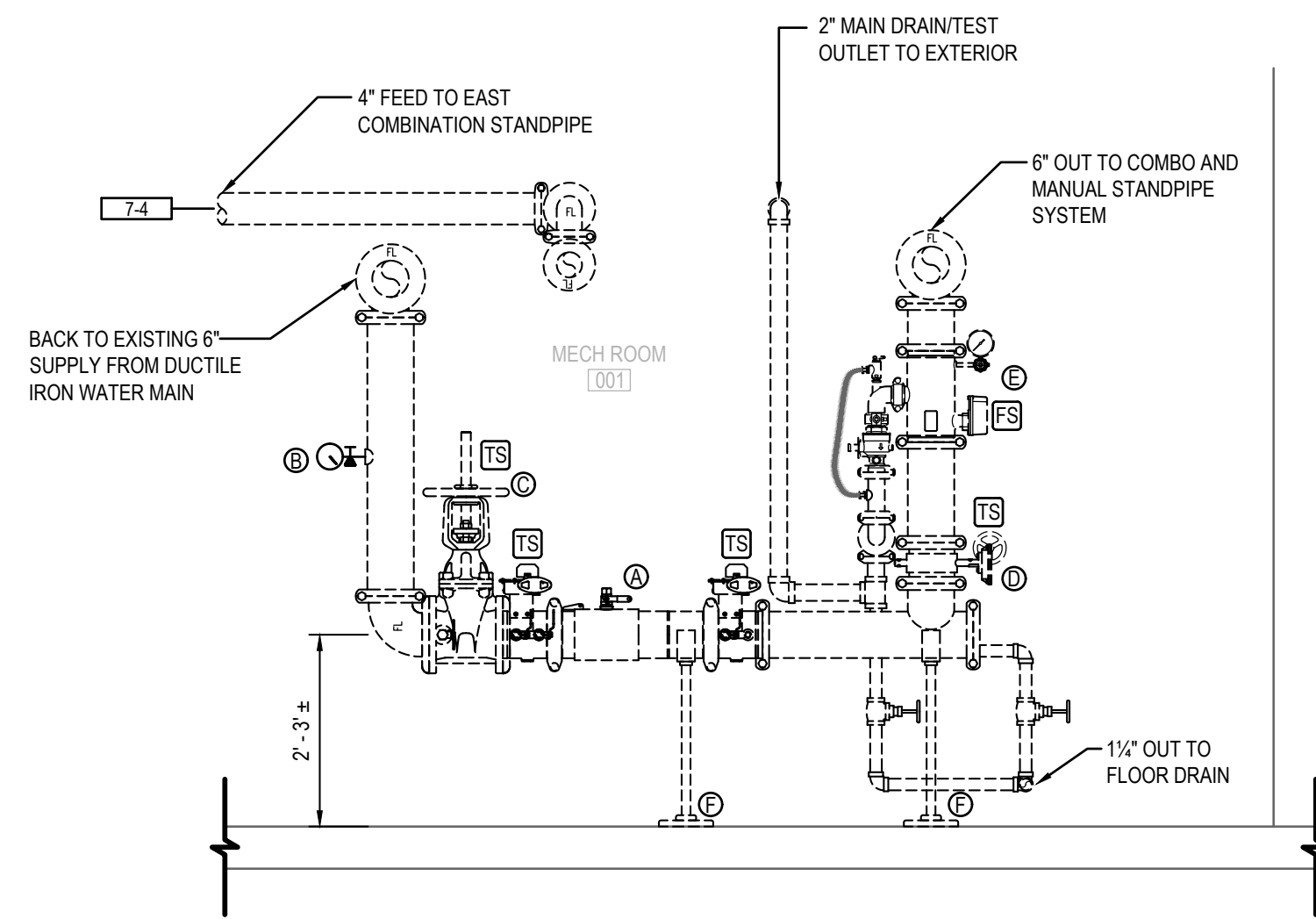
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ROOM 126 FIRE SPRINKLER FLOOR PLAN

