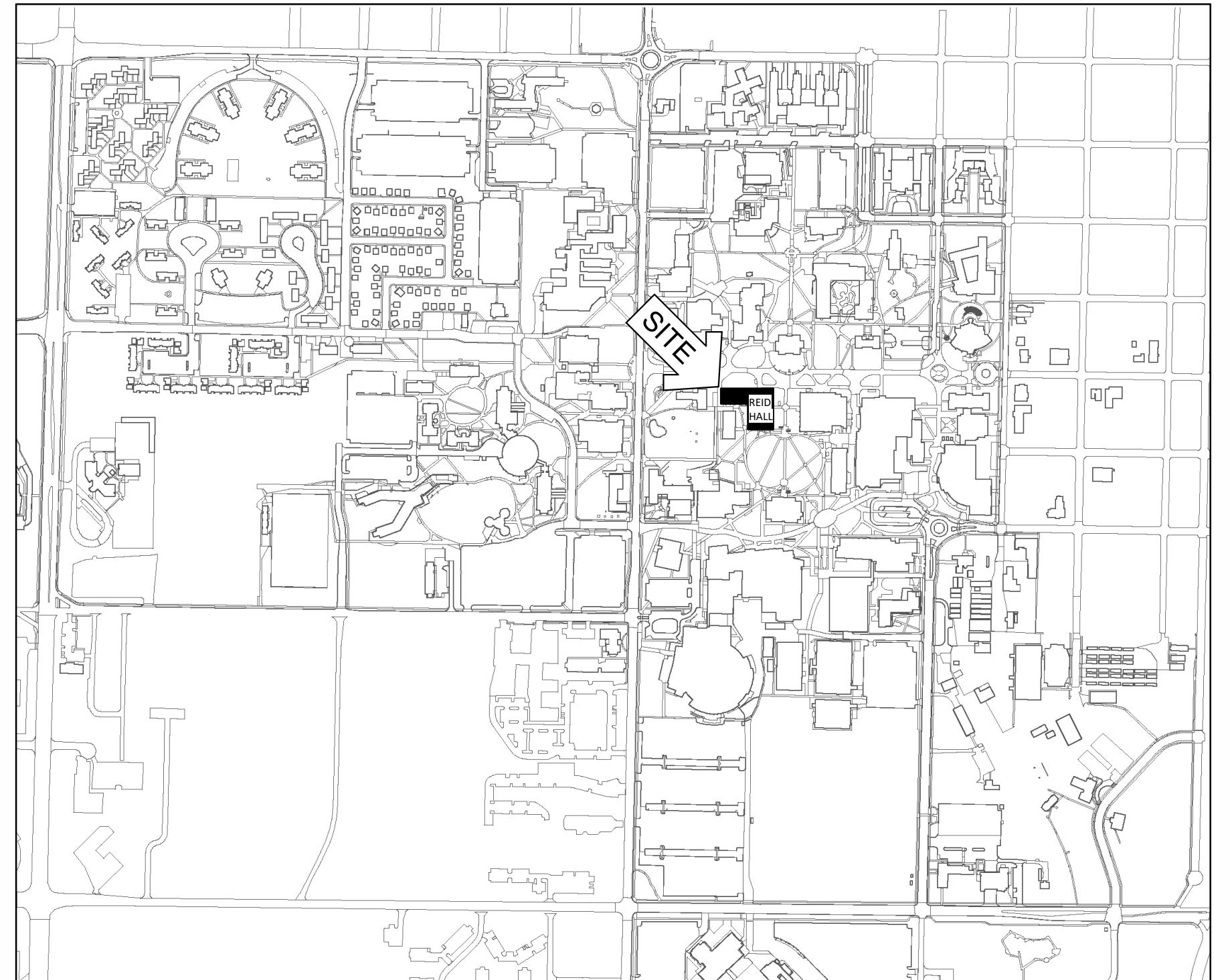
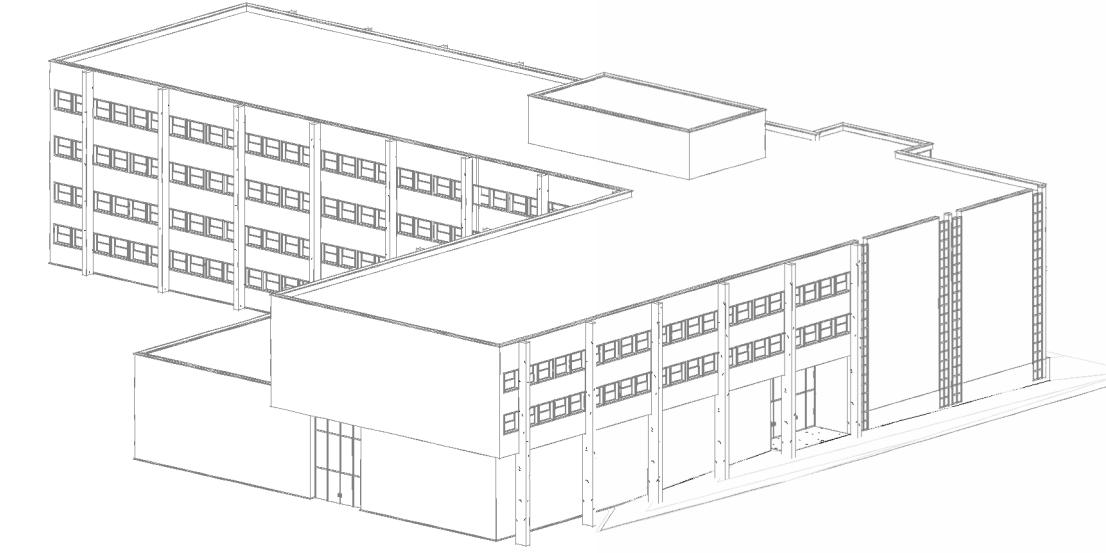


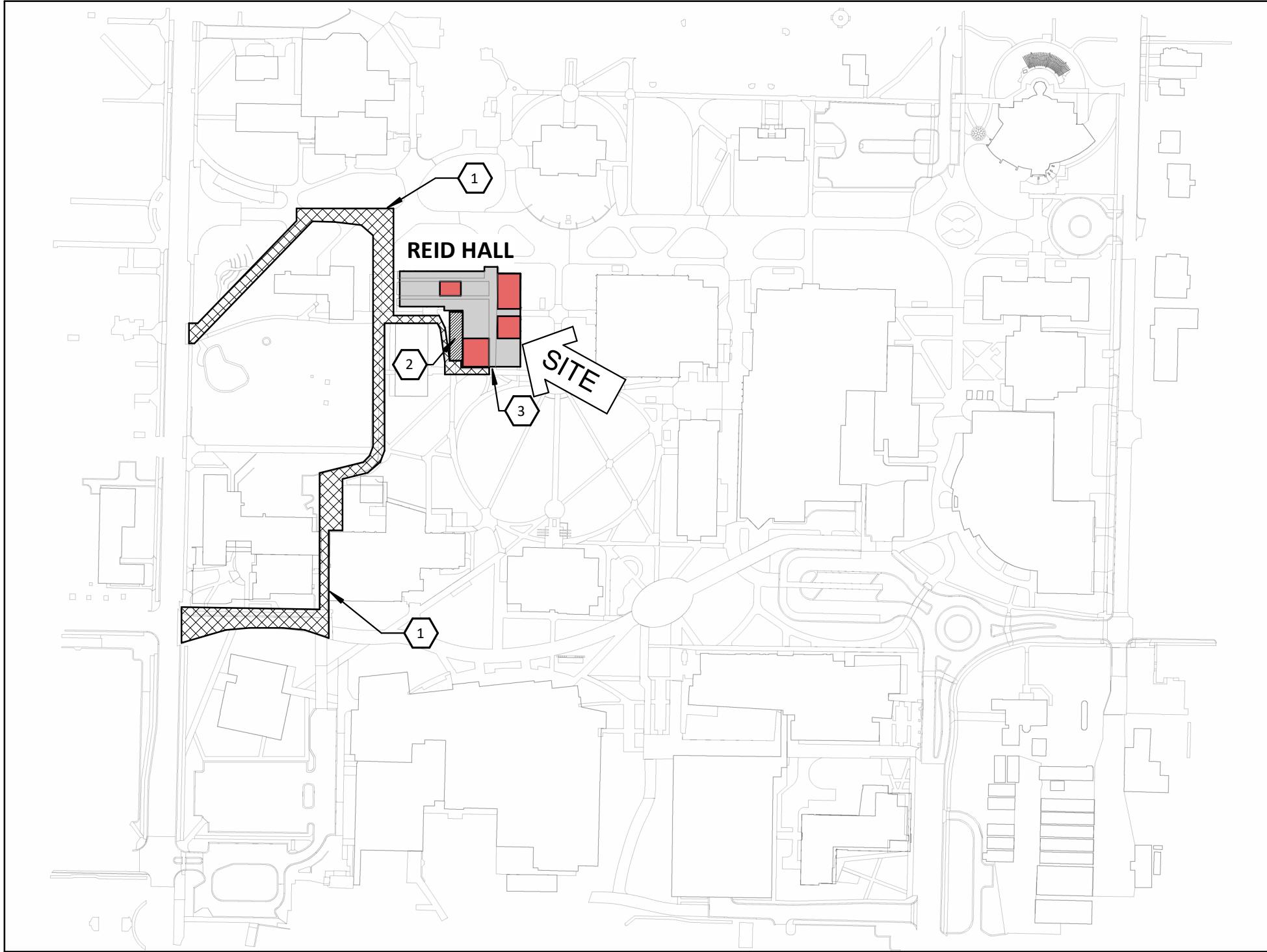
REID HALL CLASSROOM RENOVATION

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
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
REMO1	SITE VICINITY MAP	M-124	126 REFLECTED CEILING PLAN
REMO2	ASBESTOS AND LBP REMEDIATION	M-601	MECHANICAL DETAILS & SCHEDULES
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	E116	MAIN FLOOR ELECTRICAL PLAN
AD121	101/102 DEMO REFLECTED CEILING PLAN	E501	103 & 105 ISOMETRIC VIEWS
AD122	103 DEMO REFLECTED CEILING PLAN ALT. #2	E510	ELECTRICAL ONE-LINE DIAGRAMS
AD123	105 DEMO REFLECTED CEILING PLAN ALT. #1	E520	ELECTRICAL PANEL SCHEDULES
AD124	126 DEMO REFLECTED CEILING PLAN ALT. #3	E111	101/102 LIGHTING PLAN
AD211	101/102 DEMO INTERIOR ELEVATIONS ALT. #1	E112	103 LIGHTING PLAN
AD212	103 DEMO INTERIOR ELEVATIONS ALT. #2	E113	105 LIGHTING PLAN
AD213	105 DEMO INTERIOR ELEVATIONS ALT. #1	E114	126 LIGHTING PLAN
AD214	126 DEMO INTERIOR ELEVATIONS ALT. #3	E620	LUMINARES & LIGHTING EQUIPMENT SCHEDULES
A-111	101/102 FLOOR PLAN	TECHNOLOGY	
A-112	103 FLOOR PLAN ALT. #2	T001	TECHNOLOGY INFORMATION
A-115	103 SLAB PLAN	T111	101/102 TECHNOLOGY PLANS
A-113	105 FLOOR PLAN ALT. #1	T112	103 TECHNOLOGY PLAN
A-135	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 CABLEING SCHEDULES
A-134	126 FINISH FLOOR PLAN ALT. #3	FX003	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 100 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 CONTRACTOR TO FOLLOW THE INSTRUCTIONS AND SPECIFICATIONS, 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. ALL 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, QUALIFICATIONS, ETC., 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 RELOCATE 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.

GENERAL CONDITIONS

- 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 "TYPICAL" (TYP) WHEREVER 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 PROVIDE 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 CONSTRUCTION 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.

PROJECT INFORMATION:

OWNER / DEVELOPER

STATE OF MONTANA - MONTANA STATE UNIVERSITY
UNIVERSITY FACILITIES MANAGEMENT,
MANAGED BY PLANNING, DESIGN, & CONSTRUCTION
PLANNING, DESIGN, & CONSTRUCTION
PO BOX 172700
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 59701
EMAIL: PLANNINGTECH@BOZEMAN.NET
TEL: (406) 582-2260

DESIGN PROFESSIONALS

JACKOLA ENGINEERING & ARCHITECTURE, P.C.
2250 HWY 99 SOUTH
PO BOX 1134
BOZEMAN, MT 59703
EMAIL: ANDY.M@BLACKSHEEP.ENGINEERING
TEL: (406) 551-3669

ARCHITECT: CHELSEA HOLLING, AIA

ELECTRICAL & PLUMBING ENGINEER:
BLACKSHEEP
602 WEST HEMLOCK 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: (496)582-1936

REVISIONS:

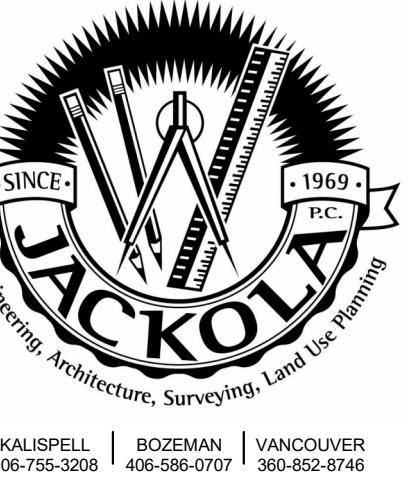
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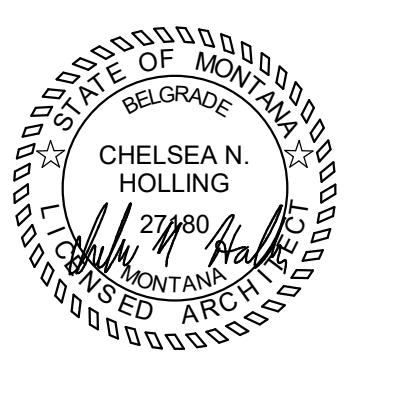
REVISIONS:

PROJECT NUMBER:

REVISIONS:



KALISPELL 406-755-3208 BOZEMAN 406-586-0707 VANCOUVER 360-852-8746
info@jackola.com jackola.com



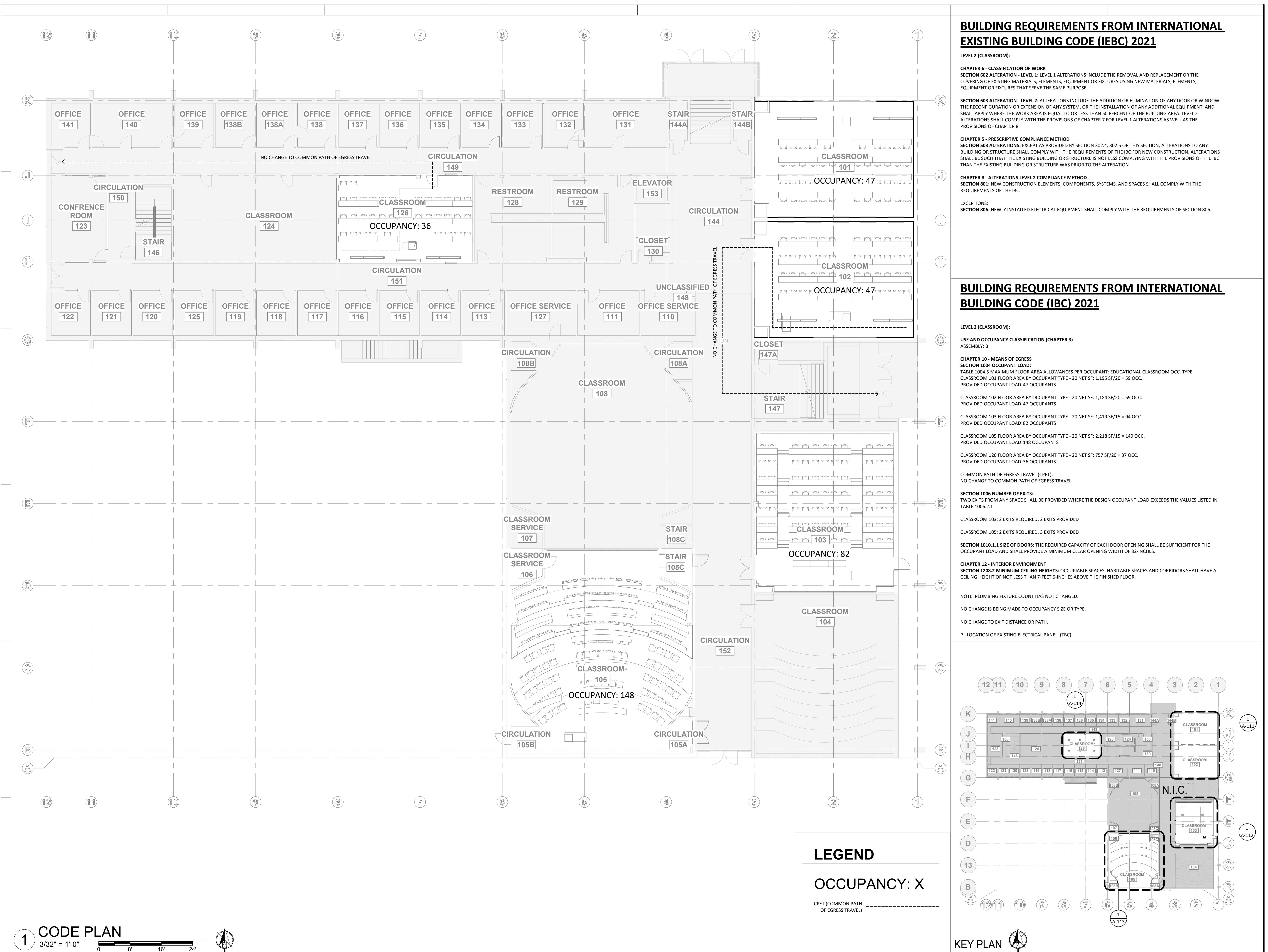
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REID HALL CLASSROOM RENOVATION

MONTANA STATE UNIVERSITY

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





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WITHOUT THE WRITTEN CONSENT OF

ABBREVIATIONS

AFF	ABOVE FINISH FLOOR	FOS	FACE OF STUDS	MATL	MATERIAL																																																																																																																																																																																																																																																												
ACT	ACOUSTICAL CEILING TILE	FIN	FINISH	MAX	MAXIMUM																																																																																																																																																																																																																																																												
ADJ	ADJUSTABLE	FF	FINISH FLOOR	MECH	MECHANICAL, MECHANICAL ROOM																																																																																																																																																																																																																																																												
AB	ANCHOR BOLT	FEC	FIRE EXTINGUISHER/AND OR CABINET	MTL	METAL																																																																																																																																																																																																																																																												
ALUM	ALUMINUM	FL	FLASHING	MIN	MINIMUM																																																																																																																																																																																																																																																												
ALT	ALTERNATE	FLR	FLOOR	MIRR	MIRROR																																																																																																																																																																																																																																																												
ANOD	ANODIZED	FD	FLOOR DRAIN	MISC	MISCELLANEOUS																																																																																																																																																																																																																																																												
APPROX	APPROXIMATE	FT	FOOT, FEET	N																																																																																																																																																																																																																																																													
ARCH	ARCHITECT	FTG	FOOTING	NOM	NOMINAL																																																																																																																																																																																																																																																												
B		FND	FOUNDATION	N	NORTH																																																																																																																																																																																																																																																												
BSMT	BASEMENT	FURN	FURNITURE	NA	NOT APPLICABLE																																																																																																																																																																																																																																																												
BATH	BATHROOM	FUT	FUTURE	NIC	NOT IN CONTRACT																																																																																																																																																																																																																																																												
BM	BEAM	FBO	FURNISHED BY OTHERS	NTS	NOT TO SCALE																																																																																																																																																																																																																																																												
BRG	BEARING	FRP	FIBER REINFORCED PANEL	NO	NUMBER																																																																																																																																																																																																																																																												
BEDRM	BEDROOM	G																																																																																																																																																																																																																																																															
BET	BETWEEN	GA	GAUGE	O																																																																																																																																																																																																																																																													
BLDG	BUILDING	GALV	GALVANIZED	OC	ON CENTER																																																																																																																																																																																																																																																												
BO	BOTTOM OF	GEN	GENERAL	OFF	OFFICE																																																																																																																																																																																																																																																												
BOT	BOTTOM	GL	GLASS	OPG	OPENING																																																																																																																																																																																																																																																												
BN	BOUNDARY NAILING	GWB	GYPSUM WALL BOARD	OPP	OPPOSITE																																																																																																																																																																																																																																																												
BS	BOTH SIDES	GYPC	GYPCRETE	OD	OUTSIDE DIAMETER																																																																																																																																																																																																																																																												
C						H																																																																																																																																																																																																																																																											
CPT	CARPET	HALL	HALLWAY	OF	OUTSIDE FACE																																																																																																																																																																																																																																																												
CLG	CEILING	HDW	HARDWARE	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED																																																																																																																																																																																																																																																												
CT	CERAMIC TILE	HVAC	HEATING, VENTILATING, & AIR CONDITIONING	OFOI	OFWNER FURNISHED OWNER INSTALLED																																																																																																																																																																																																																																																												
CLR	CLEAR	HT	HEIGHT	O/O	OUT TO OUT																																																																																																																																																																																																																																																												
CLST	CLOSET	HM	HOLLOW METAL	P																																																																																																																																																																																																																																																													
COL	COLUMN	HORIZ	HORIZONTAL	PNT	PAINT, PAINTED																																																																																																																																																																																																																																																												
CONC	CONCRETE	HWT	HOT WATER TANK	PNL	PANEL																																																																																																																																																																																																																																																												
CONST	CONSTRUCTION	HR	HOUR	PH	PHASE																																																																																																																																																																																																																																																												
CONT	CONTINUOUS	I																																																																																																																																																																																																																																																															
CONTR	CONTRACT, CONTRACTOR	IBC	INTERNATIONAL BUILDING CODE	PLAS	PLASTIC																																																																																																																																																																																																																																																												
CORR	CORRIDOR	INCL	INCLUDE, INCLUDED (ING)	P-LAM	PLASTIC LAMINATE																																																																																																																																																																																																																																																												
CJ	CONTROL JOINT	INFO	INFORMATION	PL	PLATE																																																																																																																																																																																																																																																												
CMU	CONCRETE MASONRY UNIT	ID	INSIDE DIAMETER	PLYWD	PLYWOOD																																																																																																																																																																																																																																																												
CFCI	CONTACTOR FURNISHED CONTRACTOR INSTALLED	INSUL	INSULATE, INSULATION	PVC	POLYVINYL CHLORIDE																																																																																																																																																																																																																																																												
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DEMO	DEMOLISH, DEMOLITION	J																																																																																																																																																																																																																																																															
DTL	DETAIL	JAN	JANITOR	R																																																																																																																																																																																																																																																													
DIA	DIAMETER	JC	JANITOR'S CLOSET	RAD	RADIUS																																																																																																																																																																																																																																																												
DIM	DIMENSION	JT	JOINT	RWL	RAIN WATER LEADER																																																																																																																																																																																																																																																												
DW	DISHWASHER	K																																																																																																																																																																																																																																																															
DIV	DIVISION	KIT	KITCHEN	REF	REFERENCE																																																																																																																																																																																																																																																												
DL	DEAD LOAD	KO	KNOCK OUT	REINF	REINFORCE, REINFORCEMENT																																																																																																																																																																																																																																																												
DR	DOOR	L																																																																																																																																																																																																																																																															
DN	DOWN	LBL	LABEL	S																																																																																																																																																																																																																																																													
DS	DOWNSPOUT	LAM	LAMINATED	DWG	DRAWING	LNDRY	LAUNDRY	SCHED	SCHEDULE	DF	DRINKING FOUNTAIN	LAV	LAVATORY	SEC	SECTION	D	DRYER	LVL	LEVEL	SG	SAFETY GLASS	E		LL	LIVE LOAD	SHTG	SHEATHING	EA	EACH	LR	LIVING ROOM	SIM	SIMILAR	E	EAST	LOC'N	LOCATION	SOG	SLAB ON GRADE	ELEC	ELECTRIC	M						ELEV	ELEVATION, ELEVATOR	MFR	MANUFACTURER	S	SOUTH	EQ	EQUAL	MAS	MASONRY	SPEC	SPECIFICATION	EQUIP	EQUIPMENT	MO	MASONRY OPENING	SQ	SQUARE	EXIST	EXISTING	F						EXP	EXPANSION	FOB						EJ	EXPANSION JOINT	FOC						EXT	EXTERIOR	FOM						G						STL		H						STOR		I						STRUCT		J						STRUCTURAL		K						STUDS		L						STUDS		M						STUDS		N						STUDS		O						STUDS		P						STUDS		Q						STUDS		R						STUDS		S						STUDS		T						STUDS		U						STUDS		V						STUDS		W						STUDS		X						STUDS		Y						STUDS		Z						STUDS	
DWG	DRAWING	LNDRY	LAUNDRY	SCHED	SCHEDULE																																																																																																																																																																																																																																																												
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E	EAST	LOC'N	LOCATION	SOG	SLAB ON GRADE																																																																																																																																																																																																																																																												
ELEC	ELECTRIC	M																																																																																																																																																																																																																																																															
ELEV	ELEVATION, ELEVATOR	MFR	MANUFACTURER	S	SOUTH																																																																																																																																																																																																																																																												
EQ	EQUAL	MAS	MASONRY	SPEC	SPECIFICATION																																																																																																																																																																																																																																																												
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SYMBOLS USED AS ABBREVIATIONS

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		KEY NOTE
	SHEET WHERE ITEM IS CUT		DEMOLITION NOTE
	NORTH ARROW		FINISH TAG
	ROOM FINISH KEY		EQUIPMENT TAG
			ELEMENTS TO BE DEMOLISHED
			EXISTING TO REMAIN
			FLOOR TRANSITION

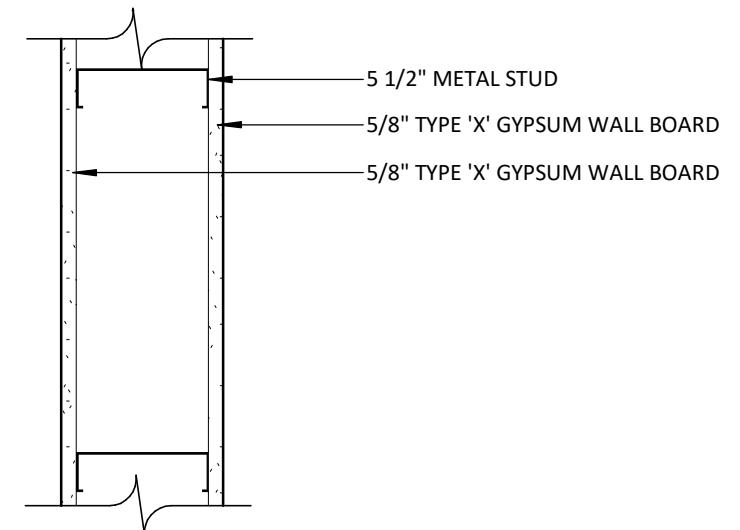
EL 1 DISCIPLINE DESIGNATOR	EL 2 DISCIPLINE DESIGNATOR	PLAN TYPE SEQUENCE NUMBER
		SHEET TYPE DESIGNATOR

*** NOTE ***

THE SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET
MAY OR MAY NOT BE USED IN THIS SET OF DRAWINGS.

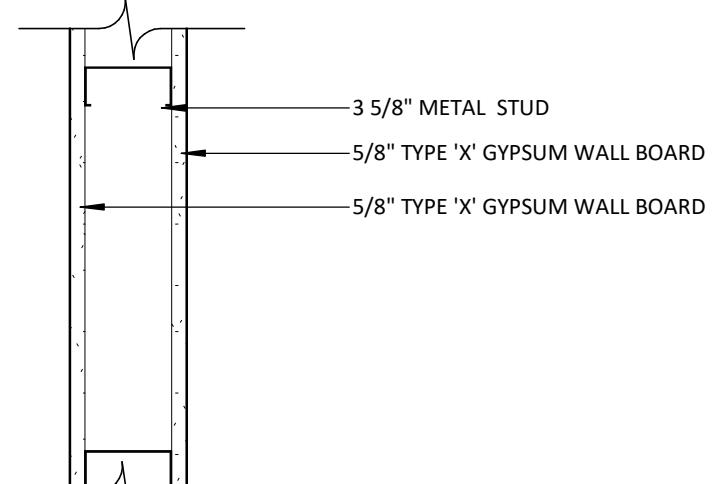
ARCHITECTURAL SHEET INDEX

-001	ARCHITECTURAL TITLE SHEET
D111	101/102 DEMO FLOOR PLAN
D112	103 DEMO FLOOR PLAN ALT. #2
D113	105 DEMO FLOOR PLAN ALT. #1
D114	126 DEMO FLOOR PLAN ALT. #3
D121	101/102 DEMO REFLECTED CEILING PLAN
D122	103 DEMO REFLECTED CEILING PLAN ALT. #2
D123	105 DEMO REFLECTED CEILING PLAN ALT. #1
D124	126 DEMO REFLECTED CEILING PLAN ALT. #3
D211	101/102 DEMO INTERIOR ELEVATIONS
D212	103 DEMO INTERIOR ELEVATIONS ALT. #2
D213	105 DEMO INTERIOR ELEVATIONS ALT. #1
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-111	101/102 FLOOR PLAN
-112	103 FLOOR PLAN ALT. #2
-112S	103 SLAB PLAN
-113	105 FLOOR PLAN ALT. #1
-113S	105 SLAB PLAN
-114	126 FLOOR PLAN ALT. #3
-121	101/102 REFLECTED CEILING PLAN
-122	103 REFLECTED CEILING PLAN ALT. #2
-123	105 REFLECTED CEILING PLAN ALT. #1
-124	126 REFLECTED CEILING PLAN ALT. #3
-131	101/102 FINISH FLOOR PLAN
-132	103 FINISH FLOOR PLAN ALT. #2
-133	105 FINISH FLOOR PLAN ALT. #1
-134	126 FINISH FLOOR PLAN ALT. #3
-211	101/102 INTERIOR ELEVATIONS
-212	103 INTERIOR ELEVATIONS ALT. #2
-213	105 INTERIOR ELEVATIONS ALT. #1
-214	126 INTERIOR ELEVATIONS ALT. #3
-215	126 INTERIOR ELEVATIONS ALT. #4
-521	FINISH DETAILS
-601	DOOR AND WINDOW SCHEDULES



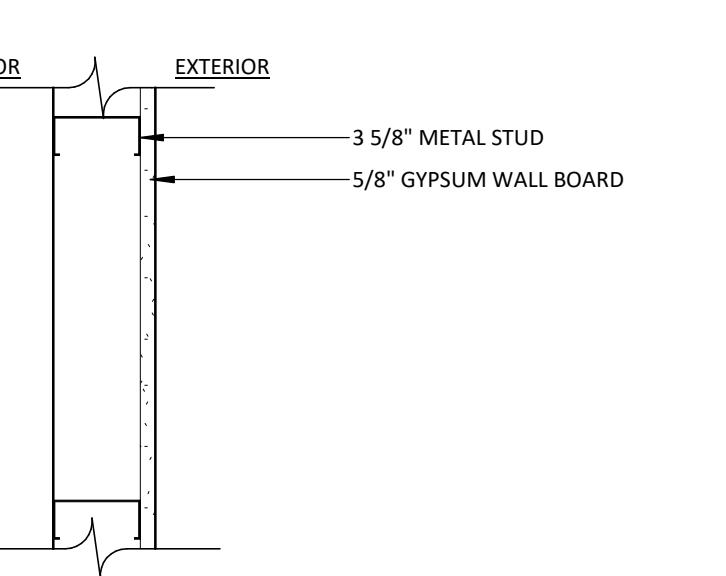
B 1 2X6 INTERIOR WALL

B.1 SCALE: 1 1/2" = 1'



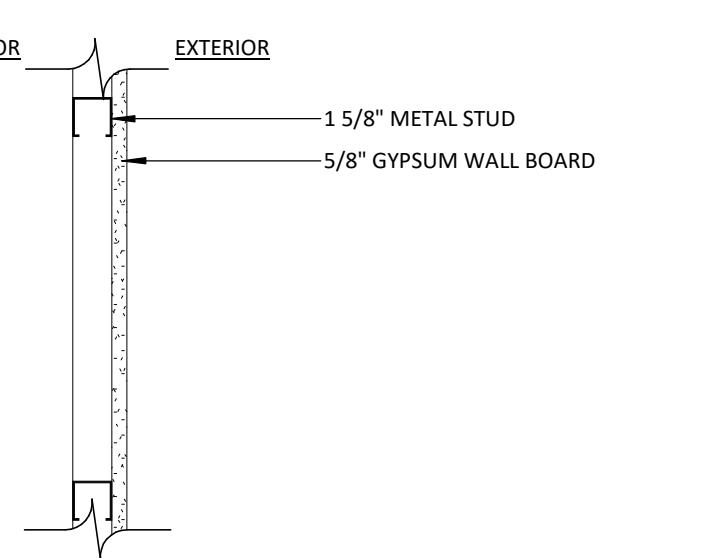
B 2 2X4 INTERIOR WALL

B.Z SCALE: 1 1/2" = 1'



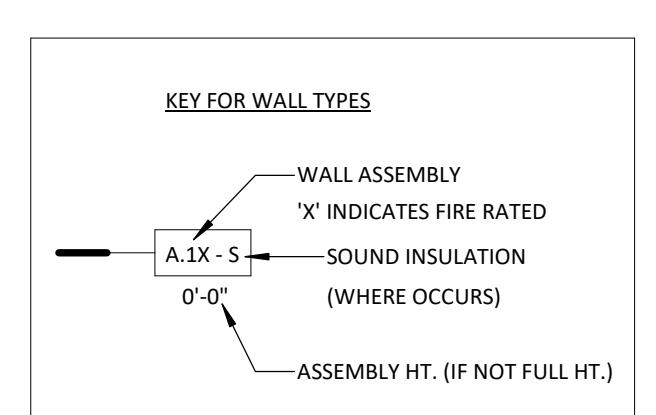
F.1 2X4 FURRED WALL

SCALE: 1 1/2" = 1



5.6 2X4 FURRED WALL

F.2 EXHIBIT



REID HALL CLASSROOM RENOVATION MONTANA STATE UNIVERSITY

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

ARCHITECTURAL TITLE SHEET

A-001

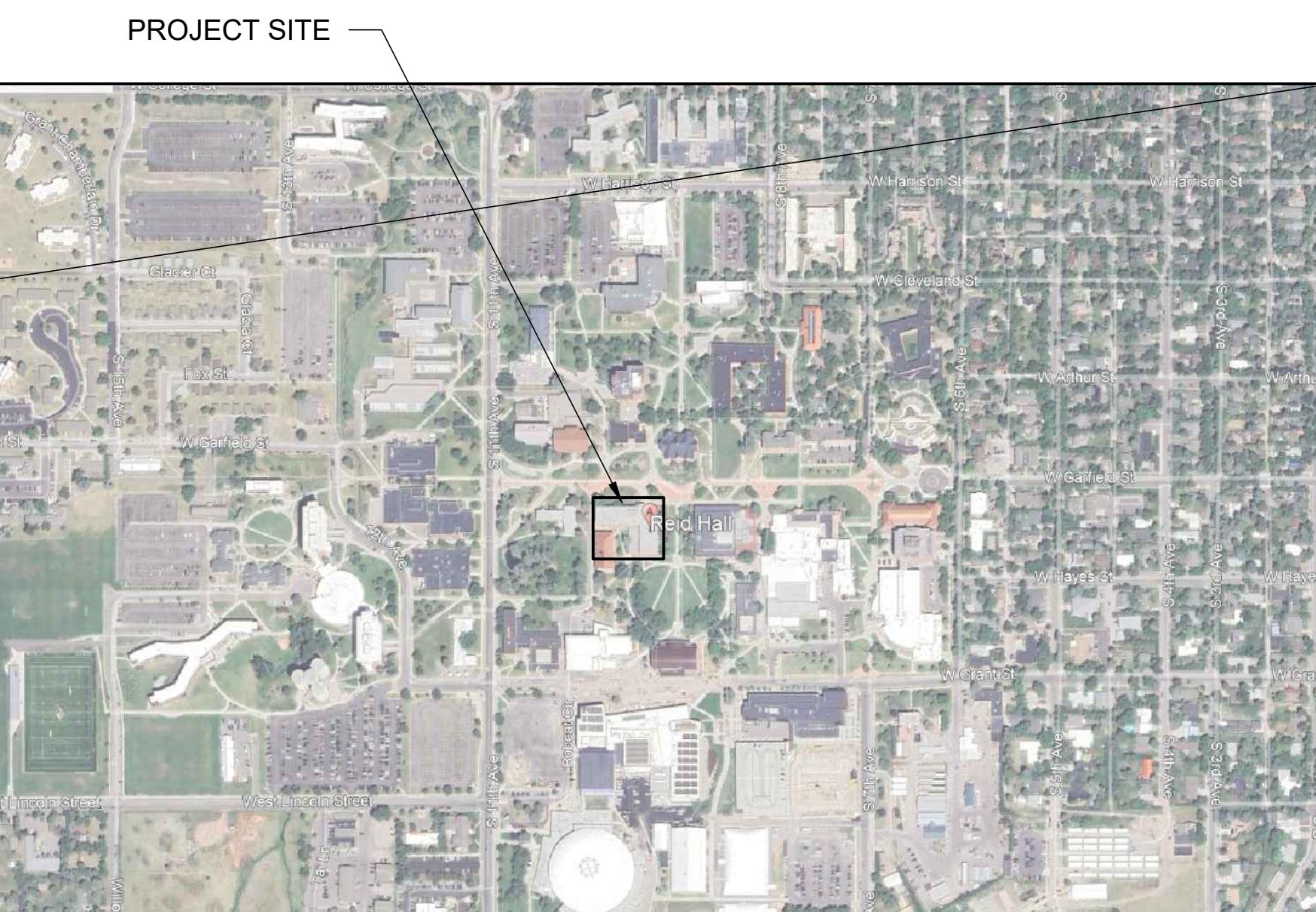
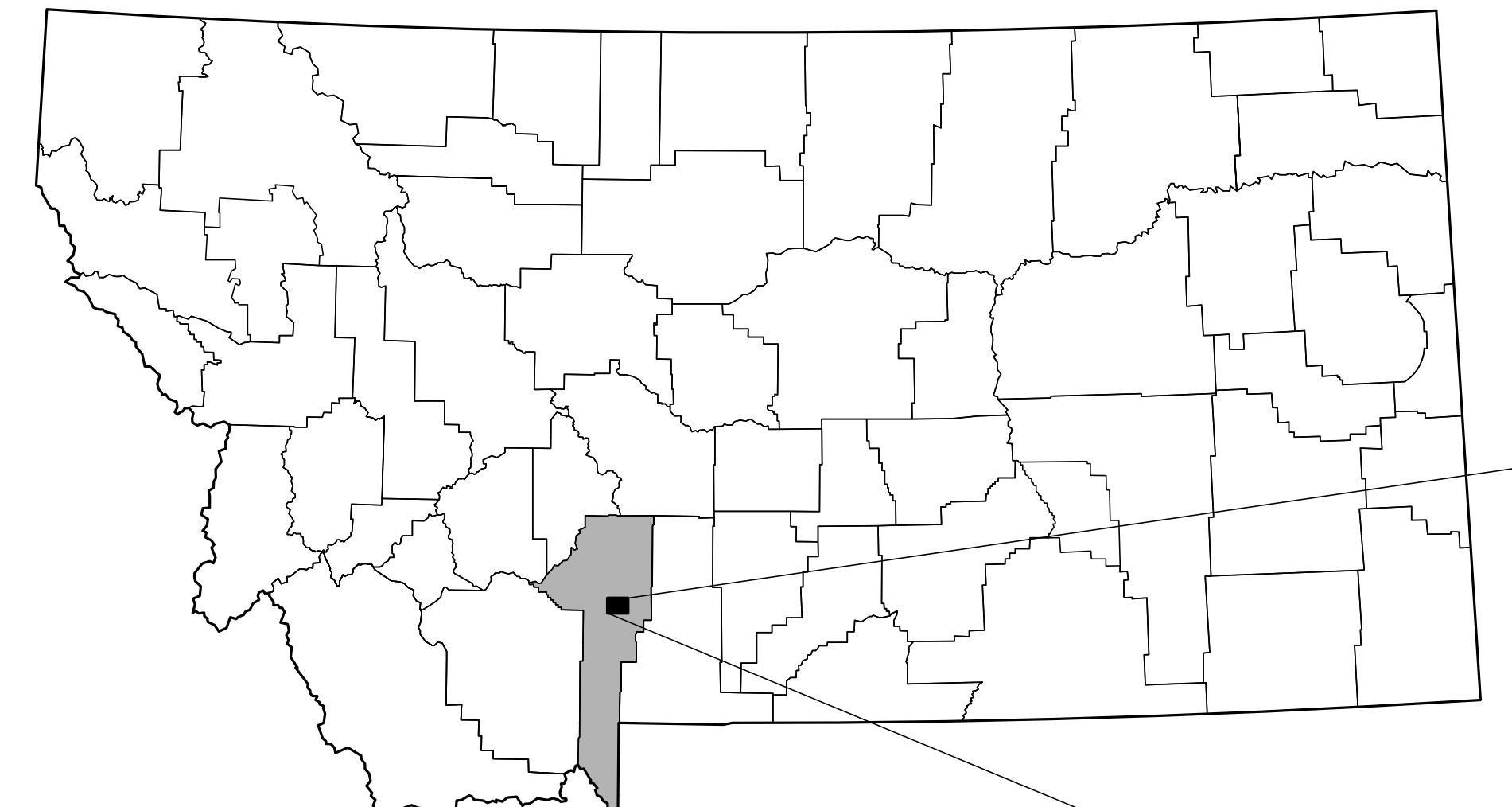
PROJECT #:Project Number

REM01 – GENERAL NOTES:

1. 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.
2. 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.
3. 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.
4. 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.
5. Prior to initiation of the scope of work, AC 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.
6. 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.
7. 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.
8. 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.
9. 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.
10. 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.
11. 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.
12. 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.
13. 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.
14. 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.
15. 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.
16. 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.
17. 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.
18. 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.
19. 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 uncleared.
20. 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.
21. 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.
22. "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 $\leq 0.01 \text{ f/c}$ for all asbestos clearance samples from a given PCM air sampling event; and airborne asbestos concentrations $\leq 70 \text{ S/mm}^2$ 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; $< 5 \text{ \mu g/f}^2$ lead for floor wipe samples; $< 40 \text{ \mu g/f}^2$ lead for window sill wipe samples; and $< 100 \text{ \mu g/f}^2$ 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.
23. 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.

BOZEMAN, GALLATIN COUNTY, MONTANA

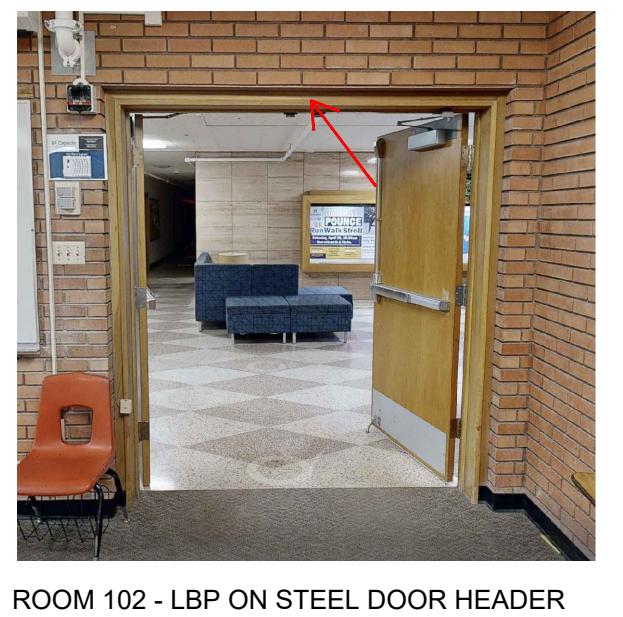
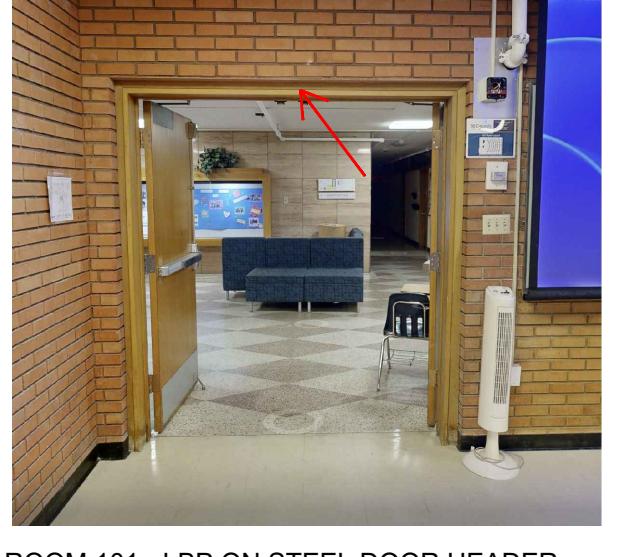
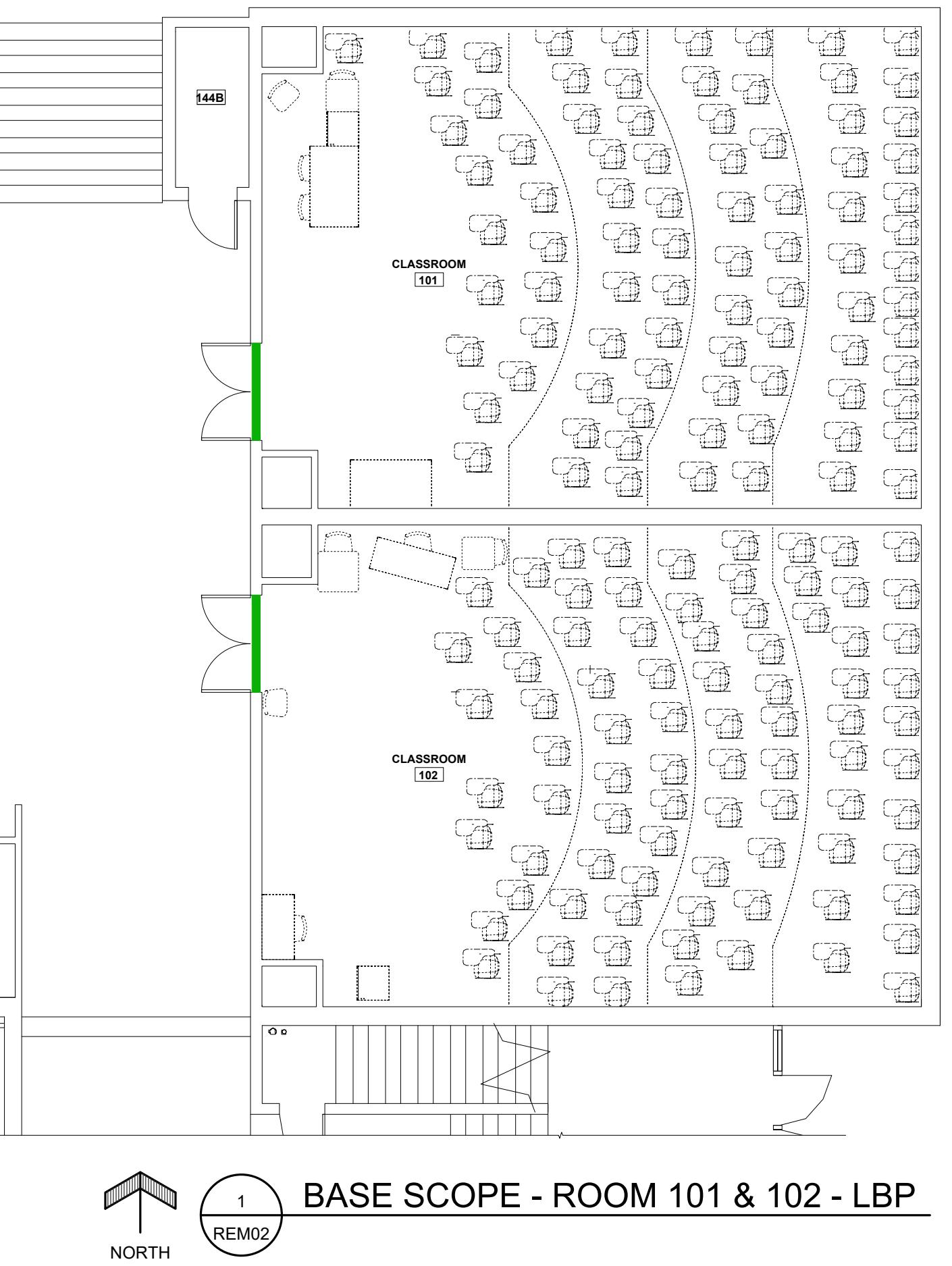
PREPARED BY: AIR WATER SOIL, LLC 1321 8TH AVENUE NORTH, SUITE 104 GREAT FALLS, MONTANA 59401 CONTACT: J. SCOTT VOSEN 406.315.2201	APPROVED BY (PROJECT OWNER): MONTANA STATE UNIVERSITY UNIVERSITY FACILITIES MANAGEMENT PLANNING, DESIGN & CONSTRUCTION P.O. BOX 172760 BOZEMAN, MONTANA 59717 CONTACT: ARA MESKIMEN 406.994.3230	PROPERTY OWNER: MONTANA STATE UNIVERSITY P.O. BOX 172760 BOZEMAN, MONTANA 59717
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12.17.2025
25020-T2
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.



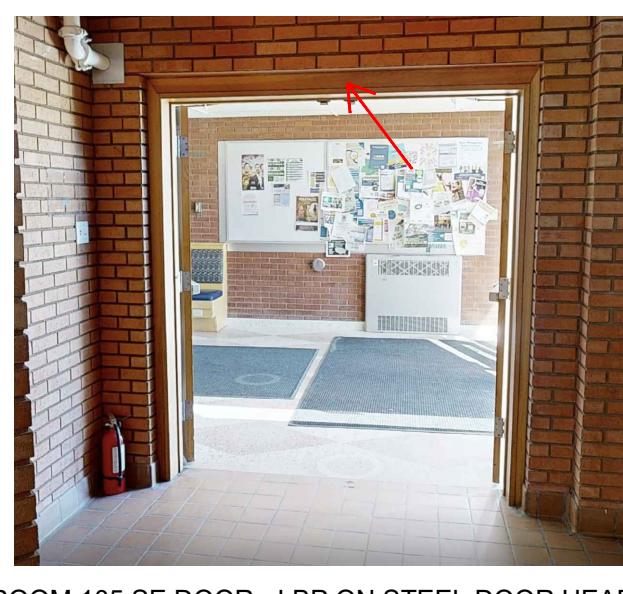
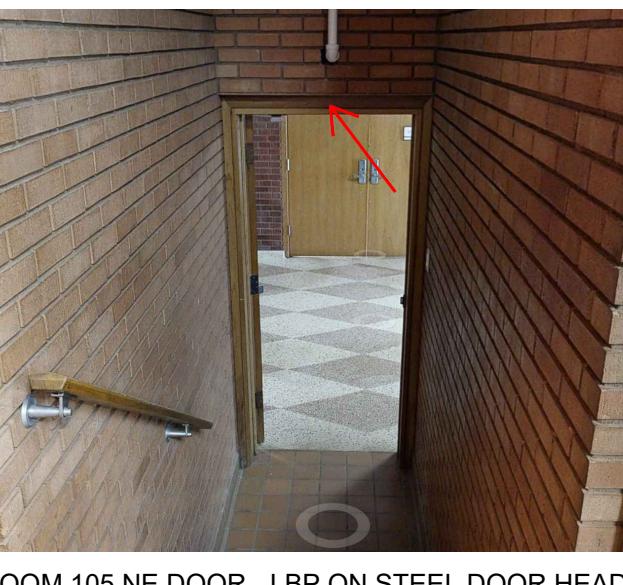
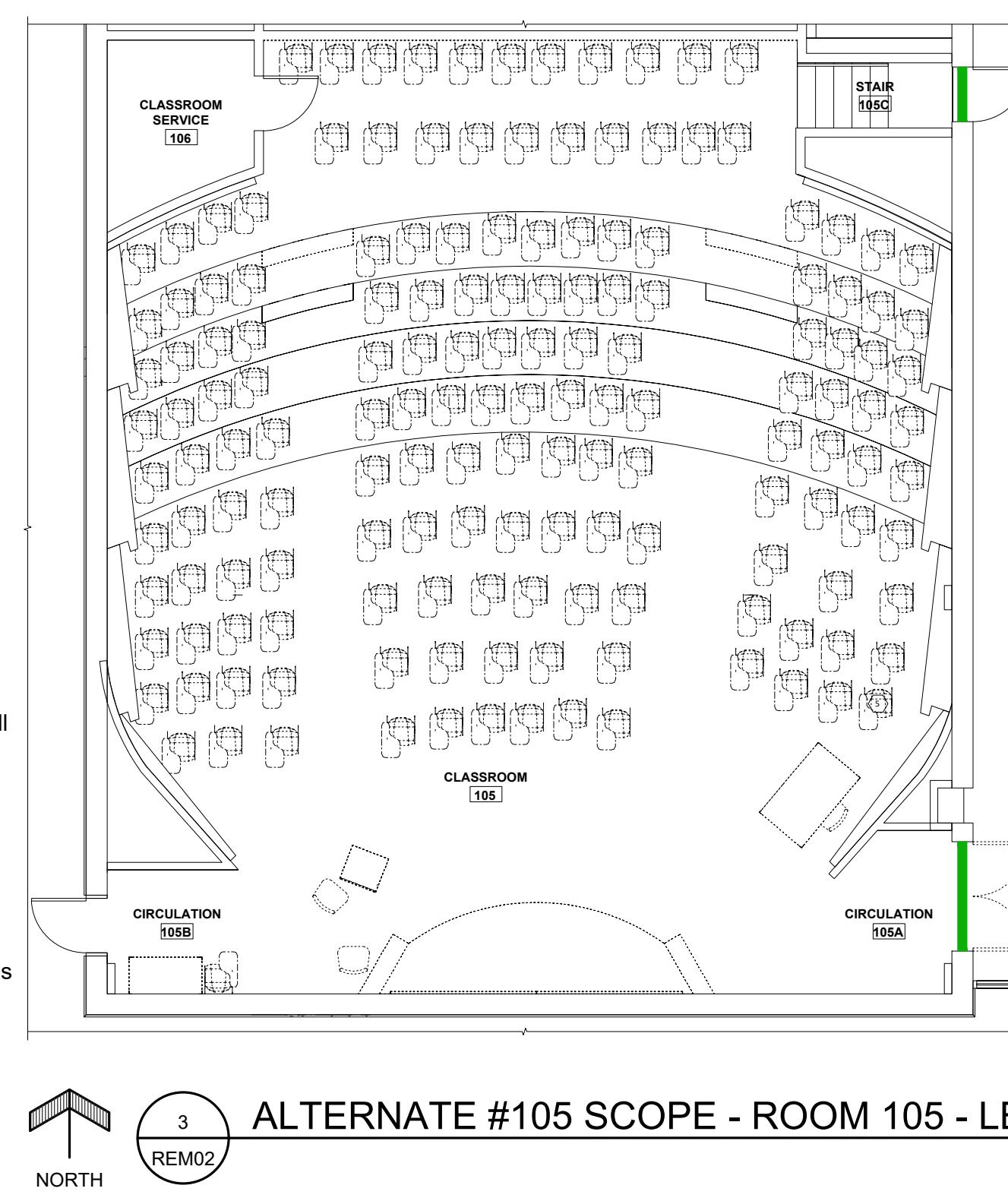
REM02 - DETAIL 1 - BASE SCOPE - ROOMS 101 + 102 - LBP NOTES:

- 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.

BASE SCOPE - ROOM 101 & 102 - 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.



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.

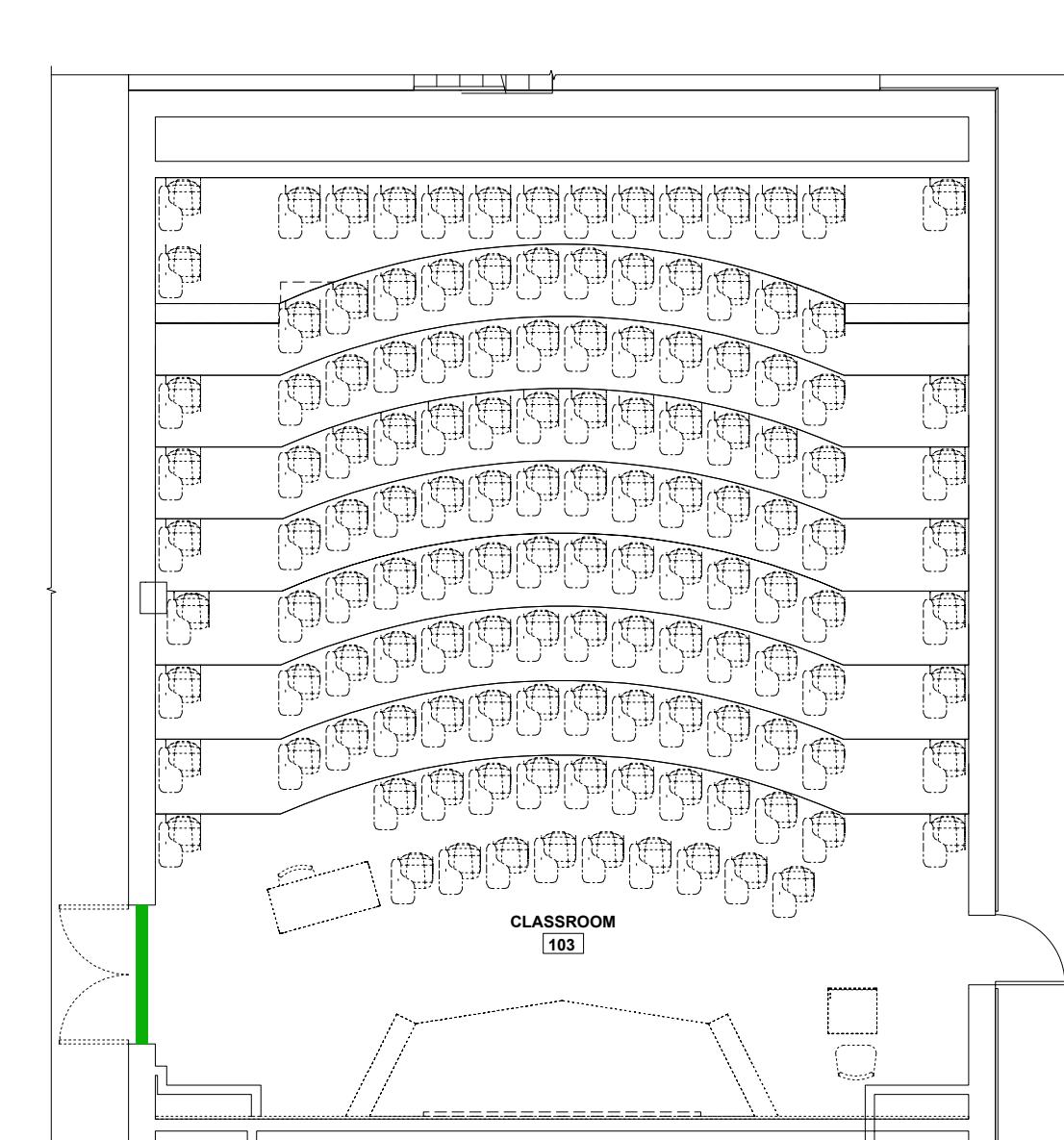
ALTERNATE #105 SCOPE - ROOM 105 - LBP

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.

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.



ALTERNATE #103 SCOPE - ROOM 103 - LBP



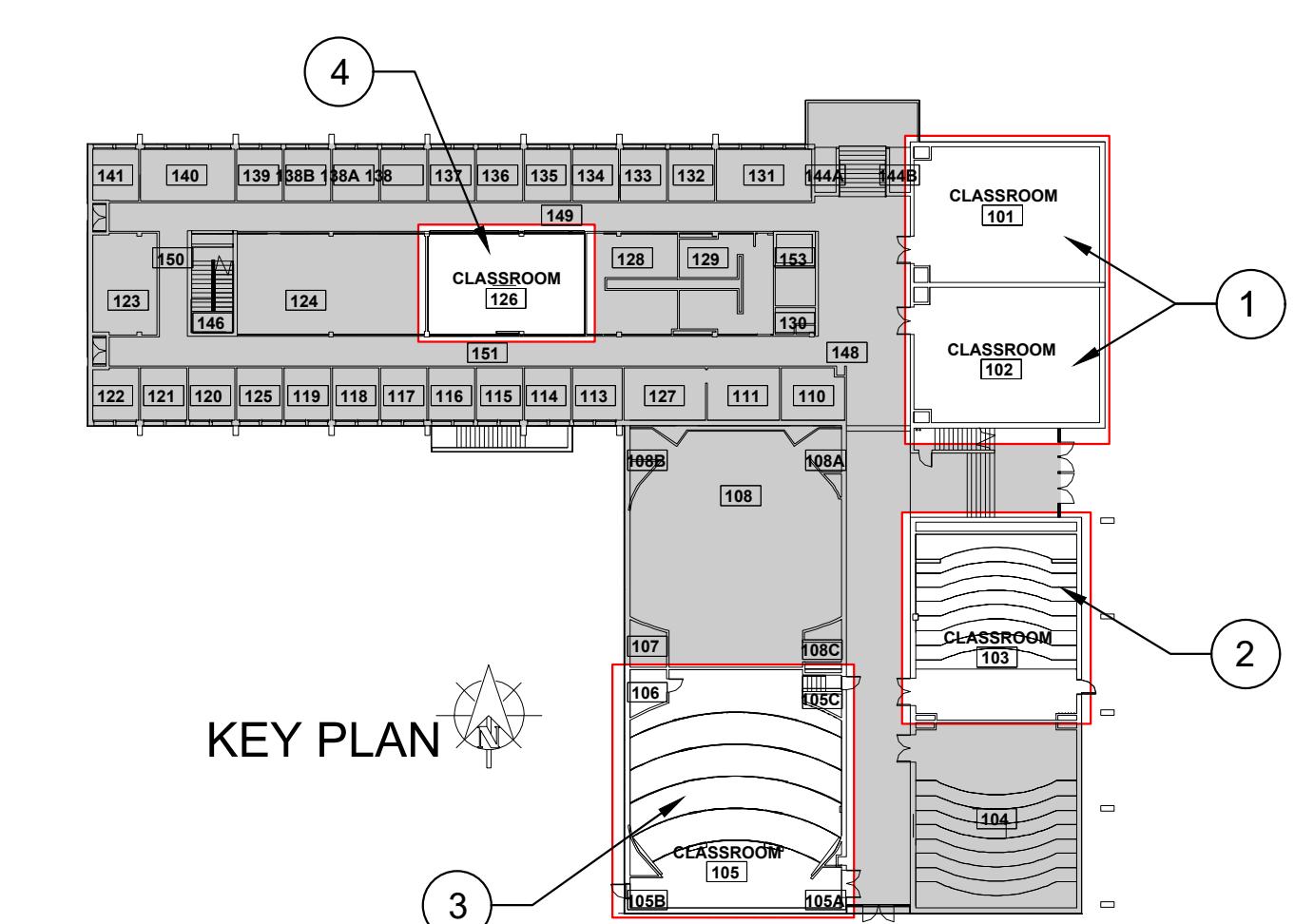
ROOM 126 - ACM FLOOR TILES
(AND UNDERLYING MASTIC)
IN ADJACENT HALLWAY

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

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/I 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.

ALTERNATE #126 SCOPE - ROOM 126 - ACM



12.17.2025
25020-T2

DRAWN BY
DRESCH
CHECKED BY
NSV

ASBESTOS
AND LBP
REMEDIATION

FIGURE
REM02



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PPA#: 25-1214

101/102 DEMO FLOOR PLAN

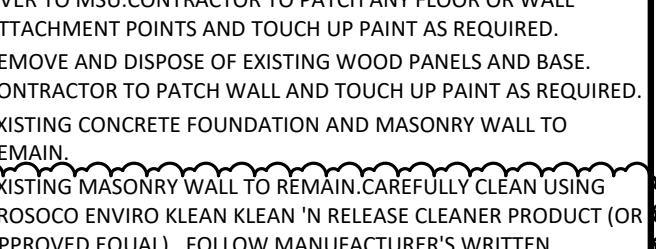
AD11

GENERAL DEMO PLAN NOTES:

- A. SEE 6-921 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 VERIFY AND PROVIDE CONCEALED SHIMS, ETC. AS NECESSARY TO MAKE NEW WORK LEVEL AND PLUMB, UNLESS SPECIFICALLY NOTED OTHERWISE.

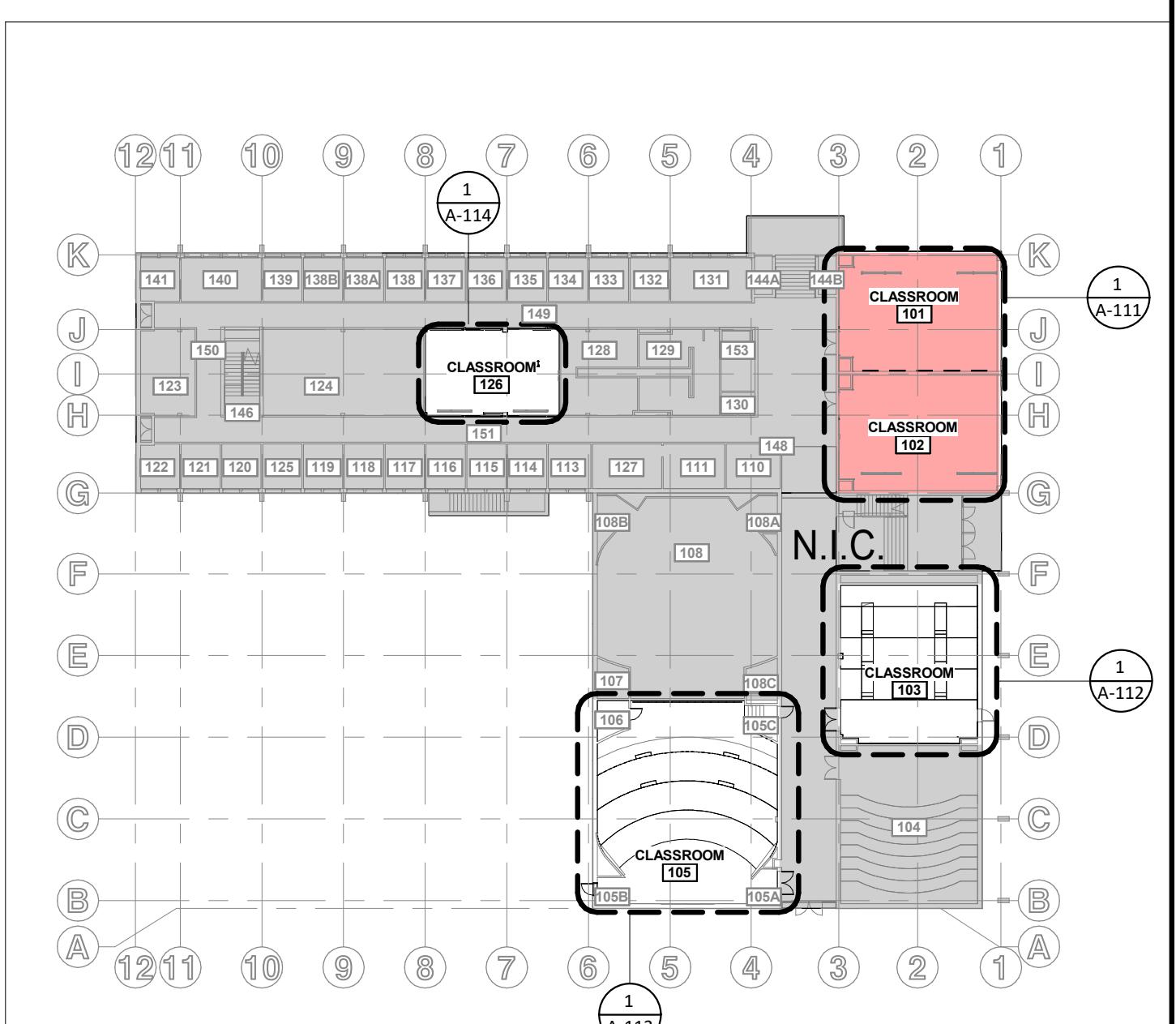
DEMO FLOOR PLAN KEYNOTES 101/102

- 1 CAREFULLY REMOVE EXISTING RAISED PLATFORMS, INCLUDING FINISHES, SUPPORTS, AND ANCHORING METHODS. IN ITS ENTIRETY. ENSURE NO ADDITIONAL DAMAGE TO THE ADJACENT MATERIAL OCCURS.
- 2 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.
- 3 REMOVE AND DISPOSE OF EXISTING WOOD PANELS AND BASE. CONTRACTOR TO PATCH WALL AND TOUCH UP PAINT AS REQUIRED.
- 4 EXISTING CONCRETE FOUNDATION AND MASONRY WALL TO REMAIN.
- 5 EXISTING MASONRY WALL TO REMAIN. CAREFULLY CLEAN USING PROSOCO ENVIR 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.
- 6 REMOVE EXISTING FINISH FLOORING AND BASE, SALVAGE AND HAND OVER TO MSU. CONTRACTOR TO PATCH WALL AND TOUCH UP PAINT AS REQUIRED.
- 7 REMOVE EXISTING FINISH FLOORING AND BASE, RECYCLE WHERE POSSIBLE, DISPOSE OTHERWISE.
- 8 PODIUM TO BE REMOVED AND REUSED. MSU TO REMOVE AND STORE PRIOR TO START OF CONSTRUCTION.

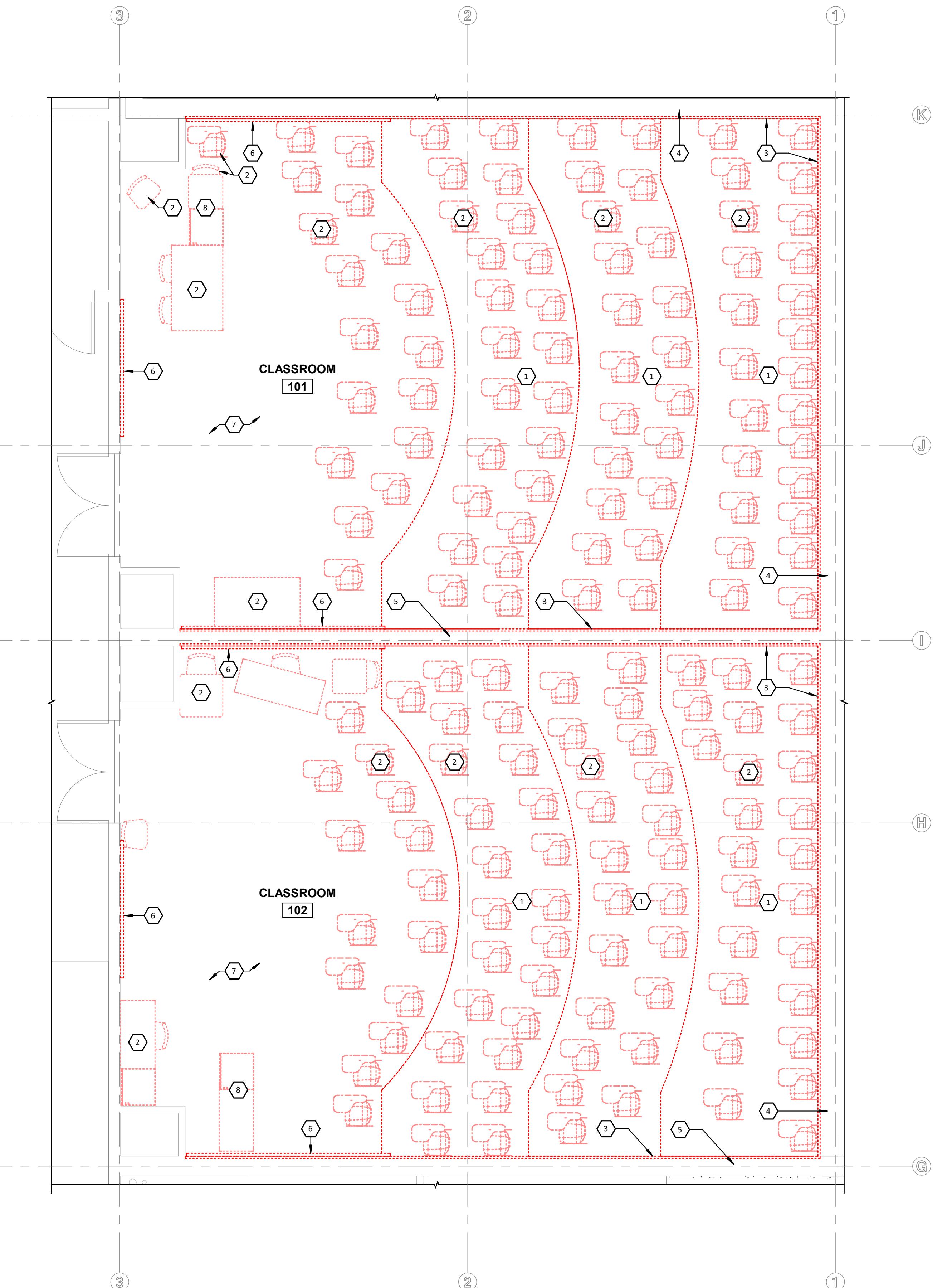


BID SET

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KEY PLAN



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

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

REVISIONS:
A ADDENDUM #1 01/21/26

101/102 DEMO FLOOR PLAN

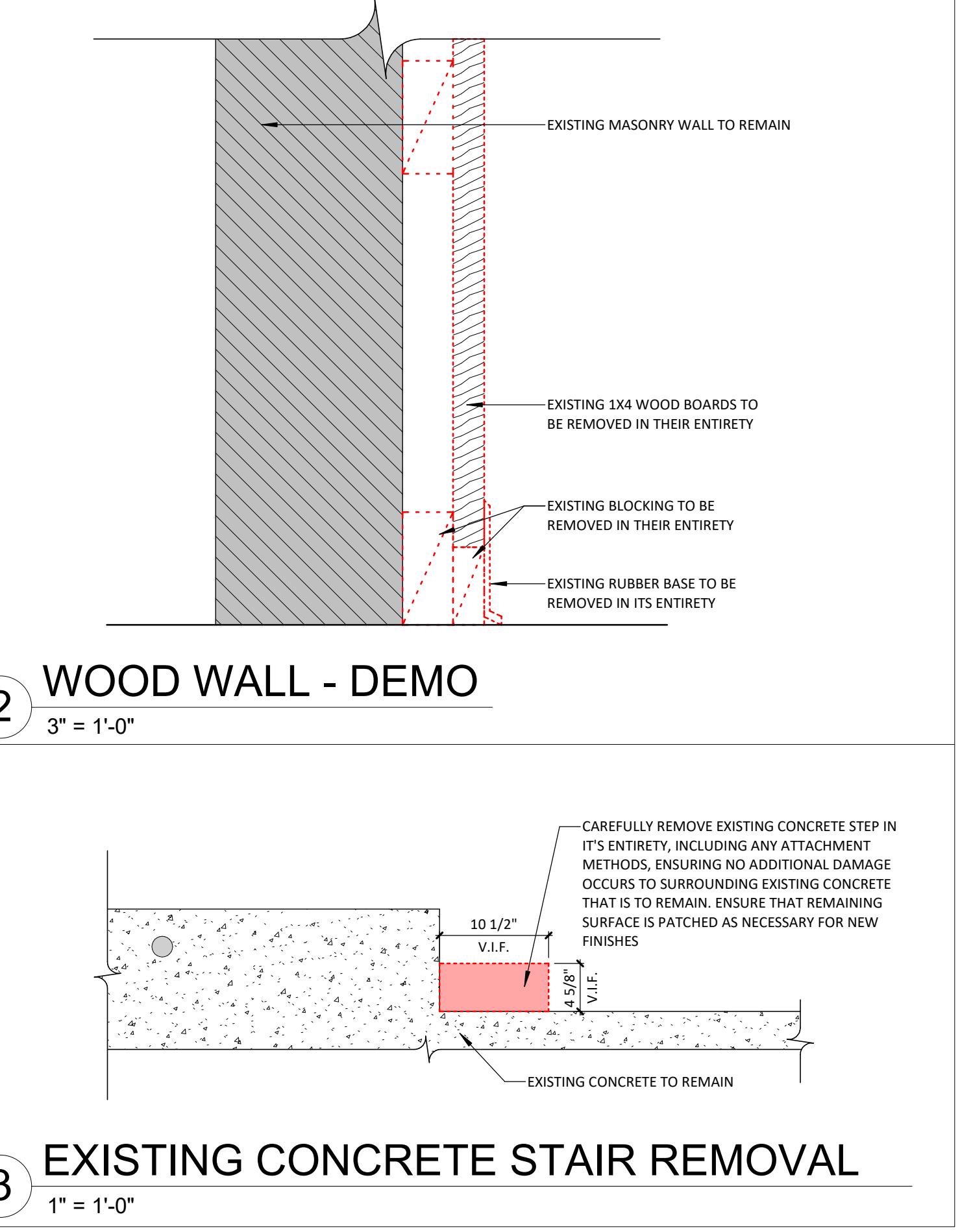
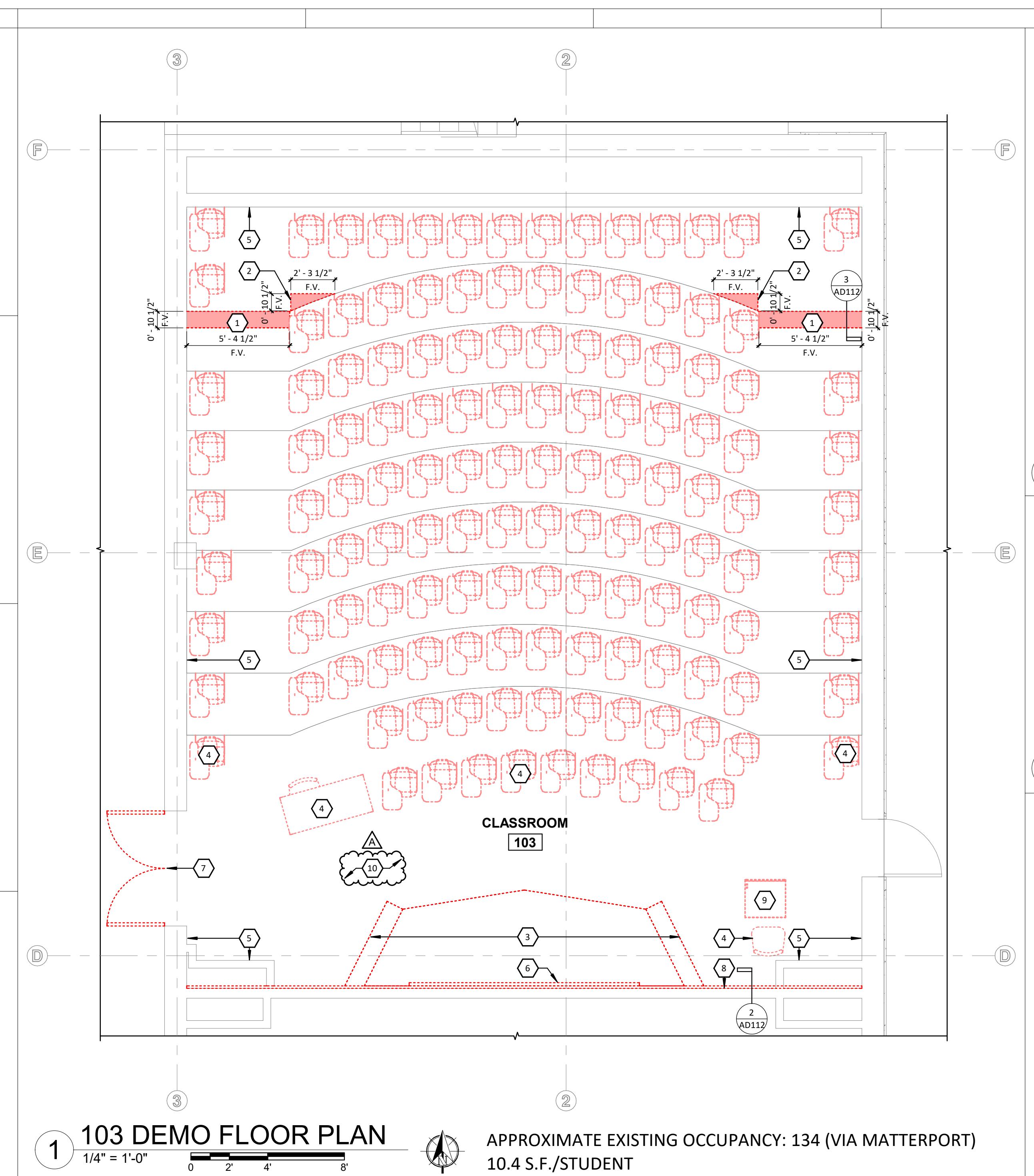
AD11



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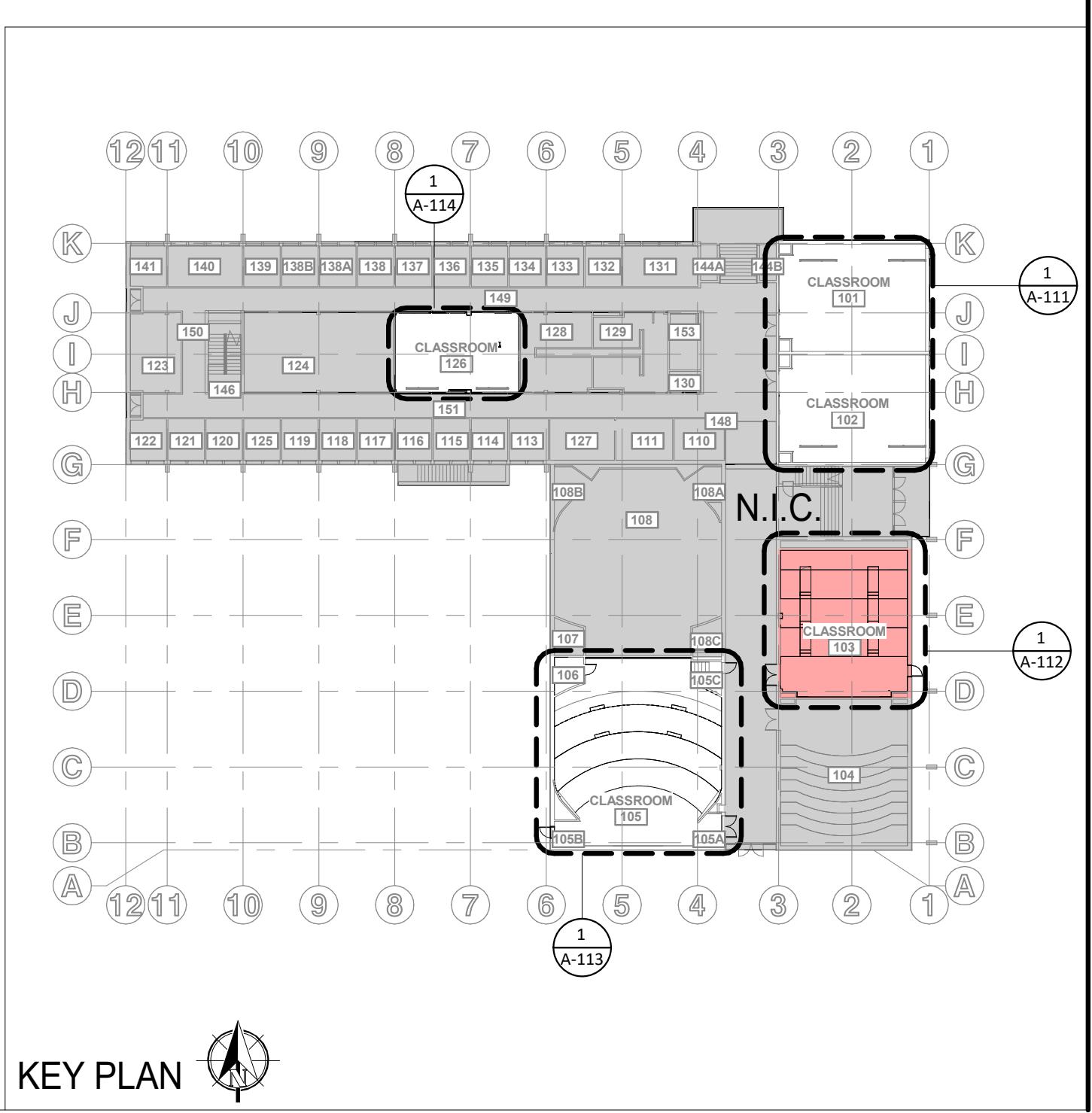


GENERAL DEMO PLAN NOTES:

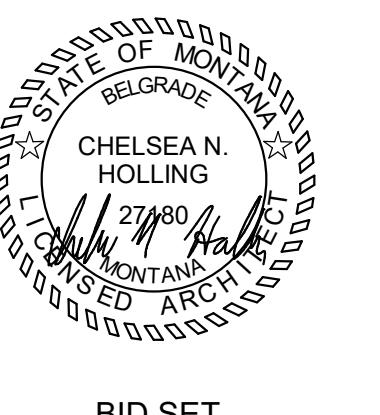
- A. SEE 6-901 PROJECT TITLE SHEET FOR GENERAL NOTES.
- B. PROTECT EXISTING BUILDING OUTSIDE OF THIS SCOPE OF WORK AT ALL TIMES.
- C. SEE OTHER SHEETS IN THIS SET FOR ADDITIONAL INFORMATION.
- D. CONTRACTOR SHALL INCLUDE CUTTING AND PATCHING FOR ALL INSTANCES WHERE REQUIRED, WHETHER OR NOT SHOWN/INDICATED ON THESE CONSTRUCTION DOCUMENTS.
- E. THE EXISTING BUILDING MAY NOT BE LEVEL AND PLUMB. CONTRACTOR SHALL 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 PROSOCO 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



ENTIRE SHEET IS
ADD ALTERNATE #2

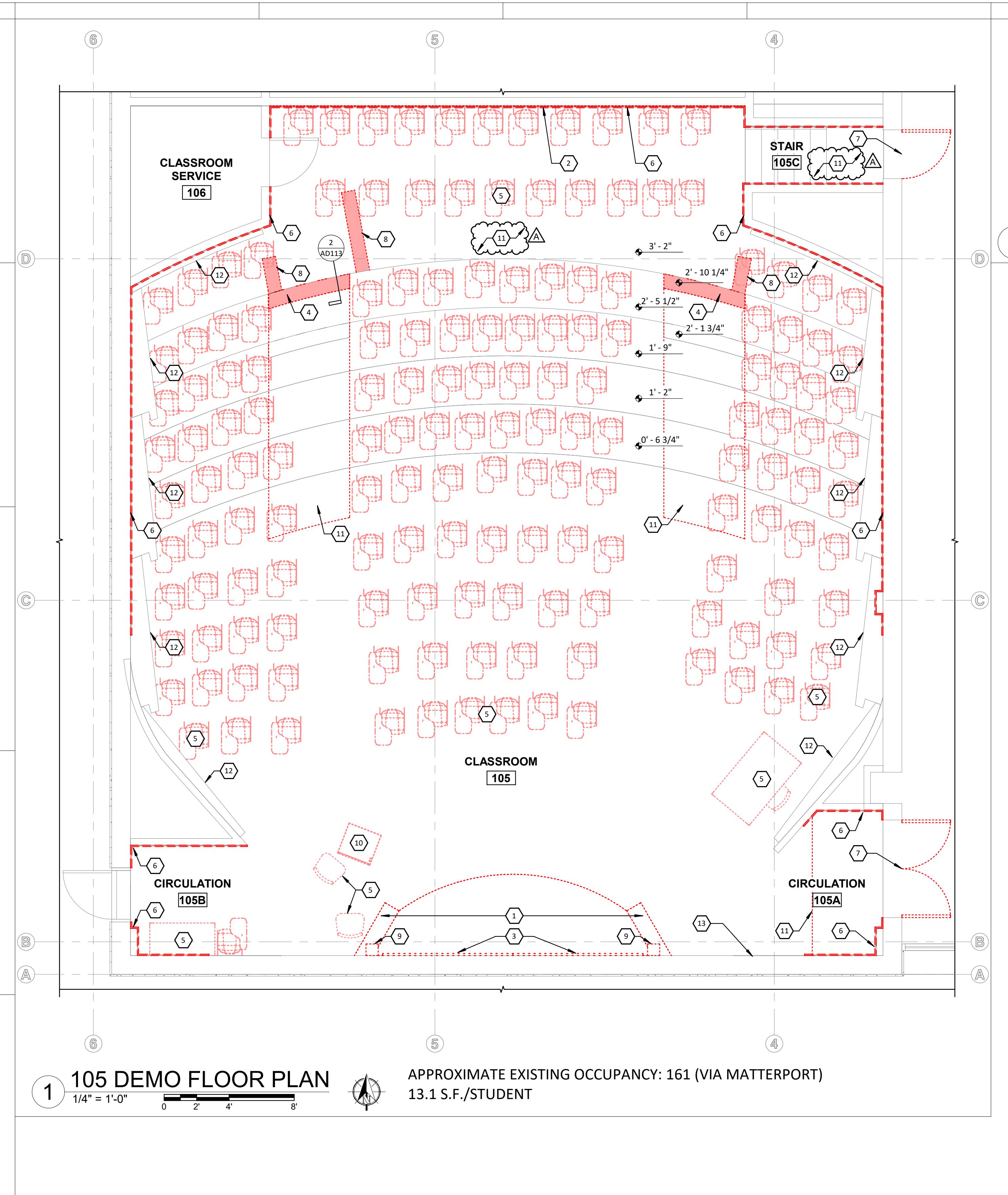


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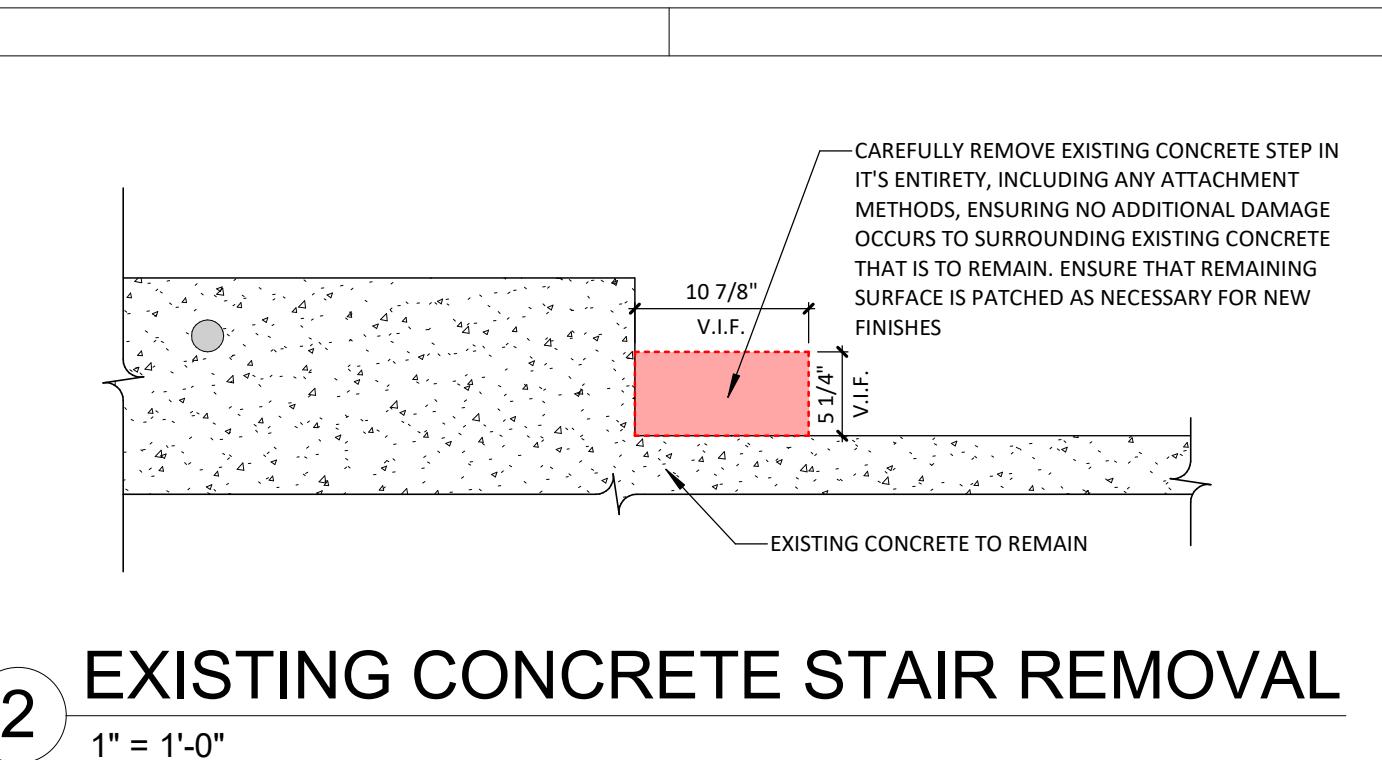
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ENTIRE SHEET IS
ADD ALTERNATE #1



EXISTING CONCRETE STAIR REMOVAL

1 REMOVE EXISTING AND DISPOSE OF WOOD TEACHING PLATFORM. CONTRACTOR TO PATCH ANY FLOOR OR WALL ATTACHMENT POINTS AS REQUIRED.

2 REMOVE EXISTING ACOUSTICAL WALL TREATMENT. PREP WALL FOR NEW WALL TREATMENT.

3 REMOVE EXISTING WHITE BOARDS, SALVAGE AND HAND OVER TO MSU. CONTRACTOR TO PATCH WALL AS REQUIRED.

4 DEMOLISH EXISTING CONCRETE RISER WHERE INDICATED, DEPTH 5 1/4" (F.V.). PREP FOR NEW CONCRETE RISERS. SEE 2/AD-113.

5 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.

6 REMOVE EXISTING TILE BASE AND PREP FOR NEW BASE.

7 REMOVE AND DISPOSE OF EXISTING DOOR AND HARDWARE.

8 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.

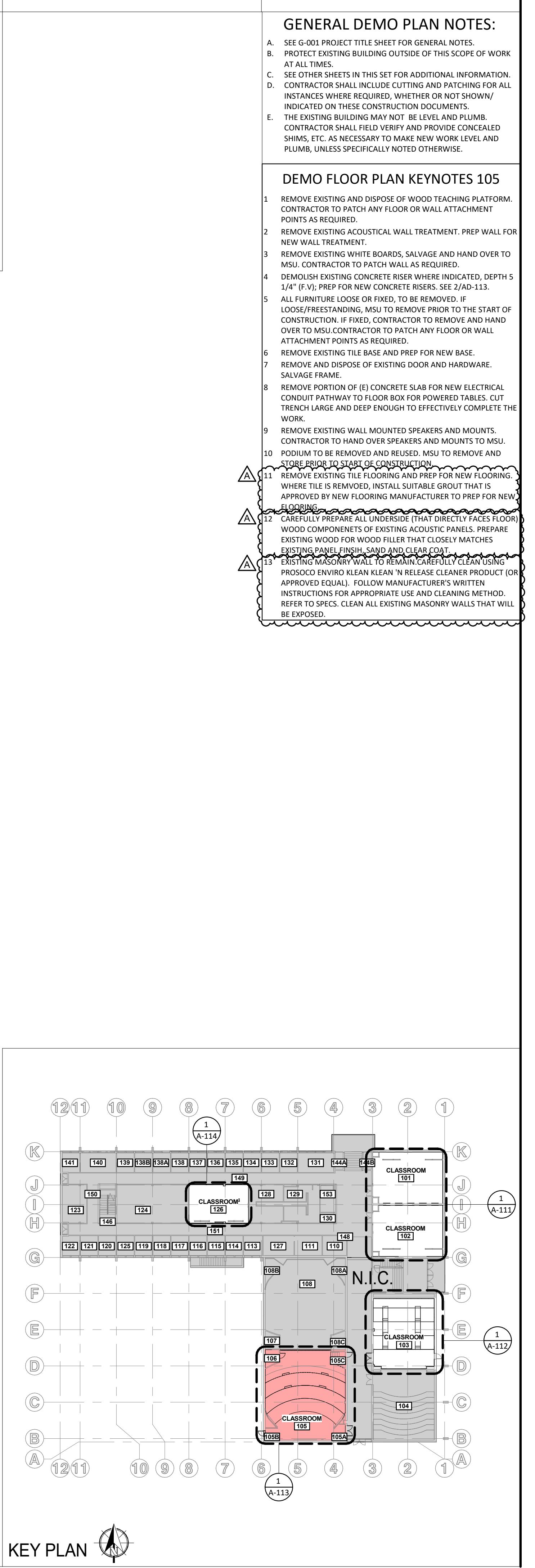
9 REMOVE EXISTING WALL MOUNTED SPEAKERS AND MOUNTS. CONTRACTOR TO HAND OVER SPEAKERS AND MOUNTS TO MSU.

10 POUR IN TO REMOVE AND REUSED. MSU TO REMOVE AND REUSE WHERE APPROPRIATE.

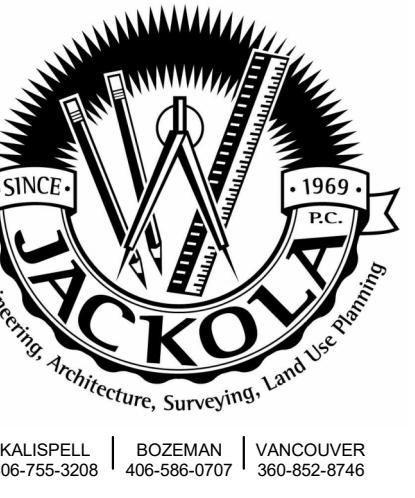
11 REMOVE EXISTING WOOD FLOORING. CONTRACTOR TO PREP FOR NEW FLOORING. WHERE TILE IS REMOVED, INSTALL SUITABLE GROUT THAT IS APPROVED BY NEW FLOORING MANUFACTURER TO PREP FOR NEW FLOORING.

12 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.

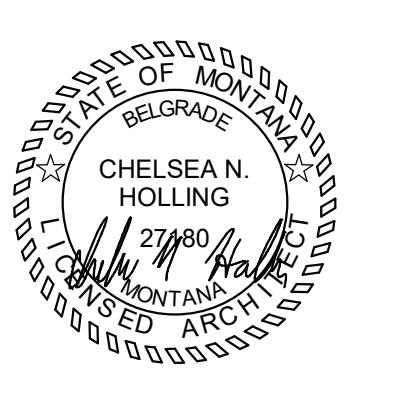
13 EXISTING MASONRY WALL TO REMAIN CAREFULLY CLEAN USING PROSOCO ENVIRO KLEAN 'N RELEASE CLEANER PRODUCT (OR APPROVED EQUAL). FOLLOW MANUFACTURER'S WRITTEN INSTRUCTIONS FOR APPROPRIATE USE AND CLEANING METHOD. REFER TO SPECS. CLEAN ALL EXISTING MASONRY WALLS THAT WILL BE EXPOSED.



AD13



KALISPELL | BOZEMAN | VANCOUVER
406-755-3208 | 406-586-0707 | 360-652-8746
info@jackola.com | jackola.com



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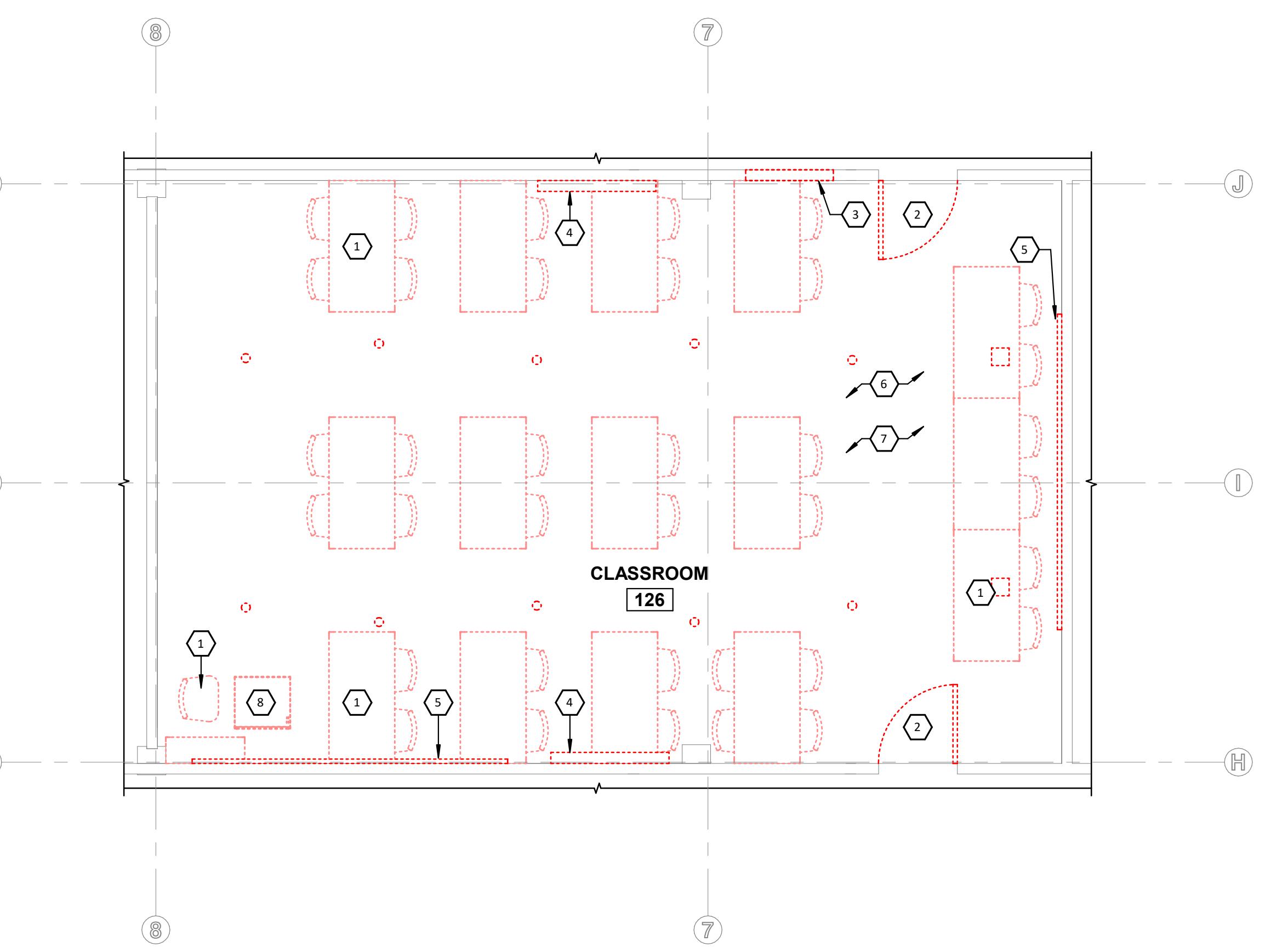
- A. SEE 6-921 PROJECT TITLE SHEET FOR GENERAL NOTES.
- B. PROTECT EXISTING BUILDING OUTSIDE OF THIS SCOPE OF WORK AT ALL TIMES.
- C. SEE OTHER SHEETS IN THIS SET FOR ADDITIONAL INFORMATION.
- D. CONTRACTOR SHALL INCLUDE CUTTING AND PATCHING FOR ALL INSTANCES WHERE REQUIRED, WHETHER OR NOT SHOWN/INDICATED ON THESE CONSTRUCTION DOCUMENTS.
- E. THE EXISTING BUILDING MAY NOT BE LEVEL AND PLUMB. CONTRACTOR SHALL 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/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.
- 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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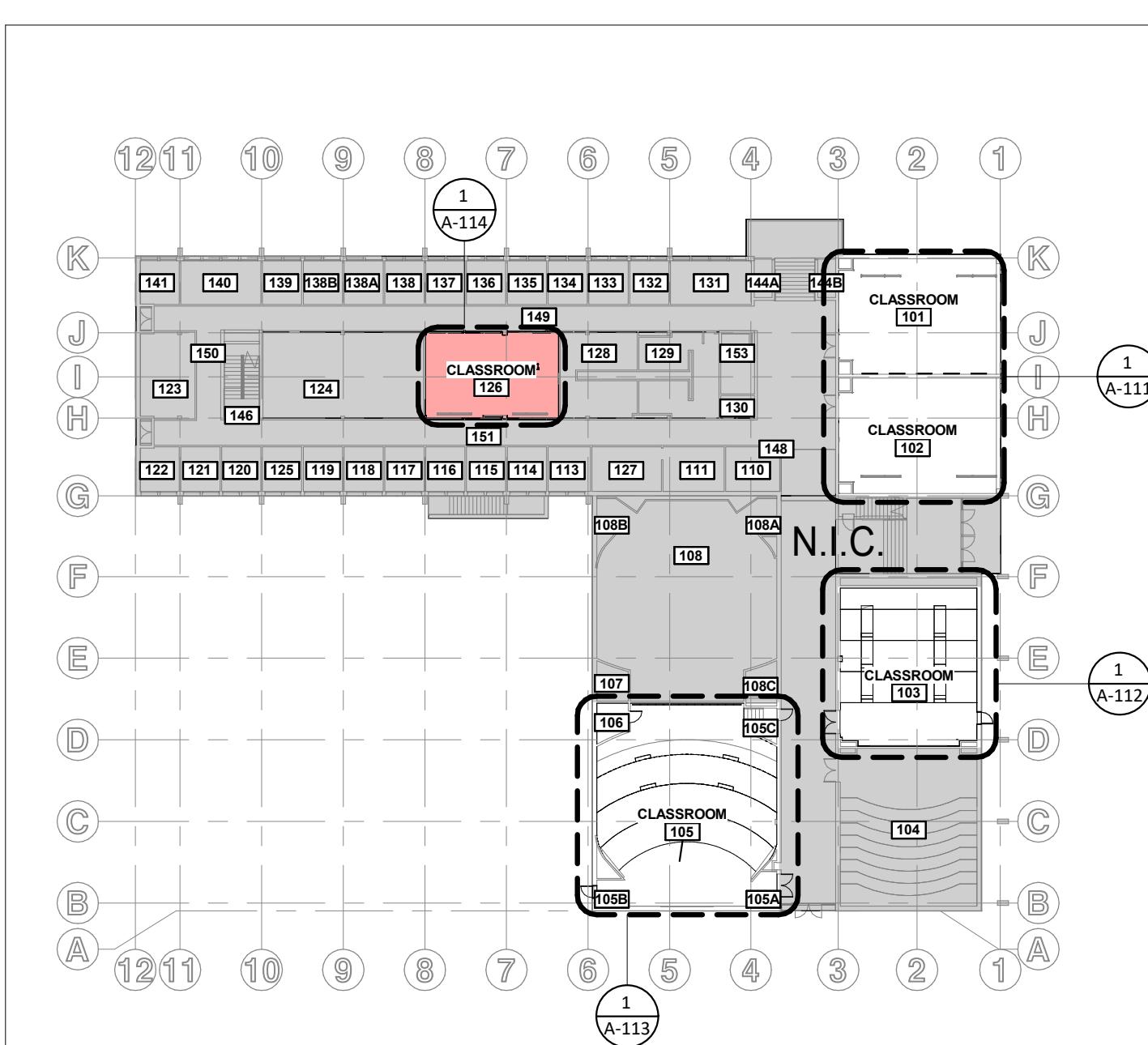
1 126 DEMO FLOOR PLAN

1/4" = 1'-0"

0 2' 4' 8'



APPROXIMATE EXISTING OCCUPANCY: 37 (VIA MATTERPORT) - 20.5 S.F./STUDENT

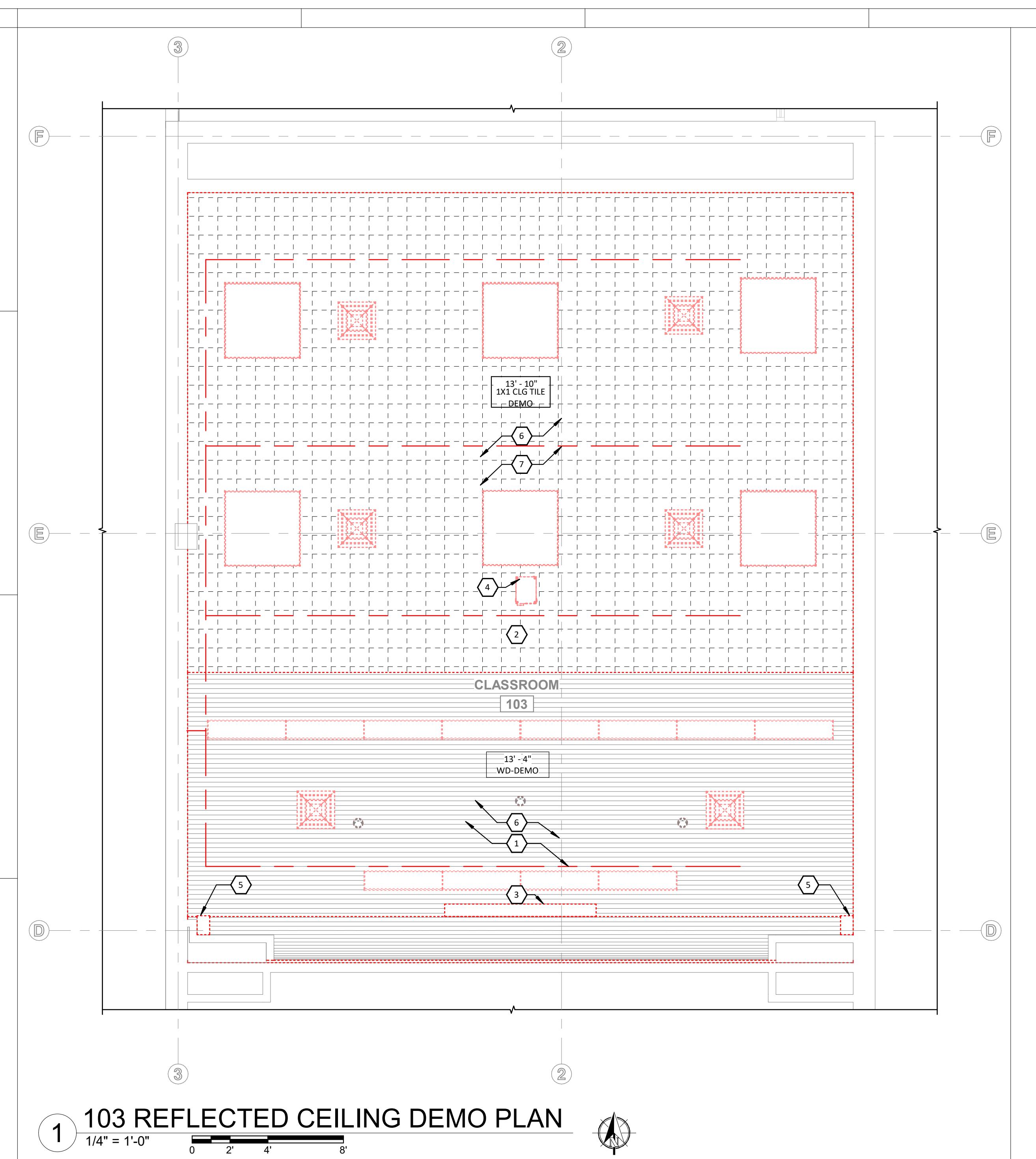




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ENTIRE SHEET IS
ADD ALTERNATE #2

GENERAL DEMO PLAN NOTES:

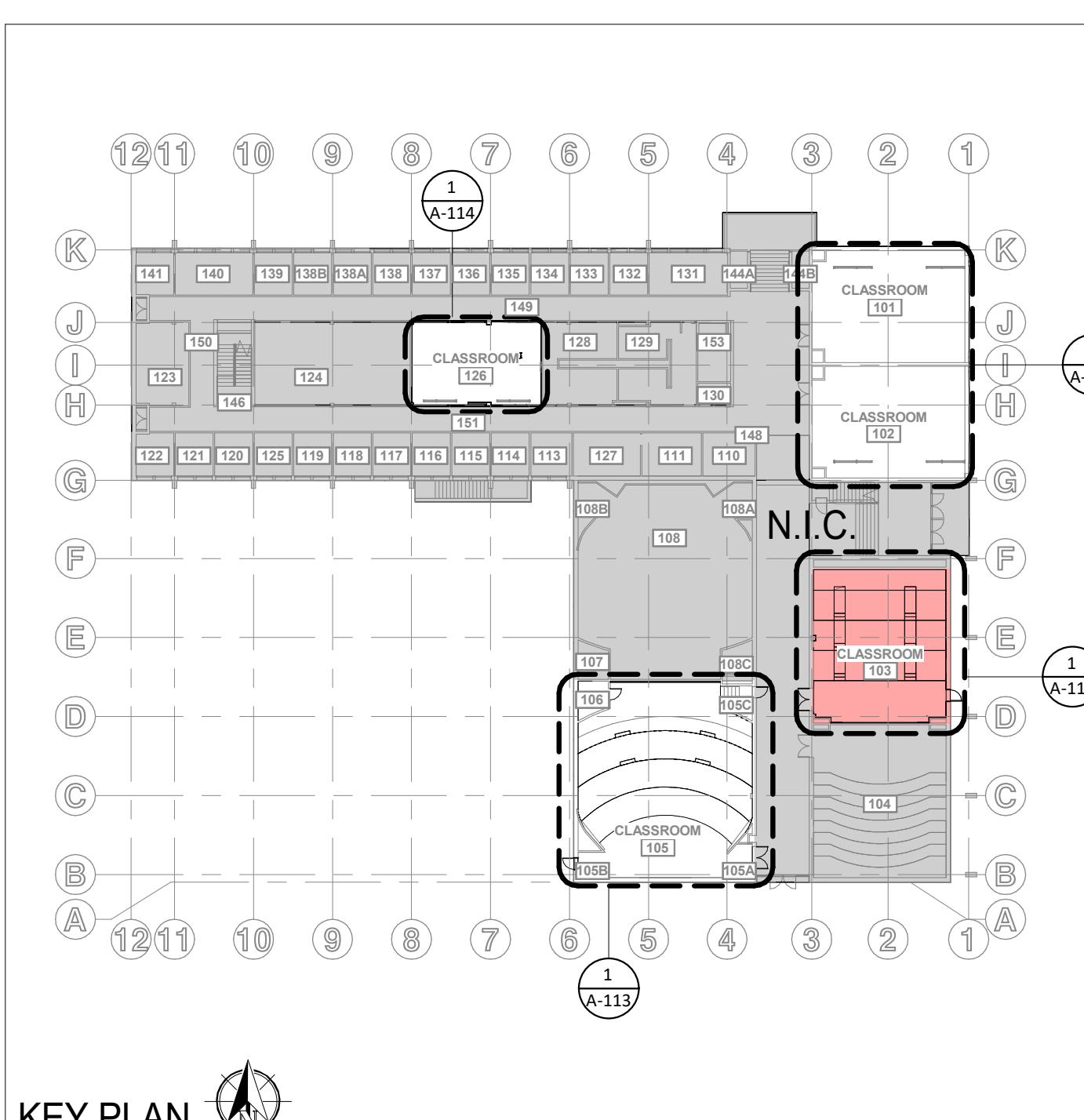
- A. SEE G-001 PROJECT TITLE SHEET FOR GENERAL NOTES.
- B. PROTECT EXISTING BUILDING OUTSIDE OF THIS SCOPE OF WORK AT ALL TIMES.
- C. SEE OTHER SHEETS IN THIS SET FOR ADDITIONAL INFORMATION.
- D. CONTRACTOR SHALL INCLUDE CUTTING AND PATCHING FOR ALL INSTANCES WHERE REQUIRED, WHETHER OR NOT SHOWN/INDICATED 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 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 1X1 TILE, PLASTER, AND FURRING TO BE REMOVED IN ITS ENTIRETY.
- 3 REMOVE EXISTING WALL MOUNTED MOTORIZED PROJECTOR SCREEN, SALVAGE AND HAND OVER TO MSU.
- 4 REMOVE EXISTING CEILING MOUNTED PROJECTOR, SALVAGE AND HAND OVER TO MSU.
- 5 REMOVE EXISTING WALL MOUNTED SPEAKER, SALVAGE AND HAND OVER TO MSU.
- 6 REMOVE ALL EXISTING LIGHT FIXTURES, RECYCLE WHERE POSSIBLE, DISPOSE OTHERWISE.
- 7 REMOVE ALL EXISTING DIFFUSERS, RECYCLE WHERE POSSIBLE, DISPOSE OTHERWISE.

CEILING PLAN LEGEND

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

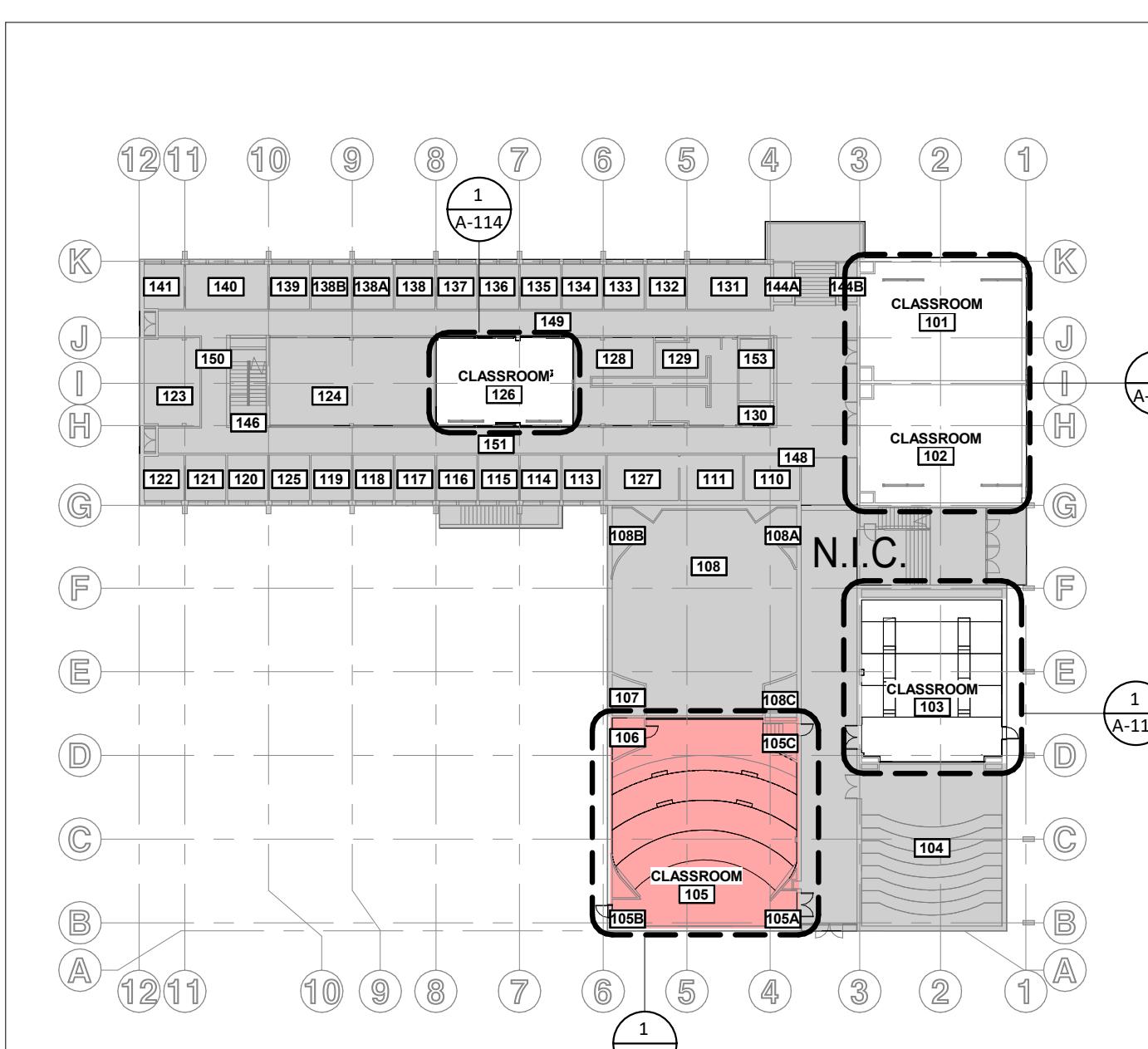
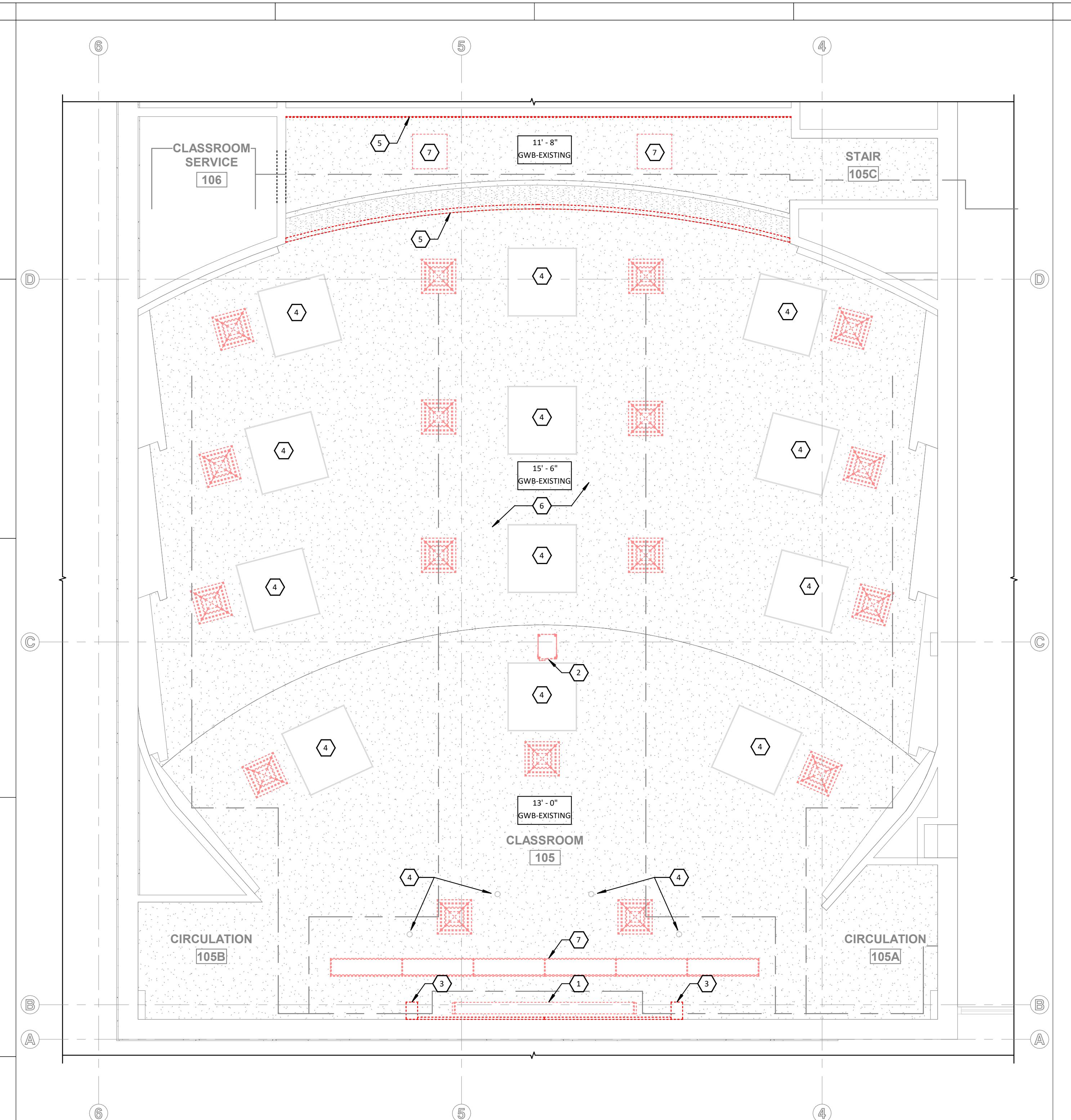


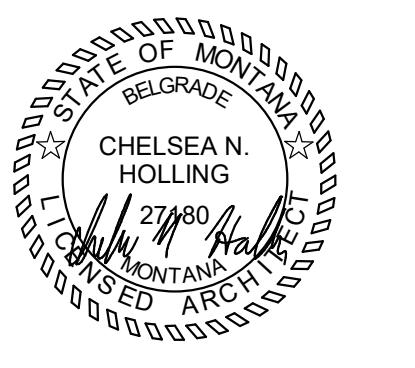


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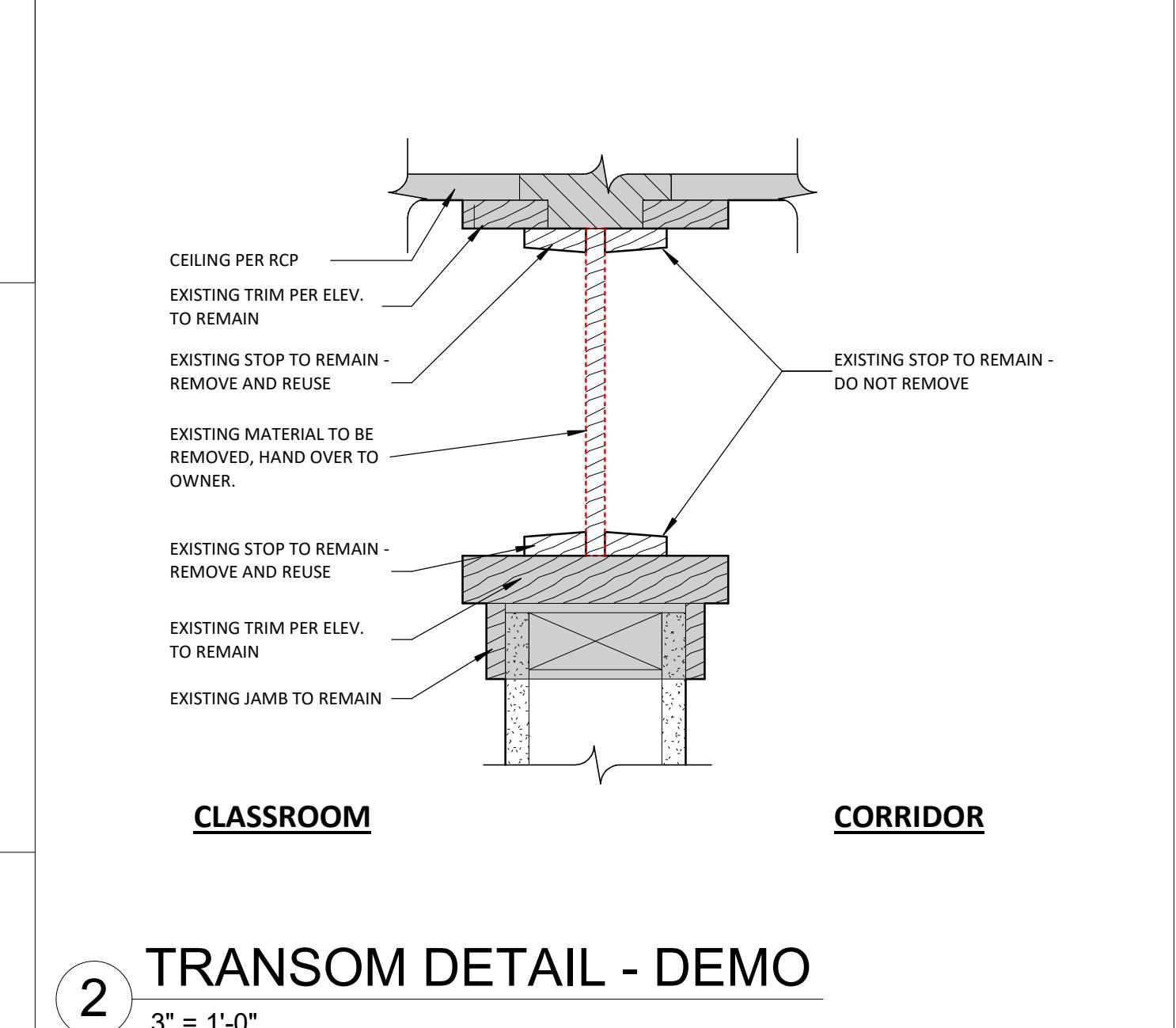
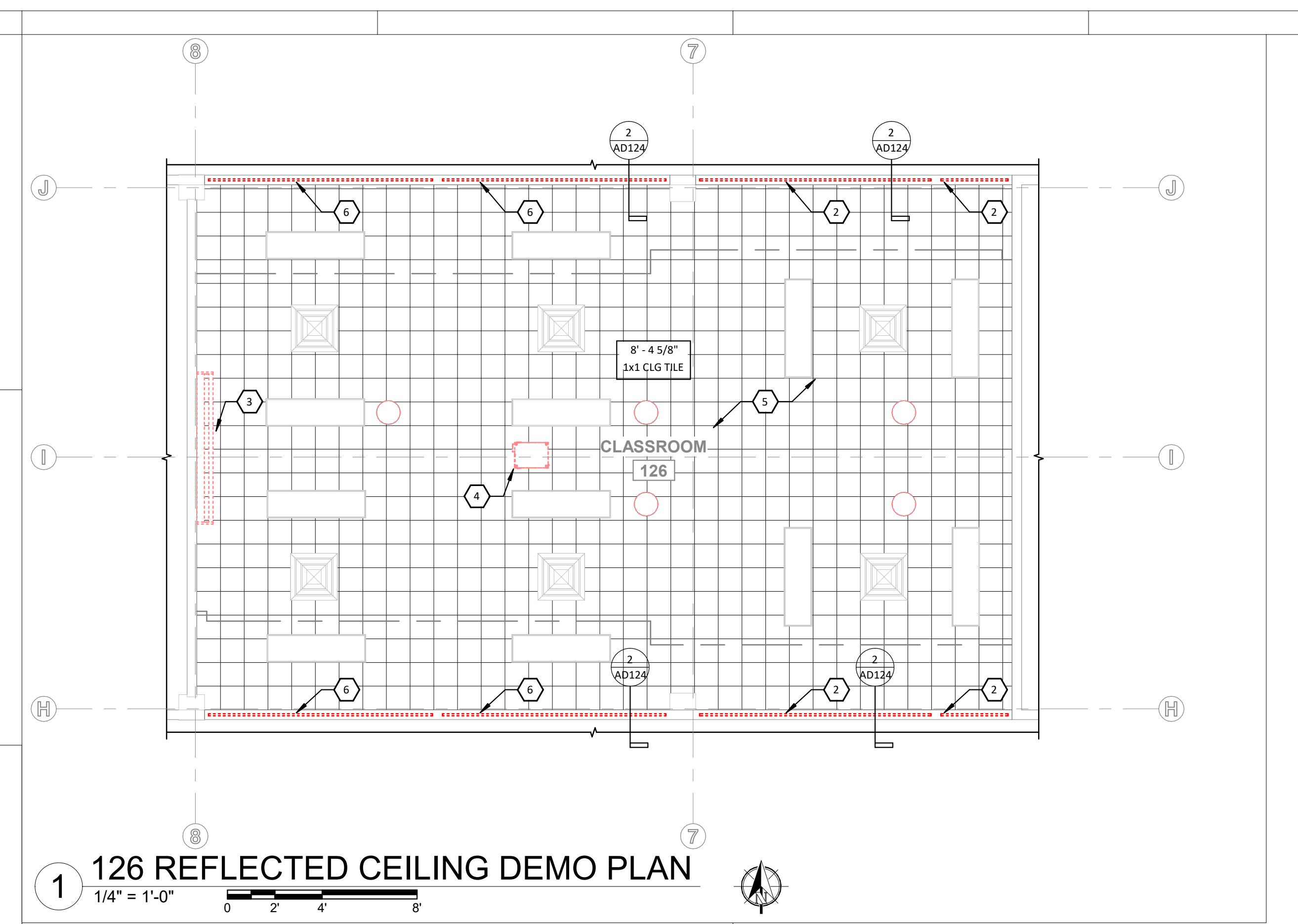


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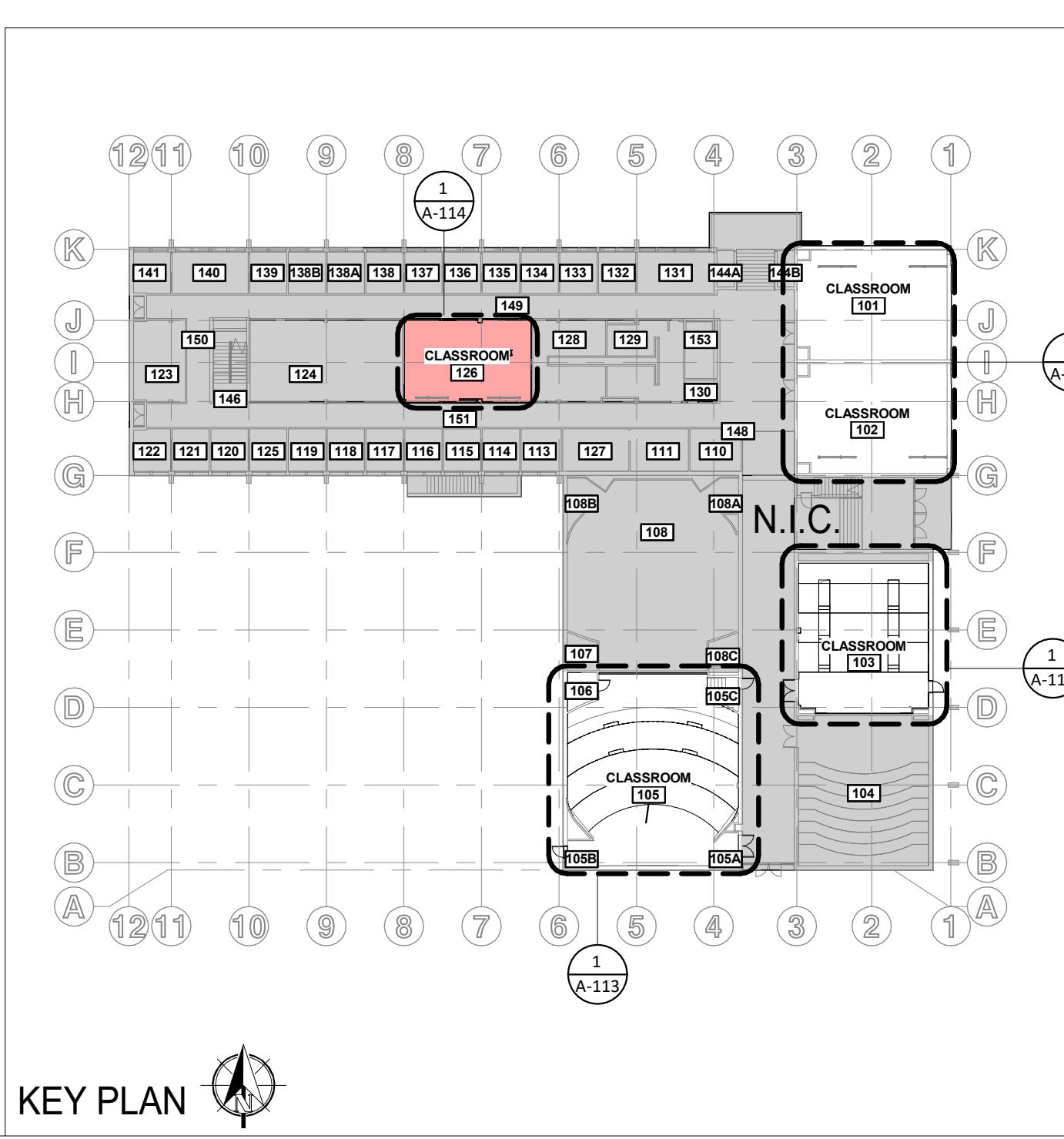
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ENTIRE SHEET IS
ADD ALTERNATE #3





BID SET

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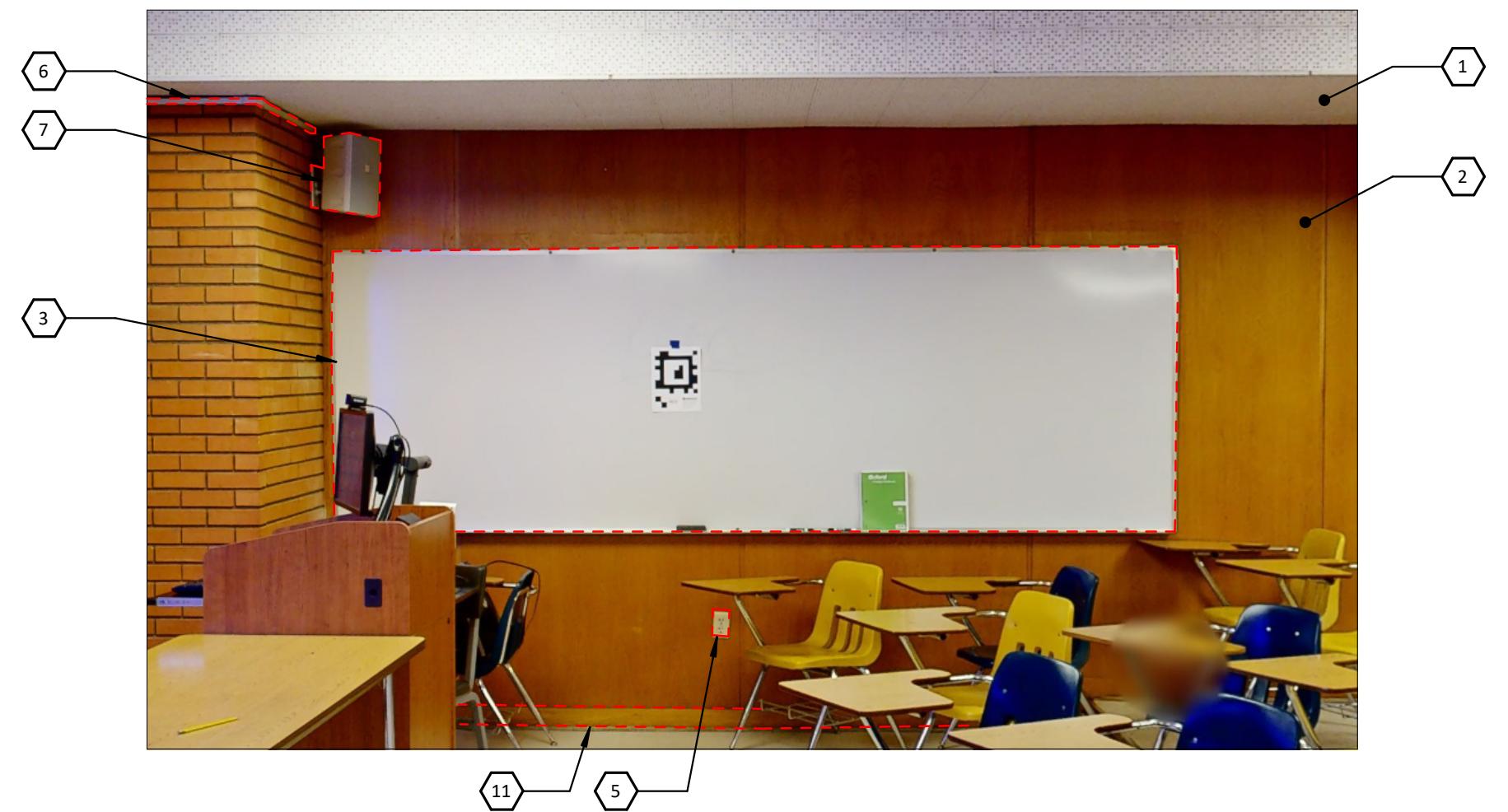
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PPA#: 25-1214

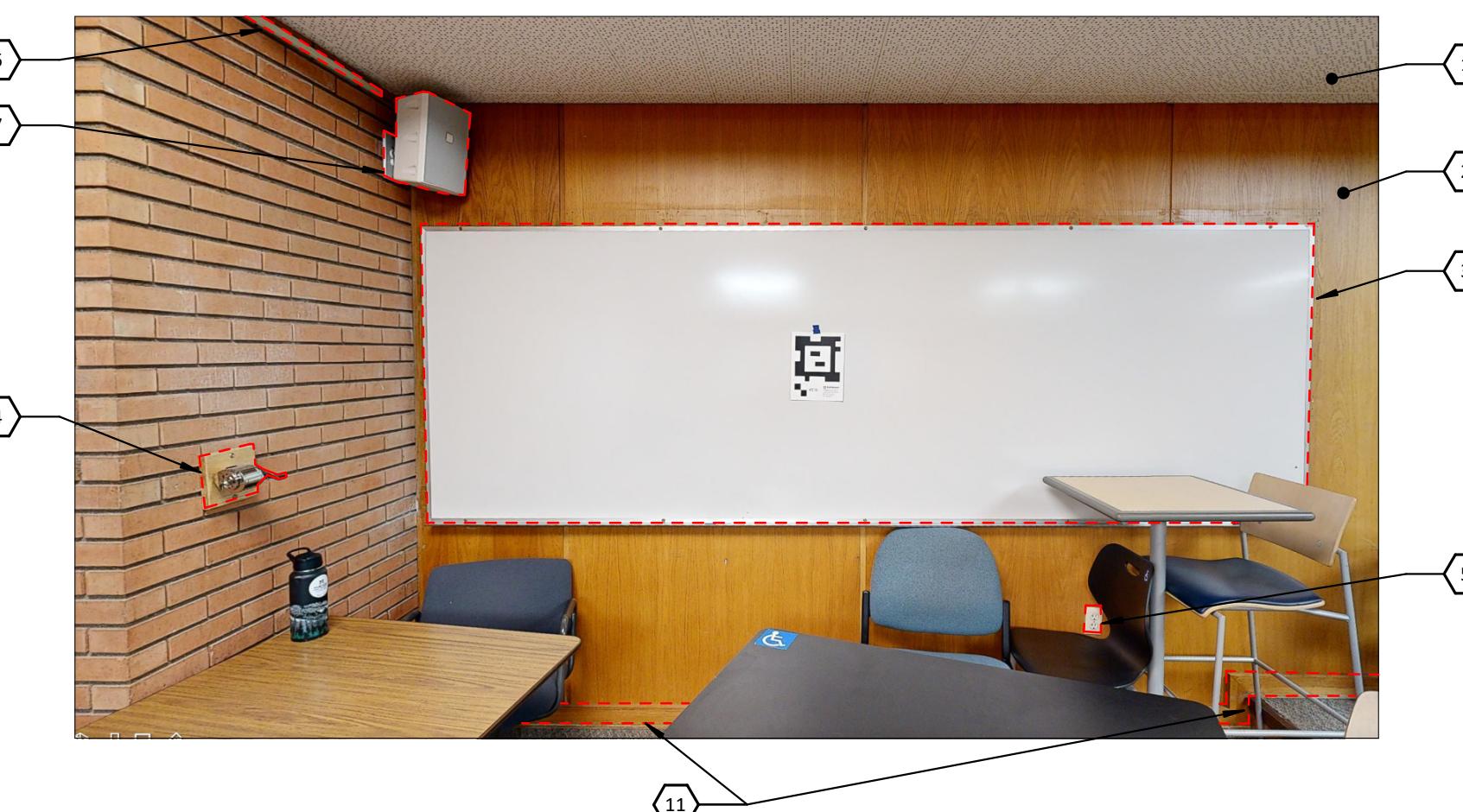
GENERAL DEMO ELEVATION NOTES:	
A.	SEE G-901 PROJECT TITLE SHEET FOR GENERAL NOTES.
B.	PROTECT EXISTING BUILDING OUTSIDE OF THIS SCOPE OF WORK AT ALL TIMES.
C.	SEE OTHER SHEETS IN THIS SET FOR ADDITIONAL INFORMATION.
D.	CONTRACTOR SHALL INCLUDE CUTTING AND PATCHING FOR ALL INSTANCES WHERE REQUIRED, WHETHER 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.	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 DEMONTER 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

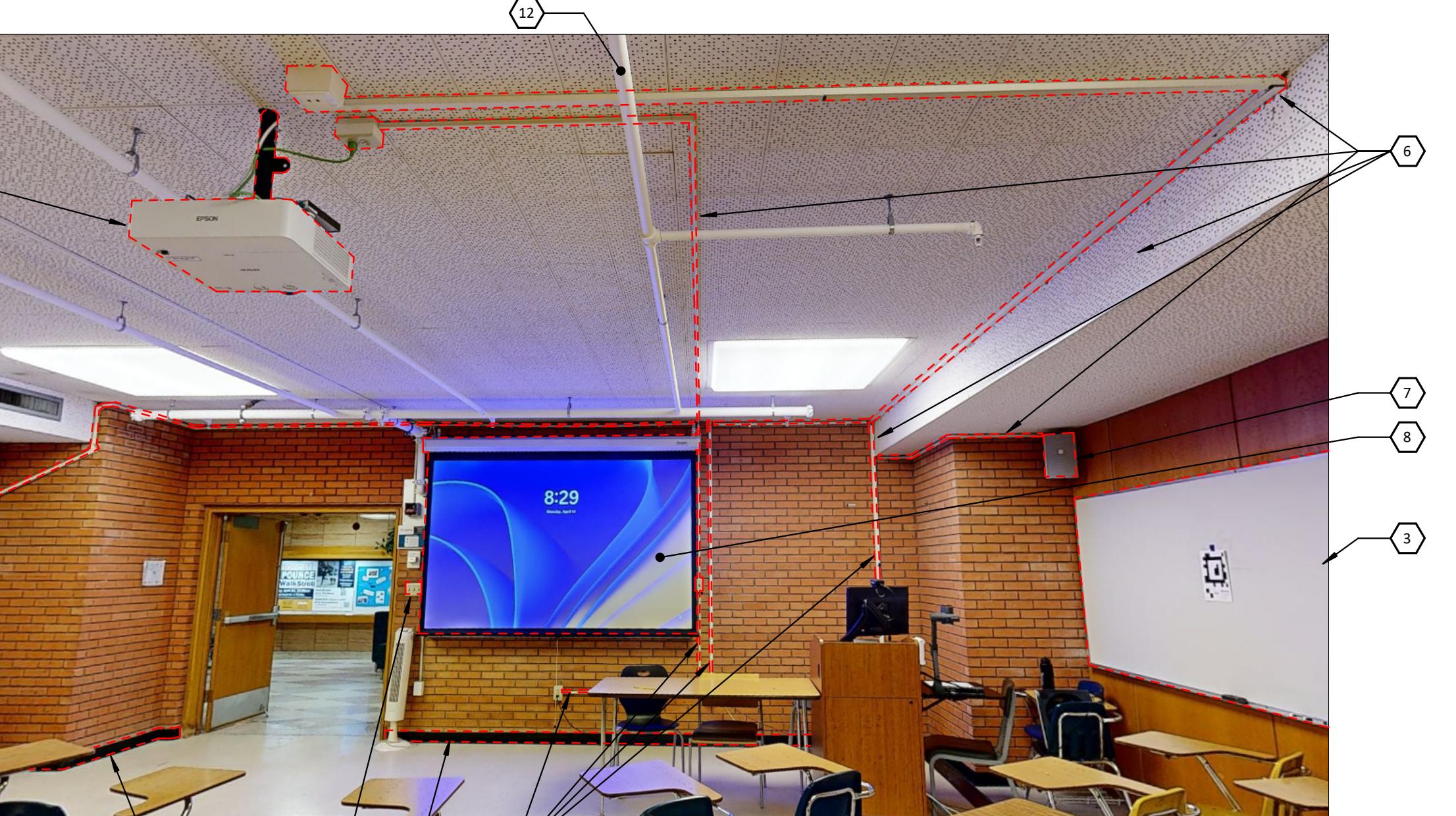
- 1 EXISTING 1X1 TILE TO BE REMOVED IN ITS ENTIRETY. SEE DETAIL 2/AD-121 FOR CEILING CONDITION.
- 2 REMOVE AND DISPOSE OF EXISTING WOOD PANELS AND BASE. CONTRACTOR TO PATCH WALL AS REQUIRED.
- 3 REMOVE EXISTING WHITE BOARDS, SALVAGE AND HAND OVER TO MSU. CONTRACTOR TO PATCH WALL AS REQUIRED.
- 4 DEMOLISH 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.