FX114



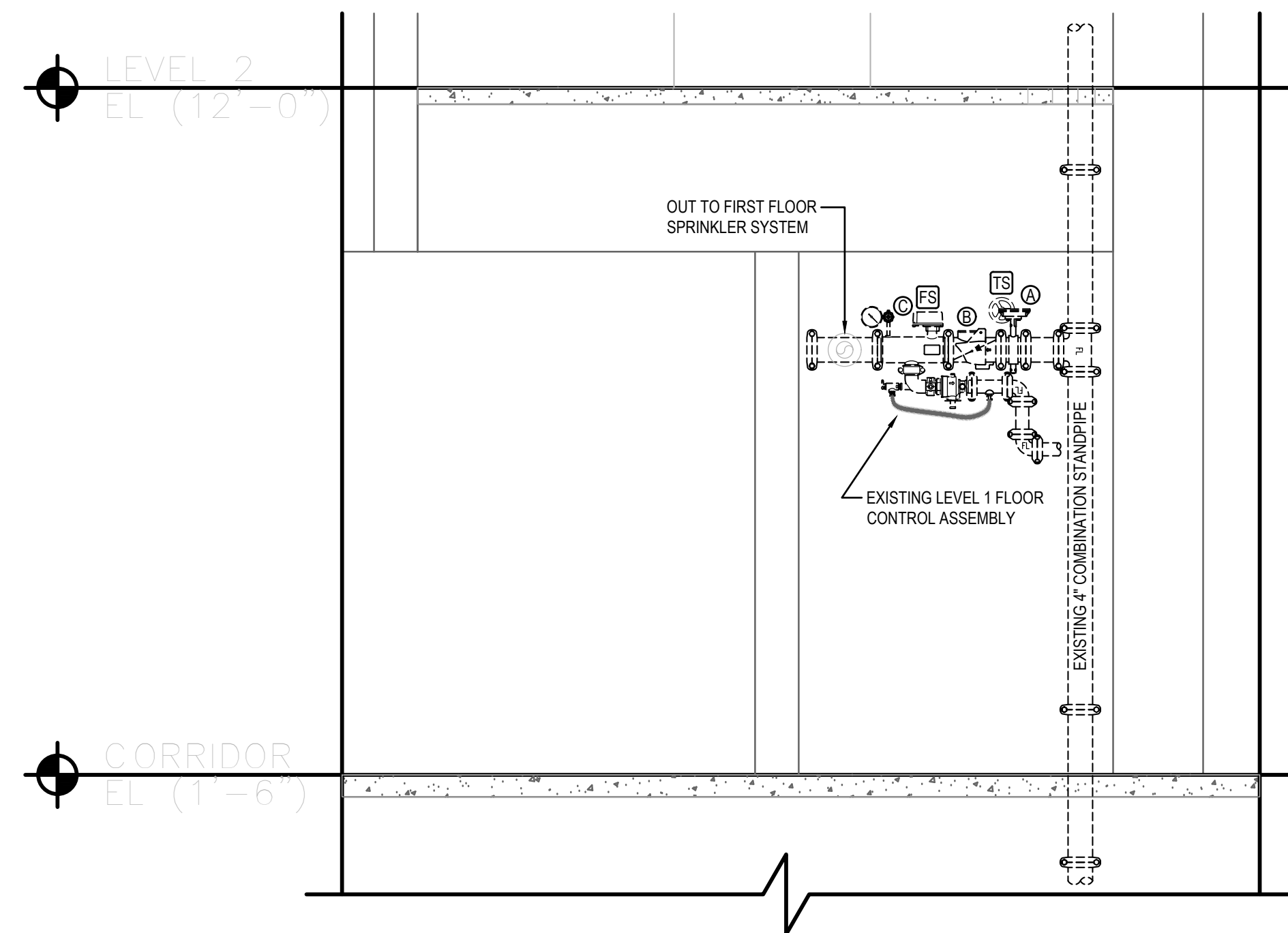
1 EXISTING FIRE PROTECTION RISER DETAIL
SCALE: 1/2" = 1'-0"