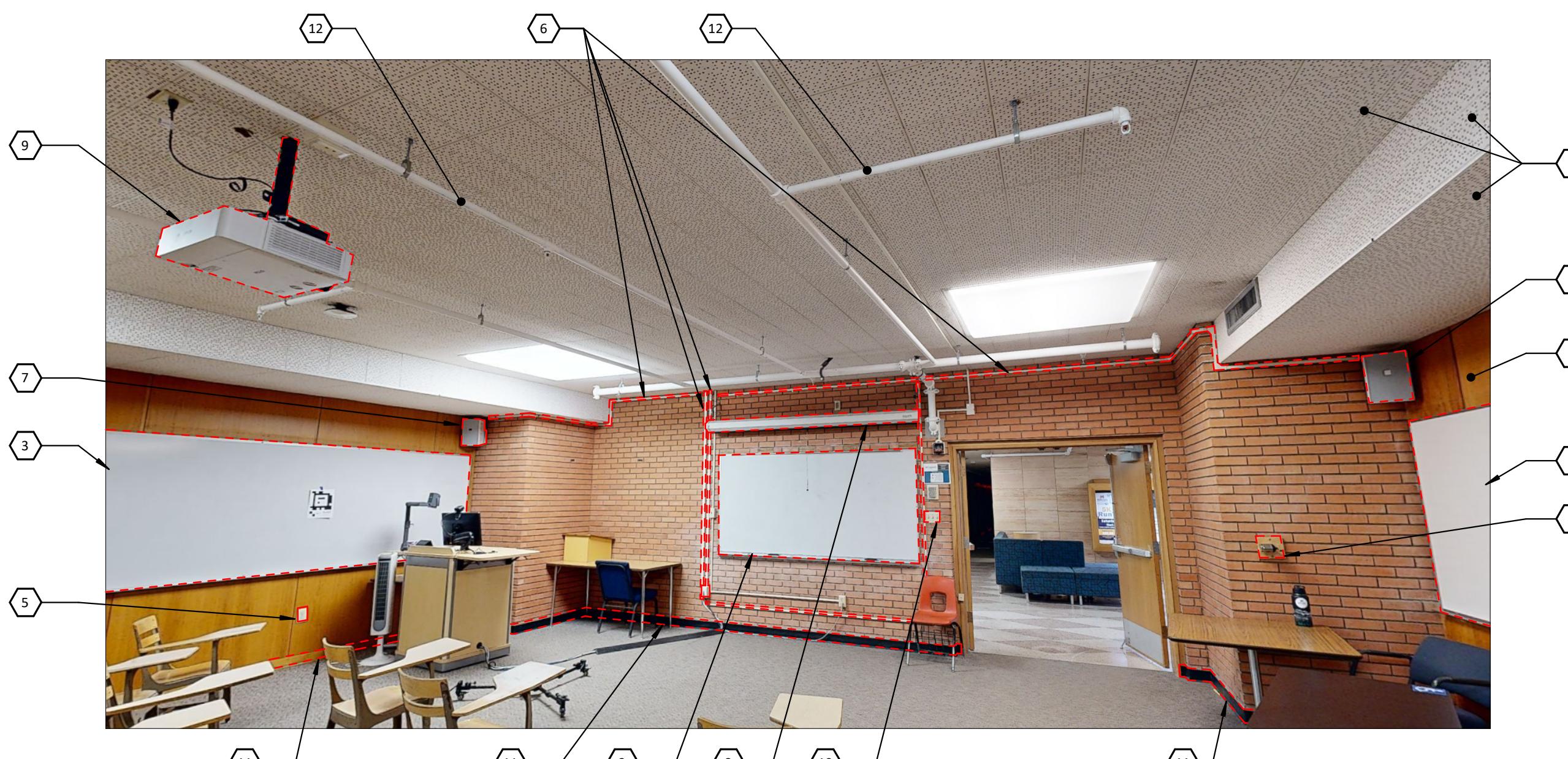
1 DEMO 101 NORTH
NTS



4 DEMO 102 NORTH
NTS



2 DEMO 101 WEST
NTS



5 DEMO 102 SOUTHWEST
NTS



3 DEMO 101 SOUTH
NTS

101/102 DEMO
INTERIOR
ELEVATIONS

AD211

DRAWN: RH CHECKED: CH

DATE: 12/17/2025

REVISIONS:

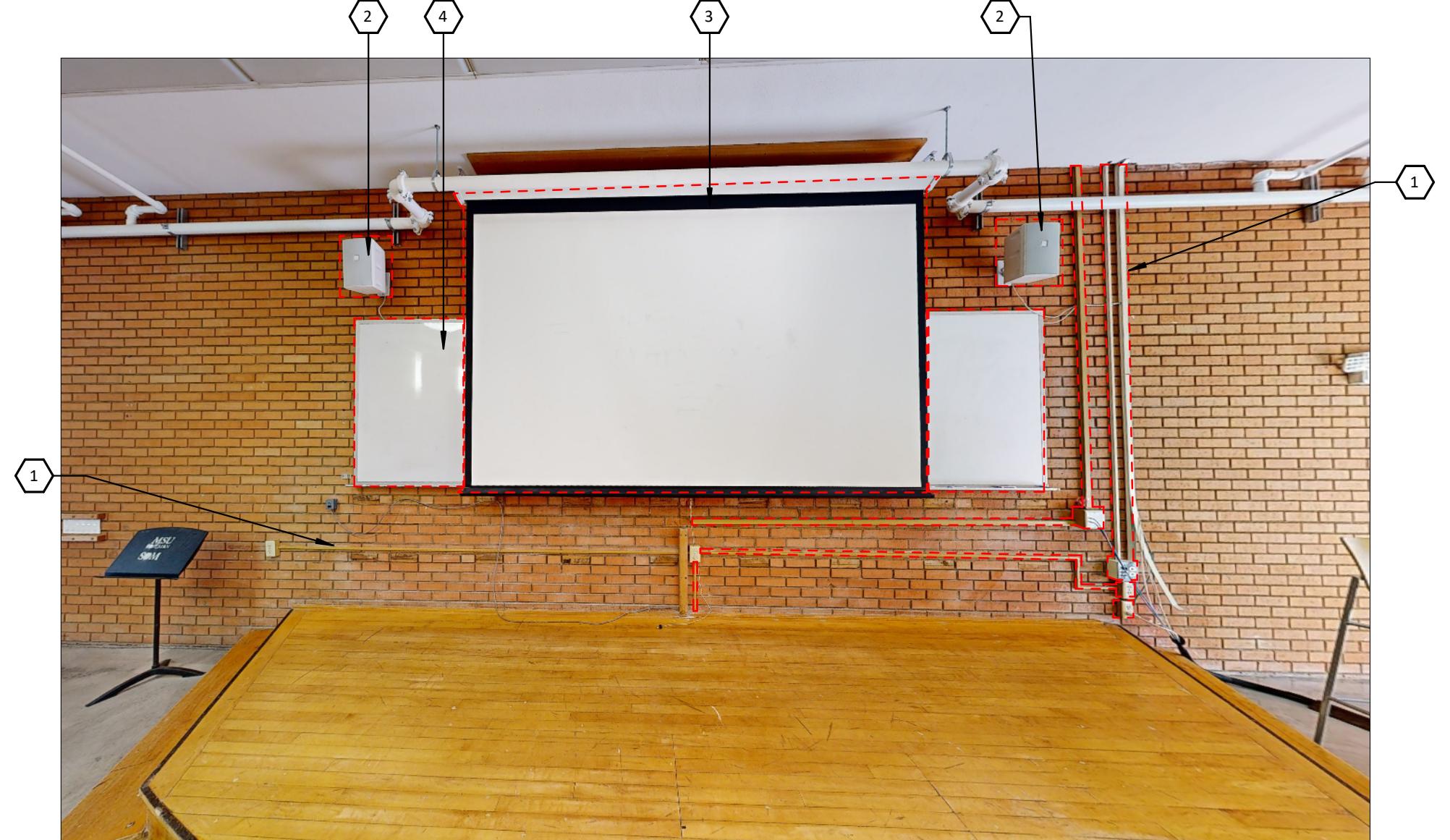


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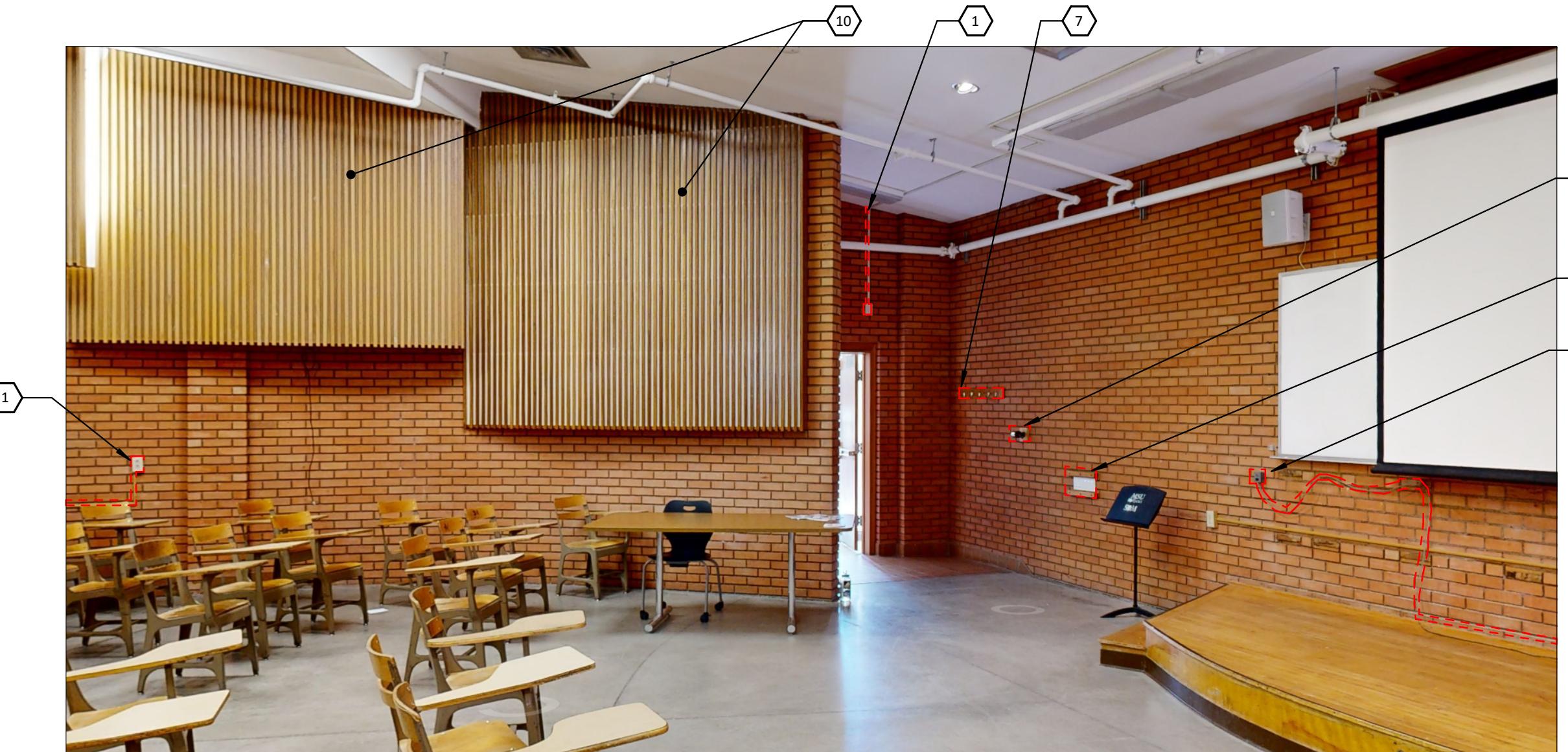
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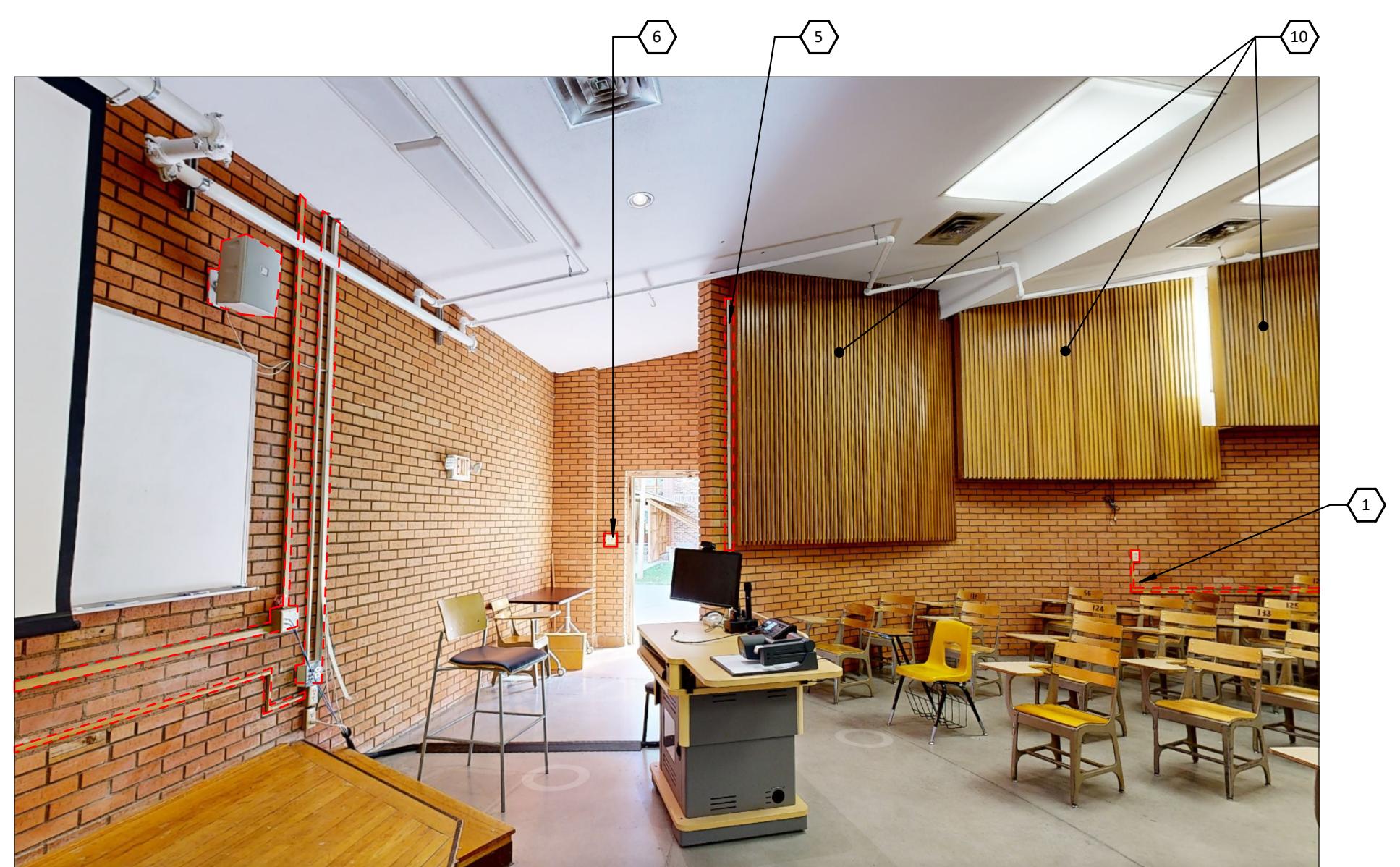
REID HALL,
BOZEMAN, MONTANA 59717
PPA#: 25-1214



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:

- 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. CONTRACTOR SHALL ALSO VERIFY.
- 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.
- CONTRACTOR TO VERIFY WITH MSU EXISTING CONDUIT PATH AND EQUIPMENT FOLLOWING REMOVAL OF DEVICES BY MSU PRIOR TO DEMO.

DEMO ELEVATION KEYNOTES 105

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

DRAWN: RH CHECKED: CH

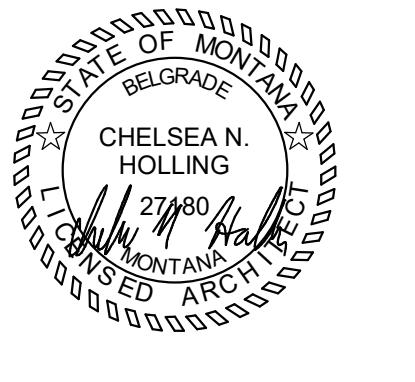
DATE: 12/17/2025

REVISIONS:

105 DEMO
INTERIOR
ELEVATIONS
ALT. #1

ENTIRE SHEET IS
ADD ALTERNATE #1

AD213

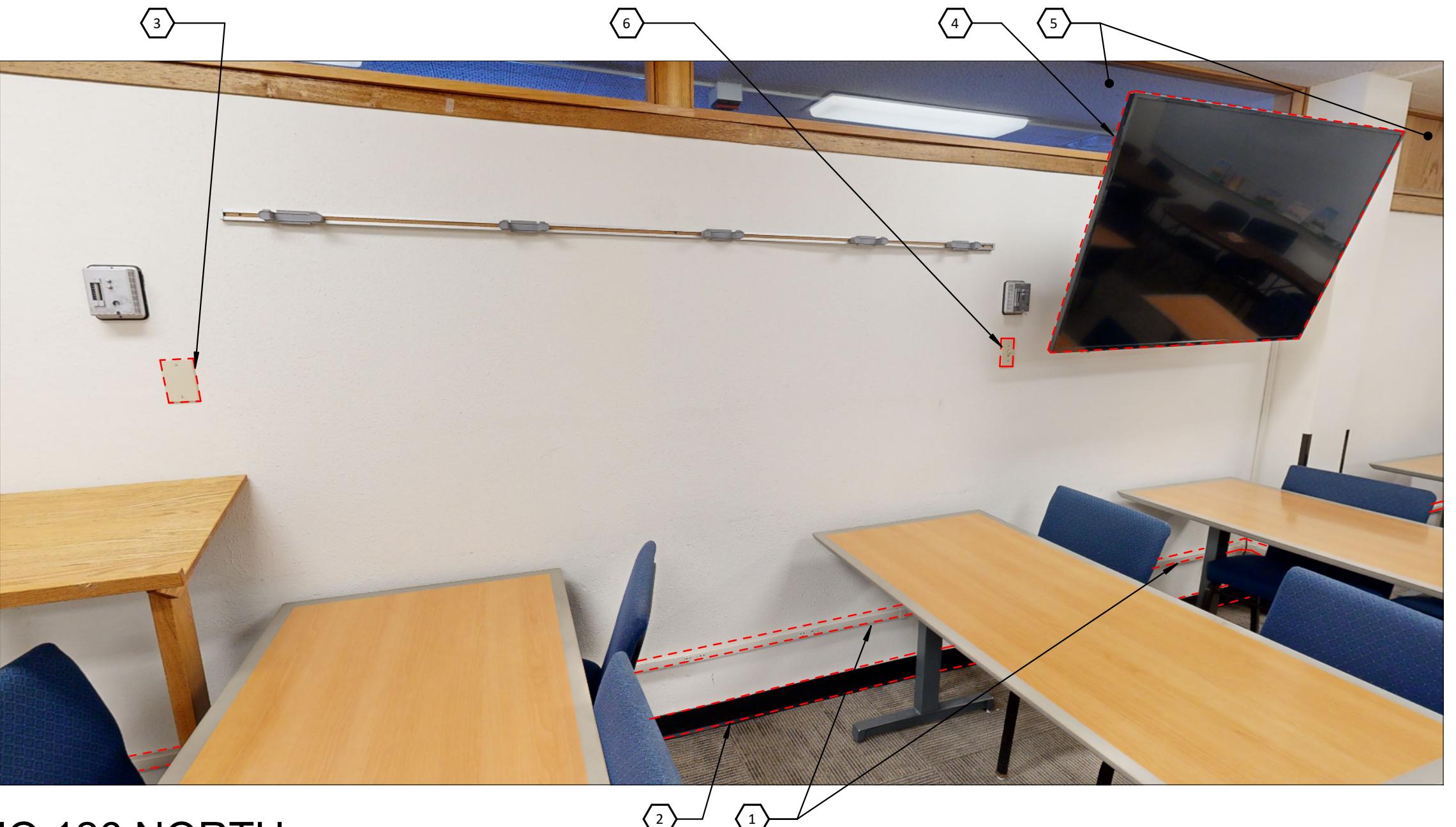
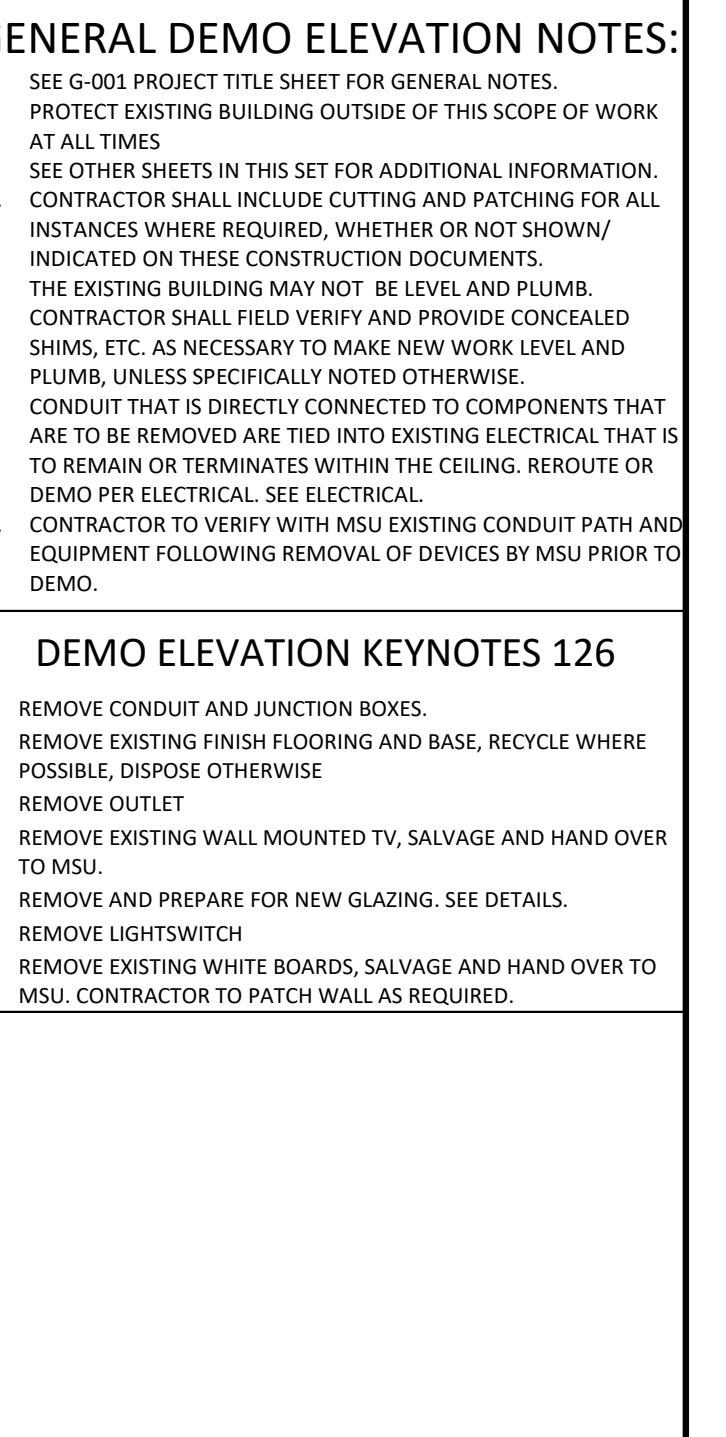


BID SET

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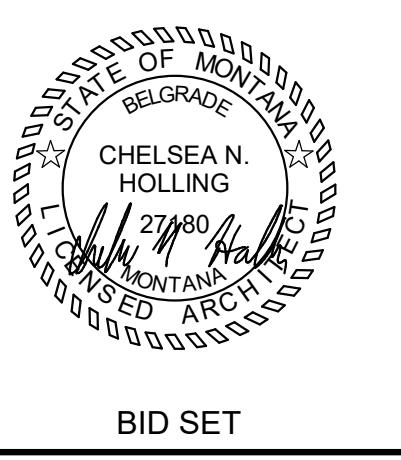
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PPA#: 25-1214



ENTIRE SHEET IS
ADD ALTERNATE #3

126 DEMO
INTERIOR
ELEVATIONS
ALT. #3

AD214



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GENERAL FLOOR 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.

FLOOR PLAN KEYNOTES 103

- 1 ADA ACCESSIBLE LOCATION
- 2 LOOSE FURNITURE CFCI BASIS OF DESIGN: SEDIA SYSTEMS.
- 3 FIXED FURNITURE CFCI BASIS OF DESIGN: SEDIA SYSTEMS.
- 4 HEIGHT ADJUSTABLE INSTRUCTOR STATION WITH DEDICATED COMPUTER AND CONNECTIONS TO MSU NETWORK - SMART PODIUM LOCATION WILL REQUIRE POWER/NETWORK/AV PATHWAY. SEE ELECTRICAL DRAWINGS.
- 5 WALL MOUNTED FIXED PROJECTOR SCREENS, OFCI.
- 6 10' x 4' FIXED WHITEBOARDS CFCI, NO TRAY. BASIS OF DESIGN: OPTIMA GREAT WHITE MAGNETIC WHITEBOARDS.
- 7 POE CLOCK VISIBLE TO EVERYONE IN ROOM, SEE ELECTRICAL.
- 8 ON-FLOOR WIRE RACEWAY, SEE ELECTRICAL.
- 9 POWER STUB-UP AT TABLE LEG. SEE ELECTRICAL.
- 10 NEW CONCRETE STEPS.

ENTIRE SHEET IS ADD ALTERNATE #2

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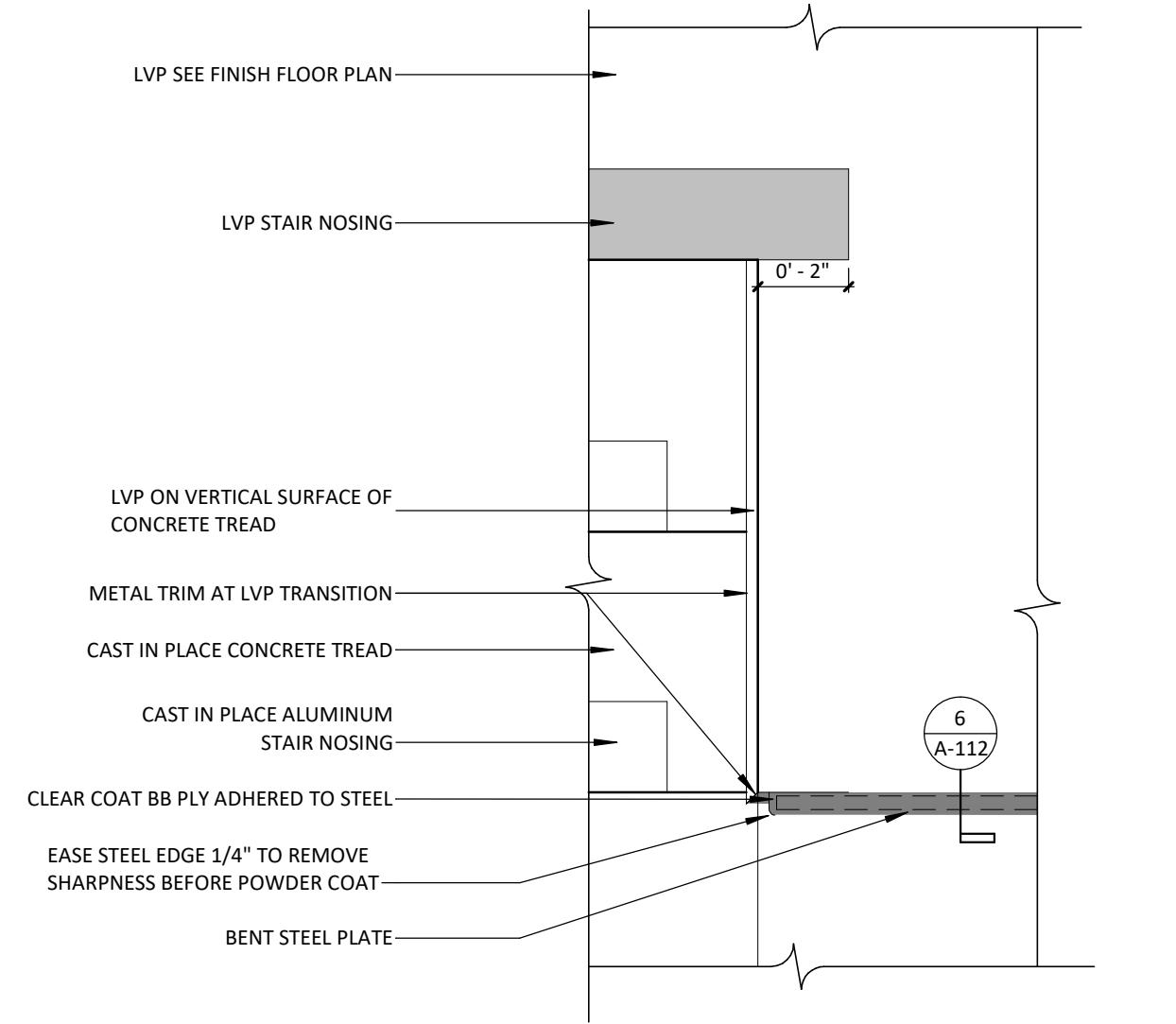
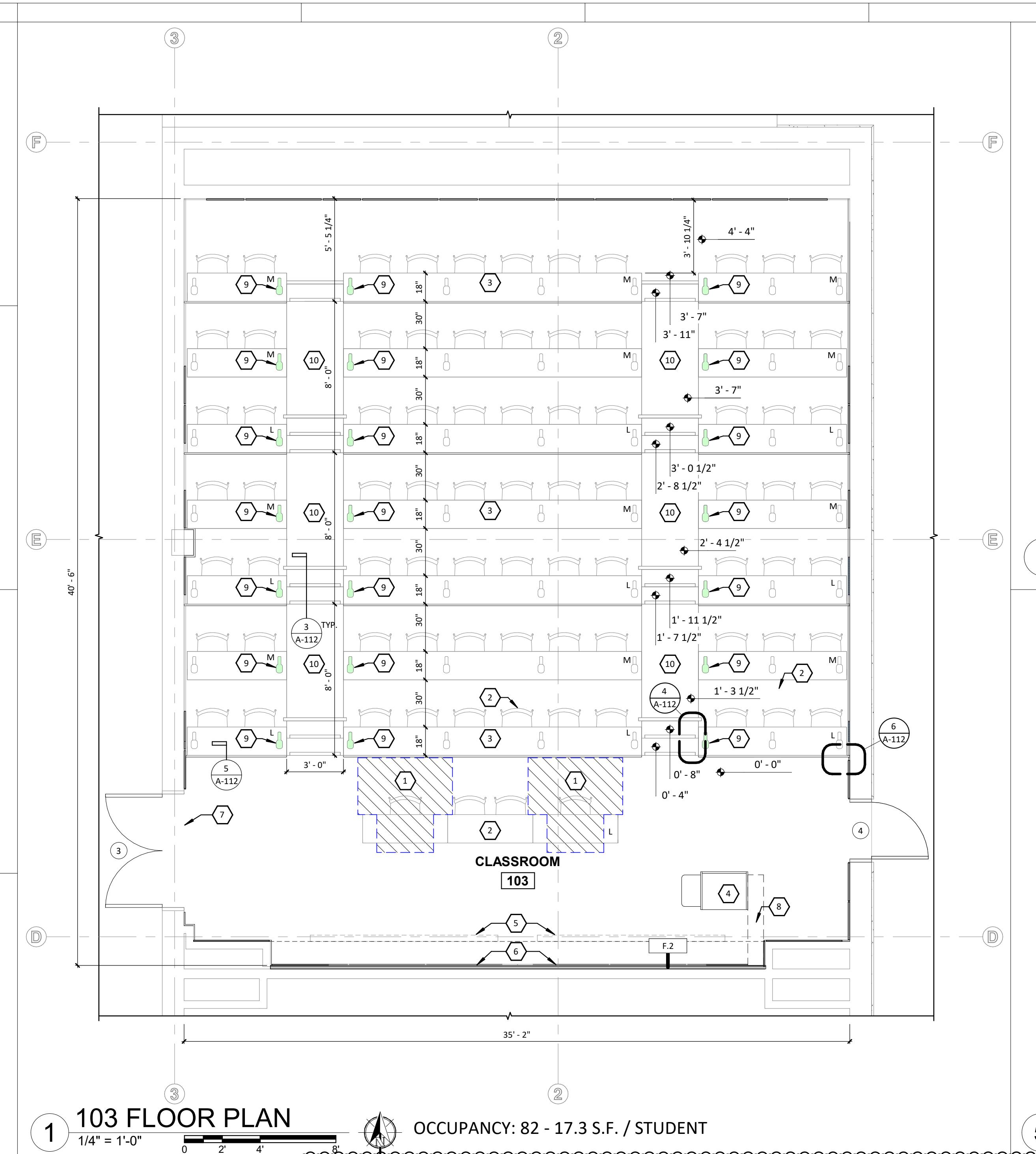
103 FLOOR PLAN ALT. #2

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

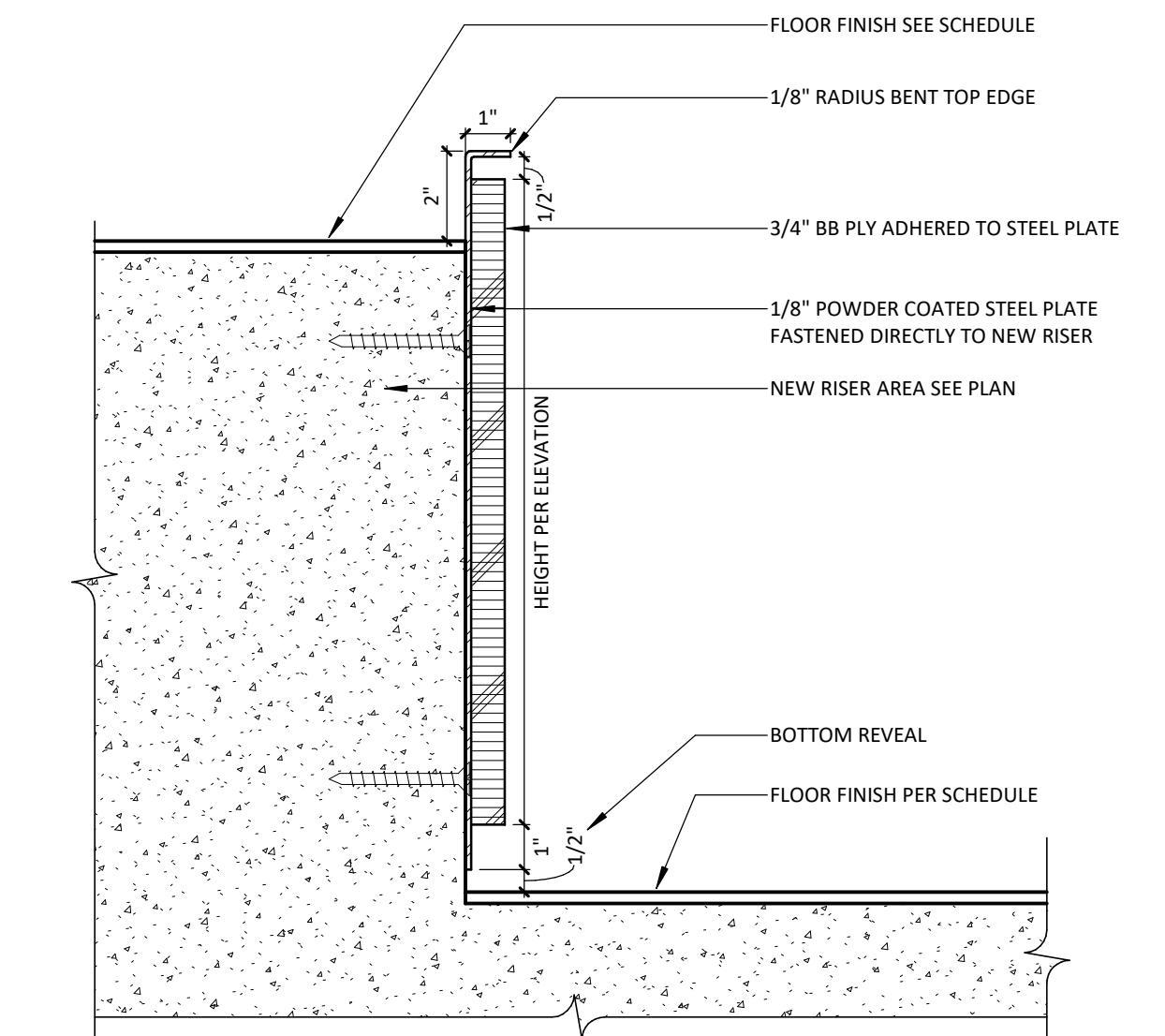
REVISIONS:

A ADDENDUM #1 01/21/26

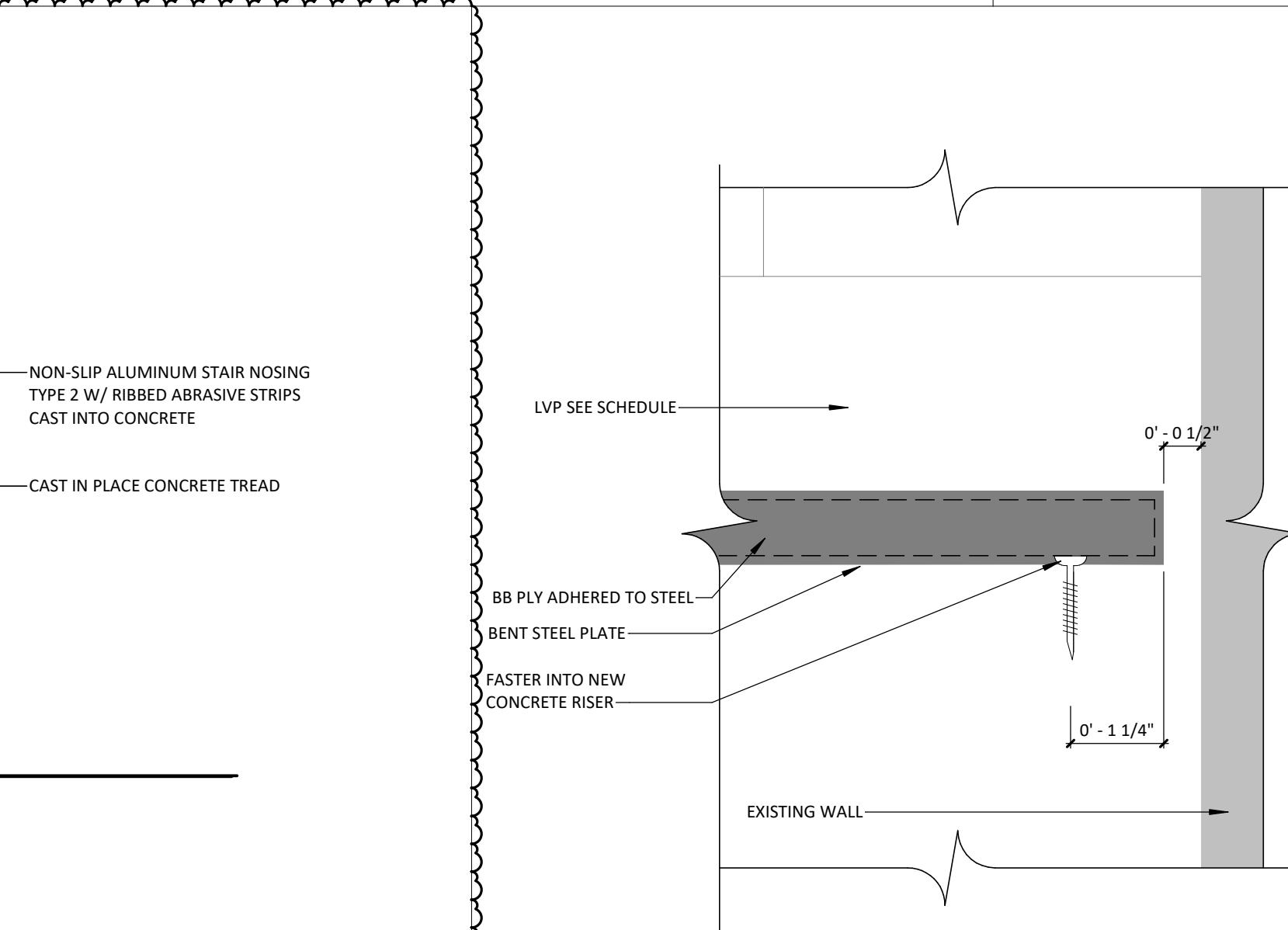
A-112



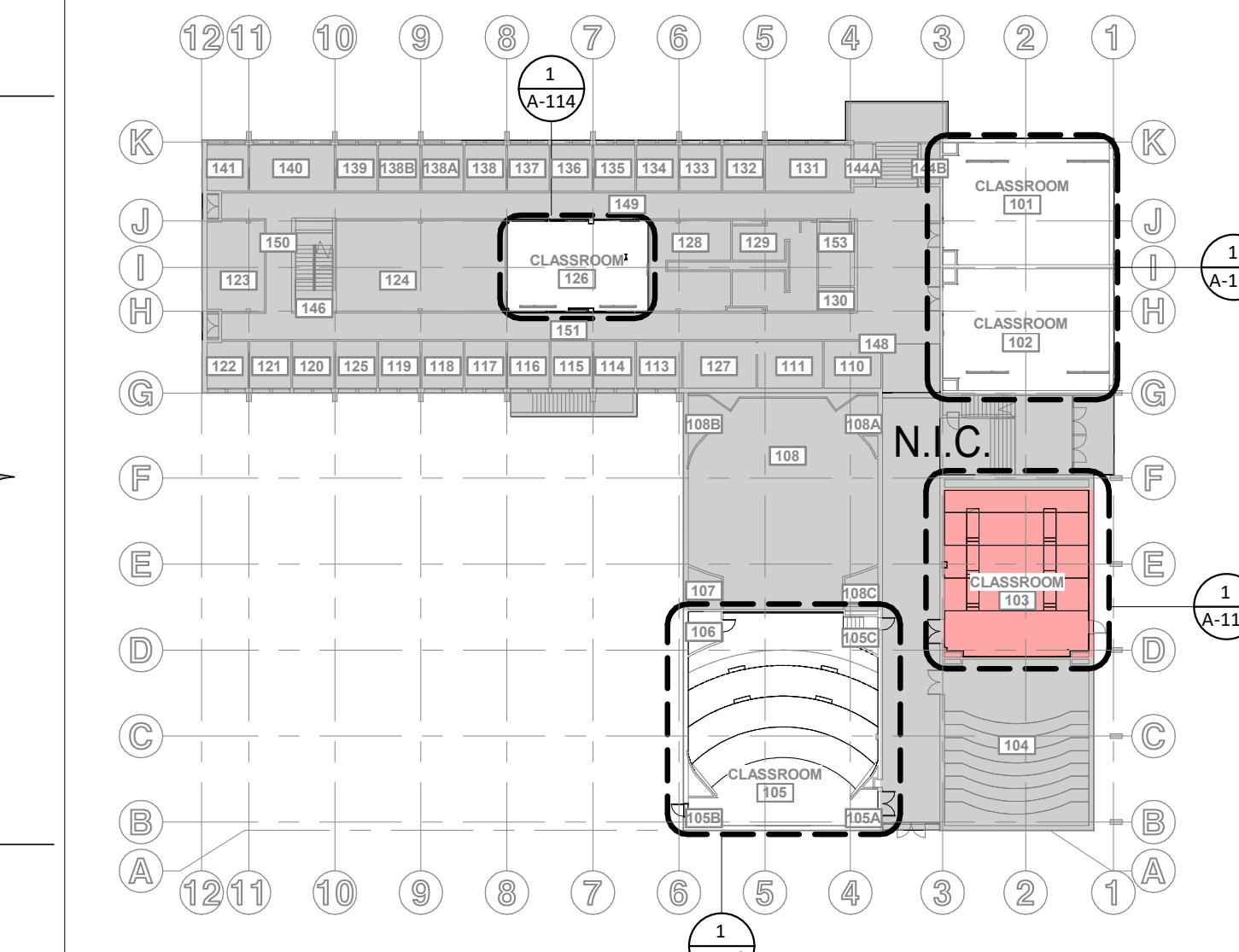
4 PLAN DETAIL TOP OF STEP
3" = 1'-0"



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



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



KEY PLAN

PROJECT #/Project Number
1/4" = 1'-0"
2 FURNITURE KEY

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

PROJECT #/Project Number



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

103 SLAB PLAN

A-112S

GENERAL SLAB PLAN NOTES:

A. SEE AD12 FOR DEMOLITION PLAN.

SLAB PLAN KEYNOTES 103

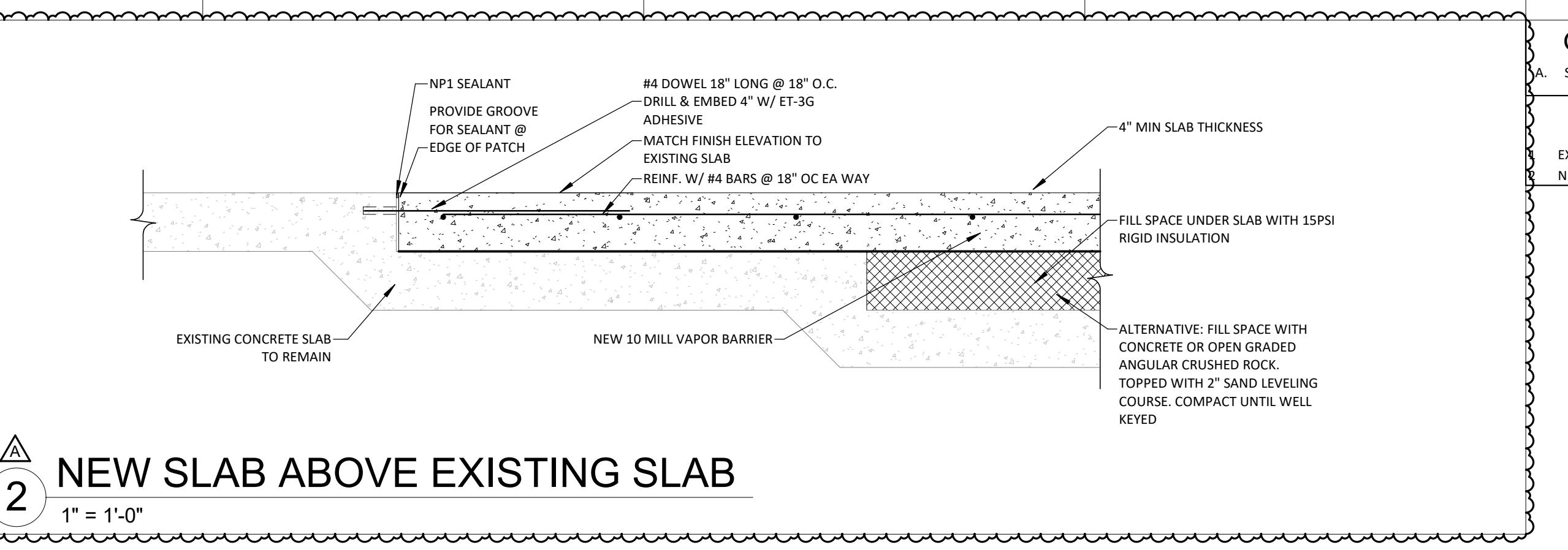
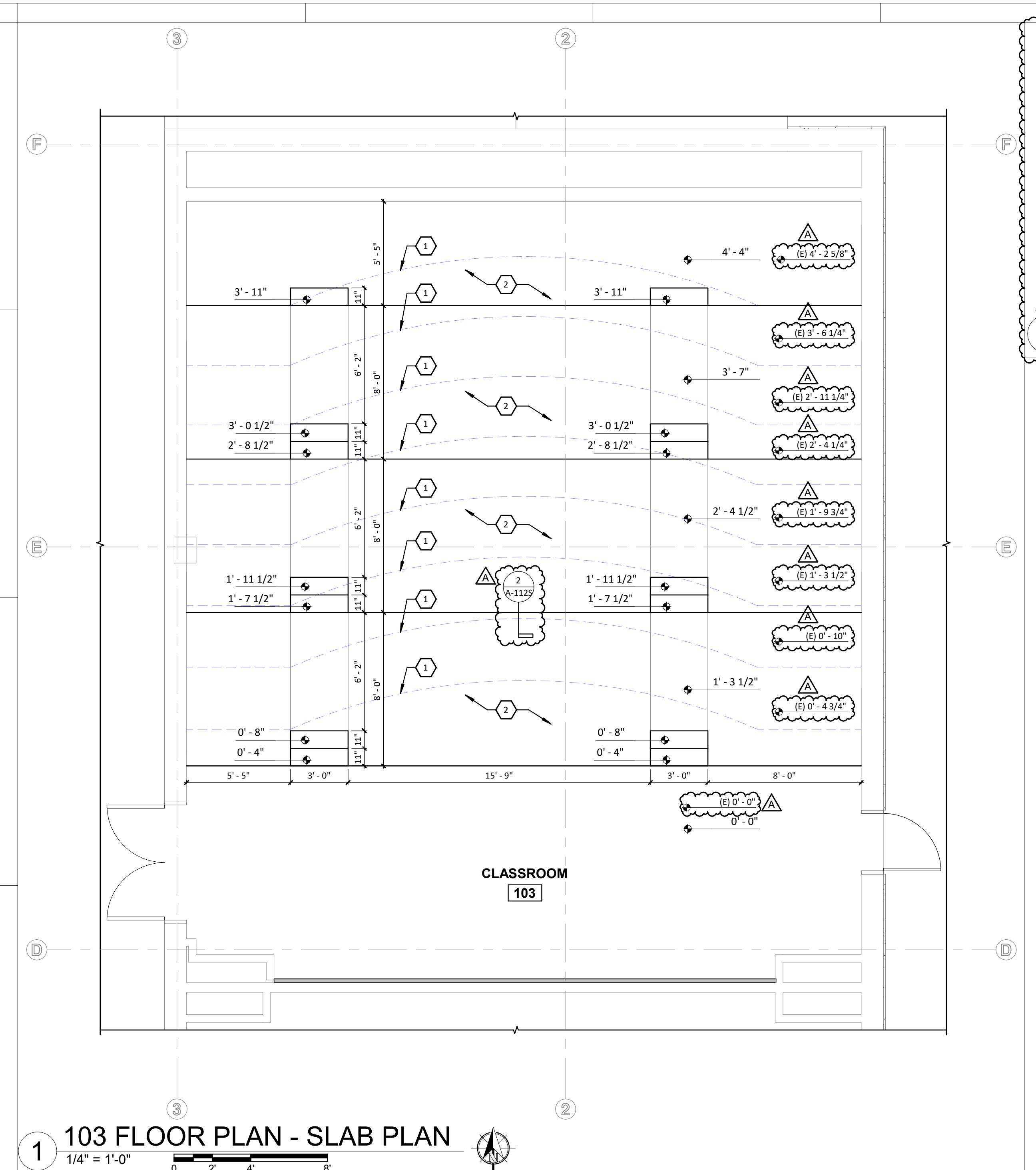
EXISTING RISER.
NEW CONCRETE RISER.

DRAWN: KE CHECKED: CH

DATE: 12/17/2025

REVISIONS:

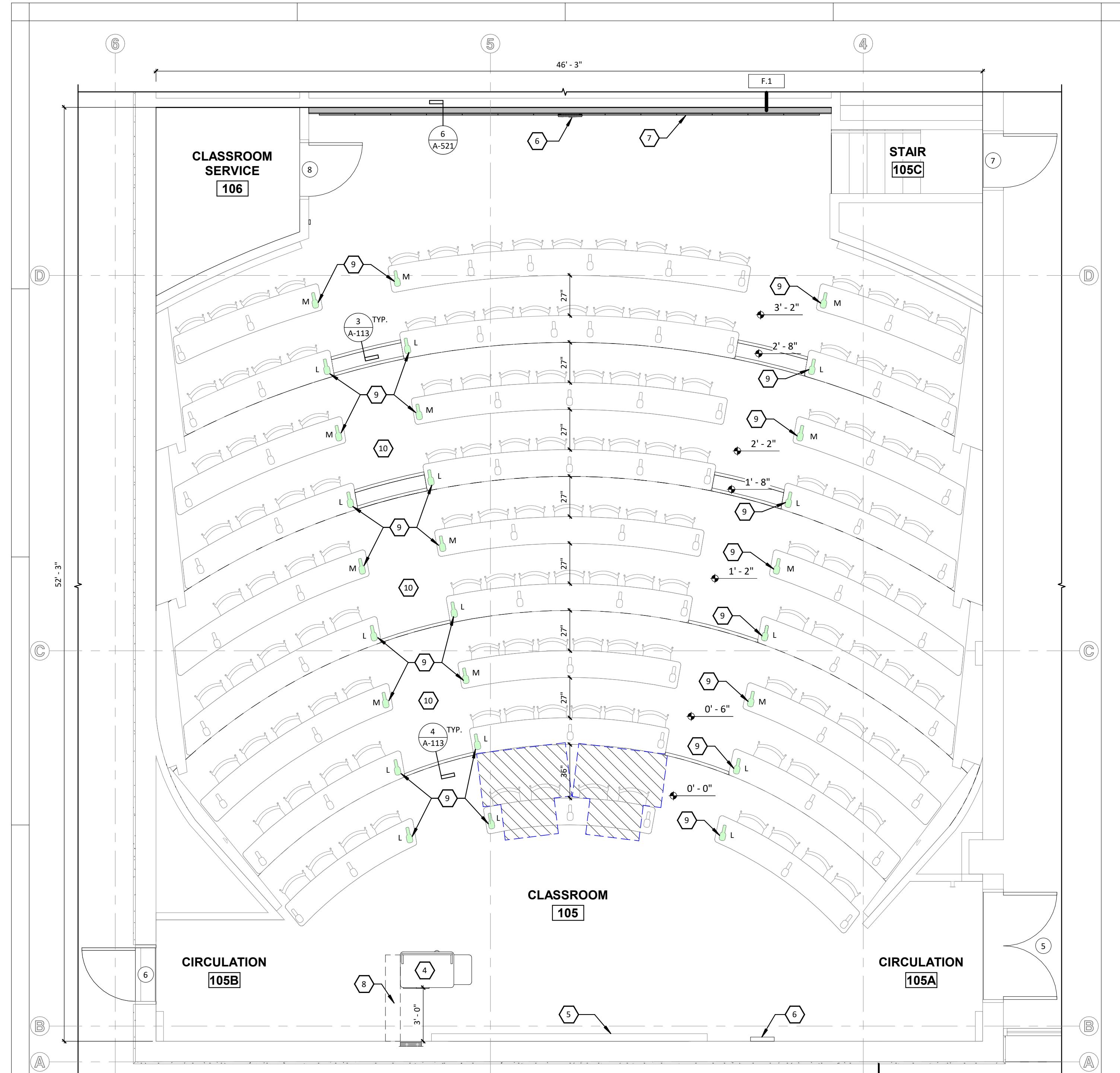
A ADDENDUM #1 01/21/26



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PPA#: 25-1214



113

2 FURNITURE KEY

1/4" = 1'-0"

111 10

**A
3** NOSING DETAIL LVP TO LVP

3" = 1'-0"

1 0 0 0 0 0 0 0

A 4 TYPICAL STAIR SECTION

3" = 1'-0"

3 4 5 6

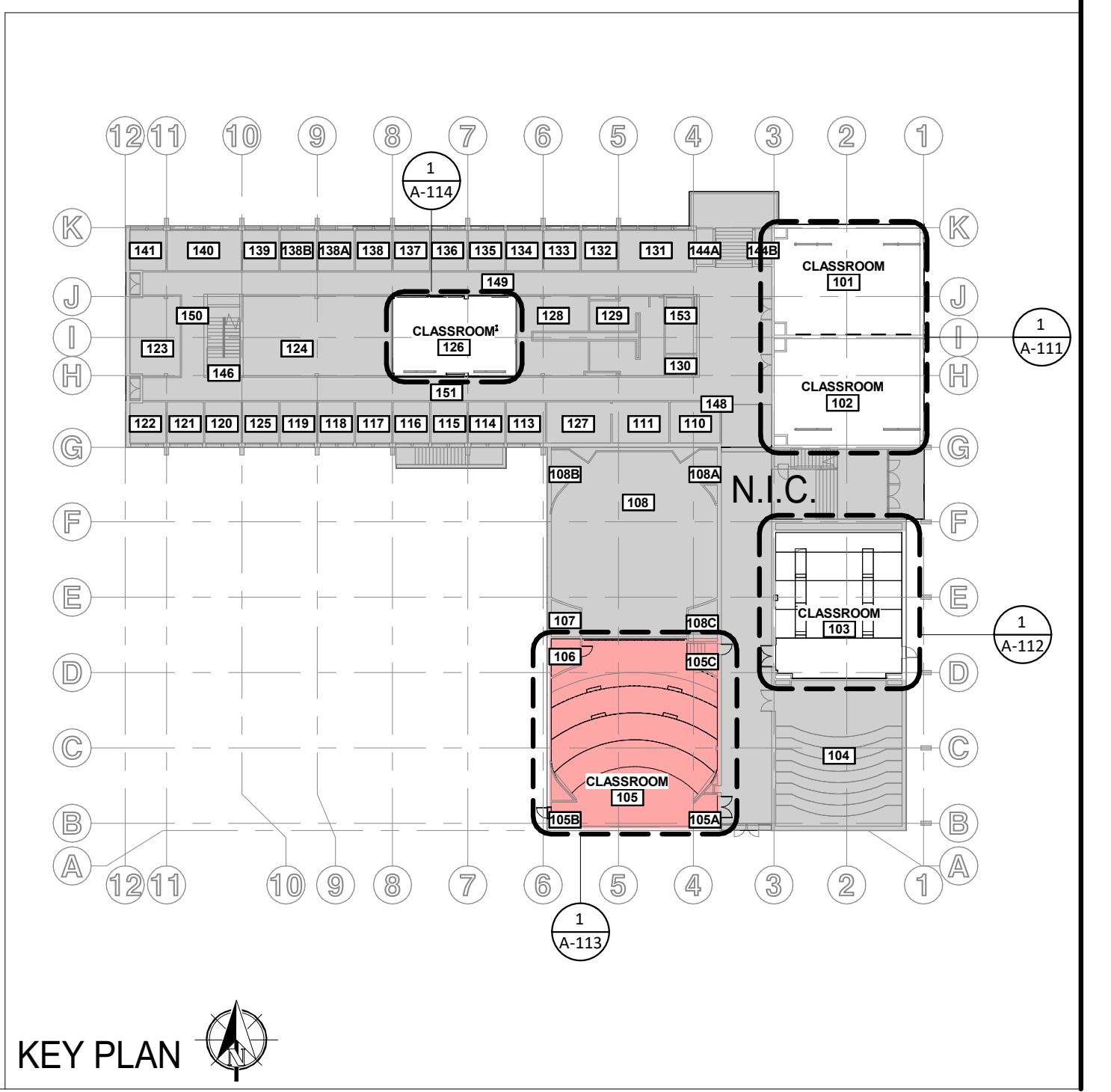
GENERAL FLOOR PLAN NOTES:

- 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.

FLOOR PLAN KEYNOTES 105

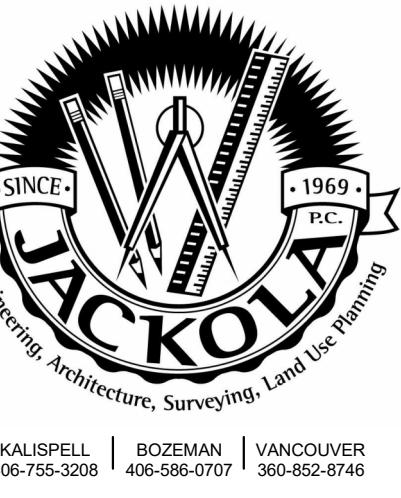
ACCESSIBLE LOCATION
OSE FURNITURE CFCI. BASIS OF DESIGN: SEDIA SYSTEMS.
ED FURNITURE CFCI. BASIS OF DESIGN: SEDIA SYSTEMS.
IGHT ADJUSTABLE INSTRUCTOR STATION WITH DEDICATED
MPUTER AND CONNECTIONS TO MSU NETWORK.SMART
DIUM LOCATION WILL REQUIRE POWER-NETWORK/AV
HWAY. SEE ELECTRICAL DRAWINGS.
LL MOUNTED FIXED PROJECTOR SCREEN, OFCI.
E CLOCK VISIBLE TO EVERYONE IN ROOM, SEE ELECTRICAL.
OUSTICAL WALL TREATMENT.
FLOOR WIRE RACEWAY, SEE ELECTRICAL.
WER STUB-UP AT TABLE LEG. SEE ELECTRICAL.
W CONCRETE RISER.