EXISTING RISER LEGEND

- A. EXISTING 6" DOUBLE CHECK VALVE ASSEMBLY WITH GROOVED BUTTERFLY VALVES AND BUILT-IN TAMPER SWITCHES
- B. EXISTING "GAUGE KIT"
- C. EXISTING 6" OS&Y CONTROL VALVE WITH TAMPER SWITCH
- D. EXISTING 6" GROOVED BUTTERFLY VALVE WITH BUILT-IN TAMPER SWITCH
- E. EXISTING 6" RISER MANIFOLD WITH FLOW SWITCH, TEST AND DRAIN VALVE, PRESSURE GAUGE AND PRESSURE RELIEF VALVE
- F. EXISTING PIPESTAND

GENERAL NOTES

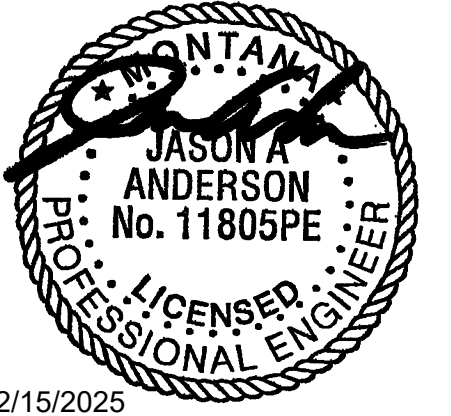
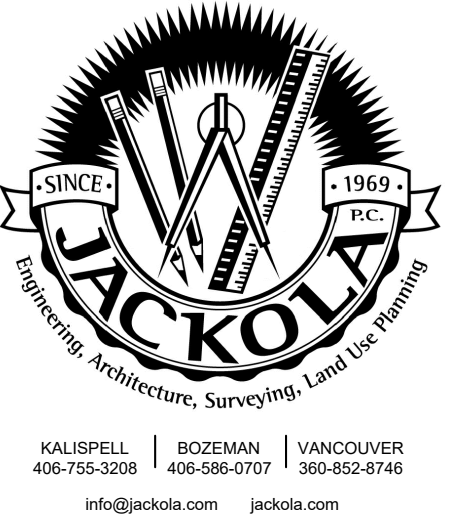
1. THE EXISTING FIRE SPRINKLER SYSTEM SHOWN IS BASED ON AS-BUILT DOCUMENTATION AND A NON-DESTRUCTIVE WALK THROUGH OF THE BUILDING. ALL COMPONENTS OF THE EXISTING FIRE SPRINKLER SYSTEM ARE NOT SHOWN ON THE PLANS. THE EXISTING COMPONENTS SHOWN ON THE PLANS MAY NOT BE SHOWN IN THE EXACT LOCATION OR CORRECT ORIENTATION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS.
2. THE STANDPIPE SYSTEM IS EXISTING AND SHOWN FOR REFERENCE ONLY. NO WORK ON THE EXISTING STANDPIPE SYSTEM UNLESS OTHERWISE NOTED.
3. EXISTING FIRE SPRINKLER PIPING, DENOTED:



2 EXISTING COMBINATION STANDPIPE DETAIL
SCALE: 1/2" = 1'-0"

EXISTING STANDPIPE LEGEND

- A. EXISTING 4" GROOVED BUTTERFLY VALVE WITH BUILT-IN TAMPER SWITCH
- B. EXISTING 4" GROOVED CHECK VALVE
- C. EXISTING 4" RISER MANIFOLD WITH FLOW SWITCH, TEST AND DRAIN VALVE, PRESSURE GAUGE AND PRESSURE RELIEF VALVE



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EXISTING FIRE SPRINKLER DETAILS

FX301



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