ENTIRE SHEET IS ADD ALTERNATE #1



105 FLOOR PLAN ALT. #1

A-113



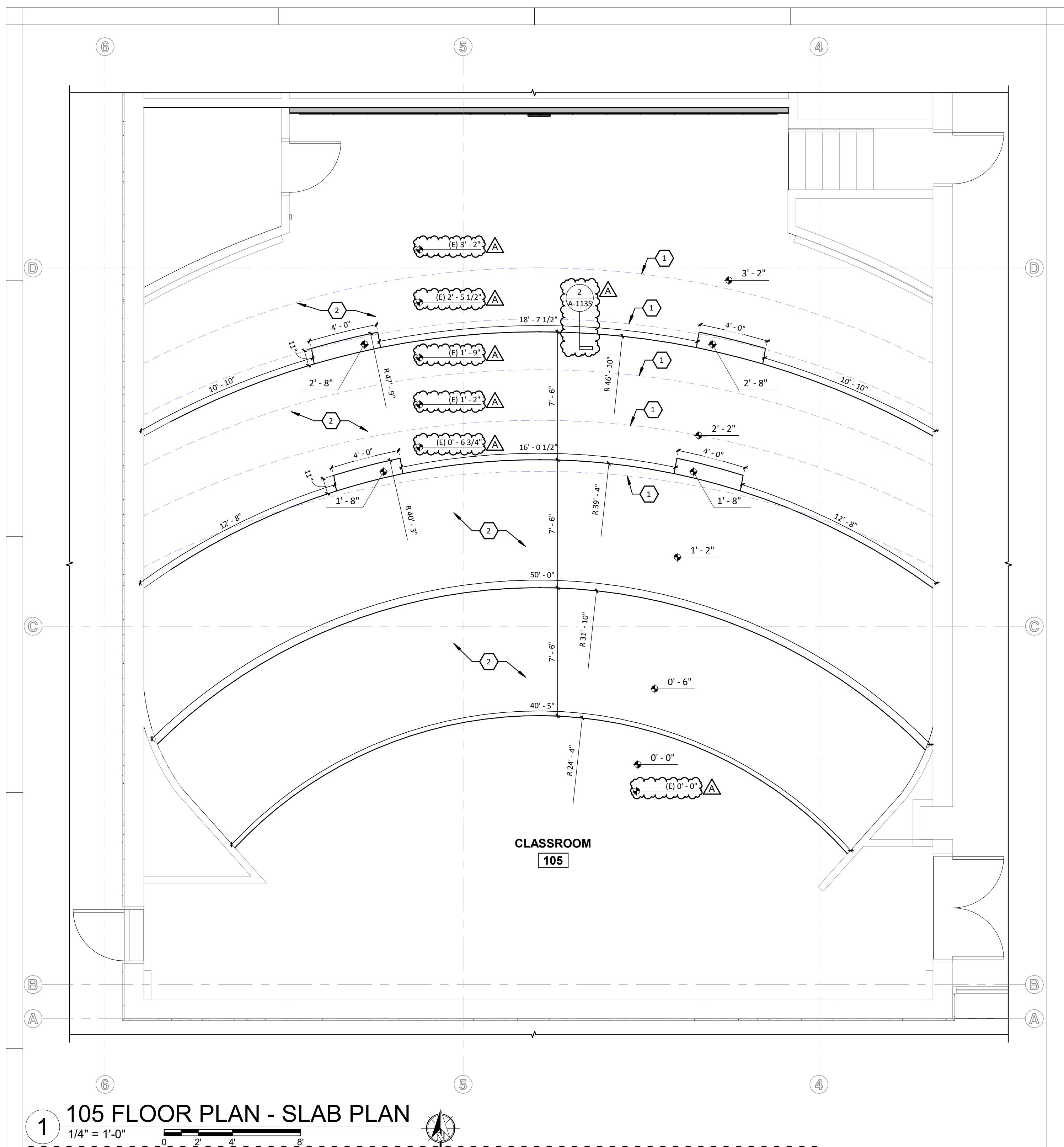
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info@jackola.com jackola.com



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BOZEMAN, MONTANA 59717
PPA#: 25-1214



105 FLOOR PLAN - SLAB PLAN

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

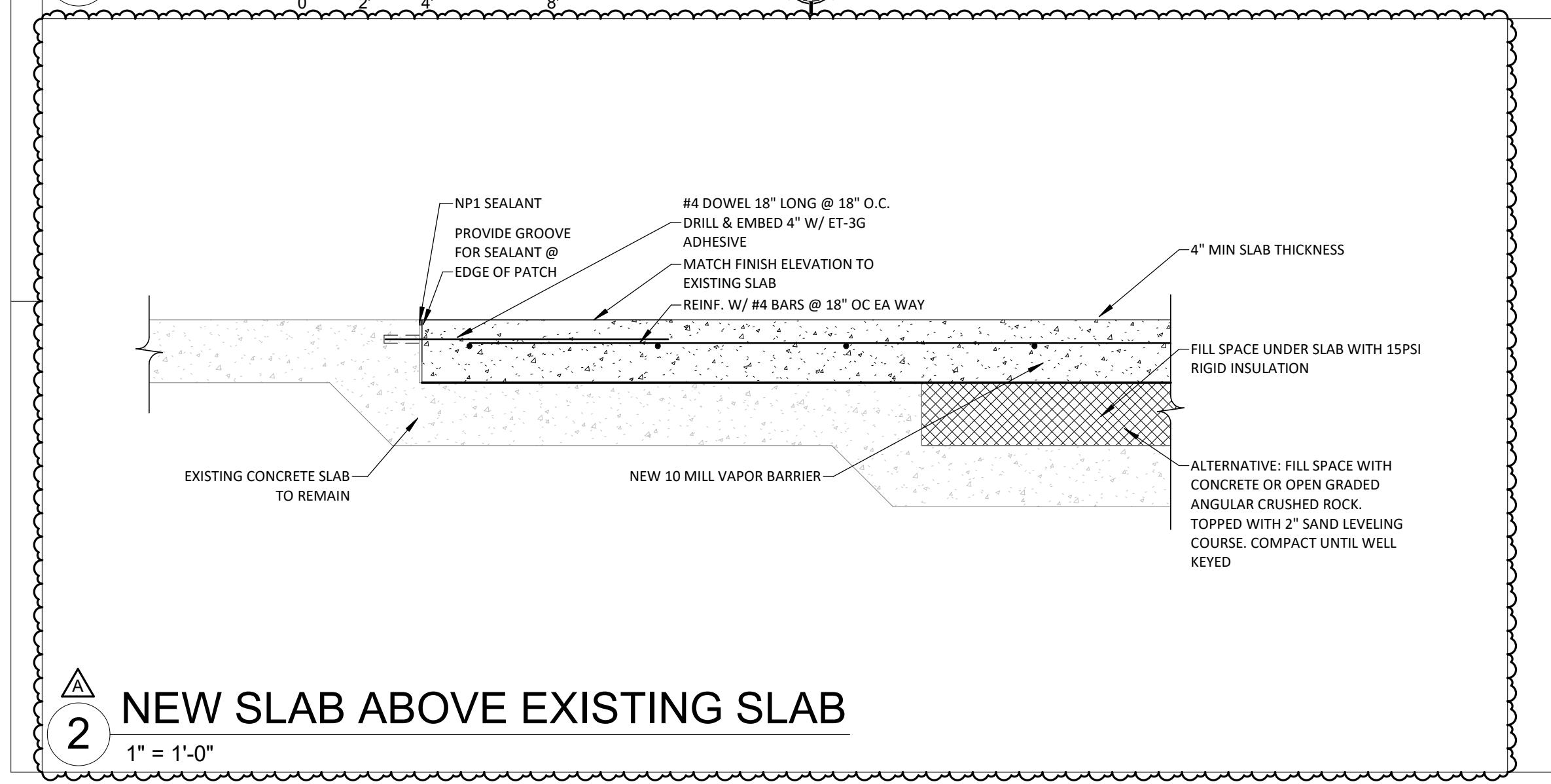
DRAWN: KE CHECKED: CH

DATE: 12/17/2025

REVISIONS:

A ADDENDUM #1 01/21/26

105 SLAB PLAN



A-113S



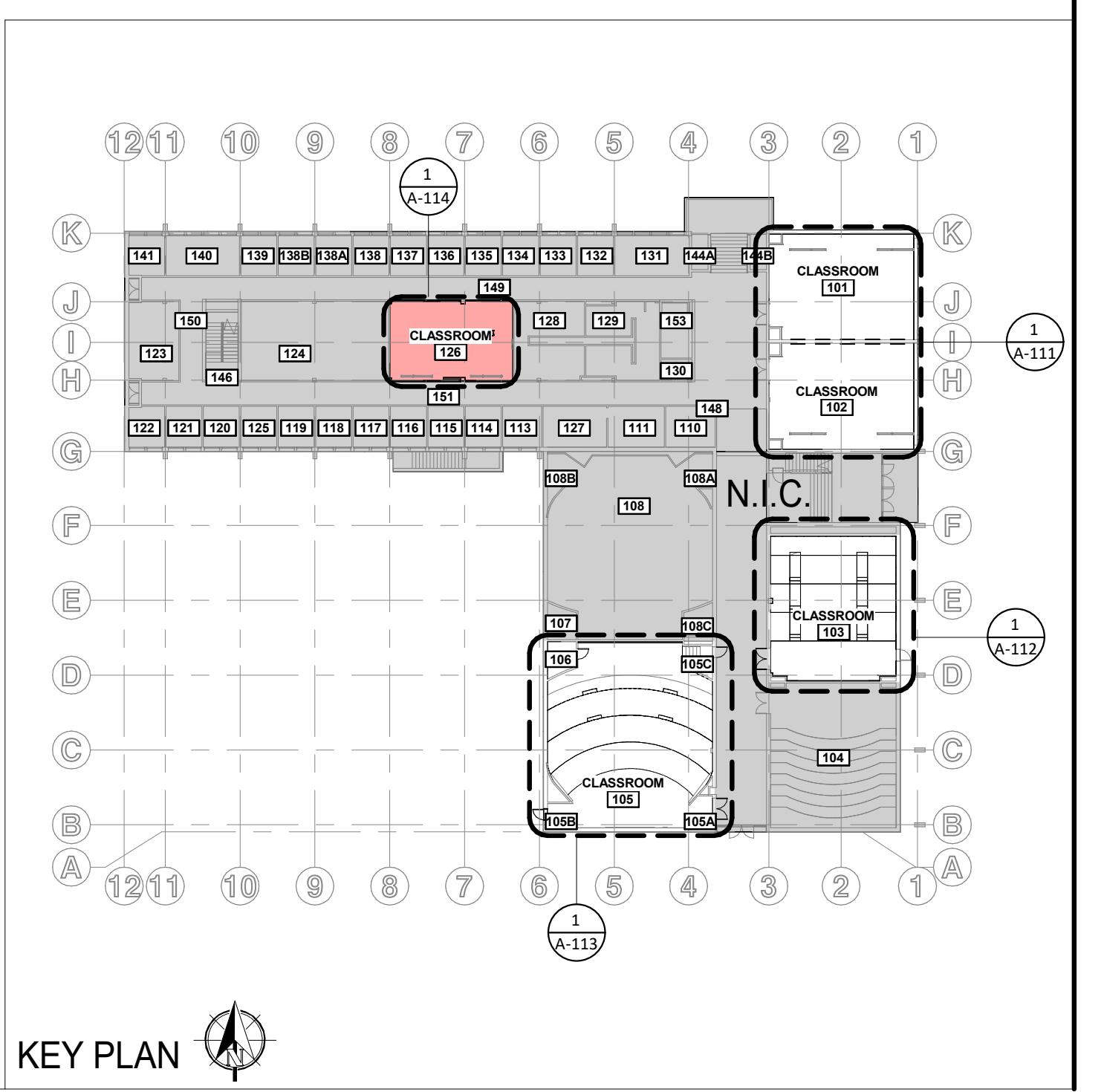
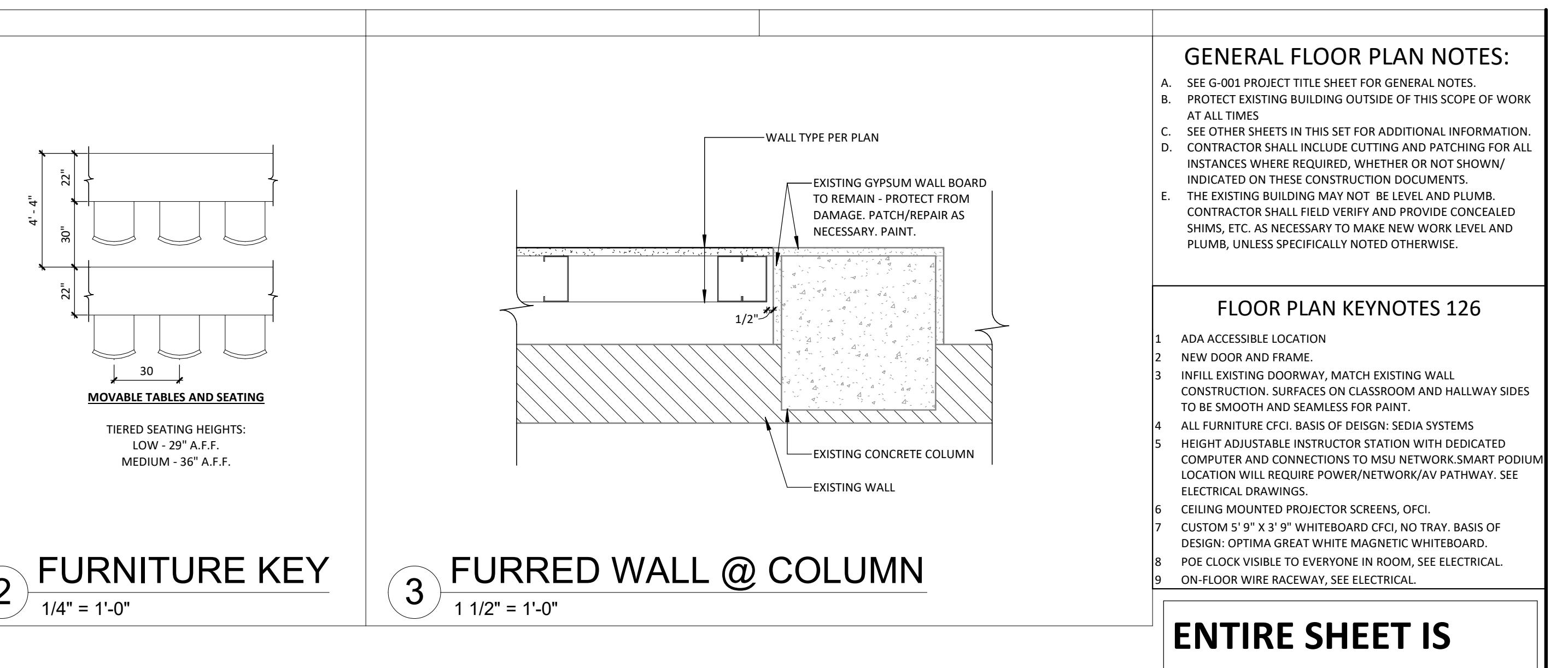
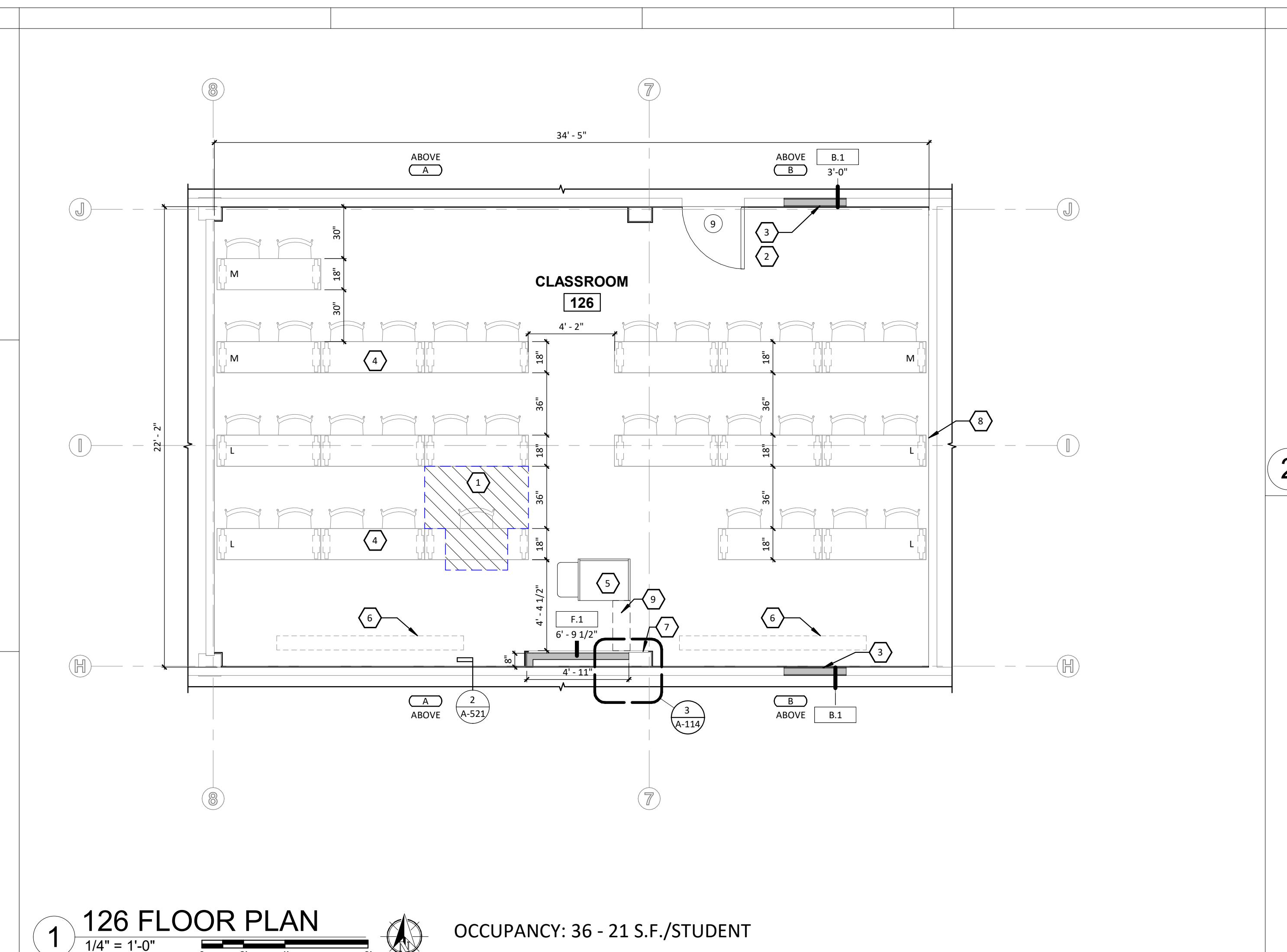
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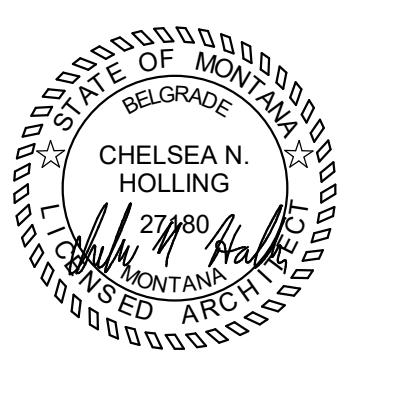
126 FLOOR
PLAN ALT. #3

A-114





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BID SET

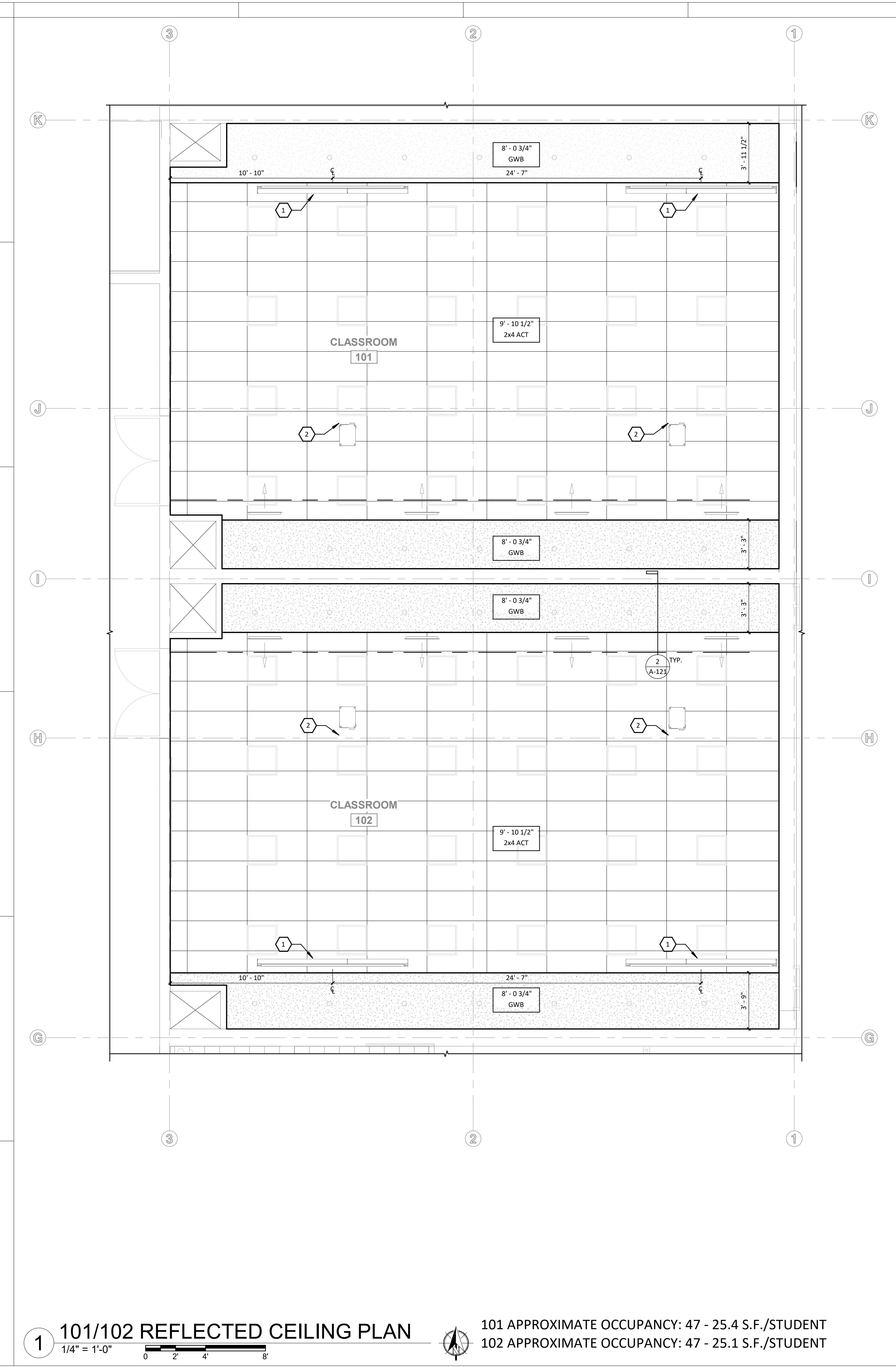
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101/102
REFLECTED
CEILING PLAN

A-121



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ENTIRE SHEET IS ADD ALTERNATE #2

GENERAL RCP NOTES:

CT TITLE SHEET FOR GENERAL NOTES.

G BUILDING OUTSIDE OF THIS SCOPE OF WORK

TS IN THIS SET FOR ADDITIONAL INFORMATION.

ALL INCLUDE CUTTING AND PATCHING FOR ALL

RE REQUIRED, WHETHER OR NOT SHOWN/

HESE CONSTRUCTION DOCUMENTS.

ILDING MAY NOT BE LEVEL AND PLUMB.

ALL FIELD VERIFY AND PROVIDE CONCEALED

CESSARY TO MAKE NEW WORK LEVEL AND

SPECIFICALLY NOTED OTHERWISE.

CP KEYNOTES 103

GENERAL RCI 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.

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RCP KEYNOTES 103

- 2 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.
- 3 CEILING MOUNTED PROJECTOR. CONTRACTOR TO PROVIDE

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

CEILING PLAN LEGEND

The image contains three separate sections, each with a small sketch and text. The top section shows a rectangular frame with a grid pattern inside, labeled '2X4 ACT' and 'ACOUSTIC CEILING TILE'. The middle section shows a textured rectangular pattern, labeled 'GWB' and 'GYPSUM WALL BOARD'. The bottom section shows a wavy line pattern, labeled 'SPRINKLER SYSTEM PIPING' and 'NEW'. There are also three short horizontal lines at the bottom left.

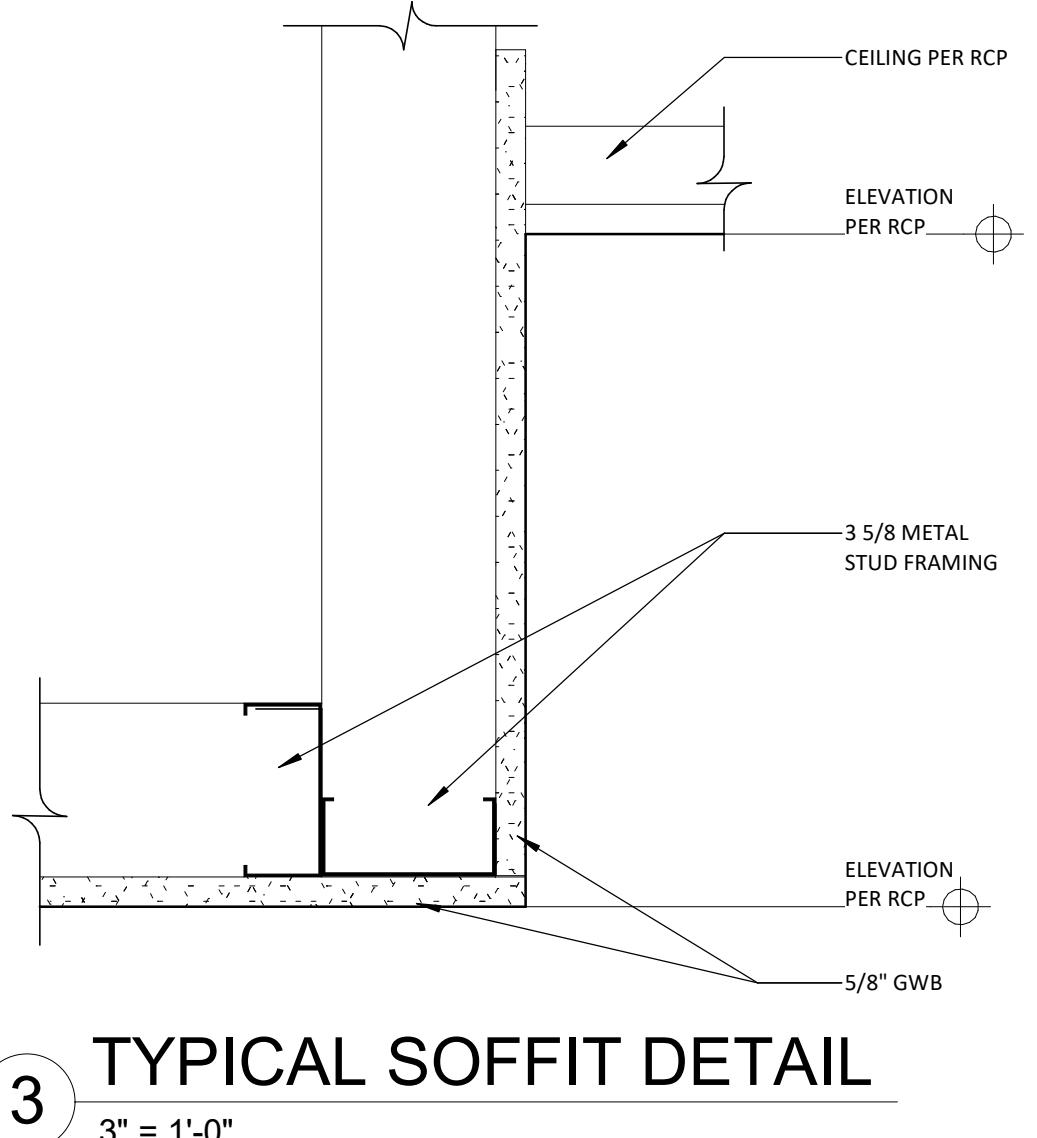
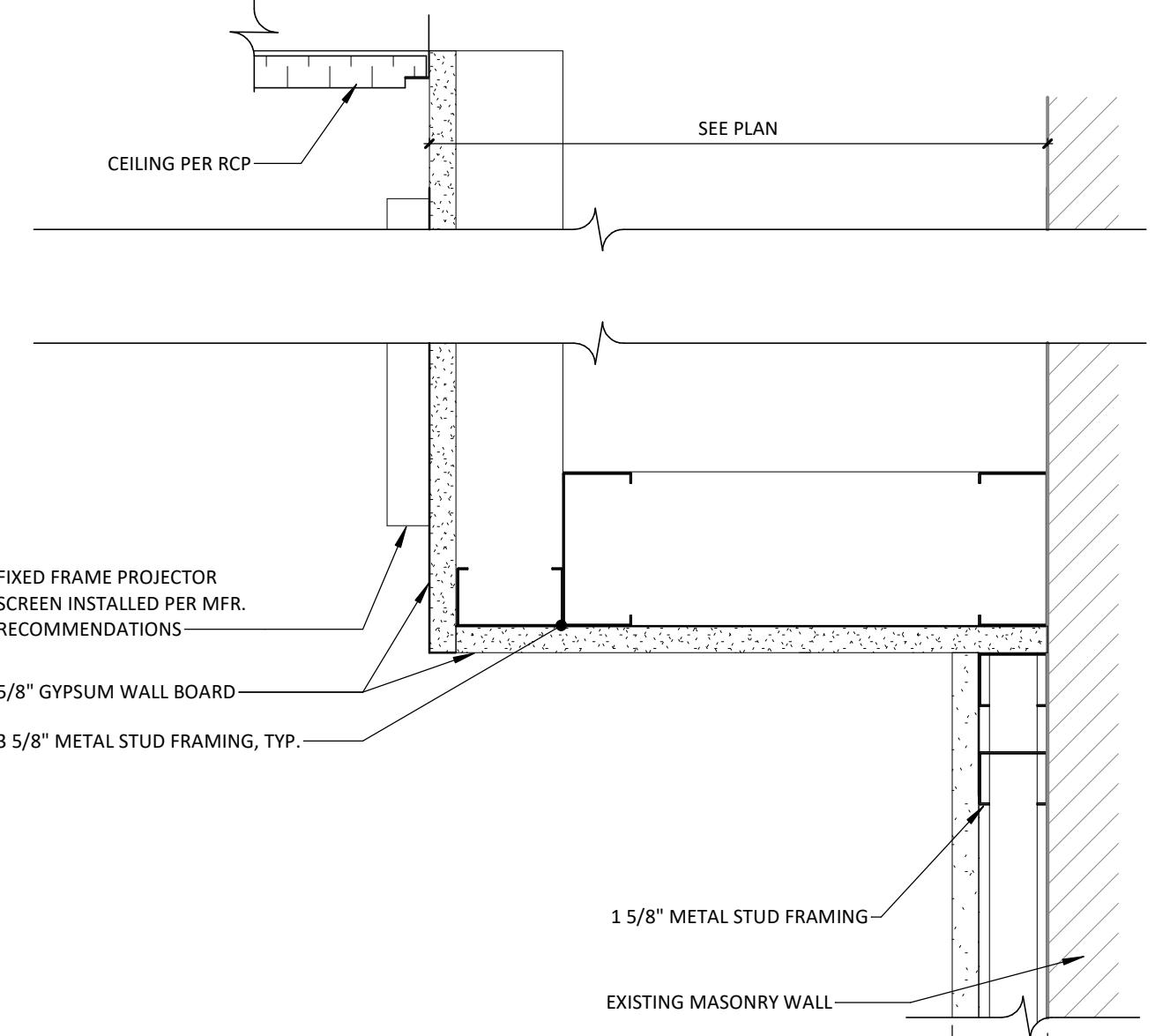
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This architectural floor plan shows the layout of Classroom 103. The room is 12' 0" wide by 14' 6" deep. The front entrance is at the bottom, leading into a 7' 8" wide vestibule. The main room has a 14' 6" by 10' 0" section labeled "2x4 ACT". Above this is a 12' 2" section labeled "GWB-FRAMED". The back wall is 7' 1" wide and also labeled "GWB-FRAMED". The right side of the room is 3' 0" wide and labeled "GWB-FRAMED". The left side is 2' 4" wide and labeled "GWB-FRAMED". The top of the room is 3' 0" high. The room has a grid of 12' 0" by 12' 0" columns and 14' 6" by 14' 6" rows. There are four doors, each marked with a hexagon containing the number 2. There are also two doors marked with a hexagon containing the number 3, located in the 2x4 ACT section. The room is bounded by vertical lines labeled (D) on the left and right, and horizontal lines labeled (D), (E), (F), (2), and (3) on the top and bottom. The room is labeled "CLASSROOM 103".

103 REFLECTED CEILING PLAN

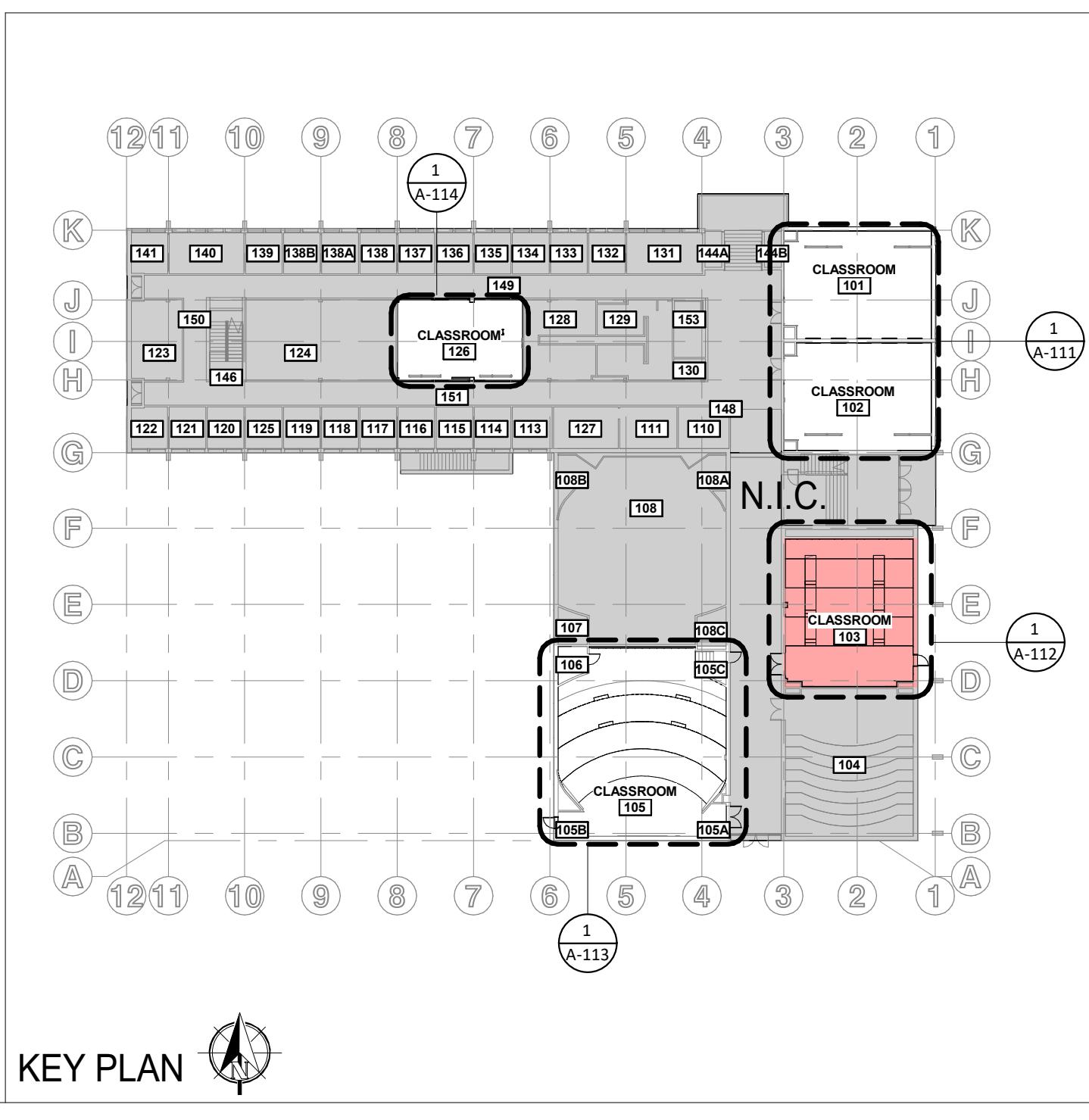
1/4" = 1'-0" 0 2' 4' 8'

—



2 SOFFIT @ INSTRUCTOR WALL

3" = 1'-0"



103 REFLECTED CEILING PLAN ALT. #2

A-122

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PPA#: 25-1214

Ergonomics in Design, Vol. 19, No. 1, March 2007, 11–16

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CT TITLE SHEET FOR GENERAL NOTES.
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TS IN THIS SET FOR ADDITIONAL INFORMATION.
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RE REQUIRED, WHETHER OR NOT SHOWN/
HESE CONSTRUCTION DOCUMENTS.
ILDING MAY NOT BE LEVEL AND PLUMB.
ALL FIELD VERIFY AND PROVIDE CONCEALED
CESSARY TO MAKE NEW WORK LEVEL AND
SPECIFICALLY NOTED OTHERWISE.

RCP KEYNOTES 105

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.

105 REFLECTED CEILING PLAN

1/4" = 1'-0" 

ENTIRE SHEET IS ADD ALTERNATE #1

This architectural floor plan illustrates the layout of a building with various rooms and specific areas highlighted. The rooms are numbered from 1 to 151, with some rooms grouped into larger areas. The highlighted areas include:

- CLASSROOM 101** (top right, enclosed in a dashed box)
- CLASSROOM 102** (middle right, enclosed in a dashed box)
- CLASSROOM 103** (bottom right, enclosed in a dashed box)
- CLASSROOM 105** (bottom center, enclosed in a dashed box)
- CLASSROOM 106** (bottom center, enclosed in a dashed box)
- CLASSROOM 107** (bottom center, enclosed in a dashed box)
- CLASSROOM 108** (middle center, enclosed in a dashed box)
- CLASSROOM 108A** (middle center, enclosed in a dashed box)
- CLASSROOM 108B** (middle center, enclosed in a dashed box)
- N.I.C.** (middle right, enclosed in a dashed box)

The rooms are arranged in a grid-like pattern, with columns labeled from A to K and rows labeled from A to K. The rooms are numbered as follows:

- Row K: 12, 11, 10, 9, 8, 7, 1 (A-114)
- Row J: 141, 140, 139, 138B, 138A, 138, 137, 136, 135, 134, 133, 132, 131, 144A, 144B
- Row I: 150, 123, 124, 146
- Row H: 122, 121, 120, 125, 119, 118, 117, 116, 115, 114, 113, 127, 111, 110, 148
- Row G: 151, 108B, 108, 108A, 107, 106, 105C, 105B, 105A, 104
- Row F: 108, 108A, 108B
- Row E: 107, 106, 105C, 105B, 105A, 104
- Row D: 108, 108A, 108B
- Row C: 107, 106, 105C, 105B, 105A, 104
- Row B: 108, 108A, 108B
- Row A: 107, 106, 105C, 105B, 105A, 104

Additional labels include **1 A-113** at the bottom center and **1 A-112** on the right side.

KEY PLAN

05 REFLECTED CEILING PLAN ALT. #1

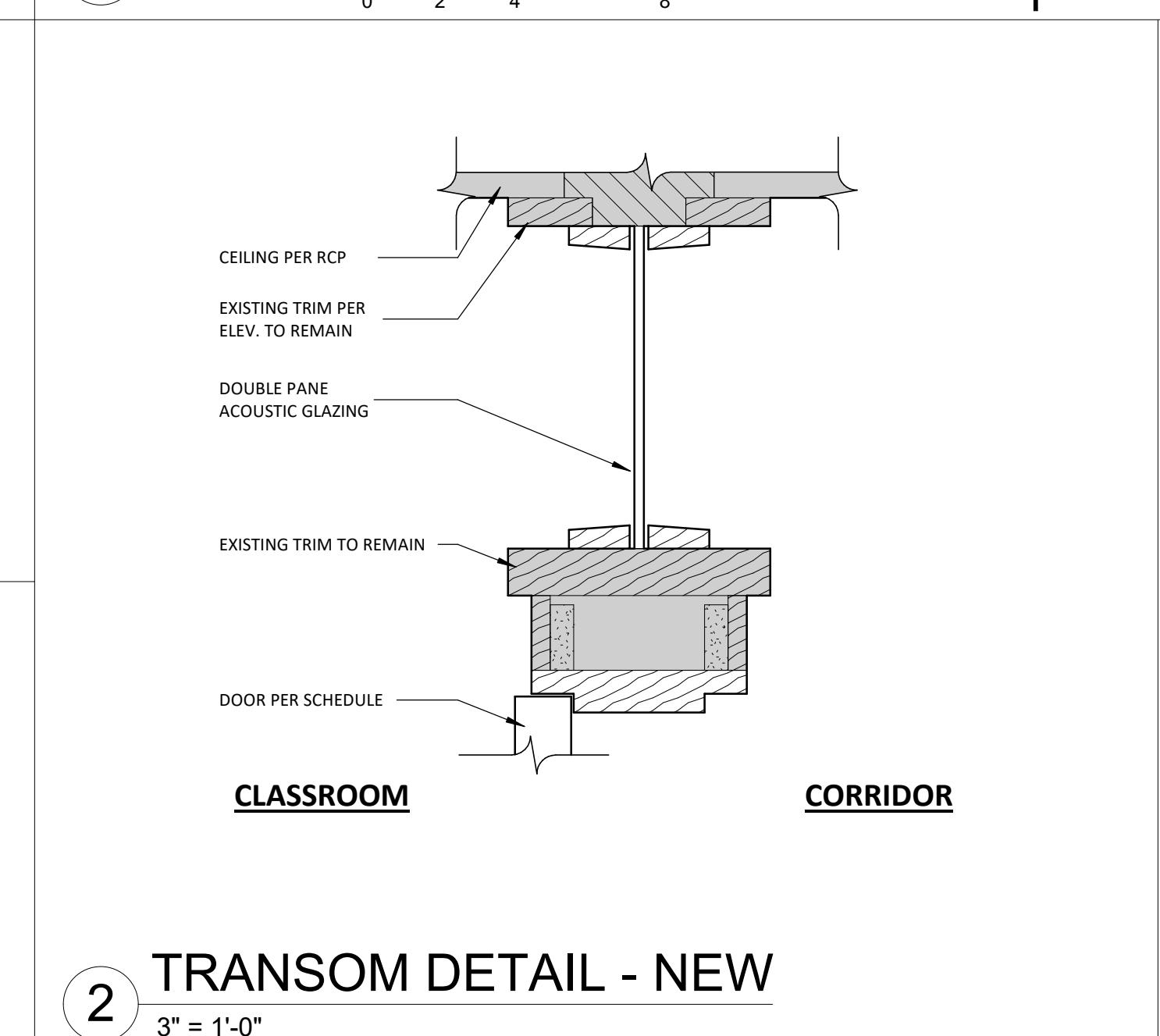
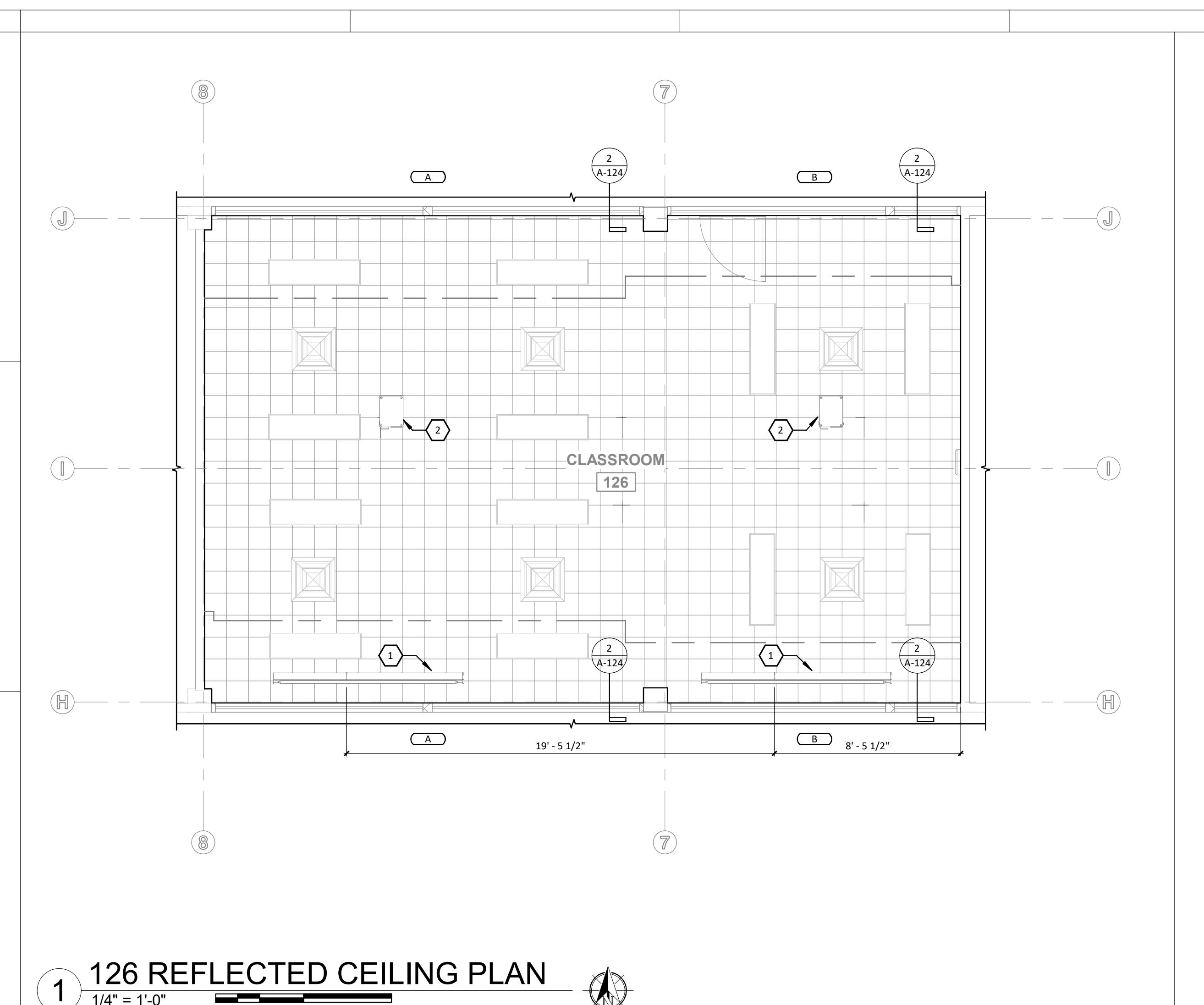
A-123



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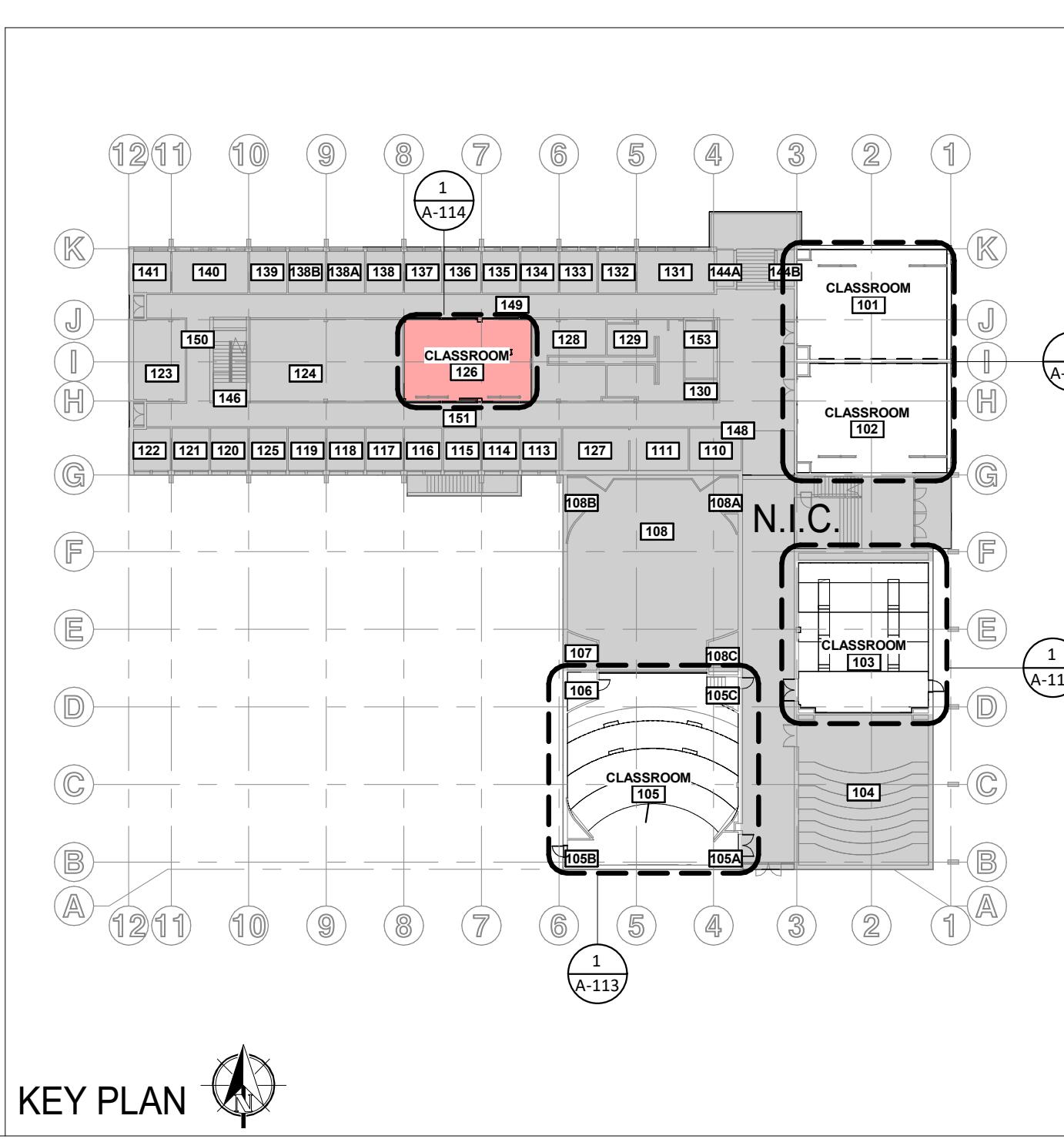
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REID HALL,
BOZEMAN, MONTANA 59717
PPA#: 25-1214



PROJECT #/Project Number

ENTIRE SHEET IS
ADD ALTERNATE #3



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

A-124

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
D.	CONTRACTOR SHALL INCLUDE CUTTING AND PATCHING FOR ALL INSTANCES WHERE REQUIRED, WHETHER OR NOT SHOWN/INDICATED ON THESE CONSTRUCTION DOCUMENTS
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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	
EXISTING IXI ACT ACOUSTIC CEILING TILE	(represented by a square with a diagonal line)
EXISTING SPRINKLER SYSTEM PIPING	(represented by a dashed line)
REMAINING	(represented by a solid line)

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

EXISTING IXI ACT ACOUSTIC CEILING TILE (represented by a square with a diagonal line)
EXISTING SPRINKLER SYSTEM PIPING (represented by a dashed line)
REMAINING (represented by a solid line)

BID SET

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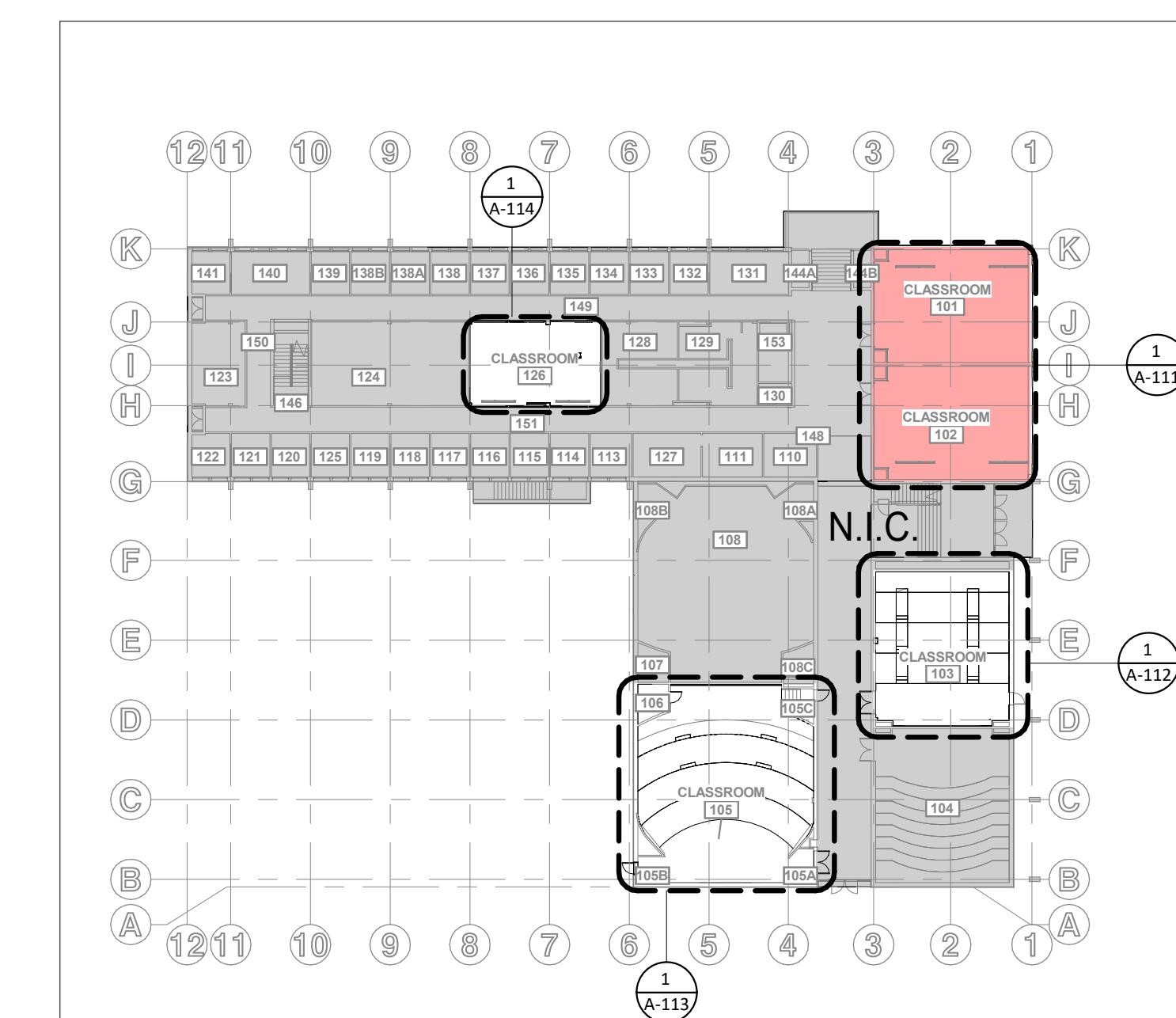
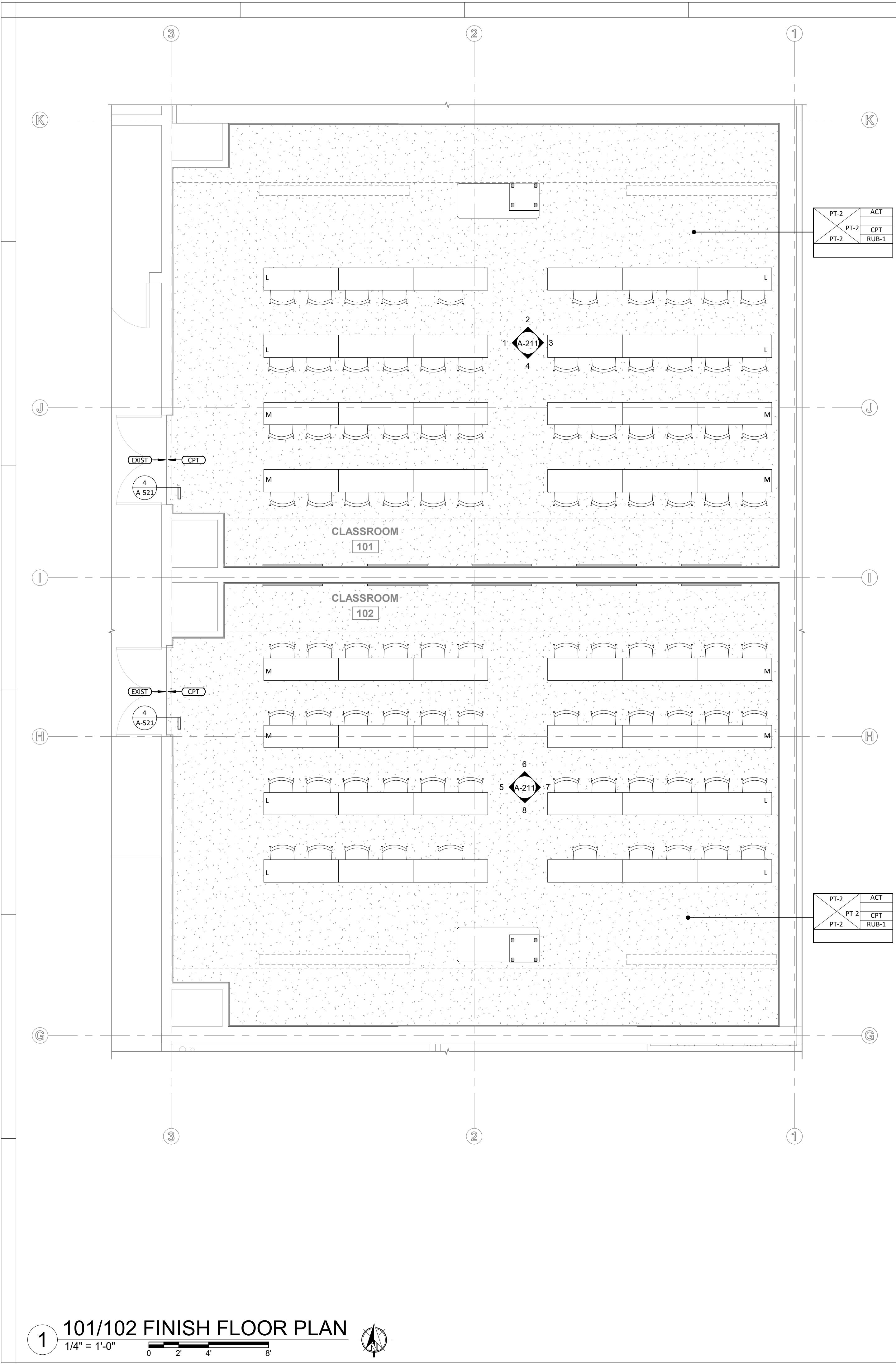
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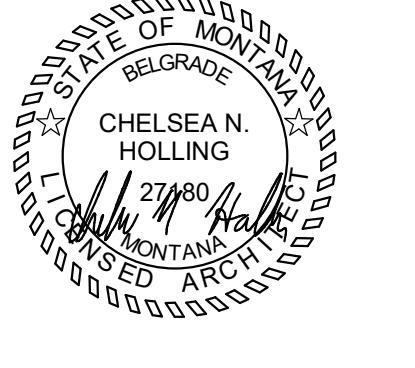
DRAWN: RH CHECKED: CH
DATE: 12/17/2025
REVISIONS:

101/102 FINISH FLOOR PLAN

A-131

KEY PLAN



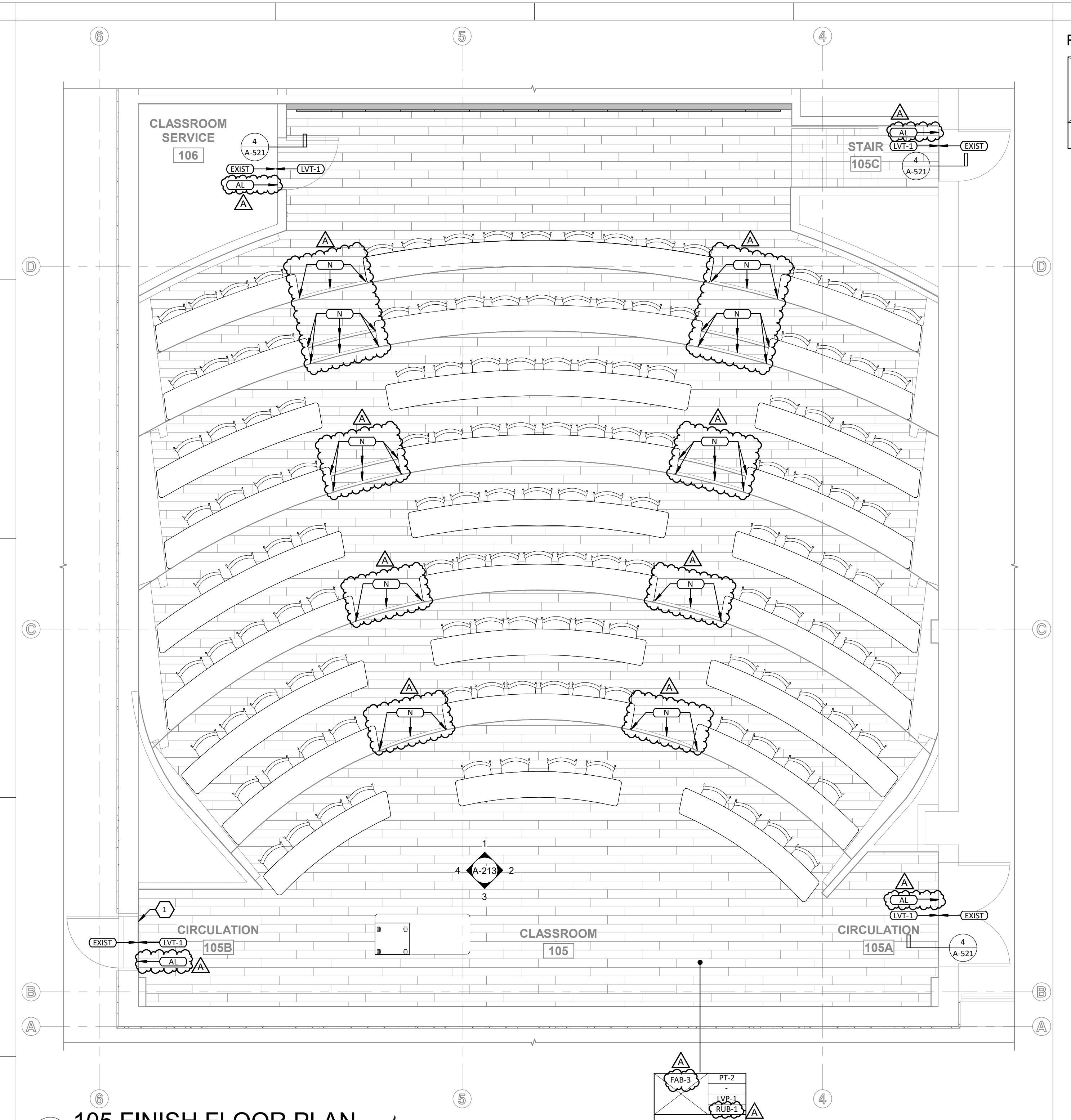


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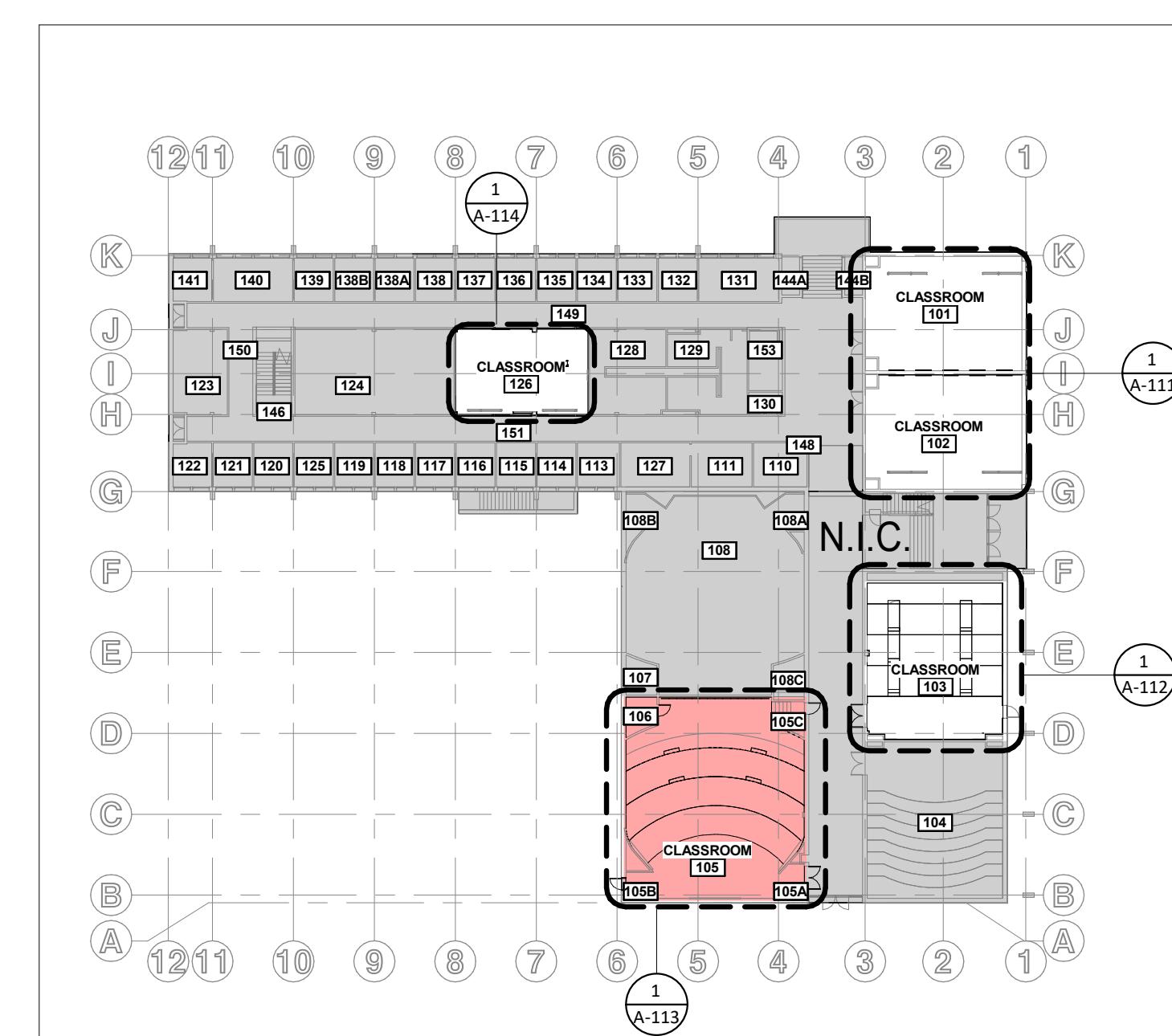
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ROOM FINISH KEY	
WALL	CEILING
WALL	SILL
WALL	FLOOR
WALL	BASE
NOTES	

FINISH SCHEDULE						
TAG	KEY	COLOR	MANUFACTURER	STYLE	NOTE	
AL	ALUMINUM TRANSITION STRIP	ALUMINUM	SCHLUTER SYSTEMS	RENO-T - TS/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	WAVEBEAT PTG9/PTR2	DALTILE	PINES TERRACE	#129 FLEXITIONS 1" TOP MOUNT	STAIR TREADS AND PLATFORM RISERS.
N	NOISING STRIP	ASH	FLEXITIONS			
PT-2	PAINT	SV 9165 GOSAMER VEIL	SHERWIN WILLIAMS	EGGHELL		
RUB-1	RUBBER BASE	BLACK	JOHNSONITE	DURACOVE 4"		



KEY PLAN

ENTIRE SHEET IS
ADD ALTERNATE #1

PROJECT #/Project Number

A-133

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26 FINISH LOOR PLAN ALT. #3

A-134



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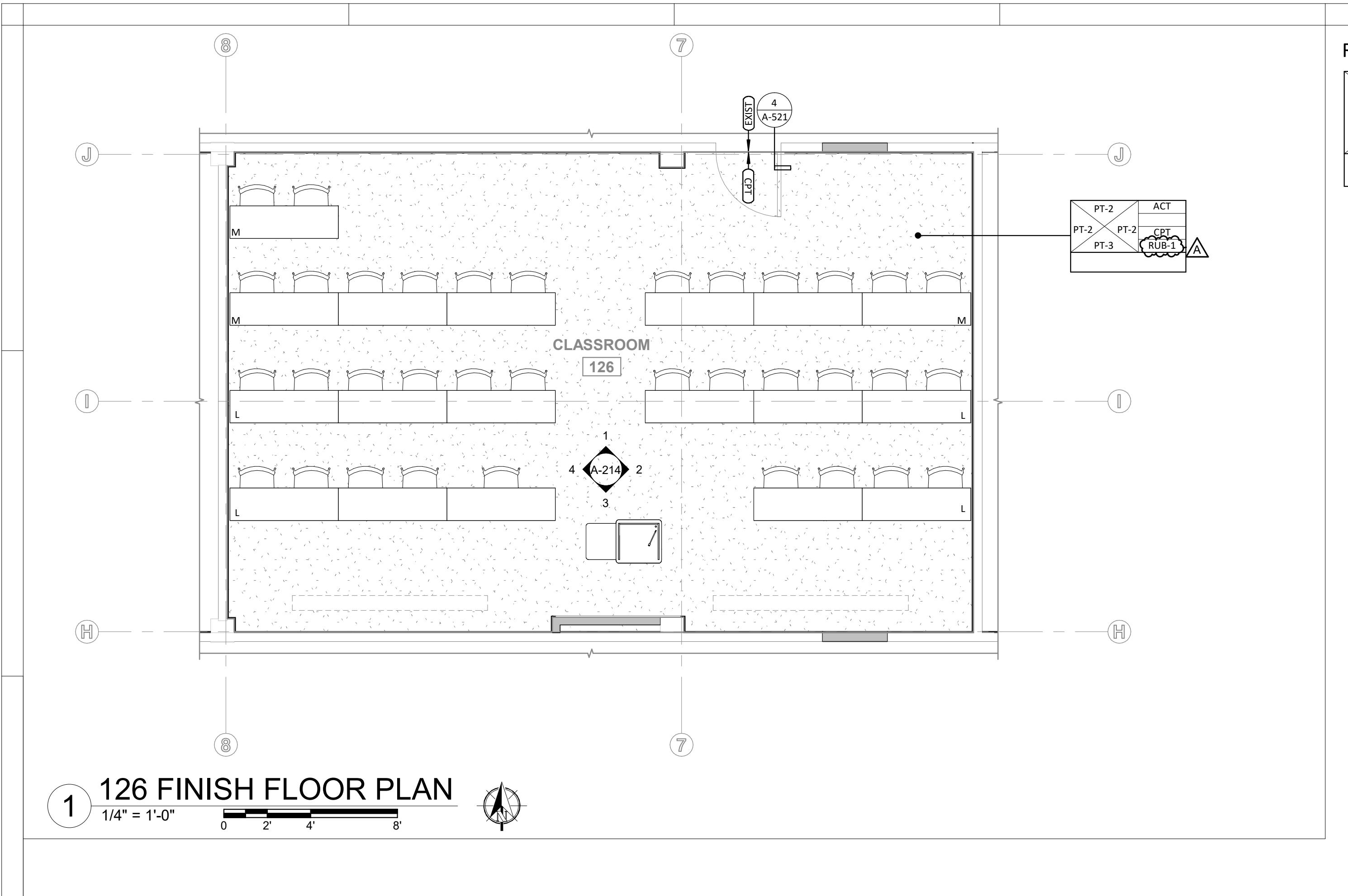
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N: RH CHECKED: CH

REVISIONS:

126 FINISH FLOOR PLAN ALT. #3

KEY PLAN



A diagram titled 'ROOM FINISH KEY' showing a cross-section of a room. The vertical lines are labeled 'WALL' on the left and 'WALL' on the right. The horizontal lines are labeled 'CEILING' at the top, 'SILL' in the middle, 'FLOOR' in the lower-middle, and 'BASE' at the bottom. A large 'X' is drawn through the 'WALL' labels. The word 'NOTES' is written in the bottom-left corner of the diagram area.

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)

ENTIRE SHEET IS ADD ALTERNATE #3

PROJECT #:Project Number

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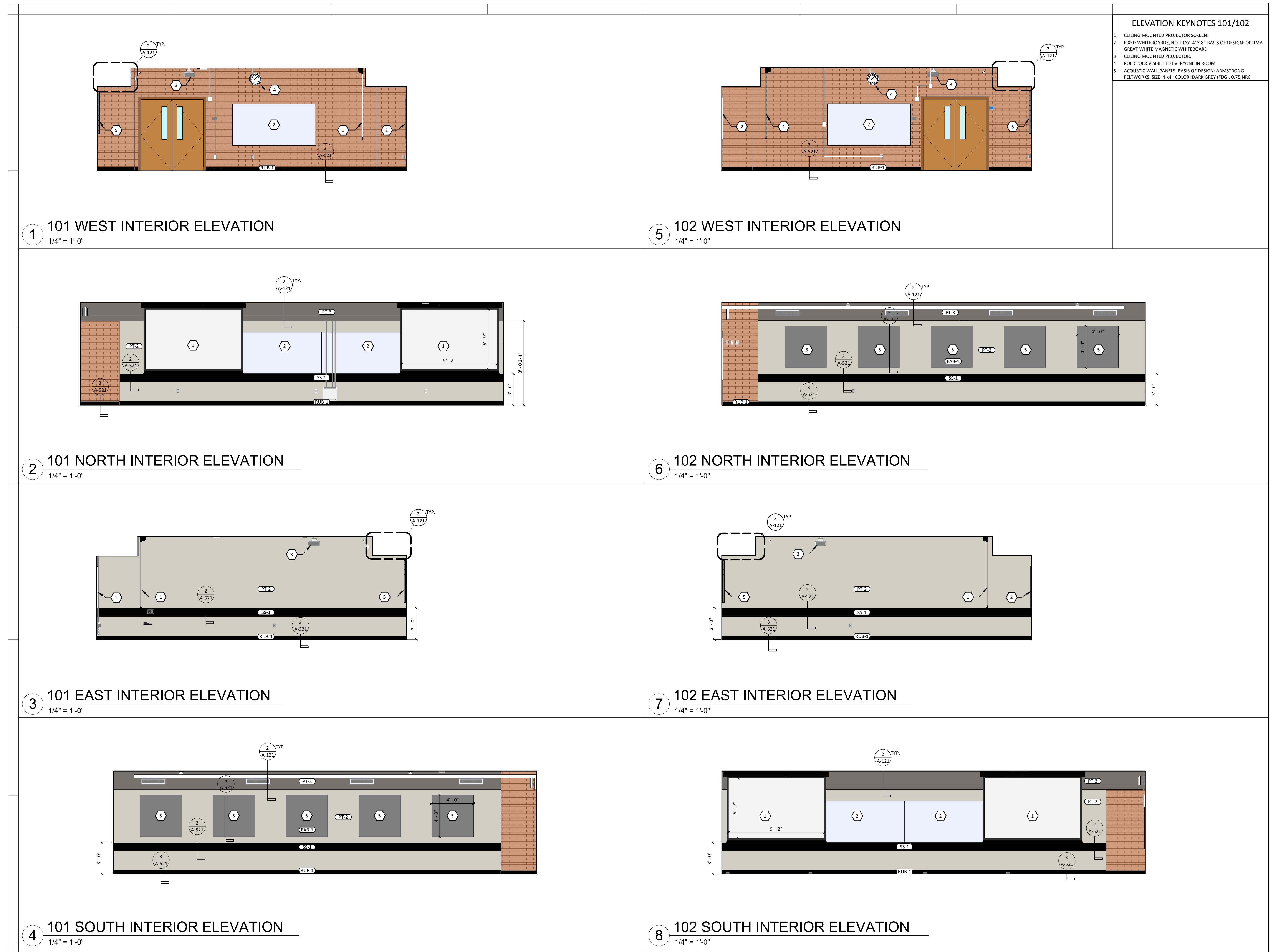
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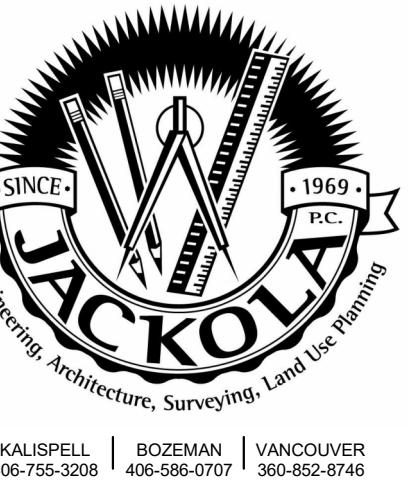
101/102 INTERIOR ELEVATIONS

A-211

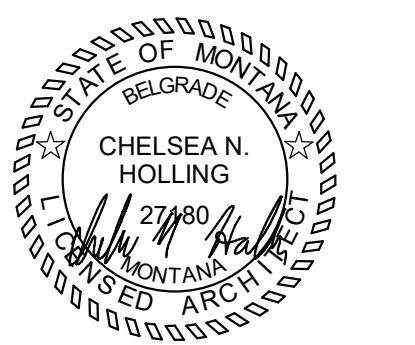


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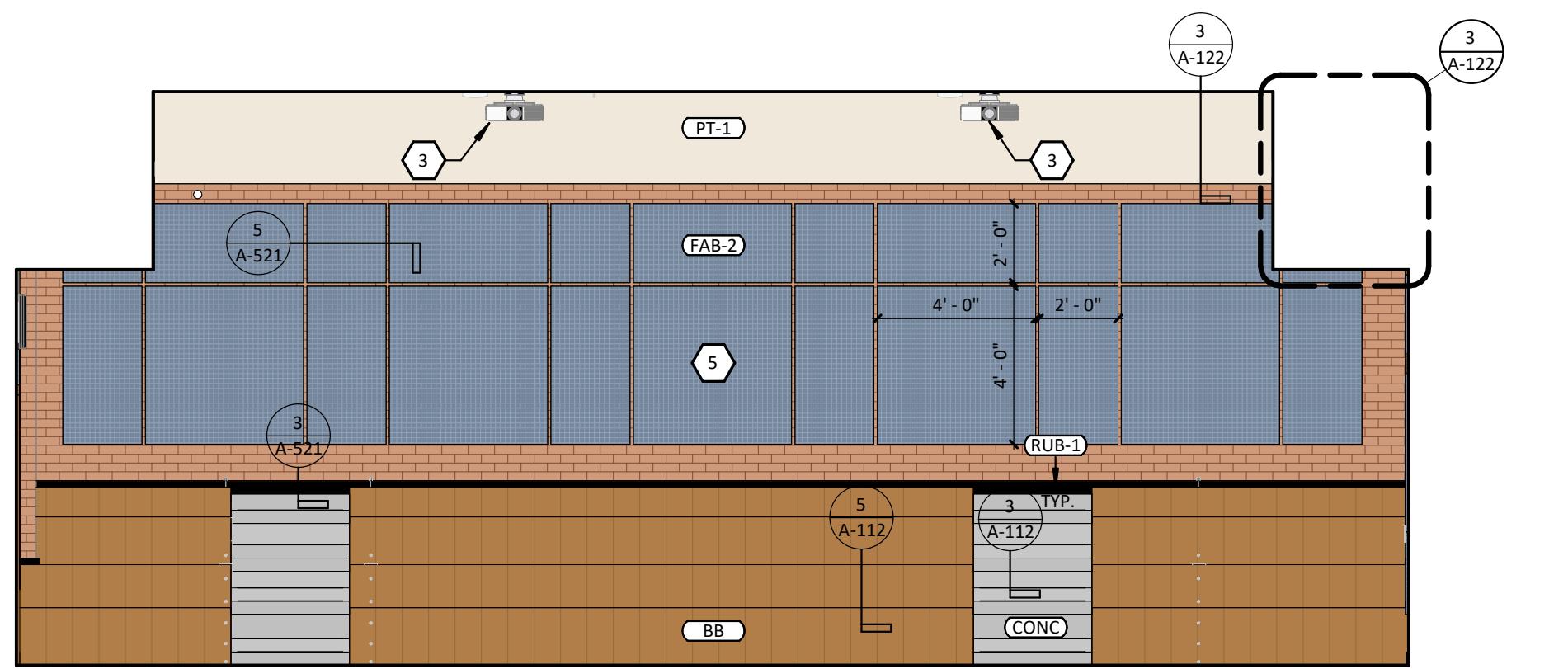
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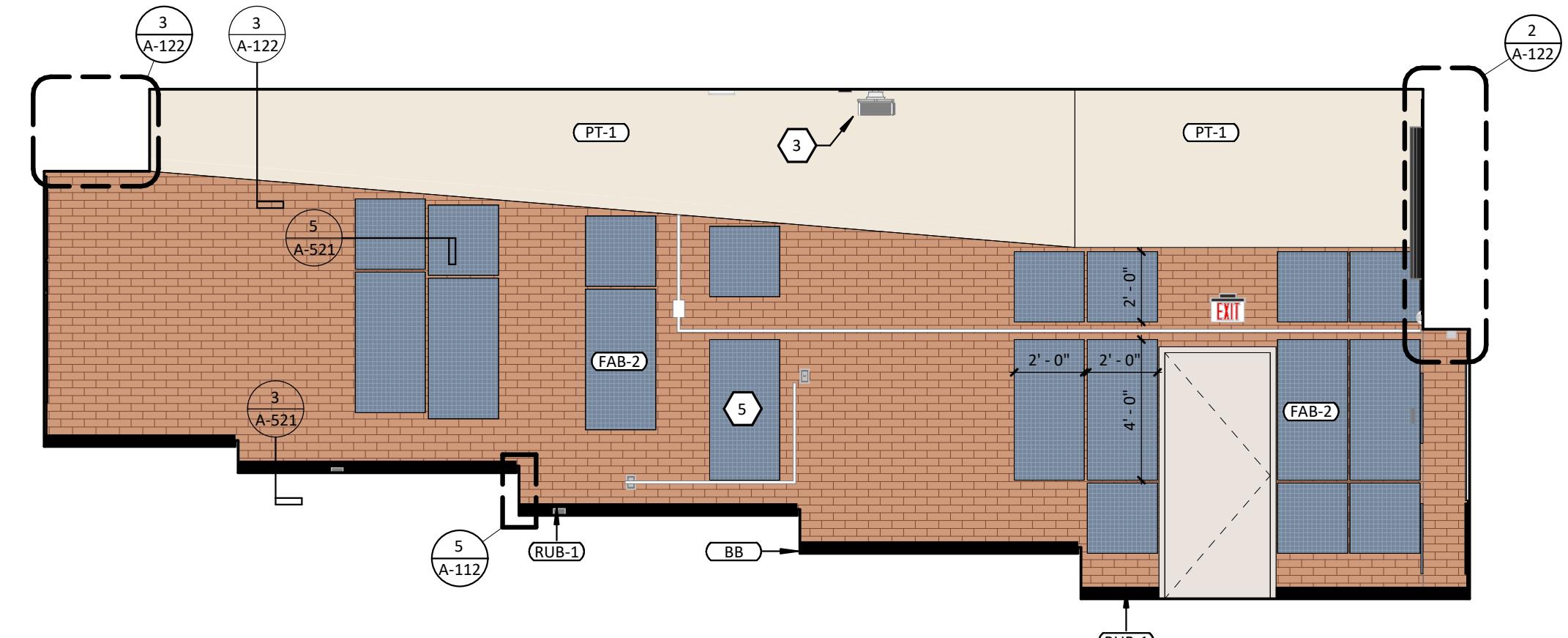
ENTIRE SHEET IS
ADD ALTERNATE #2

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 MCSORES-RAP. COLOR: WEDGEWOOD, NRC 0.75



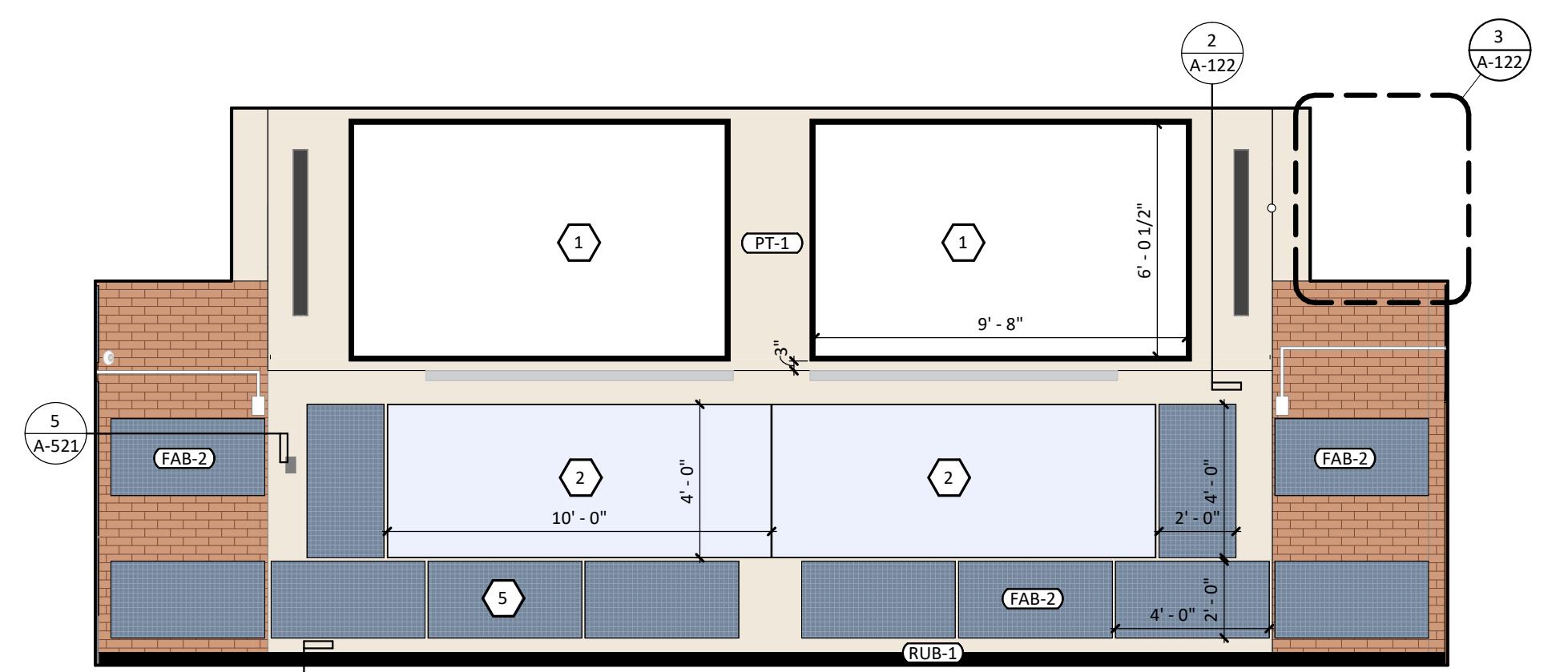
1 103 NORTH INTERIOR ELEVATION

1/4" = 1'-0"



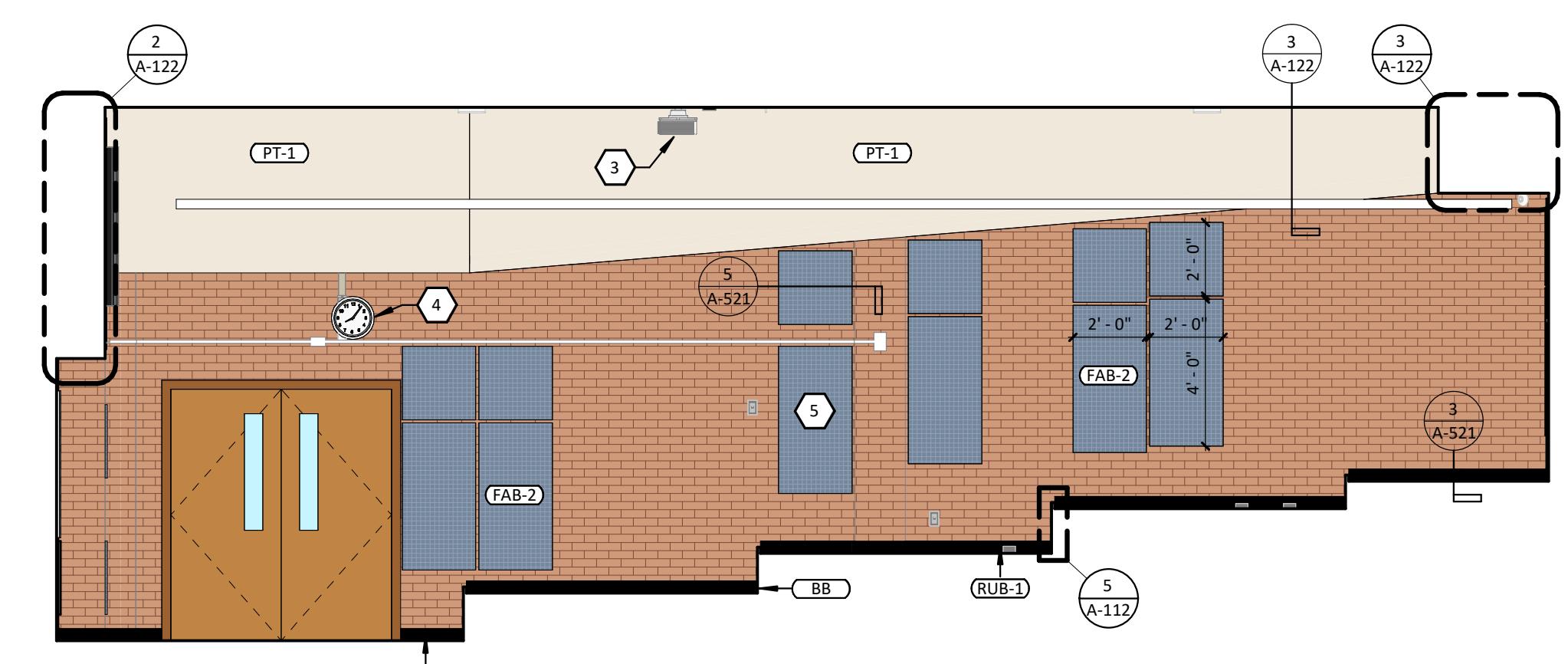
2 103 EAST INTERIOR ELEVATION

1/4" = 1'-0"



3 103 SOUTH INTERIOR ELEVATION

1/4" = 1'-0"



4 103 WEST INTERIOR ELEVATION

1/4" = 1'-0"

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

REVISIONS:

103 INTERIOR
ELEVATIONS
ALT. #2

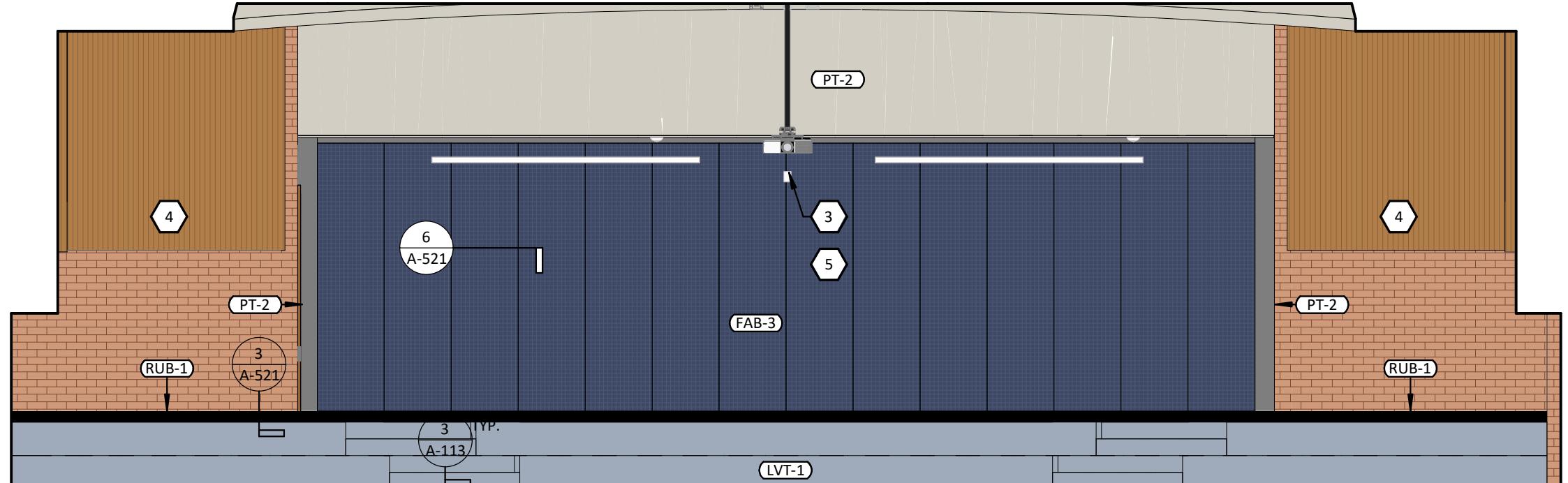
A-212



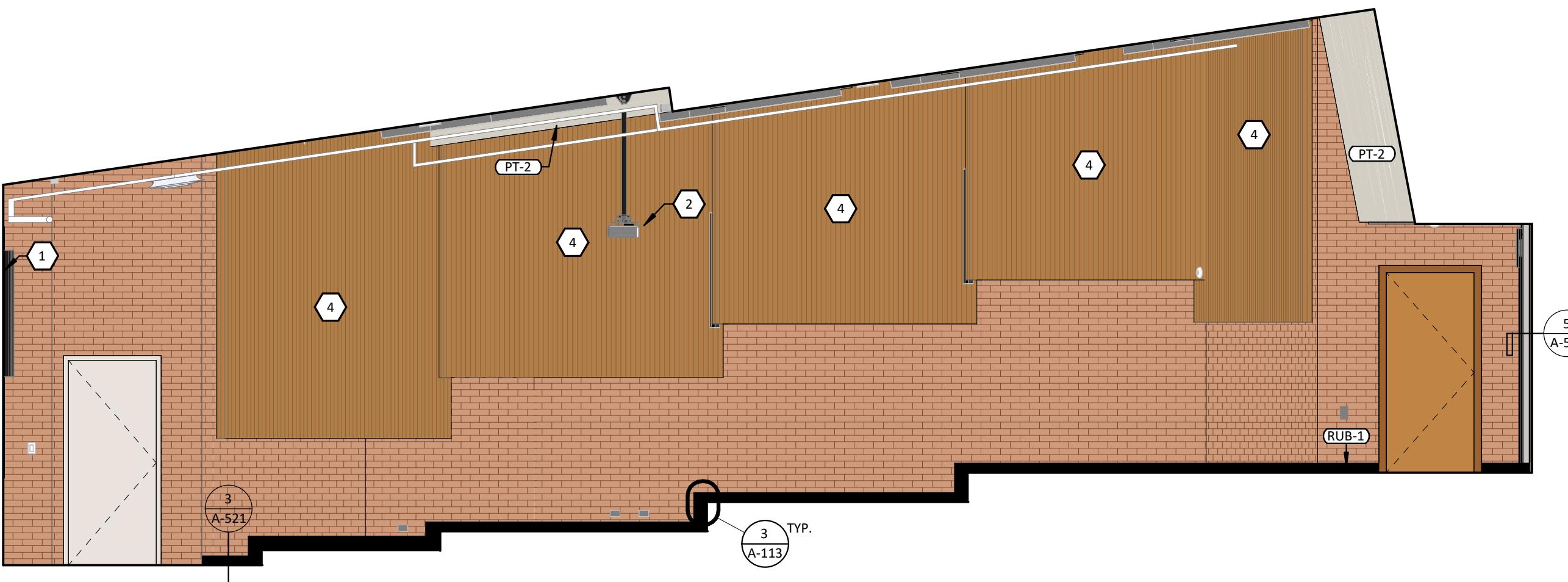
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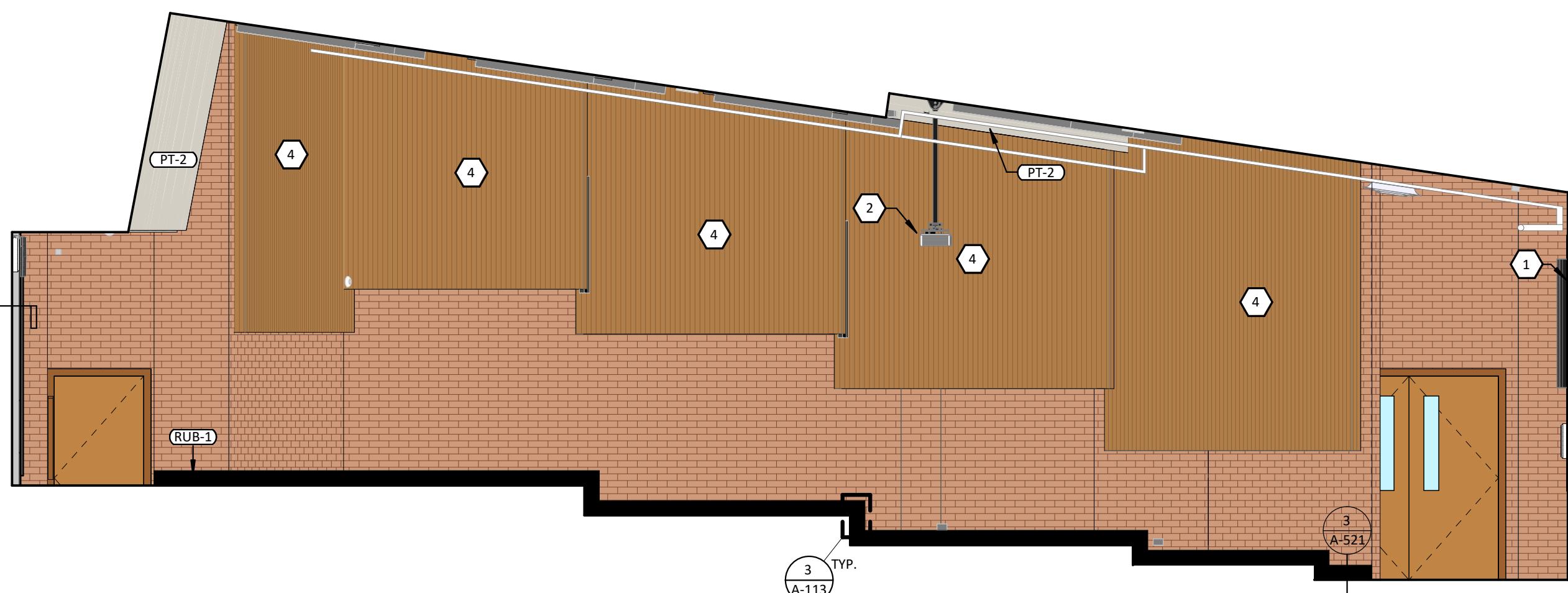


1 105 NORTH INTERIOR ELEVATION
1/4" = 1'-0"

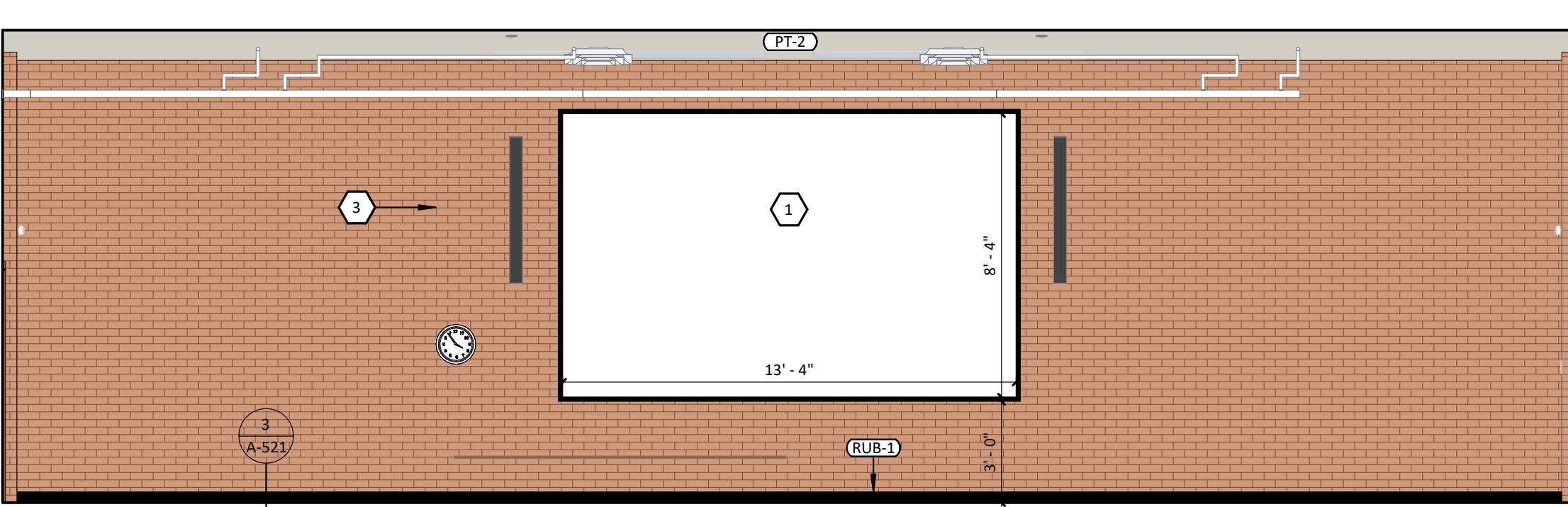


4 105 WEST INTERIOR ELEVATION
1/4" = 1'-0"

INTERIOR ELEVATION KEYNOTES 105
1. WALL MOUNTED PROJECTOR SCREEN.
2. CEILING MOUNTED PROJECTOR.
3. POE CLOCK VISIBLE TO EVERYONE IN ROOM.
4. REFINISH UPSIDE OF EXISTING ACOUSTIC WALL PANELS. SEE
DEMO NOTES ON A113.
5. ACOUSTICAL WALL TREATMENT. BASIS OF DESIGN: ARMSTRONG
SOUNDOK 85. SIZE: 2'X2'. 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

A-213

DRAWN: RH CHECKED: CH

DATE: 12/17/2025

REVISIONS:

105 INTERIOR
ELEVATIONS
ALT. #1



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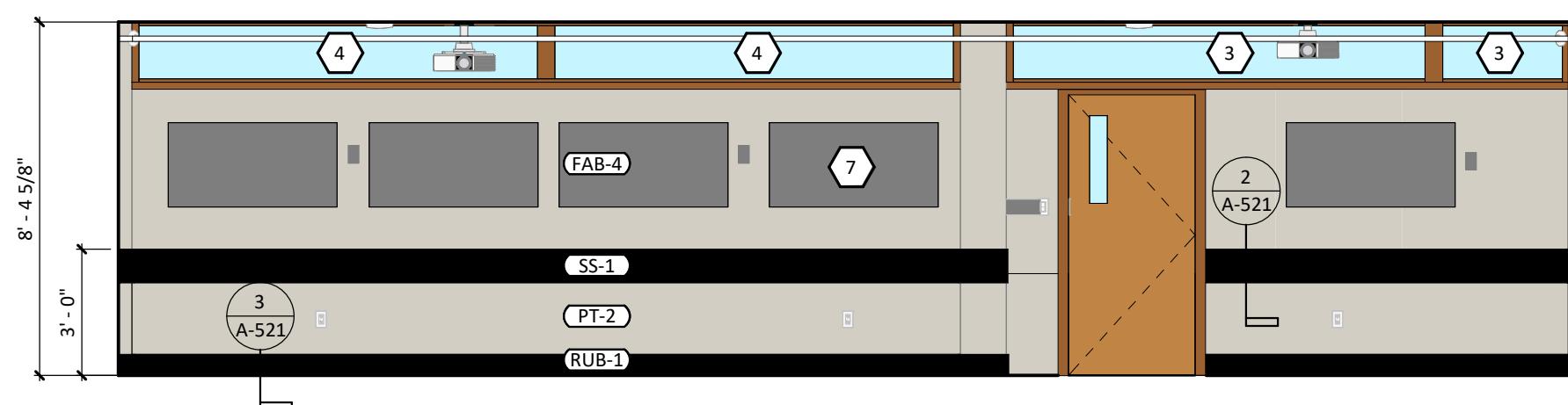
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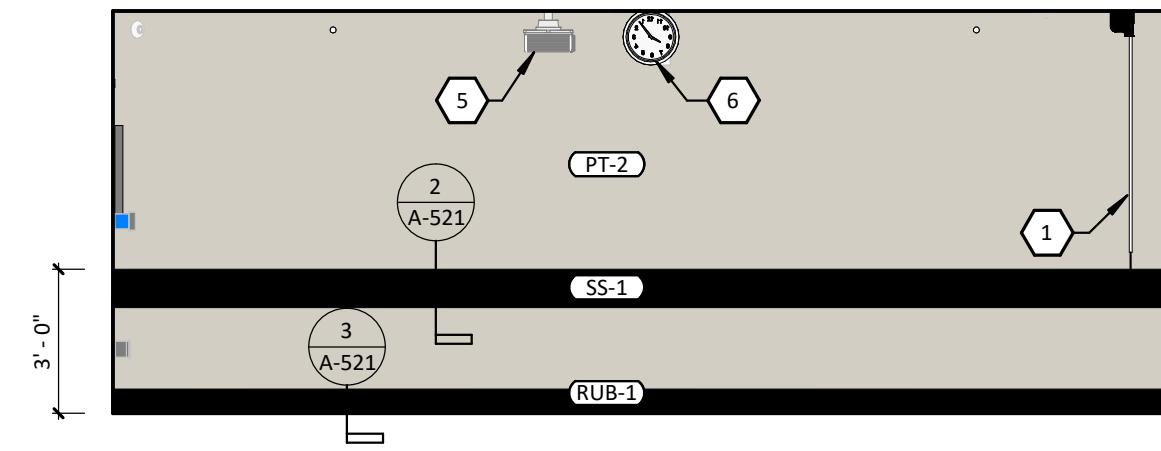
ENTIRE SHEET IS
ADD ALTERNATE #3

INTERIOR ELEVATION KEYNOTES 126

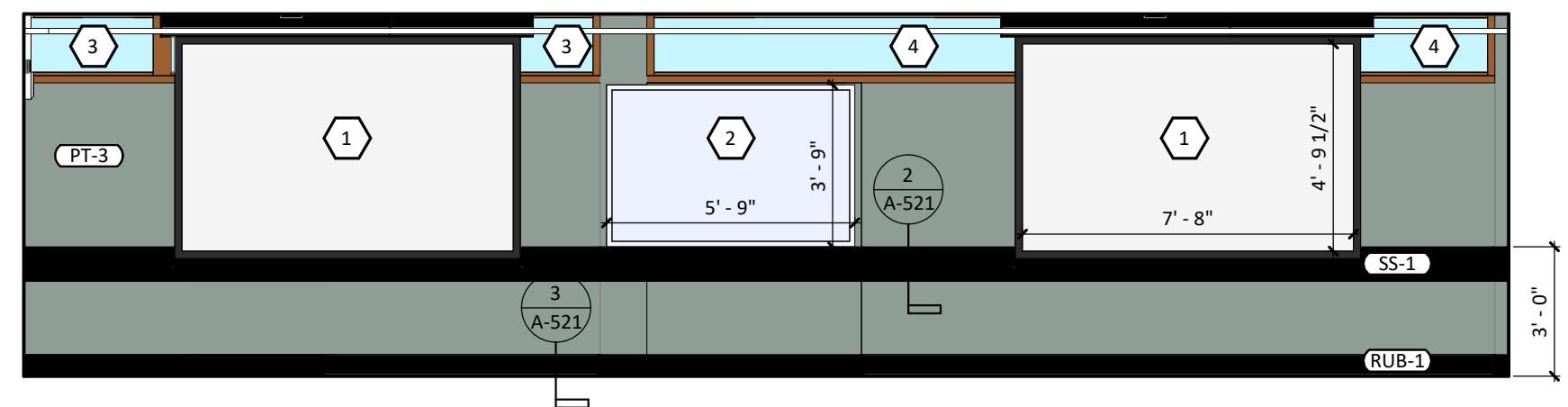
- 1 CEILING MOUNTED PROJECTOR SCREEN.
- 2 CUSTOM FIXED WHITEBOARD, NO TRAY. 5' 9" X 3' 9". BASIS OF DESIGN: OPTIMA GREAT WHITE MAGNETIC WHITEBOARD.
- 3 NEW GLAZING IN EXISTING FRAME. MATCH EXISTING.
- 4 EXISTING GLAZING AND FRAME TO REMAIN.
- 5 CEILING MOUNTED PROJECTOR.
- 6 POE CLOCK VISIBLE TO EVERYONE 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 SYSTEM. B.O.D.: KAWNEER 451 UT.
- 9 NEW ALUMINUM-FRAMED STOREFRONT SWINGING DOOR. B.O.D.: KAWNEER 350.



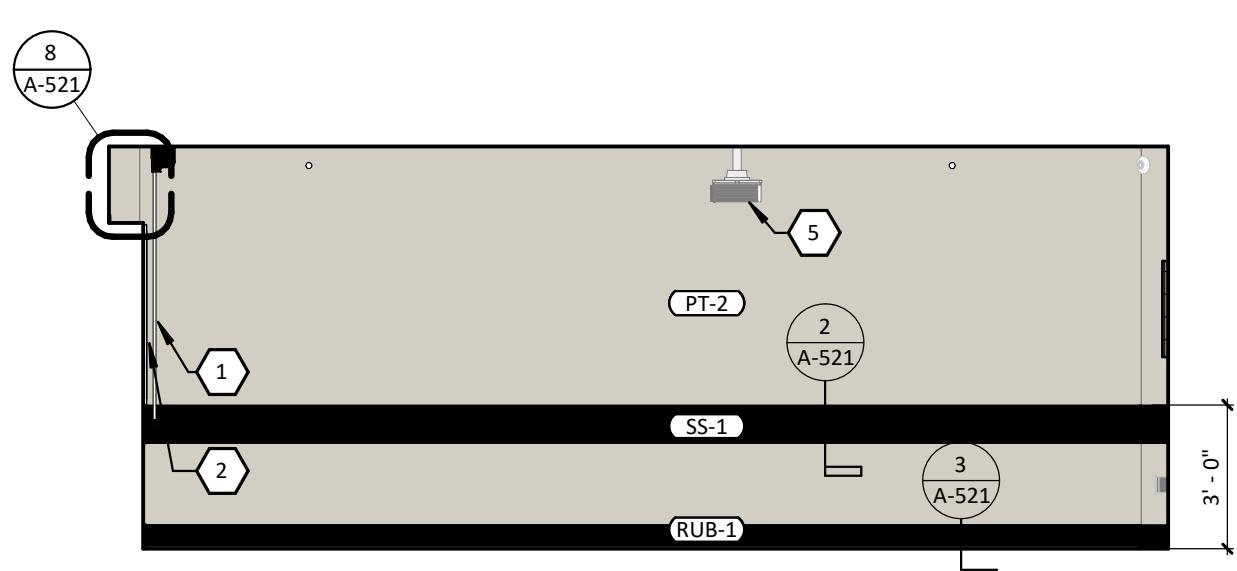
1 126 NORTH INTERIOR ELEVATION
1/4" = 1'-0"



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



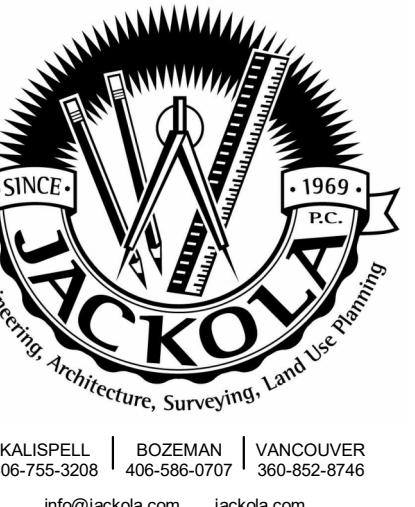
3 126 SOUTH INTERIOR ELEVATION
1/4" = 1'-0"



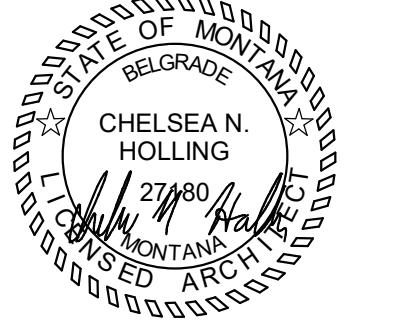
4 126 WEST INTERIOR ELEVATION
1/4" = 1'-0"

126 INTERIOR
ELEVATIONS
ALT. #3

A-214



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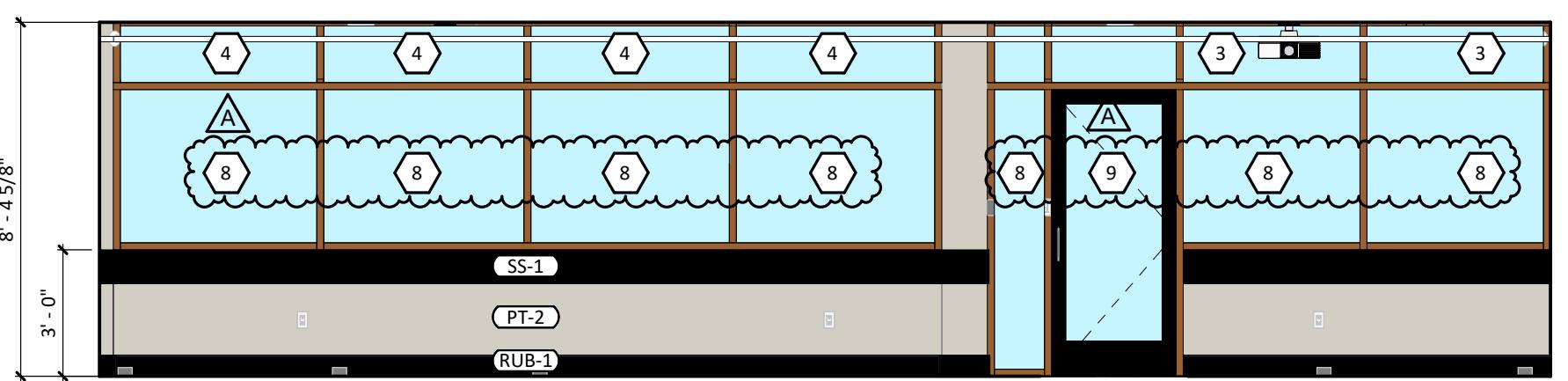
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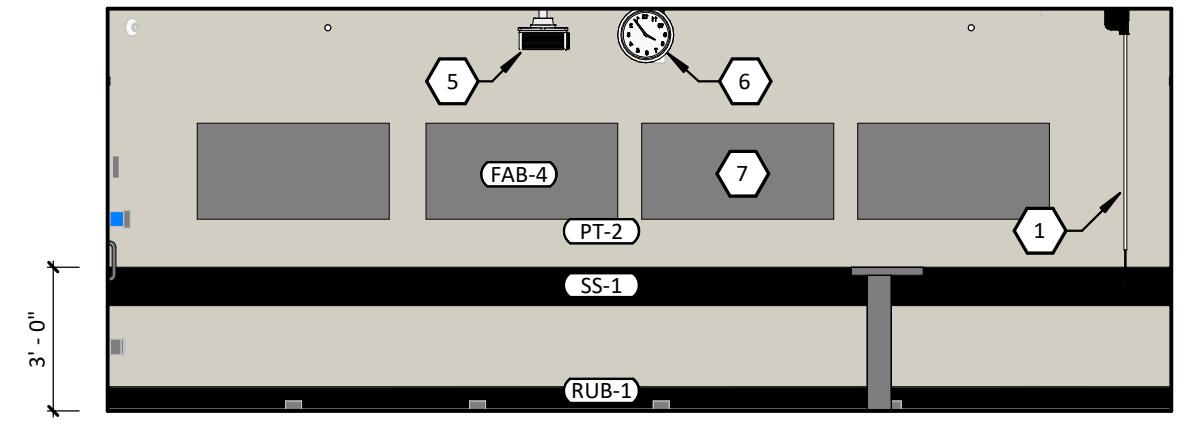
ENTIRE SHEET IS
ADD ALTERNATE #4

INTERIOR ELEVATION KEYNOTES 126

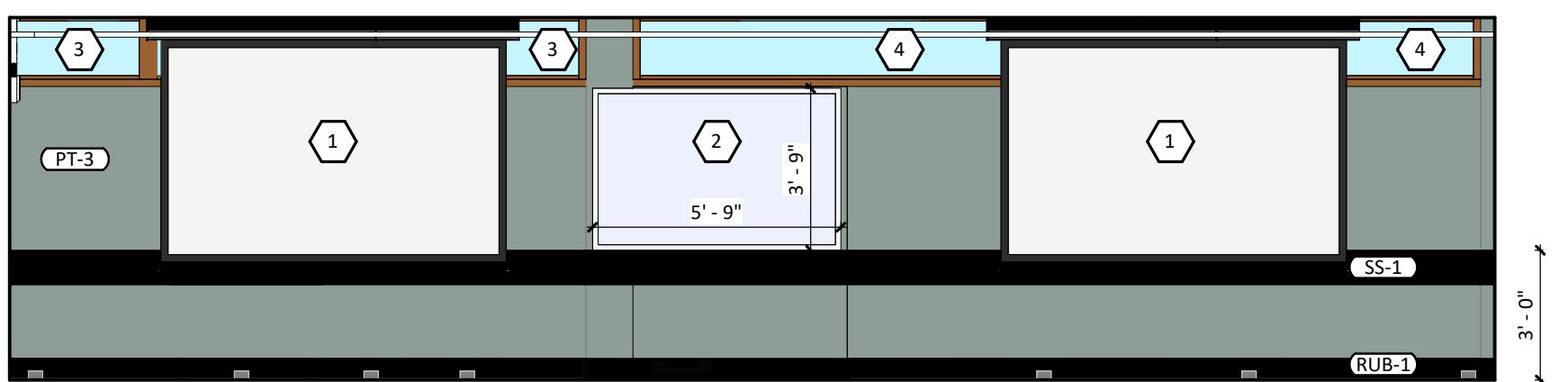
- 1 CEILING MOUNTED PROJECTOR SCREEN.
- 2 CUSTOM FIXED WHITEBOARD, NO TRAY. 5' 9" X 3' 9". BASIS OF DESIGN: OPTIMA GREAT WHITE MAGNETIC WHITEBOARD.
- 3 NEW GLAZING IN EXISTING FRAME. MATCH EXISTING.
- 4 EXISTING GLAZING AND FRAME TO REMAIN.
- 5 CEILING MOUNTED PROJECTOR.
- 6 POE CLOCK VISIBLE TO EVERYONE IN ROOM.
- 7 ACOUSTIC WALL PANELS, BASIS OF DESIGN: ARMSTRONG FIELWORKS, SIZE: 2'X4", COLOR: DARK GREY. FEDOL 0.75 AIR.
- 8 NEW ALUMINUM-FRAMED STOREFRONT SYSTEM. B.O.D: KAWNEER 451 UT.
- 9 NEW ALUMINUM-FRAMED STOREFRONT SWINGING DOOR. B.O.D: KAWNEER 350.



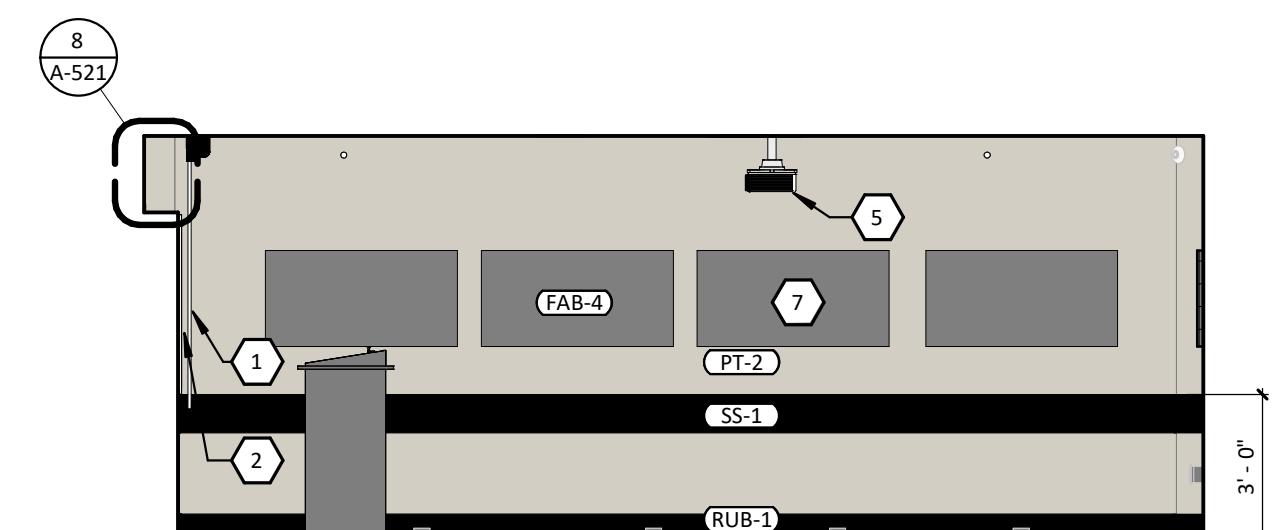
1 126 NORTH INTERIOR ELEVATION ALT. #4
1/4" = 1'-0"



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"

DRAWN: RH CHECKED: CH

DATE: 12/17/2025

REVISIONS:

A ADDENDUM #1 01/21/26

126 INTERIOR
ELEVATIONS
ALT. #4

A-215

GENERAL INTERIOR NOTES:

GC TO COORDINATE WITH OWNER/EQUIPMENT SUPPLIER FOR REQUIRED DIM, CLEARANCES, AND ALL OTHER REQUIREMENTS PRIOR TO CASEWORK CONSTRUCTION/INSTALL.

ALL PRODUCTS ARE TO BE INSTALLED PER MANUFACTURERS INSTRUCTIONS, USING MANUFACTURERS ADHESIVES, TOOLS AND METHODS.

GWB TO HAVE SMOOTH TEXTURE. ALL GWB EDGES TO HAVE 3/4" SQUARE EDGES.

ALL WALL SUPPORTED CABINETRY, WHITEBOARDS AND SHELVING TO HAVE BLOCKING.

PROVIDE TRANSITION STRIPS AT ALL LOCATIONS WHERE DISSIMILAR FLOOR MATERIALS MEET.

FLOOR THRESHOLDS AND TRANSITION STRIPS MUST BE ADA ACCESSIBLE.

PROVIDE STAINLESS STEEL TRANSITION STRIPS/REDUCERS AT ALL LOCATIONS WHERE CERAMIC TILE MEETS A DIFFERENT MATERIAL.

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.

COORDINATE LOCATIONS OF ELECTRIC SWITCHES, PANELS, WATER SERVICE, TELEPHONE SERVICE, ETC. WITH UTILITIES COMPANIES. COORDINATE ALL WORK WITH THE MECHANICAL, PLUMBING & ELECTRICAL CONTRACTORS.

ALL INTERIOR FINISHES MUST COMPLY WITH GOVERNING CODES.

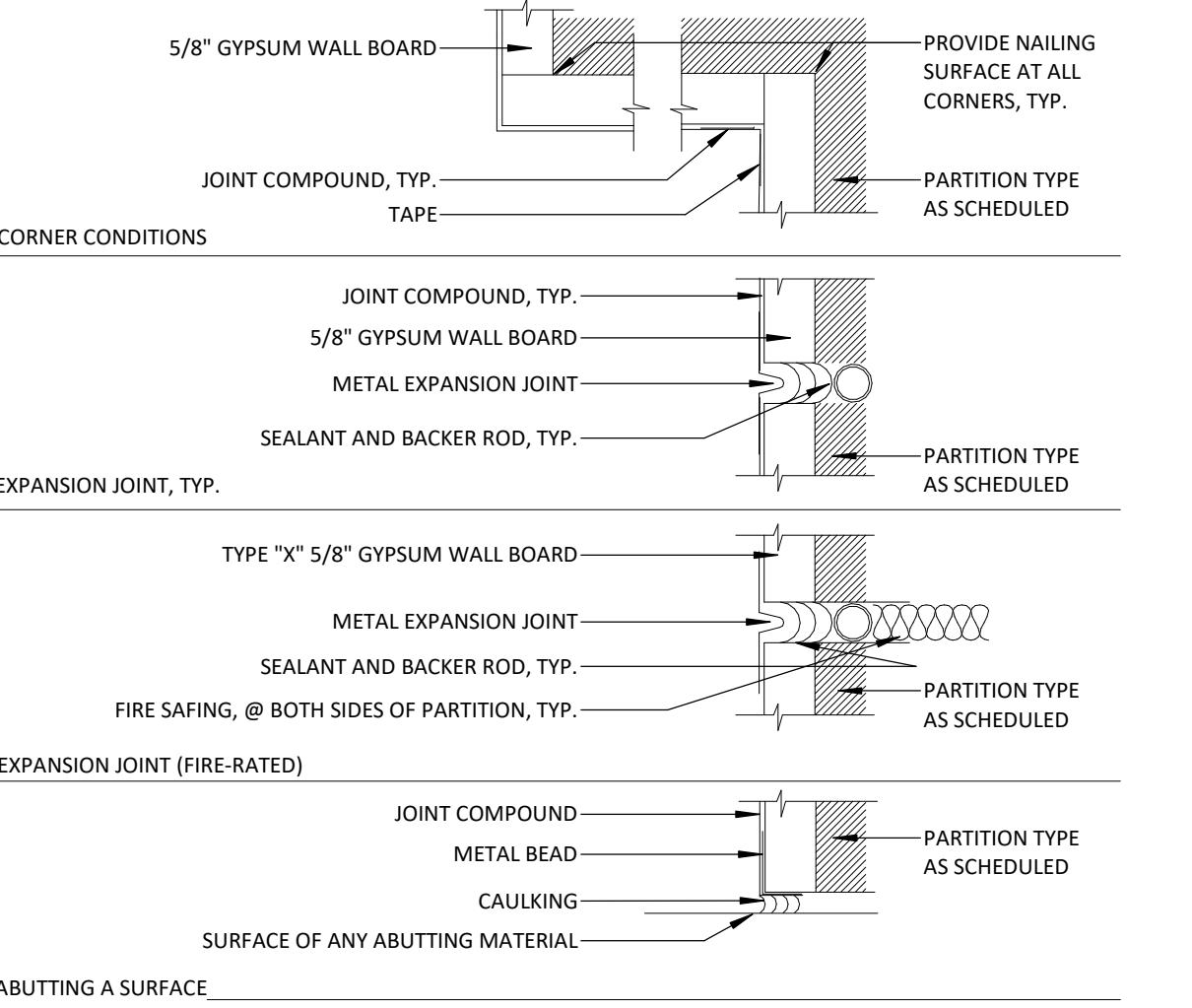
REFER TO SPECIFICATIONS AND FINISH SCHEDULES FOR FURTHER FINISH MATERIAL PRODUCT INFORMATION.

SEE ELEVATIONS FOR ADDITIONAL FINISHES FOR CEILING HEIGHTS AND ADDITIONAL FINISHES SEE RCP'S.

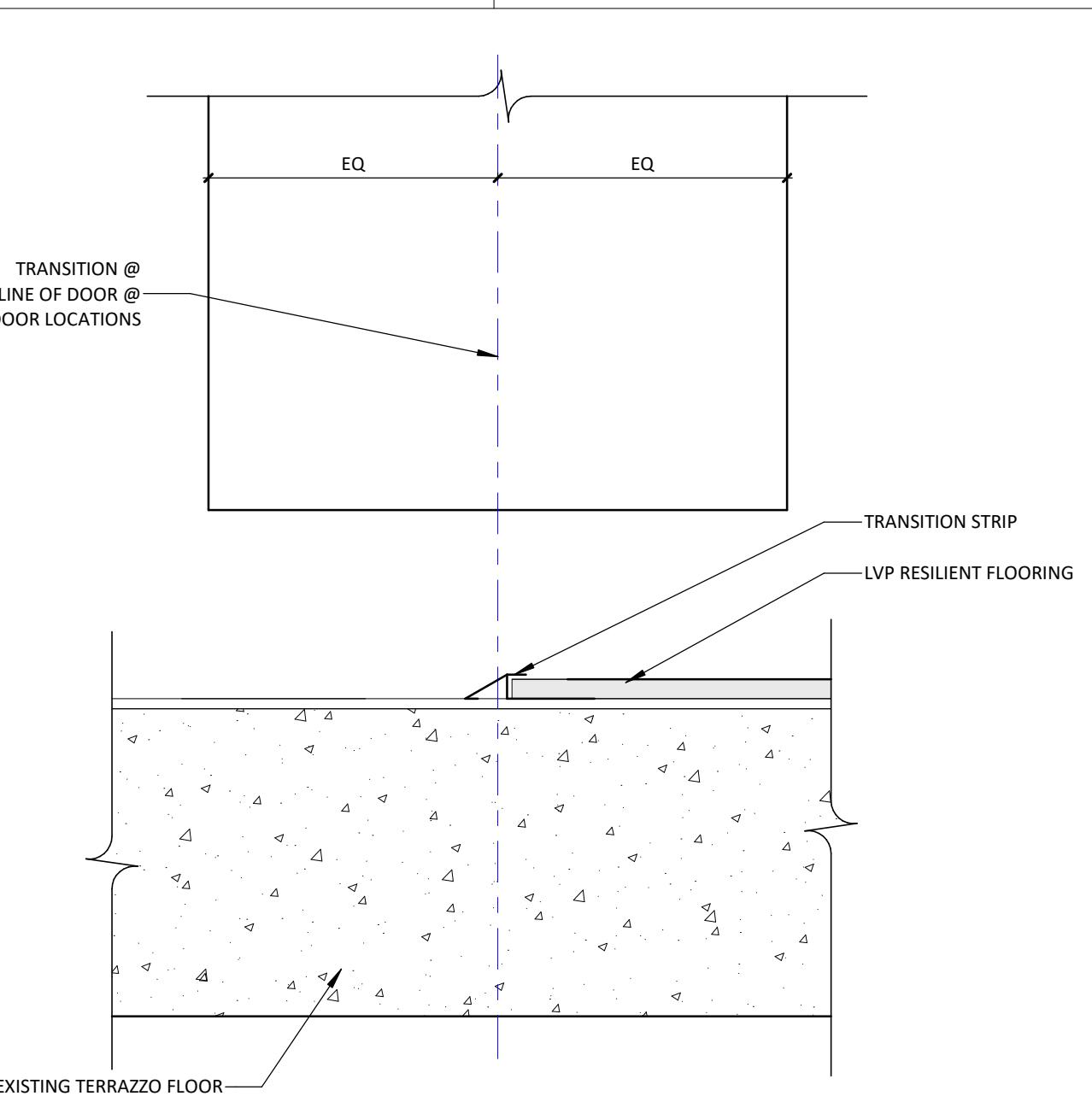
FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION.

ALL FLOOR TRANSITIONS ARE TO OCCUR DIRECTLY BENEATH DOOR UNLESS NOTED OTHERWISE.

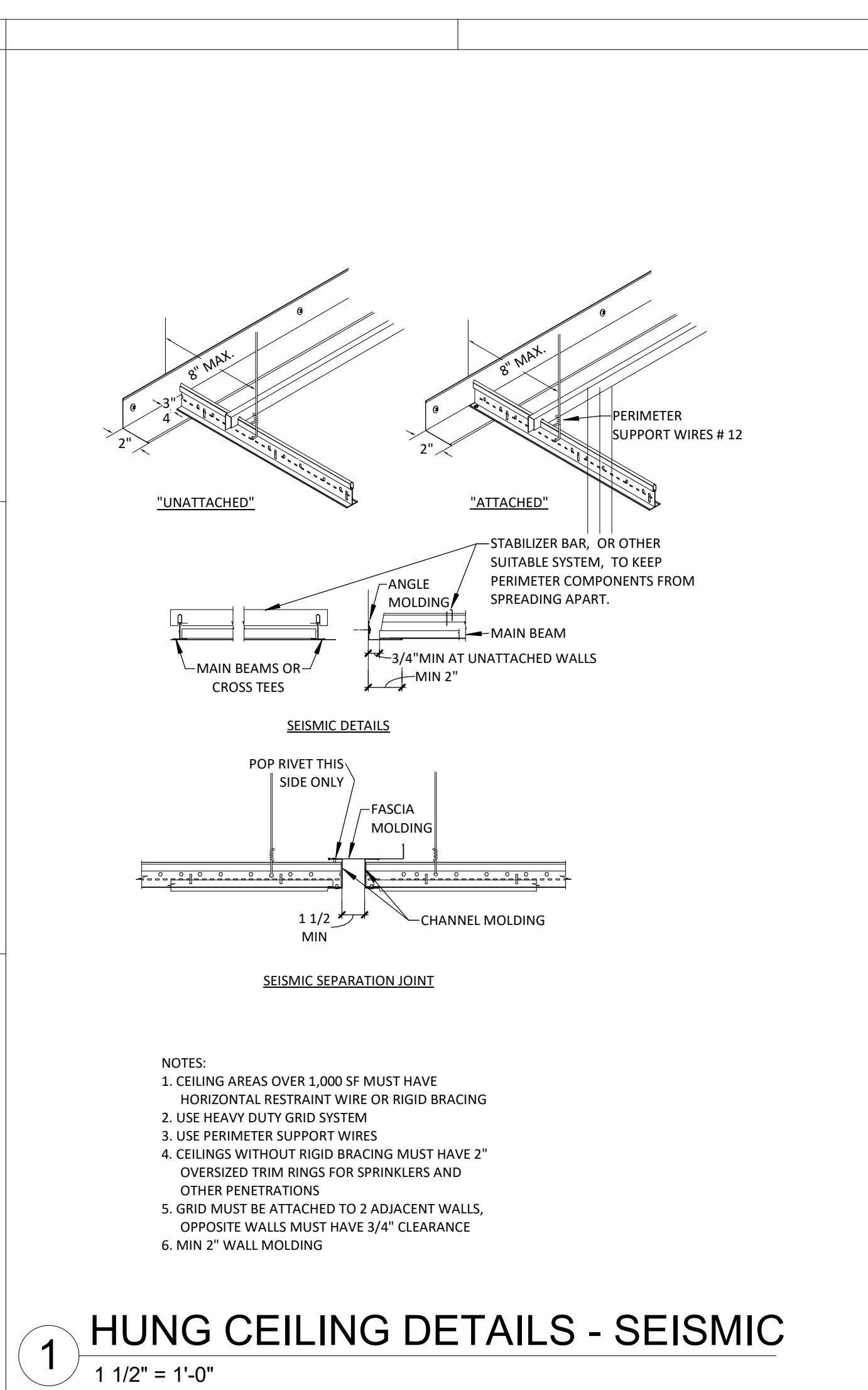
ALL METAL ACCESS PANELS, COVER PLATES, VENTS AND GRILLES TO BE PAINTED TO MATCH THE SURFACE IT IS LOCATED ON, UNLESS PREFINISHED.



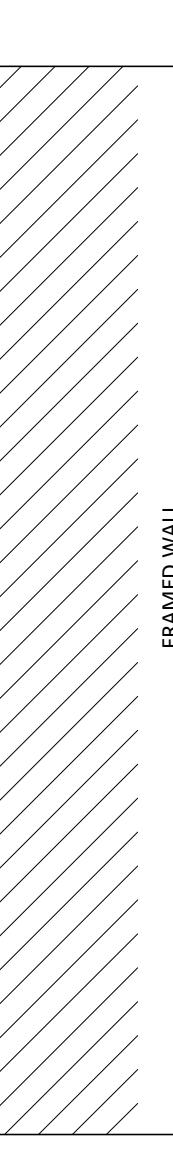
GYPSUM WALLBOARD DETAIL



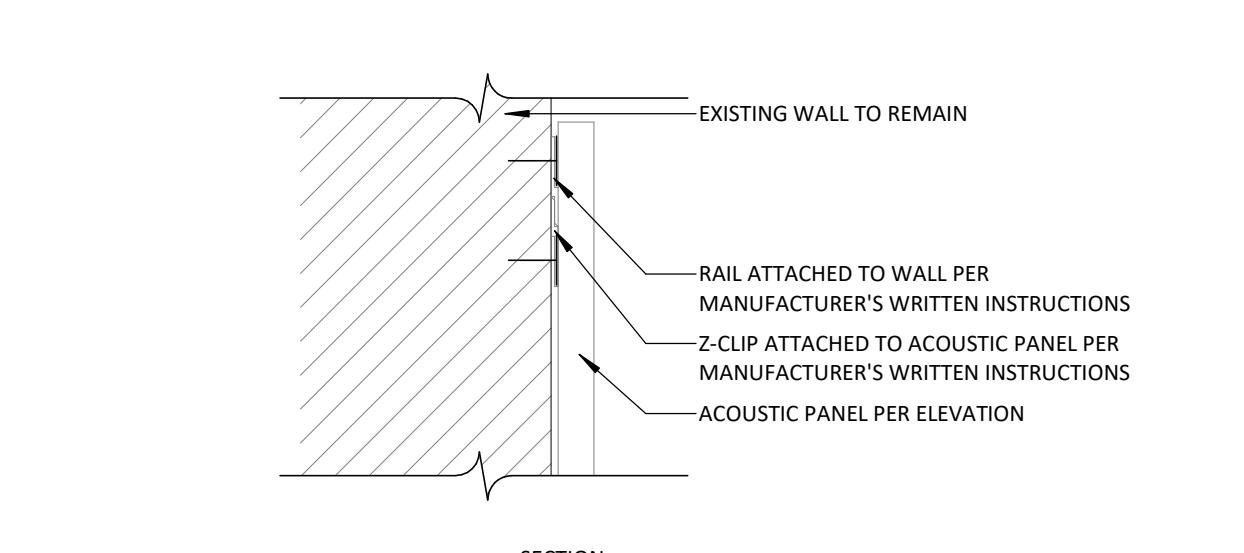
4 TRANSITION-TERRAZZO/RESILIENT(LVP)



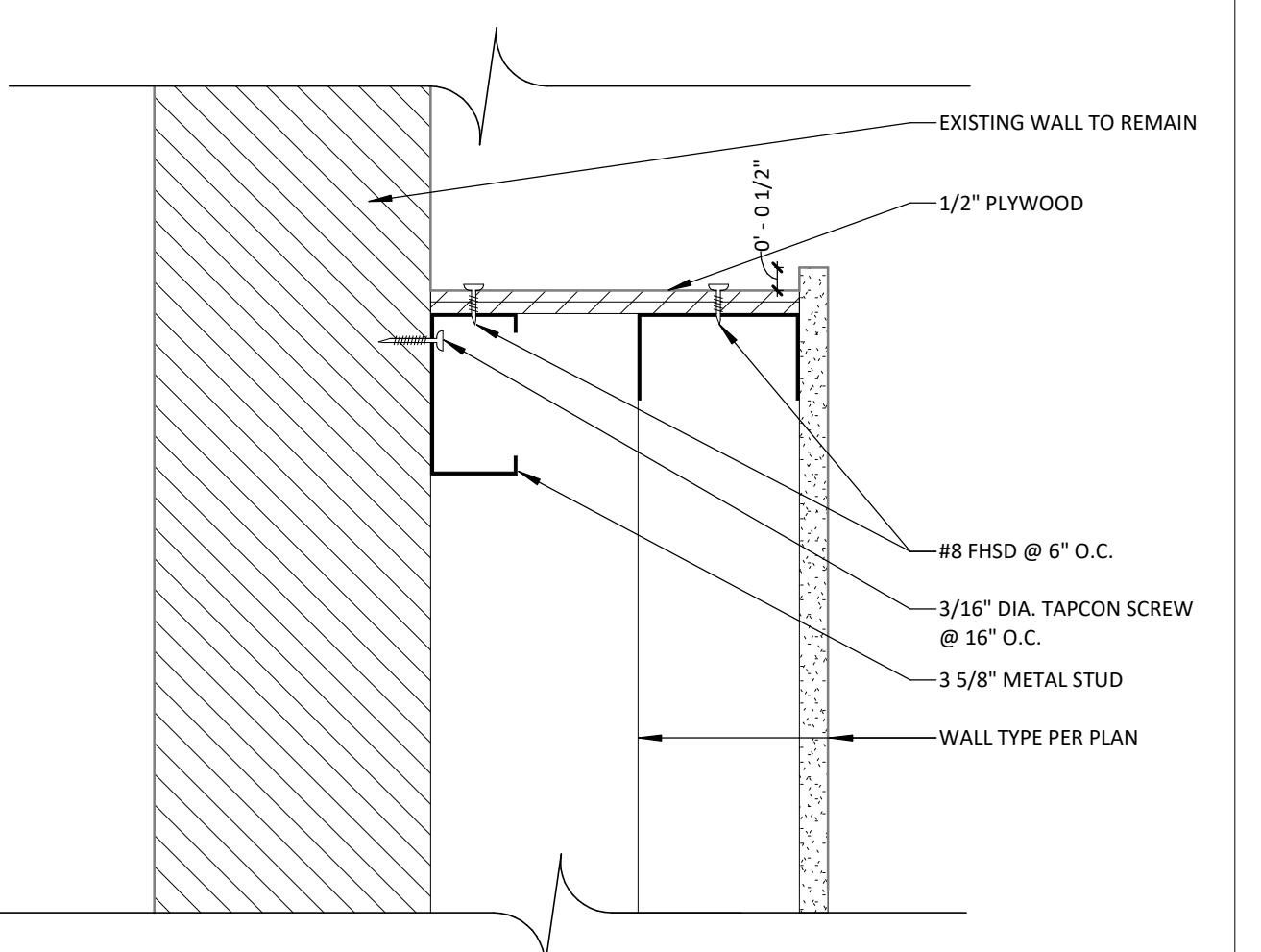
1 HUNG CEILING DETAILS - SEISMIC



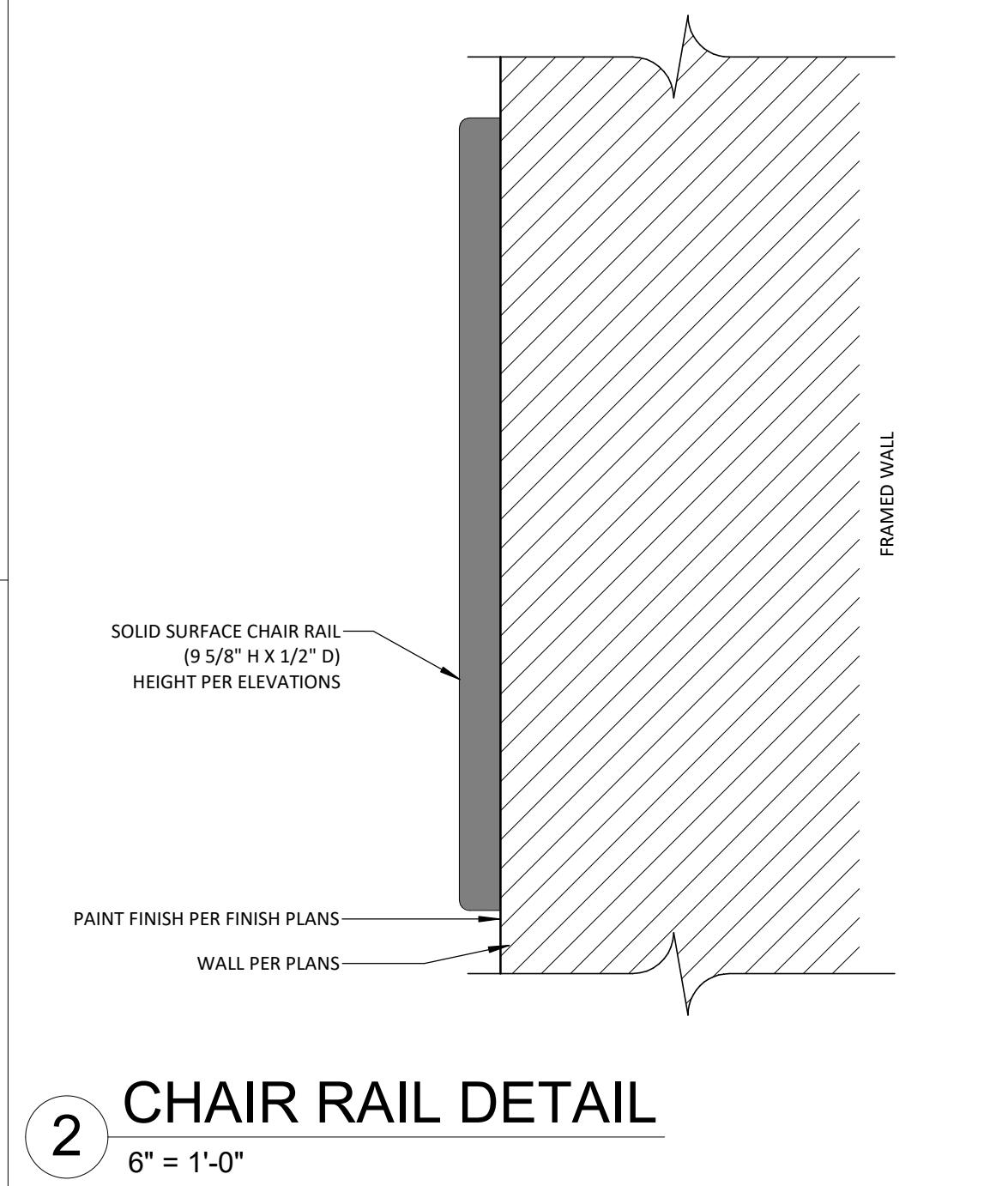
2 CHAIR RAIL DETAIL



5 ACOUSTIC PANEL DETAIL - Z-CLIP



TOP OF FURRED WALL

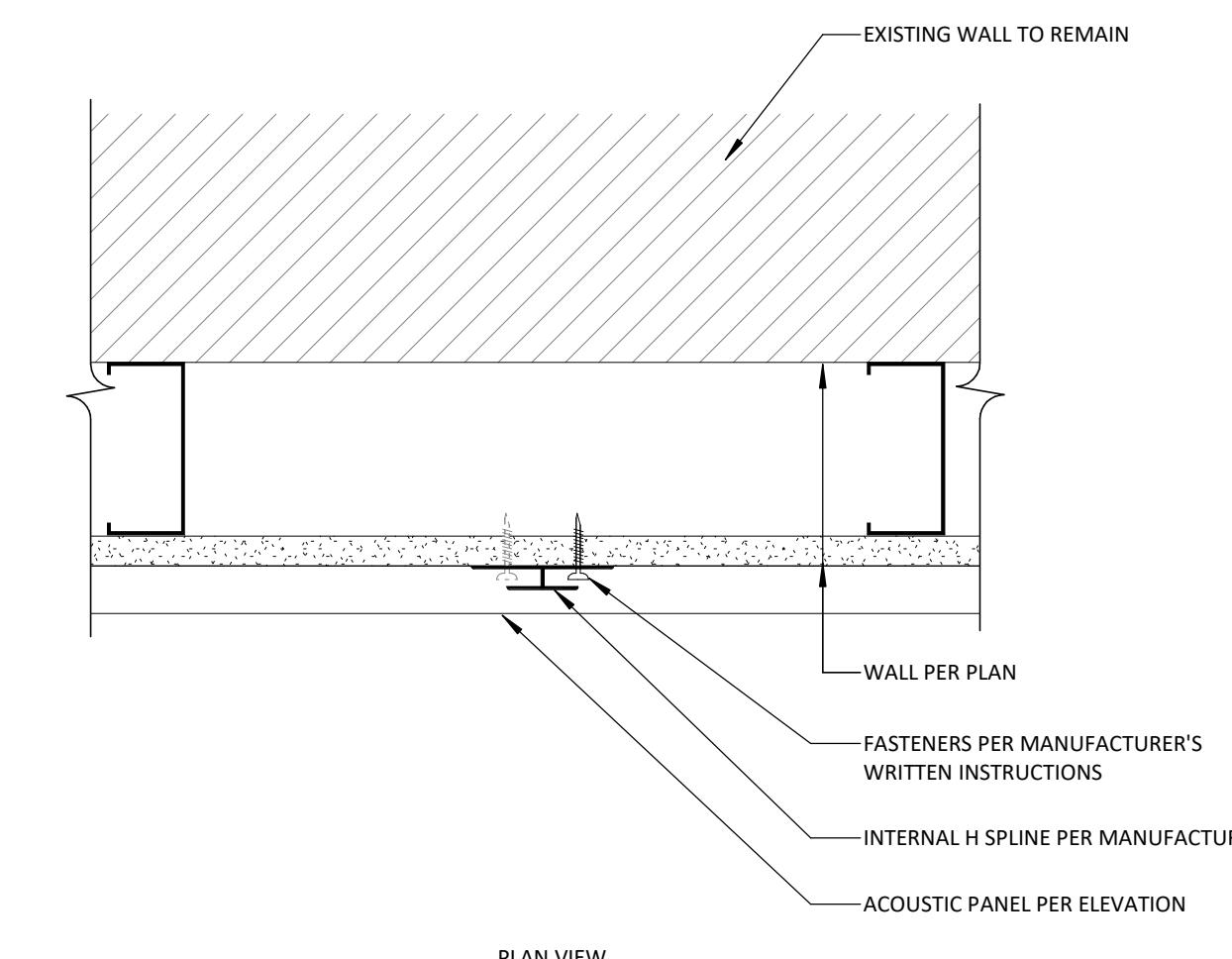


WALLS & CEILINGS (4) - 3 - 3

HEIGHT PER FINISH PLANS

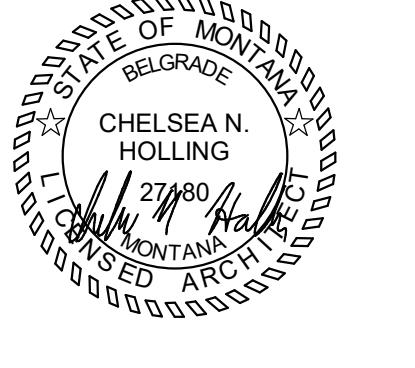
3 BASE DETAIL

6" = 1'-0"



6 ACOUSTIC PANEL DETAIL - H SPLINE

PROJECT #:Project Number



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BOZEMAN, MONTANA 59717
PPA#: 25-1214

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

DOOR AND WINDOW SCHEDULES

A-601

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 (none)	HDW-1 SINGLE ENTRANCE	EXISTING FRAME, LEAF, AND HARDWARE TO REMAIN. NO CHANGES.
8	CLASSROOM SERVICE	106	CLASSROOM 105 3'-0" x 6'-10" x 1 3/4"	D	WD	WD	QUARTER	HDW-1 SINGLE ENTRANCE	NEW FRAME, LEAF, AND HARDWARE.
9	CIRCULATION	149	CIRCULATION 126 3'-0" x 6'-8" x 1 3/4"						

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

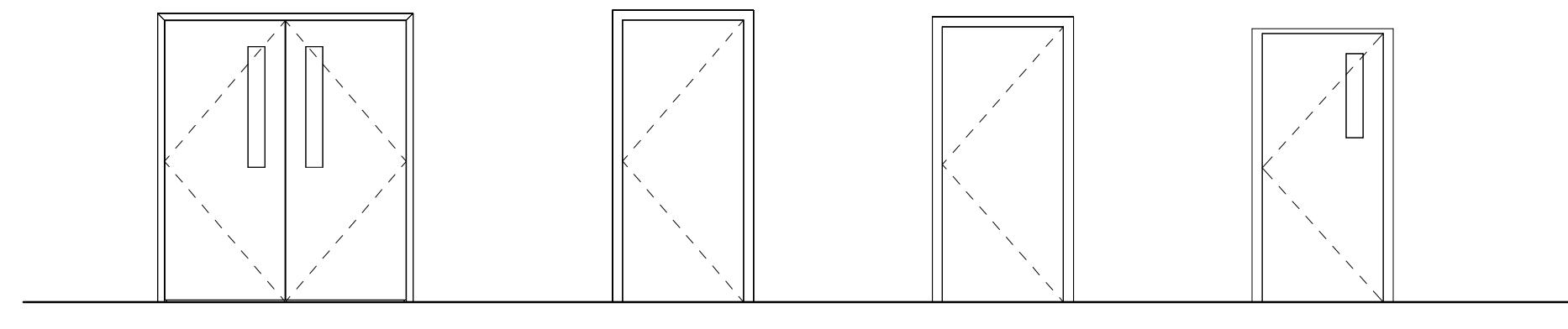
DOOR HARDWARE

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) 1 PULL HANDLE 1 THRESHOLD WEATHERSTRIPPING PILE WEATHERING
HDW-2 DOUBLE ENTRANCE	2 RIM EXIT DEVICES 1 CYLINDER LOCK 2 SETS PIVOTS 2 CLOSER (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" PIVOTS 1 RIM EXIT DEVICE 1 CYLINDER LOCK 1 CLOSER 1 PULL HANDLE 1 THRESHOLD 1 SWEEP WEATHERSTRIPPING

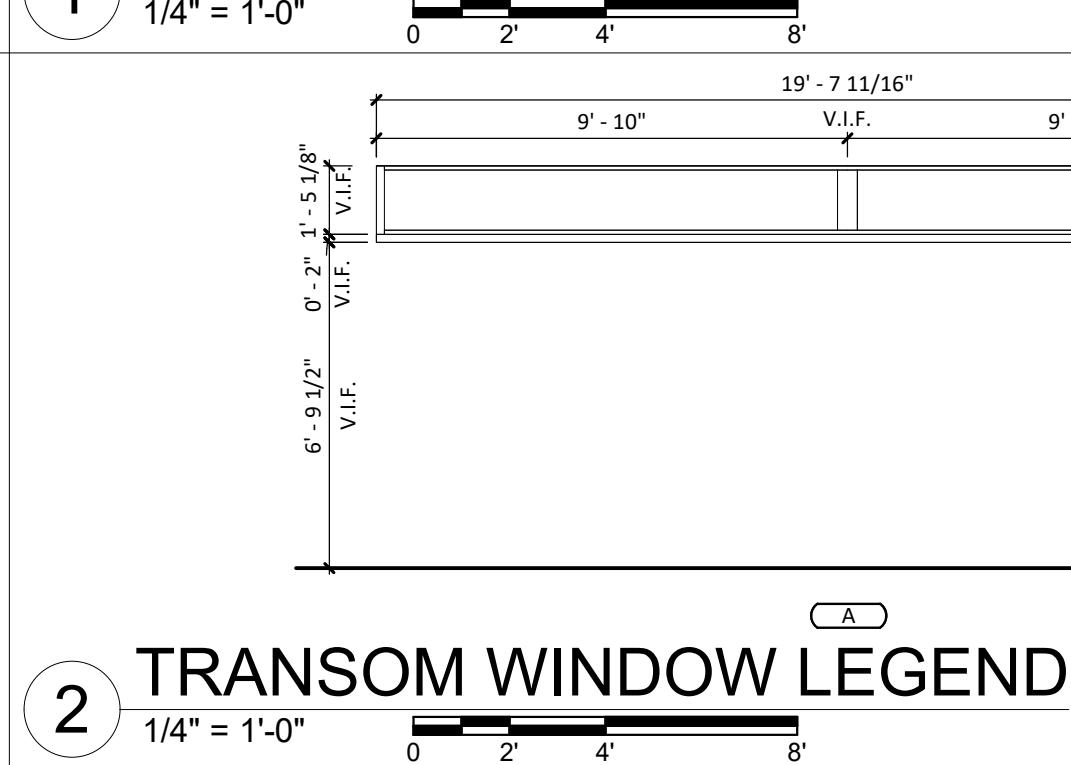
GENERAL NOTES:
1. **HARDWARE:**
HINGES: BY STANLEY, HAGER OR APPROVED EQUAL.
LOCKSETS: BY SARGENT, ADAMS-RITE, SCHLAGE OR APPROVED EQUAL.
CLOSER: BY LCN, DORMA OR APPROVED EQUAL.
WEATHERSTRIPPING, THRESHOLD AND SWEEP: BY PEMKO OR APPROVED EQUAL.
KEY SYSTEM: - SARGENT (CY-1) CYLINDERS FOR ALUMINUM ENTRANCES.

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

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



1 DOOR LEGEND



1/4" = 1'-0"

0 2' 4' 8'

19'-7 11/16"

9'-10" V.I.F. 9'-10"

10'-1 1/2" V.I.F. 3'-2 1/2"

6'-9 1/2" V.I.F. 1'-5 1/8"

0'-2" V.I.F. 1'-5 1/8"

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REID HALL CLASSROOM RENOVATION MONTANA STATE UNIVERSITY

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

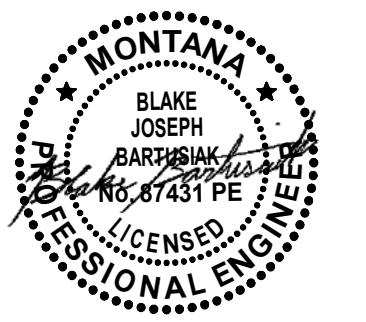
1/102 HVAC HEATING PLAN

M-121

HVAC KEYNOTES 101/102

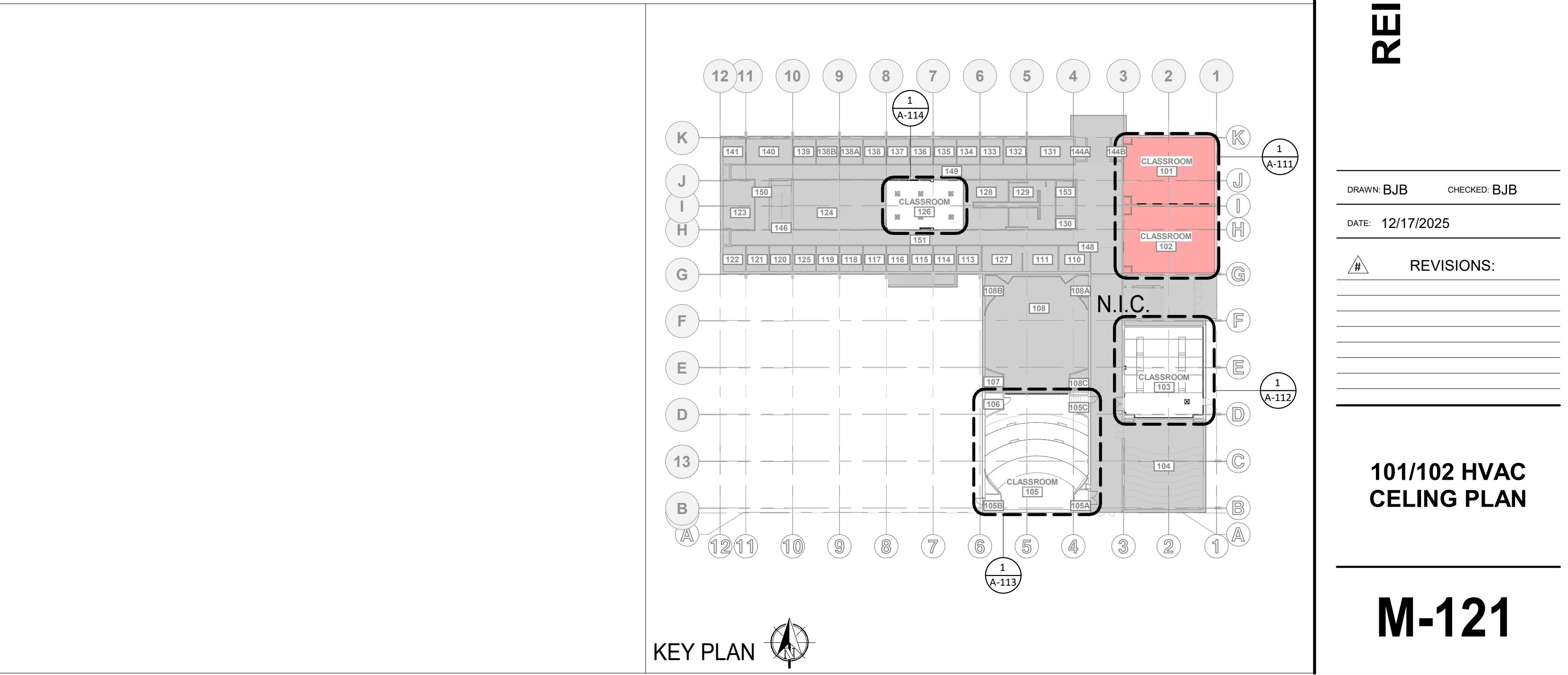
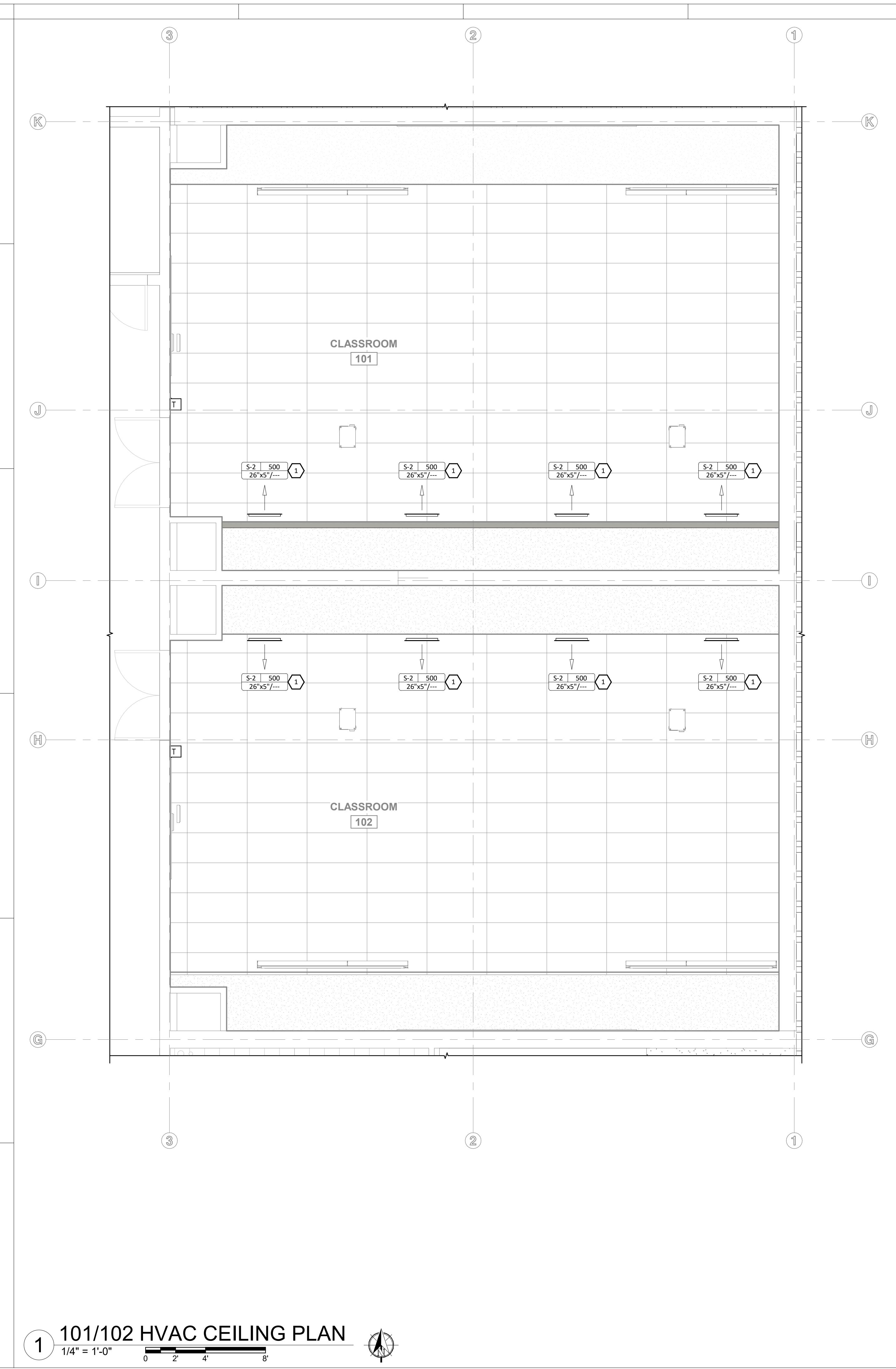
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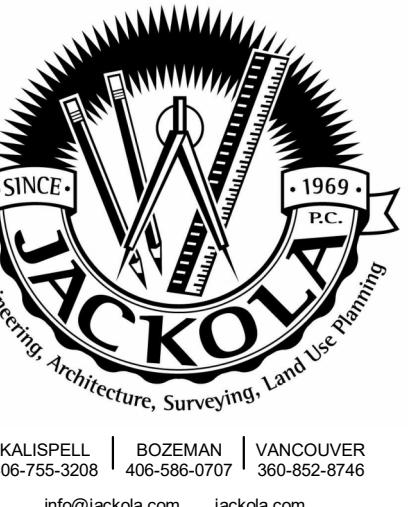
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info@iackola.com iackola.com



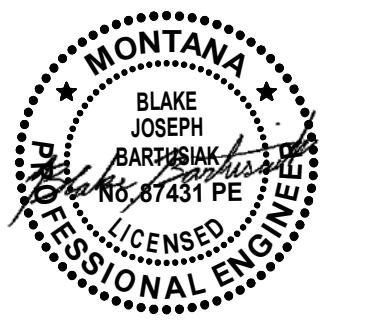
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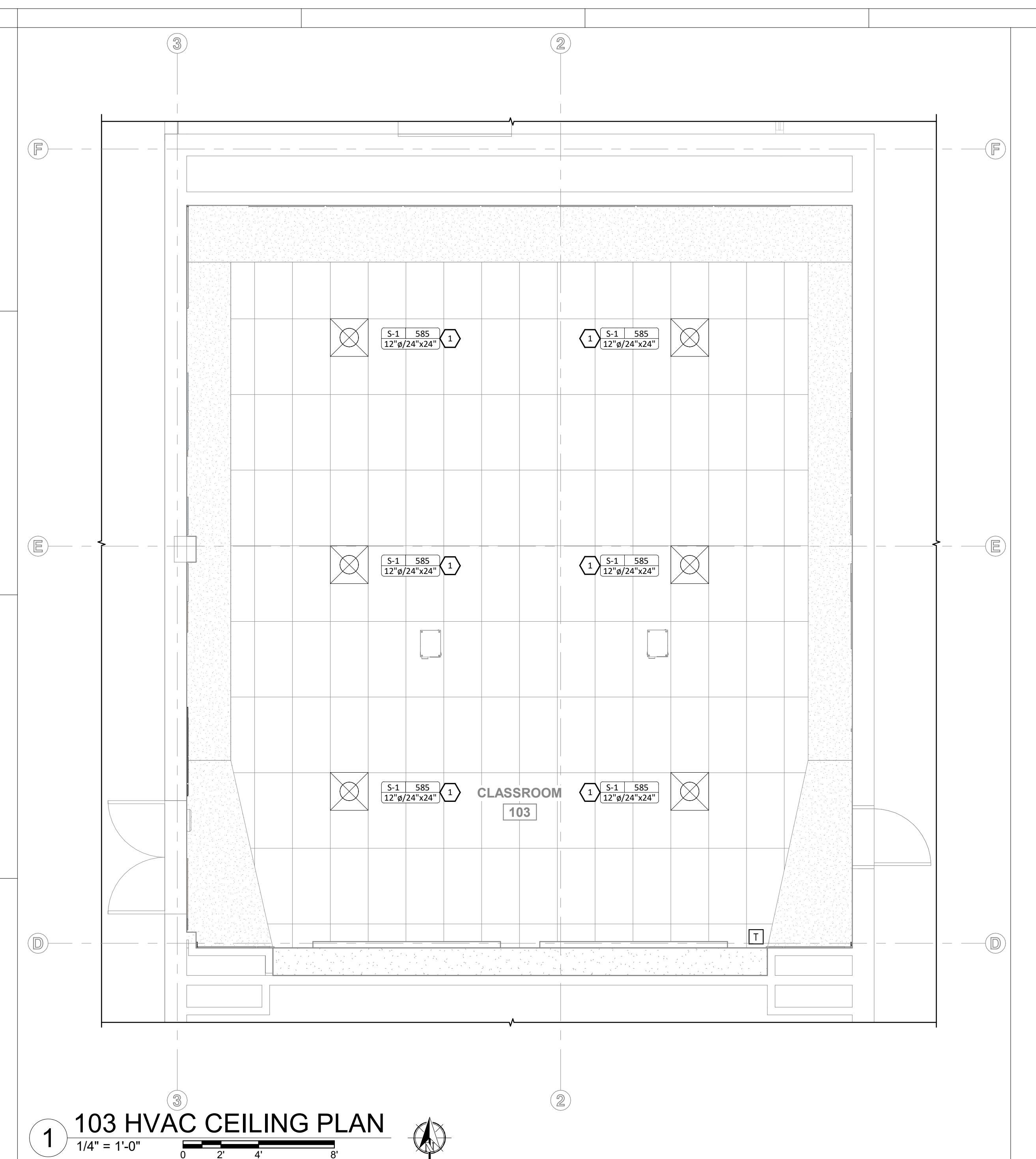


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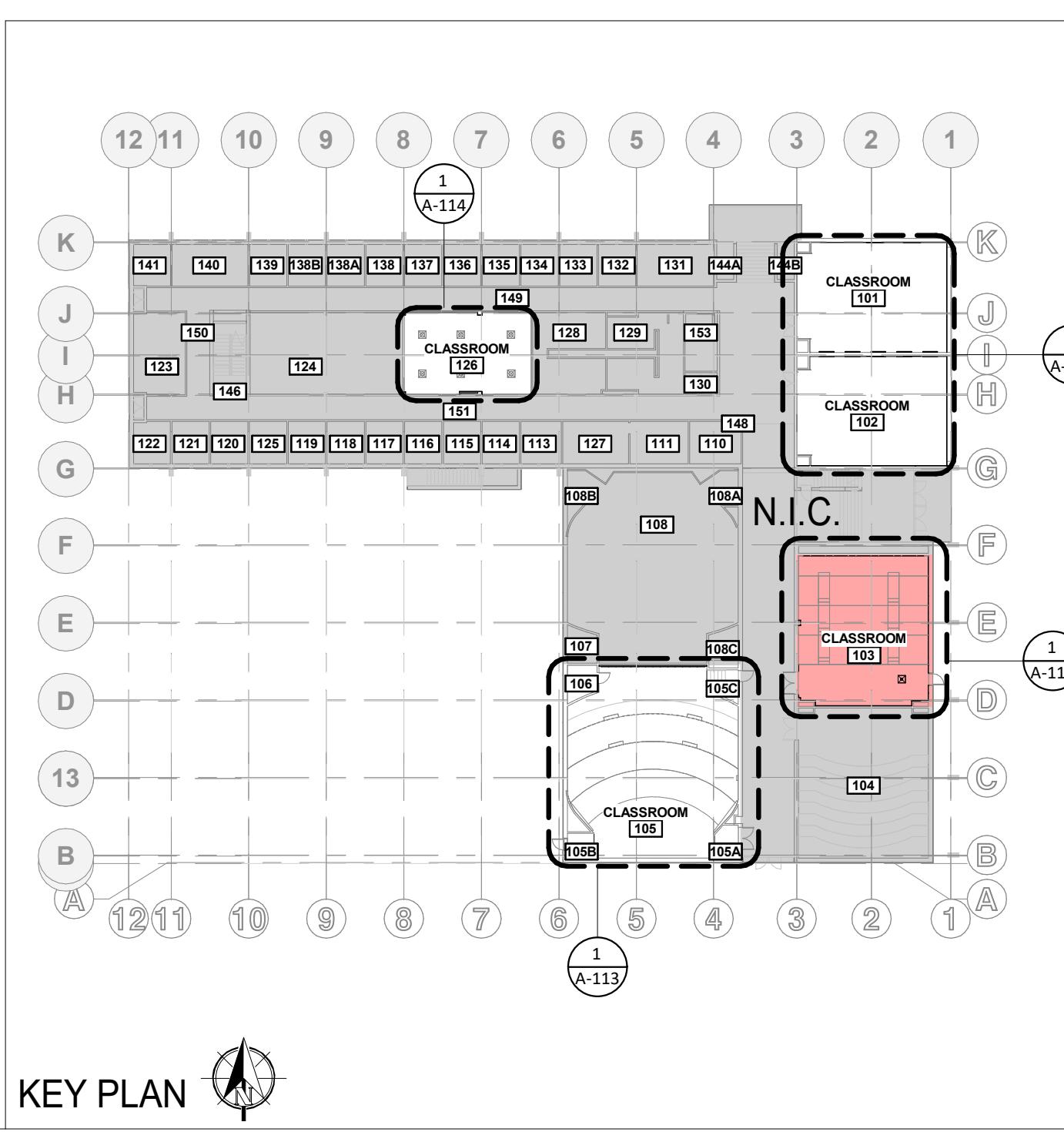
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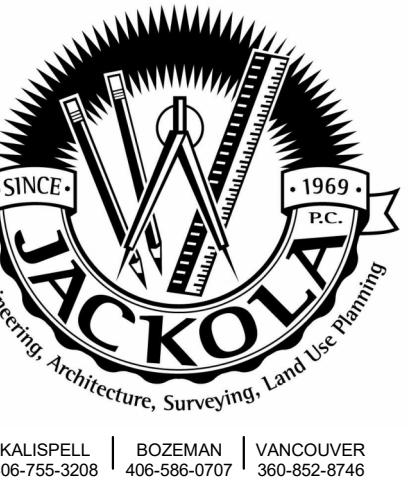
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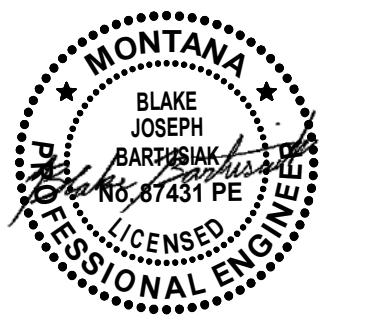
ENTIRE SHEET IS
ADD ALTERNATE #2



M-122



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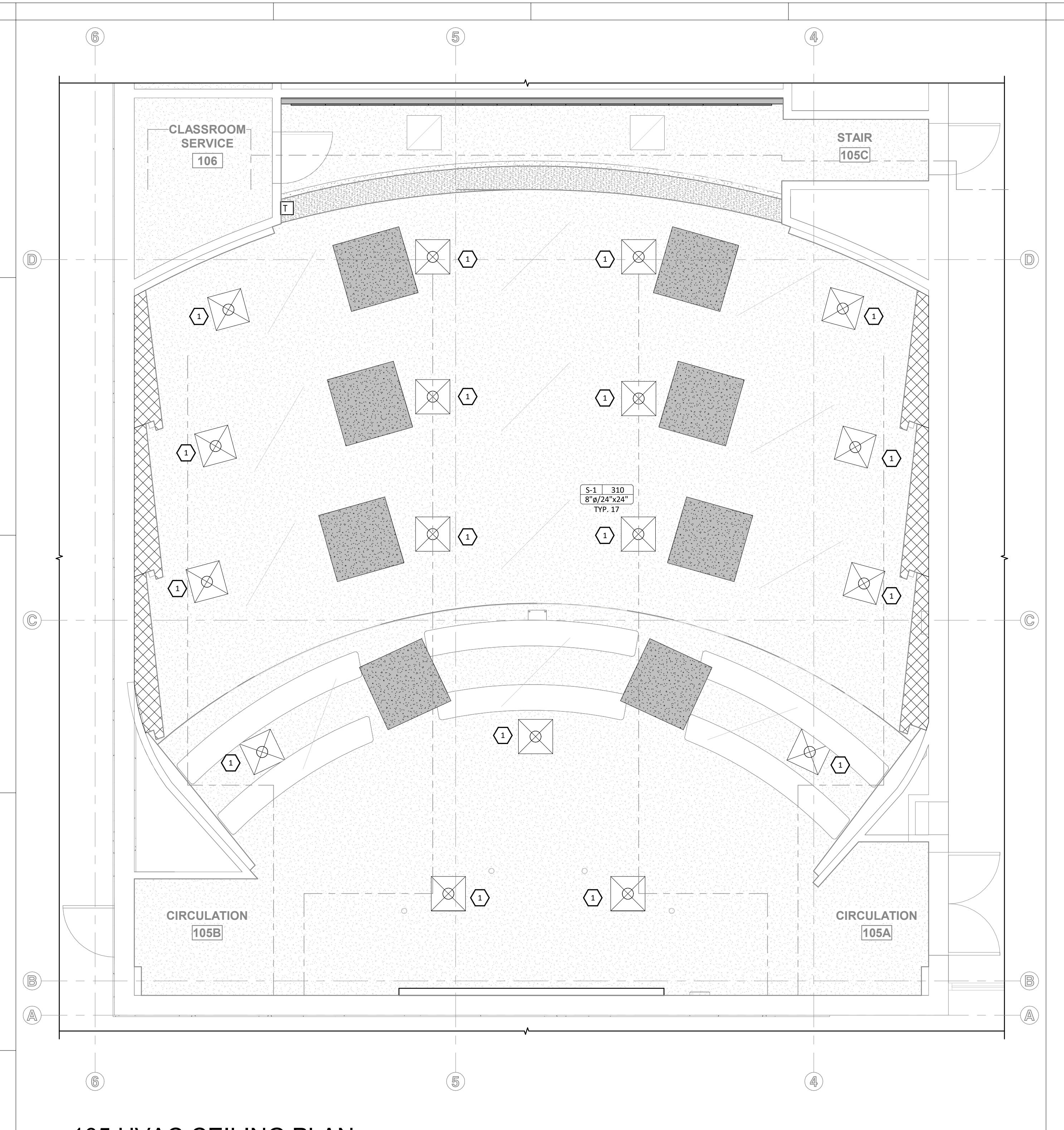


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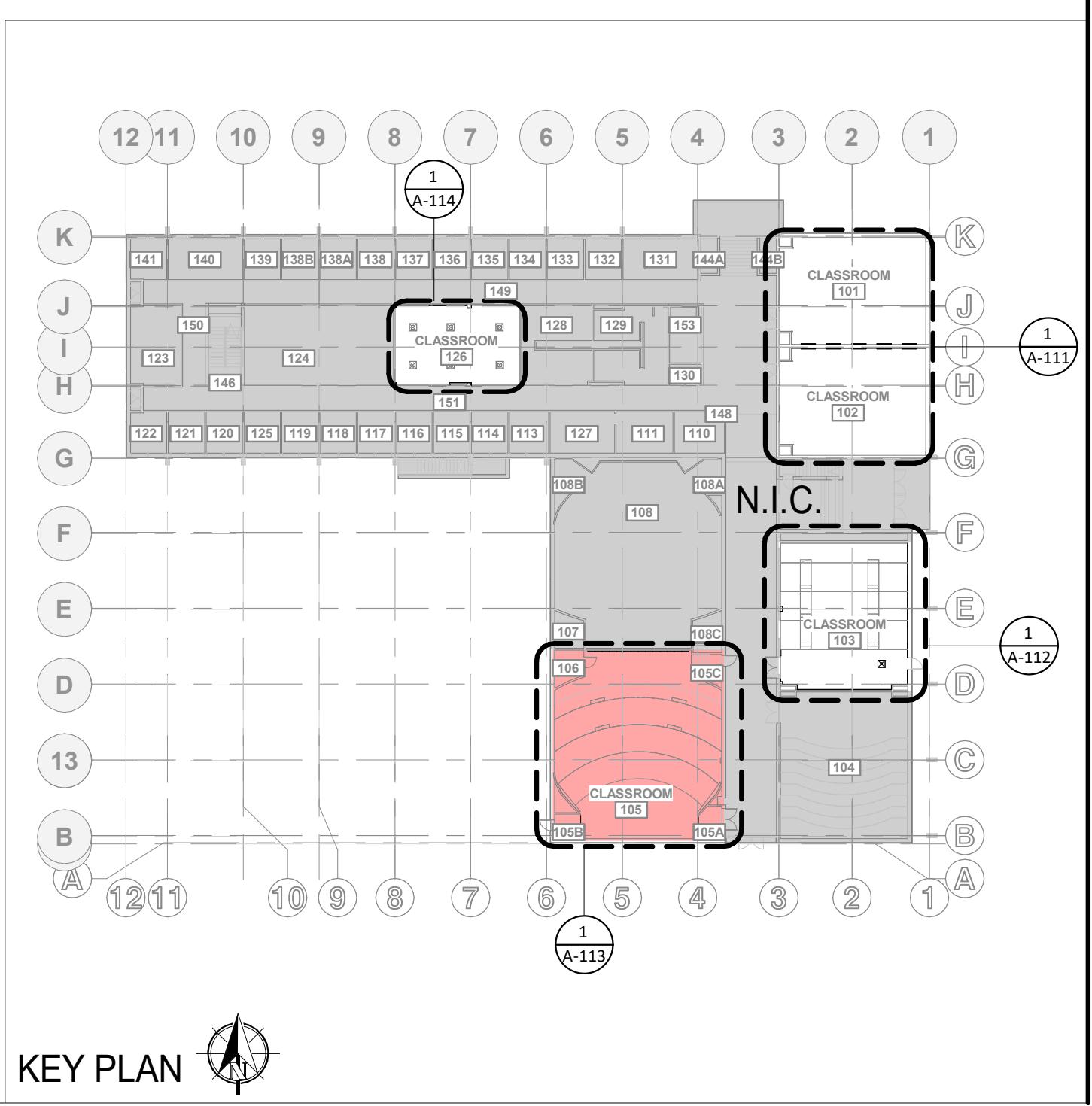
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PPA#: 25-1214



ENTIRE SHEET IS
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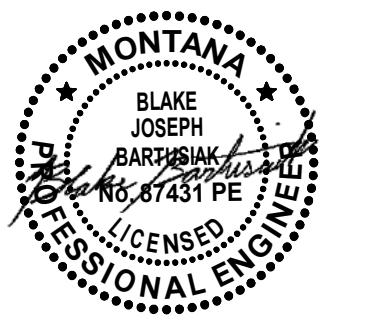
HVAC KEYNOTES 105
1 DEMO EXISTING SUPPLY DIFFUSER AND REPLACE WITH NEW DIFFUSER PER SCHEDULE ON M-161.



M-123



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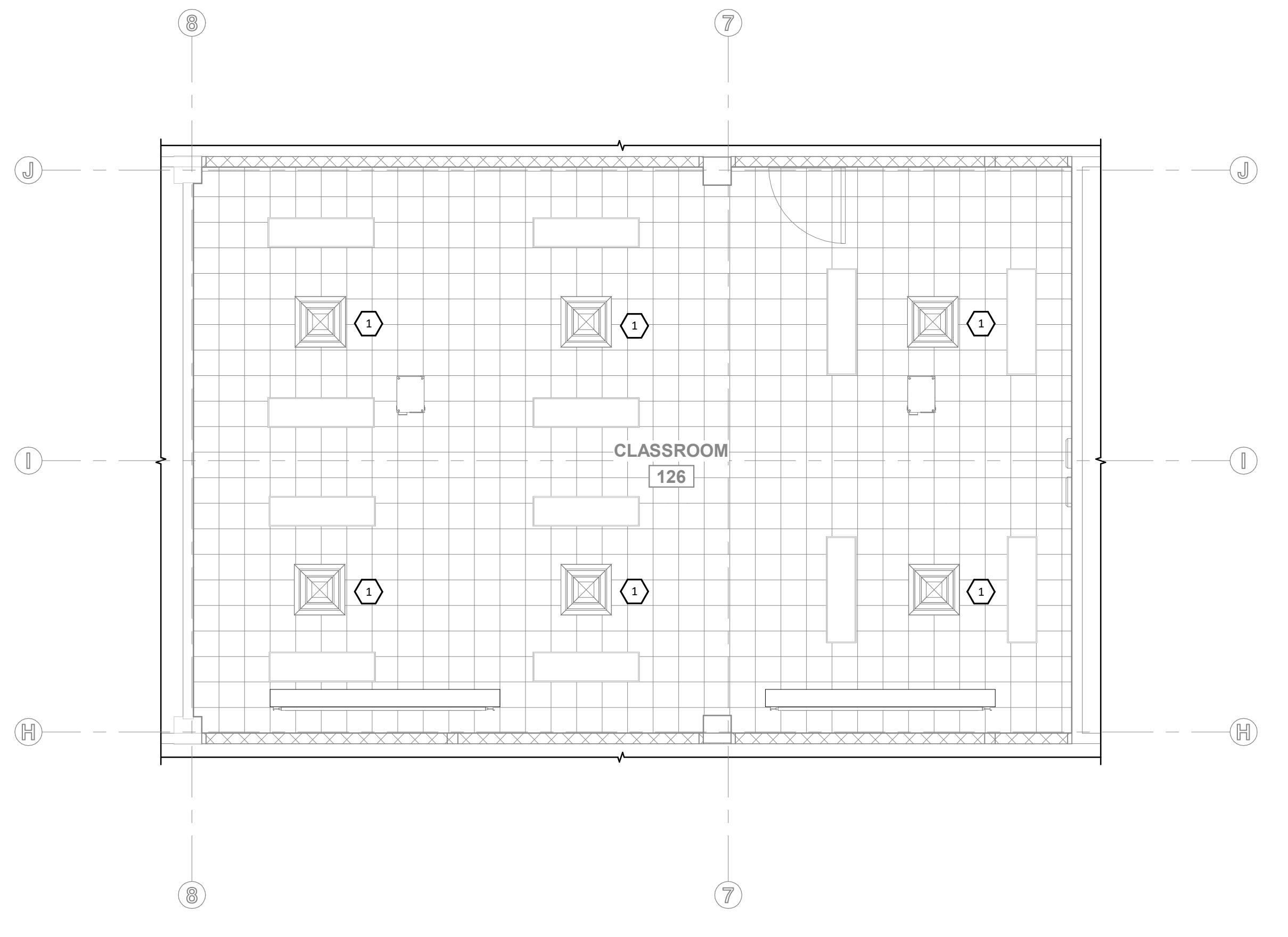
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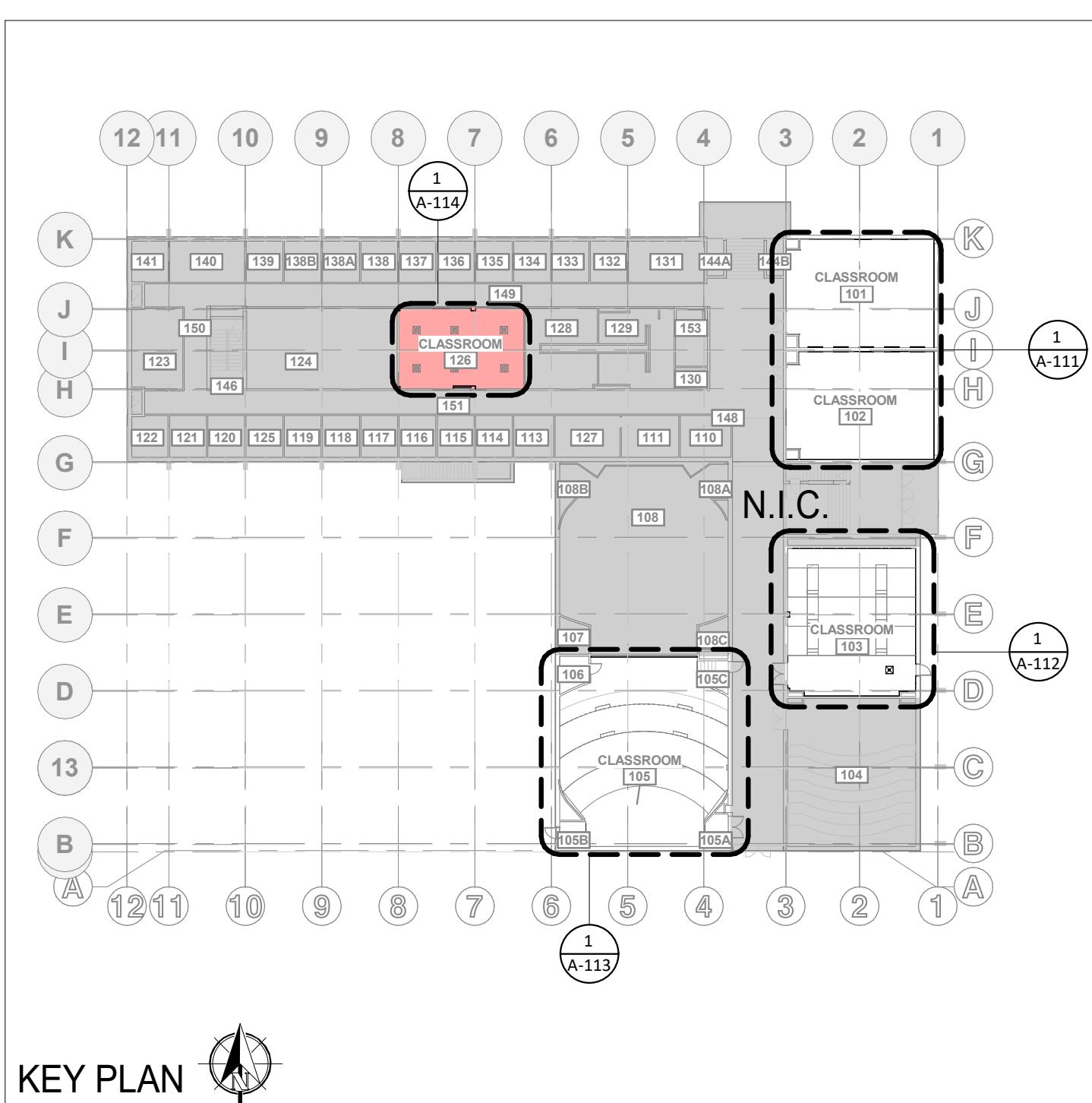
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PPA#: 25-1214

HVAC KEYNOTES 126

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

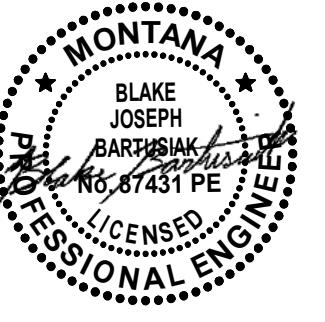


1 126 HVAC CEILING PLAN



126 REFLECTED
CEILING PLAN

M-124



BID SET

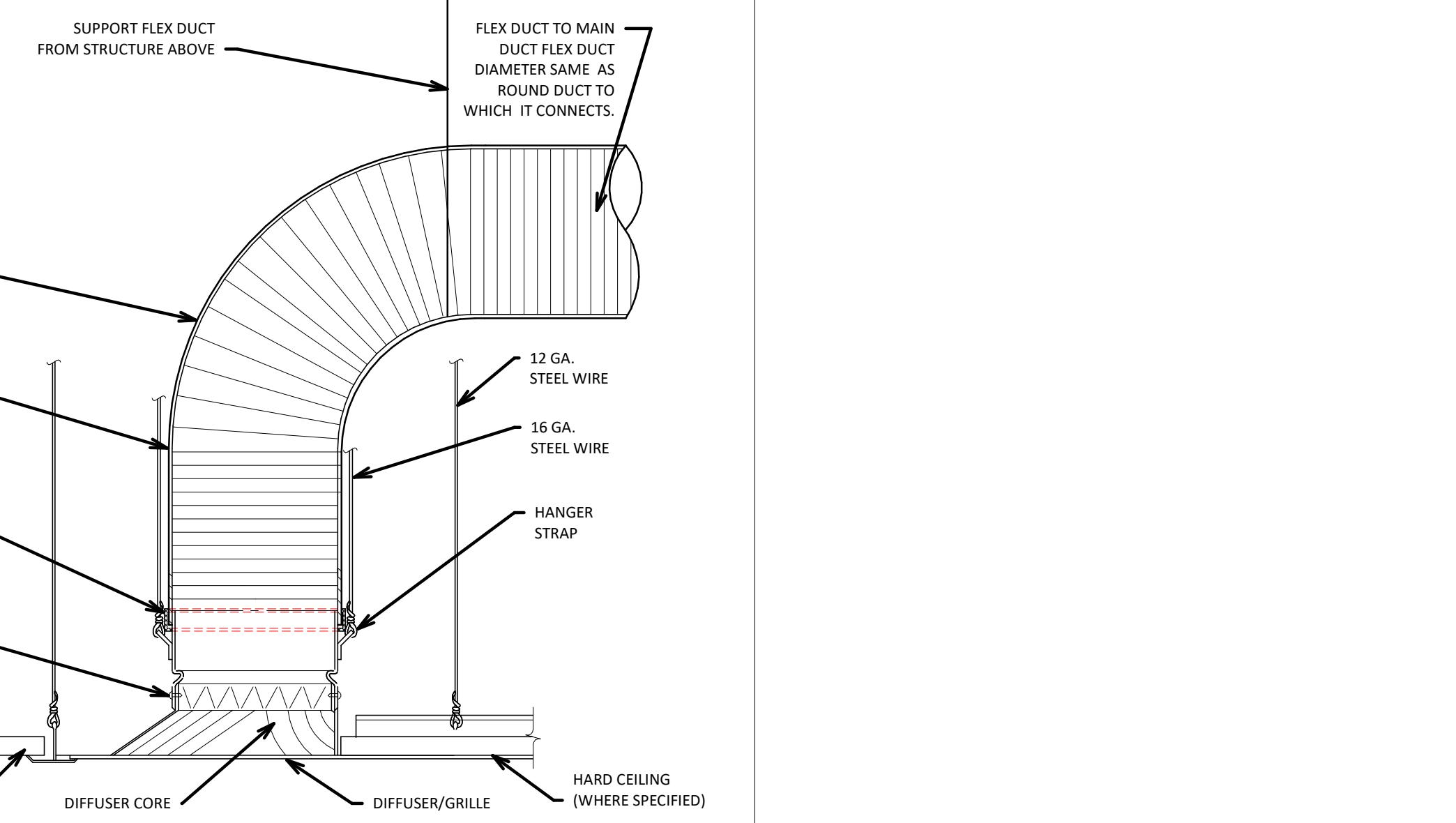
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PPA#: 25-1214

INTERIOR AIR INLETS & OUTLETS SCHEDULE

TAG	DESCRIPTION	BASIS OF DESIGN		FINISH	FACE SIZE	NECK SIZE	INSTALLATION			REMARKS
		MANUFACTURER	MODEL NO.				BORDER TYPE	DAMPER		
S-1	3-CONE DIFFUSER	TITUS	TMS-AA	WHITE ENAMEL	24"x24"	8"x6"	TYPE 3 (LAY-IN)	---		
S-1	3-CONE DIFFUSER	TITUS	TMS-AA	WHITE ENAMEL	24"x24"	12"x6"	TYPE 3 (LAY-IN)	---		
S-2	LOUVERED DOUBLE DEFLECTION GRILLE	TITUS	300FS	WHITE ENAMEL	---	26"x5"	TYPE 1 (SURFACE)	---		



1 CEILING DIFFUSER GRILLE

1/8" = 1'-0"

DRAWN: BJB CHECKED: BJB

DATE: 12/17/2025

REVISIONS:

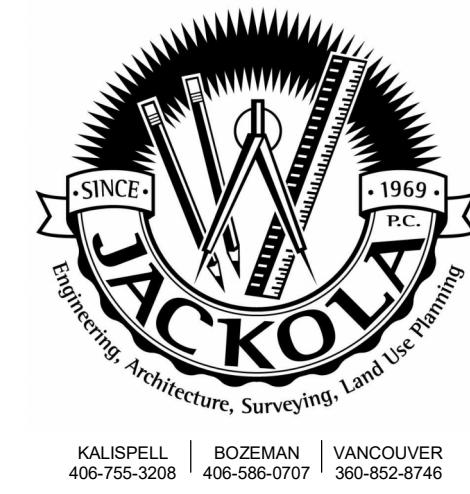
MECHANICAL
DETAILS &
SCHEDULES

M-601

Reid Hall Renovation . Electrical, Lighting & Technology

Reid Hall
Bozeman, MT 59717

Construction Documents

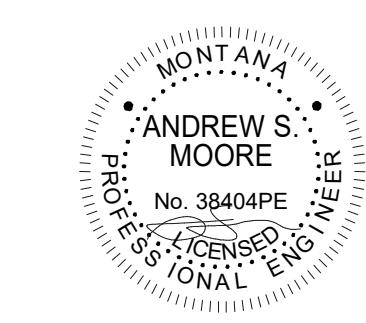
Date Issued | 12.17.2025
Project Manager | Andrew Moore

BLACK SHEEP

Mechanical | Electrical | Plumbing | Lighting | Technology
602 W Hemlock | Bozeman, MT 59715
Blacksheep.engineering | 406.312.5714

Construction Documents

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Reid Hall
Bozeman, MT 59717ELECTRICAL,
LIGHTING &
TECHNOLOGY
INDEX

E000

SHEET INDEX & REVISION HISTORY

Sheet	Sheet Name	Rev.	Description	Date
E000	ELECTRICAL, LIGHTING & TECHNOLOGY INDEX			
E101	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			
E111	101/102 LIGHTING PLAN			
E112	103 LIGHTING PLAN			
E113	105 LIGHTING PLAN			
E114	126 LIGHTING PLAN			
E1620	LUMINAIRES & LIGHTING EQUIPMENT SCHEDULES			
T001	TECHNOLOGY INFORMATION			
T111	101/102 TECHNOLOGY PLANS			
T112	103 TECHNOLOGY PLANS			
T113	105 TECHNOLOGY PLAN			
T115	105 TECHNOLOGY CEILING PLAN			
T116	MAIN FLOOR TECHNOLOGY PATHWAY PLAN			
T501	TECHNOLOGY TYPICAL DETAILS			
T502	TECHNOLOGY TYPICAL DETAILS			
T601	TECHNOLOGY ONE-LINE DIAGRAMS			
T602	TECHNOLOGY EQUIPMENT SCHEDULES			
T603	TECHNOLOGY CABLING SCHEDULES			

ABBREVIATIONS

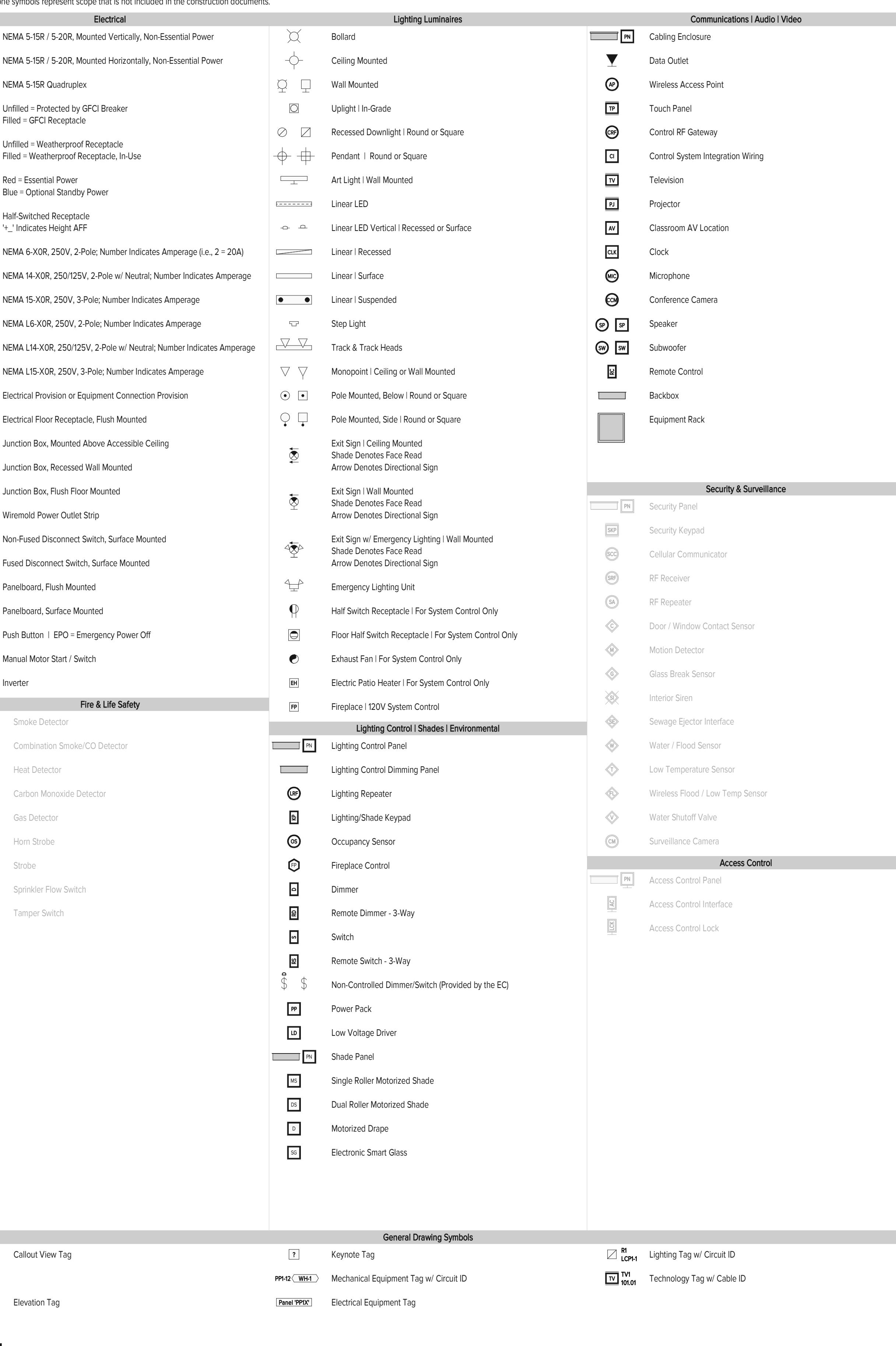
A, AMP	Ampere	LV	Low Voltage
AIC	Amps Interrupting Capacity	LVR	Low Voltage Relay
AC	Alternating Current	MCB	Main Circuit Breaker
AFCI	Arc-Fault Circuit Interrupter	MDP	Main Distribution Panel
AFF	Above Finished Floor	MFGR	Manufacturer
AFG	Above Finished Grade	MIN	Minimum
ATS	Automatic Transfer Switch	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	PCP	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	RECEPT	Receptacle
ELEC	Electric / Electrical	RS	Rigid Steel
EM	Emergency	SD	Smoke Detector
EMT	Electrical Metallic Tubing	SHT	Sheet
EQ	Equal	SOH	Standard Outlet Height
FA	Fire Alarm	SP	Spain
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
IEBC	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
KWH	Kilowatt Hour	W	Watt
LCP	Lighting Control Panel	WD	Warm Dim or Water Detector
LTG	Lighting	WP	Weatherproof
		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 vertical conduits 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 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 appropriate 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, XHHW-2, RHW-2, PWRW, or XLP.
- 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 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.

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DATE: 12/17/2025

REVISIONS:

ELECTRICAL,
LIGHTING &
TECHNOLOGY
INDEX

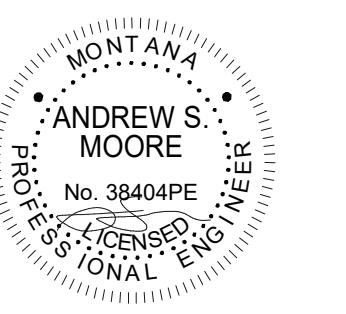


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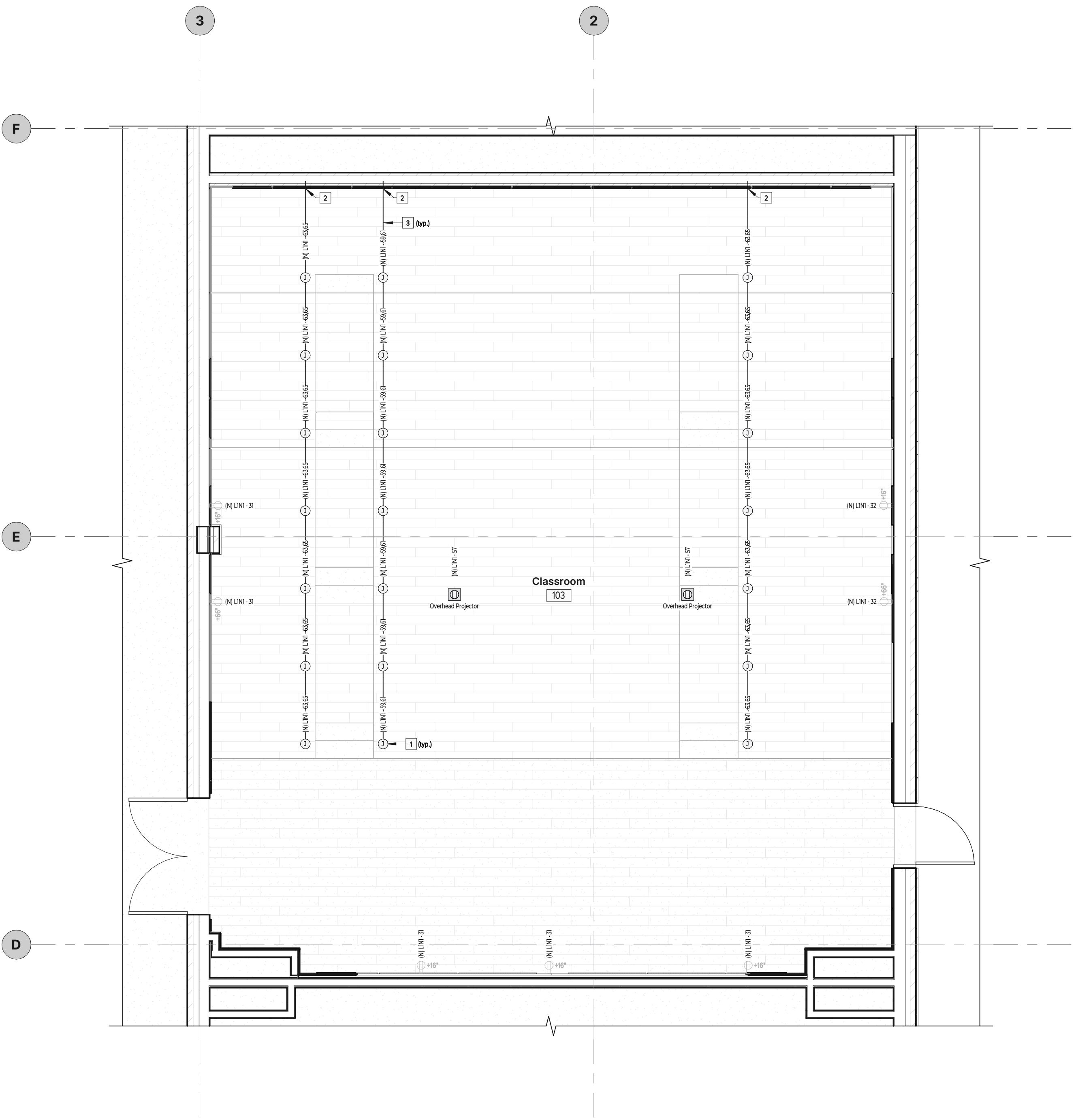
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Bozeman, MT 59717**

103 Electrical Plan

03 ELECTRICAL PLAN

E112

- 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.

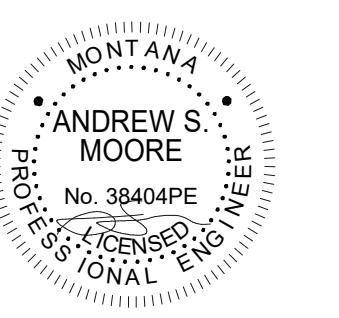


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105 ELECTRICAL PLAN

E113

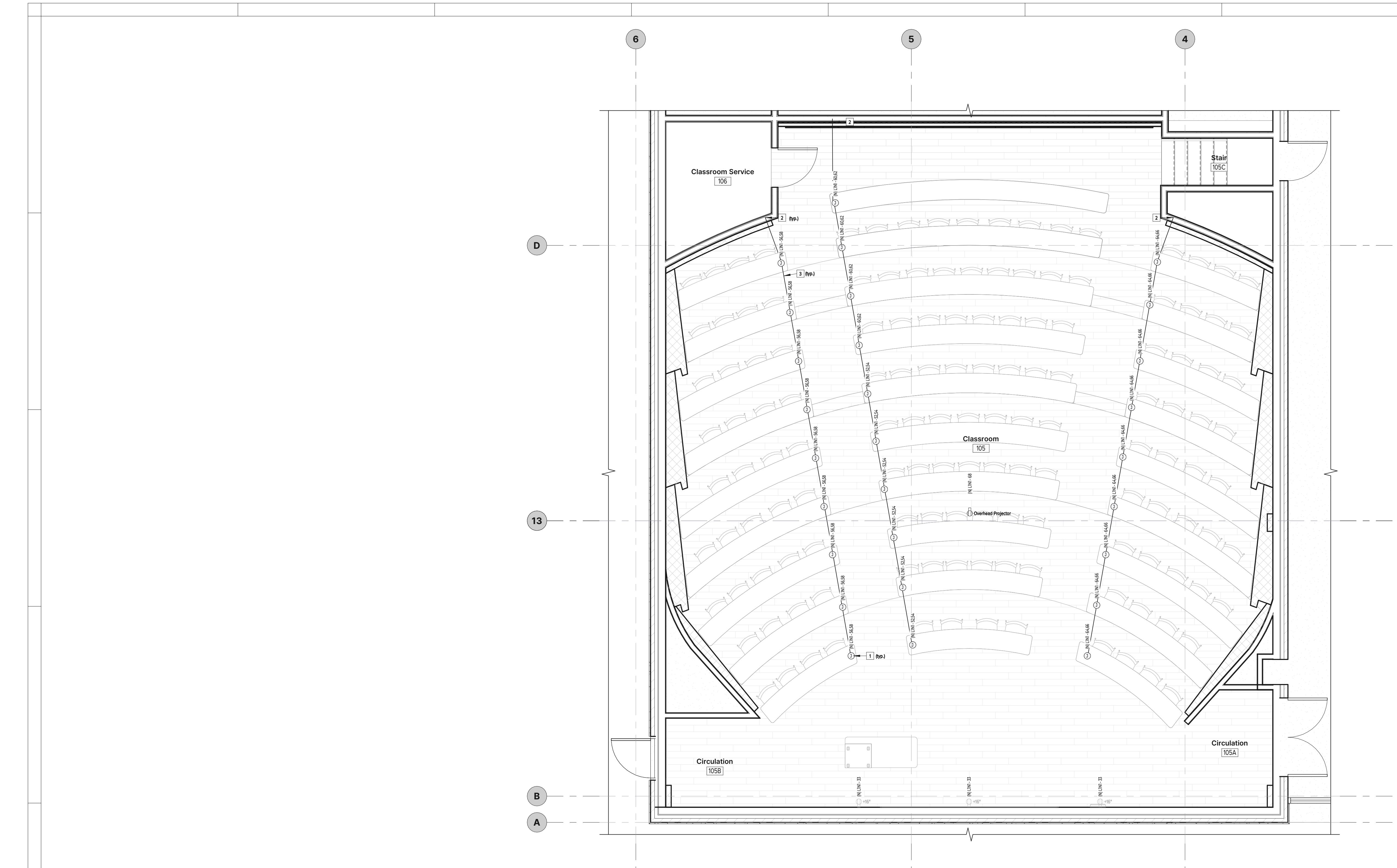
Reference Keynotes

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

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

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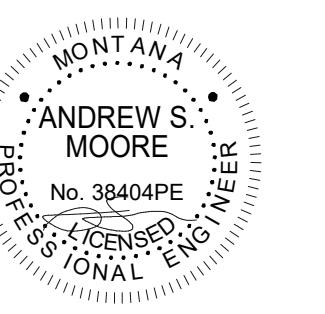


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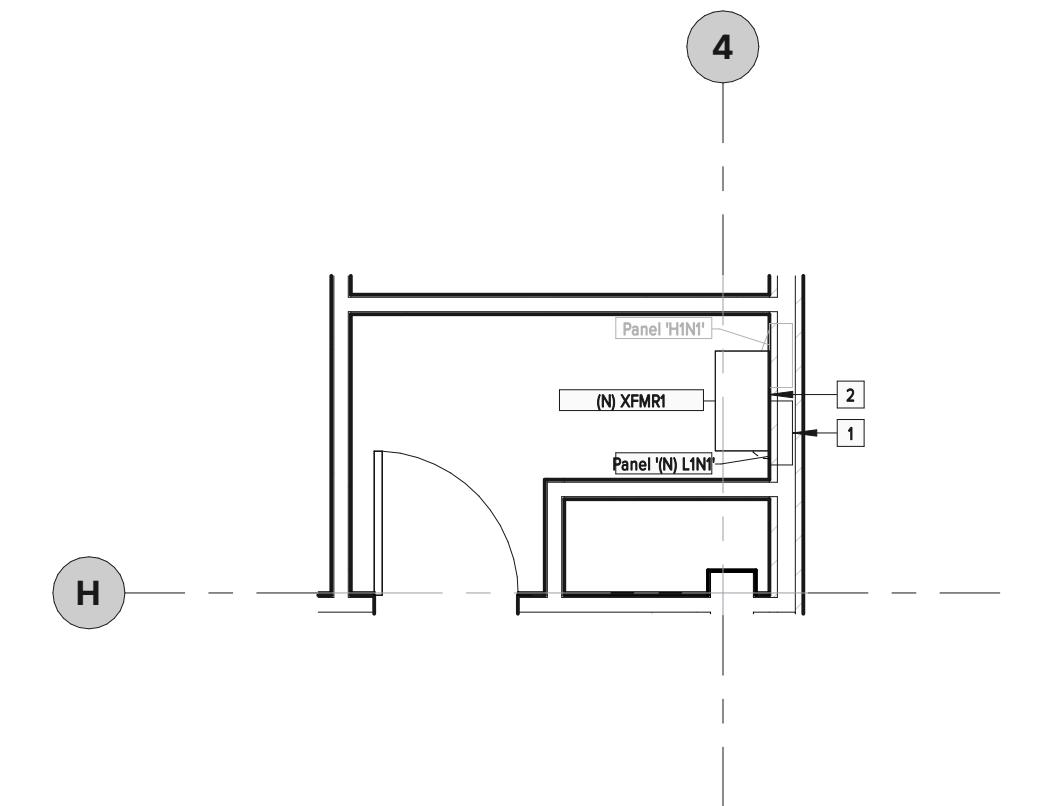
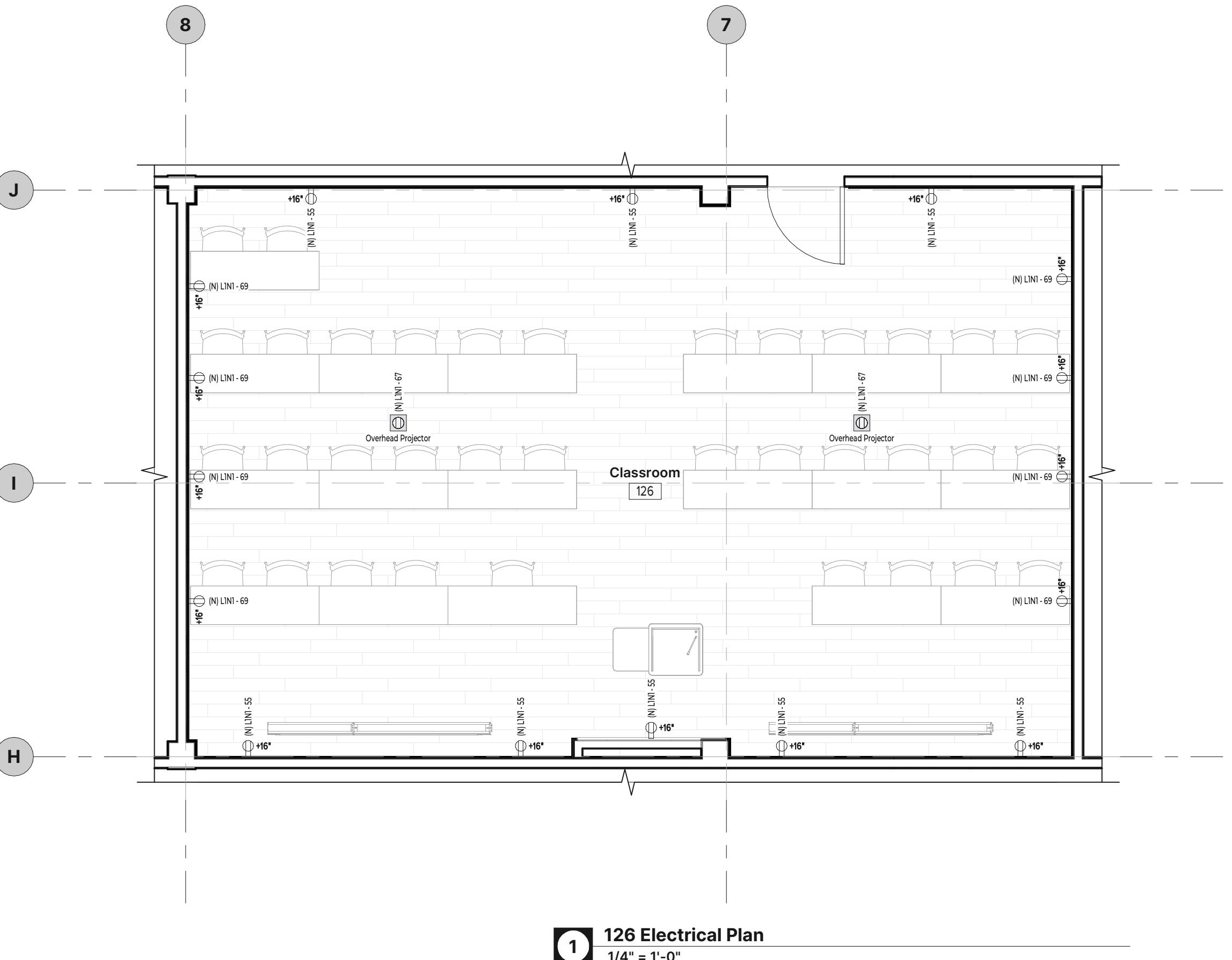
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126 ELECTRICAL PLAN

E114

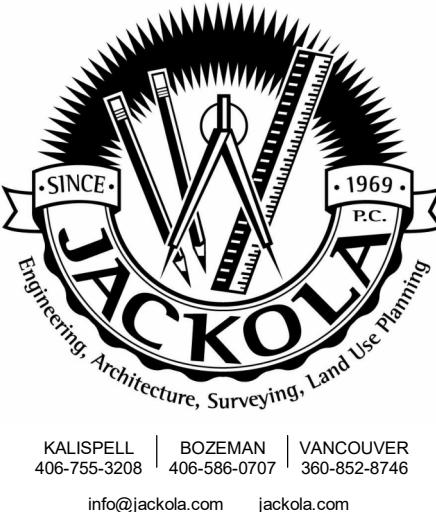
Reference Keynotes

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. EC shall ensure minimum clearances are met prior to installation. Refer to one-line diagram on sheet E610 for additional information.



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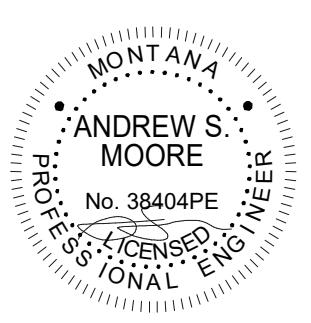


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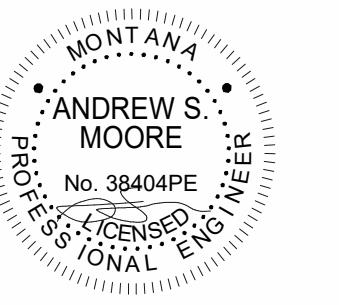
MAIN FLOOR ELECTRICAL PLAN

E116

This architectural cross-section diagram illustrates the stadium seating bowl, showing the tiered seating arrangement and various structural details. The diagram is labeled with numbers 1 through 13 along the top and bottom axes, and letters A through K along the left and right axes. A green dashed line highlights specific sections of the seating bowl, including 1/E114, 2/E114, 1/E111, 1/E112, and 1/E113. The seating bowl is depicted with a grid of seating units, and the surrounding structure includes various levels, stairs, and support columns. The diagram provides a detailed view of the stadium's architecture and seating capacity.

1 First Floor Electrical Plan

PROJECT #:Project Number



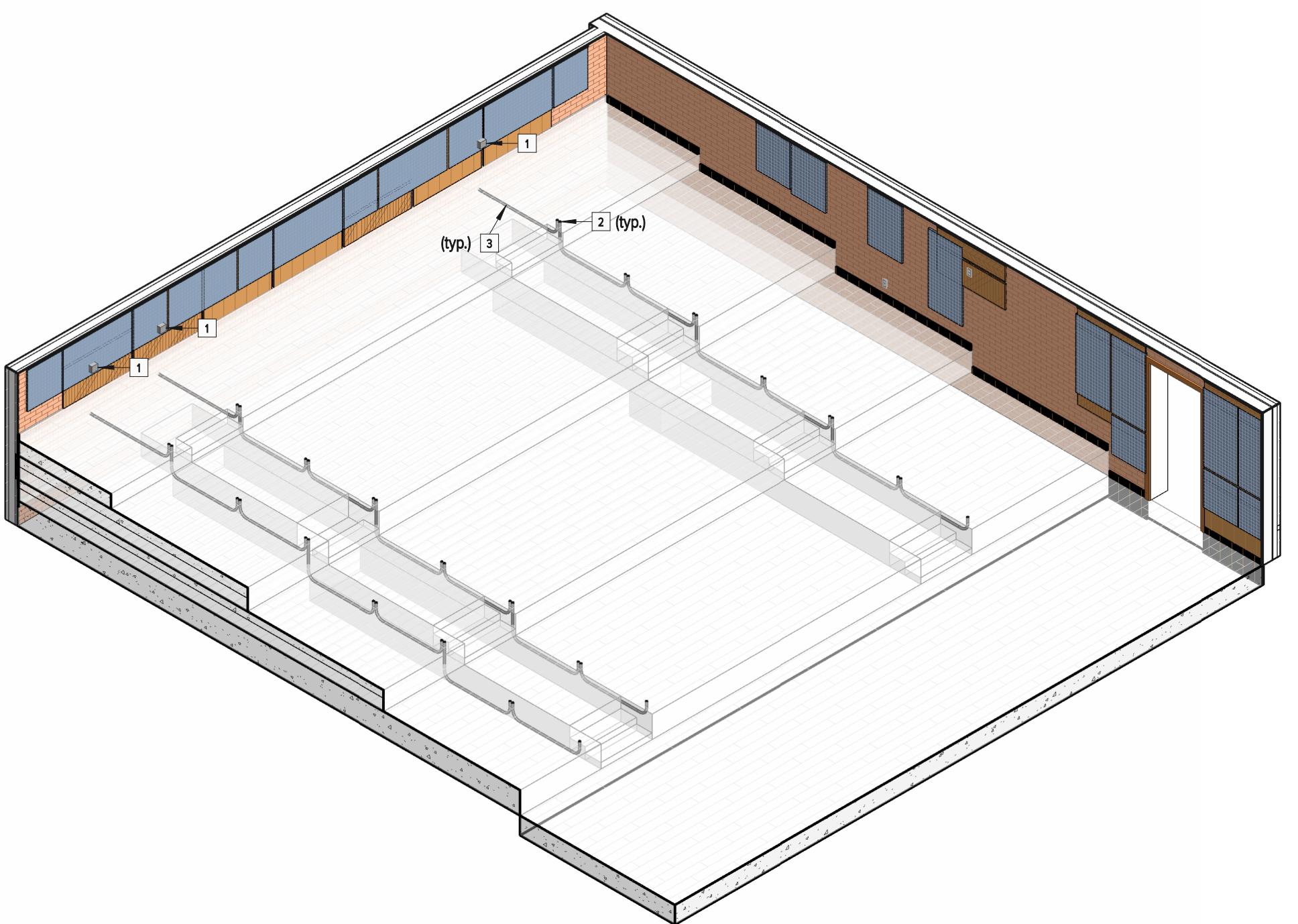
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103 & 105
ISOMETRIC
VIEWS

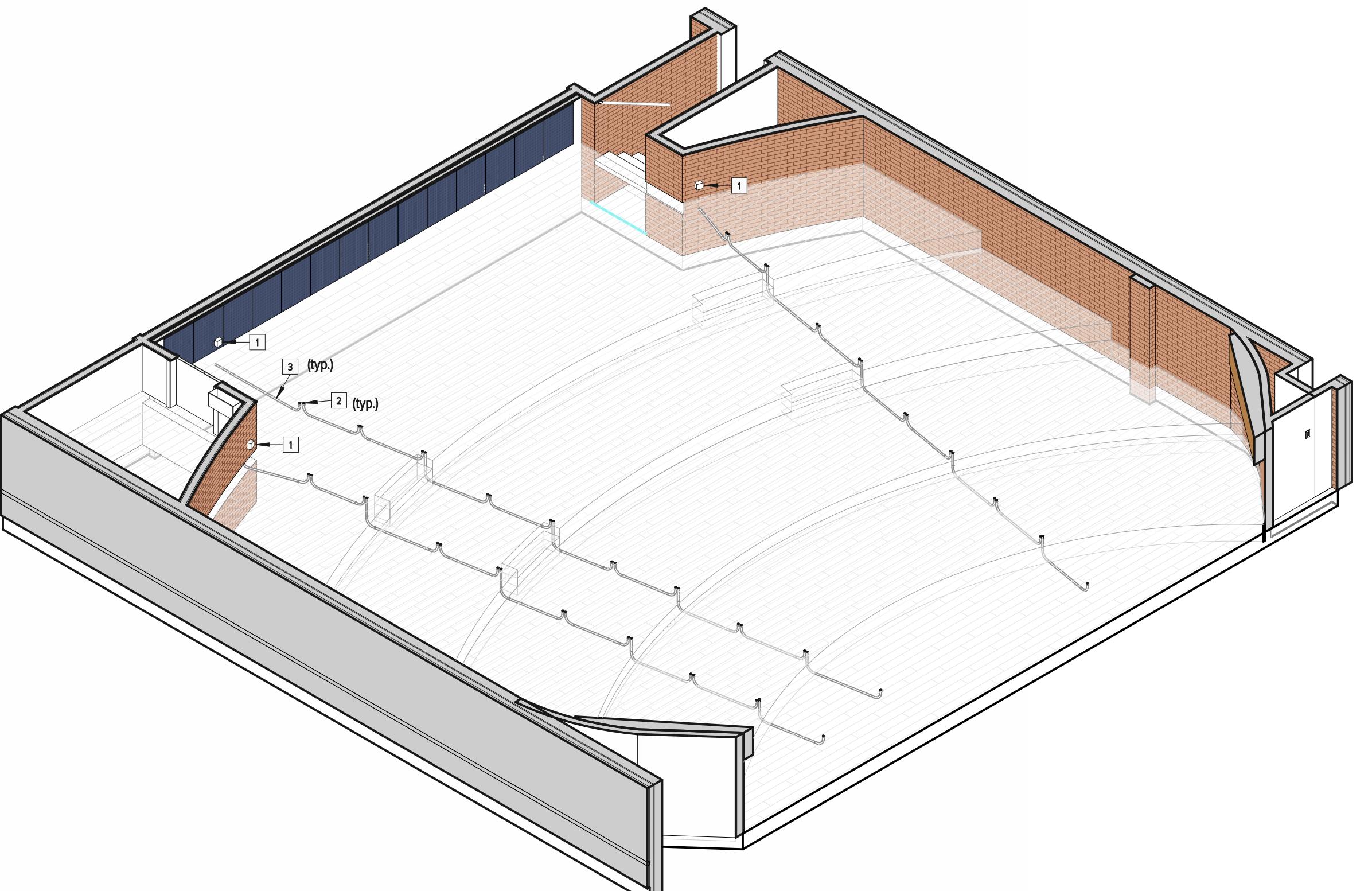
E501

Reference Keynotes

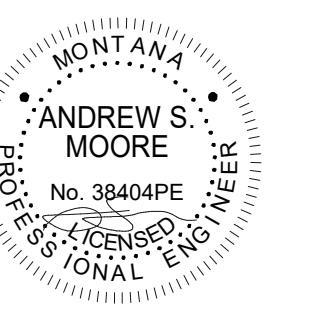
1. Route conduit to recessed junction box in wall at 1'-6" AFF.
2. PVC stub into stationary table leg. Reference furniture drawings for exact dimensions.
3. 3/4" PVC conduit in trench. Cutting and backfill by others.



1 103 Electrical Conduit Isometric View



2 105 Electrical Conduit Isometric View

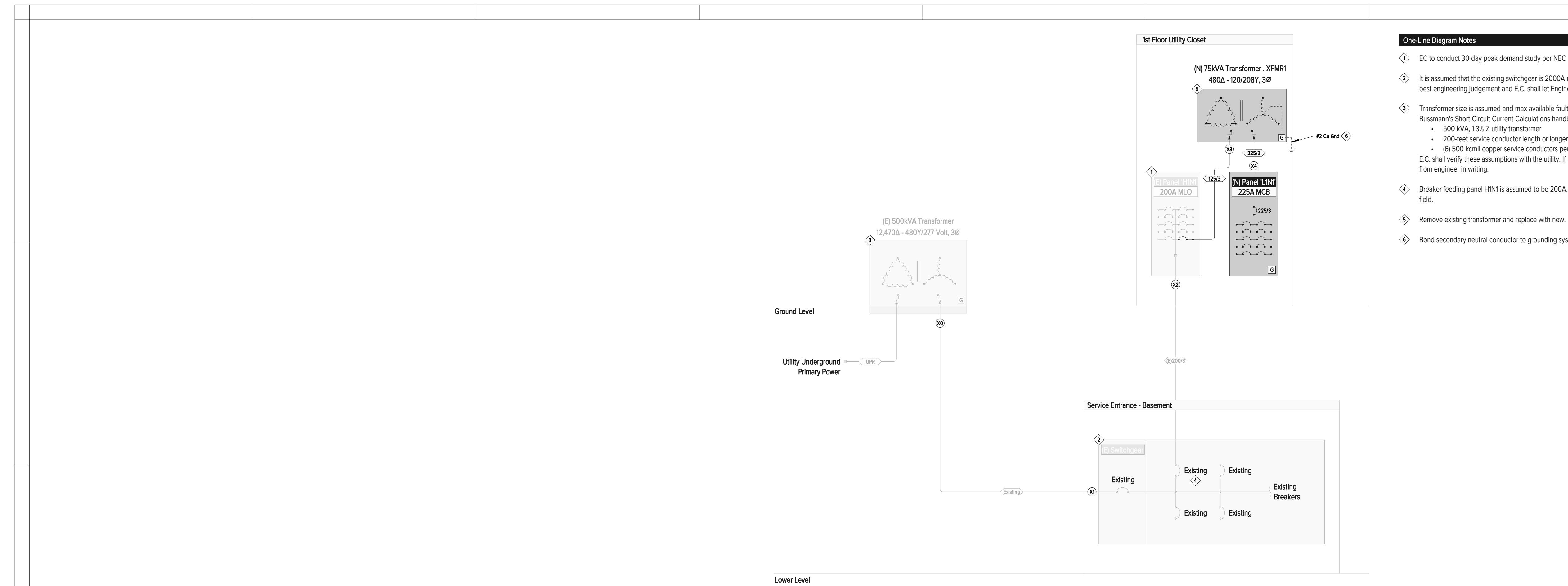


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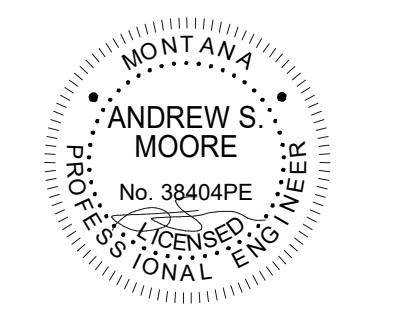
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**ELECTRICAL
ONE-LINE
DIAGRAMS**

E610



Short Circuit and Feeder Schedule												
Point	Device	Short Circuit Current Fault at Device	AIC Rating	Voltage	Feeder ID	Phase	Neutral	Ground	Conduit	Length	Transformer	Fault at Primary
											kVA	Z%
X0	Utility	51,463		480V							500	2.5
X1	(E) Switchgear	37,270	65,000 A	480V	Existing	(E) 200/3	(5) 600kcmil	600kcmil	1/0	3-1/2°C	236'	
X2	HNI	12,277	14,000 A	480V	Existing	(E) 200/3	3/0	#6	2°C	190'		
X3	(N) XFMR1	8,597		480V	125/3	1/0			1-1/4°C	15'	75	1.75
X4	(N) LINI	8,052	10,000 A	208V	225/3	4/0	4/0	#2	2-1/2°C	15'		



Panel 'H1N1'

PANEL	H1N1	VOLTAGE	480/277 Wye	MAIN BUS RATING	200 A	MAIN BUS FEED LOCATION
LOCATION	CLOSET 130	PHASE	3Ø	MAIN TYPE	MLO	MAIN BUS FEED-THROUGH LOAD
MOUNTING		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	20 A	S	3/4" C, 1#12, #12N, #12G	6	
7	Lighting Classroom 103	3/4" C, 1#12, #12N, #12G	S	20 A	1	941 VA	--	--	1	--	--	--	Lighting Classrooms 101, 102	8
9	(E) Lighting Classroom 108	--	--	--	1	--	--	--	1	--	--	--	(E) Lighting Classroom 104	10
11	Lighting Classroom 105	3/4" C, 1#12, #12N, #12G	S	20 A	1	--	--	--	1	--	--	--	(E) Lighting Classroom 108	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	--	--	--	3	--	--	--	Provision	22
23	--	--	--	--	--	--	--	--	--	--	--	--	--	24
25	--	--	--	--	--	6435 VA	--	--	--	--	--	--	--	26
27	Provision	--	--	--	1	--	--	--	1	--	--	--	Provision	28
29	Provision	--	--	--	1	--	--	--	1	--	--	--	Provision	30

Total Apparent Power Phase Loads: 7376 VA

Total Current Phase Loads: 27 A

11710 VA

3375 VA

9565 VA

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	MAIN 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:

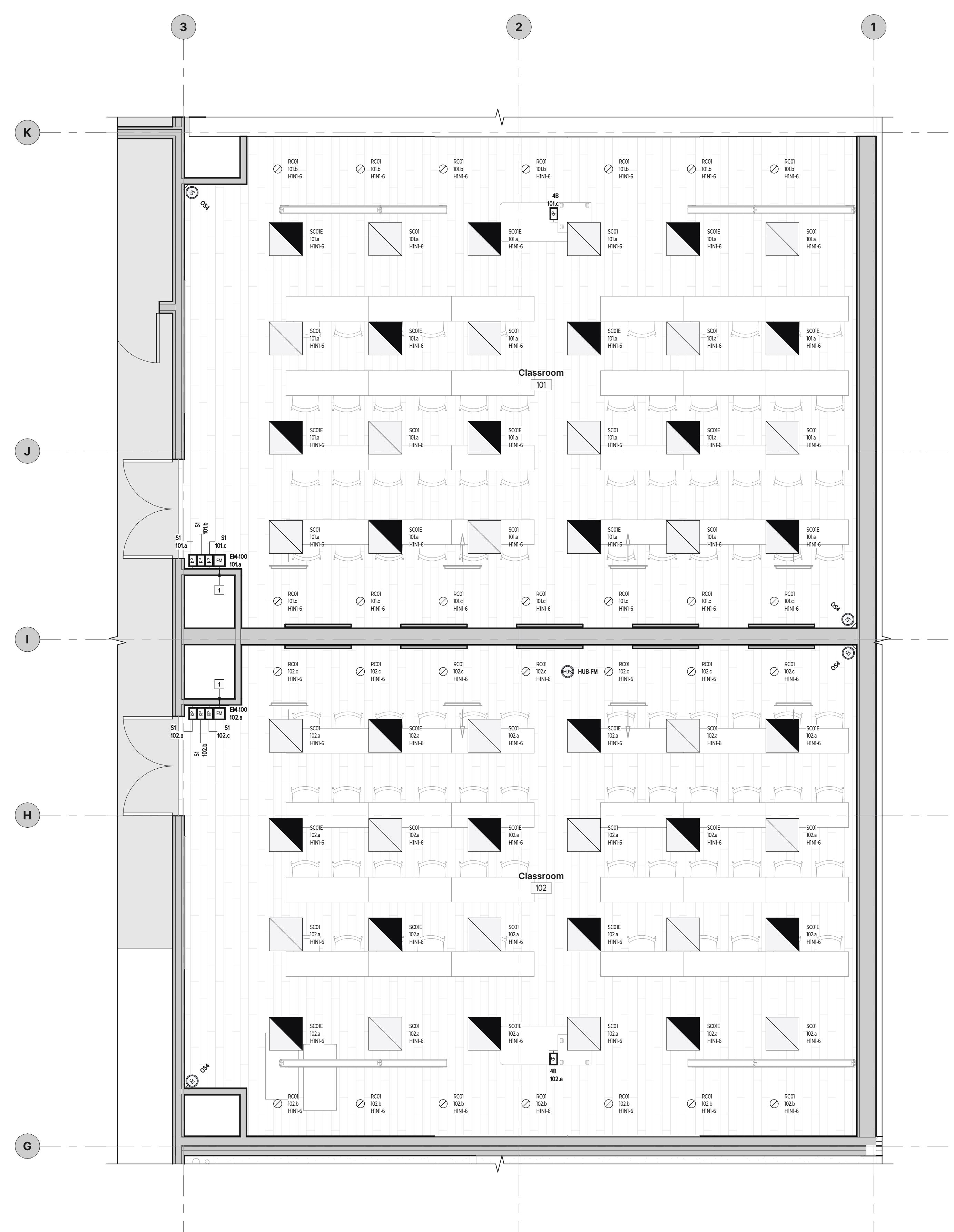
1. All conductors to be copper unless otherwise noted. Conductors shall be upsized for all runs over 100 feet to keep maximum allowable voltage drop at 3%.
2. Where panel schedule and plans indicate GFCI protection for the same circuit, E.C. shall determine whether to install a GFCI receptacle or a GFCI 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	--	--	--	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) Rcts Rooms 131, 132	12
13	(E) Rcts Rooms 133, 134, 135	--	--	--	1	--	--	--	1	--	--	--	(E) Rcts Rooms 136, 137, 138, 138A	14
15	(E) Rcts Rooms 138B, 139	--	--	--	1	--	--	--	1	--	--	--	(E) Rcts Rooms 140, 141, 142	16
17	(E) Rcts Rooms 125, 126, 127 North	--	--	--	1	--	--	--	1	--	--	--	(E) Rcts Room 124 North	18
19	(E) Rcts Rooms 125, 126, 127 South	--	--	--	1	--	--	--	1	--	--	--	(E) Rcts Room 124 South	20
21	(E) Rcts Rooms 112, 113	--	--	--	1	--	--	--	1	--	--	--	(E) Rcts Rooms 114, 115, 116	22
23	(E) Rcts Rooms 117, 118, 119	--	--	--	1	--	--	--	1	--	--	--	(E) Rcts Rooms 120, 121, 122	24
25	(E) Rcts Room 123, West Corridor	--	--	--	1	--	--	--	1	--	--	--	(E) Rcts Room 128, Corridor B	26
27	(E) Rcts Room 129, Corridor A	--	--	--	1	--	--	--	1	--	--	--	(E) Rcts Rooms 108, 109, 110, 111	28
29	(E) Rcts Room 108, 109, 110	--	--	--	1	--	--	--	1	20 A	S	3/4" C, 1#12, #12N, #12G	30	
31	(E) Rcts Room 102, 103	3/4" C, 1#12, #12N, #12G	S	20 A	1	900 VA	360 VA							

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

**101/102
LIGHTING PLAN**

EL111



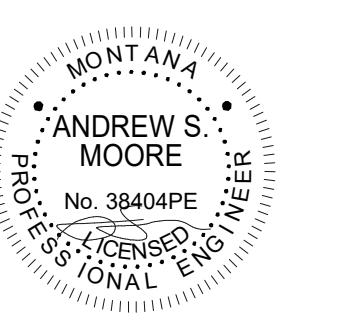


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103 Lighting Plan
1/4" = 1'-0"

1/4" = 1'-0"

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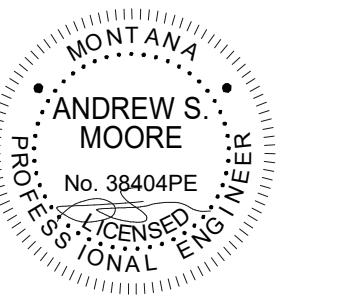
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REVISIONS:

103 LIGHTING PLAN

EL112

PROJECT #.Project Number



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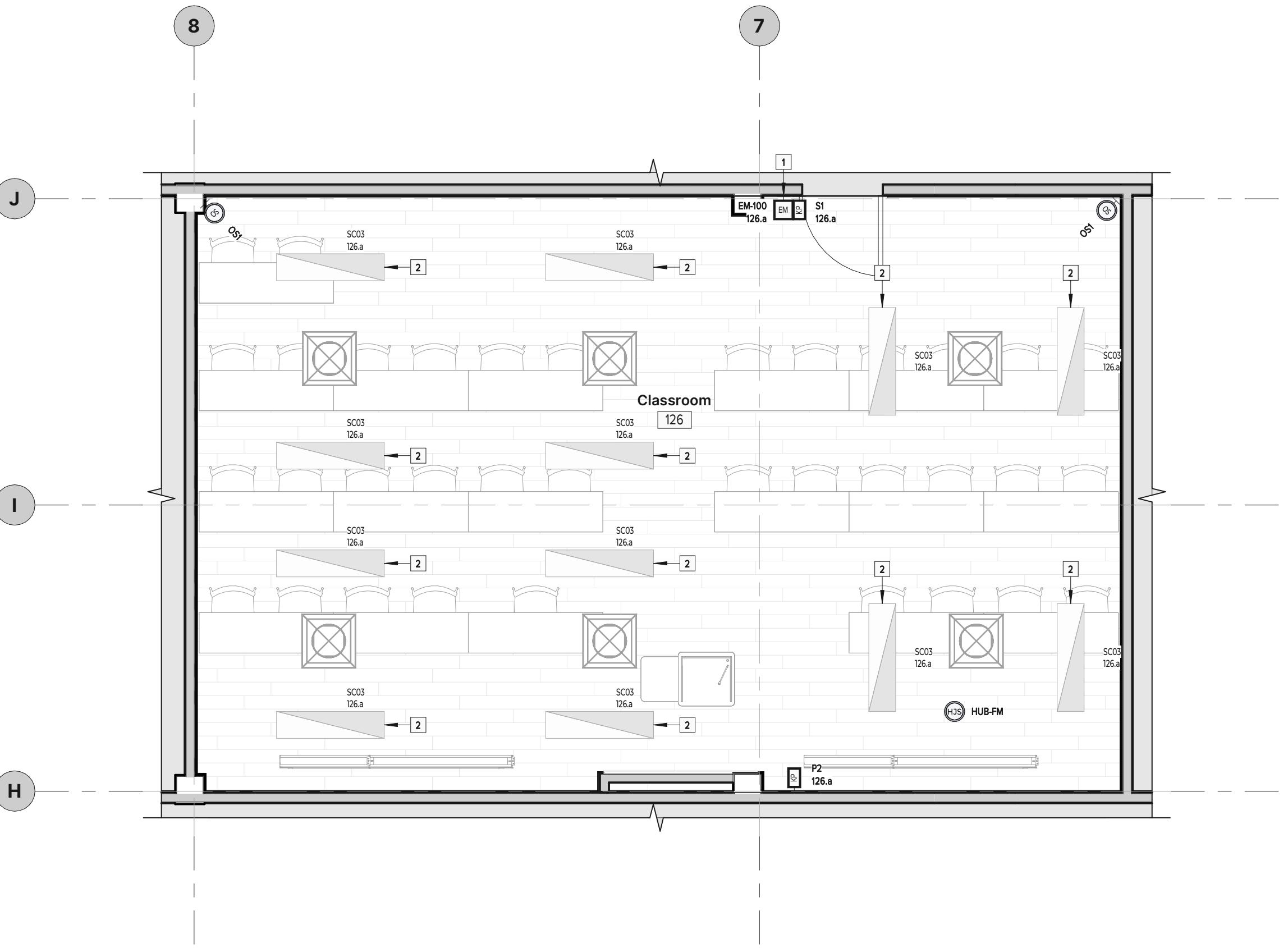
126 LIGHTING PLAN

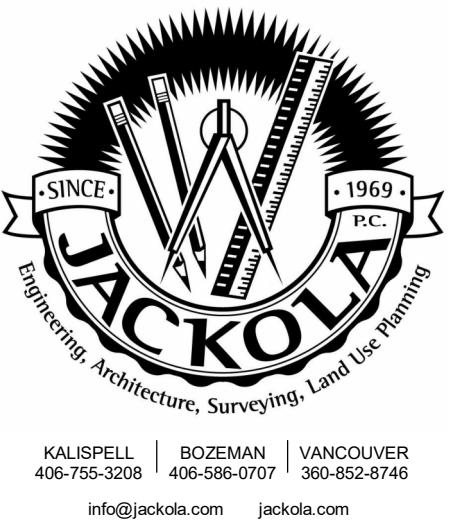
EL114

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.

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





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LUMINAIRES & LIGHTING EQUIPMENT SCHEDULES

EL620

Luminaires									
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	MMGI-H-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	Lumenwerx	SQUW-DI-MPL-WH-WAI2-SW-90CRI-500LMF-500LMF-35K-8FT-UNV-D1-1C-DMB-W	3500K	90	0-10V	81 VA	8000 lm	5
X01	Exit Sign	Evenlite	SOVII-EM-G-1C-BA-SW-SU-[XX]	--	--	--	3 VA	0 lm	6

EC to re-

1. EC to remove fluorescent ballast and rewire with 277V, 0-10V dimming circuit.
2. EC to furnish and install Type B T8 LED lamp; KT-LED10.5T8-48GC-8XX-D-VDIM, or equal.
3. EC to set adjustable output to 30W during installation.
4. EC to set adjustable color temperature to 3500K during installation.
5. Connect emergency lighting to mini inverter per manufacturer's installation instructions.
6. 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	Evenlite	MIP-100-MINV-ACCY-TSP	6
EM-550	Mini Inverter - Multiple Zones	Evenlite	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-OWL-B-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	PJ2-4B-GWH-L01	1, 2, 3, 4

Notes:

1. EC to install a complete working system.
2. EC to provide startup, commissioning, and training services for lighting control system.
3. Refer to specifications for additional control system requirements.
4. EC to install Vive lighting control equipment according to plans to ensure the best connectivity to wireless control devices.
5. 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.
6. Connect emergency lighting to mini inverter per manufacturer's installation instructions.

PROJECT #:Project Number



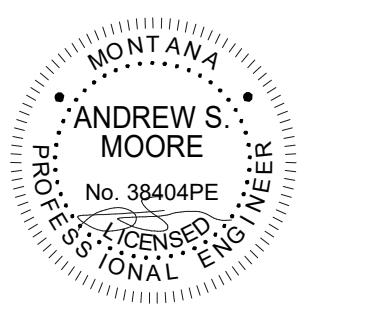
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Bozeman, MT 59717

DRAWN: Author CHECKED: Checker

DATE: 12/17/2025

REVISIONS:

TECHNOLOGY INFORMATION

T001

Conduit Sizing	Conduit Size	Maximum Number of Cables
	1-1/4"	(8) Cat6A
	1-1/2"	(11) Cat6A
	2"	(19) Cat6A
	2-1/2"	(21) Cat6A
	3"	(55) Cat6A
	4"	(92) Cat6A

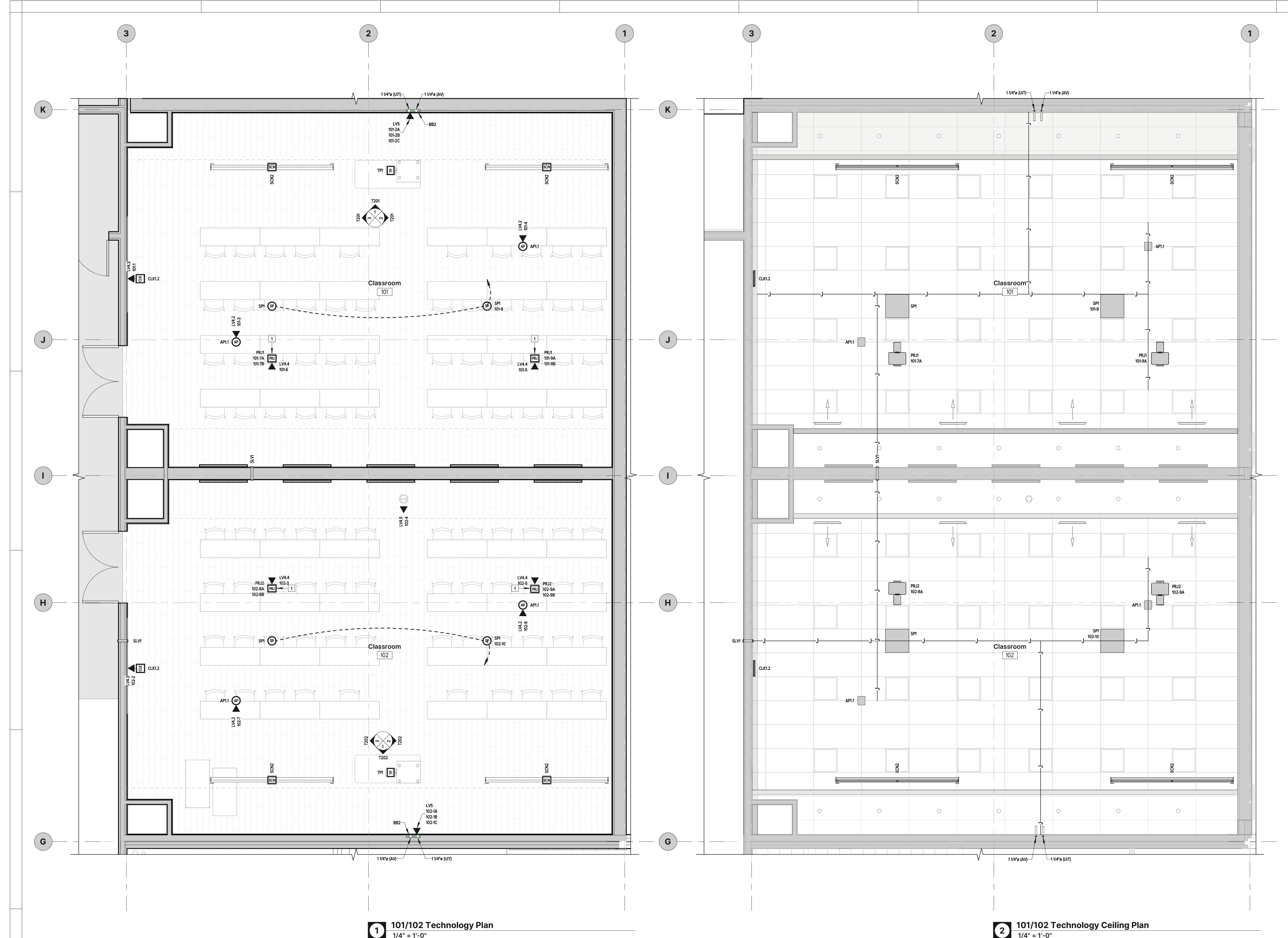
J-Hook Sizing		
B-Line Series J-Hooks		Maximum Number of Cables
Part Number	Size	Commscope Cable UN884019304/10 (.285" Diam.)
BCH21	1-5/16"	(12) Cat6A
BCH32	2"	(20) Cat6A
BCH64	4"	(92) Cat6A

Cabletray Sizing		
Flextray Series		Maximum Number of Cables
Part Number	Size	Commscope Cable UN884019304/10 (.285" Diam.)
FT4X4	4" x 4"	(100) Cat6A
FT4X8	4" x 8"	(200) Cat6A
FT4X12	4" x 12"	(300) Cat6A
FT4X18	4" x 18"	(450) Cat6A
FT4X24	4" x 24"	(600) 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		
AV = University Audio/Video Department		
UIT = University IT Department		
GC = General Contractor or Subcontractor		

Equipment	Description	Qty.	Furnished	Installed
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 L530U	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" Tabletop 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 VZ-3neo	Visualizer and Document Camera	4	AV	AV
WolfVision VZ-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 2348S/5I	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 SYSAW	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 1933674-3	6-Port Surface Mount Modular	5	UIT	UIT
Commscope SMB-2P-266	2-Port Universal Surface Mount Jack for Lutron VIVE 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 PE64BGPD904	15" PoE Round Surface Clock, Black	6	UIT	UIT



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103
TECHNOLOGY
PLANS

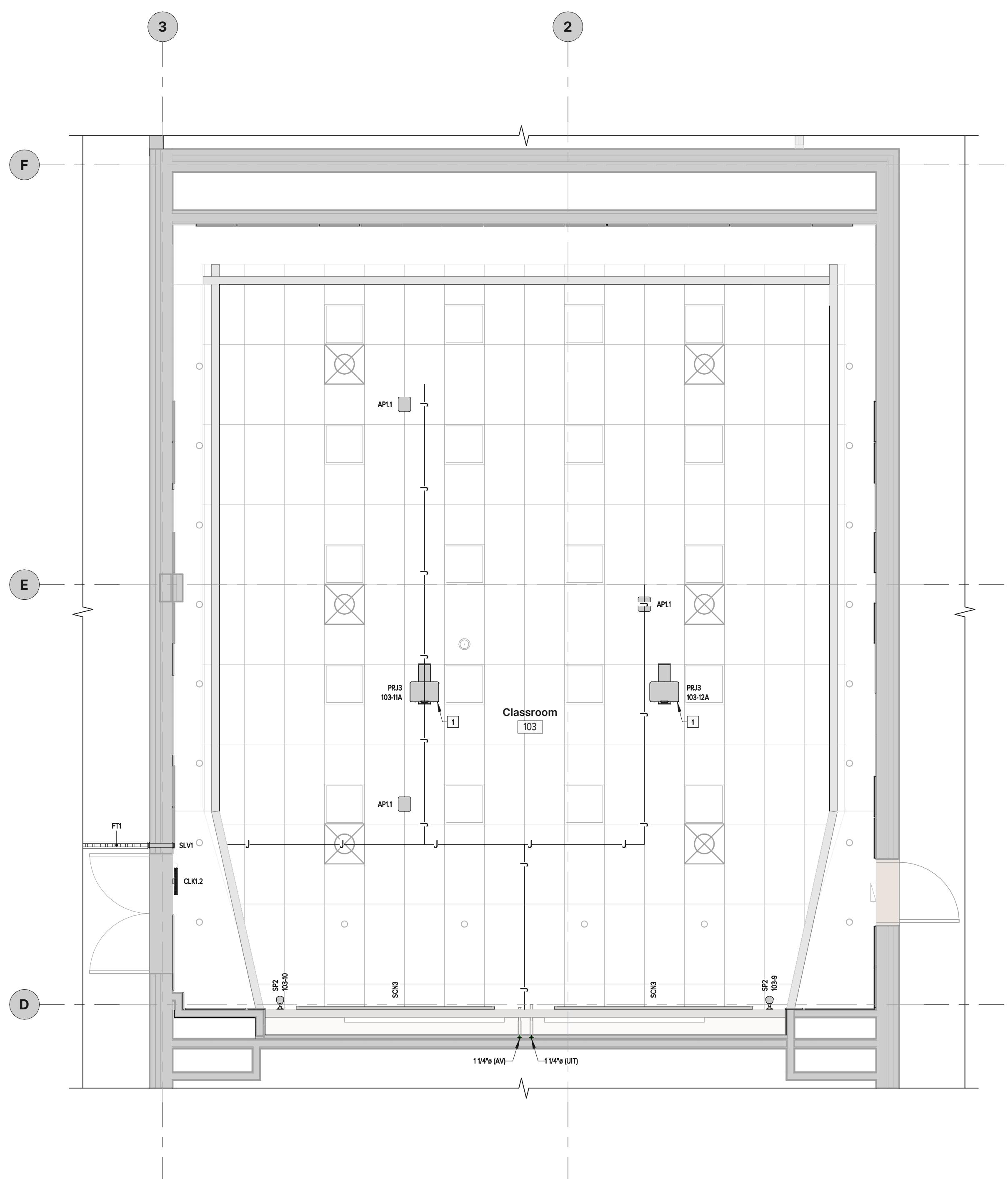
T112

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.



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

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



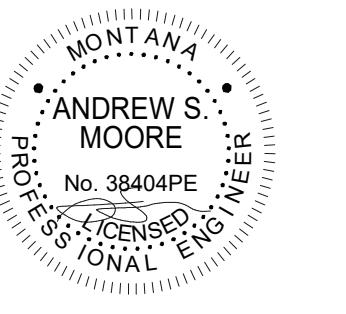
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- Final cabling pathways to be determined on site.
- All equipment locations shall be finalized by MSU AV and UIT departments before wired and installed.

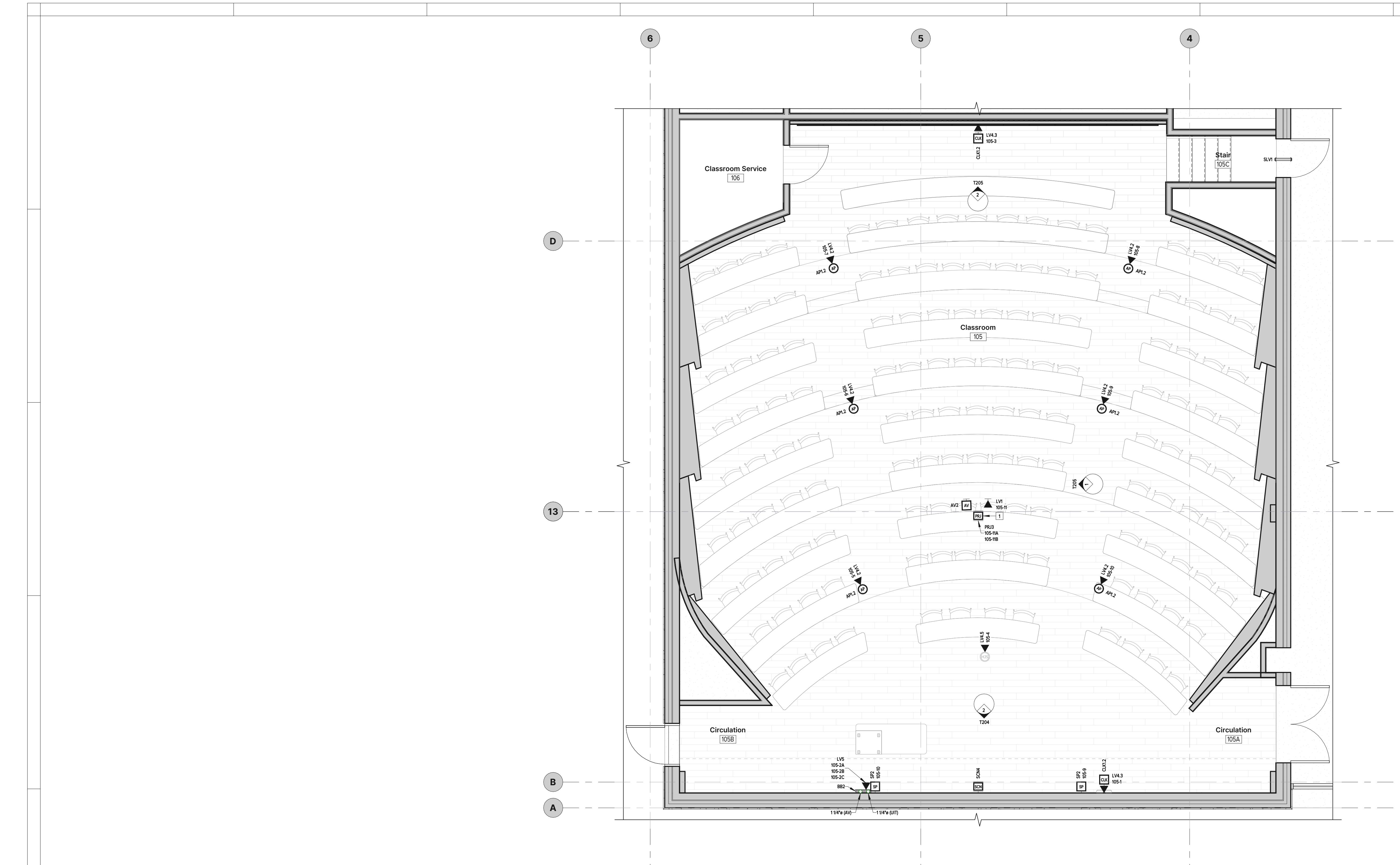
ference Keynotes
18'-2 3/4" to 29'-5 7/8" projector throw
distance range for 189" diagonal screen.

1 105 Technology Plan

105 TECHNOLOGY PLAN

T113

PROJECT #:Project Number



Author CHECKED: Checker

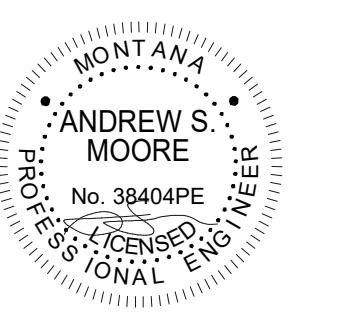
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105 TECHNOLOGY PLAN

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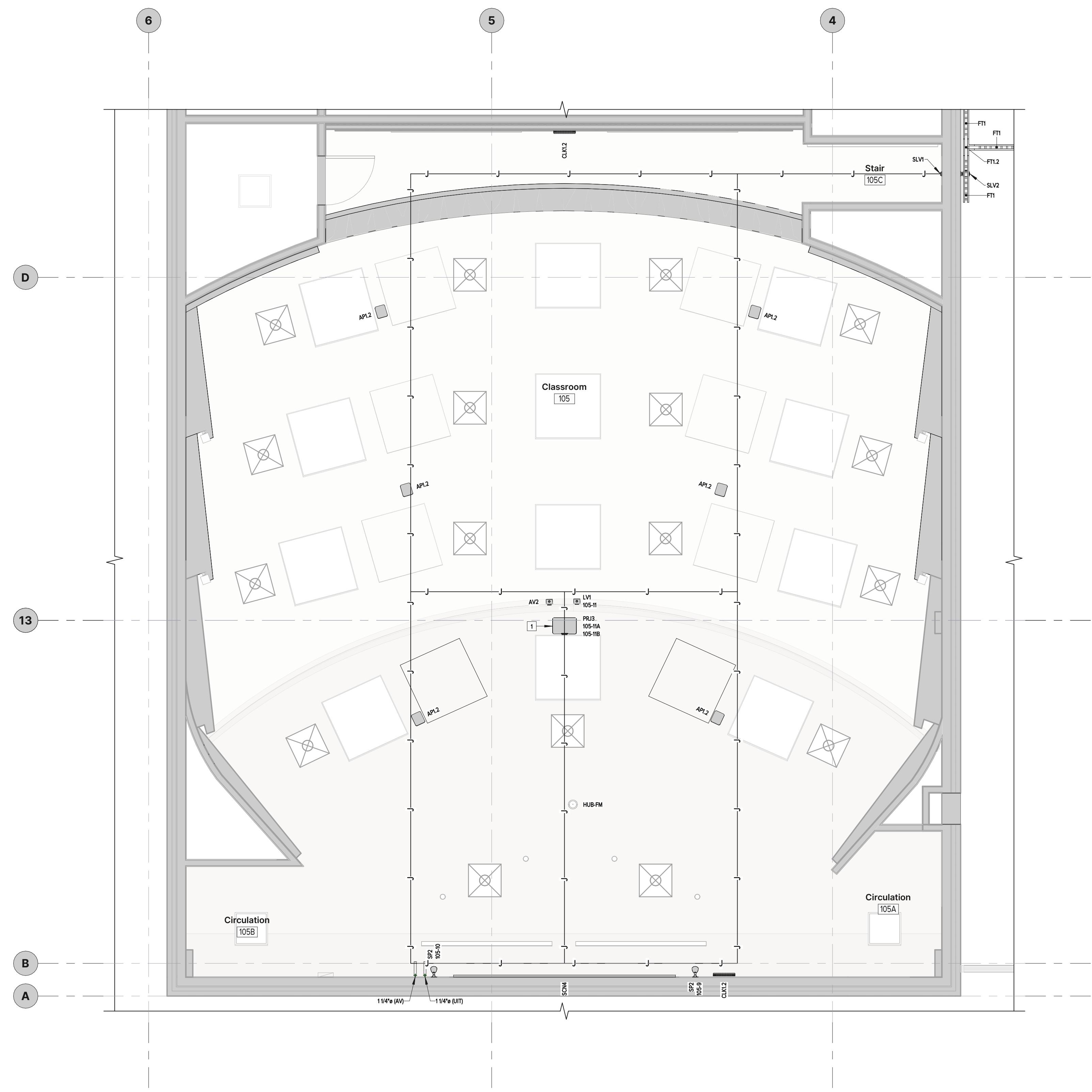
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DATE: 12/17/2025

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**105
TECHNOLOGY
CEILING PLAN**

T14

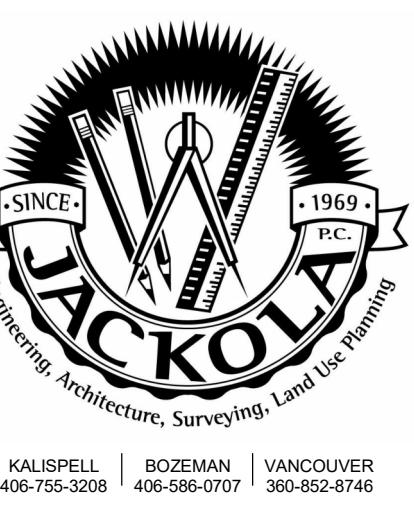


Sheet Notes

- 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.

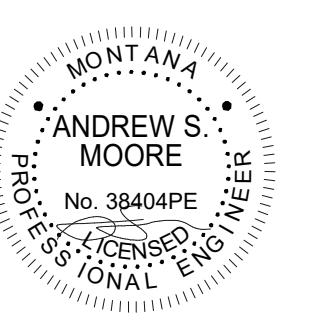


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126 TECHNOLOGY PLAN

T115

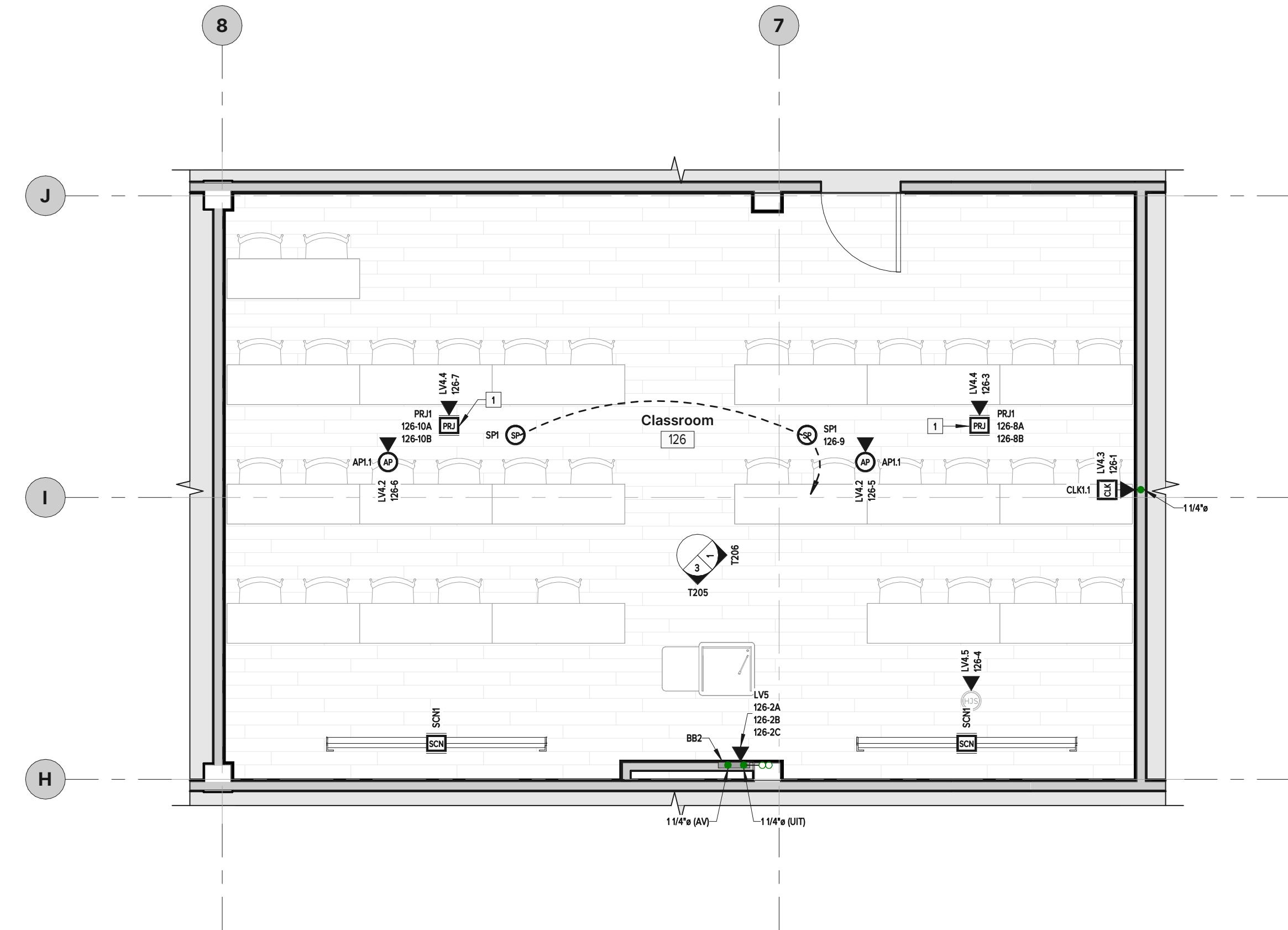
Sheet Notes

al cabling pathways to be determined on site.

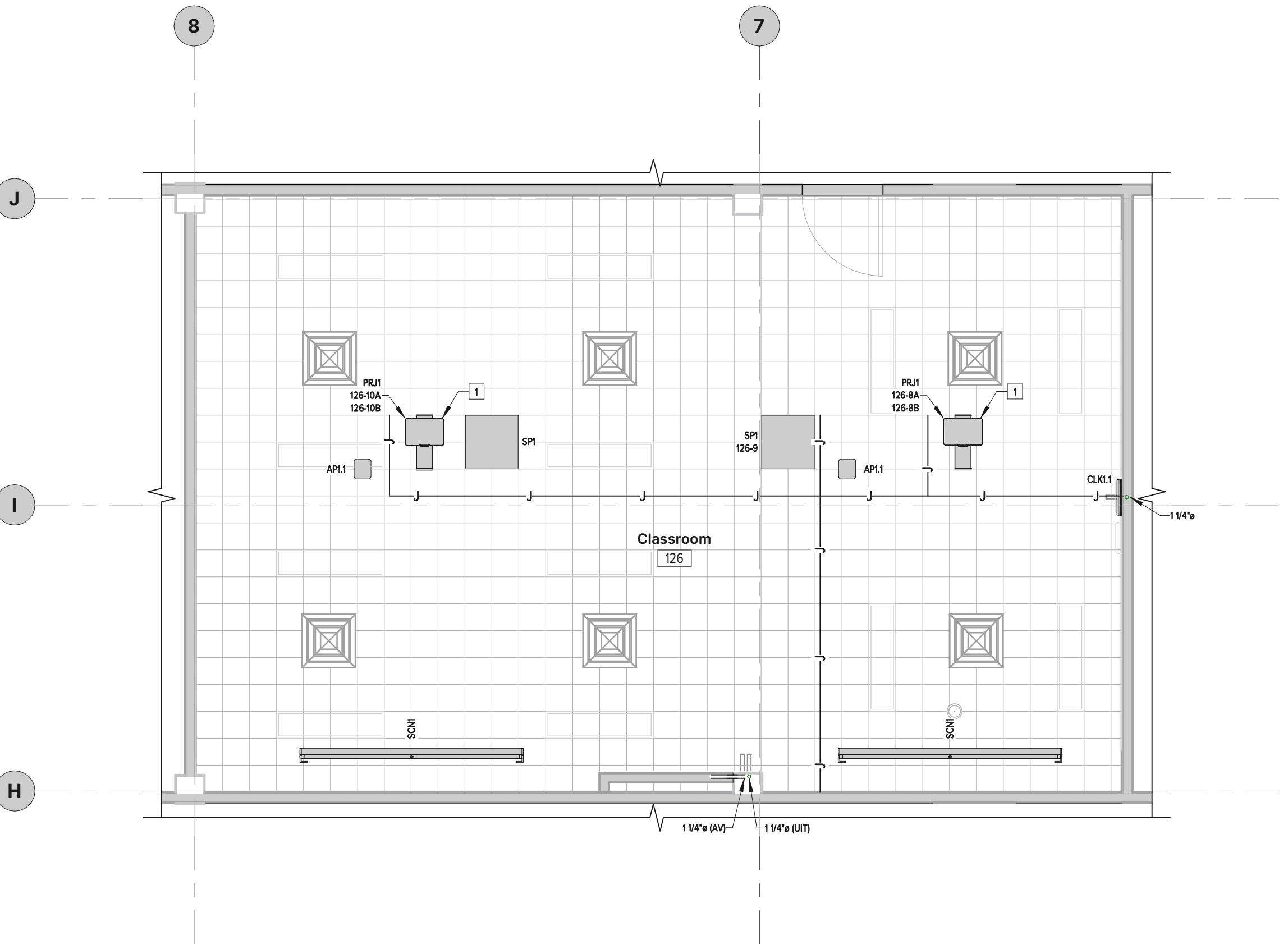
Equipment locations shall be finalized by the SU AV and UIT departments before wired and installed.

Preference Keynotes

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



126 Technology Plan



2 126 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

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

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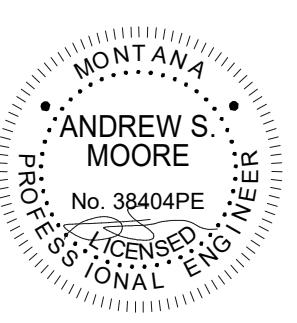
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MAIN FLOOR TECHNOLOGY PATHWAY PLAN

T116

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

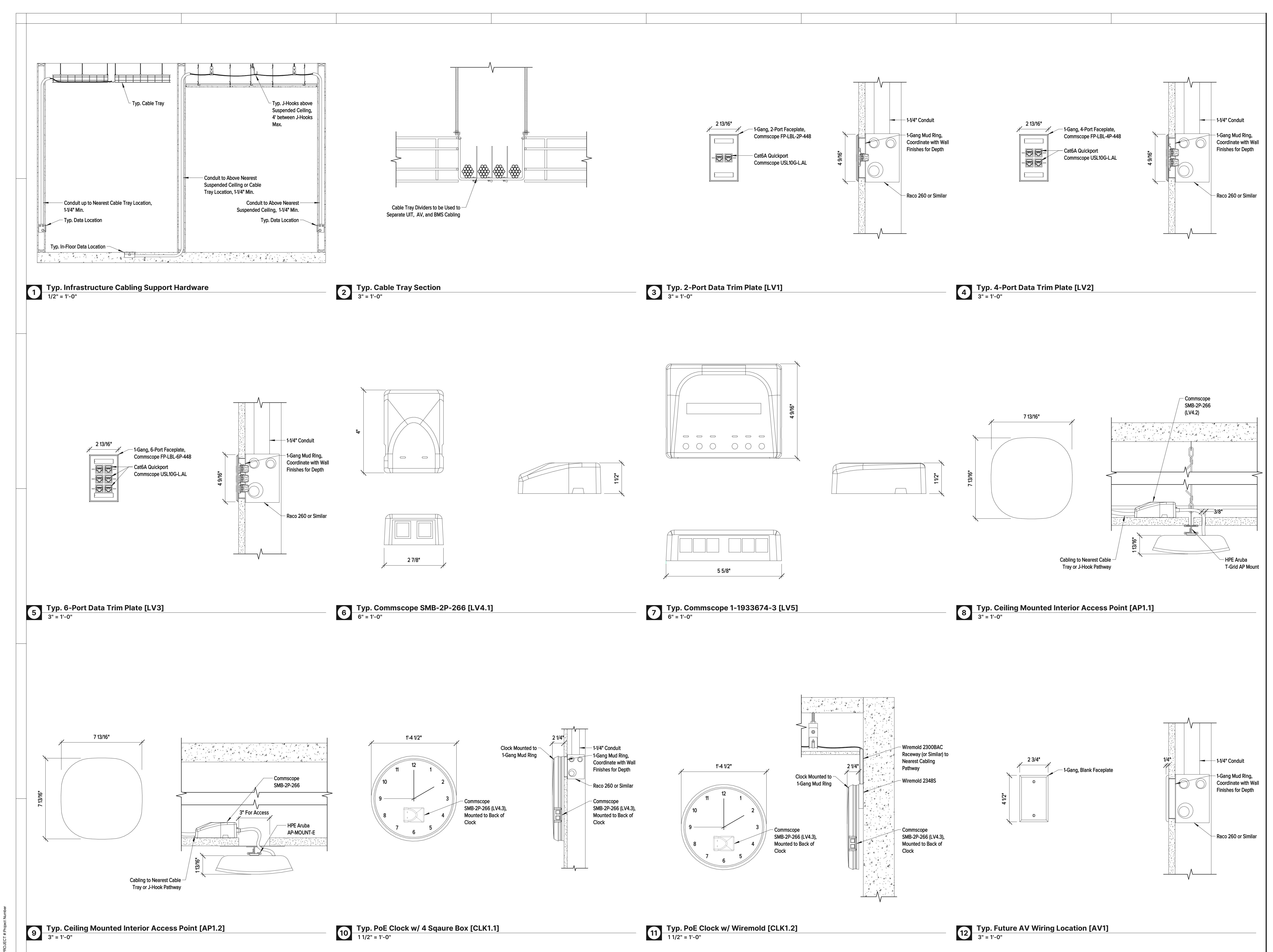
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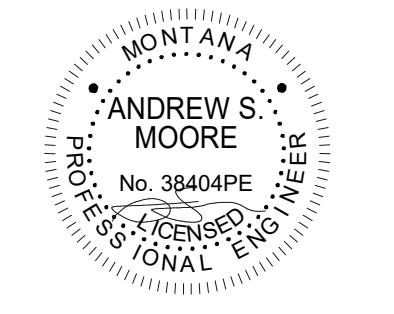
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TECHNOLOGY TYPICAL DETAILS

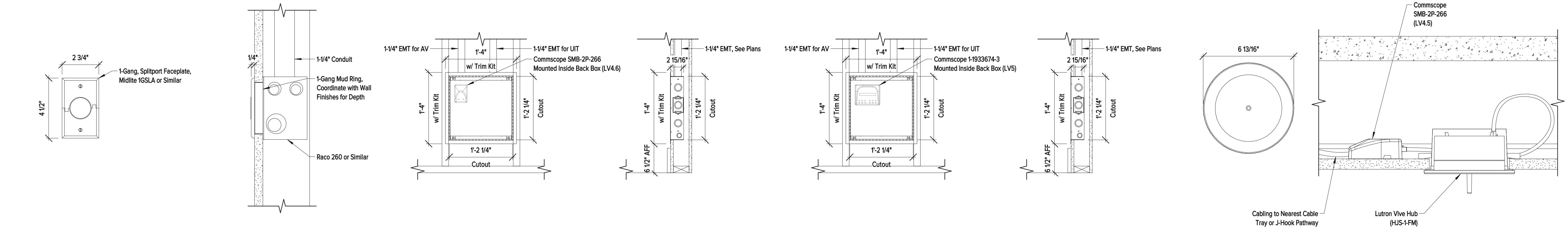
T501





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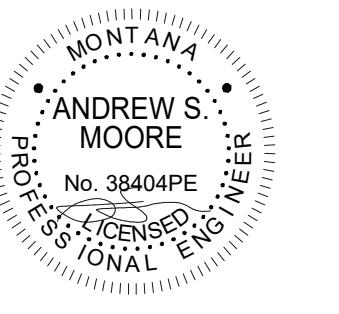


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**TECHNOLOGY
TYPICAL
DETAILS**

T502



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**TECHNOLOGY
ONE-LINE
DIAGRAMS**

T601

One-Line Diagram

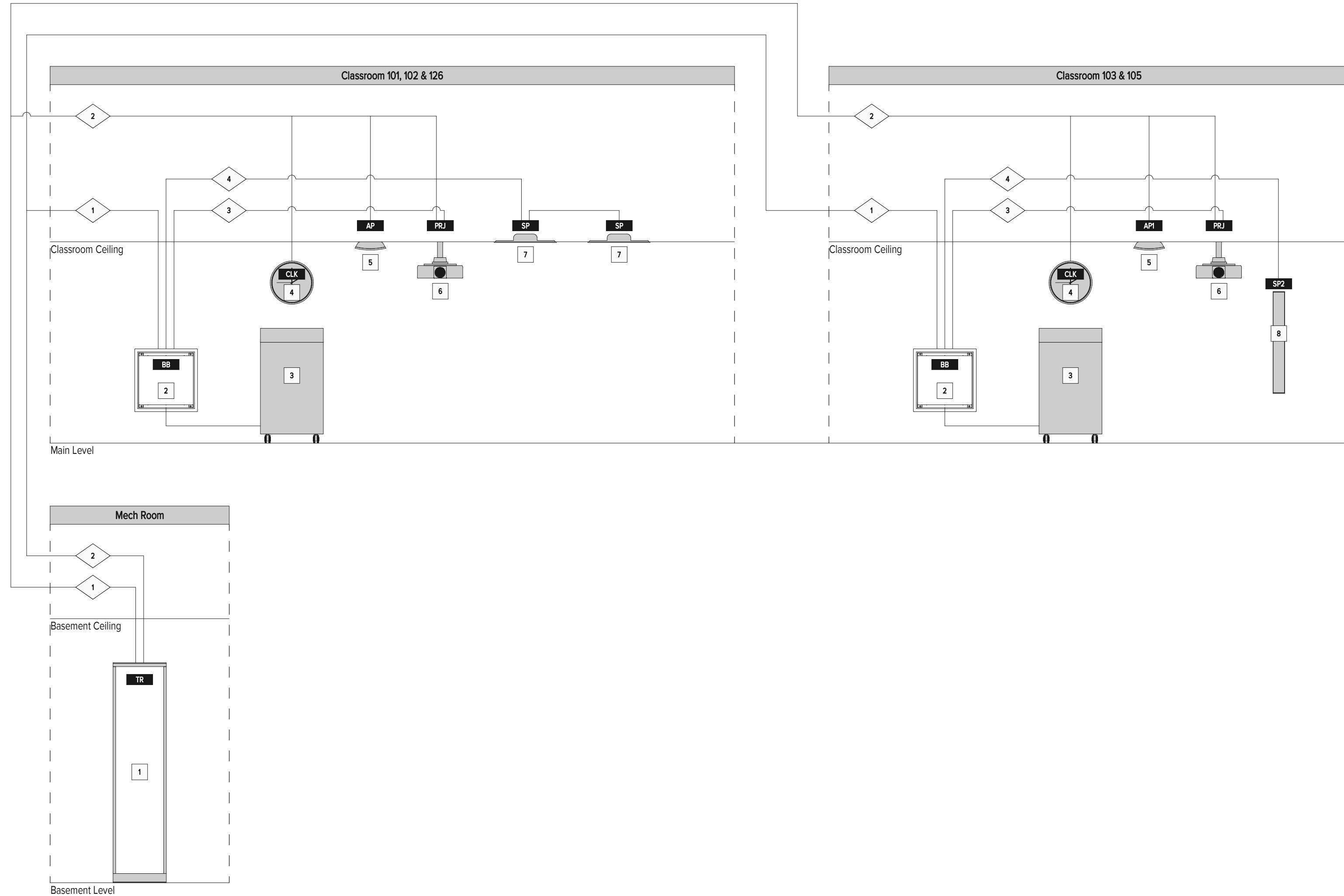
Sheet Notes II One-Line Diagram

- 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 80hm 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.





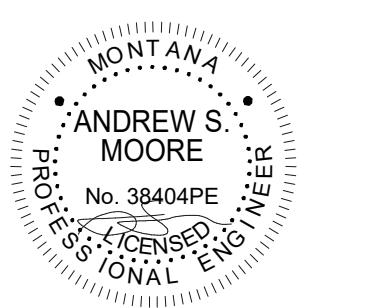
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TECHNOLOGY CABLING SCHEDULES

T603

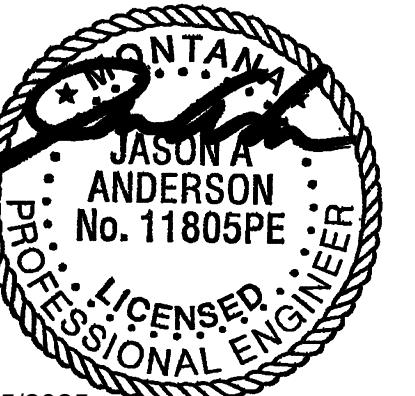
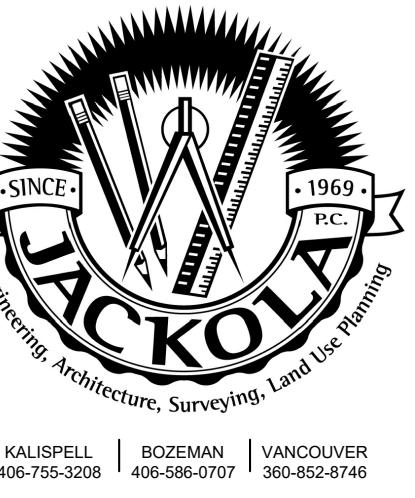
Typical Technology Device Cabling Types					Type	Cabling Types	Cabling Headend
Manufacturer	Model	Description					
Audio							
Extron	FF 220T	Full-Range Flat Field Speakers w/ Low Profile Enclosure, 70/100V Transformer			SPI	(1) 16/4 Speaker Cable	Classroom AV Equipment
Extron	42-338-02	Long Throw Column Array Speaker, 8 Ohm, Black			SP2	(1) 16/4 Speaker Cable	Classroom AV Equipment
Control							
Extron	60-1470-02	MediaLink Plus Controller, Black			TPI	(1) Shielded CAT6 Cable	Classroom AV Equipment
Data							
Typical	Existing Access Point	Existing Wireless Access Point			API.1	(1) Commscope UCIAAA2-0CFOOX (Length TBD)	Telecommunications Room (TR#)
Typical	Existing Access Point	Existing Wireless Access Point			API.2	(1) Commscope UCIAAA2-0CFOOX (Length TBD)	Telecommunications Room (TR#)
American Time	PE64BGPD904	15" PoE Round Surface Clock, Black			CLK1.1	(2) Commscope UN884019314 Cables	Telecommunications Room (TR#)
American Time	PE64BGPD904	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			LV5	(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					Type	Wire Label
Room #	Room Name	Manufacturer	Model	Description		
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	LV5	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	Epson	L530U	PowerLite Series Full HD WUXGA Long Throw Laser Projector	PRJ1	101-9A, 101-9B
102	Classroom	Commscope	1-1933674-3	6-Port Surface Mount Module	LV5	102-1A, 102-1B, 102-1C
102	Classroom	Commscope	SMB-2P-266	2-Port Universal Surface Mount Jack for Projector Locations	LV4.4	102-2
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	Epson	FF 220T	Full-Range Flat Field Speakers w/ Low Profile Enclosure, 70/100V Transformer	SP1	102-10

Classroom 103 Device Wiring					Type	Wire Label
Room #	Room Name	Manufacturer	Model	Description		
103	Classroom	Commscope	1-1933674-3	6-Port Surface Mount Module	LV5	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	Etron	42-338-02	Long Throw Column Array Speaker, 8 Ohm, Black	SP2	103-9
103	Classroom	Etron	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					Type	Wire Label
Room #	Room Name	Manufacturer	Model	Description		
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	LV5	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 Wireless Access Points	LV4.2	105-5
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	105-6
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	Etron	42-338-02	Long Throw Column Array Speaker, 8 Ohm, Black	SP2	105-9
105	Classroom	Etron	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					Type	Wire Label
Room #	Room Name	Manufacturer	Model	Description		
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	LV5	126-2A, 126-2B, 126-2C
126	Classroom	Commscope	SMB-2P-266			



REID HALL RENOVATION

REID HALL,
BOZEMAN, MONTANA 59717

PPA# 25-1214

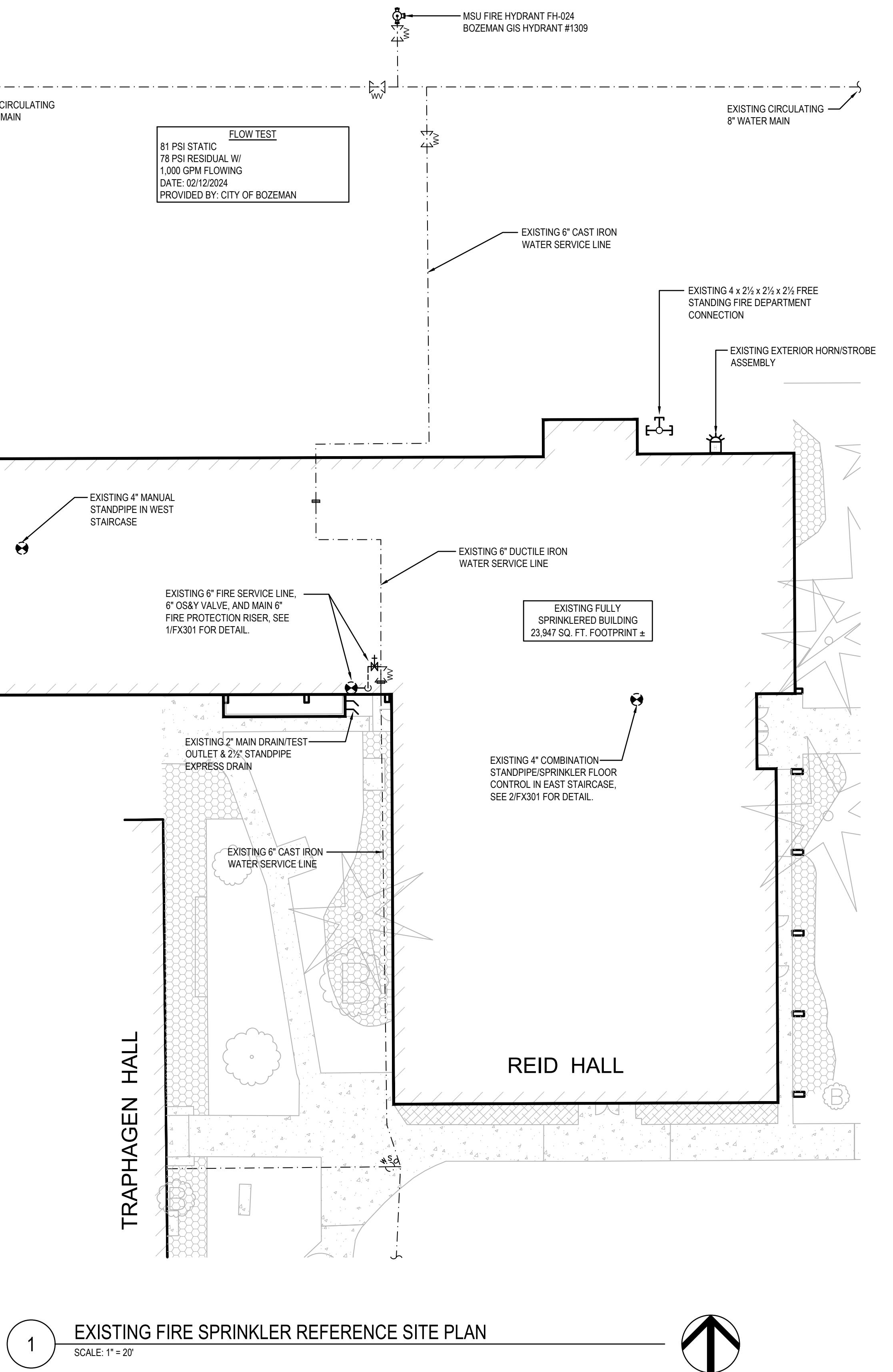
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DATE: 12/15/2025

REVISIONS:

GENERAL NOTES,
DETAILS, AND
LEGEND

FX001



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 AREAS 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 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 2x2 SUSPENDED CEILING TILES. SPRINKLERS SHALL BE INSTALLED IN QUARTER PONTS OR IN THE CENTER OF CEILING TILE IN AREAS WITH 2x4 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 SLAB 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 BEHIND 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

DESCRIPTION OF SITE CONDITIONS	
MAPPED SPECTRAL ACCELERATION FOR SHORT PERIODS	$S_{Ss} = 0.680$
MAPPED SPECTRAL ACCELERATION FOR 1-SECOND PERIOD	$S_{S1} = 0.214$
SITE CLASS	D
SEISMIC OCCUPANCY CATEGORY OF BUILDING	II
MAXIMUM SPECTRAL RESPONSE ACCELERATION AT SHORT PERIODS	$S_{Dss} = 0.590$
MAXIMUM SPECTRAL RESPONSE ACCELERATION AT 1-SECOND PERIODS	$S_{D1} = 0.330$
SEISMIC DESIGN CATEGORY BASED ON S_{Dss}	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 WITH RESPECT TO THE BASE	$H = 50'$
$F_p = 0.4 * A_p * S_{Dss} * W_p * (1+2Z)$ $F_p = \frac{R_p}{T_p} * W_p$ $F_p = C_p * W_p$ $F_p = 0.590 * W_p$ $ASCE 7 ALLOWS A REDUCTION FACTOR OF 1.4 FOR STRESS BASED DESIGN: F_p = 0.421 * W_p$	

BRANCHLINE RESTRAINT REQUIREMENTS

SEISMIC COEFFICIENT, $C_p = 0.421$	STEEL BRANCH LINE SIZE
SEE SEISMIC CALCULATIONS FOR C_p VALUES	1" 1 1/4" 1 1/2" 2"

MAXIMUM SPACING OF BRANCH LINE RESTRAINTS

43" 46" 49" 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) LISTED SWAY BRACE ASSEMBLY
- 2) A WRAPAROUND U-HOOK
- 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 L_H 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 FRAGILE CONSTRUCTION THAT IS NOT REQUIRED TO HAVE A FIRE RESISTANCE RATING.

NOMINAL PIPE SIZE	CORE DRILL HOLE OR PIPE SLEEVE SIZE	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.
1/2" INCH	3" 60	FIRE CAULK HOLE AND PROVIDE SPLIT CHROME WALL PLATES AT ALL EXPOSED WALL LOCATIONS.
1" INCH	4" 100	(NOTE THAT AT NON-RATED FRAGILE GYPSUM BOARD WALLS NO CLEARANCE IS REQUIRED)
1 1/2" INCH	4" 100	
2" INCH	4" 100	
2 1/2" INCH	6" 150	
3" INCH	6" 150	
4" INCH	8" 200	
6" INCH	10" 250	

HANGER SPACING REQUIREMENTS

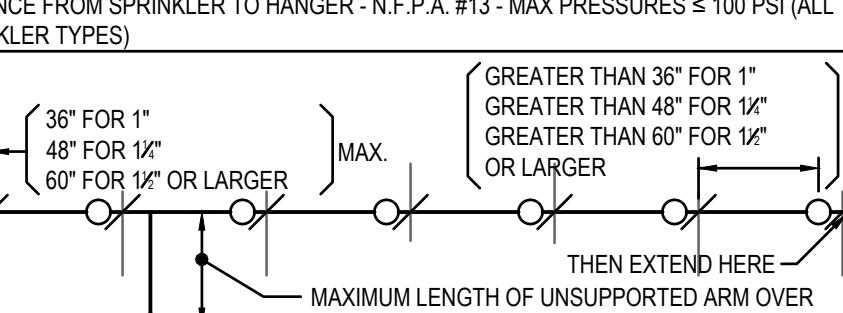
MAXIMUM DISTANCE BETWEEN HANGERS (FT-IN) - N.F.P.A. #13

NOMINAL PIPE SIZE $\frac{1}{2"}$ $1"$ $1\frac{1}{4"}$ $1\frac{1}{2"}$ $2"$ $2\frac{1}{2"}$ $3"$ $4"$ $6"$ $8"$

STEEL PIPE N/A 12.0 12.0 15.0 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

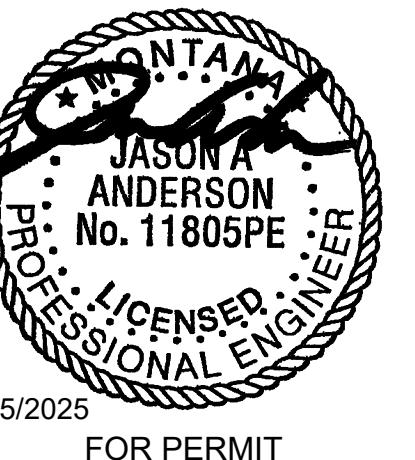
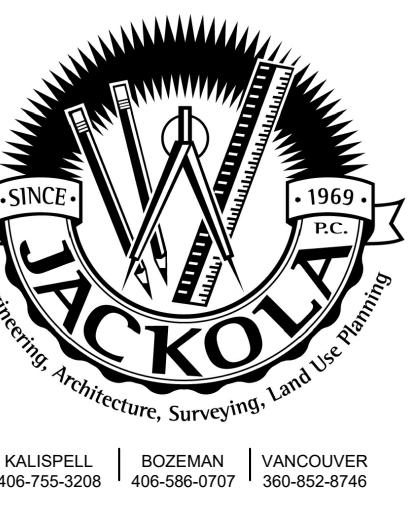
MATERIAL NOTES
1. MATERIALS MAY BE OF DOMESTIC OR IMPORT ORIGIN.
2. SEE INDIVIDUAL NOTES ON PLANS FOR VARIATION IN SIZE, TYPE, FITTINGS, ETC.
3. AT THE CONTRACTOR'S OPTION, 1 1/4" - 2" PIPE MAY BE GROOVED BUT MUST REMAIN SCHEDULE 40.

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 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)
(H)	GLOBE VALVE
(H)	HOSE VALVE
(A)	ANGLE HOSE VALVE
(H)	HORN/STROBE ASSEMBLY
(F)	FREE STANDING FIRE DEPARTMENT CONNECTION
(P)	PIPE CENTERLINE FROM FINISHED FLOOR
(X)	HYDRAULIC NODE POINT
(C)	CEILING HEIGHT
(R)	RISER
(*)	* CENTERLINE DISTANCE OF PIPE FROM DECK
(—)	FLANGE



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FX111

GENERAL DEMOLITION NOTES

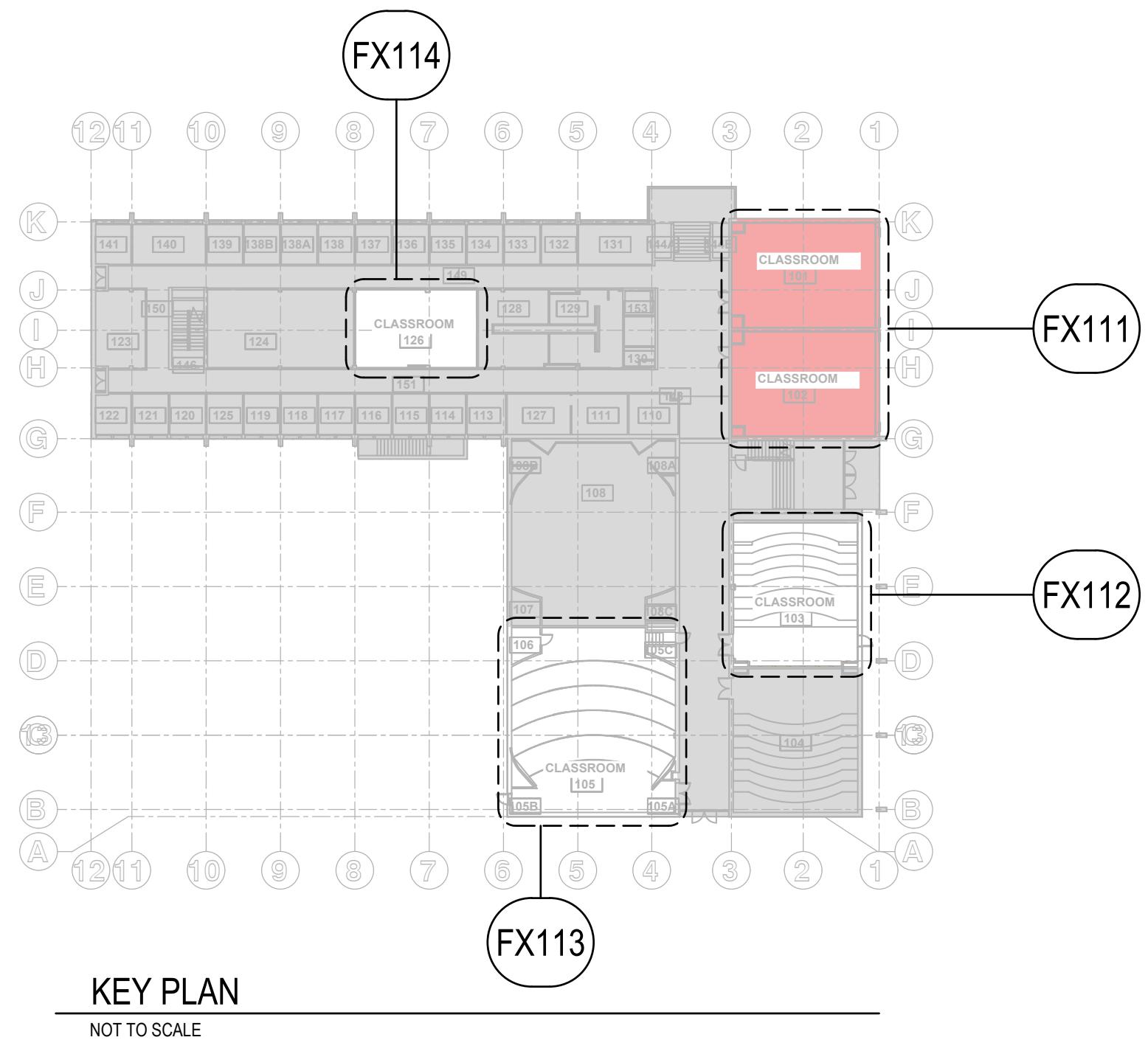
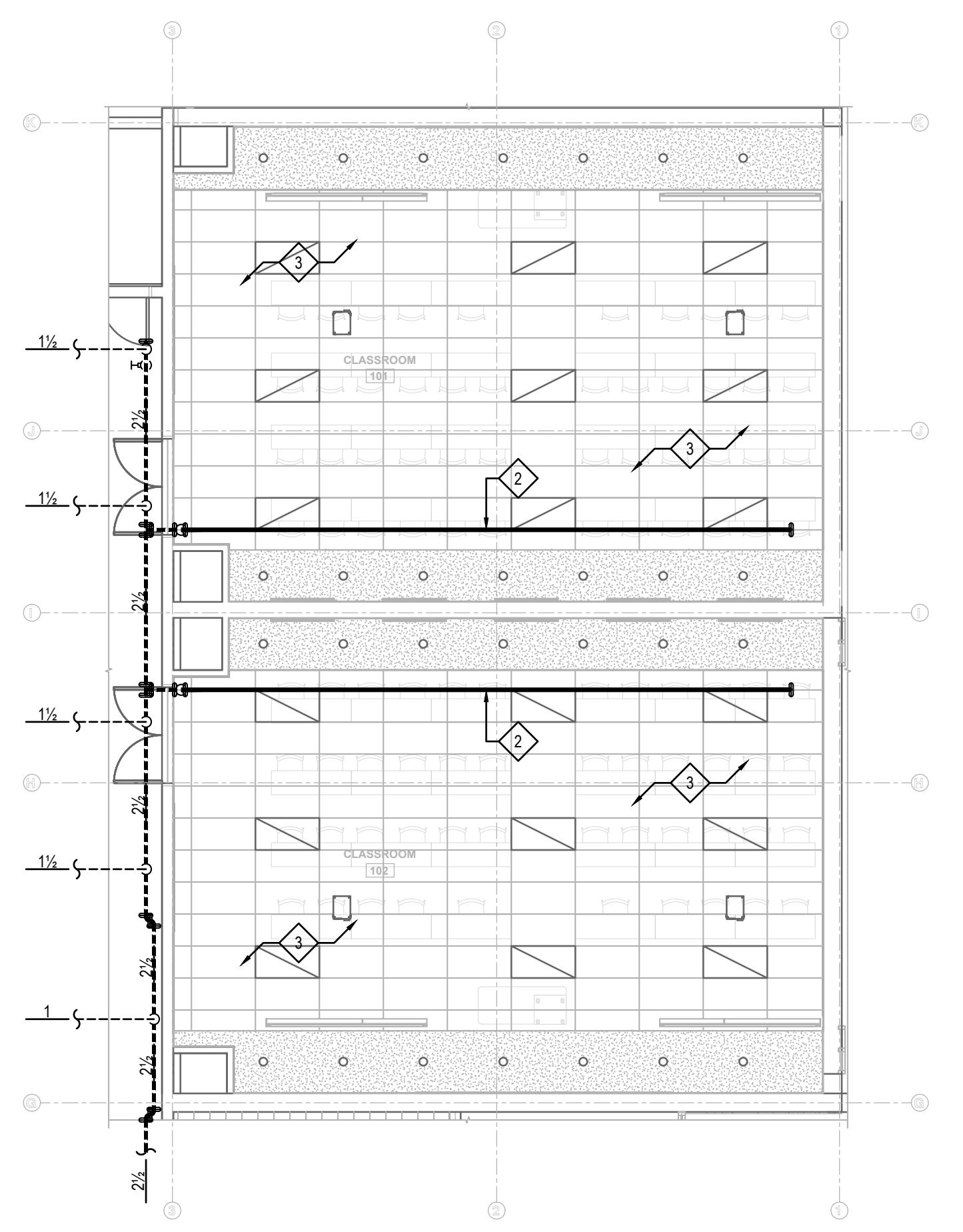
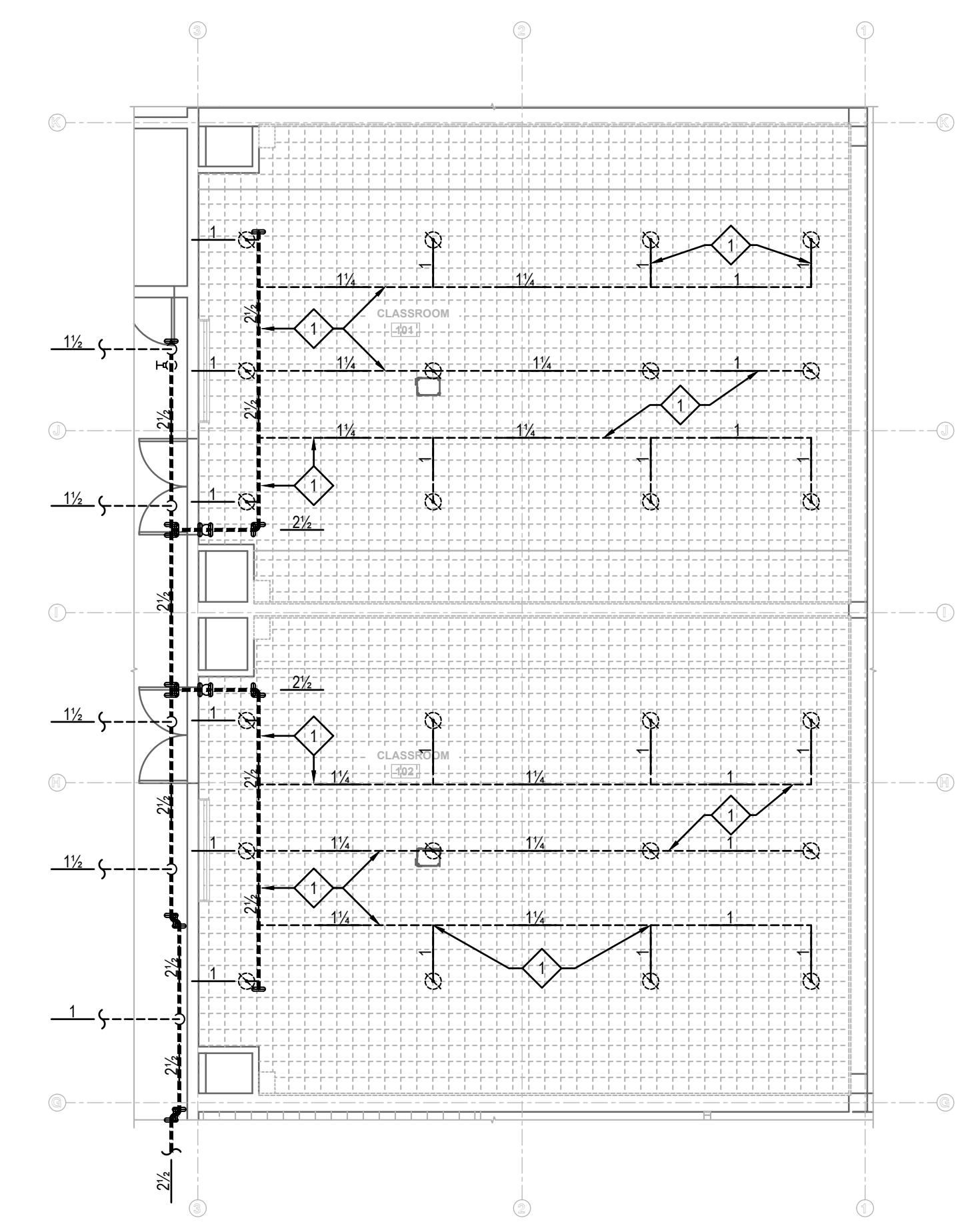
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2. THE REQUIRED DEMOLITION IS NOT LIMITED TO WHAT IS INDICATED ON THE PLANS ALONE, BUT SHALL INCLUDE ALL NECESSARY WORK INDICATED ELSEWHERE IN THE DRAWINGS AND SPECIFICATIONS TO ACCOMPLISH THE INTENT OF THE CONTRACT DOCUMENTS.
3. THE EXISTING WET PIPE 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.

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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.
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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 1/4" 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.

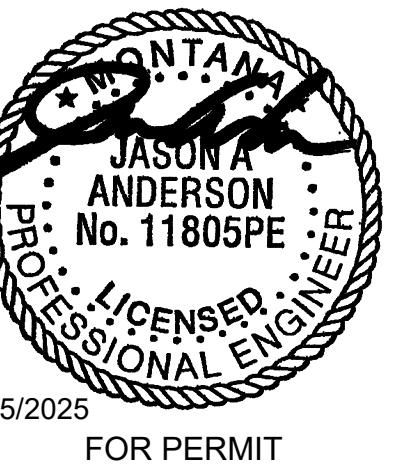
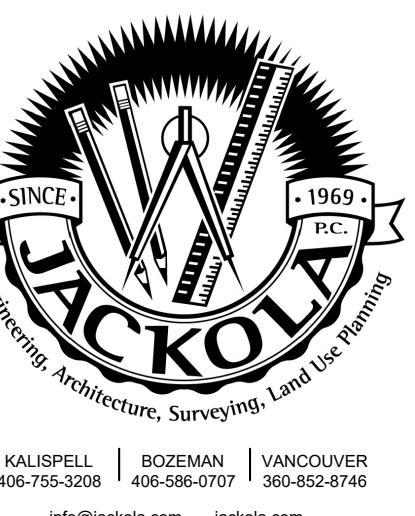


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GRAPHIC SCALE: 1/8" = 1'-0"
0' 4' 8' 16' 24'

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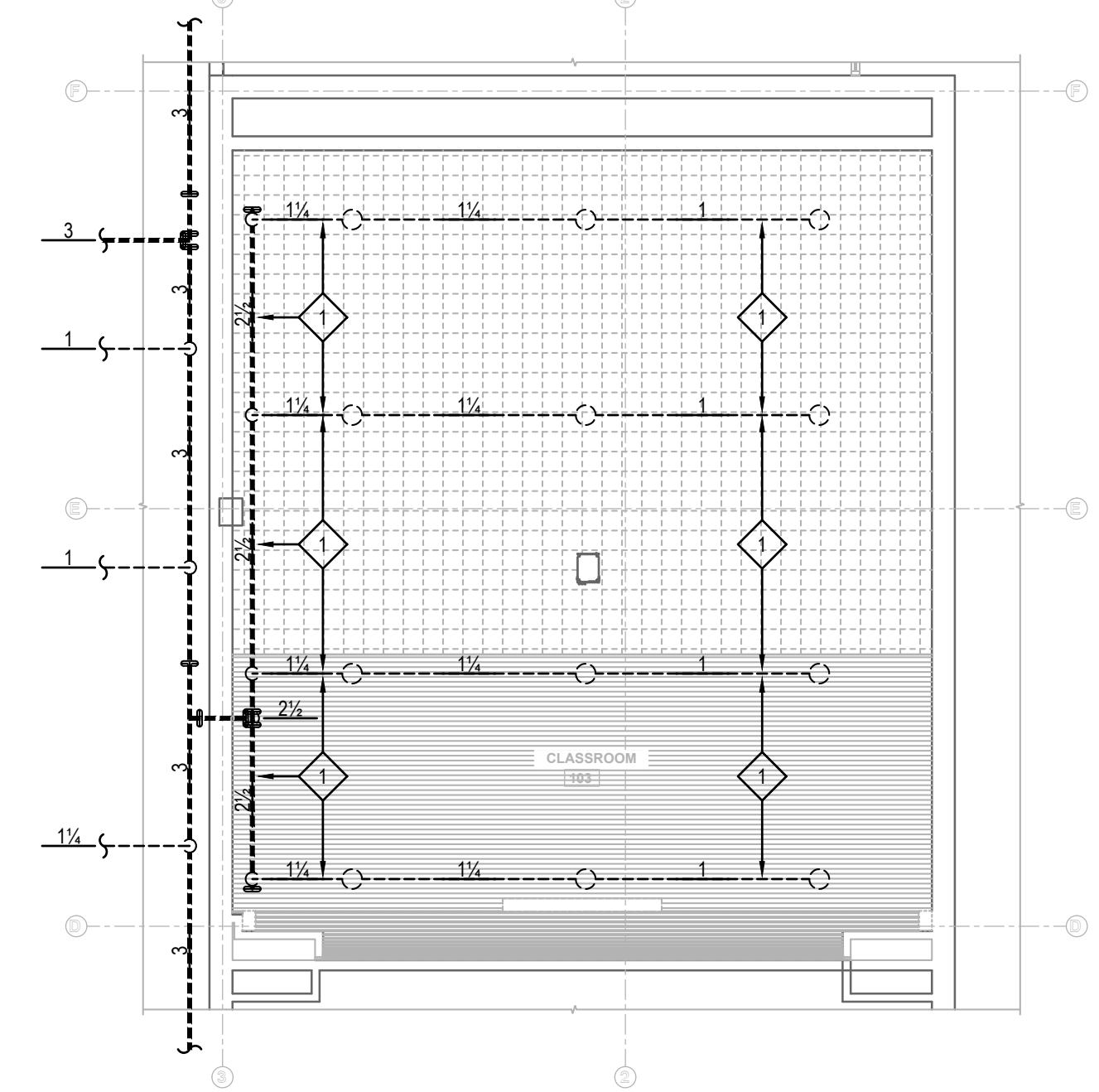
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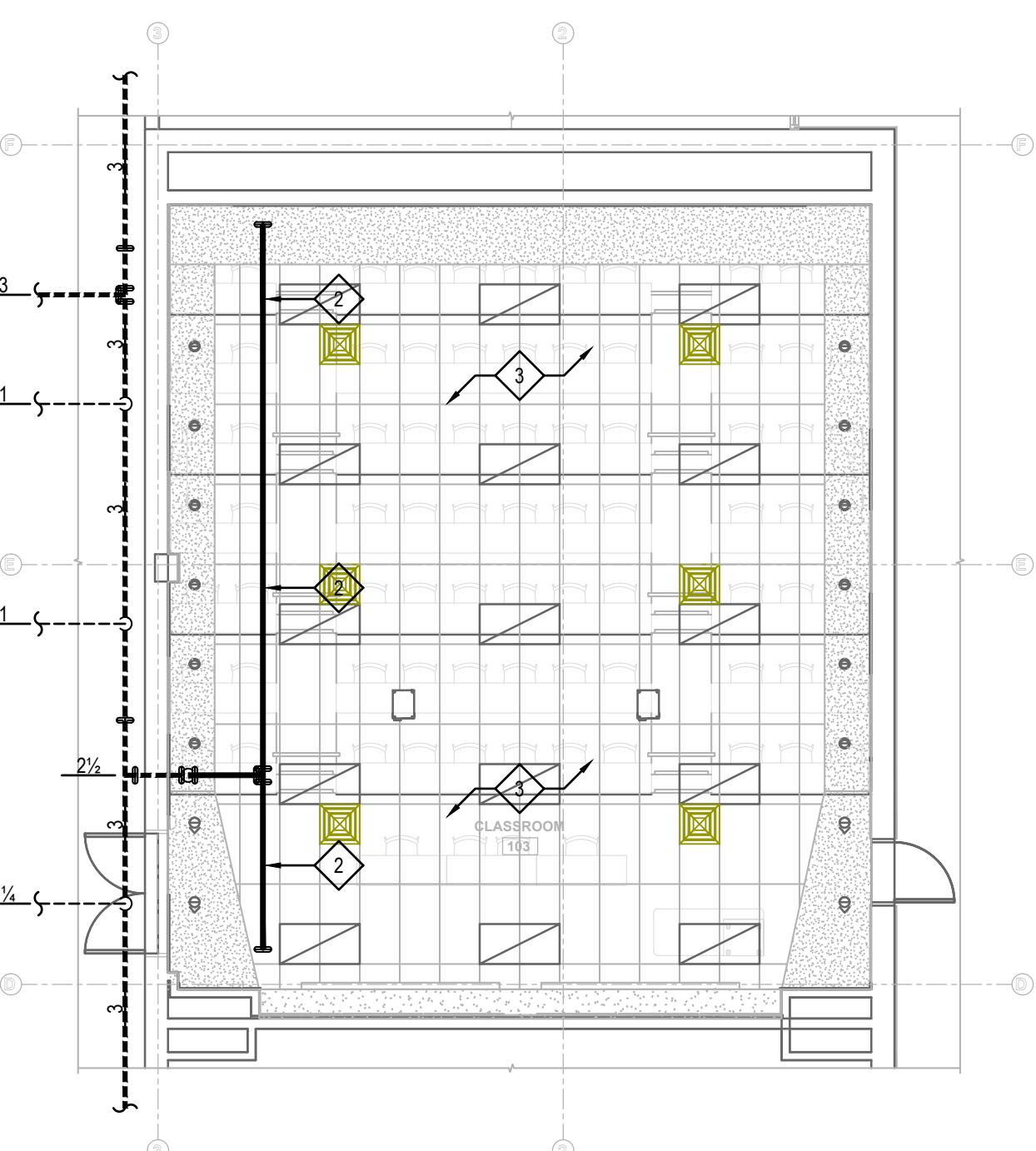
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THE INFORMATION CONTAINED HEREIN IS PROPRIETARY. THIS DOCUMENT MAY NOT BE USED OR REPRODUCED WITHOUT THE WRITTEN CONSENT OF JACKOLA ENGR. & ARCH., P.C.



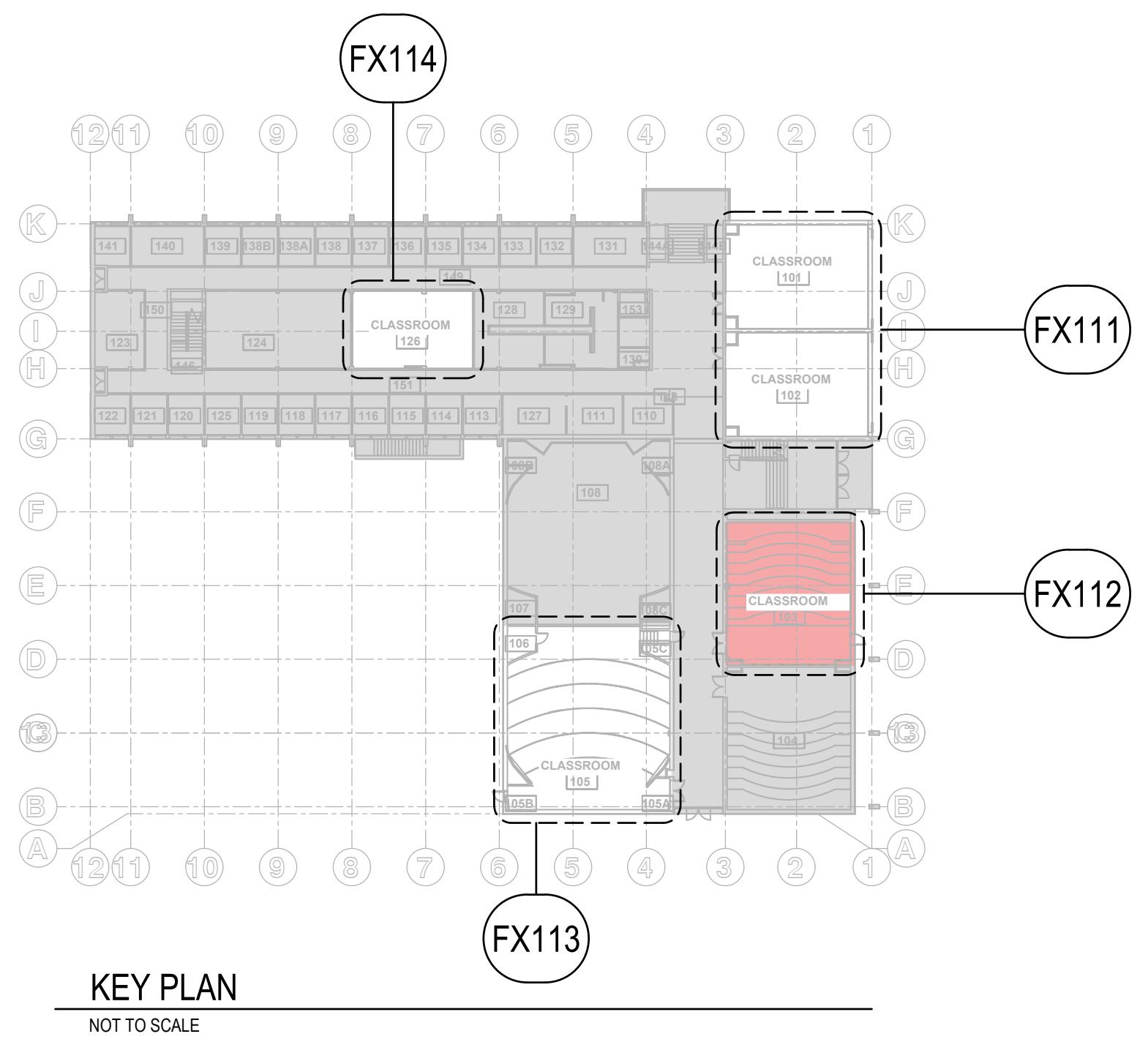
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NORTH

PLAN KEY NOTES

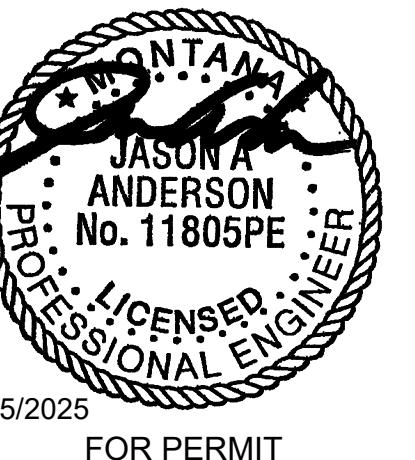
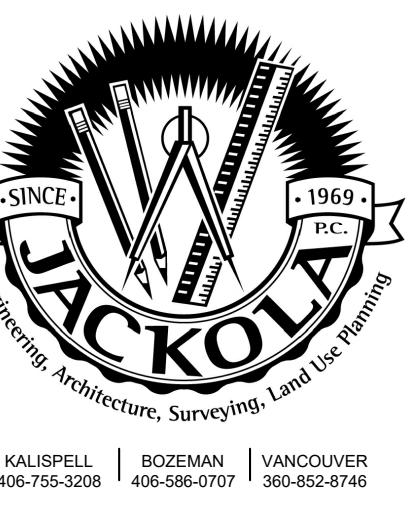
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DRAWN: NSB CHECKED: JAA
DATE: 12/15/2025

REVISIONS:

ROOM 105 FIRE SPRINKLER FLOOR PLAN

COFFMAN
ENGINEERS
751 Osterman Drive
Suite 104
Bozeman, MT 59715
ph 406.582.1936
www.coffman.com

FX113

GENERAL DEMOLITION NOTES

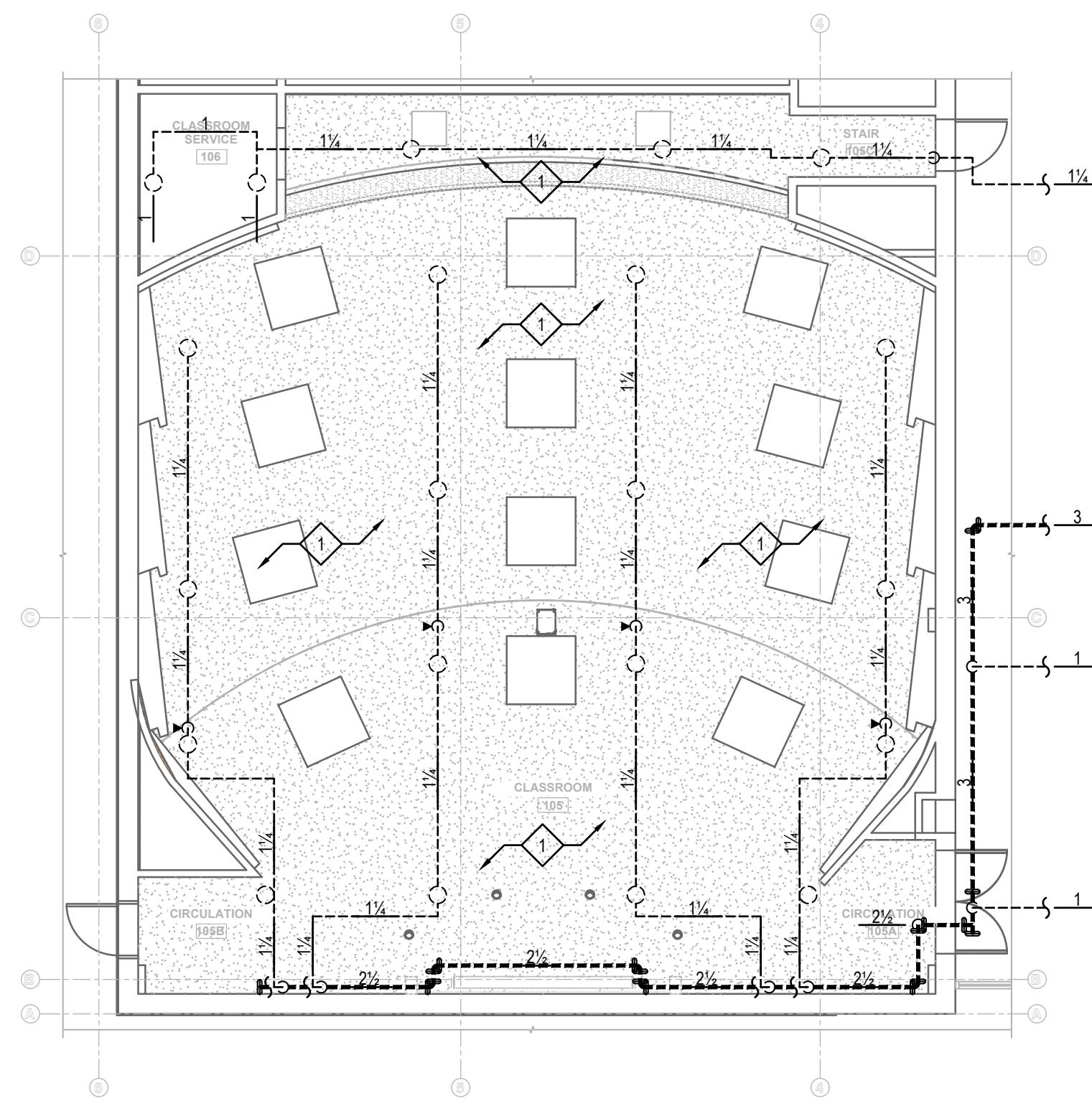
1. THE EXISTING FIRE SPRINKLER SYSTEM SHOWN IS BASED ON AS-BUILT DOCUMENTATION AND A NON-DESTRUCTIVE WALK THROUGH OF THE BUILDING. ALL COMPONENTS OF THE EXISTING FIRE SPRINKLER SYSTEM ARE NOT SHOWN ON THE PLANS. THE EXISTING COMPONENTS SHOWN ON THE PLANS MAY NOT BE SHOWN IN THE EXACT LOCATION OR CORRECT 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

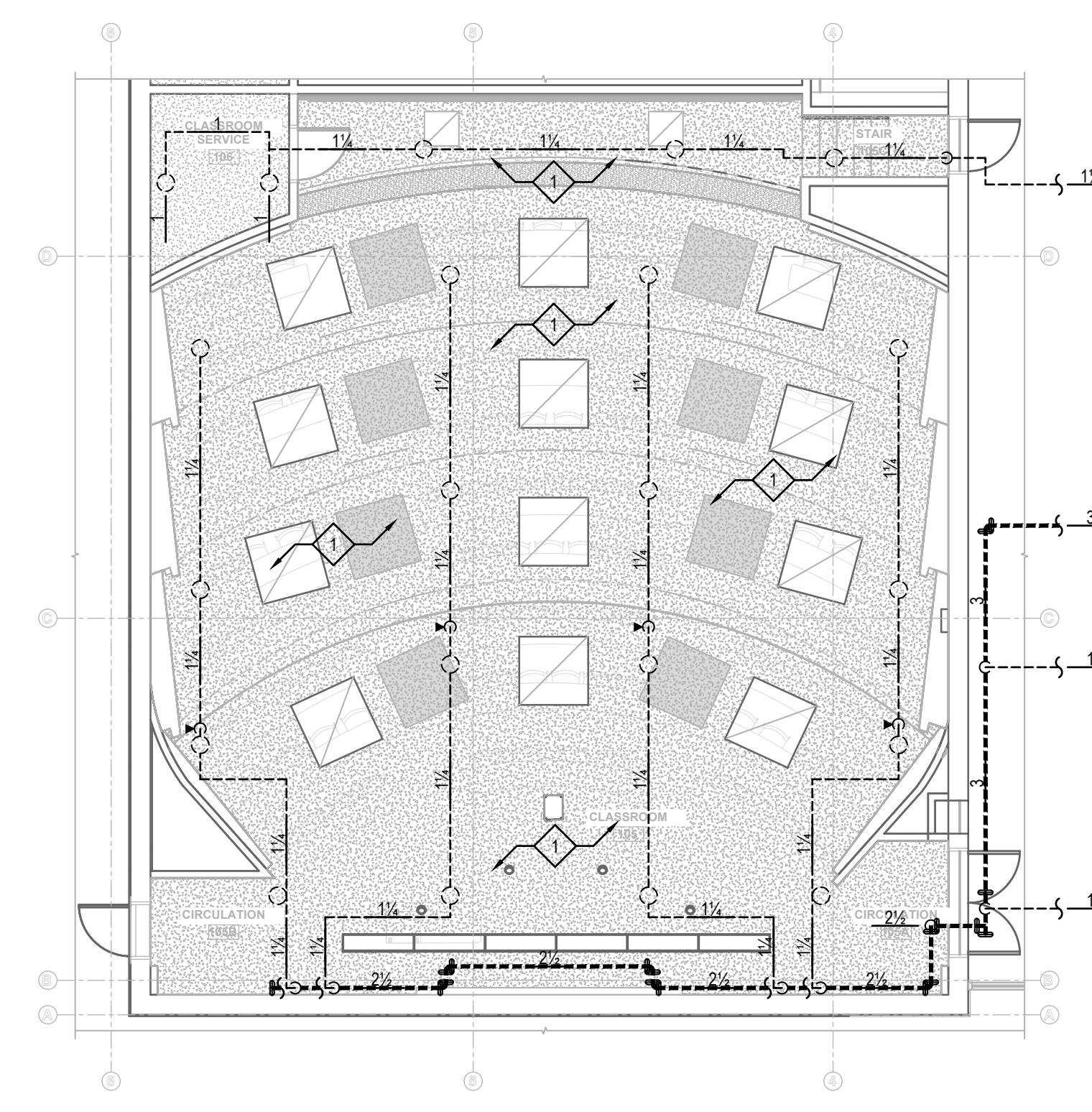
1. THE FIRE SPRINKLER SYSTEM SHOWN IS CONCEPTUAL ONLY AND PROVIDED TO CONVEY DESIGN INTENT. THE CONTRACTOR SHALL PROVIDE A COMPLETE SPRINKLER SYSTEM IN THE AREA(S) OF WORK SHOWING ALL REQUIRED PIPING, OFFSETS, SPRINKLERS, RISERS, DROPS, HANGERS, BRACING, ETC. COORDINATE FINAL PIPE ROUTING AND SPRINKLER LOCATIONS WITH ALL OTHER TRADES AS REQUIRED. THE CONTRACTOR SHALL INSTALL THE SYSTEM IN ACCORDANCE WITH ALL APPLICABLE CODES, THE MANUFACTURER'S RECOMMENDATIONS, AND FOR 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

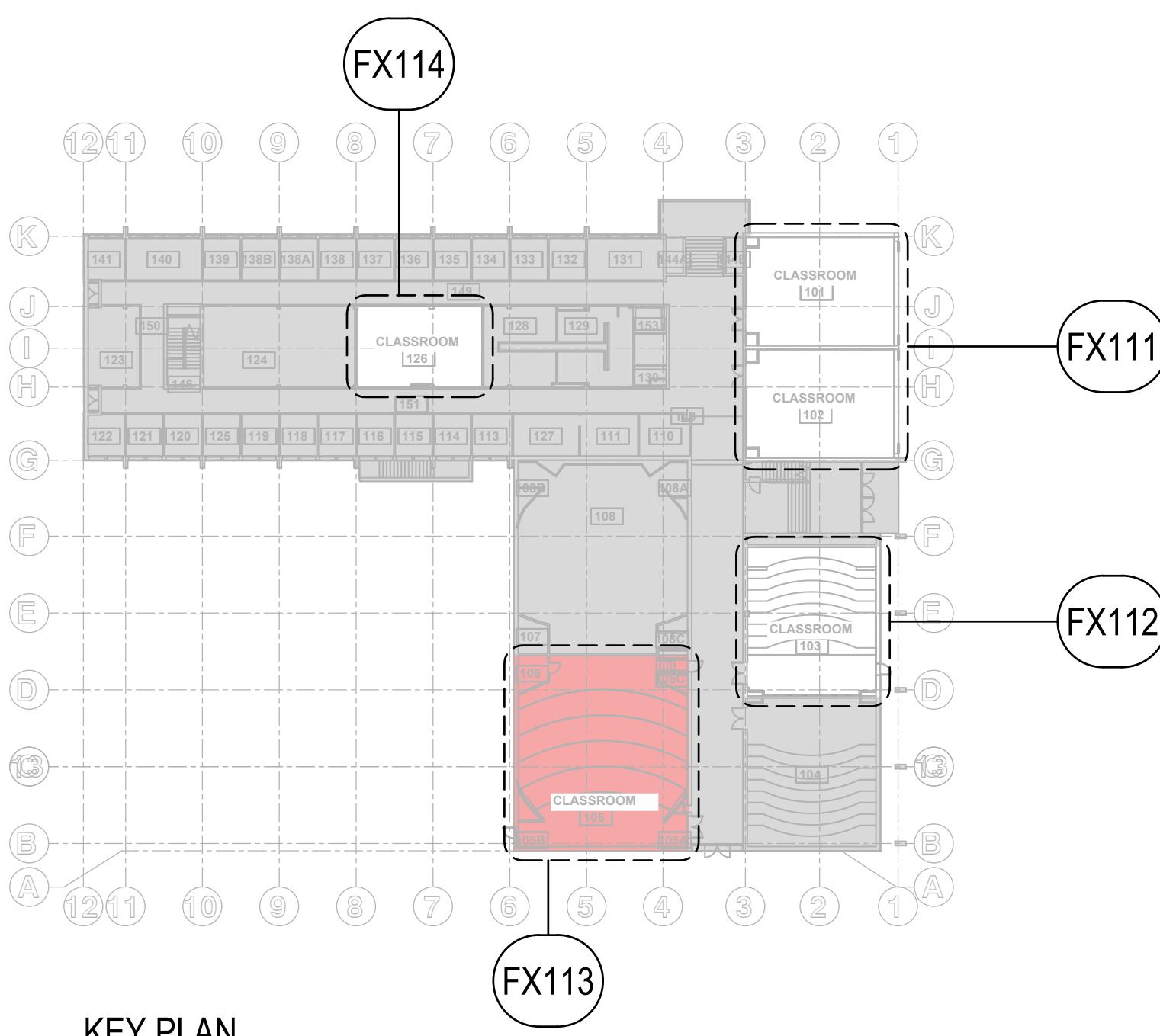
1. EXISTING WET PIPE SPRINKLER SYSTEM TO REMAIN THIS ROOM.



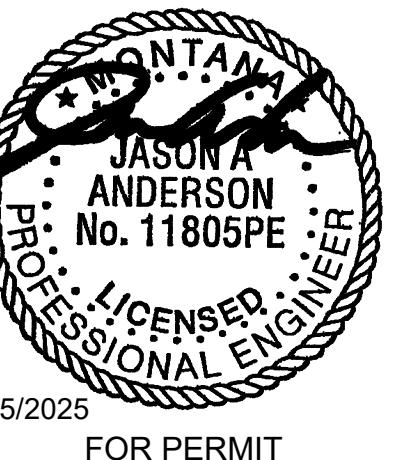
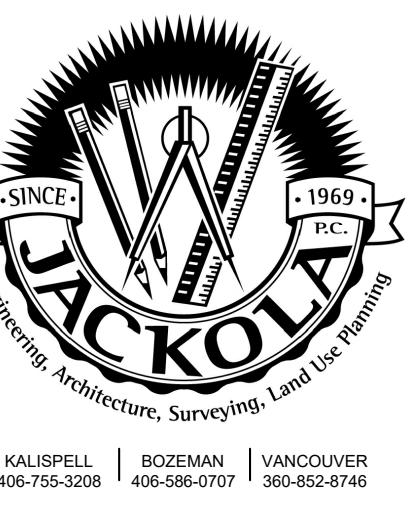
1 ROOM 105 FIRE SPRINKLER DEMO PLAN - LEVEL 1
SCALE: 1/8" = 1'-0"



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



KEY PLAN
NOT TO SCALE

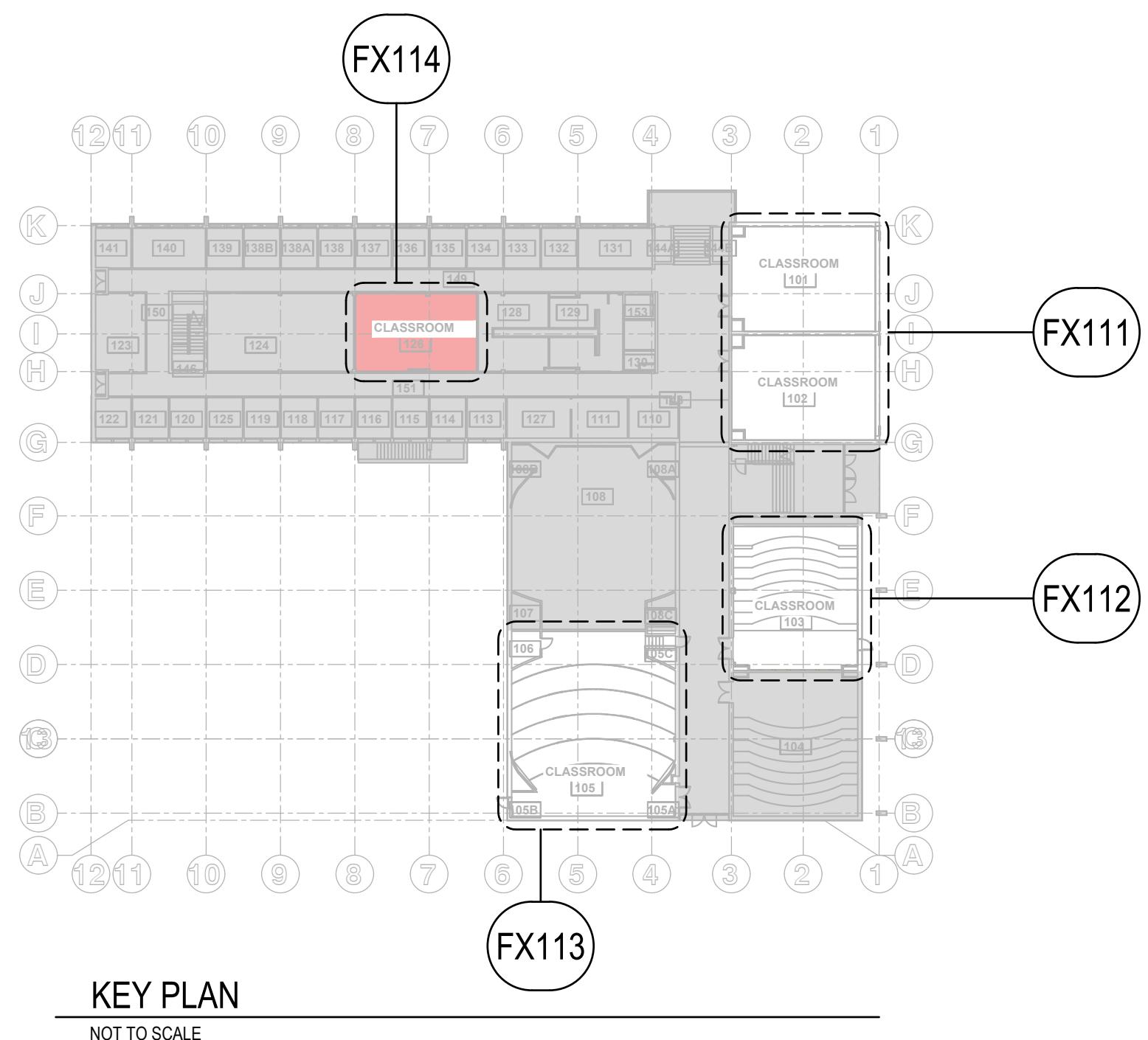


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FX114



PROJECT #20408

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



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



PLAN KEY NOTES

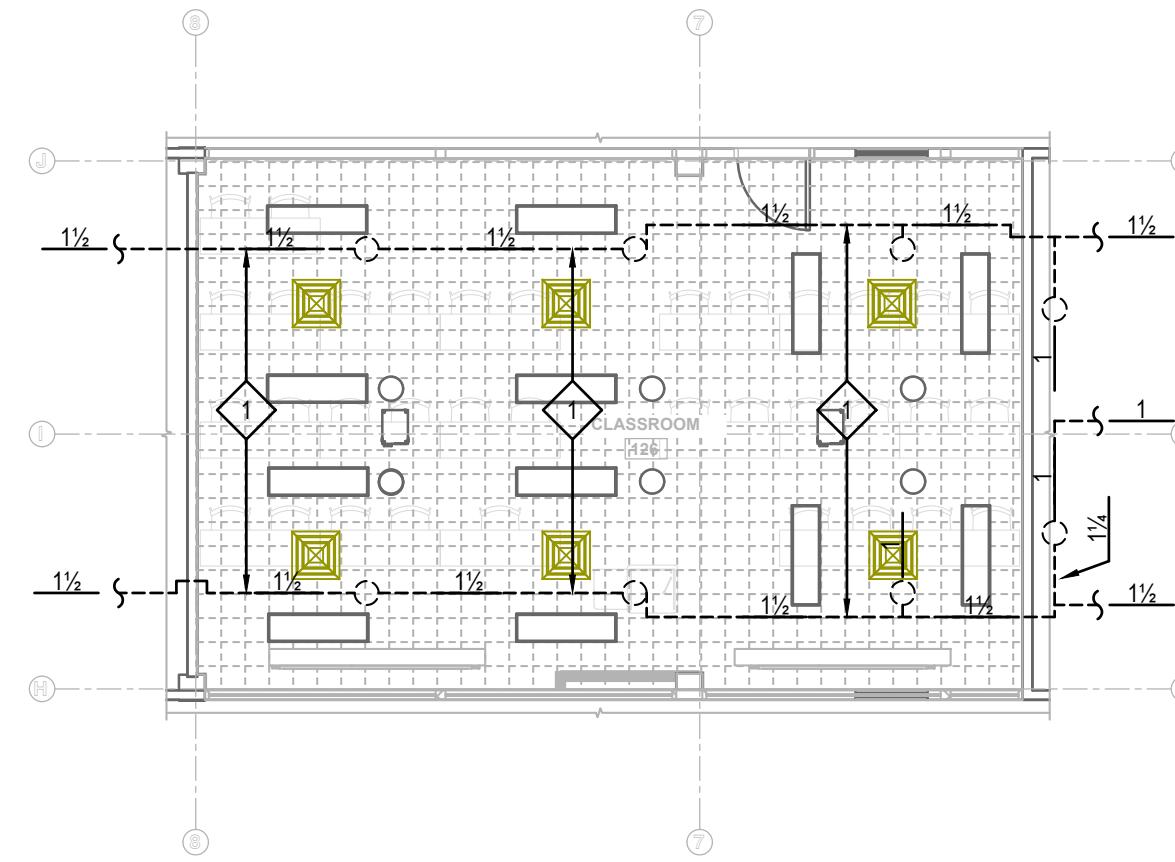
- EXISTING WET PIPE SPRINKLER SYSTEM TO REMAIN THIS ROOM.

GENERAL DEMOLITION NOTES

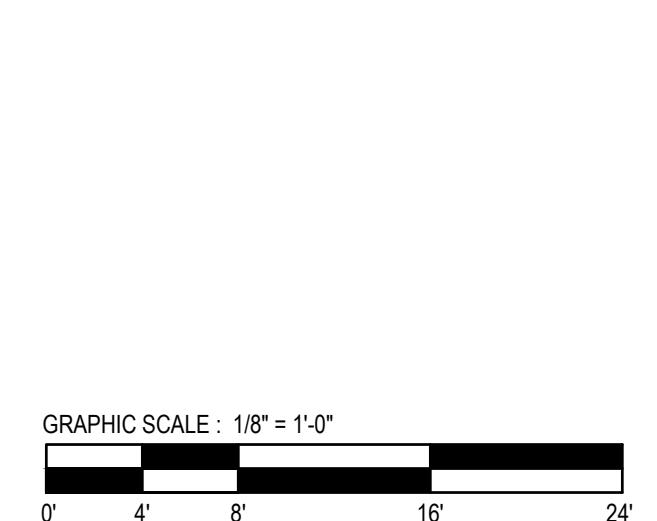
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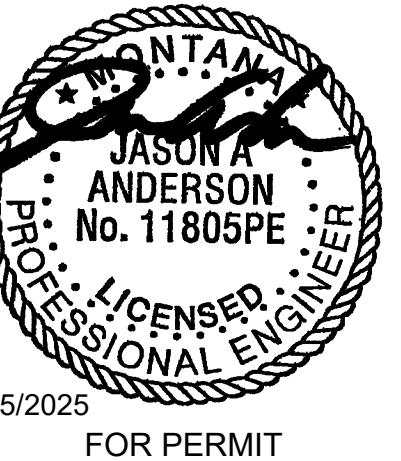
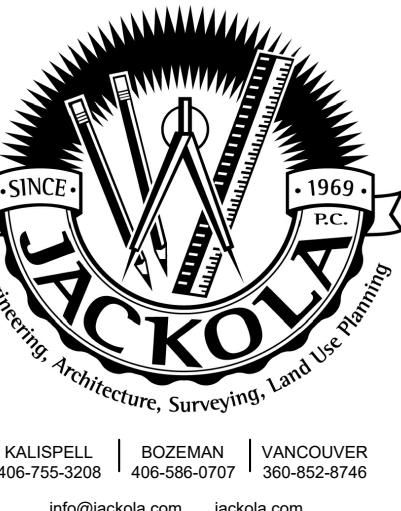
GRAPHIC SCALE: 1/8" = 1'-0"
0' 4' 8' 16' 24'
www.coffman.com



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REVISIONS:

ROOM 126 FIRE
SPRINKLER FLOOR
PLAN



12/15/2025
FOR PERMIT

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REID HALL RENOVATION MONTANA STATE UNIVERSITY

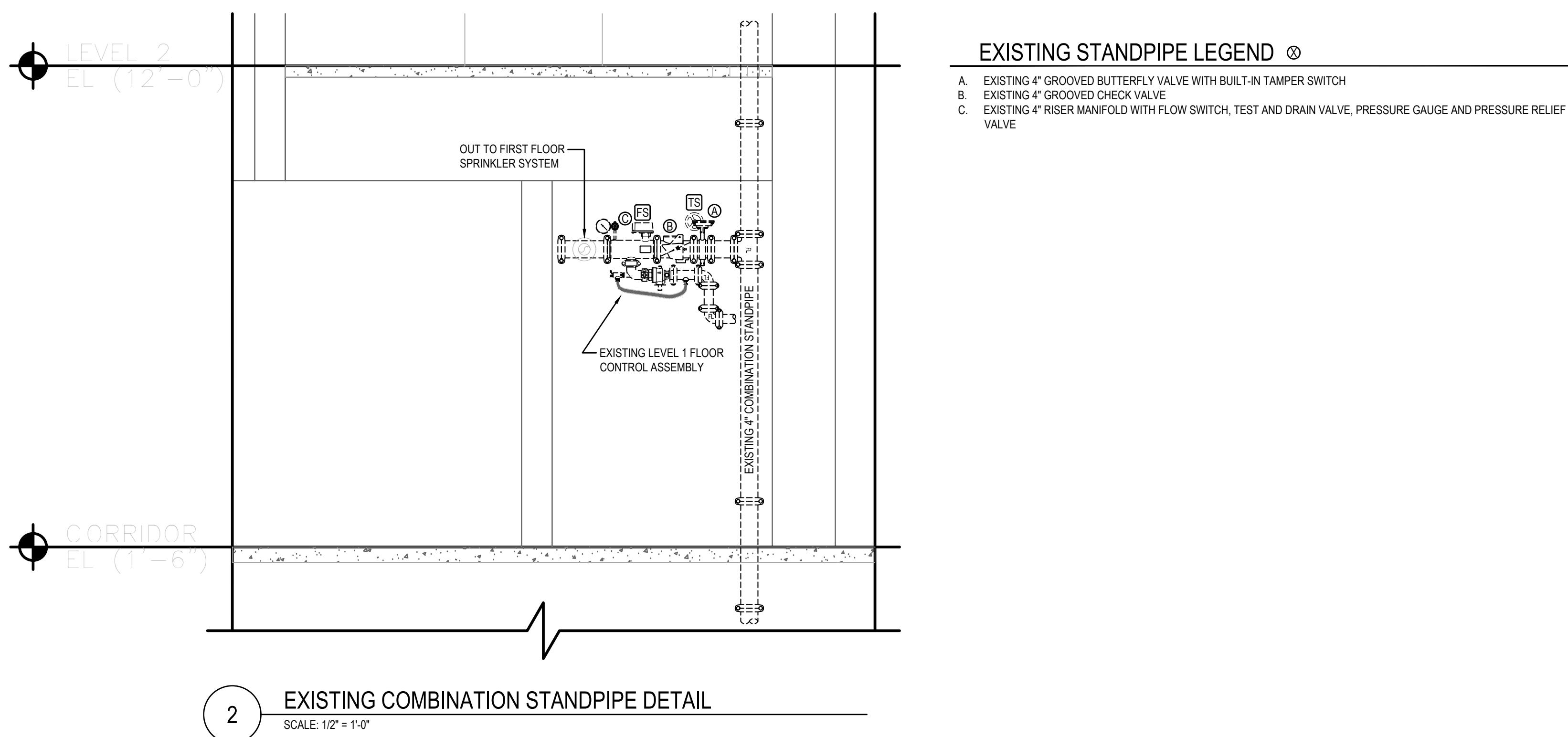
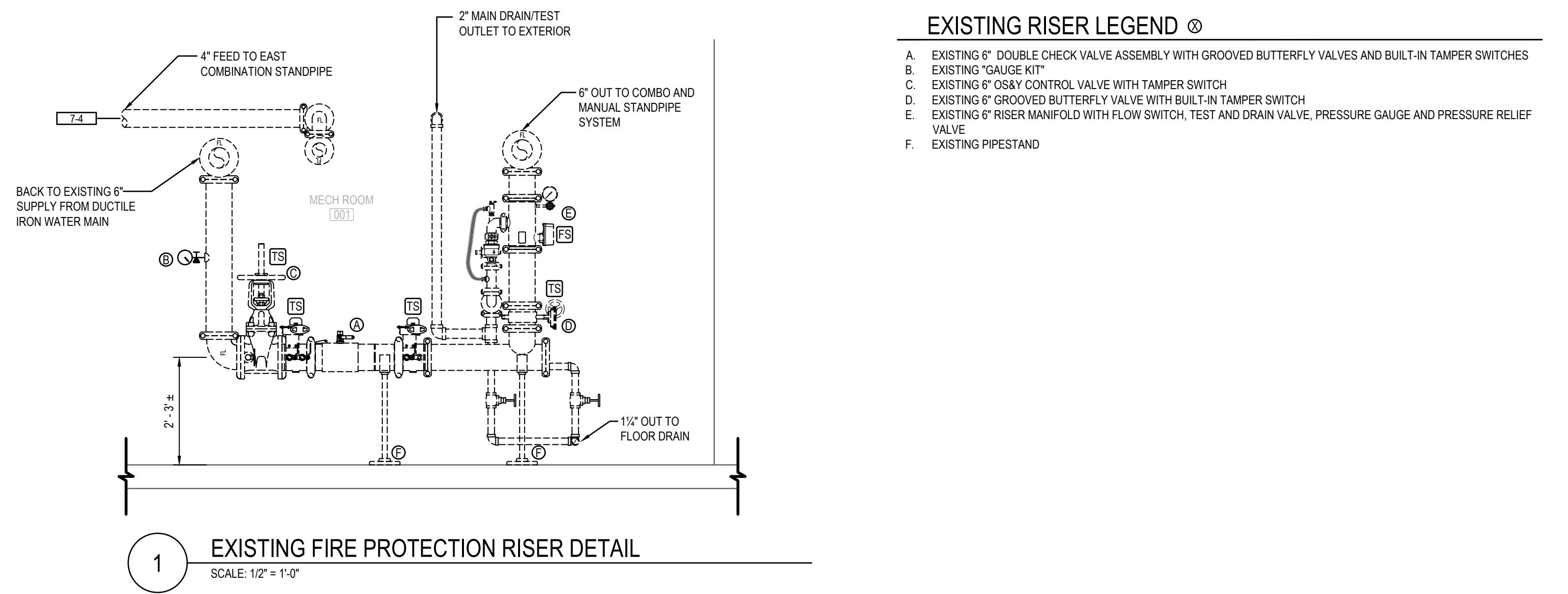
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BOZEMAN, MONTANA 59717
PPA#: 25-1214

EXISTING FIRE SPRINKLER DETAILS

FX301

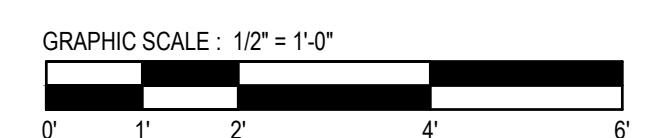
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2. THE STANDPIPE SYSTEM IS EXISTING AND SHOWN FOR REFERENCE ONLY. NO WORK ON THE EXISTING STANDPIPE SYSTEM UNLESS OTHERWISE NOTED.
3. EXISTING FIRE SPRINKLER PIPING, DENOTED:



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